



EETT

HELLENIC TELECOMMUNICATIONS & POST COMMISSION

Market Review

Electronic Communications & Postal Services





Market Review Electronic Communications & Postal Services 2008

Maroussi, 2009

Contents

1. Electronic Communications Sector	4
1.1. Consumer Price Index	6
1.2. Financial Data of the Electronic Communications Market	7
1.3. Licensing	12
1.4. Access to the Public Telephone Network	12
1.5. Fixed Telephony	14
1.5.1. Retail Outgoing Traffic	14
1.5.2. Revenues of Retail Telephony	18
1.5.3. Alternative Providers Lines	21
1.6. Telephony Tariffs	22
1.6.1. Fixed Telephony	22
1.6.2. Mobile Telephony	27
1.7. Internet	27
1.7.1. The Internet Market	27
1.7.2. [.gr] Domain Names	27
1.8. Mobile Telephony	32
1.9. Number Portability	34
1.10. Interconnection	36
1.10.1. Fixed Telephony	36
1.10.2. Mobile Telephony	38
1.11. Broadband	41
1.11.1. Progress of Broadband Lines	41
1.11.2. Broadband Lines by Technology	45
1.11.3. Speeds of Broadband Lines	45
1.11.4. Local Loop Unbundling	47
1.11.5. Collocation	50
1.11.6. Retail Cost of Broadband Access	50
2. The Postal Market	56
2.1. The Greek Postal Market	57
2.2. The Parcels and Express Services Market	58
2.3. The International Postal Market	60
Appendix	68
Glossary	69
Index of Figures and Tables	70



Electronic Communications Sector



During 2008 and in relation with the financial data of the Electronic Communications Sector, the turnover and gross profit varied marginally while the total assets of the sector companies increased. Analytically, Mobile Telephony Operators (MTOs) were leading in the first two categories, OTE increased further its total assets mainly due to the completion of its share in COSMOTE while the financial results of Other Alternative Operators (OLOs) were relatively stable. It is reminded that the difficulty in arriving at uniform conclusions still persists due to the different structure of the operators' balance sheets that apply the International Financial Reporting Standards (IFRS) and the residual ones that continue to apply the Greek Accounting Standards.

The infrastructure competition in fixed telephony intensified considerably. The OLOs' share in the directly connected fixed telephony subscribers is estimated at 7.8% at the end of 2008 compared to 4.4% at the end of 2007. With regard to the outgoing traffic, the OLOs' share increased further reaching 34%. The total share of the 3 bigger alternative operators rose over 18%. On the contrary, the retail revenues of fixed telephony kept on falling during the first semester of 2008, registering a reduction of 8% compared to the respective period of 2007, mainly due to the reduction of traffic revenues.

With regard to the retail invoices, the cost of a 3-minute local or national call in Greece remained below the European average. However, the average monthly expenditure for the Greek residential user is over the respective European one, contrary to the expenditure for the business user where Greece is among the cheapest member states of the European Union (EU) based on the usage baskets arising from the methodology used by the EU and the Organization for Economic Co-operation and Growth (OECD).

At the same time, Internet subscribers increased considerably by 38.5% compared to 2007, due to the significant rise in broadband access. Additionally, mobile telephony subscribers in Greece amounted to 19 millions approximately (a 16.6% increase compared to 2007) increasing further the mobile telephony penetration which reached 122% (from 106% in 2007). The increase in Number Portability was also spectacular mainly in fixed telephony where the applications rose by 71% and the ported numbers by 87% respectively.

Also, Interconnection in mobile telephony rose compared to 2007. The increase of the on-net traffic was significant since it constitutes approximately 43% of the total Interconnection traffic. On the contrary, Interconnection in fixed telephony registered a significant decrease since call origination decreased by 30% and call termination by 10% compared to 2007 due to the considerable increase of the Local Loop Unbundling (LLU) lines (full access) given that there is not any interference of OTE's network in originating the calls of OLOs' subscribers. In October 2007, the Interconnection rates to OTE's network were at the same level as the European average in contrast to the mobile termination rates which, according to the data of the 14th Report of the European Commission¹, were higher almost by 17% than the European average despite their continuous decrease.

In relation to Broadband, there was a further increase in broadband lines which exceeded 1,500,000, registering a 48% rise compared to 2007 (1,017,475 lines). Greece, thus, sustained a 13.44% broadband penetration rate in the entire population with an increase of 4.3 units which was the third largest increase in the EU. However, and despite the continuous growth, the difference from the average European penetration rate (23%) is still great.

The key factor for this increase was the rapid growth of the LLU, since the LLU lines over-doubled compared to the end of 2007 (236% increase), exceeding 646,000 and the fact that Greece is still one of the cheapest member states in full and shared access. Also, the access speed of broadband lines swung considerably since the percentages corresponding to speeds equal to or higher than 1 Mbps increased significantly whilst it is worth noting that 32.6% of the total broadband lines corresponded to speeds over 10 Mbps.

Lastly, and according to the European Commission Report titled «Broadband Internet Access Cost» on the broadband retail cost in the EU member states, the aforementioned cost in Greece is generally lower than the average European retail cost and with some exceptions lower than the average retail cost of the 15 old member states.

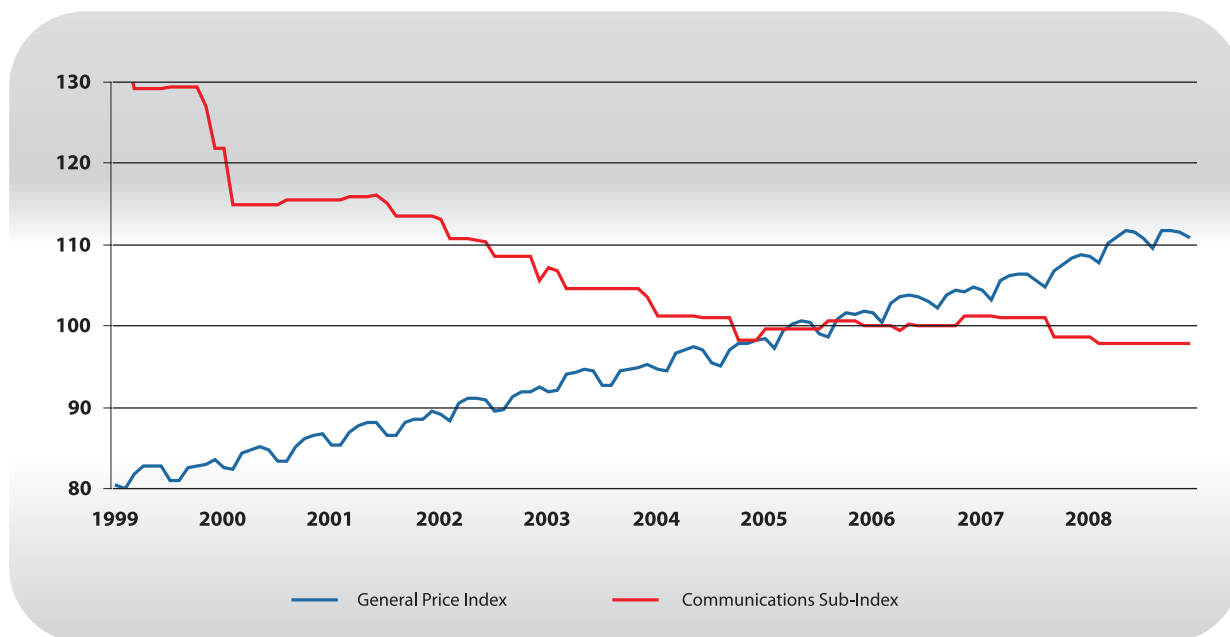
1. http://ec.europa.eu/information_society/policy/ecomms/library/communications_reports/annualreports/14th/index_en.htm.

1.1. Consumer Price Index

The general progress of the cost of the Electronic Communications services is reflected in the annual course of

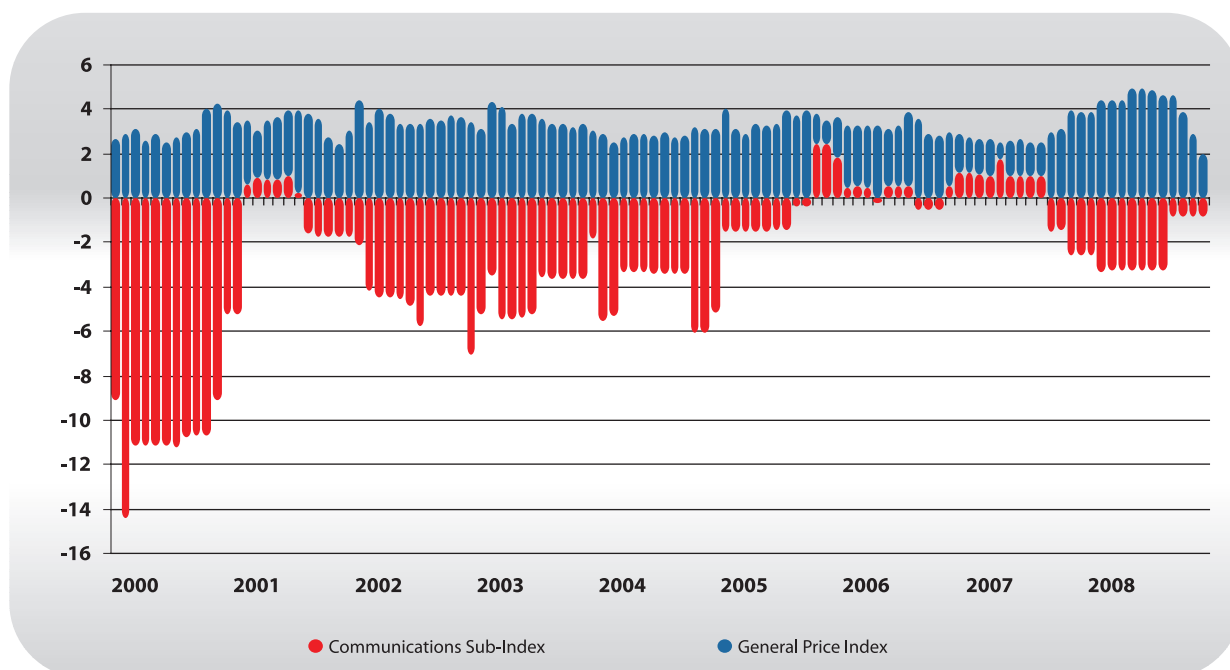
the general Consumer Price Index (CPI) presented in Figures 1 and 2. In general terms, the Communications Sub-index has followed a declining course compared to the general CPI, having also decreased further during 2008.

Figure 1
Progress of the Monthly Consumer Price Index
General Index - Communications Sub-Index



Source: EETT (based on NSGG data)

Figure 2
Variation of the Monthly Consumer Price Index (%) Compared to the Respective Index of the Previous Year



Source: EETT (based on NSGG data)

1.2. Financial Data of the Electronic Communications Market

This section presents the basic financial data of the Greek Electronic Communications market, as they have accrued from the published balance sheets of the licensed operators for the period 2000 – 2008. For 2008, the various financial data for the operators listed in the Athens Stock Exchange (ASE) are based on their annual financial statements in conformity with the International Financial Reporting Standards (IFRS). Additionally, data collected by EETT from licensed operators on a six-month period basis regarding turnover, investments etc. has also been taken into account.

The entire market², as depicted in Figure 3, was characterized by a significant increase (7%) of total assets and an estimated fall of turnover and gross profit. It is noted that the data of the licensed operators whose balance sheets are available is taken into account. The operators' turnover (Figure 4) suffered a 2% decline mainly due to the reduction in OTE's turnover (by 3%) while the changes for the MTOs and the OLOs were marginal. The situation is similar for the gross profit since there is a marginal increase for OTE and a decrease for the MTOs (-0.1). On the contrary, the reduction of the OLOs' gross profit (by 27%) was significant. The increase in total assets (Figure 6) is attributed on the one hand to the 6% increase in OTE's total

assets caused by the increase of its share in affiliated companies³, and on the other to the MTOs. Table 1 summarizes the financial data, which is presented in the Figures below.

Additionally, Figures 7 to 10 present a series of ratios, which stamp in a more sophisticated way the financial progress of operators⁴. The published balance sheets of fixed and mobile telephony operators were the base for the calculation of these ratios. Analytically:

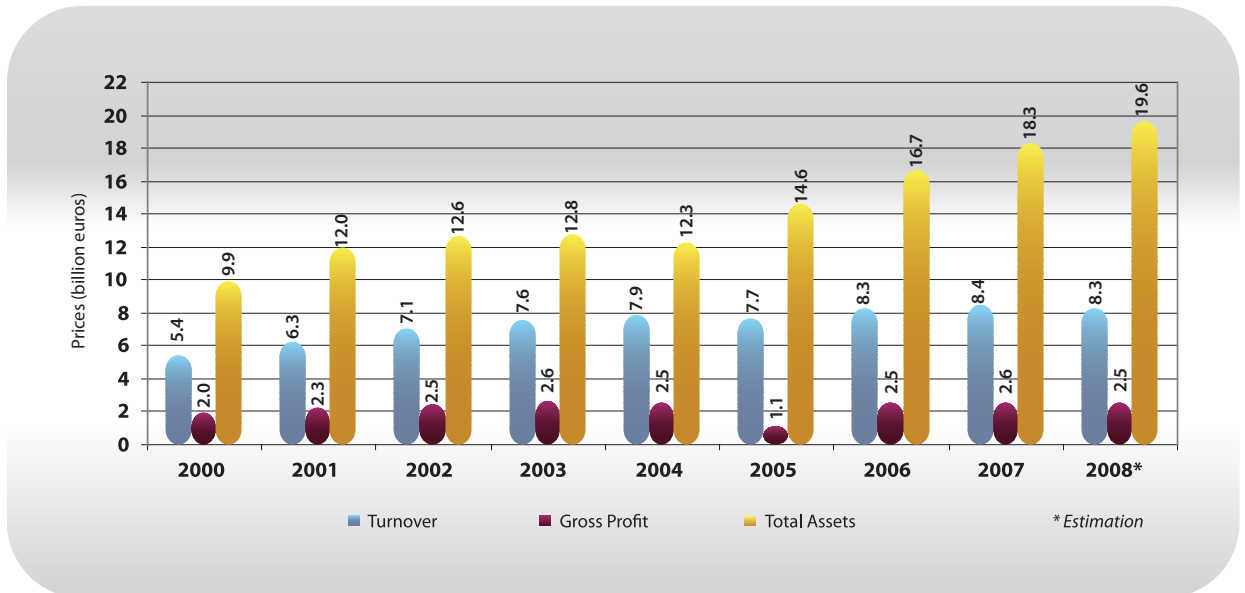
- The Acid Test Ratio (Figure 7) has decreased by over 20% both for the OLOs (drop below 1) and the MTOs, reducing, thus, their ability to respond promptly to their direct needs.
- The Gross Profit Margin Ratio (Figure 8) registers a respective decrease, namely 22% for the OLOs and 8% for the MTOs.
- The Equity to Total Liabilities Ratio (Figure 9) has decreased by 66% for the MTOs and 33% for the OLOs, which means that either the operators' equity has decreased or their total liabilities have increased.
- The average collecting period (Figure 10) has increased for all operators while the average paying period has risen considerably for the OLOs (mainly due to the increase in the short term liabilities of OTE and HOL) and has decreased for the MTOs.

2. It is noted that the total financial data of the licensed operators is taken into account.

3. On December 31, 2008 OTE possessed the total (100%) share capital and the respective voting rights of COSMOTE compared to 90.72% on December 31, 2007 and 67% on December 31, 2006.

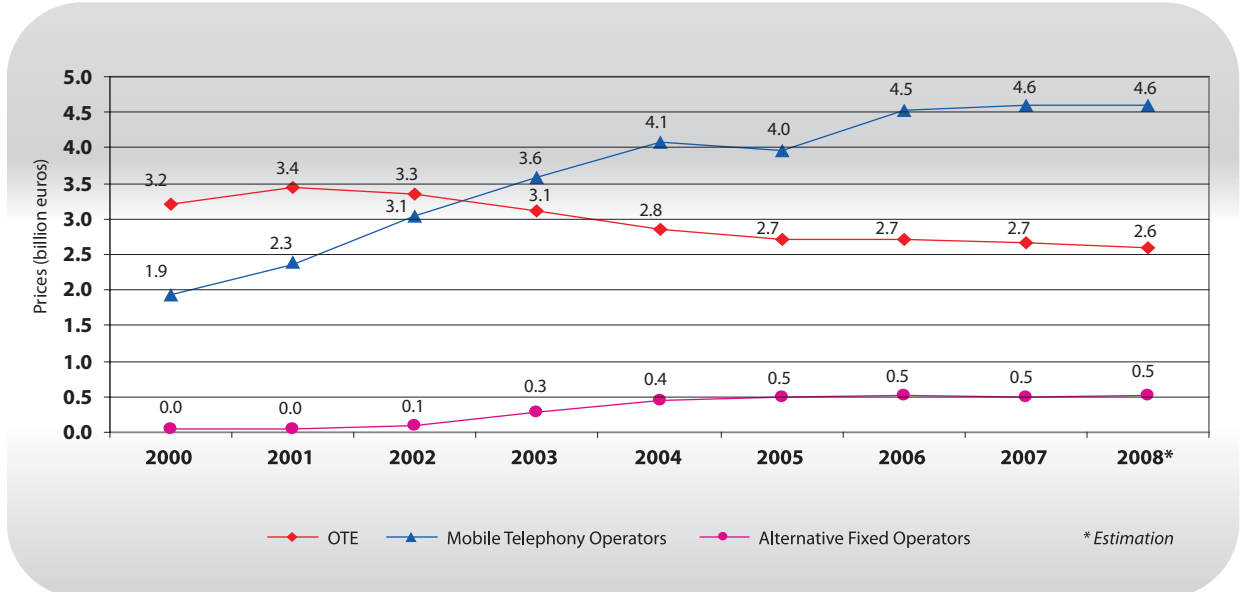
4. The definition of ratios is cited in the Glossary.

Figure 3
Progress of the Financial Data of the Licensed Operators



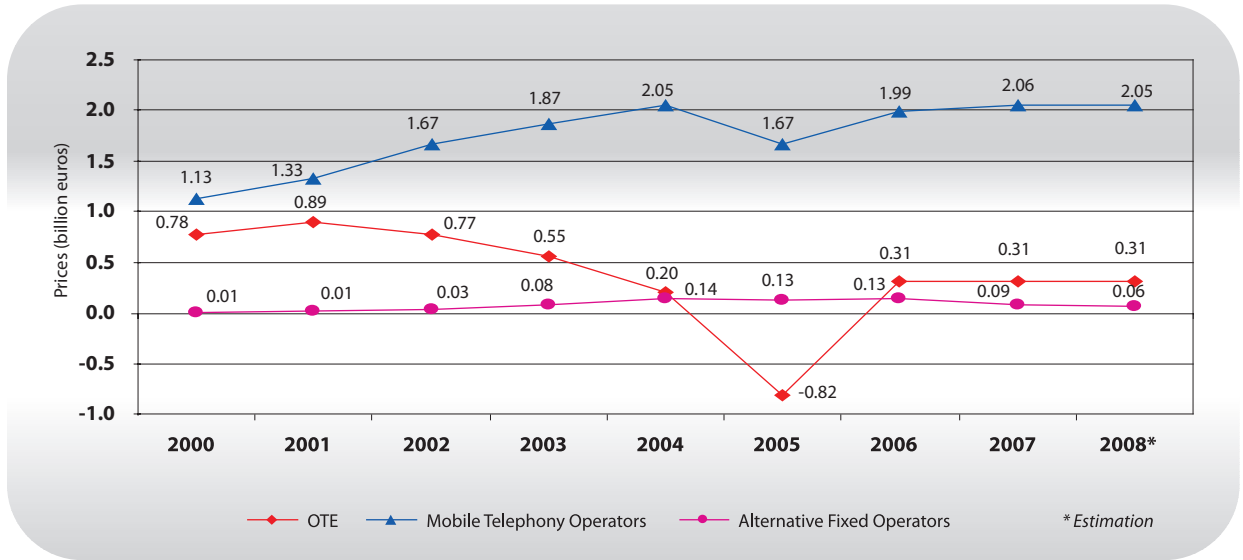
Source: EETT (based on the published balance sheets)

Figure 4
Turnover of the Electronic Communications Operators



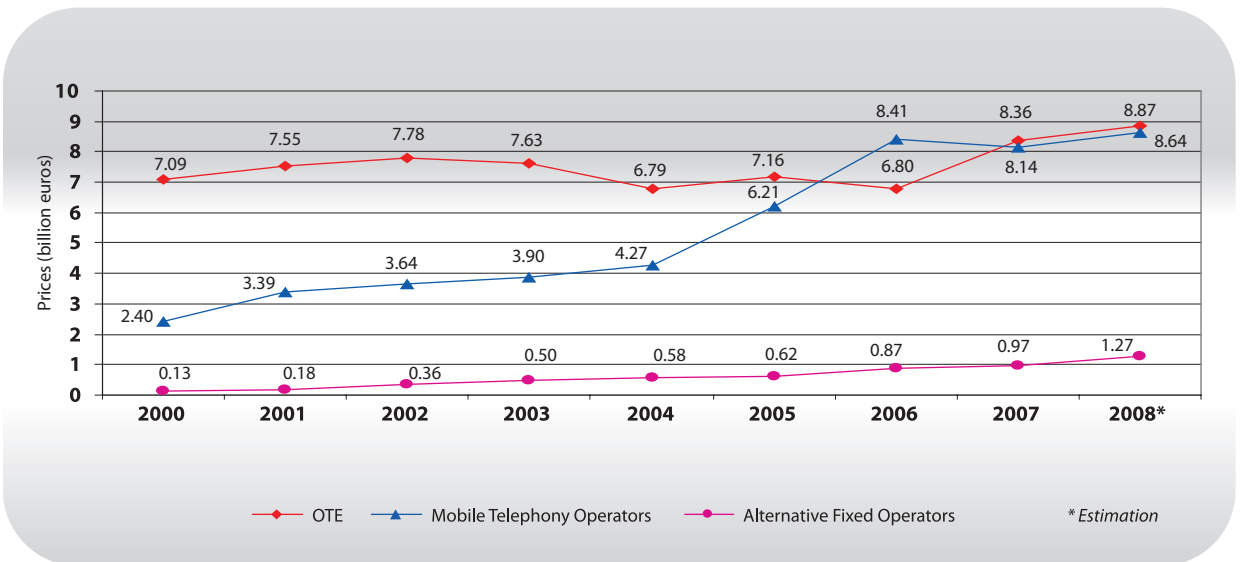
Source: EETT (based on the published balance sheets)

Figure 5
Gross Profit of the Electronic Communications Operators



Source: EETT (based on the published balance sheets)

Figure 6
Total Assets of the Electronic Communications Operators



Source: EETT (based on the published balance sheets)

Table 1
Progress of the Financial Data of the Electronic Communications Operators

Turnover (billion euros)	2000	2001	2002	2003	2004	2005	2006	2007	2008*
OTE	3.21	3.45	3.34	3.12	2.85	2.71	2.71	2.66	2.59
Mobile Telephony Operators	1.95	2.95	3.05	3.58	4.08	3.96	4.53	4.59	4.59
Alternative Fixed Operators (**)	0.04	0.05	0.10	0.29	0.44	0.50	0.52	0.49	0.51
Other Operators (***)	0.25	0.43	0.57	0.61	0.53	0.54	0.56	0.70	0.63
Total	5.45	6.28	7.06	7.60	7.90	7.71	8.33	8.45	8.32

Gross Profit (billion euros)	2000	2001	2002	2003	2004	2005	2006	2007	2008*
OTE	0.78	0.89	0.77	0.55	0.20	-0.82	0.31	0.31	0.31
Mobile Telephony Operators	1.13	1.33	1.67	1.87	2.05	1.67	1.99	2.06	2.05
Alternative Fixed Operators (**)	0.01	0.01	0.03	0.08	0.14	0.13	0.13	0.09	0.06
Other Operators (***)	0.07	0.05	0.003	0.14	0.16	0.12	0.11	0.12	0.12
Total	1.99	2.28	2.48	2.64	2.54	1.10	2.55	2.57	2.55

Total Assets (billion euros)	2000	2001	2002	2003	2004	2005	2006	2007	2008*
OTE	7.09	7.55	7.78	7.63	6.79	7.16	6.80	8.36	8.87
Mobile Telephony Operators	2.40	3.39	3.64	3.90	4.27	6.21	8.41	8.14	8.64
Alternative Fixed Operators (**)	0.13	0.18	0.36	0.50	0.58	0.62	0.87	0.97	1.27
Other Operators (***)	0.32	0.83	0.86	0.74	0.63	0.61	0.62	0.79	0.81
Total	9.94	11.96	12.65	12.77	12.26	14.60	16.70	18.27	19.60

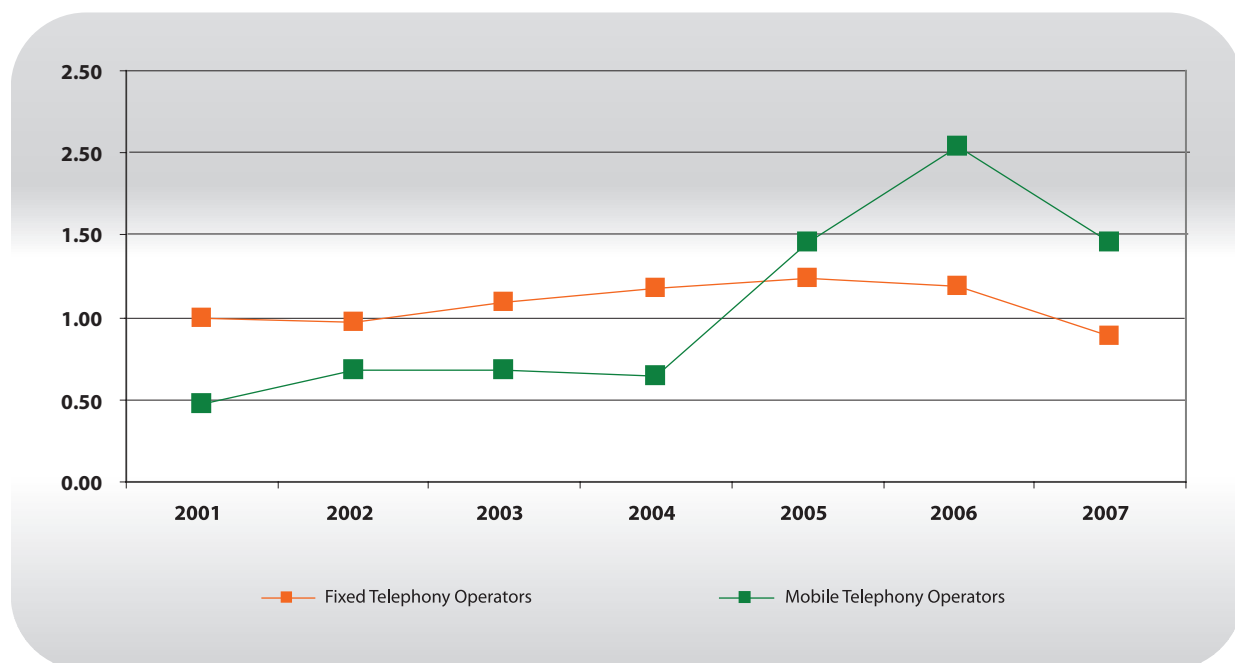
Source: EETT (based on the published balance sheets)

* Estimation.

** All licensed operators that offer fixed telephony services are included.

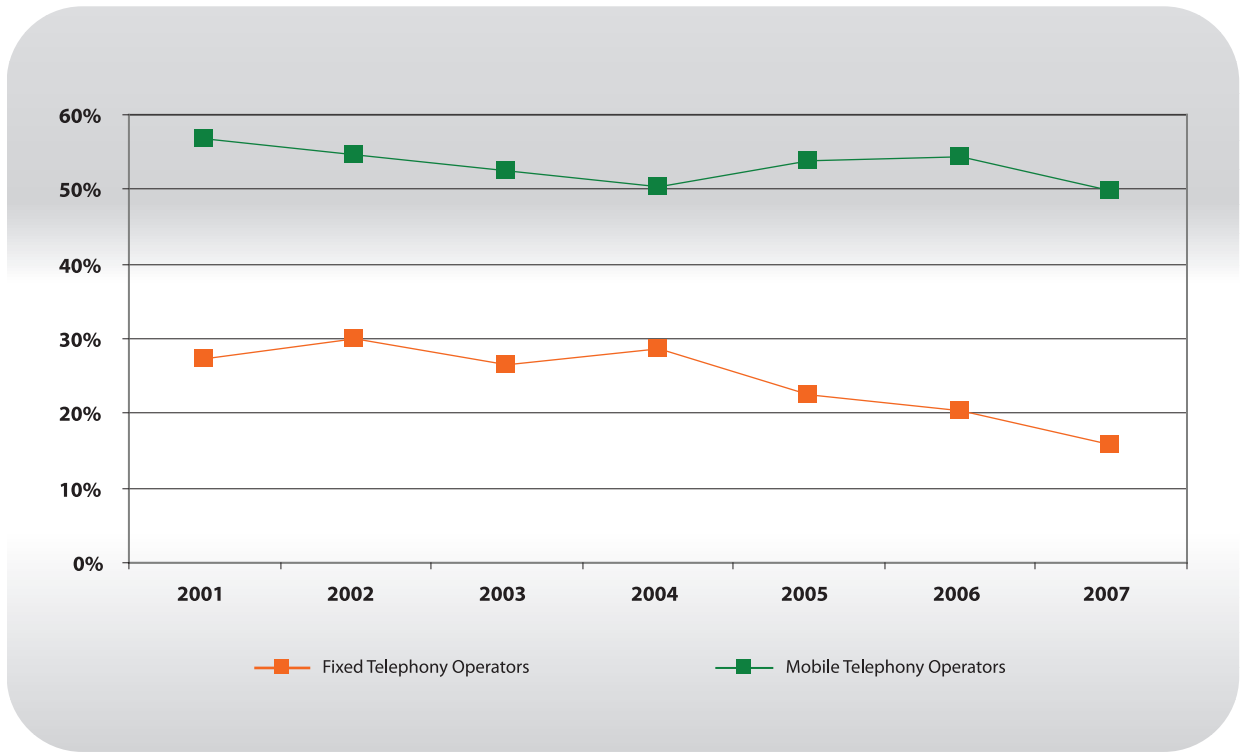
*** All the residual licensed operators are included.

Figure 7
Acid Test Ratio



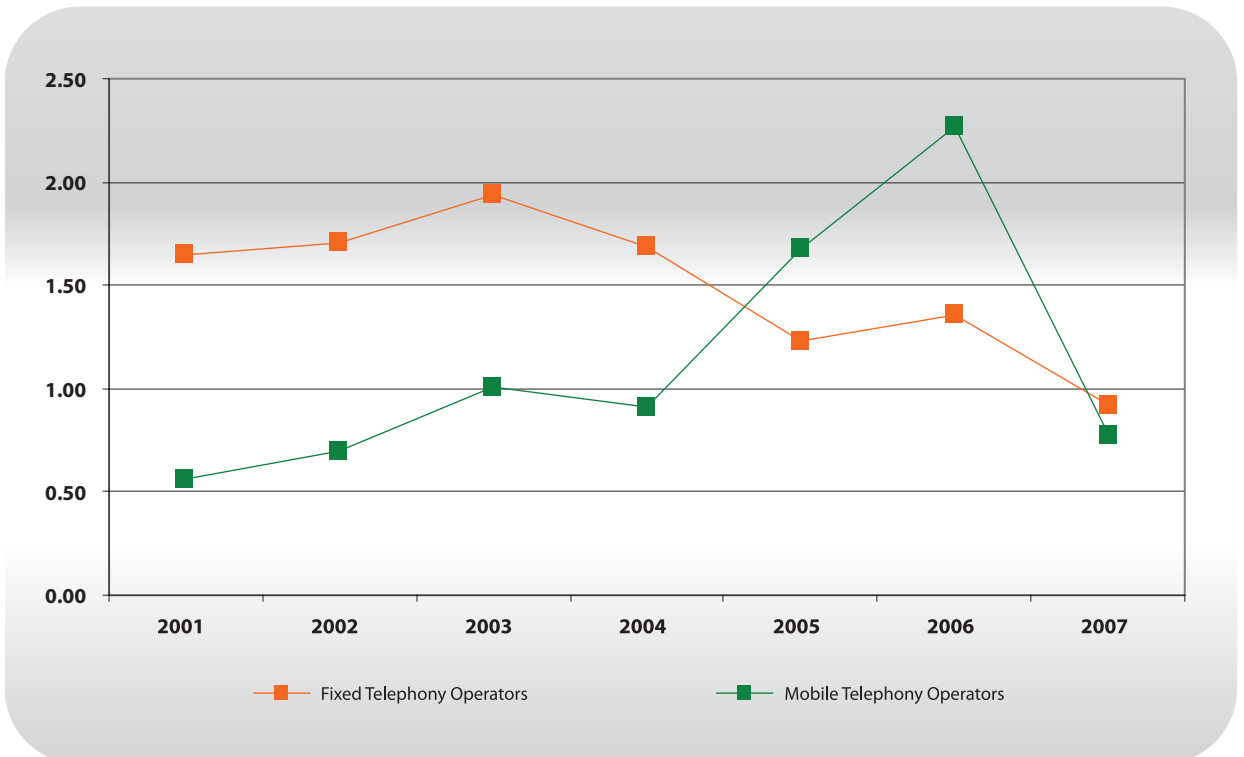
Source: EETT (based on the published balance sheets)

Figure 8
Gross Profit Margin Ratio



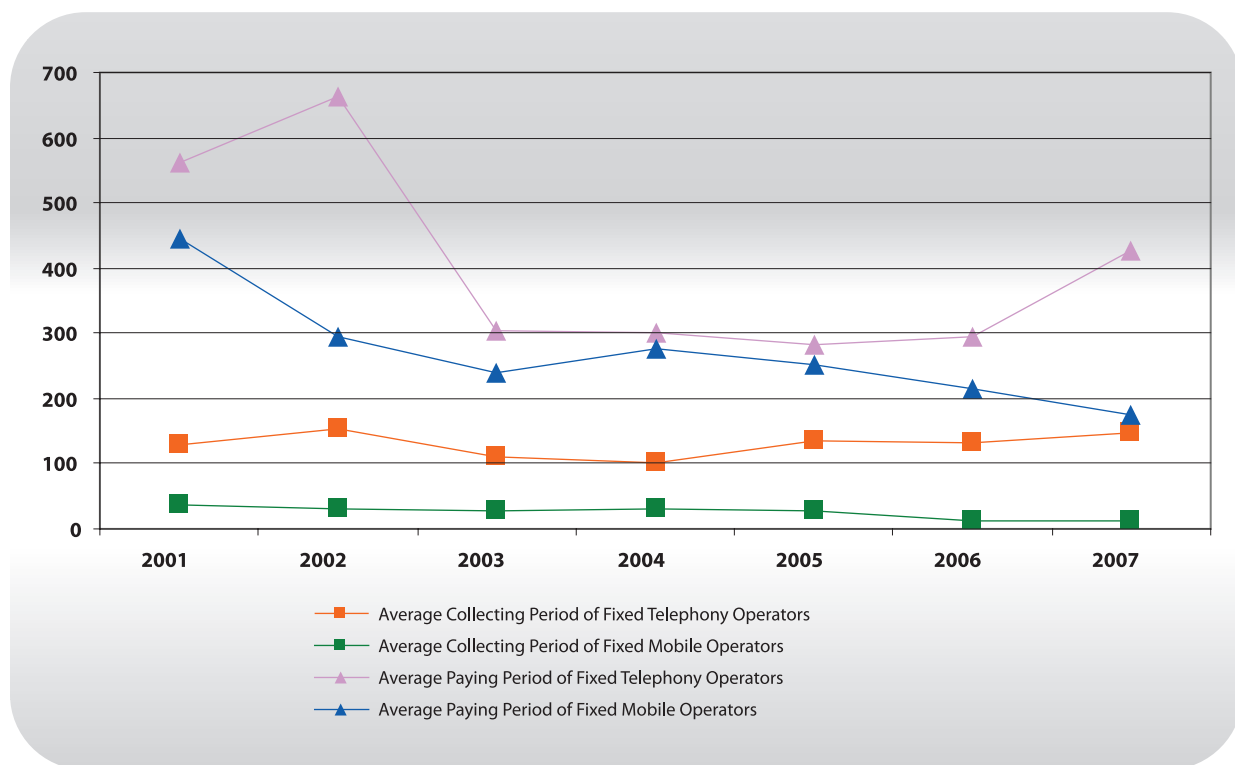
Source: EETT (based on the published balance sheets)

Figure 9
Equity to Total Liabilities Ratio



Source: EETT (based on the published balance sheets)

Figure 10
Activity Ratios



Source: EETT (based on the published balance sheets)

1.3. Licensing

Table 2 presents the number of the licensed operators active in the main sectors of the Electronic Communications Market by the end of 2008.

Table 2
Licensed Operators per Category

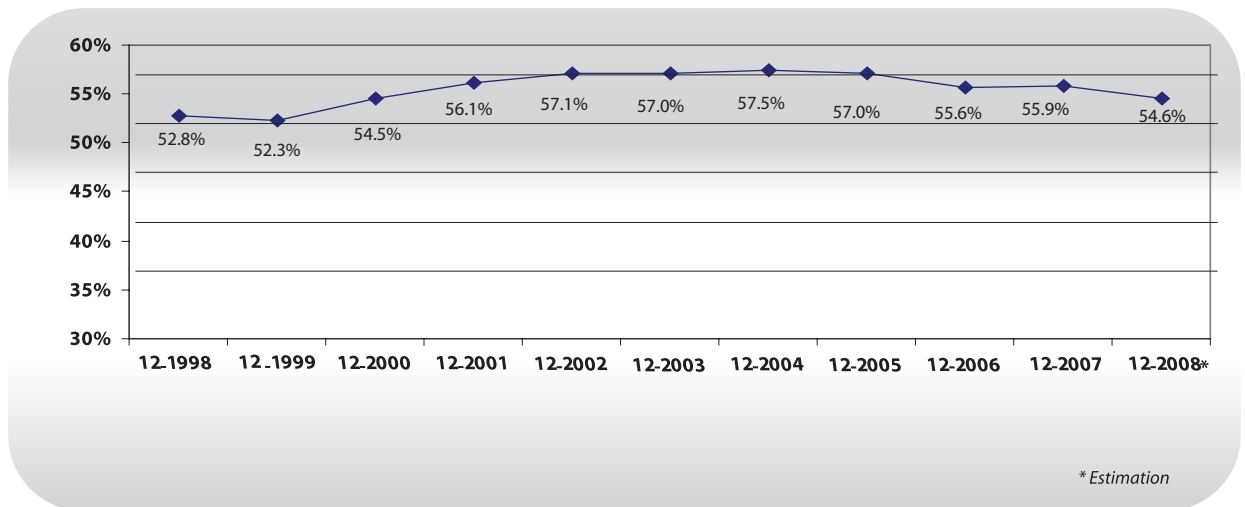
Activity	Number of Operators
Voice Telephony and Fixed Network Development	151
Voice Telephony	128
Fixed Network Development	69
Satellite Networks	29
2 nd Generation Mobile Telephony	6
3 rd Generation Mobile Telephony	6
TETRA	4
W-LAN	64

Source: EETT

1.4. Access to the Public Telephone Network

During 2008, the number of the Access Lines to the Public Telephone Network measured in 64 Kbps channels (Figure 11 and Table 3), decreased by 1.3% compared to the end of 2007. At the same time, it is estimated that both the numbers of PSTN lines and ISDN BRA lines have followed a declining course during 2008. The annual percentage changes are presented in Figure 12.

Figure 11
Penetration of PSTN Lines and ISDN Channels to Greek Population



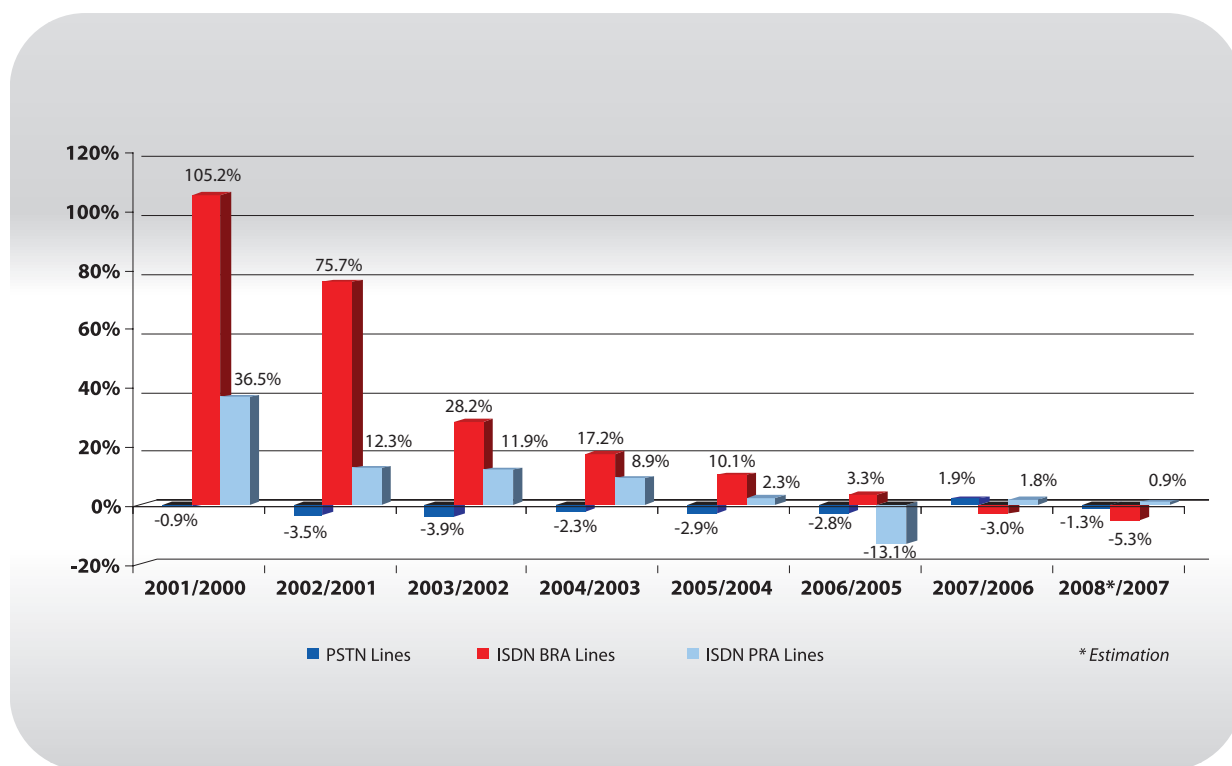
Source: EETT (based on the licensed operators' data)

Table 3
Progress of Telephone Lines

	PSTN Lines	ISDN BRA Lines	ISDN PRA Lines	Penetration
Dec. 1997	5,430,855	792	134	51.7%
Dec. 1998	5,535,521	3,258	448	52.8%
Dec. 1999	5,610,931	27,542	1,478	52.3%
Dec. 2000	5,659,274	96,972	3,946	54.6%
Dec. 2001	5,607,726	199,033	5,385	56.1%
Dec. 2002	5,412,842	349,751	6,023	57.1%
Dec. 2003	5,200,368	448,542	6,766	57.0%
Dec. 2004	5,078,908	525,499	7,368	57.3%
Dec. 2005	4,933,476	578,529	7,538	57.0%
Dec. 2006	4,793,549	597,900	6,547	55.6%
Dec. 2007	4,882,824	579,936	6,665	55.9%
Dec. 2008*	4,822,813	549,357	6,722	54.6%

*Estimation

Figure 12
Annual Percentage Change of the Operating Access Lines



Source: EETT (based on the licensed operators' data)

1.5. Fixed Telephony

1.5.1. Retail Outgoing Traffic

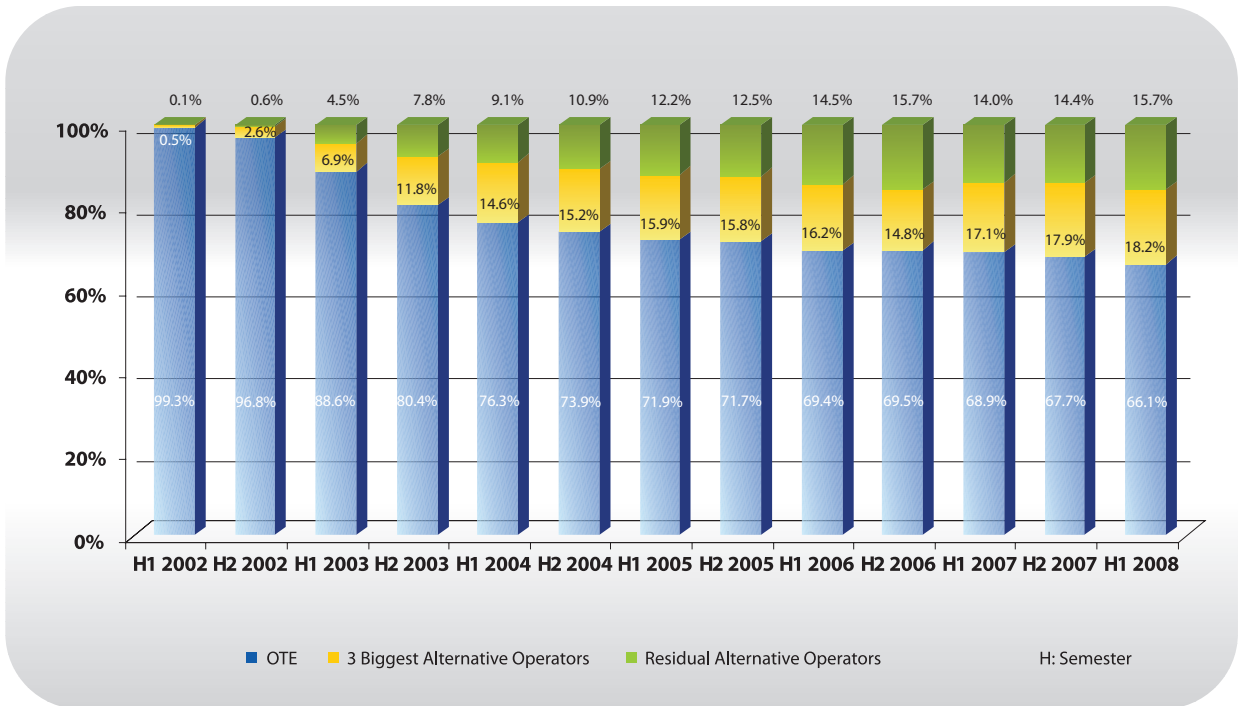
During 2008, the competition in the fixed telephony market was still intense mainly in the infrastructure level. The OLOs, thanks to the LLU growth, gained a 7.8% share in the number of the directly connected subscribers of fixed telephony (compared to 4.4% at the end of 2007). At the same time, OTE's shares decreased in relation to the volume of outgoing traffic both for total traffic (to 66.1% in the first semester of 2008 from 68.9% in the same period of 2007) and per call type (Figures 13 and 14). As far as the call category is concerned, OTE's shares ranged from 44% in international calls (registering a decrease by 6 percentage units) to 70.5% in calls to mobiles (a decrease of only 0.5 percentage unit). The above conclusions

are clearly depicted in Figure 15, which presents in absolute numbers the inter-temporal progress of the retail outgoing traffic for OTE and the total of alternative operators.

The progress of the retail outgoing traffic volume in absolute figures per traffic type is shown in Figure 16 and Table 4. Dial-up traffic has decreased rapidly and overall has registered a 75% fall as of the second semester of 2005, due to the change in the Internet access from dial-up to broadband. On the contrary, the other call types are relatively stable and in particular the national traffic has increased explicitly. Hence, the trend for total traffic (not including dial-up calls) is slightly upwards while the significant decrease of international traffic is very interesting since its reasons are not clear and obvious. In total, the course of the retail outgoing traffic (not including dial-up traffic) is presented in Figures 17 and 18.

Figure 13

Progress of Market Shares based on the Outgoing Traffic Volume (Dial-up Traffic is excluded)

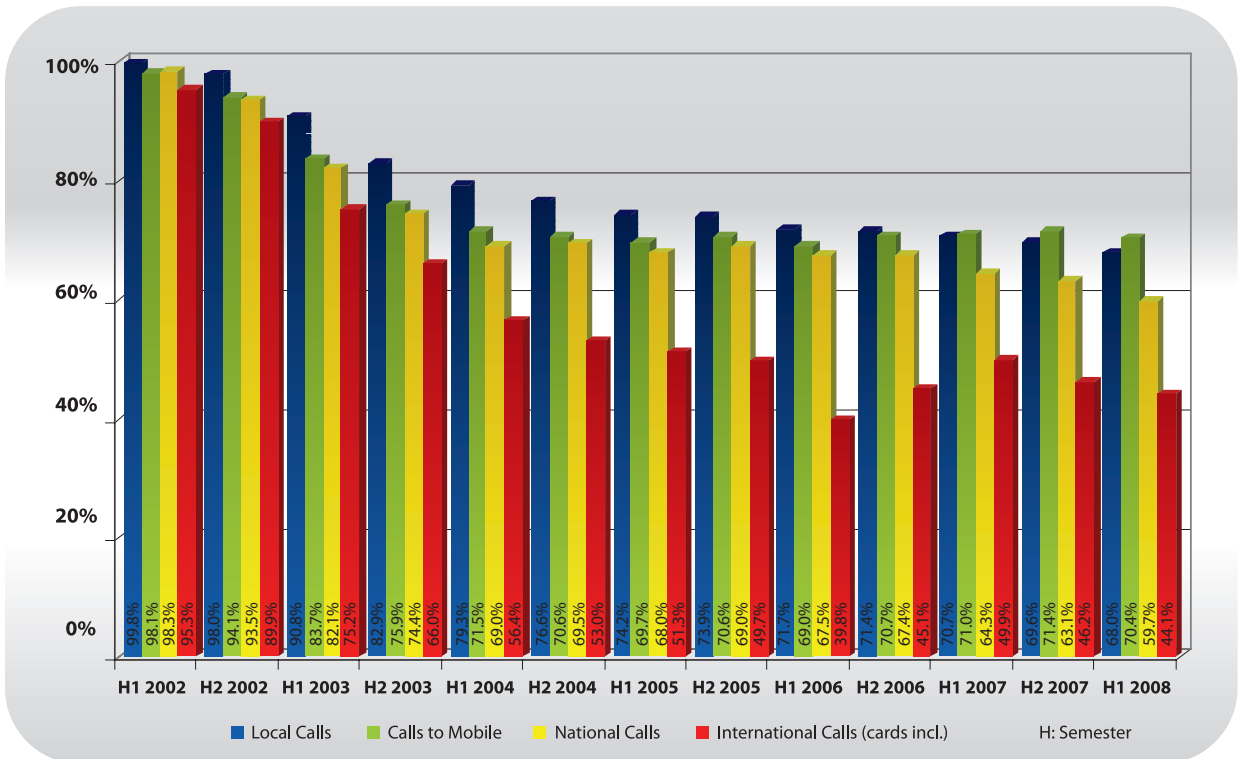


Source: EETT

Note: Calls with prepaid cards are included in the international calls

Figure 14

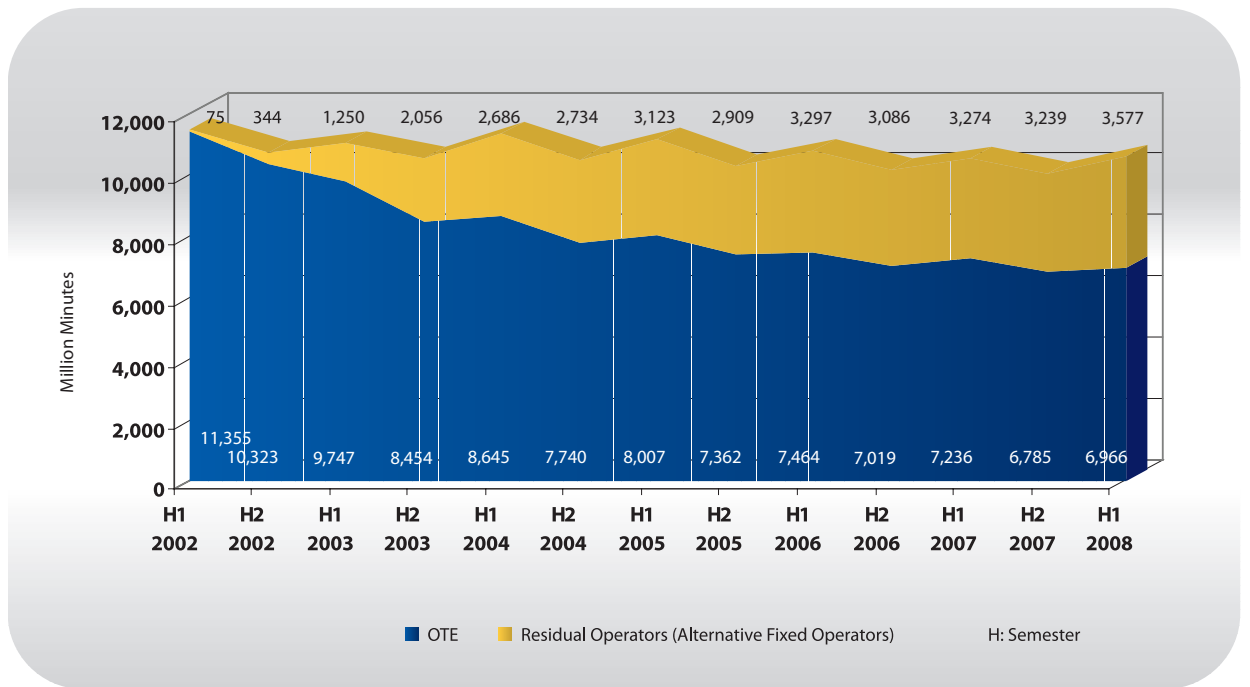
OTE's Shares per type of Call based on the Outgoing Traffic Volume



Source: EETT (based on the licensed operators' data)

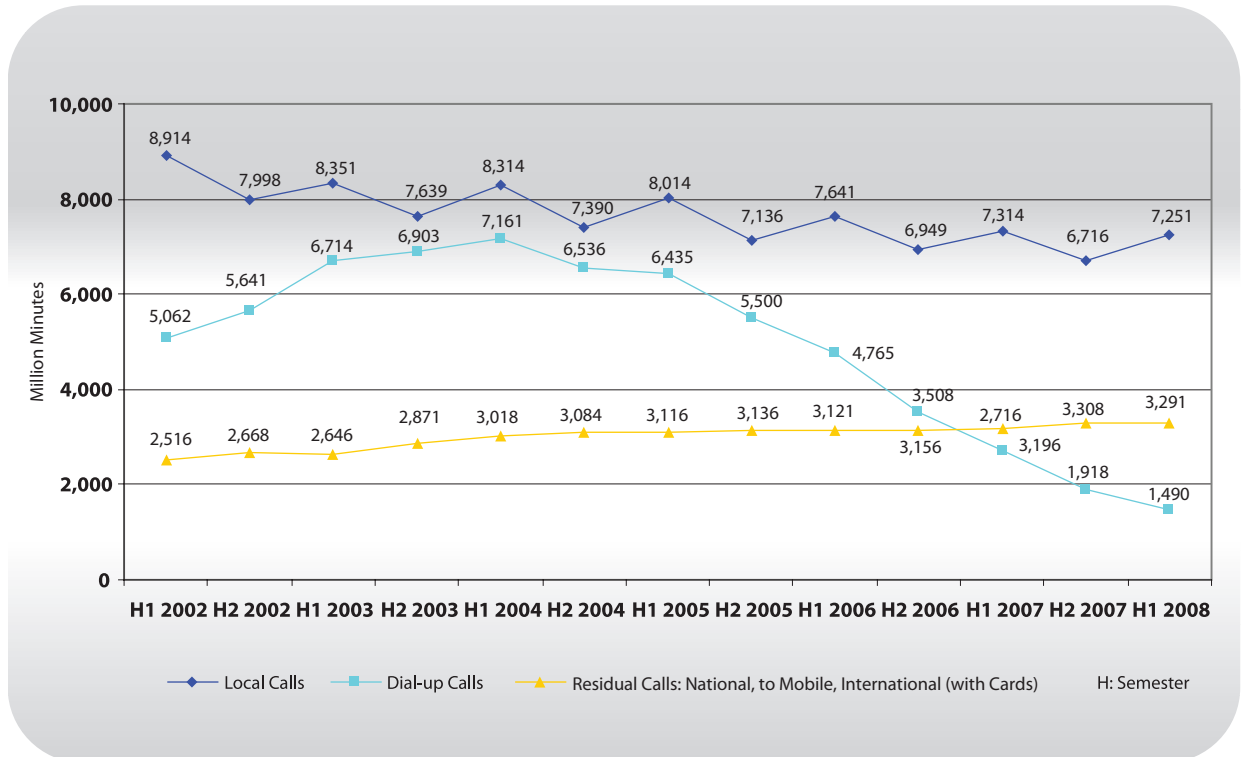
Note: Calls with prepaid cards are included in the international calls

Figure 15
Development of the Outgoing Fixed Calls, not Including the Dial-up Calls



Source: EETT (based on the licensed operators' data)
Note: Calls with prepaid cards are included in the international calls

Figure 16
Development of the Outgoing Calls Volume per Type of Call



Source: EETT

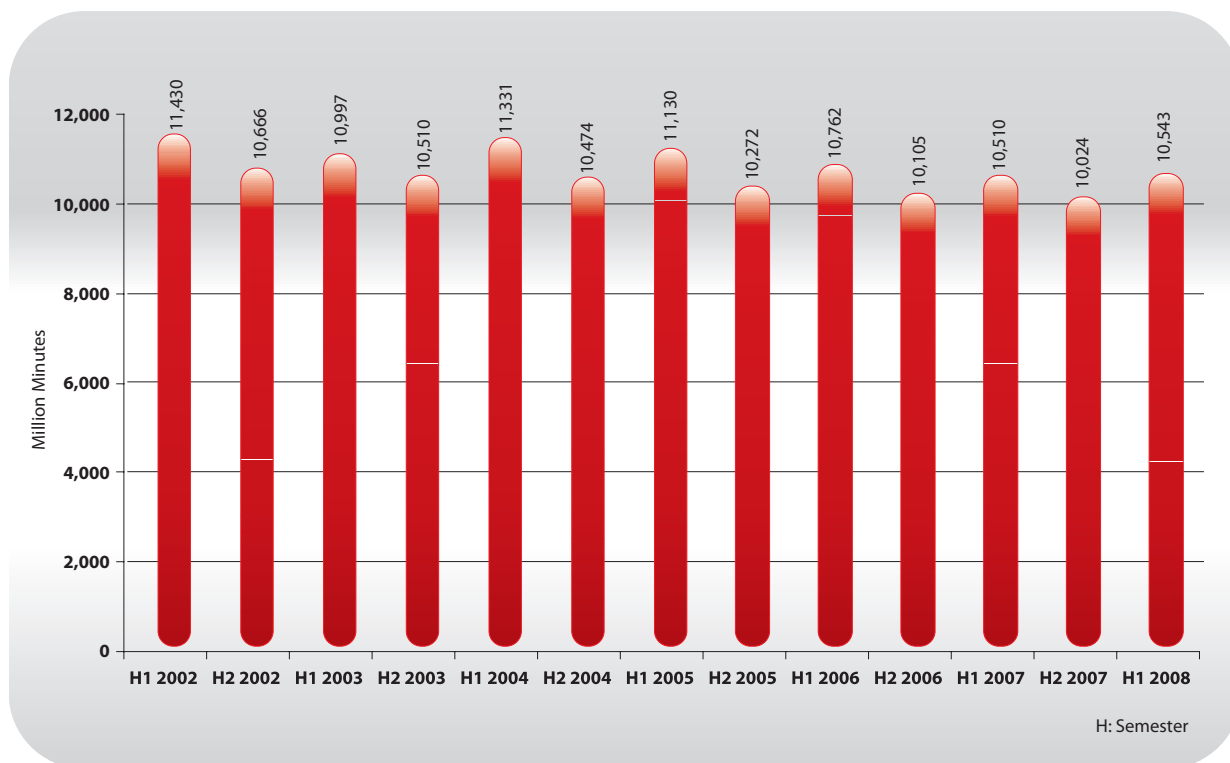
Table 4
Outgoing Fixed Telephony Traffic Volume, per Type of Call (million minutes)

Semester	Local Calls	National Calls	Dial-up Calls	International Calls (with cards)	Calls to Mobile	Total Calls not incl. Dial-up	Total Calls including Dial-up
H1 2002	8,914	1,178	5,062	353	985	11,430	16,492
H2 2002	7,998	1,218	5,641	376	1,074	10,666	16,307
H1 2003	8,351	1,237	6,714	378	1,032	10,997	17,711
H2 2003	7,639	1,312	6,903	421	1,138	10,510	17,413
H1 2004	8,314	1,375	7,161	450	1,193	11,331	18,492
H2 2004	7,390	1,366	6,536	486	1,232	10,474	17,010
H1 2005	8,014	1,404	6,435	476	1,235	11,130	17,565
H2 2005	7,136	1,366	5,500	491	1,278	10,272	15,772
H1 2006	7,641	1,354	4,765	514	1,253	10,762	15,527
H2 2006	6,949	1,339	3,508	504	1,313	10,105	13,614
H1 2007	7,314	1,382	2,716	532	1,283	10,510	13,227
H2 2007	6,716	1,485	1,918	513	1,309	10,024	11,942
H1 2008	7,251	1,661	1,490	394	1,236	10,543	12,033

Source: EETT (based on the licensed operators' data)

H: Semester

Figure 17
Development of the Outgoing Fixed Calls Volume, not Including the Dial-up Cards

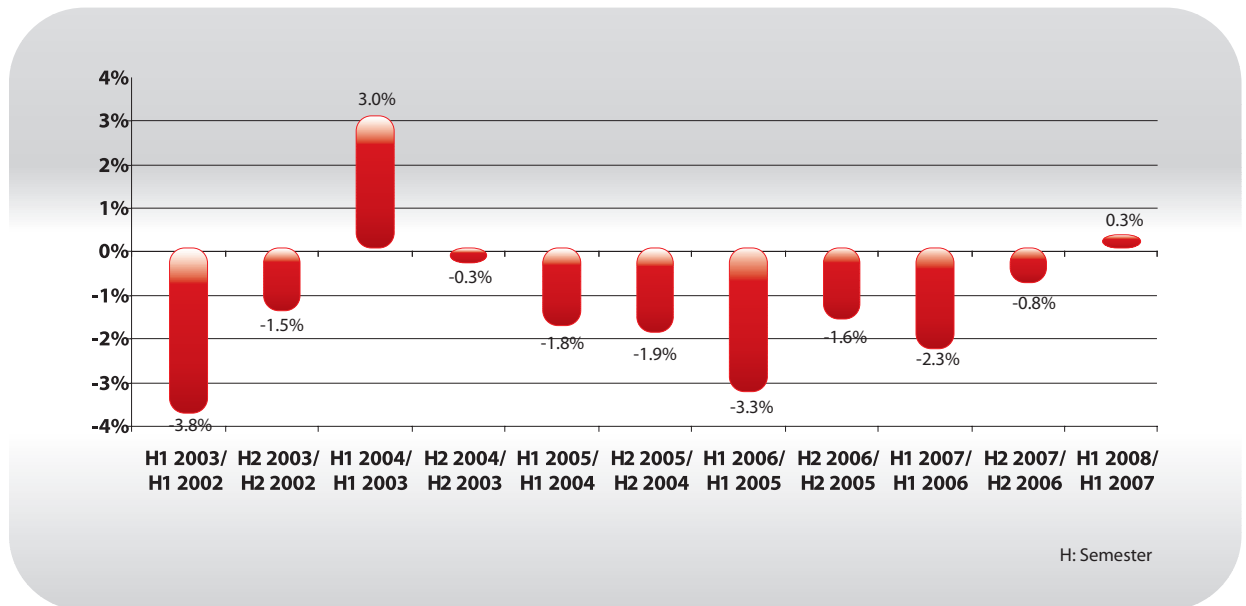


Source: EETT (based on the licensed operators' data)

Note: Calls with prepaid cards are included in the international calls

Figure 18

Percentage Change per Semester of the Outgoing Calls Volume, not Including the Dial-up Cards, Compared to the Respective Semester of the Previous Year



Source: EETT (based on the licensed operators' data)
Note: Calls with prepaid cards are included in the international calls

1.5.2. Revenues of Retail Telephony

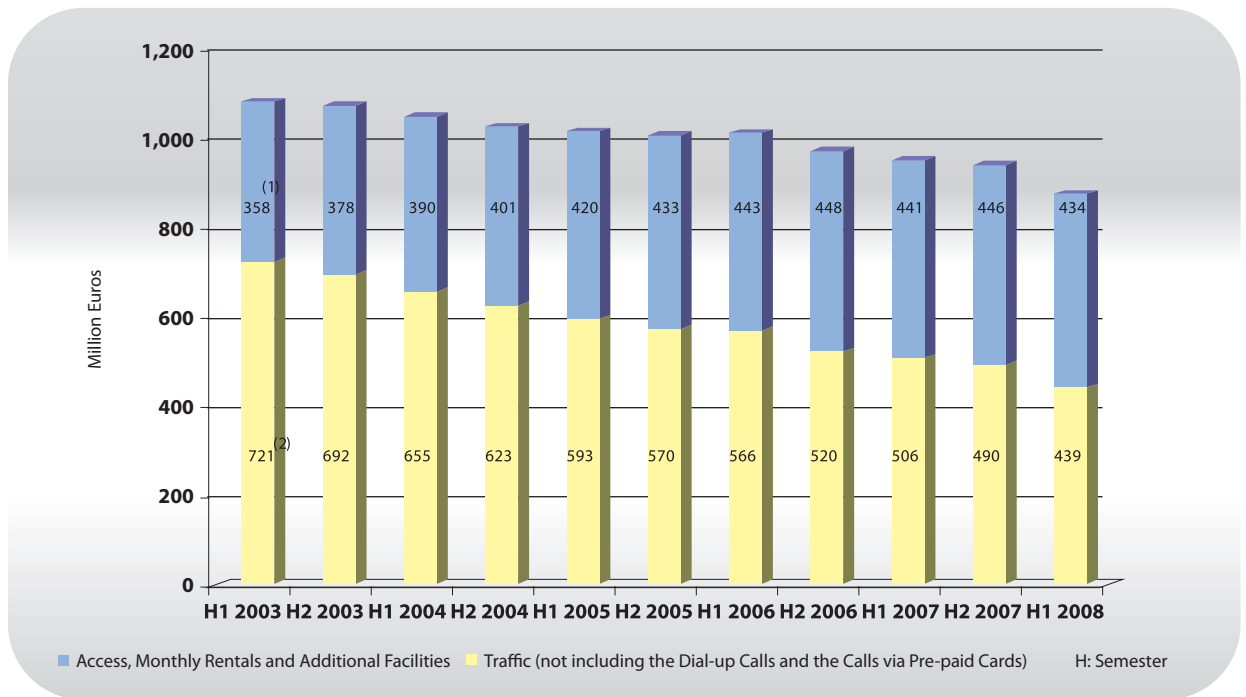
The retail revenues of fixed telephony persisted in their declining course, since they ranged at 873 million Euros⁵ in the first semester of 2008 registering an approximately 8% decrease compared to the respective period of 2007. Analytically, Figure 19 presents the inter-temporal progress of the retail telephony revenues generated both by "fixed" sources (monthly rentals, access fees etc.) and traffic. Also, their percentage change is presented in Figure 20 and the data in total in Table 5. As one can conclude, the revenues from access and monthly rentals have slightly decreased (the fall is more profound in the first semester of 2008) while the traffic revenues present a significant and constantly increasing fall which is expected since the use of packages with free minutes is increasing.

At the same time, OTE's shares based on telephony revenues are declining, which for the first time is obvious for revenues both from traffic and access and monthly rentals. Analytically, OTE's share based on the sum total of revenues is estimated at 80.7% in the first semester of 2008, its share in the access market falls under 99% for the first time reaching 95.30% and its share in the call market (not including revenues from dial-up and calls via cards) is approximately 66.2% (see Figure 21). The percentages for the respective period of 2007 were 94%, 99.6% and 70.3%. The inter-temporal progress of the shares for OTE, the three biggest alternative providers⁶ and the other providers, based on the revenues from fixed telephony calls is presented in Figure 22.

5. It is mentioned that the sum total of the retail revenues from fixed telephony includes the revenues for providing fixed telephony access services (connection, monthly rentals and additional facilities) as well as the revenues for providing fixed telephony call services (local, national, international and calls to mobile). The revenues from dial-up calls and international calls via pre-paid cards are not included.

6. It is mentioned that the 3 biggest operators per semester have been defined separately for each semester, based on their respective revenues.

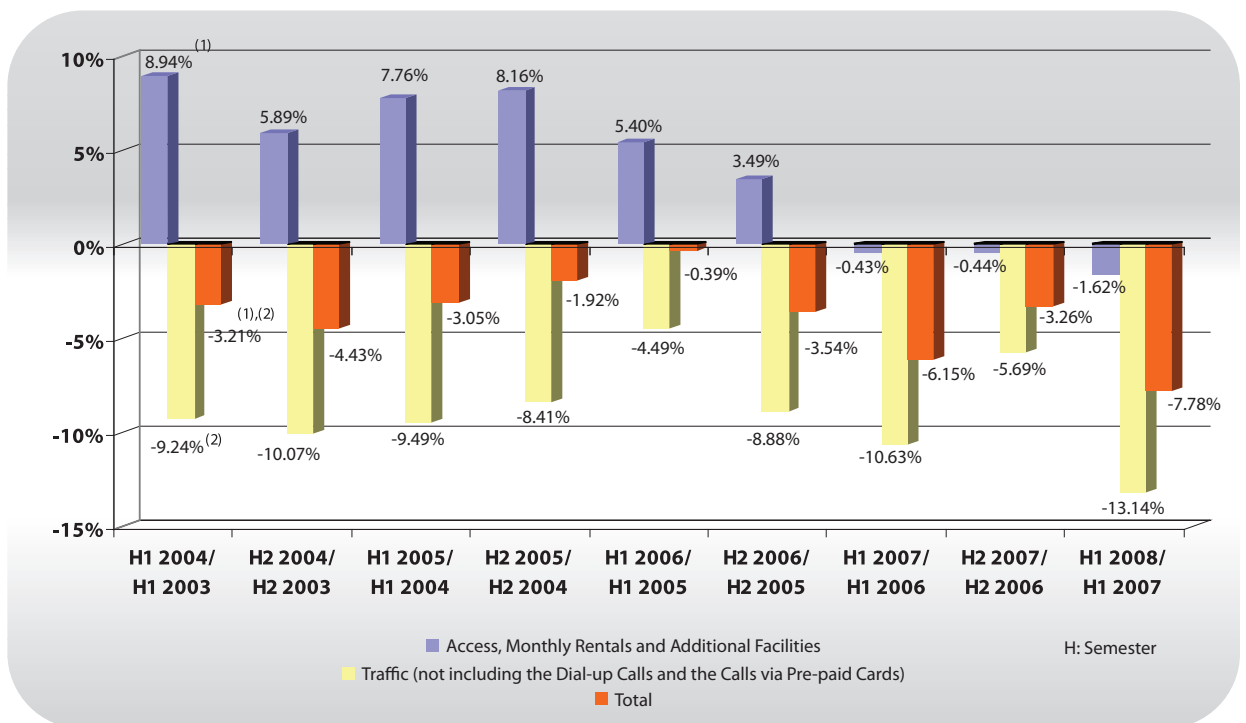
Figure 19
Retail Revenues of Fixed Telephony



Source: EETT (based on the licensed operators' data)

- (1) Revenues related to additional facilities are not included in H1 2003.
- (2) Revenues related to calls to short code services are included in H1 2003.

Figure 20
Percentage Change per Semester of the Retail Revenues, Compared to the Respective Semester of the Previous Year



Source: EETT (based on the licensed operators' data)

- (1) Revenues related to additional facilities are not included in H1 2003.
- (2) Revenues related to calls to short code services are included in H1 2003.

Table 5
Retail Revenues of Fixed Telephony (Million Euros)

Semester	Connection, Monthly Rentals and Additional Facilities	Traffic (Not Including Dial-up Calls and Calls via Pre-paid Cards)	Total
H1 2003	358 ⁽¹⁾	721 ⁽²⁾	1,079
H2 2003	378	692	1,071
H1 2004	390	655	1,045
H2 2004	401	623	1,023
H1 2005	420	593	1,013
H2 2005	433	570	1,003
H1 2006	443	566	1,009
H2 2006	448	520	968
H1 2007	441	506	947
H2 2007	446	490	936
H1 2008	434	439	873

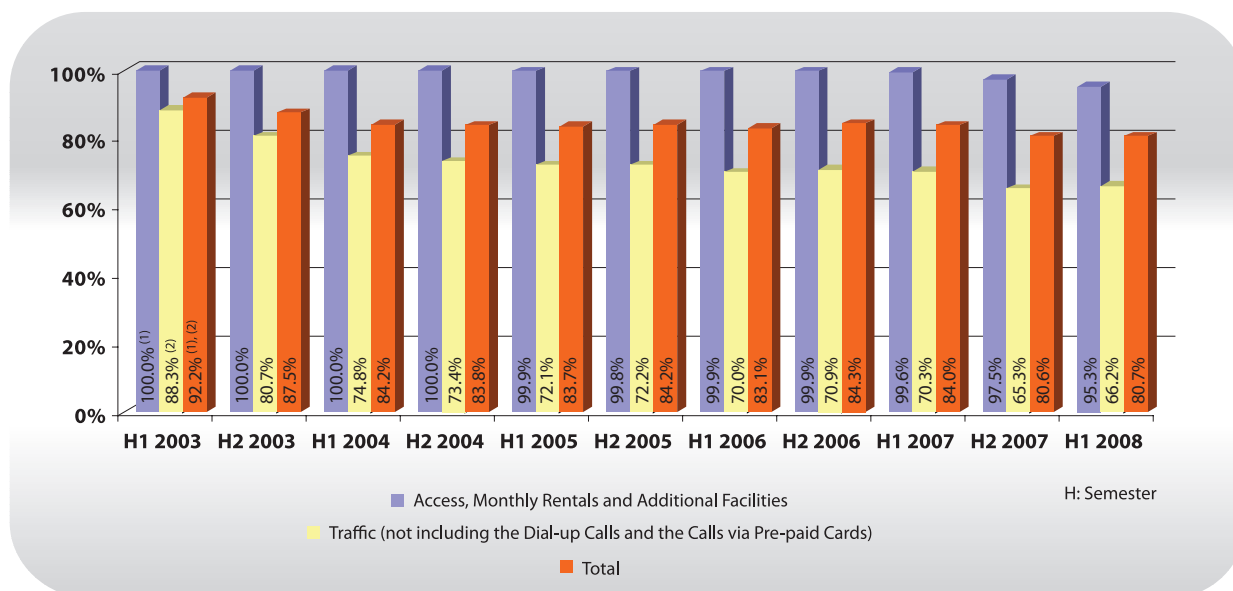
Source: EETT (based on the licensed operators' data)

H: Semester

(1) Revenues related to additional facilities are not included in H1 2003.

(2) Revenues related to calls to short code services are included in H1 2003.

Figure 21
OTE's Market Shares based on the Retail Revenues of Fixed Telephony

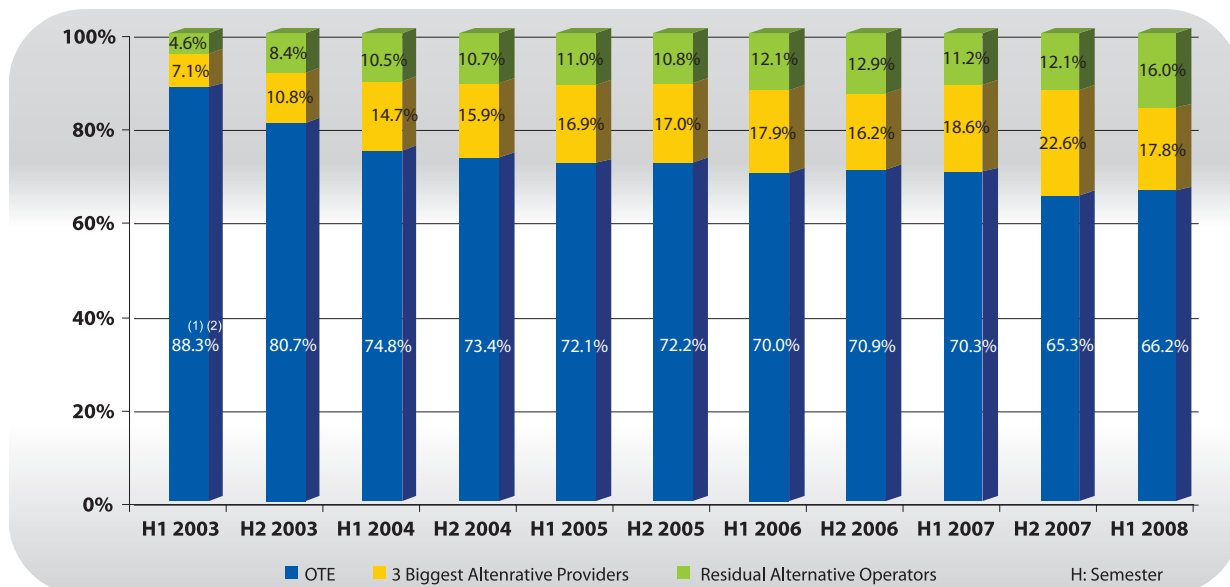


Source: EETT (based on the licensed operators' data)

(1) Revenues related to additional facilities are not included in H1 2003.

(2) Revenues related to calls to short code services are included in H1 2003.

Figure 22
Development of Market Shares based on the Retail Revenues of the Outgoing Traffic,
(Not Including the Dial-up Traffic and the Traffic via Cards)



Source: EETT (based on the licensed operators' data)

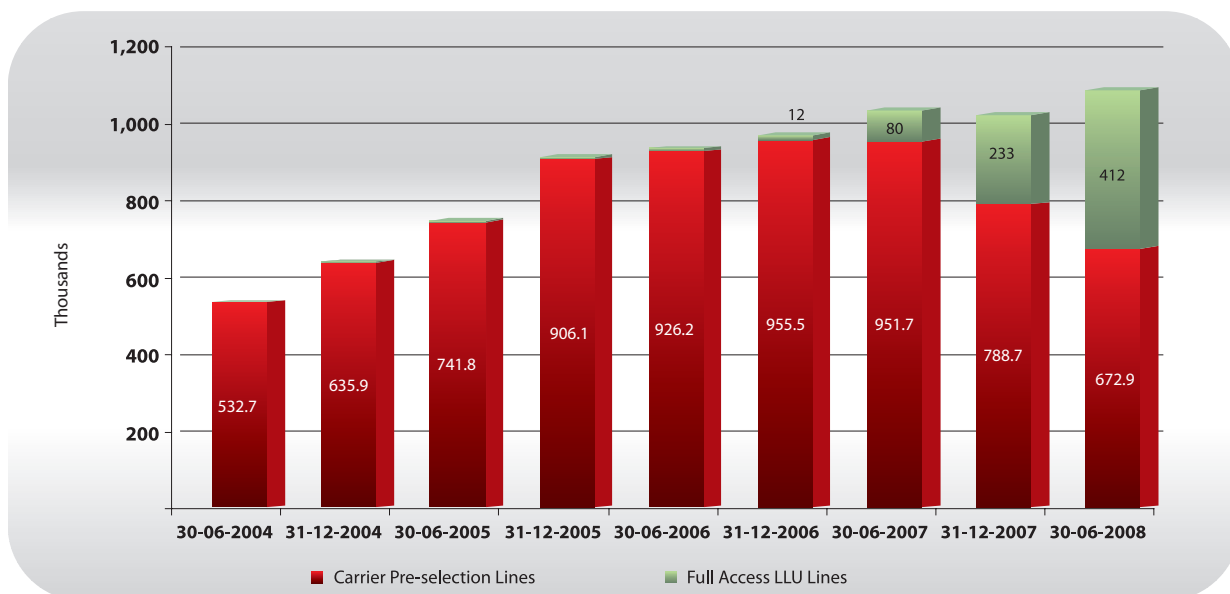
- (1) Revenues related to additional facilities are not included in H1 2003.
- (2) Revenues related to calls to short code services are included in H1 2003.

1.5.3. Alternative Providers Lines

As of the end of 2006, the swing in the lines of alternative operators from Carrier Pre-selection to LLU full access lines is

obvious (Figure 23). This result in the significant decrease of the Carrier Pre-selection lines from 955,000 at the end of 2006 to 673,000 in the middle of 2008 (a fall by 30%).

Figure 23
Number of Lines of Alternative Providers via Carrier Pre-selection or LLU at the end of each Semester



Source: EETT (based on the licensed operators' data)

1.6. Telephony Tariffs

1.6.1. Fixed Telephony

Figures 24 and 25 present the cost of a 3-minute local and national call for the Electronic Communications' incumbents of the 27 member states. It is mentioned that the cost includes any call set-up, minimum charge or/and other allowances according to call duration. The cost refers to calls made during peak hours in September, 2008. Greece is ranked below the European average both for local calls (5th cheapest member state and national calls (16th place).

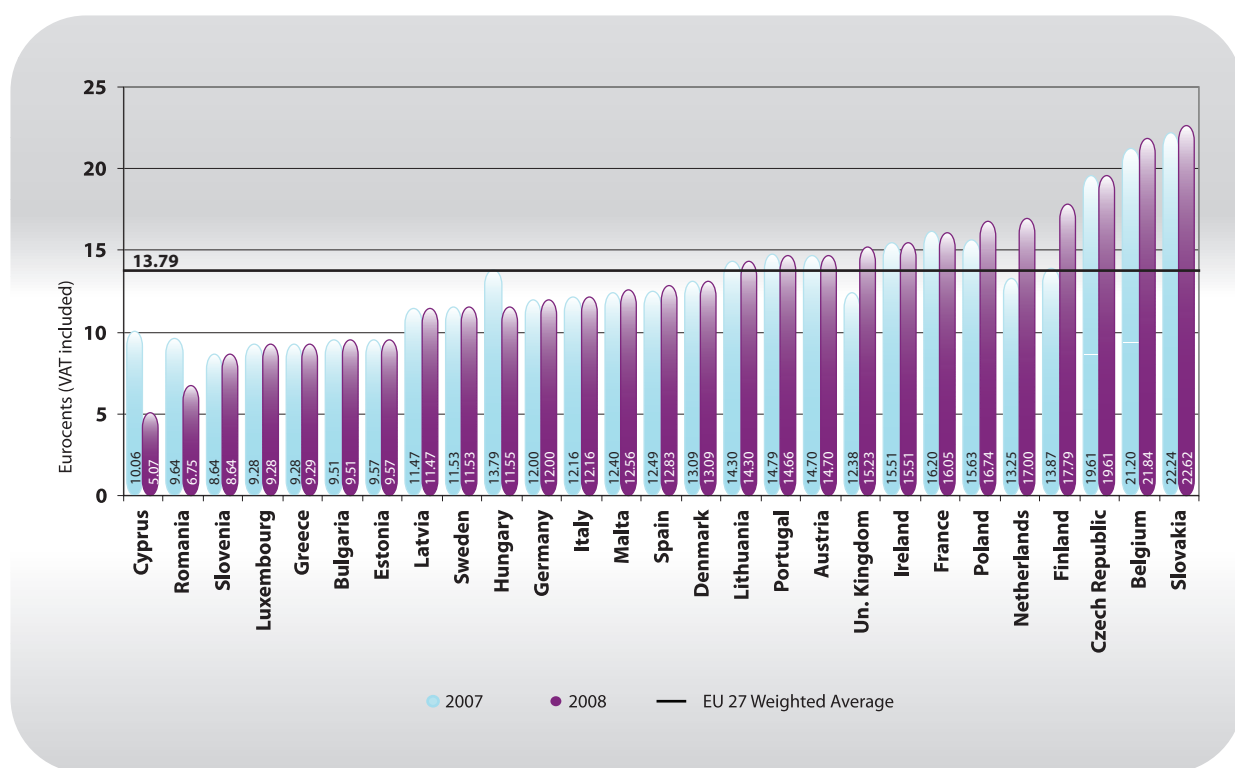
At the same time, Figures 26 and 27 present the comparative progress of the cost for a 3 and 10-minute local and national call for a residential user in Greece (OTE) and in the EU (weighted average of the former state monopolies of the European member states. Local calls in Greece were

substantially cheaper than the weighted average of the EU member states while with regard to national calls, Greece was marginally cheaper for 3 minutes and more expensive than the European average in the 10-minute national call.

Similarly, the monthly rental for the residential user – as depicted in Figure 28 – was marginally higher than the weighted average of the 27 EU member states, even if it did not change during 2008.

Lastly, Figures 29 to 31 provide a comparative presentation of the average monthly expenditure for a residential and a business user across the EU member states⁷. Greece ranks higher than the European average for residential users. On the contrary, things are different for business users since Greece is the 8th cheapest member state for small/home offices and the cheapest member state for small and medium enterprises.

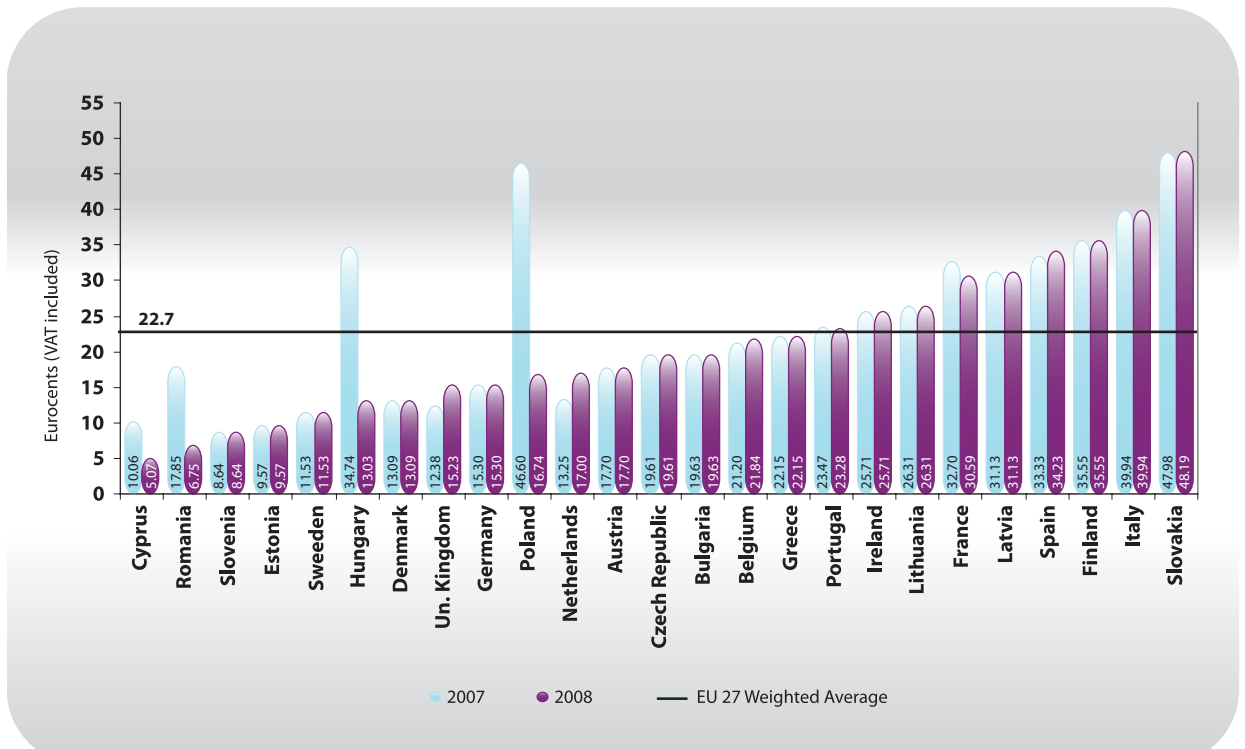
Figure 24
Cost of a 3-minute Local Call



Source: 14th European Commission Implementation Report

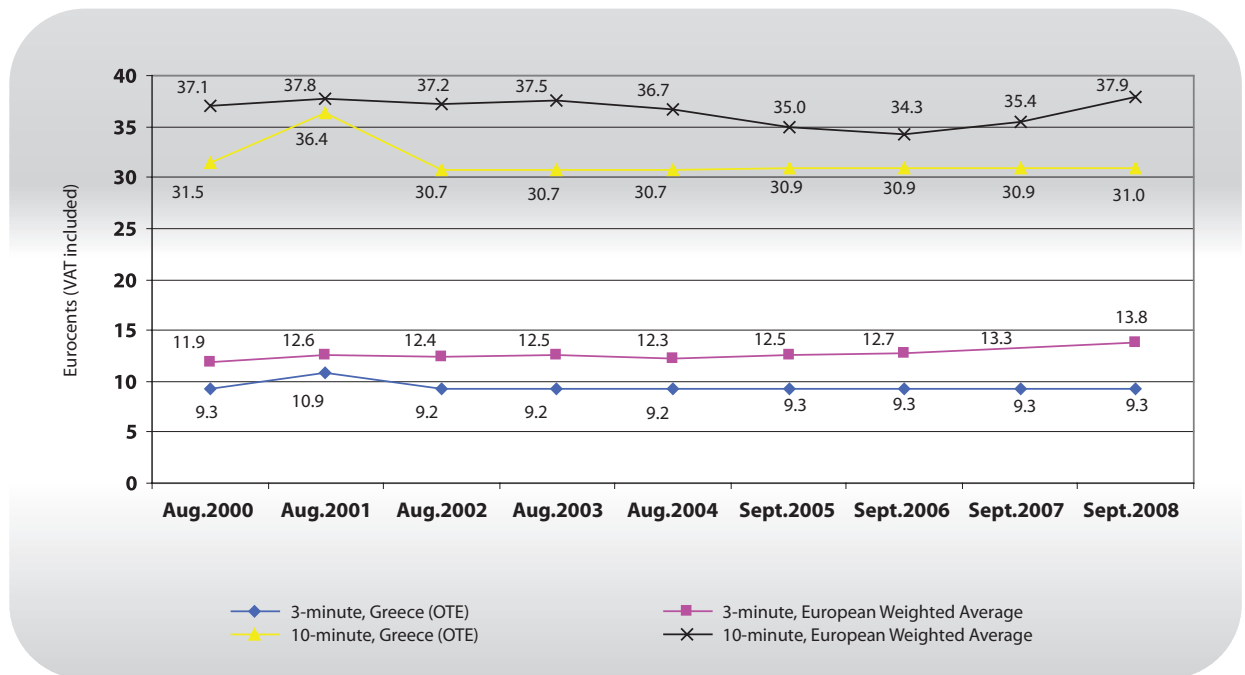
7. The OECD methodology used also by the EU for the usage baskets and the price comparison is cited in the Appendix.

Figure 25
Cost of a 3-minute National Call



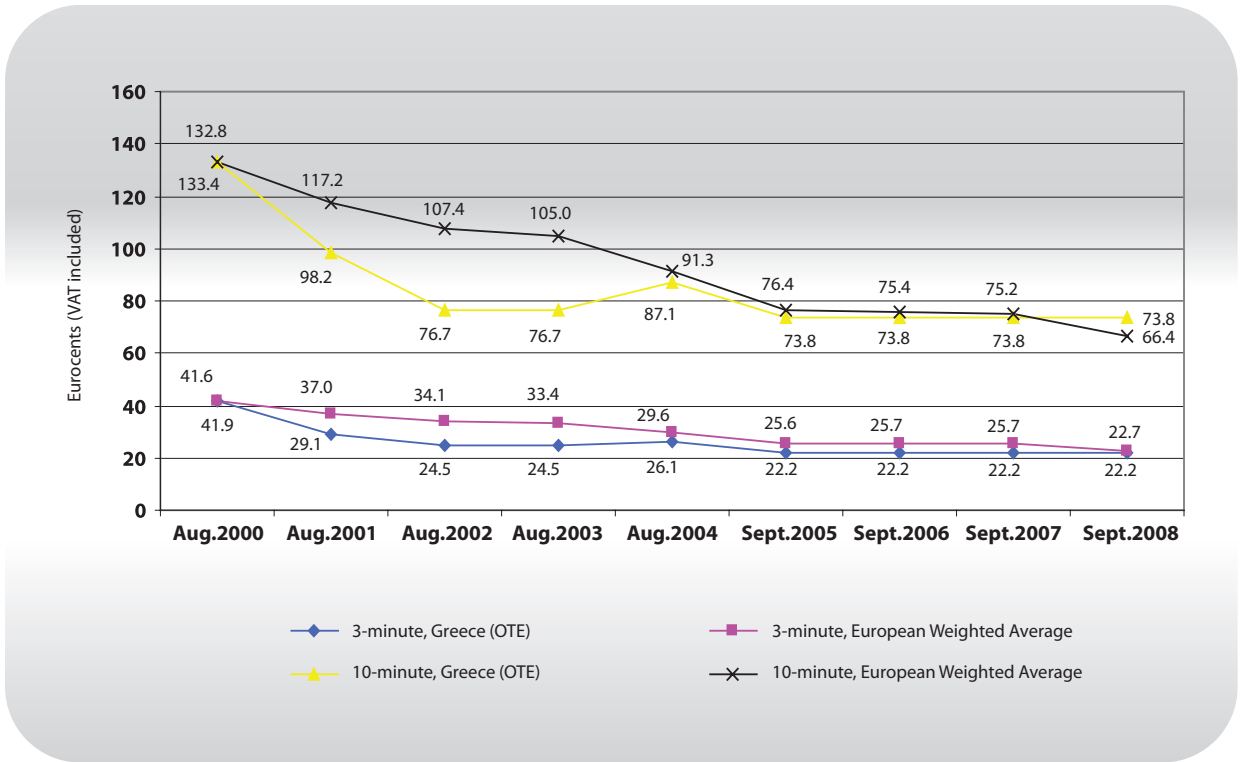
Source: 14th European Commission Implementation Report

Figure 26
Charge of a 3 and a 10-minute Local Call for a Residential User



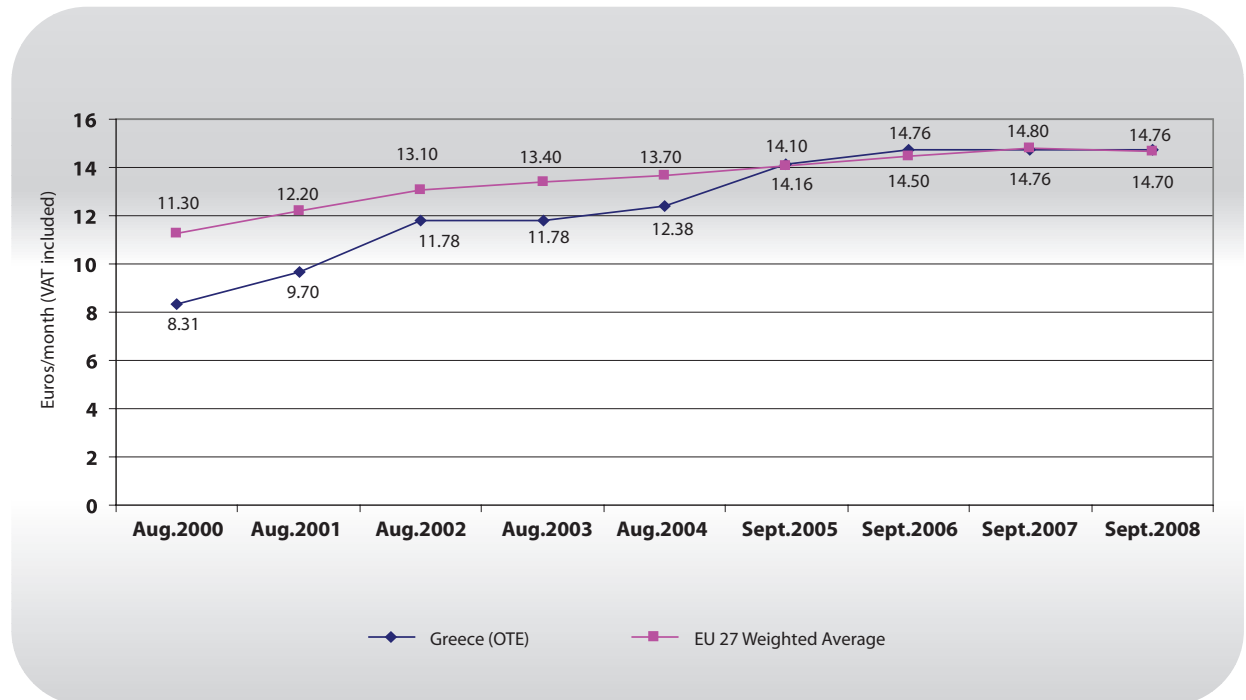
Source: EETT and 14th European Commission Implementation Report

Figure 27
Charge of a 3 and a 10-minute National Call for a Residential User



Source: EETT and 14th European Commission Implementation Report

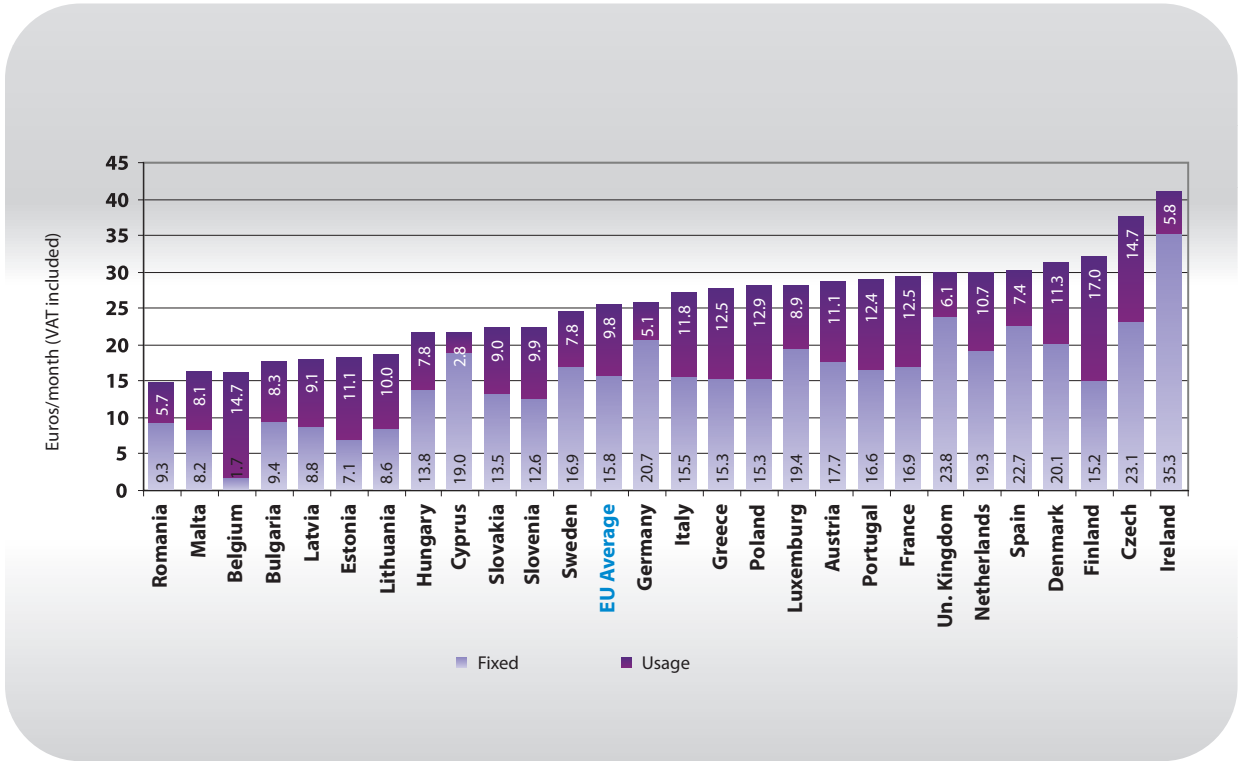
Figure 28
Monthly Rental of a Fixed Telephony Residential User



Source: EETT and 14th European Commission Implementation Report

Figure 29

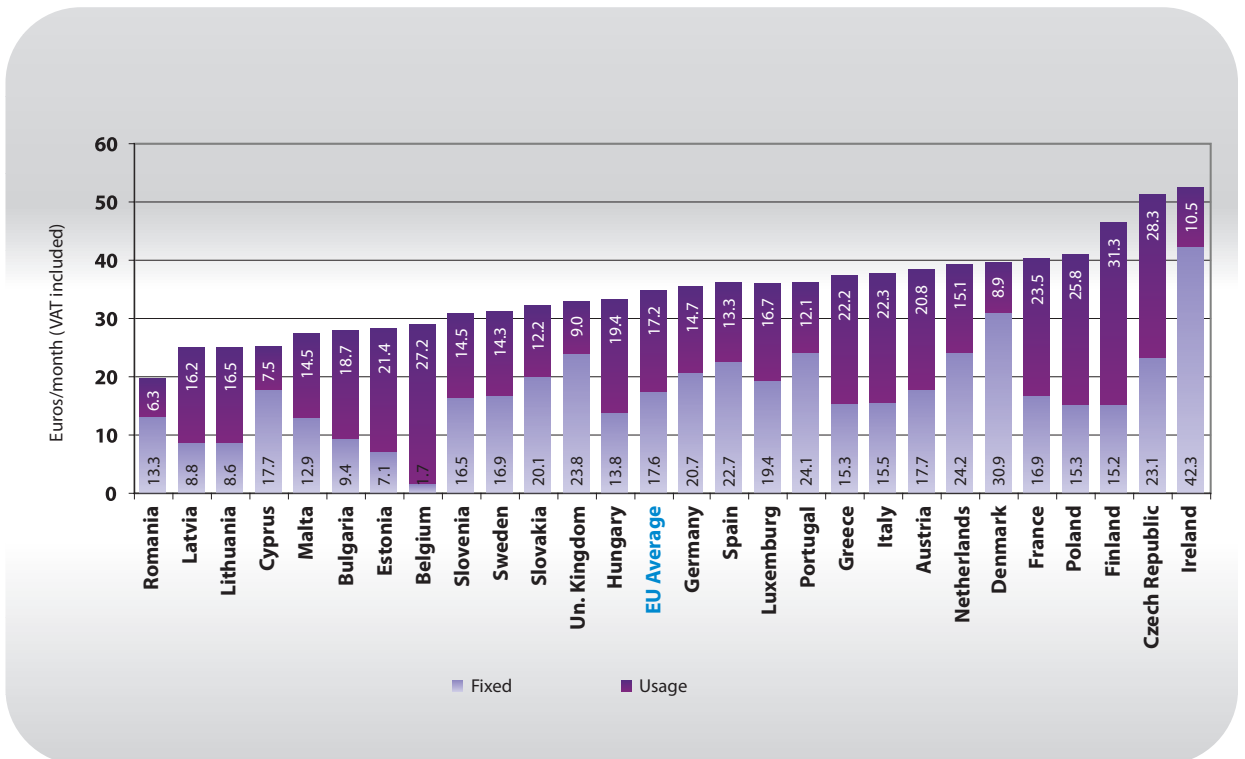
Average Monthly Expenditure of a Residential User - Low Usage Basket - September 2008



Source: 14th European Commission Implementation Report

Figure 30

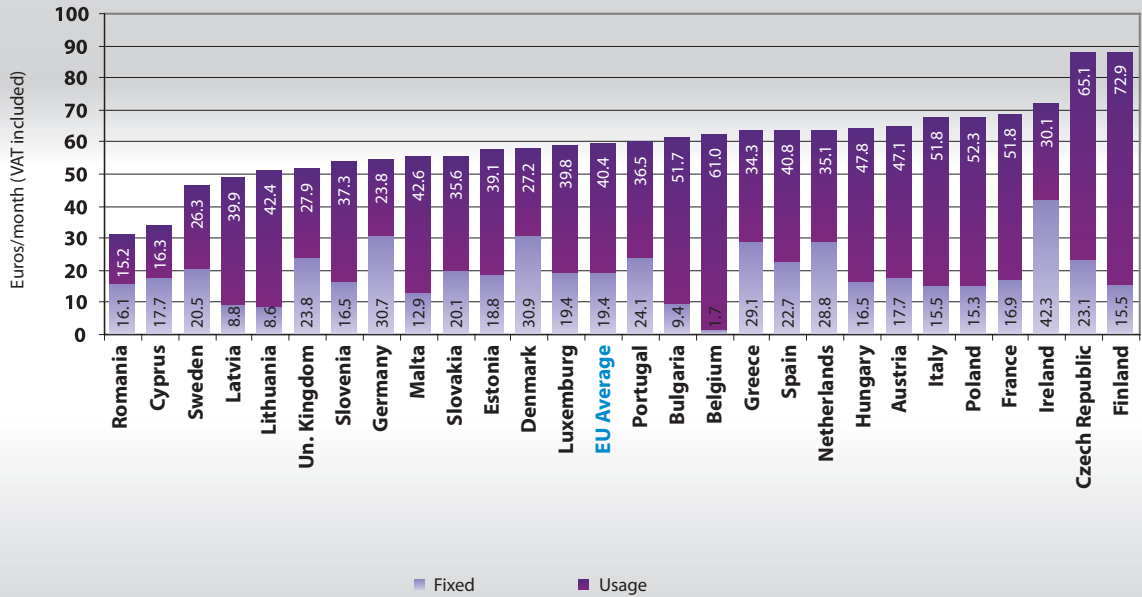
Average Monthly Expenditure of a Residential User - Medium Usage Basket - September 2008



Source: 14th European Commission Implementation Report

Figure 31

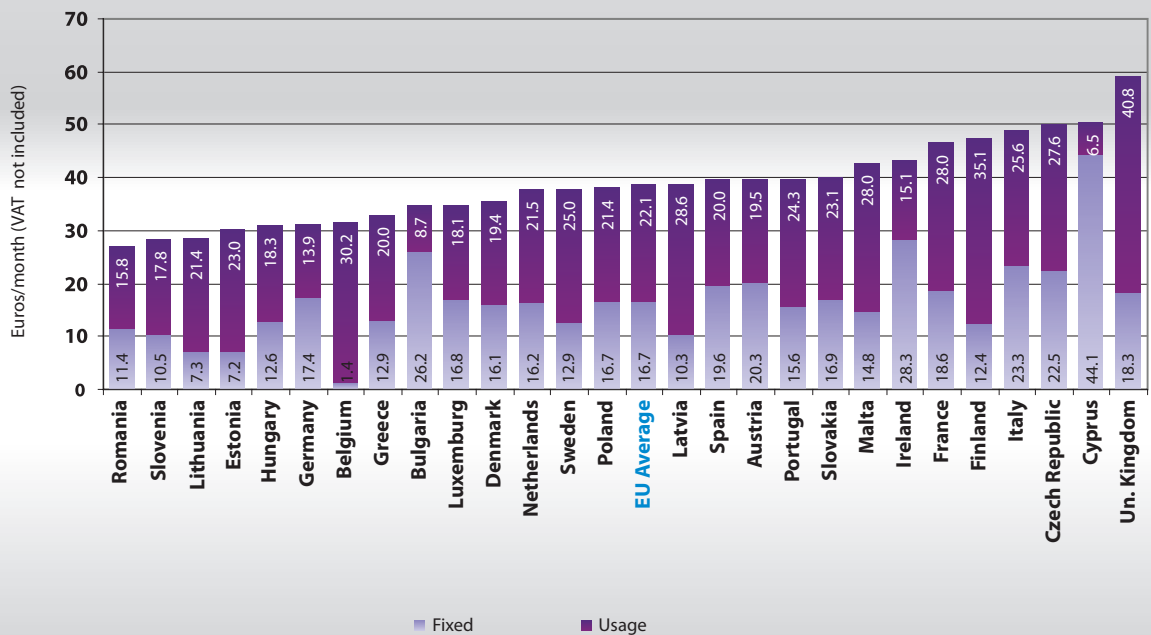
Average Monthly Expenditure of a Residential User - High Usage Basket - September 2008



Source: 14th European Commission Implementation Report

Figure 32

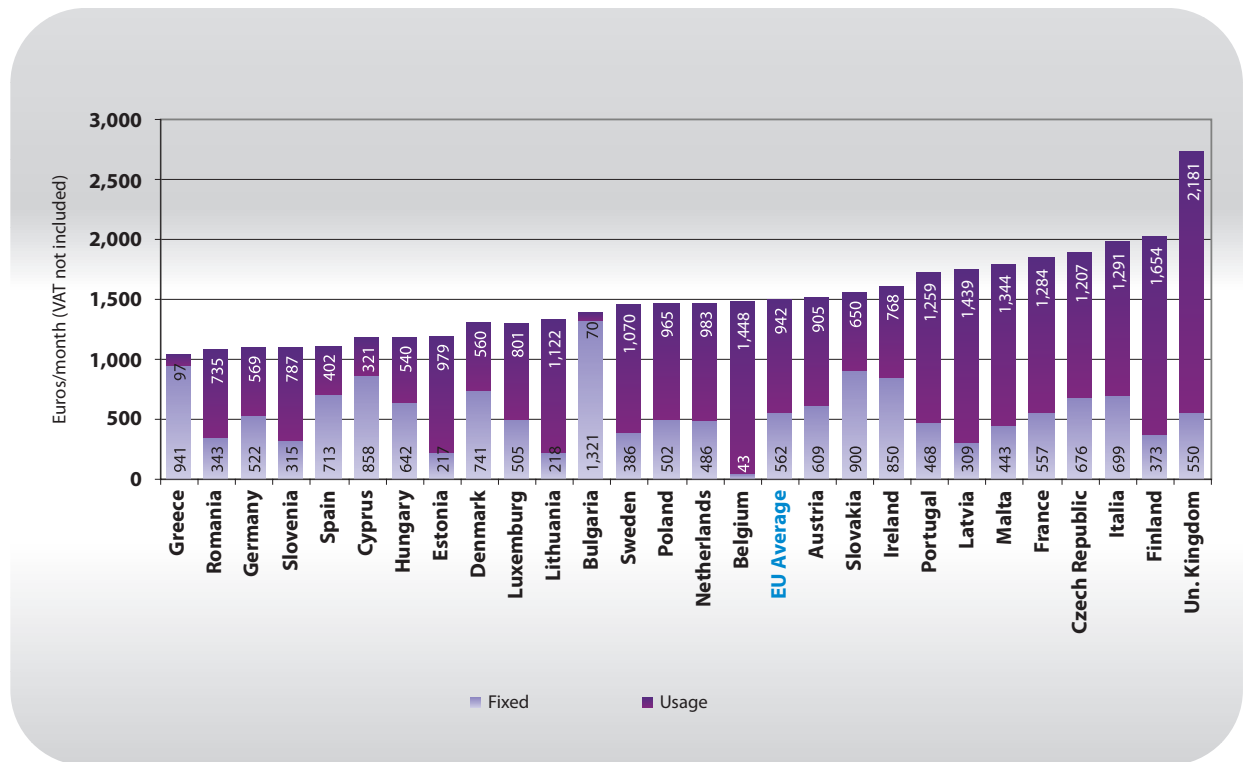
Average Monthly Expenditure of a Business User - Small Office/Home Office - September 2008



Source: 14th European Commission Implementation Report

Figure 33

Average Monthly Expenditure of a Business User - Small and Medium Enterprises - September 2008



Source: 14th European Commission Implementation Report

1.6.2. Mobile Telephony

Figure 34 presents the comparative progress of the average monthly expenditure for a medium usage basket⁸. Greece exceeds the European average which is estimated at 21.4 Euros.

1.7. Internet

1.7.1. The Internet Market

The number of Internet subscribers (Figure 35) increased considerably (38.5%) in 2008 amounting to 1,741,255 subscribers (dial-up and broadband). The dial-up connections have been on the decrease since 2005 (Figure 36) and in 2008 they steadied slightly below 250,000. The entire market picture indicates that broadband growth does not rely entirely on the subscribers' transfer from dial-up to broadband access but

also on attracting new subscribers. Those Figures do not take into account the occasional users via prepaid access cards.

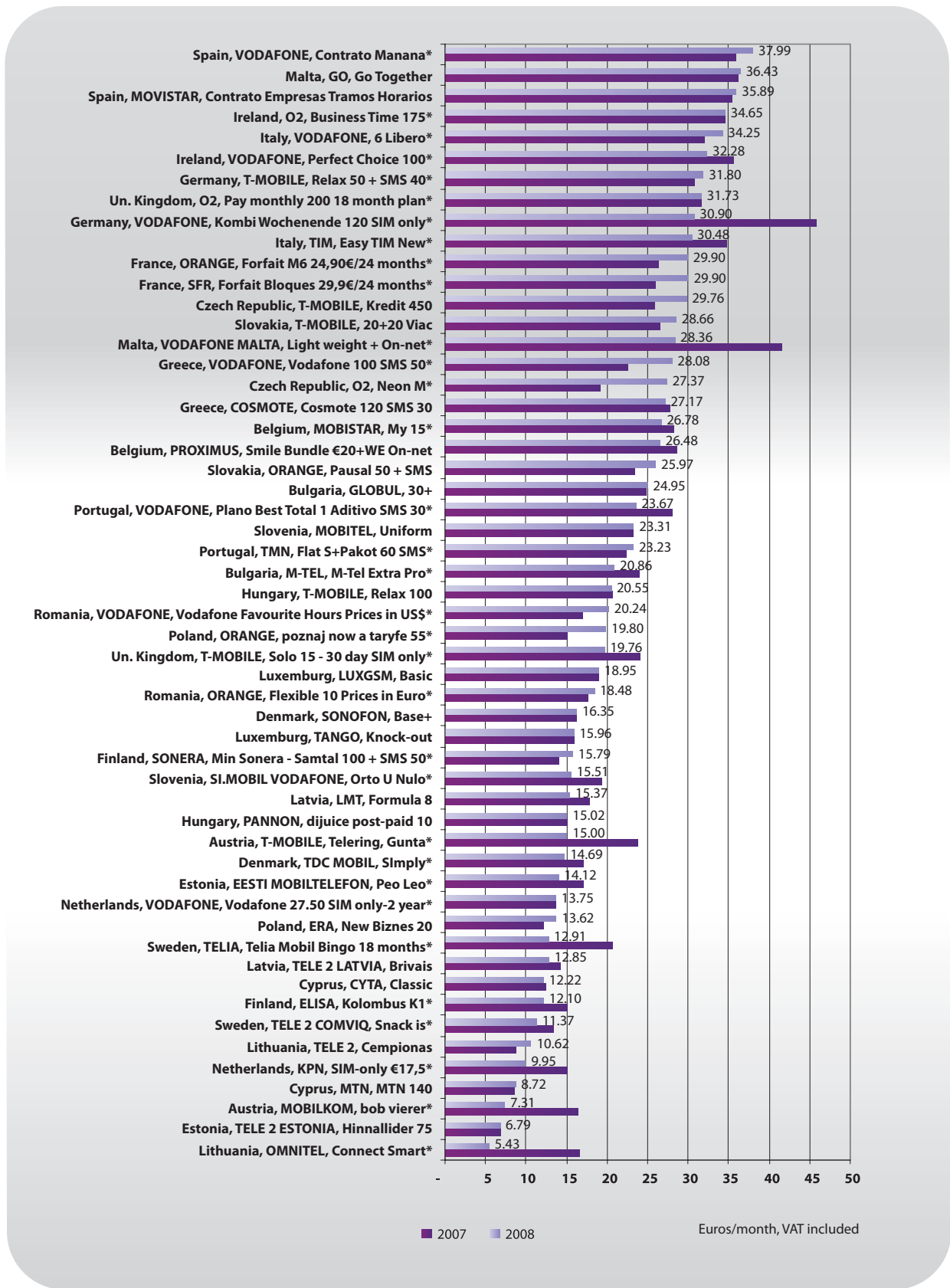
1.7.2. [.gr] Domain Names

The significant increase of both the number of applications and the total assigned [.gr] Domain Names persisted throughout 2008. The total number of Domain Names, including sub-domains (com.gr, net.gr, org.gr, edu.gr, gov.gr), exceeded the number of 250,000 at the end of the year. Figure 37 presents the progress of the total number of Domain Names for the period 1998 – 2008. Respectively, Figure 38 presents the progress of the requested and assigned Domain Names; Figure 39 shows the progress of the assignment percentage over the submitted applications and Figure 40 presents the annual progress of the average assignment percentage over the number of applications for the period 2002 - 2008, which registered a small fall reaching 93%.

8. The Methodology of the OECD and the EU about the baskets and the price comparison is presented in the Appendix.

Figure 34

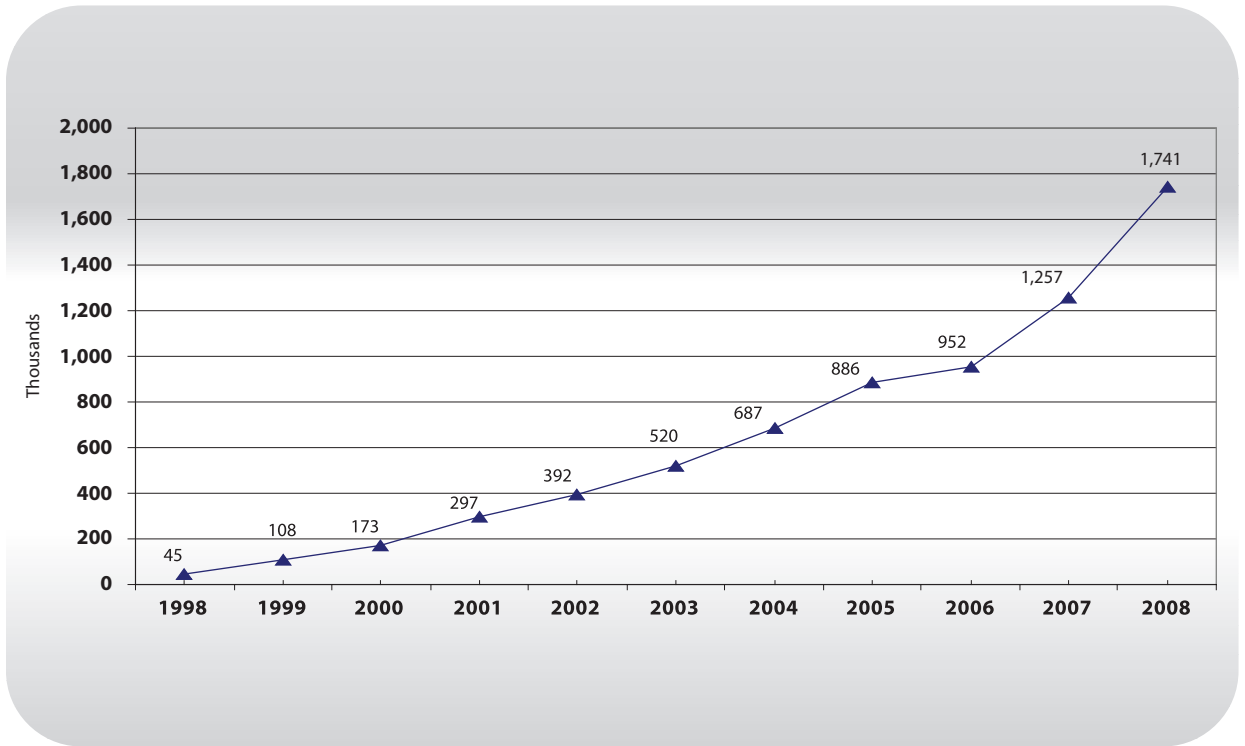
Average Monthly Expenditure for a Mobile Telephony User - Medium Usage Basket - 2008



Source: 14th European Commission Implementation Report

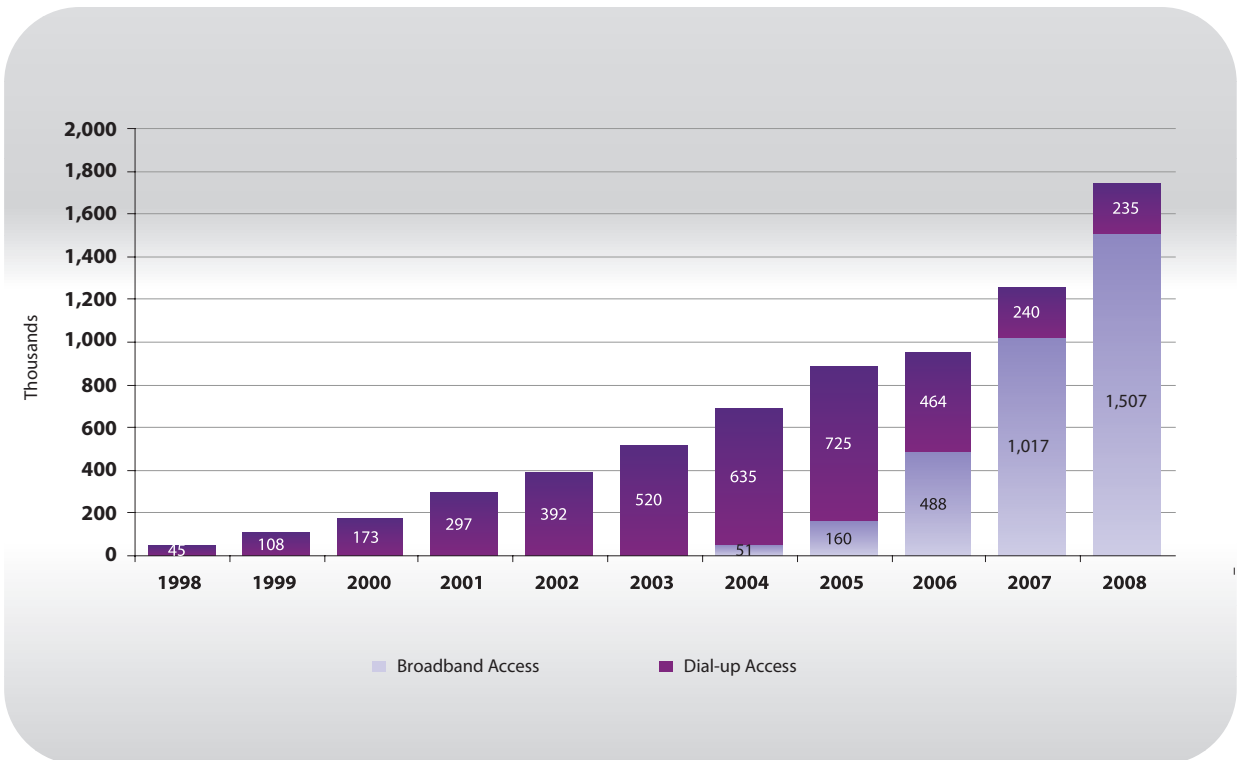
The asterisk (*) behind the package name means that the package name and its structure have changed between 2008 and 2007.

Figure 35
Internet Subscribers, 1998-2008



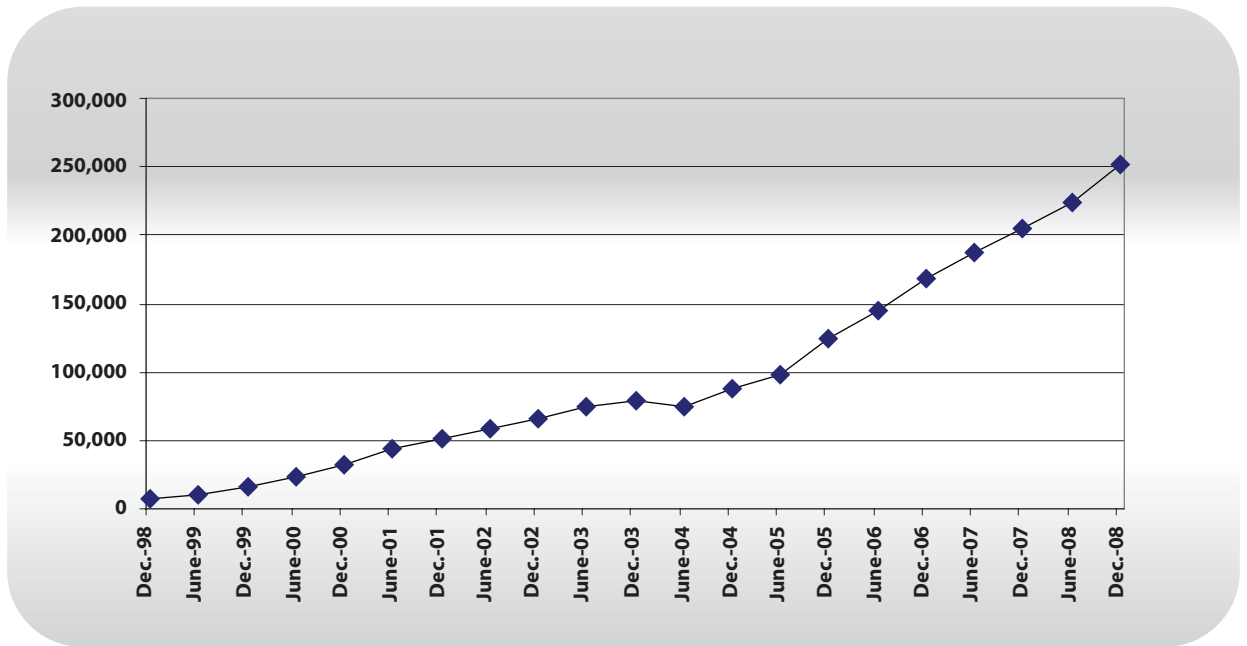
Source: EETT (based on the licensed operators' data)

Figure 36
Internet Subscribers, 1998-2008



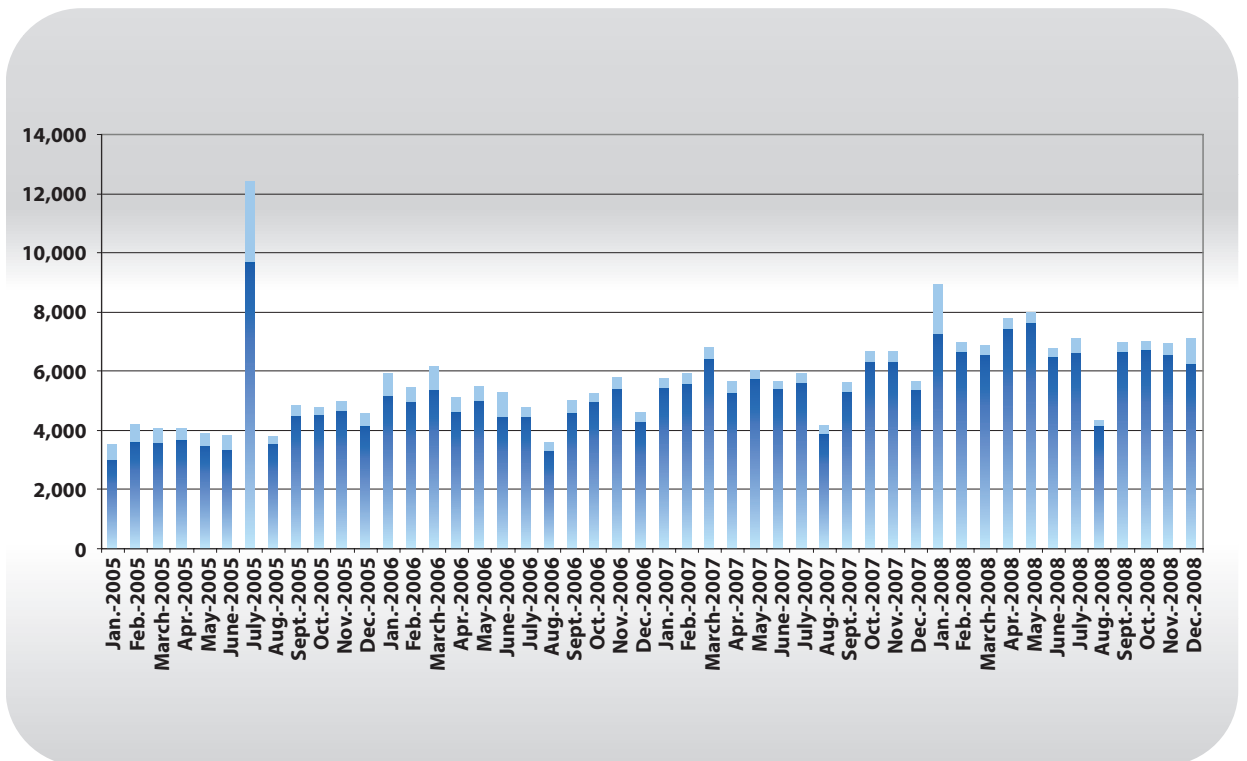
Source: EETT (based on the licensed operators' data)

Figure 37
Progress of Domain Names, 1998-2008



Source: EETT

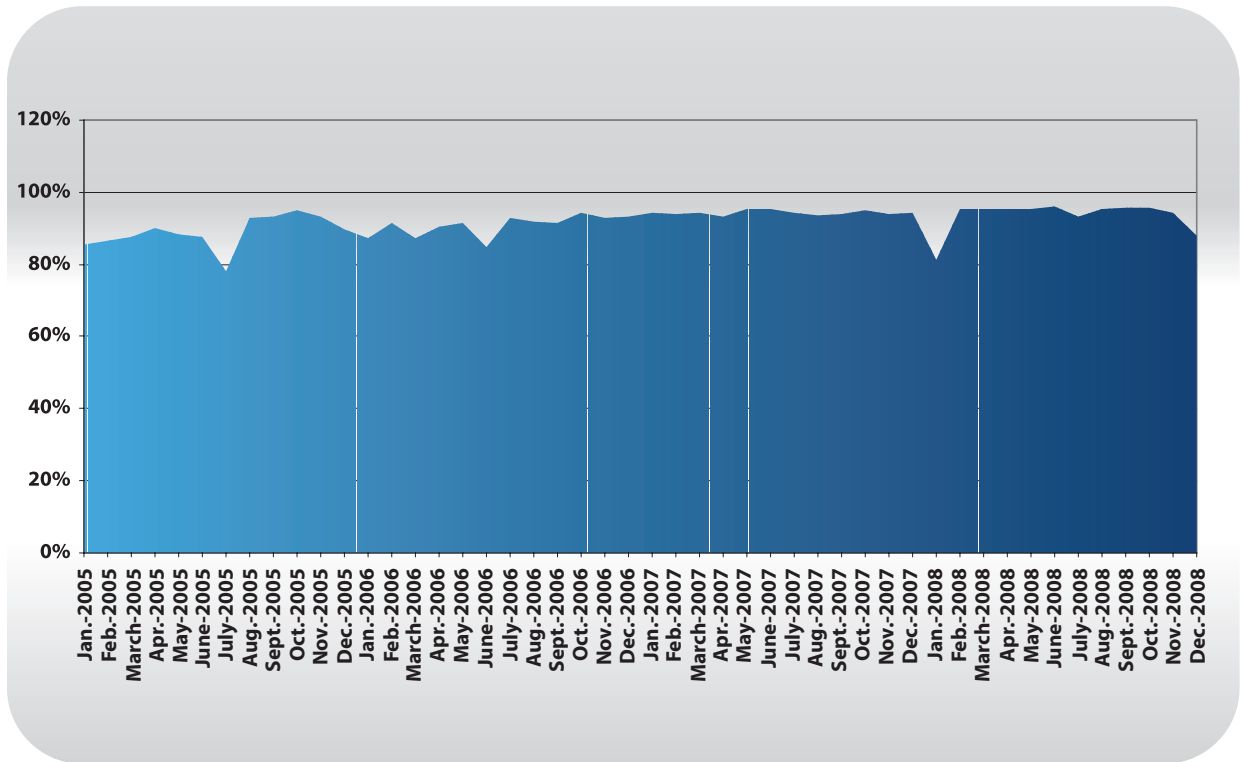
Figure 38
Number of Requested and Assigned Domain Names



Source: Institute of Computer Science of the Foundation for Research and Technology – Hellas (ICS-FORTH)

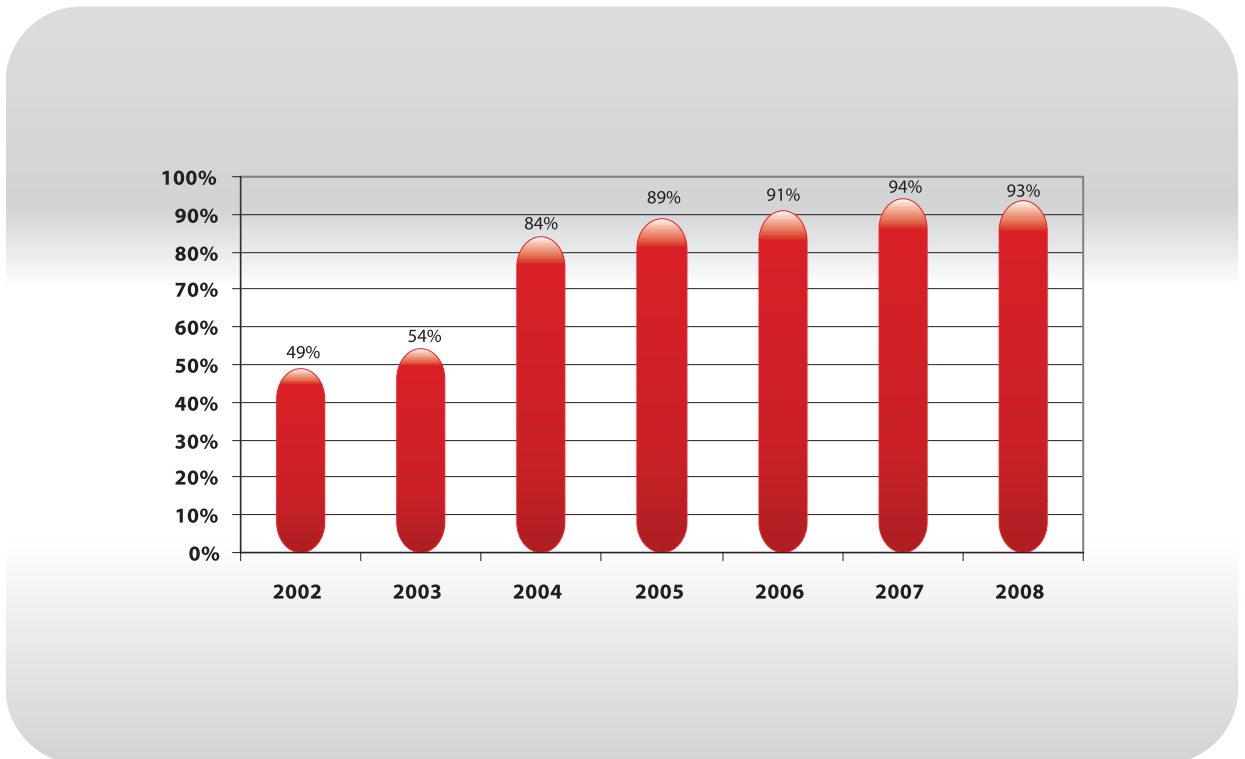
Note: Lighter colours present the volume of applications, while darker ones present the volume of assigned Names

Figure 39
Assignment Percentage Over the Applications Number



Source: Institute of Computer Science of the Foundation for Research and Technology – Hellas (ICS-FORTH)

Figure 40
Average Assignment Percentage



Source: EETT

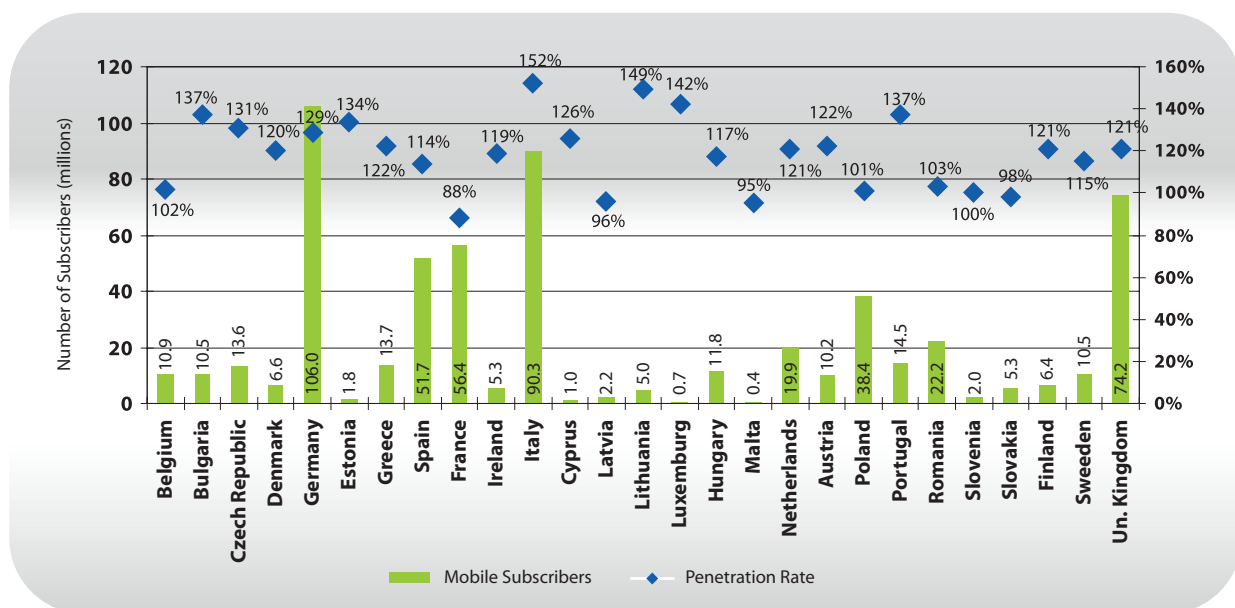
1.8. Mobile Telephony

The mobile telephony penetration rate increased further in 2008 compared to the 2007 levels in the entire Europe. In Greece, it reached 122% compared to 106% in 2007 (Figure 41), exceeding the penetration average of the EU member states (119%). The total number of mobile telephony subscribers at the end of 2008, as depicted in Figure 42, reached 18,918,000; registering an 16.6% increase compared to the end of 2007. At the same time, the number of active mobile subscribers

reached 13,799,340; having increased by 12.24% compared to the end of 2007.

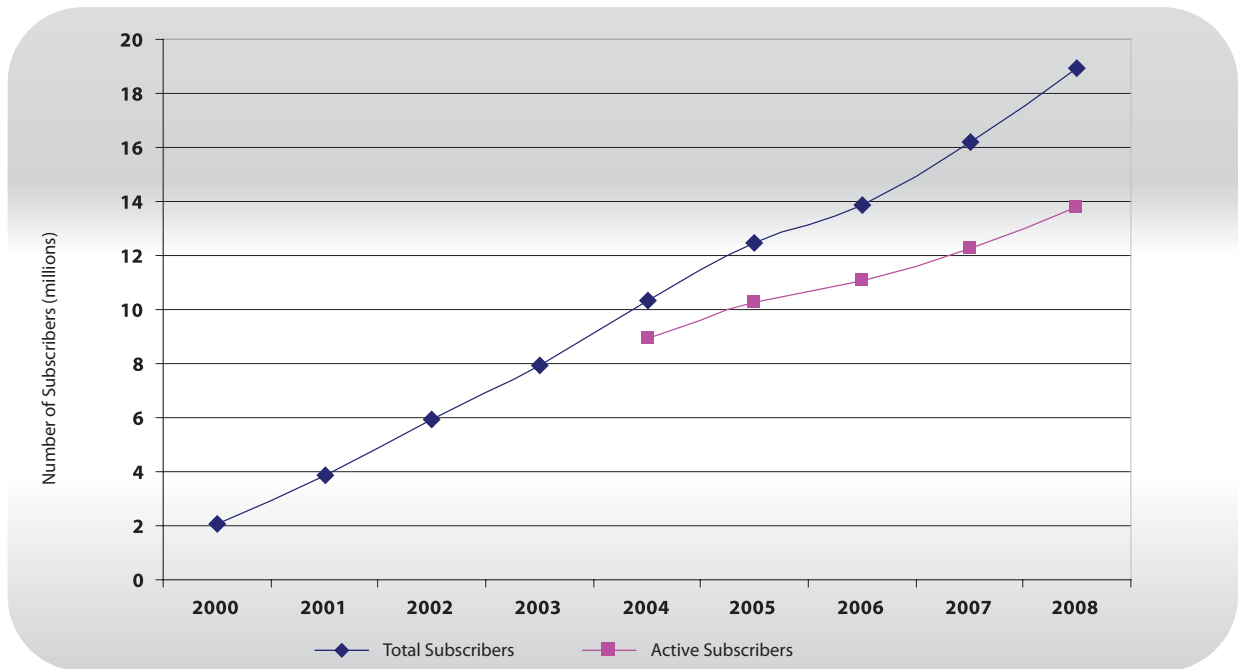
As it is shown in Figure 43, the mobile telephony subscribers that preferred prepaid cards over contracts were more than 13,800,000 by the end of 2008, which is 73% of the total number of subscribers. Prepaid card subscribers increased by 20.4% in relation to 2007 while the contract ones increased by 7.4%. Figure 44 presents the MTO market shares based on the subscribers' number.

Figure 41
Mobile Subscribers and Penetration Rate



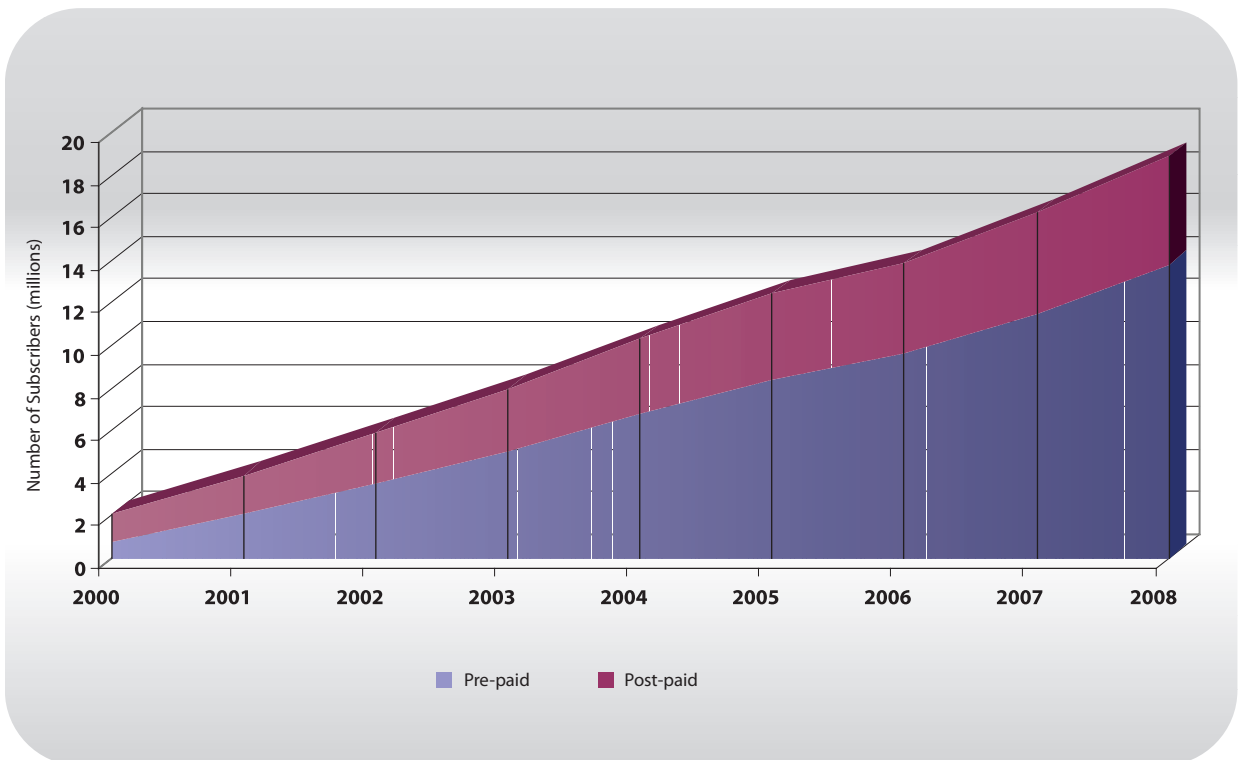
Source: 14th European Commission Implementation Report

Figure 42
Mobile Telephony Subscribers



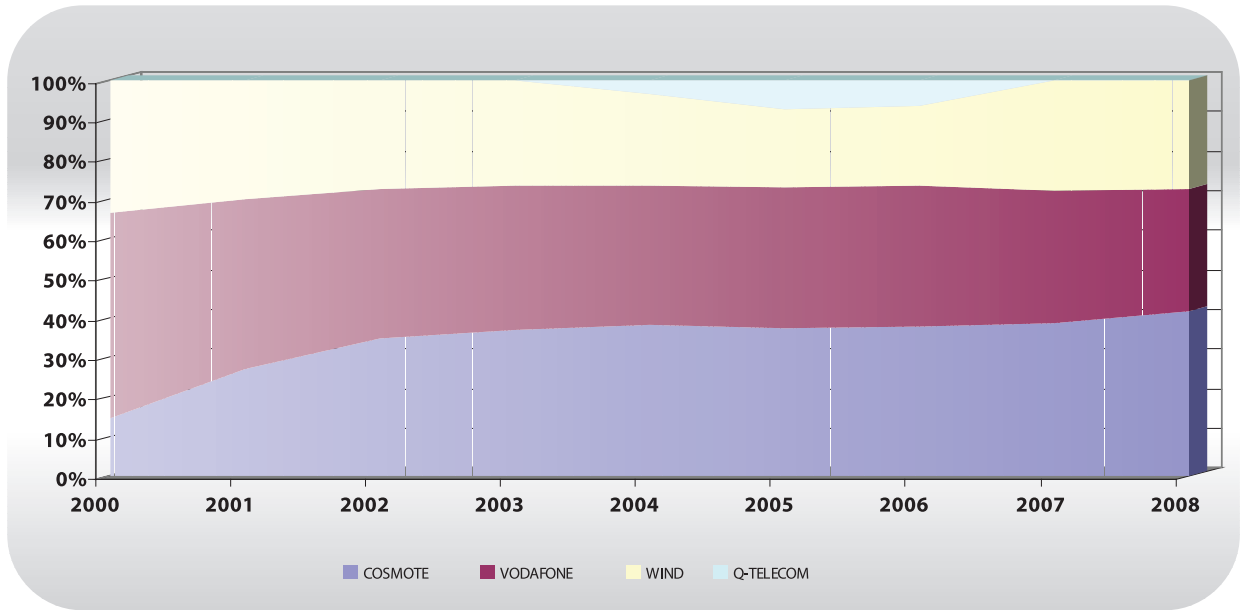
Source: EETT (based on the licensed operators' data)

Figure 43
Progress of the Post-paid and Pre-paid Mobile Subscribers



Source: EETT (based on the licensed operators' data)

Figure 44
Market Shares based on the Number of Subscribers



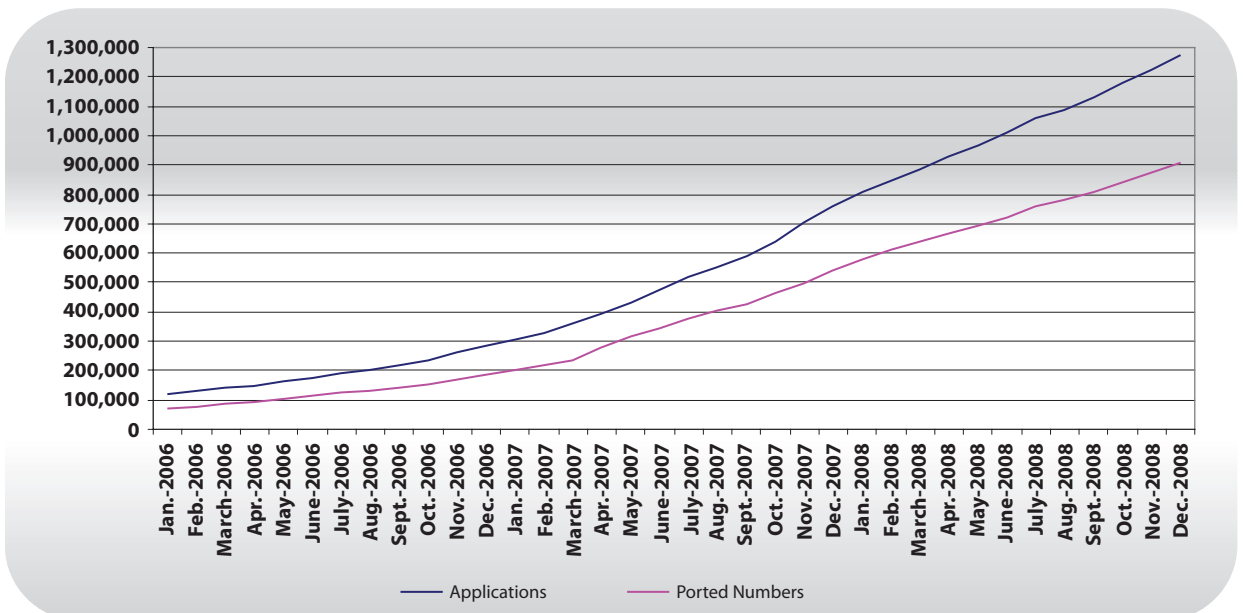
Source: EETT (based on the licensed operators' data)

1.9. Number Portability

The number of applications for Number Portability continued to increase during 2008. The progress of the applications' number and the Figure of ported numbers for mobile and fixed telephony are presented in Figures 45 and 46; Figure

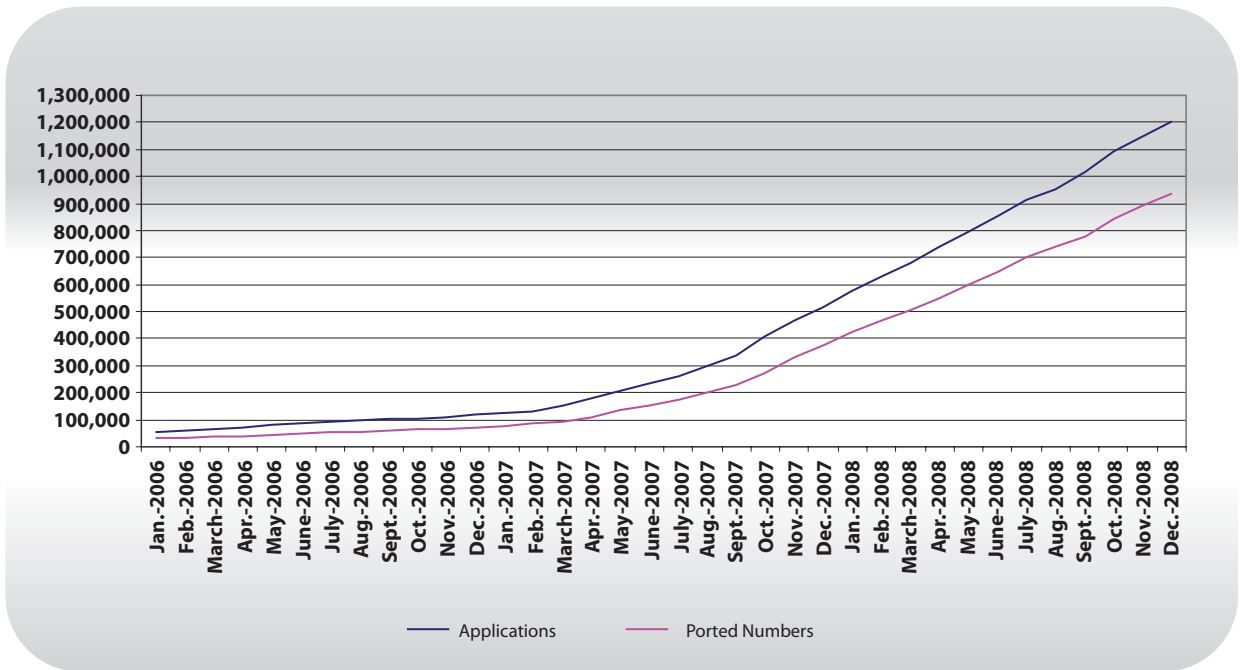
47 shows the progress of ported numbers per month. During 2008, 510,432 applications were submitted for mobile telephony (a 7% increase compared to 478,395 applications of 2007) and 362,601 numbers were ported (increase by 1%). For fixed telephony, 685,500 applications were submitted and 562,911 numbers were ported.

Figure 45
Number Portability: Applications and Ported Numbers of Mobile Telephony



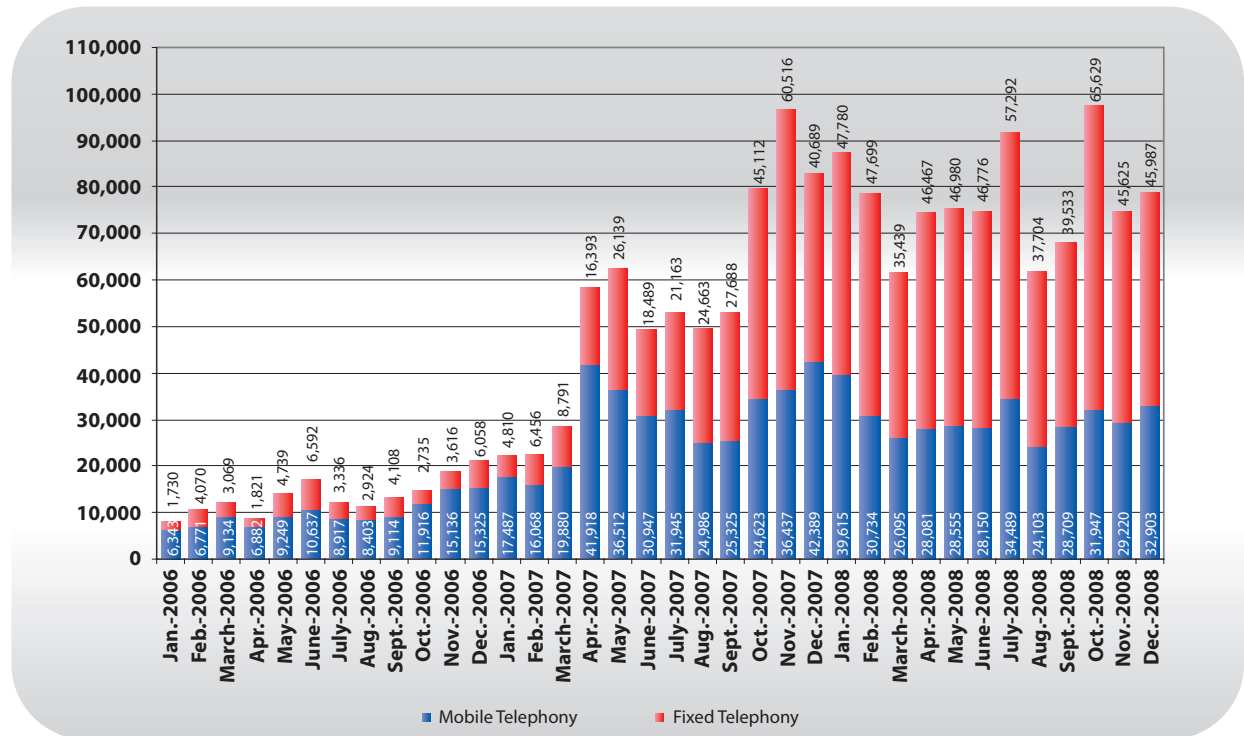
Source: EETT

Figure 46
Number Portability: Applications and Ported Numbers of Fixed Telephony



Source: EETT

Figure 47
Number Portability: Ported Numbers per Month



Source: EETT

1.10. Interconnection

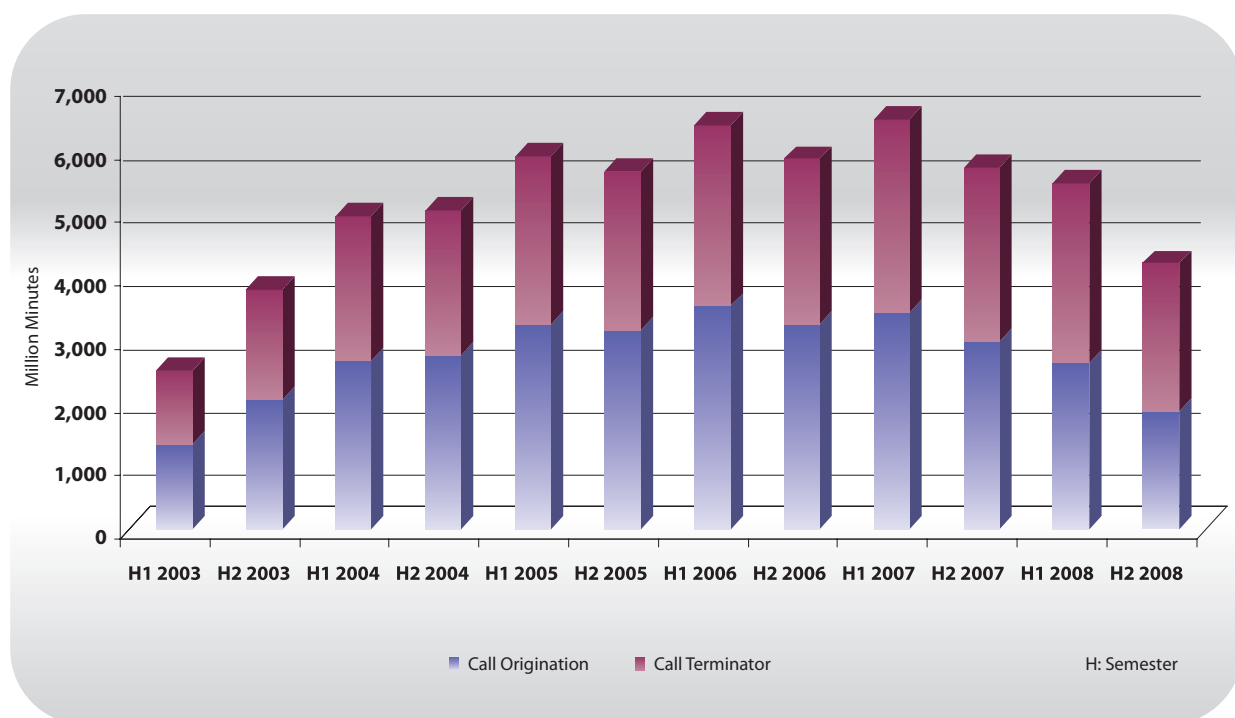
1.10.1. Fixed Telephony

Figure 48 presents the inter-temporal progress of Interconnection traffic for the OLOs, which includes call origination and termination from/to OTE's network. During 2008, call origination decreased considerably in relation to 2007 and reached 4.5 billion minutes (reduction by 30% compared to 2007). Similarly, call termination decreased by 10% compared to 2007 (5.2 billion minutes versus 5.8 billion minutes respectively). The reduction in the call origination volume is attributed to the significant increase of the full LLU lines since in this case the subscriber is directly connected to

the alternative operator's network without the interference of OTE's network and consequently renders the call origination procedure unnecessary.

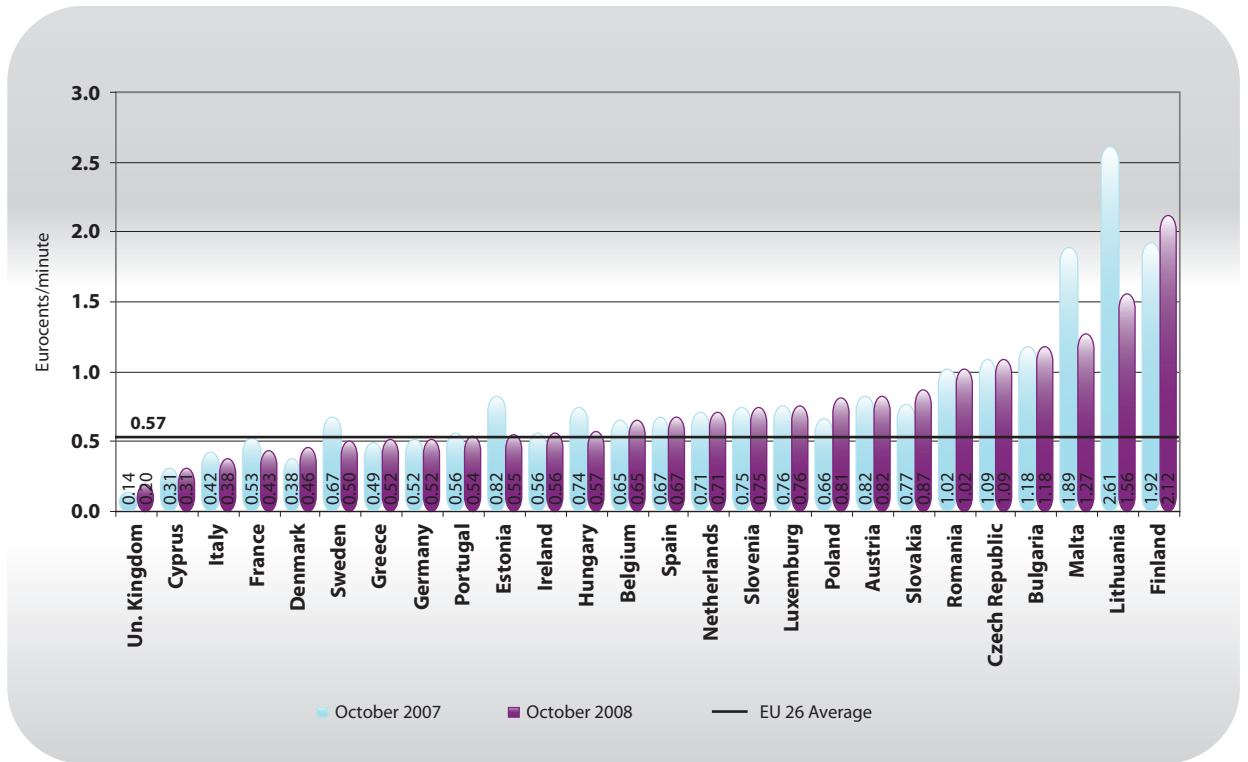
According to the 14th European Commission Implementation Report, the Interconnection fees in Greece in October, 2008, were lower than the European average ones. Figures 49 to 51 present the Interconnection fees to the incumbent operator's network for each member state of the EU according to the Interconnection type (Local, Single, Double). Greece is one of the cheapest member states, since it is ranked on the 7th place for Local Interconnection, the 13th place for Single and the 11th place for Double Interconnection.

Figure 48
Interconnection Traffic of Other Local Operators via OTE



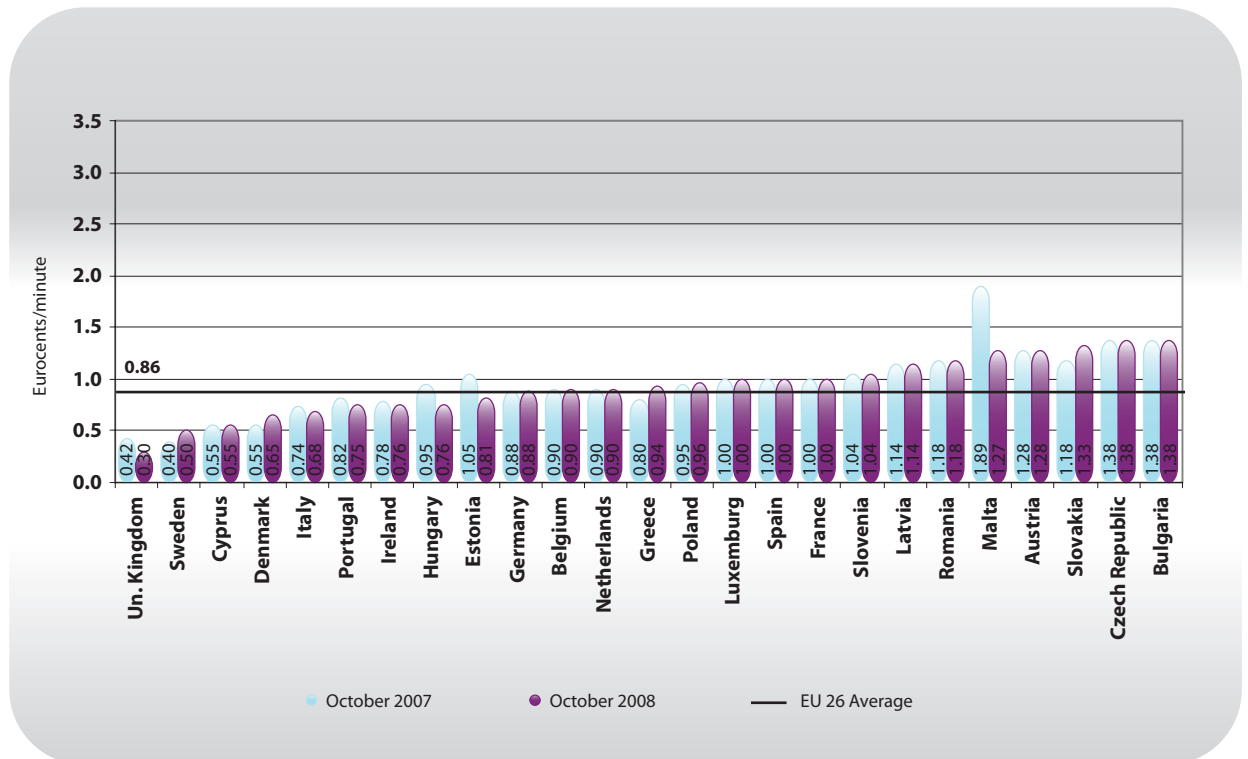
Source: EETT (based on the licensed operators' data)

Figure 49
Local Interconnection Fees 2008



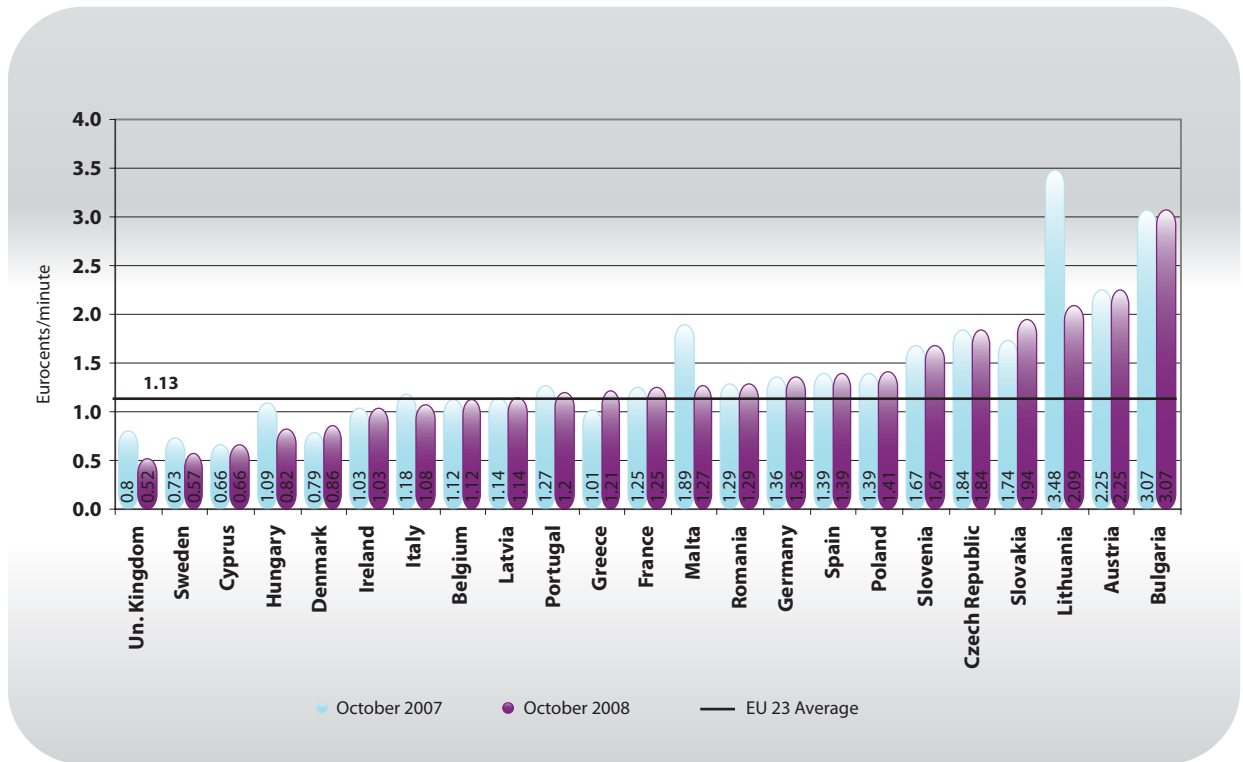
Source: 14th European Commission Implementation Report

Figure 50
Single Interconnection Fees 2008



Source: 14th European Commission Implementation Report

Figure 51
Double Interconnection Fees 2008



Source: 14th European Commission Implementation Report

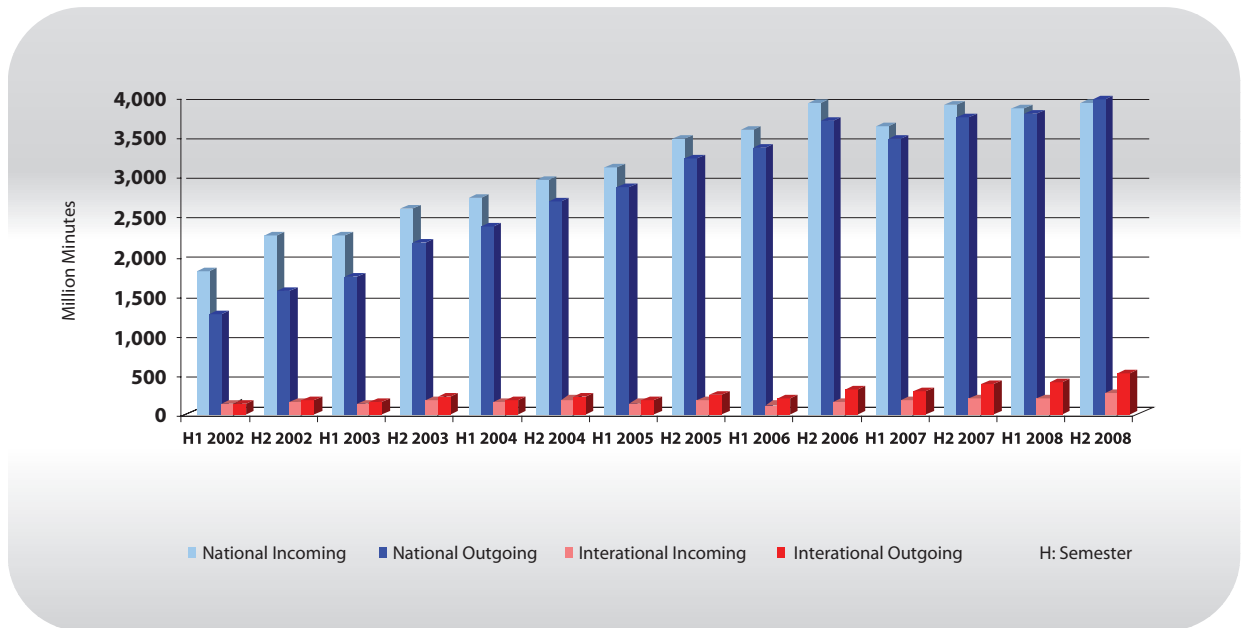
1.10.2. Mobile Telephony

The Interconnection traffic of the MTOs increased in 2008, as depicted in Figure 52 which presents the national and international Interconnection traffic for the 3 MTOs. The international traffic registered the highest increase since international incoming traffic rose by 21% and international outgoing traffic by 39% compared to 2007. Additionally, the national outgoing traffic increased by 7% and the national incoming traffic by 0.3%. Figure 53 illustrates the on-net traffic for the 3 MTOs, which in 2008 reached 12 billion minutes, registering a further increase by 36% in relation to 2007 (9 billion minutes), hence composing 43% of the total Interconnection traffic (which also includes the incoming and the outgoing traffic).

At the same time, the gradual reduction of the termination fees on mobile networks continued and its progress is presented in Figure 54.

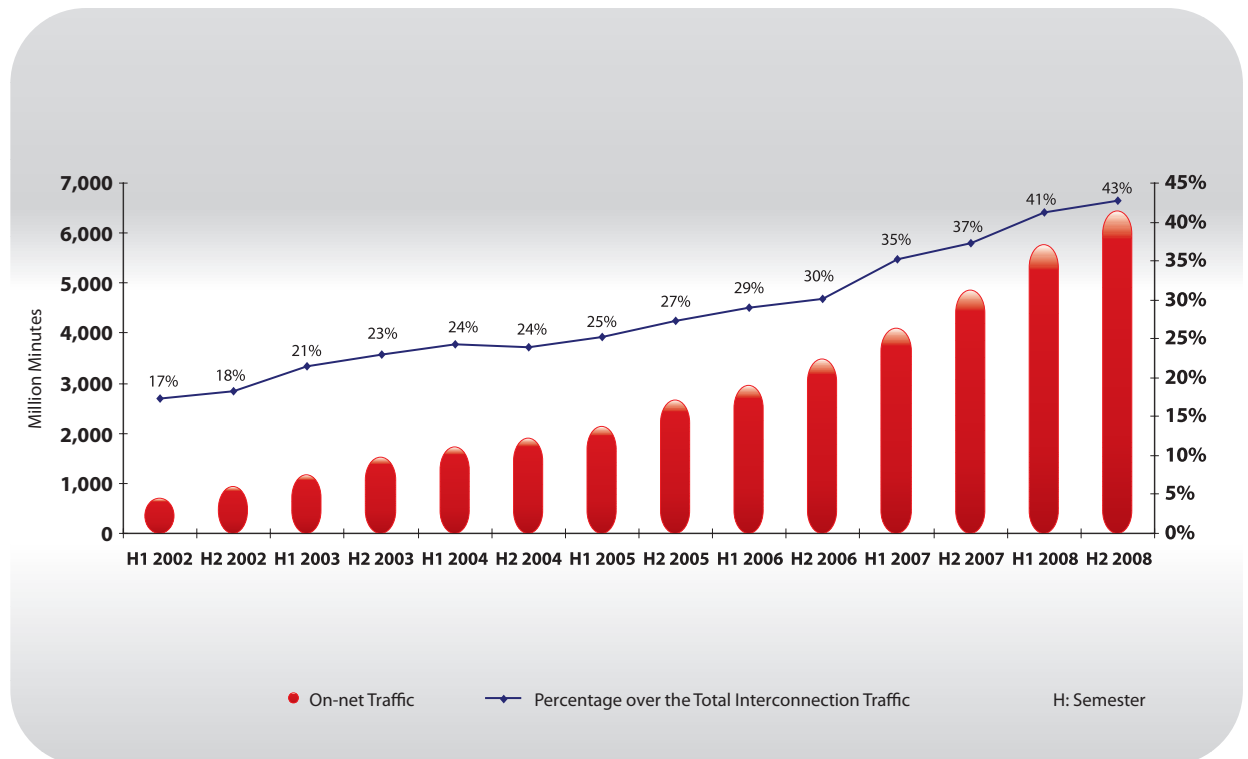
Figure 55 presents the annual average termination fee on mobile networks for the 27 EU member states (data as of October, 2008). Greece is the sixth most expensive country with an average termination fee of 10.03 eurocents/minute compared to 8.55 of the European one; the difference from the European average (Figure 56) has been growing since in 2008 Greece was by 17% more expensive than the European average (versus 13% to 2007). The application of the glide path in the reduction of termination fees at the beginning of 2009 is expected to lower them to the level of the European average.

Figure 52
Interconnection Traffic of the Mobile Telephony Operators



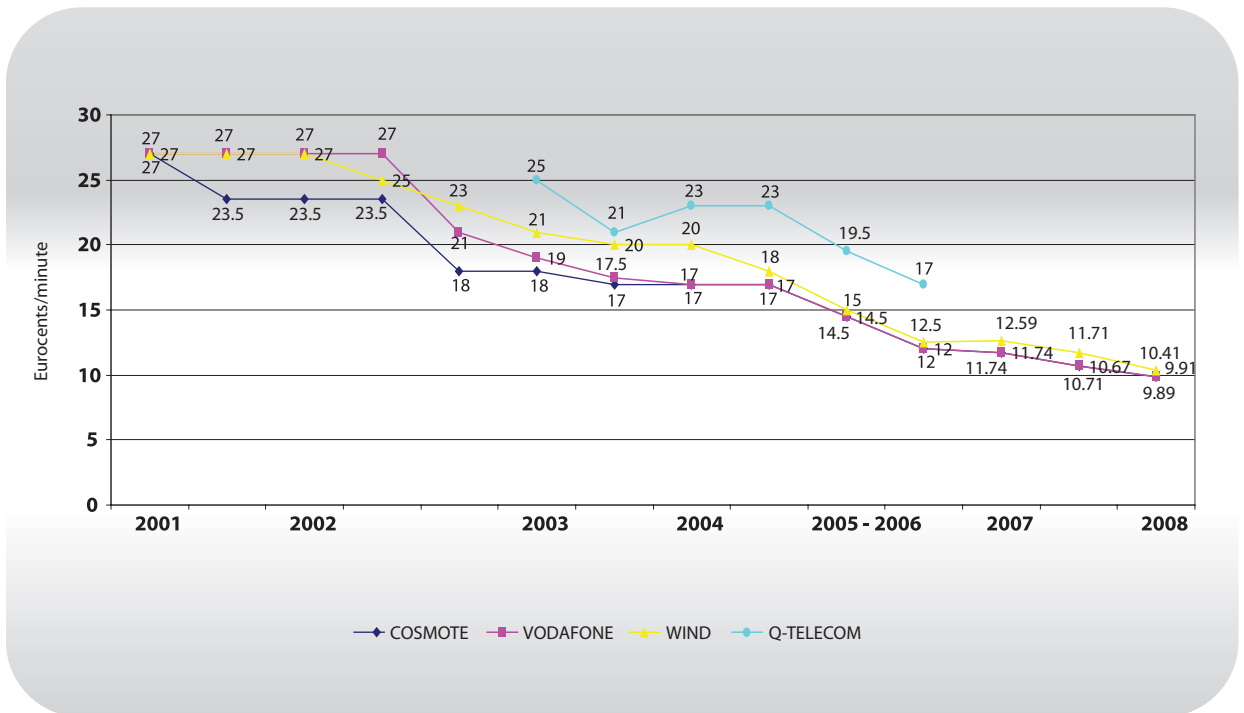
Source: EETT (based on the licensed operators' data)

Figure 53
On-net Traffic of Mobile Telephony Operators



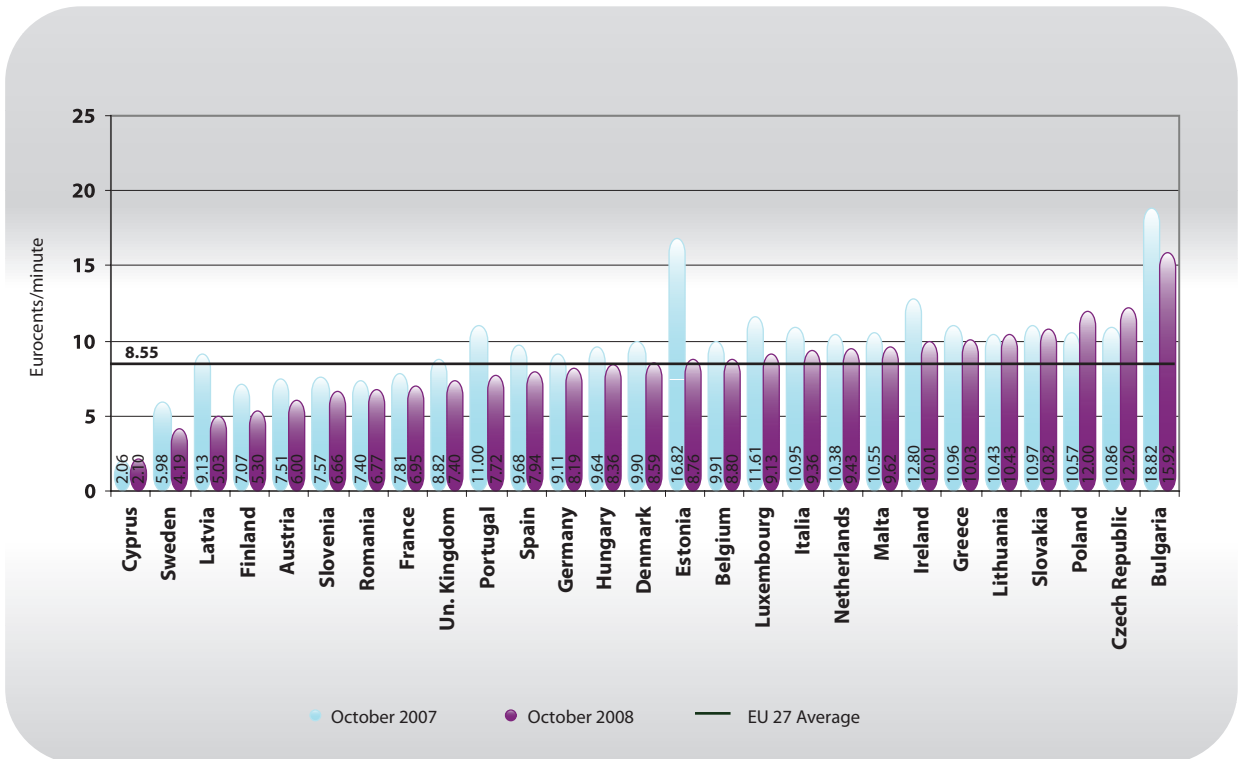
Source: EETT (based on the licensed operators' data)

Figure 54
Progress of Mobile Termination Fees



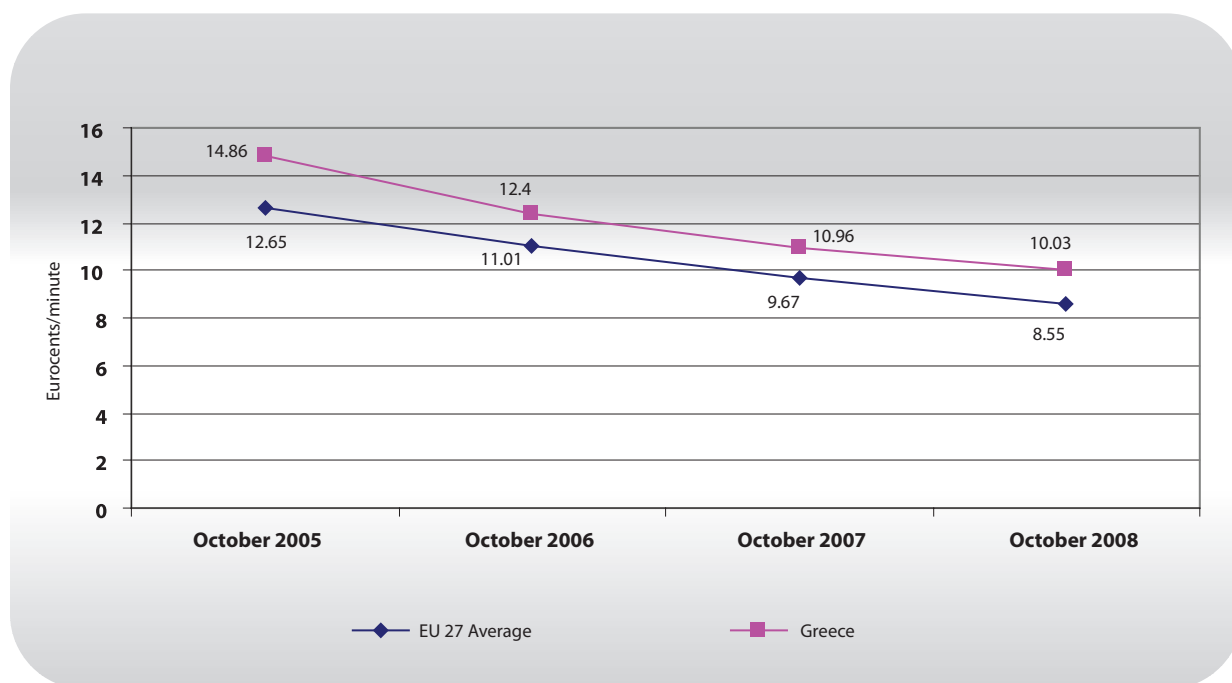
Source: EETT

Figure 55
Average National Interconnection Fee for Call Termination on Mobile Networks



Source: 14th European Commission Implementation Report

Figure 56
Average National Interconnection Fee for Call Termination on Mobile Networks



Source: 14th European Commission Implementation Report

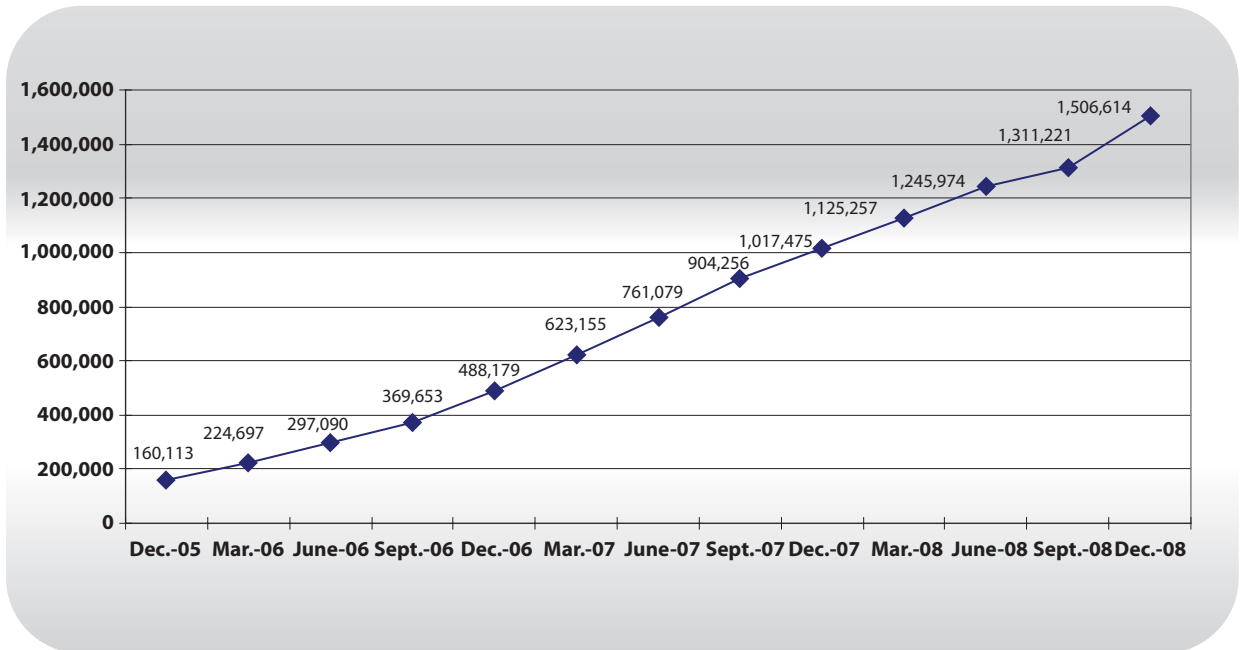
1.11. Broadband

1.11.1. Progress of Broadband Lines

The impressive increase of broadband connections persisted throughout 2008 reaching the number of 1,506,614 at the end of the year compared to 1,017,475 at the end of 2007, having registered a 48% increase (Figure 57 and 58). The rise of the broadband penetration rate in Greece was respectively 13.4% in relation to 9.1% at the end of 2007), rendering the

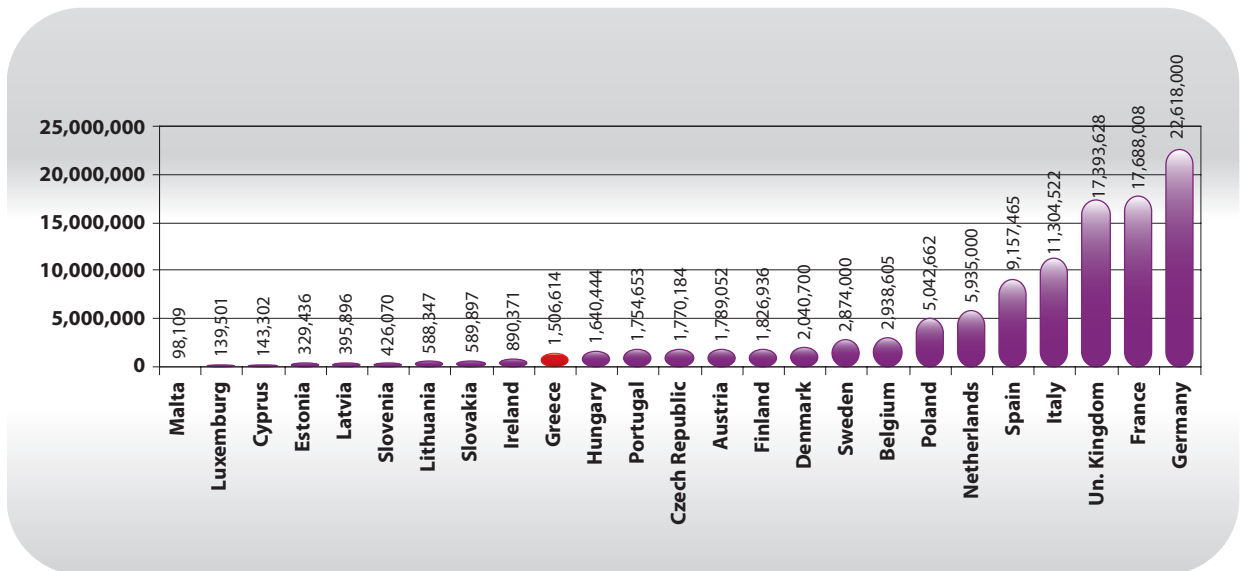
comparison with the rest of Europe feasible (Figure 59). Analytically and with regard to the broadband penetration rate, Greece was ranked on the fifth place from the bottom at the end of 2008 among the 27 EU member states, having improved, thus, its condition slightly (one place higher) compared to the end of 2007. It should be mentioned that, Greece has registered the third highest increase in the broadband penetration rate for 2008 among the EU member states (Figure 60).

Figure 57
Development of Broadband Lines



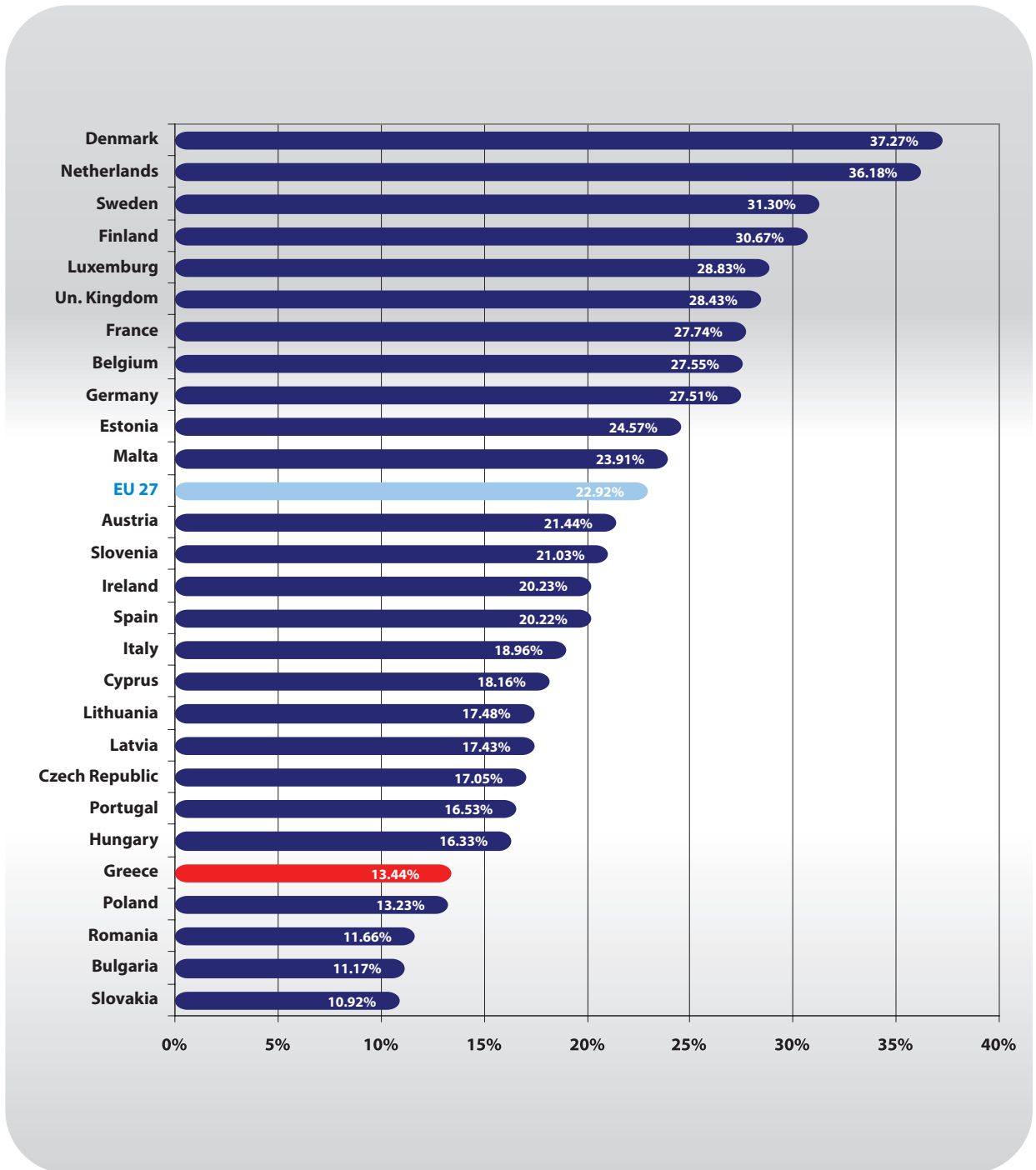
Source: EETT (based on the licensed operators' data)

Figure 58
EU Broadband Lines by Member State, January 2009



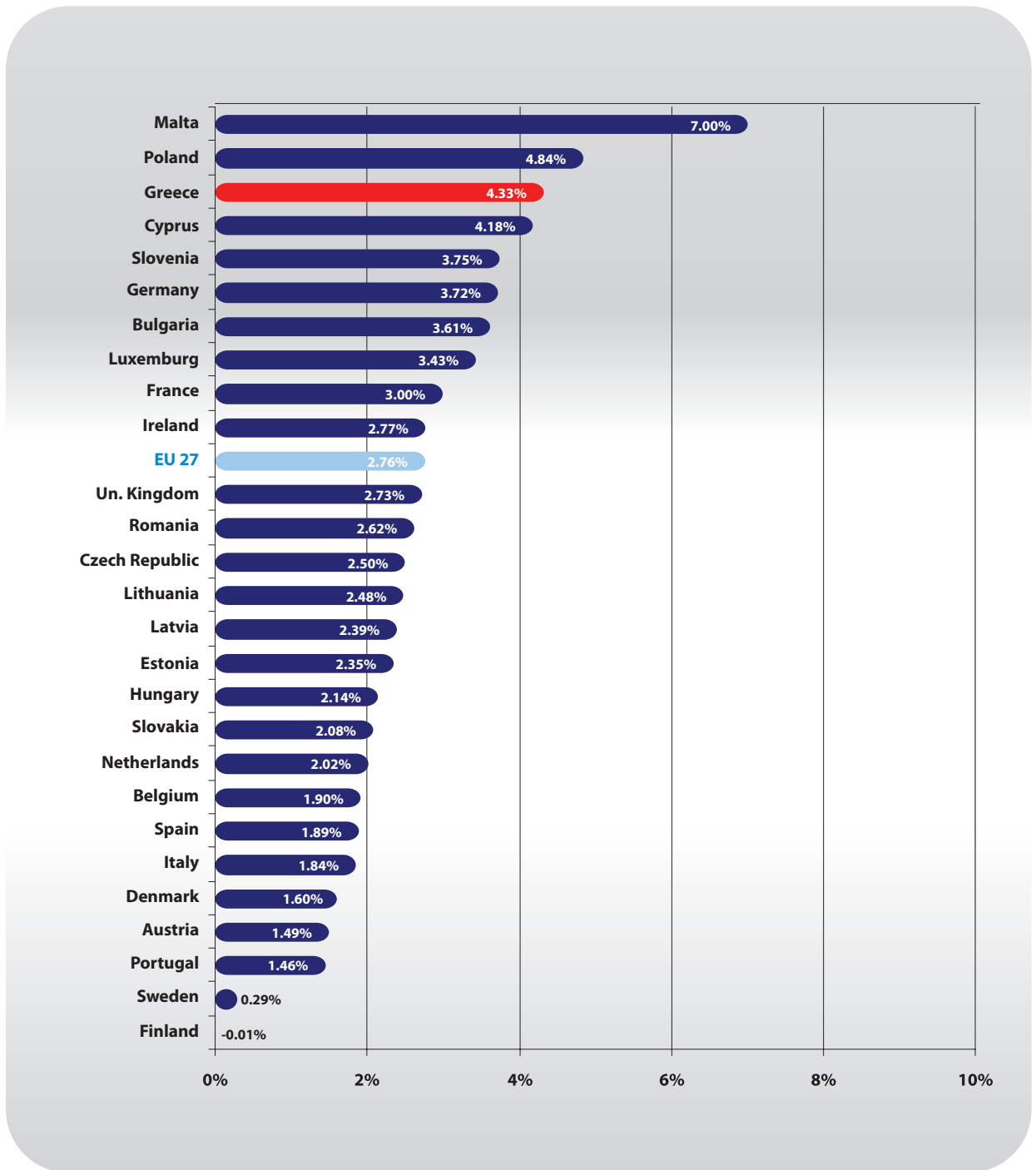
Source: 14th European Commission Implementation Report

Figure 59
Broadband Penetration Rate, January 2009



Source: 14th European Commission Implementation Report

Figure 60
Increase of Broadband Penetration Rate in the EU Member States in 2008



Source: 14th European Commission Implementation Report

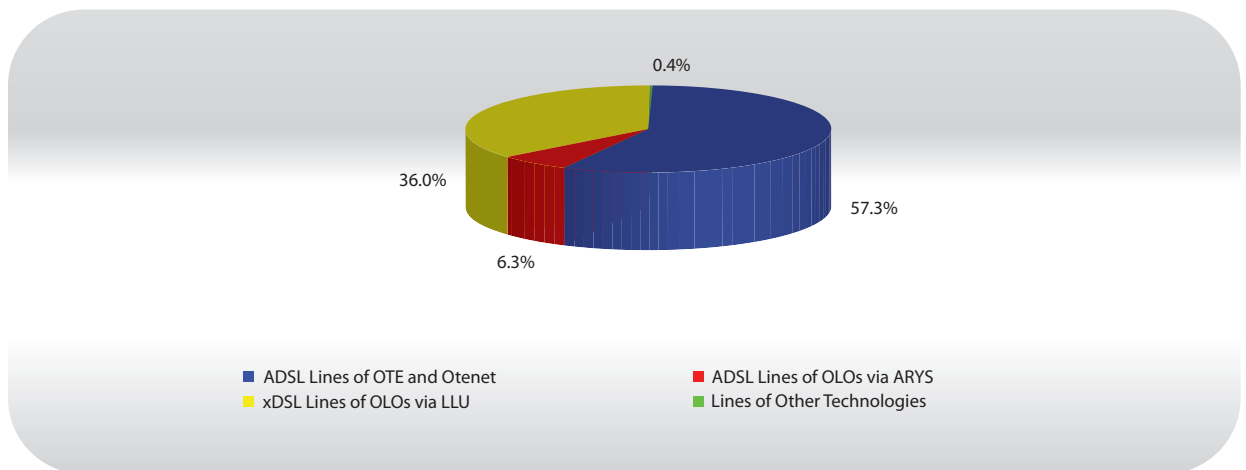
1.11.2. Broadband Lines by Technology

The reduction of ARYS lines was significant since the percentage dropped from 21.9% at the end of 2007 to 6.3% in December, 2008 (Figure 61). This fact indicates the tendency of the alternative providers to shift their subscribers' base from Wholesale Broadband Access (WBA) to LLU. Lastly, access via other technologies is still not feasible since Greece registers the lowest score in the entire Europe, a fact that reflects the lack of alternative infrastructure in our country (Figure 64).

1.11.3. Speeds of Broadband Lines

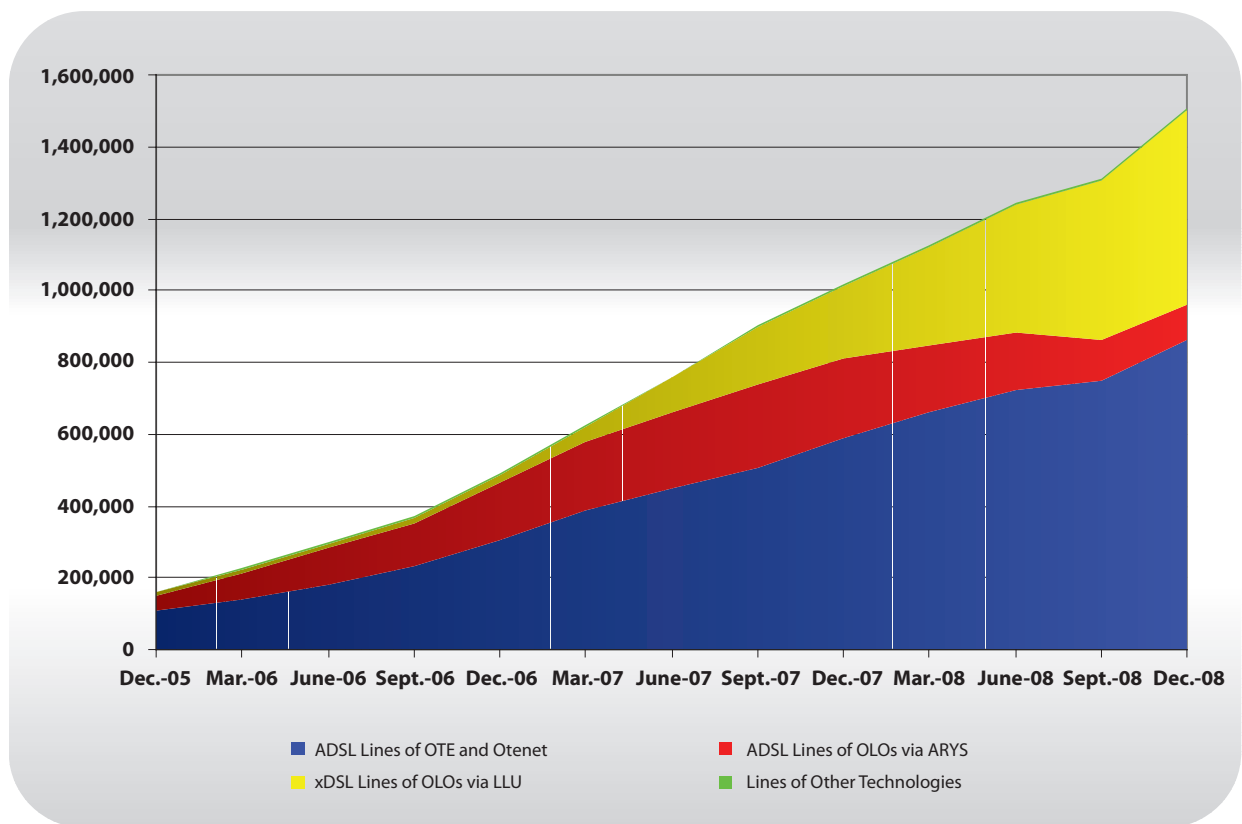
The access speed of the sum total of broadband lines swung considerably since the majority of the lines corresponds to speeds equal to or higher than 1 Mbps (download) (99.9% while the respective percentage at the end of 2007 was 60.7%), and 32.6% of the total number of broadband lines corresponded to speeds higher than 10 Mbps (Figure 65). This fact indicates a consumers' shift towards high-speed products.

Figure 61
Distribution of Broadband Lines by Technology, December 2009



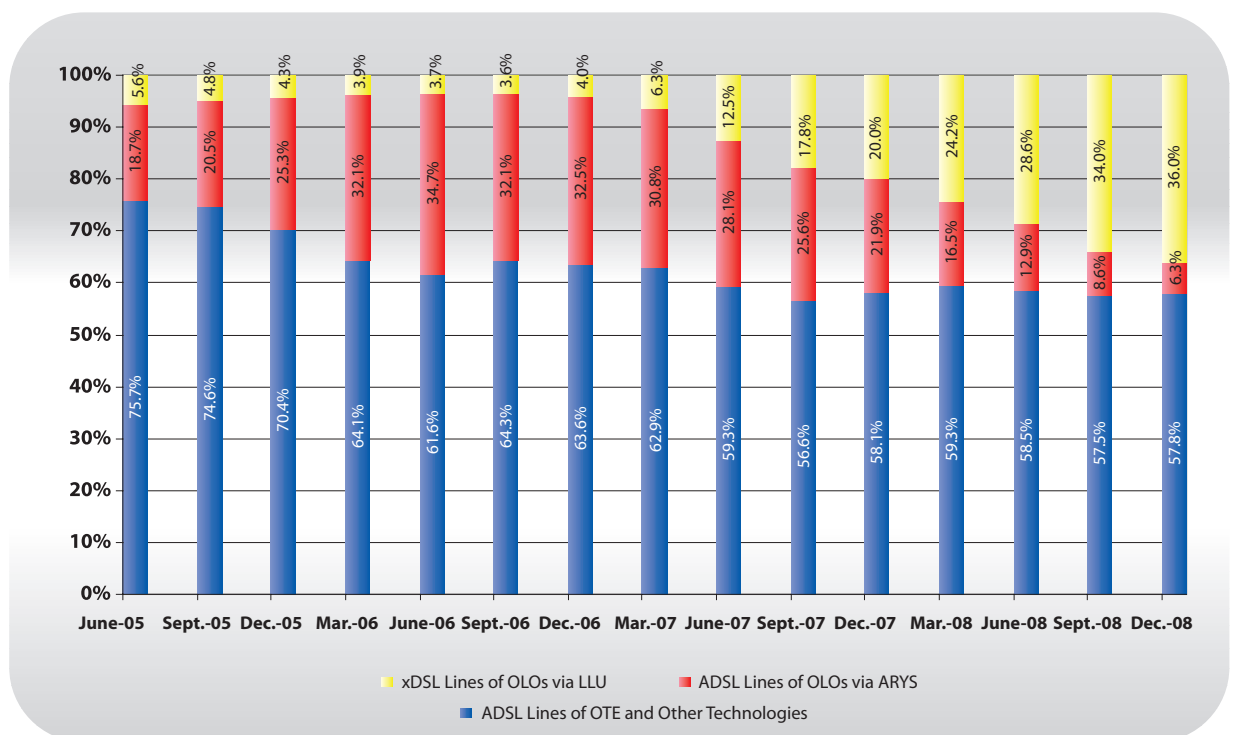
Source: EETT (based on the licensed operators' data)

Figure 62
Development of Broadband Lines by Technology



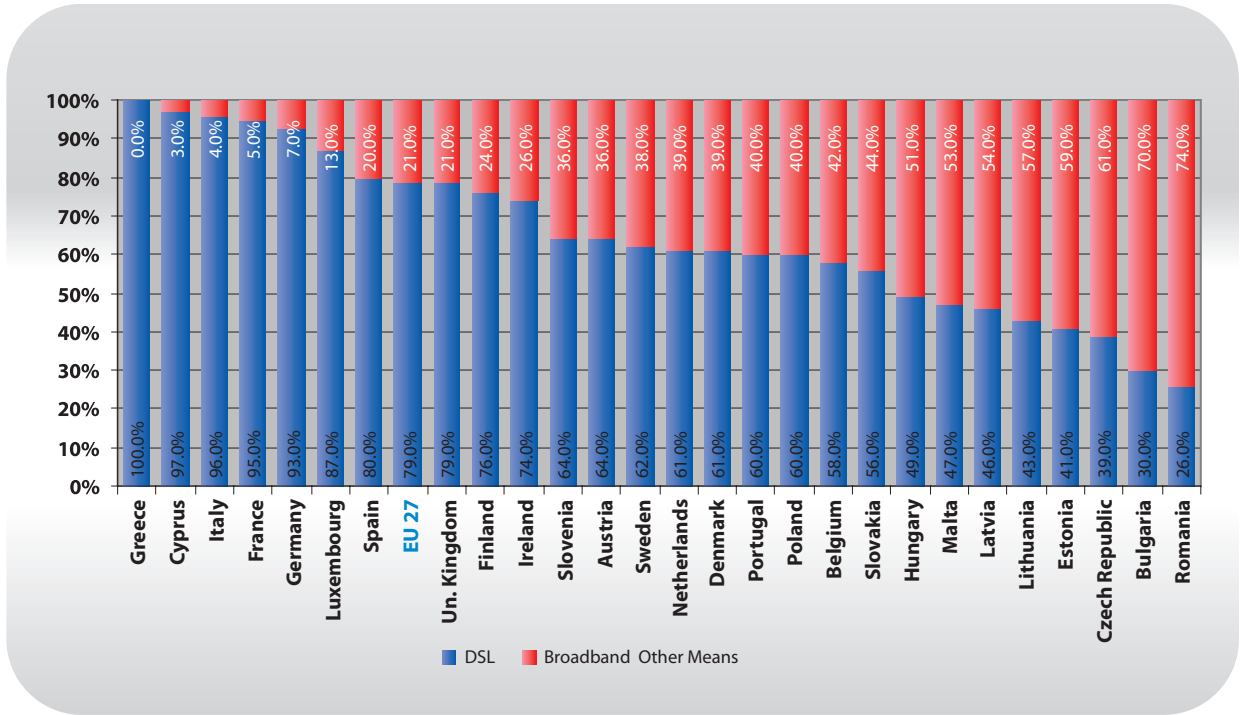
Source: EETT (based on the licensed operators' data)

Figure 63
Distribution of Broadband Lines by Access Type



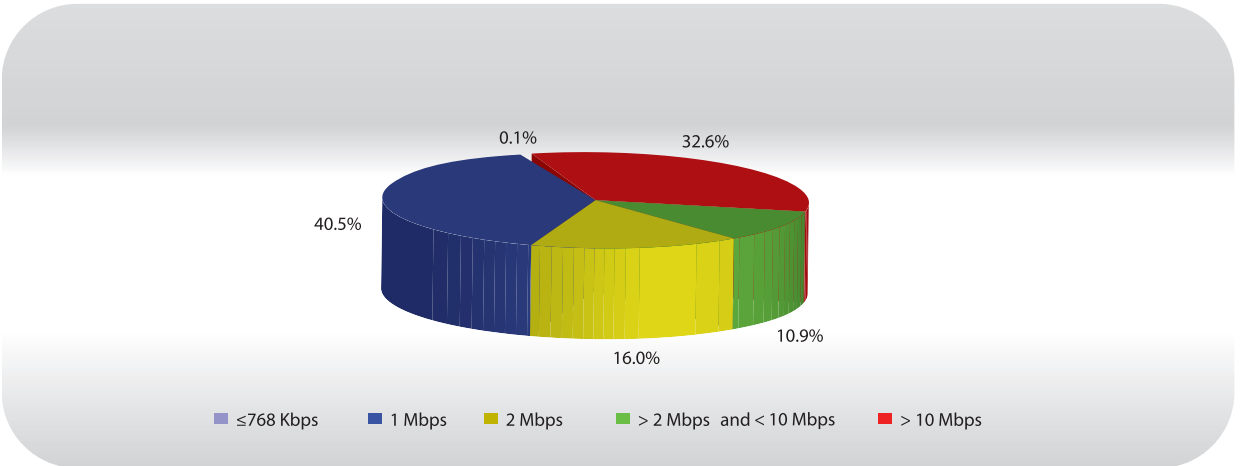
Source: EETT (based on the licensed operators' data)

Figure 64
Fixed Broadband Lines by Technology, December 2008



Source: 14th European Commission Implementation Report

Figure 65
Percentage Distribution of Broadband Lines' Speeds, December 2008



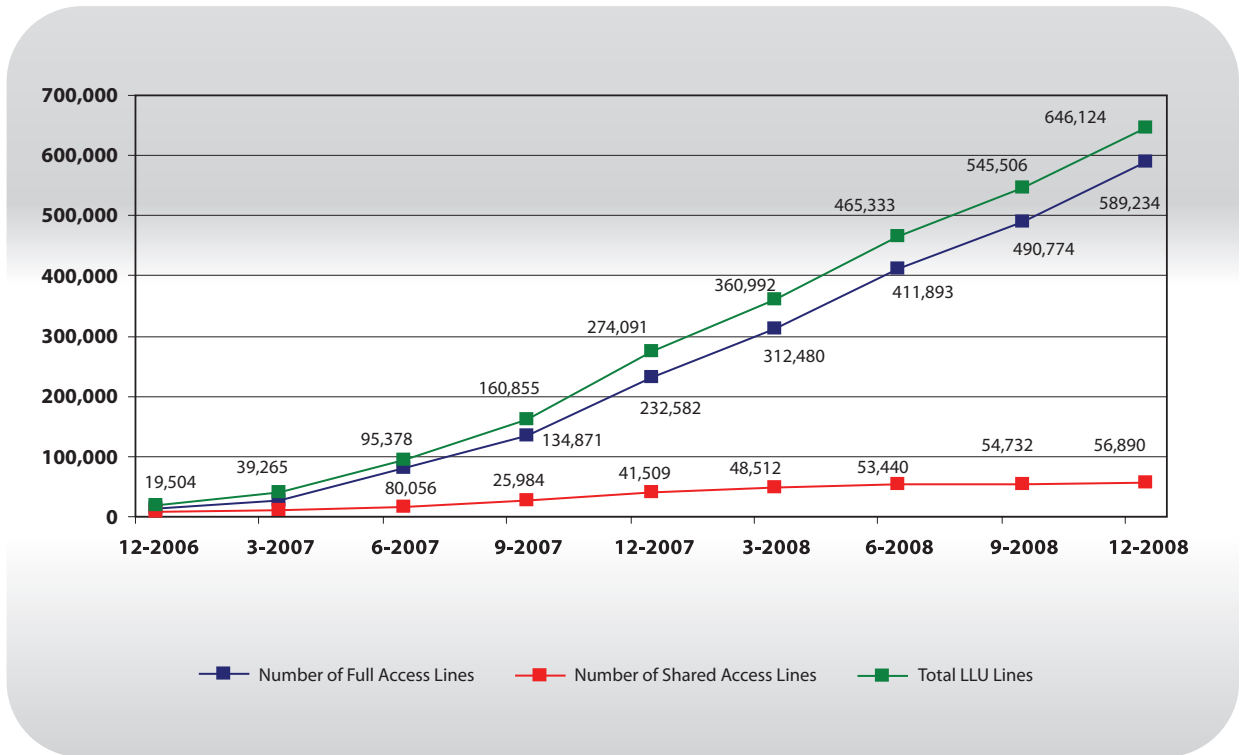
Source: EETT (based on the licensed operators' data)

1.11.4. Local Loop Unbundling

The growth of LLU was rapid, rendering, thus, LLU as the basic means for broadband development in Greece. The number of LLU lines over-doubled compared to the end of 2007 (a 236% increase), exceeding 646,000 lines (Figure 66). The majority of those lines were used for providing services of broadband Internet access.

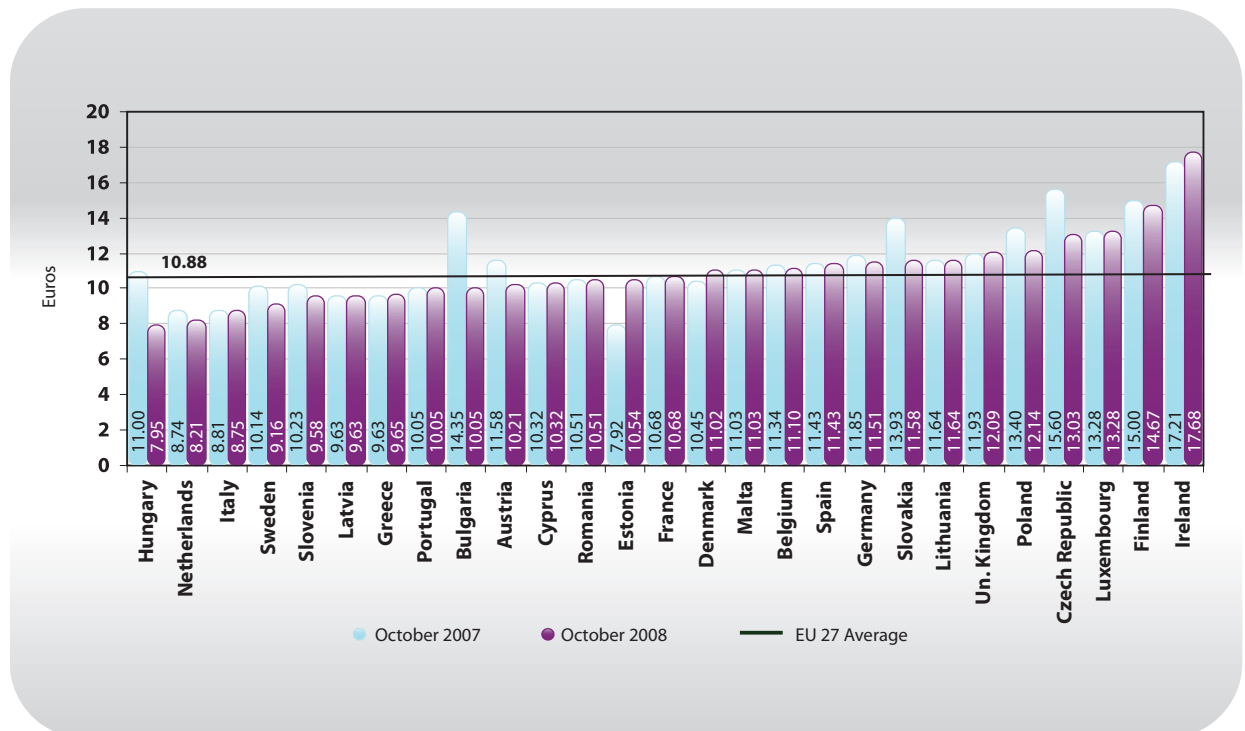
The cost of LLU access was reduced in the EU member states since the European average dropped to 10.88 Euros for a fully unbundled loop (from 11.29 Euros in 2007) and to 4.13 Euros for a shared access loop (from 4.51 Euros in 2007). Greece, with an average monthly cost per fully unbundled loop at 9.65 Euros, is the seventh cheapest member state (Figure 67) while the respective cost for shared access (Figure 68) is 3.39 Euros (8th cheapest member state).

Figure 66
Development of LLU Lines



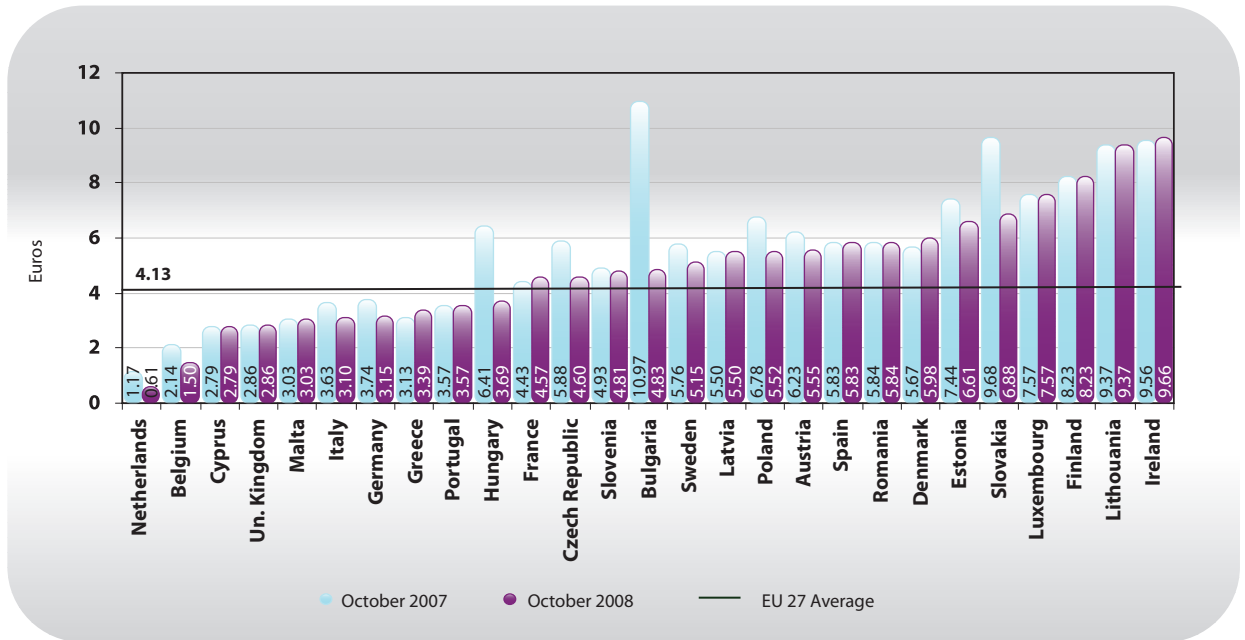
Source: EETT (based on the licensed operators' data)

Figure 67
Monthly Average Total Cost per Fully Unbundled Loop



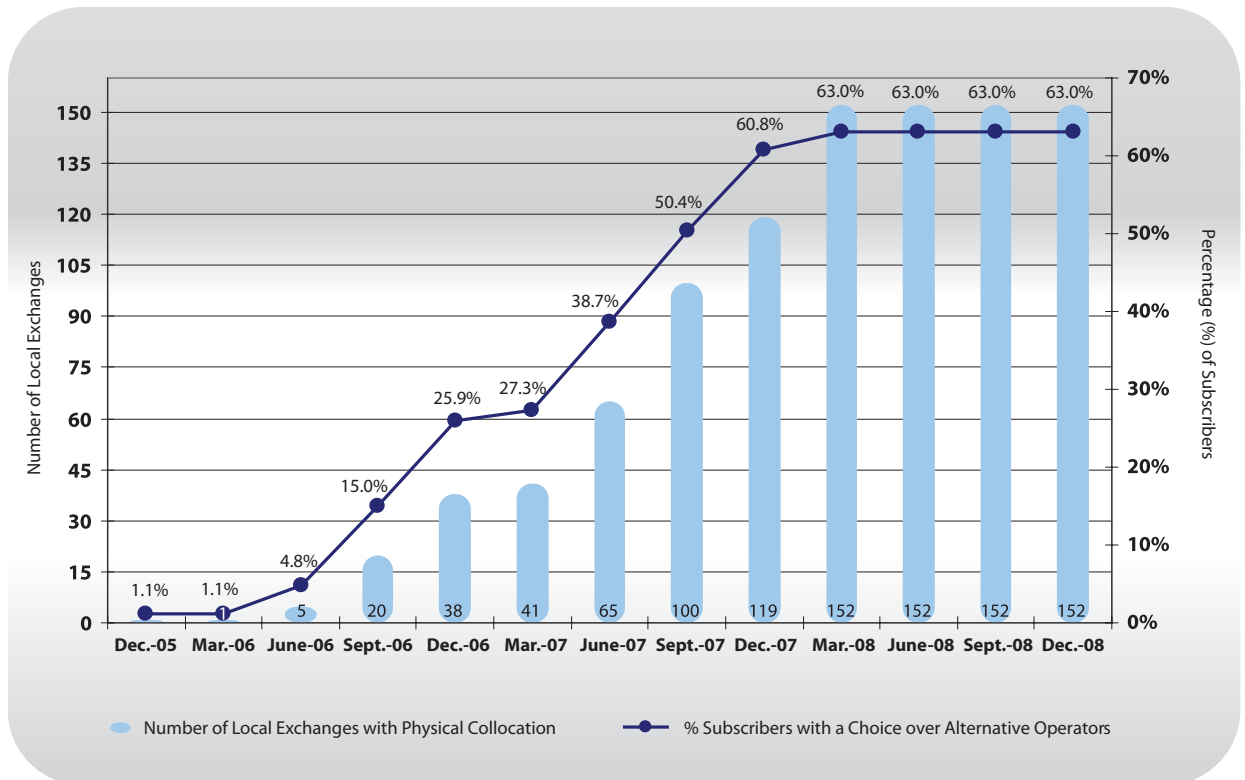
Source: 14th European Commission Implementation Report

Figure 68
Monthly Average Total Cost per Shared Access



Source: 14th European Commission Implementation Report

Figure 69
Development of Physical Collocation



Source: EETT (based on the licensed operators' data)

1.11.5. Collocation

The number of OTE's local exchanges that provided Physical Collocation at the end of 2008 was 152, and is expected to be over 160 during 2009. Those 152 local exchanges included 728 Collocations implemented by the operators by the end of 2008, compared to 490 Collocations at 119 Local Exchanges of Physical Collocation at the beginning of 2008. It should be mentioned that the growth of Physical Collocation boosted considerably LLU.

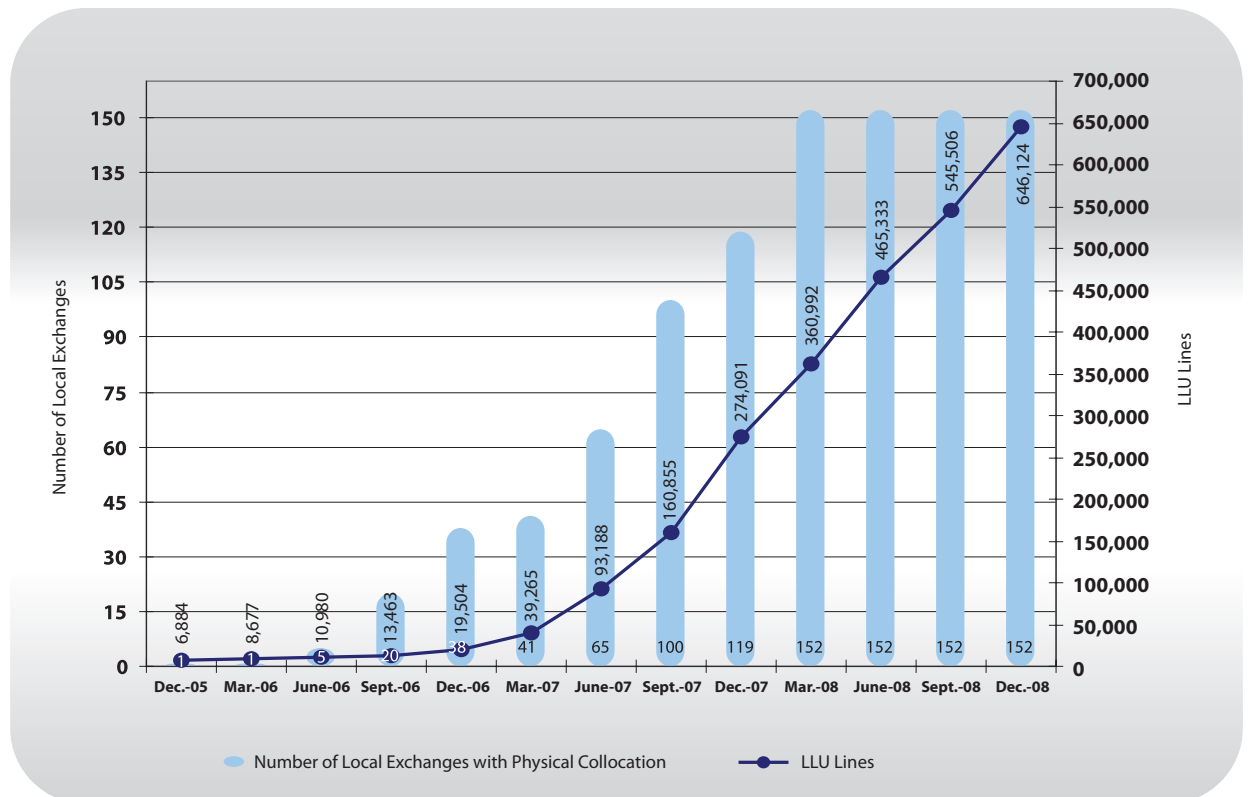
1.11.6. Retail Cost of Broadband Access

In May 2009, the European Commission published for the first time a Report titled «Broadband Internet Access Cost», which demonstrates the retail cost of broadband access in the EU member states during the first semester of 2008 based on data collected during the period 01-25/04/2008. The study was performed by «Van Dijk Management Consultants». The assumptions, necessary for rendering the prices in the different national markets comparable, are summarized in the Appendix.

The conclusion from the price comparison (Figures 71 – 80) is that the retail cost of broadband access in Greece is in general terms lower than the average European one and, with some exceptions lower than the average retail cost of the old 15 state members. Analytically and with regard to Internet services, Greece is one of the cheapest countries of the EU (in comparison not only to the 27 member states but also to the old core of the 15 member states). The fact that the position of Greece improves as the speed category increases is of particular interest, especially for speeds over 20 Mbps (Figure 75) where Greece is the cheapest country (out of 13 countries) and considerably lower than the averages of both the 27 (48%) and the 15 member states (50%) as well. It should be mentioned that according to Figure 64, over 32% of the total broadband lines correspond to speeds over 10 Mbps⁹.

With regard to the bundled Internet and telephony services, Greece is one of the cheapest member states and for speeds over 20 Mbps (Figure 80) it is the 2nd cheapest country (out of 6) and considerably lower than the averages of both the 27 (51%) and the 15 (39%) member states as well.

Figure 70
Connection LLU - Physical Collocation



Source: EETT (based on the licensed operators' data)

9. The percentages in the Figures present the difference between the average price in Greece and the average price in the EU, namely $(\text{Price Greece} - \text{Price EU}) / (\text{Price EU})$.

Figure 71
Monthly Subscription Cost for Internet Access only at Speeds 512-1024 Kbps

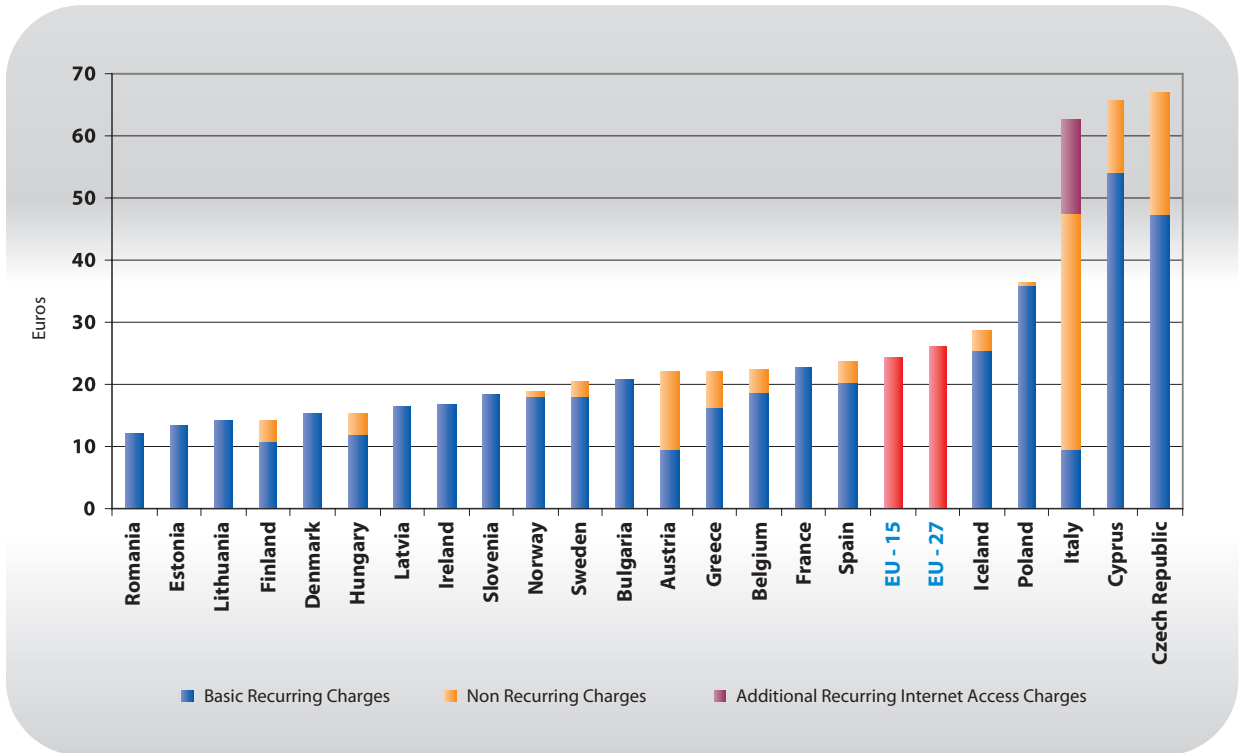


Figure 72
Monthly Subscription Cost for Internet Access only at Speeds 1024-2048 Kbps

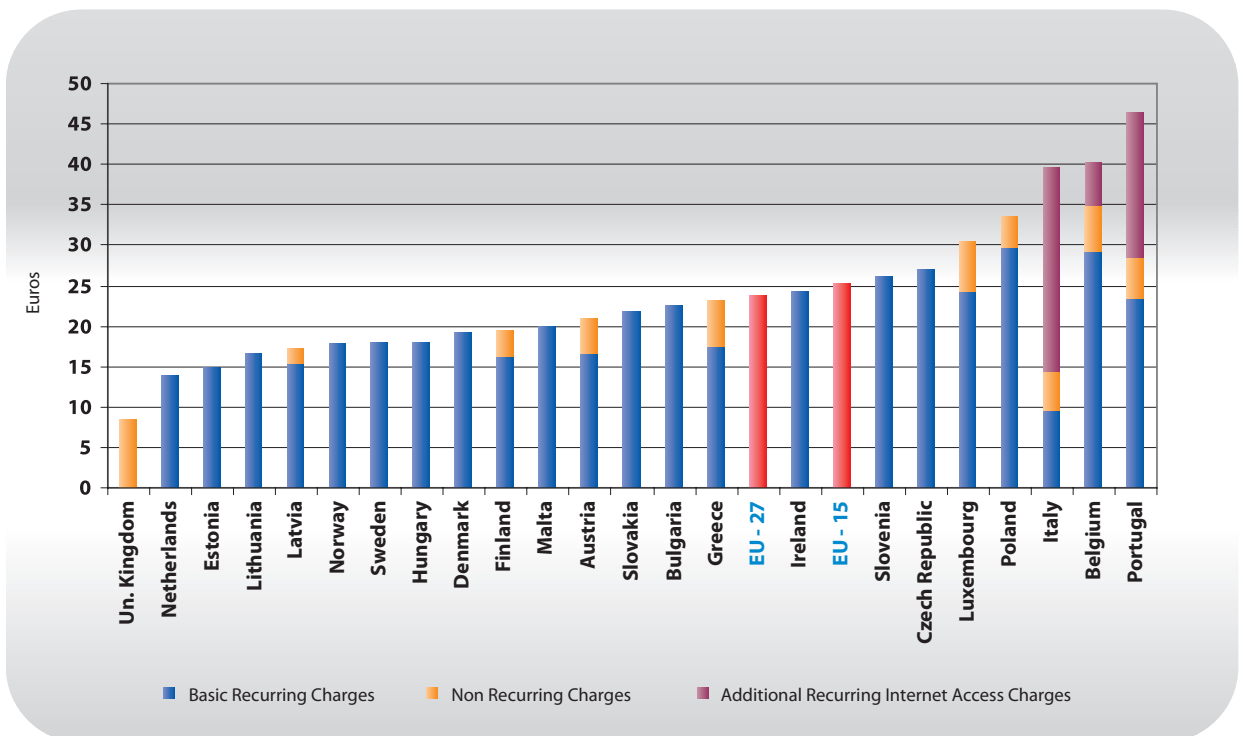


Figure 73
Monthly Subscription Cost for Internet Access only at Speeds 2048-4096 Kbps

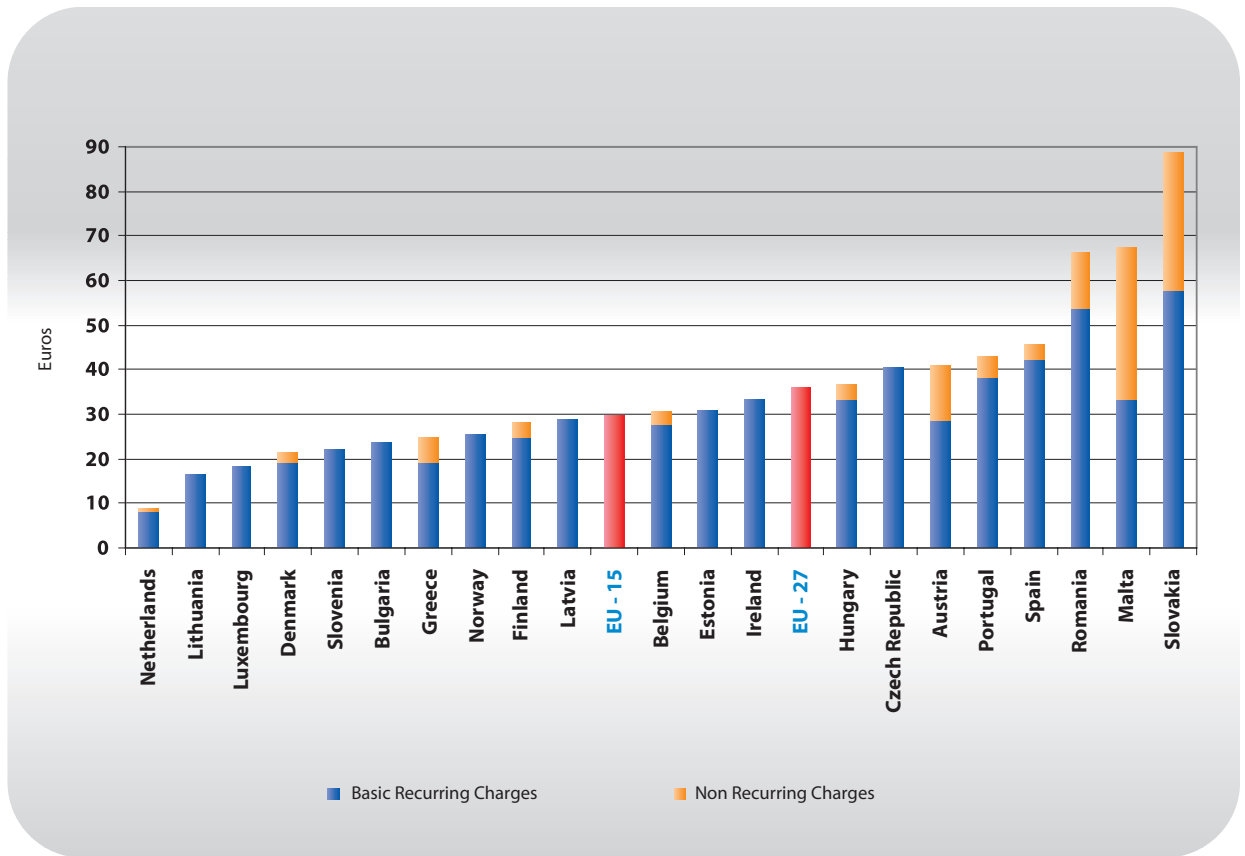


Figure 74
Monthly Subscription Cost for Internet Access only at Speeds 4096-8192 Kbps

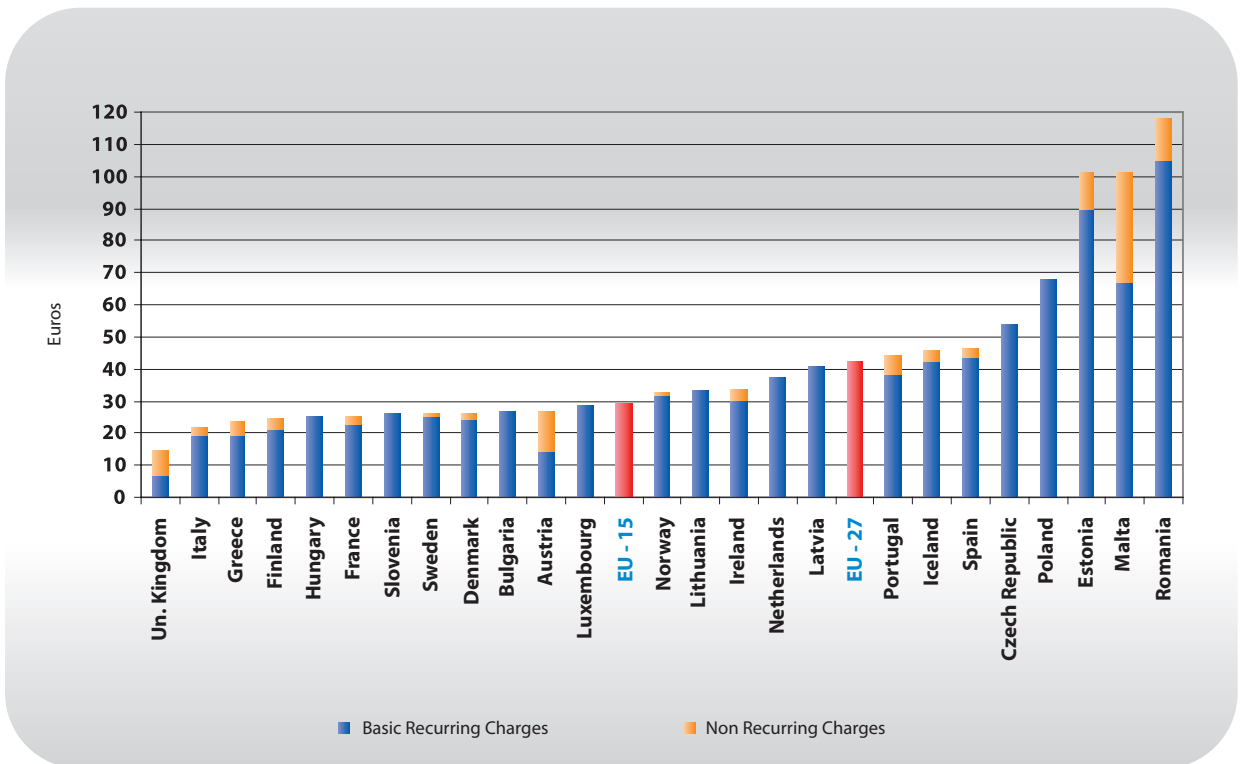


Figure 75
Monthly Subscription Cost for Internet Access only at Speeds 20+ Mbps

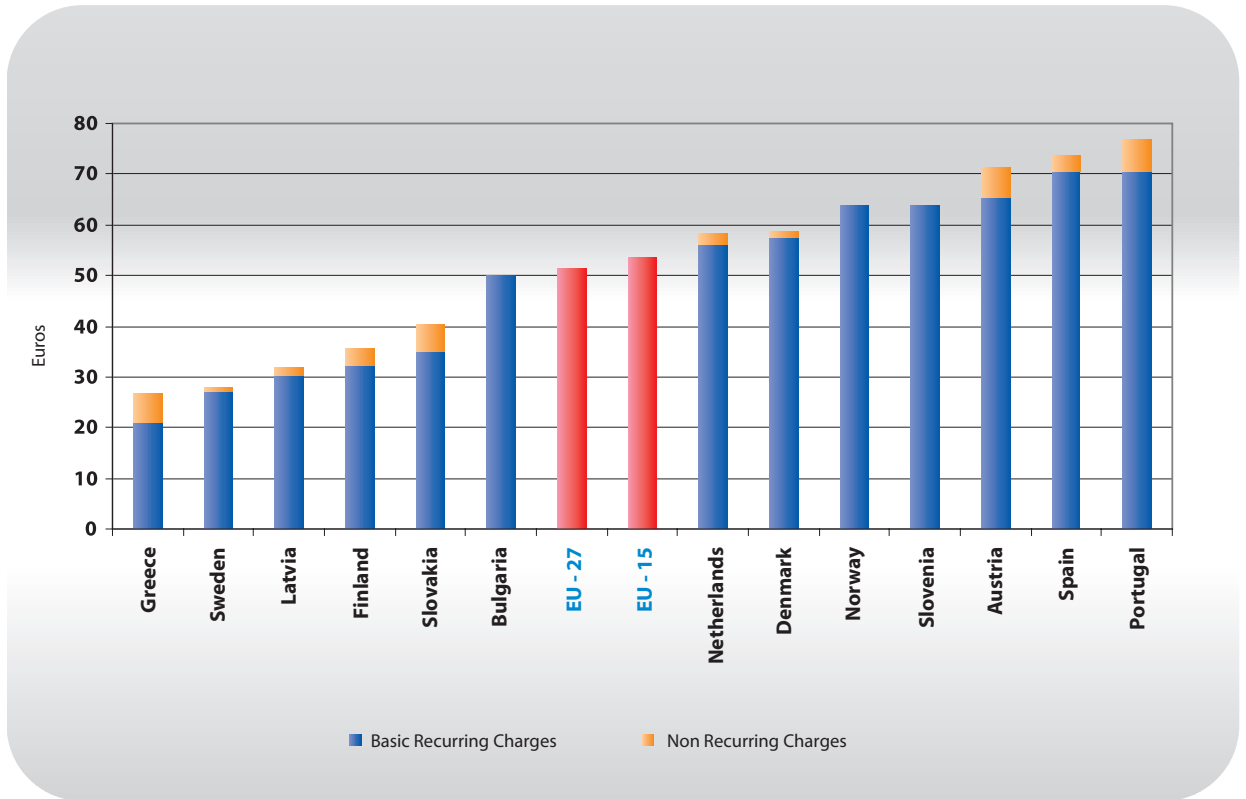


Figure 76
Monthly Subscription Cost for Telephony and Internet Access only at Speeds 512-1024 Kbps

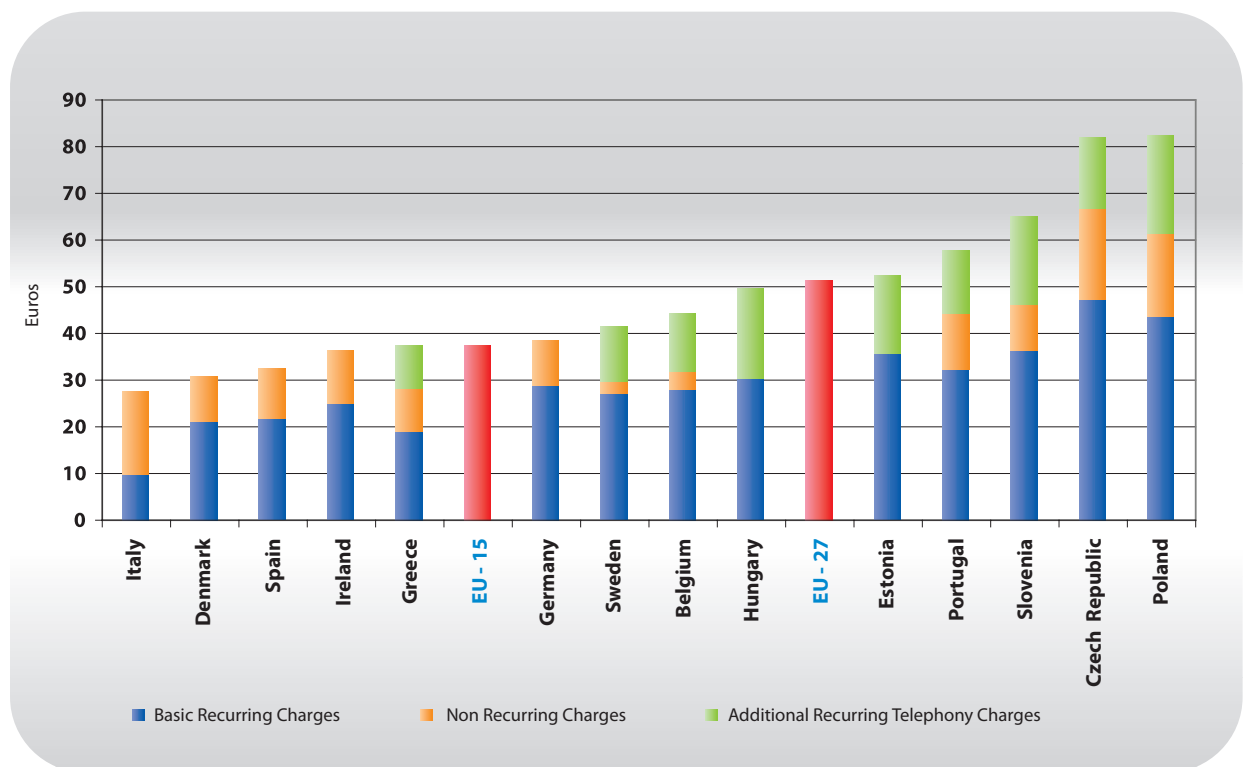


Figure 77
Monthly Subscription Cost for Telephony and Internet Access only at Speeds 1024-2048 Kbps

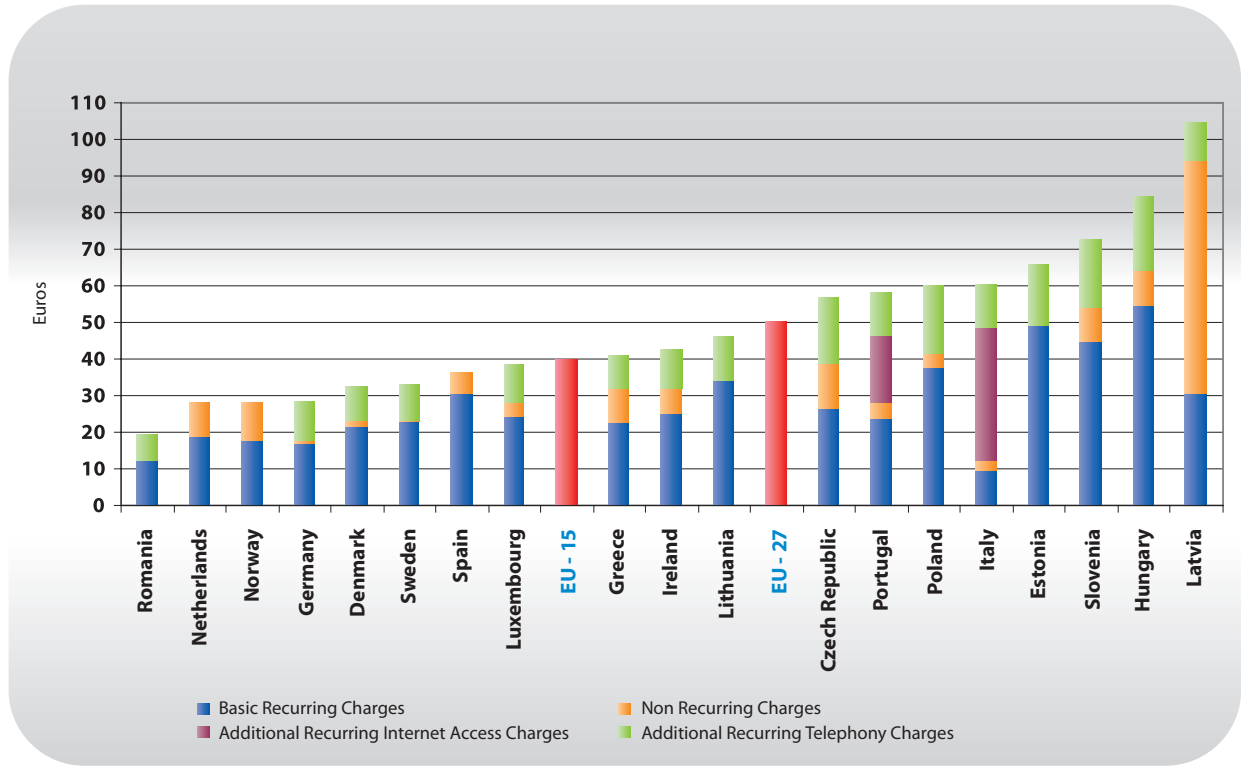


Figure 78
Monthly Subscription Cost for Telephony and Internet Access only at Speeds 2048-4096 Kbps

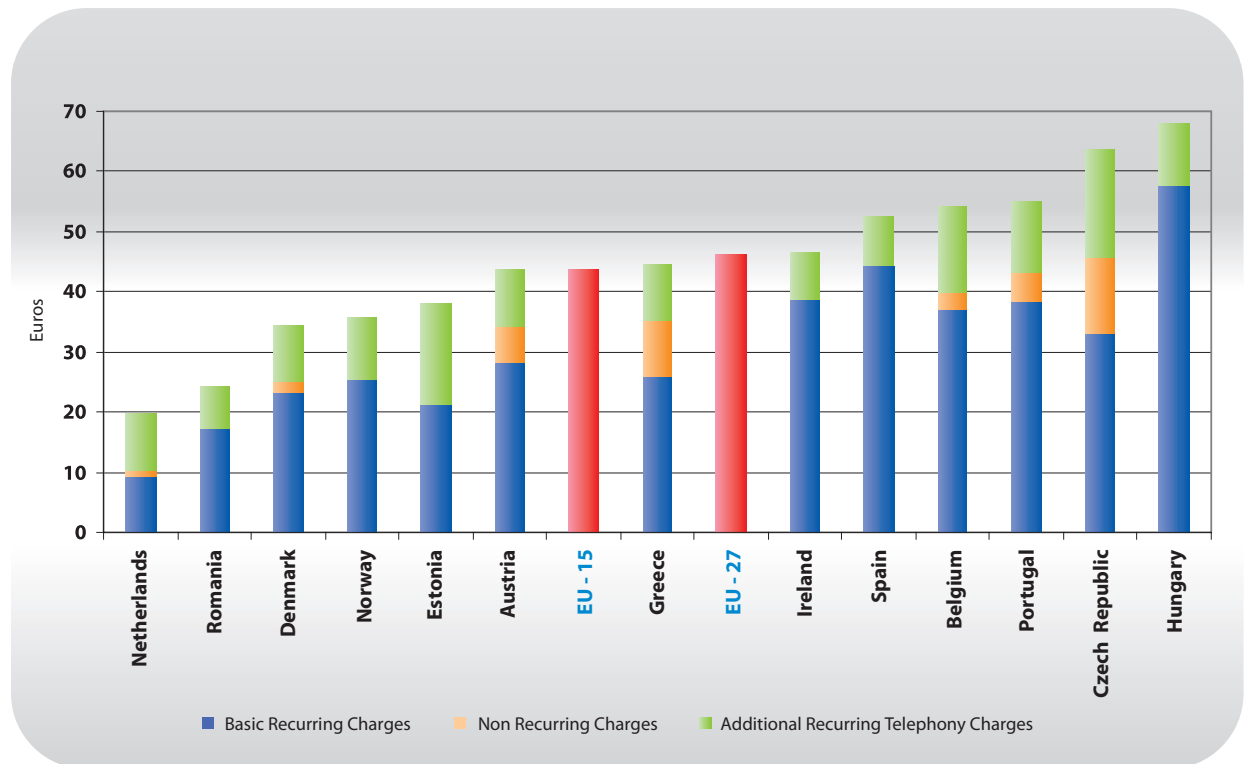


Figure 79
 Monthly Subscription Cost for Telephony and Internet Access only at Speeds 4096-8192 Kbps

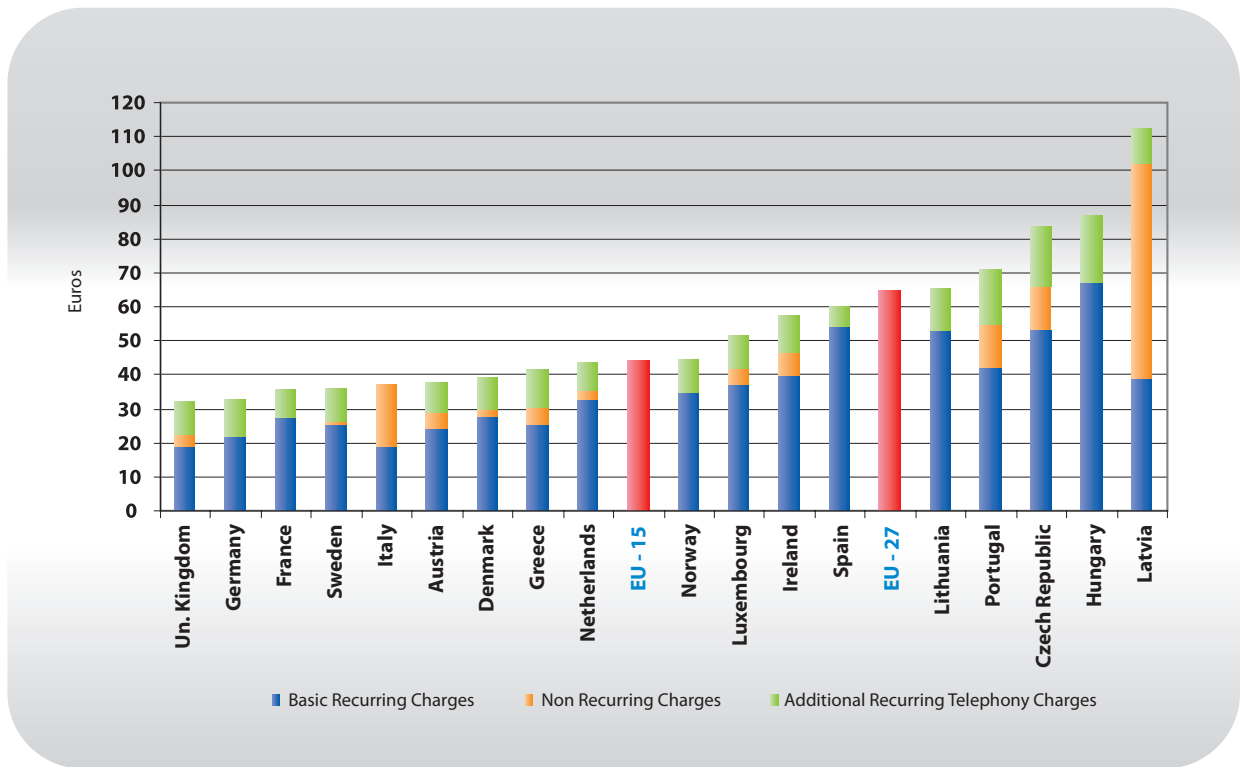
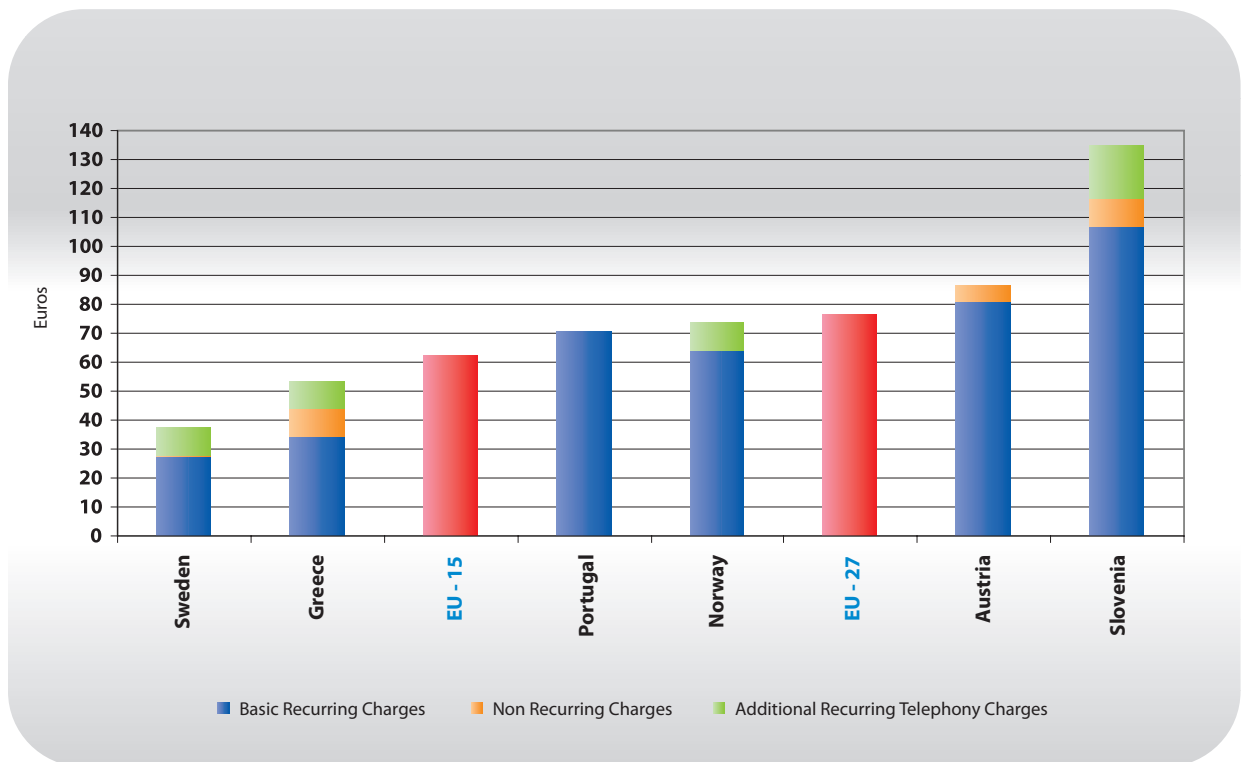


Figure 80
 Monthly Subscription Cost for Telephony and Internet Access only at Speeds 20+Mbps





2. The Postal Market



EETT's annual questionnaire registers both quantitative and qualitative data of the following:

- The Universal Service (US) market, within which the Universal Service Provider (USP) and operators under Individual Licensing operate;
- The courier market

The turnover of the postal activity in our country, even though it is a small fraction of the annual GDP (<0.5%), supports the increase in productivity of important sections of Greek Economy (trade, industry, services) and in this respect deserves a thorough analysis.

2.1. The Greek Postal Market

In 2008, EETT, for the first time, collected data not only related to the dispatched mail volumes and the generated revenues but also to the cost of providing Postal Services in the above mentioned markets. It is mentioned that the number of operators under General Authorization (courier market) enlisted in EETT's Registry (including their networks), amounted to 1,063 as of 31-12-2008, at about the same level as of 2007. Out of those operators 409 are enlisted in EETT's

Registry, while the remaining 654 are branches or part of the network of the enlisted operators.

The revenues of the Postal Market (US and courier services) for 2008 are estimated at 753 million euros and were generated by the handling of 777 million items. The annual increase rate of the number of handled items in the Greek Postal Market slowed down in the period 2006-2008, contrary to the increase rate of the respective revenues which remained relatively stable for the same time period. Namely, the average annual increase of revenues (5%) for 2006-2008 was double the respective increase of volume (2.5%). The observed stability in the increase in revenues is an encouraging sign for the viability of the postal sector.

Analytically, the courier market registers a 6% increase in its revenues every year, while the respective rate for the US market is 4%. With regard to the volumes, the US market exhibits distinctive signs of maturity, since the annual average growth rate (only 2.3% annually) is 3 times lower than the respective rate of the courier market (6.0%). It should be mentioned that the fluctuations of volumes/revenues of the US have a significant impact on the entire Postal Market, since the US, over the years, constitutes more than 90% of the Market in terms of volume and about 60% in terms of revenue (see Tables 6 and 7). Over 22,000 people were employed in the Greek Postal Market in 2008, almost the same as in 2007.

Table 6
Volumes of Postal Market

Postal Items (% distribution)	2004	2005	2006	2007	2008
Courier Sector	33,613,878	39,156,615	45,034,437	46,470,205	50,650,921
	4.98%	5.69%	6.10%	6.04%	6.74%
Universal Service Sector:					
1) USP	641,361,900	649,475,889	686,782,500	716,220,900	718,858,100
	95.02%	94.31%	92.98%	93.07%	92.28%
2) Operators under Individual Licensing	N/A	N/A	6,823,724	6,824,401	7,330,833
			0.92%	0.89%	0.98%
Total	674,975,778	688,632,504	738,640,661	769,515,506	776,839,854
	100%	100%	100%	100%	100%

Table 7
Revenues of Postal Market

Amounts in Euros (% distribution)	2004	2005	2006	2007	2008
Courier Sector:	213,160,626	238,676,811	258,719,458	276,054,385	299,431,578
	35.82%	38.11%	38.17%	38.79%	40.19%
Universal Service Sector:					
1) USP	381,994,575	387,581,925	416,241,268	432,940,435	450,286,543
	64.18%	61.89%	61.41%	60.84%	59.43%
2) Operators under Individual Licensing	N/A	N/A	2,846,748	2,640,802	2,852,607
			0.42%	0.37%	0.38%
Total	595,155,201	626,258,736	677,807,474	711,635,622	752,570,727
	100%	100%	100%	100%	100%

2.2. The Parcels and Express Services Market

The larger courier operators have local agents in several places across the Greek Territory, who provide collecting and distributing services in the area of their responsibility on behalf of those operators. This collaboration resulted in about 9% of the total revenues of the Courier market for 2008, even though there was a downward trend in the combined handling of postal items in terms of volumes/revenues for the period 2006-2008.

The collaboration of the licensed operators with international operators for the handling of postal items from/to the country (incoming/outgoing mail) turns out to be a very lucrative business for Greek operators, since it generates approximately 1/3 of the total revenues, even though only 1 out of 10 postal items is addressed to / comes from a foreign country. Due to the customers' concentration of those operators in the two big cities (Athens, Thessalonica), the observed high rates of postal items sent from these two cities within the Greek territory (over 75%) and abroad (over 85%) are expected.

The strong commercial relations of our country with other European countries are established by the fact that 6 (7) out of 10 incoming (outgoing) postal items of the courier market come from or are addressed to European countries, while 2 (1) out of 10 incoming (outgoing) postal items come from (are addressed to) the emerging economies of Asia that have trade transactions with our country. Finally, the ratio of incoming/outgoing postal items from/to the countries of the American continent, expressed as a percentage of the total amount of

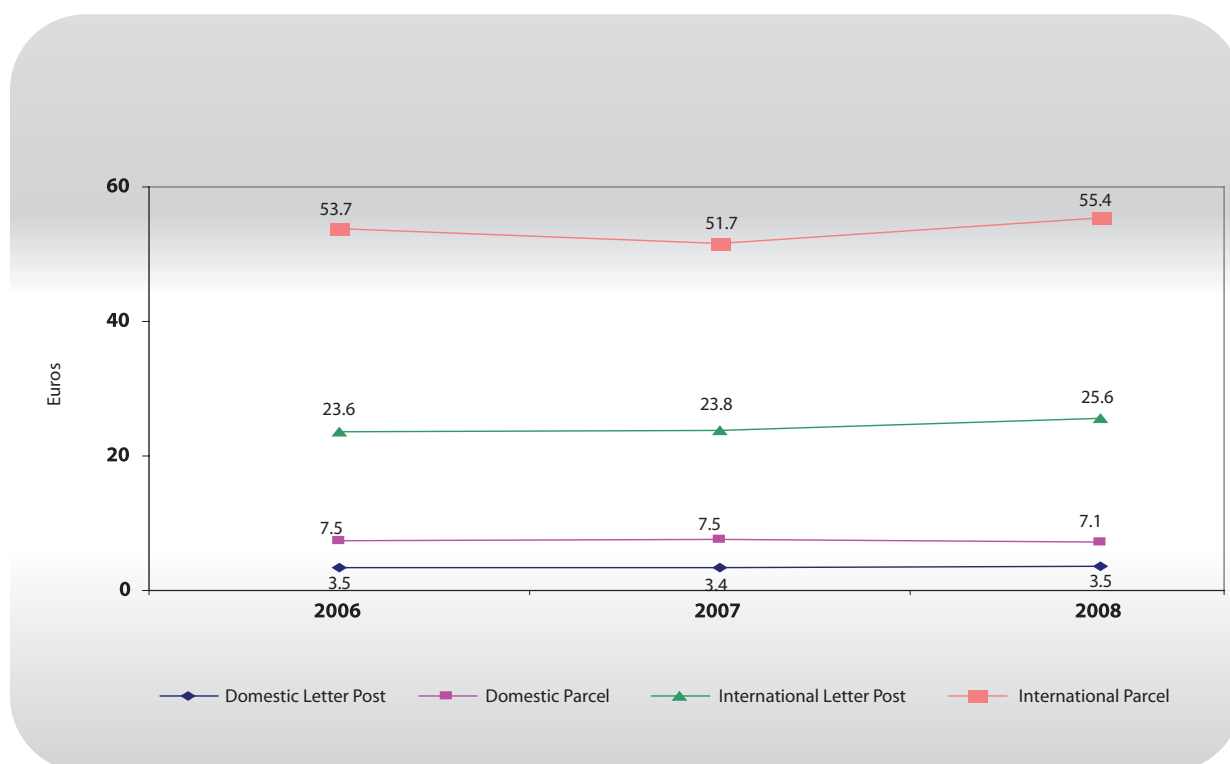
items in this subcategory, is probably balanced (1 out of 10 items are sent from / addressed to countries of the American continent).

Letter post weighting up to 2kg tend to decrease in terms of volume for the time period 2006 – 2008, even though it is the most important category of the handled postal items. On the contrary, the volumes of parcels weighting up to 2 kg, seem to be stable for the same time period. The courier market is sifting gradually to transporting heavier items (parcels weighting 2 – 20 kg) in order to stimulate revenues. Indeed, one out of four handled postal items is a parcel whose handling produces half of the total revenues of courier operators. The handling of parcels is an important part of the liberalization for both domestic and international postal market.

The added value of courier services comprises the speed of delivery for the shipments under their responsibility, the ability of tracking and tracing postal items, and the flexibility of operators to meet their customers' needs. Indeed, more than 75% of revenues is produced by shipments delivered to their recipient within 24 hours.

The fact that the delivery of domestic letter post, using courier services, costs the consumer 3.5 Euros (not including VAT) on average while the delivery of a domestic parcel is 100% more expensive (7.1 Euros) is of a certain interest. Additionally, the delivery of letter post/parcel abroad costs the consumer eight times more compared to the respective domestic delivery. The unit prices of letter post/parcels, domestic/international for the period 2006 – 2008 are presented in the following Figure.

Figure 81
Unit Prices of Courier Services



Approximately 80% of the 11,000 people employed in the courier market are full time. The delivery stage, which is one of the most important and most costly parts of postal process, employs about 50% of the courier personnel. About half of those people are employed in the network of operators. Last and with regard to the education level of the courier personnel, the majority (80%) are high school graduates.

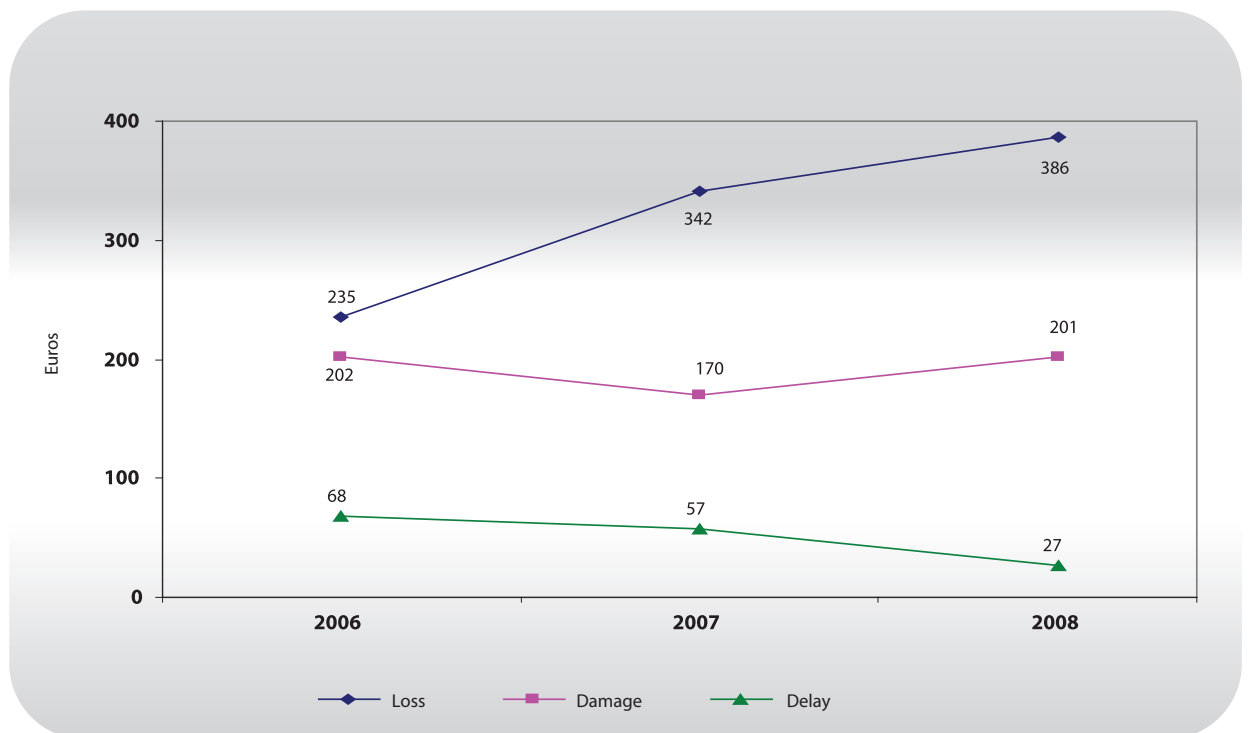
Courier operators contribute considerably to the development of the sector by integrating new partners into their network. It is estimated that, in 2008, 62% of the total area covered by courier operators belonged to the parent company, but the lion's share of vehicles (75%) belonged to network companies. The average annual increase of the area occupied by courier operators is estimated to be 8% for the period 2006 -2008 while the respective percentage for the vehicles about 1%, proving that the sector continues to invest on infrastructure.

The customers of courier operators are mainly companies with an important annual volume of postal items (wholesale sales). Indeed, the wholesale customers yield over 80% of

the revenues of courier operators, while 85% of the handled volume is produced by those customers. It should be mentioned that wholesale customers enjoy a 25% discount on the retail price.

With the development of the deregulated market, the number of complaints regarding defective postal services increased. In 2008, about 7,000 cases of defective postal services were reported, bearing a cost of 1.1 million Euros for courier operators. For the period 2006-2008, the average annual increase rate of users' complaints was approximately 13%, while the respective annual average increase rate of the compensation paid by operators was only 3%. Delayed delivery is one of the most common problems in the handling of shipments (56%), while the compensations paid are higher (71%) in case of a lost postal item. More specifically, a common complaint with regard to delay is compensated by the postal operator with 27 euros on average, the case of a destroyed postal item costs the operator about 200 euros, while the compensation amount may be as high as 400 euros in cases of loss (see Figure 82).

Figure 82
Cost per Postal Item due to Defective Postal Services



In most cases (97%) the resolution of disputes is handled through amicable settlements. In this procedure, the concerning parties determine also the amount of compensation.

Based on data provided by the larger operators, the profit margin of courier operators is lower than 2%. With regard to the cost distribution for 2008, 36% covers commissions to third parties (payments to partners), while 26% the salaries of the main operators' employees. It should be mentioned that the transportation of postal items constitutes 27% of the total cost. As a conclusion and taking into account the submitted financial data, the viability of the sector seems to be marginally secured, both for the US market and the Courier market.

2.3. The International Postal Market

The definition of the markets on an international level is determined by the type of the sender/recipient (operators/consumers). The larger mail volume is sent from businesses and delivered to consumers (B2C). The postal items included in this market are: direct mail and all types of commercial transactions (i.e. bills of public services/banks, tax documents etc.). The development of this market in every country is directly connected to the general economic development of the country (which means the GDP increase), but also the structure of postal market. Economic development means the creation of new companies and as a result the increase in direct mail volumes. Additionally, the deregulation of direct mail, on the one hand, contributes to the conservation and increase of the handled volumes because it does not force the operators to use cheaper means in order to distribute direct mail (without the name and the address of the recipient) and, on the other, it reduces the risk of electronic substitution. The electronic substitution is expected to be more intensive in the transactional mail (i.e. electronic submission of tax returns), but the study conducted by ECORYS on behalf of the European Union concludes that an annual increase of 2% in both direct mail and transactions through postal offices is expected.

The volume of Business to Business mail (B2B) consisting of simple deliveries has remained stable through the years, which is due to operational difficulties while the electronic substitution is expected to take place in a short time. With regard to the mail addressed from consumers to other consumers or businesses (C2X), electronic substitution has

already been implemented, despite the relatively low volumes in this category.

Some developed industrial countries are already exhibiting a zero development, and in some cases a decrease in the handled addressed mail volumes. For example, the UK and Netherlands expect an annual 1% decrease in volume. Germany is an exception to this rule since it registers a moderate increase of about 1-1.5% in the volume of handled addressed postal items for the period 2003-2007.

With regard to the progress of deregulation in the Postal Market in the EU countries, Germany and Netherlands appear to be the pioneers, since 9-14% of the addressed mail is handled by alternative operators. Among the new member states, Bulgaria, Estonia, Rumania, Czech Republic are taking significant steps towards opening up to competition for door to door postal services. In the UK, where full market deregulation is in effect since 01-01-2006, the door to door service competition is still in a seminal state. Furthermore, alternative operators, who mainly offer collection/pre-sorting services of bulk mail addressed to business customers and secondarily deliver B2B mail, prove that the road to full deregulation is still rough. Certainly, the known barriers for full market opening (i.e. the VAT exception for USP, restricted access of alternative operators to Public Postal Network, terms and conditions of cooperation between USP and large customers, labor issues, non distinct determination of the US limits and costs, ownership structure of the USP) still remain ticklish puzzles for most member states.

On the consumers' side, the USP customers with significant annual mail volumes desire an upgraded cooperation with the incumbent operator, namely the USP being able to offer innovative and flexible services which will add value to the customer's product. On the contrary, USP customers with relatively low annual mail volumes are not satisfied by the way the cases of defective postal services (loss, damage, delay) are treated because the applied procedures are bureaucratic and time consuming. Last, the customers with significant annual volumes of international mail deemed necessary the customization of the address inscription in all member states and the agreement among member states in the distinction of postal items in letter post/parcels as well. All European consumers agree that the stimulation of competition results in providing postal services of better quality, variety and at affordable prices for the average European citizen.

The following Figures present the statistical data for the Greek Postal Market:

Figure 83A
Postal Market Volumes

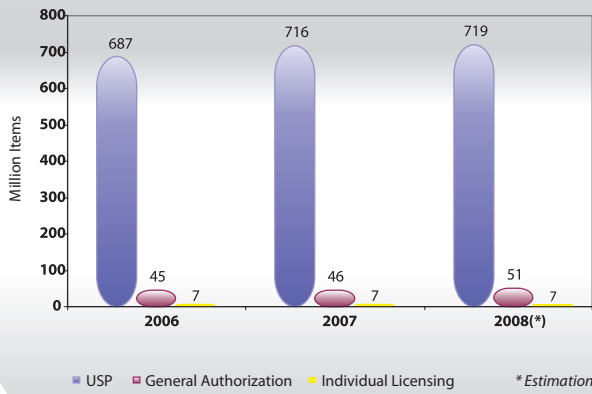


Figure 83B
Postal Market Revenues

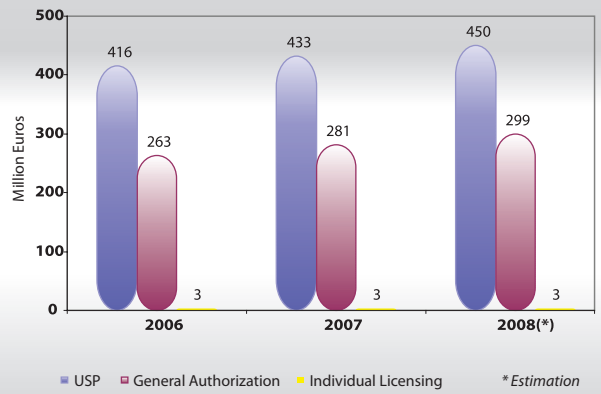


Figure 84A
Distribution of Postal Market Volumes, 2008

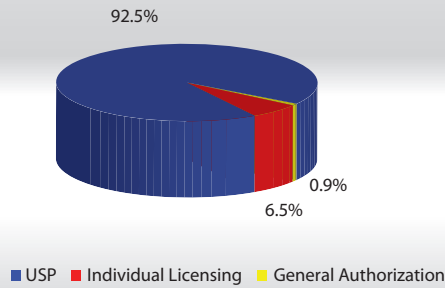


Figure 84B
Distribution of Postal Market Revenues, 2008

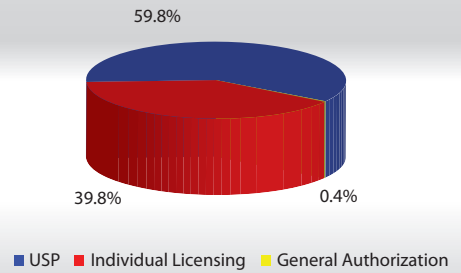


Figure 85A
Courier Market - Autonomous / Combined Handling Volumes

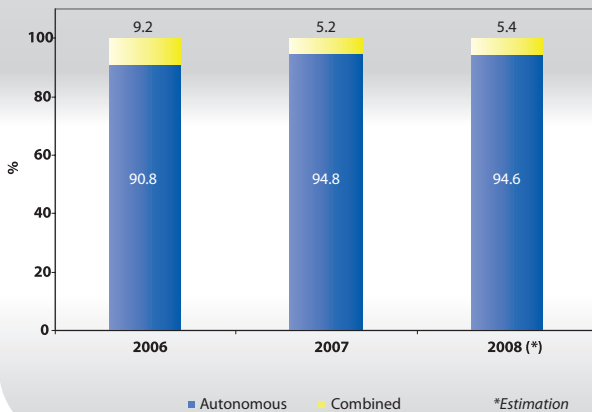


Figure 85B
Courier Market - Autonomous / Combined Handling Revenues

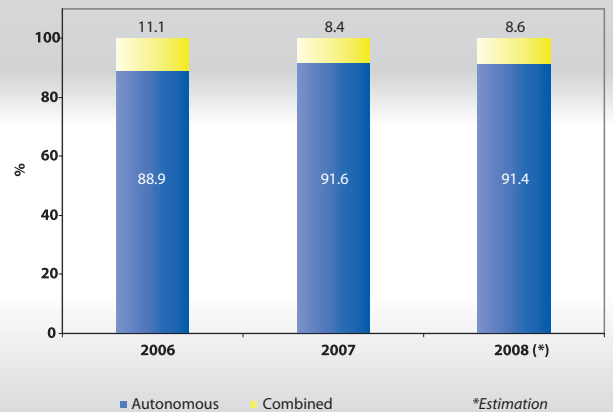


Figure 86A

Courier Market - International / Domestic Volumes

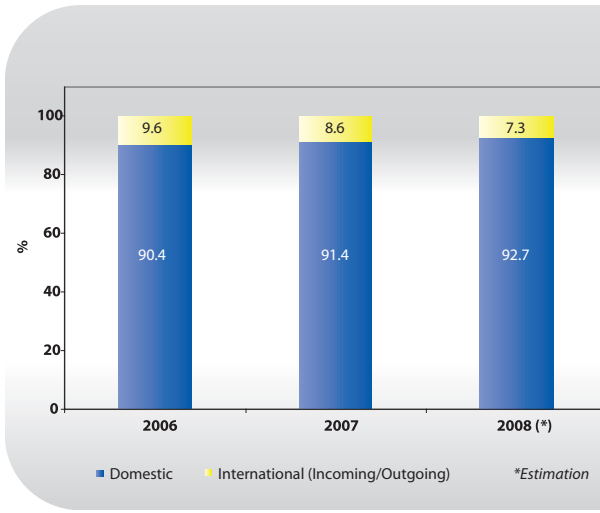


Figure 86B

Courier Market - International / Domestic Revenues

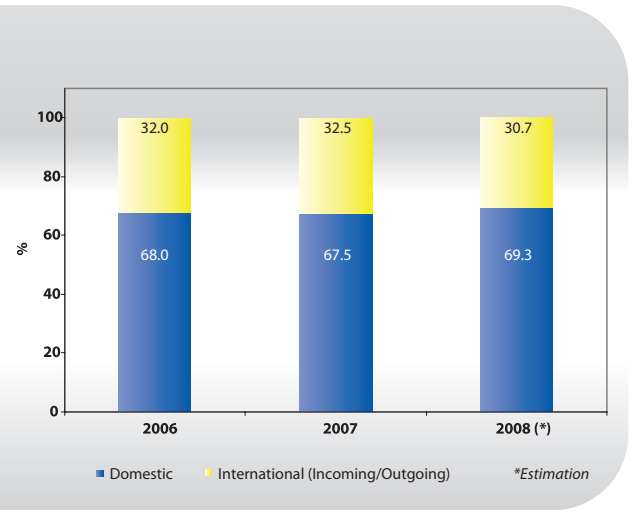


Figure 87A

Courier Market - Volumes of Letter Post / Parcels

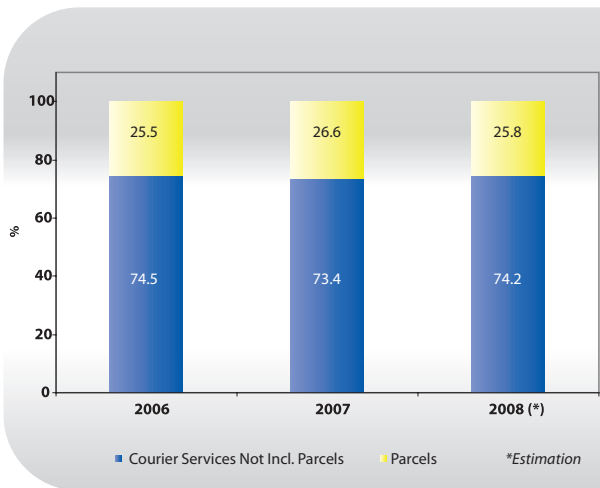


Figure 87B

Courier Market - Revenues of Letter Post / Parcels

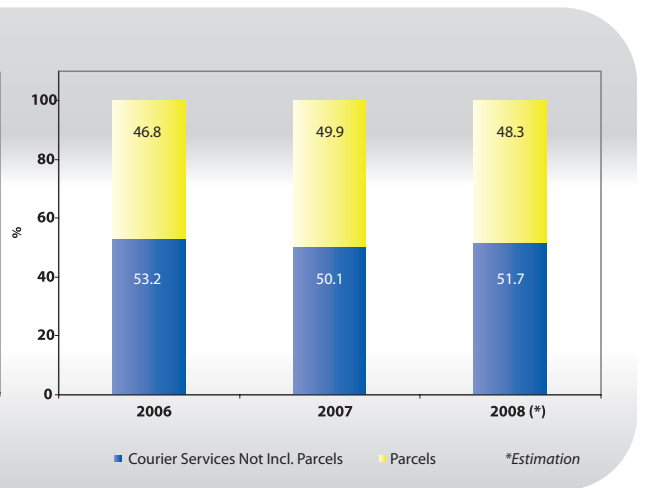


Figure 88A

Courier Market - Delivery Speeds (Volumes)

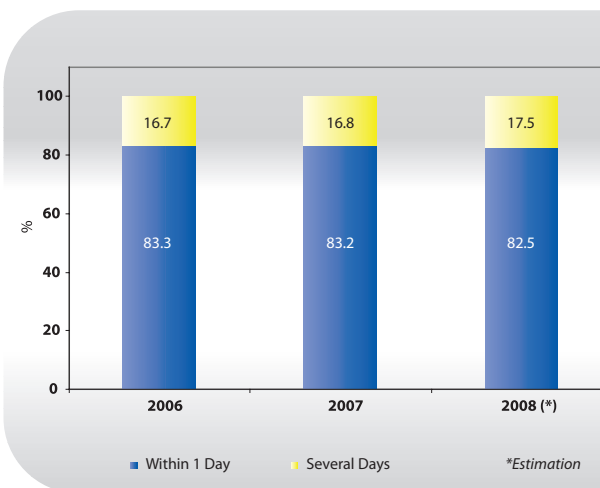


Figure 88B

Courier Market - Delivery Speeds (Revenues)

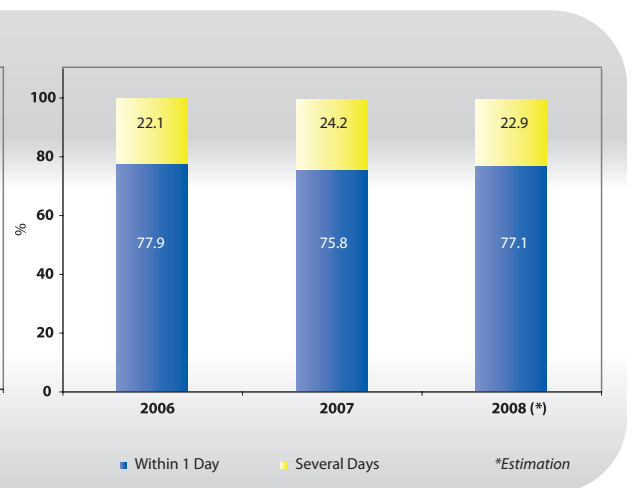


Figure 89A
Courier Market - Domestic Volumes
based on the Origination Point

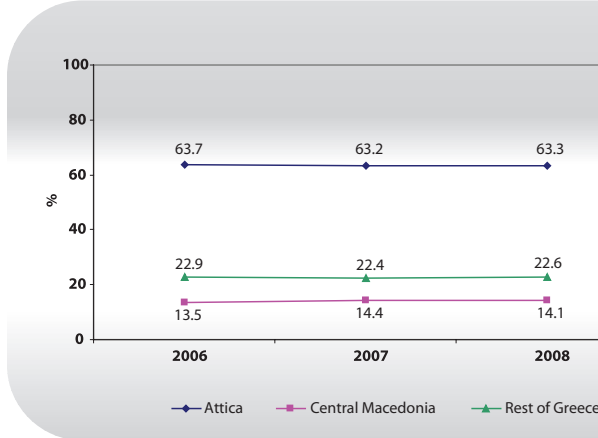


Figure 89B
Courier Market - International Outgoing Volumes
based on the Origination Point

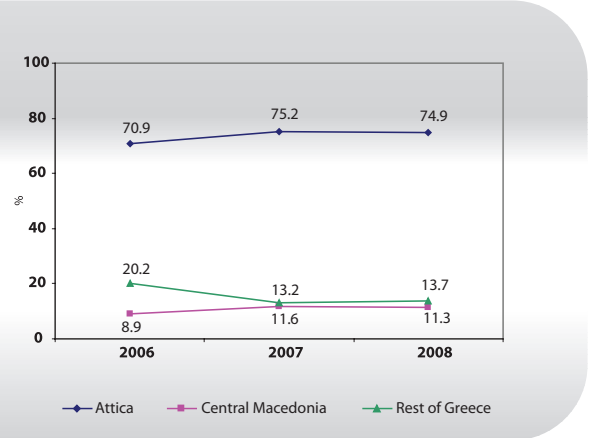


Figure 89C
Courier Market - International Outgoing Volumes
based on the Destination Point

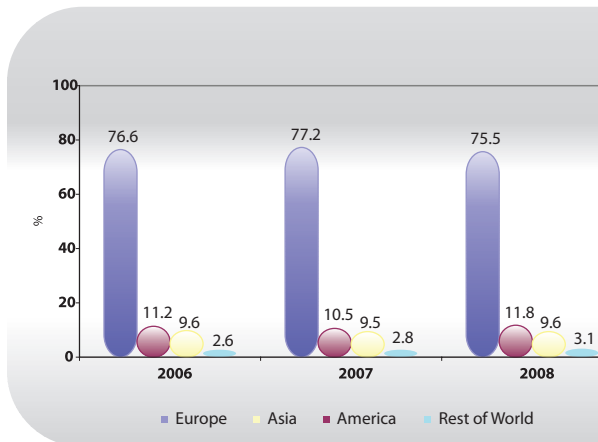


Figure 89D
Courier Market - International Outgoing Volumes
based on the Origination Point

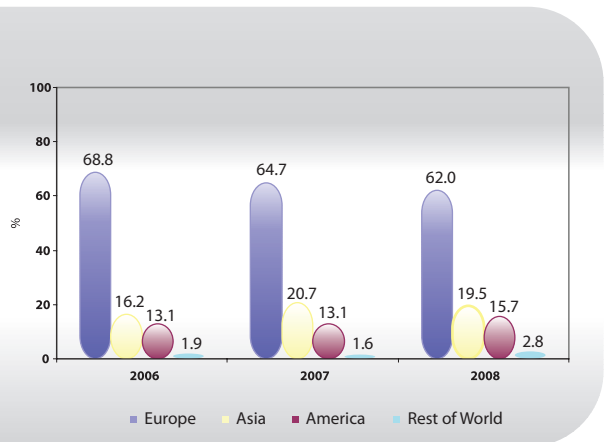


Figure 90A
Courier Market - Distribution of Employees
per Employment Type

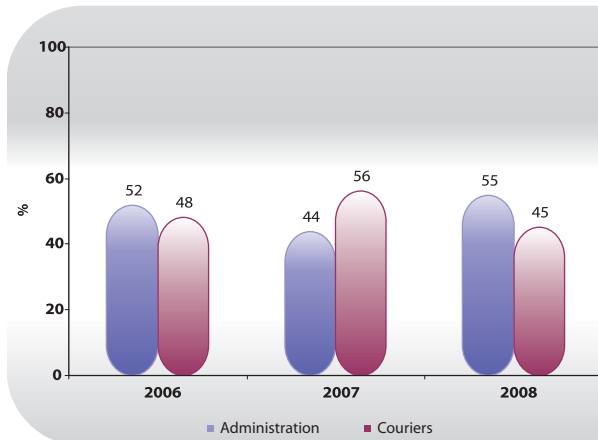


Figure 90B
Courier Market - Distribution of Employees
per Employment Contract

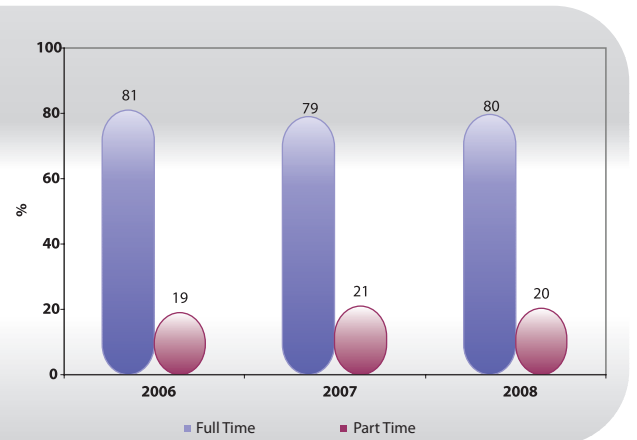


Figure 90C
 Courier Market - Distribution of Employees
 per Employment Place

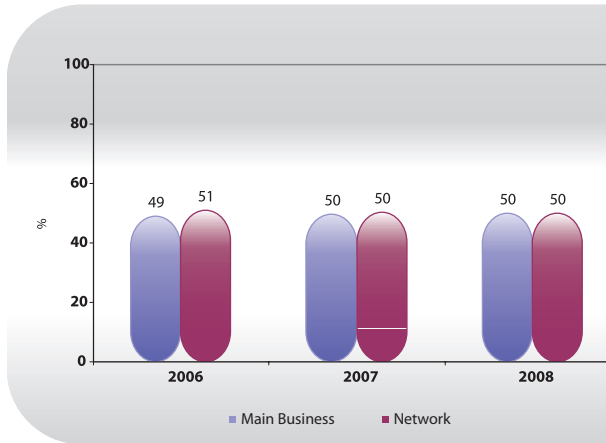


Figure 90D
 Courier Market - Distribution of Employees
 per Employment Level

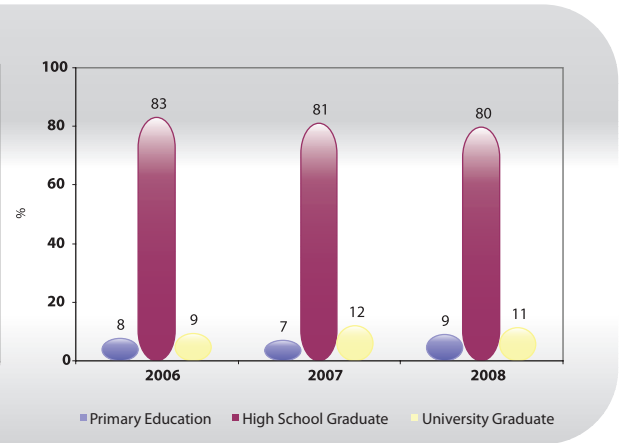


Figure 91
 Courier Market - Distribution of Business Area

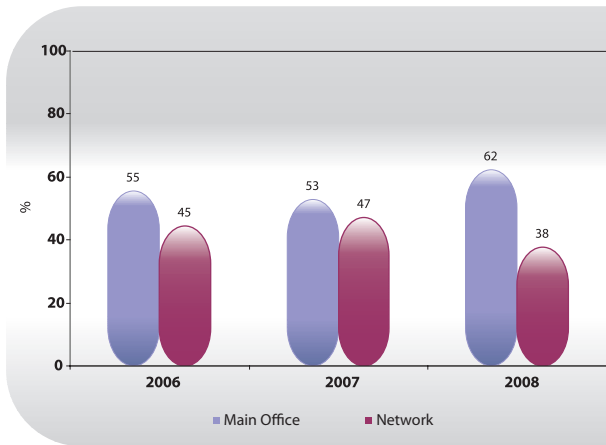


Figure 92
 Courier Market - Distribution of Vehicles

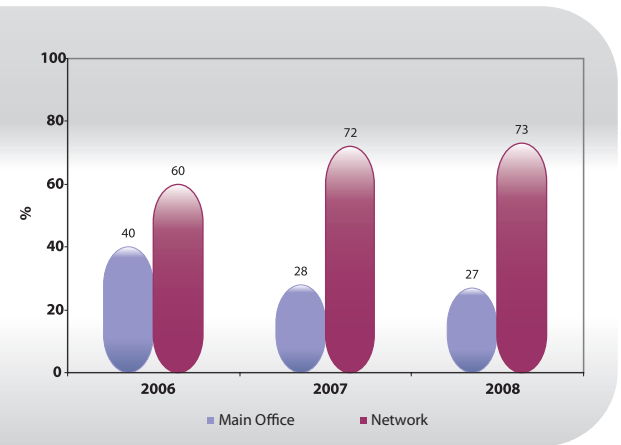


Figure 93A
Courier Market - Distribution of Volume

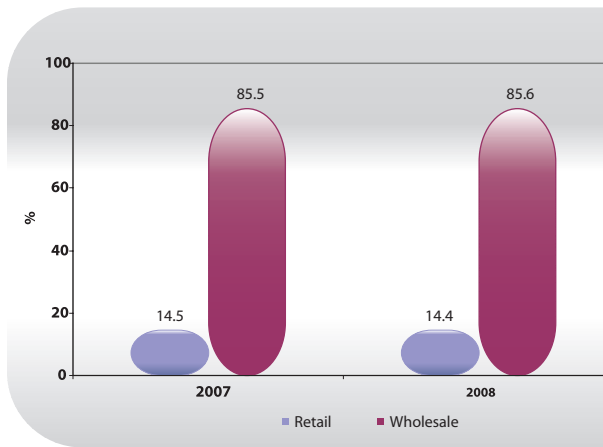


Figure 93B
Courier Market - Distribution of Revenues

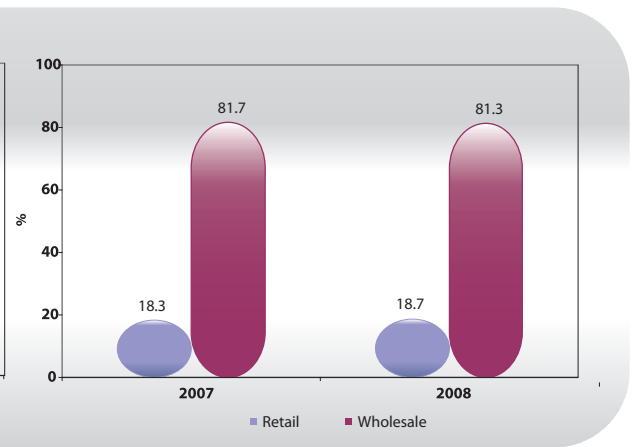


Figure 94A
Courier Market - Distribution of Defective Postal Services per Type of Problem

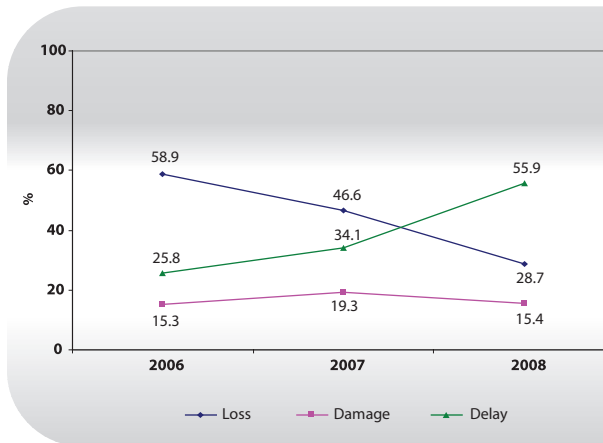


Figure 94B
Courier Market - Distribution of Compensation for Defective Postal Services per Type of Problem

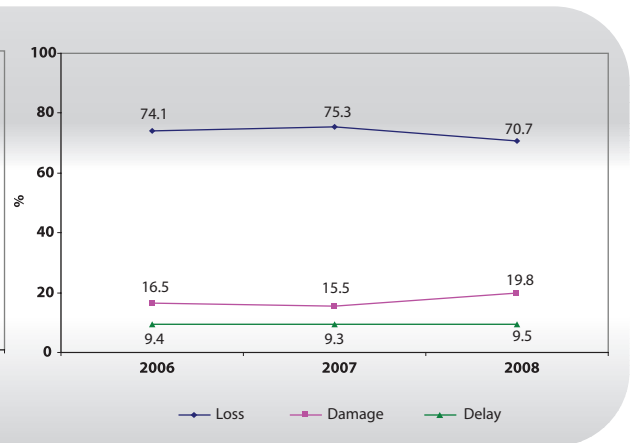


Figure 94C

Courier Market - Distribution of Cases of Defective Postal Services per Type of Settlement

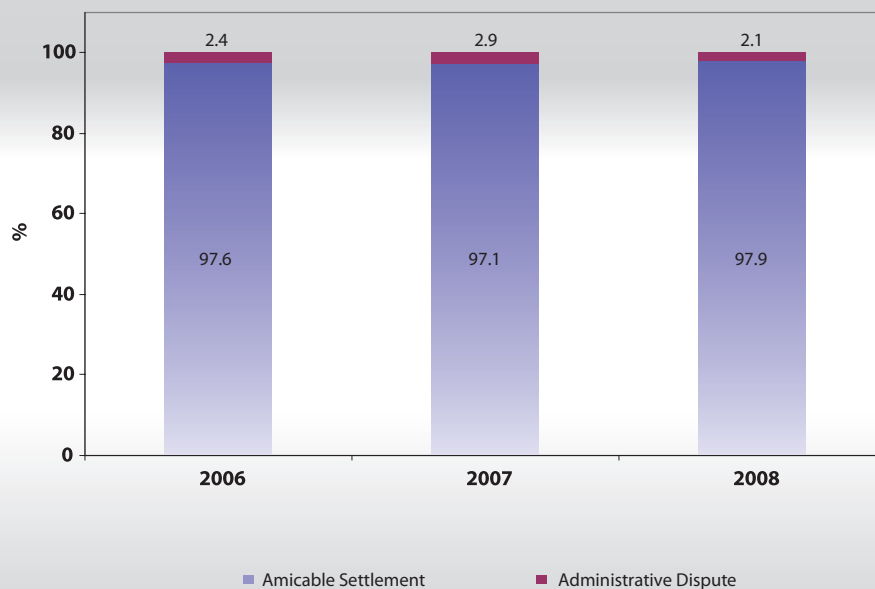


Figure 94D

Courier Market - Distribution of Compensation Cases for Defective Postal Services per Type of Settlement

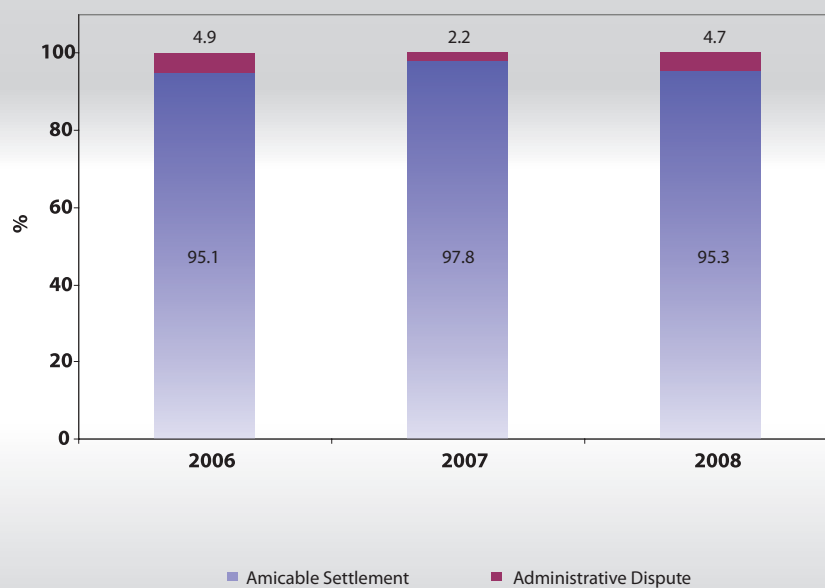


Figure 95

Courier Market - Distribution of Postal Items Weight

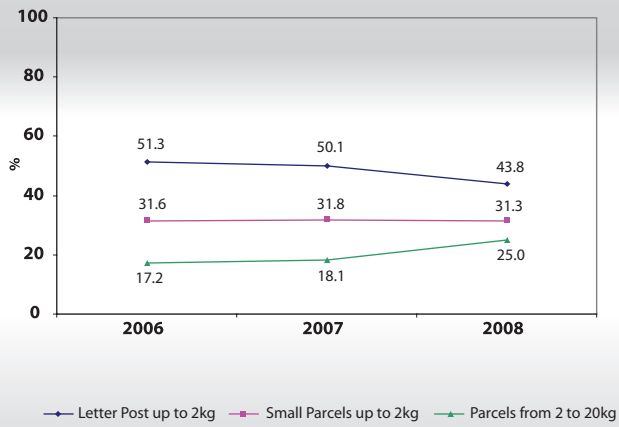


Figure 96

Courier Market - Prices per Unit

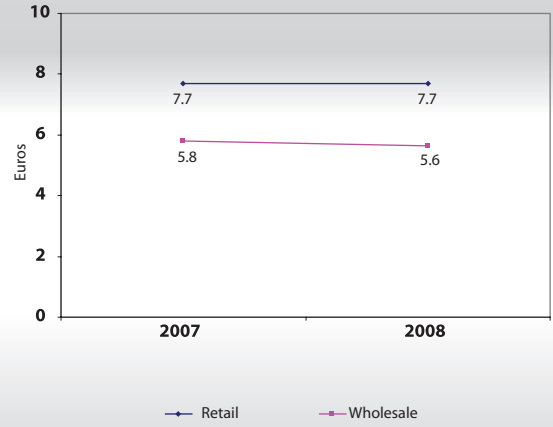
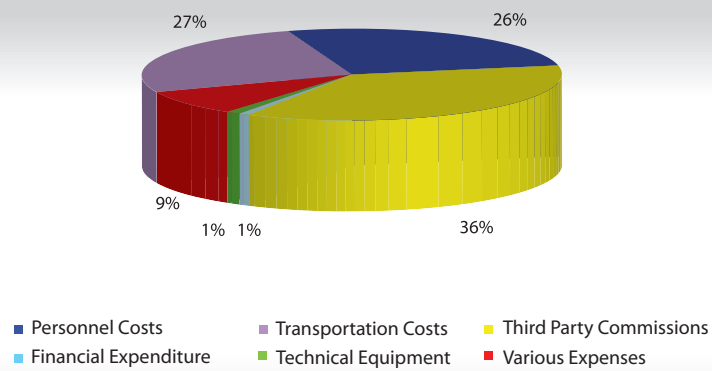


Figure 97

Courier Market - Distribution of Services' Cost



Appendix

A. The OECD Methodology for Fixed Telephony Usage Baskets

The comparative presentation of the average monthly expenditure for residential and business users among the 27 EU member states results from a methodology used by the EU and the Organization for the Economic Co-operation and Growth (OECD) in cases of international tariffs' comparison. According to this specific methodology, the average expenditure is specified based on a defined call basket, which has been determined by the OECD and is applied on the basic tariff scheme of the incumbent operator of each member state.

The expenditure for the residential user entails on an annual basis:

- The fixed expenditure defined as the monthly rental plus any installation charge for a new connection (depreciated over a 5 year period) including VAT.
- The usage expenditure, namely the variable expenditure, which:
 - For the low usage basket, refers to 456 calls to national fixed lines, 114 calls to mobile networks and 30 international calls.
 - For the medium usage basket, refers to 900 calls to national fixed lines, 276 calls to mobile networks and 24 international calls.
 - For the high usage basket, refers to 1.560 calls to national fixed lines, 744 calls to mobiles and 96 international calls.

The usage for residential users is weighted towards off-peak hours and with typically long calls.

The expenditure for the business user entails on an annual basis:

- The fixed expenditure defined as the monthly rental plus any installation charge for a new connection (depreciated over a 5 year period) not including VAT
- The usage expenditure, namely the variable expenditure, which:
 - For the SOHO enterprises, refers to 1.206 calls to national fixed lines, 522 calls to mobile networks and 72 international calls.
 - For the SME enterprises, refers to 2.016 calls to national fixed networks, 560 calls to mobile networks and 224 international calls.

The usage for business users is weighted towards business hours and with typically short calls.

B. The OECD Methodology for Mobile Telephony Usage Baskets

The data results from the methodology used by the EU and the OECD for international tariffs' comparisons. According to it, the average expenditure is identified based on specific calls baskets, which have been specified by the OECD and are applied on the respective post-paid packages of the 2 most prominent MTO based on available subscriber numbers.

Analytically, the baskets include calls to several mobile networks and voicemail as well while they do not cover international calls. They include SMS and MMS elements separated for peak and off-peak times, and on-net and off-net destinations. There are 3 different baskets based on the usage degree (low, medium and high).

It is mentioned that the expenditure for each mobile telephony user entails on an annual basis:

- The fixed expenditure defined as the monthly rental plus any

registration/connection fee for a new connection (depreciated over a 3 year period) including VAT.

- The usage expenditure, namely the variable expenditure which:
 - For the low usage basket refers to 30 outgoing calls per month, 33 SMS and 2/3 MMS. 22% of calls are to fixed line phones, 70% to mobile phones and 8% to voicemail. 48% of calls are made during peak hours, 25% during off-peak hours and 27% during weekends.
 - For the medium usage basket refers to 65 outgoing calls per month, 50 SMS and 2/3 MMS. 21% of calls are to fixed line phones, 72% to mobile phones and 7% to voicemail. 50% of calls are made during peak hours, 24% during off-peak hours and 26% during weekends.
 - For the high usage basket refers to 140 outgoing calls per month, 55 SMS and 1 MMS. 20% of calls are to fixed line phones, 73% to mobile phones and 7% to voicemail. 60% of calls are made during peak hours, 19% during off-peak hours and 21% during weekends

C. Admissions of the Study for the Retail Cost of Broadband Access

- The study presents an overview of what offers are available and makes a comparison based on the lowest price per country. Consequently, it does not present what is actually consumed by the customers or even the breadth of the offers.
- The compared prices are after VAT and having taken into account the Purchasing Power Parity.
- In order to compare packages as similar as possible, the study categorises them into baskets based on the type of service and speed. There are 4 service-based baskets (Internet, Internet and telephony, Internet and television, Internet telephony and television) and 7 speed-based baskets (144 up to 512 kbps, 512 up to 1024 kbps, 1024 up to 2048 kbps, 2048 up to 4096 kbps, 4096 up to 8192 kbps, 8192 kbps up to 20 Mbps, over 20Mbps).
- The study is limited to 'pre-defined' packages, excluding, thus, any 'à la carte' packages. It also excludes discounts or any other special offers as well.
- The study takes into account not only the monthly charge but also one-time non-recurring charges such as connection fee, equipment (e.g. router), installation costs etc. Unfortunately, it is not entirely clear what has been taken into account in each case. The one-time non-recurring charges are divided over an assumed standard contract duration of 12 months (unless the contract duration is smaller).
- The study takes into account metered offers. In order to ensure comparability, the study assumes a minimum time of use and volume of downloaded data per month, depending on the basket. In the Figures, the cost of such minimum usage is defined as "Additional Recurring Internet Access Charges". This hypothesis does not affect Greece since all examined packages are unmetered.
- There is also a normalization parameter of minimum consumption time in the cases of fixed telephony services. In the Figures the cost of such minimum usage is defined as "Additional Recurring Telephony Charges".
- The study is limited to a targeted coverage of 80% of the market. This goal is not fully met in some cases. Especially for Greece, the study takes only the prices of OTE and HOL into account. The sample for Greece should have been considerably wider which would have led to lower prices.

Glossary

Term	Definition
Acid Test Ratio	It shows the quantitative relation between the assets' elements that can be liquidated instantly to the short term liabilities of the operators. The Acid Test Ratio presents a stricter estimation of the company's ability to meet its current liabilities and is satisfactory when it exceeds one unit.
Active Mobile Telephony Subscribers	The term refers to all subscribers under contract or prepaid status, who during the last three months have contributed to the generation of revenue, either a retail one (call or SMS/ MMS etc.) or wholesale (call acceptance or SMS/ MMS etc.).
Activity Ratios	They depict the efficient use of an operator's assets. Specifically, the average collection period is the time period that elapses in order for the operator to collect its receivables. Respectively, the payable period is the number of the days that the operator's liabilities are not settled. If the first ratio is lower than the second, the operator's liabilities are settled at a slower pace than the time needed from the operator to collect its receivables and thus the operator does not need to keep a great amount of cash.
Charter of Obligations to Consumers (COC)	The providers rendering Postal Services under a General Authorization must prepare a COC to include (a) a description of characteristics of the provided service and the time limits within which it is provided; (b) information for users on prices, based on the data affecting them including expected improvement of service quality; (c) the Dispute Resolution Committee with the participation of a user's representative and right of attendance for the interested user (consumer). The COC also contains all other necessary information in relation to the characteristics of the Postal Services providers, the obligations and commitments to users, the management of postal items, user service, and potential compensation.
Equity to Total Liabilities Ratio	It is used to confirm whether or not an operator has over-borrowed, namely it is a safety indication that the operator offers to its debtors. Ratios that exceed the unit mean that the shareholders/owners of the company participate in it with more capital than its debtors.
General Consumer Price Index (CPI)	It is calculated on a monthly basis by the National Statistical Service of Greece (NSSG). It is used for measuring the general price level of goods and services that an average household buys and is revised at regular time periods. It is mentioned that according to the latest revision the base year of the CPI is 2005. The general CPI is composed of partial indexes (Sub-indexes), which reflect the price level of goods and services of specific categories. The Communications' Sub-index relates by 99% to expenditures made for services of fixed and mobile telephony. The residual 1% entails Postal Services (0.5%) and telephony equipment (0.5%).
Gross Profit	It is the difference between turnover and the cost of goods sold. Its presentation is more complex since the majority of the financial statements of the listed operators do not include the operational expenditures (administration, distribution, research and development) in the cost of goods sold, as opposed to OTE and COSMOTE.
Gross Profit Margin Ratio	It shows the operating efficiency of the operators and at the same time their tariff policy. The higher the Gross Profit Margin Ratio the better the situation for the operator as far as profits are concerned, since it can easily meet any increase in the cost of its product. It should be mentioned that a company can operate with a low profit margin and still increase its turnover through a dynamic sales policy, offsetting in this way the low profit margin.
National Incoming Traffic	The total traffic terminating to an operator's network, originating from the networks of other domestic fixed or mobile telephony operators.
National Outgoing Traffic	The total traffic originating from an operator's network, terminating to the networks of other domestic fixed or mobile telephony operators.
On-Net Traffic	It is the traffic among the subscribers of the same MTO's network and constitutes a significant part of each MTO's traffic. At the same time, it is a substantial revenues source, since it is not affected by the Interconnection agreements with the other operators.
Turnover	Total revenues during the financial year
Total Assets	The total financial resources that an operator possess and includes fixed (such as buildings, machinery etc.) as well as current assets (such as cash, receivables, inventories etc.).
Universal Service in the Postal Services Sector	The right granted to Postal Services users, regardless of their location in the Greek Territory, to permanently and affordably enjoy special quality Postal Services. The Universal Service in the Postal Services sector includes: a) the collection, transportation, sorting and distribution of postal items up to 2 kg; b) the collection, transportation, sorting, and distribution of postal parcels up to 20 kg; c) services of registered mail and deliveries with declared value. The US includes both national and cross-border services
Universal Service Provider – USP (in the Postal Services Sector)	The operator designated by the Greek State with the obligation to ensure provision of the Universal Postal Service. Hellenic Post (ELTA) is the current USP.

Index of Figures and Tables

Figure 1	Progress of the Monthly Consumer Price Index , General Index – Communications sub-index	6
Figure 2	Variation of the Monthly Consumer Price Index (%) compared to the Respective Index of the Previous Year	6
Figure 3	Progress of the Financial Data of the Licensed Operators	8
Figure 4	Turnover of the Electronic Communications Operators	8
Figure 5	Gross Profit of the Electronic Communications Operators	9
Figure 6	Total Assets of the Electronic Communications Operators	9
Figure 7	Acid Test Ratio	10
Figure 8	Gross Profit Margin Ratio	11
Figure 9	Equity to Total Liabilities Ratio	11
Figure 10	Activity Ratios	12
Figure 11	Penetration of PSTN Lines and ISDN Channels to Greek Population	13
Figure 12	Annual Percentage of the Operating Access Lines	14
Figure 13	Progress of Market Shares based on the Outgoing Traffic Volume (Dial-up Traffic is excluded)	15
Figure 14	OTE's Shares per type of Call based on the Outgoing Traffic Volume	15
Figure 15	Development of the Outgoing Fixed Calls Volume, Not Included the Dial-up Calls	16
Figure 16	Development of the Outgoing Calls Volume per Type of Call	16
Figure 17	Development of the Outgoing Fixed Calls Volume, Not Included the Dial-up Calls	17
Figure 18	Percentage Change per Semester of the Outgoing Calls Volume, Not Included the Dial-up Calls, Compared to the Respective Semester of the previous Year	18
Figure 19	Retail Revenues of Fixed Telephony	19
Figure 20	Percentage Change per Semester of the Retail Revenues, Compared to the Respective Semester of the Previous Year	19
Figure 21	OTE's Market Shares based on the Retail Revenues of Fixed Telephony	20
Figure 22	Development of Market Shares based on the Retail Revenues of the Outgoing Traffic (Not Including the Dial-up and the Traffic via Cards)	21
Figure 23	Number of Lines of Alternative Providers via Carrier Pre- selection or LLU at the end of each Semester	21
Figure 24	Cost of a 3-minute Local Call	22
Figure 25	Cost of a 3-minute National Call	23
Figure 26	Charge of a 3 and a 10-minute Local Call for a Residential User	23
Figure 27	Charge of a 3 and a 10-minute National Call for a Residential User	24
Figure 28	Monthly Rental of a fixed Telephony Residential User	24
Figure 29	Average Monthly Expenditure of a Residential User - Low Usage Basket – September 2008	25
Figure 30	Average Monthly Expenditure of a Residential User - Medium Usage Basket – September 2008	25
Figure 31	Average Monthly Expenditure of a Residential User - High Usage Basket – September 2008	26
Figure 32	Average Monthly Expenditure of a Business User - Small Office/Home Office – September 2008	26
Figure 33	Average Monthly Expenditure of a Business User - Small and Medium Enterprises – September 2008	27
Figure 34	Average Monthly Expenditure for a Mobile Telephony User Medium Usage Basket – 2008	28
Figure 35	Internet Subscribers, 1998-2008	29
Figure 36	Internet Subscribers, 1998-2008	29
Figure 37	Progress of Domain Names, 1998-2008	30
Figure 38	Number of Requested and Assigned Domain Names	30
Figure 39	Assignment Percentage Over the Applications Number	31
Figure 40	Average Assignment Percentage	31

Figure 41	Mobile Subscribers and Penetration Rate	32
Figure 42	Mobile Telephony Subscribers	33
Figure 43	Progress of the Post-paid Mobile Subscribers	33
Figure 44	Market Shares based on the Number of Subscribers	34
Figure 45	Number Portability: Applications and Portal Numbers of Mobile Telephony	34
Figure 46	Number Portability: Applications and Ported Numbers of Fixed Telephony	35
Figure 47	Number Portability: Ported Numbers per Month	35
Figure 48	Interconnection Traffic of Other Local Operators via OTE	36
Figure 49	Local Interconnection Fees 2008	37
Figure 50	Single Interconnection Fees 2008	37
Figure 51	Double Interconnection Fees 2008	38
Figure 52	Interconnection Traffic of the Mobile Telephony Operators	39
Figure 53	On-net Traffic of Mobile Telephony Operators	39
Figure 54	Progress of Mobile Termination Fees	40
Figure 55	Average National Interconnection Fee for Call Termination on Mobile Networks	40
Figure 56	Average National Interconnection Fee for Call Termination on Mobile Networks	41
Figure 57	Development of Broadband Lines	42
Figure 58	EU Broadband Lines by Member State, January 2009	42
Figure 59	Broadband Penetration Rate, January 2009	43
Figure 60	Increase of Broadband Rate in the EU Member States in 2008	44
Figure 61	Distribution of Broadband Lines by Technology, December 2009	45
Figure 62	Development of Broadband Lines by Technology	46
Figure 63	Distribution of Broadband Lines by Access Type	46
Figure 64	Fixed Broadband Lines by Technology, December 2008	47
Figure 65	Percentage Distribution of Broadband Lines' Speeds, December 2008	47
Figure 66	Development of LLU Lines	48
Figure 67	Monthly Average Total Cost per Fully Unbundled Loop	48
Figure 68	Monthly Average Total Cost per Shared Access	49
Figure 69	Development of Physical Collocation	49
Figure 70	Connection LLU – Physical Collocation	50
Figure 71	Monthly Subscription Cost for Internet Access only at Speeds 512-1024 Kbps	51
Figure 72	Monthly Subscription Cost for Internet Access only at Speeds 1024-2048 Kbps	51
Figure 73	Monthly Subscription Cost for Internet Access only at Speeds 2048-4096 Kbps	52
Figure 74	Monthly Subscription Cost for Internet Access only at Speeds 4096-8192 Kbps	52
Figure 75	Monthly Subscription Cost for Internet Access only at Speeds 20+ Mbps	53
Figure 76	Monthly Subscription Cost for Telephony and Internet Access at Speeds 512-1024 Kbps	53
Figure 77	Monthly Subscription Cost for Telephony and Internet Access at Speeds 1024-2048 Kbps	54
Figure 78	Monthly Subscription Cost for Telephony and Internet Access at Speeds 2048-4096 Kbps	54
Figure 79	Monthly Subscription Cost for Telephony and Internet Access at Speeds 4096-8192 Kbps	55
Figure 80	Monthly Subscription Cost for Telephony and Internet Access at Speeds 20+ Mbps	55
Figure 81	Unit Prices of Courier Services	58
Figure 82	Cost per Postal Item due to Defective Postal Services	59
Figure 83A	Postal Market Volumes	61
Figure 83B	Postal Market Revenues	61

Figure 84A	Distribution of Postal Market Volumes, 2008	61
Figure 84B	Distribution of Postal Market Revenues, 2008	61
Figure 85A	Courier Market – Autonomous/Combined Handling Volumes	61
Figure 85B	Courier Market – Autonomous/Combined Handling Revenues	61
Figure 86A	Courier Market – International/Domestic Volumes	62
Figure 86B	Courier Market – International/Domestic Revenues	62
Figure 87A	Courier Market – Volumes of Letter Post/Parcels	62
Figure 87B	Courier Market – Revenues of Letter Post/Parcels	62
Figure 88A	Courier Market – Delivery Speeds (Volumes)	62
Figure 88B	Courier Market – Delivery Speeds (Revenues)	62
Figure 89A	Courier Market – Domestic Volumes based on the Origination Point	63
Figure 89B	Courier Market – International Outgoing Volumes based on the Origination Point	63
Figure 89C	Courier Market – International Outgoing Volumes based on the Destination Point	63
Figure 89D	Courier Market – International Incoming Volumes based on the Origination Point	63
Figure 90A	Courier Market – Distribution of employees per Employment Type	63
Figure 90B	Courier Market – Distribution of Employees per Type of Employment Contract	63
Figure 90C	Courier Market – Distribution of Employees per Employment Place	64
Figure 90D	Courier Market – Distribution of Employees per Employment Level	64
Figure 91	Courier Market – Distribution of Business Area	64
Figure 92	Courier Market – Distribution of Vehicles	64
Figure 93A	Courier Market – Distribution of Volume	65
Figure 93B	Courier Market – Distribution of Revenues	65
Figure 94A	Courier Market – Distribution of Defective Postal Services per Type of Problem	65
Figure 94B	Courier Market – Distribution of Compensation for Defective Postal Services per Type of Problem	65
Figure 94C	Courier Market – Distribution of Cases Of Defective Postal Services per Type of Settlement	66
Figure 94D	Courier Market – Distribution of Compensation Cases for Defective Postal Services per Type of Settlement	66
Figure 95	Courier Market – Distribution of Postal Items Weight	67
Figure 96	Courier Market – Prices per Unit	67
Figure 97	Courier Market – Distribution of Services' Cost	67
Table 1	Progress of the Financial Data of the Electronic Communications Operators	10
Table 2	Licensed Operators per Category	12
Table 3	Progress of Telephone Lines	13
Table 4	Outgoing Fixed Telephony Traffic Volume, per Type of Call (million minutes)	17
Table 5	Retail Revenues of Fixed Telephony (Millions euros)	20
Table 6	Volumes of Postal Market	57
Table 7	Revenues of Postal Market	57