Commission for
Communications Regulation

Market Review
Wholesale Fixed Voice Call Origination and Transit Markets

Consultation and Draft Decision

Reference: ComReg 14/26

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Redacted Information

Please note that this is a non-confidential version of the Consultation and Draft Decision. Certain information within the Consultation and Draft Decision has been redacted for reasons of confidentiality and commercial sensitivity, with such redactions indicated by the symbol ✂. In some cases, ComReg has presented information in an aggregated fashion in order to strike a balance between preserving the confidentiality of operator-specific information whilst enabling interested parties to respond in a meaningful way to the Consultation and Draft Decision.

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Glossary of Frequently Used Terms

Acronym	Full Title
3CT	Three Criteria Test
ADSL	Asymmetric Digital Subscriber Line
BEREC	Body of European Regulators for Electronic Communications
CA	Carrier Access
CATI	Computer Aided Telephone Interview
CATV	Cable Television Network
CBP	Countervailing Buyer Power
CDR	Customer Data Records
CG FACO	Current Generation Fixed Access and Call Origination
CLT	Critical Loss Test
CPE	Customer Premises Equipment
CPP	Calling Party Pays
CPS	Carrier Pre Select
CS	Carrier Select
CSH	Customer-Sited Handover
DOCSIS	Data Over Cable Service Interface Specification
EC	European Commission
EEO	Equally Efficient Operator
EOI	Equivalence of Inputs
EOO	Equivalence of Outputs

ERG	European Regulators Group
EU	European Union
FA	Fixed Access
FACO	Fixed Access and Call Origination
FL LRAIC+	Forward-Looking Long Run Average Incremental Cost plus
FSP	Fixed Service Provider
FTS	Fixed Telephony Services
FTTC	Fibre to the Cabinet
FTTH	Fibre to the Home
FVCO	Fixed Voice Call Origination
FVCT	Fixed Voice Call Termination
FWA	Fixed Wireless Access
HCA	Historical Cost Accounts
HL-FA	Higher Level Fixed Access
HL-FACO	High Level Fixed Access and Call Origination
HL-RFVA	High Level Retail Fixed Voice Access
HM	Hypothetical Monopolist
HMT	Hypothetical Monopolist Test
IBH	In Building Handover
IN	Intelligent Network
IP	Internet Protocol
ISDN	Integrated Services Digital Network

ISDN BRA	ISDN Basic Rate Access
ISDN FRA	ISDN Fractional Rate Access
ISDN PRA	ISDN Primary Rate Access
ISH	In-Span Handover
KPI	Key Performance Indicator(s)
LEA	Large Exchange Area(s)
LL-FA	Lower Level Fixed Access
LL-FACO	Low Level Fixed Access and Call Origination
LL-RFVA	Low Level Retail Fixed Voice Access
LLU	Local Loop Unbundling
LS	Line Share
LV-CPER	Low-Value Customer Premises Equipment Rental
MNP	Mobile Number Portability
MSP	Mobile Service Provider(s)
MTS	Mobile Telephony Service(s)
MVCT	Mobile Voice Call Termination
NDA	Non-Disclosure Agreement
NEH	Near-End Handover
NGA	Next Generation Access
NRA	National Regulatory Authority
NRT	Net Revenue Test
NTC	Number Translation Code(s)

OAO	Other Authorised Operator
OSS	Operational Support Systems
OTT	Over the Top
PABX	Private Automated Branch Exchange
PAC	Payphone Access Charge
POI	Point of Interconnection
PRA	Primary Rate Access
PRS	Premium Rate Service(s)
PSTN	Public Switched Telephone Network
RFTS	Retail Fixed Telephony Service(s)
RFVA	Retail Fixed Voice Access
RFVC	Retail Fixed Voice Call(s)
RIA	Regulatory Impact Assessment
RIO	Reference Interconnect Offer
RNA	Retail Narrowband Access
RPP	Receiving Party Pays
RSU	Remote Subscriber Unit
SAB	Standalone Bitstream
SB-WLR	Single Billing-Wholesale Line Rental
SDSL	Symmetric Digital Subscriber Line
SEO	Similarly Efficient Operator
SIP	Session Initiation Protocol

SIP	Session Internet Protocol
SLA	Service Level Agreement
SLU	Sub-Loop Unbundling
SME	Small to Medium Enterprise
SMP	Significant Market Power
SoC	Statement of Compliance
SSNIP	Small but Significant and Non-transitory Increase in Price
STRPL	Switched Transit and Routing Price List
SV	Switchless Voice
TD LRAIC+	Top-Down Long Run Average Incremental Cost plus
TDM	Time-Division Multiplexing
TFEU	Treaty on the Functioning of the European Union
UG	Universal Gateway
ULMP	Unbundled Local Metallic Path
USO	Universal Service Obligations
VDSL	Very-high-bit-rate Digital Subscriber Line
VOB	Voice over Broadband
VOIP	Voice over Internet Protocol
VUA	Virtual Unbundled Access
WACC	Weighted Average Cost of Capital
WBA	Wholesale Broadband Access
WEIL	Wholesale Ethernet Interconnection Links

WLA	White Label Access
WLR	Wholesale Line Rental
WPNIA	Wholesale (physical) network infrastructure access
xDSL	Digital Subscriber Line broadband technology

1 Introduction

1.1 This Consultation presents ComReg's preliminary views on its analysis of the wholesale market(s) for:

- the provision of fixed voice call origination on individual public telephone networks provided at a fixed location ('**FVCO**'); and
- the provision of call transit services ('**Transit**').

1.2 These are wholesale components that are used by service providers in the supply of retail access (being line rental) and retail calls services to customers.

1.3 Consistent with ComReg's regulatory role to review certain electronic communications markets, the objective of this review is to examine the extent of competition within the above wholesale markets (together referred to as the '**Relevant Markets**'). In circumstances where such markets are not found to be effectively competitive due to a Fixed Service Provider ('**FSP**[1]') having Significant Market Power ('**SMP**'), the imposition of appropriate regulatory obligations on that FSP might be necessary in order to address identified competition problems that could arise in the Relevant Markets or related markets, absent regulatory intervention. Similarly, if competition is found to exist within either of the Relevant Markets, then regulatory intervention would not be warranted.

1.4 This introductory section of the Consultation describes the following:

- an overview of FVCO and Transit (discussed in paragraphs 1.6 to 1.13 below);
- the legal basis and the regulatory framework under which this Consultation is being undertaken (discussed in paragraphs 1.14 to 1.33 below);
- background to the previous reviews of the Relevant Markets and why the current review is being undertaken (discussed in paragraphs 1.34 to 1.39 below);
- an outline of the information sources relied upon for the analysis set out in the Consultation (discussed in paragraphs 1.40 to 1.46 below);
- the procedure for the Consultation process including timeframes within which respondents should submit their views, and ComReg's liaison with the Competition Authority (discussed in paragraphs 1.47 to 1.53 below); and
- an overview of the structure of the Consultation document (discussed in paragraph 1.54 below).

[1] Fixed (voice) Service Providers ('**FSPs**') offer retail customers the ability to make and receive calls at a fixed location. Note that the reference to 'fixed' does not necessarily imply that the underlying or supporting network is necessarily a wired network.

1.5 Section 2 of the Consultation contains an executive summary of the overall preliminary conclusions in this Consultation. A glossary of terms used frequently throughout this Consultation is has also set out after the table of contents at the front of this Consultation.

What are FVCO and Transit?

1.6 FVCO is a wholesale service that involves the supply of the switching, routing, and conveyance of a voice call up to a designated point of handover on a network, which is typically located at a switching point in a telephone exchange. FVCO services are often supplied with an access path (referred to as '**Fixed Access'** or '**FA**') over which FVCO is supplied. Together these FVCO and FA services are referred to in this Consultation as Fixed Access and Call Origination ('**FACO**'). To date, Eircom has been the sole wholesale supplier of FACO through its Single Billing-Wholesale Line Rental ('**SB-WLR**') product.

1.7 Transit is a wholesale service provided to FSPs and Mobile Service Providers ('**MSPs**') (together referred to as '**Service Providers**') that involves the switching, routing and conveyance of calls between the point of handover of the FVCO stage of a call, up to, but not including the termination[2] stage of a call. The termination stage is typically from the nearest switching point to the called party onwards. There are currently several Service Providers providing Transit in Ireland, including Eircom.

1.8 Together, the purchase of the FACO and Transit (and Termination) enables FSPs to offer retail line rental and telephone calls to end-users[3]. FACO and Transit inputs, in particular, allow an FSP to provide such services to customers that could not otherwise be capable of being served through the use of their own network. Transit services also offer a means for FSPs or MSPs to increase the connectivity within their own network, or indeed connectivity between two or more networks to facilitate the conveyance of call traffic between them in the circumstances where they are not directly interconnected.

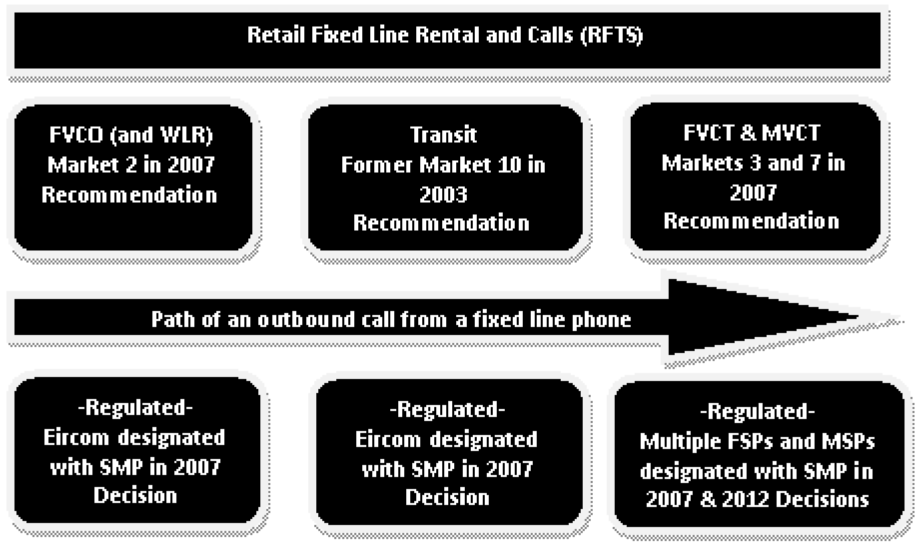
1.9 For example, an FSP may wish to provide retail access (line rental) and calls to a customer's premises but may not have a direct access connection to the customer's premises over which calls could be provided. That FSP can then, at the wholesale level, purchase FACO which it, in turn, uses in providing its retail line rental and calls service. That FSP may also need to purchase Transit, which might, for example, involve the further conveyance /routing of the call from the Point of Interconnect ('**POI**') at which FVCO is handed over, up to the point at which the call is handed over for termination on the receiving party's network service provider (or indeed, for further transit).

[2] The termination of a voice call to a mobile subscriber involves the supply by an MSP of a wholesale service known as Mobile Voice Call Termination ('**MVCT**'). The termination of a call to a fixed telephony subscriber involves the supply of Fixed Voice Call Termination ('**FVCT'**). To date, ComReg has found that all services Service Providers providing MVCT and FVCT (together referred to as '**Termination**') individually have SMP.

[3] Residential and business retail customers.

1.10 The relationship between these wholesale inputs (and regulation) and the manner in which they are used in supplying Retail Fixed Voice Access ('**RFVA**')[4] and Retail Fixed Voice Calls ('**RFVC**'), together referred to as Retail Fixed Telephony Services ('**RFTS**') is illustrated in Figure 1 below:

Figure 1: Wholesale Inputs to a RFTS



1.11 As noted above, FVCO (and Transit) are often purchased alongside FA or Wholesale Line Rental ('**WLR**'), which enables a FSP to 'rent' the access line and then, combined with FVCO, to offer a combined retail line rental and calls service to end-users. Eircom provides a WLR and FVCO product called SB-WLR. Some FSPs purchase SB-WLR services from Eircom to provide RFTS directly to retail customers, while other FSPs do so for the purpose of re-selling services as part of a broader suite of their own wholesale services which are made available to other FSPs.

1.12 Other FSPs choose not to purchase the combined SB-WLR products and instead purchase Carrier Pre Select ('**CPS**')[5] being a standalone FVCO service which enables the FSP to provide an end-user with a calls only service, with the end-user continuing to purchase its line rental service separately from Eircom.

1.13 The FSP using an SB-WLR service will, at the wholesale level, pay Eircom a fixed monthly wholesale line rental charge, along with a FVCO charge and a Transit charge (if Transit is required) on a per call and/or per minute basis. An FSP using CPS will pay Eircom the aforementioned FVCO charge only.

[4] RFVA would be more commonly known as line rental.

[5] CPS is an FVCO service that does not include wholesale line rental. CPS is a wholesale service used to provide fixed calls when the end-user purchases retail line rental separately from a third party, most often the incumbent.

Legal Basis and Regulatory Framework

1.14 This market review is being undertaken by ComReg in accordance with the obligation under the **Framework Directive**[6] (transposed into Irish law as the **Framework Regulations**[7]) that NRAs should analyse the relevant markets(s) taking utmost account of the European Commission's 2007 Recommendation[8] and the SMP Guidelines[9].

1.15 Regulation 26 of the Framework Regulations requires that ComReg, taking the utmost account of the 2007 Recommendation and of the SMP Guidelines, defines relevant markets appropriate to national circumstances, in accordance with the principles of competition law.

1.16 The European Commission refers in the 2007 Recommendation to the FVCO market as follows:

> *"Call origination on individual public telephone networks provided at a fixed location………… call origination is taken to include call conveyance, delineated in such a way as to be consistent, in a national context, with the delineated boundaries for the market for call transit and for call termination on the public telephone network provided at a fixed location."* [10]

1.17 The Transit market is no longer identified in the 2007 Recommendation as being a market susceptible to *ex ante* regulation at an EU level but was identified in the **2003 Recommendation**[11] as follows:

[6] Article 16 of Directive 2002/21/EC of the European Parliament and of the Council on a common regulatory framework for electronic communications networks and services, as amended by Directive 2009/140/EC (the '**Framework Directive'**).

[7] European Communities (Electronic Communications Networks and Services) (Framework) Regulations 2011 (S.I. No. 333 of 2011) (the ''**Framework Regulations'**). The Framework Regulations transpose the Framework Directive.

[8] European Commission Recommendation of 17 December 2007 on relevant product and service markets within the electronic communications sector susceptible to *ex ante* regulation in accordance with Directive 2002/21/EC of the European Parliament and of the Council on a common regulatory framework for electronic communications networks and services OJ L 344 (the '**2007 Recommendation**').

[9] European Commission guidelines on market analysis and the assessment of significant market power under the Community regulatory framework for electronic networks and services, OJ 2002 C 165/3 (the '**SMP Guidelines**').

[10] Market 2 in the annex to the 2007 Recommendation.

[11] European Commission Recommendation of 11 February 2003 on relevant product and service markets within the electronic communications sector susceptible to *ex ante* regulation in accordance with Directive 2002/21/EC of the European Parliament and of the Council on a common regulatory framework for electronic communications networks and services C(2003) 497 (the '**2003 Recommendation**').

"For the purposes of this Recommendation, transit services are taken as being delineated in such a way as to be consistent with the delineated boundaries for the markets for call origination and for call termination on the public telephone network provided at a fixed location.

This market corresponds to the one referred to in Annex I(2) of the Framework Directive in respect of Directive 97/33/EC (transit services in the fixed public telephone network)."[12]

1.18 As discussed further below, subject to certain conditions being met, the Transit market can nonetheless be subject to *ex ante* regulation.

1.19 Having regard to Regulation 25 of the Framework Regulations, where ComReg determines, as a result of a market analysis carried out by it in accordance with Regulation 27 of the Framework Regulations, that a given market identified in accordance with Regulation 26 of the Framework Regulations is not effectively competitive, ComReg is obliged under Regulation 27(4) of the Framework Regulations to designate an undertaking(s) with SMP in that market and impose on such undertaking(s) such specific obligations as it considers appropriate, or maintain or amend such obligations where they already exist.

1.20 The FVCO market is identified in the 2007 Recommendation as one which is susceptible to *ex ante* regulation. However, an FVCO Market which is also defined to include a FA component, namely a FACO market, is not specifically an identified market in the 2007 Recommendation; however, ComReg would note that wholesale FA has been subject to wholesale regulation to date through SMP remedies imposed under the **2007 Retail Narrowband Access (RNA) Decision**[13]. Additionally, a number of other National Regulatory Authorities ('**NRAs**') throughout the EU with responsibility for regulating electronic communications markets have also imposed FA remedies/obligations on undertakings found to have SMP in FVCO markets, while other NRAs have defined FACO or FA markets and also imposed FA remedies[14].

[12] Market 10 in the annex to the 2003 Recommendation.

[13] See Retail Fixed Narrowband Access Markets, ComReg Document No. 07/61, August 2007 (the' **2007 RNA Decision**').

[14] For example, NRAs in France, Malta, Netherlands and Spain have imposed WLR obligations in their FVCO markets (with Netherlands defining a combined FACO market). Other NRAs, such as those in Denmark, Greece and Italy, have imposed WLR obligations in their RNA markets.

1.21 In any event, it is ComReg's view that irrespective of whether or not a FVCO or FACO market is defined, it does not materially alter the regulatory outcome as, even in circumstances where a FVCO market is defined (and SMP found to exist), it can result in the imposition of regulatory obligations to provide FA. In this context, while ComReg does not consider the regulatory outcome to be materially affected by the definition of a combined FACO market, noting that it is a different market to the FVCO market identified within the 2007 Recommendation, ComReg therefore applies the Three Criteria Test ('**3CT**') to the FACO Markets (and also the Transit Market)[15]. Nonetheless, ComReg considers that the relevant 3CT would be met with respect to a FACO market, thereby meaning it is susceptible to *ex ante* regulation.

1.22 As the Transit market is no longer identified as a relevant market in the 2007 Recommendation, ComReg applies the 3CT to this market, with an analysis of SMP, competition problems and regulatory obligations only being undertaken if the Transit market satisfies the relevant criteria.

1.23 In line with the "Modified Greenfield Approach" set out in the Explanatory Note to the 2007 Recommendation[16], ComReg's assessment starts from the assumption that SMP regulation is not present in the markets under consideration, i.e. no *ex ante* regulation in the specific FVCO markets or Transit market under consideration. However, regulation present in other related markets or through the general regulatory framework is considered. This is to avoid drawing conclusions regarding the competitive structure of a particular market which may be influenced by, or indeed premised on, existing regulation on that market. Considering how these markets may function absent regulation helps to ensure that SMP based regulation is only applied (or withdrawn) in those circumstances where it is truly justified and proportionate.

1.24 Subject to ComReg's SMP assessment, this Consultation will consider whether an obligation on Eircom to provide WLR should now be imposed in the FVCO decision rather than 2007 RNA Decision where, as noted earlier, this obligation currently resides. Moving such obligations into the FVCO market would, insofar as is possible, seek to address competition problems at the most upstream level and allow the potential de-regulation of downstream markets, either entirely or in part. In applying the Modified Greenfield Approach to this assessment, ComReg will also adopt the assumption that WLR obligations are not already in place in the FVCO Market.

[15] The 3CT sets out three criteria which should be cumulatively met in order to determine whether a market should be subject to *ex ante* regulation. These are (i) the presence of high and non-transitory barriers to entry; (ii) a market structure which does not tend towards effective competition within the relevant time horizon; and (iii) the insufficiency of competition law alone to adequately address the market failure(s) concerned.

[16] European Commission Staff Working Document, Explanatory Note accompanying the 2007 Recommendation (the '**Explanatory Note to the 2007 Recommendation**'), (C(2007) 5406), page 13..

1.25 Where an operator is ultimately designated as having SMP in a relevant market, ComReg is obliged, under Regulation 8(1) of the **Access Regulations**[17], to impose on such an operator (or maintain where they already exist) such of the obligations set out in Regulations 9 to 13 of the Access Regulations as it considers appropriate. Obligations imposed must:

- be based on the nature of the problem identified;
- be proportionate and justified in the light of the objectives laid down in section 12 of the **Communications Regulation Acts 2002 to 2011**[18], and Regulation 16 of the Framework Regulations; and
- Only be imposed following consultation in accordance with Regulations 12 and 13 of the Framework Regulations.

1.26 Section 12(1)(a) of the Communications Regulation Acts 2002 to 2011 sets out ComReg's objectives in exercising its functions in relation to the provision of electronic communications networks, electronic communications services and associated facilities, namely:

- to promote competition;
- to contribute to the development of the internal market; and
- to promote the interests of users within the European Union.

1.27 Apart from conducting a public consultation in accordance with Regulation 12 of the Framework Regulations, ComReg is also obliged to make its draft measures accessible to the European Commission, **BEREC**[19] and the NRAs in other Member States pursuant to Regulation 13(3) of the Framework Regulations.

1.28 Pursuant to Regulation 27(1) of the Framework Regulations, ComReg is required to carry out an analysis of the Relevant Markets in accordance, where appropriate, with an agreement with the Competition Authority under section 34 or 47G of the Competition Act 2002.

1.29 Overall, in preparing this Consultation, ComReg has taken account of its functions and objectives under the Communications Regulation Acts 2002 to 2011, in addition to requirements under the Framework Regulations and the Access Regulations.

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[17] European Communities (Electronic Communications Networks and Services) (Access) Regulations 2011 (S.I. No. 334 of 2011) (the '**Access Regulations'**). The SMP Guidelines also state at paragraph 17 that "NRAs must impose at least one regulatory obligation on an undertaking that has been designated as having SMP".

[18] Communications Regulation Act 2002 (No. 20 of 2002), as amended by Communications Regulation (Amendment) Act 2007 (No. 22 of 2007), Communications Regulation (Premium Rate Services and Electronic Communications Infrastructure) Act 2010 (No. 2 of 2010) and Communications Regulation (Postal Services) Act 2011 (No. 21 of 2011) (the '**Communications Regulation Acts 2002 to 2011**').

[19] Body of European Regulators for Electronic Communications ('**BEREC'**) as established by Regulation (EC) No 1211/2009 of the European Parliament and of the Council of 25 November 2009 the Body of European Regulators for Electronic Communications (BEREC) and the Office.

1.30 The analysis undertaken in this Consultation also takes the utmost account of the following documents:

- the 2007 Recommendation and the Explanatory Note to the 2007 Recommendation on relevant product and service markets susceptible to *ex ante* regulation within the electronic communications sector;
- the SMP Guidelines on market analysis and the assessment of significant market power; and
- the 2005 Accounting Separation and Cost Accounting Recommendation[20].

1.31 ComReg also takes account of:

- the **Notice on Market Definition**[21] for the purposes of community competition law;
- any relevant common positions adopted by BEREC; and
- any relevant European Commission comments made, pursuant to Article 7 and 7a of the Framework Directive, with respect to NRAs' market analyses.

1.32 ComReg will assess the FVCO and Transit markets in the context of the market analysis framework and documents explained above.

1.33 As noted in paragraph 1.21 the Transit market is no longer listed in the 2007 Recommendation as being susceptible to *ex ante* regulation, and will therefore be assessed by ComReg having regard to the 3CT set out in the 2007 Recommendation.

Previous Review

1.34 ComReg previously analysed the FVCO and Transit markets in the 2007 Decision[22] , defined separate national FVCO and Transit markets with Eircom having been designated as having SMP in each of these markets. ComReg also imposed obligations upon Eircom which, amongst other things, required it to offer these FVCO and Transit services to **Access Seekers**[23] at regulated prices.

1.35 ComReg separately analysed the retail fixed narrowband access market in the 2007 RNA Decision. Eircom was designated with SMP in this market and was required, amongst other things, to provide WLR to Access Seekers at a regulated price (this market is referred to throughout this document as the 'Retail Fixed Voice Access ('**RFVA**') market (or the '**RFVA market**').

[20] European Commission Recommendation of 19 September 2005 on accounting separation and cost accounting systems under the regulatory framework for electronic communications (2005/698/EC) (the '**2005 Accounting Separation and Cost Accounting Recommendation'**).

[21] Commission notice on the definition of relevant market for the purposes of Community competition law, (the '**Notice on Market Definition**), Official Journal C 372, 09/12/1997 P. 0005 – 0013.

[22] See "Market Analysis - Interconnection Market Review Wholesale Call Origination and Transit Services, Decision Notice D04/07, ComReg Document No. 07/80", October 2007 (the '**2007 Decision**').

[23] Access Seekers as referred to throughout this consultation as those undertakings (or other authorised operators) that purchase, or could potentially purchase, wholesale FACO and/or Transit services.

1.36 The remedies imposed under those decisions are summarised in Section 9 of this Consultation.

Current Review

1.37 Given the time that has elapsed since the conduct of the previous analyses of the FVCO and Transit markets and, having regard to market developments, it is now considered appropriate to carry out a further market review.

1.38 As part of this market review, ComReg has obtained qualitative and quantitative information from FSPs (and MSPs) through a series of formal and informal information requests, as well as follow-up clarifications through meetings or correspondence where appropriate. This supplements information which is provided to ComReg in the performance of its regular operations (e.g. for the Irish Communications Market Quarterly Key Data Report ('**Quarterly Key Data Report(s)**')[24]. ComReg has also reviewed, in detail, the experience of regulating the FVCO Markets and Transit Markets in other European jurisdictions, and has carefully analysed guidance available from the European Commission, BEREC and other relevant commentators before arriving at its preliminary views in this Consultation.

1.39 ComReg has also carried out market research surveys to inform its understanding of consumer and business attitudes/behaviours in the retail fixed voice markets, which has already been published by ComReg (the '**2012 Market Research**')[25]. ComReg is mindful that surveys, while a useful practical means of gathering information on consumer and business preferences/behaviours, need to be interpreted with care and that stated preferences of survey respondents can overestimate what they will actually do in practice. Therefore, ComReg does not solely rely on consumer/business surveys alone in forming its preliminary conclusions as set out in this Consultation. ComReg considers all information available to it.

Information Sources Relied Upon

1.40 In conducting its analysis, as noted in paragraphs 1.36 and 1.37 above, ComReg has drawn on data from a number of sources, including:

(a) The 2012 Market Research. This included attitudinal surveys of retail consumer and business users of retail fixed voice services. This research was published as part of ComReg's separate and ongoing analysis of the Fixed Voice Call Termination ('**FVCT**') markets;

[24] The most recently published Quarterly Report is the Irish Communications Market Quarterly Key Data Report, Data as of Q3 2013, ComReg Document 13/120, 18 December 2013.

[25] See 'Retail Access to the Public Telephone Network provided at a Fixed Location for Residential and Non Residential Customers' ComReg Document 12/117a, October 2012 (the '**2012 Market Research**').

(b) ComReg's Consumer ICT Survey (the '**2013 Consumer ICT Survey'**) dated April 2013[26] and the Business ICT Survey (the '**2013 Business ICT Survey'**) dated June 2013[27] (together referred to as the '**2013 ICT Surveys**');

(c) Information provided by Service Providers in response to detailed statutory information requests[28] issued by ComReg in which both quantitative and qualitative information on the retail fixed voice market and the Relevant Markets was sought ('**Statutory Information Requests**');

(d) Information provided to ComReg in subsequent follow-up correspondence and discussions in relation to (c) above;

(e) Information provided to ComReg by Service Providers for the purpose of the Quarterly Key Data Report; and

(f) Other information in the public domain.

1.41 The 2012 Market Research referred to in point (a) above was undertaken by ComReg to inform its RNA, FVCT, FVCO and Transit market reviews and examined household and business attitudes to various issues related to the provision of telecommunications services. The field work supporting the 2012 Market Research took place in the period February to April 2012 with the results presented to ComReg in April/May 2012 and subsequently published originally in August 2012 as part of a separate market analysis concerning ComReg's analysis of the FVCT markets as set out in the FVCT Consultation[29]. It was also published as part of the 2012 Retail Access Market Review Consultation[30].

1.42 As part of the 2012 Market Research, 1000 residential households were surveyed through face-to face interviews and 550 businesses were surveyed via a computer aided telephone interview (CATI), with the person interviewed being the individual responsible for selecting the relevant business's telecommunications providers. The survey examined, amongst other things:

- demand for a fixed line telephone;
- demand for other telecommunications services and for fixed line telephone bundles;

[26] See 'ComReg Consumer ICT Survey', ComReg Document 13/46, April 2013 (the '**2013 Consumer ICT Survey')**.

[27] See 'ComReg Business ICT Survey', ComReg Document 13/61, June 2013 (the '**2013 Business ICT Survey')**.

[28] Pursuant to its powers under section 13D(1) of the Communications Regulation Acts 2002 to 2011, ComReg issued a series of information requests to Service Providers in October 2011 with responses being provided to these in the period up to the first quarter of 2012.

[29] Market Review, Wholesale Voice Call Termination Services Provided at a Fixed Location, Consultation and Draft Decision, ComReg Document 12/96, September 2012 (the '**FVCT Consultation**').

[30] Market Review, Retail Access to the Public Telephone Network at a Fixed Location for Residential and Non Residential Customers, Consultation and Draft Decision, ComReg Document 12/117, October 2012 (the '**2012 Retail Access Market Review Consultation**'). ComReg has yet to issue its final decision in respect of this market review.

- the demand for mobile voice and internet services;
- Common payment methods used by consumers, price plan details;
- the awareness of pricing and product choices amongst respondents;
- the tendency of respondents to switch between service providers, the features that are important for businesses and households when choosing an FSP;
- the reasons given by consumers without a fixed telephone line, for why they do not require the service (potential substitutes); and
- price sensitivity.

1.43 ComReg refers to the outputs from the 2012 Market Research, along with the other data sources referred to above, throughout the remainder of the analysis in this Consultation.

1.44 It should be noted that, rather than being definitive, the 2012 Market Research informs the analysis throughout this Consultation, and its outputs are considered alongside empirical data/evidence, where available, in particular, alongside data presented in the Quarterly Key Data Reports.

1.45 In addition, and as noted above, ComReg has complemented this market research data with information obtained more recently through ComReg's 2013 ICT Surveys.

1.46 As highlighted elsewhere in this Consultation, ComReg intends to re-fresh some of the data sources identified above in parallel with this consultation process, and will take such updated data into account when issuing its final decision. This will be particularly the case with respect to the Transit market.

Liaison with the Competition Authority

1.47 In accordance with Regulation 27(1) of the Framework Regulations, ComReg will consult with the Competition Authority on the Relevant Markets to be set out in the subsequent decision which will issue following ComReg's consideration of the responses received to the issues raised in this Consultation. ComReg will continue to keep the Competition Authority informed throughout the conduct of this market analysis process.

Consultation Process

1.48 As noted above, the purpose of this Consultation is to set out ComReg's preliminary views on its analysis of the Relevant Markets (including product and geographic definition, 3CT, competition analysis and remedies).

1.49 ComReg invites all interested parties to respond to the questions set out in this Consultation, and/or to comment on any other aspect of the Consultation. In so doing, respondents are requested to clearly explain the reasoning for their response, indicating the specific relevant paragraph numbers within the Consultation to which their response refers, along with all relevant factual or other evidence supporting views presented.

1.50 Respondents should submit views in accordance with the instructions set out on the cover page of this Consultation. Respondents should also be aware that <u>all</u> non-confidential responses to this Consultation will be published, subject to the provisions of ComReg's guidelines on the treatment of confidential information[31]. Confidential elements of responses **<u>must be clearly marked as such and be set out in a separate document and must be provided to ComReg by the closing date set out below</u>.**

1.51 All responses should be clearly market with "**Response to ComReg Document 14/26**" and sent by post, facsimile or email to the address below to arrive on or before 17:00 on 3 June 2014. Any responses received after this date will not be considered.

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1.52 ComReg is providing an eight week period[32] within which interested parties can respond. Respondents' should clearly note that ComReg will not extend this consultation period.

[31] See ComReg Document 05/24, "Guidelines on the treatment of confidential information", March 2005.

[32] The duration of this response period reflects the circumstances where a number of separate concurrent consultations (and ComReg follow-up actions concerning this Consultation) will run in parallel or overlap.

1.53 This is a non-confidential version of the Consultation. Certain information within the Consultation has been redacted for reasons of confidentiality and commercial sensitivity, with such redactions indicated by the symbol ✂. Should an individual Service Provider wish to review its own redacted information, it should make a request for such in writing to ComReg (to the person identified in paragraph 1.51 above) and indicate the specific paragraph numbers within which the redacted information being requested is contained. ComReg will consider requests for redacted information and would, subject to the protection of commercially sensitive and confidential information, respond accordingly.

Structure of the Report

1.54 The remainder of this Consultation is structured as follows:

- **Section 2:** This section provides an executive summary of the preliminary conclusions set out throughout this Consultation.
- **Section 3:** This section provides an overview of the main trends that have occurred in the provision of RFTS over the last four years;
- **Section 4:** This section provides an assessment of the structural and behavioural characteristics in the RFTS market(s), with a view to informing the subsequent definition and SMP analysis of the Relevant Markets;
- **Section 5:** This section defines the Relevant FVCO Market from both a product and geographic perspective;
- **Section 6:** This section assesses competition within the Relevant FVCO Market, and considers whether any FSP has SMP within those markets;
- **Section 7:** This section defines the Transit market from both a product and a geographic perspective and then assesses whether the market meets the 3CT (and whether it is susceptible to *ex ante* regulation).
- **Section 8:** This section sets out the main competition problems that might occur, absent of regulation, within the FVCO and adjacent markets, along with the likely consequential impacts for competition and consumers.
- **Section 9**: This section proposes to impose regulatory remedies on Eircom in the Relevant FVCO Market aimed at addressing competition problems.
- **Section 10 :** This section proposes the removal of remedies from Eircom in the Transit Market.
- **Section 11:** This section sets out the Regulatory Impact Assessment of the proposed approaches to regulation in the Relevant FACO Markets and the Transit Market.
- **Section 12:** This section sets out the next steps that will follow the publication of this Consultation.
- **Appendix A:** This section provides a reference to the market research referred to through the Consultation.

- **Appendix B:** This section provides some guidance regarding the treatment of product complements in defining markets.
- **Appendix C:** this section describes the different types of non-geographic numbers, and the payment mechanisms in place between Service Providers that are involved in the provision of calls to non-geographic numbers.
- **Appendix D:** This Section summarises the price sensitivity analysis undertaken by ComReg in relation to the RFTS market and FACO Markets, which is conducted in Sections 4 and 5 of the Consultation (in context of indirect constraints).
- **Appendix E:** This section provides an overview of the economic approach used to assess whether different products fall within the same relevant product market
- **Appendix F:** This section describes the critical loss analysis used by ComReg in assessing the extent to which indirect constraints might impact upon the FACO Markets. The assessment of indirect constraints itself is set out in Section 5.
- **Appendix G:** This section sets out a range of factors considered, other than those set out in Section 6, in respect of the SMP analysis.
- **Appendix H:** This section sets out the draft Decision Instrument which would legally given effect to the preliminary decisions as set out in this consultation.
- **Appendix I:** This section sets out the various consultation questions posed through the Consultation.

2 Executive Summary

Introduction

2.1 In this Consultation ComReg assesses the extent of competition within two wholesale markets that ultimately enable Fixed Service Providers (‘**FSPs**’) to offer retail fixed line and call services to their customers (together referred to as ‘**Retail Fixed Telephony Services**’ or ‘**RFTS**’). The wholesale markets examined are the markets for Fixed Voice Call Origination (‘**FVCO**’) and Call Transit (‘**Transit**’).

2.2 Below, we provide an overview of the main preliminary conclusions set out in this Consultation.

2.3 FVCO is a wholesale call service which allows a wholesale customer to purchase the capability to allow a telephone call to be initiated over an end-user’s telephone connection and routed/conveyed to a designated network handover point. At this designated network handover point, the FSP purchasing the FVCO service can take over the management this call traffic onto their own network (or potentially by third party networks on their behalf). FVCO thereby allows an FSP to sell a retail call service. FVCO is also typically sold and purchased alongside a wholesale line rental (‘**WLR**’) service, which allows the wholesale customer purchasing FVCO to also rent the physical connection from an end-user’s premises to the public telephone network. WLR thereby allows an FSP to sell a retail line rental service to a retail customer which, when combined with FVCO, allows the FSP to provide a RFTS.

2.4 Transit is another wholesale service involving call conveyance between the FVCO stage of a call and the point at which the call is handed over for termination/completion by the network of the called party. Transit therefore allows call traffic to be conveyed between two or more networks where they are not directly interconnected, or indeed to a deeper point within a network.

2.5 Where ComReg identifies that such FVCO and Transit markets are not likely to function effectively due to one or more FSPs with Significant Market Power (‘**SMP**’) being potentially able to restrict or distort competition, it can impose a range of *ex ante* regulatory obligations on such SMP FSPs. These obligations can, amongst others, include requirements to provide specified products and services (such as FVCO and Transit) at regulated wholesale prices and are ultimately designed to enable other FSPs without networks of their own (or insufficient network coverage of their own) to compete in providing RFTS. Such RFTS can either be sold on a standalone basis or bundled with other services (such as broadband, mobile telephony or television services).

2.6 In this Consultation, ComReg defines the FVCO and Transit markets from both a product and geographic perspectives. ComReg then assesses the extent of competition within such markets and, where appropriate, proposes regulatory obligations to address competition problems that would be likely to arise absent regulatory invention. Where regulatory intervention is warranted, it is ultimately designed to promote the development of effective competition in the provision of retail and/or wholesale services, with the ultimate beneficiary intended to be retail consumers in terms of the increased choice and quality of retail services at more competitive prices.

2.7 ComReg's overall preliminary conclusion in this Consultation is that continued *ex ante* regulation of the FVCO market is warranted, as Eircom is likely to have SMP. ComReg has, however, drawn the boundaries of the FVCO market more broadly, in particular, to include not only FVCO but also a fixed access ('**FA**') component. Hence, the market is defined as Fixed Access and Call Origination ('**FACO**'). To address identified competition concerns, ComReg intends to impose a full range of regulatory remedies (obligations) upon Eircom. In doing so, ComReg has not only consolidated a range of FVCO related remedies that have, up to now, been imposed within regulated downstream retail markets, but has also updated these remedies in order to increase their effectiveness having regard to current regulatory practice in other wholesale markets within which Eircom also has SMP.

2.8 The question on whether or not to continue regulation of the Transit market is warranted is finely balanced. The European Commission's ('**EC**') recommendation means that the Transit market is not deemed susceptible to *ex ante* regulation at a general EU level. However, ComReg considers that, notwithstanding some concerns, the evidence suggests that the Transit market has the potential to tend towards effective competition over time. In this respect there is evidence of existing competition within the Transit market and evidence that a number of service providers have increased the degree to which they interconnect directly with each other, thereby avoiding or reducing the need for Eircom's Transit services. In parallel with the consideration of views received from interested parties to the proposals set out in this Consultation, ComReg also intends to separately seek additional data from service providers regarding the competitive structure and dynamics in the Transit market. Such data, along with responses to this Consultation, will also be of relevance to ComReg's final decision on its regulatory approach to the Transit market.

Background to the Reviews

2.9 The FVCO market has been identified by the EC as one of a number of recommended markets which are deemed susceptible to *ex ante* regulation at an EU level. However, following the removal of the Transit market from the EC's list of recommended markets in 2007, the EC considers that regulation in this market is no longer justified at a general EU level. Nevertheless, recognising that national circumstances can differ across Member States, the EU and the national regulatory framework provides that markets not in the recommended list can be subjected to *ex ante* regulation. In order to do so, however, a National Regulatory Authority ('**NRA')** such as ComReg must show that the market to be regulated meets the three criteria test ('**3CT**'). The purpose of this 3CT is to ensure that markets not identified in the EC's recommended list can only be regulated on an *ex ante* basis where it can be shown that entry barriers are high and non-transitory, that the market is not likely to tend towards effective competition and that *ex post* competition law remedies on their own are unsuitable for resolving the identified competition concerns. If any one of these criterion is not met then *ex ante* regulation is not justified.

2.10 The FVCO and Transit markets were previously reviewed by ComReg in 2007. At that time Eircom was designated as having SMP in each of these markets and was required, amongst other things, to provide wholesale access to various call origination products and services at regulated prices.

2.11 Also of relevance to the regulation of the now FACO market is exiting *ex ante* regulation in the downstream retail narrowband access ('**RNA**') markets. These RNA markets are subject to regulation further to a market review in 2007. Specifically, Eircom is designated as having SMP in this market and since 2007 has had various retail and wholesale obligations imposed on it. The wholesale measures, imposed in the RNA market are related to the upstream FACO market. In particular, the requirement exists in the RNA market for Eircom to provide other FSPs with access to WLR at regulated prices, as well as obligations to meet a Net Revenue Test ('**NRT**') in order to avoid a margin squeeze (in general, being the creation of an insufficient margin between the price of inputs Eircom sells to competitors and its own downstream prices such that the competitor cannot compete effectively).

2.12 ComReg is currently engaged in a separate and ongoing analysis of retail fixed access markets with two consultations having issued in October 2012 and, more recently, in October 2013. ComReg expects to issue a decision in respect of this retail fixed access market review within the coming months. Within these consultations, and without prejudging the outcome of the various inter-related market analyses, ComReg has reconsidered what remedies may be necessary and appropriate in the retail fixed access markets. ComReg has signalled the possibility of moving the existing RNA obligation to provide WLR at regulated prices into markets located at a more upstream level in the value chain (i.e., to the FACO market). In addition, in the ongoing retail fixed access market review, ComReg has signalled its consideration of the introduction and specification of margin squeeze tests, possibly in the wholesale markets for FVCO and for wholesale broadband access ('**WBA**'). The retail fixed access market review has proposed to continue to regulate WLR and apply a NTR in the retail access markets. This may change subject to the outcome with respect to the issues now considered in this Consultation.

2.13 In this respect, depending on the assessment of the sufficiency of wholesale regulation in terms of its impact in fostering effective competition in retail markets, it has also been acknowledged in the various retail fixed access consultations that such a movement of remedies to the upstream level could lead to a lessening of regulation in these retail markets, including its removal, where warranted.

2.14 Noting the above and in order to avoid drawing inappropriate conclusions regarding the competitive structure of the RFTS or FVCO markets arising from the influence of existing regulation on these markets, for the purpose of the analysis in this Consultation, ComReg has assumed that existing WLR and FVCO obligations do not exist in either the RNA market or the FVCO markets.

Retail Market Trends and Developments

2.15 Since the previous reviews of the FVCO and Transit markets in 2007 there have been notable retail developments. These retail trends, amongst others, are discussed in Sections 3 and 4 of the Consultation, in particular, to the extent that they inform the subsequent analysis of the FVCO and Transit markets.

2.16 UPC, the vertically-integrated cable TV provider, has completed the upgrade of its network and, following its entry into the RFTS market in 2009, UPC has significantly increased its number of RFTS (and broadband) customers. UPC's RFTS are provided delivered over its cable broadband network using Internet Protocol ('**IP**') (also known as voice over broadband or '**VOB**') and its RFTS subscriber market share now stands at approximately 18.5%.

2.17 Since 2011 Eircom has been engaged in a substantial fibre upgrade to its copper access network, largely associated with offering higher speed broadband products and, more recently, pay TV services. Eircom's RFTS subscriber market share now stands at approximately 52%. While Eircom continues to offer RFTS over its copper access network, this Consultation acknowledges the potential for Eircom, over the period of review, to provide such services on a managed VOB basis. i.e., RFTS being delivered over a broadband access path via IP rather than through traditional circuit switched telephony.

2.18 Mobile Service Providers ('**MSPs**') such as Vodafone and O2 have commenced providing RFTS (and broadband), largely on foot of the purchase of wholesale services from BT Ireland and Eircom. Sky Ireland also began offering RFTS (and broadband) in the second half of 2013, also enabled through the purchased of wholesale services from BT Ireland. Retail competition from Vodafone and Sky Ireland, whose combined RFTS subscriber market share stands at approximately 19%, is predominantly based on the availability of wholesale WLR and FVCO products. It is, therefore clear that such wholesale services continue to play an important role in fostering retail competition.

2.19 Also of note is that there have not been any significant deployment of managed VOB services or traditional telephony services by FSPs purchasing various wholesale broadband and passive copper access products made available by Eircom pursuant to its SMP regulatory obligations in other wholesale markets.

2.20 Apart from the above other developments include:

- a decline in overall retail fixed line originated call traffic and growth in mobile voice traffic (the latter being relatively static since Q4 2010), although a significant proportion of residential and business users continue to avail of RFTS. It is also notable that consumers appear to use RFTS and MTS for different purposes and perceive price differences between the two services;
- growth in the provision of managed VOB based RFTS, particularly where offered as part of a bundle over UPC's Cable TV network. The degree of substitution from RFTS to over the top ('**OTT**') VOIP services such as Skype appears to be limited, and the patterns of usage appear to be much less frequent than for other voice telephony services; and
- an increased trend in the consumption of services in packages and bundles. Retail line rental and calls are typically sold/purchased together by end-users and such RFTS are often bundled with broadband and/or television (or other) services. Mobile services are also being offered in bundles with RFTS. These trends appear to have corresponded with the entry of UPC and Sky into the broadband and RFTS markets, both of which offer bundled products to consumers.

Summary of FACO Market Assessment

Market Definition

2.21 In Section 5 of this Consultation, ComReg has considered the definition of the relevant FVCO market(s) from a product and geographic perspective. In so doing it has considered direct demand-side and supply-side constraints in the wholesale market(s), as well as the effectiveness of indirect constraints emanating from the retail market(s). This wholesale analysis is also informed by ComReg's assessment of the retail trends and the retail market in Sections 2 and 4.

2.22 As noted above, ComReg's preliminary view is that the FVCO market should be defined as a combined fixed access and call origination market, which essentially means that WLR (being the access component) and FVCO (being the call component) fall within the same wholesale FACO market. Eircom currently provides such a combined product which is called Single Billing through Wholesale Line Rental ('**SB-WLR'**), with current WLR *ex ante* obligations specified in the RNA markets and FVCO specified in the existing FVCO market. This proposed FACO market reflects not only the nature of retail demand for RFTS services, where line rental and calls are predominantly purchased by consumers together from single suppliers, but also the fact that it is not technically possible for a wholesale customer to purchase WLR from one wholesale supplier and FVCO from another. In this respect, since 2007 we have seen a significant decline in the wholesale customers' demand for Eircom's standalone FVCO based wholesale Carrier-Pre Select ('**CPS**') product (where CPS is provided to a wholesale customer by Eircom, Eircom's retail arm continues to provide the underlying retail line rental service to the retail customer). SB-WLR now accounts for over 95% of wholesale customers' demand, with this accounting for approximately 28% of alternative FSPs' SB-WLR based RFTS subscriptions.

2.23 It is ComReg's view that, irrespective of whether or not a FVCO or FACO market is defined, it does not materially alter the regulatory outcome. In this respect, in circumstances where a standalone FVCO market is defined (and SMP is found to exist), it can result in the imposition of regulatory obligations being imposed in the FVCO market to provide WLR. While ComReg does not consider the regulatory outcome to be materially affected by the definition of a combined FACO market, noting that it is a different market to the FVCO market identified within the EC's list of recommended markets, for robustness ComReg nonetheless applies the 3CT as part of its subsequent competition assessment.

2.24 As noted above, while Eircom has yet to launch its own IP based managed VOB service, ComReg has considered the question as to whether its notional self-supply of such a service to its retail arm should be included within the FACO market. ComReg's preliminary view is that it should be included given, amongst other things, it will be likely to ultimately replace the traditional circuit switched delivery of telephony services over Eircom's copper based narrowband network.

2.25 ComReg has considered the potential for alternative FSPs to self-supply their own FACO services through the launch of a managed VOB based service using upstream wholesale broadband inputs such as Local Loop Unbundling (‘**LLU**’) and WBA products supplied by Eircom in other regulated markets, coupled with alternative FSPs’ own IP capability. However, the evidence available does not suggest that this is likely to have a material impact within the short to medium term such that it should be included in the FACO market.

2.26 ComReg has also considered the FACO product boundaries having regard to Eircom’s existing circuit switched network hierarchy under which it has three switching levels, namely the primary, tandem and double-tandem levels. Due to the absence of ‘code hosting/sharing’ under current industry call routing rules, it means that purchasers of FACO without a direct interconnect at the Eircom primary exchange level are effectively limited to using Eircom’s Transit service to convey/transit originated traffic to their nearest interconnection point. ComReg recognises that IP interconnection or IP routing, when it occurs, will mean that the management and handover of call traffic is likely to take place at points of presence or ‘edge nodes’ which are located at a higher level in the network, potentially reducing the degree/depth of interconnection that needs to take place within or across service providers’ networks. However, the absence of IP interconnection and code hosting means that ComReg has defined the FACO product boundary to encompass call origination across Eircom’s primary, tandem, or double-tandem exchange levels.

2.27 ComReg has examined whether the FVCO component of FACO should be differentiated based on the types of telephone number being called, whether to a geographic, mobile or non-geographic number types and considers that FVCO to such numbers fall within the same market.

2.28 Noting the above, ComReg ultimately proposed to define two separate FACO product markets given the underlying differences in demand-side and supply-side conditions associated with the fixed access (telephone line) component of FACO. In this respect a distinction can be drawn between a traditional Public Switched Telephone Network (‘**PSTN**’) line which supports one voice channel and the various types of Integrated Services Digital Network (‘**ISDN’)** lines, which can support between two and thirty voice channels.

2.29 ComReg has, therefore, identified a Low Level FACO (‘**LL-FACO**’) Market and a separate High Level FACO (‘**HL-FACO**’) Market, both of which are considered to be national in scope (referred to as the ‘**FACO Markets**’).

2.30 The LL-FACO Market is comprised of:

(a) wholesale fixed access to the public telephone network for the provision of voice telephony services by means of (i) PSTN, or (ii) ISDN Basic Rate Access (‘**ISDN BRA’**), which supports 2 voice channels; and

(b) calls originated at a fixed location of an end-user which are conveyed and routed through any switching stages (or equivalent) up to a point of interconnection taking place at the primary, tandem, or double-tandem exchange level within Eircom’s network.

2.31 The HL-FACO Market is comprised of:

(a) wholesale fixed access to the public telephone network for the provision of voice telephony services by means of (i) ISDN Fractional Rate Access (‘**ISDN FRA**’), which supports between 14 to 30 voice channels or (ii) ISDN Network Primary Rate Access (‘**ISDN PRA**’), which supports 30 voice channels; and

(b) calls originated at a fixed location of an end-user which are conveyed and routed through any switching stages (or equivalent) up to a point of interconnection taking place at the primary, tandem, or double-tandem exchange level within Eircom’s network.

2.32 LL-FACO products are likely to be purchased by wholesale customers to serve residential and small business users, whereas HL-FACO would be used to service larger business customers.

2.33 In the case of both LL-FACO and HL-FACO, Eircom’s self-supply, including its notional supply of FACO via managed VOB, is also included in the FACO Markets.

2.34 ComReg’s preliminary view is that the FACO Markets do not include:

- wholesale switchless voice services (‘**Wholesale SV**’), being end-to-end wholesale voice services purchased by alternative FSPs so that they can provide RFTS without the need to have their own switching or interconnection infrastructure;
- self-supply of FACO on alternative (non-Eircom) vertically integrated RFTS networks;
- FACO being provided on a mobile telephone network; and
- alternative FSPs managed VOB based RFTS offered over xDSL based broadband or leased lines (high capacity symmetrical broadband).

2.35 ComReg’s preliminary view is that RFTS products provided on alternative platforms, and mobile telephony services, do not provide a sufficient indirect constraints on the FACO markets such that would justify their inclusion the wholesale product market.

Competition Assessment in FACO Markets

2.36 In Section 6 of this Consultation, ComReg has assessed the current and likely extent of competition within the FACO Markets, absent regulation. In this respect, ComReg has considered the effectiveness of constraints posed by existing competition, potential competition, as well as any impact of strong buyers of FACO on the competitive behaviour of FACO providers.

2.37 Eircom is the sole supplier in the FACO Markets having held a stable 100% market share over time. It therefore does not face existing competition within such markets.

2.38 ComReg has, nevertheless, considered the hypothetical market share position, were the self-supply of vertically-integrated cable TV, FWA and alterative fibre based FSPs providing RFTS to be included in the FACO Markets. In these circumstances, Eircom would have a high market share of over 80% in the LL-FACO Market. While this hypothetical market share has declined by approximately 20% since Q3 2009, largely accounted for by UPC's entry in the retail market, given the trend to date ComReg does not consider it probable that Eircom's market share would fall close to or below 50%, within the lifetime of this review. In terms of the hypothetical market share position in the HL-FACO Market, Eircom would have a high and stable market share of around 80%.

2.39 The strength of indirect pricing constraints from the competition within the retail market(s) and their impact on competition within the FACO Markets have also been examined and are not considered to be sufficiently effective to constrain Eircom's suggested SMP position.

2.40 ComReg has also considered the extent to which potential competition would be likely to effectively constrain Eircom's behaviour in the FACO Markets such that it would mitigate Eircom's suggested SMP position. ComReg's view is that over the period of this market review, barriers to entry are likely to remain high. Potential competition from a number of sources, including the potential for alternative FSPs to deploy manage VOB using upstream wholesale broadband inputs, is considered and ComReg's view is it is not likely to be sufficient such that the FACO Markets are likely to tend towards effective competition.

2.41 ComReg also notes that, in the absence of regulated FACO products, there may be a greater incentive for FSPs to develop managed VOB services using upstream wholesale broadband inputs provided by Eircom, with these being used to provide RFTS and/or FACO. However, demand for SB-WLR remains high and continues to grow, and evidence of material managed VOB use by existing SB-WLR users has not yet emerged, in particular, to the extent that it might, absent regulation, ultimately result in effective competition in the FACO and downstream markets. ComReg intends to continue monitoring market developments in this regard and also takes account of this in its approach to remedies (see Section 9 of the Consultation). In particular, ComReg has proposed that it will not impose any obligations upon Eircom with respect to its notional managed VOB based FACO services.

2.42 As noted in paragraph 2.23, while the definition of a FACO market diverges from the FVCO market as identified in the EC's list of recommended markets, it is ComReg's view that this does not lead to a materially different regulatory outcome. However, having considered current and likely extent of competition within the FACO Markets, ComReg has applied the 3CT and considers it to be satisfied.

2.43 Overall, ComReg's preliminary view is that Eircom is likely to have SMP in both of the FACO Markets, that is, the ability to act, to an appreciable extent, independently of its competitors, customers and consumers.

Competition Problems and Remedies

2.44 In Section 8 of the Consultation ComReg considers competition problems that would be likely to arise in various retail and wholesale markets, absent regulation in the FACO Markets. Having done so, in Section 9 ComReg considers the imposition of appropriate remedies in order to address such identified competition problems.

2.45 In the absence of regulation in the FACO Markets, ComReg considers that Eircom would have the potential ability and incentive to influence a range of competition parameters, including prices, innovation, output and the variety or quality of goods and services provided. In general, there are a number of types of competition problems which may arise involving the SMP undertaking's conduct, including:

- exploiting customers or consumers by virtue of its SMP position through, for example, setting excessive wholesale charges. This would raise the input costs for those FSPs that purchase Eircom's SB-WLR products/services. Given that such above cost wholesale prices may then be passed on by such FSPs to their retail customers via higher RFTS prices, it could ultimately have the potential to harm the development of effective competition in the RFTS market, potentially through the actual or effective exclusion of downstream competitors;
- leveraging its market power into adjacent vertically or horizontally related markets through price and non-price means with a view to foreclosing or excluding competitors in downstream retail and/or upstream wholesale markets. Eircom, as the proposed SMP undertaking, has the incentive to use its market power in the FACO Markets to affect the competitive conditions in downstream wholesale and/or retail markets, in particular, through its ability to control the key inputs used by wholesale customers - which compete against Eircom in such markets. This could result in a distortion of or restriction in competition in these downstream markets, ultimately resulting in harm to consumers, potentially in the form of higher prices, lower output/sales, reduced quality or consumer choice; and
- engaging in behaviours, similar to those identified above in the context of leveraging, which delays/deters network investment and entry into the FACO markets and ultimately the RFTS market.

2.46 To address these potential competition problems, ComReg has proposed to continue to impose upon Eircom a range of access, non-discrimination, transparency, price control/cost accounting and accounting separation obligations. In doing so, given Eircom's existing obligations date from 2007, ComReg has sought to align its current approach on FACO remedies, where appropriate, to that which has been adopted with respect to remedies imposed upon Eircom in other adjacent markets within which it also has more recently been designated SMP. This serves to not only increase the effectiveness of remedies, but also to provide a consistent approach to regulation across wholesale markets, noting that Eircom's wholesale customers tend to purchase products that fall within multiple regulated markets.

2.47 The detail of these obligations, which are ultimately designed to ensure effective competition in retail and adjacent wholesale markets, is set out in Section 9 of the Consultation. A brief overview is provided below.

Access Obligations

2.48 To address potential competition problems associated with the actual or constructive denial of access to wholesale inputs, access obligations are being imposed on Eircom to meet reasonable requests for access from wholesale customers for various FACO products and to provide access to specific products services and facilities. These include requirements to:

- provide access to SB-WLR, ancillary SB-WLR services specific circuit switched interconnection services and co-location;
- negotiate in good faith with FSPs requesting access;
- interconnect;
- provide access to order handling/management and other systems necessary to ensure fair competition in the provision of services; and
- provide access in accordance with a range of conditions governing fairness, reasonableness and timeliness, including service level agreements.

2.49 As identified earlier, the existing requirement in the RNA market for Eircom to provide other FSPs with access to WLR is now being imposed in the FACO Markets as part of the SB-WLR obligation above.

2.50 As noted in paragraph 2.41 above, ComReg has proposed not to impose requirements on Eircom to provide wholesale access to its notional managed VOB based FACO services.

2.51 In addition, as noted in paragraph 2.22 above, given the decline in the importance of the wholesale CPS product (and some other voice only wholesale services provided by Eircom) for retail competition, ComReg also proposed that existing regulatory obligations governing the provision of CPS and other products are no longer warranted or justified. Although, ComReg notes that Eircom may continue to provide such services on a commercial basis.

Non-Discrimination Obligations

2.52 In order to ensure that Eircom does not favour its downstream arm, or unduly favour any particular wholesale customer a range of non-discrimination obligations have been proposed including requirements to:

- provide services and information to other FSPs under the same conditions and of the same quality as Eircom provides for its own services or those of its subsidiaries or partners; and
- apply equivalent conditions in equivalent circumstances to other undertakings to which it provides equivalent services.

2.53 ComReg has indicated that the non-discrimination obligations should be applied on at least an Equivalence of Outputs ('**EOO**') basis. This standard recognises that Eircom would be required to provide access to services and information in a manner which achieves the same standards in terms of functionality, price, terms and conditions, service and quality levels as Eircom provides to itself, albeit potentially using different systems and processes.

2.54 ComReg has also proposed to impose a new obligation on Eircom to provide within specified timeframes, ComReg with a 'Statement of Compliance' ('**SoC**') demonstrating its compliance with its non-discrimination obligations. Such an obligation has been imposed in other markets within which Eircom has SMP. However, ComReg has broadened the scope and nature of the SoC requirements in the FACO Markets so that Eircom is to be required to demonstrate to ComReg that it has put in place appropriate risk identification, control and governance processes such that it can reasonably demonstrate that, on an ongoing basis, it is ensuring its compliance with its non-discrimination obligations.

Transparency Obligations

2.55 To address potential competition problems associated with asymmetry of information and to support access, non-discrimination, price control and other obligations, ComReg has proposed to impose a range of transparency obligations upon Eircom including requirements to:

- maintain and publish a reference interconnect offer ('**RIO**'), being a contractual offer, with this having to contain a minimum specified set of details, including prices and requirements with respect to Wholesale SV services;
- put in place a RIO change management and advance change notification process, including with respect to price changes;
- publish key performance indicators, performance metrics and service level agreements;
- put in place non-disclosure agreement procedures governing the legitimate sharing of confidential and/or commercial information; and

- ensure transparency in its billing by making its wholesale invoices sufficiently disaggregated, detailed and clearly presented such that a wholesale customer can reconcile invoices to Eircom's RIO and RIO prices.

Price Control and Cost Accounting Obligations

2.56 To address potential competition problems associated with price related behaviours including excessive pricing and margin squeeze, Eircom is to be subject to various price control and cost accounting obligations including:

- a price control obligation of cost orientation relating to (i) the FVCO component of SB-WLR and Retention Rates for calls to NTCs; (ii) current generation interconnection services; (iii) order handling process costs associated with SB-WLR; (iv) co-location; and (v) ancillary SB-WLR services, including low value Customer Premises Equipment ('**CPE**') rental;
- a price control obligation of 'retail minus' relating to (i) the WLR element of SB-WLR;
- an obligation not to cause a margin squeeze, including an obligation not to cause a margin squeeze with respect to Wholesale SV; and
- an obligation to maintain appropriate cost accounting systems to justify its prices/costs of FACO products, services and facilities.

2.57 In imposing the above obligations, ComReg has noted that over the coming months a number of separate pricing related consultations will be published which may have a bearing on the proposed price control obligations within the period covered by this market review.

2.58 In this respect, in paragraph 2.12 we noted the potential for the introduction and specification of a margin squeeze tests in the FACO Markets (and elsewhere) which, if effectively implemented upstream, might permit the removal downstream of the current NRT as specified in the RNA market. While we have not, within this Consultation, imposed a specific NRT, in Q2 2014 ComReg expects to issue a separate consultation on this matter (the '**NRT Margin Squeeze Consultation').**

2.59 It is also proposed to continue existing margin squeeze test obligations with respect to Wholesale SV services, however, another second separate consultation is expected to issue in Q2 2014 will examine the parameters of this test, as well as the modelling parameters and other issues (including the recovery of common costs) associated with the cost orientation obligation associated with the FVCO component of SB-WLR (the '**Separate FVCO price Control Consultation**').

2.60 The question as to whether the existing 'retail minus' price control obligation for the WLR element of SB-WLR remains appropriate will also be considered in a third separate consultation in Q4 2014 (the '**Separate Access Network Pricing Consultation**').

Summary of Transit Market Assessment

2.61 As note in paragraph 2.9, the EC's recommended markets list no longer identifies Transit markets as being susceptible to *ex ante* regulation. While the Transit market has been regulated to date, as part of the review of this market in this Consultation, ComReg first defines the Transit market from a product and geographic perspective, after which it then applies the 3CT.

2.62 Details on the Transit Market assessment are set out in Section 7 of this Consultation.

Transit Market Definition

2.63 ComReg's preliminary view is that the Transit market is national in scope and is comprised of Transit services provided at a fixed location, which includes:

- all elements of call routing that take place between FVCO and Fixed Voice Call Termination, including switching and conveyance;
- calls to geographic, non-geographic and mobile numbers;
- both trunk and pure Transit provided over copper and/or fibre networks (i.e. irrespective of the underlying infrastructure employed);
- Transit irrespective of the underlying technology used;
- Eircom's self-supply, as well as its supply in the wholesale market; and
- the self-supply and wholesale supply of other Transit Service Providers that are active in the provision of wholesale Transit services.

2.64 Details on the Transit market definition are set out in Section 8 of this Consultation.

Transit Market 3CT

2.65 In applying the 3CT, the question as to whether continued regulation of the Transit market is justified is finely balanced. However, ComReg considers that, notwithstanding some concerns, the evidence suggests that this market has the potential to tend towards effective competition. In this respect there is evidence of existing competition within the Transit market and evidence that a number of service providers have increased the degree to which they interconnect directly with each other, thereby avoiding or reducing the need for Transit services. Barriers to entry do not, therefore, appear to be insurmountable. In view of this the 3CT would not appear to be met and ComReg proposes to remove regulation in the Transit market.

2.66 In parallel with the consideration of views received from interested parties to the proposals set out in this Consultation, ComReg also intends to separately seek additional data from service providers regarding the competitive structure and dynamics in the Transit market. Such data, along with responses to the Consultation, will also feed into ComReg's ultimate decision on its regulatory approach to the Transit market. However, in the absence of concrete contrary evidence to suggest that the 3CT would be met, the Transit market would be likely to be de-regulated.

2.67 To facilitate a smooth transitional period to de-regulation, in Section 10 of this Consultation, ComReg has proposed that a 6 month sunset period for the withdrawal of existing remedies in the Transit market might be reasonable and proportionate. ComReg has also proposed that, during this sunset period, no new requests for access to Transit would have to be met by Eircom in an SMP regulatory context.

Next Steps

2.68 ComReg invites views from interested parties to the issues analysed in this Consultation, with the procedure and deadline for the submission of responses set out in paragraph 1.51.

3 Retail Market Trends and Developments

3.1 Before assessing the strength and effectiveness of any competitive constraints arising in the FVCO and Transit markets, ComReg first reviews recent retail trends in the supply of RFVC[33] in Ireland. ComReg notes that demand for FVCO and Transit is ultimately derived from consumer demand for RFVC. The trends discussed in this section are, therefore, potentially relevant when analysing the FVCO and Transit market/s. The key trends are examined under the following general headings:

- Retail providers of Retail Fixed Telephony Services being the provision of line rental and call services at a fixed location ('**RFTS**') (discussed in paragraphs 3.2 to 3.20 below);
- Changes in fixed and mobile traffic growth patterns (discussed in paragraphs 3.21 to 3.31 below);
- Growth in Supply of Managed VOB[34] and Unmanaged Voice over Internet Protocol ('**VOIP**') (discussed in paragraphs 3.32 to 3.48 below);
- Tendency for RFVC and RFVA to be sold together and purchased from a single supplier (discussed in paragraphs 3.49 to 3.54 below);
- Increased take-up of bundled retail services (discussed in paragraphs 3.55 to 3.64 below); and
- NGA roll-out by Eircom (discussed in paragraphs 3.65 to 3.70 below);

Retail providers of RFTS

3.2 There are currently several active suppliers of RFTS in Ireland. These suppliers differ in their relative size, the technology/service platforms they use to supply RFTS services and the geographic coverage of their networks/services. For the purposes of the analysis in this Consultation, FSPs can be broadly categorised into three types having regard to the extent of the coverage of their own networks and the extent to which they depend on the use of wholesale services provided by other service providers to provide their retail services[35]:

[33] These are retail calls originated on a fixed voice network.

[34] For the purposes of this market review 'Managed VOB' means VOIP provided by an FSP either directly using its own network, or indirectly by renting the access path from a third party. This is discussed further in paragraph 4.87 below.

[35] Please note that the FSPs listed in this section are not intended as an exhaustive list of all active suppliers of RFVC in Ireland at present but are rather included as examples of the principal suppliers.

- **Independent FSPs**: these FSPs provide RFTS predominantly using their own network and associated infrastructure and, hence, are not reliant on the use of wholesale inputs provided by other Service Providers when offering RFTS (except for purchasing Mobile Voice Call Termination or FVCT in order to terminate calls to subscribers on other Service Providers' networks). Examples of such FSPs currently include Eircom Limited ('**Eircom**')[36] and UPC Communications Ireland Limited ('**UPC**')[37].
- **Partially Independent FSPs**: these may operate a physical switching platform and potentially other infrastructure of their own, but also rely (to varying degrees) on wholesale access provided by other Service Providers' networks in order to supply RFTS to consumers. The coverage of these partially independent FSPs' networks can differ significantly. Examples of FSPs in this category include Blue Face Limited ('**Blue Face**')[38], BT Communications Ireland Limited ('**BT Ireland**')[39], Colt Technology Services Limited ('**Colt**')[40], Digiweb Telecom Limited ('**Digiweb**')[41], Imagine Wireless Limited ('**Imagine**')[42], Magnet Networks Limited ('**Magnet**')[43] and Vodafone Ireland Limited ('**Vodafone**')[44].

[36] Further information available at http://www.eircom.net/athome/

[37] Further information is available at http://www.upc.ie/. Note that, while UPC predominantly provides fixed voice services to retail customers over its cable network, it also uses Eircom's access network (SB-WLR inputs) to provide calls services to a small proportion of its overall voice customers that reside outside the coverage footprint of its cable network.

[38] Further information available at http://www.blueface.ie/

[39] Further information available at www.btireland.ie/

[40] Further information available at www.colt.net/ie/en/index.htm

[41] Further information available at www.digiweb.ie/home/

[42] Further information available at www.imagine.ie

[43] Further information available at www.magnet.ie/

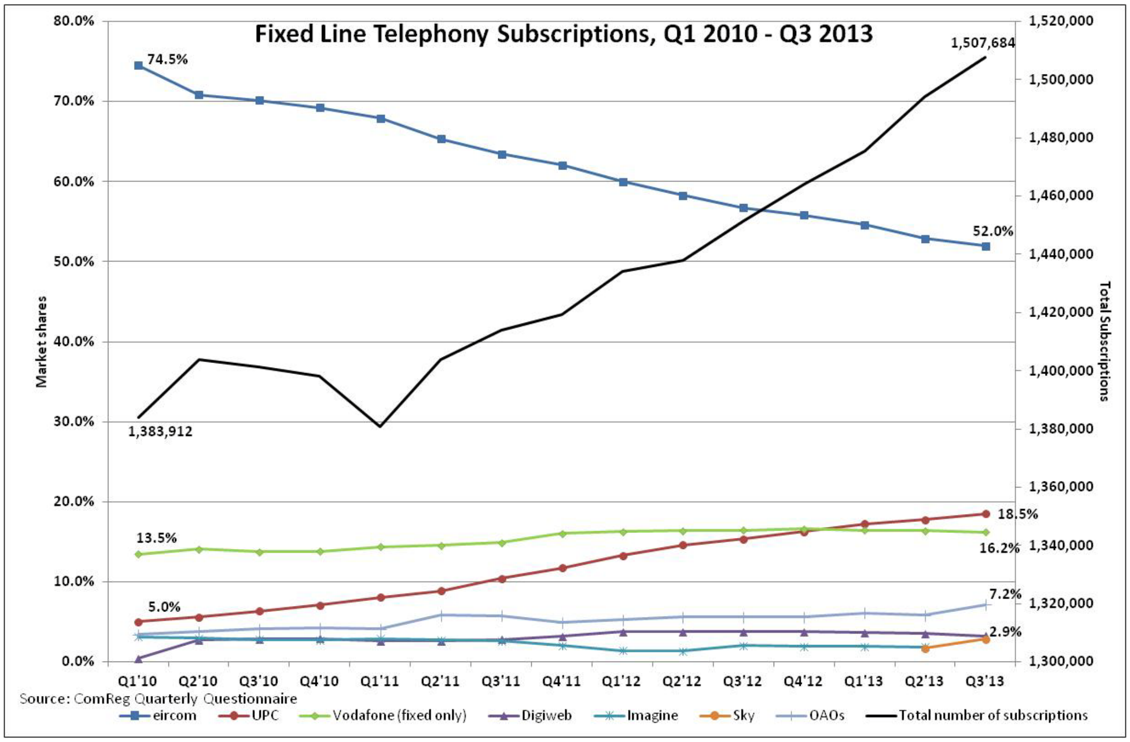
[44] Further information available at www.vodafone.ie/

- **Resale FSPs**: these are FSPs whose supply of RFTS does not involve the use of their own physical network or switches. These FSPs purchase wholesale end-to-end voice calls services from a third party network operator and either resell RFTS under their own brand or re-sell it to another FSP who in turn then resells that service in the retail market under their own brand. Examples include British Sky Broadcasting Limited ('**Sky**')[45], Pure Telecom Limited[46] ('**Pure Telecom**')[47], Telefonica Ireland Limited ('**O2**')[48] and UTV Internet Limited ('**UTV**')[49].

Figure 2 and

3.3 Figure 3 below illustrates the market shares of the main RFTS Service Providers over a three year period broken down by subscriptions and call traffic.

Figure 2: FSP market share of retail subscriptions 2010-2013



45 Further information available at www.sky.com/

46 Further information available at http://www.puretelecom.ie/

47 Further information is available at http://www.puretelecom.ie/

48 O2 Ireland uses Wholesale Switchless Voice ('**Wholesale SV'**) services supplied by Eircom in order to offer fixed voice services to its retail customers. See paragraph 3.9 for an explanation of Wholesale SV services.

49 Further information is available at http://www.uswitch.ie/.

Figure 3: FSPs' market share of retail call traffic 2010-2013 [✂Redacted due to Confidentiality and Commercial Sensitivity]

[redacted]

3.4 Eircom, an Independent FSP, is currently the largest provider of RFVC and RFVA (together called '**Retail Fixed Telephone Services'** or '**RFTS**') in Ireland. It owns and operates a ubiquitous Public Switched Telephone Network ('**PSTN**') and an Integrated Services Digital Network ('**ISDN**') (together called a '**narrowband network'**). Eircom is currently deploying a Next Generation Access ('**NGA'**) network which ultimately will likely replace Eircom's narrowband network in areas where it is economically viable for it to do so[50]. These narrowband and NGA networks are used by Eircom to provide a range of services, including RFTS and broadband, to business and residential customers.

3.5 Eircom's RFVC and RFVA market shares, as measured in traffic volume and subscriber volume terms respectively, have declined gradually over the period Q4 2007 to Q3 2013.

3.6 In this respect, as of Q3 2013 there were a total of 1,507,684 RFVA subscriptions, having grown from 1,383,912 in Q1 2010. In Q3 2013 Eircom had approximately a 52.0% share of the total RFVA subscriptions[51] of which **[✂ [redacted]]** were business/non-residential subscribers and **[✂ [redacted]]** were residential subscribers.

[50] See paragraphs 3.65 to 3.70of this Consultation for further details on Eircom's NGA network roll-out/plans.

[51] See ComReg Quarterly Key Data Report, Q3 2013. This estimate includes RFTS subscribers that are provided on PSTN, cable, fibre, fixed-wireless and DSL networks.

3.7 As of Q3 2013[52], Eircom's RFVC traffic accounted for approximately 48.2% of total market RFVC traffic volumes, having declined from approximately 63% in Q4 2007[53]. This represents an annual decrease of just over 3% in the year ending Q3 2013.

3.8 The extensive nature of Eircom's network means that it is able to manage most of its call traffic independently, except in circumstances where it must terminate calls on the networks of other Service Providers.

3.9 To date, Eircom has been the sole supplier of FVCO and the largest supplier of Transit[54] services, both pursuant to SMP based regulatory obligations. In 2008, Eircom also began offering a new Wholesale Switchless Voice ('**Wholesale SV'**) service. Wholesale SV allows alternative FSPs to purchase end-to-end wholesale voice services so that they can provide RFTS without the need to have their own switching or interconnection infrastructure. Wholesale SV, sold by Eircom under the brand "White Label Access" ('**WLA**'), is a managed 'end-to-end' voice calls product that includes WLR, FVCO and Transit along with other non-regulated wholesale inputs. FSPs that use Wholesale SV to offer RFTS would fall under the 'Resale FSP' category identified in paragraph 3.2 above.

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[52] Calculated based on Eircom's fixed line traffic as a proportion of total (Eircom and alternative operators) fixed line traffic as published on http://www.comstat.ie/data/data.472.data.html

[53] Calculated based on Eircom's fixed line traffic as a proportion of total (Eircom's and alternative operators) fixed line traffic as published on http://www.comstat.ie/dataset/Database/Ireland/Quarterly%20Report%20Data/Quarterly%20Report%20Data.asp. As at Q3 2013, Eircom reported RFVC volumes of [✂ [redacted]] minutes out of a total of 1.289 billion RFVC minutes.

[54] See Paragraphs 1.34 to 1.36 for details of the previous market reviews undertaken for the FVCO and Transit markets to date.

3.10 UPC is also categorised as an Independent FSP[55] that has upgraded its cable television ('**CATV'**) network to the Data Over Cable Service Interface Specification ('**DOCSIS**') 3.0 standard[56] such that, as of Q3 2013[57], it is potentially capable of providing RFTS and broadband services to approximately 746,100 (45%) households. UPC started providing RFTS in 2006/7 by offering home phone services as an add-on to its subscription based TV and/or broadband services (i.e. RFTS are tied to/require the purchase of other services and are not available on a standalone basis). Since 2006, the number of its RFTS subscribers has grown, and as of Q3 2013 stood at 279,100 subscribers[58] giving it a market share of 18.5%. **[✂**[redacted]%**]** of UPCs subscribers are residential, with the remainder being business subscribers. As of Q3 2013, UPC's RFTS customers are generating **[✂**[redacted]**]** minutes of traffic, which represents approximately **[✂**[redacted]**]**[59] of all RFVC minutes for that period, **[✂**[redacted] since same period in 2012.

3.11 Another technology that has been used to provide RFTS and broadband services is Fixed Wireless Access ('**FWA**'). At the time of the 2007 Decision, FWA based Service Providers only offered broadband services (aside from an immaterial number of FWA narrowband voice connections)[60]. Since then, Imagine and Digiweb began offering RFTS as an 'add-on' to their retail broadband service. However, since 2007, demand for broadband and other services provided over FWA networks has fallen significantly and as at Q3 2013 stood at 61,975 subscribers, having declined by 3% since Q3 2012[61]. As a platform for the potential delivery of RFTS[62], FWA therefore appears to be in decline.

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[55] See paragraph 3.2

[56] This standard enables high speed broadband to be delivered over a CATV network.

[57] Figures in this paragraph are based on information provided to ComReg in the context of the ComReg Quarterly Key Data Report, Q3 2013 and information available in the "UPC Holding Reports Third Quarter 2013 Results", press release available from: http://www.libertyglobal.com/pdf/press-release/upc-holding-press-release-q3-2013-final.pdf.

[58] Virtually all of those home phone subscribers being supplied with a Managed VOIP-based RFTS service (As at Q3 2013 UPC reported providing **[✂**[redacted]%)**]** of its RFTS subscriptions over a narrowband connection**)**. As at Q3 2012, UPCs RFTS subscribers stood at 223,418 with growth of 55,682 subscribers in the year to the end of Q3 2013. UPCs growth rate of its RFTS subscribers in the year Q3 2011 to Q3 2012 stood at 75,797.

[59] ComReg Quarterly Key Data Report, Q3 2013.

[60] ComReg Consultation. Market Analysis – Wholesale Call origination and transit services. Document 07/02. 19 January 2007.

[61] FWA subscriptions (whether broadband and/or RFTS) stood at 94,096 in In Q1 2007, thereby showing a decline of 34% in the period ending Q3 2013.

[62] Based on available data, ComReg estimates that RFTS provided over FWA networks is less than **[✂**[redacted]**]** subscriptions. In this respect the two principal FWA providers offering RFTS on their FWA platforms are Imagine and Digiweb, with the estimated maximum RFTS subscriptions for these FSPs being **[✂**[redacted]**]** and **[✂**[redacted]**]** respectively.

3.12 It is notable that a number of Mobile Service Providers ('**MSP(s)**') have also begun offering RFTS since the 2007 Decision. In particular, Vodafone, the largest MSP in Ireland in subscriber terms, has commenced providing RFTS, using wholesale inputs purchased from Eircom and BT Ireland. O2 also provides RFTS services but predominantly to business customers using wholesale services purchased from Eircom (based on Wholesale SV). Eircom also provides both RFTS and Mobile Telephony Services ('**MTS**').

3.13 The increased participation by MSPs in the provision of RFTS services has been enabled through having access to a range of wholesale products provided over fixed network infrastructure, as well as, in some cases, using mobile network inputs (in the latter case used to provide RFTS to a fixed location).

3.14 Vodafone is a partially independent FSP[63] and offers RFTS as well as a range of product bundles (including RFTS and broadband). Vodafone's RFTS subscriber market share as at Q3 2013 stood at 16%. As of Q3 2013[64], Vodafone had a RFVC traffic market share of **[✂ [redacted]]**[65] a figure that has **[✂ [redacted]]**. This traffic was largely attributable to Vodafone's range of fixed services branded as 'Vodafone at Home'. Vodafone entry into the RFTS market and broadband markets was initially facilitated through its acquisition of an FSP called Perlico (and its customer base) in 2007[66], as well as the subsequent acquisition of BT Ireland's, then residential and Small to Medium Enterprise ('**SME**') retail customer base in 2009[67] (BT Ireland was at that time the second largest RFVC provider behind Eircom). Vodafone also acquired Cable and Wireless. These acquired retail customers were migrated to Vodafone's RFTS and fixed broadband services. Vodafone concurrently agreed a contract with BT Ireland regarding the purchase of a range of wholesale services, including Wholesale SV and Wholesale Broadband Access ('**WBA**')[68] (with BT Ireland's WBA product supplied over its LLU infrastructure). Vodafone also buys Wholesale SV and WBA (both current generation and NGA based Bitstream) from Eircom to serve its customers located outside of BT Ireland's LLU footprint. These services enable Vodafone to offer RFTS and retail fixed broadband services.

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[63] See paragraph 3.2 above.

[64] ComReg Quarterly Key Data Report, Q3 2013.

[65] As of Q3 2013**,** Vodafone reported **[✂ [redacted]]** minutes of fixed voice traffic relative to total retail traffic of 1.289 billion minutes.

[66] See Vodafone press release "Vodafone Answers the Call with Complete Telecoms Portfolio" - http://www.vodafone.ie/aboutus/media/press/show/BAU004000.shtml?date=May+27%2c+2008

[67] See "BT and Vodafone Agreement Approved by the Competition Authority" - http://www.vodafone.ie/aboutus/media/press/show/BAU006036.shtml?date=August+24%2c+2009

[68] The WBA market corresponds to market 5 in the 2007 Recommendation and refers to a non-physical or virtual wholesale input used in the provision of a range of retail products, which are used by consumers for broadband internet access. Eircom is subject to a number of SMP regulatory obligations in the WBA market through which it provides access to current and next generation wholesale broadband products.

3.15 Vodafone also launched a service branded as 'One Net Express' in 2012 which is a telephone service[69] that is provided directly by Vodafone over its mobile network, but with a geographic telephone number associated with a fixed location. This highlights the possibility for a MSP to use non-wired or wireless-based network inputs to also provide RFTS services. This One Net Express product is targeted at business customers and enables incoming calls made to the businesses' geographic telephone numbers (which are usually associated with a fixed telephone) to be received on employees' mobile telephones. The One Net Express product is marketed by Vodafone as an integrated fixed and mobile voice communications solution[70].

3.16 Sky is categorised as a Resale FSP that has recently launched a range of retail bundles that include RFTS along with broadband and subscription based television ('**Pay TV'**) services. These services are offered using Wholesale SV and WBA services purchased from BT Ireland (with BT Ireland also re-selling Sky Eircom's WBA product). In addition to offering product bundles, Sky also offers RFTS on a standalone basis[71]. Since launching these services in June 2013, Sky's RFTS market share has reached 2.9%[72]. Sky's growth is likely aided by its ability to cross sell to its extensive existing base of Pay TV customers and its ability to offer bundled services, including triple play bundles[73].

3.17 Having regard to data provided by Service Providers for the purpose of ComReg's Quarterly Key Data Reports, an analysis of the types of networks being used to provide RFTS indicates that the number of narrowband lines has declined from just over 2.1 million in Q1 2007 to approximately 1.642 million in Q3 2013. Over the same period alternative technologies/platforms, with the exception of FWA, have experienced growth in the number of connections. In this respect, UPCs CATV network has been the fastest growing platform, with UPC having increased its number of overall RFTS subscriptions from 600 in Q1 2007[74] to 279,100 as at Q3 2013.

[69] The customer receives a geographic telephone number and there are contractual obligations that prevent the use of a One Net Express telephone device outside of the area associated with the geographic number allocated to the telephony device.

[70] This product is described and analysed in the retail market assessment section of this Consultation.

[71] However, the retail prices for this standalone product are akin to the prices charged for some of its bundled RFTS and broadband offerings. For example, Sky's standalone RFTS, which includes line rental and inclusive call elements, costs €37.50 per month.

[72] See Figure 2 above.

[73] Triple play bundles typically refer to as a retail bundle of television, broadband and RFTS services.

[74] Liberty Global, "Liberty Global Reports First Quarter 2007 Results", press release available from: http://media.corporate-ir.net/media_files/irol/19/191835/news/Q107_press.pdf

3.18 Total fibre connections used to provide RFTS have also grown marginally[75] since 2007, but still are used in less than 1% of total RFTS subscriptions.

3.19 The main platforms used to provide RFTSs are, therefore, Eircom's PSTN based narrowband platforms (including the use by Access Seekers of Eircom's SB-WLR service, and the purchase through BT Ireland, of the resale of Eircom SB-WLR and/or Wholesale SV) and UPC's CATV network.

3.20 Having described, in general terms, the main platforms over which RFTS services are supplied, the remainder of this section describes relevant headline trends and developments that have occurred since 2007.

Changes in Fixed and Mobile Traffic Growth Patterns

3.21 Since the 2007 Decision there have been changes in the levels of RFVC traffic and mobile Voice Traffic. These are discussed below.

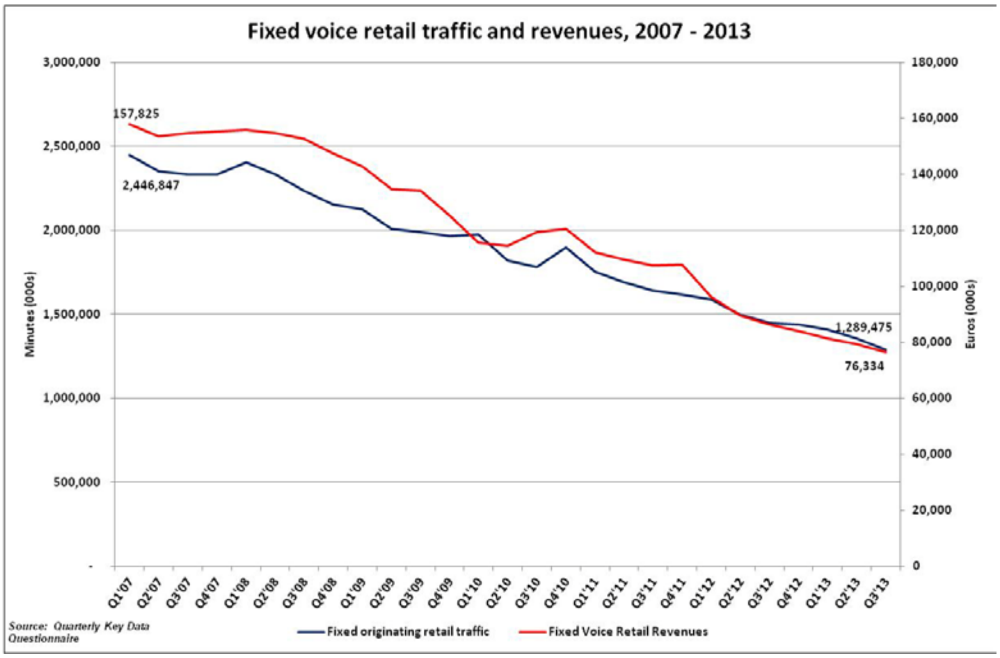
Decline in RFVC traffic

3.22 As shown in Figure 4 below, an overarching trend since the 2007 Decision has been a steady decline in RFVC traffic and revenues. Since 2007 the rate of decline in RFVC traffic has been relatively steady, having fallen from 2.45 billion minutes in Q1 2007 to 1.289 billion minutes in Q3 2013, a decrease of approximately 47%[76]. Similarly, revenue attributable to RFVC traffic has declined by 51.6% over the same period.

[75] Eircom's NGA network, which is predominantly based on a Fibre to the Cabinet ('**FTTC**') topology, is discussed in paragraphs 3.65 to 3.70 below. Notwithstanding Eircom's roll-out of its NGA network, it continues to provide RFTS on its narrowband copper based PSTN. Eircom's plans with respect to the launch of VoIP based RFTS are discussed later.

[76] Based on data in the ComReg Quarterly Key Data Report, Q1 2007 and in the intervening periods up to the ComReg Quarterly Key Data Report, Q3 2013.

Figure 4: Fixed traffic volumes and revenues, 2007-2013[77]



3.23 However, the same trend has not been observed for RFVA subscriptions, whether bought on a standalone basis or as part of a bundle. As evidenced from Figure 2 above, in Q3 2013 there were 1,507,684 fixed voice subscriptions (an increase of 0.9% on Q2 2013 and an increase of 3.9% on Q3 2012). Fixed voice subscriptions are increasing quarter on quarter since Q1 2011. As of Q3 2013 Eircom had 52% of all fixed voice subscriptions followed by UPC (19%), Vodafone (16%) and Sky (2.9%).

3.24 Overall, the aforementioned trends are illustrative of a somewhat declining RFVC market with some growth in RFVA subscriptions over the same period, which may indicate that demand for RFVA is been driven by demand for fixed broadband services and broader retail bundles (see paragraphs 3.55 to 3.64 below).

Growth in Mobile Voice Traffic

3.25 Over the same period, there has been significant growth in mobile voice traffic volumes although this has remained relatively flat in recent years. Figure 5 below shows the trends in the volume of mobile call and RFVC originated voice minutes since 2007.

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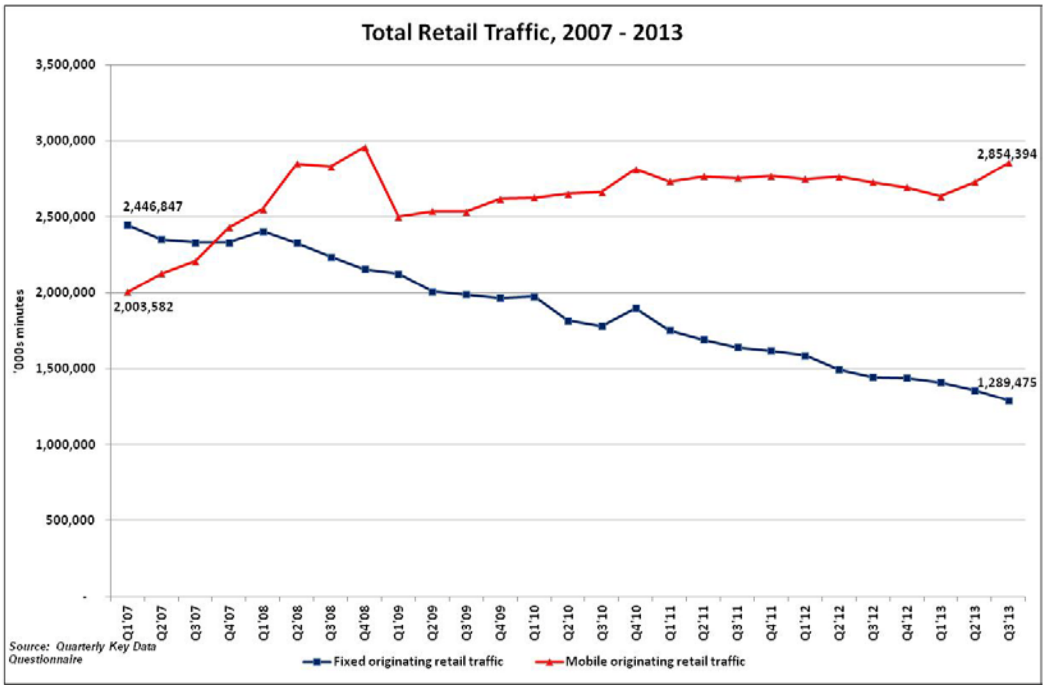
[77] Relevant categories, as reported in ComReg's Quarterly Key Data Reports, included in fixed retail voice revenues above are as follows: Advanced Voice Revenues, Basic Voice Revenues, and VOIP Revenues. Voice revenues illustrated in Figure 3 exclude installation and connection charges in order to specifically analyze revenues uniquely attributable to voice traffic.

Figure 5: Fixed and mobile voice traffic trends, 2007–2012[78]



3.26 Mobile voice traffic increased by 42% between Q1 2007 and Q3 2013. After an initial spike in 2008[79], mobile traffic declined in Q1 2009 and then it grew until Q4 2010. At that stage mobile traffic growth flattened off, before entering a phase of slight decline in 2012 before recovering again 2013.

3.27 The 2012 Market Research[80] also showed that 36% of household respondents were mobile-only households[81]. This suggests that most households (64%) still prefer to have a RFTS. The 2013 Consumer ICT Survey showed that 69% of households had a fixed line phone, suggesting up to 31% were mobile only households[82]. ComReg notes that, for some households, the importance of a RFTS may also be related to the requirement to date for a telephone line to be in place in order to obtain a broadband service. The 2012 Market Research indicated[83] that households with a fixed line primarily use it for calling other fixed lines (66% to local/national fixed lines) as opposed to mobiles (22%).

[78] It should be noted that prior to Q1 2009 some mobile data minutes were included in mobile originating retail traffic figures. As these volumes are not based on voice calls, they were stripped out in ComReg's Quarterly Key Data Report for Q1 2009 onwards and, therefore, had a downward impact on overall mobile voice traffic in the period Q3 2008 to Q4 2008.

[79] Some of the traffic growth in Q3 2013 is attributed inclusion of data for an additional MSP (Lycamobile being a Mobile Virtual Network Operator) which were not, up to that point included in published data.

[80] See footnote 25 above.

[81] The 2012 Market Research, Slide 11.

[82] 2013 Consumer ICT Survey, Slide 10.

[83] The 2012 Market Research, Slide 25.

3.28 Those households with both a fixed line and a mobile phone primarily use their mobile for calling other mobiles (68%) as opposed to other fixed lines (26%).. Mobile only households made most of their calls to other mobiles (71%) rather than to other local/national fixed lines (20%)

3.29 In contrast, the 2012 Market Research showed that only 5% of businesses do not purchase a RFTS[84], which indicates that RFTS remains important for the significant majority of businesses. The 2012 Market Research also indicated that businesses primarily use a fixed voice service for all types of calls (e.g. calls to mobiles, local, calls, national calls etc)[85].

3.30 However, the continued trend for households, and especially businesses, to retain a fixed telephone line (as well as a mobile telephone in many cases) may reflect a perception that mobile telephones are more expensive for making some types of calls. For example, 68%[86] of residential respondents to the 2012 Market Research perceived the cost of making a call from a mobile telephone to be more expensive than the cost of a call from a landline (when calling a local or national geographic number).

3.31 The demand from the majority of end-users for both RFTS and MTS indicates that these services are used in different, but complementary, ways. For example, respondents exhibit clear selection of mobile-to-mobile and fixed line-to fixed line calls over mobile-to-fixed and fixed-to-mobile calls.

Growth in Supply of Managed VOB and Unmanaged VOIP

3.32 Another notable development since the 2007 Decision has been the growth of voice over internet protocol ('**VOIP**'). VOIP essentially refers to the communication protocols, technologies, methodologies, and transmission techniques involved in the transport of telephone calls over Internet Protocol ('**IP**') technology.

3.33 For the purposes of this Consultation, ComReg broadly categorises VOIP based RFTS into three main service types – Managed VOB, Partially Managed VOIP, and Unmanaged VOIP – each of which is first briefly described below before then being considered in further detail.

[84] The 2012 Market Research, Slide 84.

[85] The 2012 Market Research, Slide 106.

[86] The 2012 Market Research, Slide 36.

RFTS provided via Managed VOB

3.34 'Managed VOB', for the purpose of this Consultation, means that the Service Provider provides RFVC and an IP access path to its customer, either directly on its own network, or indirectly by renting the IP access path from a third party (e.g. using Wholesale Physical Network Infrastructure Access ('**WPNIA**')[87] or WBA inputs). A Managed VOB Service Provider will also typically have its own switching platform, interconnect path(s) and numbering allocations. A Managed VOB Service Provider can also manage their network so that it prioritises data traffic or can manage the quality of VOIP traffic on the IP access path in order to ensure that minimum quality of service requirements for the provision of RFVC are met (and consequently service would be broadly consistent with most or all of the standards and functional characteristics associated with a traditional RFVC service provided on a narrowband network).

3.35 In total, Managed VOB minutes accounted for approximately 11.4%[88] of total RFVC traffic in Q3 2013, having grown from 8.0% in Q4 2011[89]. ComReg estimates that there were over 324,000 Managed VOB subscribers in Ireland as of Q3 2013[90].

3.36 Amongst the main reasons for Managed VOB being used by Service Providers appear to be its potential cost-saving advantages arising from the ability to route voice calls over existing data (broadband) networks. This helps obviate the need to operate and maintain separate network infrastructure for voice services, thereby permitting cost savings through improved economies of scope and scale.

[87] Wholesale (physical) network infrastructure access ('**WPNIA**') (including shared or fully unbundled access) at a fixed location, more commonly known as Local Loop Unbundling ('**LLU**'), refers to the regulatory process of allowing alternative Service Providers to use physical access connections located between Eircom's telephone exchanges and the customer's premises for the purposes of supplying voice and broadband internet access services.

[88] ComReg Quarterly Key Data Report, Q3 2013; There were 146m Managed VOB minutes out of 1.289 billion retail minutes in total as at Q3 2013.

[89] See ComReg Quarterly Key Data Report, Quarter 4 2011; ComReg Document 12/20 (page 22). There were 130 million VOIP minutes out of 1.617 billion total retail minutes.

[90] ComReg Quarterly Key Data Report, Q3 2013 (page 23); Note that these traffic and subscription figures refer to Managed VOB only and do not include Unmanaged VOB services such as Skype.

3.37 A small number of alternative FSPs (i.e. FSPs other than Eircom[91]) have launched Managed VOB services, the significant majority of which are provided over UPC's CATV network (there are a small number of subscribers on alternative fibre-to-the-home ('**FTTH**') networks). Typically, these services are bundled with the provision of either broadband and/or Pay TV services. Managed VOB FSPs are typically allocated[92] geographic number ranges[93] or 076 number ranges which are in turn provided to their retail customers.

3.38 Some examples of such FSPs include the following:

- As described in paragraph 3.10 above, UPC launched Managed VOB services as an optional add-on to its broadband and/or pay-TV services in 2006. UPC's services are not available on a standalone basis, but only as part of a bundle, with UPC largely allocating geographic numbers to its subscribers.[94]
- Imagine offers Managed VOB services over FWA wireless technologies.[95]
- Digiweb offers managed VOB services over FWA and localised FTTH networks.[96]
- ComReg understands that Magnet provides Managed VOB over localised FTTH networks and over xDSL based broadband.[97]

3.39 Together, VOB based RFTS provided by Imagine, Magnet and Digiweb account for less that 2 % of all RFTS subscriptions.

3.40 To date there have not been any significant deployments of Managed VOB services by Access Seekers over wholesale broadband products purchased by them from Eircom (either using WBA or WPNIA products).

[91] See footnote 75 above.

[92] Either a primary or secondary allocation as defined in the the National Numbering Conventions, Version 7.0, ComReg Document 11/17, ('**National Numbering Conventions**') as may be amended from time to time. In summary it provides for the direct allocation or reservation of numbers by ComReg to individual network operators, service providers or users

[93] The current meaning of a geographic number in the National Numbering Conventions is a number from the national numbering scheme where part of its digit structure contains geographic significance used for routing calls to the physical location where the call is terminated on the network.

[94] As at Q3 2013, UPC had 279,100 RFVA subscribers, representing 19% of the RFTS market.

[95] As at Q3 2013, Imagine has a total of **[✂[redacted]]** RFTS subscribers availing of VOB over their FWA and FTTH networks.

[96] As at Q3 2013, Digiweb has a total of **[✂[redacted]]** RFTS subscribers availing of VOB over its FWA and FTTH networks. This represents less than 1% of the RFTS market.

[97] As at Q3 2013, Magnet has a total of **[✂[redacted]]** RFTS subscribers purchasing telephony services over FTTH networks and DSL. Some of this is based on VOB.

3.41 Currently, Eircom's RFVC and RFVA (and its wholesale FVCO and WLR services) are provided predominantly via its narrowband copper based network.[98] However, Eircom is currently rolling out a Next Generation Access ('**NGA**') network, predominantly based on a Fibre-to the Cabinet ('**FTTC**') network/topology.[99] ComReg's understands that Eircom **[✂** [redacted] **]**[100] However, Eircom's copper based narrowband network would still likely be predominantly used for the foreseeable future, including over the period of this review, to provide RFTS to customers located outside its NGA footprint, or to customers within the NGA footprint who are not purchasing NGA broadband.

3.42 As Managed VOB-based RFTS potentially become more widespread over time, there is the potential for a shift towards FSPs employing IP interconnection services instead of traditional circuit switched interconnection services.[101] A move to IP interconnection to facilitate the handover of calls between networks could be relatively easily achieved at IP peering centres (at which location the handover of other IP traffic is also managed) or using Wholesale Ethernet Interconnection Links ('**WEIL**') circuits. Since Eircom continues to be the main originator of RFVC (and receiver of inbound calls to its customers), a shift from 'current' circuit switched interconnection to 'next generation' IP based interconnection at an industry level is likely to be somewhat dependent upon Eircom's migration to such IP interconnection arrangements. This will be likely to involve significant co-ordination at an industry level (with assistance from ComReg, if required). This is likely to correspond to the deployment of Eircom's NGA network, and the provision by Eircom (and potentially OAOs) of VOB based RFTS over that network (and potentially current generation WBA products.

[98] See Next Generation Access ('NGA'): Proposed Remedies for Next Generation Access Markets, Response to Consultation, Further Consultation and Draft Decision, ComReg Document 12/27, 4 April 2012, page 30 and page 127.

[99] Eircom's FTTC network will involve the deployment of fibre beyond the local telephone exchange, to cabinets located at a street level. A Very-high-bit-rate digital subscriber line (VDSL) will then be established between the cabinet and the end-user's premises, over which a range of services can be provided, including RFVC. See further discussion about Eircom's NGA deployment in paragraph 3.65 to 3.71.

[100] This text sets out ComReg's understanding, based on information provided to it by Eircom, of Eircom's plans with respect to its launch of a VOB based RFTS service.

[101] Interconnection is a wholesale arrangement or service that consists of a physical or logical connection between two (or more) networks, over which voice traffic is handed in order to facilitate calls to be made between end-users that are connected to their respective Service Providers' networks.

RFTS provided via Partially Managed VOIP

3.43 Partially managed VOIP, for the purpose of this Consultation, means that the RFTS Service Provider does not provide the access path to its customers. Instead, the customer uses its own broadband service (procured from another Service Provider) to access the VOIP based RFTS. The partially managed VOIP service Provider will operate a switch and interconnect path(s) and, therefore, its own switching platform and numbering allocations.

3.44 Blueface offers a partially-managed VOIP service which relies on its RFTS customers also having an existing broadband connection supplied by a third party Service Provider. Blueface has its own switching and interconnection infrastructure and can therefore manage that part of the VOIP service directly, but it does not control the access network over which the partially managed VOIP based RFTS is provided. For example, the customer's handset, which is provided by Blueface[102], could be connected to a broadband modem supplied as part of a broadband service by a different Service Provider (i.e., in the case of a retail broadband service provided to the customer by Eircom or UPC).

RFTS provided via Unmanaged VOIP

3.45 Unmanaged or Over the Top ('**OTT**') VOIP, for the purpose of this Consultation, means that the Service Provider itself does not provide the access paths to its customers and does not have a switching platform and interconnection path(s). Its customers must access the Unmanaged VOIP service via the public internet or over other applications using their broadband connection provided by another supplier.

3.46 Since the 2007 Decision there has been an increase in the use of Unmanaged VOIP services by consumers, frequently accessed via a personal computer, laptop computer, smart phone or tablet device. These include services such as Skype[103], Google Voice[104] and Viber[105]. The 2012 Market Research indicated that 36% of households with a fixed broadband service in their home claimed to have used Unmanaged VOIP services. However, reported usage levels for Unmanaged VOIP services were much lower than for usage of traditional RFTS and MTS, with only 10% of respondents suggesting the use of Unmanaged VOIP services more than once a day (compared to 73% for other RFTS and 78% for mobile voice telephony).[106]

[102] According to the Blue Face website on 27 June 2013, the Blue Face telephone service requires 85 kbps to make a quality phone call. For more information, please see www.blueface.ie.

[103] See: http://www.skype.com/en/.

[104] See: http://www.google.com/voice.

[105] See: http://www.viber.com/.

[106] The 2012 Market Research, slide 24.

3.47 In addition to the above, residential respondents to the 2012 Market Research identified a clear difference in usage preferences between Unmanaged VOIP services and other voice telephony services. For example, household respondents indicated[107] a clear preference for using their landline, rather than their mobile telephone, to make calls to other fixed numbers (e.g. 80% preferred to use their RFTS for calls to national fixed numbers) whereas Unmanaged VOIP was cited as their communications method of choice for calls by only a very small number of respondents (e.g. only 2% preferred to use Unmanaged VOIP for calls to national fixed numbers). However, a higher but still relatively low number of respondents indicated Unmanaged VOIP as their communications method of choice for international calls (11% preferred to use Unmanaged VOIP for international calls compared to 55% preferring RFTS and 12% preferring MTS making international calls).

3.48 The product characteristics of Unmanaged VOIP services compared with other RFTS are considered in Section 4 of this Consultation in the context of the Retail Market Assessment[108].

Tendency for RFVC and RFVA to be sold together and purchased from a single supplier

3.49 ComReg has identified a strong tendency for RFVC and RFVA to be purchased from a single retail FSP.

3.50 At the time of the 2007 Decision it was common for FSPs to purchase wholesale Carrier Pre-select ('**CPS**')[109] from Eircom and to utilise this to provide RFVC customers, with the customer purchasing the line rental element separately from Eircom. However, since 2007 there has been a gradual but significant decline in demand for CPS, falling from 111,521 CPS lines[110] in Q1 2007 to 15,982 in Q3 2013 and, as a consequence the availability of standalone RFVC service from FSPs is very limited. FSPs now instead favour the purchase of Eircom's SB-WLR[111] and Wholesale SV products or similar wholesale products available from BT Ireland[112]. These enable FSPs to provide both RFVC and RFVA to retail customers. i.e., RFTS. Other vertically integrated FSPs such as Eircom and UPC supply RFTS too.

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[107] Ibid.

[108] See paragraphs 4.142 to 4.151 below.

[109] See paragraph 1.12 above.

[110] It should be noted that Figure 2.2.2 of ComReg's Quarterly Key Data Report for Q3 2013 reports on 'access paths' rather than lines. For example, a single ISDN line could have up to 30 access channels on it.

[111] See paragraph 1.11 above. As at Q3 2013, there were 375,351 SB-WLR access paths having risen from 352,052 in Q3 2011.

[112] In some cases BT re-sells Eircom's SB-WLR Service and/or combines Eircom's WLR with its own Wholesale SV service.

3.51 In paragraph 3.9, ComReg also notes that apart from the above CPS and SB-WLR services, Eircom also sells a WLA service to Access Seekers and as at Q3 2013[113] there were 123,467 WLA based access paths (or 89,928 lines)[114].

3.52 As at Q3 2013[115] SB-WLR used by Access Seekers accounted for 71.4% of indirect access paths (being 375,351 SB-WLR paths, 123,467 WLA paths and 27,114 CPS paths) compared to 74.6% in Q3 2011. WLA paths account for 23.5% of total indirect access paths compared to 15.6% in Q3 2011. The share of CPS only indirect access paths has declined by 4.6 percentage points in the last two years and as at Q3 2013 accounts for 5.2% of overall indirect access paths.

3.53 When expressed in terms of the number of lines, there were 337,881 SB-WLR lines, 89,928 WLA lines and 15,982 CPS lines. The share of CPS lines when taken as a percentage of overall RFTS subscriptions[116] (including PSTN, ISDN and VOB over CATV networks) is approximately 1%. As a percentage of total indirect access lines (SB-WLR, WLA and CPS)[117], CPS accounts for 3.6%.

3.54 These developments are likely to reflect the complementarity at the retail level between RFVC and RFVA as well as indicating the potential for different call substitution possibilities for consumers having both a RFTS and MTS.

Increased take-up of bundled retail services

3.55 A further development in the period since the 2007 Decision has been the growth in the number of consumers purchasing RFTS as part of a package[118] or bundle containing other services.

3.56 As illustrated by Figure 6 below, the two most common types of bundles provided by FSPs in Ireland are:

- Double play bundles – these typically bundle RFTS with either a broadband service or Pay TV service.
- Triple play bundles – these typically bundle RFTS with broadband along with a Pay TV service.

[113] See paragraph 2.2.2 of ComReg's Quarterly Key Data Report, Q3 2013.

[114] Note that an access path (as opposed to subscriptions) refers to the number of voice channels available so that, for example, a PSTN line equates to 1 access path, ISDN BRA equated to 2 access paths and ISDN FRA/PRA equates to between 15 and 30 access paths.

[115] ComReg Quarterly Key Data Report Q3 2013.

[116] There were 1,507,684 RFTS Subscriptions in Q3 2013 – see Figure 2.

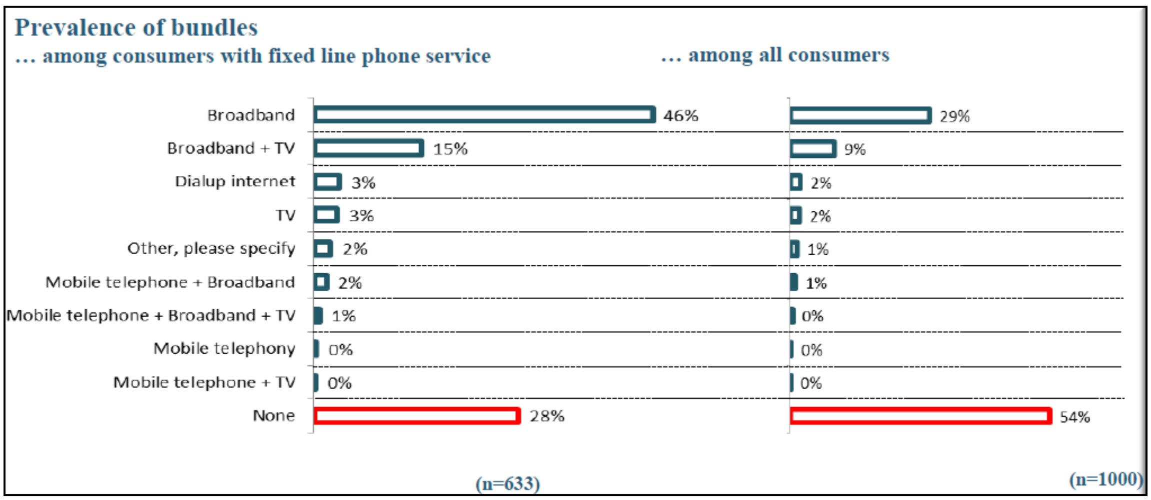
[117] There were 443,791 indirect access lines in Q3 2013.

[118] For the purpose of this Consultation, a package is defined as a RFTS combining line rental with a fixed or unlimited minutes number of 'free' minutes included within it for a set price.

3.57 In addition to these types of double-play and triple-play bundles[119], quadruple play bundles (RFTS, broadband, Pay TV and mobile services) have emerged recently following Eircom's entry into the Pay TV market coupled with its MTS services offered through its eMobile brand[120].

3.58 Figure 6 below (taken from the 2012 Market Research[121]) illustrates that 72% of households with a RFVA purchased it as part of a bundle[122]. The most commonly purchased bundle was RFTS bundled with broadband (46% of all RFVA subscribers), with the second most common bundle being a triple play product that bundles RFTS with broadband and Pay TV (15% of all RFVA subscribers).

Figure 6: Prevalence of bundles



3.59 More recent data provided to ComReg for the purpose of its Q3 2013 Quarterly Key Data Report shows that 69% of residential RFTS subscribers purchase the service as part of broader bundles that can be comprised of various combinations of Pay TV, broadband, and MTS. In this respect, 45% of all residential RFTS subscribers purchased the service with broadband, whereas 18% of all residential RFTS subscribers purchased the service with broadband and Pay TV.

3.60 Figure 7 below also shows the proportion of RFTS purchased on a standalone basis as opposed to as part of a bundle. Standalone RFTS has fallen from 54.3% to 38.65% in the period Q1 2010 to Q3 2013. Over the same period RFTS purchased as part of a bundle has increased from 45.65% to 61.35%.

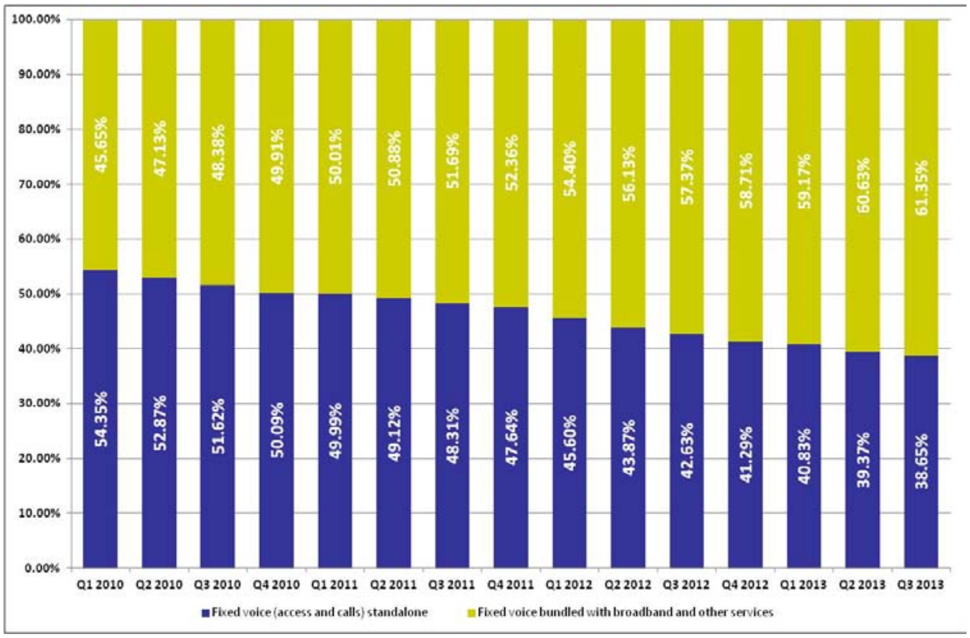
[119] For example, 2 FSPs offer residential mobile services bundled with RFTS, namely Eircom and Vodafone. Such offerings emerged in Q3 2012 and at Q3 2013, the number of subscriptions stood at approximately **[✂[redacted]].**

[120] Eircom's Pay TV product is called eVision, and is advertised on Eircom's website at https://www.eircom.net/tv/?pageversion=full

[121] The 2012 Market Research, Slide 19.

[122] Respondents were asked "Do you buy any of the following services as part of a bundle with your fixed line voice telephone service?"

Figure 7: RFTS purchased on a standalone basis and in a bundle



3.61 The 2012 Market Research[123] also indicated a high prevalence of businesses purchasing a RFTS bundled with other products. In this respect, 46% of business respondents reported purchasing RFTS within a bundle, with 70% of those bundles being comprised of RFTS and broadband.

3.62 More recent data provided to ComReg for the purpose of its Q3 2013 Quarterly Key Data Report shows that 30% of business RFVA subscriptions are purchased in a product bundle, with this nearly always being with broadband.

3.63 This suggests that, for many households and businesses with a fixed telephone line, the cost of RFVCs is likely to make up only a small portion of the overall cost of the product bundle.

3.64 ComReg also notes that the growth in the number of RFTS subscriptions provided over UPC's CATV network within certain urban areas has been a driver of the trend towards the purchase of products in bundles.[124] Eircom and Vodafone have also both been active since 2007 in offering double play and triple play bundles. More recently, the entry of Sky into the RFTS and broadband markets is likely to further bolster this trend of the provision RFTS as part of a broader product bundle.

[123] The 2012 Market Research, Slide 92.

[124] It should be noted that UPC's fixed voice telephone service cannot be purchased as a standalone service and must be purchased with either a broadband or television service.

NGA Network Roll-Out by Eircom

3.65 As noted in paragraph 3.4, Eircom is currently engaged in an NGA network upgrade which involves the deployment of fibre deeper into its local access network (closer to the customer premises). The upgrades should allow Eircom to offer, amongst other things, enhanced broadband services with higher download speeds and advanced quality of service.

3.66 Eircom's NGA network is largely based on a Fibre to the Cabinet ('**FTTC**') network topology. This means that the existing local copper line (also referred to as the local loop) located between the nearest local telephone exchange (or equivalent) and the customer's premises is partially replaced with fibre, typically up to a local distribution point/cabinet located in closer proximity to the customer's premises. Eircom also has a limited deployment of a fibre-to-the-Home ('**FTTH**') network topology, whereby the entire local copper loop is replaced with a fibre connection. i.e., fibre runs between the local exchange and the customer's premises. These FTTC/FTTH network topologies, coupled with the use of more advanced broadband network technologies, are ultimately designed to support the provision of high speed broadband, multimedia (including Pay TV[125]), and RFTS services to subscribers.

3.67 In November 2013, Eircom announced that its NGA network was on track to pass 700,000 premises by the end of that year and that its NGA coverage footprint expected to ultimately cover 1.4 million premises by July 2016.[126]

3.68 As at Q3 2013, Eircom reported **[✂[redacted]]** NGA based VDSL retail broadband subscribers and an additional **[✂[redacted]]** wholesale NGA based VDSL subscriptions giving a total of 41,586 VDSL subscriptions.[127] These VDSL based subscriptions will often be sold alongside RFTS. More recent data provided to ComReg by Eircom shows that total VDSL broadband subscriptions (either Eircom retail or Access Seekers providing retail services using wholesale VDSL purchased from Eircom) stood at **[✂[redacted]]** as at December 2013.

3.69 It should be noted that while Eircom is deploying FTTC (and FTTH to a much lesser extent) it has, for now, also continued to operate and utilise its existing copper narrowband connection (between the local exchange and the customer's premises) in parallel with its FTTC and FTTH NGA network.

[125] Eircom's Pay TV service is branded as 'eVision' and was launched in October 2013. Details are available at http://pressroom.eircom.net/press_releases/article/eVision_Shakes_Up_the_January_Blues/.

[126] This information is based on a November 2013 Eircom's press release available at http://pressroom.eircom.net/press_releases/article/eircom_announces_plans_to_extend_its_fibre_broadband_footprint_to_1.4_milli/.

[127] Figures based on information provided to ComReg for the purpose of its Quarterly Key Data Report. Only the total figure is presented for reasons of commercial sensitivity.

3.70 Eircom is also likely to largely continue to provide its RFTS (and its SB-WLR and Wholesale SV service) over this copper narrowband network over the period of this review (particularly for RFTS customers who do not purchase broadband services). However, as noted in paragraph 3.41, Eircom **[✂** [redacted] **]**. Within at least the NGA area, ComReg would ultimately expect that an Eircom VOB based platform would replace the traditional circuit switched delivery of RFTS over Eircom's PSTN narrowband network.[128]

Overall Preliminary Conclusion on Retail Trends and Developments

3.71 Having regard to the discussion in paragraphs 3.1 to 3.70 above, ComReg is of the preliminary view that the most notable retail trends of potential relevance to the FVCO and transit markets are:

- An increase in the number of competing FSPs, with a mix of technologies/platforms used by such FSPs to provide RFTS. Notable entrants in the RFTS market since the last review include Sky, UPC and Vodafone[129];
- A decline in overall RFVC traffic and growth in mobile voice traffic (that has been relatively static since Q4 2010), although a significant proportion of residential and business users continue to avail of RFTS. It is also notable that consumers appear to use RFTS and MTS for different purposes and perceive price differences between the two services;
- MSPs, most notably Vodafone, have become active in the provision of RFTS using both wholesale inputs from other FSPs, as well as more recently using their mobile technology/networks to deliver RFTS (to a fixed location)[130];
- Growth in the provision of Managed VOB based RFTS has been observed, particularly where offered as part of a bundle over UPC's CATV network. While Unmanaged VOIP services are used, the degree of substitution from RFTS to Unmanaged VOIP services appears to be limited, and the pattern of usage for Unmanaged VOIP appears to be much less frequent than for other voice telephony services.

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[128] Eircom has indicated to ComReg in a presentation dated November 2013 that **[✂** [redacted] **"]** thus suggesting that its PSTN infrastructure will continue beyond the period covered by this market analysis.

[129] Vodafone's entry will be somewhat balanced by BT Ireland's exit from the RFTS market (with BT's residential and SME customer base having being bought by Vodafone).

[130] The number of users of Vodafone's One Net Express Service stood at **[✂** [redacted] **]** as at the end of January 2014.

- There is a trend for the increased consumption of services in packages and bundles. RFVC and RFVA are typically sold/purchased together and such RFTS are often bundled with broadband and/or television services. Mobile services are also being offered in bundles with RFTS. These trends appear to have corresponded with the entry of UPC and Sky into the broadband and RFTS markets, both of which offer product bundles to consumers.
- Eircom has launched an NGA network, which has the potential to support a full range of services including RFTS, Pay TV, and broadband. This is ultimately likely to result in a technological shift in the way in which Eircom provides RFTS to customers using NGA based broadband services, in particular through VOB.

Question 1:	**Do you agree that the main developments identified in the provision of RFTS are those which are most relevant in informing the assessment of the Relevant Markets? Please explain the reasons for your answer, clearly indicating the relevant paragraph numbers to which your comments refer, along with all relevant factual/empirical evidence supporting your views.**

4 Retail Market Assessment

4.1 In this section, ComReg outlines some of the main structural and behavioural characteristics in the provision of RFTS. ComReg is not obliged to conclude on a precise definition of a RFTS market within this market review. Rather, the purpose of this section is to inform ComReg's subsequent assessment of the definition and competition assessment of the FVCO and Transit markets in Sections 5, 5.217 and 7 of this Consultation, including with respect to the strength of any indirect constraints from the RFTS market on such wholesale markets.[131]

4.2 To this end, this section considers the following issues:

- The likely scope of the RFTS market from a product perspective, including
  - identifying the focal RFTS product being the starting point from which ComReg will consider whether any likely effective potential substitutes exist (discussed in paragraphs 4.4 to 4.46);
  - factors affecting the responsiveness of consumers to changes in prices of RFTS (paragraphs 4.47 to 4.78);
  - potential effective substitutes for RFTS (paragraphs 4.79 to 4.189); and
- the likely geographic scope of the RFTS market (paragraphs 4.190 to 4.219).

4.3 As part of the above assessment, ComReg considers the 2012 Market Research, information provided by Service Providers in response to ComReg requests for information (using our statutory information gathering powers), as well as other data available[132]. ComReg has used this information to inform its retail analysis, rather than acting as a definitive source for the definition of a relevant retail market. In addition, given the absence of the availability of clear and precise data regarding elasticities of demand for access and calls (the narrowest retail service driving demand for the focal at wholesale level) and potential substitutes, ComReg considers the HMT in a general sense, and uses this as an additional tool to help inform its consideration of relevant issues alongside other available qualitative and other data.

[131] Indirect constraint might arise in the provision of FVCO or Transit if (1) purchasers of FVCO or Transit pass on wholesale price increases to RFVC customers through retail price increases (2) consumers were aware of, and responsive to these retail price changes (3) and a sufficient number of these customers were likely to switch to alternative modes of communication in response to retail price increases (not the retail arm of the FVCO or Transit provider). In which case, indirect constraints could act to constrain the wholesale price-setting behaviour of a Hypothetical Monopolist ('**HM**') supplier of FVCO or Transit.[131]

[132] Such data includes information provided by Service Providers to ComReg to support its Quarterly Report publications, publicly available information (including information on Service Providers' websites), as well as information gathered by ComReg as part of its general market monitoring role.

RFTS Product Market

Identifying the focal RFTS product

4.4 The European Commission's Notice on Market Definition and SMP Guidelines[133] provide market definition principles that are useful and applicable when analysing markets, including retail markets. The first step involves identifying the focal product at the retail level which, once established, can then be used as the basis for assessing potential complement and/or product substitute[134] products.

4.5 In the first instance, we are concerned with the FVCO market as identified by the European Commission in the 2007 Recommendation and the Transit market[135] which enable the provision of RFVC by FSPs. For this reason, the logical starting point for this retail market assessment is RFVC. i.e., calls made from a fixed location. However, RFVC services take a number of forms (for example, calls to different types of numbers such as to other fixed lines, mobiles and international destinations), and is often bundled with other services. ComReg considers below whether the focal product should be adjusted to such features of the market into account.

4.6 Once the focal point has been identified. ComReg can then assess the willingness of customers to substitute the focal product for alternative products such as, for example, calls made from a mobile phone or using a VOB/VOIP service.

Do retail fixed voice calls form part of a broader retail market including retail fixed voice access?

4.7 As noted in paragraph 4.5 above, ComReg starts by treating RFVC made over a fixed narrowband network as the initial retail focal or candidate product. However, it might be that that competition occurs for a bundle of services that includes RFVC (rather than for RFVC alone), in which case it is important to account for this when defining markets, and when assessing competition.[136]

[133] See paragraph 41 of the SMP Guidelines and paragraph 16 of the European Commission's Notice on Market Definition.

[134] As noted in paragraph 13 of the European Commission's Notice on Market Definition, demand substitution constitutes the most immediate and effective disciplinary force on the suppliers of a product, and paragraph 15 notes further that *"…the assessment of demand substitution entails a determination of the range of products which are viewed as substitutes by the consumer".* For two products to be effective demand-side substitutes it is necessary that a sufficient number of customers are not only capable of switching between them, but would actually do so in response to a relative price change. As noted in paragraph 20 of the Commission's Notice on Market Definition, supply-side substitution may also be taken into account where *"…suppliers are able to switch production to the relevant products and market them in the short term without incurring significant additional costs or risks in response to small and permanent changes in relative prices"*.

[135] As noted in paragraph 1.22, the Transit market is no longer identified in the 2007 Recommendation but is currently subject to SMP regulation arising from the 2007 Decision.

[136] ComReg's approach to assessing bundles in the context of market analysis is set out in Appendix B of this Consultation.

4.8 There is a notable distinction between RFVC and the underlying RFVA service. RFVA provides a platform that enables an end-user to make and receive calls, or to avail of other services such as broadband.[137] Whereas calls are a service purchased over that platform, either separately on a call-by-call basis, or as part of a broader package. While SMP based retail regulation in respect of RFVCs was removed by ComReg in 2007 following a review[138], ComReg continues to impose regulatory obligations on Eircom to provide RFVA pursuant to the 2007 RNA Decision[139].

4.9 The Explanatory Note to the 2007 Recommendation also makes a distinction between the underlying wholesale access (a fixed network connection) and usage (actually making calls) components of a RFTS.[140] This is because, for example, customers may choose separate undertakings to provide each of these respective services, and because a RFVC provider that relies on CPS to provide the service would be unlikely to enter the RFVA market in response to a SSNIP[141] (which seeks to assess the extent of substitution to alternative products in the event of a small but significant price rise in the focal product) by a hypothetical monopolist ('**HM**'). For example, customers may purchase RFVA from Eircom and then purchase RFVC from another FSP. This means that, in theory, an FSP that raises the price of calls above the competitive level would risk its customers switching their call purchases to an alternative FSP (or MSP).

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[137] The relationship, and any complementarity, that exists between RFVA (line rental) and RFVCs is examined later in this section.

[138] Market Analysis, Retail Fixed Calls Market Review, Assessment of the Three Criteria for *ex ante* Regulation and Withdrawal of SMP Obligations, ComReg Document 07/111, Decision 07/07, December 2007 (the '**2007 Retail Calls Market Review**'),

[139] See paragraph 1.20 above.

[140] The European Commission's Explanatory Note to the 2007 Recommendation, Page 23

[141] An economic analytical mechanism for defining a relevant product through demand side substitution analysis consists of an examination of consumer behaviour in response to price increases and is known as the hypothetical monopolist test (HMT). This HMT consists of observing whether a small but significant non-transitory increase in price (SSNIP) above the competitive level - taken to be in the range of 5 to 10% - of a candidate product supplied by a hypothetical monopolist (HM) would provoke a sufficient number of consumers to switch to an alternative product (a substitute product) such that it would make the price increase unprofitable. If a sufficient number of subscribers switching to the alternative product renders the price increase unprofitable, then the alternative product is included in the relevant product market. The HM is carried out for any given number of alternative products which, by their characteristics, prices and intended use, may constitute an effective substitute to the candidate product. If switching to these alternative products is sufficient to also render the SSNIP (above the competitive level) of the candidate product unprofitable, then these are also included in the definition of the relevant product market.

4.10 However, as noted in Section 3[142], in practice RFVC and RFVA now tend to be purchased from the same FSP. Furthermore, the 2012 Market Research indicated that RFVA and RFVC are typically purchased as part of a broader 'bundle of services' most commonly alongside broadband.[143] For example, 72% of residential respondents and 46% of business respondents purchased a RFTS as part of a broader product bundle.

4.11 Customers might also buy RFVA (which could include a minimum allocation of complementary calls) in order to avail of a broadband service that is provided over the same access path. However, ComReg also notes that, having purchased RFVA that includes a bundle of inclusive RFVC, or the ability to make RFVC on a pay-as-you-use basis, in many cases consumers remain free to make calls via other networks, devices and technologies (such as via their mobiles). In this respect, in Section 3[144] ComReg also noted the apparent complementary usage of fixed and mobile services by both households and businesses.

4.12 The pricing of RFVA and RFVC sold on a standalone basis (i.e. not bundled with other services) can be fundamentally different, in that line rental is normally priced as a one-off payment per month (or every two months), while calls outside of any inclusive bundled minutes are typically priced at an additional rate that sometimes differs depending on whether, for example, the call is a local, national or international call (and sometimes the time of day the call is made).

4.13 However, FSPs often offer RFTS packages that include both RFVA and a defined[145] or unlimited amount of RFVC at a single price point (i.e. without disaggregating prices for the individual RFTS elements of the package). For example, Eircom's Talk Weekend Package is advertised at a price of €25 per month. This product includes both line rental and free calls to local/national fixed lines during the weekend.[146] In this case, the product is constructed in a way that involves no additional cost being incurred by customers when making those specified call-types at the relevant times. For those customers who purchase a RFTS product with an allocation of call minutes included in the overall package or bundle price, there is likely to be a stronger incentive for customers to use that fixed line telephone to make those types of calls than would otherwise be the case if the RFVC element of the RFTS what charged on a on a pay-as-you-use basis.

[142] See paragraphs 3.49 to 3.54 above.

[143] The 2012 Market Research, slides 19 (residential respondents) and 92 (business respondents).

[144] See paragraphs 3.27 to 3.31 above.

[145] After the set amount of minutes within a plan has been used, calls are charged on a per call basis.

[146] Eircom's Talk Weekend package information retrieved from www.eircom.ie on 24 January 2014.

4.14 The up-front decision involved in choosing a RFTS provider appears to be distinct from and have a broader impact than the subsequent iterative decisions about which service (mobile or fixed telephone) to use to make a voice call. The latter decisions are made more frequently and typically involve less effort. In addition, RFVA and RFVC can only be purchased from FSPs, whereas retail calls can also be made using other devices and technologies such as calling cards, VOIP enabled devices (PCs, personal tablets etc.) or mobile phones.

4.15 As was highlighted in paragraphs 3.22 and 3.23, since Q1 2010, ComReg has observed a decline in RFVC traffic while at the same time there has been a corresponding increase in RFVA subscriptions. This indicates that, on average, fewer RFVC are being made per RFVA subscriber. As noted in paragraphs 3.25 and 3.26, over the same time period, mobile traffic has remained broadly static, although some growth has been seen in Q3 2013.

4.16 The above, allied to the earlier observations[147] on the 2012 Market Research, suggests that households or businesses may in some cases be retaining their fixed telephone line, but choosing to instead make certain types of calls from their mobile telephone, in particular mobile to mobile calls.[148]

4.17 In summary, while ComReg considers that RFVA and RFVC are functionally different products, there is likely to be high degree of complementarity between them. The 2012 Market Research indicated[149] that, the majority of fixed phone subscribers surveyed purchase RFVA and RFVC from a single supplier, and think about their purchase decision, in relation to these products, as a single decision.

4.18 On the other hand, in some instances[150] RFVA subscribers are willing to make calls over alternative devices and platforms. This suggests that there may be different competitive conditions in the provision of RFVC compared with those present for RFVA.

4.19 Although it is unlikely that an RFTS customer would purchase RFVC and RFVA separately, the process of choosing, at a given point in time, how to make a telephone call appears to ComReg to involve a different type of decision relative to the decision in choosing of a RFTS service provider.

[147] See paragraphs 3.27 to 3.31 above.

[148] Note that end-users may retain their fixed line telephone connection for purposes other than making calls. This is because line rental is a platform over which a number of services can be purchased. For example, an end-user may wish to retain the fixed line connection because the broadband service provided by that supplier best suits his or her needs.

[149] The 2012 Market Research, Slide 28. 70% of residential respondents stated that they do not think about the cost of line rental and calls separately when thinking about the cost of their fixed line telephone.

[150] 2012 Market Research, Slide 26.

4.20 While ComReg acknowledges that there is complementarity between RFVA and RFVC, ComReg notes the potential for differences in the competitive constraints that might impact upon the provision of RFVA relative to RFVC, particularly considering the high penetration of mobiles amongst the population, and the potential implications of Eircom's NGA platform being used to provide RFVCs using VOB.

4.21 In any case, ComReg considers that FSPs wishing to compete effectively in the RFTS market need to also offer both RFVA and RFVC together. This appears to be evidenced from the decline in the use by Access Seekers of standalone CPS[151]. Furthermore, FSPs are not in a position to purchase wholesale line rental ('**WLR**[152]') and CPS from separate suppliers at the wholesale level. For example, an Access Seeker could not purchase CPS from Eircom and WLR from another wholesale provider. This issue will be considered further in the context of the definition of the wholesale FVCO market in Section 5.

Are calls made to all types of telephone numbers in the same RFVC market?

4.22 A fixed telephone can be used to call various different types of telephone numbers. These include, but are not limited to, other local or national fixed line telephones, mobile phones, international fixed line or international mobile phones, and non-geographic numbers (including, but not limited to, low/shared cost numbers, freephone numbers, special rate services numbers and competition line numbers[153]).

4.23 ComReg considers below whether calls made to different types of numbers fall within a single product market, or whether they represent separate retail markets.

4.24 The guidance set out in Appendix B, regarding the treatment of product complements in defining markets is useful in this assessment.

<u>Product characteristics</u>

4.25 A telephone call is a connection over a telephone network between a calling party and a called party.

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[151] See paragraphs 3.49 to 3.54 above.

[152] WLR refers to the access line element only.

[153] Non-geographic numbers are sometimes referred to as Number Translation Codes (NTCs) being non-geographic numbers, which have no physical destination address of their own but can reach real destinations and/or real services once they are translated into other number types.

4.26 The functionality involved in providing a call is likely to differ depending on the type of destination number being called. For example, the provision of a local 'on-net call'[154] by the customer of an FSP can be managed entirely on the FSPs own network, without the need to purchase a FVCT service from a third party FSP[155]. Whereas a RFVC made, for example, from a fixed line telephone to a mobile telephone number also involves Mobile Voice Call Termination ('**MVCT**') of the call on a mobile network.

4.27 Calls to Premium Rate Services (PRS) and calls to non-geographic numbers can involve the provision of services via the call. For example, calls to technical help-lines, advice centres, competition lines and other entertainment services. In some cases, this involves charges being levied on the calling party for those services, or indeed the party receiving the call being charged for it by (the latter occurring through, from example, the pass-through of wholesale and other charges arising from the provision of FVCO or Transit to the terminating network to which the called party has the retail contractual relationship).

4.28 While there are some differences in the characteristics of different types of RFVC, there are also many similarities. The initial phase of a retail call (equivalent to FVCO) involves the same network equipment regardless of the type of destination number called. All FSPs must interconnect either directly or indirectly with other FSPs in order to provide a retail telephone service. This involves the routing and handing over of originated calls to other networks for Transit or termination when necessary. For this reason, an FSP that has the facilities in place to provide one type of outbound call is generally well placed to provide all outbound types of calls, indicating a high degree of supply-side substitutability in the provision of different types of calls.

Retail Pricing

4.29 To reflect variation in the cost of providing calls to different called parties (and other reasons such as willingness to pay etc.), FSPs typically charge different retail prices for different call types. ComReg has observed the following to variations in pricing between different types of calls:

[154] 'On-net call' refers to a call between two a subscribers that share the same Service Provider for their provision of RFTS. An 'off-net' call refers to a call between two a subscribers that each have a different Service Provider for their provision of RFTS.

[155] Although implicit within and on-net call is the Service Provider's the self-supply by of FVCT to itself.

- **Local and national calls:** these are typically provided at the lowest price relative to other call types, and there is often no distinction between the retail price charged for making such calls i.e. the price of a local call and a national call is the same. Often an allocation of local and national minutes (either a set or unlimited amount and sometimes restricted to off-peak times) are included in packaged or bundled price plans or offered at a reduced rate (or at no extra cost per minute) at the weekend.[156] Local/national calls that are made after any inclusive package or bundle minutes have been used up typically incur an up-front retail charge for setting up a call and then a per-minute rate. This per minute charge often differs according to whether the call was made at a peak or off-peak/weekend time.
- **International calls made from a fixed line telephone:** these are typically more expensive than local and national calls. However, it is becoming more common for a limited, or in some cases unlimited, amount of minutes for calls to international numbers to be included within RFTS packages, although typically to specified international destinations only.[157]

4.30 Making calls from a fixed line telephone to mobile numbers is typically more expensive relative to the price of making calls to a local or national landline (geographic numbers)[158].

4.31 The price of making calls from a fixed telephone to non-geographic and PRS telephone numbers can vary significantly, and the receiving party may be liable for payment for certain types of calls. Non-geographic calls are explained in Appendix C of this Consultation.

[156] Eircom, Vodafone, and UPC charge between 4c and 6c per minute for out-of-bundle local and national calls (this can be subject to call set-up charges of up to 9.5c or minimum call fees). This compares to prices ranging between 10c and 25c calls to mobile numbers and between 11c and €3.66c for international call charges levied by these three FSP. Prices were retrieved from company websites on 27 January 2014. Eircom: http://www.eircom.ie/bveircom/pdf/Part2.1.pdf; UPC: http://www.upc.ie/pdf/callrates/Standard_call-rates_30_1_14.pdf Vodafone: http://www.vodafone.ie/home-phone-broadband/charges/?ts=1370536394409

[157] For example, UPC's Fibre 50 Chat which includes broadband and 'Home phone and freetime world' has 400 minutes to select international numbers (total standard cost is €37 per month). Quote retrieved on 27 January 2014 on UPC website: http://www.upc.ie/bundles/broadband-phone/fibre-50/.

[158] See, for example, Eircom's retail outside of a bundle call charges, which are 10c per minute for calls to Meteor and 25c a minute for calls to other mobile operators. Quote retrieved from Eircom's website: www.eircom.net on 27 January 2014. Similarly, Vodafone charge 21c per minute for calls made from a fixed line to a mobile phone and UPC charge 20c per minute. Quotes were retrieved from the following websites on 27 January 2014. Eircom: http://www.eircom.ie/bveircom/pdf/Part2.1.pdf UPC: http://www.upc.ie/pdf/Standardcallrates.pdf Vodafone: http://www.vodafone.ie/home-phone-broadband/charges/?ts=1370536394409.

Consumer use of different call types

4.32 In considering whether RFVC to different types of numbers fall within a single product market, it is useful to consider household and business calling patterns. The 2012 Market Research asked respondents with a fixed line telephone to provide an indication of the distribution of their outbound calls made from their fixed line telephone across different call types, with following call distributions revealed:[159]

- 66% of outbound calls are made to local/national fixed line numbers;
- 22% of outbound calls are made to mobile numbers;
- 10% of outbound calls are made to international phone numbers; and
- 2% of outbound calls are made to PRS numbers.

4.33 Business respondents were asked the same question and the following call distributions were provided:[160]

- 55% of outbound calls are made to local/national fixed line numbers;
- 37% of outbound calls are made to mobile numbers;
- 6% of outbound calls are made to international phone numbers; and
- 1% of outbound calls are made to PRS numbers.

4.34 More recently, overall traffic volumes provided by FSPs[161] show the following overall call distributions in terms of traffic generated from fixed line telephones:

- 59% to local/national fixed line numbers;
- 14% to mobile numbers;
- 14% of calls to international phone numbers; and
- 13% to PRS numbers.

These call distributions indicate that RFTS subscribers use their fixed line telephone predominantly to make local and national calls, although the ability to make all call types is likely to be important. The above distribution of calls made from fixed and mobile phones are also generally borne out in data presented in ComReg's Quarterly Key Data Report[162], which is presented in Figure 16: and

4.35 Figure 17 in paragraphs 0 and 4.171 below.

[159] The 2012 Market Research, Slide 25.

[160] The 2012 Market Research, Slide 108.

[161] Quarterly Key Data Report, Q3 2013.

[162] Quarterly Key Data Report, Q 3 2013, Figures 2.3.1 to 2.3.3.

4.36 Table 1 below, taken from the 2012 Market Research[163], sets the views of those residential respondents with both a fixed line telephone and mobile phone in response to questions as to which device they would primarily use to call different types of telephone numbers.

Table 1: Residential preferences - device use by call type

Telecommunications service	**Fixed line phone in your home**	**Mobile phone**	**Skype**	**No preference**	**Don't make this type of call**	**Don't know**
Calls to **local fixed line** phones	**77%**	16%	4%	3%	0%	0%
Calls to **national fixed line** phones	**80%**	13%	2%	3%	2%	0%
Calls to **mobile phones on the same network** as your mobile phone	16%	**78%**	1%	3%	2%	0%
Calls to **mobile phones on a different network** to your mobile phone	27%	**62%**	1%	7%	3%	1%
Calls to **international numbers**	55%	12%	11%	4%	16%	1%
Calls to **premium rate numbers** such as competition lines, quiz shows, horoscope, etc	21%	8%	1%	13%	54%	3%
Calls to **directory enquires**	42%	9%	1%	16%	31%	1%
Calls to **1800 numbers**	35%	11%	0%	20%	32%	1%
Calls to (callsave) **1850** or (lo-call) **1890** numbers	39%	9%	0%	17%	32%	2%

4.37 Table 2 below sets out the views of business respondents on this same issue.

[163] The 2012 Market Research, Slide 26. Respondents were asked “Thinking about the categories of calls you make from your home, please select what you would primarily use for each of the following types of calls”. N=637.

Table 2: Business preferences - device use by call type[164]

Type of call	Fixed line	Mobile phone	VoIP	No preference	Don't Know
Calls to **local fixed line** phones	**81%**	10%	0%	5%	4%
Calls to **national fixed line** phones	**80%**	9%	0%	7%	4%
Calls to **mobile phones on the same network** as your mobile phone (such as other employees on the same mobile network)	49%	**43%**	0%	5%	3%
Calls to **mobile phones on a different network** to your mobile phone	53%	**36%**	0%	8%	3%
Calls to **international numbers**	73%	7%	3%	11%	5%

4.38 and Table 2 suggest that for the majority of residential and business respondents with both a fixed line telephone and mobile, the fixed line telephone was the preferred platform when making calls to local and national numbers, international numbers, premium rate numbers, directory enquiry numbers and 1800 numbers. The notable exception is for calls made to mobile numbers, for which a mobile, rather than a fixed line telephone, was the preferred means of the making the calls.

4.39 A small but notable proportion of business and residential respondents also reported using a mobile as their primary means of making local, national or international calls, and while Unmanaged VOIP (in particular, Skype) was not commonly used as a primary means of making local or national calls, 11% of households reported using Skype as their primary means of making international calls. This suggests that the relatively higher price of calls made to international numbers from a fixed line telephone or a mobile phone may have encouraged some households to use Unmanaged VOIP services instead of making international calls using their fixed line telephone line. This may, to some extent, explain why certain FSPs have started including within RFTS packages inclusive amount of minutes which can be made for calls to international destinations.

[164] The 2012 Market Research, Slide 106. Respondents were asked: "Thinking about the categories of calls employees make from your business premises, please select what your employees would primarily use for each of the following types of calls." N=534.

4.40 Responses to ComReg's 2012 Market Research indicated that households with both a fixed line telephone, and a mobile telephone, predominantly use a mobile telephone to make calls to other mobile telephones. This is especially so for on-net mobile calls, with 78% of respondents stating that they primarily use a mobile telephone when making calls to on-net mobile phones (62% primarily use a mobile telephone when making calls to off-net mobile numbers).[165] The usage pattern was somewhat different for business respondents, who overall reported a preference for their RFTS as the primary means of making calls to mobile phones. For example, 49% of business customers primarily use their fixed line telephone when making calls to other on-net mobiles, versus 43% that primarily use their mobile telephone when making on-net calls to mobile telephones.[166]

4.41 In summary, the calling patterns observed in paragraphs 4.32 to 4.40 above suggest that fixed line phones are typically used by customers to call a variety of number types, but predominantly other fixed line numbers. As such, in considering the boundary of any retail calls market, calling patterns of customers do not provide any obvious justification for making a clear distinction between outbound calls based on the destination number.

Preliminary conclusion on whether retail fixed voice calls made to different types of numbers are in the same retail market

4.42 ComReg notes that the tendency of a significant proportion of households and businesses is to use their fixed line telephone to call several types of numbers infers a degree of demand-side complementarity between these call types. In order to meet the needs of end-users and to compete effectively, FSPs will be likely to need to offer a full range of outbound calling services, including, in most cases, the ability for subscribers to call local and national numbers, mobile phone numbers, international numbers, and non-geographic numbers, including PRS. This, along with the supply-side complementarity (arising from economies of scope) associated with providing various types of calls, has been reflected in the RFVC market, in which FSPs typically offer end-users the ability to make calls to various types of numbers.

4.43 In any case, households or businesses may in some cases elect to use mobile or VOIP enabled devices to make certain types of calls. For example, residential respondents were more likely to use their mobile telephone rather than a fixed line telephone to call a mobile phone number. Unmanaged VOIP was more commonly the preferred option for calling international numbers (relative to other call types). These represent examples of where it is more cost effective for customers to make certain types of calls from their mobile telephone, or an unmanaged VOIP service relative to the prices that would have been incurred if those calls had been made from a fixed line telephone.[167]

[165] The 2012 Market Research, slide 26.
[166] The 2012 Market Research, slide 106.

[167] Although the anticipated impact of lower mobile termination rates over the period this market review may reduce the price of fixed-to-mobile calls.

4.44 The European Commission's Explanatory Note[168] to the 2007 Recommendation suggests that local and national calls are likely to fall within one market, whereas international calls would potentially fall within a separate market because of differing supply-side substitution and demand characteristics. It also suggests, on the basis of supply-substitution, both such markets include fixed-to-fixed as well as fixed-to-mobile calls.

4.45 ComReg's overall preliminary view is that, while the degree of competitive constraint differs for some call types (there appears to be a stronger degree competitive constraint for international calls and calls to mobile numbers for some segments of users), most consumers purchase a range of call types from their RFVC supplier. These often include local, national and international calls, as well as non-geographic/premium rate services calls and calls to mobile numbers. This would also appear to be evidenced from the lack of use, at the wholesale level, of Carrier Access and Carrier Select (discussed later in Section 9[169] in the context of remedies) services which facilitate the ability for customers to buy calling services on a call by call basis from a different FSP. As such, ComReg considers that there are unlikely to be separate markets representing different types of calls made from a fixed location. Although we note that international calls are likely to face a higher degree of competitive constraint than other call types due to, for example, pressure from OTT services such as Skype.

Overall preliminary view on the starting point for assessing potential substitutes for retail fixed voice calls

4.46 Having regard to the analysis in paragraphs 4.4 to 4.45 above, ComReg considers that the appropriate starting focal point for the assessment of potential RFTS substitutes is RFVC made from a fixed line telephone connected to a narrowband network (together being RFTS). However, ComReg notes that the inclusion, or otherwise, of RFVA within the assessment would be unlikely to have a material impact on the result in any case. This because most customers prefer to purchase RFVA and RFVC from a single supplier given their complementary nature and therefore switching generally occurs across the two services in tandem. This relationship between RFVC and RFVA has, in any case, been accounted for throughout the remainder of the analysis.

Factors affecting the responsiveness of end-users to changes in retail fixed voice call prices

4.47 Having established a starting point for an examination of potential retail substitutes for RFTS, ComReg will now discuss those factors that are likely to impact on the responsiveness of RFTS customers to changes in retail prices, and therefore the degree to which substitution is likely to occur in response to a change in the price of the focal product.

[168] See page 23 of the Explanatory Note to the 2007 Recommendation.

[169] See paragraph 9.125 onwards.

4.48 When defining the relevant markets in Section 5 of this Consultation, ComReg will apply the so-called SSNIP[170] test. For the purpose of assessing substitutes for RFVC in this section, ComReg will apply a similar set of principles, though without it being necessary now to define actual retail market (product and geographic) boundaries.

4.49 It is notable that the RFVA and RFVC markets appear to be characterised by relatively low levels of churn. For example, the 2013 Consumer ICT survey indicated that 52% of households have been with their current landline supplier for 5 or more years.[171] Whereas only 11% of consumer respondents reported having been with their current supplier for less than 12 months. This indicates a degree of stickiness and relatively low levels of churn when it comes to choosing a service provider. Most of these households will have been purchasing RFVC and RFVA from their home phone supplier over that period.

4.50 In relation to businesses, the 2013 Business ICT Survey indicated that 46% of businesses have been with their current landline supplier for 5 or more years. Whereas 18% have been with their current supplier for less than 12 months. This suggests that churn is higher for businesses than for households, but there is still a significant degree of stickiness when it comes to choosing a supplier.[172]

4.51 With that in mind, in this section ComReg will discuss the following factors that impact on the switching behaviour of customers:

- RFTS pricing structures (discussed in paragraphs 4.52 to 4.54 below);
- End-user awareness of RFTS prices structures (discussed in paragraphs 4.55 to 4.63 below); and
- End-user sensitivity to changes in RFTS prices structures (discussed in paragraphs 4.64 to 4.74 below)

Retail pricing structures for RFTS

4.52 Retail pricing structures can influence the way in which consumers and businesses make telephone calls. The key trends in RFTS pricing structures can be identified as reflecting the following particular characteristics:[173]

[170] See footnote 141

[171] 2013 ICT Survey, landline section: Length of time with current landline provider

[172] 2013 ICT Survey, Slide 22.

[173] The following analysis is derived from the websites of Eircom, Sky, Vodafone (at home), and UPC. Please see www.eircom.ie; www.sky.ie; www.vodafone.ie ; and www.upc.ie for further details.

- FSPs' typically offer an entry level package of RFVC and RFVA, and then higher priced packages that include extra call minutes in the price. For example, packages might contain unlimited (anytime or off-peak only) minutes or a set amount of inclusive minutes for local, national, and international calls.[174] RFVC is also commonly sold as part of a product bundle with RFVA, broadband, Pay TV (and more recently MTS), in which case the RFVC and RFVA component likely represents a smaller part of the retail price of the package than would otherwise be the case of RFTS sold on a standalone basis;
- Calls purchased outside of any allocation of minutes included in the package or bundle typically incur an extra charge based on standard call charges[175], which normally involves a call-set up charge and then a fee per minute for the call.
- FSPs' prices for RFVCs generally differ depending on whether the call is being made to a geographic number, a non-geographic number, a mobile number or an international number [176];
- FSPs providing RFVCs do not generally differentiate[177] between the prices charged for calls to local and national geographic numbers;
- FSPs providing RFVCs do not generally differentiate between the prices charged for making local or national calls on their own network (on-net) and local/national calls made to customers of other FSPs (off-net). However, a number of FSPs offer free on-net calls.[178];
- The price of calls can vary between peak times and non-peak times, with the prices being higher at peak times;
- Some FSPs offer a limited amount of inclusive minutes for calls to selected international destinations;

[174] For example, Eircom offers various call packages and add-ons that include additional calling minutes. Examples are listed on Eircom's website, here: https://secure.eircom.net/talktime/talktime-evolution-flow?execution=e1s1

[175] See paragraph 4.29onwards above.

[176] Ibid.

[177] See links provided in footnote 173 above. Eircom, Sky, UPC and Vodafone all bundle local and national call minutes under a combined monthly allowance in their retail call packages. Eircom and UPC both offer the same per minute price for out-of-package calls to both local and national landlines.

[178] Eircom, Sky, UPC and Vodafone do not differentiate their call pricing between off-net and on-net calls to landlines.

- There is a trend towards FSPs offering add-ons to their standard services that include a set amount of minutes for calls to mobiles (at an additional cost), although the number of such inclusive minutes tends to be significantly lower than the number of inclusive minutes allocated in similar packages for calling local and national geographic numbers. When the FSP is also offering retail mobile services, it sometimes offers more favourable pricing terms for calls destined to mobile subscribers on its own mobile network[179] relative to calls destined to mobile subscribers on other networks.

4.53 The above trends also feature among FSPs' business pricing plans, although the amount of inclusive minutes for calling mobiles is generally larger within business plans[180].

4.54 The absence of differentiated pricing for local and national (both on-net and off-net) calls may result in customers being less concerned with the identity of the Called Party's FSP or their geographic location within Ireland, since these factors will not impact on the cost of the call.

End-user awareness of cost of line rental and fixed voice calls

4.55 End-users are only likely to materially change behaviour in response to an increase in retail call prices if they are aware of the retail call costs that they face when making particular types of calls (and calling particular numbers).

4.56 As part of ComReg's 2012 Market Research, respondents purchasing RFVA and RFVC were asked to indicate the extent to which they were aware of the costs of line rental and making calls from their fixed line telephone to other local and national landlines in instances where they had to pay for the call. Respondents' views set are out in Figure 8[181], Figure 9[182] and Figure 10[183] below.

4.57 In terms of awareness of line rental, 26% of residential respondents were able to answer, while 17% stated they did not know what the cost was. 45% were unaware of the cost given it was charged as part of a package with calls, whereas 12% indicated they were not charged line rental.

[179] For example, Eircom offers a discounted price for calls to Meteor or E-mobile mobile customers (10c per minute relative to 25c per minute for calls to other mobile numbers) as of 27 January 2014.

[180] For example, Eircom's website (as at 27 January 2014) presents different retail packages for residential and business customers. Eircom Talk Anytime plan, at €40 per month, includes unlimited any time calls to local and national numbers, plus 30 anytime minutes to Irish mobile operators. Meanwhile, Eircom value business plan package also includes unlimited any time calls to local and national landlines, but also includes 600 minutes to eMobile network and 60 any network mobile minutes. (http://business.eircom.net/broadband/products/landline/)

[181] The ComReg 2012 Market Research, Slide 28. N=633.

[182] The ComReg 2012 Market Research, Slide 33. Respondents were asked "Could you state whether you know the cost of making calls from your fixed line phone to other local fixed line phones in instances where you need to pay for the call?" N=451

[183] The ComReg 2012 Market Research, Slide 34. Respondents were asked "Could you state whether you know the cost of making calls from your fixed line phone to other national fixed line phones in instances where you need to pay for the call?" N=451.

4.58 Most residential consumers also stated that they did not know the costs of making calls to local landlines (with 74% being unaware or unsure) and national landlines (with 79% being unaware or unsure), with the remainder of respondents stating they either knew the exact cost (ranging from 6% for local calls to 4% for national calls) or the approximate cost (ranging from 20% for local calls to 17% for national calls).

Figure 8: Households' awareness of the cost of line rental

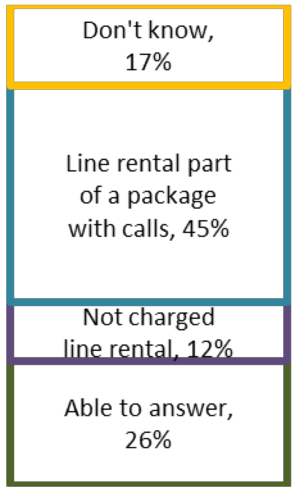


Figure 9: Households' awareness of the cost of making a call to a local fixed line telephone

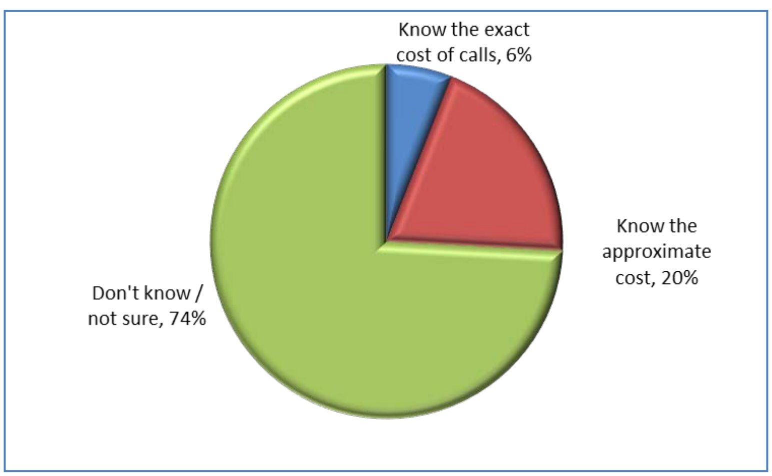
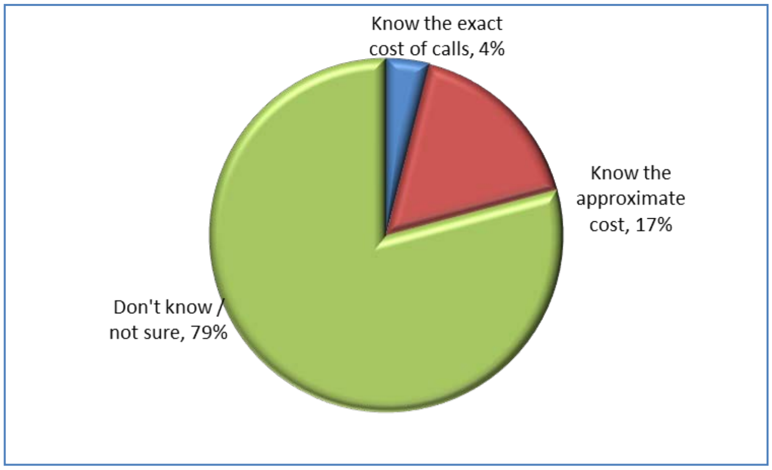
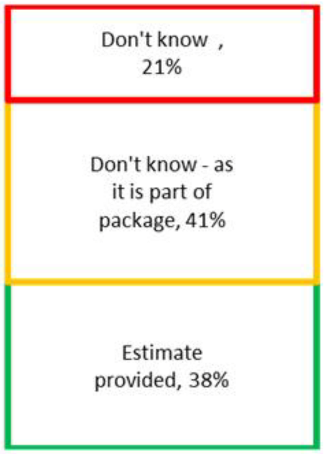


Figure 10: Households' awareness of the cost of making a call to a national fixed line telephone



4.59 Business respondents also expressed similar levels of cost awareness to residential consumers, with the views expressed set out in Figure 11, Figure 12 and Figure 13 below. In terms of awareness of line rental, 38% of business respondents were able to provide an estimate, while 21% stated they did not know what the cost was. 41% were unaware of the cost given it was charged as part of a package. Of those businesses which are required to pay either for some or all local or national calls, [184] 77% stated that they did not know or were unsure of the cost of calls to a local fixed line telephone and 76% stated that they did not know or were unsure of the cost associated with calling national fixed line telephones.

Figure 11: Business awareness of the cost of line rental



[184] The ComReg 2012 Market Research, slides 116 and 117. Business respondents were asked "Could you state whether you know the cost of making calls from your business' fixed line phone to other local fixed line phones in instances where you need to pay for the call?" In addition, business respondents were asked "Could you state whether you know the cost of making calls from your business' fixed line phone to other national fixed line phones in instances where you need to pay for the call?"

Figure 12: Business awareness of the cost of making a local call

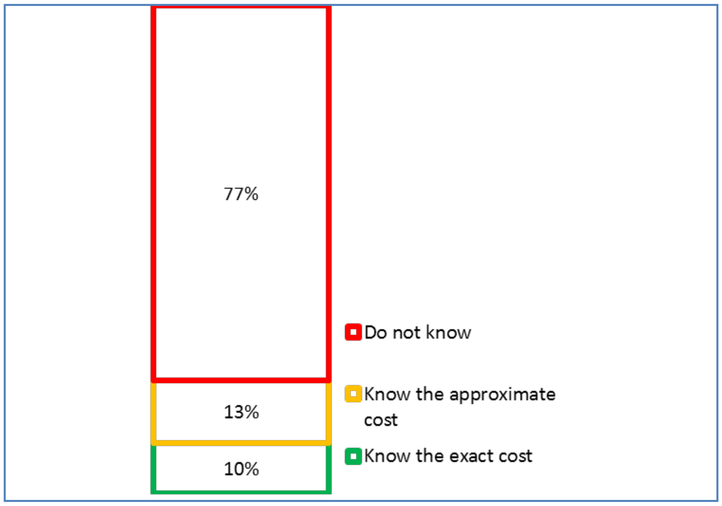
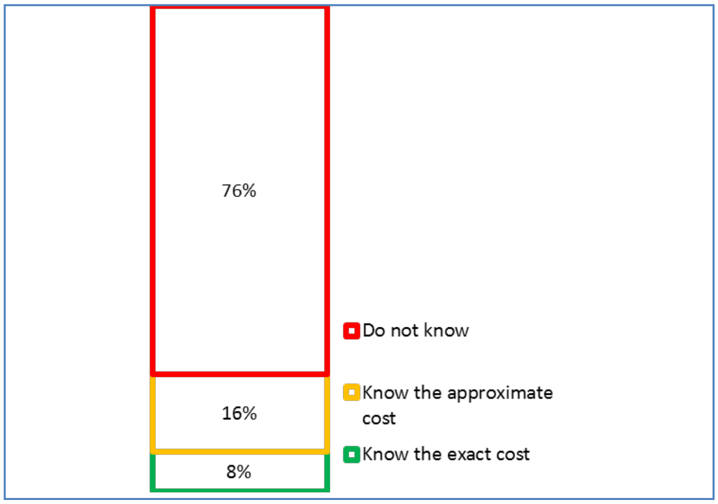


Figure 13: Business awareness of the cost of making a national call



4.60 Similar responses were given regarding the knowledge of the price of calls made from a fixed line telephone to mobile numbers. For example, 61% of business respondents (the bill payer for the business) were not able to provide an estimate of the cost of these calls.[185] Similarly, 65% of household respondents were not able to provide an estimate of the costs of these calls.[186]

[185] The 2012 Market Research, Slide 118.

[186] The 2012 Market Research, Slide 35.

4.61 On the basis of these responses, it is apparent that consumers and businesses generally have low levels of awareness of the specific cost of making local and national calls from their fixed line telephone. Similarly, there was low awareness of the cost of line rental. The lack of awareness may also be related to the complexity of retail pricing structure and, in particular, where call packages contain line rental, bundled or discounted minutes or standard call prices vary based on a number of factors (set out in paragraph 4.29). This complexity may lead to information asymmetry, which means that end-users are less likely to be aware of and potentially responsive to changes in the pricing of calls to specific numbers.

4.62 However, the calling patterns of households and businesses discussed in paragraphs 4.32 to 4.41 suggest that end-users are aware that certain categories of calls, such as calls to mobile telephones or international calls, are likely to have a higher price when made from a fixed line telephone relative to the price of making local or national calls to a landline. For example, the analysis indicates that end-users are more likely to use a mobile telephone instead of a fixed line telephone to call mobile numbers, whereas they would use their fixed line telephone to call other fixed line telephones.

4.63 The 2012 Market Research and the 2013 ICT Surveys could also suggest that end-users are likely to be more aware of specific call prices at the time when they choose an FSP/supplier, and that line rental/call prices, either directly or indirectly, are likely to impact on consumer and business decisions when it comes to choosing an FSP for the provision of RFTSs.

End-user sensitivity to changes in the price for line rental and fixed voice calls

4.64 End-user sensitivity to changes in prices is important when assessing the propensity of households and businesses to switch to alternative means of making calls, in particular, in response to an increase in the price of calls made from a fixed line telephone. Such considerations are of relevance to ComReg's assessment of potential retail market substitutes for RFVC and the assessment of indirect constraints imposed from the RFTS market on the wholesale FVCO market.

4.65 Subscriber sensitivities to cost will undoubtedly differ based on individual preferences, calling patterns and the costs that they face under particular retail price plans.

4.66 Subscriber sensitivities to cost may also differ across time. For example, consumers and businesses may possess a greater awareness of prices when they are switching between FSPs than when they are making specific calls once they have chosen an FSP or when changing price plans with an existing FSP. This may be particularly the case where customers are locked in to a minimum term contract, where price plans allow inclusive unlimited or large numbers of calls to be made or where prices for call types are the same. It may also take time for consumers to react to any price increases, having regard to their visibility or understanding of price changes.

4.67 As noted in paragraph 4.49, the 2013 Consumer ICT Survey indicated that 52% of households have been with their current landline supplier for 5 or more years, whereas 11% of consumer respondents reported having been with their current supplier for less than 12 months. It was also noted that 46% of businesses have been with their current landline supplier for 5 or more years, whereas 18% have been with their current supplier for less than 12 months.

4.68 In order for a household or business to be in a position to react to any retail price increases for RFVC, the end-user would need to be:

- sufficiently aware of the retail call costs of different call types; and
- sufficiently concerned about cost, such that it warrants some change in their behaviour.

4.69 As noted in paragraph to 4.61, ComReg's identified that consumers and businesses tend to have low levels of awareness of specific call prices, but are likely to have some awareness of the relative levels of the cost of making calls to different types of numbers from their fixed line telephone relative to the cost of calling from their mobile telephone or through other means. This is evident from the reported tendency of consumers to use their mobile telephone more often when calling another mobile telephone (even businesses were significantly more likely to use a mobile phone to call another mobile phone, relative to when they're calling a landline). This suggests some level of awareness of call prices.

4.70 As part of the 2012 Market Research, ComReg asked business respondents whether there were any types of phone calls that they checked in particular when reviewing their RFTS bills. The results, presented below in Table 3, indicate that (of those business respondents which carry out a detailed check of their RFTS bills) most respondents were interested in the aggregate cost of the bill (90% stated that they check the total cost of the bill) while only 32% claimed to check the cost of local/national calls.[187]

[187] 2012 Market Research, Slide 97. Respondents were first asked "Do you or does somebody else in your organisation check in detail the fixed phone bills that your business receives (either electronically or in the post)?" If so, the respondent was then asked "Which of the following are checked on each bill?" with multiple selections possible.

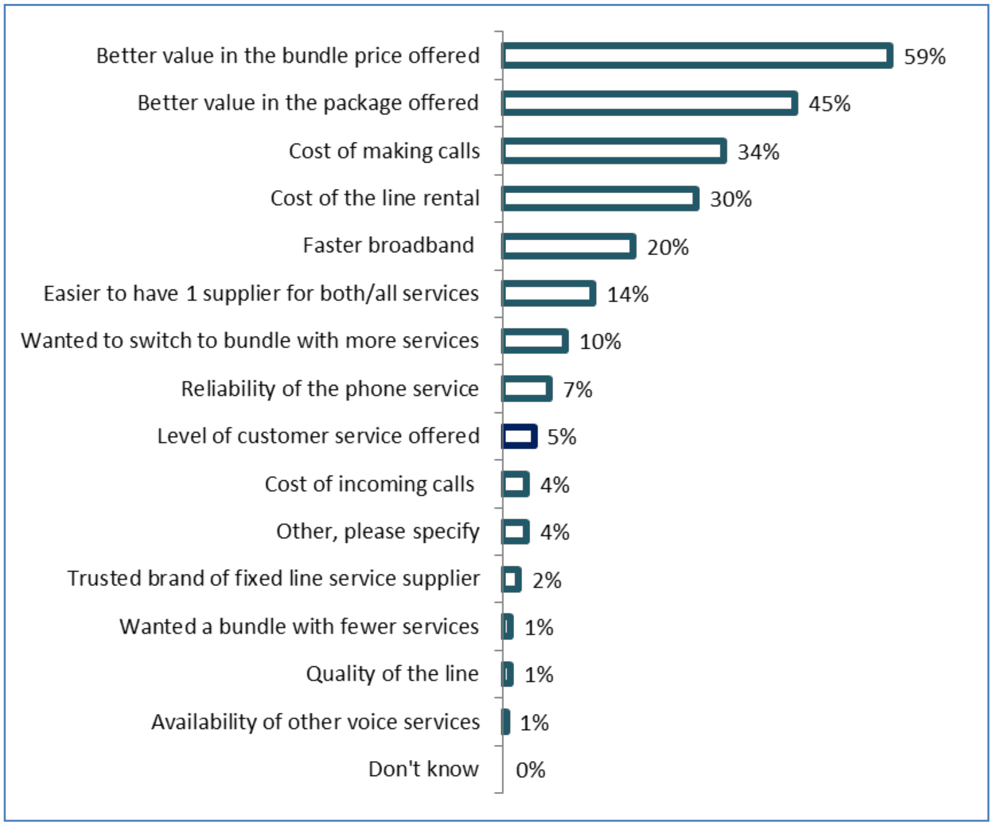
Table 3: Propensity to check fixed line telephone bills

Reviewed element of bill	%
The total amount	90%
If the amount is greater than the bundle price	40%
The cost of calls to mobile phone numbers	33%
The cost of calls to local or national phone numbers	32%
The cost of international phone calls	19%
The cost of premium rate numbers and calls to directory enquiries	18%
The cost of the line\connection	13%
None of these	0%

4.71 In order to determine the features that customer's value most when deciding on an FSP for the provision of RFTS, the 2012 Market research asked[188] those consumer and business respondents that had switched in the past 12 months what were their top three reasons for the selection of their current FSP. The most commonly cited reasons (overall rank in brackets) amongst all consumer respondents that had switched are identified in Figure 14 below.

[188] The ComReg 2012 Market Research, Slide 41. Consumer respondents were asked "Thinking about when you chose your current fixed line phone service supplier, please select the top three reasons out of the following set of possible reasons which were most important to your decision to choose your fixed line phone service supplier? Note that all of the reasons may be relevant to your particular service supplier"

Figure 14: Three most common reasons for households switching to another fixed line telephone supplier

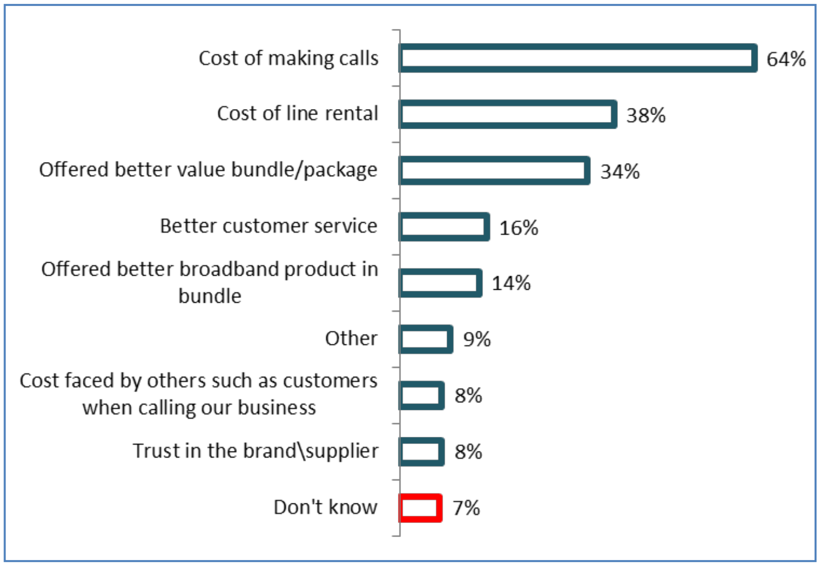


4.72 Overall the above suggests that consumers who switched between FSPs in the previous three years were primarily concerned with achieving better value in their overall bundle or package when choosing a RFTS provider. The cost of making calls and line rental also ranked as being important factors when choosing an FSP. Moreover, the cost of making calls is likely to factor into a consumer's overall assessment of the value of the bundle or package.

4.73 Similar questions were also asked[189] of business respondents who had switched their services to a different FSP. The most commonly cited reasons (overall rank in brackets) amongst all business respondents that had switched are set out in Figure 15 below.

[189] The 2012 Market Research, Slide 101.. Respondents were asked "Thinking about when you chose your current fixed line phone service supplier, please select the top three reasons out of the following set of possible reasons which were most important to your decision to choose your business' fixed line phone service supplier. Note that not all of the reasons may be relevant to your particular service supplier."

Figure 15: Three most common reasons for businesses switching fixed line telephone supplier



Source: The 2012 Market Research, Slide 101, N=211

4.74 ComReg also examined the sensitivity of residential and business respondents in the 2012 Market Research. Price sensitivity and switching behaviour are analysed in Appendix D and Section 5[190] of this Consultation.

Preliminary conclusion on factors affecting the responsiveness of end-users to changes in RFTS prices

4.75 In paragraphs 4.47 to 4.74 ComReg has examined a number of factors that are likely to affect the responsiveness of end-users to changes in RFTS prices. This included a review of the typical pricing structure of RFVCs, and reviewing respondents' views concerning end-user awareness and sensitivity in relation to the pricing of retail calls, access and other services.

4.76 Overall, respondents to the 2012 Market Research reported a low awareness of specific call costs. As discussed in paragraph 4.61, this is likely to be due to the complexity of retail call pricing and the wide range of call products listed by FSPs.

4.77 However, respondents also ranked the cost of making calls and line rental as being high in importance when choosing an FSP for the provision of RFTS. This suggests that customers have a better understanding of call or line rental costs at the time when they choose an FSP/supplier, and that call prices, either directly or indirectly, are likely to impact on consumer and business decisions when it comes to choosing an FSP for the provision of RFVCs.

[190] See discussion on indirect constraints in paragraphs 5.133 to 5.210.

4.78 Despite end-users having a low awareness of specific call costs in general, behaviour in terms of using different methods to make different call types suggests that a sizeable proportion of consumers are likely to have some degree of awareness of the relative cost of making certain call types (local/national/mobile/international etc) from a fixed line telephone, mobile telephone or a VOIP service.

Assessment of potential product substitutes

4.79 As noted in paragraph 4.46, ComReg has identified RFVCs made from a fixed line telephone connected to a narrowband network as the starting point from which potential substitute products will be assessed. This section considers the effectiveness of any potential substitutes for RFVCs provided over a fixed narrowband network. This exercise first involves considering whether the characteristics, prices and intended use of various other retail calling products are sufficiently interchangeable with those attributes most closely associated with RFVCs.

4.80 Given that ComReg is not required, *per se,* to conclude on a precise definition of the RFVC market for the purposes of this market review, ComReg does not undertake a systematic SSNIP analysis in assessing retail substitutes. Rather, the purpose of this assessment is to inform ComReg's subsequent definition and assessment of the wholesale Relevant Markets, including the strength of any indirect constraints posed by various retail products in the Relevant Markets.

4.81 As noted previously, RFTS is primarily offered over Eircom's fixed narrowband network (either through Eircom's retail arm, or indirectly through other FSPs using a suite of wholesale narrowband products provided by Eircom pursuant to SMP based regulatory requirements). These narrowband services serve as a logical benchmark from which to functional and price characteristics of an RFTS can be established, and therefore also a suitable starting point for assessing the RFTS market.

4.82 As discussed in paragraphs 3.65 to 3.71, Eircom is currently rolling out a NGA network, predominantly based on a FTTC topology. Eircom is also likely to largely continue to provide its RFTS (and its SB-WLR and Wholesale SV service) over this copper narrowband network over the period of this review (particularly for RFTS customers who do not purchase broadband services). However, as noted in paragraph 3.41, Eircom **[✂** [redacted] **]**. Within at least the NGA area, ComReg would ultimately expect that an Eircom Managed VOB based RFTS would replace the traditional circuit switched delivery of RFTS over Eircom's copper based narrowband network. As such, for the purpose of this retail market assessment, ComReg considers that Managed VOB provided <u>by Eircom</u> over its NGA network is expected to be a suitable technical alternative to RFTS provided over its narrowband network.

4.83 In this respect, a Managed VOB based RFTS offered over the Eircom's NGA network is likely to be similar in terms of functionality and end-user experience to that of Eircom's narrowband based RFTS. Upon the roll-out of Eircom's Managed VOB platform, asymmetric switching is likely to occur from narrowband based RFTS to Managed VOB. This view is consistent with the Explanatory Note to the 2007 Recommendation,[191] which indicates that incremental upgrades in network infrastructure are do not automatically translate into a new or emerging market.

4.84 Therefore, although Eircom has not yet offered a Managed VOB product ComReg considers that Managed VOB provided by Eircom over its NGA network is likely to provide (by design) a suitable alternative to RFTS provided over its narrowband networks.

4.85 However, ComReg recognises that this may only be the case for end-users who consume RFTS as part of a broader bundle of services including broadband. In this respect, there is potentially a large cohort of 'captive consumers' who purchase RFTS on a standalone basis and for which Manage VOB based RFTS may not be a substitute for traditional RFTS. As noted in Figure 7 above[192], 38% of residential consumers purchase RFTS on a standalone basis. In particular, a standalone Managed VOB based RFTS service may not, depending on its retail price relative to the price of traditional narrowband based RFTS, be an effective substitute. Additionally, it may be the case that Managed VOB based RFTS, whether sold as part of a broader bundle of services or on a standalone basis, may nonetheless, from a technical perspective, not be a suitable alternative to a narrowband RFTS. For example, certain alarm monitoring or payment systems may not be compatible with Managed VOB based RFTS. These issues associated with captive customers highlighted above likely apply to a Managed VOB service provided over any platform and not just Eircom's network.

4.86 Aside from the RFTS identified above, there are several alternative methods by which a telephony service call can be made available. The remainder of this section will assess a range of these alternative methods in terms of the degree of inter-changeability that each provides in terms of functional characteristics, price, intended use and, ultimately, whether or not they are likely to be considered as effective substitutes. These include RFVC made in the following ways:

- Managed VOB provided over CATV, the various families of Digital Subscriber Line broadband technology ('**xDSL**'), FWA and alternative fibre networks and;
- Unmanaged VOIP;
- Mobile networks; and
- Fixed/mobile converged products.

[191] Explanatory Note to the 2007 Recommendation, section 3.4.

[192] See paragraph 3.60 above.

Managed VOB

4.87 ComReg has already briefly discussed Managed VOB in paragraphs 3.34 to 3.42 above. In essence, it involves a Service Provider offering a RFVC service over a broadband connection (the latter also provided by it, thereby allowing the Service Provider to retain some control over the quality of the voice service offered through its control of the broadband connection).

4.88 Eircom does not currently provide Managed VOB commercially on any significant scale. This is likely because Eircom operates a narrowband network which was designed to initially to provide RFTS and, notwithstanding Eircom's ongoing deployment of FTTC/FTTH, it still provides RFVC and FVCO services on its narrowband networks. The availability of Eircom's narrowband network means that Eircom has, up until now, been able to provide RFVC without undertaking additional investment in the development of a Managed VOB platform. However, having regard to the roll-out of its NGA network, ComReg envisages that Eircom would commence the initial provision of VOB services **[✂** [redacted] **]**[193]

4.89 However, Managed VOB could potentially be provided over a range of platforms. These include CATV, FWA, fibre and xDSL technologies. Managed VOB provided over these platforms is designed to mirror the characteristics of a traditional fixed RFTS by allowing the connection of an IP based telephone device to the end-users' broadband network, typically through a connection to a port on the back of a broadband modem.

4.90 Currently, Managed VOB is primarily offered as part of a suite of broader services, namely with a broadband bundle (or bundled with a CATV Pay TV service). This means that a Managed VOB typically suits end-users that wish to also purchase broadband or Pay TV services (i.e. the Managed VOB RFTS cannot be purchased as a standalone product).

[193] Ibid, page 128.

4.91 For this reason, RFTS customers that wish to purchase a broadband service are currently more likely to consider Managed VOB to be a potential substitute for their traditional RFTS as supplied over Eircom's narrowband networks[194]. In this respect, ComReg notes that 66% of households and 73% of businesses surveyed by ComReg purchase a fixed broadband service[195]. Based on the Quarterly Key Data Report, the total number of broadband subscriptions in Ireland for Q3 2013 was 1,674,990. Based on the 993,217 fixed residential broadband subscriptions only (i.e. excluding business subscriptions and mobile broadband subscriptions), the estimated fixed broadband household penetration rate[196] as of Q3 2013 was 58.8%.

4.92 For RFTS customers that do not already purchase a fixed broadband service, availing of a Managed VOB based RFTS service would first require the purchase of a fixed broadband service (or a pay-TV service if they choose UPC as an RFTS provider). This is only likely to be a suitable option if (a) the price and functionality of the Managed VOB product is comparable to their RFTS product; and (b) any price premium (additional cost to the customer) associated with switching from their traditional narrowband RFTS product to a Managed VOB product is exceeded by the perceived additional value associated with the service.

4.93 Although a fixed broadband service is a different platform to a traditional narrowband RFVA connection, when provided over a high quality broadband connection (in the sense that it is sufficient to support a VOB service of equivalent quality), Managed VOB over broadband appears to provide functional similarity to the traditional RFTS supplied on a narrowband network, in the following ways:

- the service is provided at a fixed location and a geographic telephone number can be allocated to that telephone handset;
- it involves using a device/handset with functionality and performance equivalent or similar to that of a traditional telephone;
- the process of making a call is similar, or the same (i.e. the user picks up the telephone, which emits a dial tone, at which point the user dials the desired telephone number to make the call); and
- the ability to purchase additional call functionality and services is similar e.g. voice mailbox.

4.94 It is ComReg's view that such Managed VOB based RFTS are only likely to represent an effective substitute for traditional RFVCs in cases where the service meets the characteristics set out above, and is available at least at a price comparable to that offered for a traditional RFTS provided over a narrowband network.

[194] This would include Eircom's own traditional narrowband RFTS and a RFTS service provided by Access Seekers on the basis of wholesale SB-WLR inputs purchased from Eircom).

[195] The 2012 Market Research. Slides 14 and 88.

[196] There were 1,690,100 households in Ireland using a CSO Q2 2013 estimate.

4.95 In this respect, Ofcom stated in a 2010 market communications report that:

> *"managed VOB services are simple to use; consumers are often unaware that they are using VOB rather than a standard landline".*[197]

4.96 Having noted that, this is likely to depend on the quality of the broadband service over which the Managed VOB service is provided, including in terms of quality characteristics such as speed, latency and jitter. A poor quality broadband connection can undermine the quality of a Managed VOB service.

4.97 In addition, ComReg notes that the prevalence of bundling of RFTS with fixed broadband services and Pay TV services lead to varying levels of product differentiation in the purchase of RFTS. This, in turn, adds complexity to purchasing decisions made by end-users with respect to RFTS (and other services within the bundle), as well as complexities associated with understanding responsiveness to relative price changes.

4.98 In a competitive market for homogeneous products, prices tend to gravitate towards a common equilibrium price as suppliers compete with each other for market share. When the products or services offered by FSPs are differentiated in some way, the buying decision faced by end-users becomes more complex than simply choosing the product or service with the lowest price. For example, Eircom's RFVC product is offered with a RFVA narrowband connection, whereas a VOB based product is provided over a broadband connection, or over a CATV Pay-TV. Therefore it is difficult to compare these products. To that effect, it has been noted[198] with respect to market definition with differentiated products that:

> *"When products are differentiated, there are two drivers of competition: in prices and in product characteristics."*

4.99 In essence, the responsiveness of end-users to relative price changes may be dependant to a large extent on how end-users value different characteristics of the product or service. A decision to switch to an alternative supplier would entail consideration by end-users of a broad range of price/quality trade-offs and valuations beyond simply the price of access and calls available on each network.

4.100 With that in mind, variants of Managed VOB products offered over different platforms are discussed below in terms of their functional and price characteristics.

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[197] Ofcom, "The Communications Market 2010", August.

[198] Market Definition with Differentiated Products: A Spatial Competition Application, Javier Elizalde, Working Paper No.07/11, February 2011.

Managed VOB provided over CATV networks

4.101 The main CATV provider in Ireland, UPC, has upgraded its network to the DOCSIS 3.0 cable standard which enables the provision of high speed broadband and Managed VOB based RFTS. This upgrade has included the deployment by UPC of a hybrid fibre-coaxial network that combines fibre-optic and coaxial cable.[199]

4.102 RFTS are offered by UPC as part of a bundle that includes either broadband or Pay TV services. The 2012 Market Research indicated that 20% of households with a RFTS were supplied by UPC.[200] Meanwhile only 4% of business telephony phone connections are provided over a cable network in Ireland.[201] The imbalance in UPC's penetration between consumer and business segments is largely related to the residential footprint of UPC's CATV network.

4.103 Figure 2 in Section 3[202] set out the overall share of RFTS subscriptions in the period 2010 until 2013. The chart indicated steady increases in the number of overall RFTS subscriptions on UPC's cable network, having grown from 5% in Q1 2010 to 18.5% in Q3 2013.

4.104 Switching from a RFTS provided on a narrowband network to a Managed VOB service provided on a CATV network would also involve the end-user subscribing to a UPC broadband service and/or Pay TV service (UPC does not sell RFTS on a standalone basis). Similarly, a customer already purchasing a RFTS and a broadband service on a narrowband network could purchase such services with UPC. Customers already purchasing a UPC broadband and/or Pay TV service can additionally purchase a RFTS from UPC as an 'add-on' to their existing services.

4.105 Therefore, the cost associated with switching to UPC for the supply of a standalone RFTS is likely to be lower for existing UPC Pay-TV and broadband customers. For non-UPC customers however, any decision to purchase RFTS from UPC would entail consideration of a broader range of price/quality trade-offs and valuations beyond simply the price of RFTS.

4.106 ComReg's 2012 Market Research suggests that UPC has gained 37% of RFTS 'switching customers' over the last three years.[203] Nearly all of those customers that switched to UPC stated they switched from a RFTS product provided over Eircom's narrowband network.

[199] Fibre optic lines bring digital signals to nodes in the cable system where they are converted into radio frequency channels and modem signals on coaxial trunk lines.

[200] The 2012 Market Research, Slide 20.

[201] The 2012 Market Research, Slide 88.

[202] See paragraph 0.

[203] The 2012 Market Research. Slide 40.

4.107 The significant uptake of CATV based RFTS in Ireland suggests that those end-users located within the coverage/reach of UPC's network, that wish to also purchase broadband or Pay TV, perceive UPC's RFTS product to be a suitable substitute for RFTS provided over a narrowband network. This is consistent with the responses received in the 2012 Market Research which indicated that consumers tended to perceive call quality over CATV as broadly similar to traditional phone calls. In particular, 97% of residential respondents indicated that they perceived the quality of RFTS provided over a CATV TV network as being neutral or good, or they had no opinion[204]. Only 3% responded that they perceived the quality of CATV based RFTS to be poor.

4.108 As noted in paragraph 3.10, the coverage of UPC's CATV network in Ireland is limited primarily to residential premises' in the principal urban and suburban areas. In particular, UPC's network can provide RFTS to 746,100 premises, whereas there are approximately 1.6 million households and businesses in Ireland capable of being provided with RFTS over Eircom's narrowband network. In practice, this means that a large number of households, and the majority of businesses, do not have the option of purchasing RFTSs on a CATV network.

4.109 It is ComReg's preliminary view that UPC's Managed VOB product offers similar functionality and characteristics to that of RFTS provided over a narrowband network. For those individuals who purchase RFTS on a standalone basis, the price of RFTS provided over UPC is higher because its customers are also required to purchase the service in a bundle with broadband or Pay TV. For customers who purchase RFTS on a narrowband network as part of a product bundle, RFTS provided over CATV are likely to represent a suitable technical alternative.

Managed VOB provided on xDSL networks

4.110 X-Digital Subscriber Line ('xDSL') is a suite[205] of data communications technologies that enables high speed data transmission to take place over full or partial (copper telephone lines (such as those that form part of Eircom's copper and FTTC networks). ADSL is currently the predominant technology used to provide broadband over Eircom's network, however, given Eircom's roll-out of its FTTC network, over the period of this review this will likely evolve to the VDSL standard.

[204] The 2012 Market Research. Slide 45.

[205] This includes xDSL technologies such as Asymmetric Digital Subscriber Line ('**ADSL**'), Symmetric Digital Subscriber Line ('**SDSL**'), Very-high-bit-rate Digital Subscriber Line ('**VDSL**') etc.

4.111 ComReg notes that, depending on the quality of the broadband connection, it can be technically possible for a Managed VOB based RFTS to be provided on an ADSL broadband connection. However, ADSL has not, to date, been used to any significant extent to provide Managed VOB based RFTS. Eircom (and its wholesale customers through their purchase of SB-WLR) use its existing narrowband copper networks to provide traditional circuit switched RFTS (even in circumstances where Eircom is providing a VDSL based broadband services using its FTTC network it still provides RFTS over its traditional narrowband copper network).

4.112 In order to purchase a retail xDSL broadband service, the majority[206] of end-users currently purchase RFVA (line rental), which is essentially a narrowband connection. This RFVA is used to support the provision of RFVC and broadband services. Given this need to purchase a RFVA as a prerequisite for purchasing an xDSL based broadband services customers would likely undermine demand for an additional Managed VOB connection, given that the customer would already have the ability to make RFVC on the narrowband RFVA connection. ComReg notes that Eircom has, at the wholesale level, recently launched standalone WBA based (Bitstream) ADSL and VDSL products, which will ultimately allow a wholesale customer (and Eircom retail) to sell a standalone retail broadband connection without the need for the retail customer to also purchase a RFVA (including as part of a RFTS). As at December 2013, the total number of such standalone wholesale Bitstream services plus Eircom's self-supply was negligible and stood at **[✂ [redacted]].** ComReg would also note that Eircom does not appear to be actively marketing[207] a standalone broadband service at the retail level and its standalone broadband service subscribers stood at **[✂ [redacted]]**.

4.113 Apart from WBA, at the wholesale level, it also is possible for Access Seekers to purchase other WPNIA inputs[208] and deploy a competing RFTS, either on a narrowband connection or through a VOB based RFTS over a standalone xDSL broadband service (such as that provided by Eircom on foot of its SMP obligations in the WBA market). As of Q3 2013, the total number of unbundled lines was 77,356 of which 61,482 were Line Share and 15,874 were fully unbundled lines.

[206] See discussion in paragraph 5.97 regarding the take-up of Eircom's standalone Bitstream Service. Most RFTS service providers do not offer broadband on a standalone basis, with it being only available bundled with other services (or where available on a standalone basis at a similar price to that of a RFTS and broadband service.

[207] Such products are not readily visible on Eircom's website www.eircom.ie.

[208] These WPNIA inputs are more commonly known as either (i) Full Local Loop Unbundling ('**LLU**') whereby the Access Seeker rents the total access path from Eircom allowing I to provide a narrowband RFTS and broadband service or (ii) Line Share ('**LS**'), whereby the Access Seeker only rents part of the access path, namely the frequencies which enable the offering of a broadband service. LS requires the existence of a narrowband connection, namely the retail customer must also maintain a line rental service.

4.114 However, even noting the relatively low figures above for LLU (either Fully Unbundled lines or Line Share), RFTS have not been offered by Access Seekers using WPNIA inputs. Instead, where Line Share has been used by Access Seekers to provide broadband, it has also involved the Access Seeker purchasing SB-WLR to provide a RFVA (and RFVC) service.

4.115 As noted previously, the quality of the broadband service impacts on the quality of the VOB service that could potentially be offered to end-users. Blueface is an Irish company that provides Partially Managed VOIP services to end-users that have an existing broadband connection purchased from another FSP. For example, Blueface is offering an entry-level product called Freedom Basic VOIP package for a price of €9.99[209], which includes a bundle of 300 call minutes to local, national and select international landlines and a fixed line VOIP telephone. However, Blueface only provides calls, and is not itself a broadband provider.

4.116 Blueface provided a Partially Managed VOIP based RFVC service to a small number of business customers **[✂ [redacted]]** and residential customers **[✂ [redacted]]**[210], with such customers availing of broadband services over various types of platforms. Although this service is not a Managed VOB service, it illustrates that an Unmanaged VOIP service can be provided over an xDSL network (and other platforms) and suggests that xDSL platform could potentially be used to provide a Managed VOB based RFTS, subject to the quality of the broadband connection, the pricing and other characteristics of this RFTS service being acceptable to consumers.

4.117 Overall, given that the provision of Managed VOB products over xDSL networks has been negligible, there is insufficient evidence yet to determine whether it will be an effective substitute. While there is uncertainty as to whether the quality of ADSL based broadband services will support an effective Managed VOB based RFTS, ComReg recognises that VDSL, as a platform, appears to have the potential to provide a broadband service of sufficient quality to do so. In this context, having regard to pricing and other supply-side and demand-side considerations, Managed VOB provided over a VDSL by alternative FSPs has the potential to become an effective substitute for RFTS provided over a narrowband or CATV network. In this respect, while ComReg considers that Managed VOB over VDSL broadband networks would likely be a substitute for a RFTS provided over a narrowband or CATV network, we do not determine whether the same can be said with respect to Managed VOB on ADSL broadband given uncertainty regarding the sufficiency of quality of service and the lack of entry to date and likely entry by FSPs doing so.

4.118 Notwithstanding the above, ComReg will continue to monitor the availability of Managed VOB over VDSL and ADSL networks, including potential and actual entry by alternative FSPs.

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[209] Available on Blueface's website at http://www.blueface.ie/residential.php on 27 January 2014.

[210] ComReg Quarterly Key Report data Q2 2013.

Managed VOB provided on FWA networks

4.119 An FWA service[211] is a telecommunications service provided over a point-to-multi-point wireless connection between a radio base station (typically located on a mast/tower) and a fixed aerial or device located at the end-user's household or premises. FWA is more commonly associated with the provision of broadband services, and more recently a Managed VOB based RFTS.

4.120 There are a number of FSPs providing broadband and RFTS services over FWA networks in Ireland, the largest two being Digiweb and Imagine.

4.121 Purchasing RFTS over a FWA network also involves purchasing a broadband connection from an FWA based FSP. Therefore, for most end-users, any decision to purchase RFVCs from an FWA provider would entail consideration of a broad range of price/quality trade-offs and valuations beyond simply the price of calls available on each network.

4.122 Managed VOB products offered over FWA networks are likely to offer similar functionality and characteristics to that of traditional narrowband voice telephone services in terms of the key features described in paragraph 4.93 above.

4.123 The 2012 Market Research sought residential and businesses respondents' views on the reliability of voice services provided over an FWA connection. Residential respondents indicated that the perceived call quality over FWA networks tends to be broadly similar to that of traditional phone calls[212], although ComReg would note that a substantial number of respondents (49%) expressed no opinion – potentially as they were unfamiliar with FWA based RFTS. Only 2% of residential respondents that expressed a view indicated that the call quality on a FWA connection is 'poor', compared to 1% figure for the same question with respect to call quality a traditional fixed line phone. ComReg has also expressed the preliminary view in the 2012 Retail Access Market Review Consultation[213] that telephony services delivered over FWA are not considered to be functionally different from telephony services delivered over copper-based technologies.

[211] Eircom uses FWA in some places to provide an equivalent to its traditional narrowband voice telephony service. Traditional fixed telephone services are already considered as the starting focal/ candidate product for the purposes of this retail market assessment. In these paragraphs ComReg is assessing the degree to which VOB/VOIP services provided over FWA broadband connections are likely effective substitutes for a call.

[212] The 2012 Market Research. Slide 45.

[213] See footnote 30.

4.124 Prices for FWA-based RFTS also appear to be somewhat similar to prices charged for RFTS provided over narrowband networks[214]. For example, Digiweb offers a 'Metro starter and talk off-peak' product that includes 40 off-peak local and national calls with an up to 5MB broadband service for €29.95, with a similar product with unlimited off-peak local and national calls costing €34.95.[215] Imagine offers an entry level RFTS and broadband bundle that includes free local and national calls and an up to 10MB broadband service for €19.00 per month.[216] These products are similarly priced compared with Eircom's cheapest PSTN calls and access package, which does not include broadband, and costs €25.

4.125 Notwithstanding the above, ComReg would note that the number of RFTS provided over FWA is very low relative to other platforms and the overall number of FWA subscribers (irrespective of whether this is for broadband only or both broadband and RFTS) continues to decline. As of Q3 2013, there were 61,975 active FWA broadband connections[217], a fall of 3% in the previous 12 months[218]. While only a subset of these subscribers would also receive a RFTS service, even taking the full number of FWA subscriptions (which substantially overstates the position[219]), it would represent approximately less that 4% of all retail fixed telephony subscriptions[220].

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[214] As noted in paragraph 4.13, Eircom's standalone RFTS Talk Weekend Package, which includes both line rental and free calls to local/national fixed lines during the weekend, is advertised at a price of €25 per month.

[215] Price quoted on Digiweb's website http://www.digiweb.ie/home/bundles/metro-bundle on 27 January 2014.

[216] Price quoted on Imagine's website http://www.imagine.ie/offer/ on 27 January 2014.

[217] ComReg Quarterly Key Data Report Q3 2013.

[218] At its peak in Q1 2008, FWA subscribers were 123,456.

[219] Overall, ComReg has calculated that there is a maximum of **[✂[redacted]]** RFTS subscribers being served over FWA networks representing **[✂[redacted]%]** of all retail fixed telephony subscriptions.

[220] See paragraph 0.

4.126 ComReg's preliminary view is that the degree of competitive constraint posed by FWA based RFTS products is not likely to be substantial (given its declining numbers which indicate a lack of consumer switching[221]). However, in general Managed VOB delivered over FWA technology could represent a potential substitute for RFTS provided on a narrowband network. ComReg notes that the inclusion, or otherwise, of RFTS provided over FWA networks in the retail market is not likely to impact upon ComReg's assessment of competition in the FVCO market (given the small and declining demand for FWA based RFTS). ComReg has left open the matter of whether RFTS provided over FWA networks should be included in the RFTS market for the purpose of this particular market analysis exercise.

Managed VOB provided on alternative fibre networks

4.127 As noted previously, FTTC and FTTH networks can also serve a medium for provision of Managed VOB based RFTS services. We have already considered the provision of Managed VOB services over Eircom's FTTC/FTTH network in paragraphs 4.81 and subsequent paragraphs.

4.128 Managed VOB is already being provided in a very limited number of cases over localised alternative (i.e. fibre networks other than Eircom's) FTTH networks[222]. In particular, Magnet and Digiweb (who owns Smart Telecom) offer RFTS over their fibre networks. However, ComReg notes that these alternative products may offer a different value proposition to narrowband based RFTS.

4.129 For example, neither of these FSPs offers a RFTS on their fibre networks as a standalone service. Rather, RFTS is only offered as part of a broader product bundle with broadband and/or Pay TV and/or MTS. Therefore, switching from a RFTS provided on a narrowband network to RFTS provided on an alternative fibre network would also involve the end-user purchasing broadband or Pay TV or MTS from that supplier. As was the case for RFTS sold only in bundles, for end-users not already purchasing a fibre-based service, any decision to purchase a RFTS from a fibre-based FSP would entail consideration of a broad range of price/quality trade-offs and valuations beyond simply the price of calls available on each network. In such circumstances, end-user sensitivity to changes in the price of RFVC is likely to be diluted within the broader price of a fibre-based product bundle.

[221] This is also supported by the 2012 Market Research (slide 40) which slide shows that only 3% of customers have switched to Imagine and Digiweb for RFTS over the past three years, and a significant amount of these subscribers are likely to have switched to copper based narrowband RFTS offered by Imagine and Digiweb (both these companies purchased Eircom's wholesale SB-WLR product to offer RFTS as well).

[222] As at Q3 2013, according to the Quarterly Key Data Report the total satellite and alternate fibre broadband subscription represent 0.7% (12,375) of all broadband subscriptions.

4.130 Furthermore, these alternative FTTH networks are very limited in terms of their coverage, and therefore these products are only available to a small proportion of households. Magnet offers a ‘fatpipe fibre 24’ broadband product at €36.99 per month within a select number of residential estates (34 locations) where it has deployed fibre networks, covering approximately 15,000 households (out of approximately 1.6 million premises). A RFTS can be purchased for an additional €9.99 (i.e. the RFTS is not available on a standalone basis), which includes anytime local and national calls.[223]

4.131 Overall the current coverage and penetration of alternative fibre networks in Ireland is very low, with only **[**✂[redacted]] households purchasing fibre broadband as of Q3 2013, with an even smaller number of such subscribers likely to be availing of a RFTS on this platform (since not all of these customers are likely to be purchasing RFTS).[224] ComReg’s preliminary view is that the degree of competitive constraint posed by RFTS products provided by alternative fibre networks is not likely to be substantial. However, in general Managed VOB delivered over these networks could represent a potential substitute for RFTS provided on a narrowband network. ComReg notes that the inclusion, or otherwise, of these products in the retail market does not impact upon ComReg’s assessment of competition in the FVCO market (given the small actual and potential demand for these products on these networks). ComReg has left open the matter of whether RFTS provided over alternative fibre networks should be included in the RFTS market for the purpose of this particular market analysis exercise.

SIP Trunking on Leased Lines

4.132 ComReg has considered the potential for FSPs to use IP solutions such as SIP Trunking[225] to provide Managed VOB services over leased lines[226]. SIP Trunking is a relatively new delivery platform for providing RFTS to businesses, with a number of FSPs having recently started to offer such SIP based products, and others planning to do so in the future.

4.133 The extent to which SIP Trunking may represent an effective retail substitute for RFTS provided over other traditional narrowband platforms such as ISDN[227] is not yet clear because:

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[223] Available on http://www.magnet.ie/, correct on 27 January 2014.

[224] ComReg Quarterly Key Data Report Q3 2013.

[225] This is sometimes referred to as IP Business Trunks or IP Trunks –an exchange line service that uses IP for voice and data transmission and Session Initiation Protocol (‘**SIP**’) for the telephony control signalling. SIP Trunking services are generally multi-line services that are used to provide exchange line services to modern IP PABXs that support this type of interface.

[226] ComReg notes that the potential also exists to provide SIP Trunking over NGA xDSL, or alternative fibre networks.

[227] In the the 2012 Retail Access Market Review Consultation (see paragraphs 4.129 onwards), ComReg has set out its preliminary view that SIP trunks likely fall into a separate market to ISDN FRA and ISDN PRA.

(a) Uncertainty around the robustness of SIP quality of service and functionality. In particular, the security and reliability of a SIP Trunking service compared to a traditional ISDN FRA and PRA service;

(b) The deployment of SIP Trunking will likely require an IP enabled Private Automated Branch Exchange ('**PABX**'). Switching to alterative IP solutions would therefore involve replacement cost of the PABX. The 2012 Market Research indicates a small minority 16% of businesses surveyed report using a PABX[228] in business and that a negligible percentage of these report use of an IP based PABX.

(c) There may be a time delay in a migration of ISDN FRA and ISDN PRA to a SIP trunk, or other IP solutions in view that any equipment upgrade and PABX replacement is likely to be subject to the timing of a business procurement process and contracts renewal where business reassess their fixed telephony services provision. It is likely that in the current economic climate that many businesses will seek to extend the lifetime of their existing telecoms equipment where possible.

4.134 For the above reasons, it is not clear that the availability of SIP Trunking service would provide sufficient constraint to warrant their inclusion in the RFTS market, in particular, having regard to whether it is or would be likely to be taken up on a sufficient scale to exert an effective competitive constraint.

Overall preliminary conclusion on Managed VOB based RFTS

4.135 In paragraphs 4.87 to 4.131 above, ComReg has considered whether Managed VOB provided over CATV, xDSL, FWA and alternative fibre networks are likely to be effective substitutes for RFTS provided over a narrowband copper network.

4.136 ComReg recognises that there remains a significant segment of end-users that do not currently have/utilise a fixed broadband connection and, for that cohort of end-users, Managed VOB is unlikely to provide an effective substitute for traditional RFTS. However, as noted in Section 3,[229] there is a general trend towards households and businesses purchasing product bundles including combinations comprised of voice, broadband, Pay TV and mobile. Furthermore, there are increasing numbers of end-users switching to Managed VOB based RFTS services provided on CATV networks, which suggests that a significant number of end-users consider these products to be a substitute for an RFTS provided over a narrowband network.

[228] There may be a number of reasons for this. A high proportion of Irish businesses are SME and according to the 2012 Market Research, nearly half (48%) of businesses operate from a standalone office or home office (i.e. not in a business park or shared building/premise. It may also be the case that there is terminology misunderstanding among some business respondents.

[229] See paragraphs 3.55 to 3.64.

4.137 The evidence with respect to Managed VOB services provided over xDSL networks is less certain at this stage. Alternative FSPs (being those other than Eircom) have not, to date, materially launched retail VOB based RFTS services on XDSL networks and the evidence available to ComReg does not suggest that this is likely to occur in any meaningful way within the period of this market review. However, ComReg acknowledges that Managed VOB over XDSL network, subject to the quality of the broadband services as well as its pricing could, from a functional perspective, be a potential substitute for RFTS provided over a narrowband copper network. ComReg has also noted Eircom's plans with respect to its future plans for VOB over its VDSL based FTTC network and that this would likely ultimately replace, when available, its traditional RFTS service offered over its narrowband copper network.

4.138 Having regard to the above, ComReg considers that on a forward-looking basis, RFTS based on Managed VOB services provided over the following platforms are likely, from functional and pricing perspectives, to represent a substitute retail product for RFTS provided over a narrowband network.

(a) Managed VOB offered on a CATV network; and

(b) Managed VOB offered on a VDSL network.

4.139 ComReg leaves open the question as to whether Managed VOB over ADSL technologies are likely be an effective substitute for a RFTS offered over a narrowband network (or Managed VOB on a CATV or VDSL network) but intends to monitor the situation on an ongoing basis.

4.140 Given demand for services over FWA networks is in decline, ComReg does not consider Managed VOB over this platform to be likely to be an effective substitute for a RFTS offered over a narrowband copper, VDSL broadband or CATV network. Similarly, Managed VOB over alternative fibre networks, while functionally equivalent, having regard to the very limited fibre coverage is not considered likely to be an effective substitute for RFTS offered over such networks. While the position with respect to SIP Trunking is uncertain, it is considered unlikely to be an effective substitute given pricing and functional differences, and having regard to whether it is or would be likely to be taken up on a sufficient scale to exert an effective competitive constraint..

4.141 ComReg will continue to monitor broadband uptake, and the impact that this has on Managed VOB uptake and on RFTS charges.

Unmanaged VOIP calls

4.142 Unmanaged VOIP services typically involve the call being made via a personal computer, laptop computer, smart phone or tablet, or a VOIP enabled telephone that emulates the functions of a traditional telephone.[230]

[230] For example, see the broad range of telephones available for purchase in the Skype online shop at http://shop.skype.com. Customers can select between a cordless Skype enabled phone or a phone that simply plugs into your computer. Skype also allows customers to use their existing home phone, with the help of an adaptor.

4.143 As noted in paragraphs 3.45 to 3.48, Unmanaged VOIP services, can be provided by a third-party Service Provider 'over the top' of an existing broadband connection which is supplied to the end-user by another separate FSP. Examples of such services include Skype[231], Google Voice[232] or Viber[233], with these being provided over an end-user's existing broadband service.

4.144 In terms of functionality, an unmanaged VOIP service offers end-users the ability to make and receive calls between devices that have compatible hardware and software, or in some cases make and receive calls between a broadband device and a conventional telephone.

4.145 End-users purchasing Unmanaged VOIP services, such as Skype, can be allocated a geographic telephone number, so that the customer can receive calls from other fixed or mobile phones.[234]

4.146 Since Unmanaged VOIP Service Providers rely on a third party broadband network connection, they are unlikely to have control over the management of the quality of the broadband network, in particular, to ensure that IP traffic prioritisation to supports the provision of the Unmanaged VOIP service. As a result, such services can be subject to quality of service issues. This means that an Unmanaged VOIP service provider is not able to guarantee the robustness of the service synonymous with the quality of service associated with a narrowband, CATV or Managed VOB based RFTS service.

4.147 Unmanaged VOIP services are typically free when calling other users of the same service (e.g. Skype to Skype calls or Viber to Viber calls can be made at no charge), but charges are applied when calling a telephone number (either to geographic, non-geographic or mobile numbers). For example, Skype calls to any Irish landline are charged at a 'pay as you go' rate of 1.9c per minute.[235] This charge also applies for calls made to international numbers across a large group of countries.

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[231] See www.skype.com.

[232] See http://www.google.com/chat/voice/.

[233] See http://www.viber.com.

[234] As explained at https://support.skype.com/en/faq/FA331/what-is-a-skype-number

[235] Skype rates are published online at http://www.skype.com/en/rates/ as of October 2013

4.148 The 2012 Market Research indicates that a notable number of end-users, particularly residential end-users, are now occasionally using Unmanaged VOIP services to make certain types of calls (primarily international calls). As discussed in paragraphs 3.45 to 3.48, the 2012 Market Research indicated that 36% of households with a fixed broadband service in their home claimed to have used Unmanaged VOIP services.[236] 10% of such respondents reported using Unmanaged VOIP once per day, with a further 10% doing so more than once a day[237]. The 2012 Market Research also showed that Skype usage was for predominantly for calls to international numbers[238]. Similarly, ComReg's ICT survey shows that 31% of households with broadband use Unmanaged VOIP to make calls at least weekly.[239] However, business use of Unmanaged VOIP has been less common, with only 12% of business respondents to the 2012 Market Research reporting that their staff use Unmanaged VOIP to make calls, although this was predominantly for calls top other Unmanaged VOIP users and international calls[240].

4.149 Despite the occasional usage of Unmanaged VOIP by households, there still appears to be a strong tendency for households and businesses alike to primarily use a fixed line telephone or mobile phone to make local, national, international calls.[241]

4.150 Residential respondents to the 2012 Market Research who reported not having a fixed line telephone were asked to indicate reasons why they chose not to have a fixed line telephone. In response, 27% agreed with the statement that they do not need a fixed line telephone because they use Skype, internet calls or VOIP instead.[242]

4.151 In summary, the evidence discussed above suggests that Unmanaged VOIP is being used by some end-users as an alternative means of making calls, predominantly for international calls and to other Unmanaged VOIP users. Residential end-users are more likely than business RFVA customers to use Unmanaged VOIP services. Overall, having regard to differences in functional characteristics and patterns of use, it is ComReg's preliminary view that Unmanaged VOIP calls are unlikely to be an effective substitute for RFTS on a traditional narrowband and CATV or for Managed VOB Calls.

[236] 2012 Market Research, slide 16.

[237] 2012 Market Research, slide 16.

[238] 2012 Market Research, slide 26.

[239] 2013 ICT Survey, Service Ownership: Frequency Of Using Voice Over Broadband (Skype /Facetime / Viber) To Make Phone Call.

[240] 2012 Market Research, slide 110.

[241] 2012 Market Research, slide 26 (residential) and 106 (business)

[242] Market Research 2012, slide 50.

Mobile Telephony

4.152 ComReg considers below the extent to which calls made from a mobile telephone are likely to represent a suitable substitute for RFTS. For the purposes of this analysis, a mobile call means a call made from a mobile telephone (with a mobile number).

4.153 Consumers most commonly make telephone calls by using either their mobile phone, or a fixed line telephone.[243] As discussed in paragraphs 3.21 to 3.31, there has been substantial growth in mobile call traffic since 2007, with this being relatively stable over recent years, while over the same period there has been a continuing decline in RFVC traffic.

4.154 As noted in paragraphs 4.32 to 4.41 the 2012 Market Research suggests that consumer decisions on whether to use a fixed or mobile telephone in any specific situation will depend on the type of call being made. Table 4 below replicates these results of the 2012 Market Research.

Table 4: Usage Preference by Telecoms Type[244]

Type of call	Fixed	Mobile	Other
Local fixed line	77%	16%	7%
National fixed line	80%	13%	7%
Mobile (on same network)	16%	78%	6%
Mobile (on different network)	27%	62%	11%

4.155 For example, the majority of households and businesses prefer to use a fixed line telephone when making a call to another fixed line telephone (77% for local landlines and 80% for calling national landlines).[245] This may be because the cost of doing so is perceived to be lower than calling from a mobile telephone. In contrast, the majority of residential respondents prefer to use a mobile phone when calling another mobile phone.[246] Businesses, however, reported a marginal preference for using a fixed line telephone rather than a mobile telephone when calling a mobile phone (49% versus 43%), but were still more likely to use a mobile when calling another mobiles compared to when calling a fixed line telephone.[247] The tendency for consumers to use fixed and mobile telephones for different types of calls indicates a degree of complementarity amongst these services amongst households.

[243] The 2012 Market Research. Slide 26.

[244] The 2012 Market Research, slide 26.

[245] The 2012 Market Research, slide 25.

[246] The 2012 Market Research. slide 45.

[247] The 2012 Market Research, slide 106.

4.156 The 2012 Market Research shows that businesses preferred to use their fixed line telephone rather than their mobile phone for all categories of calls, including for calls to mobiles.[248] However, businesses still reported using fixed and mobile platforms in a different way. In particular, when mobile telephones were used by a business, it was normally used to call another mobile phone (60%). Whereas businesses normally used a fixed line telephone to call another fixed line telephone (55%).

4.157 In terms of functionality, the fundamental distinction between RFVC and mobile calls relates to mobility associated with mobile calls, i.e. the ability to make a call from and be called at any location (within the coverage footprint of the mobile network).

4.158 Consumer perceptions appear to regard the call quality and reliability of RFVCs as being close to but slightly better than mobile call quality[249]. Most residential respondents perceived the quality of RFTS calls (96%) and mobile calls (91%) as being good to neutral, with the quality of RFTS calls considered poor by 1% of respondents in comparison to 4% for mobile. Similarly reliability of RFTS calls (97%) and mobile calls (92%) was considered as being good to neutral, with the reliability of RFTS calls not considered as being poor at all, in comparison to 4% for mobile.

4.159 Having said that, poor mobile telephone network coverage in some locations can result in a poor call quality or an inability to make calls at all. This was also evident in responses to the 2012 Market Research, where 23% of residential respondents with a fixed line telephone noted poor mobile coverage in their home as a reason for retaining the fixed line telephone.[250]

4.160 The issue of fixed to mobile substitutability was also considered by ComReg in its 2012 Retail Access Market Review Consultation[251] wherein it was then noted that the average price of RFTS had increased by **[✂[redacted]]** in real terms from 2007 to 2012, primarily due to increasing cost of calls. It was also noted that the then real cost of mobile services also marginally increased by **[✂[redacted]]** over this period but that this was much less than the increase in RFTS prices. ComReg has updated this analysis and the average price of RFTS has increased by **[✂[redacted]]** in real terms from January 2007 to December 2013[252], primarily due to increasing cost of calls. The real cost of mobile services has decreased by **[✂[redacted]]** over the same period. These RFTS price increases and MTS decreases, in a period which was largely deflationary in view of the poor economic climate, are not suggestive of MTS exerting effective competitive constraints on RFTS.

[248] The 2012 Market Research. slide 106..

[249] 2012 Market Research Slides 44 and 45.

[250] 2012 Market Research Slide 43.

[251] See, for example, paragraphs 3.46 to 3.54. Note this data is based on confidential information provided by the Central Statistics Office ('**CSO**') and it has been redacted.

[252] CSO Data.

4.161 However, it is not straight forward to compare the price of RFVC and mobile calls because, in each case, calls are often included within packages or bundles that of themselves can differ in other aspects (such as with respect to inclusive data allowances, free minutes etc.). However, Eircom[253] and Vodafone each provide RFTS and MTS, and therefore their products may allow for a suitable comparison. Table 5 and Table 6 below set out prices for a range of RFTS and MTS.

Table 5: Comparison of Eircom and Meteor mobile and fixed prices[254]

Comparison of Eircom and Meteor prices			
SIM-only mobile plans (examples)[255]			
Plan	Micro Simo	Max Simo	Mega Simo
Cost per month	€15 (unlimited on-net minutes and texts, 100 off-net minutes, 100 off-net texts, 250MB data)	€25 (unlimited on-net minutes and texts, 200 off-net minutes, unlimited off-net texts, 1GB data)	€30 (unlimited calls and texts, 1GB data)
Charges for out-of-bundle services	€0.30 per minute for out-of-bundle calls (Micro Simo and Max Simo only) and €0.15 per text (Micro Simo only).		
Fixed line plans (examples)[256]			
Plan	Eircom Talk Weekend (line rental, unlimited weekend local & national calls)	Eircom Talk off Peak (line rental, Unlimited off-peak local & national calls, 30 off-peak minutes to Irish mobile operators)	Eircom Talk Anytime (line rental, Unlimited anytime local & national calls, 30 anytime minutes to Irish mobile operators)
Cost per month	€25	€30	€40
Charges for out-of-bundle services	6c per minute for out-of-bundle local & national calls, 10c per minute for calls to Meteor or eMobile, 25c per minute for calls to other Irish mobile operators.	5c per minute for out-of-bundle local & national daytime calls, 3c per minute for out-of-bundle local & national evening and weekend calls, 5c per minute for out-of-bundle calls to Meteor or eMobile, 22c per minute for out-of-bundle calls to other Irish mobile operators.	5c per minute for out-of-bundle local & national daytime calls, 3c per minute for out-of-bundle local & national evening and weekend calls, 5c per minute for out-of-bundle calls to Meteor or eMobile, 22c per minute for out-of-bundle calls to other Irish mobile operators.

[253] Eircom provides a mobile service through Meteor and eMobile.

[254] See www.eircom.net. Correct as at 31 January 2014.

[255] Meteor Bill Pay plans and charges are available at: https://store.meteor.ie/bill-pay-plans as of 31 January 2014.

[256] Eircom home phone plans and charges for out-of-bundle services are available at: https://secure.eircom.net/talktime/talktime-evolution-flow?execution=e4s1 as of 31 January 2014.

Table 6: Comparison of Vodafone mobile and fixed prices[257]

Comparison of Vodafone mobile and fixed prices			
SIM-only mobile plans (examples)[258]			
Plan	My Way (unlimited on-net minutes and texts)	My Way Plus (unlimited on-net minutes and texts, 500MB data)	Red 30 day (unlimited calls and texts to any network, 1GB data)
Cost per month	€10	€15	€30
Charges for out-of-bundle services	€0.25 per minute for out-of-bundle calls and €0.11 per text for My Way and My Way Plus only		
Fixed line plans (examples)[259]			
Plan	Simply Talk (line rental, 100 minutes to Irish mobiles, landlines and 23 international landline destinations)	Vodafone Home Extra (broadband, unlimited local, national and UK landline calls, 100 minutes to Irish mobiles and 23 international landline destinations)	Vodafone Home Max (broadband, unlimited local and national calls, 200 minutes to Irish mobiles, landlines and 23 international landline destinations)
Cost per month	€30	€47.50	€55
Charges for out-of-bundle services[260]	21c per minute for out-of-bundle calls to mobiles and 4c for calls to national and local landlines (in each case with an additional 7c call set-up charge incurred for each call irrespective of the length of the call)		

4.162 The above tables set out a selection of basic fixed and mobile plans for Eircom and Vodafone. In each case additional charges apply for out of bundle services. This pricing information suggests that, apart from on-net mobile calls, RFVCs are cheaper outside of a bundle compared with out-of-bundle mobile calls. This is particularly the case for RFVC made to another fixed line telephone.

4.163 Bundles of mobile access and mobile calls may, in certain cases, be cheaper than having a RFTS. However, ComReg notes that the services also differ in that RFTS packages are typically purchased on behalf of a household, and therefore often shared between multiple users. Whereas a MTS package is normally used by an individual. Furthermore, the RFVA element of the RFTS is also, in many cases, used as a platform for the provision of fixed broadband for many households and businesses. Therefore the cost of the RFVA element of the RFTS is attributable not only to RFVC services, but also to broadband and potentially other services.

[257] See www.vodafone.ie. Correct as at 27 January 2014.

[258] Vodafone sim only products and prices are available at http://shop.vodafone.ie/shop/phonesAndPlans/phonesAndPlansHome.jsp?reset=true&subPage=plans&planType=paySim as of 27 January 2014.

[259] Vodafone home phone and broadband plan prices available at https://www.vodafone.ie/home-phone-broadband/ as of 27 January 2014.

[260] Vodafone home phone out-of-bundle tariffs are available at http://www.vodafone.ie/home-phone-broadband/charges/?ts=1384267745541 as of 27 January 2014.

4.164 Having regard to the 2012 Market Research, most respondents believed RFVC charges to be lower than charges for calls made from mobile phones for most call categories. [261] For example, 68% of consumer respondents believed it was more expensive to use a mobile telephone to call a landline (relative to the cost of using a fixed line telephone to call another fixed line telephone). The exception is for 'on-net' mobile calls (to mobile subscribers on the same network), with 54% of respondents considering such calls to me more expensive that were they to be made from a fixed line. Furthermore, the predominant reason cited by household respondents[262] for retaining a fixed line telephone was that it was cheaper to make some types of calls (cited by 73% of respondents with a fixed line telephone), followed by a preference for using their my fixed line phone rather than my mobile phone for making longer calls (cited by 64% of respondents with a fixed line telephone).

4.165 Patterns of customer use regarding fixed and mobile telephone calls may also offer an insight into the extent of substitutability amongst these products.

4.166 The proportion of Irish households with a mobile phone exceeds the proportion of households with a fixed line telephone, however, mobile phones are personal devices (with many individuals in a household potentially having a mobile phone), whereas fixed line telephones are targeted at households for use by multiple individuals. The 2013 Consumer ICT Survey indicates that 97% of households reported having a mobile phone, whereas only 69% of households have a fixed line telephone.[263] An EU 2013 Eurobarometer Survey[264] found that 56% of households have a fixed line. The majority of people living in Ireland therefore have the option available to make a phone call from a mobile telephone, or from a fixed line telephone[265]. This suggests that there is a degree of complementarity between fixed and mobile telephone calls for many consumers.

4.167 By contrast, the 2012 Market Research showed that business use of a fixed line telephone is nearly universal at 95%, whereas only 59% of employees are provided with mobile telephones (45% are provided with both a fixed and a mobile telephone, while 14% are provided with a mobile telephone only) of business respondents to reporting ownership of a RFTS.[266]

[261] The Market Research 2012. Slide 36.

[262] The Market Research 2012. Slide 43.N=633.

[263] 2013 ICT Survey. Section 2: Service Ownership

[264] Special Eurobarometer 396 - e-Communications Household Survey, available at http://ec.europa.eu/digital-agenda/en/news/special-eurobarometer-396-e-communications-household-survey (the '**2013 Eurobarometer Survey**').

[265] This is consistent with the 2012 European Communications household survey which finds that the proportion of Irish households combining fixed and mobile access reached 57% in 2012, with 35% of households being mobile only.

[266] The 2012 Market Research. Slides 84 and 107.

4.168 Table 7 illustrates the breakdown of the types of calls being made from fixed and mobile telephones breakdown by residential respondents, which was discussed in paragraphs 4.32 to 4.41 above in the context of end-user calling patterns.

Table 7: Distribution of call types from fixed line phone or mobile phone[267]

Type of call	Fixed Only	Mobile (with fixed line too)	Mobile only
To international phone numbers	10%	4%	6%
To local/national fixed line numbers	66%	26%	20%
To mobile phones	22%	68%	71%
To competition lines, voting lines and other premium rate numbers	2%	2%	2%
To directory enquiries	0%	0%	0%

4.169 The above responses indicate that fixed line telephones are more often used within a household to make calls to other landlines (66%), while mobiles are more often used to make calls to other mobiles (between 68% and 71% of calls made from a mobile are made to another mobile number).

The above distribution of calls made from fixed and mobile phones are also generally borne out in data presented in ComReg's Quarterly Key Data Report[268], which is presented in Figure 16: and

4.170 Figure 17 below.

[267] The 2012 Market Research. Slide 25.

[268] Quarterly Key Data Report, Q 3 2013, Figures 2.3.1 to 2.3.3.

Figure 16: Monthly Fixed Voice Call Distribution % for Residential Subscribers

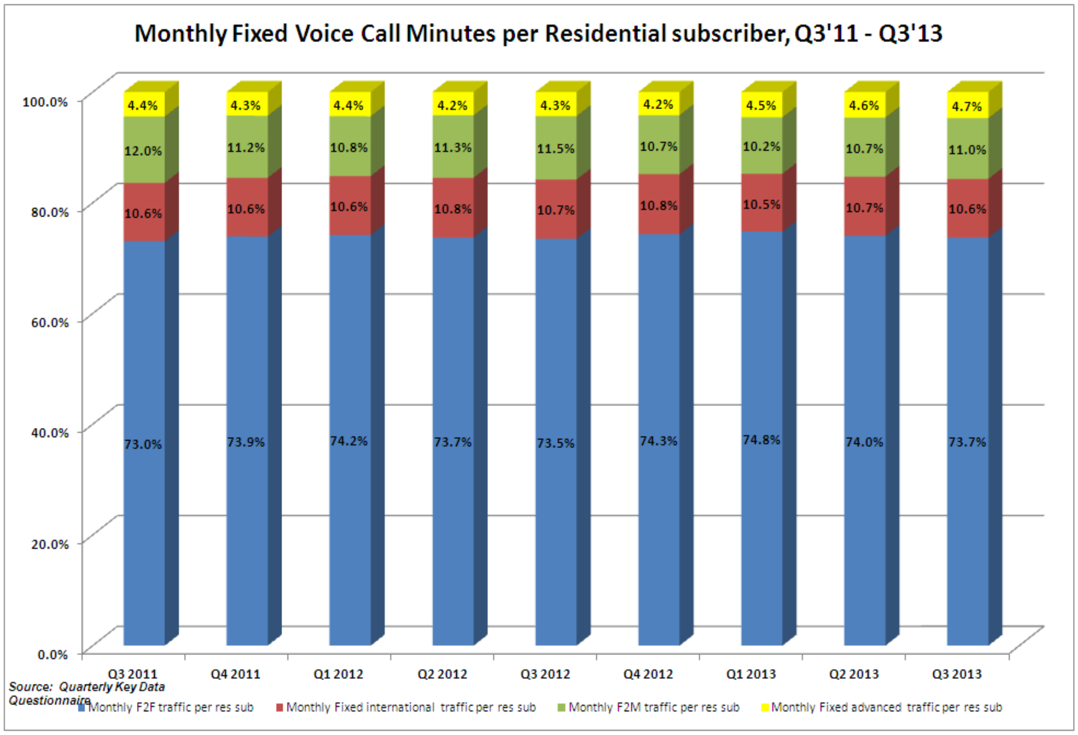
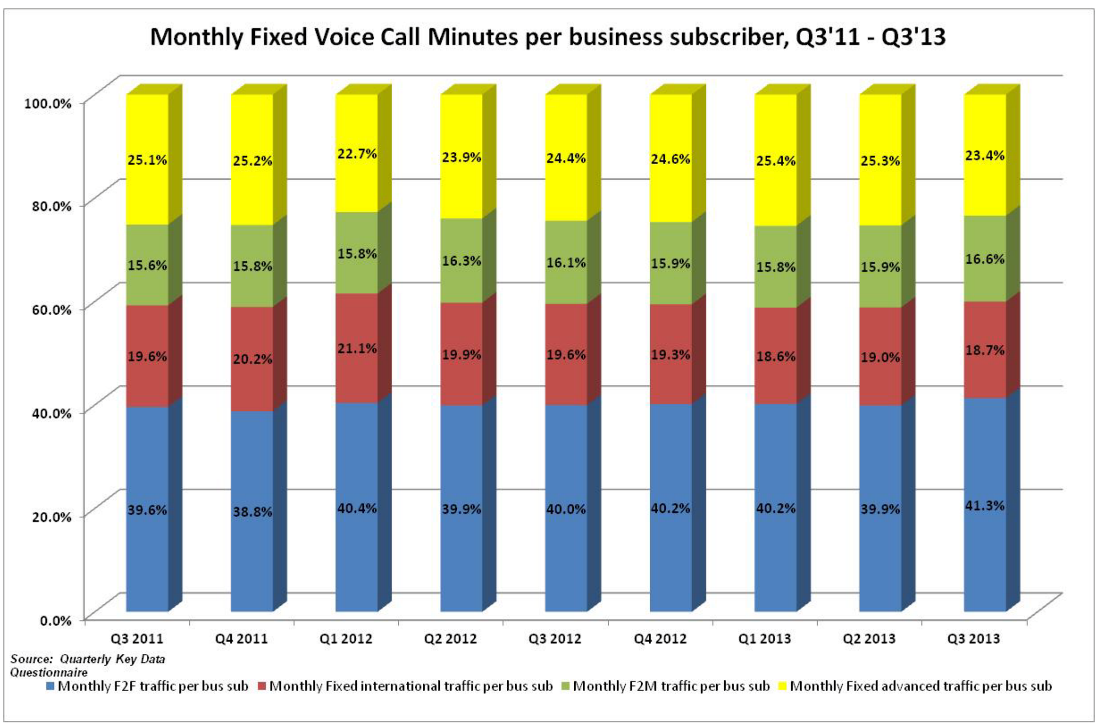


Figure 17: Monthly Fixed Voice Call Distribution % for Business Subscribers



4.171 The price sensitivity analysis discussed in Appendix D shows that some end-users would be likely to switch to mobile in response to a significant increase in the price of their RFTS service. However, it is ComReg's view that the low awareness of prices generally is likely to diminish any response in demand to price changes, instead relying on perceptions regarding the relative pricing of RFVC and mobile calls for different call-types.

4.172 As discussed in paragraphs 3.12 onwards, a number of Service Providers now offer both RFTS and mobile calls. For example, Vodafone provides RFTS and mobile services as does Eircom, through Meteor.

4.173 The decision by Vodafone to operate two separate access networks in parallel, and in Eircom's case to separately invest in a ubiquitous mobile network, indicates that the mobile network delivers a different service proposition to a fixed telephone network. It also appears that MTS satisfy a distinct customer need (otherwise diversification would lead to unnecessarily increase in costs associated with operating two networks, potential cannibalisation of existing sales, and ultimately would lead to a fall in profitability). This also suggests a complementary relationship between RFTS and MTS, rather than an effective degree of substitutability. Additionally, the recent emergence of RFTS and MTS being offered in bundles also suggests that end-users place a distinct complementary value on these services, rather than considering them to be substitutes.

Preliminary conclusion for mobile telephony

4.174 The analysis in paragraphs 4.152 to 4.173 above has noted that:

(a) more than half of households and a substantial proportion of businesses purchase both RFTS and MTS;

(b) different calling patterns can be observed for the use of fixed and mobile phones suggest that RFTS and MTS are used in different ways; and

(c) the participation of FSPs and MSPs in providing both RFTS and MTS, including the emergence of bundles with such services.

4.175 Although there is evidence of some substitutability of RFTS for MTS, the evidence suggests that end-users consider RFTS and MTS to be broadly complementary, whether used in the home or in the office. End-users have a strong preference for purchasing both MTS as well as RFTS with a mix of RFTS and MTS being used to meet different needs. MTS may, in some cases, represent a substitute for a RFTS. However, overall price differences between fixed and mobile calls, and variations in consumer usage, preferences and perceptions regarding mobile telephone calls versus RFVC, suggested that MTS do not fall within the RFTS market.

4.176 Notwithstanding the above, ComReg further considers that any impact of fixed to mobile substitution in the context of the definition of the FACO Markets in Section 5.

Fixed-mobile converged products

4.177 In this section, ComReg considers the extent to which a fixed like telephony service that is provided using mobile network inputs ('Converged Service') is interchangeable with a traditional wired RFTS, having regard to functionality, pricing and other considerations. ComReg would note that this issue has also been considered in the 2012 Retail Access Market Review Consultation[269] where ComReg set out its preliminary view that given a range of relevant demand-side factors including functionality, price and consumer usage, as well as relevant supply-side factors, mobile access is not a sufficiently effective substitute for RFVA. This analysis also remains of relevance to this market review.

4.178 An example of a Converged Service is Vodafone's 'One Net Express' service provided over its mobile network and which launched in 2012. The One Net Express product is marketed by Vodafone as an integrated fixed and mobile voice communications solution[270]. The product appears to be aimed at business customers that wish to be contactable on a geographic telephone number, but also to be able to receive calls to that geographic telephone number while on the move.

4.179 This Converged Service, at its most basic level, provides similar functionality to a traditional RFTS, but is integrated with a mobile workforce via mobile telephones so that calls made to the desktop telephone can be easily managed and forwarded to an employee's mobile phone as required. The desktop telephones, although provided at a fixed location, are also connected to Vodafone's mobile network rather than via a wired landline. This would appear to allow businesses greater flexibility in terms of making and receiving calls from different locations, yet have them attached to a geographic number and manage them through a central telephone system.

4.180 The 'entry level' One Net Express product is offered at a monthly fee of €125 which includes a desktop telephone and a telephone system, along with 500 minutes, 500 texts and 2GB of data, free local and national calls and free calls to Vodafone mobiles. An additional charge of €20 for each additional telephone applies (the customer can have up to five desktop or mobile telephones).[271] The aforementioned allowance of minutes, texts and data is shared between the employees' telephones.

4.181 As such, the fixed monthly fixed charge associated with this product is more expensive than a typical RFTS, but includes additional features and functionality, including those described above.

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[269] See, for example, paragraphs 3.46 to 3.54 and 4.169 to 4.207.

[270] According to Vodafone Ireland's website as of 27 January 2013. Available from: http://www.vodafone.ie/small-business/phones-plans/one-net-express/

[271] Pricing information for One Net Express is available on Vodafone's website http://www.vodafone.ie/small-business/phones-plans/one-net-express/pricing/?ts=1384433378543. Correct as at 27 January 2013.

4.182 Crucially, the service includes one or more geographic numbers, which means that the charge incurred by calling parties to One Net Express users is aligned with charges for calling local or national landlines.

4.183 Vodafone's One Net Express product is targeted primarily at small-to-medium sized businesses rather than residential consumers.[272] However, in general there is no inherent technical reason why such a converged product such as this could not be offered to all consumers, potentially in a simpler format and at a different price. It is not yet clear the extent to which these products would be considered to be interchangeable for RFTS, however ComReg would note that the number of users of Vodafone's One Net Express Service stood at **[✂** [redacted] **]** as at the end of January 2014[273].

4.184 As noted earlier, Vodafone also offers separate RFTS to a broader set of customers over Eircom's narrowband networks (through its purchase of SB-WLR). This, in parallel with the provision of its converged product on its own mobile network, suggests that Vodafone recognises functional and cost differentials, and perhaps consumer perceptions, between using fixed and mobile networks to provide RFTS.

4.185 Additionally, the limited use of converged services in the RFTS market to date means that it is difficult to assess their impact and the extent to which mobile networks could offer an effective substitute to a RFTS. The take-up of converged products is currently small and within a specific group of customers. It is not clear based on evidence observed to date whether a converged product would represent a suitable substitute for a narrowband FTS for a significant set of end-users.

Preliminary conclusion on RFTS over converged products

4.186 Given the limited scope of the product offerings available to date, Converged Services do not appear at this stage to represent a suitable alternative for end-users seeking a RFTS.

Overall Preliminary Conclusion on Likely Retail Product Market

4.187 While ComReg is not required to determine the boundaries of the RFTS product market it has assessed it given it is the downstream market that is most likely to be affected by any competition issues arising in provision of FVCO and Transit. In this context, the assessment of the RFTS market informs its subsequent assessment of any indirect constraints arising in the upstream Relevant Markets.

4.188 ComReg's preliminary view is that the likely RFTS product market includes the following:

(a) RFTS provided to a fixed location over a narrowband copper network;

(b) Managed VOB based RFTS provided to a fixed location over a wide area coverage fibre network, whether FTTC using VDSL or FTTH.

[272] As of 27 January 2014, Vodafone lists this product only in the business section of www.vodafone.ie.

[273] Figures are based on information provided by Vodafone to ComReg on 21 February 2014.

(c) Managed VOB based RFTS provided to a fixed location over a CATV network to a fixed location.

4.189 ComReg leaves open the question as to whether Managed VOB over other xDSL, FWA and alternative fibre technologies are likely to be an effective substitute for RFTS provided over the above platforms.

Geographic Scope of the RFTS market

4.190 ComReg now considers the geographic scope of the RFTS market. As was the case with the retail product market, ComReg is not required to define the geographic boundaries of this market. However, it is nevertheless useful to examine the likely geographic scope of the RFTS market, since it is likely to be of relevance to the consideration of the geographic scope of the upstream wholesale markets. In particular, indirect constraints might arise in Relevant Markets having regard to the strength of competition occurring in certain geographic areas at the retail level.

4.191 The geographic scope of the RFTS market has, to date, been considered to be national. This is, amongst other things, because Eircom provides a universal RFTS service over its ubiquitous narrowband network (also having regard to its Universal Service Obligations which also effectively require it to provide certain minimum services, including RFTS, throughout the State) and because the conditions of competition were not considered to be materially different and stable across different geographic areas.

4.192 However, the electronic communications sector is changing, and the growth of alternative networks/platforms (including those facilitated through the SMP based regulation of upstream markets) may lead to increased potential for clear localised competitive pressures to emerge at retail level. The entry or presence of alternative of competing suppliers in the RFTS market has not always occurred evenly across Ireland; in particular, any new infrastructure development has tended to occur in more densely populated areas of Ireland where FSPs are more likely to benefit from economies of density and scale when deploying networks. In such areas, FSPs may, on average, incur lower costs per customer served.

4.193 In general, the process of defining the geographic boundaries of markets involves identifying any geographic areas where a distinct break in competitive conditions can be observed. This approach places weight on the underlying structural and behavioural factors that are relevant in determining the competitiveness of a market.

4.194 The European Commission has noted that the relevant geographic market is:

"…….. an area in which the undertakings concerned are involved in the supply and demand of the relevant products or services, in which area the conditions of competition are similar or sufficiently homogeneous and which can be distinguished from neighbouring areas in which the prevailing conditions of competition are appreciably different."[274]

4.195 The European Commission has further stated that if an NRA is to define geographic sub-markets then:

"…. the definition of geographic sub-markets has to be based on a thorough analysis of structural and behavioural factors."[275]

4.196 Below, ComReg assesses the geographic features of the RFTS market by having regard to the following issues.

(a) geographic variation in entry conditions;

(b) the availability of services and the evolution of FSPs' market shares; and

(c) geographic variances in products and pricing.

Geographic variation in entry conditions

4.197 In order to provide RFTS at a given location, an FSP must either (a) purchase wholesale access to another FSPs network; and/or (b) build a network that is capable of offering the service. Entry will only likely occur at a given location when an FSP expects it to be profitable within a reasonable timeframe (i.e. the revenue associated with providing services to a customer, or a particular group of customers, at that location is greater than the costs associated with servicing those customers).

4.198 In the context of wholesale access used to facilitate the offer of RFTS, as noted in Section 3[276], Access Seeker's compete at the retail level predominantly through the purchase of Eircom's SB-WLR service and WLA, which is available on a national basis. This means that FSPs without a network of their own gain national coverage by virtue of having wholesale access to Eircom's national network. However, ComReg would also note that, in accordance with the Modified Greenfield Approach[277], but for regulation SB-WLR services would not likely be made available by Eircom and, therefore, Access Seekers would not be able to offer RFTS using these wholesale inputs.

[274] European Commission Notice on Market Definition, paragraph 8.

[275] European Commission, "Commission staff working document, Accompanying document to the Communication from the Commission to the European Parliament, The Council, The European Economic and Social Committee and the Committee of the regions on market reviews under the EU Regulatory Framework (3rd report), Further Steps towards the consolidation of the internal market for electronic communications", {COM(2010) 271 final}.

[276] See paragraphs 3.49 to 3.54.

[277] See paragraph 1.23.

4.199 The other option is for an FSP to building an electronic communications network. However, this would involve significant levels of upfront capital investment which would be sunk. For this reason, new entry through own network deployment tends to be centred, at least in the first instance, around relatively densely populated urban areas where FSPs can achieve greater economies of scale through the possibility of recovering their network investment costs from a greater number of customers within a given area.

4.200 In practice, this type of entry has predominantly arisen through FSPs upgrading existing networks that were providing services other than RFTS, such as a CATV network, so that it then supports the provision of RFTS and other services. Such upgrades allow the FSP to offer product bundles, which include a RFTS component, and spread the capital and operational costs across a range of broad range of services.

4.201 Most prominently, UPC launched a broadband service over its CATV network in 2007 and offers RFTS using a Managed VOB service over that network. This network covers the most densely populated areas within the State with its coverage extending to some 746,100 households[278]. Other FSPs have entered on a smaller scale by using FWA networks.

4.202 In response to competition emerging in various retail markets (particularly in the provision of product bundles), in the 2013 Bundles Decision[279] ComReg recently examined whether varying competitive conditions are present in the provision across Ireland of retail bundles of broadband and RFVA[280]. In so doing, ComReg sought to identify geographic areas where the following conditions were evident:

(a) the area being served by at least one other alternative infrastructure provider at the retail level, and by at least one other operator that uses VUA[281] or LLU inputs to serve end-customers;

(b) the area is not being served by an alternative infrastructure provider, but at least two operators being present in the area providing retail services via VUA/LLU inputs;

(c) the area being served by an alternative infrastructure provider, with Eircom and other OAOs providing retail services to less than 20% of the premises in the exchange area (subject to the operators collectively having a reasonable market share and coverage);

(d) Eircom giving prior notification that it intends to deploy NGA-based services in the exchange area to a reasonable number of lines in that area; and

[278] See paragraph 3.10.

[279] Price Regulation of Bundled Offers , Further specification of certain price control obligations in Market 1 and Market 4, Response to Consultation and Decision, ComReg Document 13/14, Decision 04/13, February 2013 (the "**2013 Bundles Decision**") available at http://www.ComReg.ie/_fileupload/publications/ComReg1314.pdf.

[280] While it is noted that this does not include RFVC, RFVC could be offered over RFVA.

[281] Virtual Unbundled Access ('**VUA**') is a wholesale broadband product provided by Eircom pursuant to its SMP regulatory obligations imposed in the WBA market.

(e) the area being surrounded by exchange areas that meet the above criterion, or having economic affinity with adjacent qualifying areas.

4.203 In the 2013 Bundles Decision, having regard to the assessment of the above conditions, ComReg identified 80 Large Exchange Areas ('**LEA(s)**') across Ireland where greater retail competition was considered likely to emerge over time. In view of this, ComReg granted additional flexibility to Eircom in the application of SMP price control remedies as they apply to its provision of SB-WLR and LLU within these areas.[282] This approach was intended to enable Eircom to more readily respond to competitive pressure in areas where it faces stronger platform competition.

4.204 The 2013 Bundles Decision therefore acknowledged LEA areas within which Eircom faced greater competition in the provision of product bundles which include RFVA. ComReg notes that this may also have an impact in respect to the provision of RFTS. However, if this were to be the case, ComReg would expect to see some evidence of FSPs engaging in geographically differentiated pricing strategies for RFVA and/or RFVC (this is considered below). However, ComReg would note that given Eircom's Universal Service Obligations ('**USO**') it is required to offer RFVA and certain RFVCs at geographically averaged prices.

Availability of services and market share

4.205 Eircom, along with other FSPs that use Eircom's narrowband network to provide RFVC, offer services on a national basis.

4.206 UPC, Eircom's largest competitor[283] (when measure in subscription terms) is capable of providing RFTS to approximately 45% of households in Ireland (approximately 746,000 households), largely in urban areas. Figure 18 below, which is based on the 2012 Market Research data on subscriptions broken down at a county level, indicates that UPC is attracting a significant number of RFTS subscribers in those counties where it has a cable network present.[284]

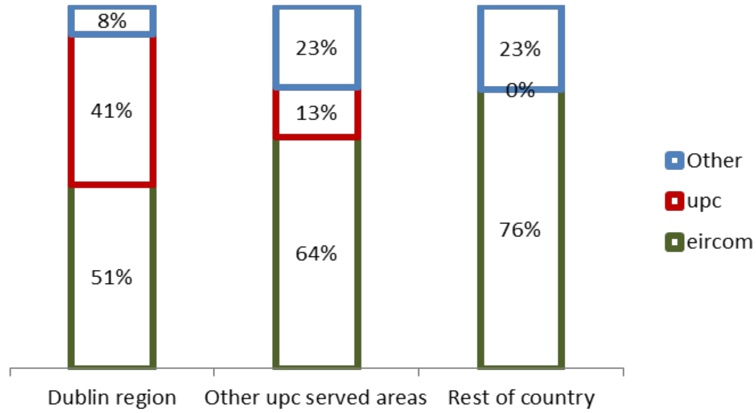
4.207 Vodafone, which is Eircom's second largest competitor (when measured in subscription terms), provides RFTS on a nationwide basis using wholesale services supplied by Eircom and BT Ireland, principally on the basis of SB-WLR.

[282] The remedy involves calculating a wholesale input for the net revenue test by reference to the prices of SBWLR, WBA and LLU network input costs weighted for the relevant usage of each input by FSPs in the exchanges that fall within the LEA.

[283] See Figure 2.

[284] It is important to note in interpreting Figure 18 that the graph is based on a sub-sample of the 1000 household respondents surveyed in 2012 and therefore should be considered only as indicative evidence.

Figure 18: Household Survey Snapshot of RFVA Market Shares by Location



4.208 Figure 18 above indicates that Eircom has a lower share of the RFVA subscriptions in areas where UPC is offering RFTS, relative to areas where UPC is not providing RFTS. This suggests a degree of localised competitive pressure in relation to the provision of RFTS. Note, however, that UPC's RFTS network was built initially as a CATV network, and therefore is primarily connected to households rather than businesses. As a result, UPC's services are primarily targeted at households and it has a much smaller share of business subscriptions, providing only 3% of business RFVA subscriptions in Ireland.[285]

4.209 There are also a number of RFTS providers[286] that offer retail bundles that include RFTS using their own network within limited geographic areas, and also offer RFTS using narrowband wholesale inputs on a nationwide basis.

4.210 ComReg's preliminary analysis would suggest that Eircom faces greater competition in the provision of RFTS in areas where alternative Managed VOB networks, and particularly UPC, are offering services. However, given that Managed VOB is only offered as part of a bundle with broadband or Pay TV, it is not clear the extent to which this competitive impact would apply to RFTS in and of itself.

Geographic variances in products and pricing

4.211 ComReg has examined the pricing and commercial behaviour of the current suppliers of RFTS. The existence of uniform pricing across Ireland, or otherwise, could provide a useful indicator of any differences in competition across different geographic areas of the market.

[285] The 2012 Market Research. Slide 95.

[286] These include Magnet, Imagine, and Digiweb.

4.212 There is no apparent evidence of sub-national pricing or marketing in the supply of RFTS. A review of RFTS product offerings advertised on FSP's websites, including those of Eircom, Vodafone, and UPC (which together represents 86.7% of RFTS subscribers and **[✂ [redacted] %]** when measured by call volumes)[287] indicates that FSPs offer uniform rates for RFTS throughout Ireland, and advertise on a national basis.[288]

4.213 ComReg notes that Eircom has, on a promotional basis[289], reduced its prices for certain product bundles within LEAs, in particular, bundles comprised of NGA broadband and RFTS This suggests that Eircom faces a degree of competitive pressure within the LEA, and it is ComReg's view that this most likely relates to competition from UPC's provision of product bundles[290], in particular, in the provision of broadband bundles., Eircom has no reduced the price of standalone RFTS within LEAs or outside LEAs.

4.214 Managed VOB providers such as UPC, Digiweb, Imagine, and Magnet offer a uniform price.[291] However, the coverage of these networks is limited to specific areas, and therefore only households and businesses within those areas can avail of the products and pricing offered. The presence of these competing networks has not lead to the implementation of sub-national pricing strategies by nationwide RFVC providers.

4.215 While there appears to be differentiation between urban and rural areas in terms of the product characteristics of product bundles, these variances appear to primarily relate to broadband speeds (dictated by network quality and the presence of NGA in certain areas only) and total bundle prices. In contract, the functionality and product characteristics of actual RFTS services are uniform across the State.

Preliminary conclusion on geographic market

4.216 ComReg is not required in this market review to determine a precise geographic boundary regarding a market for RFTS. However, ComReg has considered geographic features of the retail market in order to inform the subsequent analysis of the Relevant Markets. ComReg's assessment indicates that:

(a) there is no apparent evidence of RFTS (wither RFVA or RFVC) price differentiation on a geographic basis;

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[287] See paragraph 0 above.

[288] According to prices advertised at www.eircom.ie www.upc.ie http://www.sky.com/products/broadband-talk/talk/features/index-roi.html and www.vodafone.ie as at 27 January 2014.

[289] For example, Eircom's eFibre Advanced and eFibre Unlimited have a promotional monthly charge for the first 6 months that is available to new customers, with it reverting to a normal monthly charge thereafter.

[290] As noted earlier UPC des not provide RFTS on a standalone basis.

[291] See http://www.digiweb.ie/home/phone or http://www.imagine.ie/offer/ for examples of FWA services with a single price irrespective of location (as at 27 January 2014)

(b) RFTS services are offered by several FSPs on a nationwide basis, predominantly on the basis of wholesale access to Eircom's SB-WLR product;

(c) Managed VOB over UPC's CATV network offers competing RFTS services in urban areas, but as part of a broader bundle of services and not on a standalone basis; and

(d) differences in competitive conditions can be observed in LEAs, primarily in the provision of certain bundles comprised of RFTS, broadband and television services.

4.217 ComReg acknowledges that there is some variance in competitive conditions within the State, in particular, competition from UPC within LEAs appears to be somewhat greater in certain product bundles involving RFTS, broadband and Pay TV services.

4.218 However, these differences have not resulted in observable evidence of geographically differentiated pricing and or functional differences with respect to RFTS. ComReg therefore considers that there is insufficient evidence to suggest that a sub-national RFTS markets exists.

4.219 Notwithstanding the above, ComReg nonetheless considers any competitive differences in the supply/purchase of RFTS, whether on a standalone basis or as part of a bundle, in its analysis of the Relevant Markets.

Overall Preliminary Conclusion on RFTS Market Assessment

4.220 ComReg has examined the salient features and characteristics of the RFTS market to the extent that it informs the subsequent analysis of FVCO and Transit markets. In this respect ComReg notes that:

(a) The appropriate starting focal point for the assessment of potential RFTS substitutes is RFVC made from a fixed line telephone connected to a narrowband network (together being RFTS). However, ComReg notes that the inclusion, or otherwise, of RFVA within the assessment would be unlikely to have a material impact on the result in any case. This is because most customers prefer to purchase RFVA and RFVC from a single supplier given their complementary nature and therefore switching generally occurs across the two services in tandem. This relationship between RFVC and RFVA has, in any case, been accounted for throughout the analysis.

(b) In terms of factors that are likely to affect the responsiveness of end-users to changes in RFTS prices, having regard to the 2012 Market Research, there appears to be a low awareness of specific call costs, potentially due to the complexity of retail call pricing and the wide range of call products listed by FSPs. However, the cost of making calls and line rental are considered high in importance when choosing an FSP for the provision of RFTS. This suggests that customers have a better understanding of call or line rental costs at the time when they choose an FSP/supplier, and that call prices, either directly or indirectly, are likely to impact on consumer and business decisions when it comes to choosing an FSP for the provision of RFVCs. Despite end-users having a low awareness of specific call costs in general, behaviour in terms of using different ways to make different call types suggests that at least sizeable proportion of consumers are likely to have some degree of awareness of the relative cost of making certain call types (local/national/mobile/international etc) from a fixed line telephone, mobile telephone or a VOIP service.

(c) ComReg considers that Managed VOB provided by Eircom over its NGA network is likely to be a suitable alternative to RFTS provided over its narrowband network.

(d) The likely RFTS product market includes RFTS provided to a fixed location over a narrowband copper network; Managed VOB based RFTS provided to a fixed location over a wide area fibre network, whether FTTC or FTTH, using VDSL; and Managed VOB based RFTS provided to a fixed location over a CATV network.

(e) ComReg leaves open the question as to whether Managed VOB over ADSL technologies are likely be an effective substitute for a RFTS offered over a narrowband network (or managed VOB on a CATV or VDSL network) and intends to monitor the situation on an ongoing basis.

(f) ComReg does not consider that MTS likely fall within the same RFTS market as identified at (d) above, with these services appearing to be more complementary products.

(g) The degree of competitive constraint posed by FWA based RFTS products is not likely to be substantial. However, ComReg leaves open the question as to whether RFTS provided over localised FWA or alternative fibre networks fall within the same RFTS market as identified at (d) above.

(h) Although there are some structural variations emerging that may indicate a trend towards geographic differentiation in competitive conditions for RFTS within Ireland, this appears to be related more to the provision of broadband bundles (and RFVA when bundled with NGA broadband) rather than the price of RFVCs. Despite the structural variations identified between urban and rural areas in the provision of RFVA and broadband (reflected in ComReg's LEA and outside LEAs), ComReg has not observed a clearly identifiable break in the pricing of RFTS, such that would support the defining of separate geographic markets.

Question 2:	**Do you agree that the above identifies the main relevant developments in RFTS market since the previous reviews of the FACO and Transit Markets? Please explain the reasons for your answer, clearly indicating the relevant paragraph numbers to which your comments refer, along with all relevant factual evidence supporting your views.**

5 Wholesale FACO Market Definition

5.1 As noted in Section 1[292], the European Commission has established that the FVCO market is susceptible to *ex ante* regulation and, in doing so, refers to the market as:

> *“Call origination on individual public telephone networks provided at a fixed location”*

5.2 Market definition is a tool that enables the identification and assessment of the boundaries of competition between firms, ultimately to assess whether any FSP has SMP in a particular market. In the context of this review the aim is to consider whether there are any wholesale products or services which might be considered by a Service Provider as an effective substitute for FVCO, taking account of demand-side and supply-side considerations. This ultimately results in the identification of the product and geographic boundaries within which an FSP is subject to direct and indirect constraints in a given market.

5.3 In defining the FVCO Market, ComReg begins by identifying the appropriate wholesale focal product. From here, ComReg examines whether this focal product is in a market of its own, or whether a broader market should be defined to take into account direct supply-side or demand-side substitutes. ComReg then assesses the degree to which indirect constraints arising from downstream retail markets might effectively constrain wholesale market behaviour, before then assessing the geographic scope of the FVCO market.

5.4 The European Commission’s Notice on Market Definition defines a relevant market as follows:

(a) a relevant product market comprises all those products and/or services which are regarded as interchangeable or substitutable by the consumer by reason of the products' characteristics, their prices and their intended use;

(b) a relevant geographic market comprises the area in which the firms concerned are involved in the supply of products or services and in which the conditions of competition are sufficiently homogeneous.

5.5 In line with the Modified Greenfield Approach[293] ComReg’s assessment starts from the assumption that regulation is not present in the market under consideration, i.e. the FVCO market. However, regulation present in other related markets, or through other aspects of the regulatory framework, is assumed to be present. This is to avoid drawing conclusions regarding the competitive structure of a particular market which may be influenced by, or indeed premised on, existing regulation on that market. Considering how the FVCO market may function absent regulation helps to ensure that regulation is only applied (or withdrawn) in those circumstances where it is truly justified and proportionate.

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[292] See paragraph 1.16.

[293] See paragraph 1.23.

5.6 As noted in paragraph 5.2, market definition is not an end in itself, but is undertaken to provide the context for the subsequent competition/SMP analysis. It allows ComReg to consider the competitive constraints imposed by demand and supply side substitutes (and consequently the buyers and suppliers of those substitute products/services), on a forward-looking basis, that is, taking into account expected or foreseeable technological or economic developments over a reasonable time horizon linked to this market review.[294]

5.7 The remainder of this section addresses the product and geographic market assessment within which the following issues are considered:

- Identifying the focal product, being the initial product from which potential wholesale substitute products will then be considered (discussed in paragraphs 5.8 to 5.71);
- Whether the relevant FACO market includes wholesale SV services (discussed in paragraphs 5.72 to 5.76);
- Whether any alternative FACO products should be included in the relevant wholesale markets having regard to the effectiveness of any direct constraints from demand-side substitutes and/or supply-side substitutes (including self-supplied inputs (discussed in paragraphs 5.77 to 5.132);
- Whether any RFTS products should be included in the relevant wholesale markets having regard to the effectiveness of any indirect constraints from the retail market (discussed in paragraphs 5.133 to 5.210); and
- What is the geographic scope of the relevant FVCO market (discussed in paragraphs 5.217 to 5.236).

Relevant Product Market Assessment

Identifying the Focal Product

5.8 The first step involves identifying the relevant focal product. Since Eircom is the only wholesale supplier of FVCO to third parties, ComReg considers that Eircom's product is likely to represent a suitable starting point for the product market definition exercise.

[294] See recital 27 of the Framework Directive, which is transposed into Irish law by the Framework Regulations.

Eircom's FVCO (and Transit) Product

5.9 Eircom provides FVCO to its own retail division (self-supply), as well as to third party FSPs (external wholesale supply) using its narrowband copper network inputs.[295] For the purpose of this market definition exercise, ComReg considers that Eircom's self-supply of FVCO falls within the market regardless of whether it is used to supply other FSPs, or by Eircom to itself. Eircom's existing FVCO products are available on a national basis, and are purchased by a large number of FSPs.[296] Its self-supply could be converted relatively easily to external merchant market supply in the short term without incurring significant additional costs or risks, and there is likely to be significant demand from third parties for a FACO product self-supplied over eircom's network. In this respect, the Explanatory Note to the 2007 Recommendation states[297]:

> *"The issue of how to take into account the self-provision of wholesale inputs arises frequently in both defining and analysing markets. In some cases, what is under consideration is the self supply of the incumbent operators. In others, it is the self supply of alternative operators.*
>
> *In many cases the incumbent is the only firm that is in a position to provide a potential wholesale service. It is likely that there is no merchant market as this is often not in the interest of the incumbent operator. Where there is no merchant market and where there is consumer harm, it is justifiable to construct a notional market when potential demand exists. Here the implicit self-supply of this input by the incumbent to itself should be taken into account.*
>
> *In cases where there is likely demand substitution, i.e. where wholesale customers are interested in procuring from alternative operators, it may be justified to take the self-supply concerned into consideration for the sake of market delineation. However, this is not justified if alternative operators face capacity constraints, or their networks lack the ubiquity expected by access seekers, and/or if alternative providers have difficulty in entering the merchant market readily."*

5.10 Eircom offers a range of FVCO and SB-WLR products, services and facilities in accordance with its existing SMP regulatory obligations[298]. These are published in Eircom's Reference Interconnect Offer (**'RIO**') and Switched Transit and Routing Price List (**'STRPL**') on Eircom's wholesale website.[299]

[295] Eircom is currently the only FSP providing wholesale FVCO to third party FSPs in Ireland.

[296] For further information about FSPs purchasing FVCO and SB-WR see Sections 2.61 and 4 of this Consultation.

[297] Explanatory Note to the 2007 Recommendation,

[298] Such obligations are discussed in more detail in Section 9 in paragraphs 9.7 to 9.28.

[299] Available at http://www.eircomwholesale.ie/Reference-Offers/.

5.11 In summary, the FVCO products currently provided by Eircom vary mainly in terms of the point of interconnection ('**POI**') in its network at which calls can be handed over to the Access Seeker and at which the Access Seeker is interconnected. In this respect, FVCO is sometimes bundled with Transit whereby traffic is handed over by Eircom to the Access Seeker at the following exchange levels within its network.

(a) the primary exchange level (typically the local exchange to which the calling party's telephone line is connected);

(b) tandem/secondary exchange level (a regional exchange higher up in the network which would be connected to a number of primary exchanges); or

(c) double-tandem/tertiary exchange level (national telephone exchange at the highest level in the network which would be connected to a number of primary exchanges).

5.12 According to the product market definitions for FVCO and Transit pursuant to the 2007 Decision, FVCO products with handover at the tandem or double-tandem exchange include an element of Transit (switching of calls and conveyance between exchanges). In this respect, Eircom's FVCO charges increase based on the level at which an Access Seeker interconnects to Eircom's network having regard to the provision of Transit services alongside FVCO. The deeper an Access Seeker is interconnected to Eircom (involving infrastructure investment), say at the primary level, the earlier the Access Seeker can take the FVCO traffic off Eircom's network and onto its own network, thereby incurring a lower FVCO charge.

5.13 Eircom currently provides FVCO on either a standalone basis through its CPS product, or as part of a bundle with WLR, being its SB-WLR product. The WLR component of the SB-WLR product includes the rental of an access path which can be an analogue PSTN line, or a range of digital ISDN[300] products that are tailored for businesses with different requirements (and varying by the number of channels available). ComReg considered below whether the FVCO focal point should include the PSTN or ISDN access lines.

5.14 As discussed in Section 3[301], insofar as the provision of retail Managed VOB services are concerned, ComReg understands that Eircom **[✂** [redacted] **].**

[300] An ISDN connection provides two or more connections capable of being used simultaneously. Three types of ISDN are generally available: ISDN Basic Rate Access (BRA), which supports 2 channels for voice and data; ISDN Fractional Rate Access (FRA), which supports between 16 and 30 channels; and ISDN Primary Rate Access (PRA), which supports 30 channels.

[301] See paragraph 3.41.

5.15 ComReg notes that this Managed VOB platform, and the services provided over it, may ultimately[302] replace the traditional circuit switched delivery of RFTS over Eircom's narrowband network. As Eircom makes its RFTS available over this Managed VOB platform to its customers, ComReg expects that other FSPs would also be likely to seek to ultimately migrate their RFTS customers to a Managed VOB service, in particular, that Eircom as the largest RFTS provider in the State would do so and that this would eventually become the predominant method of supply.

5.16 With the necessary wholesale systems integration, infrastructure, billing, order management and media gateways in place, ComReg believes that that Eircom has the potential to provide Managed VOB over its NGA network and this could supersede Eircom's existing SB-WLR service (asymmetric switching is likely to occur from narrowband based RFTS to Managed VOB). However, ComReg notes that this would only be possible for retail customers who can avail of a broadband product and so traditional circuit switched RFTS will be likely to remain relevant for customers who cannot obtain a broadband service (or do not want a broadband service) for a number of years to come. Additionally, as noted above, ComReg anticipates that Eircom will continue to maintain its PSTN infrastructure beyond the period covered by this market analysis, notwithstanding its intentions with respect to the launch of its Managed VOB service.

5.17 ComReg therefore considers that a notional wholesale supply of FVCO over a Managed VOB service by Eircom (including its self-supply) would fall within the FVCO market. As noted in Section4[303], this view is also consistent with the Explanatory Note to the 2007 Recommendation, which indicates that incremental upgrades in network infrastructure are rarely translated into a new or emerging market.

5.18 In Section 4[304], ComReg set out its preliminary view that at the retail level there unlikely to be separate markets for calls made from a fixed location to different types of telephone numbers[305]. ComReg also considers this to be the case with respect to FVCO and, in this respect, notes that Eircom's FVCO encompasses call origination to all number types including geographic, non-geographic[306] and mobile numbers. This is likely to be the case at the wholesale level given supply-side substitutability considerations and economies of scope, including that the same infrastructure can be utilised by Eircom to deliver originated calls, irrespective of the number called.

[302] Eircom has indicated to ComReg in a presentation dated November 2013 that **[✂** [redacted] ”.**]** thus suggesting that its PSTN infrastructure will continue beyond the period covered by this market analysis.

[303] See paragraph 4.182.

[304] See paragraphs 4.7 to 4.45.

[305] Although it was recognised that international calls appear to be subject to greater competitive pressures on foot of OTT services such as Skype.

[306] See footnote 153.

Where is the boundary between FVCO and Transit?

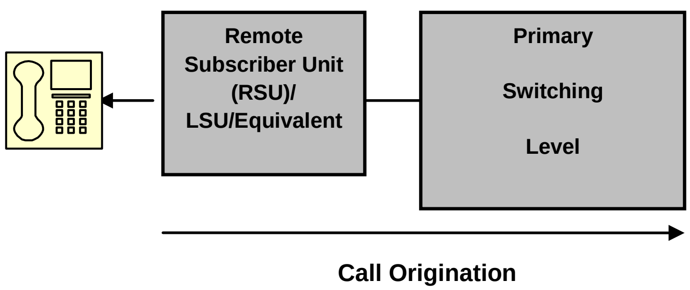
5.19 As noted in Section 1, FVCO is a wholesale service provided to other FSPs that involves the switching, routing, and conveyance of a call made from a fixed location through its initial phases (from the calling party's premises) up to a designated point of handover.

5.20 In general, Transit is a wholesale service provided to FSPs and MSPs that typically involves the switching, routing and conveyance of calls between the end of the FVCO stage of a call and the beginning of the termination stage of a call. However, the boundaries can differ depending on network topologies or technologies employed. The boundary of the Transit market is considered later in Section 7.

5.21 Insofar as FVCO is concerned, as noted in paragraphs 5.9 to 5.13, pursuant to its SMP regulatory obligations, Eircom offers a range of FVCO products, services and facilities which vary in terms of the POI in its network at which calls are handed over to Access Seekers. FVCO traffic can be handed over by Eircom to the Access Seeker at the primary, tandem or the double-tandem exchange levels. These FVCO products are named according to where they are handed over. i.e., primary FVCO, tandem FVCO and double-tandem FVCO.

5.22 At the time of the last review, the FVCO market was defined in the 2007 Decision up to a point of handover at the primary exchange.[307] This is depicted in Figure 19 below.

Figure 19: Call origination market as defined in the 2007 Decision



5.23 In respect of the boundary between FVCO and Transit, the Explanatory Note to the 2007 Recommendation notes that:

[307] Note that ComReg's decision to define the boundary at the primary exchange level was based on analysis in a paper previously published by ComReg, namely, Market Analysis – Interconnection markets, Response to Consultation & Consultation on Draft Decision**,** ComReg Document 05/37a, 19 May 2005.

> *"….the delineation between call origination, call termination and transit services can vary, according to network topologies and market conditions, and it is left to NRAs to define those elements constituting each part. It should be noted by the NRAs that while there is a degree of discretion in deciding the appropriate elements constituting call origination, call termination and transit services, these elements are additive, the sum of the three making the whole. This means, for instance, that if call origination and call termination are already defined then a notional market for transit is also defined by default."*[308]

5.24 ComReg analyses below the demand for Eircom's FVCO products in order to assess whether the primary exchange remains appropriate boundary. Of the variants of Eircom's FVCO products noted in paragraph 5.11 above, the primary level FVCO corresponds with ComReg's previous definition of FVCO[309]. The tandem and double-tandem FVCO products described both incorporate a transit element, and are therefore effectively a bundle comprised of FVCO and Transit (this is why Eircom charges a higher price for these services relative to primary FVCO).

5.25 Information provided to it in Statutory Information Requests indicates that approximately 70% of Eircom's FVCO traffic (provided to third parties) constitutes primary call origination, the remaining 30% of FVCO traffic is handed over at either tandem switches or double-tandem switches.[310] This reflects the different coverage of the networks operated by Eircom's wholesale customers. In particular, FSPs that are not interconnected with Eircom's primary exchanges require handover at a tandem or double-tandem exchange so that the call can be completed.

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[308] See page 27 of the Explanatory Note to the 2007 Recommendation.

[309] In the 2007 Decision the primary exchange was considered the appropriate boundary for the FVCO product market.

[310] Source: Eircom response to Statutory Information Requests, based on CPS/SB-WLR traffic handed over by Eircom to wholesale customers for H1 2011. This data will be refreshed concurrently with this Consultation.

5.26 A lower level but nonetheless significant demand from FSPs for tandem and double-tandem FVCO/Transit implies a degree of complementarity between primary FVCO and the adjacent transit service that carries the call through to the tandem or double-tandem exchange level (in certain cases). For Access Seekers without interconnection at the primary or tandem level, this complementarity may arise because it is more practical for the Access Seeker to have a single supplier of FVCO and Transit, rather than purchasing them from separate suppliers. However, it may also be caused, at least in part, by the lack of the availability of a so-called 'code hosting/sharing'[311] facility, would allow Access Seekers to use a third party call transit provider between Eircom's primary exchange and the Access Seeker's nearest point of interconnect.

5.27 As it stands, code hosting/sharing is not available under current industry call routing rules, meaning that FVCO Access Seekers without a direct interconnect at the primary exchange level are limited to using Eircom's Transit service to convey/transit the FVCO traffic to their nearest POI.

5.28 ComReg is not aware of their being any significant evidence of demand for changes to existing code-sharing/hosting rules. Indeed, Eircom, in its response to Statutory Information Requests noted:

[311] Each Access Seeker purchasing FVCO (whether via the standalone CPS product or with SB-WLR) is allocated a unique network code by Eircom and Eircom uses this code to route the originated calls, based on predefined routing tables etc, to the Access Seeker's nearest POI. The routing rules do not allow more than one such network code to be allocated to an Access Seeker's points of interconnection. While an Access Seeker that is interconnected deeply within Eircom's network can take its own FVCO traffic at the primary exchange level, because of the absence of code hosting or sharing, Eircom cannot route another Access Seeker's unique FVCO traffic to the other deeply interconnected Access Seeker's POI. Code hosting / sharing would allow a deeply interconnected Access Seeker to accept another Access Seeker's FVCO traffic (originated on Eircom's network). However, this would likely require significant modification of the existing call routing rules of both Eircom and interconnected operators and the capacity of their respective interconnection infrastructure. As far as ComReg is aware, there has never been any request from an Access Seeker or Eircom to modify the existing code routing rules.

[✄ [redacted]]

5.29 This may be because there is, in any case, a degree of complementarity between the supply of FVCO and Transit to the Access Seeker's nearest handover point, such that, even if a code-hosting service were available, Access Seekers may still be likely to use the FVCO supplier to also supply Transit beyond the primary switching level to the Access Seeker's nearest POI.

5.30 In that regard, Magnet noted in its response to the Statutory Information Requests that:

[✄ [redacted].]

5.31 BT Ireland also noted in its response to Statutory Information Requests that **[✄ [redacted]]**.

5.32 Also in response to the Statutory Information Requests, Cable & Wireless noted that **[✄ [redacted]]**

5.33 Given the above, it is therefore unclear that demand for a code hosting service, even if it were to be available, would prevent a HM from imposing a profitable SSNIP on a bundle of FVCO and Transit, absent regulation. Furthermore, ComReg envisages that, in the future, once a greater number of RFTS providers employ VOIP technology, a preference may develop for IP interconnection, or IP routing. When such a transition occurs, the management and handover of call traffic is likely to take place at points of presence or 'edge nodes' which are located at a higher level in the network , potentially reducing the degree/depth of interconnection that need to take place within Service Provider's networks. Both of these points were noted by BT Ireland and Vodafone in their responses to ComReg's Statutory Information Requests. For example, BT Ireland noted the following:

[✂ [redacted]]

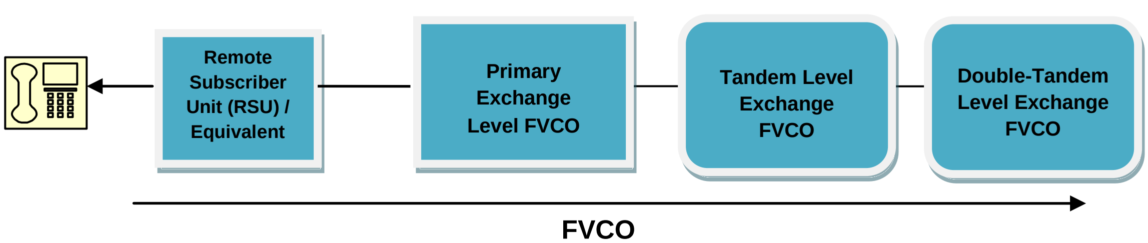
5.34 In addition, Vodafone noted that:

[✂ [redacted]]

5.35 ComReg would note that the potential for a technological shift to IP interconnection in the future may, within the period covered by this review, be likely to discourage Access Seekers from investing in deeper interconnecting at Eircom's primary exchanges (or indeed augmenting capacity at existing exchanges), including those Access Seekers with a smaller retail customer-base and traffic volumes and for which the cost of doing so would be likely to be uneconomic.[312]

5.36 The lack of a code hosting service, coupled with the strong complementarity between the demand and supply of bundled FVCO and Transit services, suggests that the network boundary of the FVCO market should be sufficiently broad to encapsulate these variations of the FVCO product. As such, having regard to the above, ComReg considers that the focal FVCO product should at least include the supply of FVCO at the primary, tandem, and double tandem exchange levels (or their equivalent). This is generally illustrated in Figure 20 below.

Figure 20: FVCO Focal Product



[312] This, in turn could mean that Access Seekers are less likely to extend their own Transit infrastructure in response to a SSNIP by Eircom of tandem or double-tandem FVCO/Transit.

5.37 However, ComReg would also note that the availability of code-hosting/sharing, should it occur, has the potential to narrow the FVCO product boundary (i.e., to the primary or tandem exchange level) and potentially extend the boundary of the Transit market. This would also be likely to depend on the degree to which FSPs interconnected at the primary exchange level would be willing and able to supply an effective wholesale handover product and the degree to which FSPs currently taking their Eircom supplied FVCO traffic at the tandem or double tandem exchange level would be willing to switch to this product.

Should the Focal Point include WLR

5.38 As discussed in Sections 3 and 4[313] there is a strong tendency for end-users to purchase calls and access from the same supplier and, in a number of cases, also part of a broader bundle of services. For this reason, FSPs most commonly offer retail customers a RFTS, rather than standalone RFVC, thereby maintaining a unique relationship with the retail customer in the provision of such services. To do this, Eircom's wholesale customers typically purchase both WLR[314] and FVCO together from Eircom as part of a bundled product, namely SB-WLR[315] (and also sometimes with additional wholesale services, such as WBA). It should also be noted that, at the wholesale level, an Access Seekers cannot purchase WLR from Eircom and CPS (being FVCO) from a different supplier (and vice versa), i.e. WLR and CPS purchases from Eircom are inextricably linked[316].

5.39 For these reasons, demand from Access Seekers for SB-WLR significantly exceeds that for standalone CPS (which is equivalent to standalone FVCO). As noted in paragraph 3.53 the share of CPS lines when taken as a percentage of overall access lines (PSTN, ISDN and VOB over CATV networks) was 1.8% having fallen significantly over the last number of years.

5.40 Figure 21 below shows that as at Q3 2013 there were a total of 443,791 indirect access lines[317] comprised of CPS lines (15,982), SB-WLR (337,881) and While Label Access ('**WLA**')[318] (89,928), with CPS lines representing 3.6% of the total of these[319].

[313] See paragraphs 3.49 to 3.64 and 4.7 to 4.21.

[314] See paragraph 1.11.

[315] Note that FSPs cannot purchase WLR and CPS from different suppliers, so any FSP wishing to provide a retail bundle of calls and access must purchase WLR and CPS from the same supplier.

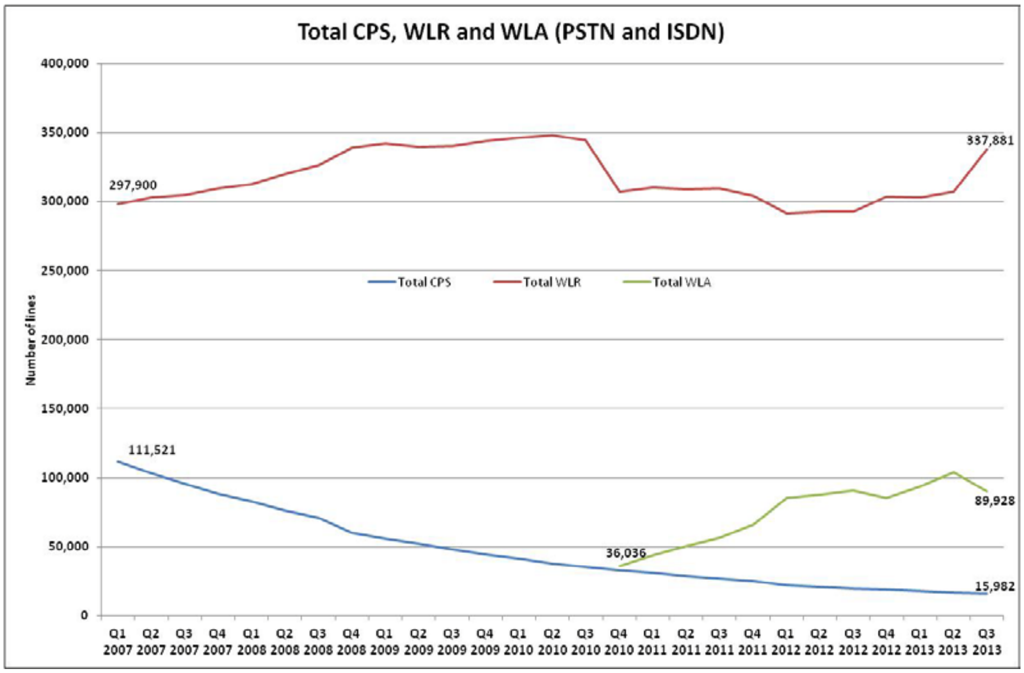
[316] Note that where CPS only was purchased, Eircom would sell the retail line rental services (self-supply of WLR) to the retail customer.

[317] Note that Indirect access 'paths' (rather than lines) are greater given it measures voice channels and, for example, ISDN services include 2 or more channels.

[318] See paragraph 3.9.

[319] CPS is 4.7% of total SB-WLR and CPS lines.

Figure 21: Total CPS, SB-WLR and WLA lines



5.41 Appendix B of this Consultation also offers some guidance on how to account for complementary products when defining markets. These principles are useful when considering how to treat WLR in the context of it being bundled with FVCO through an SB-WLR product.

5.42 The European Commission notes in its Explanatory Note to the 2007 Recommendation[320] that a SSNIP test[321] should be applied to determine whether bundled products fall within a single product market. If there is evidence that a sufficient number of customers would "unpick" the bundle and obtain the individual service elements of the bundle separately in response to such a SSNIP, then it can be concluded that the service elements constitute the relevant markets in their own right and not the bundle.

5.43 While at the retail level, end-users have the ability to retain a fixed line but make calls from other devices (such as over a mobile phone), this option is not available at the wholesale level because, Access Seekers are not able to purchase CPS from one supplier and WLR from another. Therefore, the only option available to Access Seekers is to purchase both WLR and FVCO services from one single wholesale service provider, or to purchase stand-alone CPS (in the latter case Eircom would sell the retail line rental services (self-supply of WLR) to the retail customer).

5.44 The decline in demand for the standalone CPS product suggests that significant value is placed by retail consumers on the ability to reduce transaction costs by using a single retail provider for the supply of RFVA and RFVC (as well as bundling with other services).

[320] See section 3.2 of the Explanatory Note to the 2007 Recommendation.

[321] See footnote 141 above at paragraph 4.9.

5.45 Having regard to the above, ComReg considers that Access Seekers purchasing the SB-WLR bundle would, in response to a SSNIP (of either the WLR and/or FVCO elements), be unlikely to unpick the individual bundle elements by substituting to alternative products, such that it would render the SSNIP unprofitable.

5.46 Given that there is a likely high degree of complementarity between FVCO and WLR, and since Access Seekers cannot chose to purchase these services from separate wholesale Service Providers, ComReg considers that the FVCO focal product should also include the WLR element. i.e., the market is comprised of both the Fixed Access (‘**FA**’), being WLR, and FVCO components. This wholesale product bundle/combination is referred to in this Consultation as Fixed Access and Call Origination (‘**FACO**’).

5.47 As noted in paragraph 5.17 ComReg considered that Eircom’s notional supply of FVCO via Managed VOB also falls within the market. In a Managed VOB scenario the underlying access element is a broadband service, which in the context of FACO could be WBA based broadband service or a broadband service provided via LLU.

Are there separate markets for ‘Low-Level’ FACO and ‘High-Level’ FACO?

5.48 There are various forms of RFVA that are particularly (although not exclusively) dimensioned for the needs of certain retail customers, mainly business customers. For example, PSTN services, cable based RFTS, and ISDN BRA services are typically provided to residential and SME businesses, whereas larger businesses sometimes require ‘multi-channel’ voice services typically using ISDN FRA, ISDN PRA or Session Internet Protocol (‘**SIP**’) trunking over leased lines.

5.49 The preference for using ISDN rather than PSTN for access to voice services is primarily because the customer needs more than one channel. Functionally, ISDN products may be seen as a multiple of PSTN lines, with ISDN terminating equipment allowing transparent data transmission without a traditional modem. Data access via ISDN is a switched circuit service operating over a ‘dial-up’ connection. ISDN access supports some supplementary services not supported by PSTN access, but these are of minor importance. A PABX is required to switch calls on the customer‘s side of the network termination point and can be used with both PSTN and ISDN access services. Supplementary services can also be used with a PABX to allow certain additional facilities.

5.50 These differences were reflected by ComReg in the 2007 RNA Decision, where separate RFVA markets were defined, namely:

(a) a national market for **lower level retail narrowband access**, including access via PSTN and ISDN BRA (as well as cable and FWA)

(b) a national market for **higher level retail narrowband access**, including access via ISDN FRA and ISDN PRA.

5.51 The above differences have been noted in the 2012 Retail Access Market Review Consultation[322] (which is a consultation to update the position set out in the market analysis in 2007 RNA Decision) where ComReg expressed the preliminary view that:

> *"ISDN FRA and ISDN PRA are functionally distinct from ISDN BRA, PSTN/FWA narrowband access since significant differences in the number of channels and direct dial numbers supported indicates that they meet different end-user requirements."*

5.52 ComReg's view as expressed in the 2012 Retail Access Market Review Consultation is that separate markets are justified since there was limited demand and supply-side substitution between PSTN and ISDN BRA access on the one hand (referred to as '**LL-RFVA**) and ISDN FRA and ISDN PRA access on the other (referred to as '**HL-RFVA'**). This distinction arises given differing functional characteristics resulting in the absence of a common pricing constraint. In addition, ComReg considered that there were different conditions of supply present in the above two markets.

5.53 This delineation of two separate LL RFVA and HL RFVA product markets may also exist at the wholesale level, where Eircom's SB-WLR products encompass the same range of narrowband PSTN and ISDN access services.

5.54 In this respect, Eircom provides different SB-WLR products that are, in turn, used by Access Seekers to offer various RFTS. Such SB-WLR products essentially differ according to whether the underlining WLR component is based on PSTN, ISDN BRA, ISDN FRA and ISDN PRA access lines. However, the price and functionality of the FVCO element of these different SB-WLR products is the same, the products differ in terms of the price and functionality of the access elements. In this respect, at the wholesale level, we refer below to the suite of available FA and FVCO products within Eircom's SB-WLR product set as follows.

5.55 Lower Level Fixed Access ('**LL-FA**') is the PSTN/ISDN access components of certain SB-WLR products and Higher Level Fixed Access ('**HL-FA**'), being the PSTN/ISDN access components of certain SB-WLR products. LL-FA when combined with FVCO within a SB-WLR product bundle is referred to as Low Level Fixed Access and Call Origination ('**LL-FACO'**). HL-FA when combined with FVCO within a SB-WLR product bundle is referred to as High Level Fixed Access and Call Origination ('**HL-FACO'**).

5.56 The question arises as to whether LL-FACO and HL-FACO are part of the same product market or whether they constitute markets in their own right, notwithstanding that the FVCO elements are common to both and are the same.

[322] See, for example, paragraphs 4.114 to 4.119 of the 2012 Retail Access Market Review Consultation.

5.57 In practical terms, demand-side substitution can be considered in light of the extent to which purchasers of one type of SB-WLR product would be prepared to switch from that product to another in response to a SSNIP. Supply-side substitution can be considered in the context of the extent to which suppliers of one type of SB-WLR product would be prepared to switch to supplying FACO in response to a SNNIP by the SB-WLR provider. Whether the break in the chain of demand-side and supply-side substitution identified by ComReg at the retail level also exists in respect of FACO products must also be considered.

5.58 The notable functional distinctions between higher capacity ISDN products and PSTN/low capacity ISDN products are that:

(a) ISDN access for voice services can include multiple channels (ranging from 2 up to 100 direct dial numbers), whereas PSTN only has one channel.

(b) ISDN terminating equipment allows transparent data transmission without a traditional modem.

(c) Data access via ISDN is a switched circuit service operating over a dial-up connection.

(d) ISDN access supports some 'supplementary services' not supported by PSTN access (but these are deemed to be of low importance).

5.59 The functional difference between the most basic form of ISDN, namely ISDN BRA and PSTN is minor, with PSTN offering one direct dial numbers and ISDN BRA offering two direct dial numbers. However, ISDN FRA and ISDN PRA access both support a significantly large number of channels, namely up to 50 and 100 direct dial numbers respectively, such that these services likely satisfy distinct differing customer needs (in comparison to those met by PSTN and ISDN BRA access).

5.60 As noted in the 2012 Retail Access Market Review Consultation[323], in terms of functional interchangeability between PSTN/ISDN BRA access and ISDN FRA/PRA access respectively, it is possible for multiple PSTN lines to be connected to a PABX, and share a single dial in main number (such as to a business reception). However, many PABXs are configured to operate over ISDN lines, and these are often provided in conjunction with direct dialling, thereby allowing callers to dial directly to an individual extension/phone number within an organisation. The terminal equipment used to support PSTN/ISDN BRA versus ISDN FRA/PRA is also different in terms of its functionality and cost. Therefore, in response to SSNIP in ISDN FRA or ISDN PRA, large-volume retail end-users having PABXs configured for ISDN access would, in ComReg's view, be unlikely to switch in sufficient numbers from to using multiple PSTN or ISDN BRA lines instead, such that it would make the SSNIP unprofitable.

[323] See paragraph 4.118 of the 2012 Retail Access Market Review Consultation.

5.61 In terms of pricing and functionality (in the latter case in terms of the number of available voice channels), Table 8 below shows Eircom's WLR based wholesale pricing for PSTN and ISDN BRA access (together LL ISDN FRA/ PRA access. It is evident that prices for wholesale ISDN BRA access lie within a comparable price range to PSTN connections, and have broadly similar functionality, whereas ISDN FRA and ISDN PRA are significantly more expensive and differ in their functionality.

Table 8: Eircom Wholesale Pricing for WLR access services[324]

Product	Number of access channels	New Connection charge	Monthly rental
PSTN	1	€92.39[325]	€18.02
ISDN BRA	2	€174.12	€27.95
ISDN FRA	16	€2,837.18	€143.18
ISDN PRA	30	€2,837.14	€238.25

5.62 In terms of the pricing of Eircom's wholesale WLR based ISDN FRA/PRA access, both have a connection charge of €2,837 and a monthly charge dependent on the number of channels. For example, a 16 channel ISDN FRA costs €143.18 per month and 30 channels ISDN PRA costs €238.25. Note that the monthly charge per channel for FRA ISDN variants is €6.87, compared with a single PSTN line rental price of €18.02. This suggests that, in response to a SSNIP of ISDN FRA/PRA a sufficient number of customers would not be prepared to substitute their services with individual PSTN/ISDN BRA lines, given the monthly rental cost per channel would effectively more than double. Similarly, in response to a SSNIP of PSTN or ISDN BRA a sufficient number of customers would be unlikely to switch to ISDN FRA/PRA given the significantly higher monthly connection charge associated with those services (these customers are unlikely to benefit from having a large number of additional channels).

5.63 Given that the connection and monthly fees are multiples of the corresponding access prices, the ability of a HM supplier of LL-PSTN/ISDN BRA services to profitably increase prices by a small but significant amount is unlikely to be constrained by low volume users (who require less than 16 channels) switching in significant numbers to purchasing HL-ISDN FRA/PRA. Therefore, there appears to be an observable distinction between the pricing of LL-FACO and HL- FACO, to the extent that may result in separate product markets.

5.64 From a supply-side perspective, HL-FACO customers are typically larger and more concentrated (in terms of location). Therefore the infrastructure required to provide those products would be significantly different from that required to offer LL-FACO products (for which customers tend to be lower spend-users).

[324] Prices available in Eircom's Reference Interconnect Offer Price List as at 27 January 2014 http://www.eircomwholesale.ie/Reference-Offers/RIO/

[325] Where a line is already in place and just needs to be re-connected, the charge is €17.75.

5.65 For example, it is not necessarily the case that infrastructure used to provide HL-FACO to large corporate customers would facilitate quick or effective supply-side substitution into the provision of low level FACO to the mass market. Switching of this type would be likely to entail significant costs and time delay in terms of additional network build and adjustments needed in terms of marketing arrangements, customer support etc.

5.66 Similarly, a network that is designed to provide a LL-FACO service may not be easily substituted to the provision of HL-FACO.

5.67 Having regard to the above, ComReg proposes that LL-FACO products provided over PSTN and ISDN BRA should fall within the same relevant FACO market (the '**LL-FACO Market**'). Given functional/pricing differences and demand-side considerations, ComReg also proposes that HL-FACO products provided over ISDN FRA and ISDN PRA fall within the same market (the '**HL-FACO Market**'), with this being a separate market to the LL-FACO Market.

Overall Preliminary View on the FACO Focal Products

5.68 ComReg proposes to that there are two separate appropriate starting focal product markets namely the HL-FACO Market and LL-FACO Market (together the **'FACO Markets'**) as more particularly described below.

5.69 The LL-FACO Market is comprised of:

(a) wholesale FA to the public telephone network for the provision of voice telephony services by means of (i) PSTN, or (ii) ISDN BRA; and

(b) FVCO, being calls originated at a fixed location of an end-user which are conveyed and routed through any switching stages (or equivalent) up to a point of interconnect nominated by an Access Seeker, with such a point of interconnection taking place at the primary, tandem, or double-tandem exchange associated with the FA on which the voice call was originated. FVCO does not distinguish between the types of telephone numbers being called.

5.70 The HL-FACO Market is comprised of:

(a) wholesale FA to the public telephone network for the provision of voice telephony services by means of (i) ISDN FRA or (ii) ISDN PRA; and

(b) FVCO, being calls originated at a fixed location of an end-user which are conveyed and routed through any switching stages (or equivalent) up to a point of interconnect nominated by an Access Seeker, with such a point of interconnection taking place at the primary, tandem, or double-tandem exchange associated with the FA on which the voice call was originated. FVCO does not distinguish between the types of telephone number being called.

5.71 In the case of both LL-FACO and HL-FACO (together referred to as '**FACO**'), Eircom's self-supply, including its notional supply of FACO via Managed VOB, is also included in the FACO Markets.

Do Wholesale Switchless Voice (SV) Services Fall Within the FACO Product Markets?

5.72 As noted in paragraph 3.9, Wholesale SV is an end-to-end access and call conveyance service that, similar to FACO, allows FSPs to provide RFTS to consumers without requiring the FSP to establish its own interconnection infrastructure. Wholesale SV services are provided by Eircom and BT Ireland.

5.73 In effect, Wholesale SV is a bundle that includes FVCO, Transit, FVCT and FA. It is a virtual service that allows for the reselling of a 'white label' fixed access and calls product and involves calls being handled entirely by the wholesale service provider. The purchase of Wholesale SV is likely to be attractive to entrants into the RFTS market that have not yet materially invested in network infrastructure, such as interconnection.

5.74 In contrast, FACO purchasers are required to operate switching infrastructure in order to receive FVCO traffic from Eircom for onward routing to the Transit or FVCT provider. Therefore, a FACO customer switching to Wholesale SV would be required to pay for services (e.g. Transit) that they are already potentially capable of self-supplying (including on the basis of the purchase of FACO wholesale services). For this reason, ComReg considers it unlikely that an Access Seeker purchasing FACO would likely switch to purchasing Wholesale SV in response to a SSNIP of the price of FACO.[326]

5.75 ComReg also notes that FACO and Transit are inputs to the supply of Wholesale SV, which suggests that Wholesale SV is positioned downstream from the FACO and Transit markets (yet upstream from RFTS).

5.76 For these reasons, ComReg does not consider Wholesale SV to be a sufficiently close substitute for FACO to warrant its inclusion in the FACO Markets.

Assessment of Direct Constraints

5.77 Below ComReg considers the strength of any direct constraints[327] present in the FACO Markets with a view to considering whether the FACO Markets should be broadened to include other effective substitute products. In particular, ComReg considers potential

(a) demand-side substitution (paragraphs 5.79 to 5.80); and

[326] Note that (in theory) an efficient Access Seeker purchasing FACO and operating a fixed telephone network would only be likely to switch to an end-to-end Wholesale SV service if the end-to-end service provider was effectively applying a margin squeeze between the relative price of the standalone FACO service and the price of the Wholesale SV service. ComReg has attempted to address this potential for competitive harm arising from the risks of such behaviour in its **2011 Pricing and Transparency Decision, namely,** "Wholesale Call Origination and Wholesale Call Termination Markets, Response to Consultation and Decision, amending price control obligations and withdrawing and further specifying transparency obligations, ComReg Document 11/67, Decision 07/11, September 2011' available at http://www.ComReg.ie/_fileupload/publications/ComReg1167.pdf.

[327] ComReg's approach for analysing these constraints is explained in Appendix E of this Consultation.

(b) potential supply-side substitution, including the self-supply of vertically integrated FSPs (see paragraphs 5.81 to 5.129).

5.78 ComReg's overall preliminary conclusions on the assessment of the above direct constraints are set out in paragraphs 5.130 to 5.132.

Demand-Side Substitution

5.79 As noted previously, an economic analytical mechanism for defining a relevant product through demand-side substitution analysis consists of an examination of customer behaviour in response to price increases and is known as the hypothetical monopolist test (**'HMT'**). This HMT consists of observing whether a small but significant non-transitory increase in price (SSNIP) above the competitive level - taken to be in the range of 5 to 10% - of a candidate product supplied by a Hypothetical Monopolist (**HM)** would provoke a sufficient number of customers to switch to an alternative product (a substitute product) such that it would make the price increase unprofitable. If a sufficient number of subscribers switching to the alternative product results in the price increase being unprofitable, then the alternative product is also included in the relevant product market. The HM is carried out for any given number of alternative products which, by their characteristics, prices and intended use, may constitute an effective substitute to the focal/candidate product. If switching to these alternative products is sufficient to also render the SSNIP (above the competitive level) of the focal/candidate product unprofitable, then these are also included in the definition of the relevant product market.

5.80 In terms of demand-side substitution, as noted in paragraph 5.8, Eircom is the only existing wholesale provider of HL-FACO and LL-FACO products to other parties. There are currently no similar wholesale products provided by alternative FSPs. In this respect, were Eircom to impose a SSNIP of FACO products, existing purchasers would not be currently in a position to readily switch to an alternative supplier or to cease their purchase of FACO (in the latter case resulting ultimately in loss of retail customers whose RFTS rely on this wholesale input).

Supply Side-Substitution

5.81 In the context of market definition, it must also considered (in accordance with the principles as set out in Appendix E) whether an alternative product could represent an effective supply-side substitute. In particular, we consider whether an FSP would be likely, in response to a HM's SSNIP in FACO prices (above the competitive level), to switch production into either of the FACO Markets in the immediate to short term (typically within one year) without incurring significant costs, and start supplying services of equivalent characteristics to the focal product and, as a consequence of such provision, render the HM's price increase unprofitable.

5.82 Therefore, while no existing demand-side substitutes exist, constraints may arise from potential competitors who may, in the future, through supply-side substitution, seek to provide FACO either at the wholesale level to other FSPs and/or self-supply as an input to the provision of their own RFTS. This could, for example, include FACO supplied by vertically-integrated alternative[328] RFTS FSPs or through broadband service providers and suppliers of high capacity business data services (such as leased lines) doing so by using Managed VOB.

5.83 In carrying out this assessment, ComReg has considered Service Providers' responses to the Statutory Information Requests, in particular, views and evidence provided by FSPs that indicate the strength of any direct constraint arising from supply-side substitution (including from vertically integrated operators).

5.84 Below ComReg considers the potential for FACO supply-side substitution by Service Providers (including the issue self-supply where relevant) over the following platforms:

(a) CATV (paragraphs 5.84 to 5.92);

(b) xDSL (paragraphs 5.93 to 5.110);

(c) leased lines (paragraphs 5.111 to 5.115);

(d) FWA (paragraphs 5.116 to 5.121);

(e) Alternative FTTH (paragraphs 5.122 to 5.126); and

(f) Mobile (paragraphs 5.127 to 5.129).

Supply-side substitution, including self-supply, over the CATV platform

5.85 ComReg has considered potential supply-side substitution arising from the vertically integrated CATV network that supplies RFTS. As discussed in Sections 3 and 4, UPC is a CATV operator that offers retail bundles that include RFTS, broadband, and Pay TV. UPC does not offer HL-FACO or LL-FACO.

5.86 In terms of assessing direct constraint posed by UPC, ComReg notes that UPC has, neither publicly, nor in its response to ComReg's Statutory Information Request, expressed interest in providing FACO on its cable network.

5.87 Nevertheless, ComReg would note that even if UPC were to enter the FACO Markets in response to a SSNIP by the HM, such entry would be likely to involve significant time delays and incur significant cost.

5.88 UPC's network coverage is limited to approximately 45% of households in Ireland, in contrast to Eircom's FACO products and services which have ubiquitous coverage. Therefore, even if UPC were to offer FACO, such services may lack the ubiquity expected by FACO Access Seekers, who would then likely be required to use more than one supplier of FACO in order to supply a national RFTS.

[328] We use the word 'alternative' in the sense that it refers to FSPs other than Eircom.

5.89 Access Seekers would also incur costs when switching to UPC's hypothetical (in the sense that they do not exist) FACO products. For example, the costs involved in interconnecting with UPC and migrating retail customers to a VOIP based FACO platform. Furthermore, switching to a UPC FACO product could also involve stranding interconnect circuits and associated equipment in place with Eircom. Access Seekers would also likely be required to develop their own IT and order handling systems in order to integrate these with UPC's order handling/management systems. Access Seekers would also be faced with replacing its retail customers' Customer Premises Equipment (CPE) such as modems and telephone handsets given they would be VoIP based and operate on a CATV. It is ComReg's view that, such factors would be likely to discourage Access Seekers from switching, and even were they to switch, the transition process would likely take sufficient period time such that it would undermine the immediacy of any competitive impact.

5.90 ComReg considers that factors such as these are likely to undermine the strength of any direct constraint arising from potential supply-side substitution from CATV networks.

5.91 Similarly, ComReg considers that self-supply of FACO on a CATV RFTS network should not be included within the FACO Markets because:

(a) the network is unlikely to provide the coverage expected by Access Seekers;

(b) there is unlikely to be significant demand from third parties for a FACO product self-supplied by UPC's RFTS network;

(c) It is unlikely that UPC could/would provide an FACO product to third parties in the short term without incurring significant additional costs or risks; and

(d) UPC would be unlikely to enter the FACO Markets in response to small and permanent changes in relative prices.

5.92 For these reasons, ComReg considers that cable networks are unlikely to provide an effective constraint on the provision of FVCO by the HM within the period of this market review. As such, ComReg's provisional view is that the self-supply of RFVC on cable networks should not be included in the relevant FVCO market for the purposes of this review.

Supply-side substitution over wholesale xDSL broadband platforms

5.93 ComReg has considered the degree to which supply-side substitution from FSPs using upstream wholesale broadband inputs to supply a Managed VOB service would enter the FACO Markets and whether this would act as a sufficient direct constraint to warrant inclusion in the markets.[329] In this respect, at the wholesale level, it is possible for Access Seekers to purchase WPNIA and WBA inputs (such as that provided by Eircom on foot of its SMP obligations in the WBA market or by the Access Seeker doing so through Full Unbundling[330]) and deploy a competing RFTS, either on a narrowband connection or through a VOB based RFTS over a standalone xDSL broadband service. Potentially, such Managed VOB over xDSL network could be used to enter the FACO Markets.

5.94 Eircom provides a range of WPNIA[331] and WBA[332] products to other FSPs. These products are currently used by FSPs to principally to provide retail and wholesale broadband services. As noted in Section 4[333], as at Q3 2013, the total number of unbundled lines was 77,356 of which 61,482 were Line Share and 15,874 were fully unbundled lines[334]. The evolution of LLU is shown in Figure 22 below. Where Line Share has been used by Access Seekers to provide broadband, it has also involved the Access Seeker purchasing SB-WLR to provide a RFTS. For an Access Seeker to supply a Managed VOB service it would also need to develop a VoIP platform and integrate this into its associated order management and billing systems.

[329] ComReg notes that a Wholesale xDSL broadband product (provided using upstream WBA and/or WPNIA wholesale inputs) is a transmission link and therefore would not, in itself, represent a demand-side substitute for FACO. However, this section considers whether such wholesale inputs, when coupled with a VoIP platform would be used by an Access Seeker to provide Managed VOB and whether it would likely provide a sufficient competitive constraint on Eircom's provision of FACO.

[330] See footnote 87.

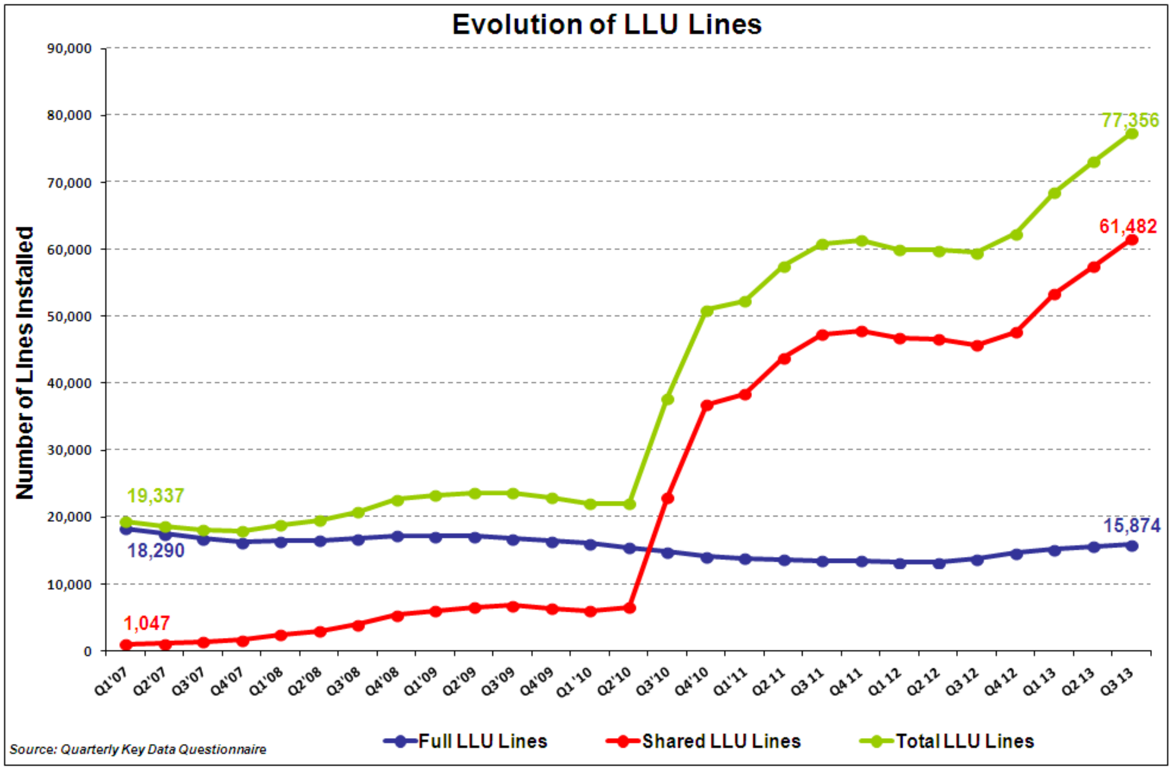
[331] See footnote 87.

[332] See footnote 68.

[333] See paragraph 4.112 to 4.114.

[334] Based on other data available to ComReg, as at Q4 the position is as follows: the total number of unbundled lines was 80,037 of which 64,397 were Line Share and 15,540 were fully unbundled lines.

Figure 22: Evolution of LLU Lines



5.95 In terms of the potential effectiveness of constraints from LLU, ComReg would also note that Eircom has commenced the deployment and activation of vectoring across its NGA network, which is a bandwidth enhancing technology that maximises the broadband speed that can be achieved over copper, on its FTTC network. Eircom expects all its FTTC cabinets will provide vectored VDSL ('Cabinet Launched Vectored VDSL') by the end of Q4 2014. At this stage of technological development, vectoring is incompatible with co-location in the cabinet and hence is incompatible with Sub Loop Unbundling[335]. As a consequence, in the 2013 NGA Decision[336], ComReg removed the obligation of Sub-loop unbundling on Eircom <u>in the NGA areas</u>. In terms of potential supply-side substitution with FACO being provided through SLU enabled Managed VOB over xDSL is likely to be somewhat undermined. Vectoring can allow lines to reach speeds of up to 100Mb/s, whereas non-vectored FTTC lines are limited to speeds of up to70Mb/s.

[335] SLU is where an Access Seeker co-locates its network equipment at a street cabinet located in an intermediate location between an exchange and the customer's premises. This is in contrast to current unbundling whereby Access Seekers locate their network equipment in the Eircom exchange.

[336] Next Generation Access: Remedies for Next Generation Access Markets, Response to Consultation and Decision, <u>ComReg Document 13/11</u>, Decision D 03/13, January 2013 (the '**2013 NGA Decision**')

5.96 In the longer term, vectoring may affect the uptake of exchange co-located LLU based xDSL services (which currently can reach bandwidth speeds of up to 24Mb/s). For example, if vectoring is launched from the exchange ('Exchange Launched Vectored VDSL'), it might impact upon the ability for an Access Seeker who has unbundled at the exchange to implement vectoring on its unbundled copper loops.

5.97 Eircom's wholesale WBA based xDSL Bitstream services stood at 220,070 in Q3 2013. These Bitstream services also require the Access Seeker (and the end-user in turn) to purchase RFVA (line rental) service. However, Eircom has, at the wholesale level, recently launched standalone WBA based ADSL and VDSL Bitstream products ('**Standalone Bitstream**' or '**SAB**'), which ultimately allows a wholesale customer (and Eircom retail) to sell a standalone retail broadband connection without the need for the retail customer to also purchase a RFVA (including as part of a RFTS). As at December 2013, the total number of such standalone wholesale Bitstream services plus Eircom's self-supply was negligible and stood at **[✂ [redacted]]**[337].

5.98 Given the above, it appears that FSPs primarily purchase Eircom's SB-WLR product, alongside Bitstream or Line Share, to provide retail bundles of calls, line rental and broadband. Therefore, supply-side substitution by an FSP using an xDSL connection would ultimately involve migrating retail customers to a fully unbundled line or a SAB product. Since the uptake of Eircom's SAB product and Full Unbundling remains very low, there is little evidence to suggest that a RFTS based Managed VOB service offered over these platforms, yet alone supply-side substitution into the FACO Markets, would pose a significant and immediate competitive constraint to warrant inclusion in the FACO Markets.

5.99 In paragraph 5.14 we noted Eircom's plans with respect to its launch of retail Managed VOB services, presumably doing do so through the self-supply of WBA inputs. Given Eircom's non-discrimination and other SMP obligations in the WBA market, it would be required to provide the same underlying broadband services (including any quality of service enhancements to enable the provision of a VOB based RFTS) to other Access Seekers. ComReg, therefore, assumes that Eircom's VDSL based WBA service would be of sufficient quality[338] to support potential entry of a FSP into the FACO Markets through the offering of a wholesale Managed VOB based FACO product.

5.100 ComReg would note that the pricing structure and functionality of SAB and full LLU differ significantly from SB-WLR, and represent an intermediary input to the potential supply of a Managed VOB based supply-side substitute. In order to provide a FACO product over a broadband connection, an FSP would then need to provide the network capability to offer a VOIP service over a broadband connection.

[337] ComReg would note that this figure represents less than 1% of all retail fixed broadband connections.

[338] This includes bandwidth, quality of service, jitter, latency etc.

5.101 In this respect, the costs involved in developing a potential VoIP platform for use in providing retail Managed VOB services and/or VOIP based FACO services would likely vary and depend on a number of factors such as:

- ***economies of scale:*** larger service providers with scale in terms of customer numbers and resources will likely face greater costs associated with a VoIP platform implementation, including costs associated with hardware (such as Media Gateway Controllers and Media Gateways), systems and IT/software integration costs. However, such Service Providers may also have access to greater financial or other resources and be in a position to spread these costs over their larger customer base.
- ***economies of scope:*** VoIP product development may incorporate MTS, such as VOIP over LTE[339] (known as VoLTE);
- ***presence in the market:*** if the operator is already active in the RFTS market it may be able to utilise existing IT systems and processes (mediation, billing etc). However, the costs of doing so could also be considerable which may represent a barrier to investing in such upgrades.

5.102 In order to be active in the RFTS and/or FACO Markets, FSPs will require effective front and back office operation service wraps which would cover all aspects of the provisioning and assurance functions of their retail and/or wholesale services, irrespective of whether or not such services are provided using regulated upstream wholesale inputs or on their own networks. These service wraps would encompass order and fault management processes at retail and/or wholesale levels and potential Managed VOB providers using Eircom's WPNIA and/or WBA inputs would also need to ensure that that their individual IT systems and processes dovetail into the Eircom 'Wholesale' systems and processes in order to create an effective end-to-end delivery chain. In practice this, means that Access Seekers would need to tailor their access to Eircom's Universal Gateway[340] ('**UG**') to seamlessly match their own systems and processes, and vice versa. In some instances, such as with Vodafone who offers RFTS based on wholesale inputs purchased from Eircom and BT Ireland[341], the internal development effort required to achieve the above systems integration must also incorporate developments to the interfaces of its two suppliers.

[339] Long Term Evolution ('**LTE**') is a standard for the wireless communication of high-speed data over mobile phones and data equipment, more commonly known as '4G'.

[340] Eircom Wholesale's UG is an order management and fault handling system designed to be the primary Access point between Eircom and Access Seekers. It accepts and validates Access Seeker orders and faults and is a software "brokerage" system into Eircom's internal production and fault management systems.

[341] As noted in paragraph 3.12, Vodafone offers RFTS using wholesale inputs purchased from both Eircom and BT.

5.103 Corresponding complex product and fault management systems are required to cope with the number of possible states and combinations of broadband and RFTS bundles. Similarly, the billing mediation and rating software must also be matched not just to produce individual retail customer and wholesale bills but also to allow complex bill reconciliation. i.e., the retail Customer Data Records ('**CDRs**') should correspond to the relevant wholesale invoices of the upstream wholesale service providers.

5.104 The above serves to highlight that the general development of a VOB capability is not straightforward and would likely involve network, hardware, software and operational support adjustments that would take some time to develop.

5.105 Additionally, it is also unclear that entering the FACO Markets by offering a wholesale Managed VOB service over an xDSL product would be commercially viable for a competing FSP, or that such a product would be considered a demand-side substitute by existing purchasers of FACO (through SB-WLR). In particular, as was the case in the hypothetical supply of FACO on a CATV network, Access Seekers would incur switching costs. For example, the costs involving in interconnecting with the alternative FACO supplier, systems integration and installing customer premises equipment (such as a VOIP telephones). These costs may act to undermine switching to a new FACO supplier. In addition, the likelihood of an Access Seeker stranding assets (including those associated with interconnection to Eircom) is of relevance, and may impact upon a FSPs decision to switch to an alternative FACO provider.

5.106 It is, therefore, unclear whether SAB and WPNIA inputs could support a wholesale FACO product that meets the expectations of Access Seekers. The suitability of such a service would depend on a number of factors, including whether the standard or quality of the broadband service supports a robust RFTS service (although as noted earlier we assume that Eircom's VDSL product will suffice); the margin between the standalone SAB product and the Bitstream/SB-WLR offer; and these being sufficient to justify an Access Seeker switching away from Eircom's traditional FACO Services to a Managed VOB based FACO Service.

5.107 The uptake of Eircom's SAB product and Full Unbundling remains very low and, to the best of ComReg's knowledge, there has been no entry in the FACO Markets based on Managed VOB provided over these platforms. There has also been no meaningful provisioning of a retail Managed VOB services over xDSL to date. ComReg has no evidence to suggest that, within the next 1-2 years alternative FSPs (i.e., those other than Eircom) intend, in any significant way[342], to launch retail Managed VOB services using wholesale WPNIA or WBA services, let alone enter the FACO Markets on a similar basis. Importantly, as noted in Figure 21, demand for SB-WLR in Ireland continues to grow. There is, therefore, little evidence to suggest that such wholesale products would, within the short to medium term, pose a sufficiently significant and immediate effective competitive constraint on the focal FACO products such that it would prevent a HM, absent regulation, from engaging in a profitable SSNIP.

5.108 ComReg's view is, therefore, that supply-side substitution to hypothetical FACO products provided by alternative FSPs through Managed VOB over WPNIA and/or WBA inputs do not warrant inclusion in the FACO Markets at this time.

5.109 ComReg recognises that Eircom is ultimately intending to provide RFTS over its VDSL network, and the deployment of this network is underway. Furthermore, several Service Providers including UPC, Magnet and Eircom made general observations in their responses to the Statutory Information Requests that there is likely to be a trend, whereby Eircom and other FSPs migrate traffic and customers to VOB based services over the period covered by of this market review. A number of Eircom's wholesale customers also expressed interest in gaining access to NGA wholesale products on Eircom's network. However, there is no evidence that this transition has yet emerged in any meaningful way, let alone potentially having an impact in the FACO Markets.

5.110 However, the impact of wholesale WPNIA and WBA broadband products on competition in the FACO Markets will be considered further in the context of the SMP competition assessment in Section 5.217. Additionally, ComReg intends to monitor the impact of developments that occur over the period of this review relating to the deployment by alternative FSPs of Managed VOB based retail and/or wholesale services.

[342] As noted in paragraphs 4.127 to 4.131, Magnet and Smart Telecom offer a Managed VOB service over their very limited (in geographic terms) fibre networks. We noted that the current coverage and penetration of alternative fibre networks in Ireland is very low, with only **[✂[redacted]]** households purchasing fibre broadband as of Q3 2013, with an even smaller number of such subscribers likely to be availing of a RFTS on this platform (since not all of these customers are likely to be purchasing RFTS).

Supply-side substitution through SIP Trunking over Leased Lines

5.111 ComReg has considered the degree to which supply-side substitution from FSPs using leased lines and SIP Trunking could be used to potentially provide a wholesale Managed VOB based FACO service and the extent to which this might act as a constraint in the FACO Markets, in particular, the HL-FACO Market.[343]

5.112 Similar to an xDSL service, leased lines are technically capable of supporting a range of wholesale and retail services, including RFTS. As noted in paragraphs 4.132 to 4.134 RFTS could be provided in a product bundle over a leased line using SIP Trunking[344]. A SIP Trunking service could potentially be used in conjunction with leased lines to provide an RFTS bundle to certain large businesses[345], instead of separately purchasing a HL-FACO service from the HM. However, this would only be likely to be a suitable alternative in the case of businesses who wish to purchase a dedicated data transmission service.

5.113 ComReg notes that a number of FSPs including BT Ireland, Colt, Eircom, and Verizon offer business connectivity services on a wholesale and retail basis.

5.114 Any competitive impacts in the FACO Markets arising from leased lines are only enabled by the availability of SIP Trunking services. As noted in Section 4, the extent to which these products act as a substitute for RFTS is not yet clear and this applies equally in terms of whether and how SIP Trunking would constrain behaviour in the HL-FACO Market.

5.115 Overall, ComReg considers that there is no evidence indicating that SIP Trunking services provided in conjunction with leased lines are likely, within the short to medium term, to pose and effective direct competitive constraint on the provision of HL-FACO. However, ComReg acknowledges that the potential exists for SIP Trunking to become more prevalent as Eircom transitions to its NGA network ComReg and intends to keep this under review.

[343] ComReg notes that a leased line is a transmission link and therefore would not, in and of itself, represent a demand-side substitute for HL-FACO. In this respect, ComReg would note that wholesale leased lines are identified as a separate wholesale market (Market 6) in the 2007 Recommendation.

[344] This is sometimes referred to as IP Business Trunks or IP Trunks being an exchange line service that uses IP for voice and data transmission and Session Initiation Protocol ("SIP") for the telephony control signalling. SIP Trunking services are generally multi-line services that are used to provide exchange line services to modern IP PABXs that support this type of interface.

[345] This is likely to represent only a small portion of corporate customers. The 2012 Market Research (slide 90) indicates that 16% of businesses surveyed reported using a PABX and that 35% of these PABXs users (29 out of 524 businesses) reported it was an IP based PABX. Given the higher cost of BCS relative to PSTN and ISDN BRA services, SIP Trunking is not likely to be an effective substitute for LLFACO.

Supply-side substitution (including self-supply) over FWA platforms

5.116 ComReg has considered the potential for supply-side substitution to arise from vertically integrated FWA RFTS Service Providers entering the FACO Markets, as well as the issue of their self-supply. As noted in Sections 3 and 4[346], two FWA FSPs, namely Digiweb and Imagine, both offer Managed VOB based RFTS as an 'add-on' to their respective FWA based broadband service.[347] Also noted in Section 4 was that, while Managed VOB delivered over FWA technology may, from functionality and pricing perspectives be considered to be a potential substitute for RFTS provided on a narrowband network, its declining numbers suggests a lack of consumer switching to this service such that, from an economic perspective, it does not seem likely on a forward looking basis to be an effective substitute for RFTS provided over narrowband and CATV networks.

5.117 ComReg notes that neither of the above FSPs provides wholesale FACO. However, with respect to the potential for supply-side substitution on FWA networks, ComReg's notes that:

(a) having regard to the responses to the Statutory Information Requests, FWA Service Providers have not expressed an interest in providing wholesale FACO;

(b) it is unclear whether it would be technically possible to provide a suitable technical substitute for FACO over the Digiweb or Imagine FWA networks. In particular, whether their FWA network would support a voice service of sufficient quality to meet the expectations of Access Seekers (and ultimately the RFTS customers);

(c) it is unlikely that there would be significant wholesale demand for a FACO service provided over FWA networks, even if it were technically possible to provide such a service. In this respect, as noted in Section 3 over the period since 2007, demand for broadband and other services provided over FWA networks has fallen significantly and as at Q3 2013 stood at 61,975 subscribers, having declined by 3% since Q3 2012[348]. As a platform for the potential delivery of RFTS[349], FWA therefore appears to be in decline and this is likely to dampen demand for any RFTS and, therefore, any demand for FACO products provided over FWA;

346 See paragraphs 3.11, 3.38, and 4.119 to 4.126.

347 In addition to using their FWA network to provide retail calls and broadband, Imagine and Digiweb also purchase SB-WLR, CPS, and WBA services and use these wholesale inputs to offer traditional PSTN RFTS and DSL-based retail broadband services.

348 FWA subscriptions (whether broadband and/or RFTS) stood at 94,096 in In Q1 2007, thereby showing a decline of 34% in the period ending Q3 2013.

349 Based on available data, ComReg estimates that RFTS provided over FWA networks is less than **[✂ [redacted]]** subscriptions. In this respect the two principal FWA providers offering RFTS on their FWA platforms are Imagine and Digiweb, with the estimated maximum RFTS subscriptions for these FSPs being **[✂ [redacted]]** and **[✂ [redacted]]** respectively.

(d) the fragmented nature of any hypothetical FACO Service on FWA networks is likely to hinder effective supply-side substitution. In this respect, FWA is licensed on a regional basis with there being approximately 20 operators (as at Q3 2013), and no individual FWA network would be in a position to offer ubiquitous, or even extensive FACO coverage relative to Eircom's FACO product availability (nor is there likely to be national coverage of FACO between all of the FWA networks collectively). This means that Access Seekers would need to purchase wholesale services from (and interconnect with) multiple FACO providers in order to reach the retail customers that are ultimately serviced by Eircom's FACO products. This could impose significant additional costs associated on FACO purchasers associated with switching away from Eircom's FACO product or indeed using it in parallel; and

(e) Access Seekers would be likely to incur costs when switching to a Managed VOB based alternative FACO provider. For example, the costs involving in establishing new interconnect circuits and installing customer premises equipment (such as a VOIP telephones). Switching to a FACO product like this could also involve the stranding of existing interconnects with Eircom. These factors may discourage Access Seekers from switching.

5.118 For the reasons set out above, ComReg's preliminary view is that there is unlikely to be demand from Access Seekers for any hypothetical FWA based wholesale FACO product. ComReg therefore considers that FWA would not represent a supply-side substitute for the focal FACO product.

5.119 Similarly, ComReg considers that self-supply of FACO by an FWA based RFTS Service Provider should not be included within the FACO Markets because:

(a) it is unlikely that an FWA RFTS supplier could provide a FACO product to third parties in the short term without incurring significant additional costs or risks;

(b) there is unlikely to be significant demand from third parties for a FACO product self-supplied over FWA networks; and

(c) it is not clear that FWA RFTS providers would be in a position to start supplying an FACO service of equivalent characteristics on an immediate basis in response to small and permanent changes in relative prices.

5.120 Furthermore, there is no evidence to suggest that any wholesale product would be made available on a FWA network in response to a SSNIP of FACO by a HM supplier.

5.121 For the above reasons, ComReg's preliminary view is that FWA networks are unlikely to provide an effective direct wholesale constraint on the focal FACO products over the period of this market review, and self-supply of FACO on FWA networks also should not be included in the relevant FACO product market.

Supply-side substitution (including self-supply) over alternative fibre networks

5.122 ComReg has considered the potential for supply-side substitution arising from vertically integrated localised alternative fibre networks that provide RFTS. As noted in Sections 2.61 and 4[350], Magnet and Smart Telecom are two vertically integrated FSPs providing RFTS as part of broader service bundles (i.e. not on a standalone basis over their localised fibre networks). The total coverage[351] of alternative FSPs' fibre networks and the take-up[352] of related fibre based retail products (either broadband and/or RFTS) in Ireland is extremely limited and dispersed.

5.123 ComReg notes that neither of these FSPs has expressed an interest in or an intention to provide wholesale FACO products[353].

5.124 Nevertheless, ComReg considers that it is unlikely that such a FACO service, were it to be offered over these networks, would meet the expectations of Access Seekers, given the very limited geographic coverage of these networks. Similar to the case described above in relation to FWA networks, an alternative FTTH FSP could only offer a FACO service in fragmented and very small geographic areas. Therefore ComReg's preliminary view is that an Access Seeker would be unlikely to switch from Eircom's ubiquitous FACO products to alternative wholesale FACO products provided over these alternative FSPs' fibre networks.

5.125 Similarly, ComReg considers that self-supply of FACO by these alternative FSPs FTTH should not fall within the FACO Markets because:

(a) it is unlikely that such an alternative fibre RFTS supplier could provide an FACO product to third parties in the short term without incurring significant additional costs or risks;

(b) there is unlikely to be significant demand from Access Seekers for such a FACO product self-supplied over these fibre networks; and

(c) it is not clear that fibre RFTS providers would be in a position to start supplying an FACO service of equivalent characteristics on an immediate basis in response to small and permanent changes in relative prices.

5.126 For this reason, ComReg's preliminary view is that, over the period of this market review, alternative localised fibre networks, including their self-supply, are unlikely to provide an effective direct wholesale constraint on the FACO focal product supplied by a HM, and should not be included in the relevant product market.

[350] See paragraphs 3.38, and 4.127 to 4.131.

[351] In coverage terms, there are approximately 15,000 households and businesses that are physically passed/connected to alternative FSPs FTTH networks in Ireland (dispersed across approximately 30 geographic locations).

[352] As at Q3 2013, according to the Quarterly Key Data Report the total satellite and alternate fibre broadband subscription represent 0.7% (12,375) of all broadband subscriptions.

[353] Neither publicly nor in their responses to ComReg's Statutory Information Requests.

Supply-side substitution over Mobile Networks

5.127 ComReg has considered the potential for supply-side substitution arising from vertically integrated MNOs that provide MTS[354]. As noted in Section 4[355], ComReg acknowledged that while there is evidence of some substitutability of RFTS for MTS, overall it is considered that RFTS and MTS are broadly complementary products. As a result, it is unlikely that MTS provided on a wholesale basis would meet the expectations of FACO Access Seekers.

5.128 There are four MNOs providing MTS, namely Vodafone, O2, Meteor (noting that Meteor is the mobile arm of Eircom)and Three Ireland.

5.129 ComReg's preliminary view is that MTS would not represent an effective supply-side substitute for FACO (given, for example, RFTS and MTS are used differently at the retail level), and would therefore be unlikely to pose a direct constraint in those markets. ComReg's preliminary view is also that self-supply of access and call origination on a mobile telephone network is unlikely to exercise an effective direct competitive constraint in the FACO Markets. In particular, ComReg notes that Vodafone, O2 and Meteor (Eircom's mobile arm) self-supply MTS, but Vodafone and O2 also separately purchase FACO and/or Wholesale SV from third party suppliers in order to offer RFTS (rather than solely using their mobile networks to provide RFTS).

Summary of Overall Preliminary Conclusions on Direct Constraints

5.130 In paragraphs 5.77 to 5.129 above, ComReg has considered whether demand-side and supply-side constraints (including, in certain cases, self-supply) exercised by other alternative platforms, including CATV, xDSL, leased lines, FWA and alternative FTTH networks and mobile are likely to exert a sufficient timely and effective direct constraint on LL-FACO or HL-FACO markets such that products provided over these platforms warrant inclusion in those relevant product markets.

5.131 ComReg notes that there are currently no competing FACO suppliers present, and that none of the above potential supply-side substitutes identified by ComReg are likely to provide a sufficiently immediate and effective competitive constraint on a HM's provision of FACO such that would warrant their inclusion in the FACO Markets.

[354] Mobile Telephony Services.

[355] See paragraphs 4.152 to 4.176.

5.132 Furthermore, ComReg's provisional view is that the self-supply of FACO by competing RFTS providers using CATV, FWA, alternative FTTH networks, is unlikely to be effectively re-directed to supply in the FACO Markets in response to a SSNIP of FACO, and therefore would not assert an effective direct competitive constraint on the HM in the provision of FACO.[356]

Assessment of Indirect Constraints

5.133 Even in the absence of actual or potential direct constraints, a vertically-integrated alternative FSP's self-supply of RFTS could fall within the FACO Markets if it is shown that its presence in the retail market is able to exercise a sufficiently strong indirect pricing constraint on a HM's wholesale supply. In this respect, retail customer behaviour may, through demand-side substitution at the retail level, indirectly impact the ability of the HM FACO supplier to profitably sustain an increase in wholesale prices above the competitive level, i.e. indirect constraints coming from the retail market may affect the wholesale price setting behaviour in the wholesale FACO Markets.

5.134 In this Section ComReg seeks to determine whether retail substitution to alternative telephony platforms in response to an increase in the price of FACO by the HM would prevent the HM from imposing a profitable SSNIP of FACO.[357] This might occur, for example, if the HM faced a decrease in revenue after increasing the price of FACO due to, for example, a fall in the sales of FACO. Such a fall in sales might occur if Access Seeker's pass-through the wholesale price increases into their retail prices and this, in turn, results in their retail customers switching away to other telephony services or lowering their consumption of existing services (i.e., making fewer calls or cancelling subscriptions outright etc.).

5.135 It should be borne in mind that FACO wholesale charges are an input to the overall costs of the FSP providing the RFTS (and in the case of a bundle which includes RFTS). As such, ComReg assumes that an increase in the price of FACO is likely (to one degree or another) to be passed on by the purchasing FSP (Access Seeker) to retail prices charged to customers. As part of the indirect constraints assessment, what is being examined therefore is the retail consumer's most likely switching response to an increase in the price of FACO and the pass-through[358] of this increase by Access Seekers into retail prices charged for relevant the RFTS.

[356] It is, in any case, unclear whether FACO services offered over these alternative networks would be demand-side substitutes because there are likely to be significant costs involved for Access Seekers when switching from the HM's FACO service to a potential FACO service provided by an FSP over these alternative platforms.

[357] For the purpose of this exercise, ComReg has assumed that a SSNIP of FACO by Eircom would involve a simultaneous increase in the price of FVCO and SB-WLR (access).

[358] While likely, it is by no means certain that some or all of the increase will be passed through. This will depend on the Access Seeker's to absorb the price increase.

5.136 To this end, ComReg assesses the magnitude of any possible indirect retail constraints emanating from those telephony platforms that are provisionally considered to form part of the retail market, in particular Managed VOB based RFTS provided over CATV. While ComReg's preliminary view in Section 4[359] was that MTS do not likely fall within the same retail market as RFTS, ComReg nonetheless considers the extent to which MTS might potentially exert an effective indirect constraint in the FACO Markets.

5.137 In line with European Commission guidance[360] on the assessment of indirect retail substitution effects arising from a SSNIP by a HM at wholesale level, the following factors are considered relevant:

(a) whether and to what extent Access Seekers would be forced to pass a hypothetical wholesale price increase on to their consumers at the retail level based on the wholesale/retail price ratio[361]. i.e., how would a SSNIP of FACO be likely to impact on the RFTS market? (discussed in paragraphs 5.140 to 5.165);

(b) whether there would be sufficient demand substitution at the retail level in response to the pass-through of the SSNIP in FACO into retail prices such as to render the wholesale price increase unprofitable. i.e., what likely response in retail demand would be required to result in a SSNIP being unprofitable? (discussed in paragraphs 5.166 to 5.199); and

(c) whether the retail customers of the Access Seekers purchasing the FACO products would switch to a significant extent to the retail arm of the integrated HM, in particular if the HM does not raise its own retail prices when it raises its wholesale prices (discussed in paragraphs 5.201 to 5.206).

5.138 A summary of ComReg's preliminary conclusion on the above is then set out in paragraphs 5.207 to 5.210.

5.139 ComReg has carefully considered the guidance from the European Commission on indirect constraints by assessing each of the above three criteria in turn below. While the European Commission suggests taking any indirect constraints, where they are found to exist, into account in the SMP assessment rather than at the market definition stage, ComReg assesses the strength of any such constraints at both the market definition and SMP analysis stages to ensure that any immediate constraints, as well as any more medium-to-longer term effects, if they arise, are accurately captured and considered.[362]

[359] See paragraphs 4.152 to 4.175.

[360] See cases NL/2005/281, UK/2007/0733, ES/2008/805, PT/2008/851.

[361] This is the wholesale price as a proportion of the overall retail price.

[362] As noted in BEREC "Report on self supply", BoR 10(09), March 2010, a majority of NRAs address self supply at both the market definition and SMP analysis stages of their market reviews.

How is a SSNIP of FACO likely to impact on the RFTS market?

5.140 The assessment of indirect constraints is ultimately about determining the likely impact of a 5% to 10% SSNIP of FACO on the relevant retail price and assessing likely retail customer substitution.

5.141 ComReg considers the European Commission's *first criterion* in paragraph 5.137(a) above by assessing the relationship between wholesale and retail prices, and by considering the extent to which wholesale purchasers (Access Seekers) would be likely to pass through a potential wholesale price increase imposed by a HM supplier of FACO to their own retail customers.

5.142 The extent/intensity of competition in affected retail markets could impact the degree to which, if at all, wholesale price increases would likely be passed on to retail consumers. For example, faced with a strong competitor who had the ability to absorb a FACO increase (and not pass it through into higher retail prices), a competing FSP would need to consider, in response to a FACO price increase, the degree to which it would raise its retail prices for RFTS (or across a portfolio of services) and the likely impact that this would have on the potential for its subscribers to switch to the competitor's service. Where a decision was made not to pass on the FACO price increase, it would nevertheless represent a cost to the FSP.

5.143 Assuming that all other elements of the downstream retail service were provided at a competitive price level[363], an increase in the price of FACO may translate into a retail price increase given that the FSP would otherwise be operating its service at a loss over the long-term. However it has also been noted that, even in the case of competitive retail markets, there may not be an immediate pass through of an increase in the price of the wholesale input if fixed sunk investments are non-trivial.[364] If the retail market were not fully competitive, the Access Seeker purchasing FACO may choose not to pass through some or all of the wholesale price increase, but instead may choose to absorb the wholesale price increase itself. In such circumstances, the strength of indirect constraint may be less potent than a direct constraint might be.

[363] In general, this is a price level sufficient to cover its costs plus a reasonable rate of return.

[364] See Robert Lipschitz, Paul Anderson and Fatima Fiandeiro "Self-supply and indirect constraints within competition analysis", 22 May 2008.

5.144 Furthermore, even where the purchaser of FACO is intending to pass through some or all of the wholesale price increase into the retail prices, any wholesale price increase will nonetheless be diluted once it is translated into a retail price increase. This is because the wholesale service costs are but one input to the eventual retail price. In this respect, an increase of 10% in the wholesale FACO price would not directly translate into an equivalent increase at the retail level. In the context of assessing indirect constraints, establishing this ratio between the wholesale FACO price and downstream prices is central to the application of the *second criteria* and *third criteria* set out in paragraph 5.137(b) and 5.137(c) above for assessing indirect constraint.

5.145 The European Commission's *second criterion* also notes the need to establish whether there would be sufficient demand substitution at the retail level to render the wholesale price increase in question unprofitable.

5.146 In establishing the wholesale/retail price ratio, that is, the relationship between the wholesale input cost and the retail price (being the '**Price-Cost Ratio**'), the first decision is which prices to use to calculate the ratio. ComReg is aware that the pricing of RFTS is complex and often complicated by bundling and discounts. The bundle could, for example, include RFTS, broadband, and/or mobile voice calls. End-users may also take various product characteristics and broader pricing features into account when deciding whether to switch between providers. Whereas, the SSNIP being assessed in this instance would only apply to the FACO input of the bundle, not to all of the wholesale inputs used to create the bundle.

5.147 For FSPs that only offer RFTS as part of a broader bundle of services, it is not possible to be definitive about the retail price associated with the RFTS element of the bundle. However, ComReg is able to consider the price of FACO within the context of the overall retail price for the service bundle provided by the FSP.

5.148 As noted in Section 4[365] and Appendix D[366], the 2012 Market Research indicated that households and businesses appear to have poor levels of awareness of costs but nonetheless are primarily concerned with the overall cost of the RFTS package or bundle, rather than the price of individual components. In addition, the price sensitivity analysis, indicates that customers are more likely to be aware of, and to change behaviour in response to an increase in their overall bill rather than to changes in individual components such as the price of RFTS. In view of the above tendency for end-users to be most concerned about their overall package or bundle costs, in order to predict the impact of a SSNIP of FACO on retail demand, ComReg has estimated the percentage change in the price of an average RFTS package or bundle resulting from a SSNIP of LL-FACO and HL-FACO.

[365] See paragraphs 4.54 to 4.73.

[366] See paragraphs D.4 and D.5.

5.149 Having regard to the above, ComReg's calculates the margin between retail prices and wholesale prices of LL-FACO and HL-FACO products based on the following proxy values.

(a) a notional **retail-price** based on an estimated average monthly spend for a package or bundle which includes RFTS[367] (which may contain other services); and

(b) a notional estimate of the **FACO costs** that would be incurred by an FSP to provide the average retail RFTS package or bundle (given only FACO costs would be included in the hypothetical SSNIP). In this respect, the FACO price is made up of two components:

(i) the variable FVCO price related to the call origination element of SB-WLR being, for the purpose of this analysis, an average weighted per-minute call price multiplied by average number of call minutes purchased by the retail customer, plus a per-call set-up fee where appropriate); and

(ii) the fixed monthly WLR price related to the line rental element of SB-WLR that is associated with LL-FACO (PSTN or ISDN BRA) and HL-FACO (ISDN FRA or ISDN PRA).

5.150 This is illustrated in the paragraphs below.

[367] As noted in paragraphs 3.54 to 3.63, there is an increasing tendency for RFTS to be sold as part of a broader bundle of service and as at Q3 2013 standalone purchases of RFTS stood at 38.65%, whereas RFTS purchased as part of a bundle was 61.35%. For the purpose of the exercise of calculating a notional retail price ComReg has estimated a notional average monthly spend based on the prices published for a range of RFTS bundles and packages offered by Vodafone and Sky (these products were chosen because Sky and Vodafone are relatively large purchasers of FACO, whose RFTS customers would be affected by a hypothetical SSNIP of LL FACO). ComReg notes that both Sky and Vodafone predominantly sell RFTS as part of a broader bundle of services, rather than on a standalone basis (although they do offer RFTS). In this respect, based on Q3 Quarterly Key Data Report data, the proportion of RFTS sales on a standalone, double play bundle and triple play bundle for Sky and Vodafone were **[✂** [redacted]**]** and **[✂** [redacted]**]** respectively. This tendency for the affected retail customers to purchase RFTS as part of a double-play or triple play bundle suggests that the notional retail price should be weighted towards the price of a bundle, rather than a stand-alone RFTS product. However, ComReg would also note that, depending on the nature of the RFTS services offered, whether as part of a bundle or otherwise, it may well be the case that certain calls are excluded from any inclusive call minutes (such as calls to mobiles, calls made outside of designated times - say in the case of inclusive calls applying in off-peak periods only). Any out of bundle calls would then incur additional retail charges, beyond the headline RFTS prices.

5.151 ComReg would note that Eircom's current FVCO prices[368] are subject to a cost orientation obligation and are calculated based on a Top Down[369] Forward-Looking Long Run Average Incremental Cost plus pricing ('LRAIC+') model[370]. WLR is also subject to a 'retail minus 14%' obligation. Therefore, while the price of the FVCO component is cost based the WLR component is not. Nevertheless ComReg uses the regulated prices for these services as a proxy for cost in a competitive market outcome (although this may not be the case for WLR given it is not a cost based price)[371].

5.152 ComReg also notes that Eircom's FVCO charges vary depending on which point in its network that an Access Seeker is interconnected to, with such charges increasing based on whether primary, tandem or double tandem FVCO is purchased. Such FVCO charges also vary according to the time of day an Access Seeker purchases FVCO, namely, according to whether it is peak, off-peak or weekend. Eircom's current FVCO charges[372] are set out below in Table 9 below.

Table 9: Eircom's current FVCO Charges

Charging Level	Cent Per Minute			Cent Per Call		
	Peak	Off-Peak	Weekend	Peak	Off-Peak	Weekend
Primary	0.2344	0.1301	0.1144	0.6660	0.3689	0.3231
Tandem	0.3398	0.1877	0.1645	0.7362	0.4073	0.3565
Double-Tandem	0.4194	0.2320	0.2030	0.7694	0.4255	0.3727

5.153 Given the above charging structure, it is not straightforward to calculate the FVCO charges for a call, in particular, given that it depends on the point of an Access Seekers interconnection to Eircom's network and the time of day that the call is made.

5.154 The standard monthly prices for the WLR component of SB-WLR are set out in Table 10 below.

[368] See discussion in paragraphs 9.19 to 9.23 regarding existing price control obligations for FVCO and WLR.

[369] Top Down refers to the situation whereby the source of financial information being used is taken from the audited Eircom accounting records.

[370] This is a model that calculates the average efficiently incurred directly attributable variable and fixed costs, plus an appropriate apportionment of joint and common costs.

[371] In applying a SSNIP it is typically an increase in price above the competitive level. As the FVCO market has, to date, been determined not to be effectively competitive, absent regulation wholesale charges would, in ComReg's view, be likely to be above cost.

[372] These rates have been taken from Eircom's RIO Price List, version 2.73, as at 17 February 2014. Prices are exclusive of VAT, however, given Access Seekers can reclaim the VAT, its effects at the wholesale level are likely to be largely neutral.

Table 10: Eircom's current SB-WLR prices[373]

WLR Service	Monthly Wholesale Charge
PSTN	€18.02
ISDN BRA	€27.95
ISDN FRA	€143.18
ISDN PRA	€238.25

5.155 Purchasing LL-FACO to provide a 'LL'-RFTS normally involves both the rental of a wholesale PSTN or ISDN BRA line (priced at €18.02 and €27.95 respectively)[374] coupled with the purchase of FVCO on a per minute basis. ComReg estimates that a notional weighted average price for the WLR elements of LL-FACO would be €19.19 per month[375].

5.156 Based on data from the Quarterly Key Data Report, typical residential users are estimated to purchase 192 call minutes per month[376]. ComReg calculates that the cost of the FVCO component consumed would equate to a weighted average FVCO price of 0.4c per minute (including an effective call set-up cost)[377].

[373] These rates have been taken from Eircom's RIO Price List, version 2.73, as at 17 February 2014. Prices are exclusive of VAT, however, given Access Seekers can reclaim the VAT, its effects at the wholesale level are likely to be largely neutral.

[374] See Table 10 above.

[375] The weighted average is calculated having regard to the distribution of sales for PSTN and ISDN BRA lines as identified in data provided by Eircom to ComReg for its Quarterly Key Data Report for Q3 2013.

[376] This is an estimate based on Figure 2.3.3 in ComReg's Quarterly Key Data Report for Q3 2013.

[377] These estimates are based on a calculated 'weighted average' price of FVCO per-minute that is based on the charges set out in Table 9 which vary according to (a) the exchange level at which Access Seekers purchase FVCO, i.e. primary, tandem or double tandem exchanges (b) the allocation of per a call set-up charge (which ComReg allocates on a per-minute basis having regard to the typical average call duration (see below)); and (c) whether the FVCO is provided during the day, evening or weekend periods.

The exchange handover level weighting at (a) above is based on data utilised in the Decision Instrument set out in the **2011 Pricing and Transparency Decision** which assumes a weighted average traffic handover profile of 66% at the primary level, 24% at the tandem level and 10% at double tandem level.

The per-call set-up fee at (b) above is allocated on a per-minute basis according to an estimated average call length of 3:09. This average cal length is derived from Eircom's reported FVCO volumes (given in minutes, and in number of calls) presented on page 19 of Eircom Historical Cost Separated Accounts Financial Statements for the year ended June 2013 as published on its website at http://www.eircom.ie/bveircom/pdf/HCA_Accounts_2013.pdf.

The time of day pricing differentials at (c) above have been weighted based on a distribution of retail peak-time, off-peak and weekend call volumes provided by Eircom to ComReg for the purpose of ComReg's routine monitoring compliance with the 2011 Pricing and Transparency Decision (provided in response to a statutory information request of 12 august 2013. In using this distribution, ComReg has assumed that the distribution is likely to be similar for Eircom's total call distribution and is estimated to be **[✂** [redacted] **]** respectively.

5.157 Combining the above two LL-FACO elements would result in an average notional LL-FACO monthly cost for SB-WLR of €19.96. According to the 2012 Market Research[378], the average household spend on a package or bundle containing RFTS, is €61. Having regard to the above assumptions, ComReg estimates the ratio of the LL-FACO price relative to the LL-RFTS product/package (the '**LL Price-Cost Ratio'**) to be approximately 32.7%.[379]

5.158 Purchasing HL-FACO to provide a 'HL'-RFTS normally involves both the rental of a wholesale ISDN FRA or ISDN PRA line (priced at €143.18 and €238.25 respectively) coupled with the purchase of FVCO on a per minute basis. ComReg estimates that a weighted average price for the WLR elements of HL-FACO would be €201.05 per month[380].

5.159 Taking the same weighted average FVCO price of 0.4c per minute identified above[381], the 192 call minutes would result in a notional FVCO charge of €0.77c.

5.160 Based on data from the Quarterly Key Data Report, typical business users are estimated to consume 695 call minutes per month.[382].Taking the same weighted average FVCO price of 0.4c per minute identified above[383], the 695 call minutes would result in a notional FVCO charge of €2.80.

5.161 Combining the above two elements would result in an average HL-FACO monthly cost for SB-WLR of €203.85. According to the 2012 Market Research[384], the average business expenditure on a package or bundle encompassing a RFTS is €516. Having regard to the above assumptions, ComReg estimates the ratio of the HL-FACO price relative to the HL-RFTS product (the '**HL Price-Cost Ratio'**) to be approximately 39.5%[385].

5.162 The HL Price-Cost Ratio (39.5%) and LL Price Cost Ratio (32.7%) effectively reflect the proportion of the total bill for the a package or bundle containing RFTS that would likely be affected by a SSNIP in FACO, and therefore can be used to derive the 'dilution effect', being the percentage increase in retail prices that would occur in response to the pass-through of a SSNIP in FACO.

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[378] 2012 Market Research, slide 12.

[379] Calculated as €19.96 / €61.

[380] The weighted average is calculated having regard to the distribution of sales for ISDN FRA and ISDN PRA lines as identified in data provided by Eircom to ComReg for its Quarterly Key Data Report for Q3 2013.

[381] This estimate is based on the same set of references and conditions that are set out above in respect to the calculation of a weighted average FVCO price per-minute for FVCO associated with LL FACO.

[382] This is an estimate based on Figure 2.3.3 in ComReg's Quarterly Key Data Report for Q3 2013.

[383] This estimate is based on the same set of references and conditions that are set out above in respect to the calculation of a weighted average FVCO price per-minute for FVCO associated with HL FACO.

[384] 2012 Market Research, slide 118. Note that this figure of €516 is calculated after having removed the cost estimated by the largest user.

[385] Calculated as €203.83/€516.

5.163 In this respect, the approximate dilution effects for LL-FACO and HL-FACO are set out in Table 11 below with ComReg estimating that:

- a SSNIP in LL-FACO would translate into approximate retail price increases of between 2% to 4% for a SSNIP of 5% and 10% SSNIP respectively; and
- a SSNIP in HL-FACO would translate into approximate retail price increases of between 2.5% to 5% for a SSNIP of 5% and 10% respectively.

Table 11: Dilution Ratios - % increase in retail prices from SSNIP in FACO

FACO Service	Weighted Average Wholesale FACO Price €	SSNIP Level %	Weighted Average Wholesale FACO Price Increase €	Price-Cost Ratio	Pre-SSNIP Retail Price	Effective Retail Price Increase €[386]	% Retail Price Increase from SSNIP pass-through
LL-FACO	€19.96	5%	€0.998	39.5%	€61	€1.23	2.01%
		10%	€1.996			€2.46	4.03%
HL-FACO	€203.83	5%	€10.19	32.7%	€516	€10.19	2.48%
		10%	€20.83			€20.83	4.95%

5.164 As noted in paragraphs 5.142 to 5.144 above, the FSP purchasing FACO may not necessarily choose to pass through all, or indeed any, of the SSNIP in FACO, but may instead choose to absorb the wholesale price increase itself, which would further limit the likely extent to which retail substitution by end-users might undermine the profitability of the SSNIP. While it is uncertain whether the entire FACO price increase will be passed through to the price of RFTS or other associated prices (or indeed if it is passed through at all), ComReg makes the assumption that it is passed through in full for the purpose of market definition, since this will prevent any underestimation of any indirect retail constraints on the FACO Markets arising from the pass-through of a FACO price increase into RFTS.

5.165 The questioned to be determined is whether retail price increases of between 2% to 4% for LL-RFTS or retail price increases of between 2.5% to 5% for HL-RFTS would induce sufficient retail switching (or reduced demand) to alternative services provided on other platforms (i.e. platforms other than that operated by the HM).

[386] Note that ComReg has applied a VAT rate of 23% to the pass-through of the wholesale price increase to LL-FACO only, although it is recognised that a number of businesses likely purchase RFTS based on these wholesale inputs. However, for HL-FACO, ComReg does not apply VAT to the pass-through of the wholesale price increase, RFTS based on HL-FACO only likely to be utilised by businesses which can be entitled to a VAT refund. In this regard VAT effects for business users are likely to be neutral in terms of their effect on the pass-through of the wholesale price increase into retail prices.

What response in retail demand would be likely to be required to result in a SSNIP being unprofitable?

5.166 The threshold at which changes in retail demand may undermine the profitability of a SSNIP can be estimated using what is known as the Critical Loss Test ('**CLT**'). The CLT seeks to support a SSNIP analysis by providing an estimate of the percentage of customers that would have to divert away from the focal product in response to a SSNIP (in this case the pass-through of a wholesale SSNIP) in order for the increase in price of the focal product to be unprofitable. An estimate of actual loss can then be compared to the critical loss value, and if more customers would be likely to switch than the critical loss value then the SSNIP can be considered unprofitable and the market can be no wider than the focal product. Whereas, if the degree of demand substitution from the focal product to another given product is greater than the critical loss, then that product may be considered to belong to the same relevant market. Further details on critical loss analysis are set out in Appendix F.

5.167 Calculating the critical loss is not straight forward as it requires detailed information regarding, for example, marginal cost of FACO[387] in a competitive environment scenario, as well as profitability. The CLT, for the purposes of this Consultation, is by no means determinative in and of itself, and is considered by ComReg alongside other information referred to throughout.

5.168 ComReg has estimated critical loss values associated with 5% and 10% SSNIP for Eircom's FACO products in Appendix F of this document. The CLT estimated that:

(a) at a 5% SSNIP of the FACO price, the critical loss value is likely to be approximately 12-13% for WLR subscriptions and 20-25% for FVCO traffic; and

(b) at a 10% SSNIP of the FACO price, the critical loss value is likely to be around 19-23% for WLR subscriptions and between 29-40% for FVCO traffic.

5.169 These estimates represent the proportion of RFTS customers (i.e. those who are currently purchasing RFTS for which Eircom's FACO products are a wholesale input) that would have to switch to a RFTS product provided on an alternative platform in order for that alternative product to be potentially included in the FACO Markets on the basis of a sufficient indirect constraint.

[387] As noted above the wholesale price of the WLR element of SB-WLR is currently based on a 'retail minus 14%' price control

5.170 Typically, market definition is carried out by using the SSNIP based HMT to assess the responsiveness in demand for the focal product to a 5% or 10% increase in the price of that product and to assess the resulting impact on profitability. However, the application of the HMT in assessing indirect pricing constraints for market definition is somewhat different in that it assesses the response in downstream (retail) demand for RFTS arising from the pass-through of a SSNIP in an upstream (wholesale) FACO market. Given that the downstream prices are normally higher than the price of the affected upstream product (i.e., to reflect the recovery of additional retail specific costs) this means that the magnitude of the upstream price increase is diluted when it is translated into retail price increases (assuming pass-through).

5.171 For the purposes of this analysis, and in order to take a conservative approach to assessing potential product substitutes due to the presence of effective indirect constraints, as noted above ComReg assumes that all of the wholesale price increase would be passed through by the Access Seeker to prices at the retail level. ComReg would note that such retail price increases could manifest themselves in a number of ways including increase in call prices, line rental charges or indeed overall charges for bundles. The dilution effects discussed in paragraph 5.163 and Table 11 above means that a wholesale price increase results in a lower price increase at the retail level.

5.172 As identified in paragraph 5.162, the HL Price-Cost Ratio was 39.5% and the LL Price Cost Ratio was 32.7%. It was also noted that a 5% SSNIP of LL-FACO and HL-FACO would translate into an increase in the price of related RFTS of 2% to 2.5%, while a 10% SSNIP of LL-FACO and HL-FACO would translate into an increase in the price of related RFTS of 4% to 5%. Broadly speaking, therefore, potential maximum retail price increases arising from the pass-through of a 5% and 10% SSNIP are 2.5% and 5% respectively.

5.173 The RFTS customers affected by the SSNIP are those who purchase RFTS (whether on a standalone basis or as part of a broader bundle) from an FSP that purchases FACO. These customers will incur the SSNIP related price increases, and, depending on their response, may affect the profitability of the SSNIP by the HM. This group of potentially affected RFTS customers whose services are based on FACO inputs amounts to represent approximately 337,881 subscribers[388] which would account for approximately 22.4% of all RFTS subscribers.[389] If a sufficient number of such SB-WLR based RFTS customers were to switch to alternative platforms in response to the SSNIP of FACO, then the FACO market may potentially be broadened to include the alternative retail products within the wholesale FACO Markets.

[388] See Figure 21 at paragraph 5.40.

[389] See Figure 2 at paragraph 0. Note that this 22.4% does not include RFTS based on WLA. If WLA subscriptions are included (89,928 subscribers) then this percentage increases to 28.37%.

5.174 ComReg recognises that a wide range of factors are likely to be taken into account by end-users when deciding whether to switch suppliers and/or reduce their consumption of services, including factors not related to the price and characteristics of the RFTS service (including where it is a component of a broader bundle of services). For example, there are costs associated with switching between FSPs[390], and preferences around other aspects of an RFTS package or bundle that cause inertia (for example, regarding choice of broadband provider).[391]

5.175 As discussed in Section 4[392], respondents to the 2012 Market Research reported a low awareness of specific call costs, but a greater awareness of their overall cost of their RFTS package or bundle amongst consumers.[393] This is likely to shape the potential behaviour of consumers in relation to price changes resulting from a SSNIP of FACO.

[390] Possible switching costs include search costs and costs associated with the purchase of new customer premises equipment and installation charges and potential costs for early contract termination (given that, particularly in the purchase of bundles, customers are usually tied to contracts). Service disruption during the switching process may also be a factor, particularly for business customers.

[391] The factors affecting consumer sensitivity to changes in RFTS prices were noted in Section 4 of this Consultation at paragraphs 4.47 to 4.78.

[392] Despite reporting low awareness of specific call prices, the reported calling behaviour of households and businesses suggests that end-users tend to have a general awareness of the relative costs of making calls from various devices. This, in ComReg's view likely influences the way in which consumers make different types of calls. For example, end-users are more likely to use their mobile to call another mobile, than, say, an international number.

[393] However, respondents also ranked the cost of making calls and line rental as being high in importance when choosing an FSP for the provision of RFTS. This suggests that customers have a better understanding of call or line rental costs at the time when they choose an FSP/supplier,

5.176 As noted in Section 4[394], the 2012 Market Research and 2013 ICT Surveys reported that there is a relatively low incidence of churn between RFTS suppliers, with 11%[395] of households and 18%/19%[396] of business respondents having reportedly switched within the previous twelve months of the survey date. The low rate of churn suggests that there is a certain amount on inertia amongst consumers (less so with businesses) with respect to switching FSPs some of which may be explained by the increased prevalence of bundling of retail services (although a substantial cohort still purchase services on a standalone basis) which has a tendency to increase complexity of purchasing and switching decisions.

5.177 Appendix D in this Consultation summarises outputs from the 2012 Market Research with respect household and business respondents' reported behaviour in response to a notional 10% increase in the retail price of RFTS. ComReg would note that, in the context of an assessment of indirect constraints, this 10% notional retail price increase would likely significantly overestimate retail customers' behavioural responses, in particular, having regard to the maximum retail price increases arising from the pass-through of a 5% and 10% SSNIP being 2.5% and 5% respectively. Nevertheless, respondents' reported behavioural changes in response to 10% price increases remain informative to the indirect constraints assessment.

5.178 The most common reported responses to a 10% increase in retail prices were:[397]

- not change behaviour;[398]
- to keep their existing service but reduce spend by making less calls or downgrade to cheaper bundle;[399]
- to switch to a RFTS on a CATV platform;[400] or

[394] See paragraphs 4.49 to 4.50.

[395] 2012 Market Research, Slide 38. 55% of residential respondents reported never having switched FSP, while 15% had done so within 1 to 3 years ago and 18% did so more than 3 years ago. The 2013 Consumer ICT Survey (slide 23) reported similar switching figures with 52% of residential respondents reported having been with their FSP for 5 or more years, while 22% for between 1 to 3 years ago and 14% between 3 to 5 years.

[396] 2012 Market Research, Slide 101. 49% of business respondents reported never having switched FSP, while 21% had done so within 1 to 3 years ago and 7% did so more than 3 years ago. The 2013 Business ICT Survey (slide 22) reported somewhat similar switching figures with 46% of business respondents reported having been with their FSP for 5 or more years, while 22% for between 1 to 3 years ago and 13% between 3 to 5 years.

[397] ComReg notes that the reported response to a SSNIP of RFTS is likely to be subject to 'research bias', which ComReg considers would be likely to overstate intentions to change behaviour in response to the SSNIP. For example, inertia bias, whereby consumers over-estimate their propensity to switch as they do not take into account switching costs, inertia, etc.

[398] See paragraphs D.12, D.21, D.29, D.34, D.45, and D.51 in Appendix D.

[399] See Figure 38, Figure 41, Figure 43, Figure 44, Figure 46, Figure 49,and Figure 50 in Appendix D.

[400] See Figure 39 and Figure 44 in Appendix D.

- to give up landline and use mobile instead.[401]

5.179 Having regard to the above responses and other relevant information discussed previously, ComReg proposes to initially consider whether RFTS over a CATV platform or MTS could pose a sufficient and immediate indirect competitive constraint such that it warrants inclusion in the FACO Markets. The likelihood of indirect constraints from other potential retail substitutes can later be considered if an effective indirect constraint is found to arise from these more commonly reported CATV and MTS alternatives as considered by survey respondents.

RFTS provided over CATV

5.180 In Section 4[402], ComReg identified that Managed VOB based RFTS provided to a fixed location over a CATV network to a fixed location as being a likely substitute for residential customers. While noting the earlier outputs from the 2012 Market Research and the 2013 ICT Surveys of a low overall levels of churn across the RFTS market, as noted in Figure 2 in Section 2.61[403], steady increases in the number of overall RFTS subscriptions on UPC's cable network have been observed, having grown from 5% in Q1 2010 to 18.5% in Q3 2013.[404].

5.181 However, we are now considering whether RFTS provided over CATV should be included within the FACO Markets on the basis of indirect constraints. i.e., in response to a 5% to 10% SSNIP in FACO being passed by SB-WLR purchasers into retail prices, would a sufficient number of customers switch to CATV based RFTS such that it would make the SSNIP in FACO unprofitable.

5.182 Given the indirect link between the retail market and FACO Markets, any competitive constraint posed by CATV products in the RFTS market is likely to be muted in terms of its constraint in the FACO Markets given the dilution effects discussed earlier. For example, there is likely to be a significantly lesser response from consumers to a diluted 2.5% to 5% retail price increase arising from the SSNIP of a wholesale input, compared with what could be expected from a direct SSNIP of 5% to 10% the RFTS price. Moreover, there are other factors that are likely to limit the potential for CATV RFTS products to constrain Eircom's FACO pricing.

5.183 Firstly, as noted previously[405], given the coverage of UPC's CATV network it is capable of providing RFTS to approximately 45% of households in Ireland (approximately 730,000 households), largely in urban areas. This means that a significant proportion of RFTS customers that are affected by SSNIP of FACO are not in a position to switch to a CATV based RFTS product.

[401] See Figure 39, Figure 44, and Figure 46 set out in Appendix D.

[402] See paragraphs 4.101 to 4.109.

[403] See paragraph 0.

[404] The 2012 Market Research (slide 40) suggests that UPC has gained 37% of RFTS 'switching customers' over the three years previous to the survey.

[405] See paragraph 5.88.

5.184 Secondly, as noted previously[406], UPC does not provide a RFTS on a standalone basis and it is only available as part of a broader bundle of services (either television and/or broadband). UPC's entry level bundle (with Pay TV or broadband) that includes a RFTS is priced significantly higher than the standalone RFTS products provided by FACO-based FSPs. Therefore retail customers who prefer to purchase standalone RFTS (without broadband or Pay TV) are unlikely to switch to UPC in response to a SSNIP. As noted in Section 2.61[407] while the proportion of RFTS purchased on a standalone basis as opposed to as part of a bundle has fallen from 54.3% to 38.65% in the period Q1 2010 to Q3 2013, it nonetheless remains substantial. For those customers that purchase RFTS as part of a bundle they may switch to UPC but such a switching decision will involve a broader set of considerations in relation to the other services in the bundle. These factors concerning coverage of UPC's network, its provision of RFTS only as part of a bundle and the number of customers who continue to purchase RFTS on a standalone basis are likely to significantly reduce the potential number of customers for who a CATV based RFTS would be a viable substitute for a FACO based RFTS product.

5.185 Thirdly, given UPC's network coverage is primarily to households, it predominantly provides RFTS to the residential customer segment, with minimal provision of RFTS to businesses[408]. In this context, HL RFTS customers and elements of LL RFTS customers (those using ISDN BRA) are not likely to be capable of switching to a UPC CAT based RFTS service.

5.186 The 2012 Market Research summarised in Appendix D indicates that some residential RFTS customers would consider switching to CATV products in response to a 10% SSNIP of their RFTS product. As noted above, the diluted retail price increase is likely to dampen incentives for effective retail substitution compared to a direct SSNIP.

5.187 As noted in Table 22 in Appendix D**,** the 2012 Market Research data indicates that overall approximately 4%of residential customers would switch to a CATV product in response to a 10% SSNIP of their RFTS product. Given that the likely response from RFTS customers to a diluted 2.5% to 5% retail price increase in the RFTS price is likely to be significantly less than that, it is unlikely that the proportion of customers switching to CATV RFTS products in response to a SSNIP of FACO would exceed the approximate critical loss values identified in paragraph 5.168.

[406] See paragraphs 4.104 to 4.105.

[407] See paragraph 3.60, Figure 7.

[408] This is borne out by the 2012 Market Research (slide 95), which showed that only 3% of businesses had their RFTS provided by UPC.

5.188 Given the above, and having regard to the considerations in paragraphs 5.201 to 5.205 below dealing with the issue of the likelihood Access Seekers RFTS subscribers, in response to the SSNIP in FACO, switching to the HM's RFTS, ComReg's preliminary view is that RFTS provided over CATV are not likely to exert an effective indirect constraint such that they warrant inclusion in the FACO Markets[409].

Mobile Telephony Services

5.189 In Section 4[410], in the context of its retail market assessment ComReg set out its preliminary view that, while there is likely to be some substitutability of RFTS for MTS, the evidence suggests that end-users consider RFTS and MTS to be broadly complementary rather than a direct substitute for each other. Nevertheless, ComReg considers whether, in response to a 5% to 10% SSNIP in FACO being passed by SB-WLR purchasers into retail prices, a sufficient number of customers would be likely to switch to MTS such that it would make the SSNIP in FACO unprofitable.

5.190 This assessment is not straightforward given that potential consumer substitution to MTS could involve substitution of (i) calls only (some or all calls, leading to a reduction in demand for RFVC and FVCO) while continuing to maintain the RFVA (no impact on WLR demand) or (ii) total substitution of MTS for RFTS. Each of these scenarios would be likely to have a different effect on the profitability of a SSNIP in FACO given the relative differences in the wholesale charges for the WLR and FVCO components. For example, where FACO prices are increased by 5% to 10% and this were only to result in a reduction in demand for the FVCO component (say in response to the retail consumer making calls on MTS instead but maintain their RFVA), the lost profit as a result of a decline in demand would be likely to be at least off-set by the extra profitability of the SNNIP in the WLR element.

5.191 The same issues noted above under the discussion on indirect constraints posed by RFTS over CATV apply with respect to the consideration of indirect constraint assessment for MTS. In particular, the dilution of FACO price increases when transposed into RFTS price increases (by FACO purchasers) and the 2012 Market Research outputs are likely overestimating the impact of any indirect constraint effects, in particular, given survey respondents views were sought in relation to 10% increases in retail prices.

[409] This also has regard to the considerations set out in paragraphs 5.201 to 5.206 below.

[410] See paragraphs 4.152 to 4.176.

5.192 There are additional factors that are, in ComReg's view, also likely limit the potential for MTS to effectively constrain the profitability of a SSNIP in FACO. For example, a significant proportion of end-users whose services are based on FACO are likely to be hesitant about giving up their RFTS product because it is provided as part of a broader bundle of services (fixed broadband, Pay TV services and sometimes mobile services)[411], particularly in response to a retail increase of between 2.5% to 5%.

5.193 For business customers, the 2012 Market Research indicates retaining a RFTS service, with a fixed line telephone number, remains very important[412]. For households, as noted previously, the 2012 Market Research indicated that 64% of households maintained a fixed line for RFTS, with 95% of households having a MTS[413]. The 2012 Market Research also showed that 95% of businesses have a RFTS, with the majority of those without being sole traders[414].

5.194 Household respondents to the 2012 Market Research were asked to consider how they would respond to a 10% increase in their RFTS, with a number of respondents stating that they would cancel their fixed line or reducing usage of RFVC, and instead use MTS.

5.195 As noted in Table 22 and Table 24 in Appendix D**,** the responses to the 2012 Market Research indicated that approximately 9% of household respondents and 2% of business respondents indicated that they would cancel their RFTS and instead use MTS in response to 10% SSNIP <u>of the retail price</u> of their RFTS product.

5.196 Meanwhile, less than 10% of household respondents and less than 2% of business respondents indicated that they would respond to 10% SSNIP <u>of the retail price</u> of their RFTS product by keeping their RFTS but reducing the amount of calls they make and instead make more mobile calls or texts.

5.197 Given that the likely response from RFTS customers to a diluted 2.5% to 5% retail price increase in the RFTS price is likely to be significantly less than that expressed for a 10% RFTS price increase, ComReg considers that it is unlikely that the proportion of customers switching to MTS in response to a SSNIP of FACO would exceed the approximate critical loss values identified in paragraph 5.168.[415]

[411] As noted in footnote 367, Sky and Vodafone are substantive purchasers of Eircom's SB-WLR products. In this respect, based on Q3 Quarterly Key Data Report data, the proportion of RFTS sales on a standalone, double play bundle and triple play bundle for Sky and Vodafone were **[✂** [redacted]**]** and **[✂** [redacted]**]** respectively.

[412] 2012 Market Research shows that 95% of businesses had 1 or more fixed lines (slide 84) and it was considered necessary to maintain a fixed line for a number of reasons, including the need to be contacted, the day-to-day functioning of the business amongst others (slide 85).

[413] 2012 Market Research slides 11 and 17.

[414] 2012 Market Research slides 84 and 86.

[415] This also has regard to the considerations set out in paragraphs 5.201 to 5.206 below.

5.198 Given the above, and having regard to the considerations in paragraphs 5.201 to 5.205 below dealing with the question of the degree to which RFTS subscribers of Access Seekers, in response to the SSNIP in FACO, would be likely to switch to the HM's RFTS, ComReg's preliminary view is that retail MTS are not likely to exert an effective indirect constraint such that they warrant inclusion in the FACO Markets.

Other Services

5.199 In Sections 3[416] and 4[417] ComReg considered whether RFTS provided over FWA and alternative FTTx networks would be likely to fall within the RFTS market. ComReg's preliminary view was that the degree of competitive constraint posed by FWA-based and alternative fibre based RFTS products is not likely to be substantial. ComReg left open the matter of whether RFTS provided over FWA and alternative fibre networks should be included in the RFTS market for the purpose of this particular market analysis exercise.

5.200 In the context of assessing the indirect constraint posed by RFTS provided over these alternative platforms, ComReg notes that the coverage and use of RFTS provided over such networks is substantially less than that of CATV based RFTS and MTS. Therefore, having considered above that indirect constraints from CATV and MTS are not likely to be sufficient to warrant their inclusion in the FACO Markets, ComReg draws the same preliminary conclusion with respect to RFTS provided over FWA and alternative FTTx networks[418].

Whether the strength of indirect constraints would be weakened by RFTS customers switching to Eircom's own retail arm?

5.201 ComReg now considers the European Commission's *third criterion* as identified in paragraph 5.137(c), namely whether the retail customers of the Access Seekers purchasing FACO from Eircom would switch to a significant extent to the retail arm of the integrated hypothetical monopolist, in particular if the latter does not raise its own retail prices following the SSNIP in FACO. i.e., whether, in response to a wholesale SSNIP of FACO offered by a vertically integrated HM supplier over an extensive or ubiquitous network, the downstream customers of Access Seekers purchasing SB-WLR switch to the HM supplier's own retail arm.

5.202 In the context of Eircom's supply of SB-WLR, such switching in response to a SSNIP of FACO would result in Eircom benefiting from increased retail revenue which may act to off-set any lost wholesale revenue resulting from a reduction in wholesale demand for SB-WLR.

[416] See paragraphs 3.11, 3.18 and 3.38.

[417] See paragraphs 4.119 to 4.126 and 4.127 to 4.131.

[418] This also has regard to the considerations set out in paragraphs 5.201 to 5.206 below.

5.203 Having regard to the Modified Greenfield Approach[419], absent regulation, it can be expected that a vertically-integrated HM supplier of FACO over a widespread or ubiquitous network would have incentives to at least hold its own RFTS prices constant[420] so as to attract as many retail customers as possible that switching away from FSPs whose services are based on SB-WLR (and which were subject to the SSNIP).

5.204 As noted in Section 2.61[421]and 4[422] Access Seeker's compete at the retail level predominantly through the purchase of Eircom's SB-WLR service and WLA, which is available on a national basis. However, ComReg would also note that, in accordance with the Modified Greenfield Approach[423], but for the existing regulation of the FVCO market (which is discounted in this current analysis) SB-WLR services would not be likely to be made available by Eircom and, therefore, Access Seekers would not be able to offer RFTS using these wholesale inputs. Even in the presence of SB-WLR, Eircom's RFTS market share is approximately 52%[424], while UPC's is 18.5%. The significant reminder of the remaining 29.5% market share is accounted for based of FSPs providing RFTS using Eircom's SB-WLR product.

5.205 The HM supplier's RFTS is likely to be considered a suitable substitute by RFTS customers affected by the SSNIP because of the similarity of product characteristics and relatively low switching costs (since the service would be provided over the same network and with the same or similar customer premises equipment, there would be no requirement for the porting of telephone numbers and any service downtime would be limited). Furthermore, the ubiquity of the HM's network implies that its downstream arm would not be limited by coverage in the same way as some of the potential alternative platforms, in particular, the CATV network which as noted earlier covers 45% of households.

5.206 Given the above ComReg considers it is likely that of those Access Seekers SB-WLR based RFTS customers that do seek to switch in response to the pass-through of a SSNIP in FACO, a significant proportion would switch to the RFTS product offered by Eircom's retail arm in response, there by mitigating any loss of wholesale revenue[425]. This effect further diminishes the potential for alternative platforms to act as an effective indirectly constraint a vertically integrated HM supplier of FACO.

[419] See paragraph 1.23.

[420] Although it is possible that it could increase them for less price sensitive customers and decrease them for more price sensitive customers.

[421] See paragraphs 3.49 to 3.54.

[422] See paragraph 4.198.

[423] See paragraph 1.23.

[424] See Figure 2 at paragraph 0.

[425] ComReg would note that some costs associated with the provision of wholesale FACO would no longer be incurred, while some additional retail costs would be incurred also.

Summary of indirect constraint assessment

5.207 In paragraphs 5.133 to 5.206 above, ComReg has assessed the extent to which a HM supplier of FACO would face a sufficiently strong indirect pricing constraint from each of RFTS over CATV, FWA and alternative FTTx networks, as well as MTS.

5.208 ComReg is of the preliminary view that the indirect constraints are unlikely to be sufficiently strong to prevent a SSNIP of FACO by the HM. As such, ComReg considers that these retail services should not be included within the FACO market.

5.209 The degree of indirect constraint posed by CATV based RFTS and MTS will be considered further in the context of the assessment of competition in the FACO Markets in Section 6, in particular, whether the effectiveness of this constraint is likely to change over a longer time horizon.

5.210 Additionally, ComReg also intends to continue to monitor substitution of RFTS to these platforms over the period of this review and, if appropriate, and having regard to the extent of indirect constraints, initiate a further analysis to update its definition of the FACO Markets, competition assessment and/or remedies.

Overall Preliminary Conclusions on Relevant Product Markets

5.211 In paragraphs 5.1 to 5.210 above ComReg has considered the definition of the relevant FACO Markets from a product perspective and, in so doing has considered demand-side, supply-side and indirect constraints. ComReg's preliminary view is that there are two separate product markets namely the Relevant HL-FACO Market and Relevant LL-FACO Market (together **the 'Relevant FACO Markets'**) as more particularly described below.

5.212 The Relevant LL-FACO Market is comprised of:

(a) wholesale FA to the public telephone network for the provision of voice telephony services by means of (i) PSTN, or (ii) ISDN BRA; and

(b) FVCO, being calls originated at a fixed location of an end-user which are conveyed and routed through any switching stages (or equivalent) up to a point of interconnect nominated by an Access Seeker, with such a point of interconnection taking place at the primary, tandem, or double-tandem exchange associated with the FA on which the voice call was originated. FVCO does not distinguish between the types of telephone numbers being called.

5.213 The HL-FACO Market is comprised of:

(a) wholesale FA to the public telephone network for the provision of voice telephony services by means of (i) ISDN FRA or (ii) ISDN PRA; and

(b) FVCO, being calls originated at a fixed location of an end-user which are conveyed and routed through any switching stages (or equivalent) up to a point of interconnect nominated by an Access Seeker, with such a point of interconnection taking place at the primary, tandem, or double-tandem exchange associated with the FA on which the voice call was originated. FVCO does not distinguish between the types of telephone numbers being called.

5.214 In the case of both LL-FACO Market and HL-FACO Market (together referred to as the '**FACO Markets**'), Eircom's self-supply, including its self-supply via Managed VOB, is also included in the FACO Markets.

5.215 ComReg's preliminary view is that the FACO Markets do not include:

- Wholesale SV Services;[426]
- self-supply of FACO on alternative RFTS networks;[427]
- Mobile Telephony Services;[428] and
- Managed VOB provided over xDSL[429] or Leased Lines[430] as a substitute for FACO because there is not yet evidence of significant substitution taking place between FACO products and Managed VOB, to the extent that would prevent the HM from exercising a profitable SSNIP of HL FACO or LL FACO.

5.216 As noted in paragraphs 5.207 to 5.210 ComReg's preliminary view is that RFTS products provided on alternative platforms, and mobile telephone services, do not provide a sufficient indirect constraint on the FACO market such that would justify the inclusion of these products in the FACO Markets.

Geographic Assessment of FACO Market

5.217 In paragraphs 4.190 to 4.219 ComReg considered the geographic scope of the retail market and set out its preliminary view that it is likely to be a national market. ComReg now considers the geographic scope of the wholesale Relevant FACO Markets.

5.218 The European Commission's Notice on Market Definition states that the relevant geographic market is:

[426] See paragraphs 5.72 to 5.76.

[427] See paragraph 5.85 to 5.92 regarding self-supply of RFTS on a CATV network, 5.116 to 5.121 regarding self-supply on FWA networks, and 5.122 to 5.126 regarding self-supply on alternative local FTTX networks.

[428] See paragraphs 5.127 to 5.129.

[429] See paragraphs 5.93 to 5.110.

[430] See paragraphs 5.111 to 5.115.

"…….. an area in which the undertakings concerned are involved in the supply and demand of the relevant products or services, in which area the conditions of competition are similar or sufficiently homogeneous and which can be distinguished from neighbouring areas in which the prevailing conditions of competition are appreciably different."[431]

5.219 The European Commission's Notice on Market Definition notes[432] further that it:

"….will take a preliminary view of the scope of the geographic market on the basis of broad indications as to the distribution of market shares between the parties and their competitors, as well as a preliminary analysis of pricing and price differences at national and Community or EEA level. This initial view is used basically as a working hypothesis to focus the Commission's enquiries for the purpose of arriving at a precise geographic market definition".

5.220 In assessing potential geographic variances in competitive conditions, ComReg has also had regard to the ERG's Common Position on Geographic Aspects of Market Analysis (ERG Common Position)[433].

5.221 Having regard to the above, ComReg assesses the geographic scope of the Relevant FACO Markets according to the following criteria:

- geographic differences in entry conditions over time;
- variation in the number and size of potential competitors;
- distribution of market shares;
- evidence of differentiated pricing strategies or marketing; and
- geographical differences in demand characteristics.

Geographic Differences in Entry Conditions

5.222 As noted previously, there is only one active wholesale supplier in the Relevant FACO Markets, namely Eircom[434] which, as a vertically integrated FSP also provides RFTS directly to end-users. Eircom's provision of FACO to other FSPs is on a national basis and, to date has been provided pursuant regulatory obligations imposed under the 2007 Decision[435]. Since the 2007 Decision there has been no additional entry in the Relevant FACO Markets.

[431] European Commission Notice on Market Definition, paragraph 8.

[432] European Commission Notice on Market Definition, paragraph 28.

[433] ERG "Common Position on Geographic Aspects of Market Analysis (definition and remedies)", ERG (08) 20, October 2008.

[434] Eircom, therefore has 100% market share.

[435] In accordance with the Modified Greenfield Approach, ComReg's consideration of the geographic scope of the Relevant FACO Markets assumes no regulation is present in these markets.

5.223 As noted in Section 2.61[436], a number of FSPs have entered the RFTS market since the 2007 Decision, some using upstream wholesale inputs provided by Eircom, while others using their own infrastructure, sometimes in combination with wholesale services provided by Eircom or BT Ireland[437]. The entry of UPC, and other FSPs (including FSPs providing RFTS through localised FWA or FTTH networks) in certain areas suggests that there may be certain geographic areas within which the barriers to entering the RFTS market are lower.

5.224 However, there is no clear evidence that the somewhat uneven retail market entry conditions have been observed in the upstream FACO Markets, in particular, RFTS FSPs have not entered the upstream FACO Markets, nor have they expressed an interest in doing so within the period covered by this market review. ComReg also considered that even if FACO was to be provided on such alternative platforms, that it is unlikely there would be sufficient demand-side substitution.[438]

5.225 ComReg has, within the context of its above[439] assessment of the FACO product markets, examined the impact of potential competition and has set out its preliminary view that RFTS provided by alternative platforms do not pose a sufficient competitive constraint, either direct or indirect, to warrant inclusion in the FACO Markets. On that basis, ComReg also proposed to exclude self-supply on alternative platforms from the FACO Markets.

5.226 Overall, there is insufficient evidence to suggest that there are clear differences in geographic entry conditions in the FACO Markets.

Variation in the number and size of potential competitors

5.227 As noted previously, there is only one active wholesale provider in the FACO Markets, namely Eircom. As such, there is no variance in the number of competitors in the FACO Markets across different between geographic areas.

Distribution of market shares

5.228 As the sole operator in the Relevant FACO Markets, Eircom has 100% market share[440], with this being stable over time.

[436] See paragraphs 3.2 to 3.20.

[437] BT Ireland's wholesale services are enabled by its purchase of upstream wholesale inputs from Eircom, including SB-WLR, WPNIA and WBA.

[438] Note that, for the reasons discussed in paragraphs 5.85 to 5.92 in respect to CATV networks, entry conditions for the RFTS market differ from those present in the FACO Markets. For example, some of the important features of Eircom's FACO service would be difficult for an alternative FSP, such as UPC, to replicate. Such as national service coverage and the ability to interconnect at multiple levels on the network for traffic handover. These factors, on the other hand, do not necessarily inhibit entry into the RFTS market.

[439] See paragraphs 5.1 to 5.215 above.

[440] In Section 6 ComReg considers the hypothetical market share position, were the self-supply of vertically-integrated CATV, FWA and alterative fibre based FSPs providing RFTS to be included in the FACO Markets.

Evidence of differentiated pricing or marketing strategies

5.229 ComReg has assessed whether there is evidence of differentiated pricing or marketing that might indicate the presence of different regional or local competitive conditions, in particular, geographically de-averaged/differentiated wholesale (or retail) pricing[441]. Furthermore, variation in product quality between geographic areas (which may infer effective price differences), or variation in the marketing of FACO products may also be suggestive of localised competitive pressures within a market.

5.230 As noted above, FACO is provided by Eircom on a national basis. Eircom is required in accordance with its Universal Service Obligations[442] ('**USO**') to provide retail line rental and calls prices on a national basis. As noted earlier[443], at the wholesale level, the WLR element of Eircom's SB-WLR product is subject to a 'retail minus 14%' price control obligation, whereby its WLR price is linked to the price of its own retail line rental product (the retail price minus 14%). The regulated 14% margin is intended to enable efficient Access Seekers to cover their retail costs and, purchasing the WLR upstream input, compete effectively in the downstream RFTS market. The FVCO element of Eircom's SB-WLR product is subject to a cost orientation obligation and is calculated based on a Top Down Forward-Looking LRAIC+ model. Eircom's SB-WLR prices are set out in its RIO Price List. These SMP regulatory price control obligations thereby place some restrictions on Eircom's wholesale pricing which, absent regulation, would otherwise not be in place.

[441] As noted by the European Commission in Case UK/2007/0733.

[442] The provision of telephony services under Universal Service Obligations, Response to Consultation and Decision, ComReg Document 12/71, Decision D07/12, June 2012 (the '**2012 USO Decision**'). Eircom's current term as USP lasts until 30 June 2014.

[443] See paragraph 5.151.

5.231 However, ComReg notes that Eircom recently reduced the effective price of retail bundles that include RFTS and next generation broadband within larger exchange areas ('**LEA(s)**'). Having regard to its obligations imposed under the 2013 Bundles Decision[444] (amongst which various price ceilings and floors are set to prevent Eircom imposing a margin/price squee231ze in the WBA and WPNIA markets), Eircom applied a discount on its SB-WLR product but only when it is bundled with WBA[445]. This SB-WLR discount when bundled with WBA also provided a margin to allow Eircom to set a lower price for retail bundles that include RFTS and next generation broadband than may otherwise have been possible. ComReg noted, in arriving at the 2013 Bundles Decision, that Eircom and its wholesale customers face greater competition in the provision of retail bundles within the LEA and required some pricing flexibility in order to compete with UPC.

5.232 Eircom's proposal to apply this SB-WLR discount only to bundles implies that the more intense competitive conditions relate specifically to the provision of retail bundles and not to the FACO market specifically. For example, Eircom has not lowered the price of standalone SB-WLR, or its FVCO component, in any specific geographic area.

5.233 There is, therefore, little behavioural evidence to suggest that Eircom is facing significantly different competitive conditions specifically in the provision of FACO between different geographic areas. However, as noted above, ComReg proposes to continue to monitor the situation and to revisit its market definition, competition analysis and/or remedies as appropriate.

Geographic differences in demand characteristics

5.234 Demand for FACO emanates from Access Seekers who do not have an access network at all or one with sufficient coverage to compete in the retail market, but who wish to provide RFTS on a national basis.[446] National coverage of FACO ensures that these Access Seekers are able to offer RFVC (on a national basis using Eircom wholesale services). As such, ComReg considers that demand for FACO is primarily likely to be national in nature.

[444] Price Regulation of Bundled Offers , Further specification of certain price control obligations in Market 1 and Market 4, Response to Consultation and Decision, ComReg Document 13/14, Decision 04/13, February 2013 (the "**2013 Bundles Decision**") available at http://www.ComReg.ie/_fileupload/publications/ComReg1314.pdf. See discussion later in paragraph 9.27.

[445] Where the line is hosted on an Eircom exchange which is determined to be within the LEA — as published by ComReg from time to time or the exchange has been marked as 'Ready For Order' as per the NGA 'Advanced PreQual File' process. The broadband enabling wholesale products in scope are all variants of current generation broadband products (existing Bitstream and Line Share) and next Generation (Bitstream Plus and Virtual Unbundled Access) broadband products

[446] Eircom's five largest SB-WLR customers are BT Ireland, Vodafone, O2, Pure Telecom, and Imagine. All of these FSPs use FACO on a national basis to provide wholesale services and/or RFTS.

Preliminary Conclusion on Geographic Definition of FACO Markets

5.235 ComReg's preliminary view is that the FACO Markets are national in scope.[447] ComReg notes that, given the lack of direct and indirect constraints in the FACO Markets generally, the conditions of competition appear to be sufficiently homogenous such that there are no sub-geographic markets. This is notwithstanding the emergence of some localised competitive pressure in the provision of retail bundles which, as a result of the regulated price control on SB-WLR, has indirectly resulted in Eircom offering a discount for SB-WLR when bundled with WBA sold within the LEA.

5.236 ComReg proposes to monitor the impact of retail competition on FACO prices within the LEA over the period of the current review, with a view to identifying whether there is any resulting emergence of differentiated competitive constraints in the FACO Markets.

Overall Preliminary Conclusions on Definition of the FACO Markets

5.237 In paragraphs 5.8 to 5.215 ComReg analysed the FACO Markets from a product perspective and set out its preliminary view that there were two separate LL-FACO and HL-FACO Markets, both of which encompass FA and FVCO as described therein.

5.238 In paragraphs 5.217 to 5.236 analysed the FACO Markets from a geographic perspective and set out its preliminary view that the two separate LL-FACO and HL-FACO Markets are national in scope.

5.239 The LL-FACO and HL-FACO Markets are, from product and geographic perspectives, referred to as the '**Relevant FACO Markets**'.

Question 3:	**Do you agree with ComReg's preliminary conclusions on the product assessment for the FACO Markets? Please explain the reasons for your answer, clearly indicating the relevant paragraph numbers to which your comments refer, along with all relevant factual evidence supporting your views.**
Question 4:	**Do you agree with ComReg's preliminary conclusions on the geographic market assessment for the FACO Markets? Please explain the reasons for your answer, clearly indicating the relevant paragraph numbers to which your comments refer, along with all relevant factual evidence supporting your views.**

[447] This is consistent with ComReg's preliminary view that the RFTS market is national, notwithstanding the emergence of some localised competitive pressures particularly in the provision of RFTS bundles.

6 Wholesale FACO Markets Competition Assessment

Framework for Assessing SMP

6.1 Having defined separate FACO Markets, ComReg is required to determine whether each market is effectively competitive having regard to whether or not any of the Service Providers operating within those defined markets has SMP.

6.2 The European regulatory framework for electronic communications networks and services has aligned the concept of SMP with the competition law definition of dominance advanced by the Court of Justice of the European Union in United Brands v. Commission[448]:

> *"The dominant position referred to [by Article 102 of the Treaty on the Functioning of the European Union] relates to a position of economic strength enjoyed by an undertaking which enables it to prevent effective competition being maintained on the relevant market by affording it the power to behave to an appreciable extent independently of its competitors, customers and ultimately of its consumers."*

6.3 Article 14(2) of the Framework Directive[449] effectively mirrors this definition of dominance and states that:

> *"An undertaking shall be deemed to have significant market power if, either individually or jointly with others, it enjoys a position equivalent to dominance, that is to say a position of economic strength affording it the power to behave to an appreciable extent independently of competitors, customers and ultimately consumers."*

6.4 Arising from this definition, ComReg assesses whether SMP exists in accordance with the framework established by the European Commission.

6.5 The European Commission's SMP Guidelines, of which ComReg is required to take utmost account[450] of, refer to a range of criteria that may be considered by National Regulatory Authorities (NRAs) when seeking to establish whether an undertaking(s) has SMP in a relevant market.

6.6 The SMP Guidelines state that according to established case-law, very large market shares (that is, market shares in excess of 50%) are in themselves, except in exceptional circumstances, evidence of the existence of a dominant position.

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[448] Case 27/76 United Brands v European Commission [1978] ECR 207, Paragraph 65. See also paragraph 70 of SMP Guidelines.

[449] Which is transposed by Regulation 25(1) of the Framework Regulations.

[450] In accordance with Regulation 25(2) of the Framework Regulations.

According to established case-law, very large market shares — in excess of 50 % — are in themselves, save in exceptional circumstances, evidence of the existence of a dominant position. An undertaking with a large market share may be presumed to have SMP, that is, to be in a dominant position, if its market share has remained stable over time"[451]

6.7 Market shares in excess of 50% therefore give rise to a strong presumption of SMP. However, the SMP Guidelines also state that the existence of a high market share alone is not sufficient to establish the existence of SMP; rather it means that the undertaking concerned might be in a dominant position and this needs to be considered alongside other potentially relevant criteria for assessing the existence of SMP, including the following:

- Overall size of the undertaking;
- Control of infrastructure not easily duplicated;
- Technological advantages or superiority;
- Absence of or low countervailing buyer power;
- Easy or privileged access to capital markets/financial resources;
- Product/services diversification (e.g. bundled products or services);
- Economies of scale;
- Economies of scope;
- Vertical integration;
- A highly developed distribution and sales network;
- Absence of potential competition; and
- Barriers to expansion.

6.8 The relative importance of each factor may vary from one analysis to the next as the characteristics or dynamics of the relevant market under examination change. Consequently, flexibility is needed in applying the above criteria. In addition, many of the above factors, while presented separately, may in fact be interrelated and all available evidence is considered by ComReg as a whole before a determination on SMP is made. In this respect, the SMP Guidelines note that:[452]

> *"A dominant position can derive from a combination of the above criteria, which taken separately may not necessarily be determinative."*

[451] Paragraph 75 of the SMP Guidelines.

[452] Paragraph 79 of the SMP Guidelines

Approach to Assessing SMP in the Relevant FACO Markets

6.9 ComReg's approach to assessing whether an undertaking has SMP in the Relevant FACO Markets is to carry out a forward looking analysis on the basis of existing and likely future market conditions[453] and to consider the range of factors identified above that are of most relevance to these markets.

Relevant SMP Criteria

6.10 For the purposes of the analysis of the Relevant FACO Markets, ComReg considers that the following criteria are of most relevance to the SMP assessment of SMP:[454]

- Overall size of the undertaking;
- Control of infrastructure not easily duplicated;
- Technological advantages or superiority;
- Absence of or low countervailing buyer power;
- Product/services diversification (e.g. bundled products or services);
- Economies of scale and scope;
- Vertical integration;
- A highly developed distribution and sales network;
- Absence of potential competition;
- Barriers to expansion.

6.11 ComReg also considers that factors such as historical and likely pricing behaviour are relevant considerations.

[453] Paragraph 20 of the SMP Guidelines states that "In carrying out the market analysis ….. NRAs will conduct a forward looking, structural evaluation of the relevant market, based on existing market conditions. NRAs should determine whether the market is prospectively competitive, and thus whether any lack of effective competition is durable, by taking into account expected or foreseeable market developments over the course of a reasonable period. The actual period used should reflect the specific characteristics of the market and the expected timing for the next review of the relevant market by the NRA. NRAs should take past data into account in their analysis when such data are relevant to the developments in that market in the foreseeable future."

[454] Other factors identified in paragraph 6.7 above which could be used to assess the existence of market power of an undertaking have been considered but, for the reasons set out in Appendix G are considered of no or less relevance for the purposes of the SMP assessment in these Relevant FACO Markets.

Approach to Existing Regulation

6.12 In markets subject to *ex ante* SMP regulation an authorised undertaking's behaviour may also be restricted by way of existing SMP regulatory controls. It is necessary, however, to consider the potential ability of the undertaking to exert market power in the absence of *ex ante* SMP regulation[455] in the markets concerned. To do otherwise might lead to a circular finding of non-dominance on the basis of SMP regulatory remedies that would cease to exist following the completion of a market analysis and, in the absence of which, the authorised undertaking may be able to exert market power. In the context of an SMP assessment, in the Relevant FACO Markets, the key hypothetical questions to be assessed are:

- how the FSP in question would be likely to behave in the markets being assessed if it were free from current or potential SMP regulatory constraints; and
- how the FSP in question would be likely to behave in the market being assessed having regard to the existence of any SMP and other obligations in related markets which could impact in the Relevant FACO Markets.

Assessment of SMP

6.13 Each of the relevant factors identified in paragraph 6.10 above are considered in detail below. Given an inherent degree of overlap, ComReg proposes to combine its assessment of these factors under the following three broad headings:

- **Existing competition in the Relevant FACO Markets:** an assessment of factors such as vertical integration, market shares, relative strength of existing competitors, barriers to expansion, indirect constraints, and pricing behaviour (discussed in paragraphs 6.14 to 6.44);
- **Potential competition in the Relevant FACO Market:** an assessment of factors such as control of infrastructure not easily duplicated, technological advantages or superiority, barriers to entry in the Relevant FACO Markets, as well as considering the overall strength of potential competitors (discussed in paragraphs 6.45 to 6.147);
- **Strength of any countervailing buyer power (CBP):** an assessment of the impact posed by any strong buyers of FACO on the competitive behaviour of the FACO provider (discussed in paragraphs 6.148 to 6.168).

[455] However, as noted in paragraph 1.23 of this Consultation, while discounting SMP regulation in the market concerned, other obligations (such as, for example, relevant SMP remedies existing in other markets, or obligations relating to general consumer protection or interconnection) are assumed to be in place.

Existing Competition in the FACO Markets

6.14 Eircom is the only commercial supplier of HL-FACO and LL-FACO to third parties and, in view of this, Eircom does not face existing competition within such markets.

6.15 In Section 5[456], ComReg also considered the likely impact of any indirect constraints generated by RFTS providers offering services over CATV, FWA and alternative fibre networks and by MTS offered by MSPs. These constraints are further examined here for the purpose of identifying the effectiveness of any competitive constraints on Eircom's SMP arising from existing competition.

Market Shares

6.16 As Eircom has been the sole Service Provider operating in the FACO Markets since the 2007 Decision, its 100% market share has remained high and stable over time. It does not, therefore, face direct competition from existing suppliers (expansion of existing suppliers is, therefore, not relevant).

6.17 Insofar as existing competition based on indirect retail constraints is concerned, in Section 5 ComReg set out its preliminary view that such constraints are not likely to be sufficiently effective or immediate to prevent Eircom from exercising a profitable SSNIP of HL-FACO or LL-FACO. On that basis ComReg proposed to exclude vertically integrated alternative FSPs providing RFTS via CATV, FWA and fibre, as well as retail MTS from the FACO Markets. For the same reasons set out therein, ComReg does not consider it likely that the strength of these constraints would change sufficiently over a longer time horizon such that it would prevent Eircom from behaving, to an appreciable extent independently of competitors, customers or consumers.

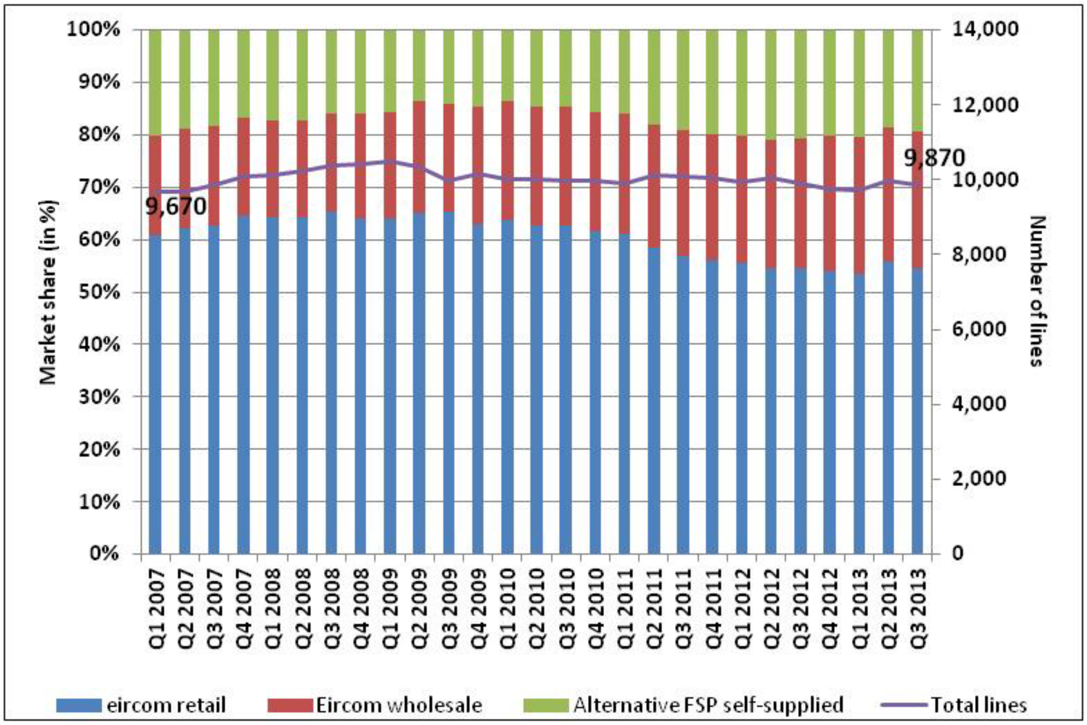
6.18 ComReg has, nevertheless, considered the notional market share position, were the self-supply of vertically-integrated CATV, FWA and alterative fibre based FSPs providing RFTS to be included in the FACO Markets.

6.19 Given the previously noted tendency for end-users to purchase RFVA and RFVC together from the same supplier, ComReg considers that market shares for access path subscriptions presents an adequate measure of the extent of competition in the supply of retail LL-RFTS and HL-RFTS.

6.20 Figure 23 below shows the hypothetical shares for access paths (ISDN FRA and ISDN PRA) in the HL-FACO Market over time.

[456] See paragraphs 5.133 to 5.210.

Figure 23: Hypothetical Market Shares HL-FACO Access Paths (including Self-Supply of alternative FSPs Supplying HL-RFTS)[457]



6.21 While Figure 23 covers hypothetical ISDN FRA and ISDN PRA access path market shares (i.e. not voice traffic) it illustrates that, even if the self-supply of vertically integrated HL-RFTS suppliers were included within the Relevant FACO Markets, Eircom would have a high and stable market share of over 80%. This is also set against a backdrop of an overall relatively stable[458] position with respect to the total market size.

[457] Note that this figure corrects a Figure 27 on page 177 in the Retail Access Market Review Consultation (see footnote 30). Following the publication of the Retail Access Market Review Consultation, a FSP informed ComReg that it was not providing Retail High Level Voice Access ('**RHLVA**') supply (being retail ISDN FRA and ISDN PRA access paths) using its own infrastructure and that historically it was providing incorrect data to ComReg. Hence, ComReg has revised the available information which is now reflected in Figure 23.

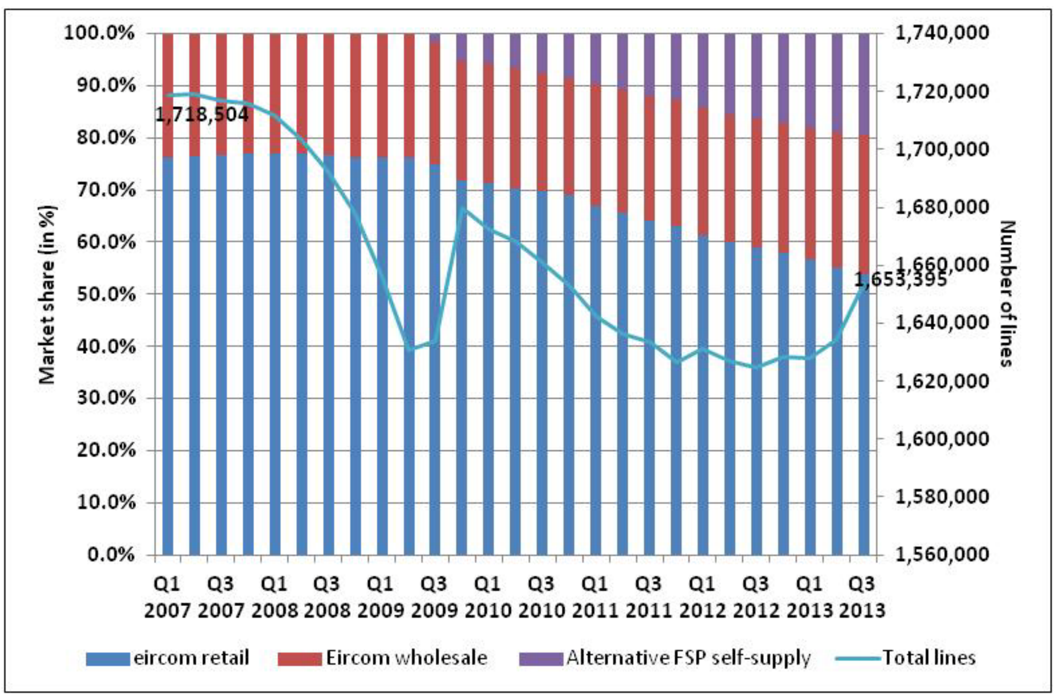
[458] Market shares can have significant variations between adjacent quarters due to the relatively small size of the overall HLVA market

ComReg does not have disaggregated traffic data in order to present hypothetical shares for wholesale FVCO traffic in the HL-FACO Market, were alternative vertically integrated FSPs' self-supply to be included. However, ComReg notes that

6.22 Figure 3, which sets out market shares for total (residential and business) retail call traffic in the period 2010 to 2013, shows that Eircom at **[✂**[redacted]**]** in Q3 2013 has continued to have by far the largest market share over this period and, although having declined by **[✂**[redacted]**]** since Q1 2010, this decline has slowed in recent quarters. This decline in Eircom's call traffic market share is likely to coincide with the growth in UPC's CATV based RFTS subscriptions, as well as SB-WLR based RFTS subscriptions (including by Vodafone and Sky)[459] as shown in Figure 2[460]. However, insofar as HL-FACO is concerned, ComReg would note that UPC's retail presence primarily targets household rather than business customers and, therefore, the hypothetical inclusion of its self-supplied business RFVC traffic in the HL-FACO market is not likely to have a material impact.

6.23 Turning to the LL-FACO Market, Figure 24 below shows the hypothetical market shares for access paths (PSTN and ISDN BRA) in the LL-FACO Market over time.

Figure 24: Hypothetical Market Shares LL-FACO Access Paths (including Self-Supply of alternative FSPs Supplying HL-RFTS)



[459] It should be noted that this figure includes retail call traffic for FSPs whose retail service is based on the underlying use of SB-WLR, which, absent regulation, would not be likely to be available. These retail call traffic market shares therefore overestimate the market share position of such alternative FSPs, while at the same time underestimate Eircom's retail call traffic market shares.

[460] See paragraph 0 to 3.17 for discussion on market share of FSPs' RFTS subscriptions.

6.24 While Figure 24 covers hypothetical PSTN and ISDN BRA access path market shares (i.e. not voice traffic) it illustrates that, even if the self-supply of vertically integrated LL-RFTS suppliers were included in the LL-FACO Market (the significant majority of which is accounted for by UPC), Eircom would have a high market share of over 80%[461]. While this hypothetical market share has declined approximately 20% since Q3 2009, based on the trend to date[462] ComReg does not consider it probable that, within the lifetime of this review, Eircom's market share would fall close to or below 50%.

6.25 In this respect, ComReg has set out its preliminary view that the LL-FACO market is considered to be national in scope and in Section 3[463] it was noted that that UPC's CATV network coverage is to approximately 45% of households and any future market growth would be confined to this coverage area. As of Q3 2013, UPC's RFTS subscriber base stood at 279,100 subscribers giving it a retail market share of 18.5% having grown by 55,682 subscribers in the year to the end of Q3 2013, a slower growth rate that the previous years[464].

6.26 As was noted with respect to the HL-FACO market in paragraph 0, ComReg does not have disaggregated traffic data in order to present hypothetical shares for wholesale FVCO traffic in the LL-FACO Market, were alternative vertically integrated FSPs' self-supply to be included. However, UPC predominantly supplied RFTS to households, and as noted in Section 3[465], in Q3 2013 its RFTS customers were generating **[✂** [redacted]**]** minutes of traffic, which represents approximately **[✂** [redacted]**]**[466] of all RFVC minutes for that period, **[✂** [redacted]**]** since the same period in 2012. While this hypothetical LL-FACO access path market share has declined approximately 20% since Q3 2009, based on the trend to date[467] ComReg does not consider it probable that, within the lifetime of this review, Eircom's market share would fall close to or below 50%.

6.27 In paragraphs 6.16 to 6.26, ComReg has identified that Eircom is the sole supplier in each of the FACO Markets and that its market share has remained stable over time.

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[461] However, ComReg notes that at least a proportion of these SB-WLR subscribers could switch to UPC.

[462] UPC's annual average market share growth over a four and a half year period has been approximately 4.5%.

[463] See paragraph 3.10.

[464] As at Q3 2012, UPCs RFTS subscribers stood at 223,418 with growth of 55,682 subscribers in the year to the end of Q3 2013. UPCs growth rate of its RFTS subscribers in the year Q3 2011 to Q3 2012 stood at 75,797.

[465] See paragraph 3.10.

[466] ComReg Quarterly Key Data Report, Q3 2013.

[467] UPC's average market share growth in a four year and a half year period has been approximately 5%.

6.28 While in Section 5 ComReg excluded vertically integrated alternative FSPs self-supply of LL-FACO and HL-FACO from the FACO Markets, ComReg has nonetheless examined what Eircom's hypothetical market share position might be in the scenario where such alternative platforms were to be included in the FACO Markets. ComReg's preliminary view is that the inclusion of alternative platforms is not, within the lifetime of this review, to result in Eircom's market share falling close to or below 50%.

6.29 ComReg's preliminary view, therefore, is that Eircom's market share in the FACO Markets is suggestive (but not determinative in itself) that it has the ability to behave, to an appreciable extent, independently or competitors, customers and consumers.

Indirect Constraints

6.30 As discussed in Section 5[468], even in the absence of existing competition, a vertically-integrated FSP's self-supply of RFTS could pose a competitive constraint in the FACO Markets if it is shown that its presence in the RFTS market exercises a sufficiently strong pricing constraint on Eircom's supply of FACO.

6.31 However, ComReg's preliminary view was that any indirect constraint arising from Eircom's competitors in the RFTS market, or from MTS providers, would be mitigated by the following factors:

(a) given the price-cost ratio, a SSNIP of FACO would (assuming pass-through) translate into a diluted retail price increase. Fewer customers are therefore likely to respond to such a diluted retail price increase, compared to a situation where a SSNIP is applied directly to RFTS;[469]

(b) customers that wish to purchase standalone RFTS are unlikely to switch to alternative networks, since CATV, alternative FTTx, and FWA networks principally offer RFTS only as part of a bundle (with broadband and/or Pay TV);[470]

(c) a significant proportion of the affected customers cannot switch to UPC's CATV based RFTS because its network extends to approximately 45% of households.[471] The coverage of alternative fibre networks is also very limited and it has been noted that FWA, as a platform, is in decline; and

[468] See paragraphs 5.133 to 5.210.

[469] See paragraphs 5.140 to 5.165

[470] See paragraphs 5.184.

[471] See paragraphs 5.183.

(d) In practice, Eircom would be likely to sustain its retail prices whilst applying a SSNIP to the price of FACO. In such circumstances, Eircom (given its brand recognition and network ubiquity) would be likely to gain a significant proportion of any retail customers that switch away from FSPs' FACO based RFTS. The increased revenue accruing to Eircom from such switching retail customers would contribute to off-setting any loss in wholesale revenue[472], thereby mitigating the effects of any indirect retail constraint that otherwise may have been present.[473]

6.32 ComReg considers that these mitigating factors are likely to remain of relevance when assessing the effectiveness of any constraints arising from existing competition in the FACO Markets. For the reasons set out above, and in greater detail in Section 5, ComReg's preliminary view is that over the period covered by this market review, vertically integrated RFTS FSPs, or MTS MSPs, are not likely to provide a sufficient indirect competitive constraint in the FACO Markets such that it would prevent Eircom from behaving, to an appreciable extent, independently or competitors, customers or consumers.

Pricing Behaviour

6.33 The development and extent of competition in a market over time may be evident in the pricing of FACO products, services and facilities. In an SMP assessment, the ability of an FSP to behave, to an appreciable extent, independently of the pricing behaviour of its competitors may be suggestive (but not determinative in itself) of SMP when considered alongside other factors. In view of this, ComReg has reviewed trends in the FACO pricing over time.

6.34 However, as discussed in later Section 9[474], the prices for the FVCO component of Eircom's SB-WLR product are subject to a cost orientation obligation and are calculated based on a Top Down[475] Forward-Looking Long Run Average Incremental Cost plus pricing ('**LRAIC+**') model[476]. Additionally, the WLR component of Eircom's SB-WLR product is subject to a 'retail minus 14%' obligation.[477]

6.35 Table 12 below sets out the evolution of Eircom's regulated prices for the FVCO component of Eircom's SB-WLR product (as published in the Eircom RIO Price List) in period since April 2004.

[472] There would also be some reduction in Eircom's wholesale costs corresponding to any decline in wholesale demand which would impact profitability.

[473] See paragraphs 5.201 to 5.205.

[474] See paragraphs 9.19 to 9.27.

[475] Top Down refers to the situation whereby the source of financial information being used is taken from the audited Eircom accounting records.

[476] This is a model that calculates the average efficiently incurred directly attributable variable and fixed costs, plus an appropriate apportionment of joint and common costs.

[477] It should be noted that retail PSTN line rental charges are subject to a price cap under ComReg's 2007 RNA Decision (see footnote 13).

Table 12: Eircom's published FVCO Prices 2004-2013

Charging Level	Cent Per Minute			Cent Per Call			
	Peak	Off-Peak	Weekend	Peak	Off-Peak	Weekend	Published
Primary	0.298	0.166	0.149	0.791	0.441	0.395	April 2004
Tandem	0.542	0.302	0.271	1.013	0.564	0.506	
Double-Tandem	0.725	0.404	0.362	1.06	0.591	0.53	
Primary	0.316	0.171	0.153	0.784	0.427	0.381	July 2006
Tandem	0.545	0.296	0.264	0.990	0.538	0.480	
Double-Tandem	0.730	0.396	0.352	1.101	0.596	0.531	
Primary	0.283	0.157	0.138	0.771	0.427	0.374	July 2007
Tandem	0.440	0.243	0.213	0.882	0.488	0.427	
Double-Tandem	0.593	0.328	0.287	0.991	0.548	0.480	
Primary	0.2675	0.1484	0.1305	0.7286	0.4036	0.3535	April 2010
Tandem	0.4026	0.2224	0.1949	0.8203	0.4539	0.3972	
Double-Tandem	0.5219	0.2887	0.2526	0.8919	0.4932	0.4320	
Primary	0.2590	0.1398	0.1229	0.6862	0.3801	0.3329	January 2011
Tandem	0.3652	0.2917	0.1768	0.7586	0.4197	0.3673	
Double-Tandem	0.4507	0.2493	0.2182	0.7928	0.4384	0.3840	
Primary	0.2344	0.1301	0.1144	0.6660	0.3689	0.3231	July 2012[478]
Tandem	0.3398	0.1877	0.1645	0.7362	0.4073	0.3565	
Double-Tandem	0.4194	0.2320	0.2030	0.7694	0.4255	0.3727	

6.36 Table 12 shows that the regulated prices for FVCO have reduced by between 15% and 40% in nominal terms over a ten year period. It is ComReg's view that these FVCO price reductions have primarily arisen from intermittent reviews by Eircom of the inputs (such as costs and volumes) feeding into the Eircom regulated cost-model (rather than arising from competitive constraints arising in the FACO markets).

6.37 Table 13 below sets out the evolution of Eircom's regulated prices for the WLR component of Eircom's SB-WLR product (as published in the Eircom RIO Price List) in period since April 2004.

[478] These prices are currently in effect.

Table 13: Eircom's published WLR monthly rental prices 2004-2013

WLR product	Monthly Rental Price (€)	Published
PSTN	17.98	April 2004
	18.86	July 2007
	18.02	May 2008[479]
ISDN BRA / Hi Speed	27.90	April 2004
	29.26	July 2007
	27.95	May 2008[480]
ISDN FRA	142.85	April 2004
	149.84	July 2007
	143.18	May 2008[481]
ISDN PRA	237.70	April 2004
	249.34	July 2007
	238.25	May 2008[482]

6.38 The price of PSTN based WLR has changed twice since 2004, and is currently marginally higher (nominally) than it was in 2004. Similarly, the prices of ISDN WLR products have changed twice over the ten-year period, and the current nominal price is marginally higher than it was in 2004.

6.39 As noted in paragraph 5.231, Eircom recently reduced the effective price of retail bundles that include RFTS and next generation broadband within LEAs. Having regard to its obligations imposed under the 2013 Bundles Decision (amongst which various price ceilings and floors are set to prevent Eircom imposing a margin/price squeeze in the WBA and WPNIA markets), Eircom applied a discount on its SB-WLR product but only when it is bundled with WBA. This SB-WLR discount when bundled with WBA also provided a margin to allow Eircom to set a lower price for retail bundles that include RFTS and next generation broadband than may otherwise have been possible. ComReg noted, in arriving at the 2013 Bundles Decision, that Eircom and its wholesale customers face greater competition in the provision of retail bundles within the LEA and required some pricing flexibility in order to compete with UPC. The exclusion of Eircom's stand-alone SB-WLR product from this price change suggests that Eircom is likely to be more concerned with competition in the provision of retail bundles, rather than with the supply of SB-WLR.

[479] These prices are currently in effect.

[480] *Ibid.*

[481] *Ibid.*

[482] *Ibid.*

6.40 As noted above, the existence of SMP based price controls and the impact of non-SMP based obligations (such as Eircom's USO) make a 'Modified Greenfield Approach' assessment of Eircom's pricing behaviour difficult. However, it should be noted that the price controls identified in paragraph 6.34 set a maximum price, and therefore do not prevent Eircom from offering the SB-WLR components at a lower price (subject to compliance with SMP obligations in this market and other markets, including non-discrimination obligations, obligations not to cause a price/margin squeeze, as well as *ex-post* competition law)[483].

6.41 However, given the lack of effective (existing) competition in the FACO markets it is ComReg's view that, absent regulation, Eircom has both the ability and incentive[484] to increase prices (above the competitive level) offered/charged to Access Seekers for FACO. ComReg's preliminary view is Eircom would not be likely to have reduced the price of FVCO and/or WLR components of the SB-WLR product, (or reduced to the same extent) but for the existence of regulation.

6.42 In view of the above, there is no firm behavioural evidence to suggest that Eircom is facing effective pricing constraints in the provision of FACO.

Preliminary Conclusion on Existing Competition

6.43 Having regard to ComReg's assessment in paragraphs 6.16 to 6.42 above, ComReg's preliminary view is that, absent regulation in the FACO Markets, it is unlikely that Eircom would be sufficiently constrained by existing competition such that it would prevent Eircom from behaving, to an appreciable extent, independently of competitors, customers and consumers.

6.44 Eircom's persistently high market shares, the lack of effective indirect pricing constraints and no notable evidence of competition materially impacting Eircom's pricing behaviour is suggestive of Eircom having SMP in the FACO Markets. Below, ComReg considers other relevant factors (potential competition and CBP) which may have the effect of diminishing or undermining Eircom's suggested SMP position in the FACO Markets.

Potential Competition

6.45 Noting the absence of an effective competitive constraint posed by existing competition, ComReg now assesses the likely effectiveness of any constraints likely to be posed by potential competition in the FACO Markets.

6.46 This assessment considers whether entry (and expansion) in the Relevant FACO Markets is likely, timely, and credible to such an extent that it would effectively constrain Eircom's ability to act independently of its competitors, customers and consumers over the medium term[485].

483 This may involve Eircom having to adjust its prices in other regulated markets in order to ensure that sufficient 'economic space' exists between various products in the so-called ladder of investment.

484 These abilities and incentives are discussed in Section 8 dealing with competition problems.

485 See paragraph 74 of the European Commission's SMP Guidelines.

6.47 In considering constraints posed by potential competition, ComReg first examines the barriers to entry and expansion insofar as they may impact upon the effectiveness of the constraints posed by potential competitors. Then, ComReg assesses the strength of any such potential competition having regard to the barriers to entry and expansion that have been identified.

Barriers to Entry and Expansion

6.48 In assessing the likelihood of potential competition to act as an effective constraint on Eircom over the period of this review, ComReg has examined the nature and extent of any barriers to firms both entering and subsequently expanding in the Relevant FACO Markets.

6.49 Barriers to entry generally comprise any disadvantage that a new entrant faces when entering a market that incumbents do not currently face. According to the Explanatory Note to the 2007 Recommendation and the 2007 Recommendation itself:[486]

> *"…high structural barriers may be found to exist when the market is characterised by absolute cost advantages, substantial economies of scale and/or economies of scope, capacity constraints, and high sunk costs."*

6.50 Barriers to growth and expansion are obstacles that a new entrant (or smaller existing competitor) faces in its ability to grow or expand in a particular market, and which limit its ability to assert an effective competitive constraint over the medium to longer term.[487]

6.51 Assessing the barriers to entry and expansion involves initially identifying what represents credible entry into the FACO Markets. In order to provide an effective competitive constraint in the FACO Markets, an FSP must provide a product that at least meets the characteristics of the FACO products, services and facilities set out in Section 5 (thereby meeting the expectations of Access Seekers). ComReg will examine the barriers to entry according to the criteria identified in Paragraphs 6.10 to 6.13 above.

Overall size of the undertaking and control of infrastructure that is not easily replicated

6.52 The SMP Guidelines cite control of infrastructure not easily duplicated as one relevant criterion for assessing whether SMP exists and that this may be relevant where: [488]

- access to a certain infrastructure is necessary to produce a particular product or service (in this case FACO);

[486] Explanatory Note to 2007 Recommendation, page 8 and the 2007 Recommendation, paragraph 9.

[487] Note that barriers to entry and expansion are closely related.

[488] See Revised ERG Working Paper on the SMP concept for the new regulatory framework, ERG (03) 09 rev3, September 2005, page 5.

- the required infrastructure is exclusively or overwhelmingly under the control of a certain undertaking; and
- there are high and non-transitory barriers associated with replacing the infrastructure in question.[489]

6.53 Eircom has and continues to be the only FACO supplier, and is also the largest provider of RFTS in Ireland[490]. Eircom enjoys control of an extensive or ubiquitous access infrastructure that is not easily replicated by its retail competitors.[491] Eircom also benefits from its large network coverage, subscriber base size and product portfolio thereby giving it the ability to exploit greater economies of scale and scope in the provision of FACO than would otherwise be achievable by potential competitors.

6.54 As discussed in Section 5, FSPs require access to infrastructure in order to provide FACO. Potential entry into the FACO Markets by an FSP would involve one or more of the following actions:

(a) building an independent network to offer FACO;

(b) adapting an existing network to provide FACO; and

(c) deploying a VoIP platform (and associated systems) using WPNIA and/or WBA inputs provided by Eircom to offer a Managed VOB based RFTS and/or Managed VOB based FACO.

6.55 Each of the above approaches would entail varied but significant entry barriers and the degree to which each would be potentially effective for replicating Eircom's FACO service (and effectively constrain Eircom's behaviour) would vary. In this respect, ComReg assesses below whether an FSP's ability to replicate Eircom's FACO service by using one of the above entry strategies would effectively act to constrain Eircom's pricing behaviour in the FACO Markets over the period of this review.

6.56 ComReg recognises that it may not be necessary to fully replicate Eircom's infrastructure in order for a potential entrant to pose an effective competitive constraint in the FACO Markets. However, factors such as the extent of sunk costs, economies of scale and scope, and vertical integration are all likely to influence the extent to which Eircom's FACO infrastructure is replicable, and hence the degree of competitive constraint arising from potential competition in the FACO Markets through entry. These are considered below.

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[489] Note that the replicability of Eircom's infrastructure is also directly related to the criterion of sunk costs, the overall size of Eircom's network coverage and customer base, as well as economies of scale, scope and density associated with ubiquitous access infrastructure used to provide FVCO.

[490] See paragraphs 3.2 to 3.20 for details.

[491] However, as noted earlier it may not be necessary to fully replicate Eircom's infrastructure in order to pose a potential competitive constraint in the FACO Markets.

Sunk costs

6.57 Sunk costs are costs incurred that cannot be recovered if the entrant decides, or is forced, to exit the market. The existence of sunk costs does not automatically imply that entry barriers are high. In fact, a certain level of sunk costs will be involved in entering most markets, and the incumbent may also have had to pay a similar level of sunk cost before it entered the FACO Markets.

6.58 However, in some circumstances it is more difficult for new entrants to break into a market than it was for the first firm to enter. Such circumstances create a decisional asymmetry, where an incumbent has already incurred and recovered sunk costs but a new entrant has not. In general, it is understood that higher sunk costs associated with market entry discourage entry.[492]

6.59 Eircom operates a ubiquitous copper/fibre access network that is largely a legacy asset and supports a nationally available FACO product (amongst others). A significant portion of the sunk costs that were involved in the initial construction of Eircom's copper network[493] are likely to be largely amortised at this point in time. ComReg recognises that Eircom, through its ongoing FTTC network upgrade, is also likely to incur some[494] additional sunk costs. Any new entrant would, nonetheless, face higher sunk costs than that which is faced by Eircom given its existing network, including the upgrade of it.

6.60 The degree of sunk costs associated with future entry into the FACO Markets would depend on the approach being taken for entry, and the extent to which the potential entrant already has infrastructure in place that can be harnessed to provide FACO. The following is a summary of the sunk costs associated with the options for market entry that were identified in paragraph 6.54.

Building an independent network to provide FACO

6.61 Building an independent network would require significant financial investment and time. The proportion of expenditure on, for example, trenches, ducts and over-ground/underground plant is likely to be particularly high and sunk when it comes to deploying local loops.[495] Therefore entry into the FACO markets is likely to involve significant costs which would be largely sunk.

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[492] OECD, Barriers to Entry, (DAF/COMP(2005)42), 2006, Paris.

[493] Note that Eircom currently only provides RFTS over its copper access network, notwithstanding it has been rolling out a FTTC/FTTH network topology.

[494] Eircom's FTTC deployment is utilising some existing assets such as duct/trench etc.

[495] Squire, Sanders & Dempsey LLP, May 2002, "Market Definitions Regulatory Obligations in Communications Markets", A Study for the European Commission, Executive Report, Brussels, p. 14.

6.62 In order to impose an effective competitive constraint it may not be necessary for an alternative FSP to entirely replicate the coverage of Eircom's FACO service offering, however, ComReg notes that the main FSPs compete in the RFTS market at a national level and, in this respect the geographic coverage of a hypothetical alternative FACO product is likely to be an important feature for Access Seekers. Therefore, while a more extensive infrastructure deployment would have the potential to have a greater impact on competition in the FACO Markets, so too would it incur higher sunk costs which would deter expansion.

Adapting an existing network to provide FACO

6.63 The sunk costs involved in entering the FACO Market may be lessened where the entrant has an existing RFTS network in place. For example, UPC as the existing CATV network operator may be able to avoid sunk costs that would otherwise be incurred by FSPs entering the FACO Markets[496]. However, this will depend on the extent to which the UPC network is conductive to provision of FACO, including with respect to its technical capacity, coverage, and whether it can be adapted to provide a functionally similar FACO service to that offered by Eircom without the need to incur significant additional investment (some of which may be sunk).

6.64 Furthermore, an entrant using an existing RFTS network would still be likely to incur other sunk costs associated with developing and marketing a wholesale product and putting in place the necessary order handling, product management and billing systems. There may also be other sunk costs also associated with reconfiguration of the network and points of interconnection with wholesale customers to accommodate entry in the FACO Markets.

Using wholesale broadband inputs to provide FACO

6.65 Eircom provides third-party access to wholesale WPNIA[497] and WBA products that could potentially be used as a platform for providing FACO (and/or to self-supply a RFTS).

6.66 This would involve the use of these upstream inputs to provide a broadband service which would act as the access channel (equivalent to FA), coupled with a VoIP capability to offer a FVCO service (together being a FACO based Managed VOB service).

[496] As noted in Section 5, no FSP has expressed an interest in entering the FACO Markets. Insofar as UPC is concerned, absent regulation, it is questionable as to whether UPC has an incentive to enter the FACO Markets given it would potentially result in the cannibalisation of its own customer base and associated revenues/profits.

[497] As noted in Section 5, WPNIA inputs such as full unbundling have not been used to any great extent to provide RFTS.

6.67 These could enable a potential entrant to rent access to the local loop (in the case of WPNIA) or Bitstream (in the case of WBA), along with wholesale backhaul products, thereby avoiding some of the sunk costs associated with civil engineering and network deployment. However, other sunk costs are likely to be involved, such as the costs involved in building a VoIP platform as an input to the Managed VOB service as well as the need to integrate this platform into existing billing and order management systems.

6.68 In the case of LLU, the costs of implementing co-location at Eircom's exchanges and the appropriate purchase/provision of backhaul. Given that FACO Access Seekers remain completely reliant on Eircom's narrowband FACO products to provide RFTS, significant costs and lead times would still be needed for Access Seekers to develop and launch a credible Managed VOB product.[498]

6.69 Responses to ComReg's Statutory Information Requests suggest that effective wholesale supply of FVCO to third parties would involve significant investment, which is not likely to be undertaken independent of broader network development plans, such as the roll-out of NGA networks for the primary purpose of serving retail markets.

6.70 ComReg's preliminary view is that entry to, and expansion in the FACO Markets (including with respect to self-supply only) would involve considerable sunk costs for FSPs that do not already own an RFTS network. Furthermore, they constitute a lesser, but still significant, barrier to entry for an operator which has an access network but not the elements required to offer FACO and/or for an operator that already rents a broadband platform from Eircom and has the potential to launch a Managed VOB platform over that existing platform.

Economies of scale, economies of scope and economies of density

6.71 Economies of scale, scope and density refer to potential advantages that larger incumbents may enjoy over smaller new entrants. Economies of scale generally refer to the cost advantage which a large-scale operator may have over a smaller operator where the marginal cost of production decreases as the quantity of output produced increases. Economies of scope refer to the potential efficiencies which may be gained by a firm jointly producing a range of goods and services, e.g. where a CATV network or a FTTC network could be used to provide RFTS, Pay TV and broadband services simultaneously. Economies of density refer to potential efficiencies associated with supplying customers who are geographically concentrated.

[498] In any case, these products have not been used as a platform for providing voice calls to date, and therefore the suitability of these products as a platform for providing retail voice calls is untested and there is not yet evidence of low barriers to entry associated with replicating Eircom's FVCO products using WBA or WPNIA.

6.72 Economies of scale, scope and density in relation to the provision of FACO have to be considered in light of the RFTS market, where the cost of supply per customer decreases in line with the number of customers supplied. Economies of scale and scope could act as a barrier to entry in the FACO Markets because Eircom has a substantial customer base (comprised of its self-supply of FACO to its retail subscribers and Access Seekers purchasing FACO and WLA) than any other FSP.

6.73 It is ComReg's view that the FACO Markets are characterised by economies of scale, scope and density. This is because a large portion of the costs of building and maintaining a telecommunications network are fixed, therefore the average costs of providing FACO, per subscriber, will fall as the number of customers served by the network increases. Economies of scale and density will, therefore, be achieved where an operator can serve as many subscribers as possible from its investment in a given part of the network, e.g. an exchange. That also means that the ability of an FSP to offer a viable service can often depend on its ability to acquire a large number of retail and/or wholesale customers on a local and national level.

6.74 Economies of density are evident from the uneven deployment of competing RFTS networks across Ireland. These were recognised in the 2013 Bundle Decision, and in Section 4[499] and 5[500], where ComReg identified LEAs where Eircom faces more infrastructure competition from UPC and BT Ireland (using LLU).

6.75 Economies of scope are also evident in that FACO is often provided as part of a retail bundle, and networks used to supply such FACO typically support a range of wholesale and retail services. As discussed in Section 3[501], there is an increasing trend towards the provision of RFTS as part of a broader product bundle, but as noted in paragraph 6.130, 38.65% of RFTS were purchased on a standalone basis as of Q3 2013. Economies of scope could represent an entry barrier if a potential entrant into the FACO Markets were required to offer a range of wholesale and retail services in order to compete effectively in the provision of FACO. Thus potentially increasing the costs associated with entry.

6.76 For example, in some cases an operator may enjoy a unique ability to provide a diverse product range. In this respect, it may be the case that, in order to compete with Eircom in the supply of FACO, an FSP would also need to provide wholesale broadband services of similar quality to those provided by Eircom as an Access Seeker may not wish to contract with a number of separate suppliers of FACO services (depending on the scale of such suppliers). This would also allow Access Seekers to provide RFTS bundled with retail broadband and potentially other services.

[499] See paragraphs 4.200 to 4.204.

[500] See paragraph 5.231.

[501] See paragraphs 3.55 to 3.64.

6.77 ComReg notes that there are potential competitors to Eircom in the downstream RFTS market, such as Vodafone, UPC and Sky, that offer a variety of services. Such companies either have already, to one degree or another, or have the potential to gain benefits from economies of scale and scope by winning a significant number of RFTS customers, including through cross selling to their customers purchasing their TV and/or other products. However, it is uncertain whether their current or potential retail[502] economies of scale and scope (which are at present based on their use of eircom's SB-WLR products) are sufficient such that it would justify upstream entry into the FACO Markets through the building of a network to provide FACO (which, for Vodafone and Sky, would be likely to involve more significant sunk investment in infrastructure).

6.78 Overall there is evidence to suggest that economies of scale, scope, and density are factors that are relevant for consideration in terms of their potential to impact upon Eircom's suggested SMP position in the FACO Markets.

Vertical Integration

6.79 A vertically integrated operator can enjoy significant efficiencies arising from its presence in upstream and downstream markets. Such efficiencies can also be passed on to end-users in the form of more competitive prices, lower transaction costs and/or enhanced product quality. However, vertical integration can also constitute an entry barrier where the presence of a firm at multiple levels of the production or distribution chain raises the costs of new entry (for example,. where prospective new entrants perceive the need to enter multiple markets simultaneously to pose a viable competitive constraint on the vertically integrated operator) and/or increases the possibilities for the integrated operator to foreclose competition at one or more levels in the value chain, the threat of which could in turn act as a disincentive to new entry.

6.80 As well as being the only existing FACO supplier, Eircom is also a significant provider of RFTS.[503] As such, Eircom's significant customer base in the RFTS market is likely, at this point in time, to consolidate its market power in the FACO Markets.

6.81 As a supplier of FACO and of RFTS, Eircom also faces an incentive to raise the cost of its FSP rivals supplying RFTS (and other services) by, for example, applying a margin/price squeeze between these prices.[504]

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[502] See Figure 2 for FSPs retail market shares, by RFTS subscriptions.

[503] As noted in Figure 2 and

Figure 3 has a retail market share of Eircom supplies 52% of RFTS subscriptions and **[✂[redacted]%]** of RFVC in the presence of its supply of FACO to other FSPs.

[504] See further discussion of the potential for Eircom to apply a margin squeeze between FACO and RFTS prices in Section 8 and 9 of this Consultation.

6.82 Eircom's vertically integrated structure also mitigates the extent to which Eircom is dependent on its FACO revenue.[505] As such, absent regulation, Eircom could potentially seek to maximize its total profits by increasing FACO prices (or indeed refusing access to supply FACO) and, in doing so, seek to foreclose competition in the RFTS market.

6.83 UPC also provides RFTS using its own CATV network. However, as noted previously, UPC does not supply FACO, and is not expected to enter the FACO Markets over the timeframe of this review. Other than UPC, Eircom's competitors in the RFTS market(S) are, for the most part, not vertically integrated. For example, Vodafone and Sky provide RFTS using wholesale inputs provided by BT Ireland (which is effectively reselling Eircom FACO products).

6.84 Having regard to the above, ComReg's preliminary view is that Eircom's vertically integrated structure could enhance Eircom's suggested SMP position in the FACO Markets by allowing it to behave, to an appreciable extent, independently of its competitors, customers and consumers (and by potentially increasing barriers to entry by, for example, requiring an entrant to enter multiple vertically-related markets concurrently).

Strength of Potential Competitors

6.85 Having regard to the barriers to entry identified above that are likely to act to strengthen Eircom's suggested SMP position, ComReg now examines the likelihood, extent and timeliness of potential entry occurring into the Relevant FACO Markets over the lifetime of the review and whether this is likely to mitigate Eircom's suggested SMP position.

6.86 While Section 5 concerning the definition of the Relevant FACO Markets did so having regard to medium term constraints on the HM provider of FACO, in the context of an SMP assessment, the effectiveness of potential direct and indirect competitive constraints that may materialise are considered over a medium to longer term horizon.

6.87 In paragraph 6.54 ComReg identified that FSPs wishing to compete with Eircom in the FACO Markets need would need to either:

(a) build an independent network to offer FACO; and

(b) adapt an existing network to provide FACO including the deployment of a VoIP platform (and associated systems) using WPNIA and/or WBA inputs provided by Eircom to offer a Managed VOB based RFTS and/or Managed VOB based FACO.

6.88 Below, ComReg considers the competitive constraint arising from potential entry under each of these scenarios, as well as any competitive constraints arising from MTS.

[505] See further discussion of this impact under the countervailing buyer power section in paragraphs 6.148 to 6.167 below.

Building an Independent Network to Provide FACO

6.89 ComReg has considered the extent to which potential competition from Greenfield network builds would be likely to materialise and constrain Eircom's suggested SMP position over the period of this market review.

6.90 As discussed from paragraphs 6.48 to 6.84 above, there are a number of factors that may act as a barrier to this type of entry occurring in the FACO Markets:

- the incumbent FACO supplier controls infrastructure that is difficult for a new entrant to replicate;[506]
- the incumbent FACO supplier has a large customer base and diversified product range, and therefore benefits from significant economies of scale, scope and density;[507]
- there are significant sunk costs that would be incurred when entering the FACO Markets;[508] and
- the incumbent FACO supplier benefits from being vertically integrated.[509]

6.91 Eircom's strong position in the retail market is also likely to exacerbate the barriers to entry for FSPs that do not have an existing foothold in related markets (such as the RFTS, retail broadband or Pay TV markets).

6.92 Given the presence of these barriers to entry, ComReg considers that there is unlikely to be significant new entry in the FACO Markets in the medium term and as such, ComReg's preliminary view is that the potential for entry into the FACO Markets based on a new network build is unlikely to effectively constraint Eircom within the period of this market review.

Adapting an Existing Network to Provide FACO

6.93 ComReg has considered the extent to which potential entry in the FACO Markets by an existing vertically integrated RFTS provider would be likely to occur over the period of this market review and effectively constrain Eircom's suggested SMP position.

6.94 As discussed above and summarised in paragraph 6.90, the barriers to entry present in the FACO Markets may be lessened, in part, if a potential entrant has an existing network that is used to provide other services and could be leveraged to also provide FACO services.

[506] See paragraphs 6.52 to 6.56 for discussion on the sunk costs associated with replicating Eircom's FACO network.

[507] See paragraphs 6.71 to 6.78 for further discussion on economies of scale, scope and density.

[508] See paragraphs 6.57 to 6.60 for discussion on the varied degrees of sunk costs associated with different types of entry.

[509] See paragraphs 6.79 to 6.84 for a further explanation of vertical integration as a barrier to entry.

6.95 Relative to a 'Greenfield' entrant, an existing vertically integrated RFTS FSP seeking to enter the FACO Markets could face reduced sunk costs, particularly those relating to the upfront civil costs involved in building a network. An existing RFTS FSP also has an existing customer base over which it may, through cross-selling, more easily recover entry costs, and may be better placed to achieve economies of scale, scope, and density relative to a 'new build' Greenfield entrant.

Potential FACO entry by UPC

6.96 The second largest vertically-integrated RFTS supplier in Ireland (the largest being Eircom) is UPC. As discussed in Sections 3 to 5, UPC CATV network coverage extends to approximately 45% of households. As noted in paragraph 3.10[510], UPC has a large and growing RFTS residential subscriber base, and as at Q3 2013, had an 18.5% share of RFTS subscribers, the significant majority of which are residential subscribers. As also noted, UPC's share of retail fixed voice traffic was **[✂[redacted]]**[511] as at Q3 2013.

6.97 As discussed in paragraph 3.38, UPC's Managed VOB based RFTS is provided over its CATV network. This is a fundamentally different to the circuit switched FACO products (and RFTS) provided by Eircom over its narrowband copper network, although as noted previously Eircom intends to evolve its provision of RFTS to a Managed VOB basis.

6.98 Any potential FACO service offered by UPC would, given it is IP centric and the location of UPC's coverage footprint, likely involve the handover of FVCO at an IP 'exchange'. This is likely to involve a limited number of handover point(s) located within UPC's footprint. It is ComReg's view that this would narrow the options available for the hand-over of FVCO to the Access Seeker, particularly for larger FACO customers who often have built or purchased interconnect paths to a number of Eircom's primary and tandem exchanges, being deeper points of interconnection within its network[512] (resulting in it paying less FVCO charges that would otherwise be the case). In addition, and as noted in paragraphs 4.101 to 4.109, the coverage of UPC's network is limited, compared to that of Eircom's FACO network, and for that reason may also not provide the FACO coverage expected by Access Seekers. UPC may need to extend its CATV network in order to attract sufficient Access Seekers to purchase its FACO product, in order for this to ultimately effectively constrain Eircom's behaviour in the FACO Markets.

6.99 Additionally, as noted above UPC mainly provides RFTS to households, rather than businesses and, in this context any hypothetical FACO product is only likely to fall within the scope of the LL-FACO Market.

[510] See paragraph 0. 3.5

[511] ComReg Quarterly Key Data Report, Q3 2013.

[512] See paragraph 5.11.

6.100 These factors above are likely to negatively impact Access Seekers' demand for a hypothetical FACO product offered by UPC which, in turn would undermine the potential business case of UPC's upstream entry into the FACO Markets and, ultimately the degree of competitive constraint that it might impose.

6.101 UPC would also have to incur costs associated with the development of wholesale systems to support, for example, order handling and billing of FACO. Although UPC provides wholesale services on a bespoke basis,[513] UPC does not provide FACO, and is primarily concerned with the provision of Pay TV and broadband bundles (RFTS is only available as part of a broadband and/or Pay TV bundle). Having regard to UPC's response to the Statutory Information Requests[514], ComReg's view is that entry by UPC into the FACO Markets within the timeframe of this market review is not likely.

6.102 For the above reasons, despite UPC having an existing CATV network, it is ComReg's view that UPC would be likely to face sufficiently high and non-transitory barriers to entry, such that entering upstream FACO Markets is, within the period of this market review, unlikely.

6.103 ComReg considers it unlikely that UPC would enter the Relevant FACO Markets on any significant scale, if at all, over the period of this market review.

Potential FACO entry by FWA and alternative FTTx networks

6.104 ComReg has considered the extent to which entry by other vertically integrated RFTS providers would be likely to constrain Eircom's market power over the period of this market review.

6.105 As discussed in paragraphs 4.119 to 4.131, FWA and alternative FTTx networks are currently and likely to continue to (over the period of this market review) lack the ubiquity expected by FACO Access Seekers.[515] As also noted in Section 4, FWA as a platform for the provision of RFTS is in decline, which in turn is likely to dampen any notional demand by Access Seekers for a FACO product on this platform.

6.106 While it may be possible for Access Seekers to purchase FACO on a 'patchwork' basis (using, for example, multiple FWA and alternative fibre suppliers to achieve national coverage), ComReg's view is that this is unlikely to be a realistic or suitable option due to the transaction costs[516] involved in doing so.

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[513] These wholesale services include Transit.

[514] [✂ [redacted]]

[515] FWA and FTTx RFTS providers were not identified by FSPs in their responses to ComReg's Information Request as potential substitutes for FVCO. This may, in part, be due to the small size of individual alternative FWA and FTTx RFTS providers in Ireland.

[516] These could include the expense associated with developing and maintaining automated customer management systems with multiple providers, migration costs, the need to potentially build new IT system interfaces, the need to develop/agree operational and technical aspects of the service, other costs associated with switching to new CPE and network equipment.

6.107 For this reason, ComReg considers that alternative FWA and FTTx providers are likely to face many of the same barriers to entry into the FACO Markets that are faced by 'Greenfield entrants', as identified in paragraph 6.90, including:

- vertically integrated FWA and alternative FTTx RFTS FSPs are unlikely to benefit from the economies of scale enjoyed by the incumbent FACO supplier. Thus making it more difficult to compete effectively; and
- vertically integrated FWA and alternative FTTx RFTS FSPs are likely to face significant sunk costs in attempting to replicate (even to a lesser scale) the FACO service offered by the incumbent FACO supplier.

6.108 Given the barriers to entry identified above, and the general decline in demand for retail services provided over FWA and alternative FTTx networks, over the period of this review ComReg does not expect that the entry of these RFTS providers into the upstream FACO Markets is likely, nor that sufficient demand would arise for FACO services provided across these platforms such that it would constrain Eircom's suggested SMP position.

Potential entry from MTS Mobile Service Providers

6.109 ComReg has considered the extent to which potential competition arising from MTS would be likely to constrain Eircom's market power over the period of this market review.

6.110 As noted in Section 4[517] and Section 5[518], ComReg set out its preliminary view that MTS are distinct from RFTS in terms of prices, and how the services are used by consumers. These included factors relating to the pricing and marketing strategies of MTS Mobile Service Providers ('**MSPs**') which suggest that MTS and RFTS are complementary products (in particular, the entry of Vodafone and O2 into the RFTS market using FACO purchased from Eircom, and Wholesale SV, respectively, suggests that these products are positioned as complements). Consumer usage of RFTS and MTS were also noted as being different. Eircom also continues to sell RFTS and MTS separately as well as offering MTS as part of bundles involving a RFTS element.

6.111 ComReg notes that, since its preliminary view is that MTS are not deemed to be an effective substitute for RFTS, so it is unlikely that a MTS could represent an effective substitute for FACO (given FACO demand is derived from retail demand). It is also somewhat questionable whether a mobile telephone network could be easily adapted to provide an effective substitute for Eircom's FACO products within a timely manner and without incurring significant costs, or that this would be likely to actually occur over the period of this review.

6.112 Overall, over the period of this market review, ComReg does not expect that the entry of MTS MSPs into the upstream FACO Markets is likely, or that it would exercise a sufficient competitive constraint to mitigate Eircom's suggested SMP position.

[517] See paragraphs 4.152 to 4.185.

[518] See paragraphs 5.189 to 5.199.

Potential FACO Entry through use of Wholesale Broadband Inputs

6.113 ComReg has considered the extent to which potential entry by FSPs using wholesale inputs such as WPNIA, WBA or leased lines would be likely to effectively constrain Eircom's suggested SMP position over the period of this market review.

6.114 ComReg recognises that the types of barriers to entry summarised in paragraph 6.90 may be, to some extent, avoided by potential FACO entrants if they can rent access to Eircom's wholesale WPNIA or WBA inputs to provide FACO (and/or RFTS) via Managed VOB.

6.115 As discussed in paragraphs 5.93 to 5.110, there are various ways in which Managed VOB services can be used to supply consumers with RFTS. For the purposes of this analysis, these can be broken into two broad types: Managed VOB over a fixed broadband connection and Managed VOB over a business-grade access solution (such as leased lines).

6.116 ComReg considers that Managed VOB services provided over a broadband connection (potentially supported by WBA or WPNIA) are most likely to be taken up by small to medium size businesses as a potential alternative to PSTN or ISDN BRA products (LL-FACO). Managed VOB provided over a dedicated access path such as a high capacity leased line are have a greater potential (given the costs involved) to be taken up by larger businesses, as a substitute for ISDN PRA or ISDN FRA (HL-FACO). However, this will not always be the case and some overlap is likely.

<u>Managed VOB using WPNIA</u>

6.117 No FSPs currently provide Managed VOB using WPNIA inputs. However, ComReg recognises that the potential to do so over the period of this review exists.

6.118 As noted in section 5, one factor likely to prevent WPNIA from becoming an effective substitute for FACO services is that the overall take-up of Full Unbundling, remains low. As noted in paragraph 5.94, as at Q3 2013 total LLU lines stood at 77,356 of which 61,482 were Line Share and 15,874 were Fully Unbundled[519]. Noting that Line Share is used by Access Seekers in conjunction with Eircom's SB-WLR based FACO product, the use of Line Share to provide a Managed VOB based FACO product would not be logical from a commercial perspective (as it could only co-exist with SB-WLR).

[519] Based on other data available to ComReg, as at Q4 the position is as follows: the total number of unbundled lines was 80,037 of which 64,397 were Line Share and 15,540 were fully unbundled lines

6.119 This suggests that Full Unbundling would be the most likely option over which a Managed VOB based FACO product could be provided through the offer of a standalone broadband service. However, as noted above Full Unbundling remains low and represents approximately 2.1% of all xDSL connections.[520] However, Full Unbundling take-up may also be limited given Access Seekers have, to date, been able to avail of Eircom's SB-WLR product and, in the absence of this, full LLU could grow, assuming that Access Seekers also invest in developing a developing a VOIP platform and the associated systems.

6.120 Nevertheless, given the low levels of take-up of WPNIA (both Full Unbundling and Line Share) in Ireland to date and, the coverage of FSPs using LLU lines, ComReg considers it unlikely that a notional Managed VOB based FACO products via Full Unbundling would likely meet the full expectations of Access Seekers. In this respect, ComReg considers that an FSP attempting to enter the FACO Markets using Full Unbundling would be likely to face many of the same barriers to entry faced by 'Greenfield entrants', as identified in paragraph 6.90, including:

- the FACO entrant would be unlikely to benefit from the same economies of scale to those enjoyed by the incumbent FACO supplier, thus making it more difficult to compete with the incumbent FACO supplier; and
- the entrant would be likely to face significant sunk costs in attempting to replicate (even to a lesser scale) the FACO service using WPNIA. These would include the costs associated establishing backhaul networks, unbundling exchanges (or upgrading equipment in existing unbundled exchanges), and costs associated with developing a Managed VOB platform and its associated billing and order management systems. Although these sunk cost type barriers to entry may be lower for an existing Access Seeker that is already co-located at Eircom exchanges.

6.121 For these reasons, ComReg considers it unlikely that entry into the FACO Markets using WPNIA will occur over the period of this review to an extent that would pose an effective competitive constraint on Eircom in the provision of FACO. However, ComReg will keep this under review and revisit this analysis and/or adjust any remedies as appropriate to reflect any emergence of stable differences in competitive conditions.

Managed VOB over WBA

6.122 ComReg has considered the extent to which potential FACO Market entry by FSPs using WBA inputs is likely to constrain Eircom's suggested SMP position over the period of this market review.

6.123 No FSPs currently provide Managed VOB using WBA inputs. However, ComReg recognises that the potential to do so over the period of this review exists.

[520] According to ComReg's Quarterly Key Data Report for Q3 2013 (figure 3.6.1) there were 753,497 active xDSL connections as of Q3 2013.

6.124 As noted in Section 5[521], until recently WBA could only be purchased in circumstances where a RFVA existed (being either Eircom's retail line rental service or an Access Seeker's line rental service provided using SB-WLR). Access Seekers have primarily used the SB-WLR service to support the provision of RFTS and Eircom's WBA service to support the provision of retail broadband (either sold as standalone component or part of a retail bundle). However, Eircom recently launched a wholesale SAB product which allows a wholesale customer (and Eircom retail) to sell a standalone retail broadband connection without the need for the retail customer to also purchase a RFVA (including as part of a RFTS). This presents an opportunity for FSPs to purchase SAB and, coupled with their own VoIP capability, to offer a Managed VOB based FACO service and/or RFTS, rather than doing so via the current practice of purchasing SB-WLR.

6.125 However, as noted previously there were **[✂** [redacted] **]**[522] SAB subscriptions out of 220,070 WBA based xDSL subscriptions in Q3 2013[523]. The proportion of SAB subscriptions compared with total WBA subscriptions is small (and even smaller when taken as a proportion of overall broadband subscriptions) and serves to highlight the continued reliance by FSPs on SB-WLR for providing RFTS services.

6.126 The discussion in Section 5[524] also serves to highlight that the general development of a Managed VOB platform is not straightforward, and for a large scale provider of RFTS would likely involve network, hardware, software and operational support adjustments that would take some time to develop and incur costs.

6.127 Additionally, the commercial viability of FSPs providing Managed VOB over an SAB xDSL product is not yet clear. Nor is it clear that demand would arise from Access Seekers for such a service.

6.128 Given the likely costs involved in rolling out Managed VOB over SAB, the lack of certainty surrounding demand for FACO based on this platform, and the limited take-up of SAB to date, there is a lack of clear evidence that Managed VOB over WBA will provide a sufficient competitive constraint on Eircom the FACO Markets over the period of this review.

6.129 ComReg also notes that a potential Managed VOB based FACO entrant (using upstream WBA) would ultimately mean that retail end-user could not continue to purchase a retail broadband service from Eircom or another FSP given such a retail broadband service is also provided on foot of Eircom's WBA inputs. i.e., the one WBA based broadband access path can be used by only one FSP.

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[521] See paragraphs 5.97 to 5.110.

[522] ComReg would note that this figure represents less than 1% of all retail fixed broadband connections

[523] This excludes Eircom's self-supply of WBA. As noted in footnote 520 there were 753,497 active retail xDSL subscriptions as of Q3 2013.

[524] See paragraphs 5.100 to 5.105.

6.130 Also of relevance is the fact that upstream WBA (and WPNIA) inputs are not available in all geographic areas of the State due to it either not being technically and/or economically[525] viable to do so. Additionally, as noted in Section 3[526] a substantial number of end-users do not purchase broadband services at all and purchase RFTS on a standalone basis. In this respect 38.65% of RFTS were purchased on a standalone basis as of Q3 2013. ComReg notes that while such customers could potentially be serviced through a Managed VOB based service offered over Eircom's WBA based Eircom's SAB product[527] it is somewhat questionable whether it could be economically viable to do so having regard to the monthly[528] and other charges for this service and whether there would be sufficient retail demand at the eventual retail price point (which would have to be sufficient to cover costs and a reasonable rate of return).

6.131 ComReg recognises that Eircom is ultimately intending to provide Managed VOB based RFTS over its VDSL network (as discussed in paragraphs 3.41 and elsewhere). Furthermore, in response to Statutory Information Requests several FSPs made general observations on the possibility that Eircom (and some other FSPs) could shift to Managed VOB based RFTS over the period covered by this market review. However, these views primarily appear to have been made in the context of suggestions that Eircom should be obliged to provide access to its NGA wholesale broadband products.

6.132 However, evidence of such a transition has not emerged to date in any meaningful way, let alone evidence that the availability of SAB has had an impact on competition in the FACO Markets (although given this SAB product was only launched in 2013 it is too early to draw definitive views on this). ComReg notes that the provision, by Eircom, of suitable 'voice-grade' SAB products could be a pre-cursor to, and potentially a trigger for, any such transition occurring.

6.133 Demand for SB-WLR has nonetheless remained stable, between approximately 300,000 and 350,000 lines since 2007. Furthermore, Figure 21[529] illustrates that demand for SB-WLR grew by 15% in the eighteen months to Q3 2013 (and is close to reaching the peak levels achieved in Q1 2010), suggesting an ongoing reliance on narrowband based SB-WLR services.

[525] For example, LLU tends only to be economically viable in those exchanges where the density of households connected to such exchanges is sufficient to lend itself to there being a profitable business case based on LLU entry.

[526] See paragraph 3.60.

[527] See paragraph 5.93. As at December 2013, the total number of such standalone wholesale Bitstream services plus Eircom's self-supply was negligible and stood at **[✂ [redacted]],** representing less than 1% of all retail fixed broadband connections.

[528] ComReg notes that the monthly rental for Eircom's SAB product ranges from €17.95 to €18.95 (excluding VAT). See Eircom Bitstream Price List Version 7.23 available on www.eircomwholesale.ie.

[529] See paragraph 5.40.

6.134 ComReg recognises that this scenario has the potential to change over the period of this review but the position is highly uncertain. In this context, ComReg will continue to monitor industry activity with respect to the migration of RFTS from traditional narrowband networks to Managed VOB platforms. If such a transition were to occur in a meaningful fashion, ComReg would envisage evidence of this manifesting itself through:

(a) a significant increase in demand for SAB (or Full Unbundling);

(b) the provision of Managed VOB by FSPs over SAB (or Full Unbundling); and

(c) a corresponding decrease in demand for Eircom's SB-WLR through either switching to other Managed VOB based FACO suppliers or through Access Seekers' self-supply of Managed VOB.

6.135 It would also need to be observed that such trends would exert a sufficient competitive constraint in the FACO Markets and/or retail markets. ComReg intends to monitor developments, and revisit this analysis and/or adjust any remedies as appropriate to reflect any substantial emergence of stable differences in competitive conditions.

<u>SIP Trunking over Leased lines</u>

6.136 Below, ComReg again[530] considers below the extent to which potential FACO Market entry by FSPs providing Managed VOB over leased lines (e.g. SIP Trunking) would be likely to constrain Eircom's market power over the period of this market review (this is likely to be relevant only in the HL-FACO Market).

6.137 Some larger businesses are already likely to be using Managed VOB services to make voice calls and it is likely that over time more businesses will replace traditional RFTS with Managed VOB based RFTS.

6.138 ComReg notes that a number of FSPs including BT Ireland, Colt, Eircom, and Verizon offer leased line based business connectivity services on a wholesale and retail basis and the question arises as to whether these services have the potential to effectively constrain Eircom in the HL-FACO Market over time.

6.139 As noted in Section 4, the extent to which these SIP based products act as a substitute for RFTS is not yet clear and this applies equally to the HL-FACO Market. In particular, there is not clear evidence yet as to whether SIP Trunking provided over Leased Lines would act as a sufficient competitive constraint on Eircom in the provision of HL-FACO.

6.140 However, ComReg acknowledges that the potential exists for SIP Trunking to become more prevalent as Eircom transitions to its NGA network, and intends to monitor the growth of this technology and services over the period of this review.

[530] See paragraphs 4.132 to 4.134 and 5.111 to 5.115.

Preliminary Conclusion on Potential Competition in the Relevant FACO Markets

6.141 In paragraphs 6.45 to 6.140 ComReg has considered the extent to which potential competition would, over the period of this market review, be likely to effectively constrain Eircom's behaviour in the Relevant FACO Markets such that it would mitigate Eircom's suggested SMP position. Overall, ComReg's preliminary view is that absent regulation in the FACO Markets, it is unlikely that Eircom would be sufficiently constrained by potential competition such that it would prevent Eircom from behaving, to an appreciable extent, independently of competitors, customers and consumers.

6.142 The following types of potential competition were considered.

(a) build an independent network to offer FACO;

(b) adapt an existing network to provide FACO; and

(c) deploy a VoIP platform (and associated systems) using WPNIA and/or WBA inputs provided by Eircom to offer a Managed VOB based RFTS and/or Managed VOB based FACO.

6.143 ComReg's provisional view is that, having regard to the barriers to entry summarised in paragraph 6.90 and considered elsewhere, potential entry from a new independent network is unlikely to occur on any material basis over the period of this review such that it would constrain Eircom's suggested market power.

6.144 ComReg noted that the barriers identified associated with entry into the FACO Markets may, to some extent, be avoidable for existing vertically integrated RFTS FSPs. However, in practice, ComReg's provisional view is that these FSPs would not be in a position to offer an effective alternative FACO product that would be likely to meet the expectations of FACO Access Seekers, without incurring significant sunk costs. In any case, ComReg considered that alternative independent RFTS suppliers would be unlikely to enter the FACO Markets over the period of this review. As such, ComReg considers that existing independent RFTS providers would be unlikely to represent a sufficient competitive constraint on Eircom in the FACO Markets.

6.145 Given the limited roll-out of LLU, and particularly Full Unbundling, ComReg considers it unlikely that sufficient entry into the FACO Markets using WPNIA would occur over the period of this review to an extent that would pose an effective constraint to mitigate Eircom's suggested market power position in the FACO Markets.

6.146 ComReg notes that, in the absence of regulated FACO products, there may be a greater incentive for FSPs to develop Managed VOB services using upstream LLU and WBA inputs, with these being used to provide RFTS and/or FACO. However, demand for SB-WLR remains high and continues to grow, and evidence of material use of Managed VOB use by existing SB-WLR users has not yet emerged. In particular, Managed VOB is unlikely to be deployed to the extent that it might, absent regulation, ultimately result in effective competition in the FACO and downstream markets. ComReg proposes to continue monitoring market developments in this regard and, takes account of this in its approach to remedies in Section 9. In particular, its approach regarding access to Eircom's Managed VOB based FACO services.

6.147 Similarly, ComReg recognises that some businesses are using Managed VOB services to make voice calls and it is likely that over time more businesses will replace narrowband based RFTS with Managed VOB over leased lines based subscriptions. However, this type of substitution is only likely to be viable for a small cohort of businesses. Moreover, there is no evidence yet that the availability of SIP Trunks over leased lines acts as a sufficiently effective competitive constraint on Eircom in the provision of HL-FACO, or that it would be likely to do so over the period of this market review.

Countervailing Buyer Power

6.148 Below, ComReg considers whether bargaining power on the buyer side of the Relevant FACO Markets is likely to impose a sufficient competitive constraint on Eircom, such that it would credibly offset Eircom's suggested power to behave, to an appreciable extent, independently of competitors[531], customers and ultimately consumers.

6.149 In so doing, ComReg examines whether sufficient[532] countervailing buyer power ('**CBP**') exists such that it results in Eircom not being able to sustain FACO prices that are above the competitive level, i.e. the effective exercise of CBP is one which results in FACO prices being constrained to the levels that would be achieved in a competitive market outcome.

[531] As noted above, there are no actual or potential competitor suppliers of FACO in the Relevant FACO Markets.

[532] The existence of some level of CBP would not, in itself, be sufficient. Rather, it must be sufficiently strong such that it results in an FACO pricing being prevented from rising above a level that would pertain in a competitive market outcome.

Overview of Framework for CBP Assessment

Necessary Conditions for Effective CBP

6.150 The effectiveness of CBP is likely to be significantly dependent on the strength of the bargaining power of the purchaser in its FACO negotiations. The European Commission's 2009 enforcement priorities in applying Article 102 of the Treaty of the Functioning of the European Union to abusive exclusionary conduct by dominant undertakings[533] (the '**2009 Enforcement Priorities**') are informative on the issue of CBP in competition assessments. These state[534] that:

> *"Competitive constraints may be exerted not only by actual or potential competitors but also by customers. Even an undertaking with a high market share may not be able to act to an appreciable extent independently of customers with sufficient bargaining strength. Such countervailing buying power may result from the customers' size or their commercial significance for the dominant undertaking, and their ability to switch quickly to competing suppliers, to promote new entry or to vertically integrate, and to credibly threaten to do so. If countervailing power is of a sufficient magnitude, it may deter or defeat an attempt by the undertaking to profitably increase prices. Buyer power may not, however, be considered a sufficiently effective constraint if it only ensures that a particular or limited segment of customers is shielded from the market power of the dominant undertaking."*

6.151 In its Horizontal Mergers Guidelines[535], the European Commission also notes that:

> *"Countervailing buyer power ...... should be understood as the bargaining strength that the buyer has vis-à-vis the seller in commercial negotiations due to its size, its commercial significance to the seller and its ability to switch to alternative suppliers."*

6.152 In light of the above, it is ComReg's view that effective CBP results from buyers/customers that:

- account for a significant proportion of the supplier's total output;
- are well-informed about credible alternative sources of supply; and
- are able to switch to other suppliers at little cost to themselves, or to self supply the relevant product relatively quickly and without incurring substantial sunk costs.

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[533] Communication from the Commission — Guidance on the Commission's enforcement priorities in applying Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings (2009/C 45/02). Available at http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:C:2009:045:0007:0020:EN:PDF.

[534] Paragraph 18 of the 2009 Enforcement Priorities.

[535] European Commissions "Guidelines on the assessment of horizontal mergers under the Council Regulation on the control of concentrations between undertakings", Official Journal C 31, 05.02.2004, para 64, (the '**Horizontal Mergers Guidelines**').

6.153 It is also of note that effective CBP is that which has a broader market impact and not that which only results in a limited segment of customers benefiting from better terms and conditions.

Impact of Regulation on CBP Assessment

6.154 In carrying out an assessment of CBP it is also necessary to consider the impact of existing or future potential regulation and, in this regard, ComReg sets out its approach to the treatment of:

(a) existing SMP regulation in the Relevant FACO Markets, being the markets within which prospective SMP is now being assessed; and

(b) existing SMP regulation in markets other than the Relevant FACO Markets.

Existing SMP Regulation

6.155 Insofar as existing SMP regulation in the Relevant FACO Markets is concerned, ComReg has already noted that throughout this analysis it adopts the European Commission's Modified Greenfield Approach[536], whereby SMP regulation in the market under consideration is discounted when considering the prospective SMP analysis of the Relevant FACO Markets.

6.156 In the context of the assessment of the existence of any effective CBP, ComReg considers the potential bargaining outcomes in the absence of Eircom having been designated with SMP (or being potentially designated with SMP) and absent SMP obligations being imposed on it. This is to avoid drawing conclusions regarding the competitive structure of a particular market which may be influenced by, or indeed premised on, existing or potential regulation on that market. Considering how the Relevant FACO Markets may function absent regulation helps to ensure that regulation is only applied (or withdrawn) in those circumstances where it is truly justified and proportionate. To do otherwise could result in a circularity of argument whereby, for example, the Relevant FACO Markets are found to be effectively competitive (or not) only by virtue of constraints arising from existing or potential SMP obligations. Once found then to be effectively competitive, SMP obligations would be withdrawn in the Relevant FACO Markets, thereby undermining the original finding of effective competition within those markets.

SMP Regulation in markets other than the Relevant FACO Markets

6.157 The bargaining position of an undertaking with SMP obligations in markets other than the Relevant FACO Markets are likely to be somewhat weakened in any FACO negotiations. In this respect, Eircom is designated as having SMP in a number of regulated markets[537] and has SMP obligations imposed upon it. As a

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[536] See paragraph 1.23.

[537] This includes WPNIA, WBA, FVCT, MVCT (through Meteor) and Leased Lines. While Eircom is also designated with SMP in the Retail Narrowband Access Market, for the purpose of the CBP assessment we discount this given the proposed definition of the FACO Markets and the imposition of associated remedies discussed later in Section 9.

consequence, this somewhat weakens its bargaining position insofar as it limits the credibility of, for example, threats of increased wholesale prices in those markets – but not the credibility of threats of price increases in the FACO Markets. Similarly, a number of Eircom's largest FACO customers are also subject to SMP regulation in other markets which also constrains their bargaining positions. In particular, BT Ireland is subject to SMP obligations in its FVCT Market pursuant to the 2007 FVCT Decision and 2012 Termination Rates Decision[538], whereas both Telefonica and Vodafone are subject to SMP obligations in their respective MVCT Markets pursuant to the 2012 MVCT Decision and 2012 Termination Rates Decision[539].

6.158 In light of the above, it is ComReg's preliminary view that BT Ireland, Telefonica and Vodafone's position in these markets is not likely to strengthen its bargaining power in its MTR negotiations with an MSP, in particular, given its SMP position in such markets undermines the credibility of any threat to retaliate by, for example, imposing price increases or denying access to wholesale services provided in these markets.

CBP Assessment

6.159 As noted in paragraph 6.152, the circumstances where CBP might be observed to act as an effective competitive constraint effective CBP are where buyers/customers:

(a) account for a significant proportion of the supplier's total output;

(b) are well-informed about credible alternative sources of supply; and

(c) are able to switch to other suppliers at little cost to themselves, or to self supply the relevant product relatively quickly and without incurring substantial sunk costs.

6.160 The above factors are considered below (note that (b) and (c) are considered together), along with any evidence of effective CBP being exercised in negotiations between Eircom and Access Seekers.

[538] Market Analysis – Interconnection Market Review Fixed Wholesale Call Termination Services, ComReg Document 07/109, Decision D06/07, December 2007 (the '**2007 FVCT Decision**'); and the 2012 termination Rates Decision; and Mobile and Fixed Voice Call Termination Rates in Ireland, Response to Consultation and Decision, ComReg Document 12/125, Decision D12/12 (the '**2012 Termination Rates Decision**');.

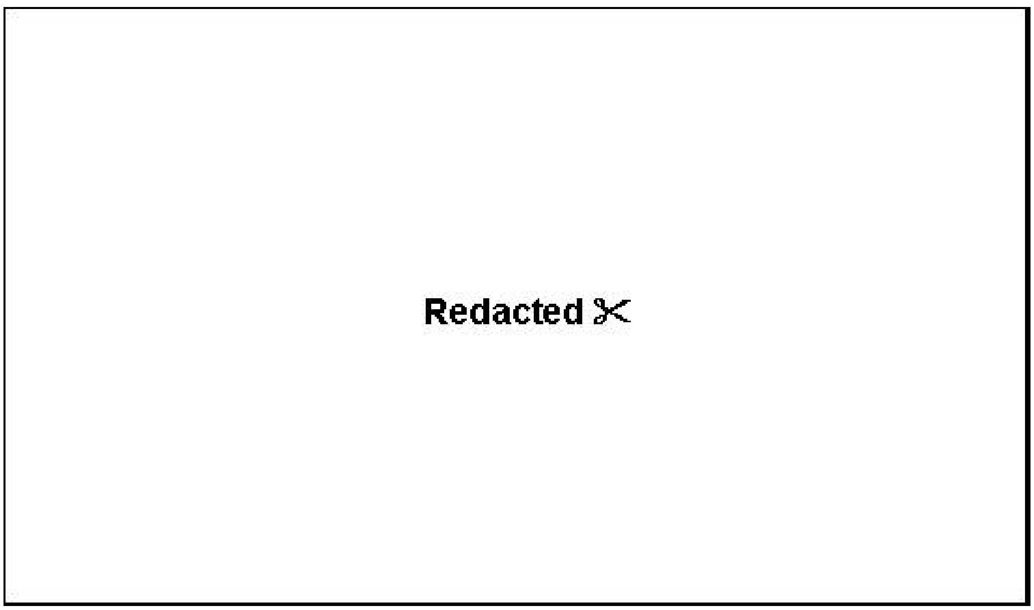
[539] Market Review - Voice Call Termination on Individual Mobile Networks, Response to Consultation and Decision, ComReg Document 12/124, Decision D11/12 (the '**2012 MVCT Decision**'); and the **2012 Termination Rates Decision.** While Vodafone successfully challenged many aspects of the 2012 Termination Rates Decision in the High Court (and the matter is under appeal to the Supreme Court), its MVCT rates are currently set at 2.6 cent per minute.

Size of the Buyer and its Relative Importance to the Seller

6.161 The strength of CBP can be influenced by the relative size of the buyer, with this being measured according to the buyer's share of FACO purchased from an FSP relative to total purchases of FACO from the same FSP. The degree to which high shares of FACO purchases are concentrated amongst one or more buyers could also be relevant.

6.162 Figure 25 below shows the relative share of Access Seekers' and Eircom's own purchases of FACO[540] subscriptions (access paths). It illustrates that Eircom's retail business with a **[✂ [redacted]%]** share of overall FACO purchases is, by a significant margin, the largest purchaser. BT Ireland a **[✂ [redacted]%]** share of overall FACO purchases is by far the largest third-party purchaser of FACO. The remaining shares of FACO purchases are split amongst a number of smaller Access Seekers (in terms of purchases).

Figure 25: Share of total FACO subscriptions by customer December 2013[541]
[✂Redacted due to Confidentiality and Commercial Sensitivity]



[540] Note ComReg has not separated LL-FACO and HL-FACO purchases given, this is not likely to materially alter the analysis.

[541] Based on information provided by Eircom to ComReg in December 2013.

6.163 Therefore, while one Access Seeker represents a significant proportion of Eircom's FACO sales, the largest purchaser of FACO by a significant margin is Eircom's own downstream business. Eircom is a vertically integrated FSP that earns most of its revenue from supplying retail services, including RFTS. Eircom is not, therefore solely reliant on FACO revenues. Indeed, absent regulation, it is ComReg's preliminary view that Access Seekers' SB-WLR based RFTS subscribers would purchase services from Eircom.[542] Assuming that Eircom's retail division is profitable, then Eircom would be likely to increase its profitability and revenue by gaining a retail customer at the expense of FACO revenue.

6.164 Having regard to the above, ComReg's preliminary view is while, BT Ireland is the largest external purchaser of FACO from Eircom, this is not likely to strengthen its bargaining position as any dependency by Eircom's on wholesale revenues earned from BT Ireland could be largely converted to retail revenues.

Credible Alternative Sources of Supply

6.165 As noted above, Eircom is the only supplier of FACO and Access Seekers purchasing SB-WLR have no credible option of switching to another supplier[543]. ComReg has set out is preliminary view above that effective potential competition in the FACO Markets is also not likely to emerge within the period of this market review.

6.166 Access Seekers therefore rely on Eircom's FACO services to provide RFTS to their customers, and in the absence of regulation, are unlikely to be in a position to credibly threaten to respond to changes in Eircom's commercial terms and conditions by seeking an alternative source of supply. As discussed throughout this Section 6, in response to a FACO price increase by Eircom, barriers to entry would be likely to inhibit RFTS FSPs from switching to self-supplied FACO in response.

Evidence of bargaining power from interconnection negotiations

6.167 ComReg has considered whether effective CBP being exercised is evident from bargaining in FACO negotiations between Eircom on the one hand and Access Seekers on the other. In this respect, in paragraphs 6.33 to 6.42 ComReg examined Eircom's FACO pricing behaviour and set out its view that there is no firm behavioural evidence to suggest that Eircom is facing effective pricing constraints in the provision of FACO. This also suggests that effective CBP has not been or is likely to be a relevant factor in constraining Eircom's behaviour in the FACO markets.

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[542] As noted in paragraphs 6.16 to 6.29, ComReg set out its preliminary view that Eircom would, absent regulation, have a substantial market share position in the LL-FACO and HL-FACO Markets.

[543] Given BT Ireland, Vodafone and Sky are (either directly or indirectly) the largest purchasers of Eircom's SB-WLR product and that these are relatively large organisations having significant experience of operating within electronic communications markets, they would be likely to be reasonably well informed about alternative sources of supply, were they to exist. However, save for Eircom's supply of FACO (whose terms and conditions and prices are published in its RIO) the transparency of associated terms and conditions of such hypothetical alternative sources of supply may not be readily visible.

Preliminary Conclusion on CBP Assessment

6.168 Having regard to the analysis in paragraphs 6.148 to 6.167 above, ComReg's preliminary view is that it is unlikely that Eircom would be sufficiently constrained by CBP such that it would prevent it from behaving, to an appreciable extent, independently or competitors, customers and consumers.

Three Criteria Test for the FACO Markets

Overview

6.169 As noted in paragraph 1.21, the 3CT sets out criteria that must be cumulatively satisfied in order to determine whether a relevant market should be subject to *ex ante* regulation. The three criteria are

(a) the presence of high and non-transitory barriers to entry;

(b) a market structure which does not tend towards effective competition within the relevant time horizon; and

(c) the insufficiency of competition law alone to adequately address the market failure(s) concerned.

6.170 The European Commission, by identifying the FVCO market in the 2007 Recommendation had considered the 3CT to be met with respect to this market and, therefore, one which is susceptible to *ex ante* regulation. However, the Commission also recognises that an NRA may find that markets other than those identified in the 2007 Recommendation can, subject to meeting the 3CT, be found to be susceptible to *ex ante* regulation.

6.171 While FVCO was the starting point for defining the Relevant FACO Markets, they differ from the FVCO market identified in the 2007 Recommendation in that they explicitly include a FA component.[544] While ComReg is not required to undertake a 3CT test with respect of a FVCO market, given the market has been broadened, we do so below with respect to the LL-FACO Market and HL-FACO Markets.

6.172 However, as also noted in paragraph 1.20, it is ComReg's view that whether or not FVCO or FACO Markets are defined, it does not materially alter the regulatory outcome as, even in circumstances where a FVCO market is defined (and SMP found to exist), it can and has resulted in the imposition of regulatory obligations to provide WLR (FA) within a number of Member States, including in Ireland to date.

[544] Note that this distinction is largely semantic, because FVCO is predominantly provided with an access connection in Ireland (demand for WLR dwarfs demand for CPS, with representing only 3.6% of indirect access lines), suggesting that FVCO and access are highly complementary (see Figure 21).

6.173 Additionally, ComReg notes that in January 2014 the European Commission published a draft proposals seeking to revise its 2007 Recommendation (the **'Draft Revised Recommendation**').[545] Following the required consultation with BEREC (which is yet to take place), ComReg understands that the European Commission intends to adopt a new list of relevant markets in September 2014. The Commission's provisional view as set out in the Draft Revised Recommendation is that at a pan-European level the FVCO market would, on a forward looking basis, no longer require *ex ante* SMP based regulation.

6.174 While it would, therefore, not be appropriate for ComReg to pre-empt the outcome with respect to the European Commission's Draft Revised Recommendation, in undertaking this market analysis, ComReg is nonetheless cognisant of it. However, ComReg equally notes that this Draft Revised Recommendation does not yet have any legal effect, is in draft form and, as noted in paragraph 1.14, ComReg is at this stage only obliged to take utmost account of the 2007 Recommendation.

6.175 Given the definition of FACO Markets differs from the FVCO Market identified in the 2007 Recommendation (although not in terms of the regulatory outcome), and noting the European Commission's proposals to remove the FVCO Market from the 2007 Recommendation, ComReg considers that it would be appropriate to re-examine ComReg's SMP analysis in the context of the 3CT framework.

6.176 ComReg's application of the 3CT below, rather than starting afresh, draws significantly on the preceding competition analysis in this Section 6, in particular, given the 3CT overlaps with the factors considered under SMP analysis. Each of the three criteria identified in paragraph 6.169 above are now examined.

The presence of high and non-transitory barriers to entry

6.177 ComReg has throughout the SMP assessment examined the nature and dynamic behind the barriers to entry present in the FACO Markets. As discussed in paragraphs 6.48 to 6.84 above, there are a number of factors that are likely to act as a barrier to entry in the FACO Markets:

(a) The incumbent FACO supplier controls infrastructure that is difficult for a new entrant to replicate.[546]

(b) The incumbent FACO supplier is has a large customer base and diversified product range, and therefore benefits from significant economies of scale, scope and density.[547]

(c) There are likely to be considerable sunk costs that would be incurred when entering the FACO Markets.[548]

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[545] This is available at http://ec.europa.eu/digital-agenda/en/news/draft-revised-recommendation-relevant-markets

[546] See paragraphs 6.52 to 6.56 for discussion on the sunk costs associated with replicating Eircom's FACO network.

[547] See paragraphs 6.71 to 6.78 for further discussion on economies of scale, scope and density.

(d) The incumbent FACO supplier benefits from being vertically integrated.[549]

6.178 Based on ComReg's analysis of barriers to entry throughout this Section 6, ComReg's preliminary view is that barriers to entry remain high in the FACO Markets, and these have resulted in Eircom maintaining high and stable market shares in both of these markets. On that basis, ComReg's preliminary view is that the first criterion would be met in relation to the FACO Markets.

A market structure which does not tend towards effective competition within the relevant time horizon

6.179 For regulatory intervention to be justified, market characteristics should be analysed not only in a static but also in a dynamic and forward-looking manner. In order to meet this criterion, ComReg must be satisfied that, in the absence of regulation, the FACO Markets, and ultimately the retail markets, would be unlikely to tend towards effective competition.[550]

6.180 ComReg analysed existing competition in paragraphs 6.14 to 6.44 and potential competition (including the impact of indirect constraints) in paragraphs 6.45 to 6.147 of this Consultation. ComReg's assessment of existing competition indicates that Eircom has maintained a high and stable markets share of 100%, in each of the FACO Markets and that demand for FACO has remained strong and relatively stable since the 2007 Decision.[551]

6.181 ComReg has recognised in its assessment of potential competition that, in the absence of regulated FACO products, there may be an incentive for FSPs to ultimately develop Managed VOB based FACO and/or RFTS using upstream inputs, in particular, through WBA/WPNIA inputs coupled with a VoIP capability. However, no observable trend has emerged or is likely to emerge within the period of this market review that would indicate that Managed VOB, or any other potential source of constraint, would provide effective competition in the supply of FACO and/or RFTS over the period of this review.

6.182 In particular, ComReg notes that Access Seekers have continued to use FACO to provide RFTS, often purchasing WBA (and to a lesser extent Line Share) alongside SB-WLR, rather than providing Managed VOB using Eircom Full Unbundling or SAB[552] products.

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[548] See paragraphs 6.57 to 6.70 for discussion on the varied degrees of sunk costs associated with different types of entry in the FACO Markets.

[549] See paragraphs 6.79 to 6.84 for a further explanation of vertical integration as a barrier to entry in the FACO Markets.

[550] Note that a market may tend towards effective competition, not only by means of new entry into the FACO Markets, but also by the deployment of alternative infrastructures by Access Seekers that would allow them to offer substitute services at the retail level in the absence of regulation in the relevant market.

[551] As set out in paragraph 5.40, SB-WLR is Eircom's most-purchased wholesale FACO product, with 337,881 subscriptions as at Q3 2013. There are further 15,982 CPS customers.

[552] As discussed in paragraphs 6.118 and 6.125, demand for these products remains very low and these are not likely being used to provide Managed VOB.

6.183 If the FACO Markets were to likely to tend towards effective competition, ComReg would expect to see a reduction in demand for SB-WLR and an associated increase in demand for SAB and Full Unbundling (and, of course, the use of these products to provide Managed VOB). These conditions have not emerged, to date.

6.184 As such, ComReg's preliminary view is that within the relevant time horizon for this market review the FACO Markets are not likely to tend towards effective competition. On that basis, ComReg's preliminary view is that the second of the 3CT criteria would be met in relation to the FACO Markets.

The insufficiency of competition law alone to adequately address the market failure(s) concerned

6.185 *Ex ante* regulation should only be imposed where competition law remedies are likely to be insufficient to address competition problems identified. This third criterion therefore assesses the sufficiency of competition law by itself to deal with market failures identified in the market analysis, in the absence of *ex ante* regulation.

6.186 In this respect, *ex ante* regulation should only be used in markets where national and EU competition law is not considered sufficient by itself to redress market failures and to ensure effective and sustainable competition.

6.187 ComReg considers that competition law is unlikely to be sufficient to effectively address market failures in the FACO Markets because:

(a) Some of the required regulatory obligations could not be imposed effectively under competition law.[553] For example, specific cost accounting and price control requirements, performance indicators etc.

(b) The compliance requirements associated with the required regulatory intervention would need to be maintained over time. For example, the need for monitoring of terms and conditions (including technical parameters), updating inputs for cost models etc.

(c) Frequent and/or timely intervention is likely to be important to ensure that the competition problems identified are remedied in an effective, timely and efficient manner. This can be managed more effectively through *ex ante* rather than *ex post* regulatory regulation.

(d) Creating regulatory certainty up-front is important for protecting the investment incentives of FSPs, including Eircom.

[553] See Section 8 and section 9 which respectively identify the likely competition problems that arise as a result of Eircom's SMP in the FACO Markets, and set out the remedies that are proposed in order to address these competition problems

(e) Time delays involved in remedying competition problems through *ex post* competition law would be likely to render it less effective. For example, Eircom would not be prevented, in the short to medium term, from exercising its SMP to foreclose competition from the FACO Markets. For example, absent regulation SB-WLR would not likely be provided, thereby foreclosing retail competition to the ultimate detriment of consumers.

6.188 For these reasons above, ComReg considers that competition law alone is not adequate to address the market failures that are present in the FACO Markets. On that basis, ComReg's preliminary view is that the third criterion would be met in relation to the FACO Markets.

Preliminary conclusions on the 3CT

6.189 ComReg's preliminary view is that the FACO Markets would meet the 3CT and, therefore, are susceptible to *ex ante* regulatory intervention.

Proposed Designation of Eircom with Significant Market Power

6.190 In paragraphs 6.13 to 6.189 above and Appendix G, ComReg has considered a wide range of factors to identify whether any undertaking enjoys a position of SMP in each of the Relevant FACO Markets identified in Section 5 . These factors have included:

- existing competition in the Relevant FACO Markets;
- potential competition in the Relevant FACO Markets; and
- the strength of any Countervailing Buyer Power.

6.191 ComReg's preliminary view is that the FACO Markets are not effectively competitive and that Eircom would not be sufficiently constrained by the above factors such that it would prevent it from behaving, to an appreciable extent, independently or competitors, customers and consumers.

6.192 Where ComReg determines, as a result of a market analysis carried out by it in accordance with Regulation 27 of the Framework Regulations, that a given market identified in accordance with Regulation 26 of the Framework Regulations is not effectively competitive, ComReg is obliged to designate an undertaking under Regulation 27(4) of the Framework Regulations as having significant market power.

6.193 Having regard to the preliminary conclusions of the above market analysis, ComReg is of the preliminary view that Eircom should be designated as having SMP in (a) the LL-FACO Market and (b) the HL-FACO Market.

Question 5:	**Do you agree with ComReg's assessment of SMP? Do you consider that the competition assessment for the FACO Markets would fulfil the three criteria test? Please explain the reasons for your answer, clearly indicating the relevant paragraph numbers to which your comments refer, along with all relevant factual evidence supporting your views.**

7 Wholesale Transit Market Definition and Three Criteria Test

Overview

7.1 Transit is a wholesale service provided to Service Providers that involves the switching, routing and conveyance of calls between the point of handover of the FVCO stage of a call, up to, but not including the termination (FVCT or MVCT) stage of a call. In this Section ComReg now considers the definition of the Transit market and whether or not it is effectively competitive.

7.2 The Transit market is no longer identified in the 2007 Recommendation as being a market susceptible to *ex ante* regulation but was identified in the 2003 Recommendation[554] as follows:

> *"Transit services in the fixed public telephone network…… transit services are taken as being delineated in such a way as to be consistent with the delineated boundaries for the markets for call origination and for call termination on the public telephone network provided at a fixed location"*[555]

7.3 As noted in paragraph 1.34 ComReg previously analysed the Transit market in the 2007 Decision with this being defined as:

- National wholesale market for call transit services on the public telephone network provided at a fixed location (including incoming international transit services (the '**2007 National Transit Market**').[556]

7.4 ComReg designated Eircom as having SMP in this national market and imposed obligations upon Eircom which, amongst other things, required it to offer Transit services to Access Seekers at regulated cost-oriented prices.

7.5 In the 2007 Decision ComReg also defined a separate outgoing international Transit market but found this to be effectively competitive and, as a consequence, no Service Provider was designated as having SMP.

7.6 Subsequent to the 2007 Decision, the European Commission published the 2007 Recommendation which, as noted above, no longer identifies a wholesale transit market as being susceptible to *ex ante* regulation. The European Commission recognises, however, that a NRA may find that markets within an individual Member State other than those identified in the 2007 Recommendation can still be subject to regulation, in particular, where it can be demonstrated that the 3CT[557] would be met.

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[554] See footnote 11.

[555] Market 10 of the 2007 Recommendation.

[556] For a fuller description of the National Transit Market see also *Market Analysis – Interconnection Market Review Wholesale Call Origination & Transit Services 07/51 July 2007* page 53.

[557] See paragraph 6.169.

7.7 To that end, ComReg will first define the Transit market from both product and geographic perspectives, before applying the 3CT. As noted in paragraph 5.4 (concerning the definition of the FACO Markets):

(a) a relevant product market comprises all those products and/or services which are regarded as interchangeable or substitutable by the consumer by reason of the products' characteristics, their prices and their intended use; and

(b) a relevant geographic market comprises the area in which the firms concerned are involved in the supply of products or services and in which the conditions of competition are sufficiently homogeneous.

7.8 In line with the Modified Greenfield Approach explained in paragraph 5.5, ComReg's assessment starts from the assumption that regulation is not present in the Transit market. However, SMP regulation in other related markets, or through other aspects of the regulatory framework, is assumed to be present. Of particular relevance to the Transit market will be proposed regulation of the FACO Markets (discussed in Sections 5, 6, 0 and 9) and the FVCT and MVCT[558] markets.

7.9 The remainder of this section addresses the product and geographic market assessment within which the following issues are considered:

- identifying the focal Transit product/s, being the initial product/s against which potential substitutes will be assessed (discussed in paragraphs 7.11 to 7.68) including addressing issues such as:
    - where the boundary between the FVCO, FVCT and Transit markets resides;
    - whether an IP based Transit service would fall within the Transit market;
    - whether there are separate relevant markets for Transit to different types of telephone numbers; and
    - whether trunk Transit and pure Transit fall within separate Transit markets.
- whether any alternative Transit products should be included in the relevant wholesale markets having regard to the effectiveness of any direct constraints from demand-side substitutes and/or supply-side substitutes (including self-supplied inputs) (discussed in paragraphs 7.69 to 7.106); and
- what is the geographic scope of the Transit market (discussed in paragraphs 7.106 to 7.140).

[558] See footnote 2.

Relevant Transit Product Market Assessment

7.10 As noted in paragraph 5.6, market definition is not an end in itself, but is undertaken to provide the context for the subsequent competition/SMP analysis. It allows ComReg to consider the competitive constraints imposed by demand and supply side substitutes (and consequently the suppliers of those substitute products/services), on a forward-looking basis, that is, taking into account expected or foreseeable technological or economic developments over a reasonable time horizon linked to this market review.

Identifying the Focal Product

7.11 The first step involves identifying the focal Transit product from which potential substitutes will then be considered. In general, Transit services encompass the transmission and/or switching or routing of calls between two Service Providers' networks or, depending on the network hierarchy, the transmission and/or switching or routing of calls within a Service Provider's network. For example, Transit can involve:

(a) pure Transit, being the transmission and/or switching of call traffic by a third party supplier to facilitate the conveyance of calls between switching points of two other separate networks[559];

(b) trunk Transit, being the transmission and/or switching of calls between two or more hierarchical switching points on the same network, ultimately for the purpose of purchasing Termination on that same network[560]; and

(c) international Transit, being the carriage of traffic to an international number.

7.12 Pure Transit provision can encompass an element of trunk Transit, in the sense that a pure Transit provider may also be able to provide Transit. For example, where the Transit Service Provider for the purpose of conveying calls between to unconnected networks, conveys calls from a switching point on the first network to a deeper switching point within the second network.

7.13 With respect to (a) and (b) above, the Explanatory Note to the 2007 Recommendation states that:

[559] For example, Service Provider A and Service Provider C may not be directly interconnected, but both are independently interconnected to Service Provider B. Service Provider A and Service Provider C may be able to purchase Pure Transit from Service Provider B for the purpose of allowing calls to be made between end-users on their respective networks.

[560] For example, in the case of Eircom as noted in paragraph 5.11 it has primary, tandem and double tandem exchange levels within its network. Trunk Transit would involve call conveyance between these exchange levels.

"Transit services therefore comprise conveyance both between switches on a given network and between switches on different networks, and including pure conveyance across a third network."[561]

7.14 The above pure Transit and trunk transit services, together with FVCO and Termination are the end-to-end wholesale inputs that, when combined, allow a telephone call to be made. They thereby support the provision of a RFVC service by a Service Provider.

7.15 As noted above, Eircom is an SMP regulated provider of Transit services pursuant to the 2007 Decision and ComReg considers that Eircom's Transit product provides a useful starting point for the product market definition exercise.

Eircom's existing Transit product

7.16 Eircom provides Transit to its own retail division (self-supply), as well as to third party FSPs (external wholesale supply) using its narrowband copper network and other inputs. Eircom's existing transit products are available on a national basis, and are purchased by a large number of FSPs.[562]

7.17 As discussed in Section 2.61[563], Eircom operates a ubiquitous network and offers a range of FACO, Transit, and FVCT services on a national basis having regard to its SMP regulatory obligations[564]. Eircom Transit services are described in Annex C of its published RIO[565] and STRPL.[566]

7.18 For the purpose of this Transit market definition exercise, similar to the reasons set out in paragraph 5.9 with respect to FACO, ComReg considers that Eircom's self-supply of Transit falls within the market regardless of whether it is used to supply other Service Providers, or by Eircom to itself.[567]

Where are the boundaries between FVCO, FVCT and Transit?

7.19 ComReg shares the European Commission's view that the Transit market is complementary to the markets for Termination and FVCO[568]. With respect to the boundary between FVCO and Transit, as noted in paragraph 7.2, the Explanatory Note to the 2007 Recommendation states that:

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[561] Page 26 of the Explanatory Note to the 2007 Recommendation.

[562] Eircom has a large number of Transit customers. However, note that Eircom's own retail arm, as the largest supplier of RFTS in Ireland, is the largest user of Eircom's Transit services.

[563] See paragraphs 3.4.

[564] These obligations are set out in Appendix B of the 2007 Decision.

[565] Available at http://www.eircomwholesale.ie/Reference-Offers/.

[566] See paragraph 5.10.

[567] This is on the basis of considerations including that Eircom's self-supply could be converted relatively easily to external merchant market supply in the short term without incurring significant additional costs or risks and there is evidence of demand for Eircom's transit services.

[568] Page 27 of the Explanatory Note to the 2007 Recommendation notes that "*…..the market for transit services is complementary to the ones for call termination and call origination".*

"….the delineation between call origination, call termination and transit services can vary, according to network topologies and market conditions, and it is left to NRAs to define those elements constituting each part. It should be noted by the NRAs that while there is a degree of discretion in deciding the appropriate elements constituting call origination, call termination and transit services, these elements are additive, the sum of the three making the whole. This means, for instance, that if call origination and call termination are already defined then a notional market for transit is also defined by default."[569]

7.20 As noted above, the European Commission has indicated that that if call origination and call termination are already defined then a notional market for Transit is also defined by default.

7.21 Transit can be sold as either trunk transit or pure transit, with some Transit Service Providers offering both services. Eircom offers pure Transit (conveying call traffic between two non-interconnected Service Providers) and also a range of trunk transit products (conveying the call traffic a Service provider to a deeper switching point within its network). Eircom's Transit services therefore vary in terms of the POI in its network at which Access Seekers calls are handed over to it.

7.22 The FVCO component of FACO is capable of being handed over by Eircom to the Access Seeker purchasing FVCO at the primary, tandem or the double-tandem exchange levels i.e. primary FVCO, tandem FVCO and double-tandem FVCO. Similarly, Eircom's FVCT supply is effectively between the primary exchange level[570] and the called party. Access Seekers seeking to terminate a call on Eircom's network who are not interconnected at the primary exchange level also purchasing trunk transit from Eircom, in particular, where they are only interconnected with Eircom at the tandem or double-tandem level (in such circumstances Access Seekers purchase FVCT combined with tandem or double-tandem transit).

7.23 BT Ireland provides an independent a pure Transit product (which can include trunk Transit provision to Eircom exchange levels) which allows an Access Seeker, independently of Eircom, to purchase direct connectivity to not only Eircom exchanges, but also between other Service Providers.

7.24 Cable and Wireless and UPC both provide pure Transit services products (which can include trunk Transit), however, in a more limited scale in comparison to BT Ireland.

7.25 The geographic coverage/scope of these competing Transit services is discussed in paragraphs 7.106 to 7.140 below.

[569] See page 27 of the Explanatory Note to the 2007 Recommendation.

[570] Being the closest switching/interconnection point to the called party at which calls can be handed over for termination.

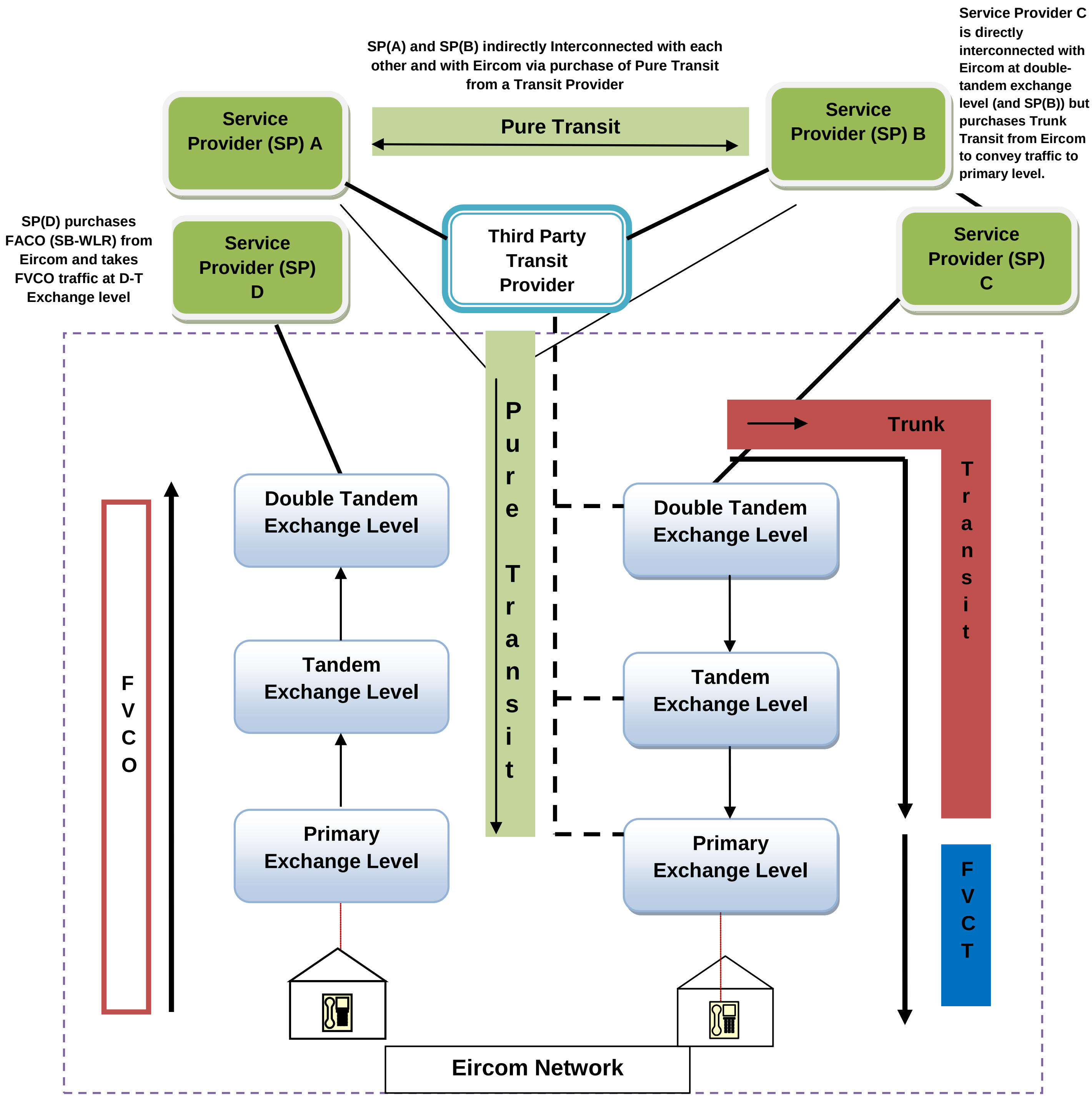
7.26 The relationship between trunk and pure Transit is illustrated in Figure 26 below. Note that the pure Transit provider identified could also be Eircom. However, for illustrative purposes we assume this is not the case.

7.27 In Figure 26 we can see Eircom's switching network hierarchy in the dotted lined square. On the left hand side FVCO extends from the primary exchange level through the tandem and up to the double-tandem exchange level. On the right hand side we can see that FVCT extends from the primary exchange level to the customer's premises. A call going between the switching stages between FVCO and FVCT are, in effect trunk Transit on Eircom's network.

7.28 At the top of Figure 26 we can see that there is a Transit provider, as well as a number of other Service Providers ('**SP(s)**') that are either directly interconnected to each other (such as the case between SP(B) and SP(C)) or indirectly via the Transit provider (such as the case between SP(A) and SP(B)). I this latter case this is a form of pure Transit. So too is the Transit provided by the Transit provider to allow SP(B) to indirectly interconnect to Eircom's various exchange levels.

7.29 It is important to note that Eircom also acts as a pure Transit provider (although we do not show this in Figure 26 below).

Figure 26: FVCO, Transit and FVCT within Eircom's Network Structure[571]



571 Note that this diagram is simplified for the purpose of visually representing the relationship between different components of a call, including the distinction between pure transit and trunk transit.

7.30 Given the above, ComReg considers the boundary of the Transit market having regard to its relationship with FVCO and FVCT.

The boundary between Transit and FVCO

7.31 In the 2007 Decision, the FVCO market was defined up to a point of handover at the Eircom primary exchange.[572] This was illustrated in Figure 19 in Section 5[573]. However, ComReg has now proposed within this Consultation to define the boundary of the FVCO component of the FACO Markets up to the Eircom double-tandem exchange[574]. This is for reasons that include the absence of a code hosting facility[575].

7.32 However, as noted in paragraph 5.37, the availability of code-hosting/sharing, should it occur, has the potential to narrow the FVCO product boundary (i.e., to the primary or tandem exchange level). This could potentially extend the boundary of the Transit market given it is delineated by reference to the FVCO market.

7.33 Given the definition of the FVCO component of the FACO Markets, this therefore delineates one side of the boundary of Transit market i.e. Transit does not involve FVCO provided at the primary, tandem or double-tandem exchange level.

7.34 As noted in paragraph 5.25, information provided to ComReg in Statutory Information Requests indicates that approximately 70% of Eircom's FVCO traffic (provided to third parties) constitutes primary call origination, with the remaining 30% of FVCO traffic being handed over at either tandem or double-tandem switches.

The boundary between Transit and FVCT

7.35 The 2007 FVCT Decision[576] effectively defined the boundary of FVCT on Eircom's network as being at the primary exchange[577] being the closest switching/point of handover to the called party at which traffic can be handed over for termination[578]. This is illustrated in Figure 27 below.

[572] Note that ComReg's decision to define the boundary at the primary exchange level was based on analysis in a paper previously published by ComReg, namely, Market Analysis – Interconnection markets, Response to Consultation & Consultation on Draft Decision**,** ComReg Document 05/37a, 19 May 2005.

[573] See paragraph 5.22.

[574] See paragraphs 5.211 to 5.213.

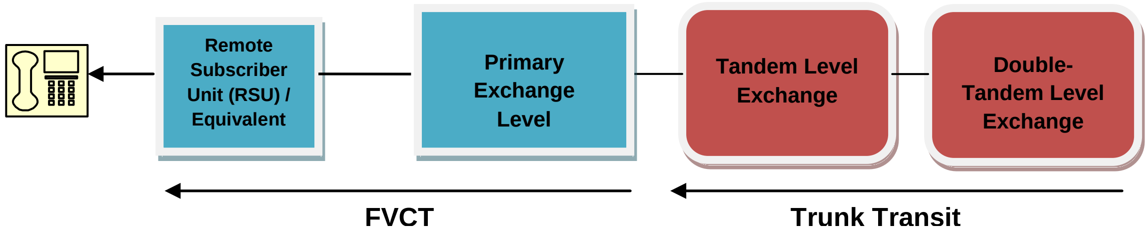
[575] See footnote 311.

[576] See footnote 538.

[577] Tandem and double-tandem exchanges could also act in a primary exchange capacity.

[578] ComReg has conducted a consultation updating the analysis on the 2007 FVCT Decision (Market Analysis, Wholesale Voice Call Termination Services provided at a Fixed Location, Consultation and Draft Decision, ComReg Document 12/96, September 2012, the ('**2012 FVCT Consultation**')), and while it has yet to issue its final decision on this analysis, the proposed FVCT boundary does not materially change such that it would impact the Transit market.

Figure 27: Relationship between FVCT and Trunk Transit



7.36 An Access Seeker handing over a call for FVCT can either interconnect directly or indirectly via a Transit Service Provider (which includes Eircom) to an Eircom primary exchange. In this respect FVCT can also be sold by Eircom with Transit services. For example, an Access Seeker directly interconnected to Eircom at a Tandem Exchange seeking to handover a call for FVCT to a customer who is connected to an Eircom primary exchange would, apart from purchasing FVCT, also purchase a Transit service between that Tandem exchange and the primary exchange. In this respect, apart from selling standalone FVCT, Eircom often sells FVCT together with tandem and double-tandem Transit (sometimes known together as primary FVCT, tandem FVCT and double-tandem FVCT).

7.37 Information provided by Access Seekers in their response to the Statutory Information Request indicates that 29% of the inbound traffic to Eircom for FVCT is handed over by Access Seekers at either the tandem exchange or double-tandem exchange levels. This reflects the different coverage of the networks operated by Eircom's wholesale customers. In particular, FSPs that are not interconnected with Eircom's primary exchanges may choose to handover traffic at a tandem or double-tandem exchange so that the call can be completed.

7.38 This demand by Service Providers for tandem and double-tandem FVCT/Transit suggests that there is some degree of complementarity between FVCT and the adjacent tandem and double-tandem Transit service. For Access Seekers without interconnection at the primary or tandem exchange level, this complementarity may arise because it is more practical or economic for the Access Seeker to have a single supplier of FVCT and Transit, rather than purchasing them from separate suppliers.

7.39 However, in contrast to the complementarity that exists between FVCO and Transit, in this case an Access Seeker is in a position to potentially use a third party transit supplier to carry the call to the primary exchange associated with the called party's. Given the availability of third party Transit suppliers (discussed in paragraph 7.77), ComReg's preliminary view is that FSPs without interconnection with Eircom's primary or other exchange levels would, in response to a SSNIP by Eircom of double-tandem FVCT, be likely to split the purchase of a reasonable amount of Transit to the primary exchange, from the FVCT service.

7.40 ComReg therefore considers that, the appropriate boundary between Transit and FVCT should be at the primary exchange level.

Whether IP-based Transit services fall within the Transit market?

7.41 ComReg notes that the switching hierarchy described above is conditioned by the topology of Eircom's switched narrowband network. As discussed in Sections 3 and 5[579], insofar as Eircom's plans to move to a Managed VOB based RFTS service are concerned, ComReg understands that Eircom **[✂ [redacted]].**

7.42 In Section 5, ComReg set out its view that notional FVCO supply by Eircom via Managed VOB (including via its narrowband, FTTC and FTTH network) fell within the FACO Markets. The justification included reasons that it would be a technical replacement of Eircom's existing circuit switched FVCO products and would be likely to be demanded by existing purchasers of these latter services. It was also noted that this view is consistent with the Explanatory Note to the 2007 Recommendation, which indicates that incremental upgrades in network infrastructure are rarely translated into a new or emerging market.

7.43 For similar reasons, ComReg considers that the notional wholesale supply of Transit over an IP network by Eircom (including its self-supply) would fall within the Transit market. ComReg also notes that a transition to IP interconnection from circuit switched interconnection has the potential to alter existing switching hierarchies, whereby the transit of calls could take place through fewer and more centralised IP handover points. However, as of yet, this has not yet manifested itself to any significant degree in the market.

7.44 As discussed later in paragraph 7.77, there are 4 other alternative wholesale providers of Transit services. Were they to upgrade their Transit networks to IP based Transit, given this is a technical upgrade, ComReg considers that their existing purchasers of their Transit services would likely continue to demand Transit, irrespective of whether or not it is IP or circuit switched.

7.45 Overall, ComReg considers that IP Transit would be likely to fall within the Transit market and no distinction should be made between circuit switched or IP based Transit services. In this respect, ComReg adopts a technology neutral approach to the Transit product market definition.

Whether there are separate relevant markets for Transit to different types of telephone numbers

7.46 ComReg has considered whether separate Transit markets exist for calls to different types of telephone numbers, in particular, for calls to:

- geographic numbers;
- mobile numbers;
- non-geographic numbers; and

[579] See paragraphs 3.41 and 5.14 to 5.17.

- international numbers.

7.47 In Section 4[580] ComReg considered that the RFVC market was likely to include calls to all number types, although we noted that competitive conditions in the supply of RFVC to international numbers may be somewhat different.

7.48 In Section 5[581], ComReg set out its preliminary view that there are unlikely to be separate markets for FVCO to different types of numbers. This is due to supply-side substitution, economies of scope[582], and the tendency for consumers to use their RFTS service to make calls to various types of numbers.

7.49 Below, ComReg considers the nature of demand and supply for Transit services associated with calls to different types of numbers.

Demand for different types of Transit services

7.50 As noted in paragraph 7.11, demand for Transit arises where a Service Provider requires the services of a third party to (a) carry a call to another FSP or MSP with who it not directly connected; (b) to carry a call to a deeper point within a network for termination; and/or (c) to carry a call to an international number.

7.51 ComReg's view is that there is unlikely to be effective demand-side substitution between Transit services to different number types. This is because demand for Transit is derived from RFVC (or MTS) which are made to a specific number type. For example, Transit to a mobile number of an MSP is unlikely to be a substitute for transit to a geographic number of an FSP.

7.52 However, ComReg notes that there is likely to be complementarity between different types of transit services. In this respect, RFTS providers usually offer a range of different call types to customers, and purchase transit on routes where they are not capable, for technical and/or economic reasons, of self-supplying transit (for example, they may not have a direct interconnection with a terminating network). In such a case, an FSP that purchases transit services over a given 'route' is likely to do so irrespective of the type of number being called at the retail level.[583] This suggests a natural complementarity is likely to arise between the demand for Transit services for calls to different types of numbers carried over a given route, or category of routes (to the extent that Transit suppliers provide services over a wide range of routes).

[580] See paragraphs 4.22 to 4.45.

[581] See paragraph 5.18.

[582] Economies of scope arises because an FSP can benefit from using the same fixed infrastructure to provide FVCO and RFVC to different types of numbers, thereby spreading the fixed cost associated with operating that network over a greater number of calls.

[583] For example, if an Access Seeker uses a Transit Service Provider for calls made to geographic numbers assigned to BT Ireland, then that Access Seeker is also likely to require a Transit service for calls to other number types that are also assigned to BT Ireland.

7.53 ComReg recognises that international Transit (that is, the carriage of calls through an international gateway to non-domestic/international telephone numbers) may involve higher costs, different routes, and exhibit different competitive conditions relative to Transit for calls to geographic, non-geographic and mobile numbers. In which case, international Transit is less likely to represent a complement to Domestic Transit from a demand-side perspective. For example, where the price of international Transit is relatively higher, and different competing products are available on international Transit routes, an Access Seeker may face a greater incentive to purchase international Transit from a separate supplier. The degree of complementarity is therefore dependent on supply-side conditions, which are considered below.

Supply of different types of Transit services

7.54 ComReg notes that supplying transit services to geographic, non-geographic, and (to an extent) mobile numbers are likely to require the use of common network infrastructure, and Transit Service Providers typically provide Transit services to all types of numbers.

7.55 However, there are some differences in the nature of Transit services provided for the call types identified in paragraph 7.46 above. For example:

(a) Transit for calls to mobile numbers, geographic numbers and non-geographic numbers involves carrying calls to different Service providers MSPs, in which case, the Transit provider must establish direct interconnection with one or more Service Providers;

(b) Transit for calls to non-geographic numbers and mobile numbers involve an Intelligent Network (IN) look-up[584] to determine the destination network; Transit to ported geographic and mobile numbers can also involve the need to query number porting databases to identify the subscribers' network provider; and

(c) As discussed in Appendix C, the Charging and billing arrangements for transit of calls to non-geographic numbers/Number Translation Codes are somewhat different from the charging and billing arrangements for transit of calls to geographic or mobile numbers. For calls to geographic numbers, the transit provider levies the transit charge on the originating operator; whereas for calls to non-geographic numbers it levies the Transit charge on the terminating operator (the operator hosting the non-geographic number).[585]

[584] An IN look up is essentially a query issued by a Service Provider to relevant databases which then allows them to identify the relevant Service Provider to which the call should be routed to for Termination.

[585] Note that the purchaser of Transit for NTC calls therefore does not have control over the choice of Transit provider, but is liable for the cost of the Transit service.

7.56 In respect of the differences identified in (a) and (b) above, typically Transit providers that handle significant amounts of call traffic have interconnection in place with a large number of FSPs and MSPs, and are capable of performing an Intelligent Network ('**IN**') look-up.[586] The third difference above relates to the charging and billing arrangement structures rather than in the underlying network infrastructure or the nature of the Transit service itself.

7.57 ComReg considers that, similar to the provision of FVCO and RFVC, there is likely to be supply-side substitutability between Transit services for calls to different number types, and economies of scope associated with providing these transit services. In this respect, an FSP providing a Transit service to a specific number type would be likely to gain economies of scope by providing multiple Transit services to other number types over that same infrastructure. Furthermore, given that these Transit services share the same network infrastructure and that economies of scope and scale are present, ComReg's preliminary view is that an FSP providing Transit for calls to one type of number would be likely to shift into the supply of transit for calls to other types of number in response to a SSNIP by a HM in the provision of each respective type of transit.

7.58 From a pricing perspective, Eircom does not differentiate its pure Transit prices based on the type of number being called[587]. Rather Eircom publishes a single set of national transit prices that differ only according to the time of day that the service is being provided (see Table 17 for a list of Eircom's Transit prices).[588]

7.59 As such, ComReg considers that Transit services provided for calls to geographic, non-geographic and mobile numbers are likely to fall within the same focal product market (hereafter referred to as '**Domestic Transit Services**')

7.60 As noted in paragraph 7.53, ComReg recognises that international Transit is likely to involve largely separate infrastructure (including, for example, an international submarine transmission cable) and different competitive conditions. Therefore, the cost and time involved in switching from the provision of Domestic Transit Services to the supply of international Transit, or vice versa, would not be likely to allow sufficiently immediate or effective supply-side substitution.

7.61 ComReg considers that there is unlikely to be sufficient supply-side substitution between Domestic Transit Services, and international Transit. Furthermore, ComReg notes that the competitive conditions and barriers to entry in the provision of international Transit are likely to differ from those that exist in the provision of Domestic Transit Services.

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[586] Note that the two largest transit providers, Eircom and BT, have established interconnects with a large number of FSPs and MSPs, are able to perform IN look-ups, and to provide transit for calls to all types of numbers.

[587] However, it should be borne in mind that Eircom's pricing has been subject to SMP based price regulation.

[588] Eircom's transit prices are published in Table 002 of the STRPL which is available on Eircom's wholesale website at http://www.eircomwholesale.ie/Reference_Offers/ . Footnote to Table 202 in the STRPL notes that Eircom charges the transit rates set out in Table 002 for calls to PRS numbers.

7.62 As such, ComReg's preliminary view is that international Transit services are likely to fall within a separate market to Domestic Transit Services. In the 2007 Decision ComReg determined that the international Transit market did not meet the 3CT and, on that basis, it was de-regulated. ComReg it is of the view that this market appears to have been functioning effectively in the absence of regulation. In this context, ComReg does not consider this international Transit market further in this market review process.

Are there separate markets for trunk Transit and pure Transit?

7.63 ComReg has considered whether separate markets exist for trunk Transit and pure Transit. As noted in paragraph 7.11, pure Transit involves the transmission and/or switching of call traffic by a third party to facilitate the conveyance of calls between two networks. Trunk Transit, on the other hand, involves the transmission and/or switching of calls between two or more points on the same network, ultimately for the purpose of purchasing Termination on that same network. Depending on the number of switching points within a network, pure Transit can also encompass an element of trunk Transit.

7.64 ComReg notes that both of these types of Transit ultimately enable end-to-end local and national calls to be made by end-users. As evidenced from Figure 26 above, it is ComReg's preliminary view that a purchaser of trunk Transit would typically have the ability to switch to a pure Transit product (for example, Transit supplied by a third party to an Eircom exchange) if it was faced with a SSNIP of trunk Transit, although this may not be an entirely costless exercise.[589]

7.65 ComReg recognises that there are likely to be some variances in the degree of competitive conditions across different Transit routes. However, such differences are more likely to be related to issues such as whether traffic volumes on a Transit route justify interconnection, rather than whether it is pure Transit or trunk Transit.

7.66 As such, ComReg considers that trunk Transit and pure Transit fall within the same Transit market.

Summary of Transit focal product

7.67 Having regard to the discussion in paragraphs 7.11 to 7.65 above, ComReg's preliminary view is that the focal Transit product market includes:

- both trunk and pure Transit provided over copper and/or fibre networks (i.e. irrespective of the underlying infrastructure employed)
- switched Transit and IP Transit;
- both Eircom's self-supply as well as its supply in the wholesale market; and

[589] The exception to this would be on a small number of transit routes to smaller Eircom exchanges (in traffic terms) where Eircom is the only active transit provider. In that case, Eircom's trunk transit product (bundled with FVCT) would be likely to be the only option. However, ComReg notes that these smaller exchanges would only likely account for a small proportion of overall Transit Traffic.

- calls to geographic, non-geographic and mobile numbers ('**Domestic Transit Services**');

7.68 The Transit focal product does not include either FVCO or Termination. Additionally, the international Transit market is considered to be a separate market which, in ComReg's preliminary view, does not require further consideration here

Assessment of Direct Constraints

7.69 Below, ComReg considers the strength of the effectiveness of any direct constraints[590] present in the Transit market with a view to considering whether the focal market should be broadened to include other products. In particular, In this regard, ComReg considers the effectiveness of constraints arising in the Transit Market from:

(a) demand-side substitution; and

(b) supply-side substitution.

7.70 In doing so, ComReg also considers the issue of self-supply.

7.71 As noted previously, ComReg's assessment of the product market boundaries is informed by the HM test. The test is carried out for any given number of alternative products which, by their characteristics, prices and intended use, may constitute an effective demand-side substitute for the focal product. If a sufficient number of customers in response to a SSNIP were to switch to the alternative product such that its renders the SSNIP (above the competitive level) of the focal product unprofitable, then these alternative products are also included in the relevant product market definition.

7.72 There are several suppliers of Transit services in Ireland and below ComReg considers their products in terms of their demand-side substitutability. Generally, the Transit services offered by these supplies vary in terms of their network coverage and their ability to offer end-to-end services.[591] In this respect, and as is discussed further below, the effectiveness of the competitive constraints exerted by these alternative Transit suppliers differs.

[590] ComReg's approach for analysing these constraints is explained in Appendix E of this Consultation.

[591] Note that Eircom is the only supplier that can offer ubiquitous transit coverage independent of any other Transit supplier in the State. While other Transit suppliers sometimes provide end-to-end services by combining their own self-supplied Transit services with other products. The provision of such other products is often enabled through the purchase of wholesale inputs from Eircom.

7.73 It must also be considered (in accordance with the principles set out in Appendix E) whether an alternative product could represent an effective supply-side substitute to the Focal Transit product. In this respect, ComReg considers whether, in response to a SSNIP (above the competitive level) in Transit by a HM supplier, a Service Provider not currently active in supplying Transit would be likely to switch production in the short term without incurring significant costs, and start supplying Transit services of equivalent characteristics to the focal product. If as a consequence of such provision it renders the HM's SSNIP unprofitable, then such supply-side substitute products would also be included in the broader Transit market (alongside the focal product and other demand-side substitutes).

7.74 Such supply-side substitutes could, for example, include Transit that is self-supplied by vertically-integrated alternative FSPs or MSPs that operate independent Transit networks as part of their own supply of RFTS and MTS respectively.[592]

7.75 In assessing demand-side and supply-side substitution, ComReg has considered Service Providers' responses to the Statutory Information Requests, in particular, views and evidence provided by FSPs that indicates the strength of any direct constraint arising from supply-side substitution (including from vertically integrated operators). ComReg has also considered more recent information provided by Eircom[593] about which Service Providers are connected to each of its exchanges.

7.76 ComReg considers the effectiveness of competitive constraints in the Transit market from:

(a) whether existing wholesale Transit services provided by alternative Transit Service Providers, including their self-supply, are likely to be effective demand-side substitutes;

(b) whether the self-supply of Transit services by other RFTS or MTS providers not active in the supply of wholesale Transit services are likely to be an effective supply-side substitute ; and

(c) whether wholesale leased lines are likely to be an effective supply-side substitute.

[592] The criteria for assessing whether self-supply on vertically integrated alternative networks should be included in the relevant market are set out in Appendix E of this Consultation.

[593] Information provided by Eircom to ComReg on 19 September 2013 on foot of a request for information from ComReg of 4 September 2013 (**Eircom interconnect data September 2013**).

Demand-Side Substitution

Should Transit services provided by alternative Service Providers be included in the relevant Transit market?

7.77 There are a number of alternative Service Providers (i.e., other than Eircom) currently providing wholesale Transit services in Ireland, with the extent of their provision differing significantly. Based on Service Provider responses to the Statutory Information Requests, these include:[594]

(a) BT Ireland.

(b) Magnet.

(c) UPC.

7.78 ComReg notes that that MSPs provide transit services, in particular, solely for transit for calls that are handed over to their individual networks for termination but which, due to reasons associated with Mobile Number Portability ('**MNP**'), are not destined for subscribers on their individual networks. In such circumstances the MSP will re-direct the call to the network of the subscriber called (referred to as '**Transit to Ported Mobile Numbers**'). We have not included such MSPs above given it is a narrow form of Transit, primarily associated with calls to ported mobile numbers.

7.79 These Transit Service Providers are, for the most part, FSPs providing RFTS (and/or MTS) or wholesale suppliers of telecommunications services that initially deployed networks for the purpose of self-supplying RFTS, MTS and data connectivity. Having established a network for the provision of RFTS, including direct interconnections with Eircom's exchanges and with other networks, these FSPs have utilised some of their network's capacity to provide Transit services in the merchant market across certain routes.

7.80 By doing so, these Service Providers can achieve improved economies of scale by increasing the volume of traffic being carried on their Transit networks as well as greater economies of scope through selling multiple services on these network. This is likely to enable a more timely recovery of fixed costs incurred in, for example, building Transit interconnection paths.[595]

[594] This is based on Transit traffic reported at Q3 2013. Cable and Wireless Limited (**C&W**) also reported Transit figures in its response to the Statutory Information Request for the period between H1 2008 and H2 2009, and stated that it was a supplier of Transit services. However, C&W has not reported transit traffic (provided to third parties) since then. C&W was acquired by Vodafone in July 2012 (see http://www.vodafone.ie/medium-large-business/why-vodafone/acquisitions/), and Vodafone has not reported Transit traffic since completing the acquisition. ComReg intends to seek further information regarding its provision of Transit by C&W and Vodafone in a data gathering exercise that ComReg intends to run in parallel with this Consultation.

[595] The economies of scale associated with the provision of Transit Services are discussed further in paragraphs 7.90 and 7.179 to 7.189.

7.81 Most alternative wholesale Transit suppliers in Ireland generally lack Eircom's ubiquitous transit network that extends to all of its exchanges (which Eircom naturally has by virtue of its self-supply) and to most[596] other large FSPs and MSPs. However, in any case, there appears to be a reasonable level of demand from Access Seekers for wholesale/merchant market Transit services offered by a number of alternative operators. Insofar as these Transit services are supported by the network infrastructure of the alternative Service providers (and not simply resold Eircom Transit[597]), ComReg proposes to include these alternative Transit services within the relevant product market.

7.82 ComReg also proposes to include the self-supply of these competing Transit Service Providers in the relevant Transit market on the basis that:

- they have demonstrated that they have the capacity and face commercial incentives to provide Transit Services to third parties;
- they appear to offer sufficient coverage to satisfy the Transit needs of some Access Seekers, at least on certain Transit routes; and
- they have secured contracts for the supply of Transit services to Access Seekers, in direct competition with Transit services provided by Eircom. As such, there is evidence that their Transit Services are likely to represent a sufficiently effective demand-side substitute for the HM's Transit Services, at least on certain Transit routes.

Supply-Side Substitution

7.83 ComReg also proposes to include the self-supply of these competing Transit Service Providers in the relevant Transit market on the basis that:

- they have demonstrated that they have the capacity and face commercial incentives to provide Transit Services to third parties;
- they appear to offer sufficient coverage to satisfy the Transit needs of some Access Seekers, at least on certain Transit routes; and
- they have secured contracts for the supply of Transit services to Access Seekers, in direct competition with Transit services provided by Eircom. As such, there is evidence that their Transit Services are likely to represent an effective demand-side substitute for the HM's Transit Services, at least on certain Transit routes.

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[596] Most alternative Service Providers would likely interconnect with Eircom at least some level given it has, and continues to be, the predominant provider of RFTS in the State.

[597] Note that some alternative suppliers, in order to provide a ubiquitous Transit offering, sell a national Transit service on the basis of the use of their own self-supplied network inputs combined with their purchase of Eircom's Transit service (provided pursuant to SMP regulation), with the latter then being re-sold as part of their own national Transit service. However, given the assessment in this Consultation is being undertaken in accordance with the Modified Greenfield Approach, to the extent that an alternative Service Provider's Transit service relies on Eircom's SMP regulated inputs, this must be discounted from the analysis being undertaken. However, remaining Transit services provided over the Service Provider's own network is considered.

Should self-supplied Transit services provided by vertically-integrated Service Providers be included in the Transit market?

7.84 ComReg has considered whether certain vertically integrated Service Providers that have substituted or replicated the HM's Transit services for the purpose of their own self-supply in the provision of RFTS and MTS should be included in the Transit market as a potential supply-side substitute.

7.85 Given Vodafone has established the largest self-supply of Transit through direct interconnection with Eircom (and other Service Providers), ComReg first considers whether such self-supply should be included in the Transit market before then considering the circumstances of other Service Providers.

7.86 Since the 2007 Decision, a number of MSPs[598] have established direct interconnects with:

(a) a large number of Eircom's primary and tandem exchanges (in addition to the double-tandem exchanges); and

(b) other FSPs' networks.

7.87 By doing so, these MSPs appear to have replicated much (but not all) of the scale and coverage of the Transit services offered by Eircom.

7.88 The most notable examples of such are the deployment of substantial Transit networks/capabilities by Vodafone since the 2007 Decision.[599] Vodafone has reduced its demand for wholesale Transit through increasing its depth of direct interconnection within Eircom's network. While this is predominantly for the purpose of self-supply, Vodafone does provide pure Transit for calls that are incorrectly terminated on its network that are addressed to Ported Mobile Numbers.[600]

7.89 The self-supply of Transit Services by MSPs, including Vodafone, is likely to have detracted from demand for wholesale Transit Services (compared to a counterfactual scenario where MSPs did not invest in Transit networks).

[598] In particular, Vodafone and O2 (noting that as Meteor is a wholly owned subsidiary of Eircom it too would have ubiquitous self-supplied Transit).

[599] See Table 20 and Table 21 below.

[600] Where a Service Provider has spare capacity available on its Transit network, it may find it beneficial to exploit that capacity by expanding its service provision beyond self-supply and into the wholesale market.

7.90 The replicability of a HM's supply of Transit services can involve significant investment and planning, including in transmission and switching infrastructure. Vodafone's (and to a lesser extent O2's) investment in the self-supply of Transit appears to have been driven by the increasing traffic volumes being generated by MSPs (including mobile originated traffic destined for subscribers on other networks, including Eircom subscribers). This is likely to enable MSPs to achieve greater economies of scale on certain routes by directly interconnecting with another FSP (including Eircom) or MSP (instead of purchasing Transit services from a third party). For example, the deployment of Transit transmission/interconnection paths by MSPs appears to have corresponded with the growth of their customer-bases and in the traffic volumes being generated.

7.91 In terms of the potential for an effective direct constraint to be posed by Vodafone (noting that Vodafone currently only self-supplies Transit and is not active in the wholesale Transit market), ComReg's preliminary view is that:

(a) Vodafone's product would be likely to represent an effective demand-side substitute if it was to be made available to third parties (in the wholesale market);

(b) Vodafone's self-supplied Transit would be likely to meet the coverage expected by Access Seekers given it is broadly similar to that of Eircom's self-supplied Transit, with Vodafone also having direct interconnection to a number of other large FSPs and MSPs[601];

(c) The provision of Vodafone's self-supplied product to third parties is likely to be technically feasible, although there may be some costs involved in the upgrading of billing and other systems (noting that Vodafone already supplies MVCT to a range of Service Providers it would have a wholesale billing capability, but may require development for Transit provision);

(d) It is unclear whether Vodafone has sufficient capacity to transpose its self-supplied product to third parties, in particular, while its interconnection capacity is sufficient for its own Transit needs, this would be likely to need to be augmented if it were to also carry the Transit traffic of other Service Providers. While interconnection paths are scalable and would involve additional cost, this would, at least on certain routes, have to be considered in the context of whether the additional cost was economic having regard to traffic volumes; and

[601] See Table 18 below.

(e) Vodafone would be likely to be capable of transposing its self-supply into the merchant market in the short term (i.e. within a year) without incurring significant additional sunk costs or risks. However, Vodafone has, neither publicly, nor in its response to ComReg's Statutory Information Request, expressed interest in providing wholesale Transit Services. In view of this, it is ComReg's view that it may not be incentivised to do so in the short term, in response to small and permanent changes in relative prices. In particular, ComReg notes that Vodafone is in direct retail competition with a number of other Service Providers to whom it would be supplying such Transit services.

7.92 Having regard to the above, ComReg considers that Vodafone's self-supply of Transit services are unlikely to provide a sufficient effective constraint on the provision of Transit Services by the HM within short term. As such, ComReg's provisional view is that the self-supply of Transit Services by Vodafone, and other vertically integrated Transit Providers[602], should not be included in the relevant Transit market for the purposes of this review.

7.93 Given other vertically integrated self-supplying Transit providers have less Transit coverage than Vodafone, we do not consider it likely that a different outcome would be reached with respect to the potential for such self-supply to effectively constrain a HM supplier of Transit services

7.94 Nonetheless, ComReg considers the potential for Vodafone's (and other Service Providers') self-supplied Transit to impact the development of effective competition over a longer time horizon within the 3CT (in paragraphs 7.209 to 7.278).

Wholesale Leased Lines

7.95 ComReg has considered whether wholesale leased lines (or any alternative means of establishing direct interconnection) could exert an effective direct competitive constraint on a HM Transit supplier.

7.96 A leased line product provides the customer with an end-to-end broadly symmetric capacity connection between two fixed points on a network. Apart from being used as an input to retail services, it can also be used by a Service Provider as an input to extend its network footprint. For example, a Service Provider can purchase wholesale leased lines (which are subject to *ex ante* regulation pursuant to the Leased Line Market Review Decision[603]) in order to establish an interconnection with another Service Provider for the purpose of carrying calls or data to from that other Service Provider.

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[602] Given other vertically integrated self-supplying Transit providers have less Transit coverage than Vodafone, we do not consider it likely that a different outcome would be reached with respect to the potential for that such self-supply to effectively constrain a HM supplier of Transit services.

[603] Market Analysis, Leased Line Market Review, Response to Consultation and Decision, ComReg Document 08/104, Decision D06/08, December 2008 (the '**Leased Line Market Review Decision**').

7.97 ComReg notes that there is a significant functional difference between leased lines and Transit, in that a leased line provides transmission capacity between two points, whereas Transit Services typically involve the conveyance, switching and routing of calls between multiple (or many) points over a network.[604] While leased lines are a passive connection between two fixed points, Transit services are an active product that is provided over the top of a network.

7.98 These functional differences are reflected in the pricing of leased lines versus Transit services. For example, Transit prices are typically based on a 'per-minute' and 'per-call' fee, whereas leased lines involve an upfront connection fee, then an annual rental charge associated with the line itself. Additional distance dependent charges also apply to leased lines based on the physical length of the line and other technical specifications of the product.[605]

7.99 In order to use a leased line to provide Transit services, the Access Seeker would then need to install equipment that can also switch and route traffic over the leased line. This would also be likely to involve the development of an IN look-up capability to cater for the routing of calls to non-geographic numbers.

7.100 Given these fundamental differences in functionality and price, ComReg's preliminary view is that it is unlikely that leased lines would be seen as a suitable alternative to Transit services. Rather, leased lines are considered to be an upstream wholesale input into the provision of Transit Services.

7.101 ComReg's preliminary view is, therefore, that Access Seekers would be unlikely to switch in sufficient numbers from Transit services to leased lines, in response to a SSNIP, such that it would render a SSNIP by the HM Transit supplier unprofitable.

7.102 ComReg notes that, over a longer timeframe, Access Seekers may be incentivised to deploy direct interconnection over specific routes by either building Transit links or purchasing leased lines or interconnection services. For example, where a Service Provider is generating increased out-bound call traffic and is in a position where it can achieve greater economies of scale by establishing direct interconnection rather than using a third-party Transit Provider. The potential constraint arising from this longer term scenario is considered further in the three criteria test (in paragraphs 7.146 to 7.278).

Overall Preliminary Conclusion on the Transit Product Market

7.103 Having regard to the analysis in paragraphs 7.10 to 7.102, ComReg's preliminary view is that the Transit product market is comprised of Transit services provided at a fixed location and includes:

- all elements of call routing that take place between FVCO and FVCT, including switching and conveyance;

[604] Reflecting the dispersed nature of individual call-paths

[605] Eircom's Leased Line prices are published on the Network Price List which is available at http://www.eircomwholesale.ie/Reference_Offers/ . Refer to Service Schedule 002 Interconnect Paths.

- calls to geographic, non-geographic and mobile numbers (Domestic Transit Services);
- both trunk and pure Transit provided over copper and/or fibre networks (i.e. irrespective of the underlying infrastructure employed)
- Transit irrespective of the underlying technology used;
- Eircom's self-supply, as well as its supply in the wholesale market; and
- the self-supply and wholesale supply of other Transit Service Providers that are active in the provision of wholesale Transit services;

7.104 The Transit focal product does not include either FVCO or Termination. Additionally, the international Transit market is considered likely to be a separate market.

7.105 The Transit market does not include the self-supply of Transit by FSPs or MSPs that are not providing wholesale Transit services. However, such self-supply is considered further in the context of the 3CT in paragraphs 7.209 to 7.278 below.

Geographic Assessment of Transit Market

7.106 Having regard to the guidance on defining geographic markets summarised in paragraphs 5.217 to 5.221 of this Consultation, ComReg assesses the geographic scope of the Relevant FACO Markets according to the following criteria:

- Geographic differences in entry conditions over time;
- Variation in the number and size of potential competitors;
- Distribution of market shares;
- Evidence of differentiated pricing strategies or marketing; and
- Geographical differences in demand characteristics.

7.107 These factors are considered below.

Geographic differences in entry conditions over time

7.108 As noted in paragraph 7.77, apart from Eircom, there are currently four alternative wholesale providers Transit services[606] i.e. there are four wholesale providers of Transit.

[606] There are several other FSPs and MSPs that are deeply interconnected connected to Eircom exchanges and with other Service Provider networks for the purpose of self-supplying Transit. As discussed in paragraphs 7.84 to 7.92, these Service Providers have not been included in the Transit product market, but their impact will be considered further in the 3CT section that follows later.

7.109 Eircom provides Transit on a national basis pursuant its regulatory obligations under the 2007 Decision. As illustrated in Table 14 below, Eircom is interconnected all other FSP and MSP networks. Therefore Eircom is capable of providing not only trunk Transit within its own network (trunk Transit), but also, pure Transit to all other FSPs and MSPs.

7.110 BT Ireland is the second largest Transit supplier in Ireland. BT Ireland's Transit and interconnection services rely to a large extent on its own network infrastructure, and it is interconnected at almost all of Eircom's exchanges.[607] BT Ireland is also directly interconnected to a large number of alternative FSPs[608], as well as the main MSPs, including the Vodafone, O2, Meteor and Three (together referred to as Mobile Network Operators or '**MNOs**[609]').

7.111 UPC and Magnet[610] also provide Transit to third parties, with their Transit capabilities having a more limited geographic coverage than that of Eircom and BT Ireland. These services are provided using a combination of self-supplied infrastructure, and wholesale services provided by Eircom and BT (including Transit services). UPC's Transit network reaches **[✂ [redacted]]** of Eircom's exchanges, and is interconnected with **[✂ [redacted]]** other retail Service Providers and most of the MNOs.

7.112 Table 14 sets out the number of Eircom exchanges (separated by exchange level) and other switched RFTS provider networks connected to each Transit provider.[611] Note that the connectivity of each Transit provider to Eircom exchanges and to other networks represents the physical limits of each Transit provider's self-supplied Transit service. Outside of their own network area, Transit providers rely on reselling Transit that is purchased from another supplier.

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[607] BT Ireland is interconnected to **[✂ [redacted]]** of Eircom's 50 exchanges.

[608] BT Ireland is interconnected to **[✂ [redacted]]** out of a possible **[✂ [redacted]]** alternative Service Providers,

[609] There are a number of MSPs that provide MTS through Mobile Virtual Network Operator ('**MVNO**') arrangements entered into with an MNO. Such MVNO based MSPs, together with MNOs fall into the general category of MSPs.

[610] Data provided by Magnet for the purpose of ComReg's Quarterly Key Data Reports (most recently for Q3 2013) indicates that it provides wholesale Transit services. However, data provided by Eircom to ComReg in September 2013 (see footnote 593), and by Magnet in its response to the Statutory Information Request, suggests that Magnet is interconnected with very few of Eircom's exchanges (**[✂ [redacted]]**) of Eircom's exchanges, and is not interconnected with any other Service Provider networks. ComReg has included Magnet for the purpose of this assessment, pending an update of ComReg's Statutory Information Request that will be issued in parallel with this Consultation.

[611] Note that Eircom is connected to all other operators listed and all its own exchanges, and is highlighted in bold accordingly.

Table 14: The number of Eircom exchanges and other Service Provider networks connected to each Transit Provider[612] [✂Redacted due to Confidentiality and Commercial Sensitivity]

Service Provider	Primary Exchange Level	Tandem Exchange Level	Double-Tandem Exchange Level	Number of FSPs	Number of MSPs
Eircom (full connectivity)	**Redacted ✂**				
BT Ireland					
UPC					
Magnet					

7.113 Table 14 shows that BT Ireland has an extensive connectivity to Eircom exchanges, but only connects with **[✂ [redacted]]** other Service Provider networks. Whereas UPC and are only connected to a relatively small number of exchanges and other Service Provider networks. This means that Eircom is the only Transit Provider offering services over all Transit routes.

7.114 The variance in structural competitive conditions between Transit routes is likely to reflect differing levels of demand for Transit as measured in call traffic volumes and/or the geographic remoteness of certain Eircom exchange locations (noting that most alternative Service Providers have their interconnection points in Dublin). ComReg considers that competing Transit providers are more likely to replicate Eircom's Transit network on those Transit routes where there are sufficient traffic volumes relative to the cost of establishing direct interconnection (for example, Transit routes between large Service Providers or exchange levels that have large traffic volumes relative to others). This is likely to be the case because, for example,:

(a) certain Transit routes, while technically feasible to service, may be uneconomic given the cost of replicating these routes would not be justified by the associated revenues due to low traffic-volumes;

(b) interconnection with more remote exchanges is likely to be more costly given interconnection costs can be distance dependent; and

(c) sufficient capacity (for example, where demand is already well serviced by existing capacity) may exist on certain routes such that it may discourage new investment in Transit infrastructure.

7.115 These factors have the potential to discourage investment by Service Providers in Transit networks on certain routes.

[612] Based on response to ComReg's Statutory Information Request in November 2011 and Eircom interconnect data September 2013.

7.116 Table 15 below examines the extent to which competitive conditions vary between trunk Transit routes (Transit between Eircom exchanges). For the purpose of this assessment, ComReg has assumed that Transit to each Eircom exchange represents a trunk Transit route (which means that there are 50 trunk Transit routes). The number of Transit Service Providers connected to an exchange represents the number of competitors providing services over a given route. Table 15 groups Eircom exchanges according to how many wholesale Transit providers are interconnected with each exchange.

Table 15: Eircom Exchanges grouped according to the number of Transit Service Providers present (at Eircom Exchanges)[613]

Number of wholesale Transit Providers Present	Number of Exchanges	% of total Eircom Exchanges
Eircom only	5	10
Eircom + 1 alternative Transit provider	23	46
Eircom + 2 alternative Transit providers	14	28
Eircom + 3 or more alternative Transit providers	8	16
Total number of Eircom exchanges	**50**	**100**

7.117 Table 15[614] shows that Eircom faces competition from at least one other Transit Provider on routes to 90% of its exchanges. Thus there are 5 Exchanges[615] where there are no competing Transit service providers offering services.

7.118 Below, Table 16 examines the extent to which competitive conditions vary between pure Transit routes (Transit between Service Provider networks). In this assessment, ComReg has assumed that transit to each Service Provider's network represents a pure Transit route (which means that there are 27 pure Transit routes including Eircom). The number of Transit providers connected to each Service Provider network represents the number of competitors providing services over a given route. Table 16 groups Service Provider networks according to how many wholesale Transit providers are interconnected with other Service Providers.

[613] This table is based on Eircom's response to ComReg's information request September 2013. Note that it only includes Transit providers interconnected to the Service Provider. There may be other networks interconnected to each network that do not offer wholesale transit (i.e. an interconnect for the purpose of termination only)

[614] Note that Table 15 does not include directly interconnected MSPs and FSPs that are not providing Transit to third parties. See Table 18 for an analogous interconnection 'map' that includes Service Providers that are self-supplying Transit.

[615] The exchanges to which only Eircom is directly connected are: Castlebar, Castleblaney, Castlerea, Cavan, and Bantry. These are all primary exchanges.

Table 16: Service Provider networks grouped according to the number of Transit providers directly interconnected to other Service Providers[616]

Number of Transit Providers directly interconnected	No. of Service Providers	% of Service Provider networks
Eircom only	12	44.4%
Eircom + 1 Transit provider	12	44.4%
Eircom + 2 Transit provider	3	11.1%
Total number of Service provider networks	**27**	**100%**

7.119 Table 16 above shows that 44% (12) of Service Providers' networks are only connected with Eircom's network. Eircom is, therefore, currently the only supplier of Transit for voice traffic going to, or from, these networks. These networks are typically smaller Service Providers that generate relatively low volumes of traffic (including off-net traffic), and receive low volumes of incoming traffic from other networks. In such cases, direct interconnection with a large number of other networks may not be cost-effective.[617]

7.120 Larger Service Providers that generate higher traffic volumes are more likely to be in a position to achieve greater economies of scale by directly interconnecting with a larger number of other Service Providers' networks. Such larger Service Providers are, therefore, typically less reliant on pure Transit services to send traffic to other networks ('off-net') for termination. For example, MSPs such as Vodafone and O2 generate large volumes of off-net traffic, and have directly interconnected to a number of Eircom's exchange levels, thereby replicated Eircom's Transit network for the purpose of self-supply.

7.121 Overall, ComReg recognises that entry conditions may vary across different routes. In particular, ComReg has identified a significant number of routes over which several providers are offering Transit services, as well as other routes where Eircom is the only Transit provider.

7.122 However, both Eircom and BT Ireland, being the two main providers, offer Transit services on a national basis or near national basis (although ComReg notes that BT relies on Eircom's supply of Transit for some routes to other alternative Service Providers, as well as to five of Eircom's exchanges where BT is not directly interconnected) and it may be the case that a common pricing constraint exists across those less competitive Transit routes. This would mean, for example, that Eircom and BT Ireland may choose to offer national transit prices spanning even those transit routes where there is less competition present. In which case, such behaviour would indicate the likely presence of a national market.

[616] Based on response to ComReg's Statutory Information Request.

[617] Although the cost of directly interconnecting to an additional Service Providers is unlikely to be prohibitively high if the networks are both present at a given Eircom exchange.

7.123 Below, ComReg considers other factors, including pricing behaviour, that are relevant to the question of the geographic scope of the Transit market.

Variation in the number and size of potential competitors and distribution of market shares

7.124 As set out in Table 14 to Table 16, the number of Transit providers offering services varies between routes, and therefore market shares on different routes are not likely to be uniform. In particular, there are some routes where several Transit Providers are offering services, while on other routes Eircom is the only supplier of Transit services.

7.125 ComReg does not have a geographic break-down of market share data over specific Transit routes.[618] However, ComReg has identified 50 trunk transit routes and **[✂ [redacted]]** pure transit routes over which Eircom provides Transit services.

7.126 Eircom enjoys 100% market share on **[✂ [redacted]]** out of 50 trunk Transit routes and **[✂ [redacted]]** out of **[✂ [redacted]]** pure Transit routes. Whereas, Eircom faces competition from competing Transit Providers on other routes, in particular from BT Ireland, which has an overall market share of approximately **[✂ [redacted]%]** based on aggregate national Transit data.[619]

Evidence of differentiated pricing strategies or marketing

7.127 ComReg has assessed whether there is evidence of differentiated pricing or marketing that might indicate the presence of different regional or local competitive conditions in the supply of Transit, in particular, whether there is geographically differentiated wholesale (or retail) pricing.[620] Furthermore, variation in product quality or marketing of Transit products may also be suggestive of localised competitive pressures. Conversely, the absence of geographic variation in commercial behaviour might imply that common constraints apply on a national basis.

[618] Due to the difficulty of Service Providers providing Transit data that is sufficiently granular to enable a route-by-route traffic analysis as well as the ability of ComReg to accurately reconcile information from purchasers and sellers of Transit.

[619] This market share measure is based on the wholesale supply of Transit (to third parties). As discussed in the 3CT section below, BT's market share would be lower if Eircom's self-supply of Transit were included in the market share calculation. Estimate is based on Quarterly Key Data Report data for Q3 2013. ComReg does not have market share broken down by individual exchange.

[620] As noted by the European Commission in Case UK/2007/0733.

7.128 As noted in paragraph 7.16 , Eircom offers Transit services in accordance with its existing SMP regulatory obligations.[621] Eircom's Transit services are subject to an SMP based cost orientation obligation, which is calculated based on a Top Down FL LRAIC+ model (on the same basis as Eircom's FVCO charges). The Transit prices are published in Eircom's RIO Price List and its Switched Transit and Routing Price List ('**STRPL**')[622] on its wholesale website. These price-controls (along with obligations not to cause a margin squeeze[623]) would be likely to constrain, to some degree, the extent to which Eircom can vary its pricing across different geographic areas. It is, therefore, not possible to draw definitive conclusions as to Eircom's potential pricing behaviour, absent regulation.

7.129 ComReg has not observed geographic variations in Eircom's Transit pricing structure to date (albeit in the presence of the aforementioned regulatory obligations). Eircom has, however, continued to set its wholesale Transit prices on a national basis. This is despite having some degree of flexibility within the existing obligations to differentiate its prices.

7.130 Table 17 below lists Eircom's published Transit prices, which are applied on a national basis.

Table 17: Eircom's Transit Pricing

	Cent per minute			Cent per call			Effective from
	Peak	Off peak	Weekend	Peak	Off peak	Weekend	
Transit fee	0.212	0.118	0.106	0.663	0.370	0.331	April 2004
Transit fee	0.228	0.123	0.110	0.663	0.361	0.321	July 2006
Transit fee	0.204	0.112	0.098	0.621	0.344	0.301	July 2007

7.131 In terms of its broader sales strategy, Table 17 indicates that Eircom offers Transit on a national basis to wholesale customers, rather than on a route-by-route basis. BT indicated in its response to ComReg's Statutory Information Request that it **[✂ [redacted]].**

7.132 In adopting the Modified Greenfield Approach, it is difficult to estimate how pricing might evolve, absent regulation in the Transit market. In particular, whether the commercial benefits potentially available to Transit providers from differentiating pricing on different Transit routes would be outweighed by adverse commercial and practical[624] implications.

[621] These obligations are set out in Appendix B of the 2007 Decision.

[622] Available on Eircom's Wholesale website at http://www.eircomwholesale.ie/Reference_Offers/

[623] As noted later in Section 9 Eircom is subject to an obligation not to cause a margin squeeze with respect to Wholesale SV.

[624] Such as increased complexity of billing and other systems.

7.133 Routes with low traffic volumes, by their very nature, are unlikely to yield significant revenues. For this reason, the gains available to Eircom or BT by increasing or de-averaging Transit prices on such 'thin routes' are unlikely to be substantial, and in view of this it is somewhat questionable whether this would occur.

7.134 Since the 2007 Decision we have seen that alternative FSPs and MSPs have responded to perceived revenue opportunities (or opportunities for cost savings) by replicating Eircom's Transit network through interconnecting more deeply with Eircom and, in some cases, providing Transit to third parties. In which case, it seems reasonable to assume that an increase in Transit prices on a given route may, in some cases, spur such further replication of Transit routes through direct interconnection between alternative Service Providers, or indeed encourage the entry of a new Transit supplier or the expansion of an existing one. This could potentially undermine the profitability associated with a price increase on specific routes.

7.135 Price differentiation between Transit routes may also pose some commercial risks for Eircom. The additional revenue available from differentiated prices may not be sufficient to justify the practical difficulties surrounding the implementation of such differentiated pricing.

7.136 In summary, ComReg has not seen sufficient evidence of Service Providers employing sub-national pricing or marketing strategies in the provision of Transit such that it would be suggestive of sufficiently stable differentiated competitive conditions. However, given the inherent difficulty in predicting pricing strategies in the absence of regulation, ComReg does not attach significant weight to Eircom's past pricing behaviour. Nevertheless, BT Ireland (which is not regulated) has pursued a **[✂[redacted]]** which suggests homogenous competition conditions (or at least a common geographic pricing constraint).

Geographical differences in demand characteristics

7.137 As noted in paragraph 7.14, FSPs and MSPs demand for Transit (along with FVCO and Termination) is derived from retail demand for RFVC and MTS.

7.138 End-users making and receiving telephone calls are dispersed on an uneven geographic basis across exchanges and across networks. Therefore, as noted previously demand for Transit varies between routes and between Service Providers. For example, certain Transit routes carry large volumes of traffic, whereas others carry limited volumes of traffic relative to others. Transit routes characterised by larger demand are likely to have a larger number of Transit suppliers given economies of scale.

7.139 ComReg therefore recognises that there are likely to be some differences in wholesale demand characteristics between individual Transit routes.

Preliminary Conclusion on Geographic Definition of the Relevant Transit Market

7.140 Having regard to the analysis in paragraphs 7.106 to 7.139 above, ComReg has observed that:

(a) there have been geographic differences in entry over time and there are likely to be some variations in competitive conditions across individual or groups of Transit routes. Nevertheless, BT has maintained a large, near national wholesale Transit footprint, although it still relies upon Eircom for Transit services, in particular, to smaller FSPs;

(b) there are differences in demand characteristics between Transit routes; and

(c) there has been no evidence of differential pricing of Transit services on a sub-national basis, although Eircom's pricing behaviour is subject to existing SMP based price regulation. In terms of pricing and marketing strategies BT Ireland (the main supplier of Transit after Eircom) has pursued a **[✂** [redacted]].

7.141 ComReg recognises that within the Transit market there are particular routes where competition is likely to be more developed than in comparison to other routes. ComReg's preliminary view is that there is also likely to be a common pricing constraint that extends to routes where there is less competition. This preliminary view is based on ComReg's assessment of (a) barriers to entry and replicability of different Transit routes; and (b) the commercial and practicality factors that would be likely to influence the pricing strategies of existing Transit providers, absent regulation.

7.142 Defining sub geographic markets on a route by route basis would, in ComReg's view, also be difficult in a practical sense. In this respect, we have observed above that barriers to entry have been overcome on a number of routes and this dynamic could continue into the future meaning that competitive pressures may be unstable and change over time. Additionally, we have noted the potential for IP interconnection to change network handover points between operators. Defining a route-by-route Transit market could, therefore become redundant over time.

7.143 ComReg's preliminary view is that, on balance, the Relevant Transit Market is likely to be national in scope.

Overall preliminary conclusion on Relevant Transit Market definition

7.144 In paragraphs 7.103 and 7.105 to paragraphs 7.140 to 7.143 ComReg's has summarised its preliminary view on the Transit product and geographic market definition respectively (together the '**Relevant Transit Market')**. The Relevant Transit Market is considered likely to be national in scope and is comprised of Transit services provided at a fixed location, which includes:

- all elements of call routing that take place between FVCO and FVCT, including switching and conveyance;
- calls to geographic, non-geographic and mobile numbers;
- both trunk and pure Transit provided over copper and/or fibre networks (i.e. irrespective of the underlying infrastructure employed);
- Transit irrespective of the underlying technology used;

- Eircom's self-supply, as well as its supply in the wholesale market; and
- the self-supply and wholesale supply of other Transit Service Providers that are active in the provision of wholesale Transit services;

Question 6:	**Do you agree with ComReg's preliminary conclusions on the product assessment for the Relevant Transit Market? Please explain the reasons for your answer, clearly indicating the relevant paragraph numbers to which your comments refer, along with all relevant factual evidence supporting your views.**
Question 7:	**Do you agree with ComReg's preliminary conclusions on the geographic market assessment for the Relevant Transit Market? Please explain the reasons for your answer, clearly indicating the relevant paragraph numbers to which your comments refer, along with all relevant factual evidence supporting your views.**

Three Criteria Test for the Relevant Transit Market

Overview

7.145 As noted in paragraph 1.20, the 3CT sets out criteria that must be cumulatively satisfied in order to determine whether a relevant market should be subject to *ex ante* regulation. The three criteria are:

(a) the presence of high and non-transitory barriers to entry;

(b) a market structure which does not tend towards effective competition within the relevant time horizon; and

(c) the insufficiency of competition law alone to adequately address the market failure(s) concerned.

7.146 The three criteria test is applied to assess whether any structural (or legal) obstacles would be likely to prevent the development of competition going forward within a market. Any market that satisfies the three criteria in the absence of *ex ante* regulation is susceptible to *ex ante* regulation and should be subject to an SMP assessment. Whereas any market that does not satisfy the three criteria test is not susceptible to *ex ante* regulation and any existing SMP remedies in that market should be removed.

7.147 As noted in paragraph 1.22, the European Commission 2007 Recommendation considered that the 3CT was not met with respect to the Transit market on a pan-European basis and, therefore, that this market was deemed not to be susceptible to *ex ante* regulation. It was, as a consequence, no longer listed as a market in the 2007 Recommendation. However, the European Commission also recognises that an NRA may find that markets not identified in the 2007 Recommendation can, subject to meeting the 3CT, be found to be susceptible to *ex ante* regulation having regard to national circumstances.

7.148 In carrying out the 3CT, ComReg is required to take utmost account of the 2007 Recommendation, and any other relevant guidance published by the European Commission. In that regard, following the removal of the Transit market from the 2007 Recommendation, the European Commission, in accordance with its role under Article 7 of the Framework Directive, has expressed comments on draft measures notified to it by NRAs ('**Article 7 Comments**'). In particular, the European Commission has commented on NRAs' draft measures to regulate or de-regulate Transit markets in their national territories.

7.149 ComReg has noted the following general guidance provided by the European Commission in Article 7 Comments on NRAs draft measures relating to Transit markets:

- Markets must be defined prospectively, and NRAs must account for expected or foreseeable technological and economic developments within the time period of the market review. For example, the NRA should assess whether alternative operators could potentially enter the merchant market and supply Transit services (at least on specific routes) to third parties in response to profit incentives;
- NRAs should place weight on any observable trends towards competition, since such trends would indicate that barriers to entry can be overcome;
- The following factors would indicate that the entry barriers are not insurmountable: where market entry has occurred, and alternative operators are likely to start purchasing from the incumbent's competitors, and directly interconnecting, following the removal of regulatory obligations;[625]
- Decreasing incumbent market share, along with increasing market share of competing Transit provider(s), would indicate that the market is tending towards effective competition;
- NRAs should assess market shares both including and excluding self-supply;
- In order for a market to meet the 3CT, there would need to be evidence that alternative operators are not in a position to roll out their infrastructure to the extent that they would be able to effectively compete with the incumbent in the relevant market.[626]

[625] In particular, the European Commission notes in its comments on the Polish regulator's notification in Case PL/2008/0766 that the existence of alternative infrastructure in itself (either used for self-supply or third party transit services) may call into question a conclusion that high and non-transitory entry barriers exist.

[626] For example, the European Commission's acceptance of the Danish regulator's decision to deregulate the wholesale Transit market in Case DK/2007/0692 suggests that 'effectively competing' does not require that alternative operators have fully replicated the incumbent's Transit network.

7.150 Since the 2007 Recommendation, NRAs have tended to remove regulation of Transit markets (on the basis that the three criteria test has not been met) in jurisdictions where widespread network duplication has occurred, and where Transit takes place either via self-provision, or can be purchased easily from third party Transit providers.[627]

7.151 Below ComReg applies the 3CT to the Relevant Transit Market.

The presence of high and non-transitory barriers to entry

7.152 In relation to the first criterion, the 2007 Recommendation defines inter alia structural entry barriers as those that can

> *"create asymmetric conditions between the incumbents and new entrants impeding or preventing market entry of the latter".*[628]

7.153 Examples of such entry barriers are:

> *"absolute cost advantages, substantial economic of scale and/or economies of scope, capacity constraints, and high sunk cost".*[629]

7.154 With this in mind, ComReg will examine the extent of barriers to entry in the National Transit Market under the following headings:

- Replicability of Transit networks;
- Absolute cost advantages and economies of scale and scope;
- Sunk costs; and
- Capacity constraints

Replicability of Transit network elements

7.155 Below, ComReg examines the replicability in the context of what infrastructure is required to supply Transit services; whether that infrastructure is exclusively or overwhelmingly under the control of a single undertaking; and whether there are high and non-transitory barriers associated with replacing that infrastructure.

Infrastructure is required to enter the Transit market

7.156 It is important to note that Transit networks are likely to be replicated by retail call Service Providers in order to reduce their own costs of purchasing Transit. This means that it is likely that incentives to invest in Transit networks will, in the first instance, be motivated by a decision to provide Internal Transit. External Transit appears to be a by-product of the decision to supply Internal Transit.

[627] For the purpose of this 3CT assessment, wholesale Transit minutes provided by a Transit supplier to third parties will be referred to as '*External Transit*'. The self-provision of Transit will be referred to as '*Internal Transit*'. Collectively External Transit and Internal Transit are referred to as '*Total Transit*').

[628] Explanatory Note to the 2007 Recommendation, page 8.

[629] Ibid.

7.157 Entry into the Transit merchant market has typically occurred where retail call Service Providers, having incurred significant upfront cost in building a network for the purpose of providing retail calls (and other services), have additional/spare capacity available on their Transit network. In particular, after having satisfied their retail customers demand for calls (or where capacity can be made available at low cost). In these circumstances, the provision of wholesale Transit services might enable the Service Provider to increase profit through the supply of wholesale Transit services.[630]

7.158 In that context, infrastructure that is deployed to provide Transit services is also used to provide retail calls. As noted in paragraph 7.16 , Eircom offers national Transit services in accordance with its existing SMP regulatory obligations and is the largest provider of Transit. Eircom enjoys control of an extensive or ubiquitous Transit network infrastructure that has been replicated, in part by other FSPs and MSPs. Eircom benefits from its large network coverage, the size of its retail and wholesale subscriber base and a broad product portfolio. This gives it the ability to exploit greater economies of scale and scope in the provision of Transit than would otherwise be achievable by some of its existing and potential Transit competitors.

7.159 Entry into the Transit market is also likely to be dependent on either having, to some degree, access to Eircom's Transit infrastructure and/or a Service provider building its own Transit network. While Eircom provides a national Transit service and the Relevant Transit Market is considered to be national, ComReg's preliminary view is that it is not likely to be necessary to replicate the entirety of Eircom's Transit network in order for actual or potential effective competition to occur in the Relevant Transit Market.[631]

7.160 In this respect, ComReg notes that Service Providers initially have tended to enter the Transit market on a narrower geographic basis, by establishing direct interconnection on routes where they are generating higher traffic volumes (either driven by retail and/or wholesale call volumes on these routes). Moreover, there has been evidence of demand for Transit services offered by Transit providers with sub-national network coverage. However, the effectiveness of any constraint posed by an entrant will, amongst other things, depend on the extent to which an existing competitor or potential entrant replicates Eircom's Transit network. i.e., the greater the network coverage the more likely it is to have the potential to exert a competitive constraint.

[630] For example, BT Ireland built deployed its Transit network initially to provide RFTS, and now supplies Transit primarily to wholesale customers (although noting that it exited the residential and SME market in 2009).

[631] This is also consistent with the Commission's comments on draft measures notified by the Danish NRA concerning its transit market review (Case DK/2007/0692) where the European Commission noted that alternative operators are not required to have fully replicated the incumbent's Transit network in order to provide an effective competitive constraint.

7.161 Replicating pure Transit routes (either for internal or external supply) involves directly interconnecting with other switched Service Provider's networks, of which there are twenty-six in total (excluding Eircom).[632] Most Service providers other than Eircom have one to two designated switching points (in some cases the second would be for redundancy).

7.162 Replicating Eircom's trunk Transit routes involves directly interconnecting with all of Eircom's switching exchanges, which amount to four double-tandem switches, fourteen tandem switches, and thirty-two primary switches (50 in total). These are the locations at which calls are handed over to Eircom for termination.[633]

7.163 Direct interconnection can be established by either deploying new infrastructure, or by purchasing upstream wholesale inputs such as leased lines and interconnection paths (which can be purchased from Eircom or other FSPs and then used to carry voice or data between points on a network). Using leased lines to replicate a Transit network can involve significant capital investment and sunk costs.

7.164 ComReg would note that replicating Eircom's trunk Transit routes by establishing direct interconnection links with Eircom's primary and tandem exchanges would also be likely to involve significant cost[634]. Given the remote location of some these exchanges (relative to Dublin where many other alternative Service Providers have located their switching infrastructure), there may be substantial civil engineering costs associated with ducting and the deployment of fibre or copper, or the costs associated with obtaining and renting leased lines. These costs may be difficult for small Service Providers to recover, in particular, given their call traffic volumes.

7.165 In comparison, the cost of establishing direct interconnection with networks other than Eircom is likely to be less significant, since these operators typically have fewer switches, which tend to be centrally located.

[632] There are twenty-one FSPs, four MNOs and one MVNO interconnected with Eircom (27 pure Transit routes including Eircom).

[633] The network also comprises approximately **[✂[redacted]]** Remote Concentration Units (RCUs), which are often also referred to as local exchanges. These units provide call concentration functions, but do not perform the main call routing functionality (all calls originated or terminated on a fixed network are switched at the primary level or higher). The network also has street cabinets, which are passive units for the purpose of aggregating wiring to streets or localised areas. However the main focus of this analysis is on competition that takes place at primary, tandem, and double-tandem switches where interconnection between operators can take place, as well as switching points in alternative Service providers' networks.

[634] See, for example, Eircom's RIO Price Lists for costs of interconnection circuits.

7.166 However, the cost of establishing a Transit network through direct interconnection may, on a forward-looking basis, decrease as voice traffic becomes increasingly managed on IP platforms (although it is uncertain whether this would occur on any significant scale within the next 2-3 years). Such IP based interconnection, apart from potentially reducing the number of switching/interconnection points in a network, would also provide increased economies of scope for Service Providers given it can be used across multiple services.[635]

7.167 ComReg's understanding is that Service Provider tend to establish interconnect paths in central locations (such as in Eircom exchanges and data centres), thereby reducing the costs involved in establishing the necessary infrastructure. However, ComReg recognises that the costs of establishing direct interconnections with a large number of other networks is unlikely to be justified for a Service Providers that generates very small volumes of traffic (and therefore revenue).

7.168 In addition to these network-related costs, there are other costs that would be incurred by Service Providers that enter the merchant Transit market. For those Service Providers that do not have an existing presence in the wholesale market, these costs could include the costs of setting up billing and administration systems, and of establishing a wholesale customer base.

7.169 As noted previously, Transit providers also need to ensure that they have an IN capability[636] and connectivity with the mobile number and geographic number porting databases. ComReg considers that these entry costs are likely to represent normal costs of doing business in electronic communications markets, and do not represent a bottleneck or barrier to entry in and of themselves.

Whether Transit infrastructure is under the control of a single undertaking

7.170 Eircom's Transit network has been replicated in part by several wholesale Transit suppliers, as well as number of RFTS and MTS Service Providers for the purpose of providing Internal Transit. While in some cases Internal Transit providers have not offered External Transit, the relevant Service Providers have nonetheless deployed interconnection infrastructure that has allowed them to bypass or reduce the need to purchase External Transit providers' services. This suggests that barriers to entry are not insurmountable. In addition, ComReg's provisional view is that such providers would potentially be in a position to offer External Transit services, if there was an opportunity to increase profit by doing so.

[635] ComReg is not aware of VOIP traffic being materially handed over at IP interconnection points. However, ComReg intends to gather information on IP interconnection through a further data gathering exercise that ComReg intends to undertake in parallel with this Consultation.

[636] Eircom suggested it its response to the Statutory Information request that many Service Providers have IN network capability and, therefore, are in a position to offer Transit.

7.171 Table 18 illustrates the extent to which larger FSPs and MSPs have, to varying degrees, replicated Eircom's trunk and pure Transit connectivity through establishing direct interconnection. Table 18 sets out the number of Eircom exchanges (separated by exchange level) and other switched RFTS providers' networks connected to a group of RFTS and MTS Service Providers that have invested in transit networks, for both internal and/or external supply (unlike Table 14, Table 18 includes Service providers that only provide Internal Transit).[637] Note that the connectivity of each Transit provider to Eircom exchanges and to other networks represents the physical limits of each Service Provider's self-supplied Transit service. Outside of their own network area, Transit providers rely on reselling Transit that is purchased from another supplier.

Table 18: Replication of Eircom's trunk and pure transit infrastructure by other Service Providers[638] [✂Redacted due to Confidentiality and Commercial Sensitivity]

	Primary Exchange Level	Tandem Exchange Level	Double-Tandem Exchange Level	FSPs	MSPs
Eircom (full connectivity)[639]					
BT					
Vodafone					
O2			**Redacted ✂**		
Imagine					
Verizon					
Colt					
Magnet					
C&W / Energis					

7.172 Table 18 shows that several FSPs and MSPs have replicated substantial elements of Eircom's Transit network, with BT and Vodafone each having both replicated **[✂[redacted]%]** of Eircom's trunk Transit routes (although as noted previously Vodafone does not supply wholesale Transit services to third parties). Furthermore, it is apparent that Service Providers that are larger in terms of subscriber numbers and call traffic volumes generated tend to have replicated elements of Eircom's Transit network to a greater extent than other smaller Service Providers. Vodafone, the largest MSP in terms of retail traffic volumes generated[640], has increased their replication of Transit routes since the 2007 Decision.

[637] Note that Eircom is connected to all other operators listed and all its own exchanges, and is greyed out accordingly.

[638] Based on response to ComReg's Statutory Information Request and Eircom interconnect data September 2013.

[639] Note that Eircom is interconnected to all alternative networks and its own exchanges.

[640] See ComReg Key Quarterly Data Survey Report Q4 2013, ComReg Document 14/19, 14 March 2014. Page 58.

7.173 Table 19 below groups Eircom's primary, tandem, and double-tandem exchanges according to the number of Service Providers interconnected at each (irrespective of whether or not there are providing External Transit services).

Table 19: Eircom primary, tandem, and double-tandem exchanges grouped according to the number of interconnected Service Providers[641]

Exchange Level	Total Number of Exchanges	No. of Interconnected Service Providers[642]					
		0	1	2	3	4	5 or more
Primary	32	4	2	12	2	6	6
Tandem	14	0	0	0	4	4	6
Double-Tandem	4	0	0	0	0	2	2
Total Exchanges	**50**	**4**	**2**	**12**	**6**	**12**	**14**

7.174 Table 19 shows that there are only four out of fifty Eircom exchanges where there are no alternative networks interconnected. 88% of Eircom exchanges have at least two alternative networks interconnected (44 exchanges). This suggests that most trunk Transit routes have been replicated, either for to provide Internal or external service. As such, it appears that Transit infrastructure is not exclusively or overwhelmingly under the control of a single undertaking r that it is incapable of being replicated.

Whether barriers to replicating Transit infrastructure are high and non-transitory

7.175 The replication of significant parts Eircom's Transit network for the supply of External Transit (by BT and UPC) and Internal Transit (by Vodafone and O2) suggests that the costs involved in replicating Eircom's trunk Transit network are not likely to be suggestive of there being high and non-transitory barriers to entry.

7.176 However, as noted in Table 16, the level of replication appears to be less with respect to pure Transit, where it was noted that 50% of Service Providers are connected only to Eircom's network.

641 Based on Eircom's response to ComReg's information request in September 2013.

642 This includes both External Transit providers and Internal Transit providers.

7.177 ComReg recognises that the commercial viability of replicating Eircom's Transit network is dependent on scale, and that replication of Eircom's Transit network may not be commercially viable for smaller retail call providers (in terms of subscribers and call traffic volumes). However, we equally recognise that the absence of direct interconnection between networks may, in part, be due to the fact that the Transit market has been regulated. In particular, incentives to build direct interconnection to by-pass Transit may be lower. However, it is difficult to assess the replicability of particular Transit routes, absent regulation. Factors such as the degree of sunk costs, economies of scale and scope are all likely to influence the extent to which a given FSP or MSP is able to replicate the required transit infrastructure. These factors are considered in greater detail below.

Absolute cost advantages and economies of scale

7.178 Economies of scale generally refer to the cost advantage that a large-scale operator may have over a smaller operator where the marginal cost of production decreases as the quantity of output produced increases.[643] This typically occurs where there is a significant upfront capital investment and sunk costs involved in providing a service.

Are Economies of Scale Important

7.179 ComReg has observed the following indicators that may be suggestive that economies of scale are present in the Transit market:

(a) ***Significant upfront capital costs*****:** The provision of Transit typically involves significant upfront capital costs, including those associated with building and maintaining a telecommunications network. As a result, the average cost of providing Transit, per minute, will fall as the volume of minutes over a network increases.

(b) ***Transit networks have been replicated by large Service Providers*****:** Large FSPs and MSPs (that generate high traffic volumes and associated revenues) tend to replicate Eircom's Transit network on a more extensive scale than smaller Service Providers

(c) ***Small Service Providers tend to purchase Transit from larger Service Provider:*** By doing so, small Service Providers can benefit from the economies of scale enjoyed by that larger supplier (and can avoid the high upfront cost of replicating Eircom's Transit network, in cases where doing so is not considered to be commercially justifiable).[644]

[643] ComReg has also considered whether economies of scope or density impact on the Transit Market. However, ComReg considers that an assessment of economies of scale would better capture the potential barrier to entry in this market. This is because Transit infrastructure is typically only used for conveyance and switching of voice traffic (not broadband or other products), and economies of density typically applies where the incumbent is supplying a large number of customers within a small geographic area (more relevant in retail markets).

[644] For example, Magnet noted in its response to the Statutory Information Request that **[✂** [redacted] **]**.

(d) ***Uneven replication of Transit networks**:* As noted in Table 14 to Table 19 above, Eircom faces more infrastructure based competition on particular Transit routes that are more likely associated with higher call traffic volumes (e.g. Transit routes to Tandem and Double Tandem Exchanges as well as at to larger Service Provider networks). Transit routes that support higher traffic volumes are more likely to be replicated than smaller ones.

7.180 ComReg's provisional view is, therefore, that the Transit market is one which is characterised by economies of scale.

Who is likely to benefit from Economies of Scale

7.181 Eircom is likely to achieve significant economies of scale in the provision of Transit by virtue of being the largest supplier of RFTS, FACO and Transit in Ireland. Eircom operates a ubiquitous network that supports the provision of RFVC, FACO, and Transit on a nationwide basis. Eircom is, therefore, likely to face a lower average and marginal cost of providing Transit relative to some other Service Providers.

7.182 Other Service Providers may also be able to benefit from economies of scale and scope in the provision of External Transit or Internal Transit. This could occur where a Service Provider has a large number of retail customers or wholesale customers generating significant retail call traffic volumes. In this case, the Service Provider could face a lower per-minute cost for supplying Internal Transit compared with the price achieved by purchasing External Transit from a third party supplier.

7.183 BT Ireland and UPC appear to have achieved economies of scale required to compete in the Transit market by providing RFTS and/or also wholesale Transit (and other) services. Table 18 also indicates that several Service Providers such as Vodafone and O2 have replicated significant parts of Eircom's Transit network for the purpose of Internal Transit supply **[✂** [redacted] **]**. This suggests that these Service Providers are achieving economies of scale on certain Transit routes by virtue of their high retail traffic volumes.

7.184 Given that other Service Providers have also achieved economies of scale in the provision of External Transit or Internal Transit, ComReg considers that it is not likely that Eircom enjoys an absolute cost advantage relative to some other Service Providers such that would, in and of itself, represent a high and non-transitory barrier to entry.

7.185 ComReg recognises that smaller Service providers providing RFVCs are unlikely to achieve significant economies of scale based on the provision of Internal Transit (in particular, relative to other Service Providers). However, ComReg considers that, under certain circumstances, there is potential for economies of scale to be enhanced where smaller Service Providers share infrastructure and, in doing so, supply wholesale Transit to third parties, thereby increasing the traffic transited over that infrastructure, and reducing the average cost per-minute of providing the service.

7.186 On balance, ComReg's preliminary view is that economies of scale are likely to be an important factor for consideration when entering the Transit Market. However, ComReg's preliminary view is that economies of scale are unlikely to pose an insurmountable barrier to entry on a forward-looking basis in the Transit market.

7.187 ComReg has had regard to both the presence of alternative Transit providers as well as retail calls providers that Internal Transit. The degree of replication of Transit infrastructure to date indicates that other Service providers have been able to achieve economies of scale, and that Eircom's economies of scale have not presented a barrier to entry.

7.188 ComReg recognises that the economies of scale achieved by Eircom makes it difficult for small Service Providers to replicate Eircom's Transit network and to enter the market. However, ComReg notes that there are a number of Service Providers with a significant customer base that have also achieved economies of scale, and would not face a barrier to entry in this regard.

High Sunk Costs

7.189 As noted in paragraph 6.57 to 6.60, sunk costs are costs that are incurred, but that cannot be recovered, if the entrant decides, or is forced, to exit the market. The existence of sunk costs does not automatically imply that entry barriers are high. In fact, a certain level of sunk costs will be involved in entering most markets, and Eircom may also have had to pay a similar level of sunk cost before it entered the Transit Markets (although the risks of non-recovery faced by Eircom at that time were lower given its then absolute monopoly position).

7.190 However, in some circumstances it is more difficult for new entrants to break into a market than it was for the first firm to enter.

7.191 Cabral and Ross identified the following ways in which sunk costs could act as a barrier to entry:[645]

- The sunk costs represent investment required in order to enter a market, which is placed at risk resulting from uncertainty around the ability of the entrant to successfully establish itself in the market; and
- Sunk costs commit the incumbent to higher output rates, and this lowers the prospective profits for entrants (potentially to the extent where there is no entry).

<u>Whether sunk costs are a relevant feature for Transit market entry</u>

7.192 ComReg's preliminary view is that sunk costs are likely to be incurred when entering the Transit market. This is because:

(a) Entry involves significant upfront capital investment;

[645] See http://pages.stern.nyu.edu/~lcabral/publications/JEMS%202008A.pdf Page 98.

(b) There are two large existing competitors (Eircom and BT) that have already incurred sunk costs, and that are likely to have achieved economies of scale in the provision of Transit. This could create commercial uncertainty surrounding investment in Transit infrastructure.[646]

(c) A significant portion of the sunk costs initially involved in building existing Transit networks (and particularly Eircom's network) are likely to be amortised. Any new entrant would, in any case, face higher sunk costs than those faced by Eircom in the provision of Transit.

(d) Demand for Transit services had been in decline although has recovered somewhat since 2010[647], which implies that some excess capacity is likely to be available on existing Transit networks.[648] This is likely to create a certain degree of commercial risk for potential entrants because the likelihood of excess supply lowers the expected profits for entrants.[649]

(e) The migration to NGA IP based VOB services and the potential for IP interconnection to emerge over the next three to five years creates significant commercial risk for potential entrants (since the ability to recoup sunk costs associated with circuit switched direct interconnection may be undermined).

Whether sunk costs are the same for all entrants

7.193 The degree of sunk costs associated with entry into the Relevant Transit Markets would depend, for any given Service Provider, on the starting point for entry. For an entrant with no RFTS or MTS customers, and no existing Transit infrastructure, the cost of entry is likely to be substantial, and the sunk cost element of the overall costs is also likely to be significant. However, the sunk costs can be mitigated where (a) the entrant has a significant retail calls business and can achieve economies of scale independently of the wholesale Transit market; and (b) the entrant already has infrastructure in place, and capacity that can be diverted to provide wholesale Transit.

646 C&W in its response to the Statutory Information request submitted that **[✂ [redacted]]**.

647 See Figure 32 in paragraph 7.225.

648 Eircom noted in its response to ComReg's Statutory Information request that there has been a significant reduction in the levels of call traffic being generated by customers over recent years, which has resulted in under-utilisation of Transit networks. According to Eircom, this has resulted in fixed networks having spare capacity available that could be used to carry increased levels of fixed traffic.

649 These factors were reflected in Digiweb's response to the Statutory Information Request, where it noted that **[✂ [redacted]]**.

7.194 An entrant falling under (a) above is likely to face mitigated sunk costs, and lower risks associated with the investment in a Transit network, because the investment is being used to provide retail calls as well as Transit (the investment in infrastructure is transferable between the Transit market and the retail market). As such, a smaller proportion of the cost is at risk arising from potential uncertainty around Transit market conditions.

7.195 An entrant falling under category (b) faces lower overall costs of entering the Transit market overall (and, in particular, lower costs associated with relatively less risky capital investment in infrastructure).

7.196 The sunk costs associated with entry into the Transit market are likely to be lowest for Service Providers that fall under categories (a) and (b).

Do sunk costs represent a barrier to entry?

7.197 In practice, while there are sunk costs involved in the provision of wholesale Transit (particularly as a standalone service), these have not prevented some degree of replication of Eircom's Transit network from taking place. In particular, noting that Transit networks are typically built for the primary purpose of providing retail call services. This means that a smaller portion of the cost of directly interconnecting with Eircom exchanges, and other Service Provider networks, is mitigated. Once a RFTS or MTS provider has Transit infrastructure in place for the purpose of self-supply, the additional costs (and particularly the sunk costs) associated with supplying External Transit service appear to be somewhat surmountable, in particular, noting that BT Ireland and UPC have done so. However, we do recognise that billing and administration systems development cost can be a relevant factor.

7.198 Furthermore, ComReg notes that any excess capacity on existing Transit networks (including Internal Transit) may encourage these service providers to compete more aggressively in the Transit market in order to increase traffic volumes.

Capacity Constraints

7.199 ComReg has considered whether capacity constraints may act as a barrier to entry or expansion in the Relevant Transit Market.

7.200 ComReg understands that capacity on alternative Transit networks can be supplemented by the purchase of leased lines and interconnection paths. The incremental cost of providing additional interconnect paths over an existing interconnect is understood by ComReg to be lower than the cost of initially establishing an interconnection path.

7.201 It is unclear, however, whether capacity constraints could act as a barrier to MSPs entering the Relevant Transit Market.[650] This is because, in contrast with trends observed in RFVC traffic since the 2007 Decision, mobile voice traffic has grown[651].

7.202 ComReg considers that capacity constraints are, therefore, in and of themselves, unlikely to act as a significant barrier to entry on a forward-looking basis.

Preliminary conclusion on barriers to entry

7.203 Having regard to the analysis in paragraphs 7.153 to 7.203 ComReg's preliminary view on barriers to entry in the Relevant Transit Market is that:

(a) significant elements of Eircom's Transit network have been replicated by several large Service Providers (though in some cases for Internal Transit only). This is more so with respect to trunk Transit;

(b) Eircom does not appear to enjoy any absolute cost advantages in the provision of Transit to the extent that it is likely to act as a high and non-transitory barrier to entry in this market, given that parallel (though geographically limited) infrastructure has been deployed by several other Service Providers for the purpose of providing External Transit and Internal Transit;

(c) economies of scale have been achieved to varying degrees by a number of Service Providers, and therefore are unlikely to represent a significant barrier to entry;

(d) sunk costs associated with investment in Transit infrastructure, including those involved in establishing direct interconnection for the purpose of Internal Transit supply, are mitigated for Service Providers that have a significant retail subscriber base and call traffic volumes;

(e) sunk costs associated with entry are unlikely to be significant for Service Providers with extensive Transit infrastructure already in place (e.g. BT Ireland and Vodafone); and

(f) capacity constraints are unlikely to act as a significant barrier to entry on a forward-looking basis.

7.204 On that basis, ComReg's preliminary view is the Relevant Transit Market is not likely to meet the first criterion of the 3CT. In particular, barriers to entry do not appear to be high and non-transitory on a forward-looking basis.

[650] ComReg notes that capacity constraints were not reported by MTS providers as a barrier preventing them from entering the Transit market in their responses to the Statutory Information Request.

[651] See paragraph 3.26 where it is noted that mobile voice traffic increased by 42% between Q1 2007 and Q3 2013. After an initial spike in 2008, mobile traffic declined in Q1 2009 and then it grew until Q4 2010. At that stage mobile traffic growth flattened off, before entering a phase of slight decline in 2012 before recovering again 2013.

7.205 Since the three criteria test is a cumulative test, where one of the 3CT criterion is not met, the 3CT would be failed. Notwithstanding ComReg's preliminary view that the first criterion of the 3CT in the Relevant Transit Market is not likely to be met, ComReg nonetheless considers the two remaining criterion of the 3CT below.

Is the market tending towards effective competition within the relevant time horizon?

7.206 The second criterion to be assessed is whether the Relevant Transit Market is likely to tend towards effective competition within the relevant time horizon. In order to meet this criterion, ComReg must be satisfied that, absent regulation, the Relevant Transit Market, and ultimately the affected retail markets, would not tend towards effective competition within the period of this review, absent regulation.[652] As has been the case throughout this Consultation, market characteristics are analysed not only in a static, but also in a dynamic and forward-looking manner.

7.207 In this respect, ComReg has examined whether:

- there are observable trends towards effective competition (see paragraphs 7.209 to 7.243 below);
- alternative Service Providers are in a position to roll out infrastructure to the extent that they would be able to effectively compete with the incumbent in the Relevant Transit Market (see paragraphs 7.244 to 7.268 below); and
- there are any expected or foreseeable technological and economic developments that will impact on competition within the time period of the market review (see paragraphs 7.269 to 7.275 below).

Whether there are observable trends towards effective competition

7.208 In this section ComReg examines whether there are observable trends towards effective competition in the Relevant Transit Market, such that would indicate that barriers to entry have been, or are likely to be, overcome.

7.209 ComReg considers that the following trends, if observed, might be suggestive that barriers to entry have been overcome in the Transit market:

- a decrease in incumbent supplier market share, corresponding with increasing market share of competing Transit provider(s); and
- an increase in the number of direct interconnections between alternative Service Providers (bypassing the need for Transit provided by a third party).

[652] Note that a market may tend towards effective competition, not only by means of new entry into the Transit Markets, but also by the deployment of alternative infrastructures by Access Seekers that would allow them to offer substitute services at the retail level in the absence of regulation in the relevant market.

Trends in Transit market shares over time

7.210 In order to highlight any trends and developments that have occurred over time, it is useful to note the trends in the evolution of market shares over the period since the 2007 Decision. Typically, ComReg would assess both the following:

- Market share trends over time based on the volume of External Transit minutes provided by each Transit supplier to third parties; and
- Market share trends over time based on the volume of Total Transit minutes provided by a Service Provider (including External Transit and Internal Transit).

7.211 While assessing market shares based on External Transit volumes alone is a useful indicator of how competition is occurring in the Relevant Transit Market, it does not, in itself, account for the role that Internal Transit can play in this market. ComReg notes that Transit networks were initially built primarily for the purpose of self-supply, and the provision of External Transit has tended to arise as a by-product of the provision of RFVC (or wholesale) and mobile call services.[653]

7.212 Having regard to the extent to which Transit services can be replicable, taking account of market shares based on Total Transit volumes is likely to be a more comprehensive indicator of the extent of competition within the Relevant Transit Market.

[653] While Eircom and BT were both initially primarily focused on Internal Transit supply, both of these Transit suppliers have, over time, increased their volumes of External Transit relative to their Internal Transit supply. For example, Eircom's provision of External Transit for Q3 2013 (derived from Eircom's response to the Quarterly Key Data Report for Q3 2013) represented **[✂[redacted]%]** of its Total Transit supply. The remaining **[✂[redacted]%]** of Eircom's Total Transit supply was categorised by Eircom as 'self-supply' i.e. Internal Transit.

7.213 However, it is more practical for ComReg to obtain and present data on External Transit volumes, than it is to obtain and present data on Total Transit volumes.[654] ComReg is only in a position to calculate market share data for the supply of External Transit. However, ComReg's comments in paragraphs 7.223 below on how the inclusion of self-supply[655] may impact upon market shares in the Relevant Transit Market. The impact of Internal Transit supply by alternative Service Providers is also considered in paragraphs 7.227 to 7.237, where trends in direct interconnection with Eircom exchange levels and between networks is reviewed.

7.214 Figure 28 below presents demand for External Transit minutes in the period between H1 2008 and H1 2011.[656]

Figure 28: External Transit Volumes H1 2008 – H1 2011 [✂Redacted due to Confidentiality and Commercial Sensitivity]

Redacted ✂

[654] Calculating shares based on Total Transit is difficult because ComReg's definition of the Relevant Transit Market (set out in paragraph 7.145) would exclude on-net traffic generated, or received, by networks that only have a single switch or a non-hierarchical network. This would mean that, while Eircom would have a significant volume of internal 'on-net' traffic included within the analysis, the analogous traffic generated on flat networks such as that operated by UPC, or by mobile networks, would be excluded. This could potentially produce a skewed assessment of market share.

[655] It should be noted that with respect to Service Providers that supply External Transit, ComReg has also included their Internal Transit supply within the definition of the Relevant Transit Market. On the other hand, where Service Providers not active in the supply of External Transit and only supply Internal Transit services (say, through direct interconnection), such supply is not included within the definition of the Relevant Transit Market. However, in this section we are assessing more broadly the replicability of Eircom's Transit infrastructure, and therefore it is relevant to consider any competitive constraint that could potentially arise through the replication of Eircom's Transit network, including where direct interconnection takes place between Service Provider networks for the purpose of supplying Internal Transit only.

[656] This graph is based on data provided by Service providers to ComReg in their responses to the Statutory Information Request. Transit includes pure Transit and trunk Transit between Eircom exchanges. ComReg intends to update its Transit data in parallel with this Consultation.

7.215 Figure 28 above shows that demand for Eircom's External Transit decreased by over **[✂ [redacted]%]** over that period. Similarly, demand for BT Ireland's External Transit services followed a similar decline initially, before increasing between 2010 and 2011.[657] UPC, as the third largest supplier of wholesale Transit, entered the market in around 2008 and has grown its market share steadily over this period, although it is still substantially lower relative to Eircom and BT Ireland.

7.216 Figure 29 below shows that market shares for the External Transit minutes in H1 2011, with Eircom and BT Ireland having market shares of **[✂ [redacted]%]**[658] and **[✂ [redacted]%]** respectively. At H1 2011, UPC had a market share of **[✂ [redacted]%]** while remaining fringe competitors has a collective market share of **[✂ [redacted]%].**

Figure 29: External Transit Market Shares as at H1 2011 [✂Redacted due to Confidentiality and Commercial Sensitivity]

Redacted ✂

7.217 Figure 29 shows that the External Transit supply is effectively characterised by two large FSPs, namely, Eircom and BT Ireland, followed by UPC. There are also a small group of fringe competitors.[659]

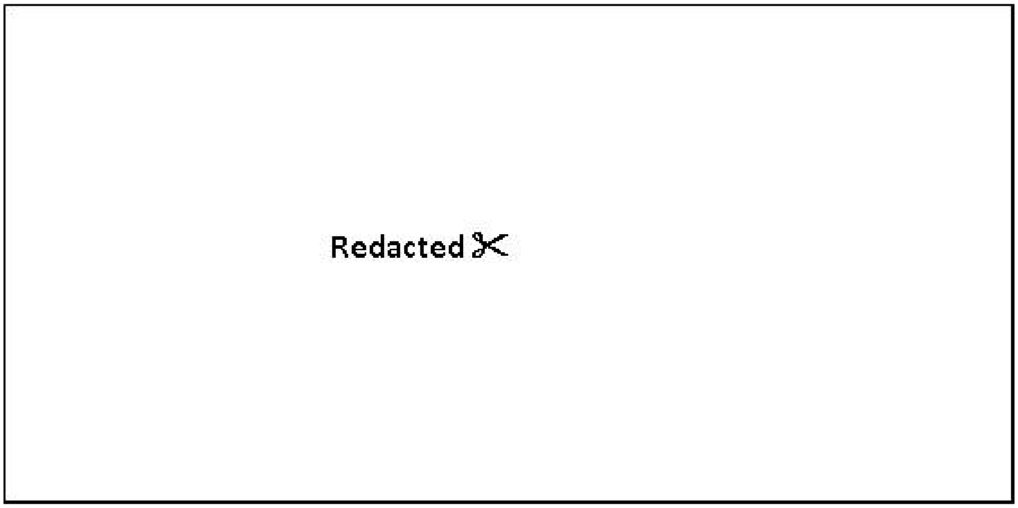
[657] ComReg understands that this time period corresponds with the agreement of an External Transit supply agreement between BT Ireland and **[✂ [redacted]]**. This also saw **[✂ [redacted]]** decommission approximately its direct interconnection at **[✂ [redacted]]** Eircom primary exchange locations and, instead, purchase Transit services from BT Ireland.

[658] Note, while ComReg has redacted this figure for reasons of commercial sensitivity and confidentiality, it shows that Eircom has a market share below 50%. Eircom and BT Ireland together account for a significant proportion of overall External Transit supply.

[659] These include Magnet, C&W. It also includes External Transit supply by Vodafone, Meteor and O2 in the context of their supply of Transit to Ported Mobile Numbers (see earlier discussion in paragraph 7.78). Note if this Transit to Ported Mobile Numbers was excluded from the Market Share figures above it would not materially change the figures presented.

7.218 Figure 30 below presents demand for External Transit in volumes of minutes over the subsequent period between Q3 2011 and Q3 2013 based on information provided to ComReg for the purpose of its Quarterly Key Data Report[660].

Figure 30: Supply of External Transit Minutes Q3 2011 – H3 2013 (in '000s minutes) [✂Redacted due to Confidentiality and Commercial Sensitivity]



7.219 Figure 30 shows that overall demand for External Transit has steadily increased since Q3 2011. In particular, demand for BT's External Transit has increased by **[✂[redacted]%]** over the period Q3 2011 and Q3 2013, with demand for Eircom's External Transit having increased to a lesser extent (by **[✂[redacted]%])**.

7.220 Figure 31 below sets out the External Transit market share positions as at Q3 2013 based on the Transit traffic volumes shown in Figure 30 above.

[660] This market share data is based on information provided by fixed respondents to ComReg for the Quarterly Key Data Report questionnaire, in which Transit is defined as: "*Total volumes of all wholesale traffic carried between primary exchanges by an operator on behalf of a third party operator*". ComReg notes that this definition is different than the definition of Transit proposed in paragraph 7.145 and subsequently used in Figures, in that it includes external Transit that is bundled with FVCO (which has now been included in the FVCO market instead). This may therefore overestimate Eircom's supply of Transit. ComReg intends to update its data set for the Relevant Transit Market in parallel with this Consultation in order that a consistent definition can be applied over time (for improved comparability over time).

Figure 31: External Transit Market Shares Q3 2013[661] [✂Redacted due to Confidentiality and Commercial Sensitivity]

Redacted ✂

7.221 As was the case in 0 and 7.217 above (setting out the market share position as at H1 2011), Figure 31 suggests that in the period ending Q3 2013 the External Transit supply continues to be characterised by two large wholesale Transit providers, namely Eircom and BT Ireland. BT Ireland is now the largest supplier of External Transit, albeit by a narrow margin.[662] It is notable that while UPC's External Transit traffic volumes have grown between 2011 and 2013 (see Figure 30), its market share has decreased. This is because UPC's wholesale Transit supply has grown at a slower rate, relative to that of BT Ireland and Eircom.

7.222 ComReg notes that these market shares may have been significantly different if Internal Transit had also been included in the analysis. Eircom's External Transit represents **[✂[redacted]%]** of its Total Transit supply (the remaining **[✂[redacted]%]** is Internal Transit supply). Given Eircom's larger RFTS customer base, it is likely that Eircom's market share measured by Total Transit traffic volumes would be significantly higher than that of BT Ireland. However, had ComReg also included the self-supply of Transit by MSPs such as Vodafone and O2 in the market share analysis, this may have diluted the market shares of all wholesale Transit Providers because these mobile networks are generating significant volumes of traffic and have significant Transit infrastructure used for self-supply purposes.

[661] UPC, Eircom, BT Ireland and Magnet were the only respondents to the Quarterly Key Data Report that provide volumes for the supply of External Transit. ComReg notes that there may be other fringe suppliers of External Transit that are not reporting their External Transit traffic volumes to ComReg in their responses to the Quarterly Key Data Report. ComReg intends to update its data on the Transit market in parallel with this Consultation in order to verify the accuracy of traffic volumes provided by fringe Service Providers in the Quarterly Key Data Report.

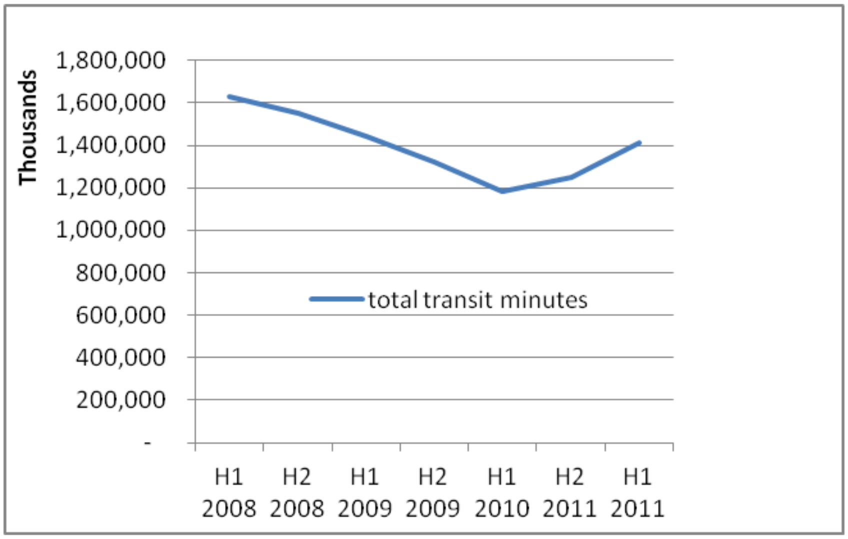
[662] Note, while ComReg has redacted this figure for reasons of commercial sensitivity and confidentiality, it shows that neither BT nor Eircom have respective markets shares of above 50%. Together, Eircom and BT make up account for a significant proportion of overall External Transit supply.

Trends in the demand for External Transit over time

7.223 It is also informative to note the overall trends in the demand for External Transit services over time, in particular, whether demand is growing or in decline.

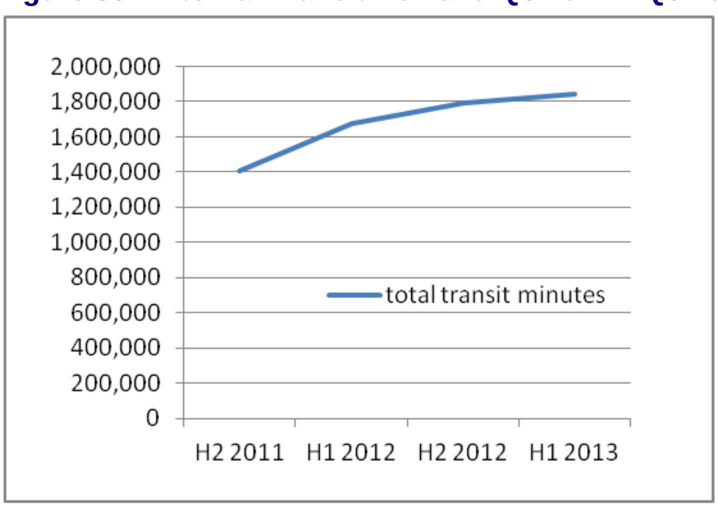
7.224 In this regard, Figure 32 below shows that there was an overall 13% decline in demand for External Transit services in the period H1 2008 to H1 2011. External Transit demand fell throughout the period up to H1 2010 after which demand began to increase again, although still is still below the levels experienced in H1 2008.

Figure 32: External Transit Demand H1 2008 – H1 2011



7.225 Figure 33 below shows that since 2011, demand for External Transit has continued on to grow between Q3 2011 and Q3 2013, with growth having tapering off somewhat since Q3 2012. Over this entire period there was a 38% increase. Given that there was initially a 13% fall between 2008 and 2011, and a subsequent increase of 38% between 2011 and 2013, it appears that demand for External Transit has now surpassed H1 2008 levels.

Figure 33: External Transit Demand Q3 2011 – Q3 2013



Trends in direct interconnection between Service Providers' networks

7.226 Paragraphs 7.211 to 7.223 above show that the Relevant Transit Market, particularly in terms of the supply of External Transit, is characterised by two large suppliers and then a number of smaller suppliers. However, as noted in paragraph 7.171 to 7.175, a number of Service Providers have chosen to interconnect directly with Eircom's tandem and primary exchange levels (to one degree or another), as well as with other networks, in order that they can hand over traffic without having to use an External Transit provider.

7.227 Investment in direct interconnection by Service Providers reduces demand for (and reliance upon) External Transit, and therefore may impose a competitive constraint in the Relevant Transit Market.

7.228 With this in mind, ComReg has examined trends in the establishment of direct interconnection between Service Provider networks.

7.229 ComReg first considers trunk Transit. In this context, a Service Provider may choose to bypass External Transit providers by interconnecting directly with Eircom tandem and primary exchanges. As discussed in the paragraphs 7.176 to 7.179, the cost of establishing direct interconnection with tandem and primary exchanges can be significant, particularly for small scale Service Providers (in traffic volume terms).

7.230 However, since the 2007 Decision these barriers have been overcome by a number of Service Providers. Table 20 and Table 21 show changes in the extent to which a selection of FSPs and MSPs trunk Transit has changed between Q3 2009 and Q2 2013.

Table 20: Interconnection with Eircom exchanges at Q2 2013 [✂Redacted due to Confidentiality and Commercial Sensitivity]

Redacted ✂

Table 21: Interconnection with Eircom exchanges at Q3 2009 [✂Redacted due to Confidentiality and Commercial Sensitivity]

Redacted ✂

7.231 Table 20 and Table 21 show that, while BT has maintained an extensive network of interconnection points at Eircom's exchanges, Vodafone, UPC and Verizon have invested in additional direct interconnection with Eircom exchanges since 2009. This means that these Service Providers can now provide Internal Transit on a greater number of routes than previously, thereby reducing their reliance upon Eircom and BT Ireland's supply of trunk Transit.

7.232 As discussed in paragraphs 7.194 to 7.197, this also means that the additional costs that would be incurred by Vodafone and Verizon in the provision of External Transit (were they to provide this) would be lowered on those routes given they have deployed direct interconnection, with the capital costs associated with this likely to be largely sunk.

7.233 However, there remain a significant number of Service Providers (eighteen out of twenty-six networks interconnected with Eircom) that are only interconnected with Eircom at the double-tandem level, and therefore are required to purchase trunk Transit to all Eircom tandem and primary exchanges.

7.234 As was illustrated in Table 15[663], ComReg notes that there are five exchanges where Eircom is the only External Transit supplier present. However, outside of these small number of Transit routes, there appears to be an increasing trend of the replication of Eircom's trunk transit network, to one degree or another.

7.235 In terms of pure Transit, Table 16[664] indicated that 15 out of twenty-six switched[665] Service Providers interconnect with two or more other Transit providers. On the other hand, Eircom remains the default provider of pure Transit for a substantial group of Service Providers. In particular, 12 out of twenty six switched Service Providers are only interconnected to Eircom and purchase External Transit services from Eircom in order to interconnect indirectly with other Service Providers.

[663] See paragraph 7.174 above.

[664] See paragraph 7.117 above.

[665] This excludes Eircom.

7.236 Similarly, all traffic destined for these 12 Service Providers must also come via Eircom's External Transit services. While all of the large (in traffic volume terms) Service Providers typically interconnect with multiple networks, there still appear to be a significant cohort of smaller Service Providers that rely on an External Transit provider, and choose to use Eircom, to ensure calls from their subscribers can be made to subscribers on other Service Providers' networks.

Overall summary of observable trends towards effective competition

7.237 After a period of decline from H1 2008 to H1 2010, there has seen a sustained period of steady growth in demand for External Transit, with demand increasing primarily for BT's External Transit services.

7.238 ComReg has observed that Eircom and BT Ireland are the two main External Transit suppliers, followed by UPC and a small number of fringe competitors. The apparent concentration of market shares amongst a few suppliers is likely to reflect the economies of scale and scope that are present in the provision of External Transit. Additionally, large vertically integrated providers of retail services who are extensively interconnected for the purpose of Internal Transit supply are not active in the supply of External Transit.

7.239 Since the 2007 Decision, ComReg has observed significant growth in the demand for External Transit supplied by BT Ireland and, as at Q3 2013, BT Ireland was the largest supplier of External Transit.

7.240 ComReg has observed a trend towards large FSPs and MSPs interconnecting more extensively with Eircom exchanges, such that there is less reliance upon External Transit suppliers for trunk Transit. However, there remain a significant number of Service Providers that are interconnected with Eircom at the double-tandem exchange level only, and these Service Providers are required to purchase trunk Transit to all Eircom tandem and primary exchanges (in most cases from either Eircom and/or BT Ireland).

7.241 Similarly, 15 out of twenty-six switched Service Providers interconnect with two or more other Transit providers, there are 12 Service Providers that are interconnected only with Eircom. This means that, at present, Eircom is the only provider who can provide External Transit to or from these 12 Service Providers.

7.242 As such, while there appears to be trend towards large networks interconnecting directly with each other, this does not apply for the majority of small Service Providers, potentially due to them not having sufficient scale (in call traffic volume terms) to justify direct interconnection with multiple networks. Overall, these smaller operators continue to use a third party Transit provider, most commonly BT Ireland or Eircom, for the purchase of pure Transit and trunk Transit.

Potential Entry in the Relevant Transit Market

7.243 Having regard to the assessment of barriers to entry identified in paragraphs 7.153 to 7.206, ComReg now examines the likelihood, extent and timeliness of potential entry occurring into the Relevant Transit Markets. This involves considering competitive constraints that may materialise from potential entry over a medium to long term horizon.

7.244 In paragraphs 7.157 to 7.170, ComReg notes that entry into the Relevant Transit Market is likely to involve a range of upfront costs.

7.245 However, the barriers to entry faced by any individual firm would be likely to differ depending on whether or not the Service Provider has a significant retail customer base, and whether the Service Provider already has a Transit network in place (including for the purpose of Internal Transit supply).

7.246 This section will assess the potential for entry and expansion by the following types of Service Provider:

(a) **Greenfield entrant(s):** These are Service Providers that do not have an existing significant retail customer base or Transit infrastructure (referred to as '**Greenfield Entrant(s)**').

(b) **Non-networked retail calls provider(s):** These are Service Providers with a large number of retail customers but with no Transit infrastructure (this could include, for example, Sky) (referred to as '**Non-Networked Call Provider(s)'**).

(c) **Networked retail calls provider(s):** These are Service Providers with larger call traffic volumes and having extensive Internal Transit infrastructure (e.g. Vodafone and O2) (referred to as '**Networked Call Provider(s)**');

(d) **Small External Transit provider(s)**: These are current providers of External Transit that have a small market share and a more limited Transit network coverage relative to other large External Transit suppliers (e.g. Magnet) (referred to as '**Small External Transit Provider(s)**').

7.247 In doing so, having regard to the potential replicability in the Relevant Transit Markets, ComReg will assess the potential for:

(a) entry by an External Transit supplier; and

(b) directly interconnecting with Eircom exchanges and other Service Provider networks in order to provide Internal Transit.

Greenfield Entrant

7.248 ComReg has considered the likelihood, extent and timeliness of entry by Greenfield Entrants being a Service Provider that does not have an existing significant retail customer base or Transit infrastructure.

7.249 ComReg notes that a Greenfield Entrant is likely to incur the entry costs identified in paragraphs 7.157 to 7.170 above, including sunk costs associated with deploying Transit infrastructure. ComReg recognises that, for a Greenfield Entrant, the costs of deploying extensive Transit infrastructure may not be justifiable from a commercial perspective. Particularly where the Service Provider is generating insufficient traffic volumes to support the cost of direct interconnection with Eircom's tandem and primary exchanges, or with other Service Providers' networks.

7.250 As such, a Greenfield Entrant is likely to be dependent upon the Service Provider first gaining economies of scale by expanding its retail and/or wholesale customer base size. This is likely to be a pre-requisite for entry into the Relevant Transit Market and it suggest that Greenfield entry is unlikely to occur on a significant scale within the relevant timeframe for this market review.

Non-Networked Call Provider

7.251 ComReg has considered the likelihood, extent and timeliness of entry by a Non-Networked Call Provider, being a Service Provider with a large number of retail customers but with no Transit infrastructure.

7.252 ComReg notes that a Service Provider offering retail calls and not having Transit infrastructure of its own is, to enter the Relevant Transit Market, likely to incur the entry costs identified in paragraphs 7.157 to 7.170, including sunk costs associated with deploying transit infrastructure.

7.253 ComReg considers that entry into the Relevant Transit Market may occur when a Service Provider offering retail calls is generating sufficient volumes of traffic that it can benefit from bypassing the purchase of External Transit, and instead interconnect directly with Eircom’s exchanges and other Service Providers’ networks. The likelihood and extent of entry is, therefore, also dependent on the Service Provider’s ability to achieve economies of scale in the self-supply of Transit.

7.254 Some Service Providers offering retail calls have already achieved economies of scale, and have invested in Transit infrastructure (therefore have already incurred sunk costs associated with supplying Internal Transit). Whereas other Service Providers with significant scale have continued to purchase External Transit on certain routes, despite potentially having substantial traffic volumes on that route **[✂** [redacted] **]**

7.255 ComReg considers that a large Non-Networked Call Provider could potentially replicate Transit infrastructure, to one degree or another, through establishing direct interconnection on certain routes for the purpose of supplying Internal Transit (if, for example, its External Transit was being priced above the competitive level). Having done so, the cost incurred by such Service Providers in diverting Internal Transit supply to the supply of external Transit would be reduced (relative to the costs that would be incurred by Greenfield Entrant). Although, the costs associated with the development of wholesale billing and administration systems would need to be considered.

7.256 ComReg considers that entry into the Relevant Transit Market by a Non-Networked Call Provider could potentially occur over the medium to long term of this market review. However, the extent of coverage of the External Transit services may differ and would also be likely to depend on the pricing and other conditions associated with the supply of External Transit products already available in the market. The costs associated with the development of wholesale billing and administration systems would need to be a relevant factor. Additionally, the potential for IP interconnection to occur over the longer term could negatively impact the degree to which a Service Provider would be willing to invest in circuit switched interconnection infrastructure.

Networked Call Provider

7.257 ComReg has considered the likelihood, extent and timeliness of entry by a Networked Call Provider being one with larger call traffic volumes and having extensive Internal Transit infrastructure.

7.258 ComReg notes that a Networked Call Provider is likely to have already achieved sufficient economies of scale such that it has warranted investment in Transit infrastructure for the purpose of supplying Internal Transit. Such an entrant would be likely to face reduced upfront costs associated with entry into the Relevant Transit Market (rather than all of the entry costs identified in paragraphs 7.157 to 7.170). In particular, a Networked Call Provider will be likely to have already incurred the sunk costs associated with this infrastructure investment, and therefore could potentially leverage that related infrastructure to supply External Transit.

7.259 In such cases, ComReg considers that the cost that would be incurred by such Service Providers in diverting Internal Transit supply to the supply of External Transit would be reduced (relative to the costs that would be incurred by Greenfield Entrants).

7.260 ComReg considers that entry by a Networked Call Provider could potentially occur over the long term period considered in this market review. The costs associated with the development of wholesale billing and administration systems could be a relevant factor which might militate against such potential entry occurring. Entry would also depend on the attractiveness of External Transit products already being made available by existing suppliers of External Transit and the willingness of existing purchasers of such service to switch provider.[666]

Small External Transit Providers

7.261 ComReg considered the likelihood, extent and timeliness of expansion by Small External Transit Providers being providers of External Transit that have a small market share and a more limited Transit network coverage relative to other large External Transit suppliers.

[666] ComReg's preliminary view on the likelihood, extent, and timeliness of entry for this type of Service Provider is based on its assessment of barriers to entry, rather than the expressed views of Service Providers. ComReg has received no indication from large retail call providers with Transit infrastructure in place that this would be used to offer External Transit.

7.262 ComReg notes that a Small Transit Provider is likely to incur the entry costs identified in paragraphs 7.157 to 7.170, including sunk costs associated with deploying transit infrastructure.

7.263 ComReg recognises that, for a Small Transit provider, the costs of deploying extensive Transit infrastructure may not be justifiable from a commercial perspective. Particularly where the Service Provider (through its Internal and External Transit supply) is generating insufficient call traffic to support the cost of direct interconnection with Eircom tandem or primary exchanges, or with other Service Providers' networks.

7.264 However, ComReg notes that a Small External Transit Providers, by definition, has established a wholesale customer base, and already has put in place the wholesale billing and administration systems needed to supply External Transit (although these could require development if External Transit is offered on a larger scale). As such, a Small External Transit Provider has the potential to leverage its existing assets and position as an External Transit supplier and expand in the Relevant Transit Market. For example, expansion could involve increasing the amount of traffic on its network by competing for large wholesale customers that generate large traffic volumes on routes served. This could enable a Small External Transit Provider to expand, and achieve greater economies of scale.

7.265 However, this would depend on the attractiveness of External Transit products already being made available by existing suppliers of External Transit. For example, a Small External Transit Providers would need to incur sunk costs in order to replicate the coverage of existing competitors, and would only be likely to expand, if there was potential for increased profits to be made by expanding their presence in the Relevant Transit Market (i.e. evidence of high prices for external Transit).

7.266 On balance, ComReg considers that a Small External Transit Provider has the potential to expand its presence in the Relevant Transit Market. However, given that expansion may involve significant upfront costs in replicating Eircom's and BT Ireland's Transit infrastructure, it is not clear that this type of entry would be likely to the extent that would substantially increase the effectiveness of competitive constraints in the Relevant Transit Market. Additionally, the impact of IP interconnection noted in paragraph 7.257 is also relevant.

Summary of preliminary Conclusions on Potential Entry

7.267 ComReg has considered the potential for different types of Service Provider to enter and supply External Transit services (at least on specific routes) to third. ComReg's preliminary views for each respective types of entrant are as follows:

(a) Greenfield Entrants are likely to be dependent upon the Service Provider first gaining economies of scale by expanding its retail or wholesale customer base. This pre-requisite for entry into the Relevant Transit Market means that Greenfield entry is unlikely to occur on a significant scale within the medium to longer term.

(b) Entry by Non-Networked Call Providers and Networked Call Providers could potentially take place. However, this would depend on a number of factors so it is uncertain.

(c) There is potential for a Small External Transit Provider to expand its presence in the Relevant Transit Market. However, given that expansion may involve significant upfront costs in replicating Eircom's Transit infrastructure, and the profitability of expansion is dependent on increased external Transit sales, it is also unclear that such entry would be likely to the extent that would substantially increase the effectiveness of competitive constraints in the Relevant Transit Market.

Expected or foreseeable technological and economic developments

7.268 The purpose of this section is to identify any anticipated technological or economic developments that may alter the competitive dynamic of the Relevant Transit Market, and to consider how such developments might impact on the market.

7.269 As discussed in Sections 3 and 5[667], Eircom's plans to move to a Managed VOB based RFTS service **[✄** [redacted] **].** ComReg has also noted[668] the possibility for IP Interconnection to occur over the longer term and that once a greater number of Service Providers employ Managed VOB, a preference may develop for IP interconnection, or IP routing.

7.270 ComReg notes that this development may impact on the Relevant Transit Market in a number of ways.

7.271 Firstly, the cost of establishing a Transit network through direct interconnection may, on a forward-looking basis, decrease as voice traffic becomes increasingly managed on IP platforms (although the timeframe for this transition is uncertain). This development would be expected to lead to a reduction in the number of switching/interconnection points between networks. Interconnection of voice traffic would be likely to ultimately take place at more centralised IP peering points, where the costs of interconnecting with other Service Provider networks will be lower.

7.272 The provision of voice services over a shared IP network also offers increased economies of scope for Service Providers, given that all types of IP traffic can be handed over at the same point of interconnection between two networks. This means that IP networks will support multiple services, and the cost of interconnection and call-conveyance will be shared.

[667] See paragraphs 3.41 and 5.14 to 5.17.

[668] See, for example, paragraphs 3.42 and 5.33.

7.273 As noted above, ComReg recognises that these developments could, in the short to medium term, discourage Service Providers from investing in direct interconnection based on traditional circuit switched interconnection technology. In particular, Service Providers will have a shorter timeframe over which to recover the cost of circuit switched interconnection with Eircom exchanges and interconnection with other Service Providers' networks.

7.274 However, the advent of IP Interconnection is likely to more easily support the Relevant Transit Market tending towards effective competition in the longer term (within the next 3-5 years).

Overall Preliminary Conclusions on Tendency of Relevant Transit Market towards Effective Competition

7.275 In paragraphs 7.207 to 7.275, ComReg has examined whether the Relevant Transit Market is likely to tend towards effective competition within the relevant time horizon having regard to whether:

- there are observable trends towards effective competition;
- alternative Service Providers are in a position to roll out infrastructure to the extent that they would be able to effectively compete with the incumbent in the Relevant Transit Market; and
- there are any expected or foreseeable technological and economic developments that will impact on competition within the time period of the market review.

7.276 ComReg has observes the following trends:

(a) While noting that, in some cases the data set available to ComReg is limited, in particular, with respect to market share information regarding Internal Transit supply, ComReg has nonetheless observed a decrease in Eircom's market share in the supply of External Transit, corresponding with increasing market share of other competing Transit providers, in particular, BT Ireland and, to a lesser extent, UPC.

(b) ComReg has also observed and an increase in direct interconnection between alternative Service Providers thereby bypassing or reducing the need for the purchase of External Transit services, most notably by Vodafone. However, these conditions are variable across Service Providers depending on their scale.

(c) ComReg has also observed that a small number of trunk Transit routes are characterised by one External transit supplier, namely Eircom, however it is somewhat questionable whether such routes are worth monopolising.

(d) ComReg has also noted that the advent of IP Interconnection is likely to more easily support the Relevant Transit Market tending towards effective competition in the longer term.

(e) In terms of potential entry into the Relevant Transit Market, ComReg considered a number of scenarios. While entry by some Service Providers is possible, it is unclear whether it would be likely to the extent that would substantially increase the effectiveness of competitive constraints in the Relevant Transit Market.

7.277 ComReg's provisional assessment of the tendency of the Relevant Transit Market towards effective competition is a finely balanced one. Nevertheless, ComReg provisional view is that on a prospective basis, the market is likely to tend towards effective competition over the longer term. ComReg's preliminary view is, therefore, that the Relevant Transit Market is not likely to meet the second criterion of the 3CT.

The insufficiency of competition law alone to adequately address the market failure(s) concerned

7.278 *Ex ante* regulation should only be imposed where competition law remedies are likely to be insufficient to address competition problems identified. This third criterion therefore assesses the sufficiency of competition law by itself to deal with market failures identified in the market analysis, in the absence of *ex ante* regulation.

7.279 In this respect, *ex ante* regulation should only be used in markets where national and EU competition law is not considered sufficient by itself to redress market failures and to ensure effective and sustainable competition.

7.280 ComReg has noted its preliminary view that the Transit market is unlikely to meet the first and second criteria of the 3CT, and therefore the Relevant Transit Market is not considered likely to be susceptible to *ex ante* regulation. However, ComReg considers that, if competition problems were to arise in the Transit Market (for example, excessive pricing or effective refusal to supply the service), competition law would be unlikely to be sufficient to effectively address market failures in the FACO Markets because:

(a) It is unlikely that the required regulatory obligations could be imposed effectively under competition law. For example, specific cost accounting and price control requirements, performance indicators etc may be required.

(b) Ongoing compliance and monitoring may be required. For example, the need for monitoring of terms and conditions (including technical parameters), associated with the service, and updating inputs for cost models etc.

(c) Frequent and/or timely intervention may be required to ensure that the competition problems were remedied in an effective, timely and efficient manner. This can generally be managed more effectively through *ex ante* rather than *ex post* regulatory regulation.

(d) Creating regulatory certainty up-front when addressing competition problems would be important for protecting the investment incentives of FSPs, including Eircom.

(e) Time delays involved in remedying any such competition problems through *ex post* competition law would be likely to render it less effective relative to *ex ante* regulation.

7.281 For these reasons above, ComReg considers that ex post competition law would not be likely to be effective if competition problems were to arise in the Transit market absent regulation. Therefore, ComReg's preliminary view is that the third criterion of the 3CT would be met in relation to its application to the Relevant Transit Market. However, ComReg notes that, in order for *ex ante* regulation to be justified *all three* criteria must be met. Since ComReg's preliminary view is that the first and second criteria are not met, then (in theory) the consideration as to the sufficiency of competition law criterion is unnecessary. However, ComReg's overall preliminary conclusion is based on the consideration of 3CT in its entirety.

Preliminary conclusions on the 3CT

7.282 ComReg's preliminary view is that the Relevant Transit Market would not be likely to meet the first and second criteria of the 3CT and, therefore, is not susceptible to *ex ante* regulatory intervention. As such, ComReg proposes to withdraw regulation of Transit services. This is considered further in Section 10.

Question 8:	**Do you agree with ComReg's 3CT with respect to the Relevant Transit Market? Please explain the reasons for your answer, clearly indicating the relevant paragraph numbers to which your comments refer, along with all relevant factual evidence supporting your views. Respondents are encouraged to provide Internal Transit and External Transit traffic and direct interconnection information as part of their responses.**

8 Relevant FACO Markets - Competition Problems and Impacts

Overview

8.1 In this Section ComReg now seeks to identify those competition problems which, absent regulation[669], could potentially arise in the in the HL-FACO and LL-FACO markets (together the **'FACO Markets'**) and, having done so, ComReg then goes on in Section 9 to consider the imposition of appropriate remedies in order to address such identified competition problems.

8.2 In Section 4.1, ComReg defined the FACO Markets, In Section 5.217, ComReg set out its preliminary view that, in accordance with Regulation 27(4) of the Framework Regulations, neither of such is effectively competitive and proposed that Eircom be designated as having Significant Market Power (SMP) within each of them, thereby meaning that it has the ability to act independently of its competitors, customers and consumers.

8.3 In accordance with Regulation 27(4) of the Framework Regulations, where an undertaking is designated as having a position of SMP on a relevant market, ComReg is required to impose on that undertaking such of the obligations (or remedies) set out in Regulations 9 to 13 of the Access Regulations as ComReg considers appropriate.

8.4 As noted in the European Commission's Explanatory Note to the 2007 Recommendation, the underlying purpose of the *ex ante* regulatory framework is to deal with predictable competition problems that have their origin in structural factors in the industry. For example, the finding of an absence of effective competition in the FACO Markets indicates the potential for competition problems to arise within them over the review period in question, thereby justifying the imposition of *ex ante* regulation.

8.5 The competition problems in the HL-FACO and LL-FACO markets are discussed together in this Section. In this respect it is ComReg's view that the underlying ability and incentives for Eircom to potentially engage in such competition problems, absent regulation, is broadly similar and relates ultimately to the lack of effective competition in the FACO Markets, coupled with Eircom's position as a vertically integrated supplier competing with its wholesale customers in downstream markets.

[669] FVCO and WLR services have, to date, been provided by Eircom pursuant to Regulatory obligations imposed on it under the 2007 Decision and the 2007 RNA Decision respectively. The assessment carried out in this Section of the Consultation is carried out in the context of what competition problems would be likely assuming that such SMP obligations were not in place.

8.6 ComReg would note that it is neither necessary to catalogue examples of actual abuse, nor to provide exhaustive examples of potential abuse. Rather, ComReg notes that the purpose of *ex ante* regulation is to prevent the possibility of abuses given that MSPs have been identified on a preliminary basis with SMP in the Relevant FACO Markets, and thus have both the ability and incentives to engage in exploitative and exclusionary behaviour to the detriment of competition and end-users.

Types of Competition Problems

8.7 In determining what form of *ex ante* regulatory remedies are warranted in the Relevant FACO Markets, ComReg has carried out an assessment of potential competition problems that are likely to arise, assuming SMP regulation is absent and taking account of the structure and characteristics of the FACO Markets (and adjacent markets).

8.8 In the absence of regulation in the FACO Markets, ComReg considers that Eircom would have the potential ability and incentive to influence a range of competition parameters, including prices, innovation, output and the variety or quality of goods and services provided. In general, there are a number of types of competition problems which may arise involving conduct by an SMP undertaking that is aimed at:

- exploiting customers or consumers by virtue of its SMP position;
- leveraging its market power into adjacent vertically or horizontally related markets with a view to foreclosing or excluding competitors in downstream and/or upstream markets; and
- excluding or delaying investment and market entry in the Relevant FACO Markets (and ultimately downstream markets).

8.9 In considering the above types of competition problem which could arise[670], ComReg has also been guided by experience in the market. Although, as noted above it is not necessary *per se* to demonstrate actual abuse, examples of competition problems which have previously arisen, even in the presence of existing regulation, can help ground the analysis in actual experience.

[670] Such issues are also considered in Section 9 dealing in the context of appropriate remedies (regulatory obligations) to address completion problems.

Exploitative Practices

8.10 Economic theory suggests that where a firm possesses market power it is in a position to increase prices above and/or reduce output below competitive levels, thereby allowing higher than normal profits to be earned. These higher profits effectively create a wealth transfer from the consumer to the firm with market power. It is ComReg's preliminary view that Eircom as undertaking with SMP in the FACO Markets and, given its presence in a number of adjacent markets, would have the ability and incentive to engage in exploitative practices, such as excessive pricing, inefficiency or inertia to the ultimate detriment of end-users. These potential concerns are considered below.

Excessive pricing

8.11 According to EU competition case law, excessive pricing refers to a situation where the prices charged by a dominant undertaking are not closely related to the value to the consumer and/or the cost of producing or providing the relevant service.[671] Concerns about excessive pricing arise where, absent regulation, price levels are likely to be persistently high with no effective pressure (e.g. from new entry or innovation) to bring them down to competitive levels over the period of this review period.

8.12 The FACO Markets are each characterised by 100% market share, an absence of existing effective competition, high and non-transitory barriers to entry associated with control over infrastructure not easily replicated, limited scope for potential competition and insufficient CBP. Thus, there is insufficient pressure to constrain Eircom from behaving, to an appreciable extent, independent of its customers, competitors or consumers, including in relation to its ability and incentive to engage in excessive pricing behaviour in the FACO Markets[672]. ComReg considers that Eircom likely faces incentives to exploit its FACO customers in this manner since it competes with these FSPs in the RFTS market.

8.13 For example, by raising the cost of FVCO[673] and WLR above a competitive level, this, in turn, would raise input costs for those FSPs that purchase Eircom's FACO products/services (assuming Eircom were to provide them with such, absent regulation) in order to compete in the RFTS markets. Given such above cost wholesale prices may then be passed on by such FSPs to their retail customers via higher RFTS prices, it could ultimately have the potential to harm the development of effective competition in the RFTS market, potentially through the actual or effective exclusion of downstream competitors.

[671] Case C 27/76 United Brands v. Commission, [1978] ECR 207, [1978] 1 CMLR 429, para. 250. In United Brands the Court of Justice of the European Union held that: *"…charging a price which is excessive because it has no reasonable relation to the economic value of the product supplied would be… an abuse"*.

[672] As noted in Section 4.1, Eircom's wholesale prices in the FACO market are currently regulated under the 2007 Decision, with WLR prices being regulated under the 2007 RNA Decision.

[673] Including FVCO to non-geographic numbers.

8.14 Excessive prices can also distort competition amongst FSPs as the higher charges could create a cross-subsidy to the SMP undertaking and while simultaneously reducing other FSPs' investment incentives.

8.15 To address the potential for excessive pricing in the FACO Markets, ComReg considers that *ex ante* regulation is required. Competition law applied on an *ex post* basis is often unsuitable in preventing excessive pricing, and this is evidenced by the scarcity of successful *ex post* excessive pricing cases within EU jurisprudence. An *ex post* approach to excessive pricing in markets such as the FACO markets which are characterised by a lack of effective competition and high and non-transitory entry barriers, does not likely offer adequate protection for consumers or promote effective competition. This is because addressing the issue of excessive pricing through competition law approaches (if it is proven to the required competition law standard) would likely occur substantially after the occurrence of the competition problem itself, thereby contributing to significant uncertainty amongst downstream market participants in the interim and undermining the development of effective competition to the detriment of consumers.

8.16 As noted in the analysis in Section 5, Eircom's FACO services are currently regulated via various price control obligations. Absent such regulation, ComReg considers that prices for such services would not likely be reduced to a competitive level. Given the ability and incentives for Eircom, as the SMP undertaking, to engage in excessive/exploitative pricing, transparency, price control and related cost accounting obligations are therefore considered justified by ComReg to ensure that prices are set at an appropriate level.

8.17 Price control and related non-discrimination obligations are, therefore, considered justified by ComReg to ensure appropriate wholesale FACO charges are set at levels that are reflective of the underlying efficient cost of providing these services and that such charges are applied in a non-discriminatory fashion to other Access Seekers and between Access Seekers and Eircom to itself.

Inefficiency/inertia

8.18 A firm with SMP in a relevant market may also, by virtue of the lack of effective[674] competitive pressure in that market, be insulated from the need to innovate and improve efficiency and quality of service to stay ahead of rivals. This may limit the development of new technology and/or lead to costlier and less efficient methods of supply[675] and consequently higher prices for consumers than would otherwise exist under competitive market conditions.

8.19 It may also decide to withhold investment in related markets to delay or impede the development of competition in those markets, e.g. where the SMP firm has control over certain key inputs necessary for Access Seekers to compete in neighbouring markets and delays upgrading those inputs or providing newer, potentially more cost effective inputs in line with technological developments.

8.20 Given Eircom's proposed SMP in the FACO Markets, ComReg is of the preliminary view that absent regulation Eircom would likely faces limited competitive pressure to innovate and provide an efficient FACO service. This means that Eircom may be in a position where it could delay any implementation of technology and systems without being vulnerable to the threat of competitors acting first. Any such delayed developments might have otherwise enabled the more efficient provision of RFTS by Access Seekers in the interim. Eircom's FACO customers are, to an extent, dependent on Eircom's timely investment in technology and systems to realise certain efficiency gains, which could potentially be passed on, to some degree, to end-users having regard to the extent of retail competition. As such, potential lower levels of innovation and investment resulting from a lack of effective competition in the FACO Markets would likely be to the detriment of end-users.

[674] ComReg would note that Eircom may face a degree of competitive constraint in certain parts of retail markets from independent FSPs (those not relying on Eircom's FACO inputs) such as UPC or from FSPs using wholesale inputs provided in upstream markets which might facilitate competition in the RFTS market. However, as noted in Sections 5 and 6, ComReg considers that indirect constraints from the retail market or regulated access to wholesale products in other upstream markets are insufficient to effectively constrain Eircom's behaviour in the FACO Markets. Nevertheless, Eircom's decisions to invest and innovate may be somewhat influenced by the presence of independent retail competitors, whether in the RFTS or related downstream markets.

[675] Such inefficiency could potentially be considered an abuse under competition law. Article 102(2)(b) of the TFEU and Section 5(2)(b) of the Competition Act 2002 specifically gives, as an example of an abuse, the limitation of production, markets or technical development to the prejudice of consumers. For example, in *Merci Convenzionali Porto di Genova v. Siderurgica Gabrielli*[675] the refusal of dock workers (who had a monopoly for the loading and discharging of cargo on behalf of third parties in the port of Genoa) to use modern technology for the unloading of vessels meant that operations were more expensive than they would otherwise be. This failure to use new technology was found to constitute an abuse.

8.21 On this basis, apart from price control obligations, ComReg's preliminary view is that access obligations are also justified and required and in order to address this potential problem. The access obligations may, for example, enable Access Seekers not only to obtain access to currently available services but also to make reasonable requests for access to new services (or more efficient means of providing them) that emerge over the period of the review (and which fall within the scope of the FACO Markets). These access obligations would also be supported by non-discrimination, transparency, accounting separation, and price control and cost accounting remedies to ensure that that the effectiveness of such access obligations is maintained.

8.22 For example, transparency remedies should provide ComReg and Access Seekers with greater visibility of potential efficiency gains that might arise through technological or system developments. Access and non-discrimination remedies could enable Access Seekers to gain access to effective wholesale products or services that are the same as Eircom's self-provided wholesale FACO inputs. Price control remedies, combined with cost accounting and accounting separation remedies, would then help to prevent excessive and/or discriminatory prices being imposed by the SMP undertaking for new services.

Leveraging

8.23 Where a vertically integrated undertaking has SMP in one market that has close links with other adjacent markets either at a similar (e.g. horizontal) or different (e.g. vertical) level in the production or distribution chain, the SMP undertaking may attempt to transfer (leverage) its market power to such vertically and/or horizontally related markets. This could enable the SMP undertaking to strengthen its position in those related markets and/or potentially also reinforce its existing market power in the SMP market in question.

8.24 Given the close relationship between the FACO Markets and other horizontally related markets (e.g. Transit and FVCT[676]) and vertically related services (e.g. Wholesale Switchless Voice (SV) services[677] and RFTS), there is potential for both types of leveraging to occur, absent regulation. Both types of behaviour may raise rivals' costs, introduce barriers to effective access to FACO products, services and facilities in a timely manner, reduce competitive pressures on related wholesale/retail services and enable the SMP undertaking to extract additional revenues from its competitors, customers and ultimately consumers. This could also have the effect of delaying upstream entry and protecting/reinforcing SMP in the FACO Markets themselves (defensive leveraging).

[676] For the purpose of this discussion, the three interconnection markets underlying the conveyance of a call (FACO, Transit and FVCT) are deemed to be at a similar (horizontal) level in the production or value chain.

[677] See previous discussion of Wholesale Switchless Voice (Wholesale SV) in paragraph 3.9. Wholesale SV incorporates FACO, FVCT, Transit and other non-regulated elements and is an end-to-end downstream service enabling third parties to resale RFTS to retail customers without the need for their own interconnect infrastructure.

Vertical Leveraging

8.25 Vertical leveraging arises where a vertically integrated undertaking is able to leverage its SMP position at one level in the production or distribution chain into downstream markets in which it is also active. In the context of the FACO Markets, vertical leveraging may occur given Eircom, as the proposed SMP undertaking, has the incentive to use its market power in these markets to affect the competitive conditions in downstream wholesale and/or retail markets, in particular, through its ability to control the key inputs used by Access Seekers - which compete against Eircom in such markets. This could result in a distortion of or reduction in competition in these downstream markets, ultimately resulting in harm to consumers, potentially in the form of higher prices, lower output/sales, reduced quality or consumer choice.

8.26 ComReg considers that, absent regulation, vertical leveraging could arise in the FACO Markets because Eircom is a vertically-integrated undertaking, has SMP in such markets, and has the ability and incentive to leverage that market power into downstream markets, including (but not limited to) the provision of RFTS, Wholesale SV, in order to enhance its market power, in these downstream markets.

Non-Price Based Vertical Leveraging Behaviour

8.27 Vertical leveraging could be affected by Eircom in a number of ways, absent regulation in the FACO Markets. Perhaps the most obvious example would be an outright refusal to provide FACO services to its downstream competitors. Other examples of non-price vertical leveraging, which can be closely related to each other, can amount to constructive rather than outright denial of access and include:

(a) Delaying tactics: this include issues such as protracted negotiations in respect of the supply of existing or new FACO products, services or associated facilities to downstream competitors. Another example would be the use of retail contract terms to effectively dissuade a customer from moving to a competing Service Provider in a timely manner, thereby undermining the effectiveness of access to FACO products, services and facilities. For example, retail contract terms requiring unreasonable minimum advance notice periods for service cancellation[678] at the retail level which have no objective justification could be used by a vertically integrated undertaking to prevent an Access Seeker from availing of a SB-WLR product in a timely and effective manner. If retail 'penalties'[679] were to be applied by Eircom to a retail customer wishing to switch[680] prior to the expiry of any advance minimum cancellation notice period, the Access Seeker would be unreasonably required to delay the request for access to the FACO product, service or facility (that allows it to provide RFTS) until such retail minimum advance notice period expired or it would likely risk having its potential new retail customer incurring unnecessary charges.

(b) **Quality discrimination:** providing downstream competitors with FACO at a lower quality of service (or inferior information) to that which Eircom provides to its own downstream arm (or to certain other competitors);

(c) **Creating or exploiting information asymmetries and the withholding of relevant information:** where downstream competitors are dependent on Eircom to provide FACO and need certain (quality or technical) information in order to effectively compete in the RFTS market a lack of transparency or asymmetry in the provision of relevant information can impede competition. For example, a lack of transparency in the terms and conditions of supply use for FACO that are self-supplied by the vertically-integrated SMP FACO provider could make it difficult for Access Seekers to make effective commercial or operational decisions that involve the use of wholesale inputs in the provision of their own downstream services or be assured that FACO product are provided on a non-discriminatory basis (including whether Eircom is in a position to demonstrate that there is equivalence of access).

(d) **Disproportionate entry criteria:** This may, for example, include Eircom setting unreasonable terms and conditions for supply/use of access to FACO (including associated facilities).

(e) **Unwarranted withdrawal of access already granted:** Eircom could seek to unreasonably withdraw access to facilities already granted.

[678] This scenario refers to one in which the end-user is not operating within any minimum term contract period.

[679] Such penalties may be such that the customer has to continue to pay for the RFTS up to the point of the expiry of the advance minimum notice period, notwithstanding that it has moved its RFTS to the Access Seeker.

[680] This assumes that the retail customer is not seeking to switch when within a committed minimum term contract.

(f) **Unreasonable product bundling/tying:** this could include the bundling/tying FACO products in such a way that damages the ability of Access Seekers to compete downstream. For example, where Eircom were to require Access Seekers using FACO to also purchase an additional and unnecessary services in such a way that raises Eircom's rivals' costs of providing downstream services such as RFTS and may damage their ability compete effectively.

8.28 Further examples of the above non-pricing leveraging behaviours arise where a vertically-integrated SMP undertaking may create or exploit information asymmetries to the detriment of downstream competition include any differences in interface between the SMP undertaking's internal access to IT systems, and wholesale customers' access. The infrastructure associated with Operational Support Systems (OSS) and Business Support Systems (BSS) is supported by IT systems, which evolve over time (significant changes may come about in a VOIP environment). Where, for example, Access Seekers do not have visibility or input into relevant Eircom IT changes and are not aware of the IT development process and its timetable, they will be unable to contribute or to make a request for service at the appropriate point. Further, it may be that operational changes of this kind are not implemented simultaneously or to the same standard for external and internal access.

8.29 Given Eircom is vertically integrated it may also be difficult to compare the FACO products (and associated facilities) its uses internally with those offered to third parties in the FACO Markets. It may also be difficult to compare how FACO products are developed and implemented. A lack of transparency in how products are both developed and implemented internally to the SMP operator could also make it difficult to demonstrate equivalence and provide the potential and incentive for a number of non-price means of leveraging market power. For example, in terms of product development, absent regulation, Eircom as an SMP undertaking in the FACO Markets could, while also operating in downstream markets, launch downstream retail and or wholesale products using FACO inputs and which Access Seekers could not match because no wholesale equivalent has been made available. In terms of product implementation, if Access Seekers are not aware of all the features of the wholesale products which are available to Eircom internally, they will not know they can request these features themselves, and ultimately may find themselves offering an inferior product at retail level. Furthermore, where, for example, certain FVCO services/information necessary for preparing a bid/tender proposal for a (retail calls) contract are not made available to downstream competitors in sufficient time, this could also impede their ability to compete with the SMP operator for important downstream customers.

8.30 A further example of information asymmetries could include situations where wholesale customers require metrics on order processing, service delivery and fault repair to view the overall performance of Eircom's FACO products from a provisioning and service assurance perspective. Failure by Eircom to provide such data to its wholesale customers would likely impair their ability to compare the performance of Eircom's supply of wholesale products which are used as an input to its retail products. Uncertainty for Access Seekers (and their retail and/or wholesale customers) as to the performance and quality of their purchased FACO inputs relative to the services and information made available internally to Eircom's retail arm could potentially discourage investments in markets dependent upon Eircom's wholesale products (for example, through a lack of visibility of average line-fault repair time between Eircom retail and wholesale customer faults).

8.31 Information asymmetries may also apply to future planning by the SMP undertaking. For example, changes by Eircom to its network topography such as migration to VOIP traffic switching/routing or IP interconnection may have significant implications for wholesale customers using FACO. Insufficient notice of network and process changes relevant to the delivery of services in the retail fixed voice market could significantly impede the ability of wholesale FVCO customers to launch corresponding retail fixed voice products and to compete with Eircom on an equivalent basis in downstream markets. A lack of information and associated uncertainty may discourage Access Seekers from investing in or expanding their downstream footprint (since there may be a perceived risk of stranded assets). Further, such information asymmetries may lead to a delayed consideration of Access Seekers' wholesale requirements as part of such network developments, also delaying/impeding their ability to respond to any new downstream offerings by the SMP FACO undertaking.

8.32 A vertically-integrated SMP FACO undertaking could also have an incentive to frustrate the retail/wholesale switching process through which ultimately retail customers can switch to an alternative product or an alternative service provider. Access seekers may wish to migrate their downstream customers between wholesale products, and may wish to carry out single or bulk migration of their customer base. This should involve minimal disruption or delay from the downstream customer's perspective. Examples of the types of action which could disrupt the migration process could include rejecting migration orders on the basis of technicalities which were not made known to the requesting Access Seekers, requesting additional customer authorisation mechanisms, or preventing the uplift of a large number of retail customers to alternative service provision. This type of action would impose an additional and artificial switching cost on Access Seekers and ultimately retail customers.

8.33 Further examples of potential leveraging behaviour can include possible disruption of customer migration processes such as failing to switch bundles of services, such as broadband and FACO services in a seamless and co-ordinated manner (such that any service loss by the switching retail customer is minimised, if not entirely eliminated) and practices aimed generally at raising rivals' costs[681]. ComReg considers that, absent regulation, these types of issues could arise in the FACO Markets since Eircom is competing in downstream markets within which Access Seekers also compete or may seek to compete.

Price Based Vertical Leveraging Behaviour

8.34 Vertical leveraging may also be evident in pricing behaviour and, absent regulation, Eircom could attempt to foreclose competition in a downstream market by offering a downstream product (or FACO) at a price that would not allow an efficient Access Seeker a sufficient margin to recover their efficiently-incurred costs, ultimately resulting in the foreclosure of competition (margin squeeze, predatory pricing behaviour).

8.35 For example a margin squeeze between FACO and downstream prices could undermine the effectiveness of a FACO product offering and, in doing so, could harm competition in downstream markets such as the RFTS or Wholesale SV markets by eliminating competing service providers, distorting competition or indeed discouraging the entry of new service providers.

8.36 For example, in 2008 ComReg was made aware of the availability of a new Wholesale SV service offered by Eircom which allowed alternative Service Providers, mainly mobile operators, to enter the retail fixed voice market without the need to invest in interconnection infrastructure. The key underlying wholesale inputs to the Wholesale SV service are regulated, including components in the FVCO, Transit and FVCT. ComReg was concerned at that time that, where resale or end-to-end Wholesale SV products are priced too low relative to its regulated components, this could undermine the existing price control remedies and render other service providers' investments in physical interconnection redundant. This could *inter alia* foreclose competition in the adjacent markets where existing interconnected service providers who, through relying on the regulated upstream FVCO, Transit (and FVCT) inputs, can also offer their own competing downstream Wholesale SV services and/or retail services.

[681] Unlike predatory pricing, certain practices can be employed which unfairly raise a rival's costs and reduce competition and which do not necessarily require the SMP undertaking to incur short run losses. For example, an integrated firm with market power in an upstream market may have incentives to raise the price of the inputs it sells to its downstream rivals, thereby potentially raising their costs and reducing demand for their products. Furthermore, the integrated operator could potentially give priority to its own traffic at network bottlenecks or apply standards that are easier for its own retail affiliate to meet than for its downstream competitors. (See Krattenmaker, T.G. and S.C. Salop (1986) "Anticompetitive Exclusion: Raising Rival's Costs To Achieve Power over Price", Yale Law Journal, 96:209-93; Salop, S.C. and D.T. Scheffman (1987), "Cost-Raising Strategies", Journal of Industrial Economics, 36:19-34).

8.37 In the context of this market review, any similar margin squeeze between FACO (and other regulated services) and Wholesale SV services could distort competition right across the supply chain including at the Wholesale SV and retail levels to the detriment of end-users and reinforce Eircom's SMP in the relevant upstream markets. These concerns remain.

8.38 Eircom could also leverage its position in its supply of FACO into related markets such as the supply of hosting and Termination of calls to non-geographic numbers[682]. For example, absent regulation, Eircom has the ability and incentive, to raise costs of Access Seekers (and ultimately end-users[683]) competing with Eircom in the supply non-geographic call hosting services above the efficient level. Since Eircom has SMP in the FACO market, which include eircom's self-supply, and originates a large portion of RFVC traffic, this type of leveraging could foreclose competition in that adjacent market.

Horizontal Leveraging

8.39 Horizontal leveraging arises where an undertaking with market power in one market is able to use it to exert undue influence into other markets that are at a similar level in the production or distribution chain. Examples of horizontal leveraging can include certain tying/bundling practices, cross subsidisation/predatory-type behaviour and/or where the SMP undertaking may seek to foreclose infrastructure-based competitors by way of an insufficient economic space[684] between the relative pricing of different upstream/intermediate inputs.

8.40 In the context of this market review, horizontal leveraging may occur where Eircom, as the SMP FACO undertaking, is competing in adjacent wholesale markets and has the ability and incentive to negatively impact the position of its competitors in these markets. Horizontal leveraging in this case could involve:

(a) Tying FACO and Transit, so an Access Seeker, in purchasing FACO from Eircom, must also purchase Transit from Eircom, thereby impacting the ability of other Transit providers to compete effectively;

(b) Pricing FACO, when sold with Transit such that does not allow sufficient economic space between (a) the combined price of the FACO/Transit bundle and (b) the costs incurred by an efficient operator competing in the horizontally related Transit market and deter further network investment, thus acting as a barrier to entry and/or expansion in that market.

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682 See Appendix C which sets out the typically retail/wholesale arrangements for calls to non-geographic numbers.

683 This includes business end-users using the non-geographic numbers who ultimately would incur such costs and potentially lead them not to use non-geographic numbers for their service. This in turn would have the effect of impacting on calling parties who would no longer have access to services over these non-geographic numbers,

684 "Economic space" refers to an appropriate space between the pricing of related wholesale or intermediate products/services sufficient to promote sustainable infrastructure competition to the benefit of end-users.

8.41 ComReg considers that these concerns remain given that Eircom could have the ability and incentive to price its wholesale inputs in a way that increases uncertainty and could dissuade potential entrants from engaging in efficient infrastructural investments, potentially foreclosing competition in horizontally related markets.

Exclusionary practices

8.42 An SMP FACO provider may also have the ability, and face incentives to behave in such a way that delays/deters network investment and entry into the FACO markets and ultimately the RFTS market.

8.43 ComReg's preliminary view is that exclusionary behaviours in the FACO Markets that are likely to occur are also those closely associated with the ability and incentives of a vertically-integrated SMP undertaking, as discussed from paragraphs 8.23 to 8.41 above in the context of leveraging and the exclusionary impacts in horizontally or vertically related markets. These include (but are not limited to) foreclosing competition:

(a) by imposing a margin squeeze between FACO and downstream or adjacent services which would reinforce entry barriers in the FACO market and potentially foreclose entry or investment by other FSPs in the supply of FACO;

(b) by refusing to supply access, applying unreasonable or discriminatory terms and conditions of access, and/or creating or exploiting information asymmetries;

(c) by engaging in predatory pricing of FACO services to discourage entry of other potential FACO suppliers;

(d) by engaging in exclusive contracts with downstream customers and exclusionary actions aimed generally at raising customer or consumer switching costs thereby impacting on potential competition;

(e) by raising costs of those FSP competitors that rely on Eircom's FACO input in providing RFTS, it can be more difficult for those FSPs to expand their sales and attain the economies of scale/scope necessary for deeper infrastructure investment and potentially facilitate entry into the FACO market over time.

8.44 ComReg is of the preliminary view that, as the vertically integrated undertaking with SMP in the FACO Markets, Eircom has both the ability and incentives to restrict or distort the development of competition in the FACO market itself.

Overall Preliminary conclusions on competition problems

8.45 Having regard to the analysis set out in paragraphs 8.7 to 8.44 ComReg set out its preliminary view that, absent regulation, Eircom, as the SMP undertaking in the FACO Markets has the ability and incentive to engage in actions which could negatively impact on competition and customers in horizontally and vertically related retail and wholesale access/calls markets, as well as having the potential to potentially perpetuating dominance in the FACO market itself over time.

8.46 ComReg set out examples of such behaviours and therefore considers that it is justified and proportionate to impose robust obligations on Eircom in the FACO Markets relating to access, transparency, non-discrimination, price control and cost accounting and accounting separation. The detail of these obligations is discussed in Section 9 below.

Question 9:	**Do you agree that the competition problems and the associated impacts on competition consumers identified are those which could potentially arise in the FACO Markets? Please explain the reasons for your answer, clearly indicating the relevant paragraph numbers to which your comments refer, along with all relevant factual evidence supporting your views.**

9 Remedies in the FACO Markets

Approach to Specifying and Implementing Remedies

9.1 In Sections 6, ComReg set out its preliminary view that Eircom has SMP in the FACO Markets and identified a range of competition problems and competition or consumer impacts that, absent regulation, could arise in the FACO Markets. These competition problems related to, amongst other things, Eircom having the ability and the incentive to foreclose competition in the FACO markets, leverage its SMP into adjacent markets, and exploit wholesale and retail customers, ultimately to the detriment of competition and consumers. In this Section, ComReg considers the imposition of regulatory remedies (or obligations) to address these competition problems, and ComReg:

- reviews the legal framework for imposing remedies (paragraphs 9.2 to 9.6 below)
- reviews existing FVCO, Transit and WLR remedies imposed under the 2007 Decision and in other decisions (paragraphs 9.7 to 9.28 below);
- assesses the regulatory approaches to imposing regulatory remedies in the FACO Markets (paragraphs 9.29 to 9.35 below);
- proposes and justifies regulatory remedies in the FACO Markets relating to access, non-discrimination, transparency, price-control and cost accounting, and accounting separation as well as the withdrawal of certain remedies (paragraphs 9.37 to 9.287 below); and

Legal Framework for Imposing Remedies

9.2 In accordance with Regulation 8(1) of the Access Regulations[685], where an operator is designated as having SMP in a relevant market, ComReg is required[686] to impose on such an operator such of the obligations set out in Regulations 9 to 13 as ComReg considers appropriate. In this regard, the obligations that may be imposed by ComReg on SMP undertakings are those relating to:

(a) Access;

(b) Transparency;

(c) Non-Discrimination;

(d) Price Control and Cost Accounting; and

(e) Accounting Separation.

[685] European Communities (Electronic Communications Networks and Services) (Access) Regulations 2011 (S.I. No. 334 of 2011) (the '**Access Regulations'**).

[686] The SMP Guidelines also state at paragraph 17 that "NRAs must impose at least one regulatory obligation on an undertaking that has been designated as having SMP".

9.3 In addition, Regulation 8(6) of the Access Regulations provides that any of the above obligations imposed must:

(a) be based on the nature of the problem identified;

(b) be proportionate and justified in the light of the objectives laid down in Section 12 of the Communications Regulation Acts 2002 to 2011 and Regulation 16 of the Framework Regulations[687;] and

(c) only be imposed following public consultation and notification of the draft measures to the European Commission, BEREC and other NRAs in accordance with Regulation 12 of the Framework Regulations.

9.4 Regulations 12(1) and 12(4) of the Access Regulations also provide statutory criteria that ComReg must take into account before imposing access obligations on an SMP undertaking. These criteria include, *inter alia,* examining the technical and economic viability of using or installing competing facilities; the feasibility of providing access; the initial outlay of investment by the undertaking; and the need to safeguard competition in the long term.

9.5 Regulation 13(2) and Regulation 13(3) of the Access Regulations provide that ComReg is also required, when imposing price control obligations, to take into account

(a) the investment made by the SMP operator which ComReg considers relevant and allow such operator a reasonable rate of return on adequate capital employed, taking into account any risks involved specific to a particular new investment network project[688]; and

(b) ensure that any cost recovery mechanism or pricing methodology that ComReg imposes serves to promote efficiency and sustainable competition and maximise consumer benefits[689].

9.6 These considerations are taken into account throughout this Section, as appropriate, when assessing whether and what form of remedy to impose, and are also discussed in further detail in the context of the Regulatory Impact Assessment found in Section 11. ComReg has also taken the following into account in considering the imposition of remedies on the SMP FSP:

- the European Regulators Group (ERG[690]) common position on the approach to appropriate remedies in the electronic communications networks and services regulatory framework[691];

[687] Pursuant to section 12 of the Communications Regulation Acts 2002 to 2011, ComReg's relevant objectives in relation to the provision of electronic communications networks and services are: (i) to promote competition, (ii) to contribute to the development of the internal market, and (iii) to promote the interests of users within the Community. Regulation 16 of the Framework Regulations further specifies ComReg's obligations.

[688] Pursuant to Regulation 13(2) of the Access Regulations.

[689] Pursuant to Regulation 13(3) of the Access Regulations.

- the comments letters issued by the European Commission pursuant to Articles 7 and 7a of the Framework Directive in its review of regulatory measures notified by Member States under the EU consultation mechanism for electronic communications service;
- the European Commission's 2009 Termination Rates Recommendation (the '**2009 Termination Rates Recommendation**');[692]
- the European Commission's 2005 Accounting Separation and Cost Accounting Recommendation[693].

Existing FVCO and FVA (WLR) Remedies

9.7 Before considering which remedies would best meet ComReg's statutory/regulatory objectives in the FACO Markets, it is worth highlighting the existing remedies that are in place with respect to Eircom's provision of FVCO and WLR arising from the obligations imposed in the 2007 Decision and subsequently in other relevant decisions.

9.8 These regulatory obligations are primarily[694] [695] set out in the 2007 Decision (with respect to FVCO and Transit) and the 2007 RNA Decision, and are discussed[696] briefly below. In the context of the 2012 Retail Access Market Review Consultation (which is seeking to update the analysis in the 2007 RNA Decision) the potential has been noted for certain remedies that have hitherto been imposed in the retail narrowband access market (discussed below) to be moved into the FVCO market (now defined as the FACO Market).

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[690] Pursuant to Regulation (EC) No 1211/2009 of the European Parliament and the Council of 25 November 2009 establishing the Body of European Regulators for Electronic Communications (BEREC) and the Office ERG was replaced with the Body of European Regulators for Electronic Communications (BEREC) in 2010.

[691] Revised ERG Common Position on the approach to Appropriate remedies in the ECNS regulatory framework, ERG (06)33, May 2006, available at http://www.erg.eu.int/doc/meeting/erg_06_33_remedies_common_position_june_06.pdf.

[692] See in particular paragraph 14.

[693] European Commission Recommendation of 19 September 2005 on accounting separation and cost accounting systems under the regulatory framework for electronic communications (2005/698/EC) the '**2009 Termination Rates Recommendation'**).

[694] Accounting separation and cost accounting remedies have also been imposed in " Accounting Separation and Cost Accounting Review of Eircom Limited, Response to Consultation and Decision, ComReg Document 10/67, Decision 08/10, August 2010" (the '**2010 Accounting Decision**') available at http://www.ComReg.ie/_fileupload/publications/ComReg1067.pdf.

[695] " Wholesale Call Origination and Wholesale Call Termination Markets, Response to Consultation and Decision, amending price control obligations and withdrawing and further specifying transparency obligations, ComReg Document 11/67, Decision 07/11, September 2011 (the '**2011 Pricing and Transparency Decision**'), available at http://www.ComReg.ie/_fileupload/publications/ComReg1167.pdf.

[696] This does not purport to be an exhaustive list of each individual remedy currently imposed upon Eircom. Details of obligations imposed upon Eircom are available at http://www.ComReg.ie/telecoms/table_of_smp_obligations.563.1076.html.

Existing FVCO and WLR access remedies

9.9 Eircom is currently subject to a range of access obligations having been designation with SMP in the FVCO market and the RFVA market, under the 2007 Decision and the 2007 RNA Decision respectively. These remedies were designed to address various competition problems that were identified at that time. The obligations imposed under the 2007 RNA Decision require Eircom to provide:

(a) Carrier Pre-Selection (‘**CPS**’);

(b) Carrier Select (‘**CS**’)[697];

(c) Carrier Access (‘**CA**’)[698];

(d) SB-WLR;

9.10 With regard to the provision of SB-WLR, the 2007 RNA Decision also requires Eircom to publish a reference offer that describes the relevant offerings broken down into components according to market needs, as well as a description of the terms and conditions, including prices.

9.11 The 2007 RNA Decision also imposed obligations upon Eircom:

(a) To negotiate in good faith with undertakings requesting access;

(b) Not to withdraw access to facilities already granted without ComReg’s prior approval;

(c) To grant open access to technical interfaces, protocols or other key technologies that are indispensable for the interoperability of services or virtual network services;

(d) To provide access to operational support systems or similar software systems necessary to ensure fair competition in the provision of services; and

(e) To interconnect with networks or network facilities;

(f) To develop and offer legally binding SLAs in respect of the services and products offered, or to continue to offer SLAs where appropriate.

[697] Carrier Select (‘**CS**’) is a service provided by Eircom whereby the end-user’s telecommunications equipment, such as a private automatic branch exchange (PABX) or similar equipment, automatically dials a carrier access code which routes the end-user’s calls to the Access Seeker (alternative RFVC provider) for onward carriage or completion of the call.

[698] Carrier Access (‘**CA**’) allows the end-user to manually choose its preferred Access Seeker (RFVC provider) for onward carriage or delivery of its calls by dialling a carrier access code before dialling the called party’s telephone number.

9.12 The 2007 Decision (which was published shortly after the 2007 RNA Decision) required Eircom to meet reasonable requests for access, including access to, wholesale products, features and facilities that were set out in various Eircom published documents and online publications.[699] These included the FVCO (including FVCO to non-geographic numbers), Transit, and CPS services as set out in the Eircom Reference Interconnect Offer ('**RIO**') and associated RIO price list. Similar obligations to those identified in paragraph 9.11 (a) to (e) above were also imposed, along with additional requirements such as an obligation not to withdraw access to facilities already granted and to conclude legally binding Service Level Agreements (SLAs) with undertakings.

Existing FVCO and WLR non-discrimination remedies

9.13 Eircom is subject to non-discrimination obligations under the 2007 Decision and the 2007 RNA Decision, with respect to the provision of FVCO and SB-WLR. These include requirements on Eircom to:

(a) provide a wholesale equivalent for retail offerings that are offered by Eircom;

(b) apply equivalent conditions in equivalent circumstances to other undertakings providing equivalent services and provide services and information to others under the same conditions and of the same quality as Eircom provides for its own services or those of its subsidiaries or partners; and

(c) ensure that information and services are provided, to undertakings according to timescales, on a basis, and of a quality, which are at least equivalent to those provided by Eircom to its retail arm and its associates.

9.14 Eircom is obliged to apply similar terms and conditions to undertakings that obtain, or seek to obtain from them, FVCO products, services and facilities.

Existing FVCO and WLR transparency remedies

9.15 In relation to the provision of SB-WLR, the 2007 RNA Decision required that Eircom should be transparent in relation to the provision of the service, with ComReg having the ability to issue directions to Eircom requiring it to publish specified information, such as accounting information, technical specifications, network characteristics, terms and conditions for supply and use and prices.

9.16 The 2007 Decision also subjected Eircom to a range of transparency obligations whereby it is required to make certain information available in relation to interconnection and access. These include specific obligations on Eircom to:

(a) publish on its wholesale website, and keep updated, a Reference Interconnect Offer ('RIO');

[699] The following documents were listed specifically: Service schedules 002 and 005 and all the other eircom services listed under "eircom services" in Annex C of the RIO; eircom's RIO Network Price List; eircom's Interconnect O&M Manual; eircom's service level agreement ("SLA") for Interconnect Paths; and eircom's document on Traffic Designation for Inbound & Outbound Interconnect Paths published on its wholesale website.

(b) ensure that its RIO is sufficiently unbundled to ensure that undertakings are not required to pay for facilities which are not necessary for the service requested;

(c) ensure that its RIO includes a description of the relevant offerings broken down into components according to market needs and a description of the associated terms and conditions, including prices; and

(d) ensure that its RIO contains details of the terms and conditions of access in respect of facilities already granted.

(e) publish the FVCO related schedules, prices, product descriptions and inter-operator process manuals contained in the RIO and publish the Eircom RIO Price List.

(f) publish information, such as accounting information, technical specifications, network characteristics, terms and conditions for supply and use, and prices, in respect of FVCO services and facilities referred to in the 2007 Decision, or as specified from time to time, on its publically available website and/or in the RIO.

9.17 Eircom is also required to comply with various requirements imposed under a 2002 RIO Decision[700].

9.18 The 2011 Pricing and Transparency Decision[701] further amended the obligations that existed under the 2007 Decision concerning price control obligation and further specified the transparency obligations by specifically requiring Eircom to publish detailed documentation on all terms (other than price), conditions, service level agreements, guarantees and other product-related assurances associated with its provision of wholesale FVCO and FVCT within its Wholesale SV Services[702].

[700] "Eircom's Reference Interconnect Offer" ComReg Document 02/55, Decision Number 10/02, June 2002, (the **'2002 RIO Decision**') available at http://www.ComReg.ie/_fileupload/publications/odtr0255.pdf.

[701] See footnote 695 above.

[702] In addition, the 2011 Pricing and Transparency Decision removed a requirement imposed under the 2007 Decision requiring Eircom to publish minimum price floors for the FVCO and FVCT components of the Wholesale SV service.

Existing FVCO and WLR price control remedies

Cost orientation for FVCO services

9.19 Pursuant to the 2007 Decision, Eircom is subject to a price control obligation of cost orientation for FVCO services, including with respect to interconnection services. The prices charged by Eircom to any undertaking for FVCO and various interconnection services are calculated using a Top Down[703] Forward-Looking Long Run Average Incremental Cost plus pricing ('**LRAIC+**') model[704]. The resulting prices are set out in the RIO Price List on Eircom's wholesale website[705].

9.20 For FVCO to non-geographic numbers, Eircom is allowed to retain the costs not only of FVCO, but also additional charges that relate to:

- An uplift or 'retention' that is intended to allow Eircom to recover its reasonable billing costs associated with the service; and
- An additional bad debt surcharge to reflect the higher incidence of bad debt for calls to certain non-geographic numbers (such as calls to premium rate services).

9.21 The sum of these three parts is known as the '**Retention Rate**'.

Retail Minus price control for SB-WLR

9.22 Pursuant to the 2007 RNA Decision and a subsequent 2008 SB-WLR Direction regarding the SB-WLR price control[706], Eircom is subject to a price control with respect to the provision of the WLR element of SB-WLR (with the FVCO element subject to a cost orientation obligation outlined above), whereby Eircom must provide it to Access Seekers at a price that is at least 14% below Eircom's retail line-rental price (i.e. a retail 'minus' type price control)[707]. This same obligation also applies to other charges associated with WLR, including a range of ancillary services.

[703] Top Down refers to the situation whereby the source of financial information being used is taken from the audited Eircom accounting records.

[704] This is a model that calculates the average efficiently incurred directly attributable variable and fixed costs, plus an appropriate apportionment of joint and common costs.

[705] Eircom FVCO charges are published by Eircom in Schedule 103 of its RIO Price List, which is available at: http://www.eircomwholesale.ie/Reference-Offers/RIO/ (the '**RIO Price List**').

[706] "ComReg Information Notice: Single Billing Wholesale Line Rental, Directions to Eircom regarding retail minus %, Document 08/19, 22 February 2008" (the "**2008 SB-WLR Direction**"), available at http://www.ComReg.ie/_fileupload/publications/ComReg0819.pdf.

[707] Eircom's WLR charges are set out in Schedule 401 of its RIO Price List.

9.23 The retail minus 14% is based on Eircom's Historical Cost Accounts[708] ('**HCA**'), adjusted for efficiencies where relevant, and uses an Equally Efficient Operator ('**EEO**') cost standard.

Obligation not to cause a Margin Squeeze

9.24 The 2011 Pricing and Transparency Decision also requires not to apply a Margin Squeeze when supplying a Wholesale SV service.

9.25 The 2011 Pricing and Transparency Decision applies a margin squeeze model to determine a price floor for Eircom's Wholesale SV service (the "**Margin Squeeze Test**"). The cost standard used in this Margin Squeeze Test is that of a Similarly Efficient Operator ("**SEO**")[709] using Eircom's regulated cost-oriented FVCO services to provide Wholesale SV. The Margin Squeeze Test includes all costs incurred in the provision of Wholesale SV Services and includes, but is not limited to the costs associated with wholesale FVCO, FVCT, Transit and interconnect circuits/links[710]. The cost model is intended to produce a fair representation of the likely cost of the hypothetical SEO wishing to compete against Eircom in the provision of Wholesale SV Services.

9.26 In order to demonstrate its compliance with the Margin Squeeze obligation, Eircom is required under the 2011 Pricing and Transparency Decision to provide ComReg with information about the pricing of FVCO given it is a component of its Wholesale SV service. It is also required to publish, within its Reference Interconnection Offer[711] (RIO), certain information regarding the components encompassed in its wholesale SV Services.

[708] Under the historic cost basis, the operator recovers costs that are actually incurred in providing the products, services or associated facilities, plus a regulated rate of return on the investment. The historical cost accounts ("**HCA**") is based upon the actual reported financial results of an operator for a given period which has already occurred in the past.

[709] A Similarly Efficient Operator means an operator that shares the same costs as Eircom but does not have the same economies of scale and economies of scope as Eircom.

[710] These circuits/links are the physical transmission paths over which calls are routed and delivered.

[711] See discussion regarding the RIO later in paragraphs 9.162 to 9.203.

9.27 Eircom is also subject to an obligation imposed under the 2007 RNA Decision not to unreasonably bundle retail line rental with other retail products. This is to prevent Eircom from offering retail bundles having a line rental component at a price that prevents Eircom's wholesale customers from competing effectively for retail customers when they using Eircom's SB-WLR, FVCO, LLU and WBA products in doing so. This obligation was amended and further specified in the 2013 Bundles Decision[712] which, *inter alia*, set out ComReg's approach as to the 'net revenue test' it applies to assess whether or not Eircom is covering its total costs when it sells a bundle of services together and thereby complying with the obligation not to unreasonably bundle services.

Existing FVCO and WLR cost accounting and accounting separation remedies

9.28 Eircom is currently subject to a cost accounting and accounting separation obligation under the 2007 Decision. As noted previously[713], these obligations are detailed in the 2010 Accounting Decision.

Assessment of Regulatory Approaches to Imposing Remedies the FACO Markets

9.29 In Section 5.217 ComReg has set out its preliminary view that Eircom has SMP in the FACO Markets. Furthermore, in Section 8 ComReg identified a range of potential competition problems that may arise in the FACO Markets, absent regulation, arising from Eircom's ability and incentives as a vertically integrated SMP undertaking that competes with Access Seekers in a number of other retail and wholesale markets. In this Section, ComReg assesses the regulatory options for addressing the competition problems that have been identified, before then proposing specific regulatory obligations.

Option of 'No Regulation' in the FACO Markets

9.30 ComReg has considered whether the option of de-regulation or regulatory forbearance is appropriate in the FACO markets.

9.31 As noted in paragraph 9.2 above, Regulation 8(1) of the Access Regulations and Regulation 27(4) of the Framework Regulations require ComReg to impose at least some level of regulation on undertakings designated as having SMP. In Section 5.217, ComReg set out its view that the FACO Markets are not effectively competitive (and are not likely to become effectively competitive within the timeframe covered by this review). In Section 8, ComReg identified a range of competition problems that could occur in the FACO Markets, absent regulation.

[712] Price Regulation of Bundled Offers , Further specification of certain price control obligations in Market 1 and Market 4, Response to Consultation and Decision, ComReg Document 13/14, Decision 04/13, February 2013 (the "**2013 Bundles Decision**") available at http://www.ComReg.ie/_fileupload/publications/ComReg1314.pdf.

[713] See footnote 694 above.

9.32 In view of this assessment, it is ComReg's preliminary view that the FACO Markets (and related markets including downstream retail markets) would be unlikely to function effectively absent regulation. This would not be in the interest of promoting sustainable retail competition. As discussed in Section 8 concerning competition problems, a number of FSPs use FACO to compete with Eircom in the provision of RFTS and, in some cases, for the provision of other wholesale services. ComReg has set out its preliminary view that Eircom therefore has the ability and incentive to exclude or foreclose Access Seekers competing in the provision of RFTS by refusing to supply them with FACO (including constructive refusal), or by setting FVCO prices at an excessive level.

9.33 It is ComReg's preliminary view that the option of regulatory forbearance in the FVCO Markets is not, therefore, appropriate or justified. The relevant issue to be considered, therefore, relates to what form of regulation is appropriate. In particular, which of the remedies identified in paragraph 9.2 above are appropriate having regard to the particular circumstances of the FACO Markets, the associated identified competition problems and taking account of the relevant statutory requirements to which ComReg must have regard when imposing remedies. ComReg sets out its preliminary views on these issues below.

Option to impose remedies in the FACO Markets

9.34 As noted in paragraphs 9.7 to 9.28, Eircom has to date been subject to a range of SMP based regulatory obligations as imposed primarily in 2007 Decision and the 2007 RNA Decision, as well as in a number of other decisions that enhanced or amended existing remedies in the intervening period. On that basis, Eircom is already subject to a range of regulatory obligations requiring it to provide access to FVCO and WLR to Access Seekers and to do so on non-discriminatory and transparent terms and conditions, including at regulated prices.

9.35 In this Consultation, ComReg has proposed to define two separate markets, namely the LL-FACO Market and HL FACO Market, together the FACO Markets. Both such markets essentially include FVCO and WLR. ComReg sets out below its preliminary views on the detail of the proposed imposition of regulatory obligations on Eircom in the FACO Markets. ComReg is proposing to impose the same obligations in the LL-FACO Market and HL-FACO Market, and hence, does not discuss them separately.

Proposed Remedies in the FACO Markets

9.36 In the Sections below ComReg sets out its preliminary views regarding remedies that it proposes to impose upon Eircom in the FACO markets. These include:

- Access obligations (discussed in paragraphs 9.37 to 9.129);
- Non-discrimination obligations (discussed in paragraphs 9.131 to 9.163);
- Transparency obligations (discussed in paragraphs 9.164 to 9.206);
- Price control and cost accounting obligations(discussed in paragraphs 9.206 to 9.276); and

- Accounting separation obligations (discussed in paragraphs 9.277 to 9.283).

Access Remedies

Overview

9.37 As identified in Section 8, in providing RFTS a number of service providers are wholly dependent on upon the use of Eircom's wholesale FACO services in order to compete in the provision of RFVC and RFVA. ComReg has already set out its view that Eircom has the ability and incentive to refuse to supply FACO to Access Seekers, either actually or constructively, or to provide these services on discriminatory or unreasonable terms and conditions (including in relation to price) and that this would likely hinder the development of sustainable competition in the RFVC and RFVA markets. This would ultimately be detrimental to the interests of end-users, and would be contrary to the objectives set out in Section 12 of the Communications Regulation Acts 2002 to 2011 and Regulation 16 of the Framework Regulations.

9.38 ComReg's preliminary view is that there are likely to continue to be differences in bargaining power[714] between Eircom and Access Seekers, particularly given the absence of credible alternative sources of supply within the timeframe of this review period.

9.39 Absent the presence of effective access remedies, ComReg would be left to address any such refusal by Eircom to supply FACO either through its general dispute resolution or compliance functions, all of which would occur after the fact, take time[715] to resolve, be specific to the bilateral circumstances between the relevant parties and not, thereby contributing to regulatory certainty amongst market players. As a consequence, this could be damaging to downstream competition and ultimately consumers.

9.40 Such case-by-case interventions by ComReg would also be inefficient and ineffective in resolving the broader competition problem of denial/delayed access by an SMP MSP. In this regard, it is worth noting that the European Commission has made several comments[716], under Article 7/7a of the Framework Directive, on the imposition by NRAs of SMP-type obligations pursuant to the exercise of dispute resolution functions. Such European Commission decisions clearly highlight the need for effective remedies to be imposed through a formal market analysis process. This includes the imposition of access (and other) obligations on any FSPs found to have SMP.

[714] ComReg considered the impact of CBP in Section 5.217, and considered it to be ineffective.

[715] Including time for ComReg to consider the dispute, along with possible public consultation and notification to the European Commission.

[716] See European Commission serious doubts/comments and BEREC Opinions (where made) on Polish cases PL/2010/1127, PL/2011/1273, PL/2011/1255-1258 and Latvian case LV/2012/1296.

9.41 Additionally, ComReg could seek to use its *ex post* competition law powers. However, such powers could ultimately result in a finding by an Irish court that an undertaking has abused its dominant position, but not necessarily require access to be provided as an outcome to any such finding. Similar to the reasons above, a competition law approach would also take significant time to resolve, be specific to the relevant circumstances of the case and not contribute to regulatory certainty amongst market players.

9.42 Overall, therefore, ComReg considers that dispute resolution (which can be of relevance in resolving access and other issues in certain circumstances) and *ex post* competition law approaches would not be effective in resolving issues concerning denial of access in the FACO Markets.

9.43 Regulation 12(1) of the Access Regulations provides that ComReg may, in accordance with Regulation 8 of the Access Regulations, impose on an operator obligations to meet reasonable requests for access to, and use of, specific network elements and associated facilities where ComReg considers that the denial of such access, or the imposition by operators of unreasonable terms and conditions having a similar effect, would:

- hinder the emergence of a sustainable competitive retail market;
- not be in the interests of end-users; or
- otherwise hinder the objectives set out in Section 12 of the Communications Regulation Acts 2002 to 2011

9.44 Obligations must also be proportionate and justified in the light of the objectives laid down in Section and Regulation 16 of the Framework Regulations.

9.45 Regulation 12(2)(a) to 12(2)(j) and Regulation 12(3) of the Access Regulations provide that ComReg can impose, where appropriate, additional access obligations and may attach conditions covering fairness, reasonableness and timeliness to those access obligations.

9.46 As noted in paragraph 9.4 above, pursuant to Regulation 12(4) of the Access Regulations, when considering whether to impose obligations referred to in paragraphs (1) and (2) of Regulation 12 and, in particular, when assessing whether such obligations would be proportionate to the objectives set out in Section 12 of the Communications Regulation Acts 2002 to 2011, ComReg has to take the following factors into account:

(a) the technical and economic viability of using or installing competing facilities, in light of the rate of market development, taking into account the nature and type of interconnection and access involved;

(b) the feasibility of providing the access proposed, in relation to the capacity available;

(c) the initial investment by the facility owner, bearing in mind the risks involved in making the investment;

(d) the need to safeguard competition in the long-term;

(e) where appropriate, any relevant intellectual property rights; and

(f) the provision of pan-European services.

9.47 These provisions are taken into account below in ComReg's consideration of the access remedies that ComReg proposes to impose upon Eircom in order to address the competition problems identified in Section 8. An overview of Eircom's existing access obligations has also been provided in paragraphs 9.9 to 9.12 above.

Reasonable Requests for Access to FACO and Associated Facilities

9.48 ComReg considers it necessary to impose a range of access obligations upon Eircom which are ultimately intended to facilitate the development of sustainable competition in downstream markets.

9.49 ComReg's preliminary view is that, pursuant to Regulation 12(1) of the Access regulations that Eircom should be required to meet all reasonable requests from undertakings for the provision of access to 'current generation' FACO and associated facilities. i.e., access to traditional circuit switched TDM based FVCO and copper/fibre based WLR (referred to as '**Current Generation (CG) FACO**').

9.50 The significant majority of the access obligations that ComReg proposes to impose here, and elsewhere in this Section, effectively results in a continuation of Eircom's offer of the existing FACO products in accordance with the product descriptions and terms and conditions of supply or use, as specified in the current version of the Eircom Reference Interconnection Offer ('**RIO**')[717], and in addition, in accordance with the proposed obligations discussed elsewhere in this Consultation.

[717] Currently RIO version 3.23 dated 29 June 2012, as published on Eircom's wholesale website, as may be amended from time to time and in accordance with the obligations proposed elsewhere in this Consultation.

9.51 ComReg does not, however, propose at this time to require Eircom to meet reasonable requests for access to 'next generation' FACO, i.e., IP based FVCO that would be delivered over an upstream regulated wholesale broadband access ('**WBA**')[718] product or indeed through broadband enabled via local loop unbundling[719].

9.52 As noted in Section 6, ComReg does not consider that existing or potential competition would effectively constrain Eircom's market power within the lifetime of this market review (i.e. three years following the effective date of a decision on this analysis). In particular, ComReg has noted that RFTS competition has and, for the period of this review, is likely to continue to be heavily dependent on availability of wholesale access to CG FACO products such as SB-WLR. In this respect, access to such CG FACO products is necessary to maintain competition and to minimise foreclosure concerns that could arise, absent such regulation.

9.53 However, over a longer time horizon[720] technology developments, the roll-out of NGA broadband and potential investment by OAOs may mean that the emergence of Access Seeker self-supplied VOB based FACO, along with any moves towards IP based interconnection, has the potential to change the competitive landscape in the FACO Markets and downstream markets[721]. Access Seekers, therefore, may have the potential to replicate an Eircom FACO product by, for example, using WBA and self-supplying VoIP based NG FACO over a broadband connection.

9.54 ComReg therefore intends to closely monitor developments in the markets over the current review period and, if appropriate, re-examine the extent of NG FACO based constraints that may emerge and adjust the scope and/or level of regulation in the FACO Markets accordingly.

[718] Eircom has been designated as having SMP in the Wholesale Broadband Access (WBA) market and is subject to a range of regulatory obligations requiring it to provide access to various wholesale broadband products in a transparent and non-discriminatory manner, including at regulated prices. Such WBA products (in particular, a naked broadband access product that does not require a narrowband access connection to be maintained) could provide an OAO with the broadband access path over which a VoIP based telephony service could be provided (subject to considerations such as the availability and quality of the broadband connection). For an overview of Eircom's WBA obligations, as imposed through ComReg's decisions, are available at http://www.ComReg.ie/_fileupload/20130711%20Table%20of%20SMP%20Obligations%20-%20Market%205.pdf.

[719] Eircom has been designated as having SMP in the Wholesale Physical Network Infrastructure Access (WPNIA) market and is subject to a range of regulatory obligations requiring it to provide access to various wholesale physical products (such a local loop unbundling and line share) in a transparent and non-discriminatory manner, including at regulated prices. Such WPNIA products would technically allow an OAO to offer a broadband service over which a VoIP based telephony service could be provided (subject to considerations such as the availability and quality of the broadband connection). For an overview of Eircom's WBPNIA obligations, as imposed through ComReg's decisions, are available at http://www.ComReg.ie/_fileupload/20130711%20Table%20of%20SMP%20Obligations%20-%20Market%204.pdf.

[720] Potentially within the period of the next market analysis.

[721] Subject to the effectiveness of the competitive constraints that any such emergence may exert on CG FACO.

9.55 ComReg is also cognisant that, from a forward looking perspective, it may not be proportionate to impose obligations on Eircom with respect to NG FACO in circumstances where Access Seekers may ultimately have the potential to position themselves to compete more independently of Eircom's wholesale services through climbing the ladder of investment and building their own VoIP based call origination capabilities (also using upstream Eircom supplied broadband inputs). This is also aligned with the ultimate aim of supporting the development of sustainable competition. Indeed, requiring Eircom to provide access to NG FACO at this juncture could have the opposite effect of stymieing the potential for Access Seekers to develop their own NG FACO services through VoIP based services over broadband.

9.56 It should, however, be noted that that while not proposing to impose any access (or other) regulatory obligations with respect to NG FACO, ComReg still proposes to require Eircom to meet reasonable requests for access to IP Interconnection for the conveyance of VoIP services.

9.57 ComReg would note that even in the likely event[722] that, Eircom were to launch its own VoIP based retail services over the period of this review, competition should be protected. Firstly, Eircom will still be required to provide access to CG FACO. Secondly, given that Eircom would be consuming self-supplied WBA inputs, to the extent that it offers itself enhanced broadband products services and facilities, this would be governed by its regulatory obligations in the WBA market, including access, transparency and non-discrimination.

9.58 The proposed imposition of these and other access obligations identified below is also assessed in paragraphs 9.122 to 9.123 having regard to the statutory criteria identified in paragraphs 9.43 and 9.46 above.

Additional Proposed Access Remedies

9.59 In addition, apart from the general obligation above to meet reasonable requests for access to CG FACO ComReg proposes to impose specific access requirements upon Eircom to provide a range of specific products, services and facilities, as well as more general requirements governing this.

9.60 In this respect, ComReg proposes to impose the following specific obligations upon Eircom in order to address identified competition problems and ultimately to promoted the development of downstream competition to the benefit of consumers:

(a) to provide access to SB-WLR and a range of ancillary SB-WLR services, with ComReg leaving open the question as to whether Eircom should be required to provide CPS on a standalone basis (discussed in paragraphs 9.62 to 9.76 below);

[722] ComReg has been informed by Eircom that **[✂ [redacted]].**

(b) to provide access to Interconnection Services and Co-Location facilities (discussed in paragraphs 9.78 to 9.88 below);

(c) to provide access to PAC Services (discussed in paragraphs 9.89 to 9.91 below);

(d) to negotiate in good faith with undertakings, requesting Access (discussed in paragraphs 9.92 to 9.95 below);

(e) not to withdraw Access to facilities already granted without the prior approval of ComReg (discussed in paragraphs 9.96 to 9.98 below);

(f) to grant open access to technical interfaces, protocols or other key technologies that are indispensable for the interoperability of products, services or facilities (discussed in paragraphs 9.99 to 9.100 below);

(g) to provide access to co-location or other forms of associated facilities sharing insofar as it relates to interconnection services necessary to support access to FACO, products, services and facilities (further discussed in paragraphs 9.101 to 9.102 below);

(h) to provide access to services needed to ensure interoperability of end-to-end services to End-Users, including facilities for intelligent network services (discussed in paragraphs 9.103 to 9.104 below);

(i) to provide access to OSS or similar software systems necessary to ensure fair competition in the provision of services (discussed in paragraphs 9.105 to 9.108 below);

(j) to interconnect networks or network facilities (discussed in paragraphs 9.109 to 9.111 below) and;

(k) to provide access in accordance with a range of conditions governing fairness, reasonableness and timeliness (discussed in paragraphs 9.112 to 9.121 below).

9.61 The consideration of and justification for the above access remedies is discussed below.

SB-WLR and Ancillary Services on SB-WLR

9.62 Pursuant to Regulation 12 of the Access Regulations, ComReg proposes that Eircom should be required to provide SB-WLR as well as a range of associated facilities, including access to:

(a) Single Billing through Wholesale Line Rental (SB-WLR); and

(b) Wholesale ancillary services, including wholesale low value CPE rental;

9.63 The justification for the above proposed requirements is discussed below.

9.64 SB-WLR is a wholesale bundle that combines CPS (being FVCO) together with wholesale line rental **(WLR)**[723], as well as other services. SB-WLR allows RFTS providers to offer RFVC and RFVA together, thus avoiding a situation where the retail customer is being billed by Eircom for retail line rental, and separately by the competing FSP for calls.

9.65 Eircom has to date provided SB-WLR on foot of regulatory obligations imposed under the 2007 RNA Decision. While Access Seekers have to date had the option of purchasing CPS as a standalone product, the high degree of complementarity between the CPS and WLR products (derived from the preference of retail customers to purchase RFVC and RFVA within a single product) has resulted in a gradual reduction in demand for standalone CPS since the last review. In fact, only 2% of CPS purchases are made on a standalone basis. As such, SB-WLR has become the main wholesale product used by FSPs to provide competing retail fixed calls and access services. We return to the issue of whether a requirement to provide standalone CPS is necessary in paragraphs 9.72 to 9.76 below.

9.66 As noted in Section 8 concerning competition problems and in paragraph 9.52 above, ComReg has noted that RFTS competition has been and, for the period of this review, is likely to continue to be heavily dependent on availability of Access Seekers having wholesale access to SB-WLR and associated facilities. Absent regulation, ComReg's view is that given is that Eircom, as a vertically integrated undertaking with SMP in the FACO Markets, has the ability and incentive to refuse to provide access to FACO products, services and facilities such as SB-WLR. In this respect, access to such SB-WLR is necessary to ensure the development of sustainable and effective downstream competition and to minimise foreclosure concerns that could arise, absent such regulation.

9.67 For these reasons, ComReg proposes that Eircom should be required, pursuant to Regulation 12(2) of the Access Regulations to provide access to SB-WLR. Such an approach is be consistent with Regulation 12(2)(a) allows specific access obligations such as carrier pre-selection or subscriber line resale offers to be imposed.

9.68 ComReg is also of the preliminary view that Eircom should, in accordance with Regulation 12(2) of the Access Regulations, continue to be required to provide access to a range of ancillary services associated with SB-WLR on the basis that these services are important for facilitating the effectiveness of the SB-WLR remedy in addressing competition problems in the downstream RFTS market.

[723] WLR, for the purposes of the discussion on remedies, encompasses wholesale access to PSTN, ISDN BRA, ISDS FRA and ISDN 30 access paths.

9.69 Such ancillary services, include the various calling features (such as call barring, call waiting, caller line identity restriction) which are set out in Section 4.2 and 4.3 of the Eircom document entitled "Single Billing through Wholesale Line Rental Product Description" (issue 2.2, dated 5 December 2007[724]) as may be amended from time to time and as is published on Eircom's wholesale website (the '**Ancillary Services on SB-WLR**')[725].

9.70 As part of the obligation to provide access to Ancillary Services on SB-WLR ComReg also proposes that Eircom should continue to be required to provide access to wholesale low-value Customer Premises Equipment ('**CPE'**) rental ('**wholesale LV-CPER**').This should be provided on the same basis as it provides it to its downstream arm and customer e.g. if LV-CPE is "written off" at retail level, it should not be charged for at the wholesale level.

9.71 A number of Eircom's RFTS customers currently pay retail charge for the rental of their telephone handsets on top of their retail charges for line rental and calls. Absent an obligation on Eircom to provide Access Seekers with a wholesale LV-CPER service, when Eircom retail customers switch to an FSP's SB-WLR based retail service, Eircom has the ability and incentive to refuse to provide such a service thereby allowing it continue to separately bill the retail customer for its telephone handset rental (and maintain a retail relationship with this customer). Experience to date suggests that this leads to confusion amongst retail customers in that they receive two bills (one from the SB-WLR based FSP and the other from Eircom) and has the potential to undermine the effectiveness of the SB-WLR remedy in promoting sustainable retail competition, namely the ability for the retail consumer to receive a single retail bill from their chosen FSP. This could, in turn, undermine retail customer switching behaviour by acting as a barrier to such.

9.72 It is somewhat open to question as to whether Eircom should continue to be subject to a requirement to provide access to a standalone CPS[726], essentially being productised by Eircom as a wholesale FVCO product. Given Eircom's position as an SMP undertaking it is ComReg's view that it has the ability and incentive to refuse provide standalone CPS, absent regulation.

[724] A copy is available on Eircom wholesale's website at http://www.eircomwholesale.ie/Products/Access/Documents/SB-WLR-Prod--Desc/.

[725] Insofar as they relate to the FACO Markets and in accordance the proposed obligations set out elsewhere in this Consultation.

[726] In circumstances where a standalone CPS service is provided by Eircom to an Access Seeker, it also requires that an active retail line rental service exists, with Eircom's retail arm providing such a line rental service to the retail customer and maintaining the retail contractual relationship for this purpose. In parallel, the Access Seeker, through the use of CPS would provide a retail call's only service and also have a the retail contractual relationship for this purpose.

9.73 While the continuation of this requirement is unlikely to pose a significant incremental burden upon Eircom (given the CPS service is in any event provided as a component of the combined SB-WLR product and has been provided on a standalone basis to date), as previously noted[727], FVCO is now predominantly purchased by Access Seekers as part of the bundled SB-WLR product rather than on a standalone basis. i.e., FVCO is mainly purchased together with WLR. In this respect, wholesale demand for standalone CPS has declined significantly since the 2007 Decision and now represents a relatively small amount of [728] all purchases of FVCO/FACO. This decline may continue further over the period of the current review, given the increasing prevalence of bundling of services in the retail market and, therefore, CPS does not appear to any longer be a potent driver of retail competition.

9.74 Nevertheless, it may well be the case that the CPS product facilitates the offering of certain niche retail telephony products (such as the separate billing/payment of business calls made by employees when working from home) for which there is demand and that could not be facilitated through other means. Additionally, although demand for standalone CPS has declined, the availability of CPS offers somewhat of a competitive 'safety net' that might contribute to preventing Eircom from leveraging its market power from the RFVA market into the RFVC market.

9.75 Nevertheless, having regard to the above, ComReg is interested in understanding respondent's views as to whether the maintenance of the standalone CPS obligation is justified, in particular, having regard to the potential benefit that any such remedy would bring in terms of its contribution to the development of sustainable retail competition. ComReg will further consider the matter, however, for now it leaves open the question as to whether it would maintain this CPS remedy.

9.76 ComReg has currently provided for a CPS access remedy within the draft Decision Instrument attached at Appendix H of this Consultation. This is indicative of the type of CPS remedy that could be imposed should ComReg ultimately decide that such a remedy is necessary.

9.77 Equally so, if ComReg decides that a CPS remedy is not to be imposed, then the existing CPS remedy would be withdrawn, most likely over a short 'sun-set' period of up to 6 to 12 months in order to facilitate CPS purchasers making any necessary adjustments at the wholesale and/or retail level. During the course of any such 'sun-set' period, it may also not be appropriate to require Eircom to continue to provide new requests for CPS, as this may only perpetuate the provision of a service which could ultimately be withdrawn.

[727] See paragraph 9.65.

[728] As at Q3 2013 there were approximately 15,982 instances of standalone CPS provision.

Interconnection services and associated co-location facilities

9.78 Pursuant to Regulation 12(2)(i) and 12(2)(f) of the Access Regulations, ComReg's preliminary view is that Eircom should be required to provide access to a range of specific interconnection services and associated co-location facilities that are associated with the provision of access to FACO.

9.79 Interconnect services essentially relate to the physical and/or logical connectivity between network switching points (typically exchanges or their equivalents) to facilitate the handover of traffic within or between undertakings' networks. FSPs, including Eircom, use a range of interconnection and/or leased line products[729] as the underlying transmission infrastructure to support such interconnection.

9.80 Eircom currently supplies a range of interconnection services to FACO Access Seekers pursuant to its existing SMP obligations:

- In-Span Handover ('**ISH**') which means the connection between the Eircom Exchange and the alternative Service Provider's nominated Point of Handover.
- Customer-Sited Handover ('**CSH'**) does not require any additional infrastructure build by the Service Provider to extend further extend its network as Eircom builds into the Service Provider's site.

9.81 Eircom is the largest provider of RFTS in the State and, as such, every other FSP (and indeed MSPs) will likely need to interconnect with Eircom in order to ensure that their customers can make calls, including calls to Eircom's customers.

9.82 The above ISH and CSH products (together referred to as '**Current Generation Interconnection Services**') support the purchase of FVCO and, in the context of this review, it is ComReg's view that interconnection products, services and facilities are likely to be continue to be a strong complement to the FVCO component of FACO. Given the ubiquity of Eircom's network and the number of its associated points of interconnection, an Access Seeker would require interconnection to a large number of switching points in order to purchase primary level FVCO (or indeed to purchase FVCT[730]).

9.83 ComReg would note that paragraph 5 in Section 2.6 of the Explanatory Note to the 2007 Recommendation states that:

[729]Wholesale terminating leased line segments fall within a separate regulated market with Eircom having been designated with SMP in such a market and having had a range of regulatory obligations imposed upon it. Further details are available at http://www.ComReg.ie/_fileupload/20130711%20Table%20of%20SMP%20Obligations%20-%20Market%206.pdf.

[730] Eircom also has SMP in the FVCT market with and has had a range of regulatory obligations imposed upon it. Further details are available at http://www.ComReg.ie/_fileupload/20130711%20Table%20of%20SMP%20Obligations%20-%20Market%206.pdf.

"…. in dealing with lack of effective competition arising from a position of SMP in an identified market, it may be necessary to impose several obligations to remedy the competition problem relating to services both inside and outside the market. In principle, an NRA may impose obligations in an area outside but closely related to the relevant market under review, provided such imposition constitutes:

the most appropriate, proportionate and efficient means of remedying the lack of effective competition found on the relevant market; and

an essential element in support of obligation(s) imposed on the relevant SMP market without which those obligations would be ineffective"

9.84 Absent regulation, ComReg considers that Eircom would have the ability and incentive to leverage its SMP position in the FACO Markets into its supply of interconnection products, services and facilities by denying (outright or constructive) access to, for example, Interconnection Services or by acting in a discriminatory manner (say through offering preferential terms and conditions, including prices, to one group of purchasers over another). For the reasons discussed in Section 8, Eircom could also potentially impede/raise the costs of effective handover of calls to or from SB-WLR (and CPS) based retail subscribers and thus undermine the effectiveness of those services. Such leveraging behaviour could undermine remedies imposed in the FACO Markets which are designed to address the lack of effective competition within them, and ultimately sustainable competition in the RFTS market

9.85 ComReg therefore proposes that Eircom should be required to meet reasonable requests for access to interconnection services including In Building Handover[731] ('**IBH**')) (and associated co-location services necessary to facilitate this) given their associated importance with the provision of FACO, in that they facilitate the effective supply to and use of FACO by Access Seekers. These elements ultimately allow FSPs to offer RFTS and compete in the retail market, and should ensure that Access Seekers will be able to effectively and efficiently purchase FACO from Eircom.

9.86 Apart from the above, ComReg also proposes to continue to require Eircom to provide specific TDM based interconnection products, services and facilities, in particular the, ISH and CSH Current Generation Interconnection Services referred to in paragraph 9.80 above.

[731] In-Building Handover ('**IBH**') means the connection from the Eircom network to the alternative Service Provider's equipment within the Eircom Exchange, or equivalent. IBH is also considered, for the purpose of this Consultation, to be categorised as a Current Generation Interconnection Service.

9.87 The inclusion of these various Current Generation Interconnection Services (including in terms of the associated co-location requirements and different points-of-handover) recognises the differing degrees of infrastructure deployment employed by FSPs in availing of FACO. For example, not all FSPs have sufficient infrastructure of their own that is close enough to Eircom's network in order to be able to economically or commercially avail of Eircom's IBH or ISH services. Conversely, if only CSH were available, then larger scale Access Seekers would not be in a position to take advantage of their own infrastructure deployments to lower their costs of interconnection (and could end up paying for Eircom products, services and facilities which are unnecessary for the services that they require).

9.88 ComReg notes that the definition of interconnection and co-location within the Access Regulations[732] is technology neutral, and therefore is not restricted to a specific technology type. While ComReg is not mandating a specific IP based interconnection product, service or facility (referred to in this Consultation as a '**Next Generation Interconnection Service**') at this time, it is ComReg's view that Eircom would need to consider any Access Seekers' requests for such in the context of its general access obligation to meet reasonable requests for access. This is also in line with ComReg's view in Sections 5 and 6, that TDM based FVCO is likely to continue be the predominant means of overall supply of during the period of this market review, although we have clearly recognised the potential for IP based FVCO to emerge over a longer time horizon and potentially to change the competitive dynamics in the FACO Markets. However, the availability or otherwise of IP based Next Generation Interconnection Services may impact the degree to which the self-supply of IP based FVCO by alternative FSPs could emerge as an effective competitive constraint either directly in the FACO Markets or indirectly through effective retail constraints imposed on the FACO Markets. Hence, ComReg considers that an obligation upon Eircom to meet reasonable requests for Next Generation Interconnection Services would be supportive of the overall aim of facilitating the development of sustainable competition. ComReg would also note that Eircom would also be governed, in this respect, by its non-discrimination obligations discussed later in paragraphs 9.137 to 9.160.

[732] Interconnection is defined in Regulation 2 of the Access Regulations as …*"the physical and logical linking of public communications networks used by the same or a different undertaking in order to allow the users of one undertaking to communicate with users of the same or another undertaking, or to access services provided by another undertaking. Services may be provided by the parties involved or other parties who have access to the network. Interconnection is a specific type of access implemented between public network operators;"* Co-location is an associated service described under Part B "Co-location services" of the Schedule to the Access Regulations.

PAC services

9.89 Pursuant to Regulation 12(2) of the Access Regulations, ComReg proposes that Eircom should continue to be required to provide a Payphone Access Charge (PAC) billing service. The PAC service involves the payment of a wholesale charge by an undertaking to a payphone service provider for calls made by an end-user from a payphone that do not involve a direct retail charge, including, but not limited to, freephone calls to "1800" numbers.

9.90 The purpose of this service is to enable an Access Seeker that is using FACO (supplied by Eircom) to offer payphone services (including Eircom) to recover the relevant costs associated with freephone calls being made from such payphones. This is to ensure ensuring that FSPs will be better able to compete in the provision of payphone services.

9.91 Absent such an obligation, given Eircom's SMP in the FACO Markets, it has the ability and incentive to refuse to provide the PAC service to downstream payphone providers with whom it also competes in the provision of payphone services, thereby restricting or distorting competition.

Requirement to negotiate in good faith

9.92 Pursuant to Regulation 12(2)(b) of the Access Regulations, ComReg proposes to impose an obligation on Eircom to negotiate in good faith with undertakings requesting access to FACO and associated facilities. Having regard to the competition problems identified in Section 8, ComReg considers this measure to be proportionate and justified in order to ensure that genuine *bona fide* negotiations take place between Eircom and Access Seekers in relation to access, particularly given the identified competition problem that Eircom has the ability and incentive to expressly or constructively refuse to provide access to FACO. It will also somewhat address imbalances between the bargaining powers[733] of the respective parties in the negotiation process by reducing incentives to unnecessarily prolong negotiations and should facilitate a more efficient and effective consideration of reasonable requests for access and provision of such access. Overall, an obligation to negotiate in good faith will support the provision of efficient and effective access to FACO and associated facilities, thereby promoting the development of downstream competition, to the benefit of consumers.

9.93 ComReg also notes that the obligation to negotiate in good faith implies that the responsibility rests with Eircom to demonstrate that its approach to negotiation with undertakings was in good faith and that any unmet access requests can be shown to be unreasonable by reference to objective criteria. In this regard, recital 19 of the Access Directive states with respect to requests to SMP undertakings for access that:

[733] As noted in Section 5.217, ComReg considers that CBP to be ineffective in negating Eircom's SMP in the FACO Markets.

> *"…such requests should only be refused on the basis of objective criteria such as technical feasibility or the need to maintain network integrity."*

9.94 ComReg, therefore, proposes that should an access request be refused, or only partially met, then the objective criteria for refusing same should be provided by Eircom to the requesting Access Seeker at the time of refusal. This will also improve regulatory effectiveness and efficiency should any complaint or dispute be raised with ComReg, as it will provide a useful audit trail for compliance-monitoring purposes.

9.95 In ComReg's view, this remedy does not impose any significant additional burden on Eircom beyond that which would normally be expected to occur in circumstances involving fair commercial negotiations between parties.

Requirement not to withdraw access to facilities already granted

9.96 Pursuant to Regulation 12(2)(c) of the Access Regulations (an having regard to the discussion in paragraphs 9.72 to 9.76 above concerning the need to maintain or withdraw the current standalone CPS obligation), ComReg proposes to impose an obligation on Eircom not, without the prior approval of ComReg, to withdraw access to facilities already granted. For the avoidance of doubt, this does not mean there are no objectively justified circumstances for withdrawing access to FACO and associated facilities (such as the unjustified non-payment of wholesale charges), however, this would have to be considered on basis of the facts of the particular circumstances governing the proposed withdrawal of access.

9.97 Having regard to the competition problems identified in Section 8, ComReg has identified that Eircom would have the ability and incentive to delay or refuse access to FVCO and access to associated facilities, either outright or constructively, resulting in restrictions and/or distortions in competition to the detriment of consumers. As networks develop, this could also result in changes to points of interconnection or types of interconnection offered or provided by Eircom. ComReg recognises that a balance needs to be struck in order to properly account for the investments made by Eircom in providing FACO, and more particularly NG FACO, and the investments made by Access Seekers in availing of the CG FACO service or indeed alternative undertakings self-supplying NG FACO. However, ComReg considers that the proposed remedy, requiring that Eircom seek ComReg's approval prior to any withdrawal of access, will promote regulatory certainty for all parties without unduly restricting investment incentives.

9.98 More specifically, ComReg proposes that Eircom should notify ComReg, in writing, of any proposal to withdrawal access to facilities already granted, giving detailed reasons for the proposal. Including the impacts that the withdrawal of access is likely to have on existing FACO purchasers. Where Eircom proposes to withdraw services, ComReg would retain the right to consult with relevant parties, prior to making a decision on whether to grant or to withhold its approval

Requirement to grant open access to technical interfaces, protocols and other key technologies

9.99 Pursuant to Regulation 12(2)(e) of the Access Regulations, ComReg proposes to impose an obligation on Eircom to grant open access to technical interfaces, protocols and other key technologies that are indispensable for the interoperability of services. Having regard to the competition problems identified in Section 8, ComReg considers that this remedy is both justified and proportionate in order to ensure that, in the context of the provision of access to FACO and associated facilities (including Interconnection Services), interoperability of networks and services is ensured.

9.100 In so doing, ComReg considers that this remedy will contribute to the development of sustainable downstream competition to the ultimate benefit of consumers.

Requirement to provide access to co-location or other forms of associated facilities sharing

9.101 Pursuant to Regulation 12(2)(f) of the Access Regulations, ComReg proposes to impose an obligation on Eircom to provide access to co-location or other forms of associated facilities sharing necessary to support the provision of access to FACO and associated facilities, including but not limited to that which is necessary or required to facilitate Access Seekers' ability to effectively and efficiently avail of the Interconnection Services as already discussed in paragraphs 9.78 to 9.88 above.

9.102 Absent such a remedy Eircom could restrict access to or use of co-location for the purpose of facilitating the use of Interconnection Services by Access Seekers which could, in turn, restrict or distort competition in downstream or adjacent markets.

Requirement to provide access to services needed to ensure interoperability of end-to-end services to End-Users, including facilities for intelligent network services

9.103 Pursuant to Regulation 12(2)(g) of the Access Regulations, ComReg proposes to impose an obligation on Eircom to provide access to services that are needed by Access Seekers to ensure interoperability of end-to-end services to end-users, including facilities for intelligent network services.

9.104 This obligation is needed to support Eircom's general access obligation because Eircom could potentially impede/raise the costs associated with Access Seekers' use of FACO or interconnection services by, making services non-interoperable through, for example, effectively or constructively refusing access to intelligent network services to the extent that they are necessary for FACO, thus undermining the effectiveness of the proposed access obligations.

Requirement to provide access to Operational Support Systems or similar software systems necessary to ensure fair competition in the provision of services

9.105 Pursuant to Regulation 12(2)(h) of the Access Regulations, ComReg proposes to impose an obligation on Eircom to provide access to Operational Support Systems ('**OSS**') or similar systems to ensure fair competition in the provision of services.

9.106 Access to Eircom's OSS plays an important role in Eircom's the provisioning of wholesale services (such as SB-WLR etc.) to Access Seekers and its downstream arm. This also includes access to OSS for the purpose of fault and in-service management. Access to OSS is, therefore, essential, to the effectiveness and efficiency of the operational aspects of the supply of the wholesale FACO products, services and facilities that are used as inputs to the supply of RFTS to end-users.

9.107 In the absence of Access Seekers being able to gain effective and efficient access to Eircom's OSS, they would likely be at a significant competitive disadvantage relative to Eircom's retail arm in their providing of RFTS. Having regard to the competition problems discussed in Section 8, ComReg considers that this remedy is needed to support Eircom's general access obligation because Eircom has the ability and the incentives to impede access to its OSS in order to leverage its market power into downstream and adjacent markets.

9.108 The standards of access equivalence (whether on an Equivalence of Outputs ('**EOO'**[734]) or Equivalence of Inputs ('**EoI'**[735]) basis) that is to be applied by Eircom in providing access to its OSS or similar software systems is discussed in the context of proposed non-discrimination remedies in paragraphs 9.140 to 9.157 below.

Requirement to interconnect networks or network facilities

9.109 Pursuant to Regulation 12(2)(i) of the Access Regulations, ComReg proposes to impose a requirement on Eircom to interconnect networks or network facilities.

9.110 In order to avail of access to FACO products, services and facilities Access Seekers will need to interconnect with Eircom (either directly or through a third party transit arrangement) for the purpose of taking their retail customers' originated calls (over SB-WLR) onto their own network.

[734] EOO essentially refers to provision of products, services, facilities, and information by an SMP undertaking to Access Seekers such that such products, services, facilities, and information is provided to Access Seekers in a manner which achieves the same standards in terms of functionality, price, terms and conditions, service and quality levels as the SMP undertaking provides to itself, albeit potentially using different systems and processes.

[735] EoI essentially refers to provision of products, services, facilities, and information by an SMP undertaking to Access Seekers such that such products, services, facilities, and information is provided to Access Seekers in a manner which achieves the same standards in terms of functionality, price, terms and conditions, service and quality levels as the SMP undertaking provides to itself, and using the same systems and processes.

9.111 Having regard to the competition problems identified in Section 8, ComReg considers that Eircom has the ability and incentive to refuse (either actually or constructively) to allow Access Seekers availing of SB-WLR to interconnect to it, thereby undermining the effectiveness of the SB-WLR remedy itself, and ultimately restricting or distorting competition at the retail level.

Requirements governing fairness, reasonableness and timeliness of access

9.112 As noted in Section 8, ComReg considers that Eircom has the ability and incentive to constructively refuse to supply access (including delay or other behaviours which have the effect of raising rivals' costs) to FACO products, services and facilities by engaging in non-price leveraging behaviours.

9.113 ComReg's preliminary view is that pursuant to Regulation 13(3) of the Access Regulations, certain conditions should, therefore, be attached to Eircom's proposed access obligations[736] in order to ensure that access to FACO products, services and facilities are provided in a fair, reasonable and timely manner. Such conditions should also ensure a consistency in the treatment of requests for access. ComReg considers that this remedy will ultimately contribute to the development of sustainable downstream competition, to the ultimate benefit of consumers.

9.114 Specifically ComReg considers that in circumstances where requests for access to FACO products services and facilities, including SB-WLR, are made in conjunction with requests for other services (those required to be provided on foot of SMP requirements imposed in other SMP regulated markets, such as WBA), Eircom shall ensure that such requests for access are provided to Access Seekers in a concurrent timeframe.

9.115 The purpose of the above requirements is to ensure that access to wholesale services is provided in a fair, reasonable and timely manner, thereby promoting effective downstream competition, to the ultimate benefit of consumers.

[736] Such proposed access obligations being identified in paragraphs 9.48 to 9.111 above.

9.116 As noted in Section 8[737] ComReg identified that Eircom could seek to frustrate the provision of timely and effective access to FACO products, services and facilities by applying retail contractual terms (that are not objectively justified) which may unreasonably result in an Access Seeker not being able to effectively avail of a FACO product (such as SB-WLR), service or facility in a fair, reasonable, timely and effective manner. For example, retail contractual terms such as a requirement for a customer, whose service is not subject to a minimum contract duration, to give 1 month's notice to Eircom before cancelling their retail service can impact the ability for an Access Seeker to order a wholesale service, ultimately undermining retail competition. In this respect, an Access Seeker may have to delay its SB-WLR request to Eircom until the 30 day period has nearly elapsed. Otherwise, the retail customer would continue to pay Eircom for a retail service until the 30 day period has elapsed, while at the same time having to pay the Access Seeker for its SB-WLR based retail service. Even where the Access Seeker does not charge the retail customer pending the expiry of the Eircom 30 day notice period, it has the effect of raising Eircom's rival's costs, thereby restricting competition.

9.117 ComReg has considered whether it is appropriate to impose a wholesale remedy in the FACO Markets to address this competition concern. ComReg notes that Regulation 25 of the Universal Service Regulations[738], amongst other things, requires that undertakings, as a consumer protection measure, must ensure that their conditions and procedures for contract termination do not act as a disincentive to a consumer to changing service provider. In this respect, ComReg has recently issued an amended notification of non-compliance to Eircom concerning its compliance with Regulation 25 of the Universal Service Regulations[739]. Although Regulation 25 of the Universal Service Regulations is a retail consumer rights protection measure, it would appear to adequately address the wholesale competition concerns regarding retail behaviour undermining timely and effective access to FACO products, services and facilities. In view of this, ComReg does not propose, at this time, to impose specific remedies in the FACO markets on this issue. However, should it transpire that even in the presence of Regulation 25 of the Universal Service Regulations, retail behaviours were to undermine timely and effective access to FACO products, services and facilities, ComReg reserves its right to revisit the question of imposing such remedies in the FACO Markets.

9.118 As noted in paragraphs 9.93 and 9.94 above, ComReg is also proposing to impose an obligation on Eircom that, where a request for access from an undertaking is refused or only partially met, the objective reasons for such should be provided in detail to the undertaking which has made the request, and to do so in a timely fashion (having regard to the nature of the request).

[737] See paragraph 8.27(a).

[738] European Communities (Electronic Communications Networks and Services) (Universal Service and Users' Rights) Regulations 2011 (S.I. No. 337 of 2011) (the '**Universal Service Regulations**').

[739] See http://www.comreg.ie/_fileupload/publications/ComReg13114.pdf.

9.119 To address such issues, apart from the general obligation, the other specific conditions that ComReg proposes to impose upon Eircom include requirements:

(a) to conclude, maintain or update, as appropriate, legally binding Service Level Agreements ('**SLAs**') with Access Seekers. An SLA is essentially a legally binding contract in relation to the service levels that Eircom would commit to when supplying FACO to Access Seekers, as more particularly set out in Eircom's[740] Reference Interconnect Offer[741] ('**RIO**'), as may be amended from time to time;

(b) to ensure that the SLA includes provision for service credits to be provided by Eircom to Access Seekers in the event that committed service levels are not met;

(c) to ensure that SLAs detail how service credits are to calculated and include the provision of an example calculation;

(d) to ensure that the application of service credits, where they occur, is applied automatically, and in a timely and efficient manner;

(e) to ensure that the level of the Service Credits are fair and reasonable;

(f) to ensure that the SLAs include performance metrics, the latter being the aggregate performance levels achieved by Eircom within a specified period, as calculated in accordance with the methodology and service parameter definitions set out in its SLAs;

(g) to provide Access Seekers' requests for multiple wholesale products in a concurrent timeframe.

(h) to negotiate in good faith with Access Seekers in relation to the conclusion of legally binding and fit-for-purpose SLAs;

9.120 Most of these conditions essentially mirror those in place in other regulated markets within which Eircom has SMP. The majority of the above conditions are currently imposed upon Eircom through its existing regulatory obligations as imposed principally in the 2007 RNA Decision and the 2007 Decision. These proposed obligations should:

(a) encourage Eircom to achieve acceptable levels of service performance in the provision of services to Access Seekers and to ensure that a level playing field is created in terms of the access provided by Eircom to Access Seekers and that which is self-supplied;

(b) ensure that Eircom engages in genuine bona-fide negotiations with Access Seekers when seeking to agree appropriate SLAs;

[740] Eircom's RIO is available on its wholesale website at http://www.eircomwholesale.ie/Reference-Offers/RIO/

[741] The RIO is the offer of contract by Eircom to Undertakings in respect of the provision of FACO products, services and facilities and is discussed later in paragraphs X to Y in the context of proposed transparency obligations.

(c) provide assurances to Access Seekers surrounding the levels of service provided by Eircom so that they are, in turn, able to offer service assurances to their own customers (and prospective customers);

(d) ensure that Eircom is adequately incentivised to achieve the targets set out in its SLAs by ensuring that any service credits to be paid by Eircom to Access Seekers are fair and reasonable.

(e) establish performance metrics against which the standards of performance achieved by Eircom can be readily measured and compared; and

(f) hold Eircom accountable for its committed service levels by establishing a mechanism for Access Seekers to receive service credits where service levels are not achieved by Eircom.

9.121 SLAs are therefore intended to prevent Eircom from engaging in actual or constructive refusal to supply effective and efficient access to FACO products, services and facilities. Ultimately, this will support the aim of ensuring fair competition in the provision of services by allowing Access Seekers to compete on a level playing field with Eircom (and its wholesale customers) in the RFVA and RFVC markets.

Consideration of statutory criteria on proposed access obligations

9.122 In paragraphs 9.4 and 9.46 above, ComReg set out a range of statutory criteria that ComReg must consider when imposing access obligations. These criteria are considered below having regard to the proposed access obligations set out in paragraphs 9.48 to 9.121 above.

(a) Technical and economic viability of using or installing competing facilities: Throughout this Consultation, ComReg has defined the FACO Markets and has set out its preliminary view that existing competition, potential competition and CBP are unlikely to result in effective competition within them. In light of this, and having regard to the apparent presence of barriers to entry[742] in the FACO Markets (related to control of infrastructure/resources not easily duplicated), using or installing competing facilities to provide FACO is not likely to be economically feasible within the period of this review. This is evidenced by the lack of entry in the FACO Markets since the 2007 Decision and Eircom's high and persistent market share within them. On a forward looking basis, ComReg notes that barrier to entry may reduce over time through alternative service providers deploying VoIP based services, however, the timing of any such entry is uncertain and, in any event, ComReg does not consider it likely to materially alter the competitive position within the FACO Markets within the period of this review. Eircom has to date been providing FACO services and it is, therefore, technically viable to do so.

[742] See Section 6 for the consideration of barriers to entry in the FACO Markets.

(b) *Feasibility of providing access in relation to capacity available*: Access to FACO products, services and facilities are currently provided by Eircom, albeit on foot of existing regulatory obligations. On a forward-looking basis, ComReg is not aware that there would be any material capacity constraints that would give rise to Eircom facing difficulties in meeting the proposed access obligations. Indeed, as noted in Section 3[743], given the overall decline in FVCO minutes since the 2007 Decision, it is likely that spare capacity exists on Eircom's network, such that capacity constraints are not likely to unduly restrict Eircom's ability to meet the proposed access obligations.

(c) *The initial investment of the facility owner:* Having regard to Regulation 12(4)(c) and Regulation 13(2) of the Access Regulations[744], ComReg's approach to imposing access remedies is based on principles that, *inter alia*, allow a reasonable rate of return on adequate capital employed, taking into account the risks involved. When proposing price control remedies (see paragraph 9.6), ComReg is mindful of facilitating the development of effective and sustainable competition to the benefit of consumers without compromising efficient entry and investment decisions of undertakings over time. ComReg is also mindful of the role of regulatory transparency and consistency in contributing to a more predictable environment conducive to long-run investment decisions being made.

(d) *The need to safeguard competition*: In Section 8 and throughout this Section, ComReg has highlighted the impacts on downstream competition (and in adjacent markets) and the impacts on consumers that could arise given Eircom's ability and incentives to potentially to engage in exploitative or exclusionary behaviours in the Relevant FACO Markets (absent regulation). These include, *inter alia*, actual or constructive denial of access, excessive pricing and other behaviours which could damage the development of sustainable competition in the RFTS markets. ComReg considers that imposing access (and other obligations) in the Relevant FACO Markets will ultimately promote the development of sustainable competition in retail markets, to the benefit of consumers.

(e) Intellectual property rights: ComReg's preliminary view is that intellectual property rights are not likely to be a significant concern in the context of the provision of access to FACO products, services and facilities.

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[743] See, for example, paragraphs 0 to 3.9.

[744] According to Regulation 13(2) of the Access Regulations *"To encourage investments by the operator, including in next generation networks, the Regulator shall, when considering the imposition of obligations under paragraph (1), take into account the investment made by the operator which the Regulator considers relevant and allow the operator a reasonable rate of return on adequate capital employed, taking into account any risks involved specific to a particular new investment network project".*

(f) *Pan European Services:* ComReg's preliminary view that its proposed approach should facilitate the provision of pan-European services since its proposed approach is consistent with the policies of the European Commission and other NRAs. Consistent regulation of FACO across the EU will help to support a seamless provision of pan-European services by allowing Service Providers in other Member States to provide electronic communications services in Ireland. For example, by using Eircom's FACO products, services and facilities potentially combined with other wholesale services, to compete within Ireland.

9.123 In view of the above, ComReg's preliminary view is that the proposed obligations requiring Eircom to provide access to FACO products, services and associated facilities, are proportionate and justified. Conversely, ComReg considers that it is neither proportionate, nor is it justified, to impose remedies with regard to the provision of NG FACO, CA and CS, but has left the question open with respect to standalone CPS pending further consideration of respondents' views.

9.124 ComReg has also considered whether access obligations would be sufficient in themselves to resolve the identified competition problems. For the reasons set out in the discussion of the other proposed remedies below, ComReg does not consider this to be the case. For example, the imposition of access obligations alone would not resolve issues such as excessive pricing or margin squeeze,, discrimination on price or quality grounds, or ensure transparency of terms and conditions of access.

Proposed withdrawal of existing CPS, Carrier Access, Carrier Select access remedies

9.125 In paragraphs 9.62 to 9.76 above, ComReg has already discussed the potential removal of the standalone CPS obligation. The reasons set out with respect to CPS equally apply to CA and CS.

9.126 ComReg does not proposes to re-impose existing obligations upon Eircom regarding the provision of CPS, Carrier Access ('**CA**')[745] and Carrier Select ('**CS**')[746] on the basis that Access Seeker demand for these services has and continues to diminish, is at a negligible level[747]. Importantly, such services no longer appear to be important drivers of retail competition.

[745] See paragraphs 9.9(b) and 9.9(c) for a description of CA.

[746] See paragraphs 9.9(c) for a description of CS.

[747] As noted in paragraphs 3.49 to 3.54 the combined sales of standalone CPS, CS and CA are minimal relative to SB-WLR.

9.127 Should ComReg decide that CA and CS obligations should not to be imposed, then these remedy would be withdrawn, most likely over a short ‘sun-set’ period of up to 6 to 12 months in order to facilitate CA and CS purchasers making any necessary adjustments at the wholesale and/or retail level. During the course of any such ‘sun-set’ period, it may also not be appropriate to require Eircom to continue to provide new requests for CA and CS, as this may only perpetuate the provision of a service which could ultimately be withdrawn.

Summary of Preliminary Conclusions on Access Obligations

9.128 Having regard to the analysis set out in paragraphs above in paragraphs 9.37 to 9.127 above, ComReg’s preliminary view is that proposed access obligations are proportionate and justified. The proposed specific requirements include:

- to provide access to SB-WLR and a range of ancillary SB-WLR services, with ComReg leaving open the question as to whether Eircom should be required to provide CPS on a standalone basis;
- to provide access to Current Generation Interconnection Services and Co-Location facilities and to meet reasonable requests for access to Next Generation Interconnection Services ;
- to provide access to PAC Services;
- to negotiate in good faith with undertakings, requesting Access;
- not to withdraw Access to facilities already granted without the prior approval of ComReg;
- to grant open access to technical interfaces, protocols or other key technologies that are indispensable for the interoperability of products, services or facilities;
- to provide access to co-location or other forms of associated facilities sharing insofar as it relates to interconnection services necessary to support access to FACO, products, services and facilities;
- to provide access to services needed to ensure interoperability of end-to-end services to End-Users, including facilities for intelligent network services;
- to provide access to OSS or similar software systems necessary to ensure fair competition in the provision of services;
- to interconnect networks or network facilities; and
- to provide access in accordance with a range of conditions governing fairness, reasonableness and timeliness.

9.129 ComReg has also proposed the withdrawal of CA, CS and CPS obligations.

9.130 ComReg has also considered whether the access obligations identified above would be sufficient in and of themselves to address the competition problems identified in Section 8 and does not consider this to be the case. For example, excessive pricing, margin squeeze and discriminatory behaviour could still occur in the presence of an access obligation.

Non-Discrimination Remedies

Overview

9.131 The application of an *ex ante* non-discrimination remedy seeks to prevent a dominant, vertically-integrated undertaking from engaging in discriminatory (price or non-price) behaviour that could hinder the development of sustainable and effective competition in downstream wholesale and retail markets.

9.132 In Section 8, ComReg identified that, absent regulation, Eircom has the ability and incentive to engage in behaviours that could adversely impact upon downstream competition and consumers. For example, Eircom could offer discriminatory FACO prices, terms and conditions, and service/repair quality to different Access Seekers or between Access Seekers and its own retail arm.

9.133 As noted in the Access Directive[748], the principle of non-discrimination is designed to ensure that undertakings with market power do not distort competition, in particular, where they are vertically integrated undertakings that supply services to undertakings with whom they compete on downstream markets.

9.134 Regulation 10 of the Access Regulations provides that ComReg can impose non-discrimination remedies in relation to access or interconnection on an undertaking designated with SMP, in particular to ensure it behaves in such a way that it:

- applies equivalent conditions in equivalent circumstances to other undertakings providing equivalent services; and
- provides services and information to others under the same conditions and of the same quality as it provides for its own services or those of its subsidiaries or partners.

9.135 In this respect, non-discrimination obligations can be standalone, but can also support other obligations such those relating to access, transparency and price control.

9.136 An overview of existing non-discrimination obligations has been provided in paragraphs 9.13 to 9.14 above.

Proposed Non-Discrimination Remedies

9.137 ComReg is proposing to continue to impose general non-discrimination obligations on Eircom in order to address identified competition problems that could arise in the FACO Markets. For the same reasoning set out above with respect to the access obligations,[749] ComReg is not proposing to impose non-discrimination obligations upon Eircom with respect to its NG FACO (note this excludes access to Next Generation Interconnection Services).

[748] Recital 17 of the Access Directive.

[749] See paragraphs 9.51 to 9.57 above.

General non-discrimination remedies

9.138 ComReg is proposing to require that Eircom:

(a) applies equivalent conditions in equivalent circumstances to other Undertakings requesting, or being provided with Access (including Access to FACO and associated facilities) or requesting or being provided with information in relation to such Access; and

(b) provides Access (including Access to FACO and Associated Facilities) and information to all other Undertakings under the same conditions and of the same quality as Eircom provides to itself or to its subsidiaries, affiliates or partners.

9.139 These obligation are intended to ensure that Eircom does not favour its downstream arm, or unduly favour any particular Access Seeker in the provision of FACO products, services and facilities such that it might otherwise restrict or distort competition in any downstream or adjacent market, ultimately impacting on the development of sustainable retail competition.

Specification of the non-discrimination standards with respect to the provision of FACO

9.140 For the avoidance of doubt, it is ComReg's view that the non-discrimination obligations above are to apply irrespective of whether or not a specific request for services or information has been made by an undertaking to Eircom. For example, if information or a service is provided by Eircom following a request from one undertaking, Eircom is obliged to offer this to other undertakings, notwithstanding that such other undertakings have not made a request for it (or known to make a request for it). This is to ensure fair treatment of all undertakings. In this regard, it is possible that new forms of IP interconnection could begin to emerge over the period of this market review, particularly with the development of next generation networks. ComReg considers that where Eircom provides itself with new forms of access to interconnection services and CG FACO (or information in relation to such), it should treat other undertakings in a non-discriminatory manner.

9.141 ComReg also proposes that the non-discrimination obligations should be applied on, at least, an Equivalence of Outputs ('**EOO**') standards basis. When Eircom provides Access Seekers with access to FACO products, services and facilities, including access to information, Eircom would be required to do so in a manner which achieves the same standards in terms of functionality, price, terms and conditions, service and quality levels as Eircom provides to itself, albeit potentially using different systems and processes.

9.142 ComReg considers that this EOO standard is appropriate in the context of CG FACO, particularly given that the existing provision of FACO products, services and facilities is largely over a legacy copper based network (coupled with ComReg's proposal not to require Eircom to provide access to NG FACO). ComReg considers that adopting an Equivalence of Inputs ('**EOI**') standard would be proportionate at this time. In particular, the OSS and wholesale interfaces that are in place and used for the provision of Eircom's suite of existing legacy FACO products, services and facilities have already been developed. These OSS and wholesale interfaces would be likely to require substantial investment in order to upgrade or replace them in order to achieve and EOI standard. This may not be justifiable or proportionate in the circumstances of the FACO Markets as this would likely involve costly systems re-development, the incremental benefits of which would not likely be reasonable.[750].

9.143 Additionally, ComReg would note that an EOO standard has been effectively in place adopted by ComReg in other regulated markets, where legacy products are concerned (including the FVCO market in the 2007 Decision). However, ComReg is not specifying the EOO standard more clearly. ComReg anticipates, therefore, that EOO could be adopted in the FACO Markets without a significant additional cost burden being placed on Eircom, while at the same time addressing non-discriminatory concerns in a proportionate manner. In this respect, given that Eircom has offered voluntarily to reform its wholesale performance and that ComReg has underpinned these reforms through its definition of the scope of application of EOO, ComReg considers that that this approach is both proportionate and justified.

Application of non-discrimination remedies to FACO prices/charges

9.144 ComReg has considered whether the non-discrimination obligations should apply to the pricing of FACO and associated facilities, in light of the potential competition problem of discriminatory (and excessive) pricing. ComReg's view that this issue can be partially addressed through an effective price control obligation (see discussion later in paragraphs 9.206 to 9.276). In particular, where a price control obligation results in FACO prices that are aligned with the efficient costs of the provision of the service[751], then the risks of competition problems arising as a consequence of unjustifiable price differences between self-supplied FACO and FACO supplied to Access Seekers, and the impact of such price differences on downstream competition, might be reduced.

[750] This is in contract to obligations imposed for NGA in the WBA markets where Eircom was developing new OSS to deliver these services and adopting an EOI standard was considered proportionate by ComReg in this context.

[751] Or, in the case of SB-WLR, allow an efficient operator to cover their retail costs when using SB-WLR to provide retail products and services.

9.145 Nevertheless, ComReg considers it appropriate, even in the presence of an appropriate price control obligation, to maintain a non-discrimination obligation with respect to the pricing of FACO products, services and associated facilities. Absent regulation, ComReg considers that due to the lack of competitive constraint on Eircom's supply of FACO and associated facilities, Eircom has the ability and incentive to discriminate between Access Seekers and its own retail arm or indeed between Access Seekers, when charging and offering FACO prices. Similarly, Eircom could supply FACO at a preferential price when purchased as part of a bundle comprised of other wholesale services, such as Transit (for example, Eircom's Wholesale SV service may be used as a mechanism for this type of leveraging). ComReg notes that this type of behaviour could distort competition in the FACO market, as well as in the Transit market and in downstream markets.

Statement of Compliance

9.146 ComReg proposes that Eircom should also be required to submit to ComReg a written 'Statement of Compliance' ('**SoC**') demonstrating its compliance with its non-discrimination obligations. This is considered proportionate and justified having regard to the need to ensure effective monitoring and enforcement of non-discrimination obligations, given the potential for any non-compliance to impact ultimately on competition in downstream or adjacent markets.

9.147 As part of ComReg's monitoring of Eircom's compliance with its obligations it initiates investigations as and when appropriate. This has been reflected in several ComReg investigations into alleged non-compliance by Eircom with its non-discrimination obligations imposed across several regulated wholesale markets.[752] Some of these investigations have ultimately resulted in Eircom being notified of its non-compliance with its non-discrimination obligations.

[752] See, for example, the following documents which are on the ComReg website – "*Notification to Eircom of noncompliance by Eircom with its non-discrimination obligation*", ComReg Document No. 06/27, 23 June 2006,; "*Notification to Eircom of non-compliance by, Eircom with its non-discrimination obligation*", ComReg Document No. 07/44 dated 20 July 2007; "Notification to Eircom of non-compliance by Eircom with its non–discrimination obligation in relation to service repair" ComReg Document No. 07/50, 30 July 2007; "*Decision to find that Eircom is not in compliance with the non-discrimination obligation in its use of "Sync Checker"*", ComReg Document No. 08/95, 4 December 2008; "*ComReg notifies Eircom Limited of a finding of non-compliance*", ComReg Document No 10/93 dated 30 November 2010"; "*Notification of non-compliance issued to Eircom Limited for Fault Repair timescales for SB-WLR*", ComReg Document No. 12/140, 21 December 2012; "*Eircom pays a €275,000 penalty to ComReg following admission of a breach of its non-discrimination obligations in the Retail Narrowband Access Market*", ComReg Document No. 13/79, 7 August, 2013;

9.148 Eircom is responsible for ensuring compliance with its regulatory obligations, including its non-discrimination obligations. Therefore, it is appropriate and optimal that issues which may give rise to discrimination are identified, monitored and rectified by Eircom through its own internal management, control and governance processes. In doing so, Eircom can rely on and avail of its own expertise and knowledge of its processes, systems and procedures to comprehensively identify, manage and control the risks of discrimination.

9.149 In the absence of Eircom having an effective internal governance and control framework for regulated products/services, discriminatory behaviour can remain undetected until either an Access Seeker brings a potential issue to ComReg's attention or ComReg detects an issue through its compliance monitoring and investigation activities. Incidents of non-compliance by Eircom with its non-discrimination obligations therefore raise questions regarding the adequacy of Eircom's internal governance and control procedures and practices.

9.150 Such concerns regarding Eircom's management of its compliance with its non-discrimination obligations can be ameliorated if ComReg can be reasonably assured that Eircom has implemented adequate internal risk identification, governance and control processes/procedures as part of an overall governance framework. ComReg notes that as part of its voluntary wholesale reform process Eircom has stated that it has implemented enhanced internal regulatory governance processes in order to meet its regulatory obligations.

9.151 The proposed SoC obligation requires Eircom to set out and demonstrate how compliance with its non-discrimination obligations has been achieved. Therefore, the establishment and operation of adequate and auditable internal governance and control measures would allow ComReg (or a third party chosen by ComReg), through the SoC obligation, to audit the effectiveness of Eircom's internal governance framework, thereby providing reasonable assurances to ComReg that Eircom effectively manages any risks of non-compliance with its non-discrimination obligations.

9.152 To further facilitate the above, ComReg proposes that the scope and nature of the SoC should require Eircom to demonstrate that it has put in place appropriate risk identification, control and governance processes such that it can reasonably demonstrate that, on an ongoing basis, it is ensuring its compliance with its non-discrimination obligations.

9.153 This aspect of the SoC is broader than that which has been in place for other regulated markets. However, ComReg considers it to be justified having regard to its experience with Eircom to date with respect to the practical application of the SoC obligations in those markets. In this respect, the absence of a requirement for Eircom to provide assurances in relation to the effectiveness of its internal governance processes, in particular, its risk identification, control and governance processes has raised concerns regarding the suitability of the Eircom processes, in particular, in the context of ComReg's review Eircom's SoC to date.

9.154 In terms of the scope of the SoC itself, ComReg considers that it should include the following:

(a) A full and true written statement, signed by a person(s) of appropriate expertise and authority within Eircom acknowledging that Eircom is responsible for securing compliance with its obligations and confirming to the best of its knowledge that Eircom is in compliance with its non-discrimination obligations;

(b) documentation which demonstrates how compliance has been achieved by Eircom with its non discrimination obligations which shall include, at least, the following;

   (i) a description of the material differences between the systems and processes that are used by Eircom to offer or provide FACO products, services or facilities to Eircom's downstream operations and those used to offer or provide FACO products, services or facilities to Access Seekers.

   (ii) a risk assessment to identify the potential risk of non compliance with its non-discrimination obligations. Such an assessment shall include, in particular, a description of the risks identified; the measures that Eircom has implemented to control and govern those risks; and an explanation of how such measures are maintained.

9.155 The documentation referred to in paragraph 9.154(b) above shall include a list of any other documentation and information relied upon, an overview of the method of analysis applied and a description of the expertise employed by Eircom in its identification of the material differences and risks identified. ComReg may require Eircom to supplement the documentation where, in ComReg's view, it is insufficient or inadequate.

9.156 The documentation referred to in paragraphs 9.154 and 9.155 above shall be of sufficient clarity and detail to enable ComReg, or a third party as determined by ComReg, to review the SoC for completeness and accuracy. Such documentation and information shall also enable ComReg, or a third party as determined by ComReg, to assess whether Eircom has taken all reasonable steps to ensure that the risk assessment and control and governance measures referred in paragraph 9.154 provides reasonable assurance to ComReg that Eircom is compliant with its non-discrimination obligations.

9.157 ComReg considers that some differentiation is required in the approach to the timeframe within which a SoC should be provided to ComReg with respect to changes to existing products on the one hand, and new products on the other. ComReg considers that the following timeframes are appropriate for the provision of the SoC by Eircom:

(a) in the case of any offer of a new FACO product, service or facility, seven (7) months in advance of its being made available;

(b) in the case of any change to an existing FACO product, service or facility, three (3) months in advance of its being made available;

(c) in the case of an existing FACO product, service or facility, within three (3) months of the Effective Date of this Decision; and

(d) as otherwise may be required by ComReg.

9.158 ComReg would note that (d) above would provide ComReg with some flexibility to shorten the specified timeframes where it considers that the circumstances are such that they are not likely to have a detrimental impact on affected markets. ComReg would also note that the timeframes specified above are also aligned to the discussion regarding transparency obligations later in this Consultation[753], in particular, with respect to advance notification timeframes for proposed changes/amendments by Eircom to its RIO and prices.

9.159 The difficulties that have arisen up until now for ComReg in monitoring compliance with non-discrimination obligations have centred on detection of non-compliance. This has been reflected in several ComReg investigations into alleged non-compliance by Eircom with non-discrimination obligations imposed across regulated wholesale markets.[754] Some of these cases have resulted Eircom being notified of its non-compliance with non–discrimination obligations.

9.160 The proposed obligation on Eircom to produce a SoC supports the general non-discrimination obligation by requiring Eircom to inform ComReg of any specific cases where differences exist between self-supplied services and those provided to Access Seekers that purchase FACO products, services and facilities. This will provide greater clarity to ComReg in its monitoring and assessment of Eircom's compliance with the non-discrimination obligation, while at the same time increasing incentives for Eircom to be better placed to detect non-compliance itself.

[753] See paragraphs 9.187 onwards.

[754] See, for example, the following documents which are on the ComReg website – "*Notification to Eircom of noncompliance by Eircom with its non-discrimination obligation*", ComReg Document No. 06/27, 23 June 2006,; "*Notification to Eircom of non-compliance by, Eircom with its non-discrimination obligation*", ComReg Document No. 07/44 dated 20 July 2007; "Notification to Eircom of non-compliance by Eircom with its non–discrimination obligation in relation to service repair" ComReg Document No. 07/50, 30 July 2007; "*Decision to find that Eircom is not in compliance with the non-discrimination obligation in its use of "Sync Checker*"", ComReg Document No. 08/95, 4 December 2008; "*ComReg notifies Eircom Limited of a finding of non-compliance*", ComReg Document No 10/93 dated 30 November 2010"; "*Notification of non-compliance issued to Eircom Limited for Fault Repair timescales for SB-WLR*", ComReg Document No. 12/140, 21 December 2012; "*Eircom pays a €275,000 penalty to ComReg following admission of a breach of its non-discrimination obligations in the Retail Narrowband Access Market*", ComReg Document No. 13/79, 7 August, 2013;

9.161 Non-discrimination monitoring activities are further supported by access and transparency measures[755] such as requirements to put in place and publish SLAs, performance guarantees and Key Performance Indicators[756] (KPIs).

Summary of Preliminary Conclusions on Non-Discrimination Obligations

9.162 Having regard to the analysis set out in paragraphs above in paragraphs 9.137 to 9.160 above, ComReg's preliminary view is that proposed non-discrimination obligations are proportionate and justified. The proposed specific requirements include:

- non-discrimination obligations to ensure equivalent treatment of Access Seekers by Eircom in its provision of services and information to them;
- non-discrimination obligations to ensure that Eircom provides the same services and information to Access Seekers as Eircom supplies to itself;
- non-discrimination to be applied on an EOO standard;
- Eircom having to provide a SoC to demonstrate how it is meeting it non-discrimination obligations where there are changes to existing or the introduction of new FACO products, services and facilities; In the case of an existing FACO product, service or facility, an SoC is to be provided by Eircom within three (3) months of the Effective Date of this Decision

9.163 ComReg has also considered whether the non-discrimination obligations identified above in paragraphs 9.137 to 9.160 would be sufficient in and of themselves to address the competition problems identified in Section 8 and does not consider this to be the case. For example, excessive pricing, constructive denial of access problems or poor service quality issues could still occur in the presence of a non-discrimination obligation.

Transparency Remedies

Overview

9.164 Regulation 9 of the Access Regulations provides that ComReg may, *inter alia*, specify obligations to ensure transparency in relation to access or interconnection requiring an SMP undertaking to make public specified information such as accounting information, technical specifications, network characteristics, prices, and terms and conditions for supply and use, including any conditions limiting access to or use of services and applications where such conditions are permitted by law.

[755] Proposed transparency obligations are discussed from paragraph 9.164 onwards..

[756] Key Performance Indicators measure(s) of the standard(s) of products, services or facilities provided by Eircom to Access Seekers and by Eircom to itself. ('**KPIs**').

9.165 Transparency obligations can be standalone but can also support other obligations being imposed and, as evidenced from the above, usually relate to requirements to make specified information publicly available.

Proposed Transparency Remedies

9.166 In Section 8, ComReg identified that Eircom has the ability and incentive to engage in a range of exploitative and exclusionary behaviours which can impact adversely upon competition and consumers. The potential for leveraging of market power into related markets through informational asymmetries was also identified.

9.167 A transparency obligation is considered necessary in order to monitor and ensure the effectiveness of any access, non-discrimination, (and other obligations such as price control) as it allows ComReg to monitor the compliance of an SMP MSP's pricing and other behaviour (such as with respect to terms and conditions of use, quality or technical parameters) with non-discrimination and access obligations, and to address potential competition problems relating to price or quality discrimination.

9.168 Apart from the above, as noted in the Access Directive[757], transparency of terms and conditions for access and interconnection, including prices, also serve to speed-up negotiations between undertakings, avoid disputes and give confidence to market players that a service is not being provided on discriminatory terms. Openness and transparency of technical interfaces can also be particularly important in ensuring interoperability. Transparency on prices (and changes to them) is also likely to provide the necessary clarity to Access Seekers in order that they can consider impacts on the structure or level of retail prices. Transparency also provides the means for Eircom to demonstrate that access to FACO products, services and facilities is being provided in a non-discriminatory manner.

9.169 ComReg therefore considers that Eircom should be required to comply with a range of transparency obligations (the majority of which are already imposed upon it under existing regulatory decisions) in order to minimise information asymmetries and facilitate effective access to FACO and to ultimately promote effective competition in downstream and related markets. For the same reasoning set out above with respect to the access obligations,[758] ComReg is not proposing to impose transparency obligations upon Eircom with respect to its NG FACO. The proposed obligations below therefore only relate to CG FACO.

[757] Recital 16 of the Access Directive.

[758] See paragraphs 9.51 to 9.57 above.

9.170 ComReg also proposes that Eircom should be required, as specified by ComReg in writing from time to time, to make public on its publicly available wholesale website, information that may be reasonably requested by ComReg that is relevant to the provision of FACO services and associated facilities such as accounting information, technical specifications, network characteristics, terms and conditions for supply and use, and prices. This allows ComReg to proactively intervene in specific cases where it considers that transparency is lacking regarding the provision of information regarding FACO services and associated services, notwithstanding the standard transparency measures proposed above being in place.

9.171 ComReg also notes that, pursuant to regulation 9(3) of the Access Regulations, it can issue directions requiring Eircom to make changes to the RIO to give effect to obligations imposed by ComReg, and to publish the RIO with such changes. Eircom must comply with any such directions made by ComReg.

9.172 Additionally, at a general level, ComReg proposes that Eircom should be required to:

(a) publish a reference interconnect offer (‘**RIO**’) which should contain a minimum specified set of details, including prices; be sufficiently unbundled so that Access Seekers are not required to pay for services that are not requested; and be subject to a transparent change management process, including advance public notification of proposed changes to products and prices;

(b) provide, in accordance with specified timeframes, advance notification to Access Seekers and to ComReg of proposed changes to the RIO, prices and the introduction of products, services and facilities;

(c) ensure transparency in its billing by making its wholesale invoices sufficiently disaggregated, detailed and clearly presented such that an Access Seeker can reconcile the invoice to Eircom’s RIO and RIO prices.

(d) publish on its publicly available website Key Performance indicators (KPIs), Performance Metrics and SLAs relating to FACO products, services and facilities; and

(e) meet requirements concerning access to confidential and/or commercial information.

9.173 These and other proposed remedies are discussed in more detail below.

<u>Transparency requirements concerning RIO</u>

9.174 ComReg proposes that Eircom should make publicly available and keep updated on its website, a RIO, which should contain a specified minimum list of items. Amongst the purposes of the RIO is to provide current or potential Access Seekers with all relevant information about the FACO products, services and facilities that are or are intended to be provided by Eircom (also having regard to its non-discrimination and other obligations) thereby allowing them to make commercial decisions effectively and efficiently.

9.175 More specifically, ComReg considers that the RIO should include at least the following items:

(a) A description of the offer of contract for access broken down into components according to market needs;

(b) A description of any associated contractual or other terms and conditions for supply of access and use, including prices, (the latter being a '**RIO Price List**';

(c) A description of the technical specifications and network characteristics of the access being offered; and

(d) The terms, conditions, service level agreements, guarantees and other product related assurances associated with the FVCO component part of any Wholesale SV Services that it provides.

9.176 Overall, the proposed RIO obligations in paragraph 9.175 are largely consistent with those that have been imposed on Eircom in other regulated markets arising from various market analyses over the last number of years and are also largely consistent with obligations imposed upon Eircom under the 2007 Decision, the 2007 RNA Decision and the 2011 Pricing and Transparency Decision, although in some case they are now specified and prescribed in a more clearly defined form

9.177 The requirement at paragraph 9.175(d) above effectively carries over an existing obligation imposed upon Eircom under the 2011 Pricing and Transparency Decision[759] relating to its Wholesale SV service, essentially arising from concerns regarding the ability and incentive for Eircom to engage in leveraging behaviours[760]. Such concerns remain and were reaffirmed in Section 8 (paragraphs 8.25 onwards) in the context of competition problems, absent regulation in the FACO Markets, in particular, those associated with the ability and the incentive for Eircom to leverage its SMP position in the FACO Markets into adjacent markets by engaging in margin squeeze type behaviours. This could discourage actual or potential competing FSPs from interconnecting at Eircom's tandem or primary exchanges for the purpose of providing transit services (e.g. either for self-supply or merchant market supply).

9.178 In order to address this concern, ComReg considers it important that both it and Access Seekers have visibility over the non-pricing and pricing terms and conditions associated with Eircom's Wholesale SV service, thereby supporting the effective monitoring and enforcement of Eircom's access, non-discrimination, pricing and other obligations.

[759] See footnote 695 and paragraphs 9.24 to 9.26 above. This obligation is currently specified in Section 5 of the 2011 Transparency and Pricing Decision, in particular, paragraph 6.1 of the first Decision Instrument set out therein on page 42.

[760] Such concerns were reaffirmed by ComReg in Section 8 above (paragraphs 8.25 onwards) in the context of competition problems, absent regulation in the FACO Markets.

9.179 ComReg believes that such transparency measures, coupled with an obligation not to margin squeeze[761], will help ComReg to effectively safeguard efficient competitors from the potential for possible margin (price) squeeze behaviour by Eircom and help to preserve competition in the Transit market and deliver benefits to end-users in the provision of RFTS.

9.180 On that basis, ComReg is of the view that Eircom should be obliged to continue to satisfy the transparency obligations relating to its Wholesale SV Services, which in the context of this market analysis relates to the FACO component of eircom's Wholesale SV services. ComReg intends to maintain the relevant aspects of the 2011 Pricing and Transparency Decision (insofar as they relate to FACO) by continuing the Wholesale SV obligation in the obligations arising from this market analysis).

9.181 Apart from the above, ComReg also considers that the RIO should be sufficiently unbundled so as to ensure that Access Seekers) are not required to pay for products, services or facilities which are not necessary for the Access requested. An example relating to this would be Eircom's supply[762] of 'Near-End Handover' ('**NEH**') FVCO to Access Seekers that are interconnected to Eircom's network at a primary exchange level. Near End Handover ('NEH') is essentially a charging practice which arises from routing restrictions or limitations on Eircom's network. In such circumstances certain types of voice calls, typically those involving number translation for call routing purposes, are handed over by Eircom to an Access Seeker at the double tandem exchange level (or its equivalent), notwithstanding that Access Seeker being interconnected to Eircom at the primary exchange level. To overcome this issue and to ensure that the Access Seeker is not required to pay for services unnecessary for the service requested, Eircom only charges the Access Seeker a primary level FVCO charge. i.e, such calls are charged by Eircom at a rate equivalent to the rate that applies to calls were they to be handed over at a primary exchange level (or its equivalent).

9.182 ComReg considers that the format of the RIO itself should be based on the version that is currently published[763] on Eircom's wholesale website (or at the date on which ComReg's decision concerning its FACO market analysis is published), thereby continuing the current practice.

Transparency requirements governing RIO change management

9.183 ComReg also proposes to impose various transparency requirements governing change management of the RIO and its associated elements/documentation in order to enable Access Seekers to have visibility of any changes to be made or made to the RIO over time. This will also support monitoring and enforcement of compliance with SMP obligations.

[761] Pricing obligations, including those relating to requirements not to margin squeeze, are considered in paragraphs 9.206 to 9.276.

[762] Section 3.2 of the 2002 RIO Decision (see footnote 700 above) required Eircom to provide NEH.

[763] The current version of Eircom's RIO is version 3.23 and is published at http://www.eircomwholesale.ie/Reference-Offers/RIO/.

9.184 In this respect, ComReg proposes that Eircom should:

(a) publish and keep updated on its public website both clean (or unmarked) and tracked changed (or marked) versions of its RIO. The tracked change version of the RIO must also be sufficiently clear to allow Access Seekers to clearly identify all actual and proposed amendments from the preceding version of its RIO.

(b) publish and keep updated on its public website an accompanying RIO change matrix which lists all of the amendments incorporated or to be incorporated in any amended RIO (the '**RIO Change Matrix**').

(c) publish and keep updated on its publicly available website both clean (unmarked) and tracked changed (marked) versions of the RIO Price List(s). The tracked change version of the RIO Price must also be sufficiently clear to allow Access Seekers to clearly identify all actual and proposed amendments from the preceding version of its RIO Price List.

(d) publish and keep updated on its publicly available website a RIO price list change matrix, which lists all of the amendments incorporated or to be incorporated in any amended RIO Price List (the '**Price List Change Matrix**').

(e) maintain and make publicly available on its wholesale website a copy of historic versions of its RIO, RIO Price List, RIO Change Matrix and Price List Change Matrix

9.185 The above transparency requirements governing change management are effectively those that are currently employed by Eircom having regard to its transparency obligations in the 2007 Decision[764] which itself re-imposed various obligations arising from the 2002 RIO Decision[765].

9.186 As evidenced from the above, it is ComReg's intention to impose the RIO change management requirements directly in the Decision Instrument related to this analysis of the FACO Markets (set out in Appendix H). ComReg intends to revoke the obligations imposed in previous decisions, where possible, to the extent that such obligations are either no longer relevant/appropriate or are directly embedded in the Decision Instrument that will arise from this current analysis. In this respect, ComReg would intend to revoke the 2002 RIO Decision (noting that other obligations contained in the 2002 RIO Decision are discussed elsewhere in this Consultation).

[764] See Section 8.5 of the Decision Instrument in the 2007 Decision.

[765] Eircom's Reference Interconnect Offer, ComReg Document 02/55, Decision Notice D10/02, June 2002 (the '**2002 RIO Decision'**). See Section 5 of the 2002 RIO Decision.

Advance notification timeframes for RIO and price changes

9.187 ComReg proposes to impose obligations upon Eircom to provide advance notification of proposed amendment or changes to the RIO and related prices according to specified timeframes. This is to provide sufficient notification to Access Seekers to allow them to factor in such proposed changes into the commercial decision making activities and to make any necessary adjustments or developments to billing or other systems, as appropriate. These advance notification requirements also provide a transparent and available mechanism according to which ComReg can monitor compliance by Eircom with its access, non-discrimination, pricing and other obligations proposed in this Consultation.

9.188 In this respect, ComReg considers that advance notification timeframes for RIO and RIOP Price List changes can reasonably vary depending on whether

- the proposed changes/amendments relate to non-pricing matters and whether its relates to existing or new FACO products, services and facilities; and
- the proposed changes/amendments relate to pricing matters and the proposed changes/amendments relate to existing or new FACO products, services and facilities.

9.189 Noting the above ComReg proposes that Eircom be subject to the following obligations with respect to **proposed non-price changes/amendments**:

(a) Eircom shall (unless otherwise agreed by ComReg) provide two (2) months advance notification of proposed non-price amendments/changes to an **existing** FACO product, service or facility, with such notification to be made publically available by Eircom its wholesale website. Eircom shall also notify ComReg in writing with the information to be published at least one (1) month in advance of any such publication taking place, that is, three (3) months prior to any amendments or changes coming into effect.

(b) Eircom shall (unless otherwise agreed by ComReg) provide six (6) months advance notification of the proposed non-price amendments associated with the introduction of a **new** FACO product, service or facility, with such notification to be made publically available by Eircom its wholesale website. Eircom shall also notify ComReg in writing with the information to be published at least one (1) month in advance of any such publication taking place, that is, seven (7) months prior to any amendments or changes coming into effect.

9.190 ComReg proposes that Eircom be subject to the following obligations with respect to **proposed price changes/amendments**:

(a) Eircom shall (unless otherwise agreed by ComReg) provide one (1) months advance notification of proposed price amendments/changes to an **existing** FACO product, service or facility, with such notification to be made publically available by Eircom its wholesale website. Eircom shall also notify ComReg in writing with the information to be published at least one (1) month in advance of any such publication taking place, that is, two (2) months prior to any amendments or changes coming into effect.

(b) Eircom shall (unless otherwise agreed by ComReg) provide two (2) months advance notification of the proposed prices associated with the introduction of a **new** FACO product, service or facility, with such notification to be made publically available by Eircom its wholesale website. Eircom shall also notify ComReg in writing with the information to be published at least one (1) months in advance of any such publication taking place, that is, three (3) months prior to any amendments or changes coming into effect.

9.191 ComReg would also note that in circumstances where proposed product changes to existing products are likely to have a material impact on related markets (including having regard to the timeframes within which an Access Seeker would reasonable require to make any operational and/or technical adjustments in order to avail of such amended products), ComReg reserves the right to extend the timeframes set out in 9.189(a) and 9.190(a) above.

9.192 The above transparency requirements that require Eircom to notify ComReg in the event of text changes to the RIO, however, it should be noted that this notification does not include an approvals process. For the avoidance of doubt, in relation to existing contracts, text changes proposed by Eircom arising from the text change process as detailed above apply to Eircom's obligations only and are not automatically incorporated into existing contracts as changes to Access Seeker contractual obligations. Eircom can negotiate with Access Seeker regarding any such changes.

9.193 As noted in paragraphs 9.189 to 9.190 above, ComReg has provided for the advance notifications timeframes to be shortened, subject to ComReg's agreement. This is to cater for scenarios where proposed non-pricing or pricing changes are not likely to be considered by ComReg to be material and a notification shortened timeframe would not be likely have a detrimental impact on the market.

9.194 In the earlier discussion[766] concerning non-discrimination remedies, it was proposed to impose a requirement upon eircom to provide ComReg with a Statement of Compliance (**SoC**). The timeframes within which Eircom is to provide the SoC to ComReg are aligned with the advance notification timeframes under the transparency obligations in paragraphs 9.189 to 9.190 above with respect to price and non-prices amendments.

[766] See paragraphs 9.146 to 9.160 above.

Transparency requirements on wholesale billing

9.195 ComReg proposes to require Eircom to provide transparency in its billing of FACO charges to its wholesale customers, and to ensure that its wholesale invoices for FACO are sufficiently disaggregated, detailed and clearly presented so that an Access Seeker can reconcile the invoice to Eircom's RIO and RIO Price Lists.

9.196 This should ensure that Access Seekers have the clear ability to monitor the wholesale charges being levied on them and facilitate an auditable means of detecting of any billing anomalies and/or non-compliance with regulatory obligations.

Transparency requirements regarding Key Performance Metrics, Performance Metrics and Service Level Agreements

9.197 As discussed in the context of non-discrimination[767] remedies, Key Performance Indicators (KPIs), Performance Metris and SLAs can support the monitoring of non-discrimination obligations and, in so doing, provide assurances to Access Seekers regarding the levels of service provided by Eircom to its downstream arm relative to that provided to Access Seekers.

9.198 ComReg proposes to impose a requirement on eircom to publish KPIs on its public website in accordance with the existing requirements as set out in the 2011 KPI Decision[768]. To facilitate this ComReg will, pursuant to regulation 8 and 9 of the Access regulations, also amend section 5.1 (X) of the 2011 KPI Decision by inserting a new subsection referring to the Decision that will follow from this current market analysis. For example,

(e) ComReg Decision No. XX/14, [Insert Title], dated XX/YY/2014

9.199 This KPI remedy is justified as it provides confidence to Access Seekers that Eircom's performance in the supply of FACO products, services and facilities will be measured against relevant performance indicators in a transparent way and therefore supports the non-discrimination and access obligations.

9.200 In paragraphs 9.112 to 9.121 above, in the context of requirements governing fairness, reasonableness and timeliness of access to be provided, ComReg has proposed to impose obligations on Eircom concerning SLAs and Performance Metrics. In addition, ComReg proposes here to require Eircom to publish its performance metrics and its SLAs on its publicly available website. The justification for such requirements is the same as that which was set out above with respect to KPIs, namely that it is considered by ComReg to be an effective way of providing transparency regarding the FACO service levels provided by Eircom, having regard to its access, non-discrimination and other obligations.

[767] See paragraph 9.161 above.

[768] See "Introduction of Key Performance Indicators for Regulated Markets", Response to Consultation and Decision, ComReg Document No 11/45, DecisionD05/11, June 2011 (the '**2011 KPI Decision**').

Transparency requirement to facilitate the legitimate sharing of confidential and/or commercial information through a non-disclosure agreement

9.201 ComReg also considers that Eircom, as the proposed SMP operator should be required to provide information regarding technical developments, network rollout and wholesale services, insofar as it affects the provision of FACO products, services and facilities (subject to the proposed obligations set out in this Consultation) and to do so with sufficient visibility to ensure that operators are in a position to prepare business or operational plans.

9.202 In this respect, ComReg would note that in some cases circumstances may arise where Eircom considers that certain information to be provided by it pursuant to its non-discrimination obligations is of a confidential and/or commercially sensitive nature. To cater for such circumstances, ComReg proposes to require Eircom to meet the following requirements, which largely mirror those which have been recently imposed in other markets (the 2013 NGA Remedies Decision[769]) within which Eircom has SMP.

(a) Eircom shall, without delay, provide ComReg with complete details of such information along with objective reasons justifying why it considers it is confidential and/or commercially sensitive. ComReg will consider the information in accordance with its Confidentiality Guidelines[770] as relevant or otherwise. If ComReg considers that the information is not confidential and/or commercially sensitive, it shall be published by Eircom in accordance with its obligations proposed in this paragraph 9.201 (including the subsections).

(b) If ComReg concludes that the information in (a) above is confidential and/or commercially sensitive, Eircom shall publish general details which of itself is not considered confidential as to the nature of such information and shall make it available to an Access Seeker that has signed a Non-Disclosure Agreement ("**NDA**") the terms and conditions of which shall be fair, reasonable and non-discriminatory. The NDA shall also be published on Eircom's publicly available website. Any confidential and/or commercially sensitive information shall not be made available by Eircom to its downstream operations until such time as it is made available to an Access Seeker, or as otherwise agreed with ComReg.

(c) If and when the commercially sensitive and/or confidential information becomes no longer commercial sensitivity and/or confidential, it shall be made available by Eircom on its publicly available wholesale website without undue delay and without the need for an NDA to be signed.

[769] See "Next Generation Access (NGA): Remedies for Nest Generation Access Markets, Response to Consultation and Decision, ComReg Document 13/11, Decision D03/13, January 2013" (the '**2013 NGA Remedies Decision**'), in particular, paragraph 9.12 set out in Annex 2.

[770] See "Guidelines on the treatment of confidential information" ComReg Document 05/24, March 2005.

9.203 This obligation is considered necessary to ensure that Eircom cannot circumvent compliance with its access, non-discrimination and transparency obligations on the grounds that it considers that certain information is commercially sensitive and/or confidential.

Summary of Preliminary Conclusions on Transparency Obligations

9.204 Having regard to the analysis set out in paragraphs 9.164 to 9.205 above, ComReg's preliminary view is that proposed transparency obligations are proportionate and justified. The proposed specific requirements include:

- maintenance and publication of a RIO which is to contain a minimum list of items, including requirements with respect to Wholesale SV services.;
- associated RIO change management process;
- advance notification timeframes for RIO and price changes;
- publication of KPIs, Performance Metrics and SLAs; and
- sharing of confidential and/or commercial information through a non-disclosure agreement.

9.205 ComReg has considered whether transparency obligations would be sufficient in themselves to resolve the competition problems identified in Section 8, and does not consider this to be the case. In particular, ComReg considers that problems associated excessive pricing, discriminatory behaviour (on price or non-price grounds) or denial of access would not be adequately addressed through transparency obligations alone.

Price Control and Cost Accounting Remedies

Overview

9.206 In Sections 6 and 8 ComReg identified that Eircom has the ability and incentive to potentially engage in a range of anti-competitive pricing behaviours to the ultimate detriment to competition and consumers. These included the risk that Eircom could charge excessive prices for FACO products, services and facilities, or that Eircom might impose a margin squeeze in order to leverage its SMP position from the FACO Markets into adjacent or downstream markets. In view of this, ComReg considers that the imposition of obligations of price control and cost accounting on Eircom is justified.

9.207 ComReg has proposed to impose a range of access obligations upon eircom including the requirement to provide the following:

(a) SB-WLR[771] (being FACO), which includes both a FVCO and WLR component;

(b) Interconnection Services;[772]

[771] See paragraphs 9.62 to 9.77 above.

[772] See paragraphs 9.78 to 9.88 above.

(c) Ancillary Services on SB-WLR[773];

(d) Interconnection Services[774];

(e) Wholesale Low Value CPE Rental[775]

9.208 ComReg is required to consider whether price control obligations are appropriate for the above and, if so, what type of price control would best meet the regulatory objectives to promote effective competition for the ultimate benefit of end-users.

9.209 In Section 8, ComReg set out its view that Eircom has the ability and incentive to set prices (including with respect to FVCO) at an excessive or inefficient level, which could result in adverse impacts on downstream markets to the ultimate detriment of end-users. In view of that assessment, ComReg considers that the imposition of price control obligations on Eircom in respect of the FVCO component of SB-WLR is both justified and proportionate

9.210 Regulation 13 of the Access Regulations provides that ComReg may, *inter alia*, impose obligations relating to cost recovery and price controls on an SMP operator. These include, but are not limited to, obligations for cost orientation of prices and obligations concerning cost accounting systems, for the provision of specific types of access or interconnection in situations where a market analysis indicates that a lack of effective competition means that the operator concerned may sustain prices at an excessively high level or may apply a price squeeze to the detriment of end-users[776].

9.211 As noted in paragraph 9.5, in imposing any such obligations, ComReg is also required to:

(a) take into account the investment made by the SMP operator which ComReg considers relevant and allow such operator a reasonable rate of return on adequate capital employed, taking into account any risks involved specific to a particular new investment network project[777].

(b) ensure that any cost recovery mechanism or pricing methodology that ComReg imposes serves to promote efficiency and sustainable competition and maximise consumer benefits[778].

9.212 Based on the principles set out above, the general purpose of price control and cost accounting obligations are to ensure that prices charged are not excessive (or do not cause a margin squeeze) and promote efficiency and ultimately sustainable retail competition, while maximising consumer benefits.

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[773] See paragraphs 9.68 to 9.69 above

[774] See paragraphs 9.78 to 9.88 above.

[775] See paragraphs 9.70 to 9.71 above.

[776] Pursuant to Regulation 13(1) of the Access Regulations.

[777] Pursuant to Regulation 13(2) of the Access Regulations.

[778] Pursuant to Regulation 13(3) of the Access Regulations.

9.213 ComReg will consider the case for imposing price control and cost accounting obligations in respect to Eircom's provision of CG FACO.

Proposed price control remedies

9.214 In this Section ComReg considers the case for proposing the following price controls:

(a) a price control obligation of cost orientation relating to (i) the FVCO component of SB-WLR and Retention Rates for calls to NTCs; (ii) Current Generation Interconnection Services; (iii) Order handling process costs associated with SB-WLR; (iv) Co-Location; and (v) Ancillary Services on SB-WLR (discussed in paragraphs 9.216 to 9.237 below);

(b) a price control obligation of 'retail minus' relating to (i) the WLR element of SB-WLR; and (ii) Low Value CPE Rental (discussed in paragraphs 9.239 to 9.257 below);

(c) an obligation not to Margin Squeeze, including an obligation not to cause a margin squeeze with respect to Wholesale SV (discussed in paragraphs 9.258 to 9.270 below); and

(d) an obligation to maintain appropriate cost accounting systems to justify its prices/costs of FACO products, services and facilities (discussed in paragraphs 9.271 to 9.273 below).

9.215 ComReg considers the price control options for the FVCO, WLR and other components of SB-WLR having regard to the nature of the price control obligation that ComReg proposes should be imposed on these elements. It also recognises that to date, WLR price control obligation has been based on a 'retail minus' approach imposed under the 2007 RNA Decision and the 2008 SB-WLR Direction[779], whereas FVCO has been subject to a cost orientation obligation arising from the 2007 Decision[780].

<u>Price Control Obligations of Cost Orientation</u>

9.216 In Section 8, ComReg set out its view that Eircom has the ability and incentive to set prices (including with respect to FACO products, services and associated facilities) at an excessive or inefficient level, which could result in adverse impacts on downstream markets to the ultimate detriment of end-users. In view of that assessment, ComReg considers that the imposition of price control obligations of cost orientation on Eircom with respect to (i) the FVCO component of SB-WLR and Retention Rates for calls to NTCs; (ii) Interconnection Services; (iii) Order handling process costs associated with SB-WLR; and (iv) Co-Location are justified and proportionate.

[779] See paragraphs 9.22 to 9.23 above.

[780] See paragraph 9.19 above.

9.217 As noted in paragraph 9.210 above, Regulation 13 of the Access Regulations provides that ComReg may, *inter alia*, impose on an operator obligations relating to cost recovery and price control and these include obligations relating to the cost orientation of prices.

9.218 An appropriate price control obligation should ensure that the Eircom is prevented from charging excessive prices for wholesale inputs and, at the same time, should promote efficient infrastructure investment and encourage FSPs to climb the ladder of investment. It should also ensure that Eircom can recover those efficiently incurred costs which are relevant to the provision of FACO products, services and facilities. This should, in turn lead to efficient price and investment signals being provided to all market players.

9.219 Additionally, when applying a price control remedy of cost-orientation under Regulation 13(1) of the Access Regulations ComReg must consider Regulation 13(2). Regulation 13(2) requires ComReg to take into account any relevant investment and ensure that a reasonable rate of return on capital employed is allowed[781].

9.220 This requirement can be met (among other means) through the imposition of an obligation for cost orientation of prices. Cost orientation allows appropriate costs to be recovered by setting prices for regulated products in accordance with their underlying costs. Furthermore, a reasonable rate of return on capital employed can be ensured by allowing the recovery of a Weighted Average Cost of Capital (WACC) at a level that provides a sufficient return to investors and allows adequate incentives for investment. Eircom's (pre-tax nominal) WACC is currently set at 10.21% pursuant to the **2008 WACC Decision**[782]. The level of Eircom's WACC is under review and ComReg expects to issue a consultation on this in Q2 2014. If, following that consultation, the WACC is amended Eircom's price control obligations will be accordingly adjusted.

9.221 The proposed cost orientation obligations are discussed below.

FVCO component of SB-WLR

9.222 ComReg has proposed to impose a range of access obligations upon eircom including the requirement to provide SB-WLR[783] (being FACO), which includes both a FVCO and WLR component. In the context of the FVCO component, ComReg is required to consider whether price control obligations are appropriate and, if so, what type of price control would best meet the regulatory objectives to promote effective competition for the ultimate benefit of end-users.

9.223 ComReg is of the preliminary view that imposing a cost-orientation obligation continues to be justified.

[781] Recital 20 of the Access Directive provides further guidance that a reasonable return on the capital employed should include appropriate labour and building costs, with the value of capital adjusted, where necessary, to reflect the current valuation of assets and efficiency of operations.

[782] Eircom's Cost of capital, Response to Consultation and Decision, ComReg Document 08/35, Decision D01/08, May 2008 (the '**2008 WACC Decision**').

[783] See paragraphs 9.62 to 9.77 above.

9.224 As noted in paragraph 9.181 concerning transparency obligations, ComReg has also proposed to oblige Eircom to ensure that its RIO is sufficiently unbundled so that Access Seekers are not required to pay for products, services or facilities which are not necessary for the Access requested. In this context ComReg also highlighted the example of Near End Handover (NEH). NEH therefore avoids Access Seekers being required to purchase, and pay for, services that they do not need, and preserves efficient incentives regarding investment by Access Seekers in direct interconnection with Eircom primary and tandem exchanges. While NEH is effectively the supply of primarily level FVCO, ComReg intends, within the context of price control obligations, to make explicit the requirement to ensure that Eircom's supply of NEH is also cost-oriented and, therefore, also subject to the provisions set out below.

9.225 As noted in paragraph 9.19, the current price control cost-orientation obligation for FVCO is based on a Forward-Looking ('**FL**') LRAIC+ methodology and model. The model is calculated using a Top-Down ('**TD**') forward-looking pricing model and is based primarily on financial data taken from Eircom's separated accounts. ComReg also monitors Eircom's compliance with this price control by cross-checking the prices against the costs derived from a ComReg 'Bottom-Up'[784] LRAIC+ model.

9.226 The existing TD FL-LRAIC+ model has been in place for a number of years and Eircom's published prices for FVCO have changed from time to time[785].

9.227 ComReg would also note that a 2012 MTR/FTR Decision[786] by ComReg applied a 'Pure LRIC' cost orientation obligation on both fixed termination rates ('FTRs') and Mobile Termination Rates ('MTRs') [787]. Insofar as FTRs are concerned, the Pure LRIC approach set out in 2012 MTR/FTR Decision means that common costs are no longer recoverable through FTRs (which, prior to this decision, were recovered through FTRs).

9.228 Consequently, ComReg needs to consider whether, and how, this development might impact on the pricing of other regulated wholesale products, such as FVCO. For example, should FVCO prices be adjusted to allow for the recovery of common costs that are no longer recoverable through FTRs.

[784] Bottom Up in general refers to a scenario whereby the costs are those incurred by an efficient operator when building an up to date and modern network.

[785] See, for example, "Reduction of Call Origination and Call Termination rates by Eircom", Information Notice, ComReg Document 11/99, December 2011.

[786] Mobile and Fixed Voice Call Termination Rates in Ireland, Response to Consultation, Decisions and Decision Instrument, ComReg Document 12/125, D12/12, 21 November 2012 (the '**2012 MTR/FTR Decision**').

[787] Certain parts of the 2012 FTR/MTR Decision relating to MTRs was successfully appealed to the High Court (with this being appealed by ComReg to the Supreme Court). See Mobile Termination Rates, Information Notice, ComReg Document 13/108, November 2013.

9.229 ComReg intends to undertake a separate price control consultation (the '**Separate FVCO Price Control Consultation**'), which will shortly[788] be published and will, amongst other things, address the following issues relating to the FVCO price control cost orientation obligation:

(a) whether the methodological approach of Top-Down LRAIC+ as the basis of a price control for FVCO remains appropriate (as per the 2007 Decision);

(b) whether and how the price control methodology for FVCO should be adjusted in light of the non-recovery of common costs by Eircom through FTRs; and

(c) consult on the modelling parameters to support the appropriate cost orientation obligation.

9.230 However, in the meantime, pending the outcome of ComReg's Separate FVCO Price Control Consultation, ComReg is proposing to re-impose the existing TD FL-LRAIC+ cost orientation obligation as set out in the 2007 Decision.

9.231 As also noted in paragraph 9.20, with respect to FVCO for calls to certain non-geographic numbers (sometimes referred to as calls to Number Translation Codes or '**NTCs**'), Eircom is allowed to retain the costs not only of FVCO, but also additional charges that relate to an uplift or 'retention' that is intended to allow Eircom to recover its reasonable billing costs associated with the service; and an additional bad debt surcharge to reflect the higher incidence of bad debt for calls to certain non-geographic numbers (together known as the '**Retention Rate**'[789]). As noted in Section 8[790], ComReg considers that a continued risk exists of Eircom engaging in price related vertical leveraging behaviour with respect to calls to non-geographic numbers. In view of this, ComReg proposes to continue to impose upon Eircom a price control obligation of cost orientation with respect to the Regulated Retention charged for calls to non-geographic numbers/NTCs. In particular, Eircom shall ensure that that it recovers no more than its actual incurred costs adjusted for efficiencies (plus a reasonable rate of return) for the Retention Rate associated with the in the provision of FVCO to non-geographic numbers.

[788] ComReg anticipates publication in Q2 2014.

[789] More specifically, the Retention Rate refers to the administrative costs associated with the provision of FVCO to non-geographic numbers and is comprises of billing, credit control, cash collection and management of bad debt.

[790] See paragraph 8.38.

Interconnection Services, co-location and order handling process costs associated with WLR.

9.232 In the context of the proposed access obligations, ComReg has set out its intention to require eircom to provide various Interconnection Services[791.] As outlined, Interconnection Services include CSI/H, IBI/H ISI/H, and Interconnection Paths[792]. ComReg notes that Current Generation Interconnection Services are based on network infrastructure that is also used in the provision of various wholesale access products falling within the in the market for wholesale terminating segments of leased lines. In the context of that market, charges relating to Current Generation Interconnection Services are subject to a cost-orientation methodology (which includes an adjustment for efficiencies and a reasonable rate of return which is based on the WACC) under the 2008 Leased Line SMP Decision[793]. The cost orientation obligation was further specified by ComReg in the 2012 Leased Line Pricing Decision[794.] which concerned the rates for certain wholesale leased line products including the recurring monthly charges for interconnection services. To ensure regulatory predictability and consistency ComReg now proposes to adopt the similar approach in respect of the monthly, recurring charges for Current Generation Interconnection Services in the context of the FACO Markets to that which is specified in the 2012 Leased Line Pricing Decision.

[791] See paragraphs 9.78 to 9.88 above.

[792] These are the physical and logical transmission path(s) between the ECNs of two Undertakings to facilitate Interconnection based on circuit switched infrastructure

[793] See section 11.2 of the Decision Instrument annexed to ComReg Decision No. D06/08 (Market Analysis - Leased Lines Market Review) dated 22 December 2008.

[794] The price control is detailed in ComReg D02/12, Response to Consultation and Final Decision, A final decision further specifying the price control obligation in the market for wholesale terminating segments of leased lines (the '**2012 Leased Lines Pricing Decision'**).

9.233 Insofar as the once-off, non-recurring charges for these Current Generation Interconnection Services are concerned (such as connection fees) ComReg proposes that Eircom should recover no more than its actual incurred costs adjusted for efficiencies (plus a reasonable rate of return which is based on the WACC). ComReg believes that this approach to non-recurring charges is appropriate because such specific charges are likely to be of a lesser consideration (but nonetheless still important) compared to the implications of an economic and/or engineering model of an efficient network. It is the costing methodology of the network which provides the correct build/buy signals and, in this case, not these specific one-off, non-recurring charges. Furthermore, given the nature of such charges it is unlikely that modelling these on hypothetical efficient operator basis would be materially different to those costs actually incurred by Eircom adjusted for efficiencies. ComReg considers that allowing Eircom to recover its actually incurred costs ensures that these charges are not priced in a discriminatory manner and ensures a level playing field for all operators to compete. Furthermore, the obligation ensures that Eircom will only recover its efficiently incurred cost of provision of the service plus a reasonable rate of return.

9.234 ComReg has set out its intention to require eircom to provide co-location[795] (to extent necessary to support Interconnection Services) and for the same reasons as outlined above (namely those including the risk of excessive and/or inefficient pricing), considers that this should be subject to an obligation of cost-orientation.

9.235 To date co-location charges have been set based on the likely actual costs incurred by Eircom, plus a regulated rate of return (based on the WACC), over the period of the price control. These charges are then reviewed periodically to ensure there was not material under or over recovery as actual costs and volumes become available. ComReg considers that this approach should apply with respect to co-location namely based on the likely actual costs incurred by Eircom, adjusted for efficiencies, plus a regulated rate of return (based on the WACC).

9.236 Similarly, with respect to order handling process charges associated with Eircom's supply of SB-WLR[796], these should also be subject to a cost-orientation obligation. Similar to co-location charges above, ComReg considers that order handling process costs associated with SB-WLR should be based on the likely actual costs incurred by Eircom, adjusted for efficiencies, plus a regulated rate of return (based on the WACC).

[795] See paragraphs 9.78 to 9.88 and paragraphs 9.101 to 9.102 above.

[796] These iinclude those currently set out in tables 3 and 4 in service schedule 401 or Eircom's RIO and its RIO Price List.

<u>Price control of Cost Orientation for Ancillary Services on SB-WLR, including Low Value CPE Rental;</u>

9.237 In paragraphs 9.69 to 9.71 above, ComReg has proposed to impose an access obligation on Eircom to provide Ancillary Services on SB-WLR[797], including access to Low Value CPE Rental (‘**LV-CPER**’).

9.238 As noted in paragraph 9.22, these services are currently based on a ‘retail minus’ price control, with the minus set at 14%. However, ComReg proposes that these Ancillary Services on SB-WLR should be subject to a price control obligation of cost-orientation. In particular, given that these services are not likely to be subject to sufficient competitive pressure at the retail level, a retail minus price control obligation would not ensure that the associated wholesale charges are set at an efficient level, with the danger of Eircom pricing excessively with respect to their provision of such services to Access Seekers.

Price Control Obligations of Retail Minus

9.239 In Section 8, ComReg set out its view that Eircom has the ability and incentive to set prices (including with respect to FACO products, services and associated facilities) at an excessive or inefficient level, which could result in adverse impacts on downstream markets to the ultimate detriment of end-users. In view of that assessment, ComReg considers that the imposition of price control obligations of retail minus on Eircom with respect to (i) the WLR component of SB-WLR; is justified and proportionate.

9.240 As noted in paragraph 9.219, when applying a price control remedy under Regulation 13(1) of the Access Regulations ComReg must consider Regulation 13(2). Regulation 13(2) requires ComReg to take into account any relevant investment and ensure that a reasonable rate of return on capital employed is allowed.

9.241 Insofar as retail minus price control obligations are concerned, wholesale charges are derived by deducting a certain percentage from the retail price. This percentage (known as the ‘x’ in a ‘retail minus x’ price control) is set at a level which reflects the efficiently incurred retail costs faced by Eircom. These retail costs are deducted from the retail price to arrive at the appropriate wholesale charge. Given the nature of a retail minus price control obligation, the ability for Eircom to recover its investment, including a reasonable rate of return, is within Eircom’s control. For example, by adjusting its retail prices. Furthermore, given wholesale charges are calculated net of retail charges, it provides an incentive for Eircom to sell SB-WLR. However, retail minus price controls can, in the absence of effective competitive pressures at the retail level (say from competing service providers), potentially result in excessive retail, and in turn, wholesale charges being set.

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[797] These include the various calling features (such as call barring, call waiting, caller line identity restriction) which are set out in section 4.2 and 4.3 of the Eircom document entitled “Single Billing through Wholesale Line Rental Product Description” (issue 2.2, dated 5 December 2007[797]) as may be amended from time to time and as is published on Eircom’s wholesale website.

9.242 These are discussed below.

Price control of Retail Minus for WLR element of SB-WLR

9.243 For similar reasons to those outlined with respect to the FVCO component of SB-WLR, ComReg also needs to consider whether a price control obligation is appropriate to support the WLR component and, if so, what type of price control.

9.244 In Section 8, ComReg set out its view that absent regulation, Eircom has the ability and incentive to set prices (including with respect to WLR) at an excessive or inefficient level, which could result in adverse impacts on downstream markets to the ultimate detriment of end-users. In view of that assessment, ComReg considers that the imposition of obligations of price control on Eircom in respect of the WLR component of SB-WLR is both justified and proportionate.

9.245 As noted in paragraph 9.215, the WLR element of SB-WLR is currently subject to a retail minus 'X'[798] price control whereby Eircom must provide WLR to Access Seekers at a price that is at least 14% below Eircom's retail line-rental price.

9.246 ComReg notes that a number of interested parties' submissions to recent ComReg consultations have suggested that the WLR price control needs to be revisited.[799] ComReg notes that a prospective change of the price control obligation to one of cost orientation, if justified, would require a detailed examination of the underlying cost structures of FSPs, and therefore would require significant input from FSPs on the WLR price control alone. ComReg considers that this is best addressed outside the scope of this Consultation given it will likely involve extensive work and resourcing (by both operators and ComReg) and take additional time to complete it. To this effect, ComReg has already started work on and intends to undertake an additional separate price control consultation later this year[800], which will examine various pricing aspects associated with the Eircom access network including other price control options for WLR such as cost orientation. In the context of WLR, this will examine options such as retail minus and cost oriented price control obligations, and assess which approach best fulfils regulatory objectives of, amongst others, promoting efficient investment and competition to the benefit of consumers (the '**Separate Access Network**[801] **Pricing Consultation**').

[798] The 'X' is the difference/margin between Eircom retail price for line rental and the price charged for the WLR component of SB-WLR.

[799] For example, Respondent's Submissions in response to "Further specification of the obligation not to unreasonably bundle pursuant to D07/61", Consultation and Draft Decision, ComReg Document 10/01, 6 January 2010

[800] ComReg envisages publication in Q4 2014.

[801] This consultation will deal with a range of issues relating to access network pricing, of which WLR will be but one element.

9.247 Pending the completion of this Separate Access Network Pricing Consultation, ComReg proposes to maintain the existing retail minus price control. However, ComReg considers that the appropriate retail minus margin (with this margin referred to as the 'X' parameter, i.e. Retail minus 'X') merits consideration in this Consultation.

9.248 This X-parameter is calculated on an Equally Efficient Operator ('**EEO**') [802] cost standard and is designed to allow an Access Seeker to compete with Eircom in the provision of retail line rental, by ensuring that the Access Seeker can recover the same efficiently incurred retail costs faced by Eircom, while at the same time remaining price competitive in the retail market.

9.249 The current retail minus X-parameter of 14% was derived following various reviews by ComReg (and its consultants Frontier Economics), of Eircom's 2005, 2006 and 2007 Historical Cost Accounting ('**HCA**') accounts and is specifically based on Eircom's 2006/2007 regulatory accounts, culminating in the 2008 SB-WLR Pricing Decision.

9.250 Determining the appropriate X-parameter involves the identification, specification and categorisation of relevant costs. Eircom's HCA accounts have previously been the starting position for this analysis. In determining the X-parameter, the definition of retail costs used are the costs of those activities required to provide a retail line rental service that are not required to deliver the wholesale service. These costs include, for example,:

- Fault reporting costs, and costs associated with customer facing activities during the fault repair process (for example, customer care);
- Retail product management costs;
- Retail sales and marketing costs; and
- Billing and collection costs.

9.251 As noted above, the current calculation of the X Parameter using an EEO methodology is based on Eircom's HCA accounts and, as such, this parameter has not been adjusted to take account of issues such as Access Seekers' potentially lower economies of scale and scope – which could justify as higher value of the X-Parameter, i.e., a greater margin.

9.252 In this respect, as noted in Section 3[803], ComReg's latest Quarterly Report for Q3 2013 identified that there were 525,932 indirect access paths, comprised of both standalone CPS paths (27,114), SB-WLR paths (375,351) and WLA paths(123,467) provided by Eircom. SB-WLR now accounting for 93.3% of the combined SB-WLR and CPS indirect access paths having risen from 75.1% in Q1 2008.

[802] EEO essentially takes Eircom's own retail costs associated with the provision of a retail line rental service, with these then being used to calculate the value of the X-Parameter, on the basis that this represents the margin that would allow Eircom to trade profitably in the retail market on the basis of the margin between its retail price and the wholesale charges its competitors would face.

[803] See paragraphs 3.51 to 3.53.

9.253 In terms of indirect access lines, Section 3 also noted that when expressed in terms of the number of lines, there were 337,881 SB-WLR lines, 89,928 WLA lines and 15,982 lines. The share of CPS lines when taken as a percentage of overall RFTS Subscriptions[804] is approximately 1% whereas taken as a percentage of total indirect access lines[805], CPS accounts for 3.6%.

9.254 Consequently, and without prejudice to the Separate Access Network Pricing Consultation, ComReg considers that the consistent growth in demand for SB-WLR since 2008 indicates that the 2008 SB-WLR Price Decision, which is based on an EEO cost-standard, is delivering benefits to consumers in terms of contributing to competition in the provision of RFTS. ComReg therefore considers that the retail-minus methodology set out in the 2008 SB-WLR Price Decision is likely to remain appropriate pending a further review in the Separate Access Network Pricing Consultation.

9.255 Furthermore, ComReg considers that setting a retail-minus price on an EEO cost standard basis also likely continues to set appropriate incentives for alternative FSPs to climb the ladder of investment. ComReg's recent **2013 Bundles Decision**[806] is also relevant in this regard. The 2013 Bundles Decision, amongst other issues, further specifies Eircom's price control obligations with respect to WPNIA (as imposed under the 2010 WPNIA Decision[807]) in order to ensure that there is an appropriate relative margin between Eircom's SB-WLR product and its Unbundled Local Metallic Path (i.e., ULMP) product.

9.256 ComReg notes that, according to Eircom's HCA accounts for the financial years ended 2011 and 2012 (without adjusting for possible efficiencies) show that Eircom's retail costs associated with the provision of 'narrowband access'/RFA (in essence being its self-supply of WLR) accounted for approximately 14% and 15% of the total price respectively. As such, the X-Parameter of 14% within the retail minus price control appears to be consistent with the retail costs being incurred by Eircom with respect to its retail supply of RFA. It is important to note that the X-Parameter represents only the retail margin for WLR and, in practice, Access Seekers are likely to bundle additional retail services with it, such as RFVC, which may increase their overall retail margin.

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[804] There were 1,507,684 RFTS Subscriptions in Q3 2013 – see Figure 2.

[805] There were 443,791 indirect access lines in Q3 2013.

[806] Price Regulation of Bundled Offers, Further specification of certain price control obligations in Market 1 and Market 4, Response to Consultation and Decision, ComReg Document 13/14, Decision D04/13, February 2013 (the '**2013 Bundles Decision**').

[807] Market Review: Wholesale Physical Network Infrastructure Access Market Analysis, Response to Consultation and Decision, ComReg Document 10/39, Decision D05/10, May 2010 (the '**2010 WPNIA Decision'**).

9.257 In view of the above, ComReg considers that, pending the conduct of the Separate Access Network Pricing Consultation, it remains appropriate, at this time, to impose a retail-minus 'X' price control obligation on Eircom regarding its provision of SB-WLR on the basis of and EEO standard, with the X-Parameter being set at least a 14% margin between the retail price charged by Eircom to its own customers for RFA and the WLR price.

Price Control obligation not to margin squeeze

9.258 As noted in Section 8, ComReg considers that, absent regulation, Eircom has the ability and incentive to foreclose competition in a downstream market by imposing one or more margin squeezes (equivalent to a price squeeze). This included the following scenarios that might arise in the absence of an effective price control obligation not to cause a margin squeeze:

- RFTS bundles (for example, including unregulated retail services) being priced too low relative to the prices of FVCO and other relevant wholesale inputs, such that an efficient operator using Eircom's wholesale services to compete in the retail markets would not be able to recover its reasonably incurred retail costs.
- Wholesale SV being priced too low relative to the price of FVCO, such that FVCO (and FVCT) are ineffective, and competing Transit providers are unable to compete on a level playing field with Eircom.

9.259 ComReg considers that these competition problems would be likely to ultimately result in restrictions or distortions in competition downstream RFTS markets, by restricting the ability of alternative FSPs to compete in the (a) the Transit market, where the impact on consumers is likely to be indirect; and (b) the RFVA and RFVC markets.

9.260 ComReg considers that the proposed LRAIC+ cost-oriented price control for FVCO and the retail-minus for SB-WLR would not, in themselves, prevent Eircom from imposing these types of margin squeeze. As stated in the Explanatory Note to the 2007 Recommendation, for the assessment of a margin squeeze

> *"For the assessment of a margin squeeze it is irrelevant whether both wholesale and retail prices are regulated or only one of the two. The relevant questions in this context are (i) whether the spread between wholesale and retail prices cover the retail costs of the dominant firm and (ii) whether the dominant firm is free to avoid the margin squeeze on its own initiative."* [808]

9.261 In order to reduce the risk of these types of margin squeeze scenarios arising, ComReg proposes to continue to impose a general price control obligation not to cause a margin squeeze. Its approach to the detailed specification of margin squeeze tests to address these concerns is set out below.

[808] See section 3.5 of the Explanatory Note.

SB-WLR margin squeeze

9.262 As noted above, ComReg has identified the risks associated with the potential for Eircom to cause a margin squeeze between the relative prices of (i) prices for retail products/services or bundles that incorporate a RFA and/or RFVC component (this may also incorporate other regulated and non regulated components) and (ii) prices for relevant wholesale FACO services, in particular, SB-WLR (a '**SB-WLR Margin Squeeze'**). In the recently issued 2013 RFA Supplementary Consultation[809], ComReg indicated that the introduction and specification of a margin squeeze tests in the upstream FACO Markets (and elsewhere) may permit the removal downstream of the current Net Revenue Test ('**NRT**') as imposed in the RFA market[810].

9.263 This detailed margin squeeze test to prevent a SB-WLR Margin Squeeze is not being imposed in this Consultation. It will, however, be subject to specification through a separate consultation which is expected to issue in early Q2 2014 (the '**NRT Margin Squeeze Consultation*'***).

Wholesale SV margin squeeze

9.264 As noted in paragraph 9.18, following the 2011 Pricing and Transparency Decision Eircom is subject to an obligation not to cause a margin squeeze with respect to Wholesale SV ('**Wholesale SV Margin Squeeze'**). ComReg has set out its view in Section 8 that Eircom has the ability and incentive to engage in a margin squeeze through its relative pricing of the FVCO component of FACO (and other regulated services) and Wholesale SV services, with this potentially distorting or restricting competition right across the supply chain including at the Wholesale SV, Transit and ultimately at retail levels to the detriment of end-users. The risks of horizontal and vertical leveraging and margin squeeze therefore remain present

9.265 In the absence of a regulated price control measure, a margin squeeze of this nature could also discourage Access Seekers from interconnecting at tandem and primary exchanges, potentially undermining competition in the Transit market in particular.

9.266 ComReg believes that safeguarding efficient competitors from possible margin (price) squeeze by an SMP operator should help to preserve competition in the Transit market and in the provision of wholesale SV services. This, in turn should promote efficient investment in fixed telephone network infrastructure including primary and tandem interconnection.

9.267 ComReg considers that this should likely result in the development of sustainable competition in the RFTS market and promote consumer choice, in terms of product range, quality and affordability.

[809] Market Review Fixed Voice Access, Supplementary consultation to 12/117, Consultation, ComReg Document 13/95, October 2013 (the '**2013 RFA Supplementary Consultation**'), See paragraph 4.

[810] As specified in the 2013 Bundles Decision.

9.268 ComReg is of the view that the resale of wholesale voice services (including to undertakings operating in the RFTS markets without switching infrastructure) at an appropriate price may facilitate increased competition in the retail market. ComReg believes that safeguarding efficient competitors (who have made efficient investments in interconnection infrastructure) from possible margin (price) squeeze by an SMP operator in the FACO market would also help to facilitate greater regulatory certainty for longer-term competitive entry and expansion based on efficient infrastructure investment. It is ComReg's view that this will have positive implications for the price, choice and quality of services ultimately delivered and should therefore maximise consumer benefits.

9.269 In view of these concerns, ComReg considers that it is justified to maintain an obligation on Eircom of the same nature to that imposed in the 2011 Pricing and Transparency Decision whereby price floors for Wholesale SV are set as determined by the existing SV margin squeeze test model (the '**SV Margin Squeeze Test Model**'**)**. In this respect, Eircom is to be required to ensure that it does not create a margin squeeze between FVCO and Wholesale SV that is between:- (i) the price offered or charged for FVCO; and (ii) the price offered or charged for SV Service. The test aims to ensure that there is a sufficient margin (economic space) between the FVCO prices and the price of the downstream Wholesale SV service, such that an efficient Access Seeker could reasonably compete in the downstream market using FVCO as a wholesale input. The test is (i) based on a Similarly Efficient Operator ('**SEO**') at the 'Weighted Average Level'[811] that uses Eircom's cost-oriented FVCO rates (ii) assessed at a static point in time (iii) assessed by time of day gradient (i.e. day, evening or weekend) and (iv) uses a LRAIC plus standard. The detail of the SV Margin Squeeze Test Model for SV is set out in 2011 Pricing and Transparency Decision.

9.270 ComReg also intends to examine, as part of the Separate FVCO Price Control Consultation referred to earlier, whether the detailed costing assumptions of the SV Margin Squeeze Test Model remain appropriate. Pending this further consultation, the SV Margin Squeeze Test Model will remain in place.

Proposed cost accounting remedies

9.271 In general, if specific price control obligations are to be meaningful, it may be necessary to have a clear and comprehensive understanding of the costs associated with an SMP MSPs provision of FACO. Obligations to maintain appropriate cost accounting systems generally support obligations of price control (and accounting separation), and can also assist ComReg in monitoring the obligation of non-discrimination.

[811] The Weighted Average Level means interconnection of 66% at the primary level, 24% at single tandem level and 10% at double tandem level as may be amended by ComReg from time to time. ComReg will keep the apportionment of the levels of interconnection under review and will update the apportionment where it considers that competitive conditions warrant it. Any material update to the apportionment levels will be communicated or consulted upon by ComReg;

9.272 Having regard to the need to support the effectiveness of the proposed price control obligations set out in paragraphs 9.214 to 9.270 above, ComReg considers that the continued imposition of cost accounting obligations upon Eircom in the FACO Markets is justified. In this respect, Eircom shall ensure that it maintains appropriate cost accounting systems to justify its prices/costs of FACO products, services and facilities. The detailed nature of these cost accounting obligations are those currently imposed[812] upon Eircom and as specified in the **2010 Accounting Separation Decision**[813] (with Accounting Separation obligations discussed in paragraphs 9.277 to 9.283 below).

9.273 As noted in paragraph 9.235 above, ultimately the burden of proof will rest on Eircom to show that its prices/charges for FACO products services and facilities are derived from costs, having regard to the nature of the proposed price control obligations. Furthermore, for the purpose of calculating the cost of efficient provision of FACO Products services and facilities, in accordance with Regulation 13(4) of the Access Regulations, ComReg notes that it may also use cost accounting methods independent of those used by any MSPs. Additionally, ComReg can also issue directions requiring an operator to provide full justification for its prices and may, where appropriate, require prices to be adjusted.

Summary of Preliminary Conclusions on Price Control and Cost Accounting Obligations

9.274 Having regard to the analysis set out in paragraphs above in paragraphs 9.206 to 9.273 above, ComReg's preliminary view is that proposed price control and cost accounting obligations are proportionate and justified.

9.275 Insofar as price control obligations are concerned these include::

- A price control obligation of cost orientation based on a TD-FL LRAIC+ methodology and model in relation to the FVCO component of SB-WLR and Interconnection Services. The cost orientation methodology is to be further examined in the Separate FVCO Price Control Consultation.
- A price control obligation of cost orientation with respect to co-location and order handling process costs, with the burden of proof that charges for such are derived from costs, including a reasonable rate of return on investment, resting with Eircom.

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[812] Paragraph 3.7 of the Decision Instrument in the 2010 Accounting Separation Decision states "*For the avoidance of doubt this Decision Instrument applies in all circumstances where ComReg has found Eircom to have SMP under the provisions of Regulations 25, 26 and 27 of the Framework Regulations (or such equivalent provision) and has imposed an obligation in relation to accounting separation pursuant to Regulation 12 of the Access Regulations and/or cost accounting pursuant to Regulation 14 of the Access Regulations and Regulation 14 of the Universal Service Regulations*." Arising from the proposed re-imposition of cost accounting obligations, ComReg does consider it necessary to amend the Decision Instrument in the 20101 Accounting Separation Decision.

[813] Accounting Separation and the Cost Accounting Review of Eircom Limited, ComReg Document 10/67, Decision D08/10, August 2010.

- A retail minus 'X' price control obligation whereby Eircom must provide WLR to Access Seekers at a price that is at least 14% below Eircom's retail line-rental price. Other price control options for WLR such as cost orientation will be examined in the Separate Access Network Pricing Consultation.

- A retail minus 'X' price control obligation whereby Eircom must provide Ancillary Services on SB-WLR, including Low LV-CPER, to Access Seekers at a price that is at least 14% below Eircom's retail for its equivalent services. This will also be further considered in the Separate Access Network Pricing Consultation.

- An obligation not to cause a margin squeeze, including with respect to an SB-WLR Margin Squeeze (the details of which will be consulted upon in the NRT Margin Squeeze Consultation) and a Wholesale SV Margin Squeeze (the parameters of which will be further considered and consulted upon in the Separate FVCO Price Control Consultation).

- Cost accounting obligations as specified in the 2010 Accounting Separation Decision.

9.276 ComReg has also considered whether price control and cost accounting obligations alone would be sufficient to address the competition problems identified in Section 8 and does not consider this to be the case. For example, discriminatory behaviour (on price or non-price grounds) or denial of access problems would not be capable of being adequately addressed through such obligations alone. As such, ComReg considers that price control obligations should be imposed alongside the access, transparency, and non-discrimination obligations discussed previously. ComReg gives consideration as to the need for accounting separation obligations below.

Accounting Separation Remedies

Overview

9.277 In paragraphs 9.206 to 9.276 above, ComReg proposed to impose various price control and cost accounting obligations on Eircom relating to the provision of FACO products, services and facilities.

9.278 In accordance with Regulation 11 of the Access Regulations, ComReg can, *inter alia*, require an operator which is vertically integrated to make transparent its wholesale prices and its internal transfer prices, among other things, to ensure compliance with any non-discrimination obligation imposed or, where necessary, to prevent unfair cross-subsidy.

9.279 In general, the purpose[814] of accounting separation obligations is to provide a higher level of detail of information than that which can be derived from the statutory financial statements of undertakings designated with SMP, with the objective of reflecting, as closely as possible, the performance of those parts of the undertaking's business were it to operate on a standalone basis. In the case of vertically integrated undertakings, it can support non-discrimination obligations and prevent unfair cross-subsidies to other services. It can also assist ComReg in monitoring compliance with these obligations.

9.280 Allocating costs to the appropriate and relevant products and services of an SMP undertaking is an important factor to consider when regulating multiple products and services carried over the same network. This is particularly true for Eircom where its fixed narrowband access network is a common infrastructure that is used to provide a range of retail and wholesale services (some of which are subject to regulation) including FACO, WPNIA, WBA, RFVC and RFVA, as well as other retail products including retail broadband. Therefore when setting price controls for FACO products, services and facilities (and in ensuring compliance with pricing and other obligations) information is required about the costs associated with Eircom's provision of FACO, with such costs being distinct from the costs associated with other services provided over Eircom's network.

Proposed Accounting Separation Obligations

9.281 Having regard to Eircom's integrated position across several upstream and downstream markets (in particular noting its SMP designations in a number of these markets), the scope for Eircom to leverage its market power (as identified in Section 8 and the associated need to ensure sufficient visibility of how costs are allocated across FACO products, services and facilities and other horizontally and vertically-related input services, ComReg proposes to continue to apply an obligation of cost accounting on Eircom.

9.282 Eircom is currently required to provide separated accounts and maintain detailed cost accounting systems that are sufficiently granular to allow an assessment of cost allocations under the 2010 Accounting Separation Decision. ComReg proposes to maintain the obligations set out under the 2010 Accounting Separation Decision.

Summary of Preliminary Conclusions on Accounting Separation Obligations

9.283 Having regard to the analysis set out in paragraphs above in paragraphs 9.277 to 9.282 above, ComReg's preliminary view is that proposed accounting separation obligations as specified in the 2010 Accounting Separation Decision are proportionate and justified.

[814] See Article 1 of the 2005 Accounting Separation and Cost Accounting Recommendation.

Overall Preliminary Conclusions on Remedies in the FACO Markets

9.284 Having regard to the competition problems identified in Section 8 and the discussion in paragraphs 9.1 to 9.283 above, ComReg proposes to impose a range of access, non-discrimination, transparency and price control, cost accounting and accounting separation remedies on Eircom, with such obligations being imposed symmetrically in the FACO Markets.

> **Question 10: Do you agree with ComReg's approach to imposing access, non-discrimination, transparency, price control and cost accounting and accounting separation remedies? Are there other approaches that would address the identified competition problems? Please explain the reasons for your answer, clearly indicating the relevant paragraph numbers to which your comments refer, along with all relevant factual evidence supporting your views.**
>
> **Note: Where Respondents propose alternative remedies to those set out they should also propose appropriate wording for the draft Decision Instrument attached at Appendix H.**

9.285 ComReg has set out these remedies in the form of a Draft Decision Instrument which is attached at Appendix H and respondents are invited to comment on this Decision Instrument.

> **Question 11: Do you agree with ComReg's draft Decision Instrument set out in Appendix H, in particular, that its wording accurately captures the intentions expressed in this Section 9? Do respondents agree with ComReg's Definitions and Interpretations as set out in Part I of the Draft Decision Instrument? Please explain the reasons for your answer, clearly indicating the relevant paragraph numbers in the Draft Decision Instrument to which your comments refer.**

9.286 Respondent's should note that comments on the remedies themselves should be addressed in their responses to Question 10 above, while comments on the Decision Instrument in response to Question 11 should principally to relate to whether it accurately captures, from the perspective of being sufficiently clear in its wording, the proposed remedies.

9.287 If, having considered respondents' views on the proposed remedies set out in this Section 9, ComReg proposes to amend or clarify its position, this may lead to parallel updates to the Draft Decision Instrument.

10 Withdrawal of SMP and Remedies in the Transit Market

10.1 ComReg has proposed in Section 7 that the Transit Market as now defined[815] no longer meets the Three Criteria Test used for assessing whether a market is susceptible to *ex ante* regulation. On a forward looking basis. ComReg's preliminary view is that the Transit market is considered to be effectively competitive.

10.2 Pursuant to Regulation 27(3) of the Framework Regulations, where ComReg concludes that the Transit market is effectively competitive, it cannot not impose or maintain any obligations upon Eircom. On that basis, ComReg is required to withdraw obligations previously imposed on Eircom in the 2007 Decision in relation to the provision of Transit.

10.3 ComReg notes that, without prejudice to its preliminary view that the Transit Market is no longer susceptible to *ex ante* regulation, the removal of existing obligations imposed upon Eircom in this market may have an impact on Service Providers that currently purchase Transit from Eircom. In particular, Service Providers often purchase products that incorporate Transit with other wholesale services, including some that continue to be regulated. e.g., FVCO and FVCT.

10.4 Given the strategic importance of the Transit for service providers that offer RFTS (and Mobile Telephony Services) and other wholesale service providers, ComReg considers that it is important to ensure that the withdrawal of existing regulatory obligations does not lead to undue short term disruption that might unnecessarily damage competition in the medium to longer term.

10.5 In cases where Eircom has previously been designated as SMP in the Transit Market and subject to regulatory obligations, ComReg notes that Regulation 27(2) of the Framework Regulations allows ComReg to give reasonable notice to any parties which it considers to be affected by a withdrawal of such obligations.

10.6 ComReg recognises that current purchasers of Transit services may, as a consequence of the proposed de-regulation of the Transit Market, wish to re-arrange existing or secure alternate sources of transit supply (particularly in the event that terms and conditions cannot be agreed with Eircom on a commercial basis) and/or implement any necessary operational or network changes to facilitate this. Such events are likely to constitute short-term rather than long-term challenges in the transitional period following the proposed de-regulation of this market. ComReg is, therefore, interested in respondents' views on such matters on whether a sunset period for the withdrawal of existing transit obligations is required and, if so, what period could be justified.

[815] See Section 7 for the definition of the Transit Market and the competition assessment within it.

10.7 ComReg proposes that, pending the consideration of views received that a six month sunset period (following the effective date of a decision) for the withdrawal of existing remedies in the Transit market (insofar as they apply to those service providers that are currently supplied with Transit services by Eircom) might be reasonable and proportionate.

However, ComReg would also intend that during this sunset period Eircom should not be obliged to meet new requests for Transit services on a regulated basis. Eircom is, of course, free to do so on a pure commercial basis and indeed, ComReg would expect it to do so in view of the prospective competitive nature of this market. The rationale for this approach is that it would be somewhat counter-intuitive to require Eircom to require it to meet new requests for Transit services on regulated terms during the sunset period, only to have such requirements withdrawn some month later.

Question 12:	**Do you agree with ComReg's proposed approach to the withdrawal of remedies in the Transit Market, including the proposed sunset period? Please explain the reasons for your answer, clearly indicating the relevant paragraph numbers to which your comments refer, along with all relevant factual evidence supporting your views.**

11 Regulatory Impact Assessment

11.1 The Regulatory Impact Assessment ('**RIA**') is an analysis of the likely effect of proposed new regulation or regulatory change. The purpose of a RIA is to establish whether regulation is actually necessary, to identify any possible negative effects which might result from imposing a regulatory obligation and to consider any alternatives. The RIA should help identify regulatory options, and should establish whether proposed regulation is likely to have the desired impact. It is a structured approach to the development of policy, and analyses the impact of regulatory options on different stakeholders. Appropriate use of the RIA should ensure that the most effective approach to regulation is adopted.

11.2 ComReg's approach to RIA follows the RIA Guidelines[816] published by ComReg in August 2007 and takes into account the "Better Regulation" programme[817] and international best practice (for example, considering developments involving RIA published by the European Commission and the OECD).

11.3 Section 13(1) of the Communications Regulation Acts 2002 to 2011 requires ComReg to comply with Ministerial Policy Directions. In this regard, Ministerial Policy Direction 6 of February 2003[818] requires that, before deciding to impose regulatory obligations on undertakings, ComReg shall conduct a RIA in accordance with European and international best practice and otherwise in accordance with measures that may be adopted under the "Better Regulation" programme.

11.4 In conducting the RIA, ComReg has regard to the RIA Guidelines, while recognising that regulation by way of issuing decisions, e.g. imposing obligations or specifying requirements in addition to promulgating secondary legislation, may be different to regulation exclusively by way of enacting primary or secondary legislation. Our ultimate aim in conducting a RIA is to ensure that all measures are appropriate, proportionate and justified. To ensure that a RIA is proportionate and does not become overly burdensome, a common sense approach is taken. As decisions are likely to vary in terms of their impact, if after initial investigation, a decision appears to have relatively low impact, ComReg may carry out a lighter RIA in respect of those decisions.

11.5 ComReg's approach to RIA follows five steps:

Step 1: Describe the policy issue and identify the objectives.

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[816] ComReg Document 07/56a, ComReg, "Guidelines on ComReg's Approach to Regulatory Impact Assessment", 10 August 2007 (the '**RIA Guidelines'**).

[817] Department of the Taoiseach, "Regulating Better", January 2004. See also "Revised RIA Guidelines: How to conduct a Regulatory Impact Analysis", June 2009, ('**The Department of An Taoiseach's Revised RIA Guidelines**'), available from: http://www.taoiseach.gov.ie/eng/Publications/Publications_Archive/Publications_2011/Revised_RIA_Guidelines_June_2009.pdf

[818] Ministerial Policy Direction made by the Minister of Communications, Marine and Natural Resources on 21 February 2003.

Step 2: Identify and describe the regulatory options.

Step 3: Determine the impacts on stakeholders.

Step 4: Determine the impacts on competition.

Step 5: Assess the impacts and choose the best option.

11.6 The purpose of carrying out a RIA is to aid decision-making through identifying regulatory options and analysing the impact of those options in a structured manner. The Department of An Taoiseach's Revised RIA Guidelines state that

> *"RIA should be conducted at an early stage and before a decision to regulate has been taken"*[819]*.*

11.7 The European Commission, in reviewing its own use of impact assessments, also notes that:

> *"Impact assessments need to be conducted earlier in the policy development process so that alternative courses of action can be thoroughly examined before a proposal is tabled"*[820]*.*

11.8 In determining the impacts of the various regulatory options, current best practice appears to recognise that full cost benefit analysis would only arise where it would be proportionate or in exceptional cases where robust, detailed and independently verifiable data is available. Such comprehensive review may be undertaken by ComReg when necessary and appropriate.

11.9 Having regard to the various sets of guidelines, it is clear that the RIA should be introduced as early as possible in the assessment of potential regulatory options, where appropriate and feasible. The consideration of regulatory impact provides a discussion of options, and the RIA should therefore be integrated within the overall preliminary analysis. This is the approach which ComReg is following in this market review. The RIA will be finalised in the final Response to Consultation and Decision document, having taken into account all the responses to this Consultation and any comments from the European Commission and the Competition Authority.

11.10 ComReg now conducts its RIA having regard to its proposed approach to impose (or not) regulatory remedies identified in Sections 7 and 9, along with a consideration of other options. The following sections, in conjunction with the rest of the analysis and discussion set out elsewhere in this Consultation, represent a RIA. It sets out a preliminary assessment of the potential impact of proposed regulatory obligations on Eircom in the Relevant FACO Markets and the proposed removal of regulatory obligations in the Transit Market in Section 10.

[819] See paragraph 2.1.

[820] Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, "Second strategic review of Better Regulation in the European Union", COM(2008) 32 final 30.01.2008, p. 6.

Principles in Selecting Remedies

11.11 In paragraphs 9.2 to 9.6 we previously set out the legislative basis upon which ComReg must consider the imposition of remedies. In choosing remedies ComReg is obliged, pursuant to Regulation 8(6) of the Access Regulations, to ensure that they are:

- Based on the nature of the problem identified;
- Proportionate and justified in the light of the objectives laid down in Section 12 of the Communications Regulation Acts 2002 to 2011, and Regulation 16 of the Framework Regulations; and
- Only imposed following consultation in accordance with Regulations 12 and 13 of the Framework Regulations.

11.12 Section 12(1)(a) of the Communications Regulation Acts 2002 to 2011 sets out the objectives of ComReg in exercising its functions in relation to the provision of electronic communications networks, electronic communications services and associated facilities, namely:

- to promote competition;
- to contribute to the development of the internal market; and
- to promote the interests of users within the European Union.

Describe the Policy Issue and Identify the Objectives

11.13 In general, the European Commission acknowledges that once SMP is identified in markets, which are defined as susceptible to *ex ante* regulation, then the regulatory framework foresees that at least one regulatory obligation would be imposed to mitigate against the potential exercise of anti-competitive behaviours associated with the ability and incentives of an undertaking designated with SMP and to ensure the development of effective competition within and across communications markets. As noted in Section 1[821], the European Commission has established that the FVCO market is susceptible to *ex ante* regulation and on this basis ComReg has carried out the preceding analysis in this Consultation. ComReg has broadened its definition of the FVCO market to include the underlying access component and, in this respect, ComReg defined FACO Markets. As noted in Section 1[822], ComReg's preliminary view is that this approach to market definition does not materially affect the regulatory outcome, since even if the market were to be defined as FVCO (i.e. without the access component), requirements to provide FA could nonetheless be imposed as a regulatory obligation.

[821] See paragraph 1.16.

[822] See paragraph 1.20.

11.14 In Sections 5, 6 and 7 of this Consultation respectively, ComReg set out its preliminary view on the definition of the Relevant FACO Markets and the relevant Transit Market, followed by a competition analysis within these markets (in the case of the Relevant Transit Market this involves a 3CT only given the market is not identified in the 2007 Recommendation as being susceptible to *ex ante* regulation). With respect to the Relevant FACO Markets, ComReg consequently proposes to designate Eircom with SMP in each such market in which it operates. In Section 8, ComReg considered, on the basis of a preliminary SMP finding, the potential for competition problems to arise in the Relevant FACO Markets over the review period in question. As noted in Section 9[823], in order to address the identified competition problems, ComReg is required to impose on an operator with SMP one or more (as appropriate) of the obligations (or remedies) set out below:

- Access;
- Transparency;
- Non-Discrimination;
- Price Control and Cost Accounting; and
- Accounting Separation.

11.15 Given ComReg has identified in Section 7 that the relevant Transit Market fails the 3CT, ComReg cannot, as a matter of law impose any regulatory obligations as this market is considered to be tending towards effective competition. However, as noted in Section 10, ComReg has proposed a sunset period of six months for the withdrawal of existing remedies imposed upon Eircom in the Relevant Transit Market.

11.16 With regard to the analysis of competition within the Relevant FACO Markets and, having regard to the competition problems identified in Section 8, ComReg's objectives are to enhance the development of effective competition in downstream markets and ultimately to help ensure that consumers can reap maximum benefits in terms of price, choice and quality of service. In so doing, ComReg is seeking to prevent exploitative/exclusionary behaviours and/or restrictions or distortions in competition amongst Service Providers. ComReg is also seeking to provide regulatory certainty to all Service Providers through the development of an effective and efficient forward-looking regulatory regime that serves to promote competition.

11.17 In pursuing these objectives, ComReg has considered the impact of specific forms of regulation in the Relevant FACO Markets. As a result, ComReg is of the preliminary view that the remedies specified in Section 9 are both appropriate and justified in light of the market analysis and the identified competition problems. The regulatory options are further considered below.

[823] See paragraphs 9.30 to 9.33.

Identify and Describe the Potential Regulatory Options

11.18 ComReg recognises that regulatory measures should be kept to the minimum necessary to address the identified market failure in an effective, efficient and proportionate manner. There are a range of potential regulatory options available to ComReg to address the potential competition problems in the Relevant Markets.

11.19 In this regard, regulation can be considered to be incremental, such that only obligations are imposed which are necessary and proportionate to the competition problems which have been identified. The lightest measure that can be imposed is the obligation of transparency[824]. Should this be insufficient to address competition problems on its own, ComReg may apply a non-discrimination obligation[825]. If this is still not sufficient, ComReg may next consider the imposition of an access obligation[826], or accounting separation obligations[827]. The final measure to be considered is the imposition of a price control and cost accounting remedy[828].

11.20 The question of regulatory forbearance and the incremental imposition of one or more of the above obligations in the Relevant FACO Markets are considered below.

11.21 As noted above, ComReg's preliminary view is that the Relevant Transit Market is not likely to meet the 3CT. In particular, ComReg's preliminary view is that high and non-transitory barriers to entry are no longer present, and that the Relevant Transit Market is tending towards effective competition. Failure to meet the 3CT implies that the Transit market is no longer susceptible to *ex ante* regulation and, therefore, regulation is not warranted.

11.22 On that basis, the removal of regulation from the Relevant Transit Market has been proposed. Therefore, ComReg's regulatory options in the Relevant Transit Market are limited to the timing of the withdrawal of existing regulation.

[824] Regulation 9 of the Access Regulations.

[825] Regulation 10 of the Access Regulations.

[826] Regulation 12 of the Access Regulations.

[827] Regulation 11 of the Access Regulations.

[828] Regulation 13 of the Access Regulations.

11.23 As set out in Section 10, ComReg has proposed a six month sunset period for the removal of existing regulatory obligations imposed upon Eircom in the Transit Market arising from the 2007 Decision. This will, amongst other things, allow Access Seekers sufficient time to seek alternative forms of Transit supply, if required, and thereby preserve continuity in the supply of retail/wholesale services (were Eircom to withdraw, or significantly alter, its Transit terms and conditions following deregulation[829]. To ultimately ensure the protection of consumer interests, ComReg also proposes to continue to monitor the effectiveness of competition within the Relevant Transit Market, notwithstanding the proposed removal of regulation. In this respect, ComReg reserves its right to re-examine competitive conditions within the Relevant Transit Market and, if appropriate, to intervene accordingly.

11.24 ComReg also proposes that, from the effective date of the final decision arising from this Consultation, Eircom will no longer have to meet new requests for access in the Relevant Transit Market in the context of regulatory requirements (although is free to do so commercially). ComReg believes that this is appropriate given it would be illogical to maintain this requirement for a short period which, having expired, would then be subject to commercial negotiation. Additionally, in such circumstances an Access Seeker may not be able to earn a sufficient return on its investment associated with obtaining such Transit services during the six month sunset period and ComReg considers that regulatory certainty would be better preserved for all parties by not requiring access to be met in a regulatory context during the sunset period. ComReg notes that the tendency towards sufficient competitive constraints being present in the Relevant Transit Market means that this market outcome now facilitates the removal of existing obligations on Eircom. These dynamics also facilitate a reduction in Eircom's regulatory burden and given the market can operate effectively absent regulation.

11.25 Given regulatory obligations cannot be imposed in the Relevant Transit Market (aside from the limited obligations regarding the proposed sunset period), the remainder of this RIA does not consider regulatory options with respect to the Relevant Transit Market.

[829] ComReg would not expect Eircom to significantly alter its terms and conditions given the presence of competition.

Forbearance

11.26 In the case of the current analysis of the Relevant FACO Markets, ComReg is required[830] to impose at least some level of regulation on an FSP(s) designated as having SMP. Regulation 8(1) of the Access Regulations and Regulation 27(4) of the Framework Regulations require ComReg to impose at least some level of regulation on Eircom, having been designated as having SMP. In Section 6, ComReg set out its view that the Relevant FACO Markets are not effectively competitive (or likely to become effectively competitive within the timeframe covered by this review). In Section 8, ComReg identified a range of competition problems that could occur in these markets, absent regulation.

11.27 In Section 8, ComReg set out its view that, absent regulation, Eircom has the ability and incentive to engage in a range of exploitative and/or exclusionary behaviours. In view of this, absent the imposition of any remedies within the Relevant FACO Markets, it is ComReg's view that such markets (and impacted adjacent markets) would not be likely to function effectively. As highlighted in paragraphs 9.30 to 9.33, it is ComReg's preliminary view that the option of regulatory forbearance in the Relevant FACO Markets is not, therefore, appropriate or justified. By not imposing any regulatory obligations on an undertaking designated with SMP, ComReg would be acting contrary to its regulatory obligations. Per Regulation 8(1) of the Access Regulations and Regulation 27(4) of the Framework Regulations, once SMP has been identified ComReg is obliged to impose at least one regulatory remedy. The question is, therefore, which regulatory obligations are appropriate. ComReg examines this question below, with this analysis to be considered alongside the analysis elsewhere in this Consultation.

11.28 In Section 9 ComReg also proposed not to impose any regulatory obligation upon Eircom with respect to Next Generation FACO having regard to, amongst other things, proportionality considerations and the need incentivise OAOs to develop their own VOB capabilities having regard to the need to ensure sustainable competition in the longer term. In this respect, the discussion below on various obligations proposed related to Current Generation FACO only.

Transparency Obligations

11.29 As noted in paragraphs 9.15 to 9.18, Eircom was designated with SMP under the 2007 Decision and is currently subject to a range of transparency obligations.

[830] In accordance with Regulation 8(1) of the Access Regulations.

11.30 ComReg's preliminary view in Section 9 is that Eircom, as the proposed SMP FSP should be required to comply with transparency obligations in order to minimise information asymmetries and, therefore, facilitate effective access to FACO and promote effective competition in downstream markets. In Section 8 ComReg identified competition problems which, absent regulation, could potentially arise in the Relevant FACO Markets. The competition problems identified included *inter alia* potentially excessive and/or discriminatory pricing, as well as a potential for outright or constructive (e.g. through protracted negotiations on terms and conditions) refusal to supply with a view to extracting rents above efficient cost and/or distorting competition in related markets. In this regard, ComReg is proposing that, as part of a general transparency obligation pursuant to Regulation 9 of the Access Regulations, Eircom is to be required to publish and maintain a RIO (including terms and conditions with respect to Wholesale SV); to follow a RIO change management process; to publish KPIs, performance metrics and SLAs; and facilitate the legitimate sharing of confidential and/or commercial information through a non-disclosure agreement. The justification for these obligations has been set out in Section 9.

11.31 ComReg has considered whether transparency obligations alone would be sufficient to address the competition problems identified in Section 8 and does not consider this to be the case. For example, problems *inter alia* associated with excessive pricing, price/margin squeeze, discriminatory behaviour (on price or non-price grounds) and/or impeded, delayed or refused access would not be capable of being adequately addressed through transparency obligations alone.

Non-Discrimination Obligations

11.32 The principle of non-discrimination is designed to ensure that undertakings with market power do not distort competition, in particular, where they are vertically-integrated undertakings that supply services to undertakings with whom they compete on downstream markets. As discussed in Section 8, various potential competition problems arise when an integrated operator has SMP in one market which has links with other adjacent markets either at a similar (horizontal) or different (vertical) level in the production or distribution chain. In such circumstances the SMP operator may attempt to transfer (leverage) its market power to such horizontally or vertically related markets. This could enable the SMP operator to strengthen its position in those related markets and potentially also reinforce its existing market power in the SMP market in question.

11.33 As noted in paragraphs 9.13 to 9.14, Eircom currently has an obligation of non-discrimination with respect to the provision of similar terms and conditions to undertakings that obtain, or seek to obtain from them, FVCO products, services and facilities.

11.34 In Section 8 ComReg identified that an FSP with SMP has, absent regulation, the ability and incentive to engage in behaviour which can impact upon downstream competition and ultimately consumers. For example, FSPs designated with SMP could offer different prices or other terms and conditions and service quality to different wholesale buyers. As a consequence, ComReg proposed in Section 9 to require that Eircom (as the FSP designated with SMP) apply the same conditions, to all other undertakings as those that Eircom provides to itself or to its subsidiaries, including in respect of FACO charges and information provided. Apart from these general obligations ComReg has proposed, *inter alia*, that an EOO non-discrimination standard is applied; and that a SoC should be provided according to specified terms, conditions and timelines, in particular, in order for Eircom to demonstrate is compliance with its non-discrimination obligations.

11.35 ComReg has considered whether non-discrimination obligations alone would be sufficient to address the competition problems identified in Section 8 and does not consider this to be the case. For example, excessive pricing, outright or constructive denial of access problems, delaying tactics or poor service quality issues could *inter alia* still remain in the presence of non-discrimination and transparency obligations. Therefore, the imposition of obligations other than transparency and non-discrimination obligations is both proportionate and justified having regard to the competition problems identified.

Access Obligations

11.36 An access obligation gives Service Providers the right to request and receive access to FACO and associated facilities and establishes the principles on which the relevant products and services should be made available. As noted in paragraphs 9.9 to 9.12, Eircom has a range of access obligations currently imposed upon it by virtue of its existing designations with SMP. These include obligations to provide CPS, CA, CS and SB-WLR; to negotiate in good faith with undertakings requesting access; not withdraw access to facilities already granted and continue to provide such facilities in accordance with existing terms and conditions and specifications; and meet reasonable requests for access to specified network elements, facilities or both such elements and facilities.

11.37 In Section 8 ComReg identified that an FSP with SMP has, absent regulation, the ability and incentive to engage in behaviour which can impact upon downstream competition and consumers. For example, FSPs designated with SMP could actually or constructively refuse to provide access to other undertakings, including those with which it competed in downstream or related markets.

11.38 In view of this ComReg's preliminary view in Section 9 is that obligations to provide FACO and access to associated facilities are both proportionate and justified. In this respect, ComReg has *inter alia* proposed to continue the requirement for Eircom to meet reasonable requests for access and, in doing so, to provide specific products, service and facilities, including SB-WLR, Ancillary Services on SB-WLR, Interconnection Services and the PAC; to negotiate with undertakings requesting access; not to withdraw Access to facilities already granted without the prior approval of ComReg; to grant open access to technical interfaces, protocols or other key technologies that are indispensable for the interoperability of products, services or facilities; to provide access to co-location or other forms of associated facilities sharing insofar as it relates to interconnection services necessary to support access to FACO, products, services and facilities; to provide access to services needed to ensure interoperability of end-to-end services to End-Users, including facilities for intelligent network services; to provide access to OSS or similar software systems necessary to ensure fair competition in the provision of services; to interconnect networks or network facilities; and to provide access subject to conditions associated with fairness, reasonableness and timeliness, including various requirements concerning SLAs.

11.39 ComReg has considered whether obligations other than those relating to access would in themselves resolve the competition problems identified and does not consider this to be the case. Similarly the imposition of access obligations on their own also would not likely prevent all possible forms of exploitative/exclusionary behaviour in the Relevant Markets such as excessive pricing, discrimination (on price or quality grounds) or ensure transparency of terms and conditions of access.

Price Control and Cost Accounting Obligations

11.40 The purpose of price control and cost accounting obligations is to ensure that prices charged are not set above efficient cost (or cause a margin squeeze) and to promote efficiency and sustainable retail competition while maximising consumer benefits. As noted in paragraphs 9.19 to 9.27, Eircom is currently subject to a price control obligation of cost orientation and cost accounting pursuant to the 2007 RNA Decision and the 2007 Decision.

11.41 In the review of competition problems in Section 8, ComReg considered, on a forward looking basis, the scope for competition problems to arise absent price control and cost accounting obligations. ComReg identified a significant and persistent risk of price-related competition problems deriving from a position of SMP in the Relevant FACO Markets including excessive pricing or the imposition of a margin squeeze which would allow Eircom to leverage its SMP position from the FACO Markets into adjacent or downstream markets.

11.42 To address these concerns, ComReg proposed in Section 9 that Eircom should be subject to a range of price control and cost accounting obligations, some of which were identified as being subject to further consideration having regard to a number of upcoming related consultations on price control methodologies. Those obligations that were proposed to apply included a price control obligation of cost orientation relating to the FVCO component of SB-WLR, Current Generation Interconnection Services, order handling process costs associated with SB-WLR, co location and Ancillary Services on SB-WLR. A price control obligation of 'retail minus' was proposed with respect to the WLR element of SB-WLR and Low Value CPE Rental. It was also proposed to impose an obligation not to Margin Squeeze, including an obligation not to cause a margin squeeze with respect to Wholesale SV. Lastly, an obligation to maintain appropriate cost accounting systems to justify its prices/costs of FACO products, services and facilities was also proposed.

11.43 ComReg has considered whether price control and cost accounting obligations alone would be sufficient to address the competition problems identified in Section 8 and does not consider this to be the case. For example, absent sufficient granularity of Eircom's costs, including internal transfer costs, ComReg would not be in a position to ensure proper application of non-discrimination obligations and the effective operation of price control obligations.

Accounting Separation Obligations

11.44 As noted in paragraphs 9.277 to 9.280, in general, the purpose[831] of an accounting separation obligation would be to provide a higher level of detail of information than that which can be derived from the statutory financial statements of undertakings designated with SMP, with the objective of reflecting, as closely as possible, the performance of those parts of the undertaking's business were it to operate on a standalone basis. In the case of vertically-integrated undertakings, it can support non-discrimination and price control obligations and prevent unfair cross-subsidies to other services.

11.45 As noted in paragraph 9.28, Eircom currently has an obligation to maintain separated accounts. In Section 8, ComReg has identified potential competition problems associated with possible price-related leveraging (absent regulation) which highlights the importance of continuing to ensure a transparent and effective mechanism of accounting separation.

[831] See Article 1 of the 2005 Accounting Separation and Cost Accounting Recommendation.

11.46 Having regard to Eircom's integrated position across several upstream and downstream markets (in particular noting its SMP designations in a number of these markets), ComReg proposes to impose accounting separation obligations to help disclose such possible competition problems and make visible the wholesale and internal transfer prices of a dominant operator's services, thereby facilitating transparency as regards any potential misallocation of costs across different services. Requiring separated accounts for the main products and services provided by Eircom creates more transparency on internal transfer pricing and repartition of common and joint costs. It is therefore considered proportionate and justified to continue to impose an obligation on Eircom to maintain separated accounts.

Determine the Impacts on Stakeholders

11.47 Given that ComReg has proposed to designate Eircom with SMP in the Relevant FACO Markets, it is ComReg's preliminary view, as outlined paragraphs 9.30 to 9.33 and 11.26 to 11.28 above, that the option of regulatory forbearance is not appropriate or justified and can therefore be discounted when considering the impact on stakeholders.

11.48 Having regard to the proposed SMP designation in Section 6 (which requires ComReg to impose at least some level of regulation[832]) as well as the review of competition problems and remedies in Sections 8 and 9 respectively, ComReg has, on an incremental basis, identified why a range of appropriate remedies are necessary, proportionate and justified, while at the same time discounting other remedies where appropriate. Having regard to the analysis and assessment of the Relevant FACO Markets, ComReg has now grouped remedies into 4 options below for the purpose of considering the incremental impact of each option on stakeholders.

Options for the Relevant Market

- Option 1: Impose Access obligations only;
- Option 2: Impose Access, Transparency and Non-Discrimination obligations
- Option 3: Impose Access, Transparency, Non-Discrimination and Price Control and Cost Accounting obligations
- Option 4: Impose Access, Transparency, Non-Discrimination, Price Control & Cost Accounting and Accounting Separation obligations.

Option 1: Impose Access Obligation only		
Impact on Eircom	**Impact on Competition**	**Impact on Consumers**
Eircom would benefit from a reduced regulatory burden relative to 2007 Decision	High risk that, even though access mandated in principle, there would be	Availability of FACO, if ineffective, would ultimately undermine the ability of retail

[832] Pursuant to Regulation 8(1) of the Access Regulations and Regulation 27(4) of the Framework Regulations.

Option 1: Impose Access Obligation only		
(and the 2007 RNA Decision[833]). There would be increased flexibility for Eircom to use its market power at wholesale level to engage in exploitative or leveraging behaviours and negatively influence developments at the retail level or in adjacent wholesale markets. Could also facilitate extraction of excessive rents from FACO and related markets and ultimately consumers. Eircom's incentives to innovate and increase efficiency may be reduced where prices set above efficient cost are paid for by competitors and, in turn, by their customers. Increased risk of disputes and legal challenges involving the terms and other conditions associated with Eircom's FACO service arising from ineffective transparency and other preventative measures to protect against non-discrimination. Disputes could increase legal and regulatory costs faced by Eircom. Non-imposition of access obligations on Eircom with respect to Next Generation FACO does not add to existing regulatory burden.	significant scope for it to be effectively undermined through such practices as high or discriminatory pricing, unreasonable terms and conditions, delaying tactics, poor service quality, etc, ultimately resulting in foreclosure from downstream or adjacent markets. Where access is provided to downstream competitors on exploitative or discriminatory terms (relative to that provided to Eircom's own retail arm) this could significantly disadvantage existing rivals and distort, restrict or eliminate existing competition in downstream or adjacent markets. Ineffective access to FACO could also raise barriers to entry and expansion for new entrants in downstream or adjacent markets due to inability to guarantee RFTS provision to existing or potential customers. While non-availability of access to Next Generation FACO, mitigated through access to Current Generation FACO. Encourages Access Seekers to develop their own Managed VOB capabilities thereby seeking to ensure sustainable long-term competition. Prices set above efficient cost would raise financial barriers to entry and/or expansion for undertakings operating in downstream retail or adjacent markets.	subscribers of Access Seekers to avail of retail services either at all or in an effective manner. High risk that, even though access mandated in principle, there would be significant scope for it to be effectively undermined through such practices as high or discriminatory pricing, unreasonable terms and conditions, delaying tactics, poor service quality, etc. If downstream competition is restricted, distorted or foreclosed, or investments discouraged due to ineffective FACO, consumers would potentially have reduced service choice, quality and innovation. Given the current tendency for RFTS to be bundled with broadband and other services (at least for a significant number of end-users), these issues could have broader consequences across such bundled services. Above-cost FACO prices, if applied, could put upward pressure (or slow the rate of any decline) on prices for RFTS either across the board or for certain customers (such as those who purchase standalone RFTS). Above-cost prices would also limit scope for retail pricing innovations thereby potentially depriving consumers of new and innovative bundles/packages involving fixed voice access and calls.

[833] Note that for the purpose of this market analysis ComReg has assumed that remedies currently imposed under the 2007 RNA Decision, as a consequence of their proposed movement into the Relevant FACO Markets, would ultimately be removed from the RNA market.

Option 1: Impose Access Obligation only		
	Where prices are set above efficient cost, this could limit scope for retail pricing innovations (such as flat rate pricing or large inclusive bundles of minutes to fixed phone numbers) by Eircom's downstream rivals. Scope would persist for Eircom to squeeze competitors across related wholesale/retail markets through its relative pricing of FACO vis-à-vis other wholesale and retail services. Regulatory certainty is reduced given wholesale access and pricing uncertainty. A potentially increased incidence of disputes could also raise legal and regulatory costs for Eircom's rivals. Differences in regulatory approach between Ireland and other EU countries (broader set of obligations are generally envisaged by other NRAs) and deviations from European Commission guidance could also generate legal uncertainty for pan-European operators considering investments in Ireland.	

Option 2: Impose Access, Transparency and Non-Discrimination Obligations		
Impact on Eircom	**Impact on Competition**	**Impact on Consumers**
Eircom would benefit from reduced regulatory burden relative to 2007 Decision and 2007 RNA Decision. There would be increased flexibility for Eircom to use its market power at wholesale level to engage in exploitative or leveraging behaviours and negatively influence developments at the retail level or in adjacent wholesale markets. Could also facilitate extraction of excessive rents from FACO and related markets and ultimately consumers. Eircom's incentives to innovate and increase efficiency may be reduced where prices set above efficient cost are paid for by competitors and, in turn, by their customers. Increased risk of disputes and legal challenges involving Eircom's FACO service arising from ineffective transparency and other preventative measures to protect against non-discrimination. Disputes could increase legal and regulatory costs faced by Eircom.	While risk of impeding access to FACO may be moderated somewhat relative to Option 1, effective FACO may still be undermined through high or inefficient FACO pricing. Where access is provided to downstream competitors on exploitative or exclusionary terms, this could significantly disadvantage existing rivals and distort, restrict or eliminate existing competition in downstream or adjacent markets. Ineffective access to FACO (through exploitative or exclusionary pricing) could also raise barriers to entry and expansion for new entrants or existing participants. Pricing above efficient cost would raise financial barriers to entry and expansion for smaller or newer entrants and existing participants in downstream or adjacent retail markets. Scope would persist for Eircom to squeeze competitors across related wholesale/retail markets through its relative pricing of FACO vis-à-vis other wholesale and retail services. Regulatory certainty is reduced given wholesale access and pricing uncertainty. A potentially increased incidence of disputes could	Availability of FACO would enable subscribers of other networks to contact Eircom's subscribers. However, high risk that, even though access mandated in principle, there would be significant scope for such access to be effectively undermined through excessive pricing. If downstream competition is distorted or investments discouraged due to ineffective FACO, consumers would potentially have reduced service choice, quality and innovation. Above-cost FACO prices, if applied, could put upward pressure (or slow the rate of any decline) on retail voice prices. Above-cost prices would also limit scope for retail pricing innovations thereby potentially depriving consumers of new and innovative bundles/packages involving fixed voice calls.

Option 2: Impose Access, Transparency and Non-Discrimination Obligations		
	also raise legal and regulatory costs for Eircom's rivals. Differences in regulatory approach between Ireland and other EU countries (broader set of obligations are generally envisaged by other NRAs) and deviations from European Commission guidance could also generate legal uncertainty for pan-European operators considering investments in Ireland.	

Option 3: Impose Access, Transparency, Non-Discrimination and Price Control & Cost Accounting Obligations		
Impact on Eircom	**Impact on Competition**	**Impact on Consumers**
As Eircom is currently subject to price control and cost accounting obligations, incremental burden of such obligations is not likely to be significant. Eircom's regulatory burden under Option 3 would not be significantly less than under Option 4 as Eircom is already subject to accounting separation obligations in other SMP markets. Under Option 3 there would be increased flexibility for Eircom to obscure internal transfer prices and the real costs of FACO if no accounting separation obligation was imposed. There would thus be an increased opportunity for Eircom's non-discrimination and/or price control obligations to be undermined. Risk of disputes and legal challenges involving Eircom's FACO prices may be eased relative to Options 1 and 2 due to price control obligation. However, lack of accounting separation may generate uncertainty regarding Eircom's compliance with non-discrimination and price control obligations, thus also contributing to risk of disputes.	Regulating FACO prices at efficient cost and/or retail minus (where an appropriate degree of competitive constraint exists at the retail level) would reinforce the effectiveness of the access, transparency and non discrimination obligations thus reducing risk of competitive distortions or restrictions Including foreclosure) in downstream retail or adjacent markets and potentially lowering barriers to entry/expansion for smaller Service Providers and existing participants. Setting FACO prices at efficient cost and/or retail minus (where an appropriate degree of competitive constraint at the retail level) would contribute to reducing the impact of any inefficient financial transfers or cross subsidies from Access Seekers to Eircom and thereby contribute to a level playing field between all FSPs. Regulating FACO prices at efficient cost would potentially provide greater scope for retail pricing innovations (such as flat rate pricing or large inclusive bundles of minutes to fixed phone numbers) by Eircom's downstream rivals. Greater consistency with EU guidance and other regulatory decisions would promote legal certainty and a more predictable environment for potential investors although lack of accounting separation obligation may render monitoring of potential exclusionary behaviour less transparent further impacting on investment incentives for new entrants.	Reduced risk of competitive distortions or restrictions and a more level playing field in downstream and adjacent markets and greater wholesale pricing certainty helps facilitate retail price and service innovations (e.g. in terms of packages/bundles offered). Reduced risk of high FACO prices being passed through to end-users in the form of higher prices relative to Options 1 and 2 above. Potential for undetectable discriminatory behaviour due to lack of accounting separation may impact on downstream competition and investment with consequent negative implications in terms of price and service choice over time.

Option 3: Impose Access, Transparency, Non-Discrimination and Price Control & Cost Accounting Obligations		
	While greater certainty that FACO prices would be set at efficient cost potentially moderates risk of disputes relative to Options 1 and 2, the lack of transparency of Eircom's internal transfer prices due to absence of an accounting separation obligation may still contribute to scope for discrimination (relative to its own retail arm) and consequent risk of disputes.	

Option 4: Impose Access, Transparency, Non-Discrimination, Price Control & Cost Accounting and Accounting Separation Obligations		
Impact on Eircom	**Impact on Competition**	**Impact on Consumers**
Existing regulatory burden on Eircom (per 2007 Decision and 2007 RNA Decision) would remain. Risk of disputes and legal challenges involving Eircom's FACO prices would be eased relative to Options 1, 2 and 3.	General impacts associated with proposed price control are as set out for Option 3 above. As set out for Option 3 above, greater consistency with EU guidance and other regulatory decisions would promote legal certainty and a more predictable environment for potential investors. Greater certainty that FACO prices would be set at efficient cost, complemented by greater visibility of internal transfers to support non discrimination obligation, moderates risk of disputes relative to Options 1, 2 and 3.	Reduced risk of competitive distortions, restrictions and more level playing field in downstream markets and greater wholesale pricing certainty helps facilitate retail price and service innovations (e.g. in terms of packages/bundles offered). Reduced risk of above-cost inefficient FACO prices being passed through to end-users in form of higher prices relative to Options 1 and 2 above. Dynamic competition from alternative Service Providers (facilitated by effective price control and appropriate preventative measures for discriminatory behaviour in respect of Eircom's FACO) should help facilitate ongoing delivery of price and service innovations and choice to end users over time.

Assess the Likely Impacts and Choose the Best Option

11.49 In the discussion on the proposed approach on remedies throughout this Consultation, ComReg has taken full account of its obligations under Regulation 8(6) of the Access Regulations (including that any proposed remedies are to be based on the nature of the problem identified), as well as its relevant objectives as set out under Section 12 of the Communications Regulation Acts 2002 to 2011 and Regulation 16 of the Framework Regulations.

11.50 ComReg's preliminary view is that, absent regulation, there is the potential and incentive for Eircom, as an SMP FSP in the Relevant FACO Markets to engage in exploitative and exclusionary behaviours which would impact on competition and consumers. In Section 8 ComReg provided examples of potential competition problems and the impact of these on competition and consumers. ComReg has also highlighted its objectives in regulating the Relevant Markets in paragraphs 11.13 to 11.17 above, in particular, preventing restrictions or distortions of competition in affected retail and wholesale markets and helping to ensure that consumers can achieve maximum benefits in terms of price, choice and quality of service.

11.51 The imposition of appropriate *ex ante* remedies to address such competition problems was discussed and justified in Section 9 and each of the specific remedies is designed to promote the development of effective competition and to protect end users. Given that a full suite of remedies is proposed to be applied on Eircom, it is ComReg's belief that the risk of competition problems and associated impacts resulting from Eircom's market power position in each of the Relevant FACO Markets should be minimised. This will ultimately be to the benefit of Service Providers and end users of downstream retail and wholesale services.

11.52 The proposed maintenance of regulation in (i.e. **Option 4**) is considered justifiable in that it is required to ensure that Eircom does not exploit its market power at the wholesale level to the detriment of competition in both upstream and downstream markets, and to the ultimate detriment of consumers. In Section 8, a broad range of potential competition problems were identified for Eircom, which has the ability and incentives for both exploitative and exclusionary practices given its continuing significant presence in upstream and downstream markets.

11.53 In particular, Eircom's strong position on downstream RFTS markets implies that the ability and incentives to engage in vertical leveraging/foreclosure would seem particularly strong for Eircom. In view of its control over a number of key input markets, Eircom has the ability and incentives to impede downstream competitors through price (e.g. excessive/ discriminatory pricing) and/or non-price means.

11.54 The regulatory obligations chosen do not unduly discriminate against Eircom in that, while the obligations specifically only apply to Eircom, the obligations are proposed in order to specifically address the competition problems and are proportionate in that they are the least burdensome means of achieving this objective.

11.55 ComReg considers that it has met the condition of transparency by setting out the potential requirements on Eircom, outlining the justification for the proposed obligations, and issuing a detailed and reasoned public consultation on these matters.

11.56 ComReg invites comments from interested parties on the above regulatory impact assessment and its underlying analysis.

Question 13: Do you agree with ComReg's preliminary conclusions on the Regulatory Impact Assessment? Please explain the reasons for your answer, clearly indicating the relevant paragraph numbers to which your comments refer, along with all relevant factual evidence supporting your position.

12 Next Steps

12.1 The consultation period will run from the date of publication of this Consultation until 17.00hrs on 3 June 2014 and all comments on the issues set out in this Consultation are welcome. It should be noted that ComReg has provided a two month consultation period and will not be extending this period.

12.2 The task of analysing responses received will be made easier if all comments are referenced to the specific question numbers as set out previously in this document and summarised in Appendix I.

12.3 Having analysed and considered the comments received, ComReg will review the proposals set out in this Consultation, consult with the Competition Authority[834] and maintain or amend its proposals, as appropriate, including with respect to the draft measures set out in the draft Decision Instrument[835].

12.4 ComReg will then notify these final draft measures to the European Commission, other NRAs and BEREC, pursuant to Regulation 13 of the Framework Regulations. Taking utmost account of any comments received from the European Commission as well as from the other aforementioned parties, ComReg will then seek to adopt and publish the final decision in its subsequent Response to Consultation and Decision.

12.5 In order to promote further openness and transparency, ComReg will publish all responses to this Consultation, subject to the provisions of ComReg's guidelines on the treatment of confidential information in ComReg Document No. 05/24[836].

12.6 ComReg appreciates that many of the issues raised in this paper may require respondents to provide confidential information if their comments are to be meaningful.

12.7 As it is ComReg's policy to make all responses available on its website and for inspection generally, respondents to this Consultation are requested to clearly identify confidential material within their submissions and place any such confidential material in a separate annex to their response, with this also being provided by the date referred to in paragraph 12.1 above. Such Information will be treated subject to the provisions of ComReg's guidelines on the treatment of confidential information as set out in ComReg Document No. 05/24.

12.8 In submitting comments, respondents are also requested to provide a copy of their submissions in an unprotected electronic format in order to facilitate their subsequent publication by ComReg.

[834] See paragraph 1.47.

[835] See Appendix H.

[836] Guidelines on the Treatment of Confidential Information, Response to Consultation, ComReg Document 05/24, March 2005.

Appendix A Market Research

A.1 The 2012 Market Research has been published separately as ComReg Document 12/117a and is available on ComReg's website at the following link:

http://www.ComReg.ie/_fileupload/publications/ComReg12117a.pdf

A.2 The 2013 Consumer ICT Survey has been published separately as ComReg Document 13/46 and is available on ComReg's website at the following link:

http://www.ComReg.ie/_fileupload/publications/ComReg1346.pdf

A.3 The 2013 Business ICT Survey has been published separately as ComReg Document 13/61 and is available on ComReg's website at the following link:

http://www.ComReg.ie/_fileupload/publications/ComReg1361.pdf

Appendix B Guidelines in Assessing Bundles

B.1 On the matter of how bundles should be treated in a market analysis, the European Commission (on page 16 of the Explanatory Note to the 2007 Recommendation) states that standalone service elements constitute markets in their own right if a sufficient number of customers would 'unpick' the bundle if a Small but Significant Non-transitory Increase in Price ('**SSNIP**') were imposed.[837] That is to say, if a sufficient number of customers were to purchase the components of a bundle separately in response to a SSNIP, then it is appropriate to treat each element of the bundle as a separate relevant market.

B.2 The conditions of competition across the various components of a bundle are also relevant for assessing whether a bundle forms its own market. If the conditions of competition differ substantially between different parts of the bundle then this is potentially indicative of each element belonging to its own relevant product market.

B.3 An expert report on relevant markets prepared for the European Commission in 2006 observed that:[838]

> *"Cluster markets exist when products are offered for sale as a bundle, even though they are not "tied" to each other, that is, there is no requirement that all of the products must be bought from one single supplier. Despite this lack of tying, regulators and courts still might regard the cluster as constituting one relevant product market. To understand when this should happen, it is necessary to examine the reasons for the firm selling more than one product."*

B.4 Cluster markets of this nature can exist as a result of:

- **Economies of scope:** from a supplier perspective, bundling allows benefits to be derived from economies of scope. Bundling may offer suppliers the possibility of reducing churn in a market which is characterised by high customer acquisition costs, and may increase the revenue per customer even when the price of individual services is decreasing. These benefits arise as the firm achieves savings by increasing the variety of activities it performs, or where a firm is able to produce given quantities of products at a lower total cost than the total cost of producing these quantities separately;

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[837] The SSNIP test is a conceptual framework within which to identify the existence of close substitutes. The SSNIP test examines whether, in response to a permanent price increase in the range of 5% to 10% by a hypothetical monopolist (HM) of a given product set, sufficient customers would switch to readily available alternative substitute products such that it would render the price increase unprofitable. If a sufficient number of customers switch to an alternative product such that the price increase is unprofitable for the HM (say because of the resulting loss of sales exceeds the gains arising from higher margins on remaining sales) then the alternative products are included in the relevant product market.

[838] Cave, M, Stumpf, U and Valletti, T, "A Review of certain markets included in the Commission's Recommendation on Relevant Markets subject to *ex ante* Regulation", July 2006. See section 3.3.

- **Reduced transaction costs for consumers:** transactional complementarity is a demand-side feature that can potentially bind consumer purchases of multiple products to individual firms, and thereby potentially make the cluster the relevant product market.

B.5 These factors should both be considered when assessing whether cluster markets exist, i.e. whether they are sufficiently strong to lead to a distinct break in the competitive conditions underpinning the standalone and bundled offerings respectively. In order to reduce the risk of being over-inclusive or under-inclusive in considering whether to include complementary products in a cluster market, the 2006 Expert Report reminds us that:[839]

> *"Markets are defined for the purposes of identifying particular detriments and public benefits. The real emphasis in competition analysis should be on these factors and not on the formal definition of markets."*

B.6 As noted in the paper 'Rationalising antitrust cluster markets' by Ian Ayres:[840] transactional complements may become a relevant cluster market where:

> *"…competition takes place among the effectively tied groups and not the individual products".*

B.7 ComReg has regard to these guiding principles in assessing whether any bundle markets exist in relation to RFTS, FVCO and Transit services.

[839] The 2006 Expert Report, see section 3.3.

[840] Ayres, I., "Rationalising antitrust cluster markets", The Yale Law Journal, 95: 109 1985.

Appendix C Calls to Non-Geographic Numbers

C.1 In this Appendix ComReg describes the different types of non-geographic numbers, and the payment mechanisms in place between Service Providers that are involved in the provision of calls to non-geographic numbers.

C.2 Non-geographic numbers include 15XX (premium rate services or '**PRS**'), 1850, 1890, 1800 and other numbers. These numbers are typically allocated to businesses and Government agencies. People generally call them to obtain information, make payments for services, and make calls to competition lines, entertainment services etc.

C.3 Different charging mechanisms apply depending on the type of call being made. Retail charging mechanisms for various (non-exhaustive) categories of non-geographic numbers are explained below[1]:

- Freephone (1800) numbers – allow the receiving party to be reached at no charge to the calling party. The costs of a call to a freephone number (e.g. 1850/1890) are borne entirely by the receiving party (i.e. the receiving Party Pays ('**RPP**');
- Shared Cost (18X0) numbers – allow the Calling Party to be charged for only part of the cost of the call, with the Called Party being charged for the remainder (i.e. they are subject to both the CPP and the RPP principles);
- Universal Access (e.g. 0818) numbers – allow calls to be made to a central (typically corporate) number for re-routing to the most appropriate response point. The costs of calls to universal access numbers are paid by the Calling Party at a rate not exceeding the national tariff rate of the operator concerned (i.e. mainly CPP principle) and the receiving party is charged any additional retail charges involved in providing the universal access service;
- Premium Rate (15XX) numbers – the Calling Party pays a premium charged by his or her operator for access to premium rate (information or other added value content) services (i.e. CPP principle). A shared revenue model then applies whereby this premium is shared by commercial agreement between the various providers in the value chain; It should also be noted that the Numbering Conventions also require that retail charges applied for certain numbers are between particular charging ranges.

[1] The description of the retail charging arrangements for non-geographic numbers is in line with that set out in ComReg's National Numbering Conventions. For the purposes of the present Consultation Paper, calls to short code numbers (such as to 19XX customer support short codes and to telecommunications directory enquiry access codes (118XX)) are also considered to constitute calls to a non-geographic number.

- Internet Access (189X) numbers – the costs of calls to such numbers are based on different models: separate charges for call (charged at or below the standard local call rate) and service subscription (1891); a (Pay As You Go) call charge only and no service subscription charge (1892); or partial or full flat rate whereby a fixed charge is applied to cover both the call and the internet service (1893). Internet access numbers were used for the purpose of providing dial-up internet services and are therefore of declining significance;
- IP-Based (076) numbers – these are numbers allocated to VoIP providers. The characteristics of calls to 076 numbers (e.g. the application of CPP principle) are broadly in line with those of fixed geographic numbers (according to the National Numbering Conventions the cost of calling such numbers shall in no case exceed the retail charge for a call of the same duration calculated at the originating undertaking's standard rate for calling Irish geographic numbers).

C.4 Compared to other types of calls, the billing arrangements for calls to non-geographic numbers can be complicated by the fact that either: (1) The receiving party is required to pay for some, or all of the cost of the call or (2) the calling party's FSP is required to bill its retail customer on behalf of the terminating network, and then pass on revenue to the terminating network or transit provider (these are called cascade payments). The revenue arrangements for these types of calls is generalised in the Figure 34 and Figure 35 below. It should be noted that these are stylised diagrams and do not purport to represent the entirety of retail/wholesale charging arrangements that apply to all types of calls, including where Transit is involved..

Figure 34: Revenue arrangements currently in place for calls to non-geographic numbers where Calling Party Pays

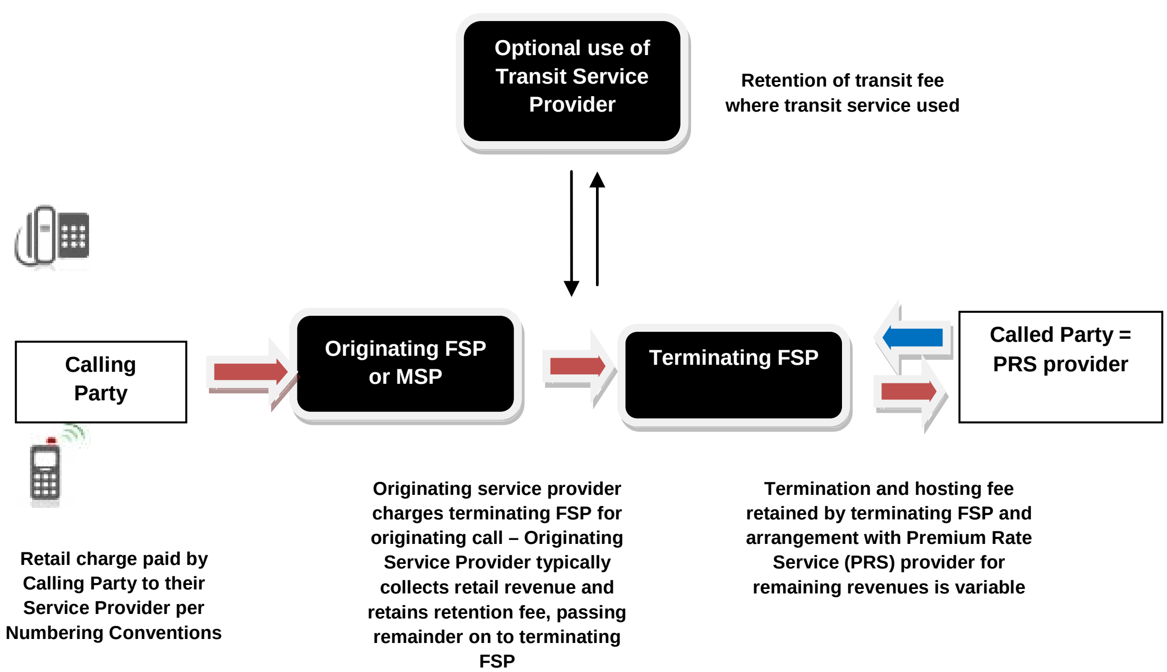
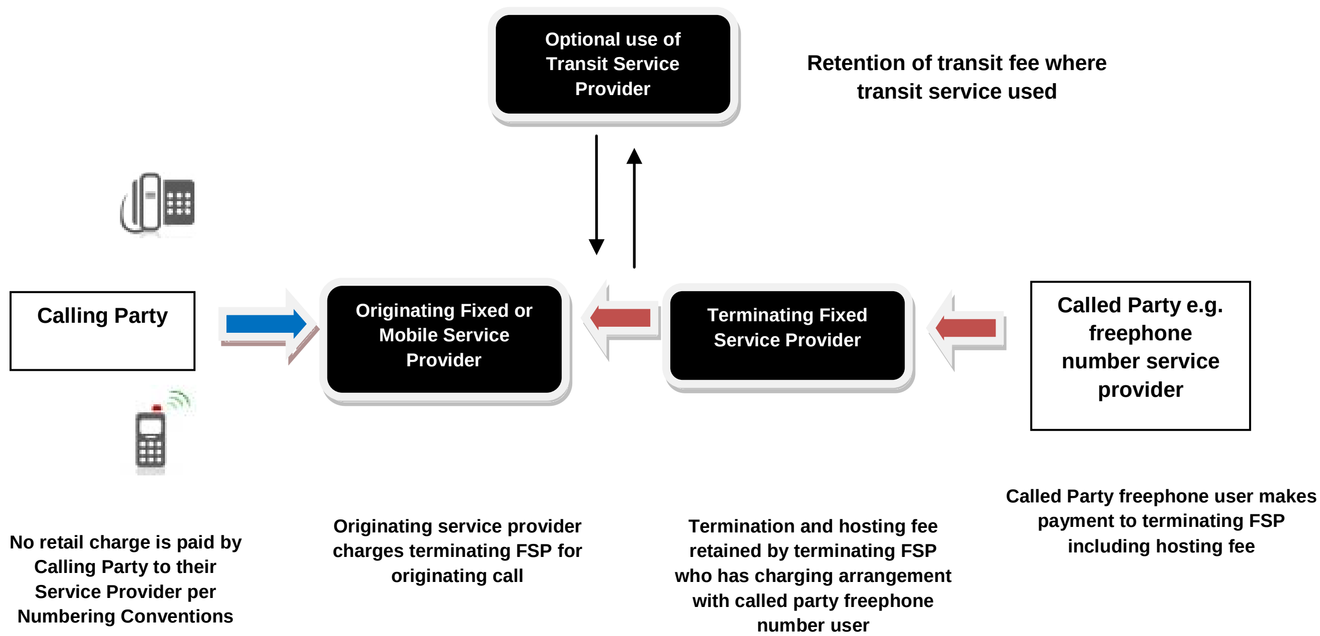


Figure 35: Revenue arrangements currently in place for calls to non-geographic numbers where Receiving Party Pays



C.5 For a RPP call, the calling party's FSP charges the terminating network an FVCO charge for all or part of the cost of originating of the call (depending on whether it's a freephone call or a shared cost call). For freephone calls, the terminating network also purchases FVCO from the originating network (the FSP of the calling party) in order to provide the retail service, although the calling party does not pay a retail charge for the call.

C.6 By contrast, in the case of PRS calls, the calling party is levied a premium rate retail charge by their FSP on behalf of the PRS provider (the retail call charges for specific number types are capped by the numbering convention). Typically neither the PRS provider, nor the terminating network, has a direct commercial retailing relationship with the Calling Party (for the purpose of making the call). Instead, the calling party's relationship is with its FSP/MSP providing it with the retail calls service. Therefore, the terminating network will require the retail operator to bill the retail customer on their behalf, and pass on the payment.

Appendix D Retail Price Sensitivity

D.1 The purpose of this Appendix is to summarise the price sensitivity analysis undertaken by ComReg in relation to the RFTS market, which is set out in Sections 4[2] and 5[3] (in context of indirect constraints) of this Consultation.

D.2 The analysis draws on the 2012 Market Research undertaken by ComReg, which included a range of questions that examined consumer behaviour and their anticipated responses to increases in the price of RFTS. In particular, the research examined the extent to which end-users would be likely to switch to different communications methods or cancel their retail fixed voice subscriptions. It should be noted that the 2012 Market Research is by no means definitive and ComReg interprets its results along with the other factors considered throughout this Consultation.

D.3 Households and business respondents' sensitivities to cost were examined separately, and were then grouped according to

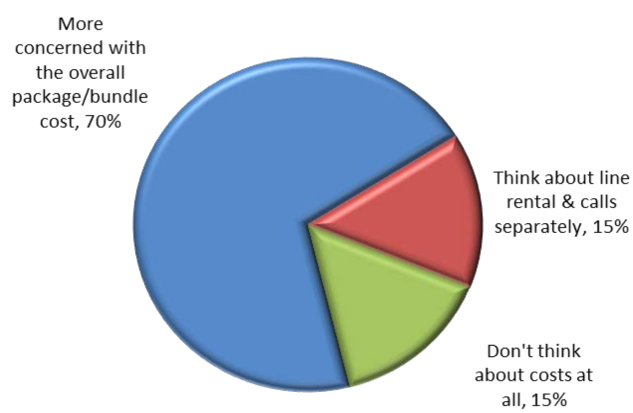
(a) whether they think about the price of calls and access together or separately;

(b) whether they purchase fixed calls and access as part of a broader bundle; and

(c) whether they more interested in the overall cost of the package or bundle.

D.4 Figure 36 below suggest that the majority of household respondents think of the overall cost of the RFTS package rather than the costs of the RFVA and RFVC components separately.

Figure 36: Consumer perspective when assessing the costs of line rental and telephone calls[4]



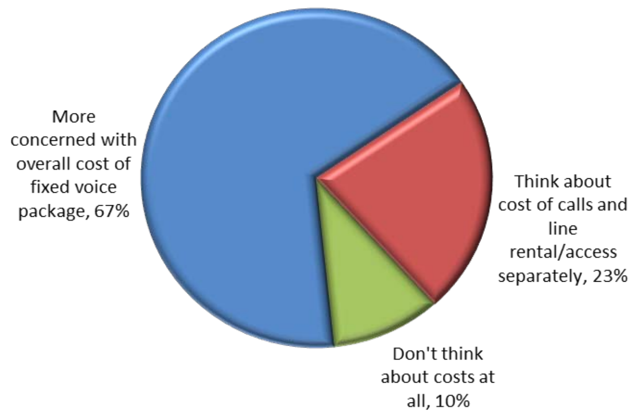
D.5 Figure 37 suggests business respondents also mostly thought about the overall cost of the RFTS package.

[2] See paragraph 4.171 and subsequent paragraphs.

[3] See paragraphs 5.133 to 5.210.

[4] 2012 Market Research, Slide 28 (n=633). Respondents were asked "When you are thinking about the cost of your fixed line telephone, do you think about the cost of the line rental and calls separately?"

Figure 37: Business perspective when assessing the costs of line rental and telephone calls[5]



D.6 Below, ComReg further summarises the responses provided to 2012 Market Research survey by the above cohorts of residential[6] and business[7] consumers. In doing so, ComReg notes that respondents reported having low levels of awareness of call charges, but generally had a higher degree of awareness around the cost of their RFTS package. This suggests that many consumers are more likely to respond changes in the overall bill amount[8], rather than changes in the cost of individual elements of the service (such as the cost of calls or line rental).

Price Sensitivity of Residential Respondents

D.7 In the 2012 Market Research, residential respondents with a fixed line telephone[9] were asked about their likely responsiveness to hypothetical price increases. Respondents were grouped according to whether they thought of RFVC and RFVA together (as a package or part of a bundle) or separately, and whether they purchased RFTS as part of a broader bundle of services.

D.8 As highlighted in Figure 36, 70% of residential respondents reported they were more concerned about the overall cost of their fixed line package, whereas 15% stated that they monitor the price of line rental, calls separately (the remaining 15% did not think about costs at all).

D.9 An overall summary of residential and business price sensitivities is presented in Table 22 to Table 25 later in this Appendix.

[5] 2012 Market Research, Slide 124 (n=400). Respondents' were asked "When you are thinking about (or reviewing) the cost of your fixed line telephone, do you think about the cost of the line rental and calls separately?"

[6] 2012 Market Research slides 52-75.

[7] 2012 Market Research slides 122-135.

[8] 2012 Market Research, slides 65 and 132.

[9] 64% of residential respondents (640 respondents) reported having a fixed line.

Price sensitivity of residential respondents who think about the cost of RFVC and RFVA together

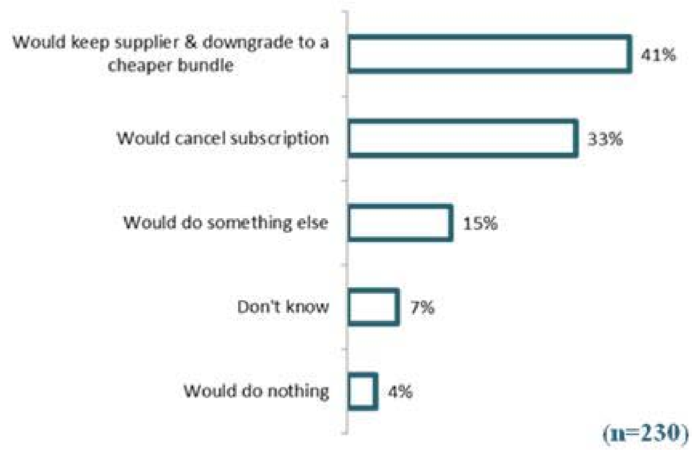
D.10 This group comprises residential respondents who think about the cost of RFVC and RFVA together, and represents 70% of the total residential respondents with a fixed line telephone[10].

Respondents who purchase RFTS in a bundle

D.11 72% of residential respondents with a fixed line telephone reported purchasing a bundle[11]. Of those residential respondents who have a fixed line telephone and purchase a bundle[12], 83% (n=380) reported they did not think about line rental and calls separately.

D.12 These respondents were asked about their reaction to a 10% increase in the price of their bundled services. When asked to consider what action they might take in response to a 10% increases in their bundle, 59% of these said they either definitely (27%) or possibly (32%) would change their behaviour.[13] Of this 59% of respondents that indicated they would change their behaviour, their reported behavioural response is shown in Figure 38 below.

Figure 38: Reaction to a 10% increase in the total cost of bill[14]



D.13 Of those respondents that would definitely or possibly change behaviour[15], more respondents reported they would stay with their supplier but change to a cheaper bundle (41%) than would cancel their subscription (33%) or do nothing (4%).

[10] 2012 Market Research, slide 28.

[11] 2012 Market Research, slide 19.

[12] A bundle here refers to the purchase of line rental and calls, together with another service (e.g. Broadband, TV and or mobile).

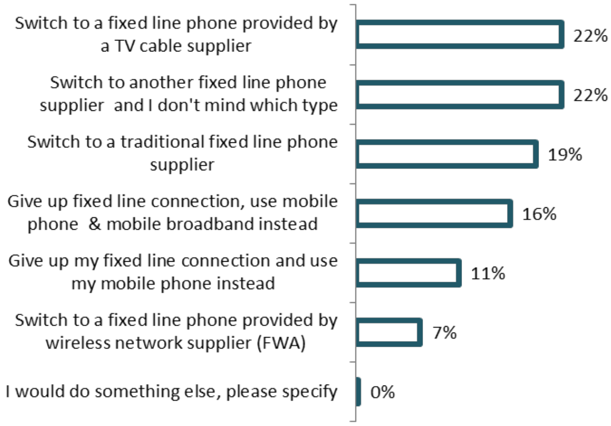
[13] 2012 Market Research, Slide 65.

[14] 2012 Market Research, Slide 70.

[15] 230 Respondents.

D.14 Those respondents who said they would cancel their subscriptions[16] were asked what potential actions they might take afterwards[17]. Figure 39 below reports the potential actions they would take following the cancellation of their subscription.

Figure 39: Likely actions after cancelling subscription[18]



D.15 63% of these respondents reported they would switch to a fixed line phone service provided by another supplier, while 26% said they would give up their fixed line and use a mobile solution instead.

D.16 Table 22 further quantifies the switching actions of those respondents who stated they would cancel their fixed line subscription in response to a 10% increase in the price of their bundle.

D.17 Of those respondents who said they would switch to an alternative fixed line phone provided by another operator[19], the majority of these (70%) said they would purchase a similar bundle, with a further 11% stating they would purchase a broadband-only product and use a mobile phone for their calls.

D.18 Those respondents who said they would keep their supplier and downgrade to a cheaper bundle[20] were also asked to identify the specific behaviour change they would make. A significant number of these respondents (47%) reported they would downgrade to a cheaper bundle that still includes a fixed line service[21]. 19% reported they would keep their current bundle but reduce their out of bundle spending and a further 13% said they would keep their internet service but drop their call service.

[16] 77 Respondents.

[17] 2012 Market Research, Slide 71

[18] 2012 Market Research, Slide 71.

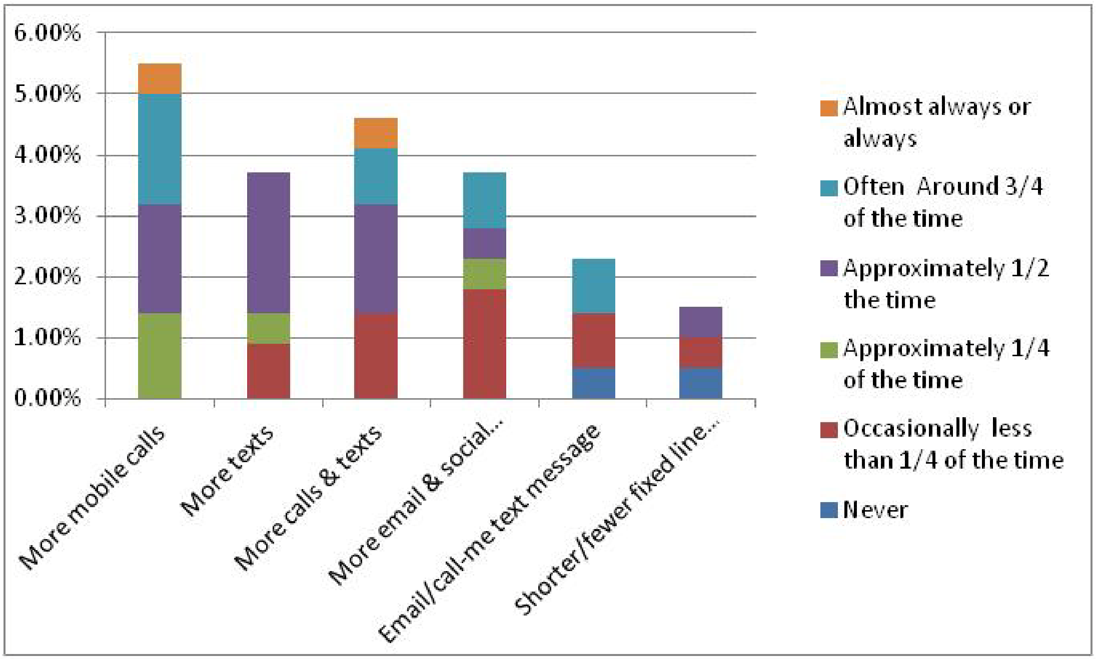
[19] 40 Respondents.

[20] 92 Respondents.

[21] 2012 Market Research, Slide 73.

D.19 Those respondents who said they would definitely/maybe change behaviour in response to a 10% increase in the bundle price were asked to identify the frequency with which they would change their calling behaviour in response to the 10% increase in the bundle price. These views are presented in Figure 40 below. This information suggests only a small number of people would change behaviours when they need to communicate with other people while at home.

Figure 40: Probability of Behaviour changes[22]



Respondents who do not purchase RFTS in a bundle

D.20 This group represents 28% of residential respondents (n=177) with a fixed line telephone[23]*.* Of these respondents, 86% (n=152) stated that they thought about calls and line rental separately.

D.21 These respondents were asked how they would react to a 10% increase in the total price of their bill. When asked to consider what action they might take in response to a 10% increase in their total bill, 44% (n=67) said they either definitely (22%) or possibly (22%) change their behaviour[24], while 40% stated that they would not change their behaviour and 16% not know what they would do[25]. Those that stated they would definitely or maybe change behaviour were asked what they would do, with the stated responses shown in Figure 41 below[26].

[22] 2012 Market Research, Slide 75.

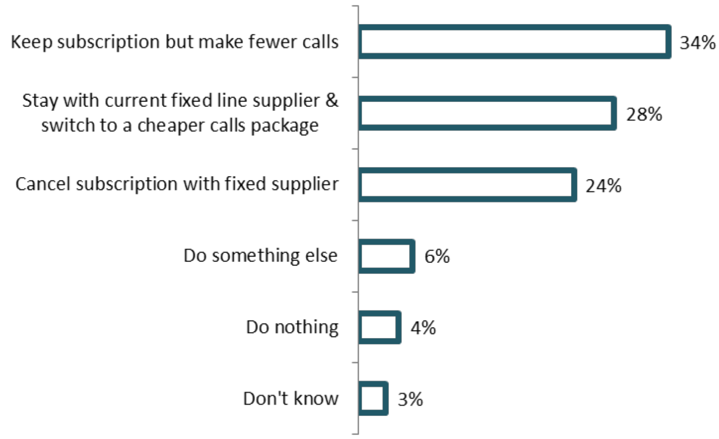
[23] 2012 Market Research, Slide 19.

[24] 2012 Market Research, Slide 65.

[25] 2012 Market Research, Slide 65.

[26] 2012 Market Research, Slide 65.

Figure 41: Reaction to a 10% increase in the total cost of bill



D.22 Of those respondents who said they would definitely or possible change their behaviour, significantly more respondents reported they would either keep their subscription but make fewer calls (34%) or switch to a cheaper package (28%) than would cancel their subscription (24%). Just 4% of respondents reported they would do nothing.

D.23 Those respondents who said they would stay with their supplier and make fewer calls or move to a cheaper package (62%) were then asked to identify the specific behaviour change they would make. 45% of these respondents said they would make fewer calls, 31% said they would send more texts on their mobile phone and a further 21% said they would make more calls using their mobile phone[27].

D.24 Those respondents who said that they would cancel their subscription (24%) were also asked to identify the specific behaviour change they would make. 69% reported they would give up their fixed line connection and use their mobile phone instead, 13% reported they would switch to a fixed line phone supplied by the CATV supplier, and a further 13% said they would switch to a fixed line phone provided by a wireless network supplier[28].

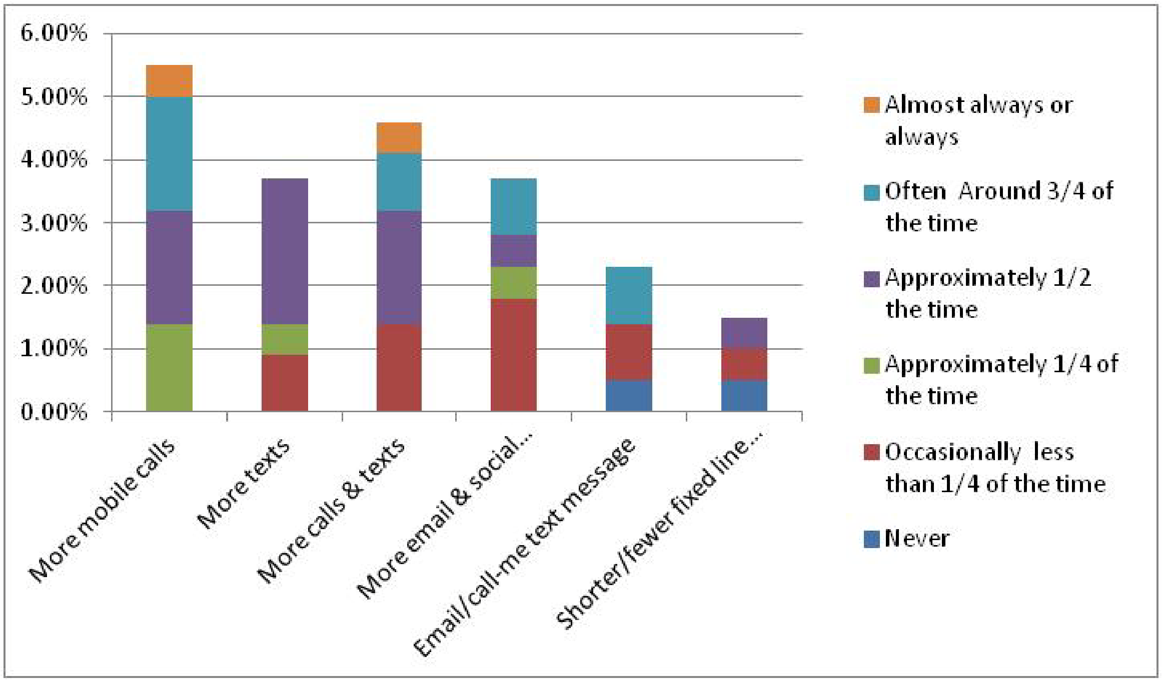
D.25 Table 22 further quantifies the switching actions of those respondents who stated they would cancel their fixed line subscription in response to a 10% increase in the price of their bill.

D.26 Those respondents who said they would definitely/maybe change behaviour in response to a 10% increase in total price of their bill were asked to identify the frequency with which they would change their calling behaviour in response to the 10% increase in the price of their bill. These views are presented in Figure 42 below. This information suggests only a small number of people would change behaviours when they need to communicate with other people while at home.

[27] 2012 Market Research, Slide 67.

[28] 2012 Market Research, Slide 66.

Figure 42: Probability of Behaviour changes[29]



Price sensitivity of respondents who think about RFVC and RFVA separately

D.27 This group or respondents includes all residential customers who think about calls and access separately, regardless of whether or not RFTS are purchased in a bundle. This group represents 15% (n=95) of all respondents with a fixed line telephone[30]. These respondents monitor the price of line rental, calls and other components of bundle separately. For this reason we want to examine how they would respond to a specific change in price of retail calls or line rental, rather than the whole service.

D.28 To that end, these respondents were asked about their reaction to a 10% increase in the price of line rental and their reaction to a 10% increase in the price of calls.

Responsiveness to RFVA price increase

D.29 When asked to consider what action they might take in response to a 10% increase in line rental, 62% reported that they would definitely (38%) or maybe (24%) change their behaviour[31]. When asked in what ways these respondents would change their behaviour, the responses as set out in Figure 43 below were provided.

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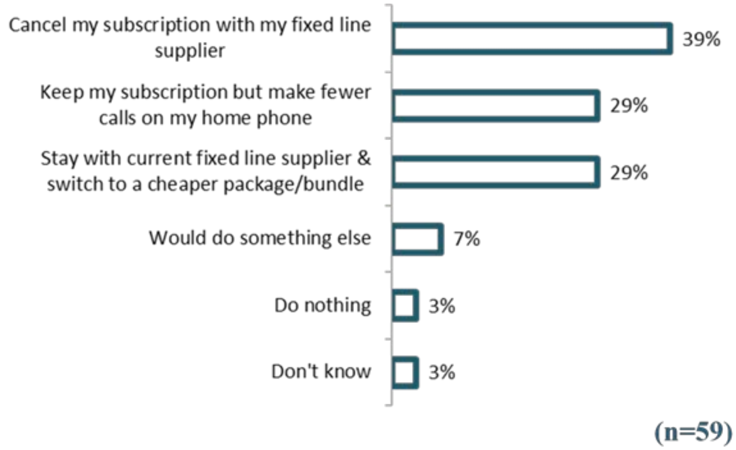
[29] 2012 Market Research, Slide 68.

[30] 2012 Market Research, Slide 55.

[31] 2012 Market Research, Slide 55.

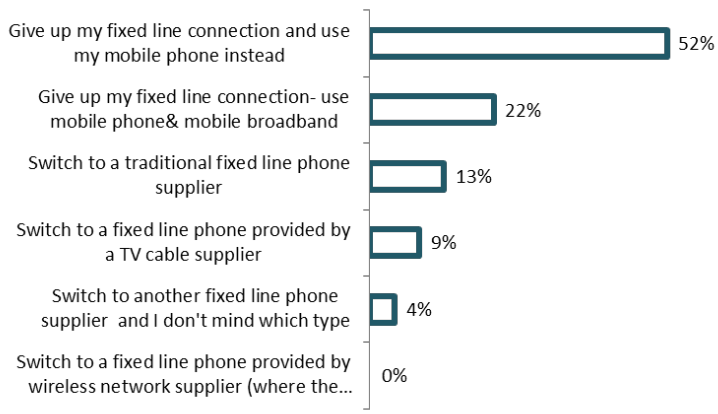
Figure 43: Reaction to a 10% increase in the price of line rental



D.30 Of the respondents who said they would definitely or maybe change their behaviour in response to a 10% price increase, the largest proportion of respondents (58%) indicated that they would stay with their current fixed line supplier but make fewer calls (29%) or use a cheaper bundle (29%) than would cancel their subscription (39%).

D.31 Those respondents who said they would cancel their subscription (39%) were then asked to identify the specific behaviour change they would then make. Figure 44 below shows that 74% of respondents would give up their fixed line and use a mobile solution instead.

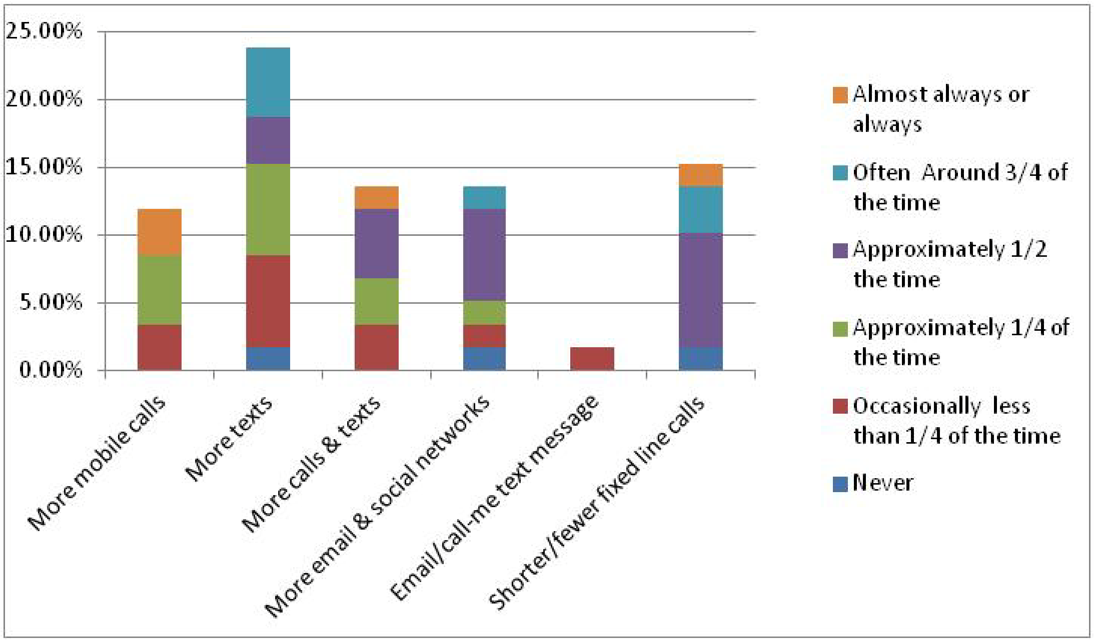
Figure 44: Reaction to a 10% increase in the price of line rental



D.32 Table 22 further quantifies the switching actions of those respondents who stated they would cancel their fixed line subscription in response to a 10% increase in the price of line rental.

D.33 Those respondents who said they would definitely/maybe change behaviour in response to a 10% increase in the price of their line rental were asked to identify the frequency with which they would change their calling behaviour in response to the 10% increase in the price of their line rental. These views are presented in Figure 45 below. This information suggests only a small number of people would change behaviours when they need to communicate with other people while at home.

Figure 45: Probability of Behaviour changes[32]



Responsiveness to RFVC price increase

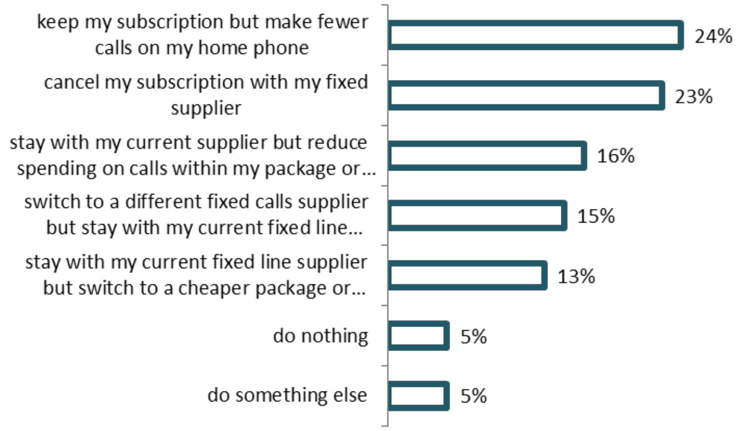
D.34 In terms of ascertaining the sensitivity of residential respondents to the cost of calls, respondents were asked about their reaction to a 10% increase in the price of calls. Of those residential respondents who stated they thought of line rental and calls separately[33], 65% of stated they would definitely (37%) or maybe (28%) change their behaviour response to a 10% increases in calls [34]. Of the respondents who said they would definitely or maybe change their behaviour in response to such a 10% price increase the reactions in Figure 46 below were indicated.

[32] 2012 Market Research, Slide 58.

[33] 95 Respondents.

[34] 2012 Market Research, Slide 59.

Figure 46: Reaction to a 10% increase in the price of calls[35]



D.35 Of the respondents who said they would definitely or maybe change their behaviour in response to a 10% price increase, 24% said they would keep their subscription but make fewer calls, 23% said they would cancel their subscription, 29% said they would stay with their current supplier but reduce spending through either a cheaper package or less calls, and a further 15% said they would switch to a different fixed calls supplier but stay with their current fixed line.

D.36 Those respondents who said they would cancel their subscription (23%) or switch fixed call provider (15%) were then asked to identify the specific behaviour change they would make. 61% stated they would use a mobile phone or mobile broadband options instead. Furthermore, of the 53% of such respondents who stated they would make fewer calls, 36% reported they would send more texts with a further 25% opting to use VoIP. [36]

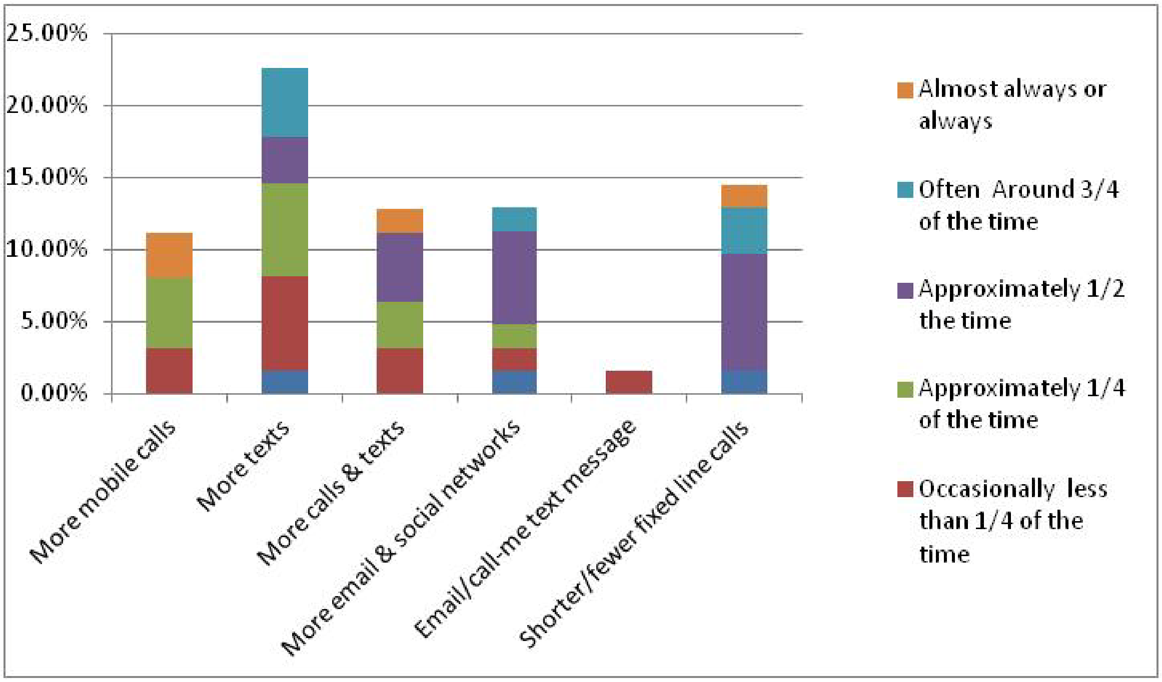
D.37 Table 22 further quantifies the switching actions of those respondents who stated they would cancel their fixed line subscription in response to a 10% increase in the price of calls.

D.38 Those respondents who said they would definitely/maybe change behaviour in response to a 10% increase in the price of calls were asked to identify the frequency with which they would change their calling behaviour in response to the 10% increase in the price of calls. These views are presented in Figure 47 below. This information suggests only a small number of people would change behaviours when they need to communicate with other people while at home.

[35] 2012 Market Research, Slide 60.

[36] 2012 Market Research, Slides 61 and 62.

Figure 47: Probability of Behaviour changes[37]



Summary of 2012 Market Research – Residential Respondents Switching Behaviours

D.39 Table 22 below summarises the potential switching actions of residential respondents to the 2012 Market Research[38].

[37] 2012 Market Research, Slide 63

[38] **Note:** (n=) refers to the number of respondents. In general respondents recorded one action. Total % figures are based on the 633 respondents who reported they had a fixed line phone. The number of individual respondents to the SSNIP questions totals 627. The remaining 6 respondents did not respond to the SSNIP questions asked in the survey.

Table 22: Reported Switching Behaviour of Residential Respondents[39]

	Think about Calls and Line rental separately (n=95)		Think about Calls and Line rental together (n=532)		Total	Total as % of those respondents with a Fixed Phone (n=633)
	Line Rental Price Sensitivity	Call Price Sensitivity	Customers not bundled	Bundled Customers		
	n	n	n	n	n	%
	95		152	380	627	
Slide Reference	Slide 28		Slide 64	Slide 69		
Def/Maybe change behaviour in response to SSNIP[40]						
	59	62	67	230	418	66%
Slide Reference	Slide 54	Slide 59	Slide 64	Slide 70		
How Behaviour would change[41]						
Cancel Subscription	23	23	16	77	139	22%
Keep Subscription[42]	34	33	42	92	201	32%
Do nothing	2	3	3	9	17	3%
Other	6	3	6	51	66	10%
Slide Reference	Slide 55	Slide 60	Slide 66	Slide 71		
Potential Switching Actions after cancelling subscription[43]						
Switch to Mobile phone	17	13	8	20	58	9%
Switch to Cable	2	5	2	17	26	4%
Switch to FWA	0	2	2	5	9	1%
Switch to Traditional Fixed Line	3	1	0	15	19	3%
Switch but Don't Mind	1	2	1	17	21	3%
Slide Reference	Slide 56	Slide 61	Slide 66	Slide 71		

[39] 1,000 residential respondents were surveyed. Of these, 633 respondents reported they had a fixed line phone used for voice telephony. These respondents were asked whether they thought about calls and line rental together or separately. Subsequently respondents were asked about their reaction to a SSNIP in line rental and calls (in the case of those respondents who think about them separately) or the price of their total bill (if they think about calls and line rental together).

[40] Respondents were asked whether they would change their behaviour in response to a 10% increase in a component (line rental or call price) or total bill (if they thought of calls and line rental together). Responses were recorded as Definitely Change Behaviour, Maybe Change Behaviour, No Change in Behaviour or Don't know.

[41] Respondents who stated they would definitely or maybe change their behaviour in response to a price increase were asked to state what actions they would take in response to the price increase. A number of these respondents stated they would cancel their fixed line subscription. Other respondents who said they would definitely or maybe change their behaviour stated they would keep their current subscription and reduce the number of calls they made, they would keep their current subscription but switch to a cheaper package/bundle, do something else or do nothing in response to a price increase.

[42] It is not possible to quantify the extent or frequency that respondents would alter their behaviour when stating they would keep their subscription but switch to a cheaper package or reduce the number of calls they made.

[43] Respondents who stated they would definitely or maybe change their behaviour and responded they would cancel their fixed line subscription were asked what actions they might take when cancelling their fixed line. Responses referred to switching to another platform.

D.40 Table 23 below summarises the potential switching actions of those residential respondents to the 2012 Market Research that indicated that, in response to a price increase, they would still retain their fixed line subscription but alter their calling behaviour[44].

D.41 Respondents were asked whether they would change their behaviour in response to a 10% increase in a component (line rental or call price) or total bill (if they thought of calls and line rental together). Respondents who said they would definitely or maybe change their behaviour were asked in what way they would change their behaviour. In response to this question, some respondents stated they would keep their current subscription and reduce the number of calls they made, or keep their subscription and switch to a cheaper package/bundle or do something else. Subsequently, these respondents were asked to clarify what actions they would take. Table 23 sets out these reported actions.

Table 23: Residential Respondents Reported Behaviour When Keeping Subscriptions

	Think about Calls and Line rental seperately		Think about Calls and Line rental together	
	Line Rental Price Sensitivity n = 40	Call Price Sensitivity n = 33	Customers not bundled n = 42	Bundled Customers n = 92
Send more Texts	40%	36%	33%	-
More calls from mobile	23%	11%	21%	-
Use mobile for more calls & texts	23%	22%	14%	-
Fewer/Shorter Calls	26%	6%	45%	-
Cheaper Bundle with Fixed Line	-	-	-	47%
Keep Bundle but reduce out of bundle spending	-	-	-	47%
Slide Reference	Slide 57	Slide 62	Slide 67	Slide 73

D.42 ComReg would note that it is difficult to quantify the impact of these behaviours in terms of their impact on demand for RFVC. However, Figure 45 and Figure 47 above shows the expressed probability of the reported behaviour change, with sending more texts and making fewer/shorter fixed line calls being the predominant reported changes in behaviour.

Price Sensitivity of Business Respondents

D.43 In the 2012 Market Research, business respondents with a fixed line telephone were also asked about their likely responsiveness to hypothetical price increases. Respondents were grouped according to whether they thought of calls and access together (whether as a package or part of a bundle) or separately.

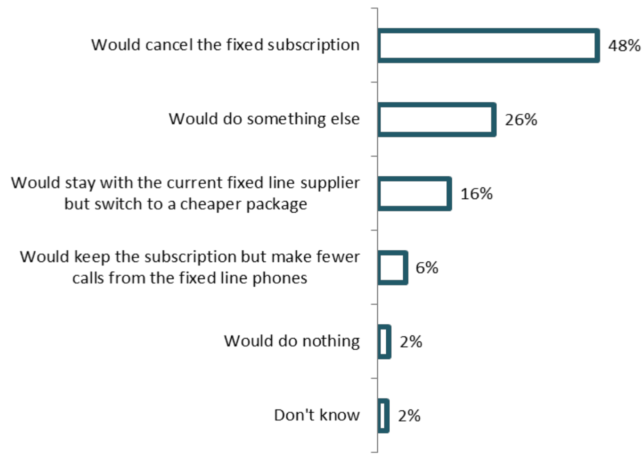
[44] **Note:** (n=) refers to the number of respondents. Respondents offered more than one response to this question and the % figures refer to the number of respondents who stated this response as a percentage of the total number who stated they would keep their subscription and change behaviour in another way.

D.44 As highlighted in Figure 37, 67% of business respondents reported they were more concerned about the overall cost of their fixed line package rather than individual elements. Whereas 23% of business respondents reported that they monitor the price of line rental, calls and other service components separately (the remaining 10% did not think about costs at all).

Price sensitivity of business respondents who think about RFVC and RFVA together

D.45 These 67% of respondents stated they were interested in the overall cost of the service or bundle, and for this reason were asked how they would respond to a change in the total price of their service. These respondents were asked whether, in response to a 10% increase in the total price of their bill, whether they would change their behaviour. 74% of these business customers said they either definitely (39%) or maybe (35%) change their behaviour, with the remainder stating they would do nothing (19%) did not know what they would do (6%). Of those that would definitely or maybe change their behaviour (74%), their behavioural responses are shown in Figure 48 below[45].

Figure 48: Reaction to a 10% increase in the total cost of bill



D.46 Almost half said would cancel their fixed subscription (48%)[46], 16% said they would stay with their fixed line subscription but switch to a cheaper package and a further 6% said they would keep their subscription but make fewer calls from fixed line phones. Just 2% of respondents said they would do nothing.

[45] 2012 Market Research, Slide 132.

[46] 119 Respondents.

D.47 Those business respondents who said they would cancel their subscription (48%) were then asked to identify the specific behaviour change they would then make. 92% of these respondents said they would switch to another fixed line phone supplier, while 6% said they would give up their fixed line and use a mobile solution instead. 4% said they would use their mobile phone for calls and mobile broadband for the internet instead.[47]

D.48 Table 24 further quantifies the switching actions of those business respondents who stated they would cancel their fixed line subscription in response to a 10% increase in the total cost of their bill.

D.49 Those business respondents who said they would keep their subscription but make fewer calls or use a cheaper calls package (22%) were also then asked to identify the specific behaviour change they would make. 28% of these respondents reported they would use email or social network messaging, 9% reported they would use Skype or VoIP services, 19% reported they would make more mobile phone calls, 17% said they would send more text messages and 19% said they would make fewer or shorter fixed line calls. 17% reported they would make no changes[48].

Price sensitivity of business respondents who think about the cost of RFVC and RFVA separately

D.50 This group represents 23% of all business respondents with a fixed line telephone. These respondents monitor the price of line rental, calls and other service components separately. For this reason, their behavioural response to a specific change in price of retail calls or line rental, rather than the whole service was examined.

Responsiveness to RFVA price increase

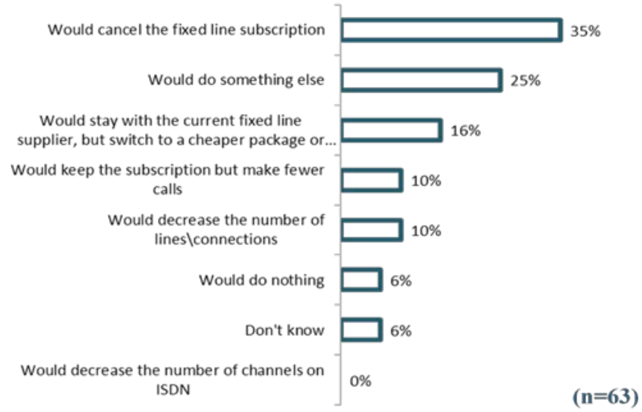
D.51 When asked to consider what action these respondents might take in response to a 10% increase in the price of line rental, 67% said they would either definitely (34%) or possibly (34%) change their behaviour[49]. Of those that would definitely or maybe change their behaviour, their behavioural responses are shown in Figure 49 below.

[47] 2012 Market Research, Slide 134

[48] 2012 Market Research, Slide 135

[49] 2012 Market Research, Slide 125.

Figure 49: Reaction to a 10% increase in the price of line rental



D.52 35% said they would cancel their fixed line subscription, 16% said they would stay with their current fixed supplier but switch to a cheaper package and 10% said they would keep their subscription but make fewer calls. 25% reported they would do something else and 6% reported they would do nothing.

D.53 Those respondents who said they would cancel their subscription (35%) were then asked to identify the specific behaviour change they would make. 64% reported they would switch to an alternative supplier for all fixed phone services, whereas 14% said they would switch to another supplier for calls, but retain their current supplier for their fixed line connection. A further 14% said they would use their mobile phone for calls and mobile broadband for internet access[50].

D.54 Table 24 further quantifies the switching actions of those business respondents who stated they would cancel their fixed line subscription in response to a 10% increase in the price of line rental.

D.55 Those respondents who said they would keep their current subscription but make fewer calls or switch to a cheaper package (26%) were also asked to identify the specific behaviour change they would make. 36% of these respondents said they would use email, Skype, VoIP or social networking messaging services, 28% said they would make more calls/texts on mobile phones, and a further 14% said they would make fewer/shorter calls.[51]

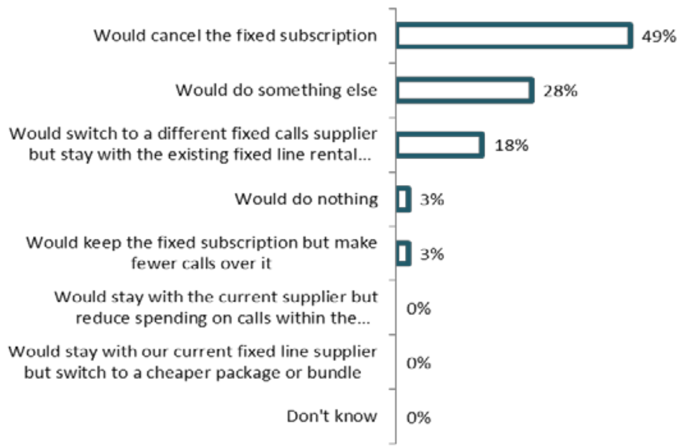
[50] 2012 Market Research, Slide 126.

[51] 2012 Market Research, Slide 128.

Responsiveness to an increase in the price of RFVC

D.56 In terms of ascertaining the sensitivity of business customers to changes in the cost of calls, respondents were first asked if they could estimate the cost of calls. Of those respondents who thought about calls and access separately (n=112), 55% of these (n=62) were able to estimate the cost of calls to their business. These respondents were then asked about their reaction to a 10% increase in the price of calls. When asked to consider what action they might take in response to a 10% increase in the price of calls, 63% said they either definitely (44%) or possible (19%) change their behaviour. Of those that would definitely or maybe change their behaviour, their behavioural responses are shown in Figure 50 below[52].

Figure 50: Reaction to a 10% increase in the price of calls[53]



D.57 Of the respondents who could estimate the cost of calls to their business and who said they would definitely or maybe change their behaviour in response to an increase in the cost of calls, 49% (n=19) said would cancel their fixed subscription, and a further 18% said they would switch to a different fixed calls supplier but stay with their existing fixed line/access supplier. 28% of these business respondents reported they would do something else.

D.58 Table 24 further quantifies the switching actions of those business respondents who stated they would cancel their fixed line subscription in response to a 10% increase in the cost of calls.

D.59 Those respondents who said they would cancel their subscription were then asked to identify the specific behaviour change they would make. 84% of these said they would switch to another fixed line phone supplier, and a further 11% said they would give up their fixed line and use a mobile solution instead[54].

[52] 2012 Market Research, Slide 130.

[53] 2012 Market Research, Slide 60.

[54] 2012 Market Research, Slide 131.

Summary of 2012 Market Research – Business Respondents' Switching Behaviour

D.60 Table 24 outlines the potential switching actions of business respondents to the 2012 Market Research[55].

[55] **Note:** (n=) refers to the number of respondents. In general respondents recorded one action. Total % figures are based on the number of respondents who reported they had a fixed line phone. The number of individual respondents to the SSNIP questions totals 534.

Table 24: Business Respondents Reported Switching Behaviour[56]

	Think about cost of calls and line rental/access together (n=330)	Think about Calls and Line rental separately and used PSTN/ISDN connections (n=204)			Total as % of respondents with a Fixed Phone (n=534)
	Total Bill Price Sensitivity	Rental/ Access Price Sensitivity	Call Costs Price Sensitivity[57]	Total	
	n	n	n	n	%
	330	92	112	534	
Slide Reference	Slide 132	Slide 124	Slide 129		
Def/Maybe change behaviour in response to SSNIP[58]					
	247	63	39	349	65%
Slide Reference	Slide 132	Slide 125	Slide 130		
How Behaviour would change[59]					
Cancel Subscription	119	22	19	160	30%
Keep Subscription[60]	55	15	8	78	15%
Do nothing	5	4	1	10	2%
Other	68	25	11	104	19%
Slide Reference	Slide 133	Slide 125	Slide 130		
Potential Switching Actions after cancelling subscription[61]					
Switch to Mobile phone	6	4	3	13	2%
Switch to Another Fixed Line	110	14	16	140	26%
Something else	1	3	0	4	1%
Don't know	1	0	0	1	0%
Slide Reference	Slide 56	Slide 126	Slide 131		

[56] 550 business respondents were surveyed. Of these, 524 reported they had a fixed line phone. These respondents were asked whether they thought about calls and access together or separately. Subsequently respondents were asked about their reaction to a SSNIP in line rental and calls (for those respondents who think about them separately) or the price of their total bill (if they think about calls and line rental together).

[57] Subsequently these respondents were asked to estimate the average fixed line calls bill for their business. 55% of these respondents (n=62) estimated the cost of fixed line calls for their business. 45% of respondents (n=50) could not estimate the cost of fixed line calls for their business. Only those respondents who could estimate the cost of fixed line calls for their business were asked SSNIP questions.

[58] Respondents were asked whether they would change their behaviour in response to a 10% increase in a component (line rental or call price) or total bill (if they thought of calls and line rental together). Responses were recorded as Definitely Change Behaviour, Maybe Change Behaviour, No Change in Behaviour or Don't Know.

[59] Respondents who stated they would definitely or maybe change their behaviour in response to a price increase were asked to state what actions they would take in response to the price increase. A number of these respondents stated they would cancel their fixed line subscription.

[60] It is not possible to quantify the extent or frequency that respondents would alter their behaviour when stating they would keep their subscription but switch to a cheaper package or reduce the number of calls they made.

[61] Respondents who stated they would definitely or maybe change their behaviour and responded they would cancel their fixed line subscription were asked what actions they might take when cancelling their fixed line. Responses referred to switching to another platform.

D.61 Table 25 below summarises the potential switching actions of those business respondents to the 2012 Market Research that indicated that, in response to a price increase, they would still retain their fixed line subscription but alter their calling behaviour[62].

D.62 Respondents were asked whether they would change their behaviour in response to a 10% increase in a component (line rental or call price) or total bill (if they thought of calls and line rental together). Respondents who said they would definitely or maybe change their behaviour were asked in what way they would change their behaviour. In response to this question, some respondents stated they would keep their current subscription and reduce the number of calls they made, or keep their subscription and switch to a cheaper package/bundle or do something else. Subsequently, these respondents were asked to clarify what actions they would take. Table 25 sets out these reported actions.

Table 25: Business Respondents Reported Behaviour When Keeping Subscriptions

	Think about cost of calls and line rental/access together	Think about Calls and Line rental separately and used PSTN/ISDN connections	
	Total Bill Price Sensitivity n = 55	Line Rental/Access Price Sensitivity n = 15	Call Costs Price Sensitivity n = 8
Send more Texts	11%	7%	-
More calls from mobile	19%	21%	-
Use mobile for more calls & texts	7%	-	-
Fewer/Shorter Calls	19%	14%	-
Slide Reference	Slide 135	Slide 128	Not assessed

[62] **Note:** (n=) refers to the number of respondents. Respondents offered more than one response to this question and the % figures refer to the number of respondents who stated this response as a percentage of the total number who stated they would keep their subscription and change behaviour in another way.

Appendix E Market Definition: Assessing Potential Substitutes

Approach for Assessing Potential Substitutes for Market Definition

E.1 When assessing whether or not potential substitute products fall within a particular retail and/or wholesale product market, ComReg typically takes account of the following:

(a) demand-side substitution;

(b) supply-side substitution; and

(c) the self-supply of vertically integrated FSPs.

E.2 These analytical concepts are briefly described below.

Demand-Side Substitution

E.3 Demand-side substitution at the wholesale (or retail) level measures the extent to which a purchaser of services would, in response to a Small but Significant Non-Transitory Increase in Price ('**SSNIP**')[63] of the relevant focal product above the competitive level, switch to an alternative product such that it would render the price increase unprofitable. If the level of switching away from the HM to the alternative product is sufficient to render the focal product price increase unprofitable (say because of the resulting loss of sales), then the alternative product will be included in the relevant wholesale product market.

E.4 As noted in paragraph 13 of the European Commission's Notice on Market Definition, demand substitution constitutes the most immediate and effective disciplinary force on the suppliers of a product, and paragraph 15 further notes that

> *"…the assessment of demand substitution entails a determination of the range of products which are viewed as substitutes by the consumer".*

E.5 For two products to be considered effective demand-side substitutes and included in the relevant market it is necessary that a sufficient number of customers are not only capable of switching between such products, but that they would be likely actually do so in the short term (usually 1 year) in response to a relative price change.

[63] Typically a long term 'non-transitory' price increase in the range of 5% to 10%.

E.6 In this regard, the Notice on Market Definition states[64] that demand-side substitution must effectively restrain the pricing of the parties' products in the short term. Furthermore, in order for two products to be considered to fall within the same relevant market, demand must be sufficiently responsive to small changes in relative prices above the competitive level.

For the purposes of market definition, the European Commission's Notice on Market Definition suggests that constraints imposed by actual competitors are among the most relevant elements to be assessed.

> *"The objective of defining a market in both its product and geographic dimension is to identify those actual competitors of the undertakings involved that are capable of constraining those undertakings' behaviour and of preventing them from behaving independently of effective competitive pressure".* [65]

Supply-Side Substitution

E.7 ComReg also considers the impact of supply-side substitution. That is, the extent to which a producer not currently active in supplying the candidate products within the market would, in response to a HM's SSNIP above the competitive level, switch production in the immediate to short term without incurring significant costs and start supplying the potential substitute products of equivalent characteristics/ prices and, as a consequence of such provision, render the HM's price increase unprofitable[66].

E.8 Such alternative potential substitute product could be included within the overall product market as a supply-side substitute if the production facilities (or network) would provide a sufficient competitive constraint to prevent a profitable price increase by the HM supplier of the candidate product(s), say because of the resulting loss of sales through switching to the alternative producers' product.

E.9 In such circumstances, the Notice on Market Definition indicates that supply-side substitutes can be included within the product market:[67]

[64] The SMP Guidelines, paragraph 44.

[65] See paragraph 2 of the European Commission's Notice on Market Definition.

[66] See paragraph 39 of the SMP Guidelines.

[67] Notice on Market Definition, Paragraph 20.

"…in those situations in which its effects are equivalent to those of demand substitution in terms of effectiveness and immediacy. This means that suppliers are able to switch production to the relevant products and market them in the short term[68] without incurring significant additional costs or risks in response to small and permanent changes in relative prices. When these conditions are met, the additional production that is put on the market will have a disciplinary effect on the competitive behaviour of the companies involved. Such an impact in terms of effectiveness and immediacy is equivalent to the demand substitution effect."

E.10 The Notice on Market Definition also notes that:[69]

"When supply-side substitutability would entail the need to adjust significantly existing tangible and intangible assets, additional investments, strategic decisions or time delays, it will not be considered at the stage of market definition. ……. In these cases, the effects of supply-side substitutability and other forms of potential competition would then be examined at a later stage."

E.11 Therefore any potential relevant supply-side substitutes should be sufficiently imminent in terms of their presence in the market in order to be capable of constraining small but significant price increases[70].

E.12 The European Commission's SMP Guidelines also note that when defining a relevant market, mere hypothetical supply-side substitution is not sufficient.[71]

[68] "That is such a period that does not entail a significant adjustment of existing tangible and intangible assets".

[69] See paragraph 23 of the European Commission's Notice on Market Definition.

[70] Paragraph 23 of the European Commission's Notice on Market Definition also notes that "*When supply-side substitutability would entail the need to adjust significantly existing tangible and intangible assets, additional investments, strategic decisions or time delays, it will not be considered at the stage of market definition.*"

[71] See paragraph 52 of the SMP Guidelines.

"NRAs will need to ascertain whether a given supplier would actually use or switch its productive assets to produce the relevant product or offer the relevant service (for instance, whether their capacity is committed under long-term supply agreements, etc.). Mere hypothetical supply-side substitution is not sufficient for the purposes of market definition……delays and obstacles in concluding interconnection or co-location agreements, negotiating any other form of network access, or obtaining rights of ways for network expansion, may render unlikely in the short term the provision of new services and the deployment of new networks by potential competitors".

Self-Supply of Vertically Integrated Service Providers

E.13 ComReg notes that the self-supply of wholesale/retail inputs on electronic communications networks of vertically integrated service providers may also fall within the relevant market if such self-supply exerts an effective competitive constraint on the market being considered. Having regard to the SMP Guidelines, the Explanatory Note to the 2007 Recommendation and the Notice on Market Definition, the following criteria will are typically considered by ComReg in determining whether self-supply on a given network falls within the relevant product market:

(a) whether sufficient demand-side substitution would be likely to arise if the self-supplied product was made available to third parties (in the 'merchant market');

(b) whether the network offers the coverage expected by Access Seekers;

(c) whether the provision of the self-supplied product to third parties is technically feasible;

(d) whether the service provider whose self-supply is under consideration has sufficient capacity to provide the self-supplied product to third parties; and

(e) whether the service provider whose self-supply is under consideration would provide the self-supplied product to third parties in the short term without incurring significant additional costs or risks, and would be likely to do so in response to small and permanent changes in relative prices;

E.14 Where these criteria are met, it is likely that the self-supplied service could act as an effective competitive constraint on the focal product. On that basis, the inclusion of self-supplied services in the product market is warranted.

Appendix F Critical Loss Test for Indirect Constraints

F.1 In this Appendix ComReg describes the critical loss analysis used by ComReg in assessing the extent to which indirect constraints might impact upon the FACO Markets. The assessment of indirect constraints is set out in Section 5[72] and the competition analysis in Section 6. This is considered, alongside other information, to support the overall preliminary conclusions set out in this Consultation.

F.2 The standard framework used to assess the scope of a market is the SSNIP test, or the Hypothetical monopolist test. This begins by considering whether a nominated focal product constitutes a market in and of itself, and can be assessed by evaluating whether a market is worth monopolising. In order to determine whether a given product, or group of products, is worth monopolising, the pricing behaviour of a hypothetical monopolist (**HM**) can be considered. If the HM could impose a profitable small but significant non-transitory increase in price (**SSNIP**), then the market is considered to be no wider than the focal product(s).

F.3 It is not necessary that all customers would switch to a given potential substitute product in order for them to be defined as falling within the same relevant product market as the focal products. Rather, it only needs to be the case that a sufficient number of customers would switch to such alternative products in order to prevent the SSNIP from being profitable.

F.4 In order to implement this test, a framework known as 'critical loss analysis' can be used. This approach ultimately provides an estimate of the percentage of customers that would have to divert away from the focal product in response to a SSNIP in order for the price rise to be unprofitable (the 'Critical Loss Test' or '**CLT**'). A prediction of actual loss can then be compared to the critical loss value, and if more customers would switch than the critical loss value then the SSNIP is considered likely to be unprofitable and the market is thus no wider than the focal product(s). Thus, the amount of demand substitution from the focal product to the potential substitute product must be greater than the critical loss estimate, in order for the alternative product to be considered to belong to the same relevant market as the focal product.

F.5 As evidenced from the details below, calculating the critical loss requires detailed information regarding a number or parameters, including marginal costs. Given the absence of such information ComReg uses proxies for the various parameters that are used to calculate the critical loss. In this context, ComReg uses the CLT as a general guide for ComReg's assessment of indirect constraints. It is by no means determinative in and of itself and is considered by ComReg, alongside other information in seeking to address the question as to whether the response by end-users to an increase in the price of RFTS resulting from the SSNIP in FACO would be likely to constrain the profitability of such a SSNIP.

[72] See paragraphs 5.133 to 5.210 in Section 5.

F.6 The CLT is calculated according to the following formula.[73]

Critical loss = x / (m + x), where

x = ΔP/P = size of the SSNIP
m = margin = (P - C) / P
C = marginal cost

F.7 ComReg has used Eircom's Historical Cost financial statements for June 2013[74] to estimate Eircom's margins for FACO products, and has calculated critical loss estimates accordingly.

Product	Inputs	5% SSNIP	10% SSNIP
WLR	Eircom WLR revenue	327,212	327,212
	Eircom WLR return	106,898	106,898
	Gross margin (estimate for 'm')	33%	33%
	SSNIP	5%	10%
	Break-even critical loss	**13%**	**23%**
	Profit-max critical loss	**12%**	**19%**
Call origination	Eircom WLR revenue	15,950	15,950
	Eircom WLR return	2,358	2,358
	Gross Margin (estimate for 'm')	15%	15%
	SSNIP	5%	10%
	Break-even critical loss	**25%**	**40%**
	Profit-max critical loss	**20%**	**29%**

F.8 This actual historical accounting data is used to approximate the critical loss calculation (for which the formula is set out in paragraph F.6 above), where the margin 'm' is estimated based on Eircom's reported service-specific return (profit) relative to its corresponding revenue.

F.9 Based on available estimates of wholesale margins and a 5% SSNIP of the FACO price, ComReg predicts that the critical loss value is likely to be around 12-13% for WLR subscriptions and 20-25% for FVCO traffic. Similarly, at a 10% SSNIP of the FACO price, the critical loss value is likely to be around 19-23% for WLR subscriptions and between 29-40% for FVCO traffic.

These estimates represent the response in demand that would be required at the retail level to an actual change in the FACO price its pass-through into retail prices), in order to prevent a profitable SSNIP of FACO by Eircom. In order to include a given alternative retail product in the wholesale FACO Markets, these critical loss estimates represent the extent to which demand would need to switch from Eircom's FACO products, to the specific alternative product identified.

[73] 'Could' or 'would'? The difference between two hypothetical monopolists', Oxera, November 2008. http://www.oxera.com/Oxera/media/Oxera/downloads/Agenda/Hypothetical-monopolists.pdf?ext=.pdf

[74] Eircom Historical Cost Separated Accounts Financial Statements for the year ended June 2013

Appendix G Other criteria for SMP assessment

G.1 As noted in paragraph 6.10, ComReg has considered other factors that could be used to indicate the potential market power of an undertaking but which, for the reasons set out below, are considered of little or no relevance for the purposes of the SMP assessment in the Relevant FACO Markets.

Technological advantages or superiority

G.2 Technological advances or superiority can represent a barrier to entry as well as conferring the ability for an undertaking to achieve cost or production advantages/efficiencies over its competitors. However, the technologies being used to provide FACO have little or no bearing on the assessment of SMP in the FACO Markets. In particular, it would appear that any technological advance made by one operator could, from a purely technological point of view be adopted over time by others. This criterion is, therefore, considered of less relevance in the FACO Markets.

Easy or privileged access to capital markets/financial resources

G.3 Easy or privileged access to capital markets may act as a barrier to entry in markets where small private companies are competing with a large incumbent in RFTS markets, and are not able to leverage sufficient finance to invest in alternative infrastructure and use it to compete effectively with the incumbent.

G.4 ComReg considers that this is unlikely to be a factor in the FACO markets, considering that the main potential entrants are subsidiaries of large parent companies e.g. BT, Vodafone Ireland, Sky, and UPC. These FSPs are equally able to access capital markets, and are therefore not at a disadvantage relative to the incumbent. This criterion is, therefore, considered of little or no relevance.

A highly developed distribution and sales network

G.5 The need to establish distribution systems might delay short term market entry. However, entry into the FACO Markets is unlikely to involve establishing extensive distribution and sales networks, since there are only a small number of potential customers.

G.6 In any case, given that potential entrants are most likely to be either BT, which has an existing base of wholesale customers, or RFTS suppliers with a significant existing RFTS distribution and sales network (for example, UPC, Vodafone or Sky), a highly developed sales and distribution network is unlikely to represent a significant barrier to entry in the FACO Markets.

Appendix H Draft Decision Instrument

1 STATUTORY POWERS GIVING RISE TO THIS DECISION INSTRUMENT

1.1 This Decision Instrument ("Decision Instrument") is made by the Commission for Communications Regulation ("ComReg") and relates to the market for wholesale national call transit services on the public telephone network at a fixed location, as identified by the European Commission in its Recommendation of 11 February 2003 on relevant product and services markets within the electronic communications sector susceptible to *ex ante* regulation (the "2003 Recommendation"). This Decision Instrument further relates to the market for call origination on the public telephone network provided at a fixed location identified by the European Commission in its Recommendation of 17 December 2007 on relevant product and services markets within the electronic communications sector susceptible to *ex ante* regulation (the "2007 Recommendation") and as defined by ComReg in ComReg Decision No. XX/13.

1.2 This Decision Instrument is made:

(i) Pursuant to and having had regard to Sections 10 and 12 of the Communications Regulation Acts 2002 to 2011; Regulation 6(1) of the Access Regulations and Regulation 16 of the Framework Regulations;

(ii) Having taken the utmost account of the 2007 Recommendation, the Explanatory Note and the European Commission's Guidelines on market analysis and the assessment of significant market power under the Community regulatory framework for electronic communications networks and services (the "SMP Guidelines");

(iii) Having, where appropriate, pursuant to Section 13 of the Communications Regulation Acts 2002 to 2011 complied with the policy directions made by the Minister for Communications, Marine and Natural Resources[75];

(iv) Having had regard to the analysis and reasoning set out in ComReg Document No. 13/XX and having taken account of the submissions received from interested parties in response thereto following a public consultation pursuant to Regulation 12 of the Framework Regulations;

(v) Having consulted with the Competition Authority further to Regulation 27 of the Framework Regulations;

[75] Policy Directions made by Dermot Ahern TD, then Minister for Communications, Marine and Natural Resources, dated 21 February 2003 and 26 March 2004.

(vi) Having notified the draft measure and the reasoning on which the measure is based to the European Commission, the Body of European Regulators for Electronic Communications (BEREC) and the national regulatory authorities in other EU Member States pursuant to Regulation 13 and Regulation 14 of the Framework Regulations and having taken account of any comments made by these parties.

(vii) Pursuant to Regulations 25, 26 and 27 of the Framework Regulations and Regulations 8, 9, 10, 11, 12, and 13 of the Access Regulations; and

(viii) Having regard to the analysis and reasoning set out in ComReg Decision No. XX/13.

1.3 The provisions of the Consultation and Draft Decision entitled "[Title of Preliminary Consultation]", (ComReg Document No. 13/XX) and the Response to Consultation and Decision document entitled "[Title of Response to Consultation and Decision]", (Document No. 13/XX), (ComReg Decision No. XX/13) shall, where appropriate, be construed with this Decision Instrument.

PART I - GENERAL PROVISIONS (SECTIONS 2 TO 5 OF THE DECISION INSTRUMENT)

2 DEFINITIONS

2.1 In this Decision Instrument, unless the context otherwise suggests:

"Access" shall have the same meaning as under Regulation 2 of the Access Regulations, as may be amended from time to time;

"Access Path" means the Physical Transmission Path(s) between the line-card or equivalent in the Exchange or RSU to the NTP or NTU;

"Access Regulations" means the European Communities (Electronic Communications Networks and Services) (Access) Regulations 2011 (S.I. No. 334 of 2011), as may be amended from time to time;

"Ancillary Services on SB-WLR" means the ancillary services set out in sections 4.2 and 4.3 of the document entitled "Single Billing through Wholesale Line Rental Product Description" (issue 2.2, dated 5 December 2007) as may be amended from time to time and published on Eircom's wholesale website, insofar as they relate to the Relevant Markets in accordance the obligations set out in this Decision Instrument and includes Wholesale Low Value CPE Rental;

"Associated Facilities" shall have the same meaning as under Regulation 2 of the Framework Regulations, as may be amended from time to time;

"Authorisation Regulations" means the European Communities (Electronic Communications Networks and Services) (Authorisation) Regulations 2011 (S.I. No. 335 of 2011), as may be amended from time to time;

“Carrier Pre-Selection” or **“CPS”** is defined as an FVCO product, service or facility (whether provided standalone or as part of SB-WLR) that permits an End User to decide, in advance, to nominate and use an Undertaking of its choice to provide certain voice call services over Eircom’s fixed network, with such voice calls currently described in the “Carrier Pre-Selection All Calls Inclusion and Exclusion List, Version XXX” and as published on Eircom’s wholesale website;

“Communications Regulation Acts 2002 to 2011” means Communications Regulation Act 2002 (No. 20 of 2002), as amended by the Communications Regulation (Amendment) Act 2007 (No. 22 of 2007), the Communications Regulation (Premium Rate Services and Electronic Communications Infrastructure) Act 2010 (No. 2 of 2010) and the Communications Regulation (Postal Services) Act 2011 (No. 21 of 2011);

“ComReg” means the Commission for Communications Regulation, established under Section 6 of the Communications Regulation Acts 2002 to 2011;

“ComReg Decision No. D10/02” means ComReg Document No. 02/55 entitled “Decision Notice - Eircom’s Reference Interconnect Offer”, dated 26 June 2002;

“ComReg Decision No. D10/04” means ComReg Document No. 04/84a entitled “Decision Notice - ComReg’s Review of the Text of Eircom’s Reference Interconnect Offer”, dated 3 August 2004;

“**ComReg Decision No. D02/07**” means ComReg Document No. 07/61 entitled “Decision Notice and Decision Instrument - Designation of SMP and SMP Obligations, Market Analysis: Retail Fixed Narrowband Access Markets”, dated 24 August 2007;

“ComReg Decision No. D04/07” means ComReg Document No. 07/80 entitled “Decision Notice and Decision Instrument - Designation of SMP and SMP Obligations, Market Analysis - Interconnection Market Review Wholesale Call Origination and Transit Services”, dated 5 October 2007;

“ComReg Decision D06/07” means ComReg Document No. 07/109 entitled “Decision Notice and Decision Instrument, Market Analysis – Interconnection market review Fixed Wholesale Call Termination services”, dated 21 December 2007;

“ComReg Decision No. D08/10” means ComReg Document No. 10/67 entitled “Response to Consultation Document and Final Direction and Decision, Response to Consultation Document No. 09/75 and Final Direction and Decision: Accounting Separation and Cost Accounting Review of Eircom Limited”, dated 31 August 2010;

“ComReg Decision No. D05/11” means ComReg Document No. 11/45 entitled “Response to Consultation and Decision on the Introduction of Key Performance Indicators for Regulated Markets”, dated 29 June 2011;

“ComReg Decision No. D06/11” means ComReg Document No. 11/49 entitled “Response to Consultation and Decision; Market Review: Wholesale Broadband Access” dated 8 July 2011;

“ComReg Decision No. D07/11” means ComReg Document No. 11/67 entitled “Response to Consultation and Decisions, Wholesale Call Origination and Wholesale Termination Markets, Response to Consultation Document No. 10/76 and decisions amending price control obligations and withdrawing and further specifying transparency obligations”, dated 15 September 2011;

“ComReg Decision No. DXX/14” means ComReg Document No. XX/YY entitled “Insert Title”, dated XX YY ZZ;

“ComReg Document No. 05/24” means ComReg Document No. 05/24 entitled “Response to Consultation, Guidelines on the treatment of confidential information, Final text of Guidelines”, dated 22 March 2005;

“ComReg Document No. D07/51” means ComReg Document No. D07/51 entitled “Market Analysis – Interconnection Market Review Wholesale Call Origination & Transit Services” dated 31 July 2007;

“ComReg Document No. 08/19” means ComReg Document No. 08/19 entitled “Information Notice, Single Billing Wholesale Line Rental, Directions to Eircom regarding retail minus %”, dated 22 February 2008;

“ComReg Document No. 12/117” means ComReg Document No. 12/117 entitled “Retail Access to the Public Telephone Network at a Fixed Location for Residential and Non Residential Customers” dated 26 October 2012;

“ComReg Document No. 13/95” means ComReg Document No. 13/95 entitled “Market Review Fixed Voice Access – Supplementary Consultation to 12/117” dated 17 October 2013;

“Co-Location” shall have the same meaning and description as under Part B “Co-location services” of the Schedule to the Access Regulations (as may be amended from time to time);

“CPE” means customer premises equipment;

“Customer-Sited Interconnection or Handover” or **“CSI/H”** means the physical connection from the Eircom network to the Undertaking’s equipment, within the Undertaking’s premises;

“Effective Date” means the date set out in Section 17 of this Decision Instrument;

“Eircom” means Eircom Limited and its subsidiaries, and any Undertaking which it owns or controls, and any Undertaking which owns or controls Eircom Limited and its successors and assigns;

“Electronic Communications Network(s)” or **“ECN(s)”** shall have the same meaning as under Regulation 2 of the Framework Regulations, as may be amended from time to time;

“Electronic Communications Service” or **“ECS”** shall have the same meaning as under Regulation 2 of the Framework Regulations, as may be amended from time to time;

“End User” shall have the same meaning as under Regulation 2 of the Framework Regulations, as may be amended from time to time. For the avoidance of doubt, End-User(s) shall be deemed to include any natural or legal person who facilitates or intends to facilitate the provision of public communications networks or publicly available electronic communications services to other End-Users and who is not acting as an Authorised Undertaking;

“Equivalence of Outputs” means the provision of products, services, facilities, and information by the SMP Undertaking to OAOs such that such products, services, facilities, and information is provided to OAOs in a manner which achieves the same standards in terms of functionality, price, terms and conditions, service and quality levels as the SMP Undertaking provides to itself, albeit potentially using different systems and processes;

“Exchange” means an Eircom premises or equivalent facility used to house network and associated equipment, and includes a Remote Subscriber Unit (RSU);

“(the) Explanatory Note” means Commission Staff Working Document: Explanatory Note accompanying the 2007 Recommendation (13 November 2007, C(2007) 5406), p.21;

“Fixed Voice Call Origination” or **“FVCO”** means a service whereby voice calls originating at a fixed location of an End User are conveyed and routed through any switching stages (or equivalent, regardless of underlying technology) up to a Point of Handover nominated by an OAO seeking access to this service. The nominated Point of Handover can be the primary, tandem, or double tandem Exchange associated with the Access Path on which the voice call was originated;

“(Current Generation) Fixed Voice Call Origination” or **“CG-FVCO”** means FVCO provided over circuit switched network infrastructure;

“(Next Generation) Fixed Voice Call Origination” or **“NG-FVCO”** means FVCO provided over Internet Protocol based packet switched network infrastructure;

“FVCO Top-Down LRAIC+ Model” means the model, as amended from time to time, used by ComReg and Eircom to assess Eircom’s compliance with the obligations contained in Section 12.4 of this Decision Instrument;

“Framework Regulations” means the European Communities (Electronic Communications Networks and Services) (Framework) Regulations 2011 (S.I. No. 333 of 2011), as may be amended from time to time;

“Higher-Level Fixed Access and Call Origination” or **“HL-FACO”** means (a) wholesale fixed access to the public telephone network for the provision of voice telephony services by means of (i) ISDN FRA; or (ii) ISDN PRA; and (b) FVCO;

“(Current Generation) HL-FACO” means HL-FACO provided over circuit switched network infrastructure;

“(Next Generation) HL-FACO” means HL-FACO provided over Internet Protocol based packet switched network infrastructure;

“Higher-Level Fixed Access and Call Origination Market” or **“HL-FACO Market”** means the market as identified in Section 4.2.2 below;

“In-Building Interconnection or Handover” or **“IBI/H”** means the physical connection from the Eircom network to the Undertaking’s equipment within the Exchange;

“In-Span Interconnection/Handover” or **“ISI/H”** means the physical connection between the Exchange and the Point of Handover that has been agreed between the interconnecting parties;

“Interconnection” shall have the same meaning as under Regulation 2 of the Access Regulations, as may be amended from time to time;

“(Current Generation) Interconnection Path(s)” means the physical and logical transmission path(s) between the ECNs of two Undertakings to facilitate Interconnection based on circuit switched infrastructure;

“(Next Generation) Interconnection Path(s)” means the physical and logical transmission path(s) between the ECNs of two Undertakings to facilitate Interconnection based on packet switched infrastructure;

“Interconnection Service(s)” includes CSI/H, IBI/H ISI/H, and Interconnection Paths;

“(Current Generation) Interconnection Services” means circuit switched based interconnection used for the conveyance of FVCO and includes CSI/H, IBI/H ISI/H, and CG Interconnection Paths;

“(Next Generation) Interconnection Services” means packet switched based interconnection used for the conveyance of FVCO and includes CSI/H, IBI/H ISI/H, and NG Interconnection Paths;

“IP” means internet protocol;

“ISDN” means Integrated Services Digital Network;

“ISDN BRA” means ISDN basic rate access;

“ISDN FRA” means ISDN fractional primary rate access;

“ISDN PRA” means ISDN primary rate access;

“Key Performance Indicator(s)” or **“KPI(s)”** means a measure(s) of the standard(s) of product, service or facility provided by Eircom to Undertakings and by Eircom to itself;

“Long Run Average Incremental Cost plus” or **“LRAIC+”** means the average efficiently incurred directly attributable variable and fixed costs, plus an appropriate apportionment of joint and common costs;

"Lower-Level Fixed Access and Call Origination" or **“LL-FACO”** means (a) wholesale fixed access to the public telephone network for the provision of voice telephony services by means of (i) PSTN, or (ii) ISDN BRA; and (b) FVCO;

"Lower-Level Fixed Access and Call Origination Market" or **“LL-FACO Market”** means the market as identified in Section 4.2.1 below;

“(Current Generation) LL-FACO” means LL-FACO provided over circuit switched network infrastructure;

“(Next Generation) LL-FACO” means LL-FACO provided over Internet Protocol based packet switched network infrastructure;

“Margin Squeeze in respect of Switchless Voice” means the setting of a wholesale price by Eircom for the FVCO component of a SV Service below the minimum price floor set by the Margin Squeeze Test Model for SV;

“Margin Squeeze Test Model for SV” is a model used to calculate the appropriate minimum price floor for a FVCO wholesale product in a SV Service. The test will be (i) based on a Similarly Efficient Operator (‘SEO’) at the Weighted Average Level that uses Eircom’s cost-oriented FVCO rates (ii) assessed at a static point in time (iii) assessed by time of day gradient (i.e. day, evening or weekend) and (iv) use a LRAIC plus standard. The detail of the Margin Squeeze Test Model for SV is set out in ComReg Decision No. D07/11;

“Near End Handover” means a charging practice which arises from routing restrictions or limitations on Eircom’s network. In such circumstances certain types of voice calls are handed over by Eircom to an OAO (where that OAO is interconnected at a primary Exchange level) at the double tandem Exchange level (or its equivalent). Such calls are charged by Eircom at a rate equivalent to the rate that applies to calls handed over at a primary Exchange level (or its equivalent);

“Network Termination Point” or **“Network Termination Unit”** or **“NTP”** “**NTU”** means the physical interface which provides the service demarcation point or point of handover of a wholesale service(s) within the End User’s premises;

“Number Translation Code(s)” means certain non-geographic numbers, which have no physical destination address of their own but can reach real destinations and/or real services once they are translated into other number types;

“Order Handling Charge” means the wholesale charge payable by an Undertaking to the service provider for the cost associated with processing an order for Access;

“OSS” means operational support systems;

“Other Authorised Operator(s)” or **“OAO(s)”** means an Undertaking that is not Eircom, providing or intending to provide an ECN or an ECS pursuant to Regulation 4 of the Authorisation Regulations;

“Payphone Access Charge” or “PAC” means a wholesale charge payable by an Undertaking to a payphone service provider for calls made by an End User from a payphone that do not involve a direct retail charge, including, but not limited to, freephone calls to “1800” numbers;

“**PAC Service**” means the service whereby Eircom levies and administers the PAC on behalf of payphone operators;

“Performance Metric(s)” means the aggregate performance levels achieved by Eircom within a specified period, as calculated in accordance with the methodology and service parameter definitions set out in its Service Level Agreements;

“Physical Transmission Path(s)” means a form of copper, fibre or wireless physical infrastructure (including and any combination of these) or its nearest equivalent which may be used to transmit Electronic Communications Services;

“Point of Handover” means the physical point at which two networks are interconnected to allow traffic between these networks;

“PSTN” means Public Switched Telephone network;

“Reference Interconnect Offer” or **“RIO”** is the offer of contract by Eircom to Undertakings in respect of the provision of Access in accordance with the requirements of this Decision Instrument. The RIO sets out products, services and facilities including, but not limited to, service descriptions, associated terms and conditions and standards to be offered in accordance with the requirements set out in this Decision Instrument;

“Retail Minus” means a pricing methodology used to set wholesale access prices under which the access price is explicitly set on the basis of the retail price of the corresponding retail services. The discount off retail prices is usually set as a fixed percentage of the retail price;

“Retention Rate” means the administrative costs associated with the provision of CPS to NTCs and comprises of billing, credit control, cash collection and management of bad debt;

“(the) Relevant FVCO Markets” means the markets described in Section 4 of this Decision Instrument;

“Remote Subscriber Unit” or **“RSU”** means a subordinate type of Exchange that is attached to an upstream primary Exchange;

“RIO Change Matrix” means a range of information that is published to clearly identify any changes made or to be made to the RIO as it is amended from time to time, including the date(s) on which such changes come into effect;

“RIO Change Matrix” means the table of information collated by Eircom which specifies the non-price related amendments made to its RIO, including the date(s) on which such amendments come into effect;

“RIO Price List Change Matrix” means the table of information collated by Eircom which specifies the amendments made to the RIO Price List(s) which are contained in its RIO, including the date(s) on which such amendments come into effect;

“RIO Price List(s)” means the list of charges collated by Eircom for products, services and facilities which are to be provided and specified in its RIO in accordance with the requirements of this Decision Instrument;

“Service Credit(s)” means a financial credit which is provided by Eircom to an OAO where Eircom has failed to meet a Performance Metric in an SLA;

“Service Level Agreement(s)” or **“SLA(s)”** mean legally binding contracts between Eircom and OAOs in relation to the service levels which Eircom commits to from time to time, as more particularly set out in the RIO. For the avoidance of doubt, however, to the extent that there is any conflict between the SLAs and Eircom’s obligations set out in this Decision Instrument, it is the latter which shall prevail;

“Significant Market Power obligation(s)” or **“SMP obligation(s)”** are those obligations as more particularly described in Part II below, as may be amended from time to time;

“(the) SMP Guidelines” means the European Commission guidelines of 11 July 2002 on market analysis and the assessment of significant market power under the Community regulatory framework for electronic communications networks and services (2002/C165/03) (OJ C 165/6);

“Significant Market Power Undertaking” or **“SMP Undertaking”** means the Undertaking designated in Section 5 of this Decision Instrument as having Significant Market Power;

“Similarly Efficient Operator” or **“SEO”** means a hypothetical operator which shares the same basic cost function as Eircom but does not enjoy the same economies of scale and scope as Eircom including in respect of Interconnection;

“Single Billing - Wholesale Line Rental” or **“SB-WLR”** means a wholesale service comprised of both CPS and WLR;

“Switchless Voice Service” or **“SV Service”** means a switchless voice service which allows an operator to purchase end-to-end call conveyance services without the need to have its own Interconnection infrastructure;

“Transit Market” means the market for wholesale national call transit services on the public telephone network at a fixed location as defined in Section 2 of the Decision Instrument set out in Annex B (“Decision Instrument Wholesale Call Transit”) of ComReg Decision D04/07;

“Undertaking(s)” shall have the same meaning as under Regulation 2 of the Framework Regulations, as may be amended from time to time;

“Weighted Average Level” means interconnection of 66% at primary level, 24% at single tandem level and 10% at double tandem level as may be amended by ComReg from time to time. ComReg will keep the apportionment of the levels of interconnection under review and will update the apportionment where it considers that competitive conditions warrant it. Any material update to the apportionment levels will be communicated or consulted upon by ComReg;

“WBA” means wholesale broadband access comprising non-physical or active network access including “Bitstream” access at a fixed location as described in ComReg Decision No. D06/11. It includes Current Generation WBA and Next Generation WBA;

“(Current Generation) WBA” means WBA provided over Eircom’s current generation copper access network infrastructure and its Associated Facilities (including self-supply by Eircom for the purpose of serving its downstream markets) that is copper based;

“(Next Generation) WBA” means WBA provided over Eircom’s next generation access network infrastructure and its Associated Facilities (including self-supply by Eircom for the purpose of serving its downstream markets). Eircom’s next generation access network infrastructure includes access paths that are either exclusively fibre or a combination of fibre and copper;

“Wholesale Line Rental” or **“WLR”** means the wholesale service that allows an OAO to rent an Access Path(s) from Eircom which in turn enables that OAO to offer or provide services over such an Access Path(s) to either an End User or another OAO;

“Wholesale Low Value CPE Rental” means Eircom’s low value End User premises equipment which is associated with an Access Path(s) that is currently billed on Eircom’s retail telephony bills; typically Wholesale Low Value CPE Rental consists of telephone and on-site wiring;

“(the) 2003 Recommendation” means the European Commission Recommendation of 11 February, 2003 on relevant product and service markets within the electronic communications sector susceptible to *ex ante* regulation in accordance with Directive 2002/21/EC of the European Parliament and of the Council on a common regulatory framework for electronic communications networks and services (OJ L114, 8.5.2003, p. 45); and

“(the) 2007 Recommendation” means European Commission Recommendation of 17 December 2007 on relevant product and service markets within the electronic communications sector susceptible to ex ante regulation in accordance with Directive 2002/21/EC of the European Parliament and of the Council on a common regulatory framework for electronic communications networks and services (OJ L 344, 28.12.2007, p. 65).

3 SCOPE AND APPLICATION

3.1 This Decision Instrument is binding upon Eircom in the manner now set out below and Eircom shall comply with it in all respects.

3.1 This Decision Instrument applies to Eircom in respect of activities falling within the scope of the Relevant FVCO Market defined in Section 4 of this Decision Instrument.

3.2 This Decision Instrument, pursuant to Regulations 8, of the Access Regulations also withdraws certain obligations previously imposed upon Eircom, as more particularly set out in Section 15.3 of this Decision Instrument.

4 MARKET DEFINITION

4.1 This Decision Instrument relates to the wholesale market for call origination on the public telephone network provided at a fixed location as identified in the 2007 Recommendation and as analysed by ComReg in the document entitled Market Review: XXX Decision No. [D…], Document No. [..].For the purposes of this Decision Instrument, ComReg identifies two separate markets as more particularly defined in Section 4.2 below (referred to in this Decision Instrument singularly as the Relevant Market and together as the Relevant Markets).

4.2 Pursuant to Regulation 26 of the Framework Regulations and in accordance with the 2007 Recommendation, the Explanatory Note and taking the utmost account of the SMP Guidelines, in accordance with the principles of competition law, the Relevant Markets defined in this Decision Instrument are:-

4.2.1 the wholesale market for access and call origination on the public telephone network at a fixed location whereby:

(i) access is provided by means of PSTN or ISDN BRA or WBA and

(ii) call origination is provided by means of CG-FVCO or NG-FVCO, which market is referred to in this Decision Instrument as the 'Lower-Level Fixed Access and Call Origination Market' or the 'L-L FACO Market'.

4.2.2 the wholesale market for access and call origination on the public telephone network provided at a fixed location whereby:

(i) access is provided by means of ISDN FRA or ISDN PRA or WBA and

(ii) call origination is provided by means of CG-FVCO or NG-FVCO,

which market is referred to in this Decision Instrument as the 'Higher-Level Fixed Access and Call Origination Market' or the 'H-L FACO Market'.

4.3 The Relevant Markets are more particularly described in Section X of the document entitled [Market Analysis: Wholesale Call Origination and Transit services] Decision No. D [•], Document No. [•].

5 DESIGNATION OF UNDERTAKING WITH SIGNIFICANT MARKET POWER ("SMP")

5.1 Pursuant to Regulation 25 and Regulation 27 of the Framework Regulations and taking the utmost account of the SMP Guidelines, having determined that the Relevant Markets are not effectively competitive, Eircom is designated as having SMP in the Relevant Markets in which it operates.

PART II - SMP OBLIGATIONS (SECTIONS 6 TO 12 OF THE DECISION INSTRUMENT) IN RELATION TO CURRENT GENERATION LOWER-LEVEL FACO AND HIGHER-LEVEL FACO

6 SMP OBLIGATIONS IN RELATION TO CURRENT GENERATION PRODUCTS, SERVICES AND FACILITIES

6.1 ComReg is imposing certain SMP Obligations on Eircom in accordance with and pursuant to Regulations 8, 9, 10, 11, 12 and13 of the Access Regulations, as detailed further in Sections 7 to 12 below in respect of Current Generation LL-FACO and Current Generation HL-FACO.

7 OBLIGATIONS TO PROVIDE ACCESS

7.1 Pursuant to Regulation 12(1) of the Access Regulations, Eircom shall meet all reasonable requests from Undertakings for the provision of Access to Current Generation LL-FACO and Current Generation HL-FACO including Associated Facilities.

7.2 Without prejudice to the generality of Section 7.1 and pursuant to Regulation 12(2) of the Access Regulations, Eircom shall provide and grant Access to Undertakings for the following particular products, services and Associated Facilities:-

(i) SB-WLR;

(ii) Ancillary Services on SB-WLR;

(iii) [CPS;]

(iv) PAC Service;

(v) Current Generation Interconnection Services; and

(vi) Co-Location.

7.3 Without prejudice to the generality of Section 7.1 and 7.2 Eircom shall offer and continue to offer and provide Access to the products, services and facilities referred to in this Section 7 and Section 8 of this Decision Instrument in accordance with the product descriptions and terms and conditions of supply or use, as specified in the current version of the RIO (i.e. RIO version [3.23] dated XXX as published on Eircom's wholesale website) as may be amended from time to time, and, in addition, in accordance with Eircom's obligations under this Decision Instrument.

7.4 Pursuant to Regulation 12(1) of the Access Regulations, Eircom shall meet all reasonable requests from Undertakings for the provision Next Generation Interconnection Services.

7.5 Without prejudice to the general obligations set out from Sections 7.1 to 7.4, Eircom shall:

(i) Pursuant to Regulation 12(2)(b) of the Access Regulations, negotiate in good faith with undertakings, requesting Access;

(ii) Pursuant to Regulation 12(2)(c) of the Access Regulations, not withdraw Access to facilities already granted without the prior approval of ComReg and in accordance with terms and conditions as may be determined by ComReg;

(iii) Pursuant to Regulation 12(2)(e) of the Access Regulations, grant open access to technical interfaces, protocols or other key technologies that are indispensable for the interoperability of products, services or facilities;

(iv) Pursuant to Regulation 12(2)(g) of the Access Regulations, to provide Access to services needed to ensure interoperability of end-to-end services to End-Users, including facilities for intelligent network services;

(v) Pursuant to Regulation 12(2)(h) of the Access Regulations, provide Access to OSS or similar software systems necessary to ensure fair competition in the provision of services (including those products, services and facilities described in this Section 7); and

(vi) Pursuant to Regulation 12(2)(i) of the Access Regulations, to interconnect networks or network facilities.

8 CONDITIONS ATTACHED TO THE ACCESS OBLIGATION

8.1 Pursuant to Regulation 12(3) of the Access Regulations, Eircom shall, in relation to the obligations set out under Section 7 above, grant Undertakings Access in a fair, reasonable and timely manner.

8.2 Without prejudice to the generality of Section 8.1 and pursuant to Regulation 12(3) of the Access Regulations, Eircom shall ensure that where it receives a request for Access in accordance with the requirements of this Decision Instrument at the same point in time as a request for another wholesale access product, service or facility on foot of another Decision Instrument, Eircom shall ensure that both access requests are met concurrently.

8.3 Without prejudice to the generality of Section 8.1, pursuant to Regulation 12(3) of the Access Regulations Eircom shall:

(i) Conclude, maintain or update, as appropriate, legally binding SLAs with Undertakings which shall include provisions for Performance Metrics;

(ii) Negotiate in good faith with Undertakings in relation to the conclusion of legally binding and fit-for-purpose SLAs;

(iii) Ensure that all SLAs include provision for Service Credits arising from any breach of an SLA;

(iv) Ensure that the level of the Service Credits are fair and reasonable;

(v) Ensure that SLAs detail how Service Credits are calculated and shall include the provision of an example calculation; and

(vi) Ensure that application of Service Credits, where they occur, shall be applied automatically, and in a timely and efficient manner.

8.4 Where a request by an Undertaking for provision of Access, or a request by an Undertaking for provision of information is refused or met only in part, Eircom shall, at the time of the refusal or partial grant, provide in detail to the Undertaking each of the objective reasons for such refusal or partial grant. Eircom’s response shall be provided in a fair, reasonable and timely manner.

9 OBLIGATION OF NON-DISCRIMINATION

9.1 Pursuant to Regulation 10 of the Access Regulations, Eircom shall have an obligation of non-discrimination in respect of the provision of Access, including Access as regards those services, products and facilities described in Sections 7 and 8. Without prejudice to the generality of the foregoing, Eircom shall:

(i) Apply equivalent conditions in equivalent circumstances to other Undertakings requesting, or being provided with Access (including Access to those products, services and facilities described in Sections 7 and 8) or requesting or being provided with information in relation to such Access; and

(ii) Provide Access (including Access to those products, services and facilities described in Sections 7 and 8) and information to all other Undertakings under the same conditions and of the same quality as Eircom provides to itself or to its subsidiaries, affiliates or partners.

9.2 Without prejudice to the generality of Section 9.1 above Eircom shall provide Access, including Associated Facilities, to those products, services and facilities required in accordance with Sections 7 and 8 of this Decision Instrument on, at least, an Equivalence of Outputs basis.

9.3 Eircom shall submit to ComReg a written statement of compliance that demonstrates its compliance with its non-discrimination obligations set out this Section 9, in accordance with the following timescales, unless otherwise agreed with ComReg:

(i) in the case of any offer of a new product, service or facility, seven (7) months in advance of its being made available;

(ii) in the case of any change to an existing product, service or facility, three (3) months in advance of its being made available;

(iii) in the case of an existing product, service or facility, within three (3) months of the Effective Date of this Decision; or

(iv) as otherwise may be required by ComReg.

9.4 The statement of compliance referred to in Section 9.3 above shall include the following:

(i) a full and true written statement, signed by a person(s) of appropriate expertise and authority within Eircom acknowledging that Eircom is responsible for securing compliance with its obligations and confirming to the best of its knowledge that Eircom is in compliance with the obligations set out in this Section 9; and

(ii) documentation which demonstrates how compliance has been achieved by Eircom with its non discrimination obligations which shall include, at least, the following;

a) a description of the material differences between the systems and processes that are used by Eircom to offer or provide FACO products, services or facilities to Eircom's downstream operations and those used to offer or provide FACO products, services or facilities to Access Seekers.

b) a risk assessment to identify the potential risk of non compliance with the obligations set out in this Section 9.

Such an assessment shall include, in particular, a description of (i) the risks identified; (ii) the measures that Eircom has implemented to control and govern those risks; and (iii) an explanation of how such measures are maintained.

9.5 The documentation referred to in Sections 9.4 (ii) above shall include a list of any other documentation and information relied upon, an overview of the method of analysis applied and a description of the expertise employed by Eircom in its identification of the material differences and risks identified. ComReg may require Eircom to supplement the documentation where, in ComReg's view, it is insufficient or inadequate.

9.6 The documentation and information required under Sections 9.4 and 9.5 above shall be of sufficient clarity and detail to enable ComReg, or a third party as determined by ComReg, to review the statement of compliance for completeness and accuracy. Such documentation and information shall also enable ComReg, or a third party as determined by ComReg, to assess whether Eircom has taken all reasonable steps to ensure that the risk assessment and control and governance measures referred in Section 9.4 provides reasonable assurance to ComReg that Eircom is compliant with the obligations set out in this Section 9.

9.7 For the avoidance of any doubt, the obligations set out in this Section 9 apply irrespective of whether or not a specific request for products, services, facilities or information has been made by an Undertaking to Eircom.

10 OBLIGATION OF TRANSPARENCY

10.1 Pursuant to Regulation 9 of the Access Regulations Eircom shall be subject to an obligation of transparency in relation to Access.

10.2 Without prejudice to the generality of Section 10.1, pursuant to Regulation 9(2) of the Access Regulations, Eircom shall make publicly available and keep updated on its website, a RIO.

10.3 The RIO shall be sufficiently unbundled so as to ensure that Undertakings availing of Access (including Access to those products, services and facilities described in Section 7) are not required to pay for products, services or facilities which are not necessary for the Access requested.

10.4 Without prejudice to the generality of Section 10.3, and in accordance with the obligations specified elsewhere in this Decision, Eircom shall ensure that its RIO includes at least the following:

(i) A description of the offer of contract for Access (including Access to those products, services and facilities described in Section 7 and Section 8) broken down into components according to market needs;

(ii) A description of any associated contractual or other terms and conditions for supply of Access (including Access to those products, services and facilities described in Section 7 and Section 8) and use, including prices;

(iii) A description of the technical specifications and network characteristics of the Access (including Access to those products, services and facilities described in Section 7 and Section 8) being offered; and

(iv) The terms, conditions, service level agreements, guarantees and other product related assurances associated with the FVCO component part of any SV Services that it provides.

10.5 In the event of any conflict between the RIO and associated documentation such as the RIO Price List (including where represented as updated for the purposes of this Decision Instrument), and Eircom’s obligations as now set out under this Decision Instrument, it is the latter which shall prevail.

10.6 Without prejudice to the generality of Sections 10.1 and 10.2 above and pursuant to Regulation 9 of the Access Regulations Eircom shall:

(i) continue to publish and keep updated on its publicly available website, its RIO in the same form and format as version [3.23] as may be amended from time to time, insofar as those services or facilities contained therein relate to the obligations set out in this Decision Instrument.

(ii) publish and keep updated on its publicly available website both clean (or unmarked) and tracked changed (or marked) versions of its RIO (insofar as it relates to the services and facilities to be provided in accordance with the requirements of this Decision Instrument). The tracked change version of the RIO shall be sufficiently clear to allow Undertakings to clearly identify all actual and proposed amendments from the preceding version of its RIO.

(iii) publish and keep updated on its publicly available website an accompanying RIO Change Matrix which lists all of the amendments incorporated or to be incorporated in any amended RIO.

(iv) publish and keep updated on its publicly available website both clean (unmarked) and tracked changed (marked) versions of the RIO Price List(s) (insofar as it relates to the services and facilities to be provided in accordance with the requirements of this Decision Instrument). The tracked change version of the RIO Price List shall be sufficiently clear to allow Undertakings to clearly identify all actual and proposed amendments from the preceding version of its RIO Price List.

(v) publish and keep updated on its publicly available website a RIO Price List Change Matrix.

(vi) maintain and make publicly available on its wholesale website a copy of historic versions of its RIO, RIO Price List, RIO Change Matrix and Price List Change Matrix.

10.7 Eircom shall ensure that its wholesale invoices are sufficiently disaggregated, detailed and clearly presented such that an Undertaking can reconcile the invoice to Eircom's RIO and RIO Price Lists.

10.8 In respect of non-pricing amendments or changes to the RIO resulting from the offer of a new product, service or facility which falls with the scope of the Relevant Markets, the following obligations will apply:

(i) Eircom shall, unless otherwise agreed by ComReg, make publicly available and publish on Eircom's publicly available wholesale website at least six (6) months in advance of coming into effect, any proposed amendments or changes to the RIO or the making available of any product, service or facility, pertaining to non-price information in respect of product specification, services, facilities and processes resulting from the offer of a new product, service or facility.

(ii) Eircom shall notify ComReg in writing with the information to be published at least one (1) month in advance of any such publication taking place, that is, seven (7) months prior to any amendments or changes coming into effect. The periods referred to in this Section may be varied with the agreement of ComReg or at ComReg's discretion.

10.9 In respect of non-pricing amendments or changes to the RIO resulting from an amendment or change to an existing product, service or facility which falls with the scope of the Relevant Markets, the following obligations will apply:

(i) Eircom shall, unless otherwise agreed by ComReg, make publicly available and publish on Eircom's publicly available wholesale website at least two (2) months in advance of coming into effect, any proposed amendments or changes to the RIO pertaining to non-price information in respect of product specification, services, facilities and processes resulting from an amendment or change to an existing product, service or facility (including details of any amendment or change in the functional characteristics of an existing product, service or facility).

(ii) Eircom shall notify ComReg in writing with the information to be published at least one (1) month in advance of any such publication taking place, that is, three (3) months prior to any amendments or changes coming into effect. The periods referred to in this Section may be varied with the agreement of ComReg or at ComReg's discretion. Notwithstanding this Section 10.9, material changes or material amendments shall, however, be notified and published in accordance with Section 10.8 or as otherwise agreed with ComReg or at ComReg's discretion.

10.10 In respect of pricing amendments or changes pertaining to prices in the RIO and/or RIO Price List Eircom shall make publicly available and publish on its wholesale website information relating to:

(i) proposed changes to the prices of existing products, services or facilities set out in the RIO Price Lists and which are offered or provided in accordance with the obligations set out in this Decision Instrument, at least one (1) month in advance of such changes coming into effect, unless otherwise determined by ComReg; and

(ii) the pricing of a new product, service, or facility that will be offered or provided in accordance with the obligations set out in this Decision Instrument at least two (2) months in advance of the commercial launch of a new retail service by Eircom, unless otherwise determined by ComReg.

10.11 For the purpose of Section 10.10 Eircom shall, unless otherwise agreed with ComReg, grant ComReg at least an additional one (1) month's notice in advance of any such publication taking place.

10.12 Upon, and at the same time and in accordance with the appropriate timelines set out under Section 9.3 of this Decision Instrument, Eircom shall publish information on its publicly available wholesale website in respect of products, services, facilities and processes in the Relevant Markets, which shall be sufficient to identify and justify any permissible differences (in accordance with Section 9.4 of this Decision Instrument), between the products, services, facilities and processes as set out in the RIO and the comparable products, services, facilities and processes which Eircom provides to itself. For the avoidance of doubt Eircom shall keep this information updated as new products, services or facilities are developed or deployed, or existing products, services or facilities are amended.

10.13 Eircom shall, as specified by ComReg in writing from time to time, make publicly available on its wholesale website, information such as accounting information, technical specifications, network characteristics, terms and conditions for supply and use, and prices, in respect of the products, services and facilities referred to in Sections 7 and 8 and in accordance with its obligations elsewhere in this Decision Instrument.

10.14 Pursuant to Regulation 9(3) of the Access Regulations, ComReg may issue directions requiring Eircom to make changes or amendments to the its SLAs, the RIO (and its associated documents), RIO Price List, RIO Change Matrix or RIO Price List Change Matrix to give effect to obligations imposed in this Decision Instrument and to publish such documents with such changes. In accordance with Regulation 18 of the Access Regulations ComReg may issue directions to Eircom from time to time requiring it to publish information, such as accounting information, technical specifications, network characteristics, terms and conditions for supply and use and prices.

10.15 Eircom shall publish Key Performance Indicators (KPIs) on its publicly available wholesale website. The specification of the content of the KPIs shall be in accordance with the obligations set out in ComReg Decision No. D05/11[76] (as may be amended from time to time). Pursuant to Regulation 8 and 9 of the Access Regulations, ComReg Decision No. D05/11 is amended and a new Section 5.1 (X) (e) is inserted as follows:-

(e) ComReg Decision No. XX/14, [Insert Title], dated XXYY2014.

10.16 Eircom shall publish Performance Metrics on its publicly available wholesale website.

[76] Decision No. D05/11, ComReg Document No. 11/45 Response to Consultation and Decision on the introduction of Key Performance Indicators for Regulated Markets. Published 29th June 2011.

10.17 Eircom shall make publicly available on its wholesale website all SLAs (and any updates thereto) relating to the provision of the products, services and facilities that are to be provided in accordance with Section 7 and 8 of this Decision Instrument.

10.18 Where Eircom considers that certain aspects of information to be provided under the obligations set out in this Section 10 to be of a confidential and/or commercially sensitive nature, Eircom shall, without delay, provide ComReg with complete details of such information along with objective reasons justifying why it considers it is confidential and/or commercially sensitive. ComReg will consider the information in accordance with ComReg Document No. 05/24 as relevant or otherwise. If ComReg considers that the information is not confidential and/or commercially sensitive, it shall be published by Eircom in accordance with its obligations under this Section.

10.19 If ComReg concludes that the information is confidential and/or commercially sensitive, Eircom shall publish general details as to the nature of such information and shall make it available to an OAO that has signed a Non-Disclosure Agreement ("NDA") the terms and conditions of which shall be fair, reasonable and non-discriminatory. The NDA shall also be published on Eircom's publicly available website. Any confidential and/or commercially sensitive information referred to in paragraph 10.18 above shall not be made available by Eircom to its downstream operations until such time as it is made available to an OAO, or as otherwise agreed with ComReg.

10.20 If and when the commercially sensitive and/or confidential information referred to in Section 10.18 becomes no longer commercial sensitivity and/or confidential, it shall be made available by Eircom on its publicly available wholesale website without undue delay and without the need for an NDA to be signed.

11 OBLIGATION OF ACCOUNTING SEPARATION

11.1 Pursuant to Regulation 11 of the Access Regulations, Eircom shall have an obligation to maintain separated accounts. All of the obligations in relation to accounting separation, set out in Annex 1 and 2 of ComReg Decision No. D08/10 applying to Eircom and in force immediately prior to the Effective Date of this Decision Instrument and relate to products, services and facilities falling within the scope of this Decision Instrument and the Relevant Markets shall be maintained in their entirety.

12 OBLIGATIONS RELATING TO PRICE CONTROL AND COST ACCOUNTING

12.1 Pursuant to Regulation 13(1) of the Access Regulations, Eircom shall maintain appropriate cost accounting systems in respect of products, services or facilities in the Relevant Markets.

12.2 Pursuant to Regulation 13(1) of the Access Regulations the prices offered or charged by Eircom to any Undertaking for Access to, or use of, the products, services or facilities referred to in Section 7 of this Decision Instrument (except in the case of the WLR element of SB-WLR or as otherwise set out in this Decision Instrument) shall be cost orientated.

12.3 Pursuant to and in accordance with Regulation 13, the prices offered or charged by Eircom to any Undertaking for CPS element of SB-WLR shall be set in accordance with a LRAIC+ costing methodology.

12.4 Without prejudice to the generality of Sections 12.1, 12.2 and 12.3 and pursuant to Regulation 13 of the Access Regulations the prices offered or charged by Eircom to any Undertaking for the CPS element of SB-WLR shall be based on the FVCO Top-Down LRAIC+ Model.

12.5 Without prejudice to the generality of Section 12.1 and pursuant to Regulation 13 Eircom shall ensure that it recovers no more than its actual incurred costs adjusted for efficiencies (plus a reasonable rate of return) for the following:-

(i) Retention Rate associated with the in the provision of FVCO for Number Translation Codes;

(ii) Co-Location;

(iii) Ancillary Services on SB-WLR; and

(iv) Order Handling Charge associated with the in the provision of FVCO.

12.6 Without prejudice to the generality of Section 12.1 and pursuant to Regulation 13 Eircom shall ensure that it recovers no more than the costs associated with the provision Current Generation Interconnection Services where such costs are adjusted for efficiencies and include a reasonable rate of return.

12.7 Pursuant to Regulation 13(1) of the Access Regulations, the price offered or charged by Eircom to any other Undertaking in relation to the WLR element of SB-WLR shall be subject to an Retail Minus price control.

12.8 Without prejudice to the generality of Section 12.7 of this Decision Instrument, the minus X percentage to be applied in respect of the WLR element of SB-WLR and Ancillary Services on SB-WLR shall be at least 14%.

12.9 Pursuant to Regulation 13(1) of the Access Regulations, Eircom shall have an obligation not to cause a margin squeeze.

12.10 Notwithstanding the generality of Section 12.9, Eircom shall ensure that it does not create a Margin Squeeze between FVCO and SV Services that is between:- (i) the price offered or charged for FVCO; and (ii) the price offered or charged for SV Services.

12.11 Without prejudice to the generality of Section 12.9 and 12.10 following a request by ComReg, Eircom shall submit to ComReg in confidence its minimum prices and other relevant pricing information for the FVCO component of a SV Service where there have been changes to existing products that include a SV Service, or new contracts offered or entered into by Eircom that include a SV Service. This is requirement is intended as a means for Eircom to demonstrate compliance with its obligation not to cause a Margin Squeeze in respect of SV Services.

12.12 In accordance with its transparency obligations set out in Section 10 of this Decision Instrument, Eircom shall notify ComReg of all amendment or changes resulting from an amendment or change to an existing FVCO product service or facility or offer of a new FVCO product service or facility.

PART IV – THREE CRITERIA ASSESSMENT IN RELATION TO THE TRANSIT MARKET (SECTION 13)

13 THREE CRITERIA ASSESSMENT

13.1 It is hereby decided that the Transit Market is not susceptible to *ex ante* regulation as this market does not fulfil the three cumulative criteria for *ex ante* regulation, namely:

(i) the presence of high and non-transitory barriers to entry;

(ii) a market structure which does not tend towards effective competition within the relevant time horizon; and

(iii) the insufficiency of competition law alone to adequately address the market failure(s) concerned.

13.2 Pursuant to Regulation 8, 9, 10, 11, 12 and 13 of the Access Regulations and as set out in Section 16.2 of this Decision Instrument all SMP obligations imposed on the Transit Market that were set out in the Decision Instrument annexed to the Decision Instrument set out in Annex B ("Decision Instrument Wholesale Call Transit") of ComReg Decision D04/07 shall be withdrawn with effect from six months from the Effective Date or from six months from the date on which all of Sections 4, 5, 6, 7, 8, 9, 10, 11 and 12 of this Decision Instrument take effect, whichever is the later. The finding of SMP contained in Annex B in relation to the Transit Market is hereby withdrawn.

PART V - OPERATION AND EFFECTIVE DATE (SECTIONS 14 TO 17 OF THE DECISION INSTRUMENT)

14 STATUTORY POWERS NOT AFFECTED

14.1 Nothing in this Decision Instrument shall operate to limit ComReg in the exercise and performance of its statutory powers or duties conferred on it under any primary or secondary legislation (in force prior to or after the Effective Date of this Decision Instrument) from time to time.

15 MAINTENANCE OF OBLIGATIONS

15.1 Unless expressly stated otherwise in this Decision Instrument, all obligations and requirements contained in Decision Notices and Directions made by ComReg applying to Eircom and in force immediately prior to the Effective Date of this Decision Instrument, are continued in force by this Decision Instrument and Eircom shall comply with same.

15.2 For the avoidance of doubt to the extent that there is any conflict between a Decision Instrument dated prior to the Effective Date and Eircom's obligations now set out herein, it is the latter which shall prevail.

15.3 If any Section, clause or provision or portion thereof contained in this Decision Instrument is found to be invalid or prohibited by the Constitution, by any other law or judged by a court to be unlawful, void or unenforceable, that Section, clause or provision or portion thereof shall, to the extent required, be severed from this Decision Instrument and rendered ineffective as far as possible without modifying the remaining Section(s), clause(s) or provision(s) or portion thereof of this Decision Instrument, and shall not in any way affect the validity or enforcement of this Decision Instrument or other Decision Instruments.

16 WITHDRAWAL OF SMP OBLIGATIONS

16.1 Pursuant to Regulations 8, 9, 10, 11, 12 and 13 of the Access Regulations, the following Decision Instruments, and or ComReg Documents and/or Decisions are hereby withdrawn, and are replaced with the obligations in this Decision Instrument when this Decision Instrument takes effect:

(i) ComReg Decision No. D10/02;

(ii) ComReg Decision No. D10/04;

(iii) Save as provided for in Section 13.1 above, Annex A (Decision Instrument in relation to Call Origination) of ComReg Decision No. D04/07;

(iv) ComReg Document No. 08/19;

(v) "Decision Instrument (Wholesale Call Origination)" of ComReg Decision No. D07/11;

(vi) Section […] of the Decision Instrument annexed to ComReg Decision No. […] [*Insert details of the decision, if any, resulting from the consultations undertaken by ComReg in ComReg Document No. 12/117 and ComReg Document No. 13/95*] and, for the avoidance of doubt, Section 5 and Section 6 of the Decision Instrument annexed to ComReg Decision No. D02/07; and

(vii) Obligations pertaining to new access requests under Annex B ("Decision Instrument Wholesale Call Transit") of ComReg Decision D04/07.

16.2 Save as provided for in Section 16.1(vii) all SMP obligations on Eircom, arising out of Annex B ("Decision Instrument Wholesale Call Transit") of ComReg Decision D04/07 in force immediately prior to the Effective Date of this Decision Instrument to which Eircom was subject to by virtue of its having had SMP are withdrawn with effect from six months from the Effective Date or from six months from the date on which all of Sections 4, 5, 6, 7, 8, 9, 10, 11 and 12 of this Decision Instrument take effect, whichever is the later.

17 EFFECTIVE DATE

17.1 The Effective Date of this Decision Instrument shall be the date of its notification to Eircom and it shall remain in force until further notice by ComReg.

KEVIN O'BRIEN
CHAIRPERSON
THE COMMISSION FOR COMMUNICATIONS REGULATION
THE [ ] DAY OF [ ] 2014

Appendix I Consultation Questions

Question 1: Do you agree that the main developments identified in the provision of RFTS are those which are most relevant in informing the assessment of the Relevant Markets? Please explain the reasons for your answer, clearly indicating the relevant paragraph numbers to which your comments refer, along with all relevant factual/empirical evidence supporting your views.

Question 2: Do you agree that the above identifies the main relevant developments in RFTS market since the previous reviews of the FACO and Transit Markets? Please explain the reasons for your answer, clearly indicating the relevant paragraph numbers to which your comments refer, along with all relevant factual evidence supporting your views.

Question 3: Do you agree with ComReg's preliminary conclusions on the product assessment for the FACO Markets? Please explain the reasons for your answer, clearly indicating the relevant paragraph numbers to which your comments refer, along with all relevant factual evidence supporting your views.

Question 4: Do you agree with ComReg's preliminary conclusions on the geographic market assessment for the FACO Markets? Please explain the reasons for your answer, clearly indicating the relevant paragraph numbers to which your comments refer, along with all relevant factual evidence supporting your views.

Question 5: Do you agree with ComReg's assessment of SMP? Do you consider that the competition assessment for the FACO Markets would fulfil the three criteria test? Please explain the reasons for your answer, clearly indicating the relevant paragraph numbers to which your comments refer, along with all relevant factual evidence supporting your views.

Question 6: Do you agree with ComReg's preliminary conclusions on the product assessment for the Relevant Transit Market? Please explain the reasons for your answer, clearly indicating the relevant paragraph numbers to which your comments refer, along with all relevant factual evidence supporting your views.

Question 7: Do you agree with ComReg's preliminary conclusions on the geographic market assessment for the Relevant Transit Market? Please explain the reasons for your answer, clearly indicating the relevant paragraph numbers to which your comments refer, along with all relevant factual evidence supporting your views.

Question 8: Do you agree with ComReg's 3CT with respect to the Relevant Transit Market? Please explain the reasons for your answer, clearly indicating the relevant paragraph numbers to which your comments refer, along with all relevant factual evidence supporting your views. Respondents are encouraged to provide Internal Transit and External Transit traffic and direct interconnection information as part of their responses.

Question 9: Do you agree that the competition problems and the associated impacts on competition consumers identified are those which could potentially arise in the FACO Markets? Please explain the reasons for your answer, clearly indicating the relevant paragraph numbers to which your comments refer, along with all relevant factual evidence supporting your views.

Question 10: Do you agree with ComReg's approach to imposing access, non-discrimination, transparency, price control and cost accounting and accounting separation remedies? Are there other approaches that would address the identified competition problems? Please explain the reasons for your answer, clearly indicating the relevant paragraph numbers to which your comments refer, along with all relevant factual evidence supporting your views.

Question 11: Do you agree with ComReg's draft Decision Instrument set out in Appendix H, in particular, that its wording accurately captures the intentions expressed in this Section 9? Do respondents agree with ComReg's Definitions and Interpretations as set out in Part I of the Draft Decision Instrument? Please explain the reasons for your answer, clearly indicating the relevant paragraph numbers in the Draft Decision Instrument to which your comments refer.

Question 12: Do you agree with ComReg's proposed approach to the withdrawal of remedies in the Transit Market, including the proposed sunset period? Please explain the reasons for your answer, clearly indicating the relevant paragraph numbers to which your comments refer, along with all relevant factual evidence supporting your views

Question 13: Do you agree with ComReg's preliminary conclusions on the Regulatory Impact Assessment? Please explain the reasons for your answer, clearly indicating the relevant paragraph numbers to which your comments refer, along with all relevant factual evidence supporting your position.