Office of the Director of
**Telecommunications
Regulation**

THE IRISH
TELECOMMUNICATIONS MARKET

Quarterly Review

December 1999 – February 2000

Document No. ODTR 00/21   **22rd March 2000**

Table of Contents.

Foreword by the Director

On the 1st December 1999, I published a review of the Irish telecommunications sector[1].   My intention was to provide the industry, consumers and other interested parties with a summary of how the Irish market had developed since the introduction of liberalisation on 1st December 1998.

Such summaries encourage openness and transparency in the market and, I believe, will help stimulate the development of a vibrant telecommunications industry in Ireland. So, with this goal in mind, I am pleased to issue this quarterly review which summarises the most recent developments in the Irish telecommunications market. It is my intention to continue to publish similar reviews on a quarterly basis from now on.

Telecommunications is one of the most dynamic sectors in the Irish economy. It receives major attention from international investors, and new operators continue to enter this growing and evolving market. The marked increase in the use of telecommunications services for individual, industrial and commercial purposes and the strong economic performance that this sector has achieved in recent years attracts keen interest not only within the telecommunications sector itself, but also from consumers, investors and potential new market entrants.

An important feature of embarking on this series of quarterly reviews is that it provides another opportunity for my Office to engage in dialogue with the industry over and above the discussions we have on specific regulatory issues. This allows my Office to learn more about the business issues faced by operators, develop a better understanding of developments in the industry and it will also help to anticipate regulatory needs and issues.

I warmly welcome the opportunity to forge new links with the companies who are shaping this exciting industry, while at the same time helping consumers and other interested parties understand how the telecoms market is developing and evolving.

---

[1] Liberalisation in the Irish telecommunications market-one year on" , available at the ODTR's web site: www.odtr.ie

1 Introduction

This review summarises developments in the Irish telecommunications sector in the period since 1 December 1999. The review includes:

- a general overview of regulatory developments in the Irish telecoms market;
- a market overview discussing recent market developments
- a summary of sector restructuring and changes in company ownership;
- an international comparison of telecommunications tariffs;

- Appendix 1 includes a full list of licensees in Ireland by type of licence;
- Appendix 2 includes a list of all ODTR publications since December1st.

All figures and statements expressed in this review seek to reflect developments in the Irish marketplace since the ODTR's 'Review of Liberalisation' document dated December 1st 1999. While every effort has been made to include figures and estimates that cover the three month period up to March 1st, we have in some instances, however, referred to earlier data. The ODTR would like to take this opportunity to thank the operators and organisations who have contributed information and comments for this review and appreciates their efforts in facilitating the publication of this document.

2 Regulatory Developments

2.1 Licensing

In the three months since 1 December 1999 there have been a number of key developments in the regulatory framework. An additional four General[2] and four Basic[3] licences were awarded during the quarter, bringing the current total figures to 44 and 26 respectively. To date, 24 of the 44 General licensees and 19 of the 26 Basic licensees have commenced operations offering a variety of telephony and network services both to Irish and international users (see Appendix 1 for details).

February saw the announcement of 19 successful applicants for television deflector licences spanning 249 frequency channels over a wide geographic area. This is a positive step towards the provision of competitive television services.

The recent publication of proposals for the future licensing of private and public digital trunked radio (TETRA) services will lead to further choice and diversity for users of business mobile communications. TETRA is a mobile communications service that can deliver a broad range of voice and data services in both public and private networks and can overcome many of the infrastructural and technical issues associated with two-way business radio communications. It is proposed to offer two national public licences.

Third generation mobile service (or UMTS) is going to be a key development in combining mobility of communications with broadband services, and in paving the way for "m-commerce". Building on analysis which began last year, an ODTR project team was set up during the quarter and given a high-priority mandate to facilitate the early licensing and roll-out in Ireland of UMTS.

During the last quarter the ODTR also submitted its response to the European Commission's paper on the development of the regulatory framework for the communications sector. The ODTR emphasised the need for regulatory authorities to maintain focus primarily on the interests of consumers. The ODTR also stressed the need to retain a basic set of regulatory powers, but to build flexibility into the regulatory framework so as to allow withdrawal of regulation as competitive forces become effective in particular markets.

2.2 Enabling Competition

Significant Market Power (SMP) An operator that is designated as having SMP must comply with certain legal obligations adhering to the principles of non-discrimination, transparency and cost orientation which fall into the following broad categories: interconnection, access, quality of service, accounting separation and cost based tariffs.

In December 1999, the Director made the second determination of SMP in the Irish market, with eircom being designated in the fixed public telephony networks and services market, the leased lines market and the national market for interconnection. Both Eircell and Esat

---

[2] General Licence: Permits holder to provide public telecommunications networks, voice telephony services and any other network, service or system that requires the allocation to users of numbers from the national numbering resource.
[3] Basic Licence: Permits holder to establish and/or operate a telecommunications network and / or to provide any services to the public consisting wholly or in part in the transmission and/or routing of signals on a telecommunications network. A Basic licence would typically cover value-added services such as data, Internet and cable-based services.

Digifone were designated as having SMP in the mobile market, with Eircell also being designated as having SMP in the national market for interconnection.

The ODTR seeks to enable competition in the provision of services to consumers, so that they can benefit from the best in terms of price, choice and quality. Where competition is not yet strong enough to deliver this, the ODTR has a number of tools which can force the pace. For example, the price cap on eircom is a case in point. This is designed to ensure that the price to consumers of a basket of services is kept under control. The price cap requires eircom to reduce the overall price of this basket by 8% (increased from 6% before Christmas) before inflation every year for the next three years. Certain specific safeguards have also been included to ensure affordability is maintained, particularly for users in rural and high cost areas and members of vulnerable groups. This protection ensures that the bill of the "lower quartile" user, representing consumers who do not make many calls, may not increase by more than the annual inflation rate.

Fundamental to the development of competition is the price paid by new entrants for interconnection to the incumbent's network. These prices must reflect the costs borne by the incumbent to ensure a level playing field between its own retail operating arm and new entrants, but also to ensure competitive prices for consumers[4]. eircom's Reference Interconnect Offer (RIO) sets out the schedule of services and the prices of these services it provides to other operators. During 1999, the ODTR concentrated on expanding the range of services covered by the RIO. However, a legal challenge was initiated by eircom to the Office's Decision. In February the Director announced that a new consultation is being opened by the ODTR on all matters relating to the original RIO decision. To provide an opportunity to move forward on the RIO issues that are of key importance to all players in the market, the ODTR will issue a new Decision after considering replies to this consultation.

Irish interconnection rates were within EU benchmarks for the period August 1998 to December 1999. More recently, eircom has put forward new interim rates (for the period 1 December 1999 to 31 March 2000) providing for an estimated net reduction of 6% on earlier rates. These rates have been accepted on an interim basis, pending completion of the review of underlying prices.

The ODTR, on 29 February, announced measures in relation to Internet Service Providers (ISPs) and other operators in the market in order to help bring about competitive prices for consumers. The new principles govern the costs that eircom can and cannot recover from other operators for use of its network in the provision of services using non-geographic numbers[5]. The charges, calculated in accordance with these principles, will result in significant savings for operators. These reductions to ISPs and other service providers are expected to feed through to the consumer in the form of reduced retail charges.

Another important issue is the pricing of leased lines which is fundamental to the development of competition. New entrants lease private circuits (largely from eircom) to provide service and to enhance the reach of their network. The ODTR is currently reviewing eircom's costs for leased lines to verify cost-orientation of charges and expects to make an announcement shortly.

---

[4] Interconnection is a necessary input in the provision of retail services for new entrants to the market. The price of this interconnection is part of the cost borne by these new entrants. The level of costs is a major determining factor in the level of retail prices.
[5] Non-geographic numbers are numbers not associated with a particular geographic area, for example, LoCall and Freephone.

2.3 Numbering Developments

Carrier Pre-Selection (CPS): This is a service that enables a subscriber to the fixed network to select a carrier different from the local loop operator for the routing of all or some of its outgoing calls. Ireland has had call-by-call carrier selection (through the use of access codes and routers) since late 1998. January 1, 2000 saw the introduction of CPS whereby three pre-selections are available: 1) International Calls only; 2) National Calls only, 3) "All calls". A customer can select any option individually, or a combination of the first two, with either the same operator or different ones. Additional call types may be added over time. The introduction of CPS in the Irish market will significantly reduce the costs of switching operators incurred by customers, increasing the scope for competition. Several new entrants are already in operation, including OCEAN, Esat Telecom, MCI Worldcom and Interoute, with others expected to follow in the coming months.

Number Portability refers to the ability of end-users to retain their telephone numbers when they change their network operator or service provider, their location or their service. As with CPS, it can reduce the switching costs to individuals and businesses associated with changing provider, thereby eliminating a potential barrier to competition. January 1, 2000 saw the introduction of non-geographic number portability. This refers to freephone or "low priced" numbers such as 1800 or 1850. Number portability is vital for businesses that have invested in branding a service based on one of these codes. If they have to pay to advertise a new number, they have less incentive to switch to more competitively priced operators. Geographic number portability – the ability to retain 'ordinary' telephone numbers – will be phased in from July to November of this year. From the end of November, all operators with number blocks must offer this service.

2.4 Service Quality

In terms of quality of service, the ODTR has two chief concerns: 1) the quality of services provided to final consumers by all operators and, 2) the quality of services provided to other licensed operators (OLOs) by eircom. The second of these impacts on the first when OLOs rely on services from eircom to provide retail services to end-users. Following a report in August 1999 outlining the position of the ODTR on delivery timeframes, quality levels, and maintenance terms, eircom introduced Service Level Agreements (SLAs) to OLOs on 1 November 1999. These new standards mean that eircom will move into the upper quartile of comparable European operators in terms of service provisioning from September 2000.

Satisfaction of minimum quality standards is required before a licence is granted. However, further steps are necessary to ensure consumer protection *ex post* market entry. In January, a service quality measurement programme for licensed telecommunications companies, involving the publication of key quality indicators was set out. The key areas are service provision, fault management, complaints and billing, with additional performance information requirements on eircom (including the services to OLOs mentioned above). As in other countries, there will be a long lead-time in the delivery of Ireland's first report, with the first published data under this programme expected in 2001. In the meantime, the ODTR will require eircom to publish information on its leased line performance for consumers. The availability of this information will benefit users and ensure that eircom continues to improve its performance standards in this critical sector.

Formal dispute resolution procedures were introduced in September 1999 to allow parties to raise and have resolved disputes which could not be resolved by mutual agreement. In addition to these formal procedures the ODTR has, where appropriate, continued to handle issues on an informal basis where this provides the most efficient method of resolution.

During the period under review five formal determinations were issued and summaries of these determinations were posted on the ODTR web-site. In addition, the ODTR also dealt with a further 18 disputes or complaints from operators without issuing formal determinations.

3 Market Overview

Since December, the Irish telecommunications sector has continued to experience significant expansion. Rapid growth in the mobile and Internet markets, coupled with steady development in the fixed sector has attracted new start-ups and established international players into an increasingly competitive market.

That new operators continue to enter the Irish market is a clear indication of the burgeoning demand for new and cost-efficient telecommunication and network services. The marked increase in telecommunication revenues in recent years reflects this demand with the European Information Technology Observatory estimating that the Irish Telecommunication market in 1999 was worth IR£1.66bn[6], an increase of almost 10% on estimates for the previous year[7]. Given the reduction in prices in 1999, the growth in traffic will exceed this 10% figure. Expressed as a proportion of total national output, the telecom sector is now estimated to account for 2.5% of Irish GDP[8], a figure broadly in line with most other Western economies.

The ODTR estimates that the new entrants' share of the fixed line market has increased to between 6% and 7%. This estimate is based on data provided by eircom's competitors for the quarter to 31 December 1999 and the unaudited interim accounts for eircom to 30 September 1999. This represents a significant increase on the 4% figure reported in our December review.

3.1 Fixed services

Spurred on by buoyant demand in the economy generally, the last 3 months have witnessed steady growth in the fixed sector. Despite growing competition from the mobile market, the number of main lines increased from 1.6 million in March '99 to its current figure of over 1.77 million[9], an annual increase of over 10%. This increase has pushed the fixed penetration rate to over 47 lines per 100 inhabitants, narrowing the gap between Ireland and most other developed European countries.
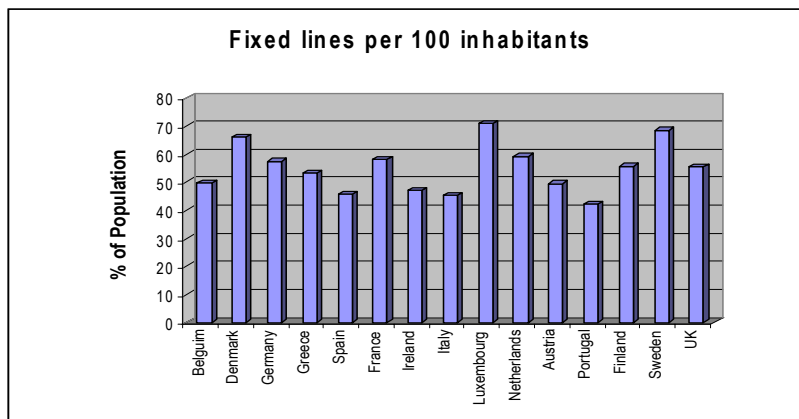
Source: 5th Report on the Implementation of the Telecommunications regulatory Package. Figures for Ireland refer to Feb. 2000. All other figures reflect the situation as of Dec '98.

This steady growth in the overall fixed market has been paralleled by a matching trend of fragmentation of the sector into individual market segments. Within these market segments,

---

[6] Fifth Report on the Implementation of the Telecommunications Regulatory Package - European Commission (August 1999).
[7] Analysys figure for 1998.
[8] ING/Barings February 2000.
[9] ODTR estimate based on ABN AMRO's Eircom Report 1st February.

new operators have invested heavily in new infrastructure and are increasingly challenging eircom's dominant position on a number of fronts. Initially, this competition focused almost exclusively on business and high expenditure customers, but with the recent entry of cable companies and indirect resellers into the residential telephony market, a broader range of consumers are now beginning to enjoy the benefits of a deregulated market. The advent of new wireless local loop (WLL) technologies should further facilitate the development of competition, offering consumers in rural areas in particular the prospect of an increased choice of alternative service providers.

Of all the market segments, the business sector continues to attract the most vigorous competition. Operators such as eircom, Esat, Ocean, Cablelink and Irish Multichannel are enhancing their metropolitan area networks and investing in high-capacity fibre optic links to meet the growing demand for broadband services. To further help the development of high capacity national infrastructure, the Government has announced various public private partnership projects with these companies at a combined cost of IR£78 million. One of the main beneficiaries of this national rollout will be the fast growing SME sector. Competition in this market has intensified significantly, with much evidence of aggressive pricing initiatives. Already this year, eircom has more than halved the price of a new ISDN connection, as well as reducing by over two-thirds the cost of an upgrade from an ordinary phone-line. Other operators have launched similar promotions with a discernible trend towards less distance-sensitive pricing and the increasing use of discount plans for high volume users clearly evident. Ultimately the principal benefactor of this competition is the customer, as operators strive to innovate and satisfy demand, by offering better value, quality and choice.

In the residential sector, competition is also increasing with several operators now offering a variety of services (see table overleaf). Although all of these operators still route their traffic over eircom's local network, they are gaining new subscribers, strengthening their position in this sector of the market. The effect of this competition has been to increase the pressure on eircom to reduce its residential prices in line with those offered to business customers. These reductions have been across the board with local, national and international calls all being reduced over the last 12 months. Some examples of these reductions include[10]:

- A ten minute call to the US during peak hours cost the consumer £2.99 in March 1999. The same call costs £2.30 in March 2000 – a 23% reduction.
- A similar ten minute call from Dublin to Cork cost £1.04 in March 1999. It now costs £1.00 – a 4% reduction.
- A ten minute local call during peak hours cost 46p in March 1999, and now costs the consumer 38p – a 17% reduction.

New entrants, such as Esat, OCEAN, and Irish-Multichannel are also introducing new pricing initiatives, such as per second billing and one rate prices for all local and national calls. With carrier pre-selection underway since the start of the year and the introduction of geographic number portability planned to begin in July, price competition in this sector of the market should continue to increase.

It is expected that competition from the new wireless local loop (WLL) operators will further enhance competition at a local level. In addition, the cable industry offers another important means for providing access infrastructure. Cable companies are making sizeable investments in order to upgrade the existing network. This will enable them to offer a range of services including cable TV, on-demand services, telephony, high speed Internet access and others.

---

[10] Based on eircom prices as per price schedules March 1999 and March 2000.

Fixed Services offered in the residential and business markets.

Public Voice	International		Long Distance		Local	
Operator	*Bus.*	*Resid.*	*Bus.*	*Resid.*	*Bus.*	*Resid.*
eircom	✔	✔	✔	✔	✔	✔
Esat Telecom	✔	✔	✔	✔	✔	✔
OCEAN	✔	✔	✔	✔	✔	✔
MCI Worldcom	✔	✘	✔	✘	✔	✘
Cable & Wireless	✔	✘	✔	✘	✔	✘
GTS Ireland	✔	✘	✔	✘	✔	✘
Stentor	✔	✘	✘	✘	✘	✘
Interoute	✘	✔	✘	✔	✘	✔
Irish Multichannel & subsidiaries	✘	✔	✘	✔	✘	✔
Hibercall	✔	✔	✔	✔	✔	✔
Switchcom	✘	✔	✘	✔	✘	✔
Swiftcall	✘	✔	✘	✔	✘	✔
Valuetel	✘	✔	✘	✔	✘	✘
SM Communications	✔	✔	✔	✔	✘	✘

3.2 Mobile telephony

Undoubtedly, the biggest growth rates in the telecommunications sector have been in the mobile and Internet markets. The pre-Christmas rush in sales of mobile phones has driven the market to an estimated 1.7 million subscribers, pushing Ireland's penetration rate up to 46%[11], comparable with most other developed European markets. The majority of new subscribers are prepaid customers.
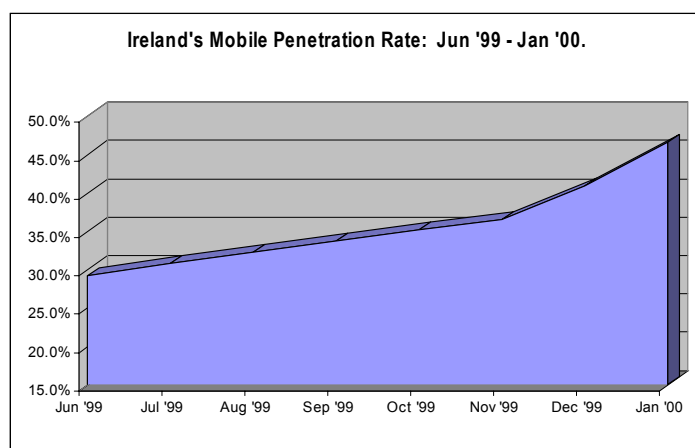
Based on ODTR estimates.

---

[11] ODTR estimate as of January 2000.

Along with the increase in the volume of mobile subscribers, the sophistication of the services offered by the operators has also increased. Following on from the success of their SMS services, both Eircell and Digifone have recently introduced new WAP-based services, which allow users to access certain Internet information on their mobile phones.

3.3 Internet

While mobile take-up levels have tended to keep pace with most European countries, Internet penetration in Ireland has until recently lagged behind. This pattern looks set to change with 28%[12] of the population having used the Internet at some stage and 22%[13] of all adults (aged 15-74) describing themselves as current users. The catalyst for this turnaround has been the falling cost of using the Internet, largely as a result of the launch of 'free ISPs'. This, together with the continuing fall in PC prices and growing consumer awareness of the value of the Internet, are bringing Ireland close to a "critical mass" in Internet usage. Experience elsewhere suggests that once penetration reaches 15-20% of the market it then grows very rapidly, accumulating an additional 10-12% of the population each year for the next few years.
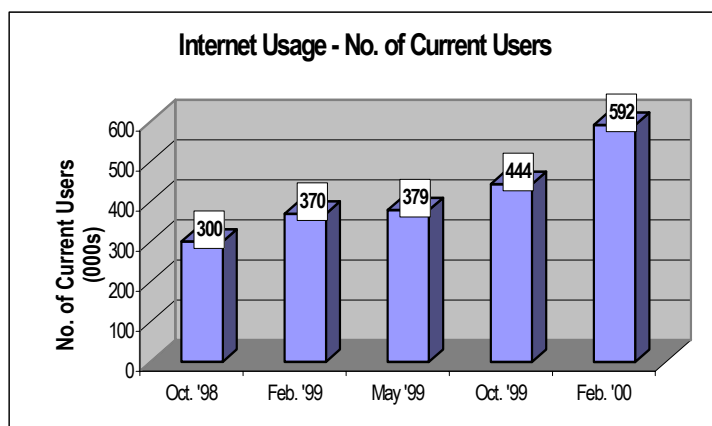
Source: Amarach Consulting March 2000.

However, although Internet usage in Ireland has risen rapidly in the past 12 months, there is still some room for improvement. Ireland's penetration rate still lags behind many of its European partners, with countries such as the UK and Sweden reporting rates of 35% and 60% respectively[14]. A key source of this penetration gap is the lower level of home usage in Ireland. Currently only 50% of Irish users access the Internet from home compared to 72% in the UK, 94% in Canada and 96% in the US[15]. It is only recently that home users of the Internet accounted for a majority of users in Ireland, whereas in other markets, home usage has dominated for some time.

---

[12] Information Society Commission.

[13] Amarach Consulting (March 2000) – based on all adults aged 15-74 years.

[14] Nua Internet Surveys (February 2000).

[15] Figures for Ireland are based on all adult users (15-74) as of February 2000. Figures for all other countries are based on Internet users aged 18-55 with a telephone at home as of November '99.

4 Ownership Trends and Development of Competition.

Since our December review, the ownership structure of Ireland's telecoms market has transformed radically. Newtel, the alliance between Scandinavian incumbents Telia & Telenor, launched an IR£1.25 billion hostile take-over bid for Esat Telecom plc. BT entered the race with an IR£1.9 billion offer, which was accepted by the Esat Board. While European Commission approval of the deal is still awaited, BT's acquisition of Esat would represent a major milestone in the development of Ireland's telecoms sector. Shortly following their move for Esat, BT launched a bid for the 50% of OCEAN Communications they did not already own. The Department of Enterprise, Trade and Employment is currently considering this proposal.

BT's entry into the Irish market also has major implications for the mobile sector. Control of Esat Telecom's 49.5% stake in Esat Digifone, coupled with the 1% holding already acquired from Dermot Desmond's IIU consortium, would give BT a controlling stake in Ireland's second largest mobile operator.

In early February, Torc Europe, a wholly-owned subsidiary of Dublin-based Torc Telecom, acquired World Telecom, a British provider of calling card and value-added services for the corporate and consumer markets, for more than IR£15 million. Torc Telecom, established in 1997, is a leading provider of value-added prepaid telecom services in Ireland and elsewhere in Europe. This acquisition will add significantly to Torc's scale as the enlarged company will employ more than 200 people in five countries and will have combined revenues of more than IR£35m per annum. Currently, Torc employs 40 people and operates mainly in the Irish, French and German markets.

Elsewhere in the industry, Princes Holdings Ltd. have finalised the acquisition of cable company Suir Nore Relays, adding an extra 20,000 subscribers to its existing customer base. Princes Holdings, which trades as Irish Multichannel, now has approximately 250,000 cable and MMDS subscribers in various locations around the country.

In a separate development, Princes Holdings, in conjunction with Independent News & Media, have agreed to invest £4.5m in Internet Interactions in exchange for a 75% stake in the company. This initiative, operating under the brand name 'Unison', involves providing Irish homes with set-top boxes, allowing users to access the Internet from their television. Whilst the offer is available to all users, only customers of Princes Holdings' subsidiaries, will be able to access the Internet over their cable connections. All other customers would have to use a special modem built-into their set-top box, to connect to the Internet via a standard telephone line. Currently only the CMI network is capable of carrying the necessary two-way digital transmissions required to provide this service, and Princes Holdings estimate that a £250m investment is necessary to upgrade Irish Multichannel's network[16].

---

[16] Business & Finance 3rd February 2000.

5 Review of Telecommunication Tariffs.

This section compares movements in incumbents' tariffs for a range of telecommunication services since the ODTR's last review on December 1st 1999. These tariff comparisons, generated from the pricing of a number of baskets of telecom services, effectively rank Ireland's position against a group of key countries in relation to telecom tariffs. The baskets which are constructed using an OECD approved methodology provide a 'snapshot' of Ireland's position vis-à-vis other countries at a particular point in time. The services examined include:

- National PSTN
- International PSTN
- National Leased Lines
- International Leased Lines

It should be noted that competing operators sometimes offer cheaper tariffs and this would also be true in the other countries surveyed. The overall trend in the quarter has been static to negative. It is clear that if rates are not falling all of the time, a country will fall back down the table.

5.1 National Residential Basket[17]

The 'National Residential Basket' examines the average cost of national (incl. local) calls for the residential sector. At the ODTR's last review in Dec '99, Ireland was ranked 15th amongst 19 key countries, three rankings behind the UK and eight rankings behind the OECD average. As set out in Figure 1, Ireland has slipped one ranking and is currently in 16th position, but is now only four rankings behind the OECD average. Both Switzerland and the UK have both made very significant gains with Switzerland leap-frogging Ireland into 11th position, and the UK gaining four rankings to move up into 8th position. A possible explanation for the UK's improved performance may be Teligen's re-weighting of the fixed component in the basket to reflect the free re-connection deal BT now offer to subscribers who return to their network. Norway and Denmark have also improved their positions, whilst both Spain and New Zealand have seen a dramatic fall in their respective positions.
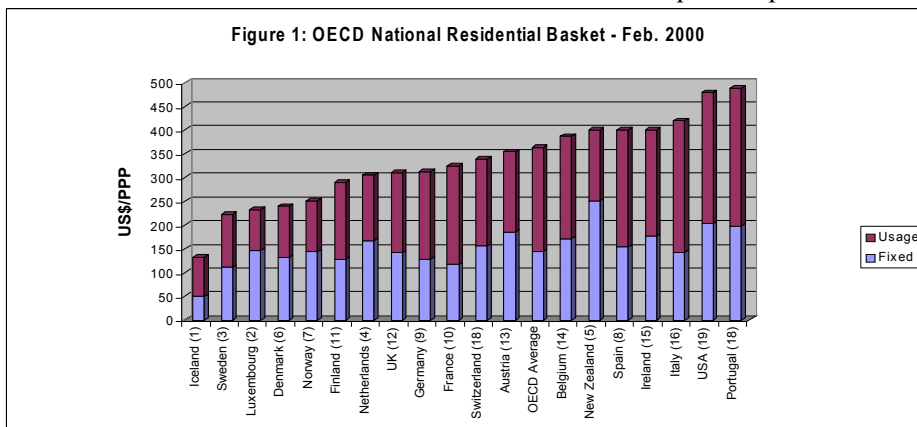
NB: The numbers in brackets represent the countries respective rankings as at November '99.

---

[17] The national PSTN basket is defined with a fixed charge basket based on installation and rental charges, and a usage charge basket based on a certain volume of calls, distributed over 14 different distances from 3 to 490km, at 6 different times of the day, and with 3 different call durations depending on the hour and distance. The basket is constructed using each country's average call charges and excludes VAT. For the purpose of this document we focus largely on European countries, although it is important to note that the 'OECD average' figure represents the average cost for all the 29 OECD countries.

5.2 National Business Basket

The 'National Business Basket' examines the average cost of national (incl. local) calls for the business sector. The business basket is made up of a much larger number of calls compared to the residential basket, with a greater proportion at peak times although they are generally of shorter duration. Previously, in November 1999, Ireland was ranked 10th, five rankings ahead of the UK and two rankings behind the OECD average. As with the residential basket, Ireland has slipped further down the table, in line with the average for all OECD countries. As Figure 2 illustrates, Ireland is currently in 13th position, three rankings down on its November '99 performance, but now one position ahead of the OECD average. Both the UK and Switzerland have again made substantial gains, although this is likely to have been influenced by Teligen's re-weighting of the baskets.

Figure 2: OECD National Business Basket - Feb. 2000
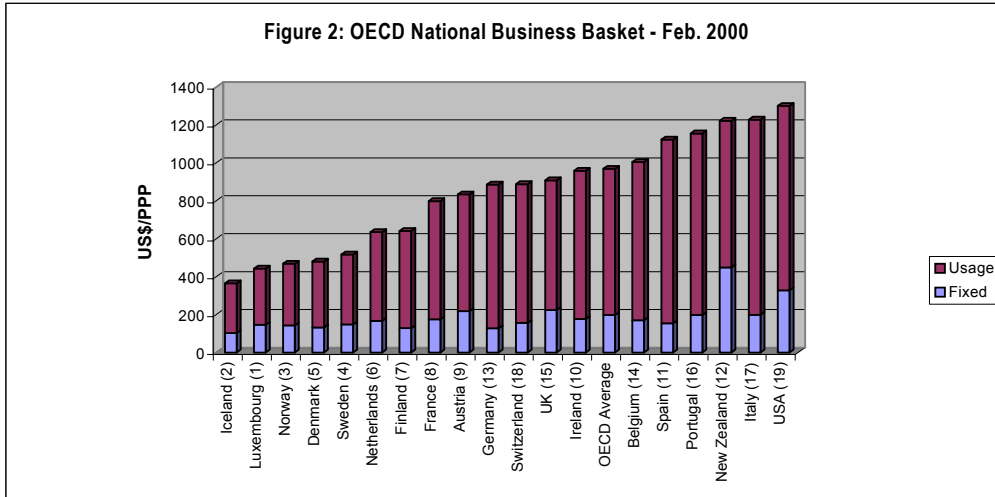
NB: The numbers in brackets represent the countries respective rankings as at November '99.

As was the case with the December 1999 figures, Ireland has maintained a better ranking in the business sector compared to the residential sector. A possible explanation for this could be the fact that new telecom operators have primarily targeted the more lucrative business sector.

5.3 International Residential Basket[18]

The international residential basket sets out the average cost of international calls for residential users. In Nov '99, Ireland was in 8th position, five rankings ahead of the UK and nine rankings ahead of the OECD average. As set out in Figure 3 overleaf, Ireland has maintained this ranking, despite being overtaken by Denmark. This is due to the deterioration in the US's position which has seen it fall from 6th to 10th place. Most other countries have remained static with the exception of Iceland, which has gained two rankings and is now in 9th position.

---

[18] Both the International Business and International Residential baskets use the international PSTN zoned basket methodology to compare call charges from one country to all other countries. The Zoned basket approach presents average call costs of 3 minute peak calls and 5 minute off-peak calls from one country to all other countries in the basket. The call costs are averaged within the three zones (Europe, North American and the Far East), and each zone has been given a weight of 50% (home), 30% (close), and 20% (distant zone).
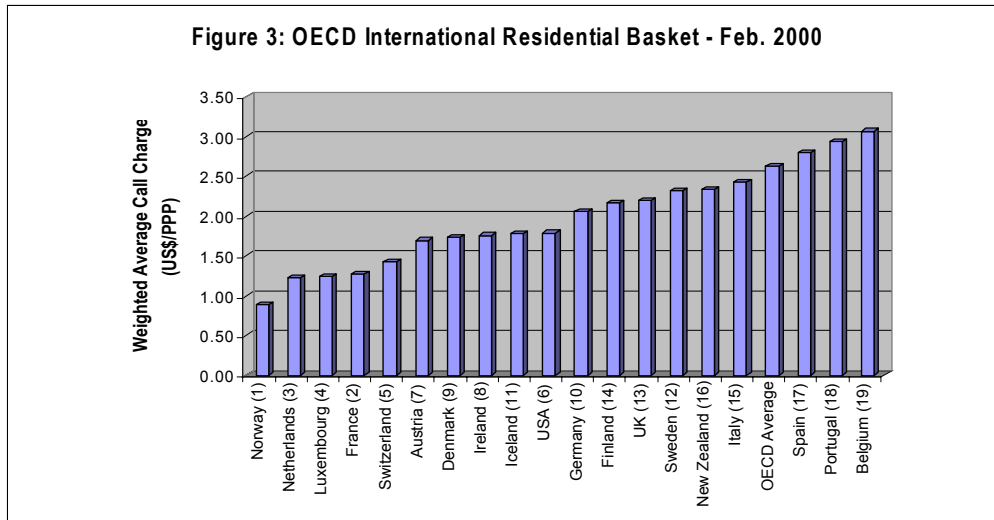
Figure 3: OECD International Residential Basket - Feb. 2000

5.4 International Business Basket

Figure 4 below sets out the average cost of international calls for business users. As is the case in constructing the national baskets, the international baskets have different weightings for the business and residential sectors. The business basket apportions 75% of the cost of calls to peak rates, while the residential basket apportions only a 25% figure. As can be seen from the graph, Ireland has slipped from 8th to 10th. Again both Iceland and Denmark have improved their positions, rising to 8th and 9th positions respectively.
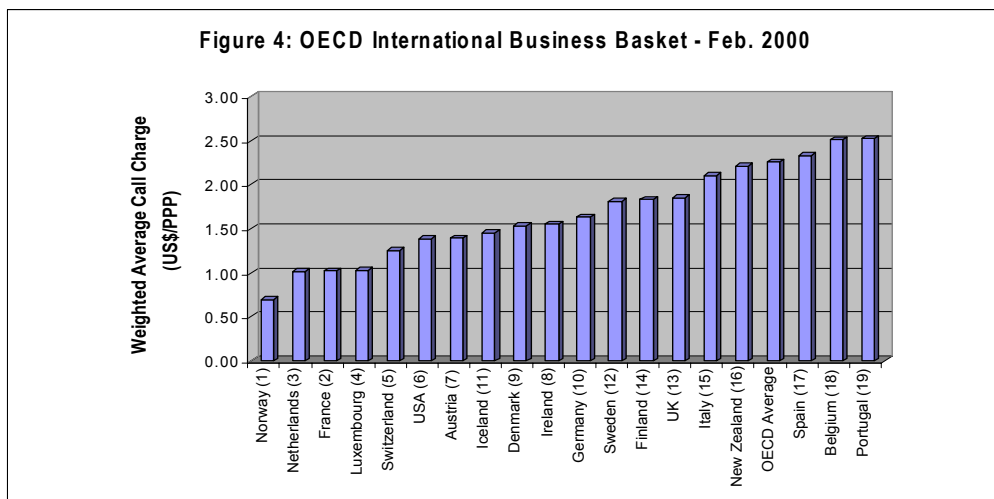
Figure 4: OECD International Business Basket - Feb. 2000

5.5 National Leased Lines[19]

Using the OECD methodology, figure 5 below illustrates the cost of various national leased lines as at February 2000. Ireland has slipped one position in its ranking since November '99,

---

[19] The national leased line basket is based on 100 circuits distributed over 5 distances from 2 to 200km. The total basket for all qualities is shown above. The leased line basket only takes the annual rental charges into account, because of the difficulties in defining a comprehensive, compatible list of installation charges.

falling back to 11th place, five rankings behind the UK. This drop can be attributed to the dramatic improvement of Iceland's position, following the restructuring of their tariffs in line with their Scandinavian neighbours.   All other countries and the OECD average have remained relatively static.
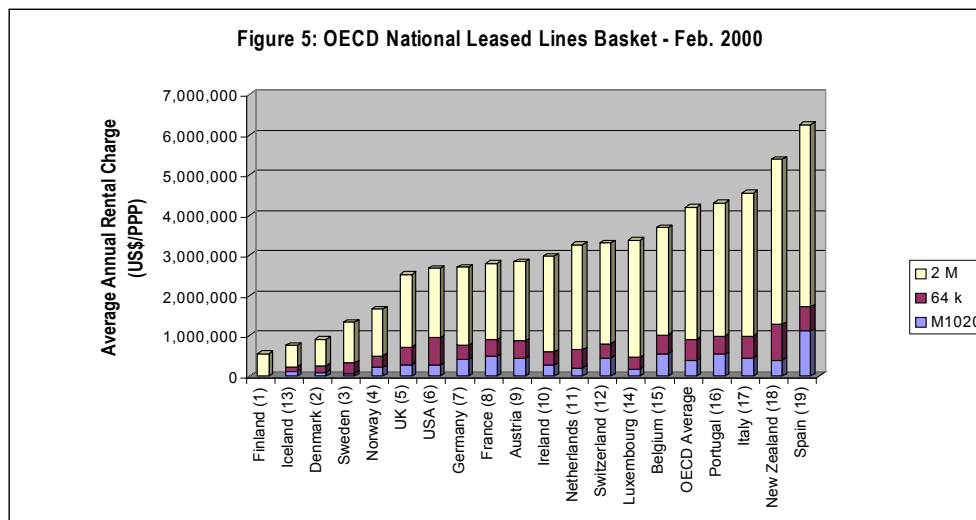
Figure 5: OECD National Leased Lines Basket - Feb. 2000

5.6 International Leased Lines[20]

Using a method developed by Teligen, figure 6 below sets out the cost of various international leased lines as at February 2000.   In Nov '99, Ireland was ranked 6th amongst the 19 countries, eight rankings ahead of the UK and eleven rankings ahead of the OECD average. Since then Ireland has slipped slightly, moving down to 8th position, with Luxembourg and Finland just nudging ahead into 6th and 7th positions respectively.   Ireland's rank in this category is expected to improve later in the year, with the rollout of the Global Crossing high-speed link.
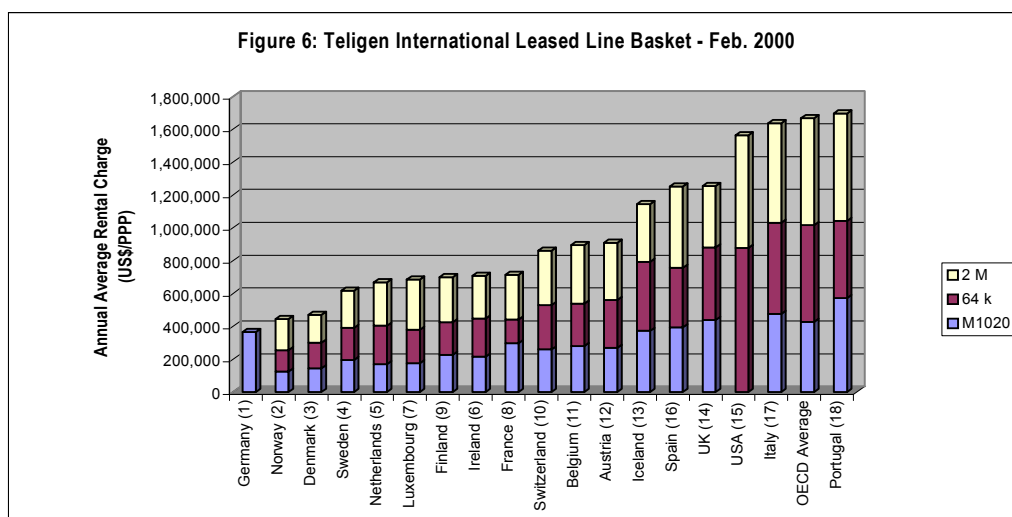
Figure 6: Teligen International Leased Line Basket - Feb. 2000

---

[20] Teligen has developed an international leased line basket, which is based on half-circuit prices from each country to all other OECD countries. The prices are weighted according to traffic volumes on each route, to produce an average price for each country. The basket consists of twenty M1020 lines, twenty 64kbit/s lines, and two 2 Mbit/s circuits.

Appendix I

GENERAL LICENSEES	Operational	Voice Telephony	Infrastructural Network	Reseller	Other VAS
ACCess Telecom Ltd	✔	✔	✘	✔	Resale of mobile telephony services
AT&T Unisource	✘	✘	✘	✘	✘
Aurora Telecom Ltd	✘	✘	✘	✘	✘
Budget Telecommunications Ltd	✔	✔	✔	✔	Non geographical numbers Freefone numbers
Cable & Wireless Services Ltd	✔	✔	✔	✘	Global Frame Relay, ATM Nat. Private & Int'l leased Circuits
Cablelink	✔	✘	✔	✘	Cable TV services
Cable Management Ireland Ltd *	✔	✘	✔	✘	Cable TV & telephony services
Carrier 1 AG	✘	✘	✘	✘	✘
Cignal Global Telecommunications Ireland Ltd	✘	✘	✘	✘	✘
eircom *	✔	✔	✔	✘	Global voice, data and internet services provider.
Eircell	✔	✔	✔	✘	Mobile Operator
Esat Telecommunications Ltd *	✔	✔	✔	✘	Global voice, data and internet services provider.
Esat Digifone	✔	✔	✔	✘	Mobile Operator
Esat Net	✔	✘	✔	✘	Internet Service Provider
NASC Teoranta (T/a IOL)	✔	✘	✔	✘	Internet Service Provider
Formus	✘	✘	✘	✘	✘
IDT Europe BV Lts Liability Coolder	✘	✘	✘	✘	✘
Interoute Ireland Ltd *	✔	✔	✔	✔	Re-selling long distance domestic & international services; callcards.
ITG Group (IRL) Ltd.	✔	✘	✔	✘	Payphones, Equipment installation
GTS Ireland Ltd.	✔	✔	✔	✔	Carrier and access services; Internet services; callcards.
IXC Communications Services Europe Ltd.	✘	✘	✘	✘	✘
LCN-Ireland, L.L.C.	✘	✘	✘	✘	✘
LDMI Telecommunications of Ireland (previously known as Vianvi Ltd)	✘	✘	✘	✘	✘
Mastercall International Ltd	✘	✘	✘	✘	✘

GENERAL LICENSEES	Operational	Voice Telephony	Infrastructural Network	Reseller	Other VAS
MCI WorldCom	✔	✔	✔	✗	Int'l frame relay, int'l freefone service into Ireland, Nat. & Int'l VPNs.
NTL (UK) Group, Inc.	✔	✗	✔	✗	Currently Cable TV services only
Ocean Communications Ltd *	✔	✔	✔	✗	Complete voice, data and internet service provider.
Post GEM	✔	✗	✔	✗	Internet Service Provider
PrimeTEC UK Ltd	✗	✗	✗	✗	✗
Primus Telecommunications Ltd	✗	✗	✗	✗	✗
Princes Holdings Ltd *	✔	✔	✔	✗	Cable TV & telephony services
RSL Communications (Ireland) Ltd	✗	✗	✗	✗	✗
S.M. Communications T/A Worldlink *	✔	✔	✗	✔	Prepaid Services
Startec Global Communications UK Ltd.	✗	✗	✗	✗	✗
Stentor Communications Ltd	✔	✔	✔	✔	Call centre and VPN solutions Callcards
Suir Nore Relays Ltd *	✔	✗	✔	✗	Cable TV and telephony services
Swiftcall Centre *	✔	✔	✗	✔	Callcards, Prepaid residential service.
Tele2 Telecommunications Services Ltd.	✗	✗	✗	✗	✗
Teleglobe Ireland Ltd	✗	✗	✗	✗	✗
Transaction Network Services Limited	✔	✗	✗	✗	Dial-up access for point of sales.
VarTec Telecom (UK) Ltd.	✗	✗	✗	✗	✗
Viatel (I) Ltd.	✗	✗	✗	✗	✗
WTI Ireland Ltd.	✗	✗	✗	✗	✗
Yac.com Ltd.	✗	✗	✗	✗	✗

* Indicates operators who currently offer residential services.

BASIC LICENSEES	Operational	Voice Telephony	Infrastructural Network	Reseller	Other VAS
Alord Holdings Ltd (T/a Switchcom) *	✔	✔	✘	✔	Callcards, Prepaid residential service.
AT&T Global Network Services Ireland Ltd.	✔	✘	✔	✘	Dial up and leased line services
Cargo Community Systems Ltd.	✔	✘	✔	✘	e-commerce solutions
Casey CableVision Ltd.	✔	✘	✔	✘	Cable TV Limited internet services
Conduit Enterprises Ltd	✔	✘	✔	✘	Nat. & Int'l directory enquiry services
EGN B.V.	✔	✘	✔	✘	Managed data systems & frame relay services for multinationals
Global Crossing Ireland Ltd.	✔	✘	✔	✘	Carriers' carrier
Global One Communications Ltd.	✔	✘	✔	✘	ATM Switching
GTE Internetworking International Corporation	✘	✘	✘	✘	✘
Hibercall Ltd. *	✔	✔	✘	✔	Prepaid & Postpaid Services, Callcards
Indigo	✔	✘	✔	✘	Internet Service Provider
Iridum Communications Germany GmbH.	✘	✘	✘	✘	✘
IXNET UK Ltd.	✔	✘	✔	✘	Limited service to banks.
Lake Communications System	✔	✘	✔	✘	ISDN, business solutions
MediaNet Ireland Ltd	✔	✘	✔	✘	Internet business solutions
Next Telecom	✘	✘	✘	✘	✘
Reuters Ltd T/A Reuters Connect Services.	✔	✘	✔	✘	Private wire services.
Sonic Telecom	✘	✘	✘	✘	✘
Société Internationale de Télécommunications Aéronautiques	✔	✘	✔	✘	Managed data network access services for the airline industry.
TCS (Ireland) Ltd.	✘	✘	✘	✘	✘
Tele Media International Ltd.	✘	✘	✘	✘	✘
Timas Ltd (T/A Galileo Ireland)	✔	✘	✔	✘	Frame relay service for travel agents
Torc Telecom	✔	✔	✘	✔	Re-selling long distance domestic & international services; callcards.
Unisource Carrier Services AG.	✘	✘	✘	✘	✘
Valuetel Ltd. *	✔	✔	✘	✔	Re-selling long distance domestic & international services; callcards.
Web-Sat Ltd.	✔	✘	✔	✘	Internet access via satellite; SMG news services.

* Indicates operators who currently offer residential services.

Appendix II

List of Documents published by the ODTR since the 1st December 1999.

Document No.	Title
00/20	Expansion of Mobile Numbering Capacity - Consultation Paper
00/19	Speech by Etain Doyle, Director of Telecommunications Regulation, to the Global Information Infrastructure Commission and the International Communications Studies program at CSIS, 3 March 2000, "Unleashing the Celtic Tiger - Irish Telecoms 2000+"
00/18	Review of Major Activities of the ODTR July 1999 - February 2000
00/17	Interconnect for calls destined for Internet services and Number Translation Codes - Decision Notice D4/00
00/16	Eircom's Reference Interconnect Offer - Consultation Paper
00/15	Interconnection Rates in the Irish Telecommunications Sector - Decision Notice D3/00
00/14	Interconnection Rates in the Irish Telecommunications Sector - Decision Notice D2/00
00/13	Interconnection Rates in the Irish Telecommunications Sector - Status Report
00/12	Submission by ODTR to the European Commission on the 1999 Communications Review. Includes submission by the Independent Regulators Group
00/11	Extending Choice - Opening the market for Terrestrial Trunked Radio (TETRA)
00/10	National Numbering Conventions
00/09	Irish National Numbering Conventions - Decision Notice D1/00
00/08	Presentation by Etain Doyle, Director of Telecommunications Regulation to the Select Committee on Heritage and the Irish Language - "The Broadcast Bill 1999"
00/07	Business Radio Licence Application Form & Explanatory Notes
00/06	Compliance with emission limits for non-ionising radiation
00/05	Dispute Resolution: Determination Number 01/00
00/04	Measuring Licensed Operator Performance - Report on Consultation
00/03	Mobile Telecommunications Licence - Esat Digifone Limited
00/02	Speech by Etain Doyle, Director of Telecommunications Regulation to the Institute of Management Consultants in Ireland and the MBA Association - "A Vision of the Irish Telecoms Sector 2000+"
00/01	Mobile Telecommunications Licence - Eircell Limited
99/80	Introducing Carrier Pre-Selection in Ireland: Information Notice
99/79	Dispute Resolution: Determination Number 04/99
99/78	Information Notice: Telecommunications Tariff Regulation (Modification) Order, 1999. Price Cap on certain services provided by eircom
99/77	Directory Access Codes: Completing the change from 119X to 118XX - Decision Notice D16/99
99/76	Broadcasting Bill 1999 A Submission to the Select Committee on Heritage and the Irish Language by the Office of the Director of Telecommunications Regulation
99/75	Significant Market Power in the Irish Telecommunications Sector - Decision Notice D15/99 & Report on the Consultation Paper ODTR 99/59
99/74	Dispute Resolution: Determination Number 03/99
99/73	Information to Licensees and other users of ODTR Services
99/72	Changeover Process for Directory Information Access Codes