



EUROPEAN COMMISSION  
DIRECTORATE-GENERAL - COMPETITION

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## WORKING DOCUMENT

on the initial results of the

## LEASED LINES SECTOR INQUIRY

In October 1999 the Commission sent requests for information to more than 120 EU operators to collect data to assess the situation of the leased lines markets in the European Union. The ultimate question was whether the full liberalisation of the telecommunications market had led to competition in these markets or whether - as claimed by some organisations - certain leased lines markets remained non-competitive.

This Working Document summarises the findings of the analysis of the data collected regarding the market situation for national and international leased lines for the 15 Member States of the EU. It also builds on data from other sources (OECD and independent consultants). It avoids quoting data that was earmarked as business secret.

This document has been prepared to serve as the basis for an exchange of views at a public hearing to be held in Brussels on 22 September 2000. In that way all the interested parties will be given an opportunity to express their views on the preliminary findings of the inquiry. Based on the document and the reactions received following the hearing, the Commission will continue with its assessment on the necessity and scope for further action.

Written comments are also welcome on this working document. They should be emailed to Daniela.Bremer@cec.eu.int, or sent to Ms Daniela Bremer, Office J70 02/271, DG Competition, European Commission, Rue de la Loi 200, B-1049 Brussels, Belgium, by 06 October 2000 at the latest.

***This Working Document from the Competition DG does not represent a formal position or legal analysis of the Commission or the Commission's services. No inference should be drawn from this document as to the precise form or content of future measures to be presented by the Commission.***

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## EXECUTIVE SUMMARY

On 27 July 1999 the Commission decided to open an inquiry relating, among other things, to the provision and pricing of leased lines in the fifteen Member States. This inquiry is in line with the general consensus that has emerged from international organisations, national regulatory and competition authorities, and user organisations in Europe, that prices for leased lines are in certain cases unreasonably high and should be reduced. However, supply must expand to meet surging demand from an ever-increasing variety of customers. Mandating price reductions in potentially competitive areas could dissuade investment. The new framework directives proposed by the Commission on 12 July 2000 will reduce regulatory intervention as regards leased lines pricing, taking into account the growing competition in the area.

The main findings of the inquiry, although provisional, can be summarised as follows:

- Competition is growing in certain markets. There appears to be a powerful competitive pressure at the retail level, demonstrated by substantial discounts offered by incumbent operators. However, the fairness of certain discount schemes is questionable and leaves scope for enforcement of competition rules, where the aim is to pre-empt competition.
- Demand is dramatically increasing, with the biggest driver being the Internet. The two major categories of users are telecom companies (alternative carriers, new fixed entrants and mobile networks), ISPs and big business users. All those categories of users are sophisticated users.
- Supply is growing and will further increase once wireless local loop is commercially provided and alternative infrastructure (carrier's carriers) is further deployed.
- There is a correlation between the number of suppliers in a given market, and the level of prices.
- Domestic leased lines revenue accounts for from below 1% to above 17% of the total revenue for selected EU incumbent operators. For international leased lines, the proportion of revenue in the total turnover ranges between 3% and 27%. In the Member States where the liberalisation has been early and decisive, large volumes of sales and higher revenue from leased lines could be due to the maturity of those markets and the expansion of the ISPs, a major demand-driver.
- The market definitions that have been used so far must be narrowed. Domestic leased lines markets could be thought of as consisting of separate economic markets for short distance leased lines and long distance leased lines additionally segmented according to the bandwidth. The geographic markets for national leased lines can probably be defined as consisting of big metropolitan/rest of the country segments, while the question of whether the international leased lines markets are global, EU-wide or narrower, requires a more detailed examination of relevant conditions of competition.
- Using a benchmark for international leased lines confirms that prices among different Member States diverge widely, and this divergence cannot be explained by variation in distance only. Regarding the pricing of leased lines, it appears that distance is relatively unimportant in comparison to density.

- The comparison of prices of national leased lines confirmed very divergent ways of pricing leased lines by the incumbents in different Member States. Possibly excessive prices have been identified in the bandwidths of 2Mbps, 34 Mbps and 155 Mbps.
- Non-price related problems in the competitive provision of leased lines have been also highlighted in the replies. The two most important seem to be potentially abusive strategic discounting and discriminative delays in the provision of leased lines.

The above findings of the Commission are based on the replies to the Questionnaire sent to the EU incumbents, as well as to a sample of users and new entrants, which is possibly not representative. In addition, the data received cover the time period until the end of 1999 only. It is possible that the market trends described continue in the year of 2000, but it is also possible that other trends have emerged in the meantime.

Therefore, the Commission envisages a public discussion to collect opinions of all the interested parties about the relevance and accuracy of the sector inquiry findings in order to allow the Commission to decide on the possible further steps to be taken regarding this inquiry. To this end, part 3 “Points for Discussion” of this working document provides summaries of the major issues of concern, together with questions to be answered by the interested parties.

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# 1. WHY DID THE COMMISSION INVESTIGATE THE COMPETITIVE SITUATION IN THE PROVISION OF LEASED LINES – A REVIEW OF THE COMPETITIVENESS OF THE EU LEASED LINES MARKETS TWO YEARS AFTER THE LIBERALISATION

## 1.1 Introduction

In today's information society, the competitiveness of the EU economy heavily relies on the availability of advanced communications infrastructure. In Lisbon, the Council of Ministers noted that "the objective of the eEurope initiative is ambitious. It aims to bring everyone in Europe – every citizen, every school, every company – online as quickly as possible...To achieve this, Europe needs to address its weaknesses and exploit its strengths."<sup>1</sup>

Among the weaknesses identified in Lisbon was "generally expensive, insecure and slow access to the Internet and e-commerce."<sup>2</sup> Leased lines form the critical building blocks for such access, as Internet connectivity and associated products and services in media, communications, and entertainment industries cannot in practice be provided only via operator-owned infrastructure. The availability of leased lines thus may be considered to currently represent to a large extent the foundation of the new economy and its future potential for growth in the European Union. With the expansion of the Internet, leased lines are used by Internet service providers (ISPs) to build backbone networks and by large customers to access ISP facilities, thus becoming crucial for the availability and affordability of the « network of networks ».

## 1.2. The launch of the Commission inquiry into leased lines

The 1998 full liberalisation of the EU telecommunications infrastructure and services brought about the expectation of an imminent fully competitive European telecommunications sector, characterised by numerous telecommunications suppliers of both infrastructure and services, greater choice for users, lower prices and better quality of services across the EU.

One year later, in 1999, there was a series of informal complaints to the Commission, relating to cases of limited or unfavourable conditions of access to networks and services. The sector has allegedly revealed lack of competition in some particular market segments, including, amongst others, the leased lines market.

On 27 July 1999 the Commission decided to open an inquiry relating, among other things, to the provision and pricing of leased lines in the fifteen Member States.

For the purpose of the leased line investigation, at the end of October 1999 the Commission sent extensive questionnaires to:

- the 15 incumbent operators in the Member States;
- 41 operators, new entrants all across the EU markets;
- 36 big business users of leased lines in different economic sectors;
- the 15 competition & regulatory authorities in the Member States.

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<sup>1</sup> "eEurope: An Information Society for All," Communication on a Commission Initiative for the Special European Council of Lisbon, 23 and 24 March 2000.

<sup>2</sup> *Ibid.*

The following sector inquiry findings, as set out in Part 2 of this document, represent an initial analysis of the so-collected information, subject to strict confidentiality limitations in disclosing commercially sensitive information<sup>3</sup>.

### 1.3. The relevant markets for assessing leased lines offerings

The 1992 ONP Leased Lines Directive<sup>4</sup> harmonises national legislation regarding the provision of certain types of leased lines up to 2 Mbps. The availability and pricing of leased lines have repeatedly been in the focus of the Commission's attention, due to the vital role of transmission capacity to connect clients with the new networks rolled out by market entrants. High short distance leased lines prices have been the major reason for the introduction of the Commission Recommendation of 24 November 1999 on Leased Lines Interconnection Pricing in a liberalised telecommunications market<sup>5</sup>.

Those sector-specific instruments indicate the existence of separate leased lines markets (e.g. short distance local leased lines, international leased lines, with a further distinction between low- and broadband capacity), for the purposes of telecommunications regulation. From the point of view of competition law enforcement, those market « definitions » need to be re-examined in conformity with the general competition law principles and legislation<sup>6</sup>.

Under competition law rules, the Commission has examined, among other things, the leased lines markets in a number of decisions. Leased lines offerings have been considered as part of a **market for carrier services**<sup>7</sup>. In the Phoenix/Global One decision, the Commission stated that the leased lines market: *"comprises the lease of transmission capacity and the provision of related services to third party telecommunications traffic carriers and service providers. (...) the traditional model of separate arrangements with other individual carriers is increasingly challenged by players with global network infrastructure that offer an array of services. The most relevant of such services are*

- a. ***switched transit**, meaning transport of traffic over bilateral facilities between the originating carrier, the transit carrier and the terminating carrier;*
- b. ***dedicated transit**, meaning leased line offerings for the transport of traffic through the domestic network of the transit carrier*
- c. ***traffic hubbing offerings**, where the provider takes care of all or part of international connections and*

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<sup>3</sup> Please note that this Working Document is based exclusively on information that does not contain business secrets or information that has been classified as sensitive by the participants in the inquiry. Furthermore, all information that relates to practices from a number of operators that are likely to constitute abusive behaviour under EC Competition rules and might lead to formal investigation proceedings against those operators has been voluntarily excluded.

<sup>4</sup> Council Directive 92/44/EEC of 5 June 1992, on the Application of Open Network Provision to Leased Lines, OJ L165, 19.6.92, as amended by Directive 97/51/EC of the European Parliament and of the Council of the 6 October 1997 amending Council Directives 90/387/EEC and 92/44/EEC for the purpose of adaptation to a competitive environment in telecommunications, OJ L 295, 29/10/97

<sup>5</sup> C (1999) 3863, Brussels 24 November 1999.

<sup>6</sup> Commission's Notice on the definition of the relevant market for the purposes of Community competition law, OJ C372, 09/12/97

<sup>7</sup> Commission Decision 96/547/EC, Case IV/35.617, *Phoenix/Global One*, Commission Decision 97/780/EC, Case IV/35.830, *Unisource*, Commission Decision 1999/573/EC, Case IV/36.592, *Cegetel*.

- d. *reseller services for service providers without international telecommunications facilities of their own.*"

In more recent merger decisions<sup>8</sup>, the Commission re-instated the existence of a separate relevant market for carrier services, thus elaborating on the cited *Phoenix/Global One* and *Unisource* decisions. However, the question of whether the provision of carrier services should be looked at in terms of country pairs or on a more global basis was left open<sup>9</sup>. The relevant geographic market for international carrier services was defined as at least European wide and possibly global<sup>10</sup>.

In the *Telia/Telenor* decision, in paragraph 79, a distinction has been drawn between « wholesale » offerings, namely those which are offered on an operator-to-operator basis only, and « retail » offerings, which are offered to end users (normally businesses) and usually consist of private lines. Leased lines are mentioned in the decision amongst different types of incumbent activities, in terms of supply of capacity and capacity-related products. They are not explicitly referred to in the product market definitions.

#### **1.4. Demand characteristics: different classes of users**

Demand for leased lines comes from alternative carriers wishing to provide domestic, international or combined telecommunications services to customers using leased capacity from incumbent operators, and business users (for international leased lines, generally multinational corporations (MNCs), for national or domestic leased lines, a variety of business users such as banks, financial services providers, stores, information services providers, etc. who wish to construct or purchase various enhanced and value-added telecommunications services).

In the first case, the main customers are mobile telephony operators, who require leased lines to connect their network equipment and to terminate calls on the incumbent's fixed network in a given Member State. Since liberalisation, there is also an increasing demand from new fixed telecommunications operators wishing to purchase wholesale transmission capacity (generally providing advanced data services to businesses around large urban areas or to Internet Service Providers).

In the second case, demand exists from MNCs both for a package of end-to-end, sophisticated telecommunications services (including telephony, data services, IP connectivity, videoconferencing, full customer service and technical assistance, etc.) and for individual services purchased separately.<sup>11</sup>

As international telecommunications markets are deregulated, demand for carrier services is increasingly driven by alternative carriers concerned by having to assign to the incumbent TO their international traffic, for reasons such as technical dependency and commercial sensitivity of customer information.

Purchasers of carrier services include established and emerging carriers. Both groups of clients are sophisticated purchasers. Among the emerging carriers, one may distinguish facilities-based carriers that provide telecommunications services over alternative infrastructure or cable television networks seeking greater efficiency in the transport of

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<sup>8</sup> Commission Decision 1999/765/EC in Case No IV/JV.15 – *BT/AT&T*, Commission Decision of 13 October 1999 in Case No IV/M.1439 *Telia/Telenor*

<sup>9</sup> Commission Decision 1999/765/EC in Case No IV/JV.15 – *BT/AT&T*, paragraphs 74 to 78.

<sup>10</sup> *Ibid*, para 90.

<sup>11</sup> Commission Decision in case IV/JV.15 *BT/AT&T* of 30.03.1999.

international client traffic, while non facilities-based carriers and service providers seek to preserve a competitive advantage by avoiding dependence on a local TO for international client traffic.

Indicators of the increasing worldwide demand for leased lines include a 176% annual rate of increase in private line capacity between the US and the EU between 1995 and 1997<sup>12</sup>. Furthermore, according to the OECD, “in 1995 leased lines accounted for only 17% of active capacity between the US and other OECD countries. In 1996 this grew to 43.1% and in 1997 increased to 51.8%.”<sup>13</sup>. Liberalisation in telecommunications services has allowed for new market entries and developments, such as the refiling of telecom traffic using leased lines. However, the same study concludes that amongst various factors contributing to this unprecedented growth in demand for capacity, the single most important factor is the Internet.

### **1.5. Supply characteristics: existing and new suppliers**

Historical data, provided by OECD<sup>14</sup>, shows a change in the supply-pattern in the OECD countries for the period between 1992 and 1998. According to the report, “PTOs have been encouraging customers to shift from low-speed circuits to higher speed circuits by providing relatively small tariff reductions or even by increasing the price for M1020 service (voice level service)”<sup>15</sup>.

The **supply** of leased lines, both domestic and international, has increasingly diversified into a variety of carriers and service providers, as well as third-party market participants. There is a growing number of “carrier’s carriers”, including not only incumbent telecommunications network operators with strong market positions, but also new carriers constructing alternative infrastructure. Leased line capacity is also offered on a retail basis by many telecommunications service resellers who do not operate their own facilities.

A strong correlation between the number of providers and the overall level of prices, with price levels lower in countries with many providers has been established by a recent study<sup>16</sup> on barriers to market entry and sustainable market development in the EU telecommunications markets following the full liberalisation. However, the same study also demonstrates that the greater number of suppliers may not in every case lead to a bigger nominal reduction of prices if compared to potential and actual price reduction in markets with fewer players.

Most recently, companies have emerged who offer transmission capacity for purchase or lease on a spot market or commodity basis, known as “bandwidth exchanges”. Some of the most significant price decreases for leased lines, both retail and wholesale, have come from such “bandwidth exchanges”, and there is likely to be increased supply of leased lines by such exchanges not only from exchange providers themselves, but also alternative capacity providers (such as electric utilities) in the future. Leased line capacity may be offered not only for lease, but for purchase, e.g. customers may buy Indefeasible Rights of Use (IRUs) to a given capacity for a period of time, which was

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<sup>12</sup> “Building Infrastructure Capacity for Electronic Commerce: Leased Lines Developments and Pricing”, OECD, DSTI/ICCP/TISP (99) 4/FINAL, 04 August 1999, p. 12.

<sup>13</sup> *Ibid.*, p.12

<sup>14</sup> “OECD Communications Outlook 1999”, p. 186

<sup>15</sup> *Ibid.*

<sup>16</sup> “Study on Market Entry Issues in EU Telecommunications Markets after 1 January 1998, a Report for the European Commission, Teligen Ltd., 1 August 2000, page 22.



formerly only available to public telecommunications operators. Finally, wholesale leased line offerings vary greatly among different Member States and different routes, depending on network architecture and the availability of alternative infrastructure.

## 2. FINDINGS OF THE SECTOR INQUIRY ON LEASED LINES

### 2.1. Market structure characteristics

Domestic leased lines provide revenue in the range from below 1% to above 17% of the total revenue for selected EU incumbent operators<sup>17</sup>. Over the years 1997-1999, it would appear that the share of domestic leased lines constitutes a stable proportion - i.e. grows at about the same rate - of the global turnover. This parallel growth is due mainly to the market liberalisation and the demand for leased lines from new entrants, coupled with decreasing leased lines prices, or more often, increases in the total level of discounts offered to certain categories of big users.

However, a possible conclusion of the inquiry is that there is a big difference in the revenue coming from domestic leased lines as a percentage of the global turnover for the different European companies. Such differences could be thought of as resulting from the volume of leased lines supplied, on the one hand, and from the prices charged, on the other. A quite straightforward correlation between high revenue percentages from leased lines (up to 17% for 1999) and high domestic leased lines prices appears to be the case in some Member States. A substantially higher proportion (in the range to up to 30%) is natural for new entrants, for whom one of the main business domains is the supply of leased line capacity.

The same comparison, carried out for the proportion of international leased lines revenue in the total turnover of selected EU incumbents, shows percentages in the range between 3,8% (an EU incumbent for the first three quarters of 1999) and 26,6% (another incumbent for the first half of 1999). The high proportion of the revenue from international leased lines is quite striking for some incumbents, given the relatively low prices of leased lines in their Member States, following an early liberalisation, and the intensive competition in the respective leased lines markets. It can be explained by very large volumes of sales only, induced by the surging demand coming from the ISPs, as in the case of Finland<sup>18</sup>.

On the other hand, a very low proportion of the revenue from international leased lines for Sweden can be thought to result from the continuing decrease of prices. According to an INTUG survey<sup>19</sup>, Sweden recorded a 62,5% fall in international half circuit prices to neighbouring countries between 1997 and 1998. High competitive pressure due to early liberalisation is the explanation.

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<sup>17</sup> For some several EU incumbents only, as the data provided largely differs between operators, some include revenue from other businesses – VPNs, dark fibre, some give data for domestic or international lines only, some cannot provide a break-down domestic-international, their financial years differ, some have failed to provide that information altogether.

<sup>18</sup> “In terms of Finland’s outstanding success in expanding Internet infrastructure, as indicated by Internet hosts surveys, the combination of the lowest leased lines prices for business users,....., can be considered as a fundamental contribution”, “OECD Communications Outlook 1999”, p. 187.

<sup>19</sup> “INTUG Leased Line Survey National vs International Cost”, Montrichard, January 1999

## **2.2 Improving market definitions**

The sector inquiry is a useful means to improve the market definitions used until now.

### **2.2.1. *Relevant Product Markets***

On the basis of the findings of the inquiry to date, one could define national leased lines markets in a more specific way, distinguishing amongst others, the markets for short distance leased lines and for longer distance leased lines. Different markets could also be distinguished according to the capacity of the relevant circuits. However, at this stage it is still difficult to assess whether managed data network services and virtual private network offerings are part of the same broader «market for carrier services»<sup>20</sup>, or constitute distinct markets. Further data regarding substitutability should be collected to decide on the matter.

A similar finding was made by OFTEL, in its recent consultation document on the competition in national leased lines. OFTEL distinguished between a distinct economic market for retail leased lines and two separate wholesale markets for the trunk segments and the terminating segments of a private circuit, with likelihood for further market segmentation for high and low capacity terminating segments.<sup>21</sup>

### **2.2.2. *Relevant Geographic Markets***

On the basis of the replies, markets for national leased lines would appear to be national markets, given the existing licensing regime, which is national. However, given the geographically unequal development of competition in most Member States, more narrow geographic markets seem to be justified. For the international leased lines, the markets so far had been defined as at least European-wide, if not global. However, a more detailed geographic market definition seems necessary taking into account the wide variation of tariffs for international leased lines depending on the place of origin.

In its already mentioned assessment of the UK leased lines market, OFTEL came to similar conclusions. It proposed tentative definitions of two relevant geographic markets: Central London Zone and the rest of the UK.

## **2.3. Main findings of sector inquiry: Results of the price comparisons**

For the purposes of this working document, the main findings of the inquiry will be presented in connection with:

- a) international leased lines prices;
- b) short distance domestic leased lines prices;
- c) other domestic leased lines prices; and
- d) an evaluation of the regulatory and institutional factors affecting competitive provision of leased lines within the EU.

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<sup>20</sup> Comprising types of activities and telecommunications services probably going beyond the Leased Lines Directive definition of leased lines.

<sup>21</sup> «National Leased Lines: Effective competition review and policy options», August 2000, <http://www.oftel.gov.uk/competition/nll0800.htm>

Since as mentioned these markets are at least national markets, a comparison of the tariffs applied in the different geographic markets can be used to as a yardstick to identify potential abuses<sup>22</sup>. For this reason the Commission has made comparison of actual tariffs, based on maximum and minimum prices per bandwidth category. This approach served to identify situations where there is a likelihood of anti-competitive behaviour in view of extreme price ranges. However, benchmarking alone cannot prove abuses. A case by case approach would be required to assess whether the differences are not justified by country- or operator- specific circumstances and underlying costs for the provision of leased lines.

In order to protect business confidentiality, only aggregate results of the benchmarking exercise are reported in this Working Document.

For the benchmarking approach leased line service offerings were grouped by bandwidth (in four groups: 64 Kbps, 2 Mbps, 34 Mbps and 155 Mbps) and by distance (in four distance lengths: <5 Km; 5<50 Km; 50<200 Km, and ≥200 Km). Numerous difficulties in price comparisons were encountered, due primarily to the availability of discounts and the presence of non-standard offers by leased line providers. However, benchmarking was completed for all categories for national leased line prices and for 64 Kbps and 2 Mbps bandwidth categories for international leased line prices.

A first finding is that as regards the cost drivers for leased lines, distance is relatively unimportant in comparison to density.

### **2.3.1. *International leased lines***

International leased lines are only the main components of a **wholesale service offering**. In addition to the capacity on the transborder trunk line, national or “backhaul” capacity is indeed needed from the international cable landing onwards or from the satellite earth station to the network’s point of presence in a given city , as well as capacity from the point of presence to the customer premises.<sup>23</sup> As the supply of international leased lines has been liberalised, prices have decreased accordingly; however, to the degree that incumbents have failed to provide wholesale offerings of leased lines at shorter distances (covering backhaul capacity and the local link or last mile to customer premises), retail prices seems not to have decreased. They in fact seem to have increased at least as regards the 2 Mbps bandwidth category.

Examining the benchmarks for international leased lines confirms that prices among the EU Member States diverge widely, and this divergence appears not be explained fully by variation in distance. International half circuit prices are generally much higher than national leased line prices.

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<sup>22</sup> ECJ, joint cases 110/88, 241/88 and 242/88 SACEM, ECR [1989] 2811, paragraph 25: “when an undertaking holding a dominant position imposes scales of fees for its services which are appreciably higher than those charged by other member States and where a comparison of the fee levels has been made on a consistent basis, that difference must be regarded as indicative of an abuse of a dominant position. In such a case it is for the undertaking in question to justify the difference by reference to objective dissimilarities between the situation in the Member State concerned and the situation prevailing in all the other Member States”.

<sup>23</sup> However, alternative network configurations and commercial relationships (e.g. no accounting and settlements), such as hubbing and routing, have contributed to an ever-expanding variety of options for carriers wishing to purchase wholesale capacity for international leased lines on routes where alternative infrastructure is being built. OECD, Building Infrastructure Capacity for Electronic Commerce: Leased Lines Developments and Pricing, p. 17.

Among other factors, the fact that the pricing of international leased lines is higher than comparable national leased lines may reflect tariff imbalances with incumbent operators caused by international services that have historically been priced very high to carry costs which are common to other services, and possibly also to provide cross-subsidies – especially for network access.

Table 1 below compares the international leased line prices by bandwidth in each capital city (1999) and indicates those in which the incumbents' prices appear to be excessive in comparison to those prices charged by other EU incumbents for similar services.

**Table 1:**

	Rome	Dublin	Amsterdam	Helsinki	London	Stockholm	Lisbon	Athens	Vienna	Luxembourg	Copenhagen	Brussels	Paris	Madrid	Berlin
64kbps	■	□	□	□	□	□	■	■	□	□	□	□	□	■	□
2mbps	■	■	□	□	□	□	■	■	□	□	□	□	□	■	□

- Prices in this bandwidth appear excessive relative to those charged by other operators.
- Prices in this bandwidth are approximately average for the EU or less.
- Prices in the bandwidth appear to be above average, but not in the highest group of prices.

Note : Prices are based on an estimation of the monthly rental, and do not include connection charges.

Other sources of information on international leased line pricing suggest that prices are already falling for certain bandwidth and distance categories where alternative infrastructure or supply (e.g. bandwidth exchanges) are operating. This is true both within the EU<sup>24</sup>

Changes in international 2 Mbit/s half-circuit prices from 1999 to 2000 are:

**Table 5.10 Price changes from 1999 to 2000 in 2 Mbit/s international half-circuits**

	Cross-Border		
	Near EU	Far EU	USA
<b>B</b>	0 %	0 %	0 %
<b>DK</b>	-9 %	0 %	0 %
<b>D</b>			
<b>EL</b>	0 %	0 %	0 %
<b>E</b>	-30 %	-25 %	-29 %
<b>F</b>	0 %	0 %	0 %
<b>IRL</b>	-20 %	0 %	0 %
<b>I</b>	-6 %	-6 %	-23 %
<b>L</b>	-15 %	-15 %	-30 %
<b>NL</b>	0 %	0 %	0 %
<b>AUT</b>	-1 %	-1 %	0 %
<b>P</b>	-18 %	-14 %	-14 %
<b>FIN</b>	-44 %	-10 %	-10 %
<b>SWE</b>	0 %	0 %	0 %
<b>UK</b>	-50 %	-44 %	-41 %

**Note:**

Changes are calculated based on national currency prices.

and outside: between 1992 and 1998, in OECD countries the average price of a 2 Mbps national leased line greater than 50km in length fell by 30%, although this fall was offset by increases in the price of 2 Mbps national leased lines of shorter distances (2 km)<sup>25</sup>.

There are especially drastic decreases in price available for international leased lines when bandwidth exchange pricing is taken into account (Table 2). There is increasing infrastructure competition for the provision of services between many EU capitals, which should bring about relatively effective competition for international capacity in the very near future.

**Table 2:**

Pricing comparison for 2 Mbps circuit between London and Paris (1999)

The standard list or retail price, "which few, if any, users would pay in a competitive market"	\$ 40,000
Discounted list or retail price available to large capacity end users	\$ 20,000
Discounted price available from new entrants	\$ 14,000
TCM (Telecoms capacity market)* price for leased lines	\$ 3,190
Wholesale IRU (indefeasible right of use) price	\$ 1,022

\*E.g. bandwidth exchange price

*Source: Hogan and Hartson (1999), "Submarine cable landing rights and existing practices for the provision of transmission capacity on international routes".*

The prices of leased lines of higher bandwidth (e.g. above 2 Mbps), leased lines involving relatively dense traffic routes, and leased lines in high-revenue urban areas, will decline as incumbents are increasingly exposed to competition in the provision of these services.

### ***2.3.2 National or domestic leased line***

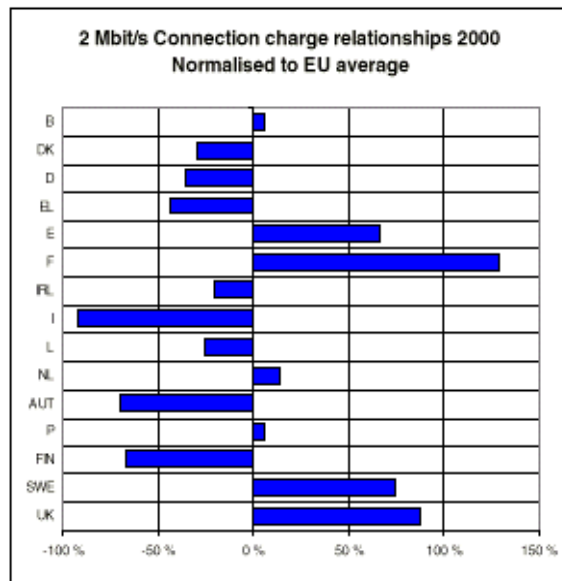
National leased lines prices consist of a monthly or yearly rental charge plus a connection charge. In the EU, connection charges for a 2 Mbps local link (2 km) were reduced in 1999 for the following countries: Denmark, Germany, Greece, Ireland, Italy, Austria, Portugal and the United Kingdom (for the incumbent BT). Only Belgacom, in Belgium, increased its connection charge in 1999. Figure 5.1. <sup>26</sup> shows the very divergent way of pricing leased lines by incumbents. Connection charges of certain incumbents are more than 50 % higher than the average, while 3 are 50 % below the average.

<sup>24</sup> "Report on Telecoms Tariff Data as of January 2000," Teligen Ltd. For DG INFSO, European Commission, May 2000.

<sup>25</sup> "OECD Communications Outlook 1999", p. 187.

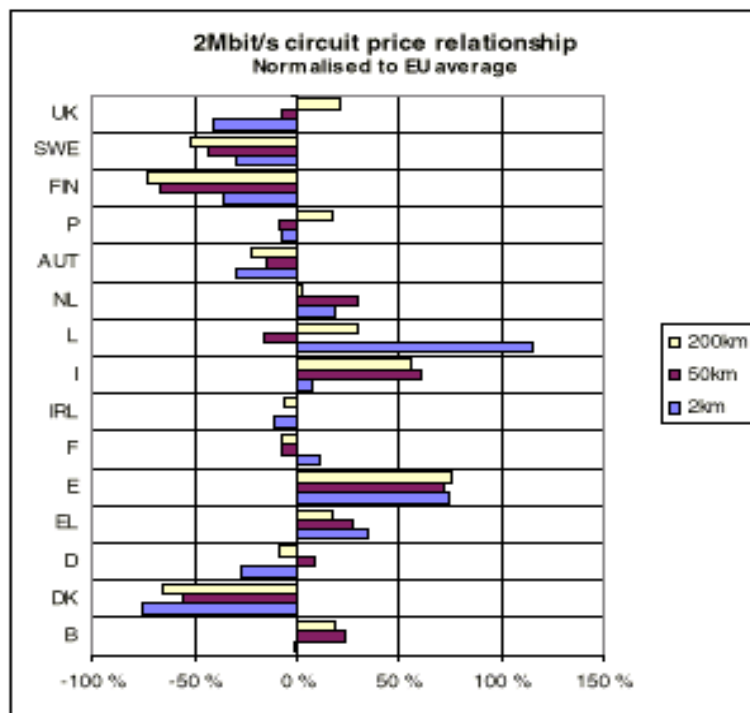
<sup>26</sup> "Report on Telecoms Tariff Data as of January 2000," Teligen Ltd. For DG INFSO, European Commission, May 2000.

Figure 5.1 Connection charge relationships against EU average 2000



Similar divergence exists as regards rental charges (Figure 5.2) although 7 operators

Figure 5.2 Monthly rental charge relationships against EU average 2000



decreased their tariffs (Belgium, Denmark, Germany, France, Italy, Austria, and Portugal). As a matter of fact the incumbents in two Member States increased tariffs (Greece, Finland).

Overall, during 1997-1999 prices for domestic leased lines have decreased in EU Member States. For 64 Kbps and 2 Mbps circuits, the smallest reductions appear to have occurred in Germany, the Netherlands, Sweden, and the UK.

**Table 3:**

Comparison of incumbents' national leased line 1999 prices by bandwidth\*<sup>27</sup> and identification of those incumbents which prices appear to be excessive

	Italy	Ireland	Netherlands	Finland	UK	Sweden	Portugal	Greece	Austria	Luxembourg	Denmark	Belgium	France	Spain	Germany
64kbps															
2mbps															
34mbps															
155mbps															

- Prices in this bandwidth appear excessive relative to those charged by other operators.
- Prices in this bandwidth appear to be above average, but not in the highest group of prices.
- Prices in the bandwidth are approximately average for the EU or less.

Note: \* Price comparison implied in this table is based on 1999 rental & connection prices averaged over 3 years.

The sector inquiry showed, for the four bandwidths and distance categories, the following results:

- **64 Kbps:** For 64 Kbps national leased lines in 1999, over the ranges <5 Km; 5<50 Km; 50<200 Km, and ≥200 Km, there is no country which stands out as having prices which are obviously excessive relative to those being charged by other incumbent operators in the EU.
- **2 Mbps:** For 2 Mbps leased lines, price ranges over the four distance categories suggest that 2 Mbps circuit prices in Luxembourg and Spain may be significantly above those charged by the benchmarks. Furthermore, although further investigation is necessary due to overlapping price ranges, Belgium's and Sweden's incumbent and possibly even those of a few other countries could be added to this list. The benchmark countries tend to change with the distances considered, with Telekom Austria being the most consistent benchmark.
- **34 Mbps:** In this category, incumbents with higher prices often change from one distance to another, which does not allow to draw conclusions at this stage. Also, the price ranges within each distance mostly overlap, making it difficult to single out operators. There are also a few more moderate prices charged. At this stage, it was therefore not possible to make out whether this reflected a comparability problem or showed that several operators may be excessively charging in this bandwidth: if the latter scenario is in fact the case, this would concern the incumbents of Ireland and Italy, and possibly Portugal, Belgium, France, and Spain. The benchmark incumbents in this group would be the incumbents from the Netherlands, Germany and Greece.

<sup>27</sup> For some operators where there is a relatively high maximum price and relatively low minimum price, it is possible that they have not been included as a high price operator, yet if a majority of leased line customers were paying toward the top of the price range, we would include them with the darkly shaded countries.



- **155 Mbps:** For 155 Mbps leased lines the supply volumes in a number of Member States do not seem sufficiently significant to allow the drawing of conclusions. On the basis of the tariffs collected, Italy's and Portugal's incumbents appear to be pricing significantly higher than best practice, with the UK possibly also fitting into this group. The benchmark countries are mainly Germany and the Netherlands.

At higher bandwidths, Telecom Italia, and to a lesser extent, Eircom, BT, Portugal Telecom, and possibly also France Telecom, appear to have significantly higher prices than are average for similar services offered by other EU incumbents. At lower bandwidths, the prices of PTT Luxembourg, Telefónica and Telecom Italia seem to have high prices relative to the other countries, with OTE, Telia and Belgacom possibly included on this list.

## **2.4. Other problems highlighted by the sector inquiry**

### **2.4.1. *Strategic discounting by incumbents***

Another potential competition abuse is strategic discounting (i.e. discounts granted by dominant operators to keep customer loyalty of important clients and pre-empt market entry, which are often not based on transparent, objective and cost-based criteria). The information provided in the replies to the questionnaires were not detailed enough to allow the drawing of conclusions. However, it suggests that such market behaviour could have occurred in the Netherlands, Finland, Spain, and possibly Luxembourg. However, incumbents of other Member States may also fall into this category.

In Spain the national Competition Authority imposed in 1998 a fine to Telefónica regarding such unfair discounting practices in the provision of leased lines to end customers. In their replies to the questionnaire, new entrants suggested that incumbent operators in Austria and Belgium also engaged in such unfair discounting practices. Evidence of such abuses would nevertheless require further investigation.

### **2.4.2. *Discrimination***

New entrants have also mentioned in their replies lengthy delays or even refusals to provide leased lines and complimentary service and/or interconnection (for example, provision of backhaul links in Italy), as well as poor quality of service in certain cases. Strategic delays in providing leased lines have been claimed by respondents from France, Ireland and Italy.

Again, these comments should further be investigated in order to draw conclusions.

### **3. POINTS FOR DISCUSSION**

The above findings of the Commission are based on the replies to the Questionnaire sent to the EU incumbents, as well as to a sample of users and new entrants, which is possibly not representative. In addition, the data received cover only the time period until the end of 1999. It is possible that the trends noticed continue in the year of 2000, but it is also possible that other trends have emerged in the meantime. The aim of the current public discussion is to collect opinions of all the interested parties about the relevance and accuracy of those findings in order to allow the Commission to decide on the possible further steps to be taken regarding this inquiry.

#### **3.1. Market definitions**

The replies to the sector inquiry confirmed steady investment flows for building new transmission capacity infrastructure and a trend for increasing competition. However, these findings vary from Member State to Member State, and within Member States, depending on different categories of leased lines, with the highest investment and offerings in the area of long distance, pan-European capacity.

The replies provided evidence for more detailed definitions of both the product and geographic markets for international and national leased lines offerings. A distinction has been drawn between markets for short distance domestic leased lines and for longer distance domestic leased lines, with a further market segmentation based on bandwidth. Regarding geographic markets, some replies argued separate metropolitan/rest of the country markets within the national leased lines markets. The market for international leased lines can probably be considered as narrower than global or Europe-wide, since the conditions of supply and demand vary from Member State to Member State.

##### *Question 1:*

- 1.1. Do you have comments on the proposed improved product market definitions?*
- 1.2. Do you have comments on the proposed improved geographic market definitions?*

#### **3.2 Impact of market dynamics**

A number of replies to the questionnaires repeated that local loop or tail circuits remain a bottleneck. However, this could be a transient problem due to the effect of future unbundled access offers to the local loop, and in particular, of HDSL, which is a substitute to short distance leased lines, for providing high capacity down the access network.

In addition, a number of replies point out that cable landing stations and backhaul links can be described as bottlenecks, with alleged excessive prices for those facilities, leading to inflated international leased lines prices in certain Member States.

##### *Question 2:*

- 2.1. In your opinion, for the separate markets as defined above, are there clear indications of new sources of competitive pressure to which those markets are beginning to respond?*

- 2.2. *Do you still experience bottlenecks in the competitive provision of leased lines? In your view, could these problems be resolved by current market evolution (and within what time frame)?*

### **3.3. Pricing issues – tariff evolution and discounting practices**

The inquiry findings demonstrate that, during the period under examination, 1997-1999, there has been a trend of decrease in the leased lines tariffs in the various markets identified across the E.U. However, it also appears that in the short term it is to be expected that the increase in capacity will not immediately be reflected on the tariffs applied, given that demand is also rapidly growing.

Another trend is the presence of various discounting schemes, and leased lines are hardly ever paid for at the officially announced prices. Entrants alleged existence of abusive strategic discounts applied by incumbents, although not substantiating such claims in a way that would have allowed opening of individual cases without further investigation.

#### *Question 3:*

- 3.1. *Would you confirm such downward trends in the first half of 2000 and how was it implemented (via discounts or in the published tariffs)? . Were these trends stronger for retail tariffs than for wholesale? Was it stronger for certain market segments (by distance and bandwidth)? Do you expect future decrease in prices of the same order as in the first half of 2000?*
- 3.2. *In view of the preliminary findings, and taking into account the market trends described, would you consider that competitive pressure alone will reduce the incumbents' market power, thus making discounting practices pro-competitive?*

### **3.4. Possible further action under competition law**

The replies to the questionnaire indicate that during the 1997-1999 period, leased lines tariffs still varied widely between Member States, to an extent which probably cannot be explained by underlying cost differences. It appears that many Member States have implemented the requirement in the Community law to ensure cost orientation of tariffs by imposing price caps. Given the retained very strong market position of the incumbent operators, action based on competition rules could be justified in cases of excessive pricing or discriminatory or predatory discounting, as well as in cases of discriminatory delays in delivering leased lines.

#### *Question 4:*

*Do you consider that the remaining divergences in leased line tariffs distort competition within the EU? Do you consider action under competition law indispensable regarding certain markets and/or operators and for which reason?*

### **3.5. Other factors restricting effective competition**

Factors other than prices, such as long delays in provision and poor quality of service, as well as some institutional regulatory factors have been mentioned among the main factors slowing down the roll out of new infrastructure. Particular issues that have been mentioned in the replies include: onerous licensing procedures or unreasonably long delays in obtaining licenses, lengthy and cumbersome procedures to obtain permission to perform civil-works.<sup>28</sup> Further investigation of these issues appears warranted, at least in order to substantiate claims that have been made by respondents.

#### *Question 5:*

- 5.1 Would you agree that some or all of the abovementioned non-price related factors restrain effective competition?*
- 5.2 Have you encountered any regulatory and institutional conditions that affect negatively competition regarding the provision of leased lines and other telecom services?*
- 5.3 What are your view on the length and requirements of the procedures for obtaining permission to perform civil-works (rights of way; are they really delaying the establishment of competing infrastructure on which leased lines could be provided?*

## ANNEXES TO WORKING DOCUMENT

### ANNEX 1: Definitions

Leased lines have been defined as increments of telecommunications transmission capacity between two points, allocated by a telecommunications network operator.<sup>29</sup> There is also a legal definition of leased lines in the Leased Lines Directive<sup>30</sup>. National leased line offerings may be made up of several elements: tail ends (customer-dedicated lines running from the local switch to the customer premises), main links (links from switch to switch, which may pass through several switching units and different levels of the network hierarchy); and often modems and installation equipment as well as managed or unmanaged circuits. International leased line offerings generally comprise one or two half circuits, a national extension or main link to the international gateway, and tail ends. Leased lines provide the underlying transmission capacity for enhanced and value-added services such as Internet network connectivity, data services, and voice telephony, which are now provided in liberalised markets for most Member States.

### ANNEX 2: Methodology

The criteria for selecting the new entrants and business users participating in the inquiry were the economic sector of activity, turnover figures and market power in the respective leased lines telecommunications markets. Other collateral information, such as the Commission's Recommendation on leased lines interconnection pricing in a liberalised telecommunications market (dated November 1999), the 1998 Annual Report on the performance of leased lines in relation to supply conditions, and the Commission's Fifth Implementation Report have been taken into account where appropriate. Most of the replies were received in January 2000.

The Commission asked to an external consultant to process the information gathered through the inquiry. The assignment given to the consultant included, amongst other tasks:

- to examine, the differences between leased lines catalogue prices approved by national authorities and actual prices paid by users taking into account discounts;
- to examine to which extent prices for the different leased lines categories (by distance and by bandwidth) can be considered as excessive and to report on the underlying causes
- to compare the market conditions identified by the participants in the inquiry against the provisions of the existing regulations in this field.

The report of the consultant was received end May 2000. The present working document is partly based on that report.

The Commission was faced with several comparability problems in assessing the replies provided by the operators. DG COMP used a methodology developed by the consultant to analyse the range of prices on offer in each of the Member States. According to this

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<sup>29</sup> Organisation for Economic Co-operation and Development (OECD), Building Infrastructure Capacity for Electronic Commerce: Leased Lines Developments and Pricing, 15 August 1999.

<sup>30</sup> "Leased lines means the telecommunications facilities provided in the context of the establishment, development and operation of the public telecommunications network, which provide for transparent transmission capacity between network termination points and which do not include on-demand switching (switching functions with the user can control as part of the leased line provision", Art.2, p.2 of the Leased Lines Directive.

methodology both the maximum and minimum in each category the questionnaires have been identified.<sup>31</sup> However, while this approach mitigates against some of these comparability problems, it does not overcome them. These comparability issues include the following:

- In some countries many customers do not pay the published price;
- Operators do not always price according to distance, or where they do, it is not always the same distance categories as are used by other operators, or the same categories that are defined in studies like this one;
- Sometimes several different prices apply for the same distance and bandwidth, such as where there is a rural and urban distinction, or where the least line penetrates different levels in the network hierarchy;
- Leased lines may be thought of as involving something less than a ready to use circuit with 2 tail ends in the case of domestic leased lines (one tail end where it is an international half circuit).
- Not all operators offer the same leased line bandwidths, and some offer different bandwidths to those used to categorise pricing data in the questionnaire.

It was also sought to obtain additional clarifying information and pricing data, but in some cases it was impossible to obtain the information required from the incumbent operators within the time frame permitted to complete this part of the inquiry into leased line prices. Thus, in some cases significant numbers of customers may be paying prices that are outside of the ranges we have shown in our graphs.<sup>32</sup> Our assessment is, however, that as far as domestic leased line prices are concerned, we do not think this will be a significant problem for more than two or three EU operators.

With the information and data available "yardstick" comparisons have been made between the various operators. This method enables assessment of relative prices and service performance where direct comparability is not possible, but where underlying differences are not so large as to invalidate this method of assessment.

For domestic leased lines the representation of maximum and minimum prices allowed for cross country comparisons, and where minimum prices across several categories are above the maximum of those charged by best practice operators providing a roughly similar service, this should provide a fairly good indication that the leased line prices charged by this incumbent are likely excessive.

In regard to the data on international leased line prices, the comparability issues are much greater. However, the price differences graphed are so substantial in several cases that it is very likely that comparability issues will not be able to explain these differences.

Given the abovementioned serious comparability problems, therefore, for both domestic and international leased lines, where prices appear to be excessive, further investigation will be needed before any definitive conclusions can be made.

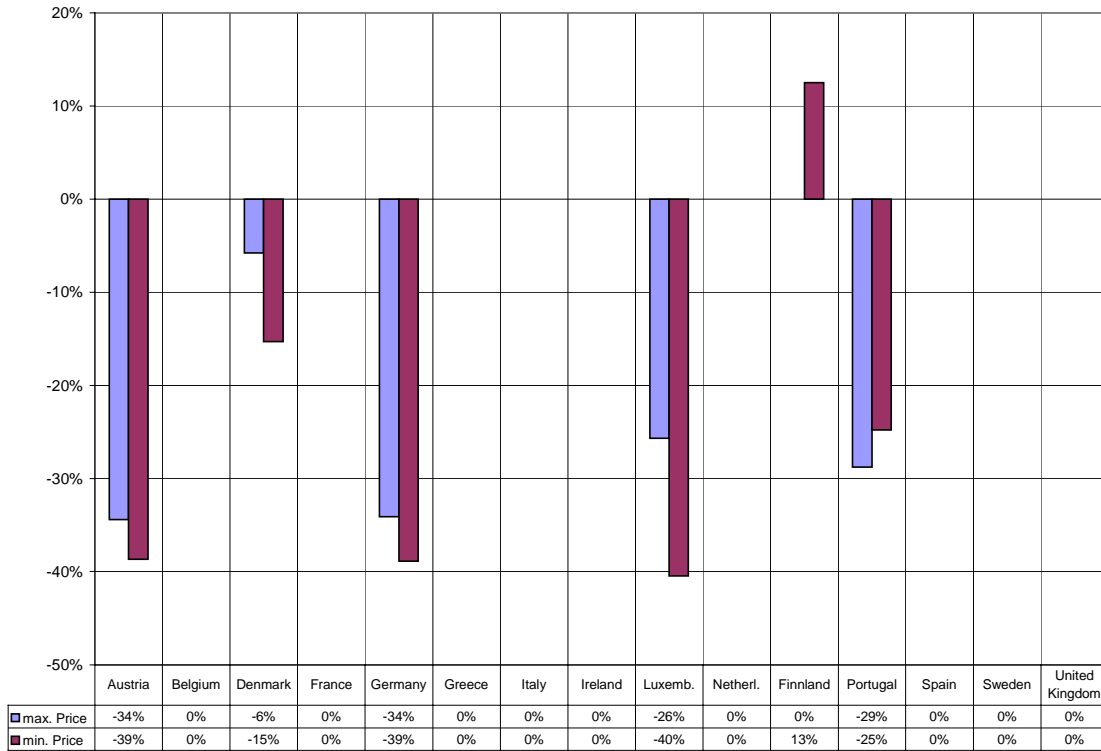
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31 In this report, the prices we analyse are mainly those of the incumbent operators. It did not analyse leased line substitutes, VPN or MNS services, due to the fact that most operators did not provide this information, and anyhow, the comparability problems would have been serious.

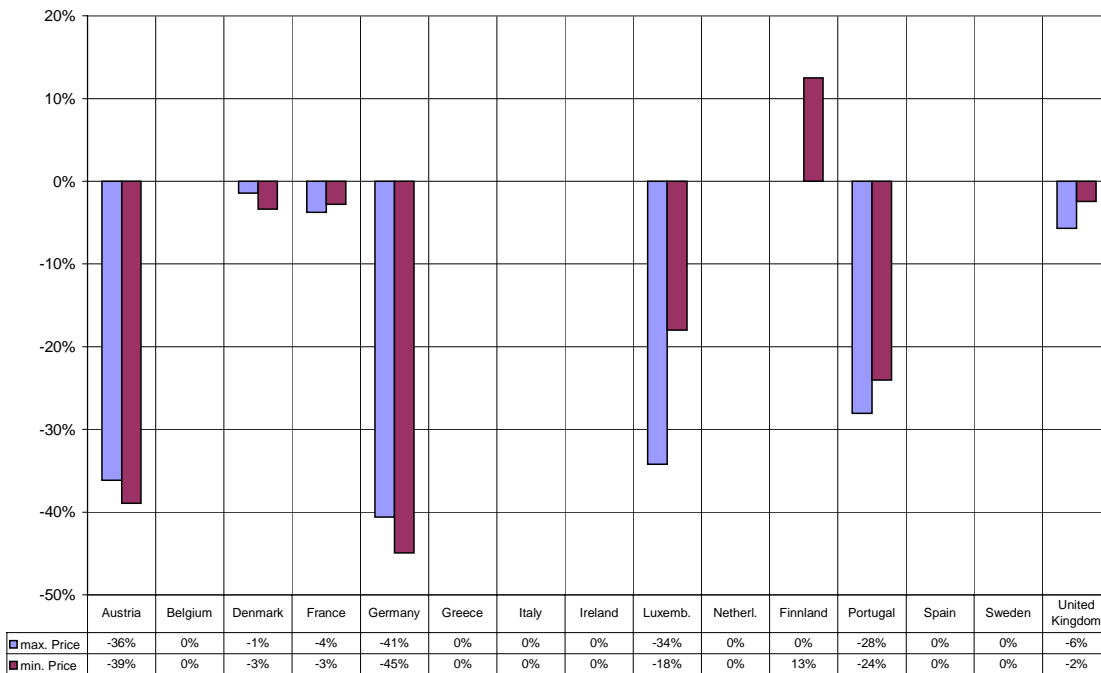
32 Where a graph in Annex 4 only shows a single line for a Member State, this is because only one figure has been provided by the operator, i.e. it is either a maximum or minimum price.

### ANNEX 3: Tables of leased line pricing for different classes of service (wholesale)

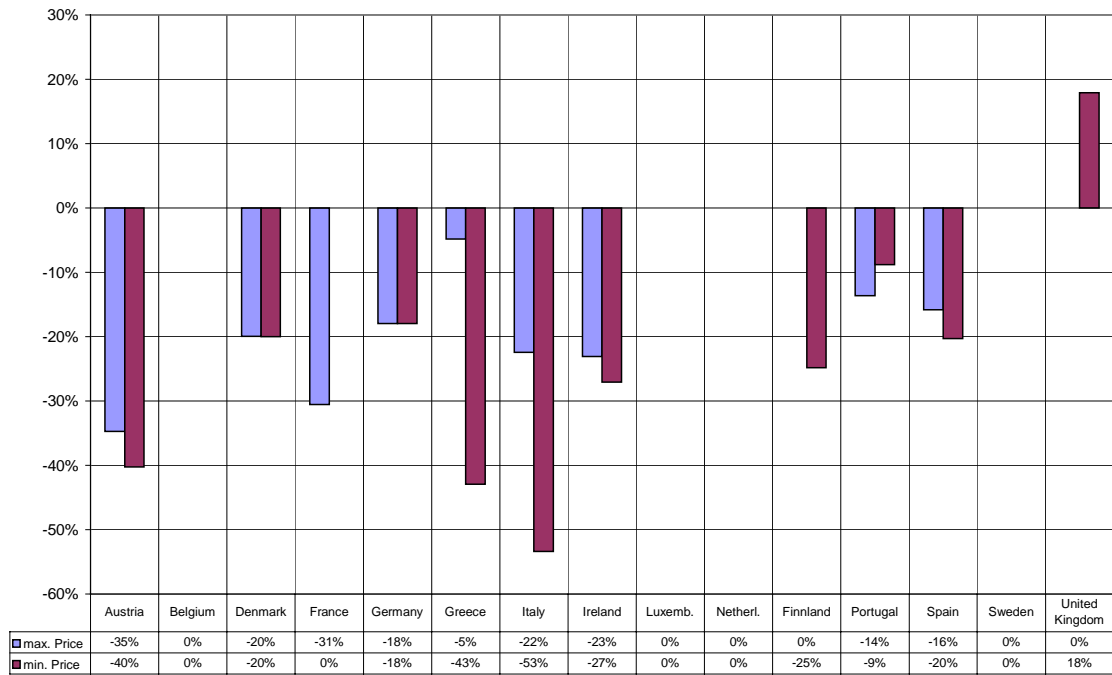
**Graph A:** The average percentage variation in monthly prices (rental & connection averaged over 3 years): 155 Mbps National leased lines <5 Km: 1997 to 1999



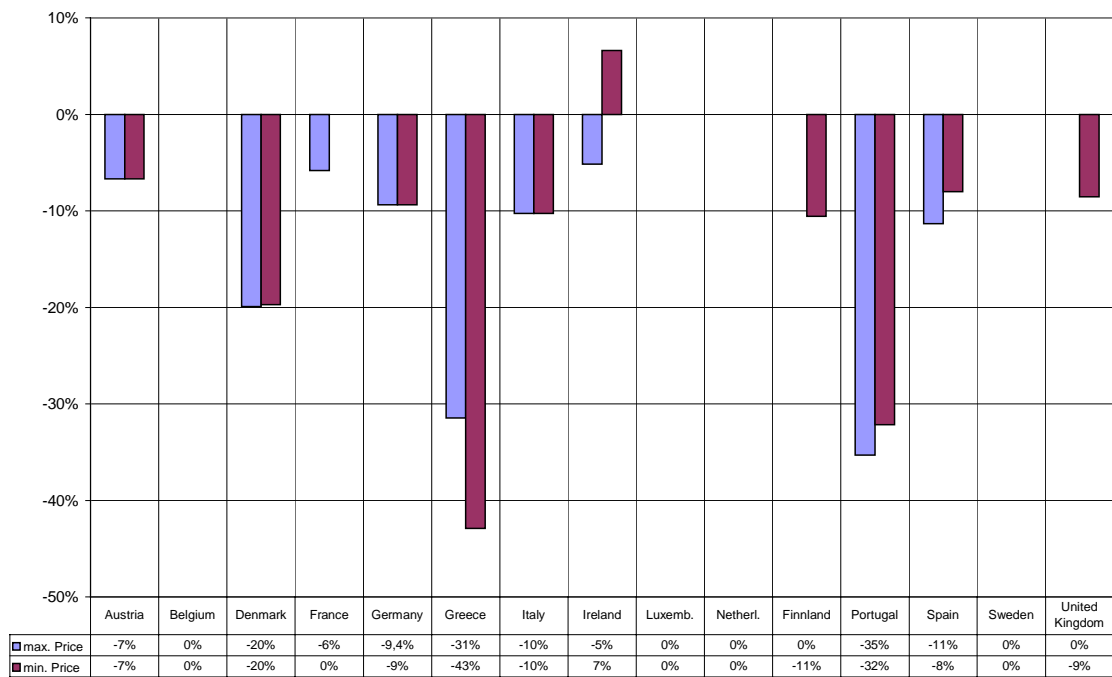
**Graph B:** The average percentage variation in monthly prices (rental & connection averaged over 3 years): 34 Mbps National leased lines <5 Km: 1997 to 1999



**Graph C:** The average percentage variation in monthly prices (rental & connection averaged over 3 years): 2 Mbps National leased lines <5 Km: 1997 to 1999

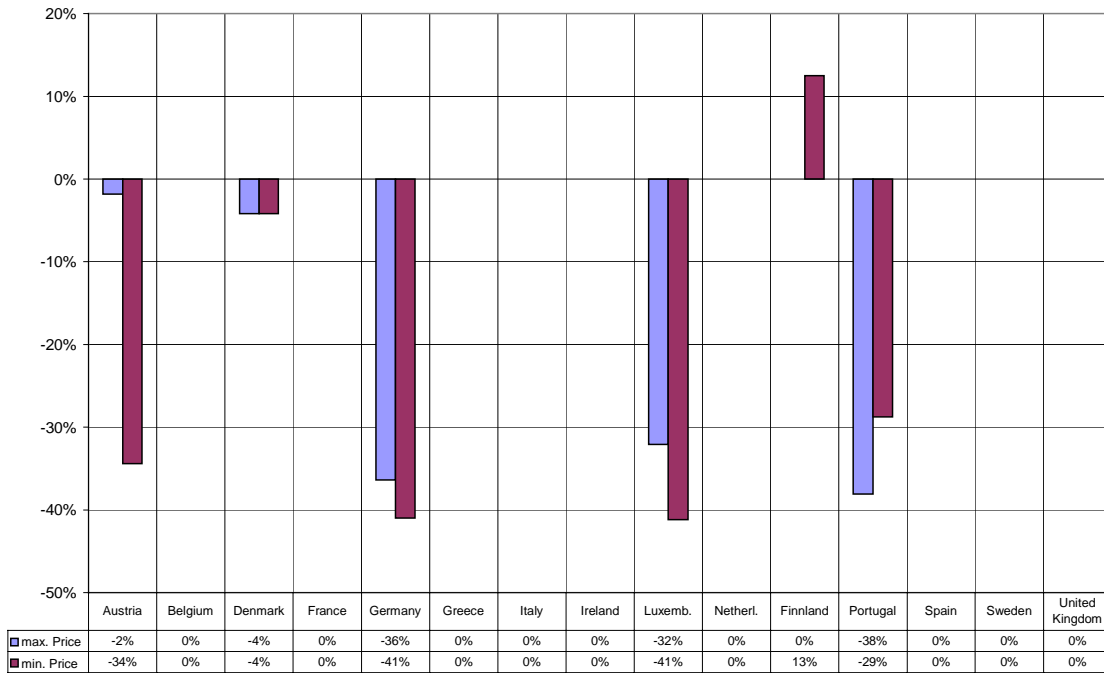


**Graph D:** The average percentage variation in monthly prices (rental & connection averaged over 3 years): 64 Kbps National leased lines <5 Km: 1997 to 1999

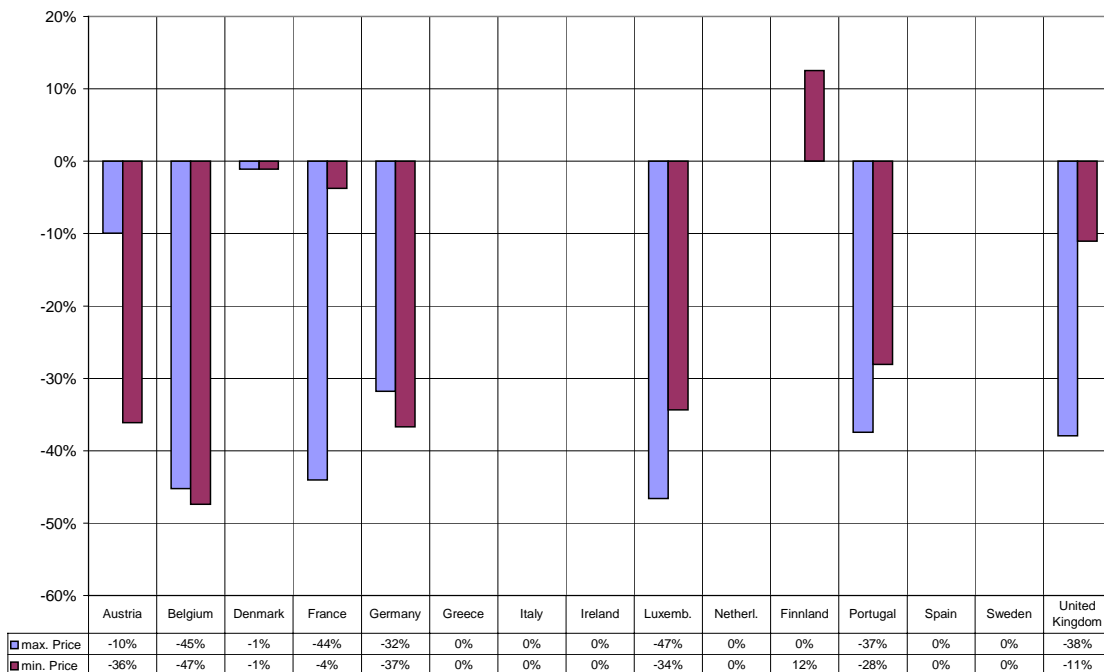




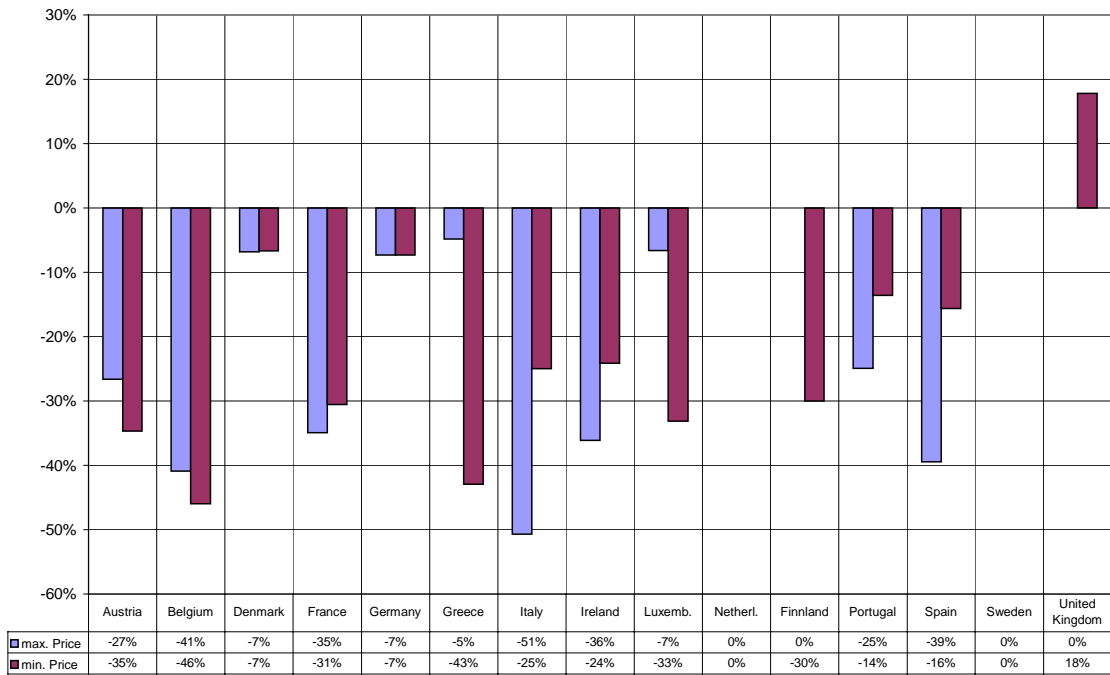
**Graph E:** The average percentage variation in monthly prices (rental & connection averaged over 3 years): 155 Mbps National leased lines 5 - 50 Km: 1997 to 1999



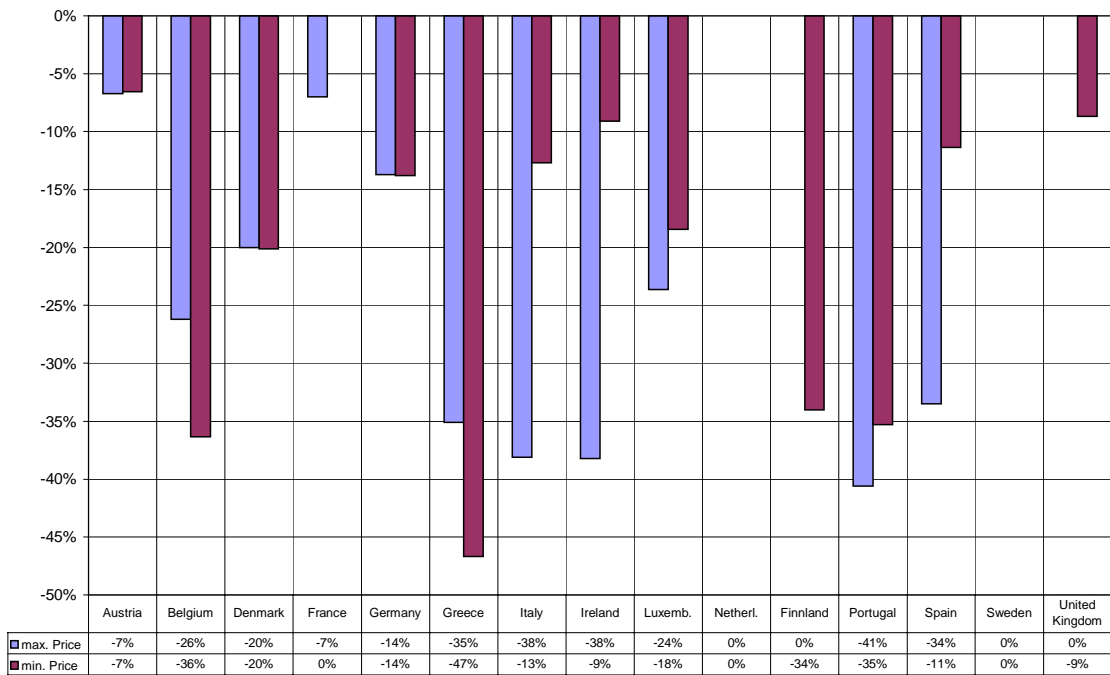
**Graph F:** The average percentage variation in monthly prices (rental & connection averaged over 3 years): 34 Mbps National leased lines 5 - 50 Km: 1997 to 1999



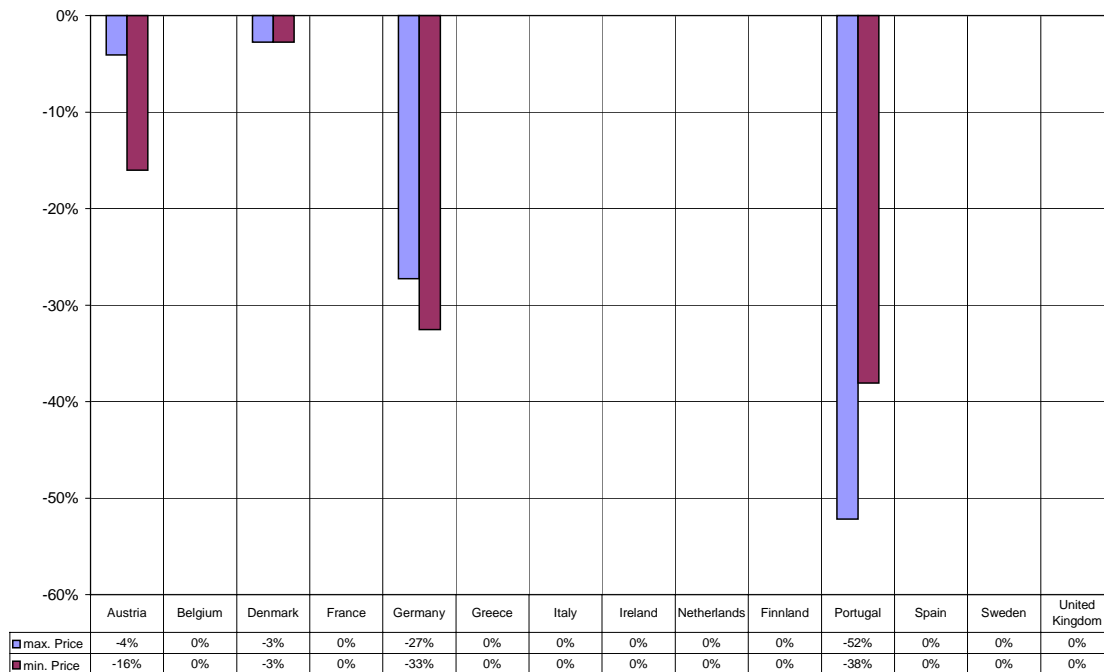
**Graph G:** The average percentage variation in monthly prices (rental & connection averaged over 3 years): 2 Mbps National leased lines 5 - 50 Km: 1997 to 1999



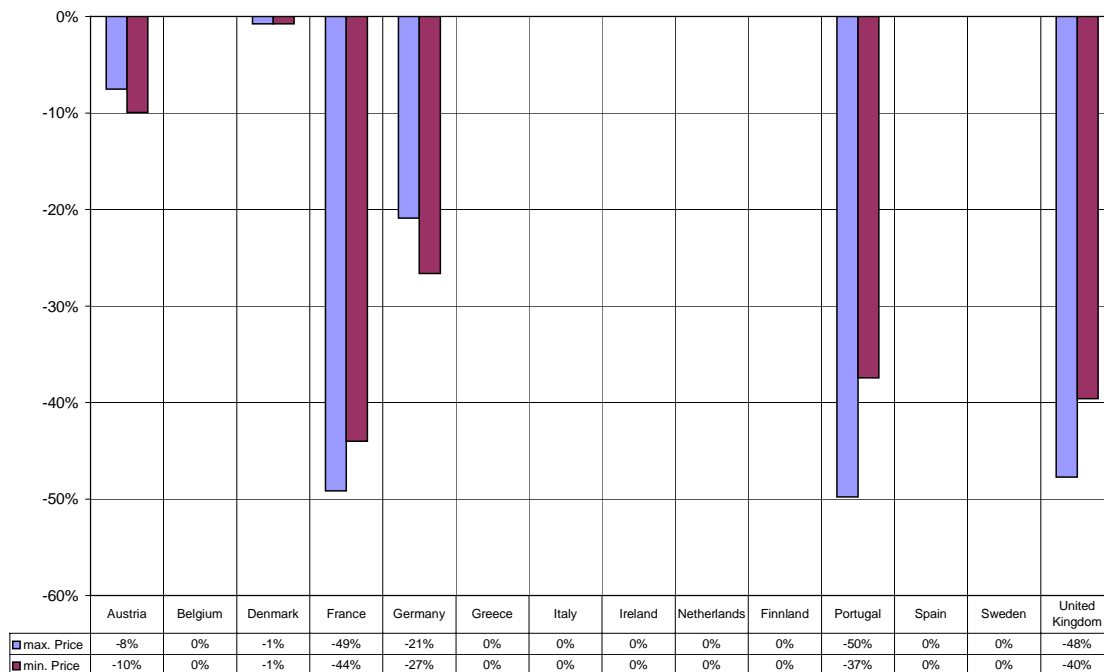
**Graph H:** The average percentage variation in monthly prices (rental & connection averaged over 3 years): 64 Kbps National leased lines 5 - 50 Km: 1997 to 1999



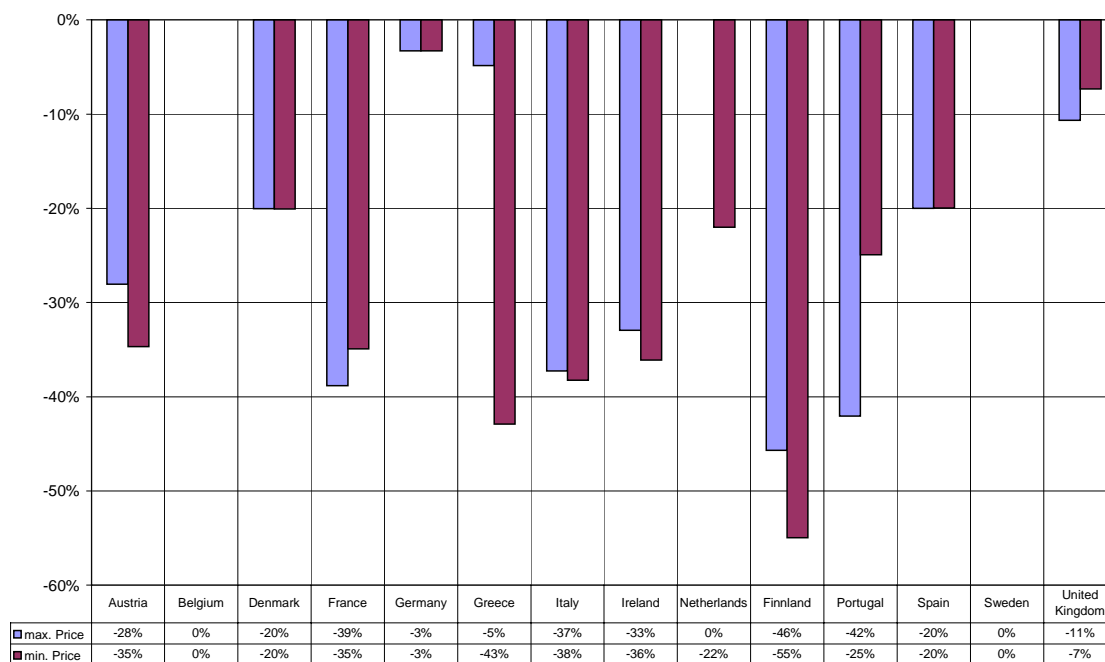
**Graph I:** The average percentage variation in monthly prices (rental & connection averaged over 3 years): 155 Mbps National leased lines <200 Km: 1997 to 1999



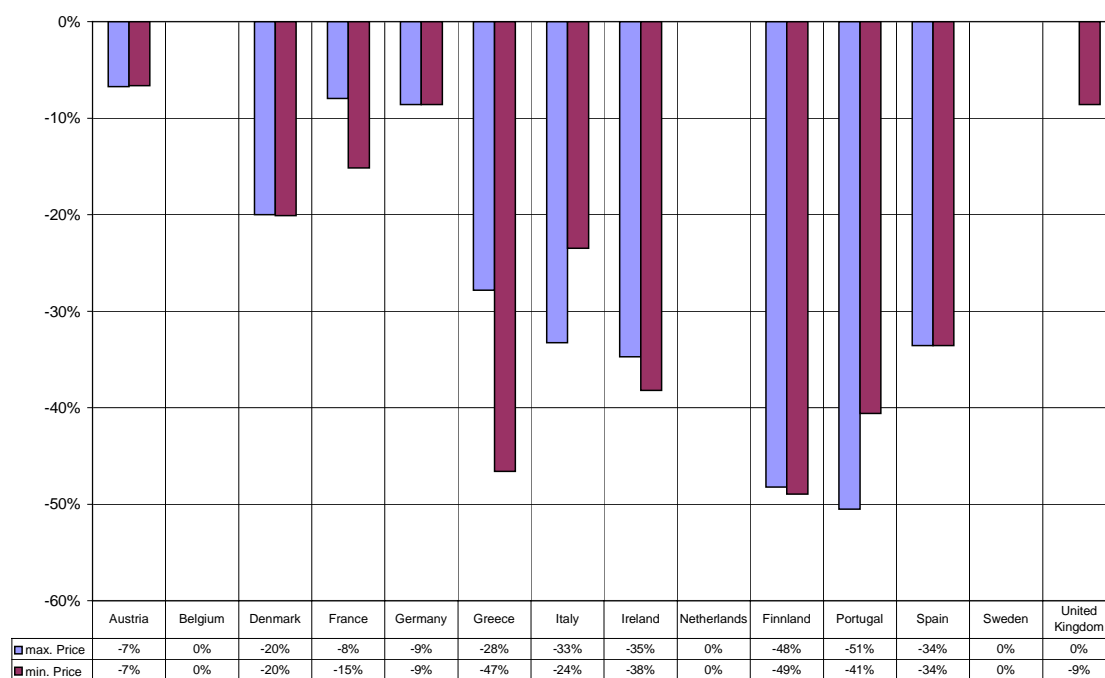
**Graph J:** The average percentage variation in monthly prices (rental & connection averaged over 3 years): 34 Mbps National leased lines < 200 Km: 1997 to 1999



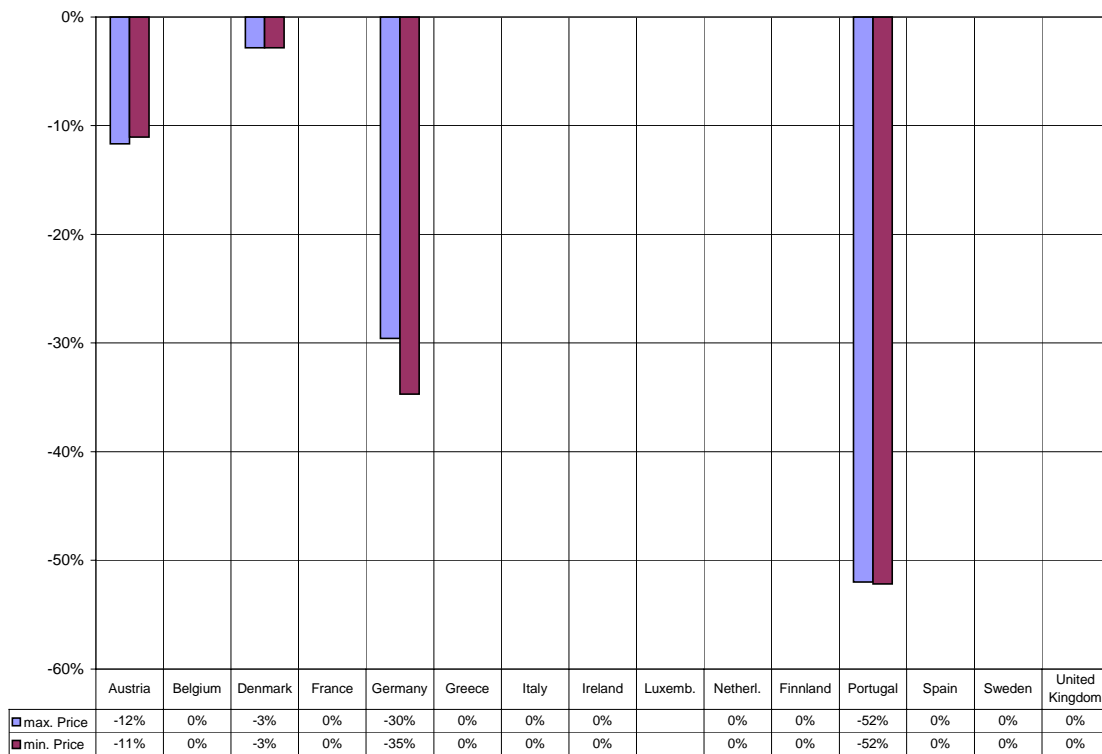
**Graph K:** The average percentage variation in monthly prices (rental & connection averaged over 3 years): 2 Mbps National leased lines <200 Km: 1997 to 1999



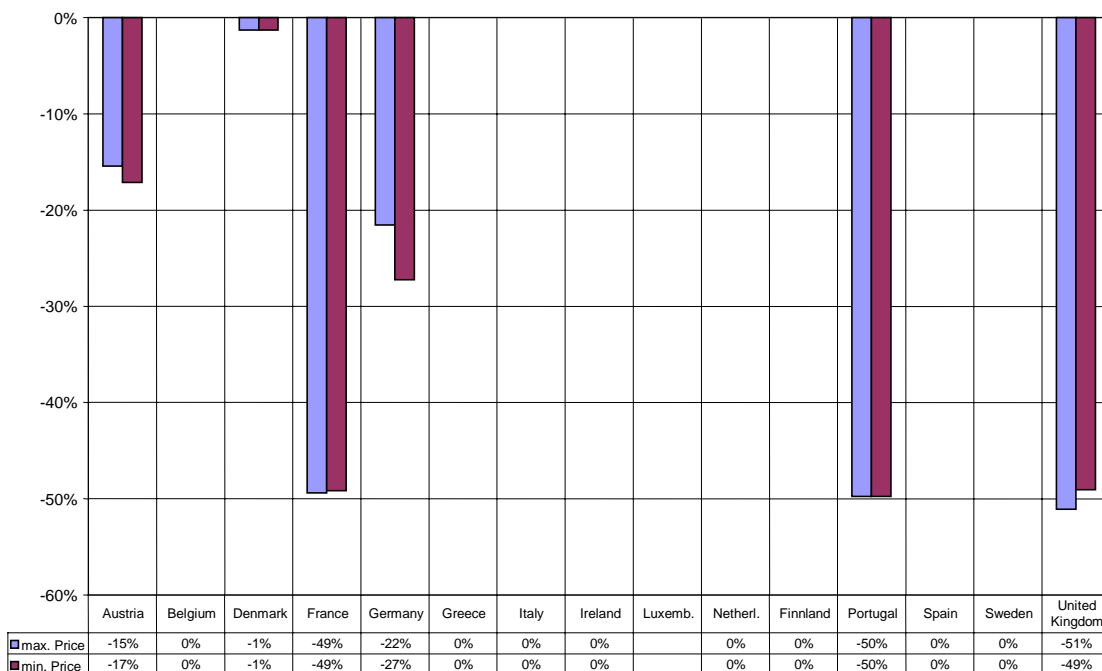
**Graph L:** The average percentage variation in monthly prices (rental & connection averaged over 3 years): 64 Kbps National leased lines <200 Km: 1997 to 1999



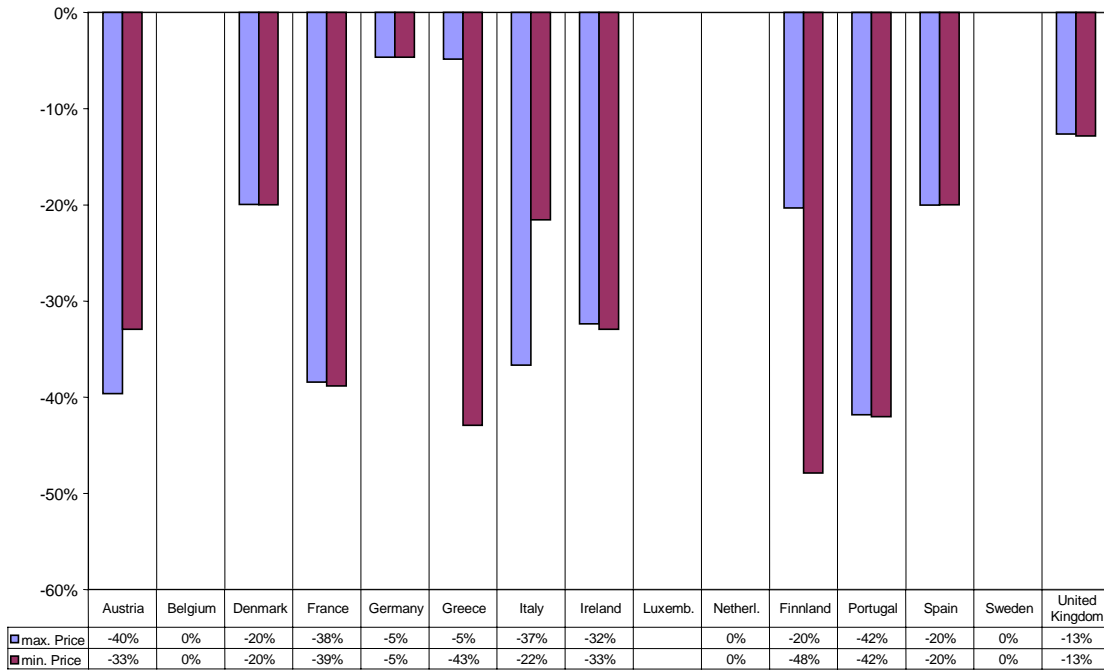
**Graph M:** The average percentage variation in monthly prices (rental & connection averaged over 3 years): 155 Mbps National leased lines over 200 Km: 1997 to 1999



**Graph N:** The average percentage variation in monthly prices (rental & connection averaged over 3 years): 34 Mbps National leased lines over 200 Km: 1997 to 1999



**Graph O:** The average percentage variation in monthly prices (rental & connection averaged over 3 years): 2 Mbps National leased lines over 200 Km: 1997 to 1999



**Graph P:** The average percentage variation in monthly prices (rental & connection averaged over 3 years): 64 Kbps National leased lines over 200 Km: 1997 to 1999

