

2014

MARKET REVIEW



EETT

HELLENIC TELECOMMUNICATIONS & POST COMMISSION

CONTENTS

1

1. Electronic communications

8

1.1. Key developments in the electronic communications market

8

1.1.1. Globally

8

1.1.2. In Europe

8

1.1.3. In Greece

12

1.2. Progress of main financials

in the electronic communications market

15

1.2.1. Financial data

15

1.2.2. Broadband

20

1.2.3. Telephony services at a fixed location

33

1.2.4. Mobile Communications

48

1.2.5. Comparing fixed telephony to mobile telephony

59

1.2.6. Interconnection

61

1.2.7. Number portability

65

1.2.8. Domain names in [.gr]

67

2

2. Postal services

70

2.1. The course of postal market:

trends, developments and perspectives

70

2.1.1. Globally

70

1.1.2. In Europe

73

1.1.3. In Greece

77

2.2. Evolution of the main financials

in the postal services market in Greece

78

2.2.1. Financial data

78

2.2.2. Postal volume and revenue

81

2.3. Competition in postal market

85

2.3.1. Market shares

85

2.3.2. The Universal Service market

86

2.3.3. The market of courier services

90

2.4. Study on e-commerce

97

2.4.1. Trends in the European market

97

2.4.2. Trends in Greece

99

Index of charts & tables

104

(a) Electronic communications

In 2014 the greek telecommunications market, as far as the financials and the key players' performance were concerned, was slightly reduced, standing for 2.9% of GDP (versus 3% in 2013). The key financial figures were gradually stabilized mainly towards the end of the year, since the revenues dropped by approximately 1.9% and the gross profits and the assets were characterized by upward trends in some cases. The drop in turnover is mainly attributed to the on-going financial crisis and the considerable shrinking of consumers' purchasing power. However, there are signs of stabilization or even recovery but these are highly dependable on the general course of the greek economy in 2015.

The broadband market

In December 2014 the number of broadband lines reached 3,156,071 compared to 2,913,191 in December 2013. Broadband penetration was estimated at 28.7% of the population compared to 26.3% in December 2013. This increase (2.4 lines per 100 inhabitants) was the second largest in Europe, ranking Greece in the 13th place amongst the EU member states (up from 17th in December 2013). In 2014 the broadband connection gap between the EU and Greece was further bridged with Greece falling short of the EU average by 2.4 connections per 100 residents, compared to 3.5 in December 2013. There was an increase in both alternative operators' xDSL broadband

connections via Local Loop Unbundling (LLU), as well as in OTE xDSL retail connections. However, the VDSL connection percentage remained limited (less than 2%).

The average nominal speed of ADSL wholesale and retail connections reached 17Mbps in December 2014, a significant increase compared to December 2013 (13.5Mbps), that is attributed to the (limited nevertheless) increase in VDSL connections.

Broadband availability among the existing telephone lines was particularly high and does not reflect the corresponding LLU availability in most regions in Greece. It should be noted that the average monthly cost of full access lines in Greece was still lower than the EU average (8.17 euros/month versus 9.43 euros/month).

Fixed telephony market

The number of telephony lines remained roughly unchanged as compared to 2013, amounting to 43.3% of the population. OTE's lines were decreased by 4.6%, whilst the alternative operators' lines were increased by 5.1%. As a result, OTE's share in telephone lines fell to 57% in December 2014 compared to 59.4% in December 2013.

Traffic for the main types of calls (local, long distance, international and to mobile phones) amounted to 17.2 billion minutes in 2014 (8% decrease compared to 2013), whilst revenues from fixed telephony, Internet and broadband TV content services reached 1.47 billion euros in 2014 (5.4% decrease

compared to 2013). OTE's share in traffic was about the same as in 2013 (49.3%) whilst its revenues' share reached 61.2%.

Mobile telecommunications market

In 2014, the number of mobile telephony connections amounted to 15.6 millions. Active subscriptions fell by 2.4%, from 12.6 million to 12.3 million, with the number of postpaid connections remaining at the same level as in 2013 and prepaid connections slightly decreased by 1.4%. COSMOTE's share in the total number of connections fell in December 2014 to 44.6% (compared to 45.6% in December 2013). VODAFONE's share increased to 30.4% from 29% and WIND's share dropped from 25.4% to 24.8%.

The volume of voice calls remained at the same levels as in 2013, whilst 68% of those calls were on-net, compared to 72% in 2012. The total number of SMSs and MMSs fell by 23.3% and 11.5% respectively. Conversely, data services increased significantly by 45%, reaching 21 billion MB.

Mobile telephony revenues dropped by 6.7% and amounted to 2.3 billion euros. The average revenue per postpaid and prepaid telephony user amounted to 291 euros and 59 euros respectively and were lower than 2013 (by 7.2% and 3.2% respectively). It should be noted that fourth-generation networks (4G) reached 70% of the population (compared to 55% in 2013).

EXECUTIVE SUMMARY

Comparison of fixed and mobile telephony

Based on the 2014 data, every fixed line connection corresponds to 2.56 mobile connections. The mobile telephony calls amount to 62% of the total traffic (compared to 59% in 2013).

Interconnection market

In fixed telephony, call origination dropped by 31% compared to 2013, reaching 280 million minutes, which is attributed to the further increase in LLU full access lines. In mobile telephony, the interconnection traffic reached 3.07 billion minutes having increased considerably (22%) compared to 2013 and termination rates were further reduced, resulting in an average termination rate of 1.10 eurocent per minute as of the beginning of 2015.

Number portability

Number portability continues to boost competition and is used by operators of both fixed and mobile telephony. In 2014, the volume of mobile ported numbers decreased by 16%, compared to 2013, whilst the fixed ported numbers increased by 7.1%.

Domain names

The increase in both the number of applications and total assigned [.gr] domain names persisted throughout 2014. Their total number, including subdomains (com.gr, net.gr, org.gr, edu.gr, gov.gr), exceeded 430,000.

(b) Postal services

Postal service providers proceed with redesigning their strategy, due to consumers' emerging interest in e-commerce. At the same time, the demand for the traditional letter post services, which has constituted the pillar of postal evolution for decades, is declining.

In 2014, Greek postal revenues increased by 4.8% compared to 2013, reaching 590 million euros, while 496 million postal items were handled, an increase of 7.7% compared to the previous year. The increase in revenues is attributed to the boost in parcel share as a result of e-commerce growth. Forecasts for 2015 remain positive, since it is expected that six out of ten Internet consumers will increase the value of their online purchases.

Although the Universal Service Provider (USP) used to hold approximately 60% of the total postal revenues until 2009, its revenues market share dropped to 46%, which is mainly attributed to parcel revenue decline, where courier companies dominate.

In 2014, eleven companies with Individual License operated in the US market, besides ELTA, versus seven companies in 2013, as a result of the postal market liberalization since 01-01-2013. On the other hand, 365 companies under General Authorisation operated in the courier market.

Postal companies in Greece, including USP, turn to customer oriented strategies, based on technology and develop innovative products and services, aiming at higher market shares.

1

1.1. Key developments in the electronic communications market

1.1.1. Globally

In 2014, the electronic communications market kept on exhibiting considerable growth mainly due to the increasing use of mobile phones and the significant extension of 3G and 4G/LTE services. Mobile penetration, however, continues to vary widely throughout the world since it reaches 80% in Europe while in Sub-Saharan Africa the figure is only 39%. The volume of total SMS is gradually shrinking after 2012 since it is being replaced by Over-The-Top (OTT) social messaging and messaging apps. It should be mentioned that

infrastructure sharing has become increasingly popular and carriers throughout the world are selling or leasing out parts of their network in an attempt to liquify these assets. Last but not least, the increase in the use of wearable technology and the expansion of 5G and ultra speed services mainly in the mature markets of America, South-east Asia and Western Europe are expected to lead the growth in the forecoming future.

1.1.2. In Europe

General trends

In 2014, the European electronic communications market kept on expanding mainly due to the rolling out of next generation access networks and the increase of ul-

tra speed connections. The Fiber to the Home (FTTH) networks as well as the mobile 4G/LTE networks were the leading factors of this growth. Providers are now offering a variety of bundled services in an attempt to widen their subscribers base. Double (fixed telephony & Internet) and triple-play (fixed telephony & Internet & TV on demand) are the most popular bundled packages. Furthermore, there is a considerable growth in offers that combine fixed and mobile communications. As far as prices are concerned, even though the general trend was upwards, in some countries prices decreased.

Broadband market

According to the European Com-

ELECTRONIC COMMUNICATIONS

mission's Digital Agenda Scoreboard¹, broadband penetration keeps on increasing with diminishing returns though. At the end of 2014, it exceeded 31%, namely more than 31 broadband connections per 100 inhabitants compared to 29.8% at the end of 2013. The respective figures for Greece are 28.7% and 26.5% indicating a convergence course since the net annual increase in Europe stands at 3 connections per 1,000 households whereas in Greece is 22 connections per 1,000 households. If this growth rate does not change in 2015, then at the end of the year the gap between Greece

and the European average will be 0.5%.

The demand for ultra speed broadband lines is steadily increasing and at the end of 2014 broadband connections at speeds over 30 and 100Mbps constitute 26% and 9% respectively of total broadband connections (compared to 21% and 5% at the end of 2013). Greece's respective figures are 3% και 0% (compared to 2% and 0% at the end of 2013). In other words, in Europe and on average, one out of three broadband connection is ultra-speed whilst in Greece the respective rate is one broadband connection out of 30.

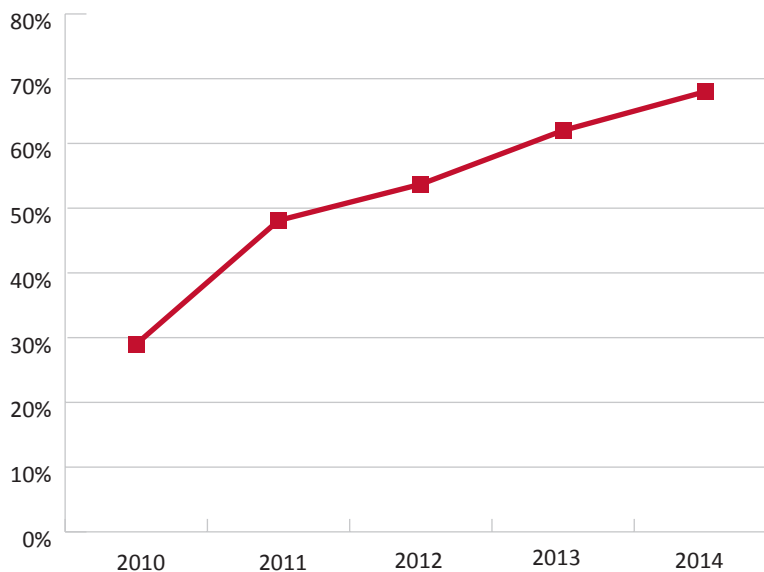
Mobile broadband

Mobile broadband in 2014 exhibited significant growth and at the end of the year its penetration rate stood at 71.6% (connections per 100 inhabitants) compared to 63.7% at the end of 2013. At the same time, the mobile broadband penetration rate for four countries (Finland, Denmark, Estonia and Sweden) exceeded 100%. Greece remains far behind the European average but in September 2004, sufficient spectrum was auctioned for the further provision of mobile broadband services, thus enabling the operators to expand their offerings.

1. <https://ec.europa.eu/digital-agenda/en/news/implementation-eu-regulatory-framework-electronic-communications-2015>

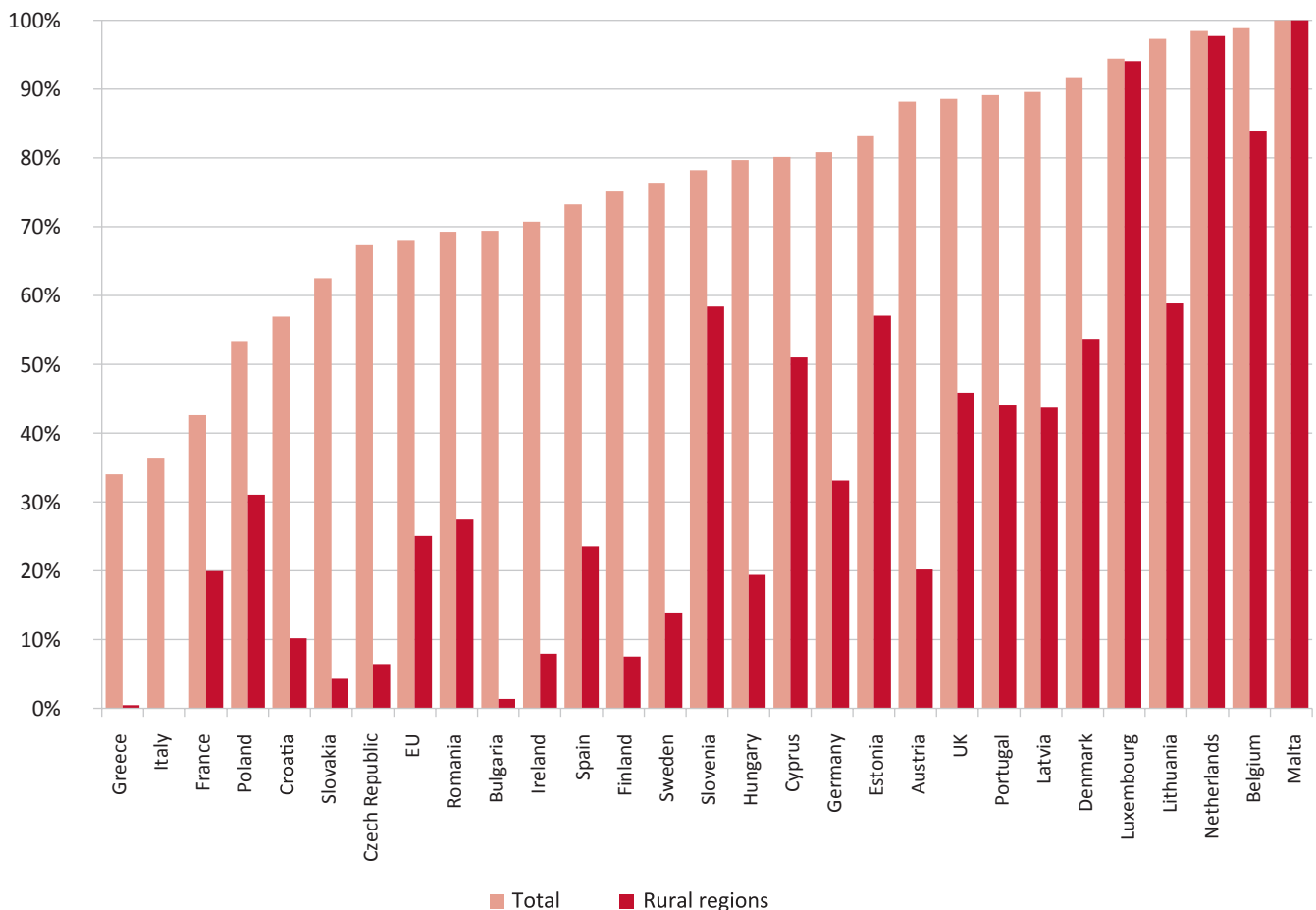


Chart 1.1: Next Generation Access (NGA) broadband coverage in the EU



Source: Digital Agenda Targets Progress Report 2015

Chart 1.2: Next Generation Access (FTTP, VDSL and Docsis 3.0 cable) coverage per EU country (2014)



Source: Digital Agenda Targets Progress Report 2015

At the end of 2013, 8.3% of European households had exclusive mobile Internet access (1.4% for Greece) and in this case this gap may be attributed to the availability among mobile and broadband access.

Next Generation Access Networks (NGA)

NGA coverage is expanding and has reached 68% of the population at the end of 2014 compared to 62% at the end of 2013 and 29% at the end of 2010. Cable Docsis 3.0 had the largest NGA coverage at 43%, followed by VDSL (38%) and FTTP (19%). It should be mentioned that Greece has no cable TV.

The nominal 4G (LTE) coverage is estimated at 79% of the population at the end of 2014 and 27% in rural regions. Greece's respective figures are 70% and 23%.

Mergers and acquisitions

Throughout 2014, many mergers and acquisitions took place thus having significant impact in the business sector and making three strategic trends prominent in the market: (a) expanding networks through mergers (both within a country and cross-border), (b) entering affiliated/similar markets (e.g., from mobile to cable) and (c) diversification of rendered services outside the telecommunications sector (e.g., content development or rendering financial services).

The following cases are mentioned indicatevely:

- Germany: Acquisition of E-Plus (a subsidiary of KPN) by Tele-

fonica Deutschland (mobile operators) – approved under conditions by the European Commission.

- Denmark: Merger of Teliaso-nera AB and Telenor ASA (Denmark's second and third largest mobile operator respectively) – under examination by the European Commission.
- Norway: Merger of Telenor and Tele2 (mobile operators) – under examination by the European Commission.
- United Kingdom: Acquisition of O2 UK (Telefonica's subsidiary) by Hutchinson Whampoa (mobile operator based on Hong Kong).
- Netherlands: Acquisition of Ziggo (Netherlands' largest CaTV operator) by Liberty Global (the largest CaTV provider in the world and owner of the second largest CaTV operator in Netherlands).
- Spain: Acquisition of ONO (Spain's largest CaTV operator) by Vodafone (second largest mobile operator in the world).
- France: Acquisition of SFR (France's second largest mobile operator) by Numericable Group (the largest CaTV operator in France).

European initiatives

In an effort to strengthen the market and in accordance with the goals set by the "Digital European Agenda 2020", the European Commission undertook a series of le-

gislative initiatives. The European institutions (Commission, Parliament, Council) have already agreed on the final regulation draft for a Single Telecoms Market with two pivotal pillars: (a) institution for the first time of a framework for the protection of network neutrality and (b) the obligation of mobile operators not to levy any retail international roaming charges as of 15-06-2017 to the extent that this does not exceed certain limits of fair use.

Meanwhile, a broader and very ambitious initiative for a Digital Single Market will commence in 2015, addressing issues relating to the operation of the electronic communications market, with emphasis on the European Regulatory Framework but also broader issues (e.g., digital copyright, security, etc.).

1.1.3. In Greece

The number of licensed operators in the major sectors of electronic communications amounted to 633 at the end of 2014, compared to 598 in 2013 (Table 1.1), while there were 10² mobile and fixed operators, namely 8 companies operating in fixed telephony and 4 in mobile telephony (Table 1.2). It should be noted that the trend towards market concentration, due to the economic conditions and the expected economies of scale, is expected to intensify in 2015.

Moreover, the sector's main financials (turnover, gross profit and assets) seem to stabilize (Table 1.3 and

2. WIND as of 2009 (after the acquisition of TELLAS) is operating in both fixed and mobile telephony and therefore falls under both categories. The same applies for CYTA as of 2014, since it operates as a Virtual Mobile Network Operator (VMNO) as well as a fixed operator.



Section 1.2 for more details). The contribution of the sector's turnover to the Gross Domestic Product (GDP) of Greece has been falling over the past decade, reaching 2.9% in 2014 (the highest level being that of 4.4% in 2002), as a result of the higher growth rate of the GDP in comparison to that of electronic communications (especially in the period 2003-2008), as well as due to the reduction of telecommunications' turnover compared to the GDP in the period 2009-2014 (Chart 1.3). It should be mentioned that the data

for the GDP and its components, for the period of 1995-2013, have been updated with 2010 as a base year, in accordance with the EU Regulation 549/2013 (ESA 2010).

Furthermore, Chart 1.4 presents the personnel number in the mobile and fixed operators, which has been reduced by 34% during the period 2008-2014. Part of this decline is attributed to voluntary retirement schemes as well as to the creation of a network sharing company by two mobile operators. At the end of 2014, the said company seems to

employ roughly 6% of the total personnel employed by the mobile operators.

Lastly, the general cost trend for electronic communications services is reflected in the General Consumer Price Index (GCPI) over time, as presented in Charts 1.5 and 1.6. The Communications Sub-index shows no change throughout 2014 in contrast to the GCPI that follows the downward trend that commenced in March 2013.

Table 1.1: Licensed operators per category

Activity	2012	2013	2014
Voice telephony and fixed network development	192	190	198
Voice telephony	179	185	193
Fixed network development	64	55	57
Satellite networks	53	51	56
2 nd generation mobile telephony (2G)	12	12	13
3 rd generation mobile telephony (3G)	13	13	15
TETRA	7	6	7
W-LAN	95	86	94
Total	615	598	633

Source: EETT

Table 1.2: Active fixed & mobile telephony operators

Operators	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Fixed telephony	13	13	14	14	14	11	11	11	9	8	8
Mobile telephony	4	4	4	4	3	3	3	3	3	3	4

Source: EETT

Table 1.3: Electronic communications operators financials (in billion EUR)

	2008	2009	2010	2011	2012	2013	2014*
Turnover							
OTE	2.59	2.41	2.17	1.91	1.70	1.56	1.51
MTOs	4.50	4.27	3.58	3.23	2.99	2.51	2.38
Alternative fixed telephony providers (**)	0,53	0,47	0,57	0,62	0,63	0,58	0,55
Other operators (***)	0.73	0.78	0.77	0.86	0.84	0.81	0.84
Total	8.35	7.92	7.10	6.62	6.16	5.46	5.27
Gross profit							
OTE	0.31	0.35	0.14	0.20	0.06	-0.01	0.31
MTOs	1.94	1.04	0.73	0.75	0.64	0.48	0.46
Alternative fixed telephony providers (**)	0.05	0.03	0.01	0.05	0.09	0.09	0.07
Other operators (***)	0.19	0.17	0.17	0.18	0.16	0.14	0.15
Total	2.49	1.58	1.06	1.18	0.96	0.70	0.98
Total assets							
OTE	8.87	8.24	7.95	7.76	6.61	6.31	6.48
MTOs	8.46	8.35	7.11	6.81	6.94	6.10	5.89
Alternative fixed telephony providers (**)	1.53	1.32	1.41	1.12	0.92	0.85	0.84
Other operators (***)	1.02	1.82	1.69	1.62	1.54	1.53	1.25
Total	19.88	19.73	18.16	17.31	16.01	14.78	14.47

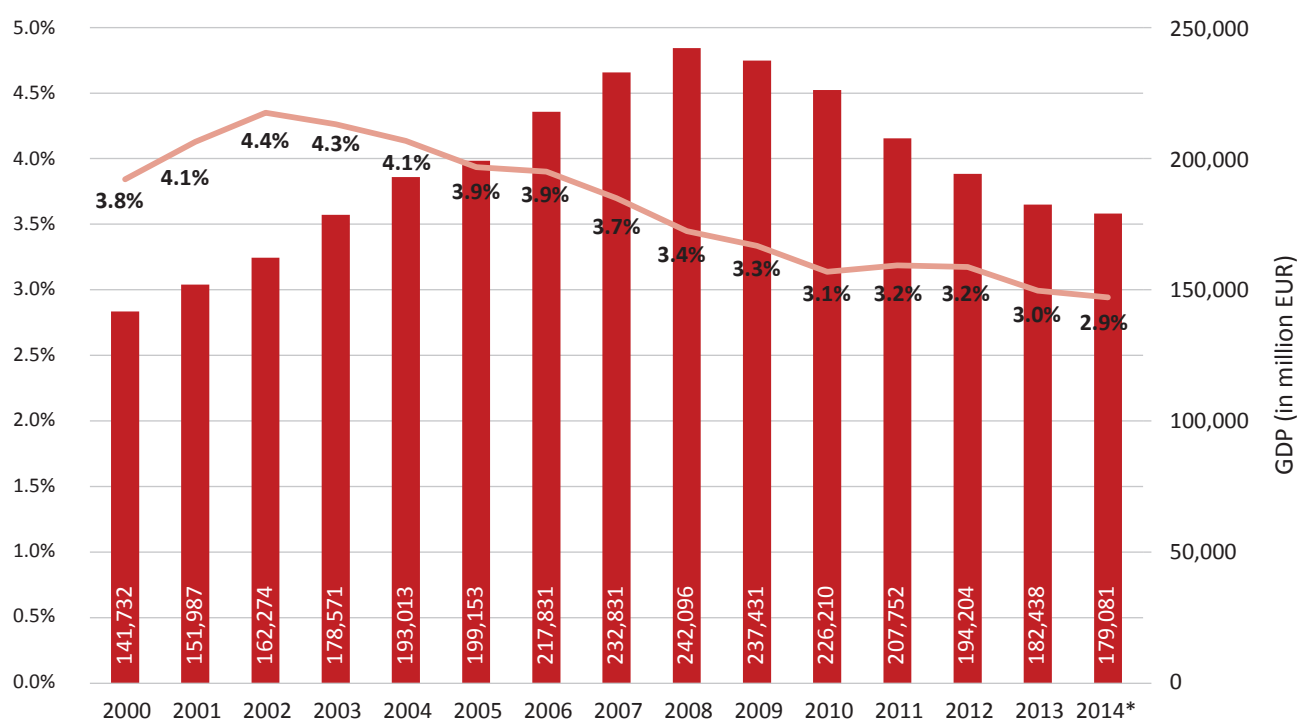
* Estimation

** Includes all licensed fixed telephony operators

*** Includes all remaining licensed operators

Source: EETT (based on published balance sheets)

Chart 1.3: Telecommunications' contribution to Greece's GDP (in million EUR)



*Estimation

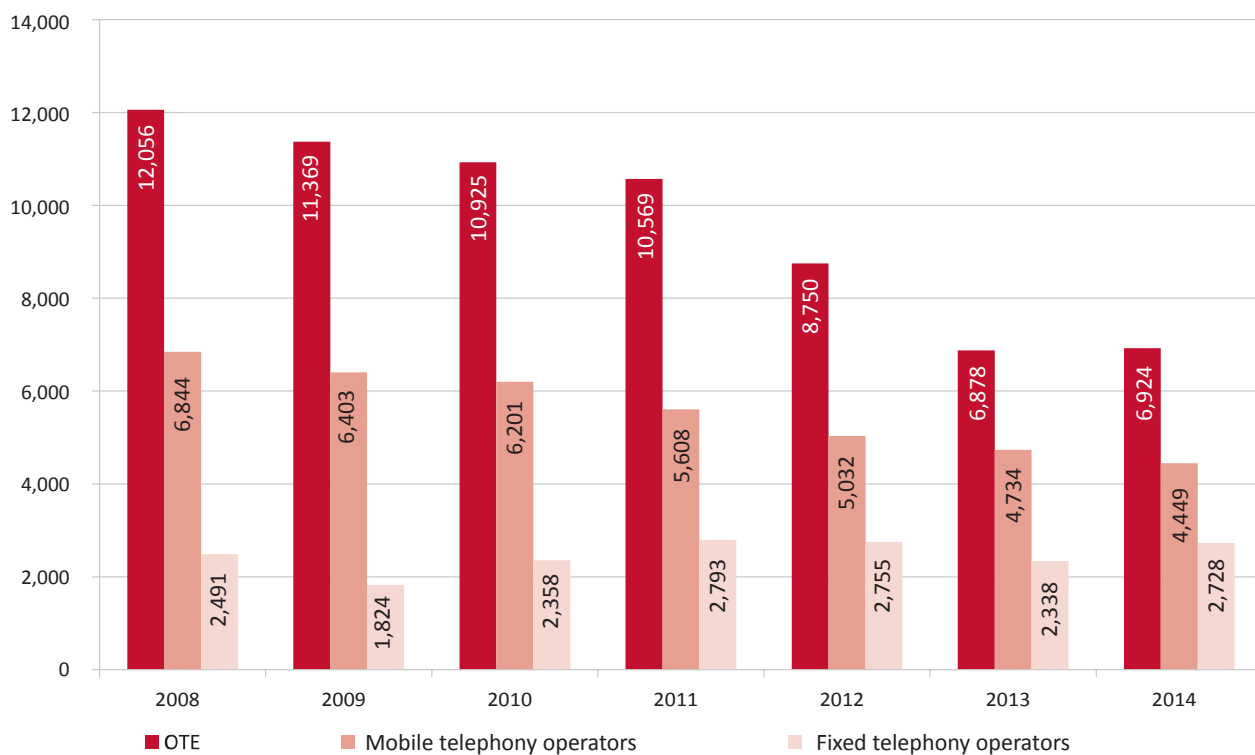
■ GDP (nominal prices)

— Contribution of telecommunications to the GDP

Source: EETT (based on published balance sheets) and ELSTAT/EUROSTAT

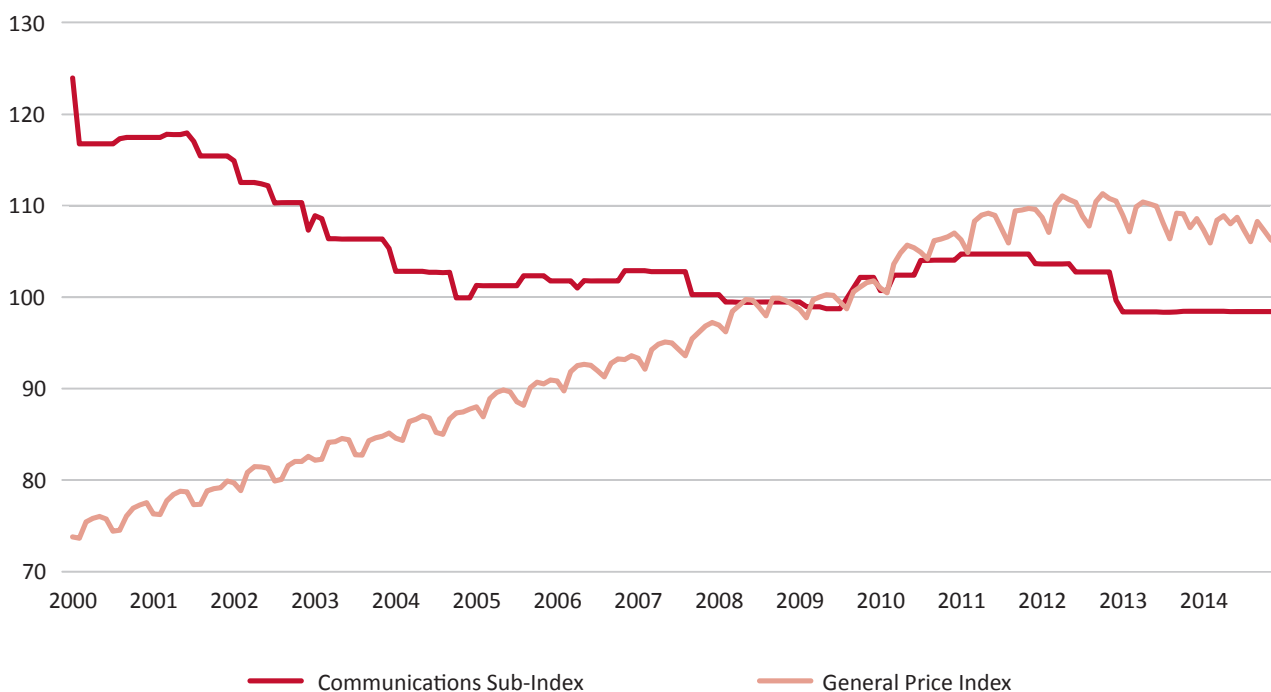


Chart 1.4: Number of personnel



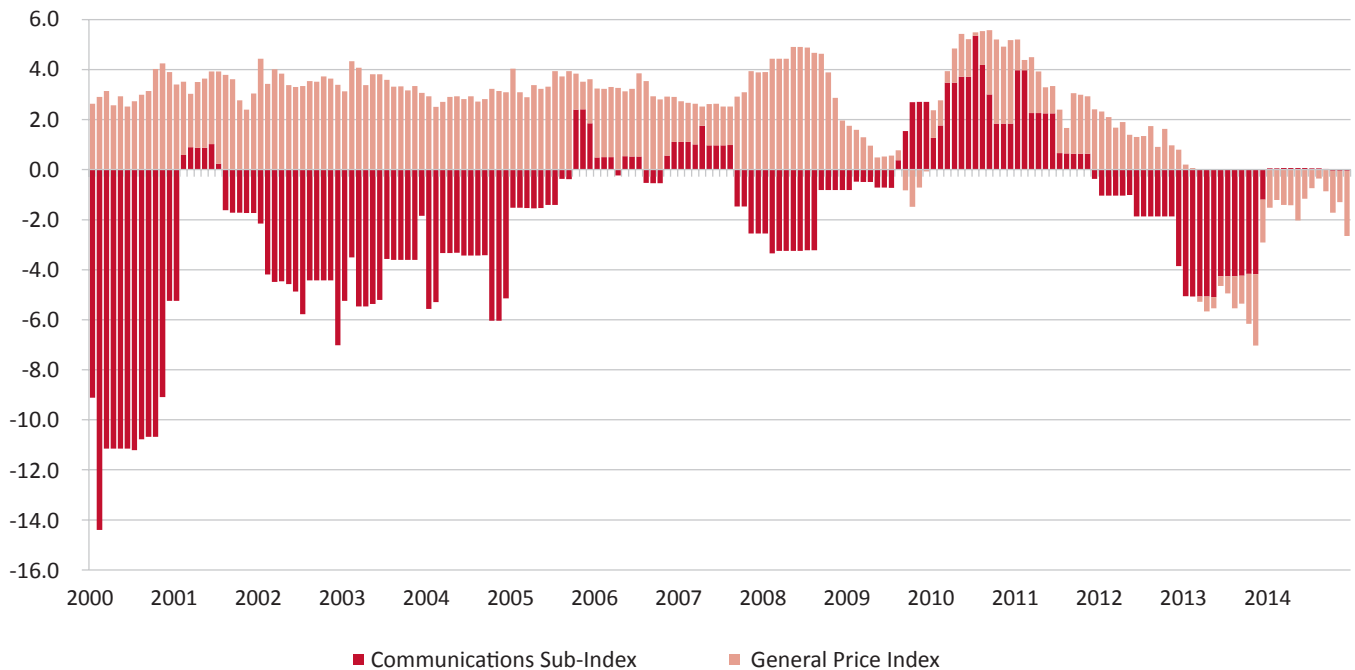
Source: EETT (based on published balance sheets and on data provided by licensed operators)

Chart 1.5: Progress of the monthly Consumer Price Index (General Index-Communications Sub-Index)



Source: EETT (based on data from ELSTAT)

Chart 1.6: Change of the monthly Consumer Price Index compared to the respective index of the previous year



Source: EETT (based on data from ELSTAT)

1.2. Progress of main financials in the electronic communications market

1.2.1. Financial data

This section presents the main financials of the electronic communications market, as derived from the published balance sheets of the licensed operators for 2014. The financials for the operators listed on the Athens Exchange (ATHEX) are drawn from their financial statements, in accordance with the International Financial Reporting Standards (IFRS). Additional information on turnover, investments and other financials that are collected by EETT, on a six-month ba-

sis from licensed operators, have also been taken into account.

The figures for the overall market,³ as presented in Chart 1.7, underwent significant changes. In detail:

- The operators' turnover decreased by 3.4%, as a result of the drop in the turnover of Mobile Telephony Operators (MTOs) (by 5.5%) and OTE (by 2.9%). Alternative fixed telephony operators (OLOs) also experienced a reduction (5.6%) mainly due to the drop in revenues of COSMOLINE (34%) and ON TELECOMS (40%) (Chart 1.8).
- Things are more positive for gross profit mainly due to OTE's

profit that reached 307 million euros (the 23.1% cutback in the company's operating expenses offset the turnover's reduction by 2.9%). On the contrary, MTOs' gross profit fell by 3.9% and that of OLOs by 23.1%, mainly due to the reduction of HOL's gross profit by 40% and the losses occurred by FORTHNET (Chart 1.9).

- The 2.2% increase in assets is attributed to the 2.7% increase of OTE's assets while the respective figures for MTOs and OLOs declined by 3.9% and 1.3% respectively (Chart 1.10).
- The total investments of electronic communications opera-

3. All financials of licensed operators are taken into account.



tors increased by 18% corresponding to 17.5% of the total turnover of the sector, a fact that is mainly attributed to MTOs' investments (licensing of radiofrequency spectrum) (Chart 1.11).

Additionally, Charts 1.12 to 1.14 present ratios, which demonstrate in detail the economic performance

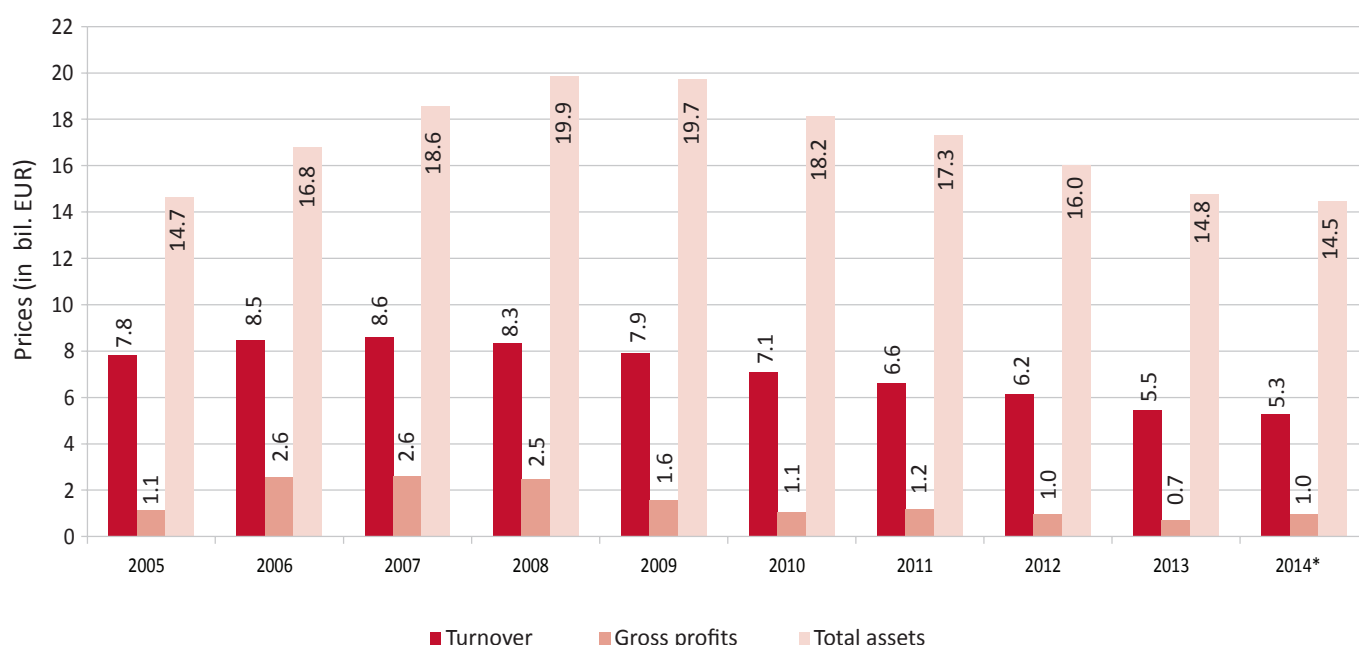
of the fixed and mobile telephony operators, based on their published balance sheets⁴. Specifically:

- The Acid Test Ratio fell by 7.7% for fixed telephony operators and increased considerably (20.3%) for MTOs (Chart 1.12).
- The Gross Profit Margin Ratio increased by 3.3% for fixed tele-

phony operators (due to improved performances by HELLAS ON LINE and COSMOLINE) as well as 0.5% for MTOs (Chart 1.13).

- The average collecting period increased for fixed telephony operators and remained at the same level for MTOs (Chart 1.14).

Chart 1.7: Progress of licensed operators' basic financials

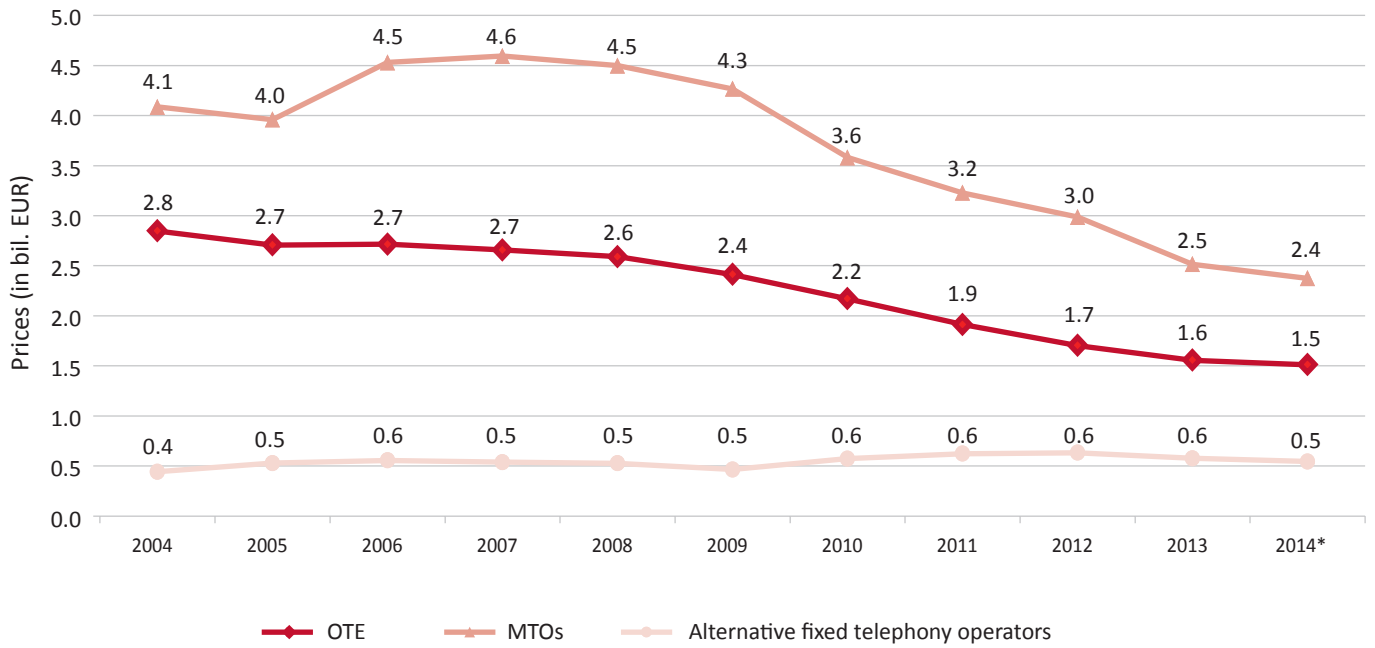


*Estimation

Source: EETT (based on published balance sheets)

4. In order to calculate these ratios, the balance sheets published for 2013 were used, given that the relevant procedure for 2014 had not yet been completed by the time of drafting the 2014 Market Review.

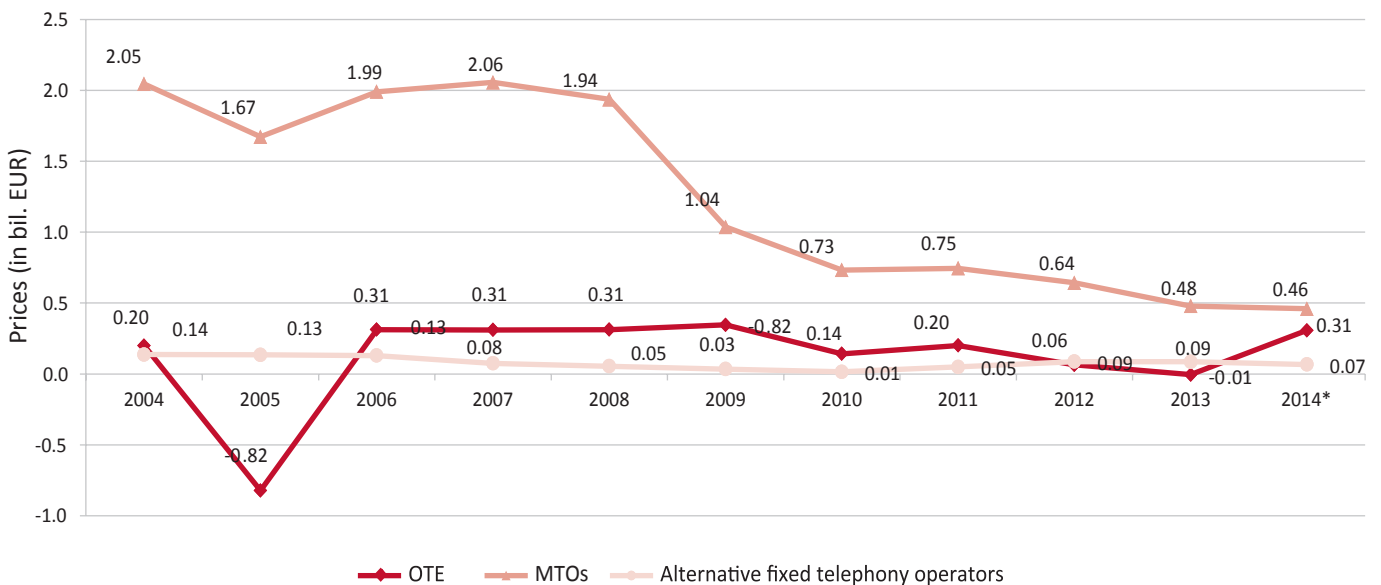
Chart 1.8: Electronic communications operators' turnover



*Estimation

Source: EETT (based on published balance sheets)

Chart 1.9: Electronic communications operators' gross profits

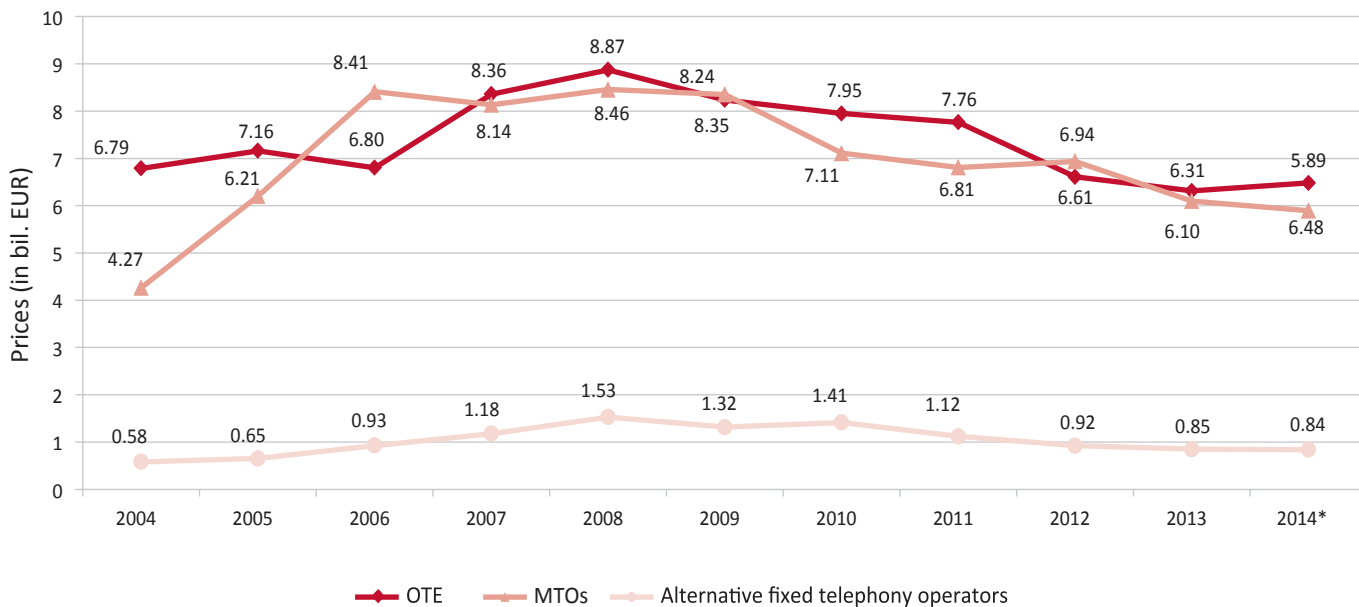


*Estimation

Source: EETT (based on published balance sheets)



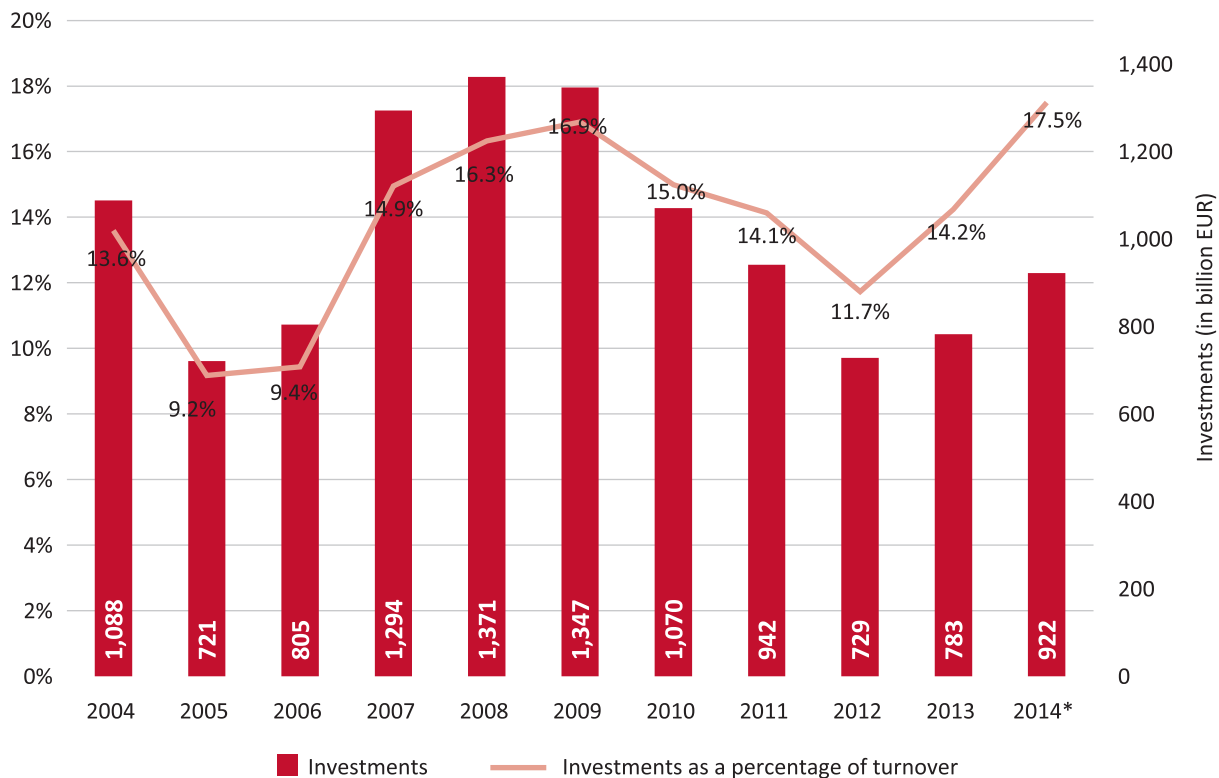
Chart 1.10: Electronic communications operators' total assets



*Estimation

Source: EETT (based on published balance sheets)

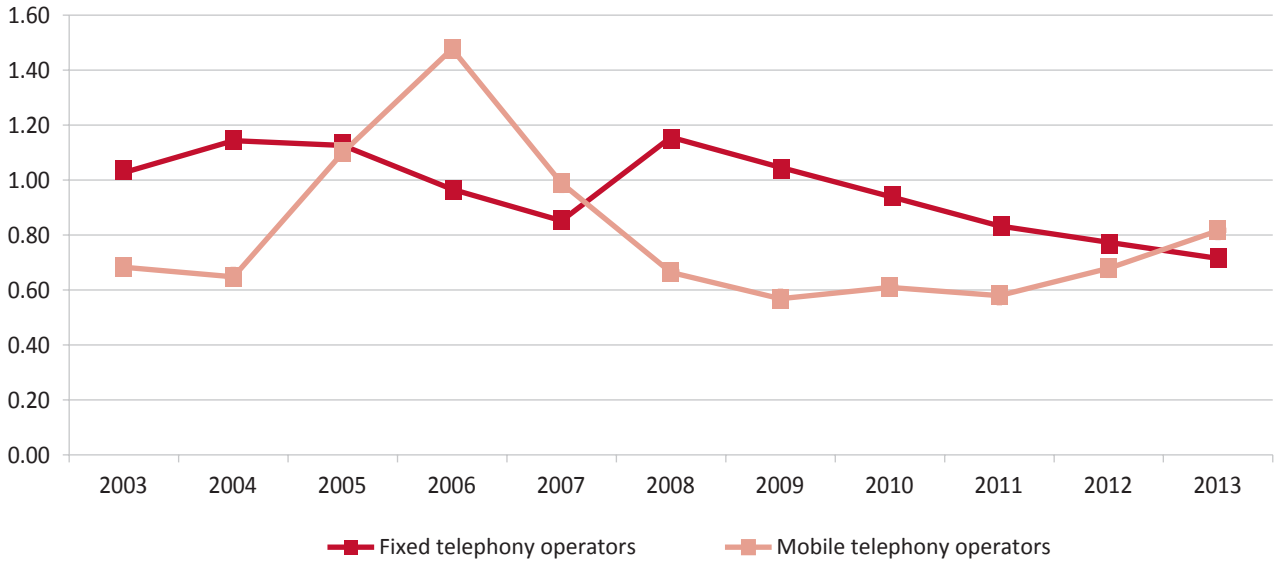
Chart 1.11: Investment by electronic communications' providers



*Estimation

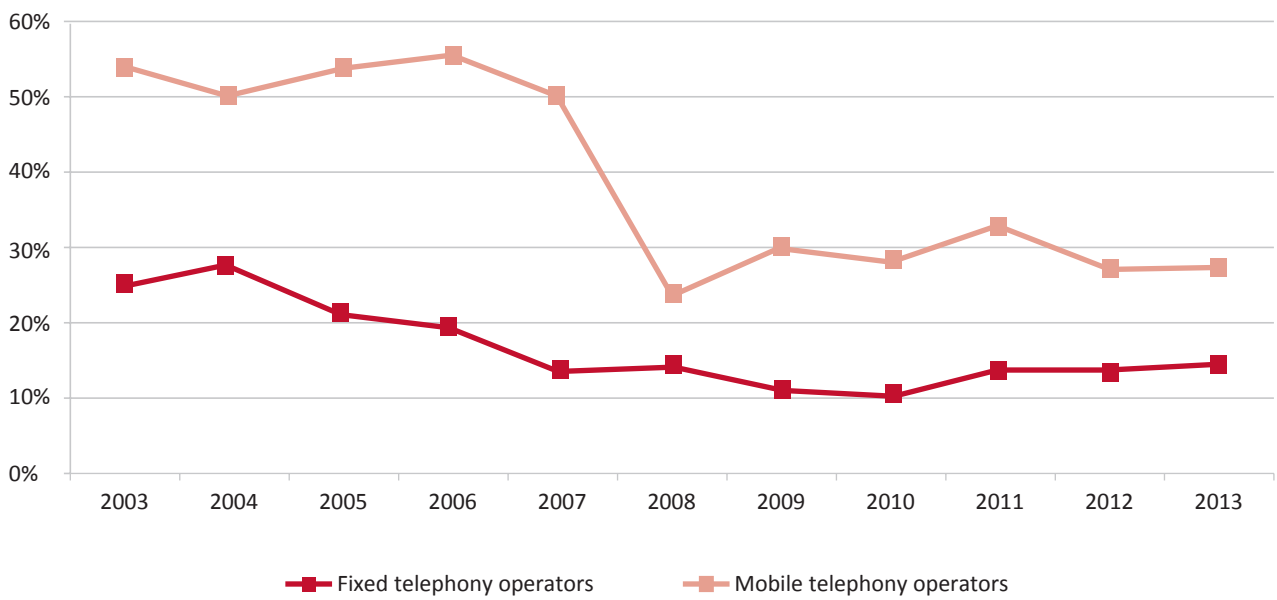
Source: EETT (based on published balance sheets)

Chart 1.12: Acid-Test Ratio



Source: EETT (based on published balance sheets)

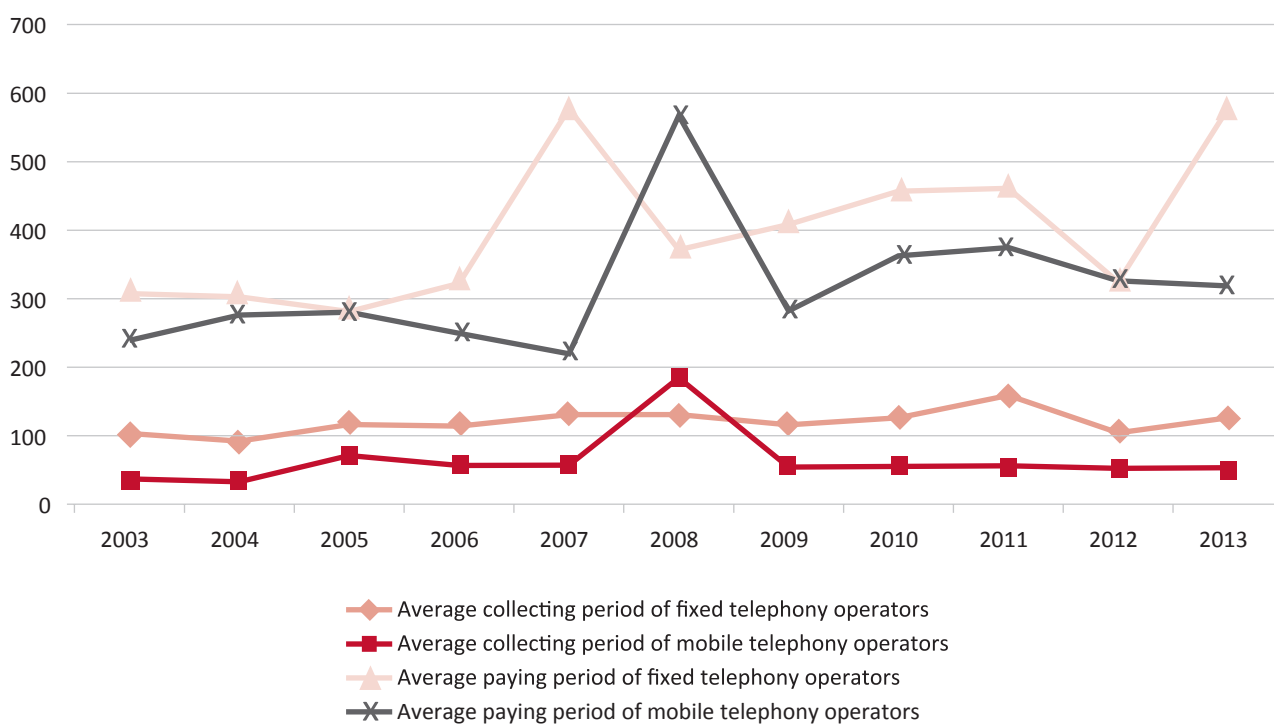
Chart 1.13: Gross Profit Margin Ratio



Source: EETT (based on published balance sheets)



Chart 1.14: Activity Ratios



Source: EETT (based on published balance sheets)

1.2.2. Broadband

Progress of broadband lines

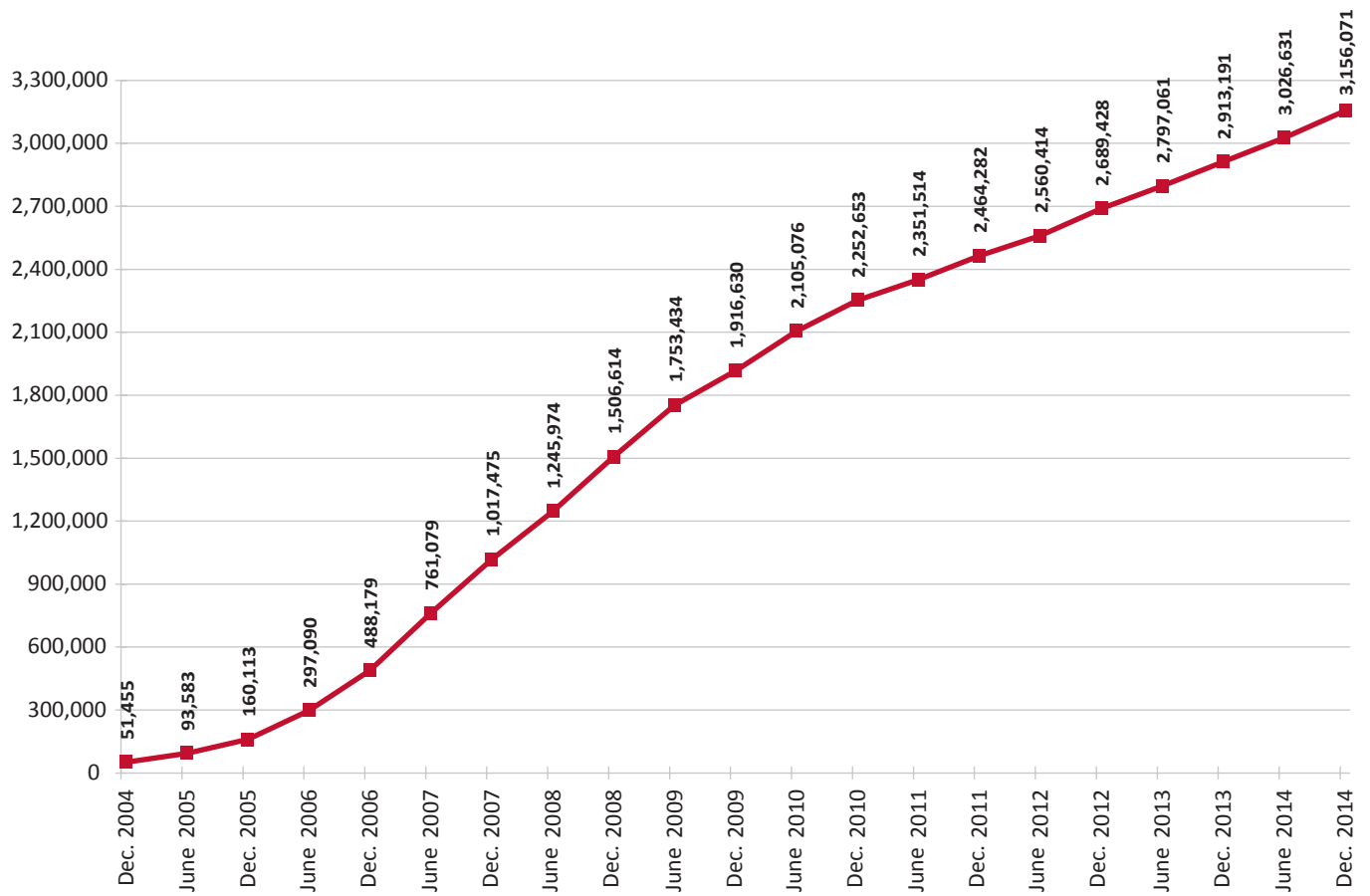
At the end of 2014, broadband connections amounted to 3,156,071 compared to 2,913,191 at the end of 2013, having increased by 8.3% (Chart 1.15). This increase is at the same level as in 2013 (annual increase in connections by 8.3%). Broadband penetration reached 28.7% of the population compared to 26.3% in 2013, thus ranking Greece in the 13th place among the EU member states (17th in December 2013), while also demonstrating the significant progress made regarding Greece's convergence to the rest of Europe (Chart 1.16).

The increase in broadband penetration (2.4 lines per 100 inhabitants) was the second largest among the EU member states and considerably

higher than the European average (1.3 lines per 100 inhabitants). It is worth mentioning that the 2014 increase was the highest one of the past few years (1.9% in 2011, 2.2% in 2012 and 2% in 2013) (Charts 1.17 & 1.18).

The Greek broadband penetration converged further to the European average broadband penetration (a divergence of 2.4 lines per 100 inhabitants in 2014 compared to 3.5 lines per 100 inhabitants in 2013), a fact that attests to the steady convergence course of Greece to the rest of the EU (Chart 1.19).

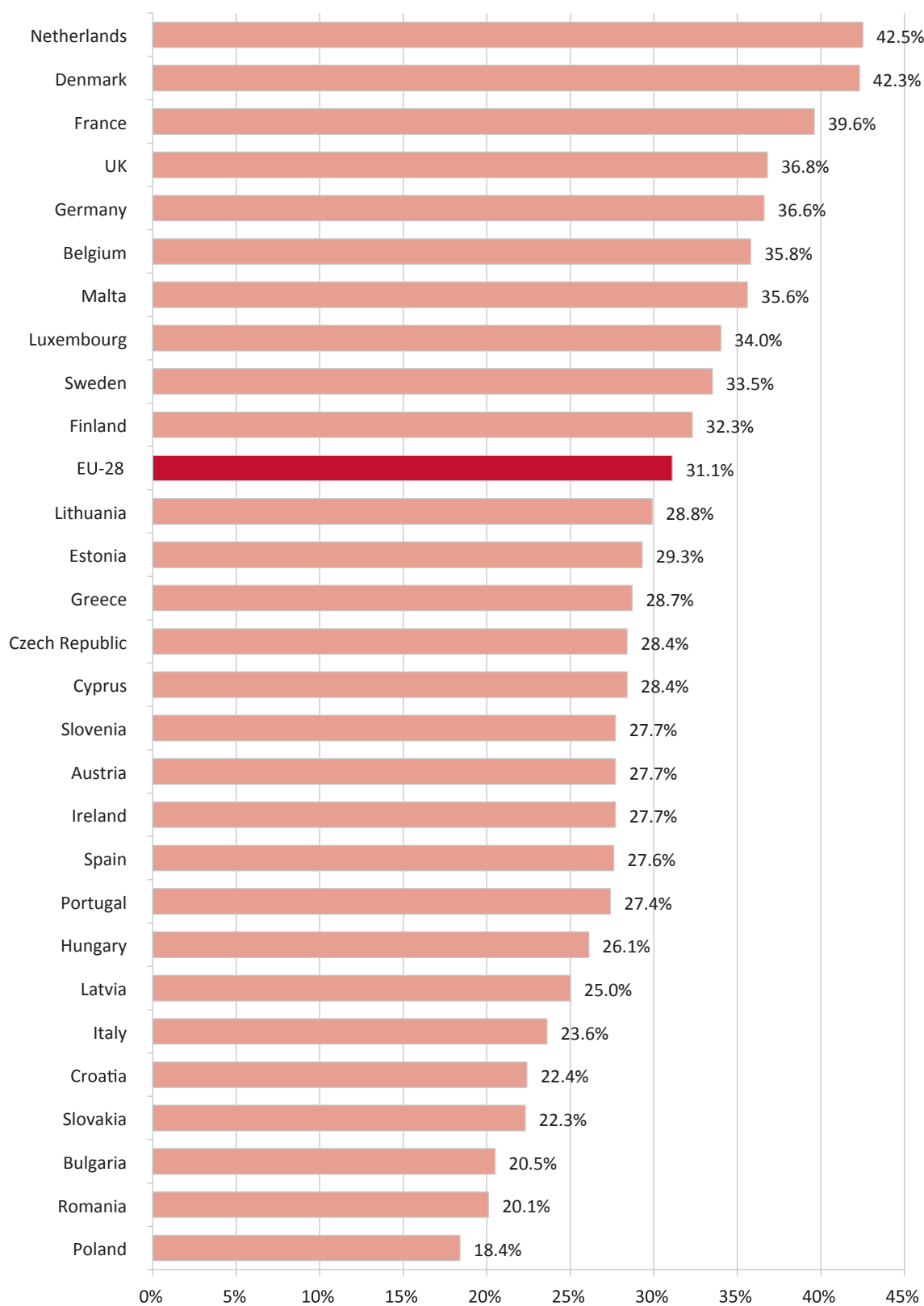
Chart 1.15: Progress of broadband lines



Source: EETT (based on data provided by the licensed operators)

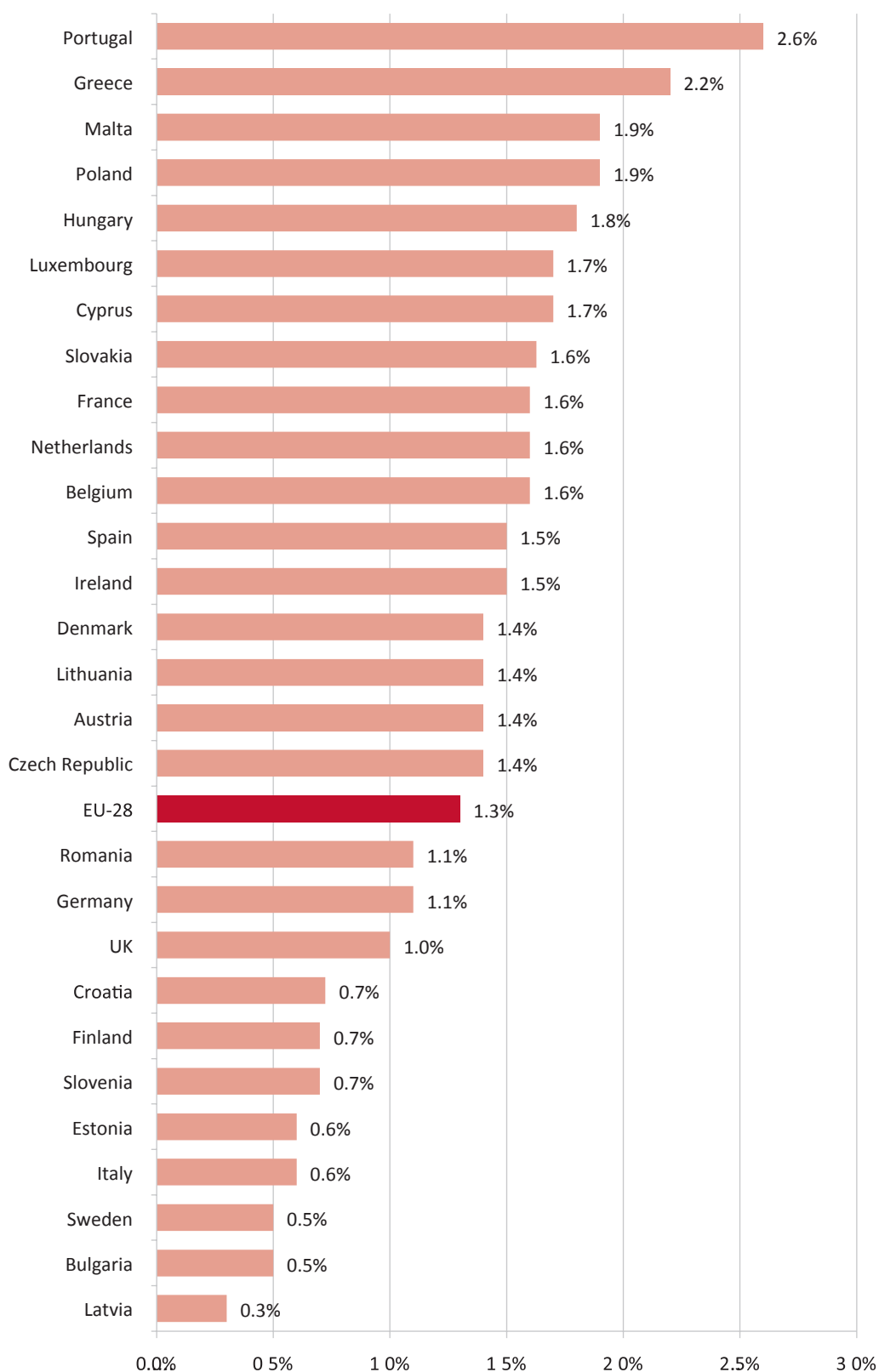


Chart 1.16: Broadband penetration rate in the EU (2014)



Source: European Commission (Digital Agenda Scoreboard 2015)

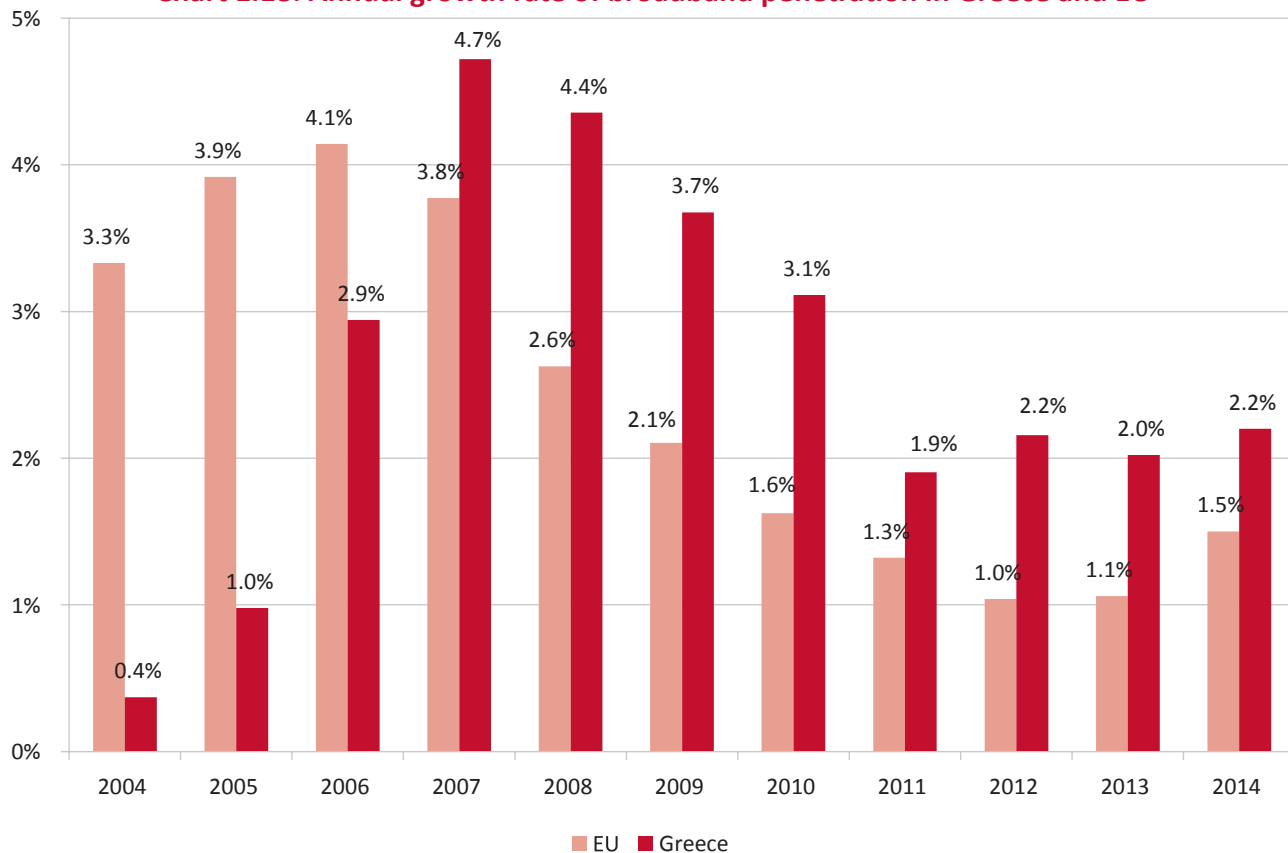
Chart 1.17: Broadband penetration in the EU (2014)



Source: European Commission (Digital Agenda Scoreboard 2015)

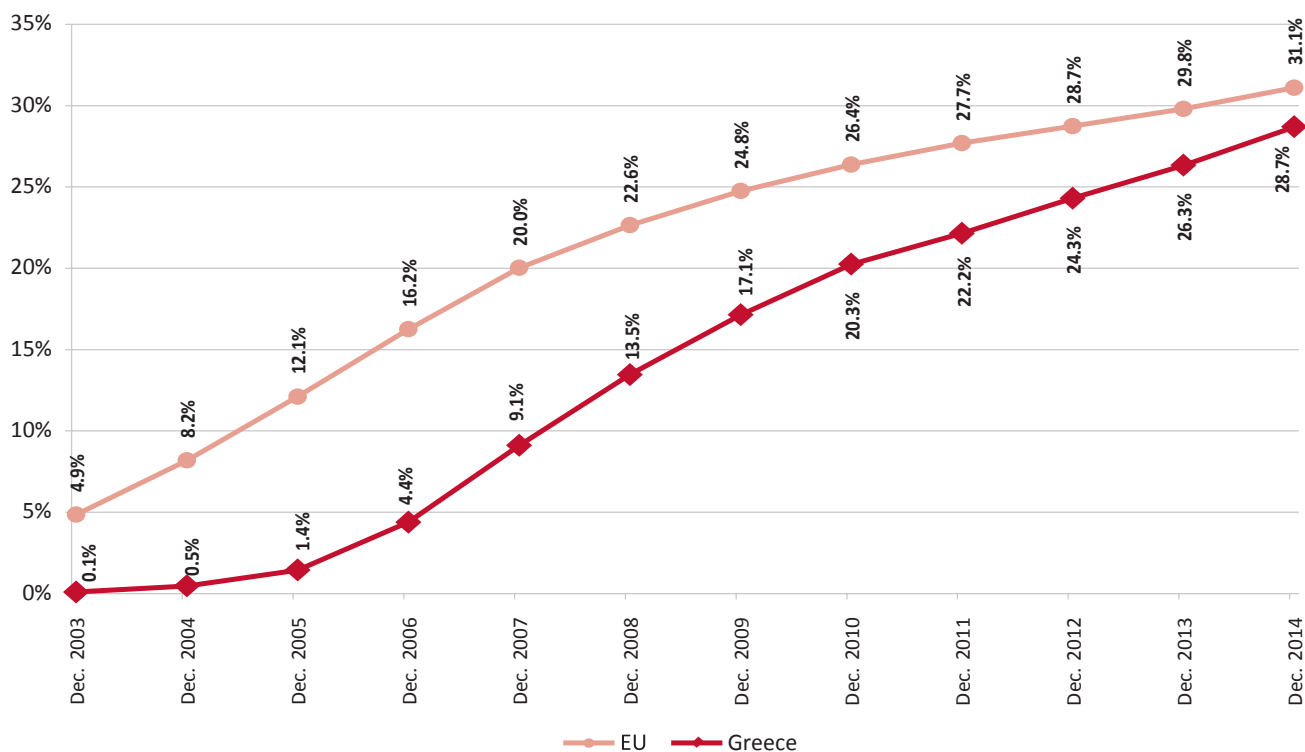


Chart 1.18: Annual growth rate of broadband penetration in Greece and EU



Source: EETT (based on data by the European Commission - Digital Agenda Scoreboard 2015)

Chart 1.19: Progress of broadband penetration rate in Greece and the EU



Source: EETT (based on data by the European Commission - Digital Agenda Scoreboard 2015)

Local Loop Unbundling (LLU)

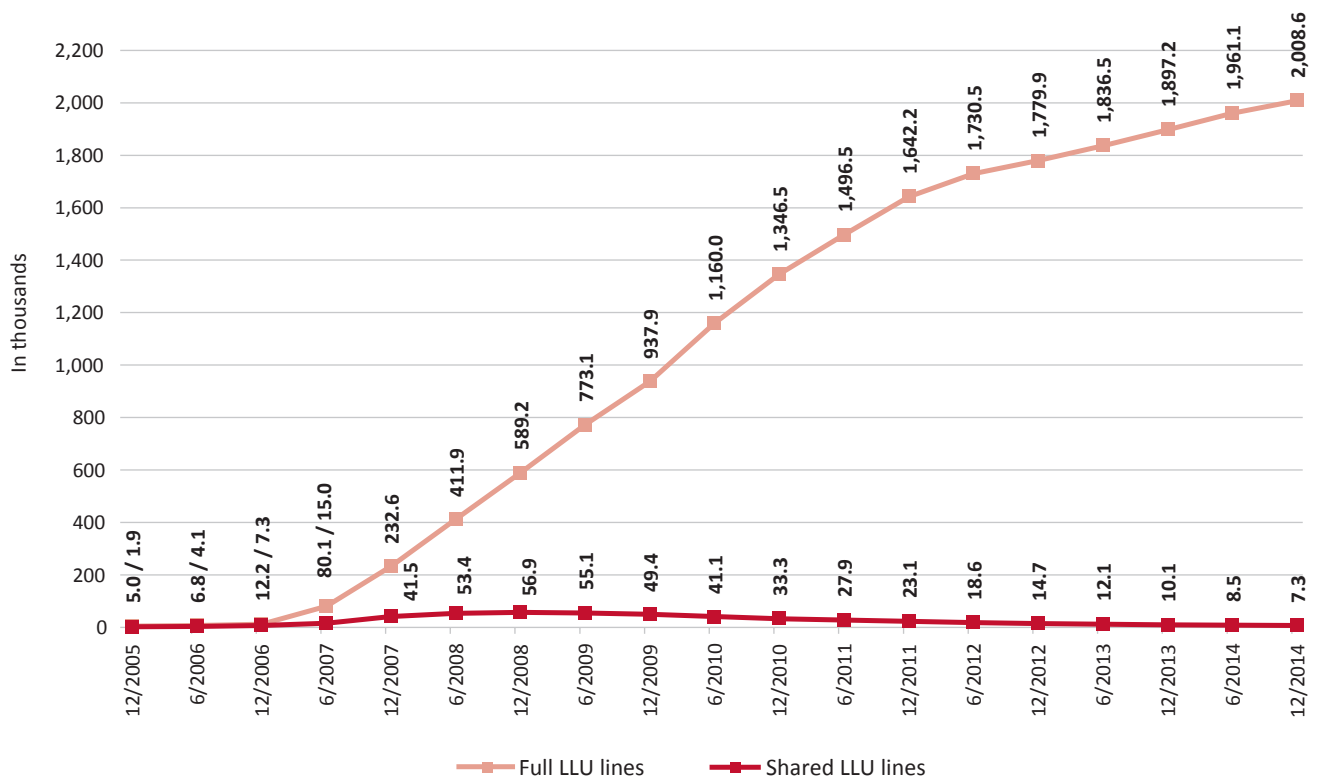
LLU continued to increase during 2014 (Chart 1.20), reaching 2,015,940 at the end of the year, compared to 1,907,303 at the end of 2013 (an increase of 5.7% compared to 6.3% in 2013)⁵. This increase is entirely due to the full LLU lines that amounted

to 2,008,602 at the end of the year compared to 1,897,195 at the end of 2013 (a 5.8% increase) as opposed to shared LLU lines that were further reduced (7,338 lines at the end of the year compared to 10,108 at the end of 2013).

The average monthly cost⁶ of full LLU

(Chart 1.21) in Greece is still lower than the European average (8.17 compared to 9.43 euros/month). Conversely, the average monthly cost of shared LLU (Chart 1.22) is still considerable higher than the European average (3.34 euros/month compared to 2.64 euros/month).

Chart 1.20: Progress of LLU lines



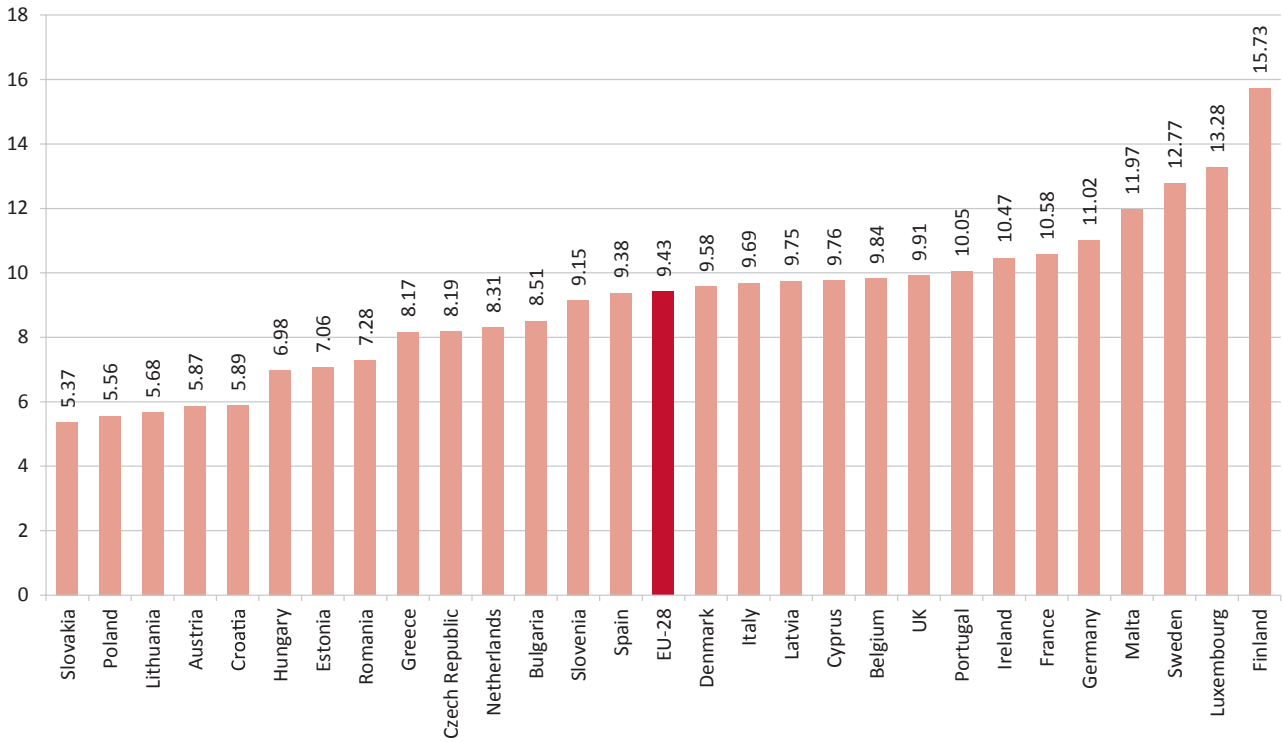
Source: EETT (based on data provided by the licensed operators)

5. The access lines via LLU are a grand total of the broadband lines via LLU since they also include telephone only lines.

6. The average cost is derived by including the one-off connection fee spread along a 36 month period in the monthly fee.

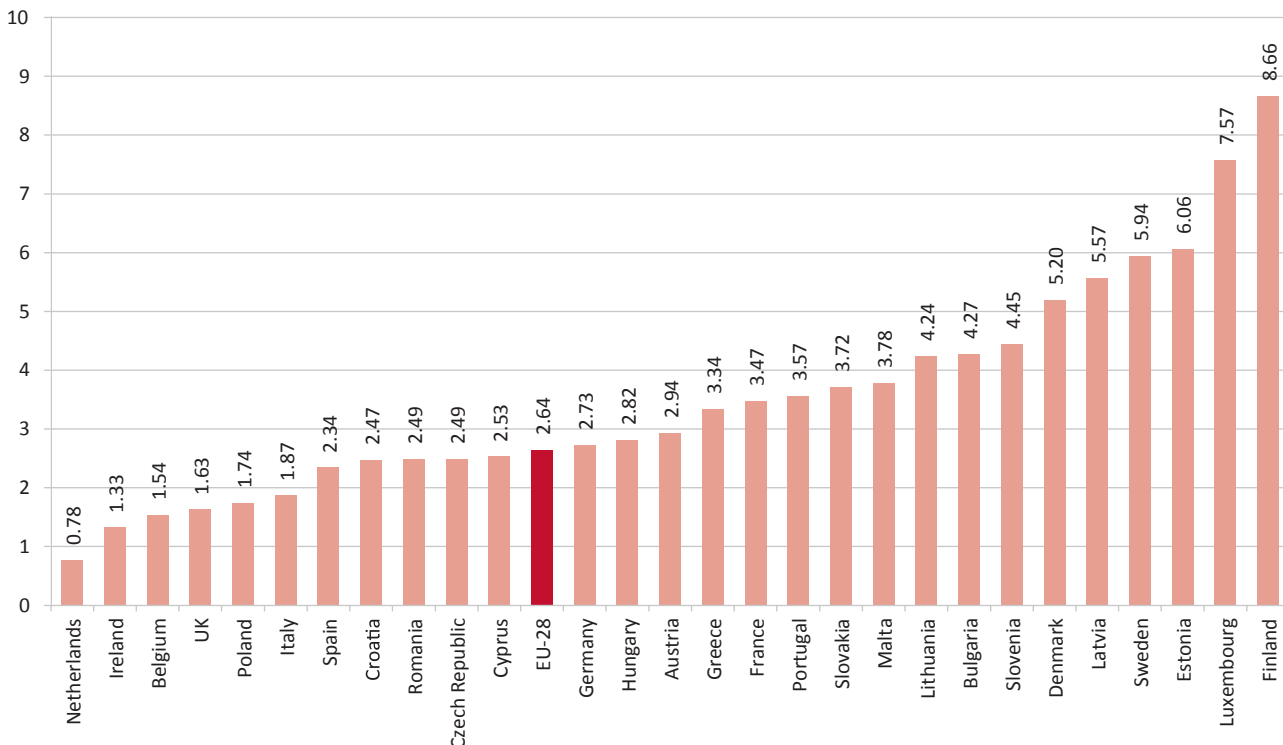


Chart 1.21: Average monthly cost of a full LLU line in EU member states (October 2014)



Source: EETT (based on data by the European Commission - Digital Agenda Scoreboard 2015)

Chart 1.22: Average monthly cost of a shared LLU line in EU member states (October 2014)



Source: EETT (based on data by the European Commission - Digital Agenda Scoreboard 2015)

ADSL/VDSL lines

VDSL lines reached 101,934 at the end of 2014 compared to 48,878 in December 2013 (annual increase 108.5%). Both their penetration to population (0.93% compared to 0.44% at the end of 2013) and their percentage to total broadband lines (3.23%) remain low.

Broadband lines per technology at a fixed location

The individual shares of broadband lines per technology are the following (Charts 1.24-1.26):

- xDSL access through LLU

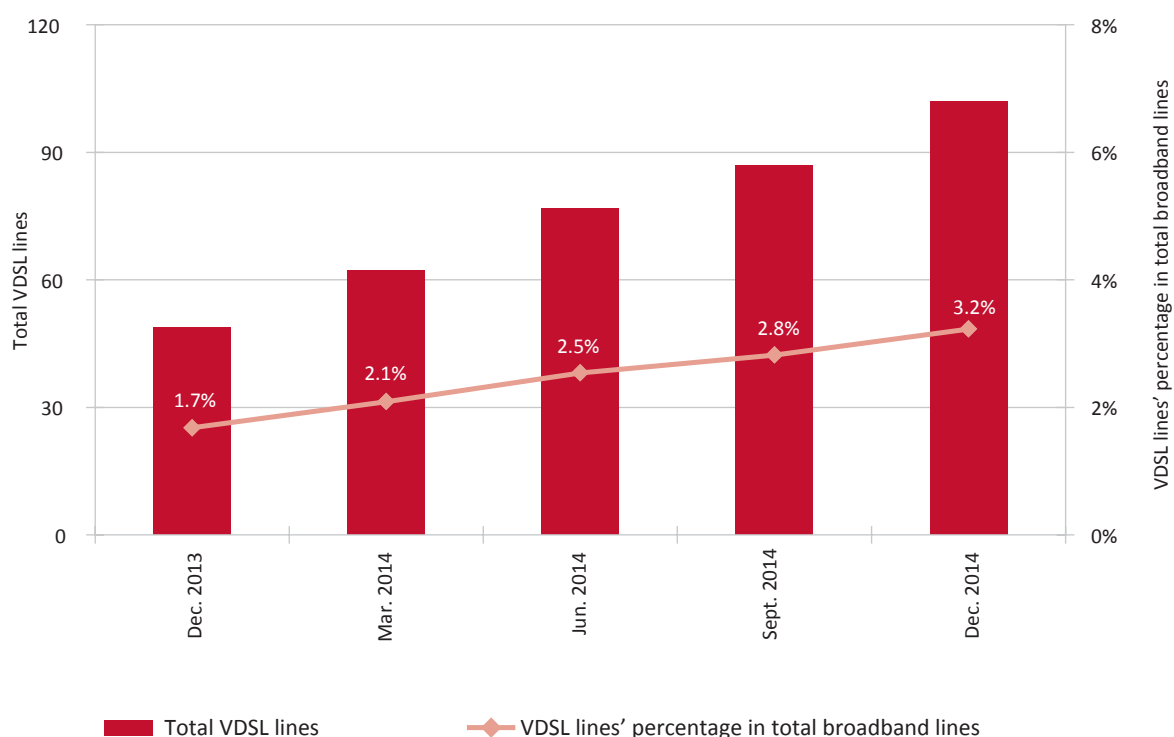
amounted to 1,767,466 lines at the end of 2014 (compared to 1,629,560 at the end of 2013), thus constituting 56% of the total broadband lines compared to 55.9% in the previous year.

- OTE's retail xDSL lines reached 1,357,878 lines in December 2014 compared to 1,251,880 in December 2013, thus increasing their percentage in the total broadband lines, from 42.97% to 43.02%. From the total number of OTE's xDSL lines 92,585 (i.e., 2.9% of the broadband lines) are VDSL lines.

- The number of ADSL lines amounted to 22,483 (0.71% of the total broadband lines) compared to 25,741 in December 2013. The lines of other technologies remain at very low levels about 0.3%.

- Chart 1.27 presents the percentage of broadband lines in the EU members with non xDSL technologies (namely those not based on the installed copper network). Greece is in the last place about a percentage of 0.3% compared to the EU average of 29.5%.

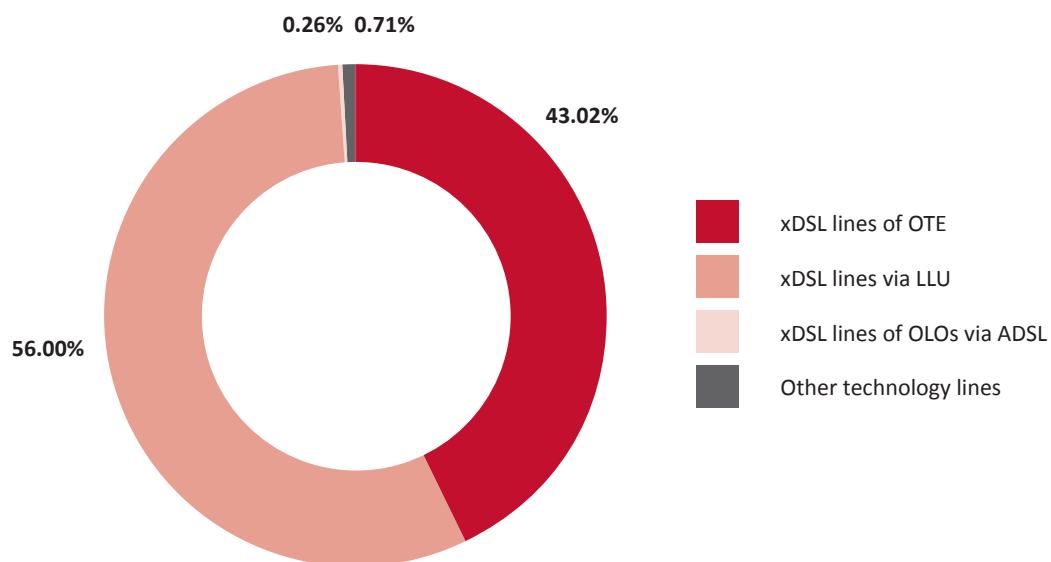
Chart 1.23: Progress of VDSL lines



Source: EETT (based on data provided by the licensed operators)

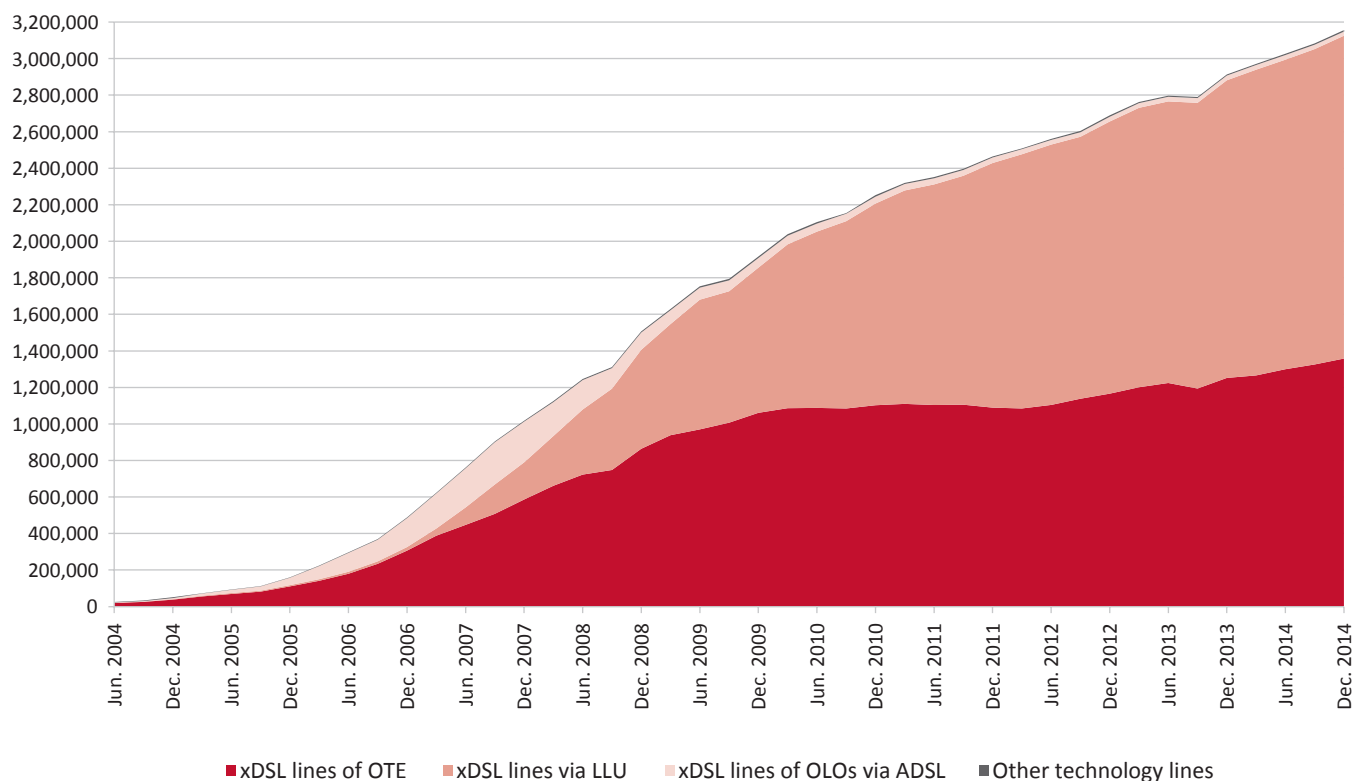


Chart 1.24: Distribution of broadband lines per technology (December 2014)



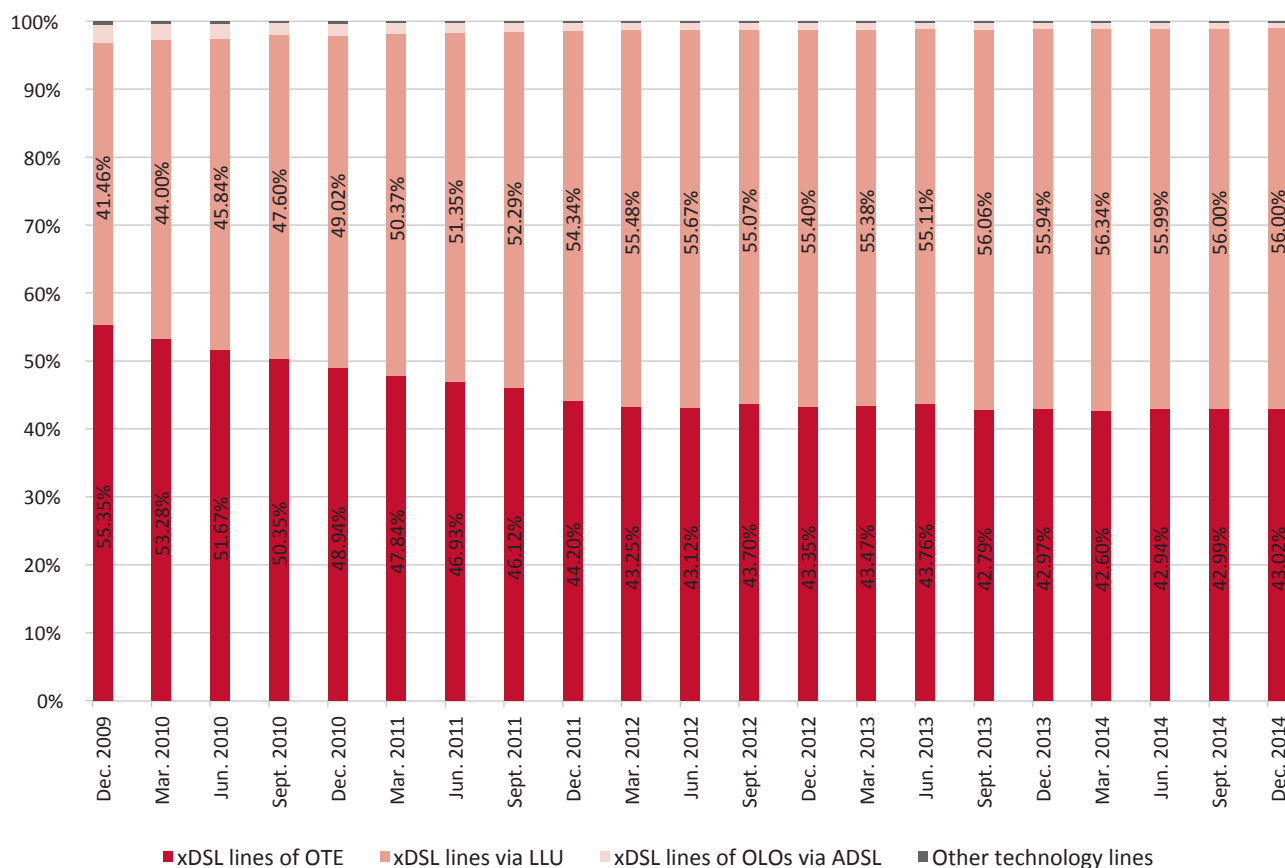
Source: EETT (based on data provided by the licensed operators)

Chart 1.25: Progress of broadband lines per technology (number of lines)



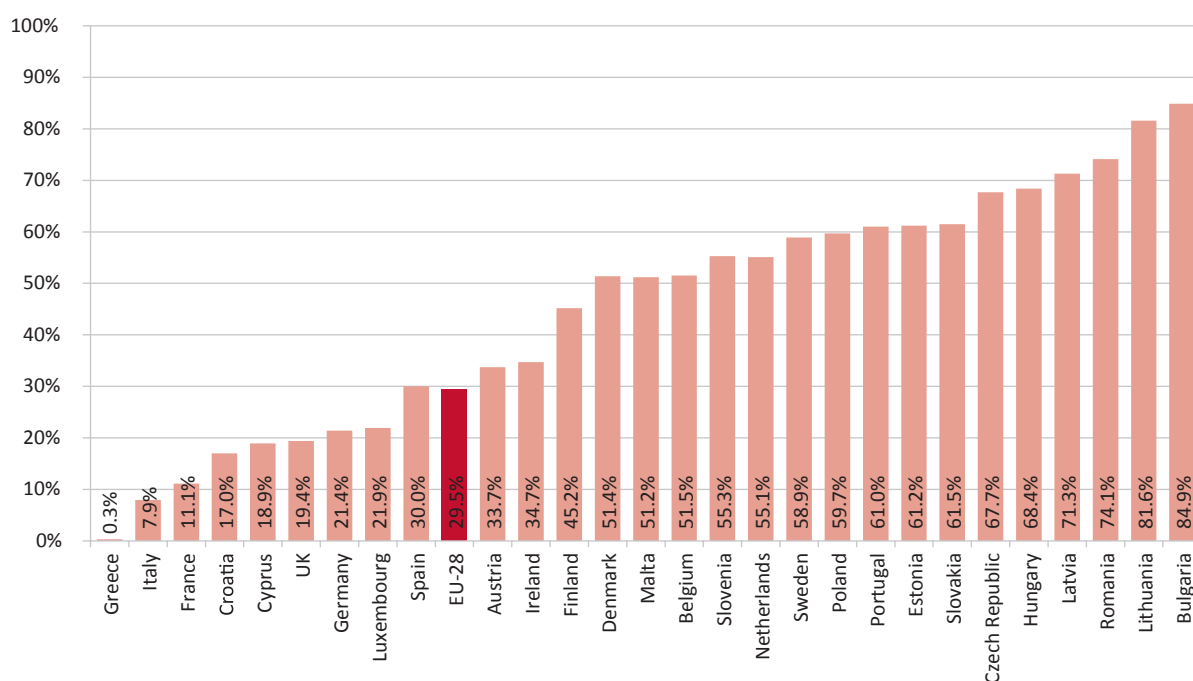
Source: EETT (based on data provided by the licensed operators)

Chart 1.26: Progress of broadband lines per technology (% of the total)



Source: EETT (based on data provided by the licensed operators)

Chart 1.27: Broadband lines with non DSL technologies in the EU (2014)



Source: EETT (based on data by the European Commission - Digital Agenda Scoreboard 2015)



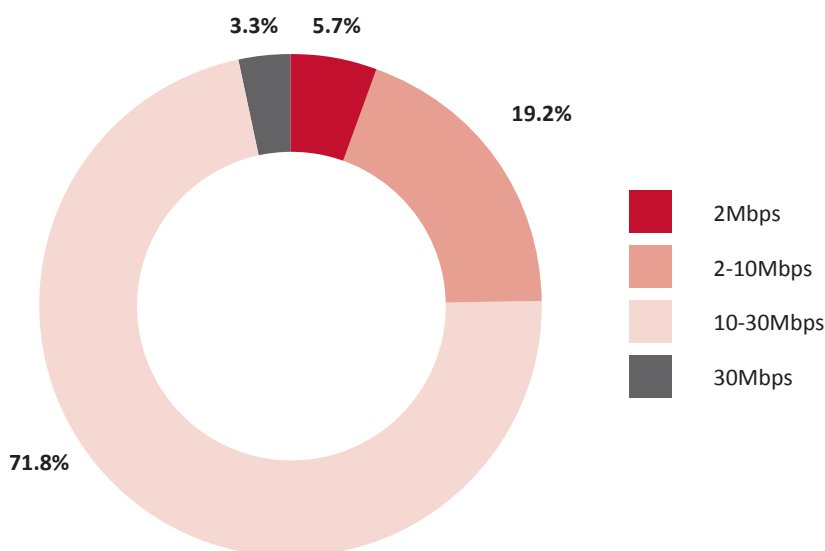
Broadband line speed

The majority of broadband lines (71.8%) corresponds to a (downloading) speed of over 10Mbps while a lower percentage (3.3%) corresponds to speeds over 30Mbps

(Chart 1.28). The average speed of ADSL lines (wholesale and retail) has reached 17Mbps compared to 13.5Mbps in December 2013

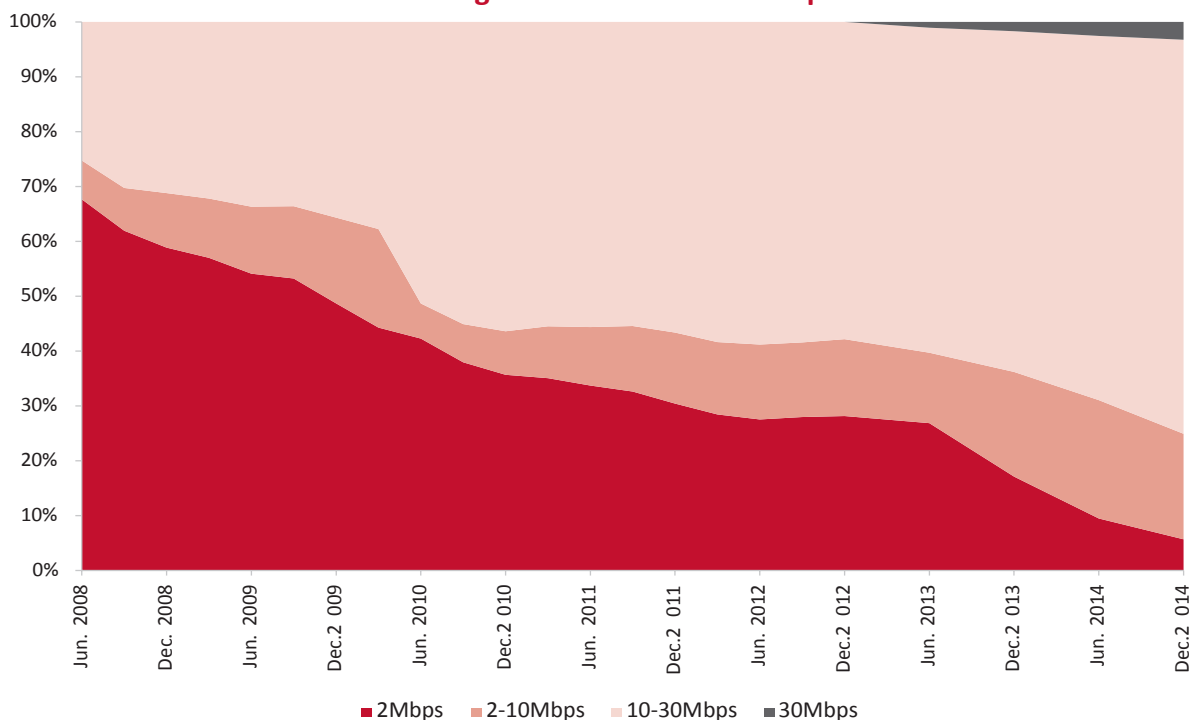
(Chart 1.30). Regarding speeds over 30Mbps, Greece lags considerably from the rest of EU members (3% compared to the European average of 31%).

Chart 1.28: Distribution of broadband line speeds (December 2014)



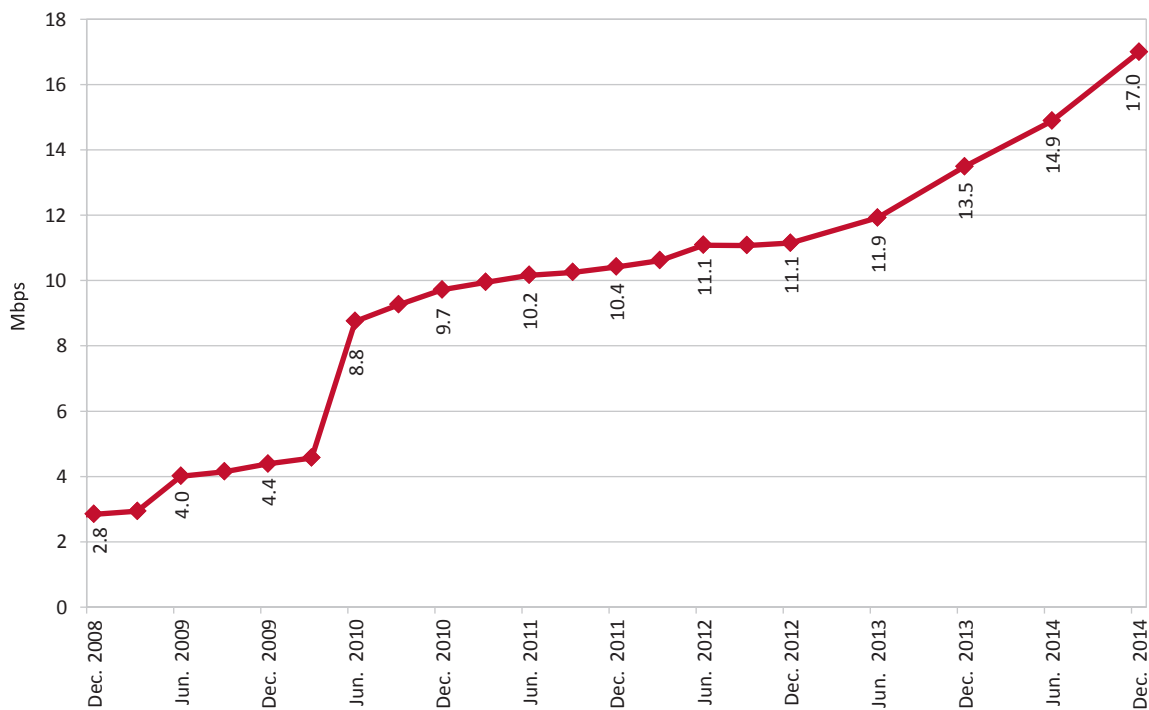
Source: EETT (based on data provided by the licensed operators)

Chart 1.29: Progress of broadband line speed



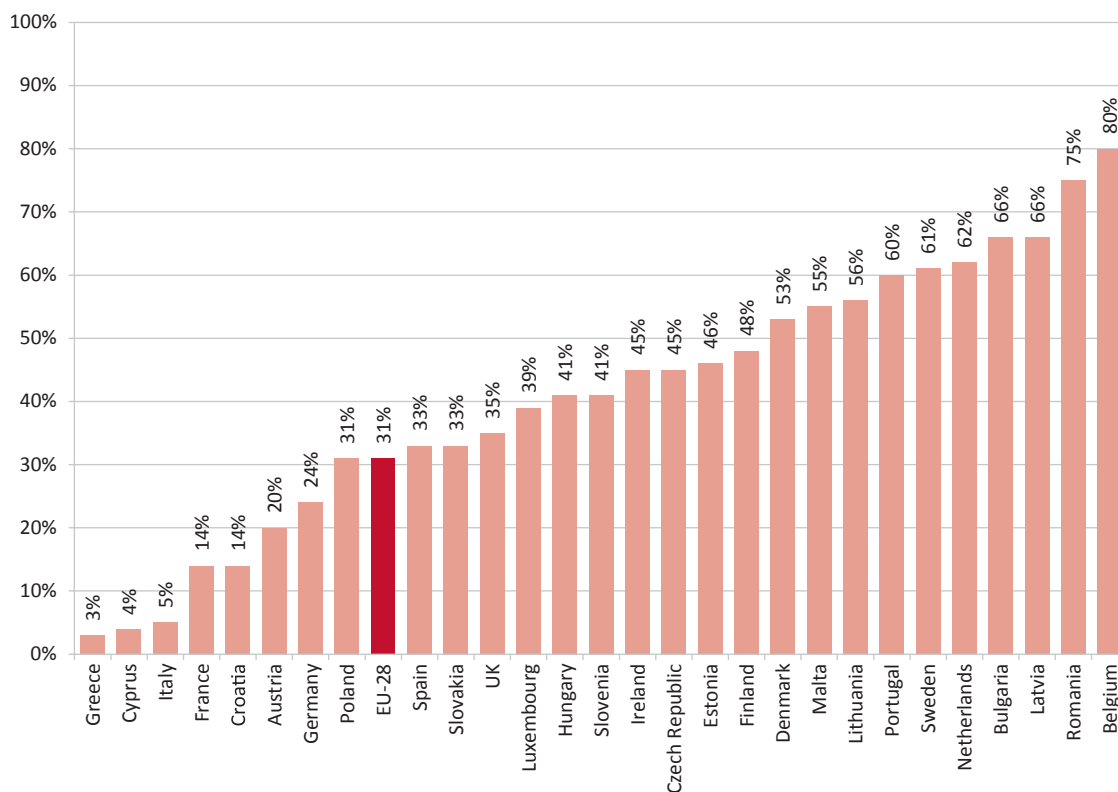
Source: EETT (based on data provided by the licensed operators)

Chart 1.30: Progress of the average access speed of retail & wholesale ADSL lines



Source: EETT (based on data provided by the licensed operators)

Chart 1.31: Percentage of lines with speeds >30Mbps in the EU member states



Source: EETT (based on data by the European Commission - Digital Agenda Scoreboard 2015)



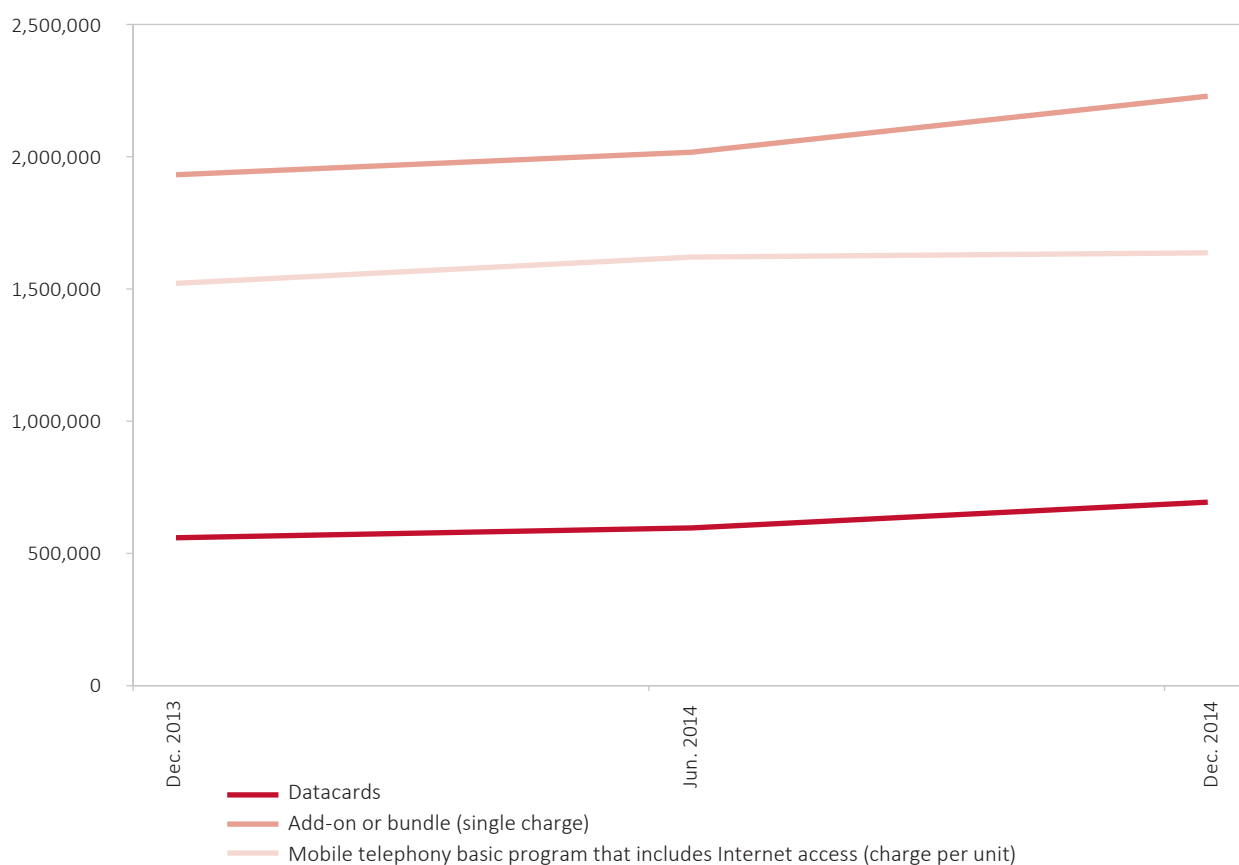
Mobile broadband

The total active mobile subscribers that used data services on Internet amounted to 4,559,958 at the end of 2014 (Chart 1.32), the majority of which (2,229,684) either used an

add-on program or used Internet data services via mobile bundled programs that include, inter alia, Internet access at a single fee. Furthermore, 1,636,342 used Internet data services via mobile packages

that include, inter alia, Internet access (charge per unit) while the rest 671,405 used datacards.

Chart 1.32: Mobile telephony subscribers that used Internet



Source: EETT (based on data provided by the licensed operators)

1.2.3. Telephony services at a fixed location

Access and subscriptions

In December 2014 the number of access lines for the provision of publicly available telephone services at a fixed location amounted to 4,758,271 (namely a 43.3% penetration in the population) compared to 4,790,674 in December 2013, presenting a 0.7% further decrease in

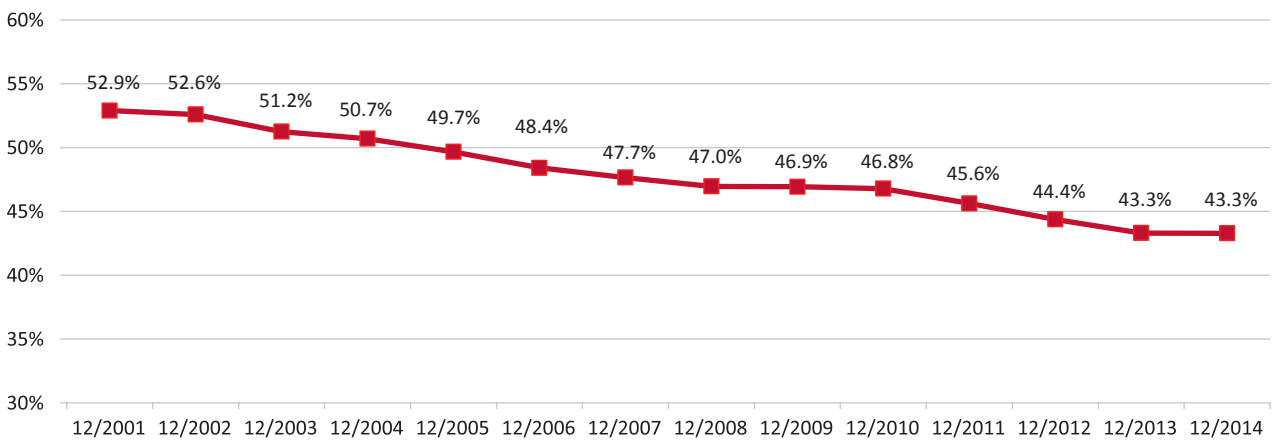
relation to the respective number of lines at the end of 2013 (Charts 1.33 and 1.34). These lines include OTE's PSTN and ISDN lines, as well as the full LLU lines, Wholesale Line Rental (WLR) and ISDN PRA of alternative operators (Table 1.4).

OTE's respective market share reached 57% at the end of 2014 compared to 59.4% at the end of 2013 (Chart 1.35). The number of OTE's telephone lines fell by 4.6%

(131,990 lines) as opposed to the alternative operators' lines that increased by 5.1% (99,587 lines).

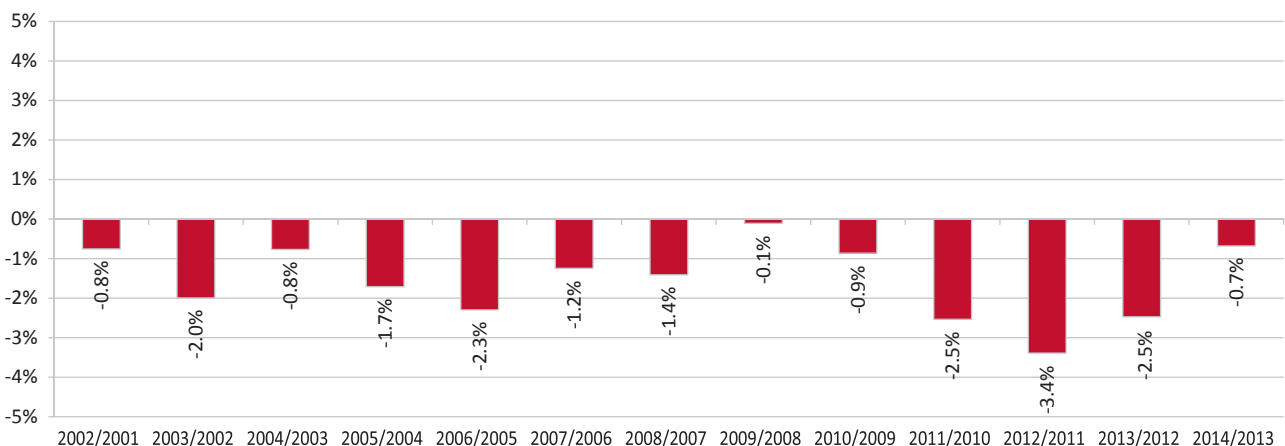
It should be mentioned that the full LLU lines represent the highest percentage (98%) of the alternative operators' lines. WLR was further reduced by 25% as was the case for the carrier preselection lines that fell to 64,898 at the end of 2014 from 74,456 at the end of 2013 (a 12.8% drop).

Chart 1.33: Penetration of telephone lines in Greece's population



Source: EETT (based on data provided by the licensed operators)

Chart 1.34: Annual percentage change of telephone lines



Source: EETT (based on data provided by the licensed operators)

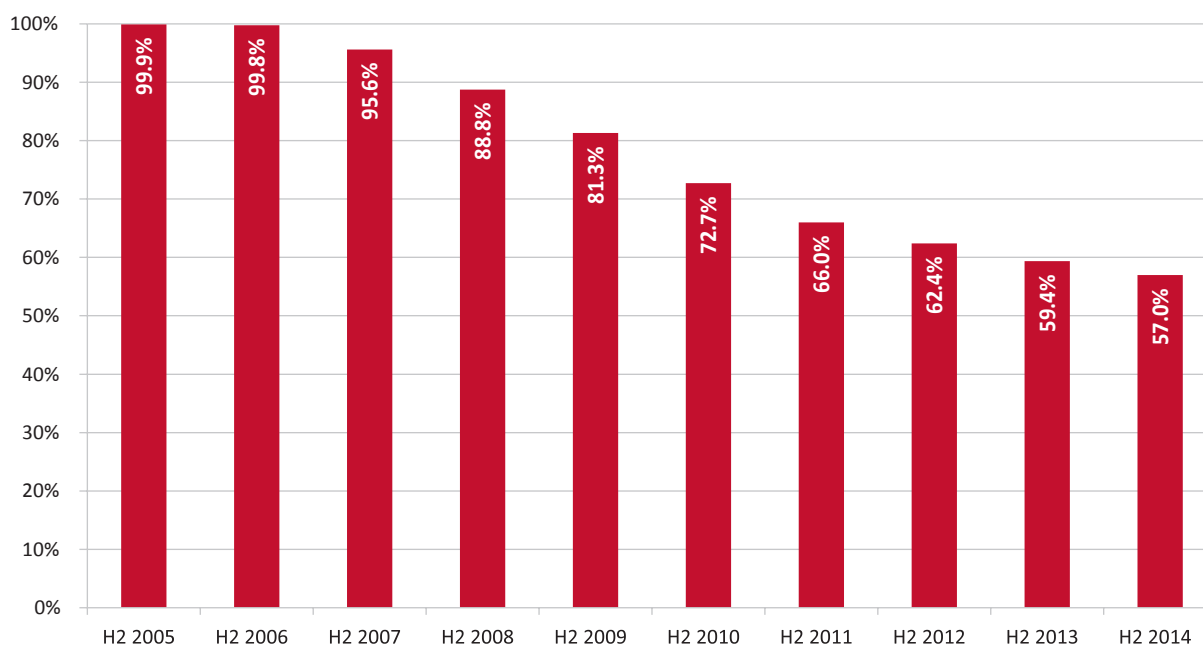


Table 1.4: Progress of telephone lines

	OTE Lines			OLO's Lines			Total lines
	PSTN	ISDN BRA	ISDN PRA	Full LLU	WLR	ISDN PRA	
Dec. 2000	5,659,274	96,972	3,946	-	-	-	5,760,192
Dec. 2001	5,607,726	199,033	5,385	-	-	-	5,812,144
Dec. 2002	5,412,796	349,751	6,023	93	-	-	5,768,663
Dec. 2003	5,200,231	448,542	6,766	650	-	-	5,656,189
Dec. 2004	5,078,908	525,499	7,138	1,787	-	-	5,613,332
Dec. 2005	4,927,622	578,505	7,094	5,018	-	444	5,518,683
Dec. 2006	4,778,245	597,867	6,213	12,176	-	334	5,394,835
Dec. 2007	4,509,564	579,533	6,185	232,582	-	480	5,328,344
Dec. 2008	4,110,102	548,388	5,971	589,234	-	681	5,254,376
Dec. 2009	3,744,759	517,337	5,677	937,878	42,405	695	5,248,751
Dec. 2010	3,306,469	473,183	5,259	1,346,498	71,883	747	5,204,039
Dec. 2011	2,917,578	426,830	4,808	1,642,183	82,091	1,820	5,075,310
Dec. 2012	2,670,296	387,692	4,320	1,779,852	63,964	2,791	4,908,915
Dec. 2013	2,484,926	354,655	3,791	1,897,195	47,082	3,025	4,790,674
Dec. 2014	2,377,849	330,034	3,499	2,008,602	35,325	2,962	4,758,271

Source: EETT

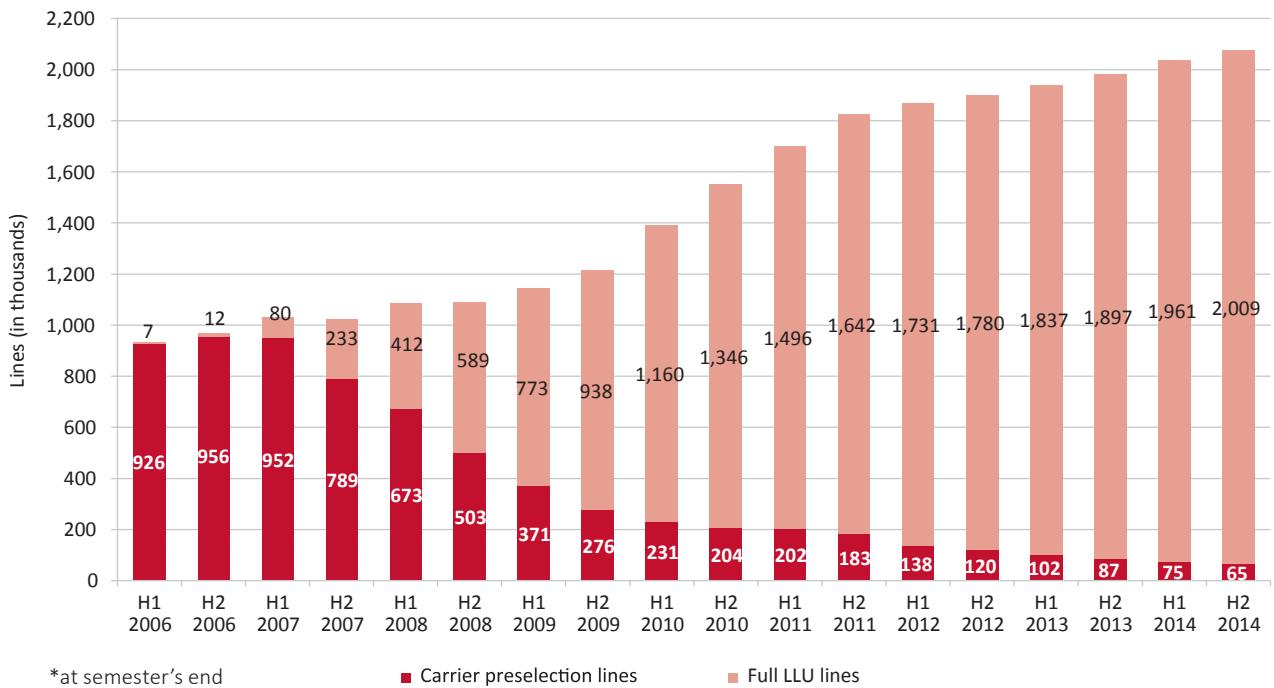
Chart 1.35: OTE's market share based on the number of telephone lines*



*at semester's end

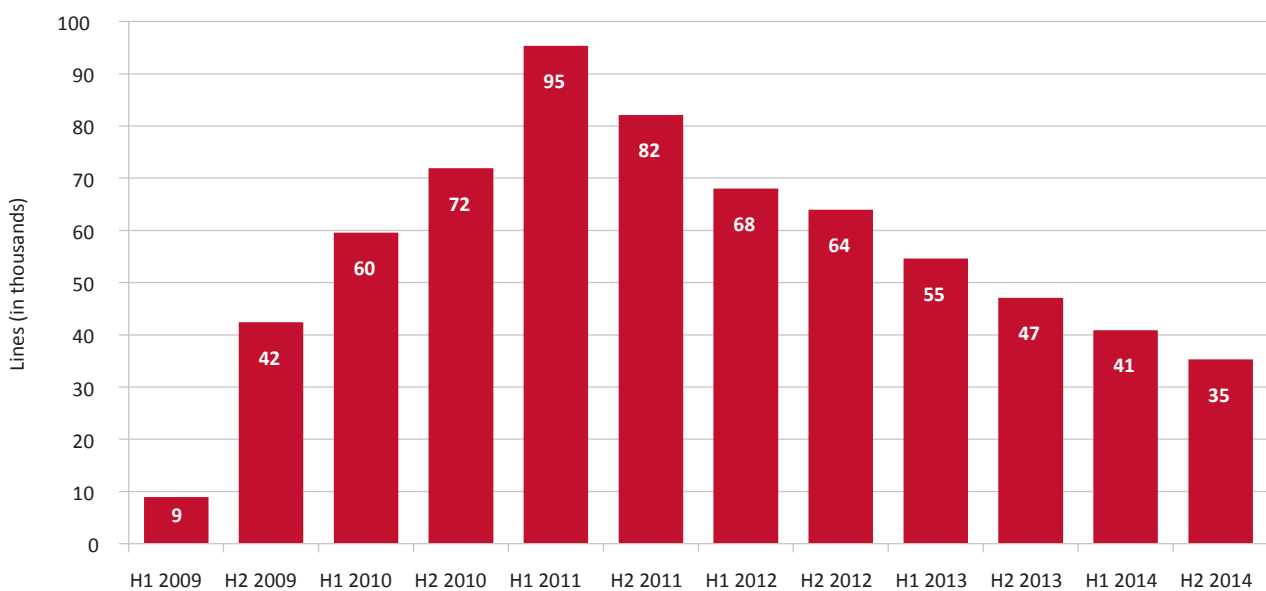
Source: EETT (based on data provided by the licensed operators)

Chart 1.36: Alternative operators' lines via carrier pre-selection and full LLU*



Source: EETT (based on data provided by the licensed operators)

Chart 1.37: Activated lines for wholesale line rental*

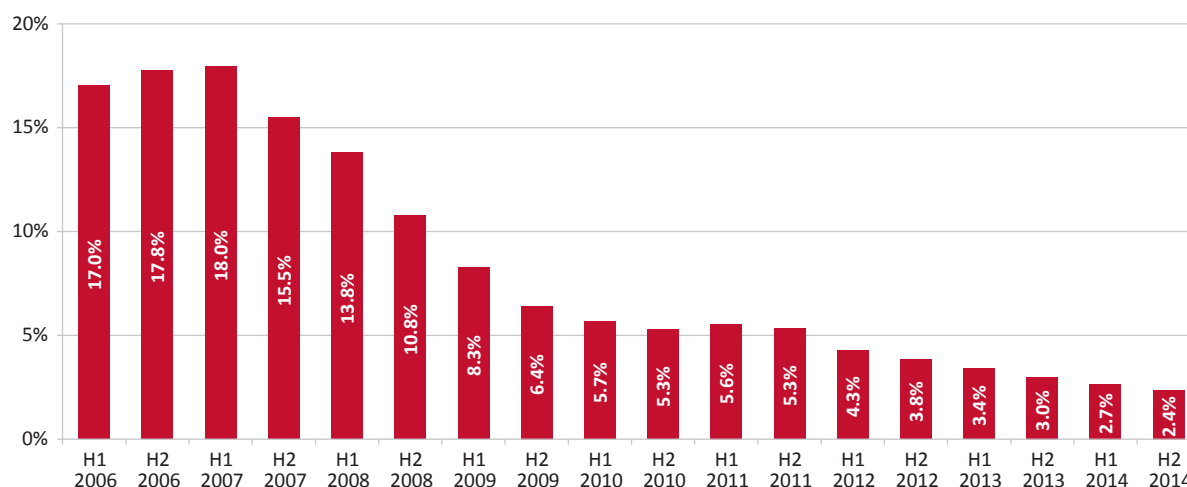


*at semester's end

Source: EETT (based on data provided by the licensed operators)



Chart 1.38: Pre-selection lines as a percentage of OTE's PSTN and ISDN lines*



*at semester's end

Source: EETT (based on data provided by the licensed operators)

Retail outgoing traffic

The outgoing fixed traffic (not incl. dial-up calls) is estimated at 17.2 billion minutes approximately, having decreased for the first time by 8% in relation to 2013, since both OTE's and OLOs' traffic fell by 9% and 7% respectively. OTE's share (Chart 1.39) dropped slightly by half of a percentage point compared to 2013 reaching 49.3% of the total traffic (not incl. dial-up calls) and 49.1% of the total traffic of the main call types (namely national fixed calls⁷, call to mobiles and international calls).

The market share distribution for 2014, based on the volume of the main call types between OTE, the five largest alternative operators and the remaining operators is shown in Chart 1.40, whilst the progress of these shares over time

is shown in Chart 1.41 and Table 1.5⁸. OTE's share is estimated at 49.1% and the five largest alternative operators, namely in alphabetical order CYTA, FORTHNET, HELAS ON LINE, ON TELECOMS and WIND, possess an aggregate share of 48.1%. Both OTE's share and the aggregate one of the five largest operators has hardly changed between 2013 and 2014, whereas that is not the case for the individual shares of the alternative operators that have changed over time. Furthermore, in 2014 as in the two last years, OTE and the five largest alternative operators are responsible for over 97% of the total traffic.

OTE's shares per call type are depicted in Table 1.6 and specifically for the main call types are schematically illustrated in Chart 1.42. The shares of national fixed calls

and international calls are remarkably stable standing at 50.2% και 29.9% respectively, whereas the share of calls to mobiles drops by 5.1 percentage points.

Charts 1.43 and 1.44 show the progress of the fixed outgoing traffic volume over time and Chart 1.45 depicts the respective annual rate of change. Chart 1.46 demonstrates the decisive contribution of the main call types to the total traffic (and which make up 98% thereof).

The progress of the fixed outgoing traffic volume per call type and the corresponding annual percentage changes are presented in Charts 1.47 και 1.48 respectively. Furthermore, Chart 1.49 shows the distribution of the fixed outgoing traffic for the main call types over time. All of the aforementioned

7. National fixed calls include local and long distance calls.

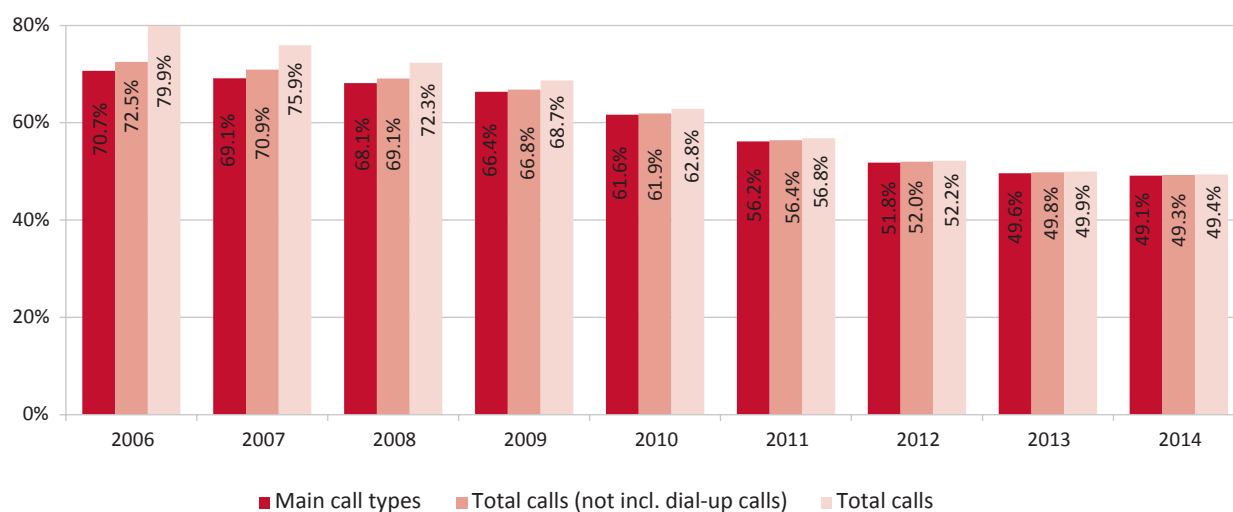
8. In the case of mergers, acquisitions, etc. the cumulative share of the said providers is presented even for the years prior to the year of merger, acquisition, etc.

information pertaining to the progress of the fixed outgoing traffic volume is also shown in Table 1.7. It should be mentioned that there is an increase in calls to mobiles after many years, while the 9.4% decrease in the national calls for the second consecutive year is worth mentioning. The increase of calls to mobile phones seems to be attributed to the further reduction of the mobile termination fees, thus allowing for the operators to diversify their product mix.

Charts 1.50 and 1.51 as well as Table 1.8 present the distribution of the outgoing traffic volume over time for the main call types between OTE and OLOs and the annual percentage changes. The traffic volume figures are diminishing both for OTE and the OLOs. Furthermore in 2014, only 2.6% of the OLOs' traffic originates from their indirectly connected subscribers (via carrier selection/preselection), whilst the remaining traffic refers to the directly connected subscribers (mainly through LLU).

Finally, it should be mentioned that based on the answers of operators, over 10% of the outgoing traffic from a fixed telephone for 2014, as for 2013, was managed VoIP⁹ (Chart 1.52) (not incl. dial-up calls). It should be mentioned that the said traffic is included to all the aforementioned traffic data and it constitutes along with the unmanaged VoIP, that is unmanaged/not taken into account by the domestic licenced electronic communications operators, the VoIP traffic.

Chart 1.39: OTE's market shares (based on outgoing traffic)

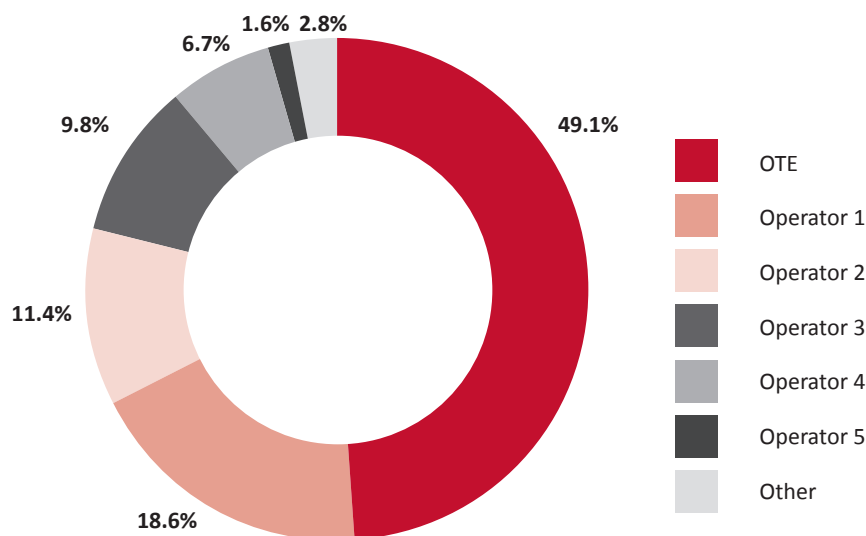


Source: EETT (based on data provided by the licensed operators)

9. The term "managed VoIP" refers to retail telephone traffic provided at a fixed location with the use of an IP protocol during which (a) call origination is done with the use of IP protocol and (b) the operator provides and/or controls the access line.

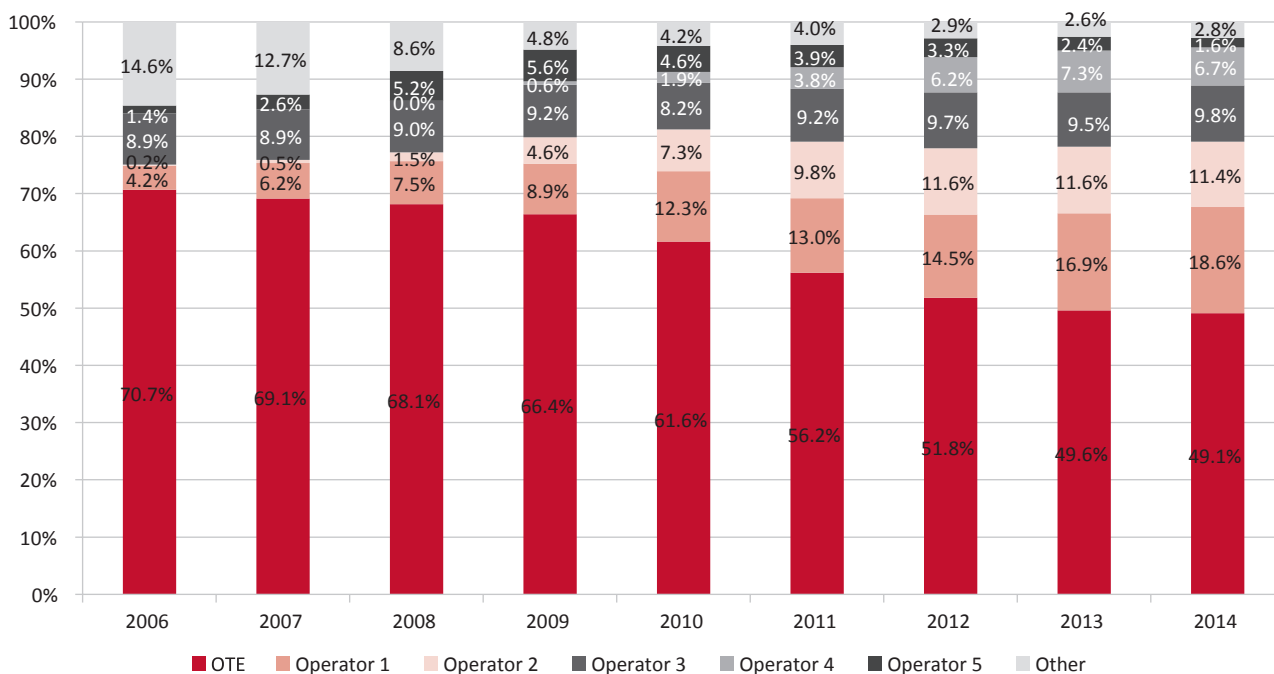


Chart 1.40: OTE and OLOs' market shares (based on the traffic volume of the main call types) (2014)



Source: EETT (based on data provided by the licensed operators)

Chart 1.41: Market shares of OTE, the five largest OLOs¹⁰ and other OLOs (based on the traffic volume of the main call types)



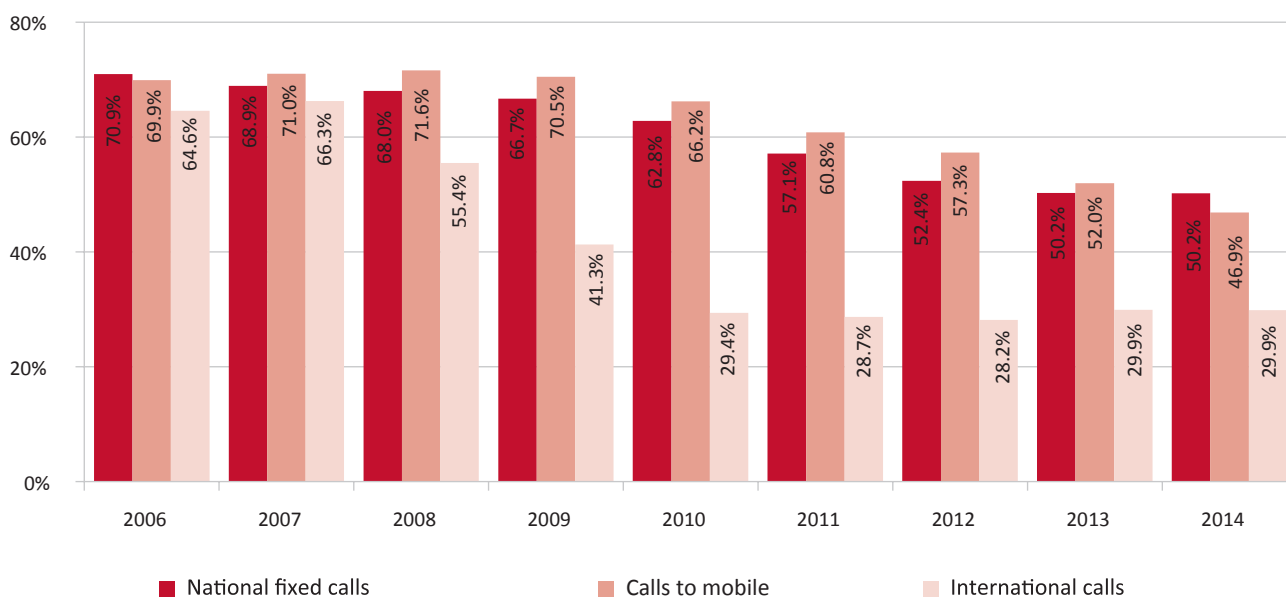
10. In the case of mergers, acquisitions, etc. the cumulative share of the said providers is presented, even for the years prior to the year of merger, acquisition, etc.

Table 1.5: Market shares of OTE, the five largest OLOs¹¹ and other OLOs (based on the traffic volume of the main call types)

	2006	2007	2008	2009	2010	2011	2012	2013	2014
OTE	70.7%	69.1%	68.1%	66.4%	61.6%	56.2%	51.8%	49.6%	49.1%
Operator 1	4.2%	6.2%	7.5%	8.9%	12.3%	13.0%	14.5%	16.9%	18.6%
Operator 2	0.2%	0.5%	1.5%	4.6%	7.3%	9.8%	11.6%	11.6%	11.4%
Operator 3	8.9%	8.9%	9.0%	9.2%	8.2%	9.2%	9.7%	9.5%	9.8%
Operator 4	-	-	0.0%	0.6%	1.9%	3.8%	6.2%	7.3%	6.7%
Operator 5	1.4%	2.6%	5.2%	5.6%	4.6%	3.9%	3.3%	2.4%	1.6%
Other	14.6%	12.7%	8.6%	4.8%	4.2%	4.0%	2.9%	2.6%	2.8%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Source: EETT (based on data provided by the licensed operators)

Chart 1.42: OTE's market shares per call type (based on traffic volume)



Source: EETT (based on data provided by the licensed operators)

11. In the case of mergers, acquisitions, etc. the cumulative share of the said providers is presented, even for the years prior to the year of merger, acquisition, etc.



Table 1.6: OTE's market shares per call type (based on traffic volume)

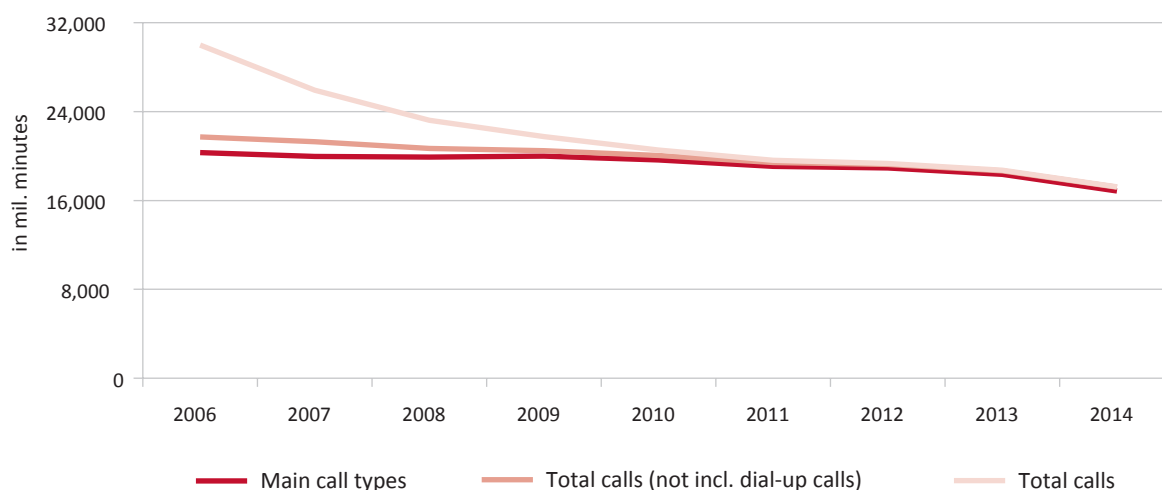
Type of call	2006	2007	2008	2009	2010	2011	2012	2013	2014	
Main call types	National fixed calls	70.9%	68.9%	68.0%	66.7%	62.8%	57.1%	52.4%	50.2%	50.2%
	Calls to mobile phones	69.9%	71.0%	71.6%	70.5%	66.2%	60.8%	57.3%	52.0%	46.9%
	International calls	64.6%	66.3%	55.4%	41.3%	29.4%	28.7%	28.2%	29.9%	29.9%
	Dial-up calls	99.3%	99.0%	98.9%	99.2%	99.5%	99.4%	99.2%	98.9%	98.3%
	Calls to personal numbers (70 series)	-	-	-	-	90.6%	83.5%	90.9%	85.9%	88.1%
	Calls to toll free numbers (800 series)	98.2%	95.2%	90.3%	83.3%	80.6%	76.8%	76.0%	75.0%	74.7%
Other call types	Calls to shared cost services (801 series)	99.4%	98.5%	95.9%	91.5%	85.1%	76.2%	67.1%	66.9%	64.7%
	Calls to short code services (3-digits, 4-digits, 5-digits) (note 1)	99.5%	95.0%	84.8%	81.7%	70.2%	64.4%	62.0%	59.4%	56.4%
	Calls to value added services (note 2)	100.0%	98.6%	95.4%	91.2%	80.0%	74.3%	59.2%	54.1%	45.7%
Main call types	70.7%	69.1%	68.1%	66.4%	61.6%	56.2%	51.8%	49.6%	49.1%	
Total calls (not including dial-up calls)	72.5%	70.9%	69.1%	66.8%	61.9%	56.4%	52.0%	49.8%	49.3%	
Total calls	79.9%	75.9%	72.3%	68.7%	62.8%	56.8%	52.2%	49.9%	49.4%	

Note 1: Up until 2009, calls to short code services included short codes for value added services.

Note 2: Up until 2009, calls to value added services pertained only to 090 calls. As of 2010, they pertain to value added services including short codes for value added services.

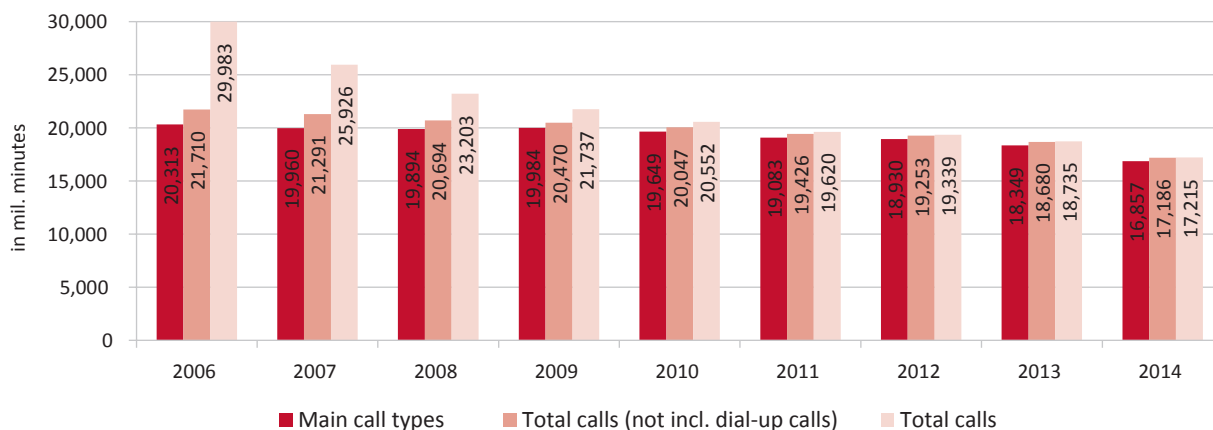
Source: EETT (based on data provided by the licensed operators)

Chart 1.43: Progress of the fixed outgoing traffic volume



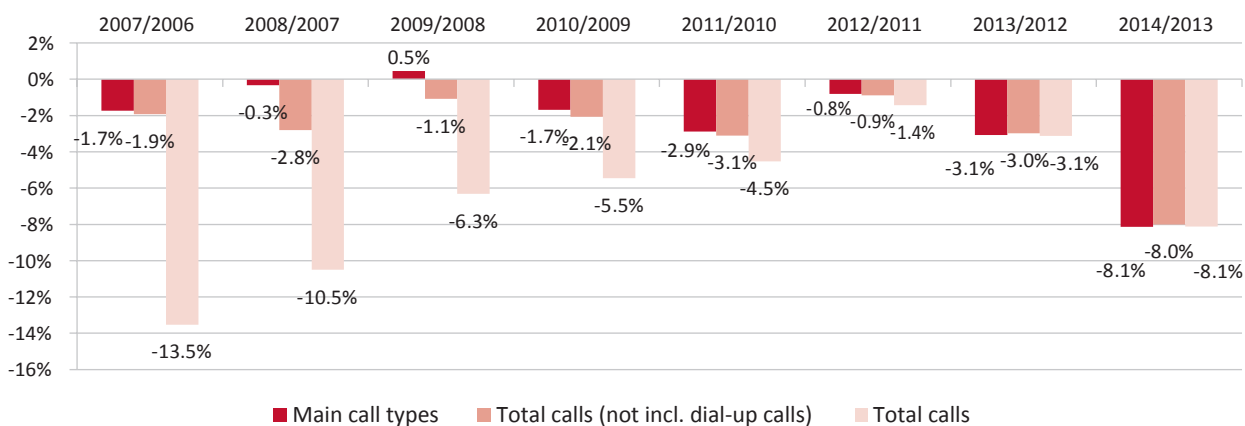
Source: EETT (based on data provided by the licensed operators)

Chart 1.44: Progress of the fixed outgoing traffic volume



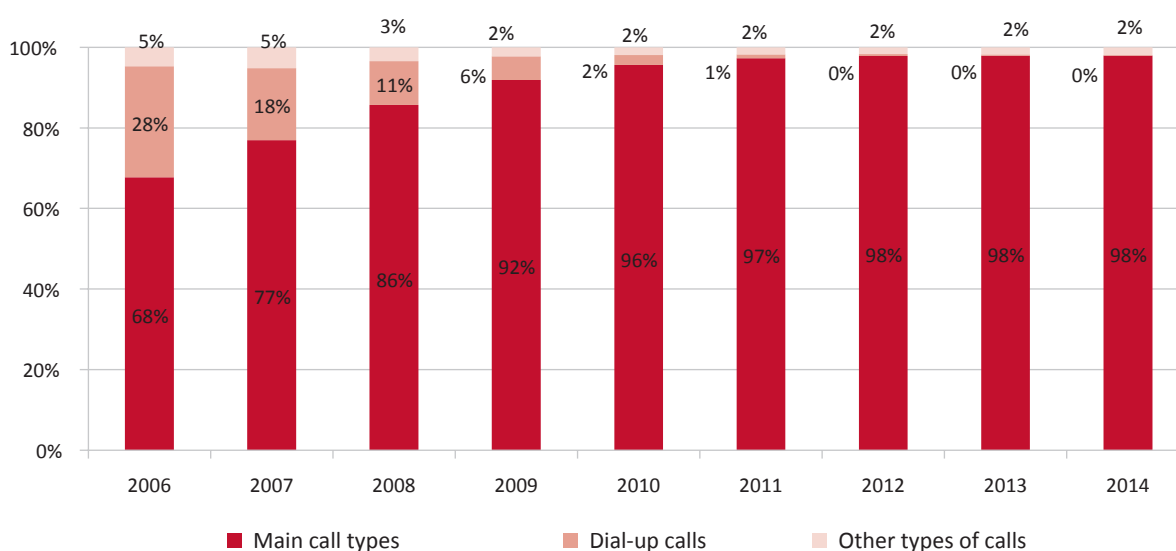
Source: EETT (based on data provided by the licensed operators)

Chart 1.45: Annual change (%) of fixed outgoing traffic volume



Source: EETT (based on data provided by the licensed operators)

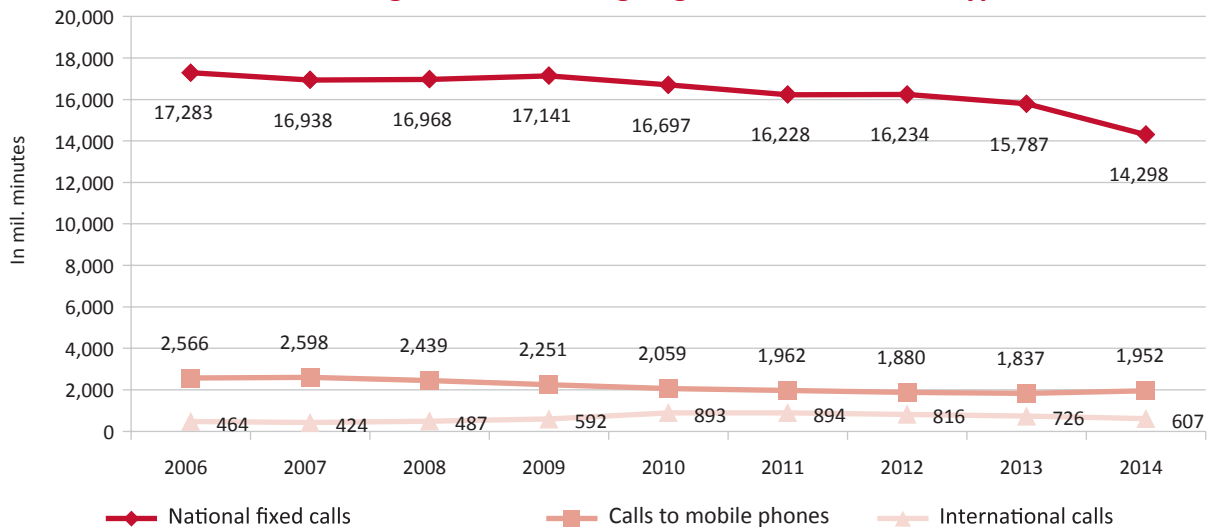
Chart 1.46: Distribution of fixed outgoing traffic



Source: EETT (based on data provided by the licensed operators)

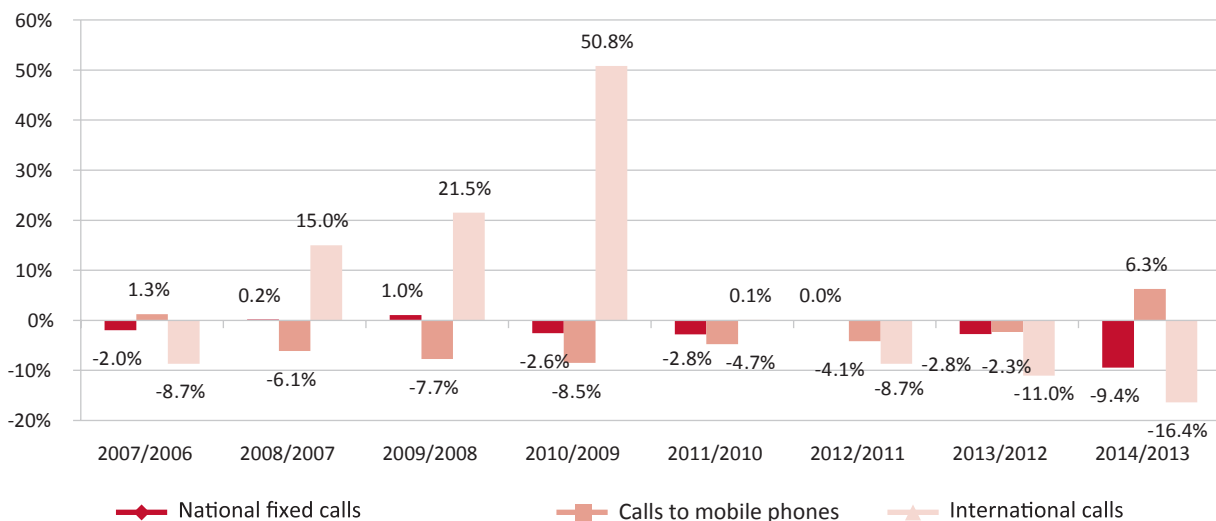


Chart 1.47: Progress of fixed outgoing traffic for main call types



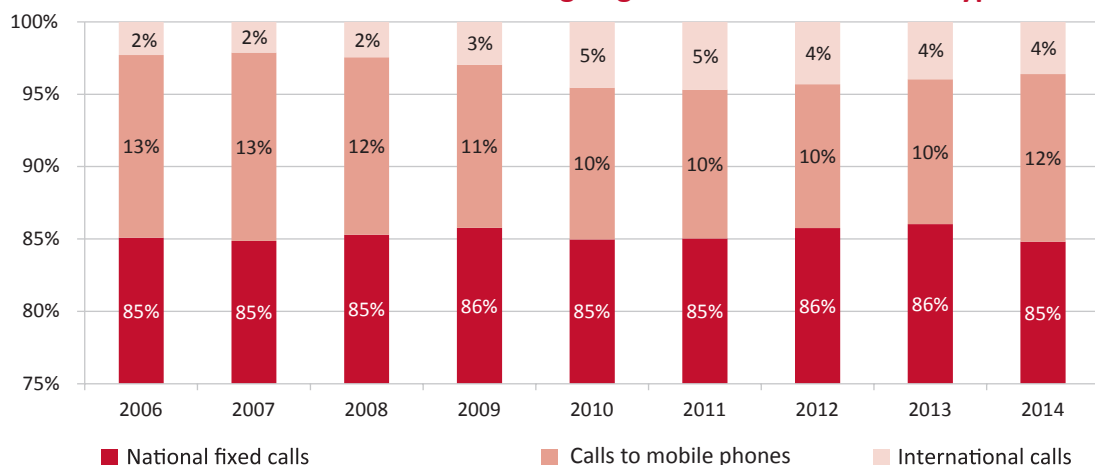
Source: EETT (based on data provided by the licensed operators)

Chart 1.48: Annual change of fixed outgoing traffic



Source: EETT (based on data provided by the licensed operators)

Chart 1.49: Distribution of fixed outgoing traffic for the main call types



Source: EETT (based on data provided by the licensed operators)

Table 1.7: Volume per call type (in bil. minutes)

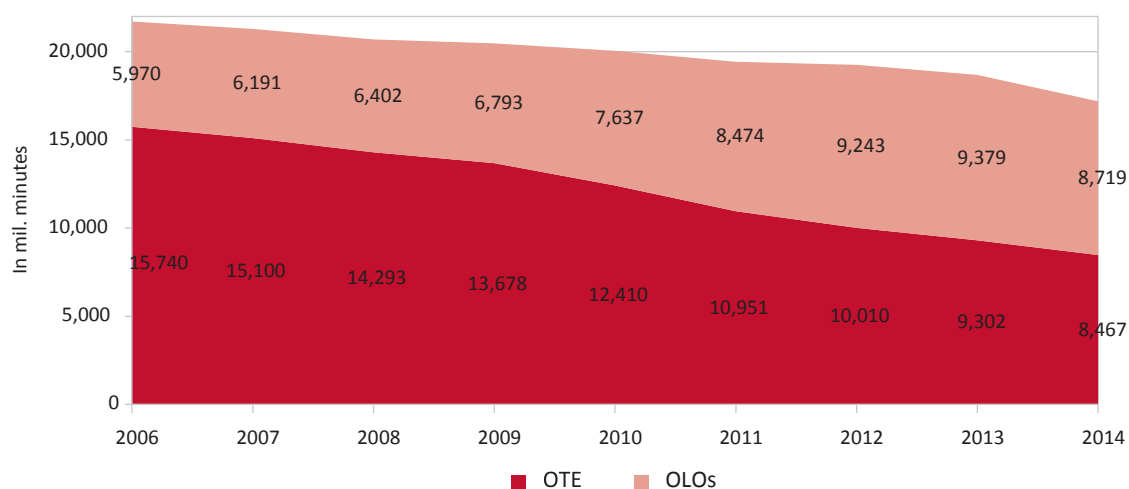
Type of calls	2006	2007	2008	2009	2010	2011	2012	2013	2014	
Main call types	National fixed calls	17,283	16,938	16,968	17,141	16,697	16,228	16,234	15,787	14,298
	Calls to mobile phones	2,566	2,598	2,439	2,251	2,059	1,962	1,880	1,837	1,952
	International calls	464	424	487	592	893	894	816	726	607
	Dial-up calls	8,273	4,635	2,508	1,267	505	194	86	55	29
	Calls to personal numbers (70 series)	-	-	-	-	0.05	0.13	0.13	0.14	0.14
	Calls to toll free numbers (800 series)	56	46	37	30	24	23	23	26	31
Other call types	Calls to shared cost services (801 series)	1,082	989	474	158	77	52	35	33	31
	Calls to short code services (3-digits, 4-digits, 5-digits) (note 1)	240	282	277	288	236	225	220	219	229
	Calls to value added services (note 2)	19	14	13	10	61	43	45	53	37
Main call types	20,313	19,960	19,894	19,984	19,649	19,083	18,930	18,349	16,857	
Total calls (not including dial-up calls)	21,710	21,291	20,694	20,470	20,047	19,426	19,253	18,680	17,186	
Total calls	29,983	25,926	23,203	21,737	20,552	19,620	19,339	18,735	17,215	

Note 1: Up until 2009, calls to short code services included short codes for value added services.

Note 2: Up until 2009, calls to value added services pertained only to 090 calls. As of 2010, they pertain to value added services including short codes for value added services.

Source: EETT (based on data provided by the licensed operators)

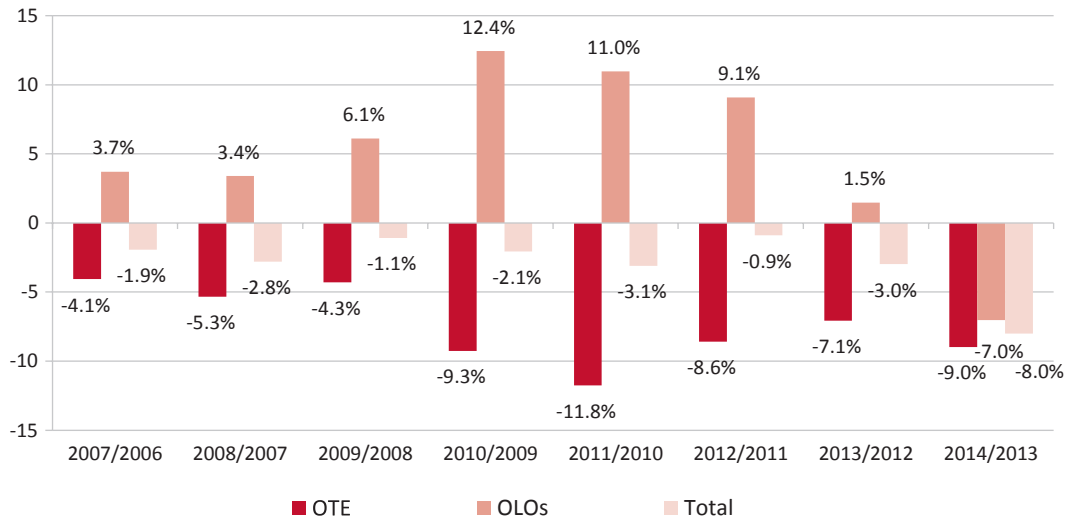
Chart 1.50: Outgoing traffic volume for OTE and OLOs (not incl. dial-up)



Source: EETT (based on data provided by the licensed operators)

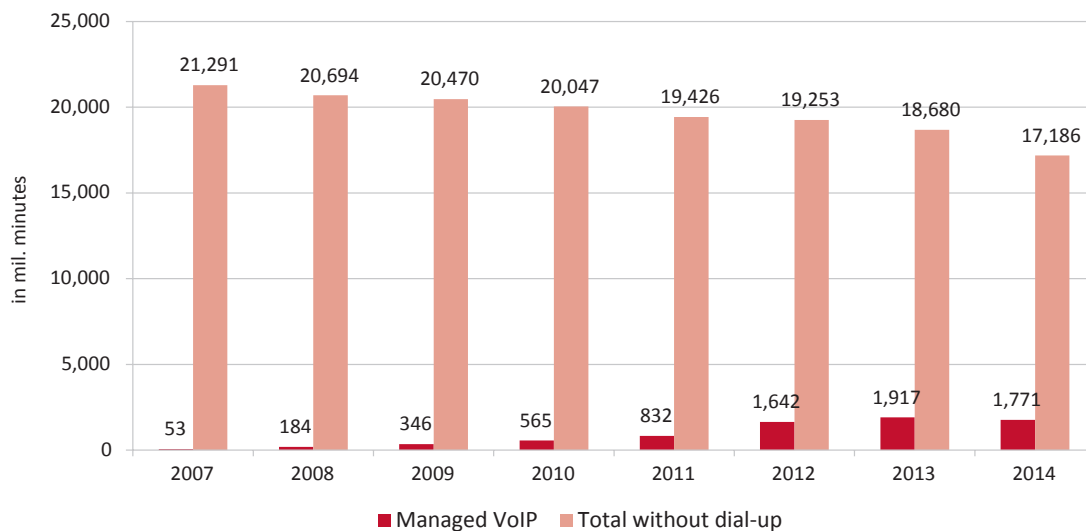


Chart 1.51: Annual change of outgoing traffic volume for OTE and OLOs (not incl. dial-up)



Source: EETT (based on data provided by the licensed operators)

Chart 1.52. Outgoing traffic volume (not incl. dial-up) and managed VoIP traffic



Note: Managed VoIP traffic is included in total traffic

Source: EETT (based on data provided by the licensed operators)

Retail revenues from rendering services to fixed access lines

Retail revenues from telephony, Internet and broadband TV con-

tent¹² are estimated for 2014 at 1,469 million euros (Chart 1.53) having decreased by 5.4% compared to 2013 (namely less by 84 million

euros). It should be mentioned that the presented data are prior to any returns to third parties and that the telephony services include reve-

12. IPTV, Video On Demand, etc.

13. Such as the initial connection/installation fees etc., the monthly rental for the access line to telephony services, revenues from additional facilities.

nues both from access¹³ as well as from all types of calls.

OTE's market share respectively (see Chart 1.54) for 2014 is estimated at 61.2% and has hardly changed during the last two years. Its respective revenues though have decreased by 5.7% the respective drop in OLO's revenues is estimated at 5%.

Chart 1.55 presents the distribution of the retail revenues from telephony, Internet and broadband TV content per category for 2014. Almost 1,165 million euros come from fixed telephony (about 79%), 292 million euros from the Internet (almost 20%) and 12 million euros from broadband TV content (less than 1%). It should be mentioned that the aforementioned data derived based on esti-

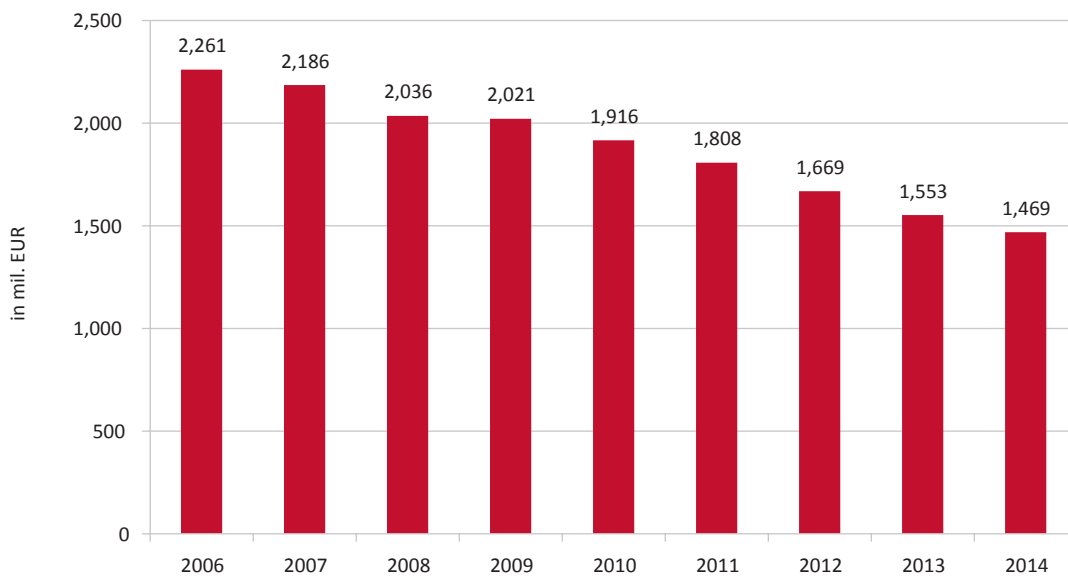
mations from most operators, since the widespread provision of bundled packages makes the identification of revenues per category more difficult. Moreover, OTE's share on the telephony revenues is estimated at 61.3% for 2014.

Lastly, the retail revenues of fixed services from the provided bundled packages (namely excluding revenues from mobile communications services decreased in 2014 to 1,033 million euros compared to 1,072 million euros in 2013 (a 3.6% drop). It should be noted that the term "bundled services packages" refers to products that combine two or more of the following services which are offered and invoiced together at fixed proportions and price:

- access to telephony (i.e., access to telephone call services) at a fixed location.
- telephone calls at a fixed location.
- broadband access at a fixed location.
- content services such as IPTV, VoD (Video On Demand), etc. at a fixed location.
- mobile communications.

Taking into account the above definition, the way that each operator provides and invoices its services (bundled or individually) plays a key role in the revenues of the bundled packages.

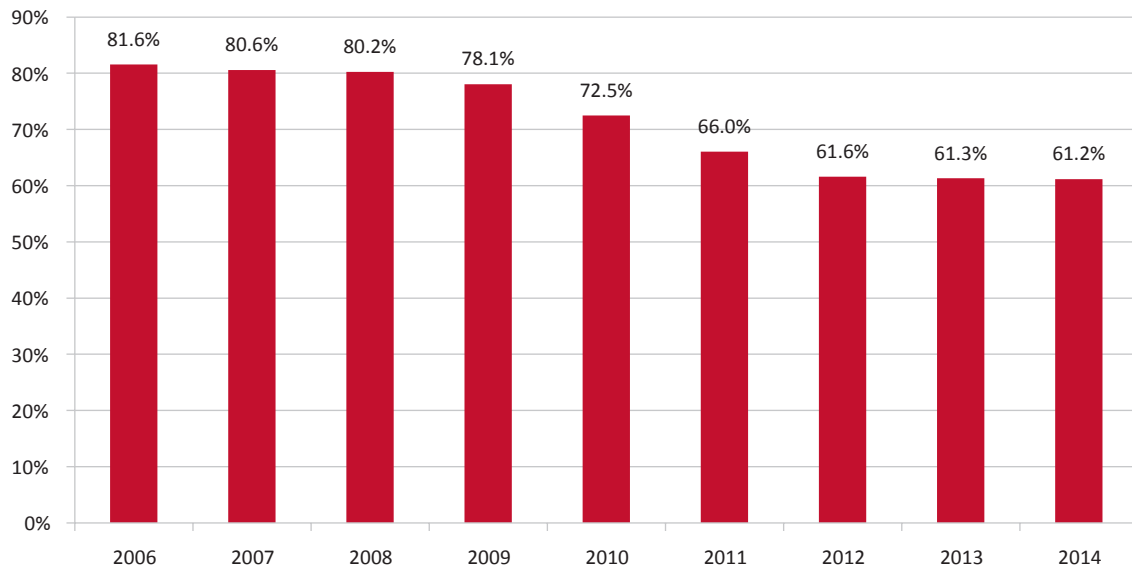
Chart 1.53: Retail revenues from the provision of telephone services, Internet and broadband TV content



Source: EETT (based on data provided by the licensed operators)

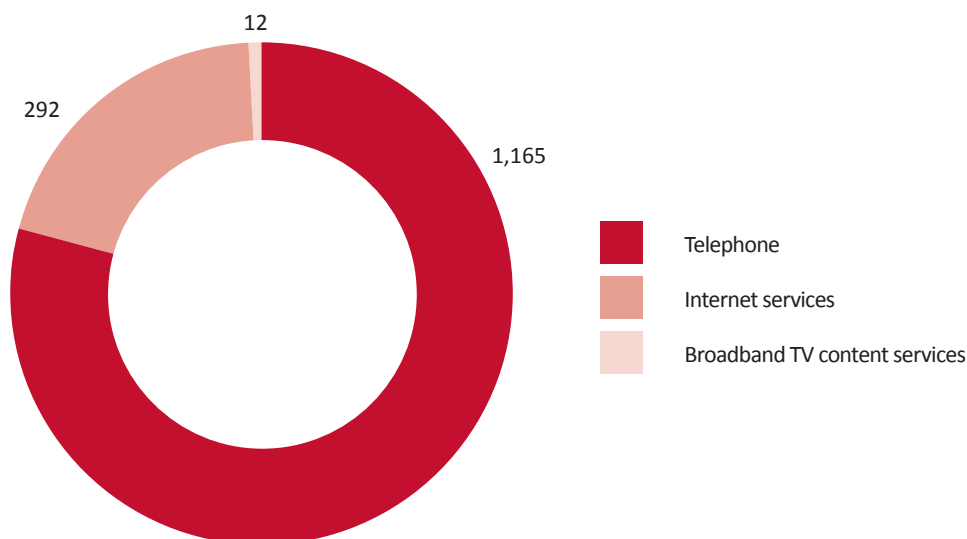


**Chart 1.54: OTE's market share
(based on retail revenues from telephony, Internet and broadband TV content services)**



Source: EETT (based on data provided by the licensed operators)

Chart 1.55: Distribution of the retail revenues from telephony, Internet and broadband TV content services (2014) (in mil. EUR)



Source: EETT (based on data provided by the licensed operators)

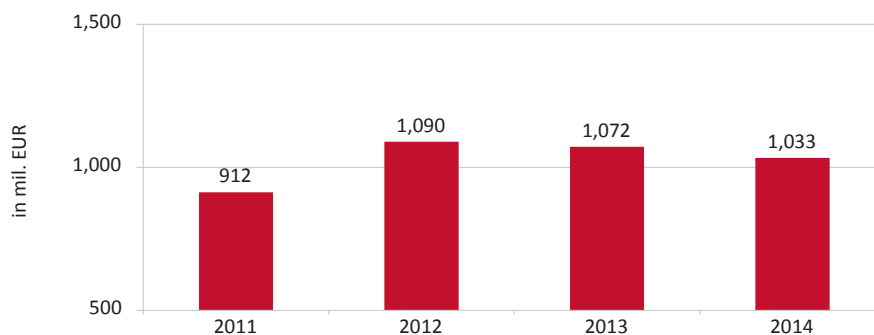
Homezone services

At the end of 2014, the number of subscribers to Homezone ser-

vices is estimated at 142 thousands, having decreased by 11% compared to the end of 2013 (see

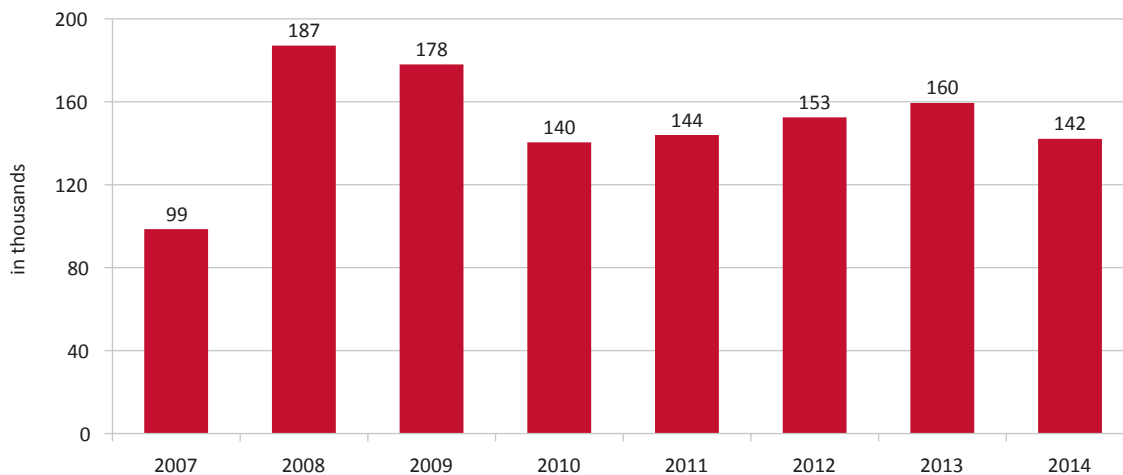
Chart 1.57), whilst traffic dropped by 7%, amounting to roughly 300 million minutes.

Chart 1.56: Retail revenues (of fixed services) from bundled services packages



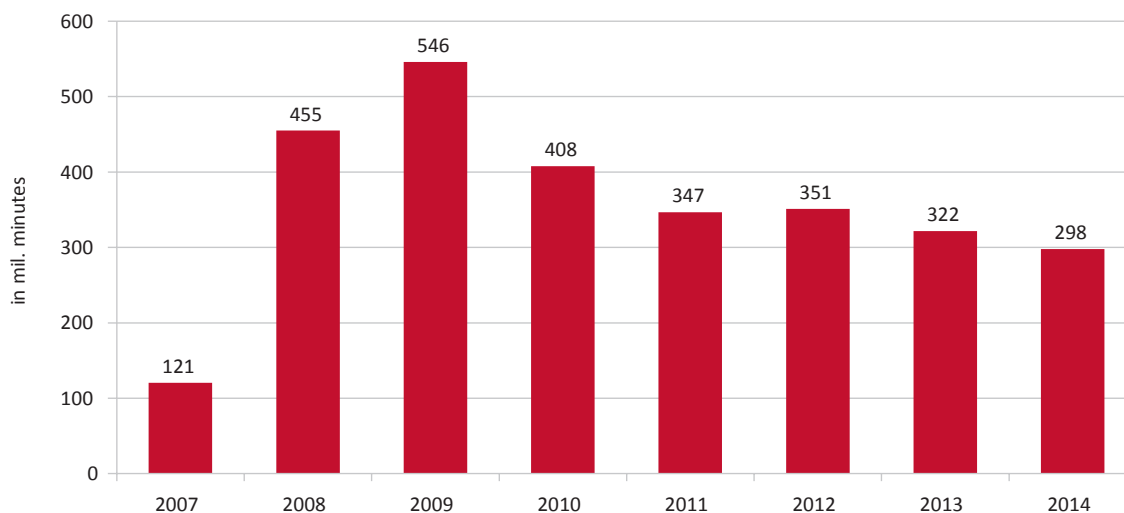
Source: EETT (based on data provided by the licensed operators)

Chart 1.57: Homezone subscriptions



Source: EETT (based on data provided by the licensed operators)

Chart 1.58: Outgoing traffic from telephony services rendered in zone from Homezone packages



Source: EETT (based on data provided by the licensed operators)



1.2.4. Mobile Communications

Subscriptions

In 2014, mobile telephony subscriptions¹⁴ dropped slightly both as total connections and as active subscriptions/connections¹⁵. The total number of connections, at the end of 2014, was 15.6 compared to 15.8 million subscriptions at the end of 2013, decreased by approximately 1.1% (Table 1.8 and Chart 1.59). It should be mentioned that the 2012 and 2013 data have been revised in order to pertain solely to mobile telephony users (excluding datacards)

and be consistent with previous years' figures.

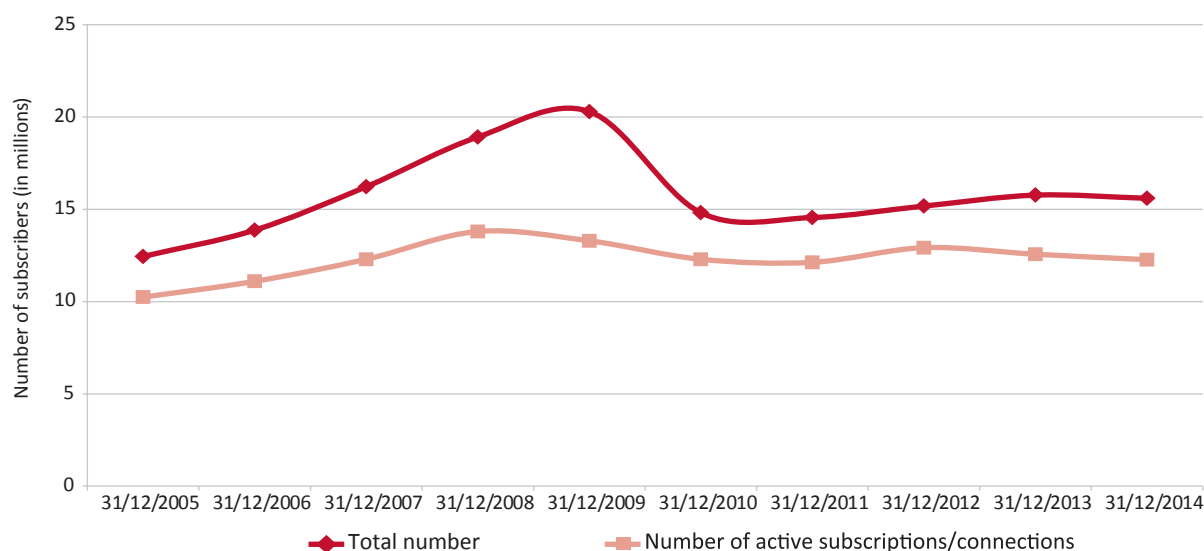
The number of active connections fell from 12.6 to 12.3 million connections, falling by 2.4%. With respect to the various connection categories (Chart 1.60), postpaid connections have stabilized at 4.3 millions (as in 2013), whilst total prepaid connections dropped slightly by 1.4% (from 11.4 millions at the end of 2013 to 11.3 millions at the end of 2014). Moreover, the number of active prepaid connections fell by 3.8%, i.e., from 8.2 millions at the end of 2013 to 7.9

millions at the end of 2014.

Regarding the MTO's shares over the total number of subscribers (Chart 1.61), COSMOTE's share fell from 45.6% to 44.6% at the end of 2014, WIND's share fell from 25.4% to 24.8%, whilst VODAFONE's share increased from 29.0% to 30.4%.

In October 2014, the penetration of active mobile telephony subscriptions in the population of Greece changed from 123% to 119%, while the EU-28 average is 134% (Chart 1.62%).

Chart 1.59: Mobile telephony connections/subscriptions



Source: EETT (based on data provided by the licensed operators)

14. The term used is "connection" or "subscription" instead of "subscriber". It is not the number of subscribers as individuals or legal entities that are recorded, but the total connections/subscriptions, as one subscriber may possibly have one or numerous subscriptions/connections.

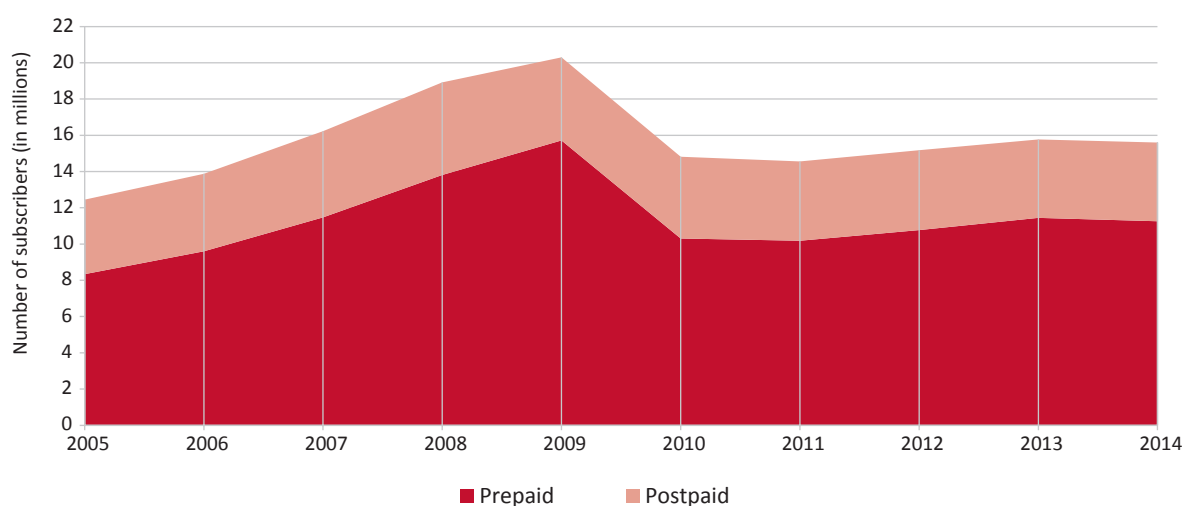
15. "Active connections" or "active subscriptions" are defined as connections/subscriptions that have generated retail or wholesale revenue within the last quarter.

Table 1.8. Total and active connections/subscriptions (without datacards)

	Dec. 2006	Dec. 2007	Dec. 2008	Dec. 2009	Dec. 2010	Dec. 2011	Dec. 2012	Dec. 2013	Dec. 2014
Total connections	13,874,674	16,226,675	18,918,092	20,298,102	14,815,705	14,557,672	15,176,344	15,769,839	15,599,760
Active connections	11,097,515	12,294,912	13,799,340	13,295,093	12,292,716	12,127,985	12,921,908	12,566,008	12,270,675

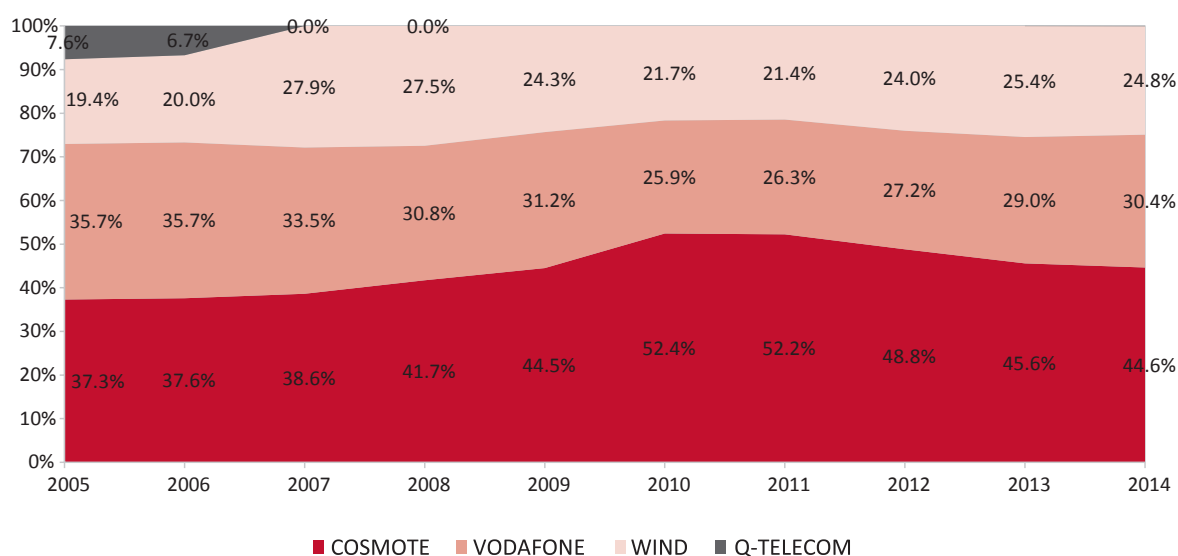
Source: EETT

Chart 1.60: Progress of the mobile telephony subscribers (prepaid and postpaid)



Source: EETT (based on data provided by the licensed operators)

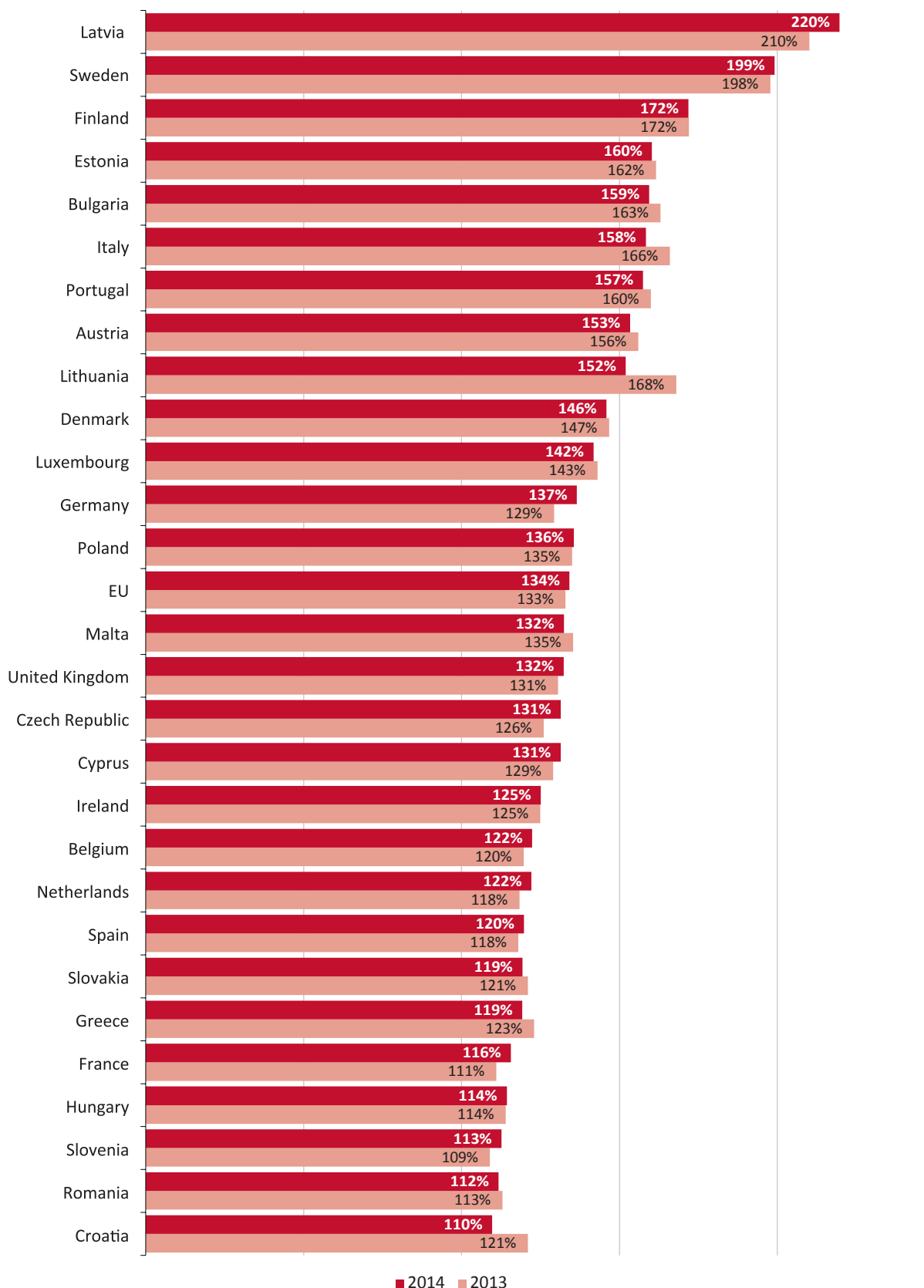
Chart 1.61: MTOs market shares in the number of mobile telephony connections



Source: EETT (based on data provided by the licensed operators)



Chart 1.62: Mobile telephony penetration in the EU



Source: European Commission (Digital Agenda Scoreboard 2015)

The use of mobile telephony networks

The use of mobile telephony networks continued to decline, given that besides data services that were considerably increased, all other categories (voice calls, short message services (SMS) and multimedia messaging services (MMS) declined.

Voice calls

- The volume of voice calls (based on wholesale interconnection) amounted to 27 billion minutes in 2014, increased by 1.2% compared to 2013 (26.7 billion minutes) (Chart 1.63).
- Despite the 5% drop, the largest volume of voice calls was the on-net mobile traffic (between subscribers of the same network) that amounted to 18.3 billion minutes (from 19.3 billion minutes in 2013) and constitutes 68% of the total volume of voice calls (compared to 72% in 2013) (Chart 1.64).
- Both the off-net mobile voice calls as well as calls to fixed numbers rose (30.9% and 7.3% respectively).
- International calls fell by 11.9% (Chart 1.65).

Chart 1.66 shows the volume of voice calls per user category, where prepaid users are steadily under 50% (49%), followed by home users (37.7%) and business postpaid users (14.6%).

Short Message Services (SMS)

- The total number of SMSs registered yet again another drop by 23.3% and reached 4.5 billions

compared to 5.9 billions in 2013 (Chart 1.67).

- In 2014, the vast majority of SMSs were also on-net, which amounted to 75% (compared to 82% in 2013) whilst the number of off-net SMSs increased. Furthermore, the roaming SMSs increased considerably (from 32.2 millions in 2013 to 97 million in 2014).
- With respect to user category, SMSs from prepaid card users (that represent 58% of all SMSs, compared to 65% in 2013) experienced the greatest prepaid, falling by 31%, amounting to 2.7 billions from 3.9 billions in 2013 (Chart 1.69).

Multimedia Message Services (MMS)

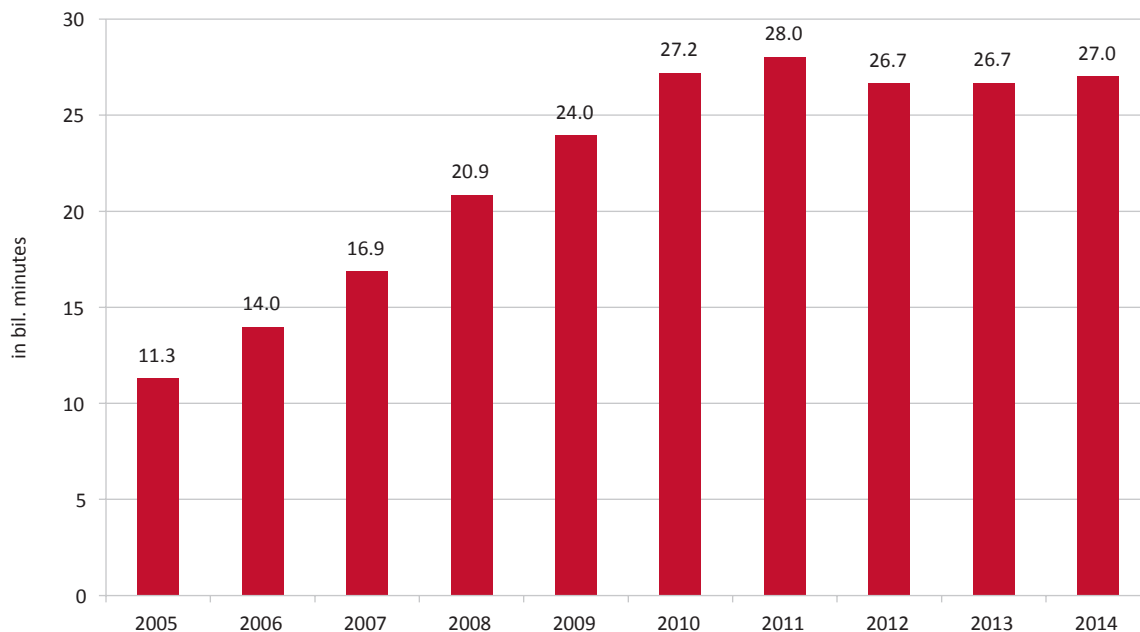
- MMSs were further reduced by 11.5% and reached 14.9 millions at the end of 2014, compared to 16.8 millions at the end of 2013 (Chart 1.70). It should be mentioned that the volume of MMSs was reduced almost by half compared to 2010 (29 millions).

Data services

- Data services, via mobile telephony networks, were significantly increased by 45%, reaching 21 billion MB for 2014 compared to 14.67 billion MB in 2013 (Chart 1.72).
- The majority of data was transferred via mobile telephones (59% compared to 40% in 2013), while the remaining 41% (compared to 60% in 2013) was transferred via other portable devices using datacards.

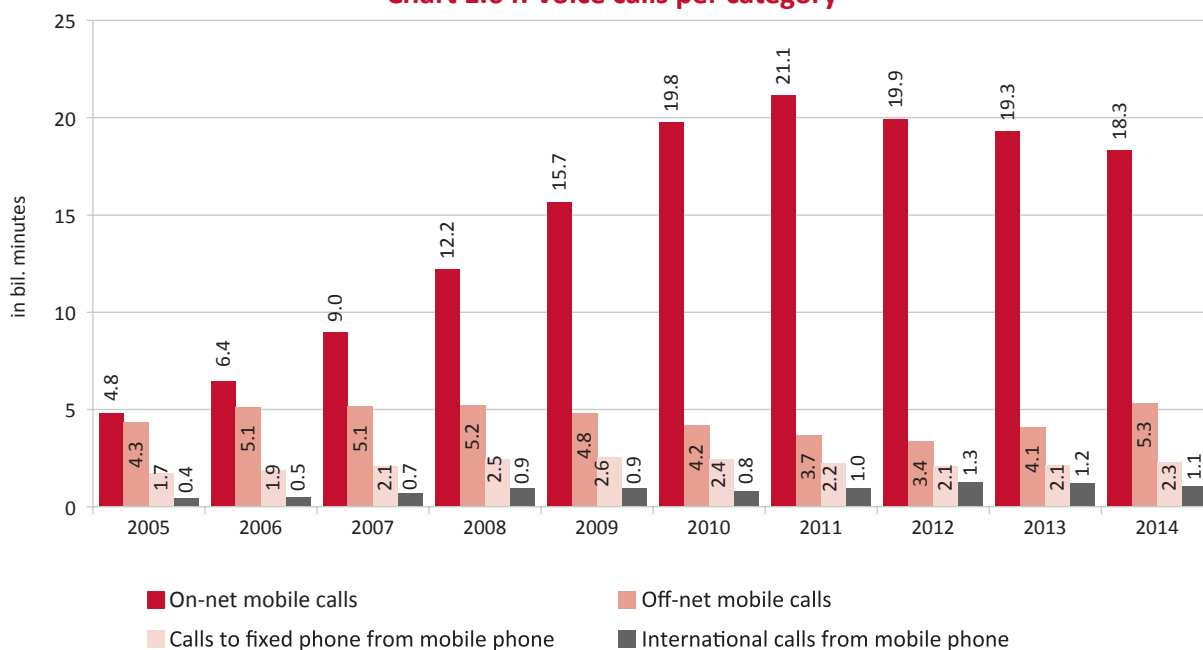


Chart 1.63: Volume of voice calls originating from mobile phones



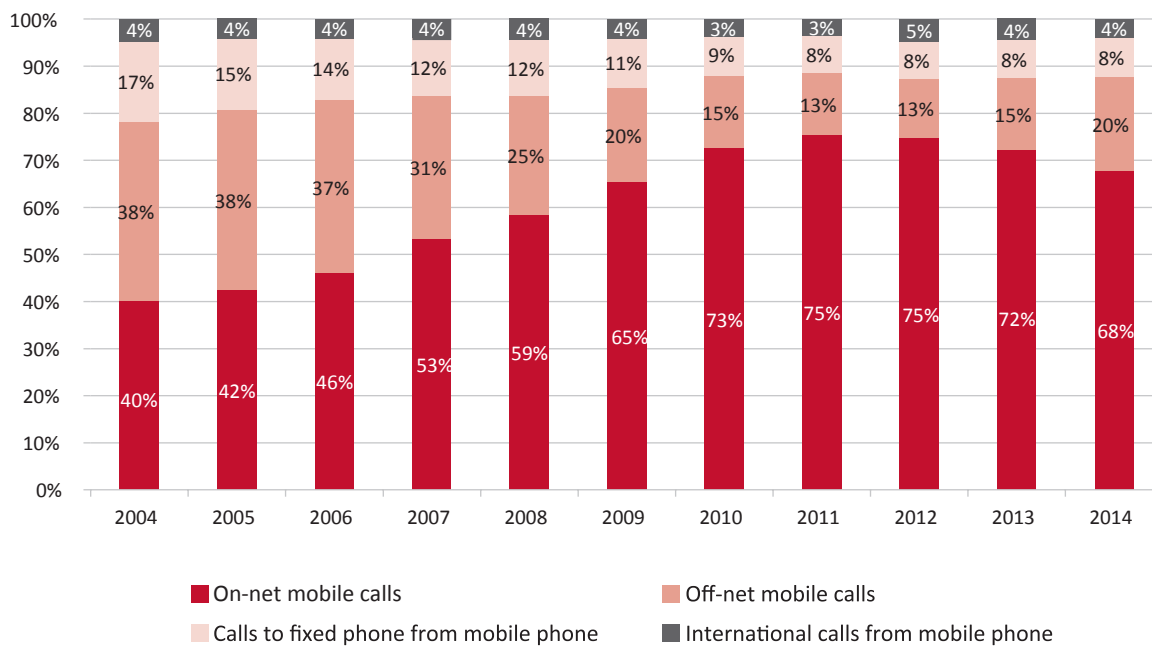
Source: EETT (based on data provided by the licensed operators)

Chart 1.64: Voice calls per category



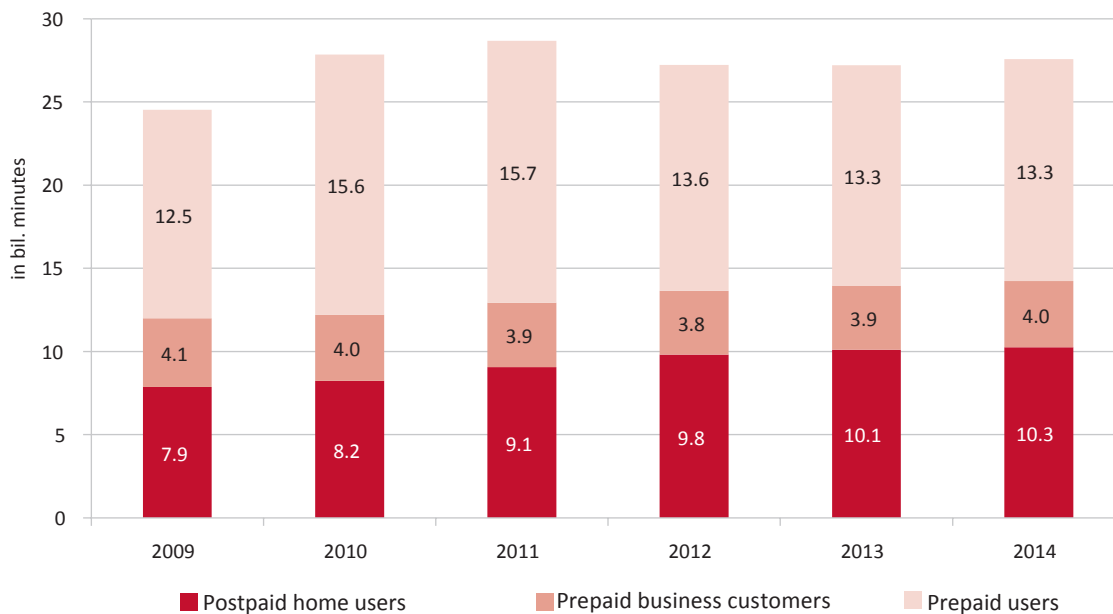
Source: EETT (based on data provided by the licensed operators)

Chart 1.65: Voice calls per category



Source: EETT (based on data provided by the licensed operators)

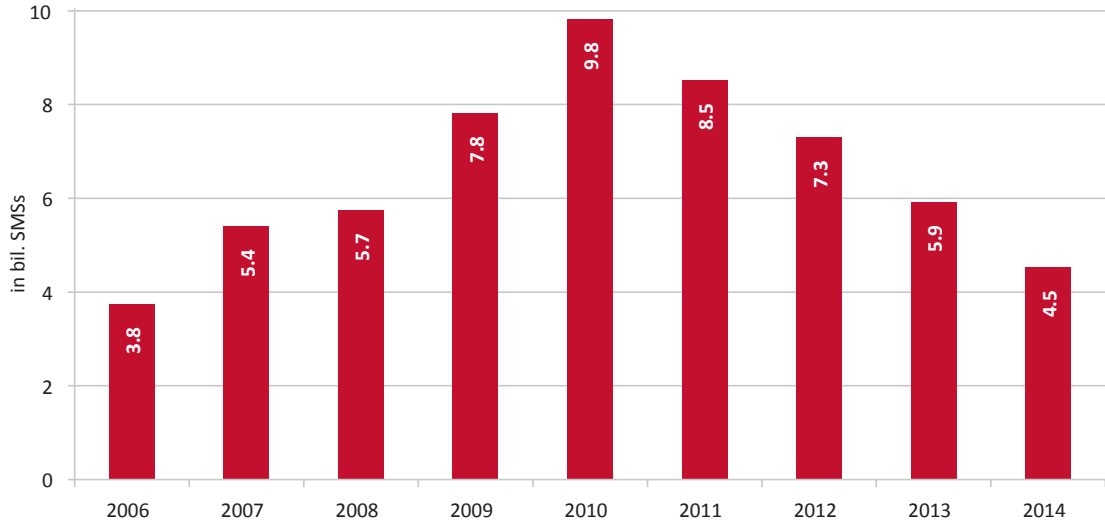
Chart 1.66: Voice calls per user category



Source: EETT (based on data provided by the licensed operators)

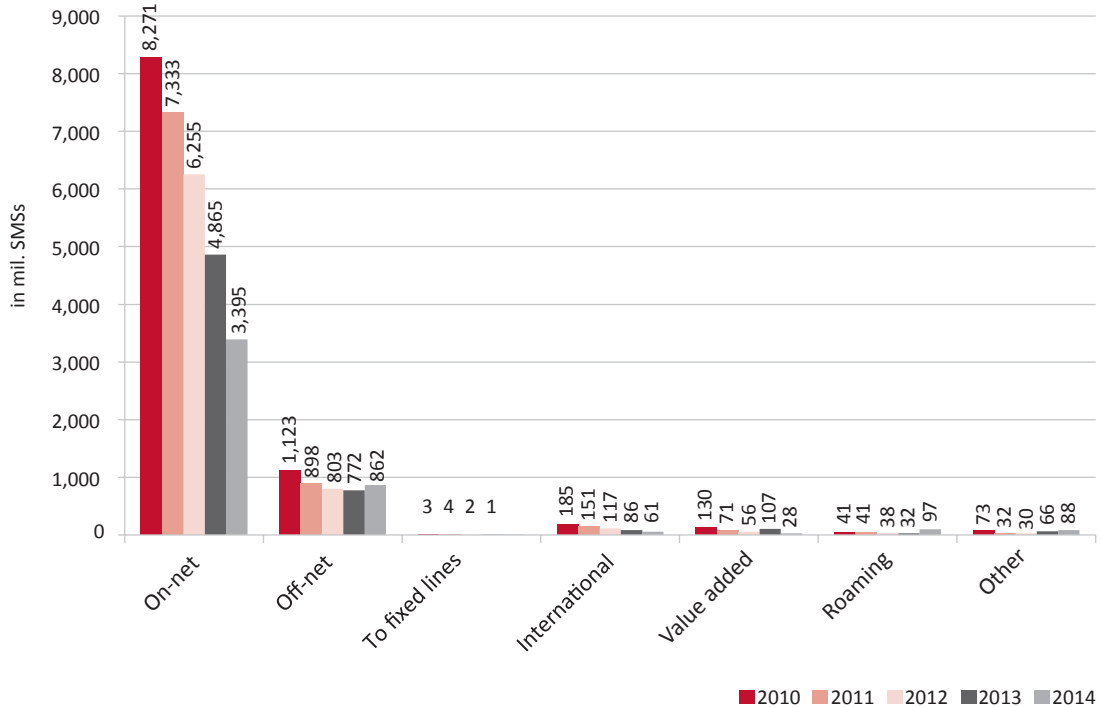


Chart 1.67: Total number of SMSs



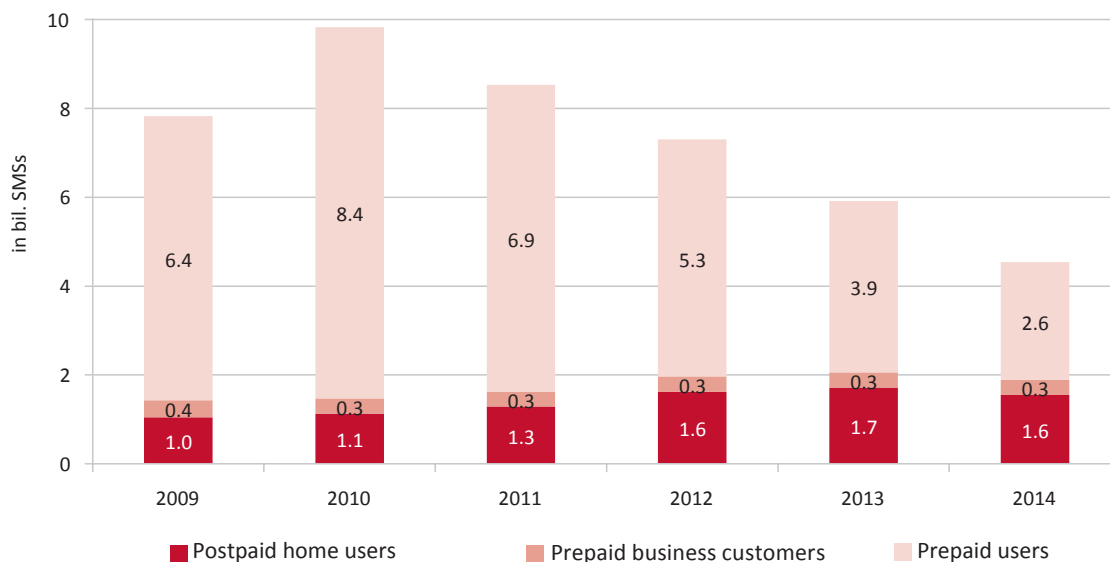
Source: EETT (based on data provided by the licensed operators)

Chart 1.68: SMSs per category



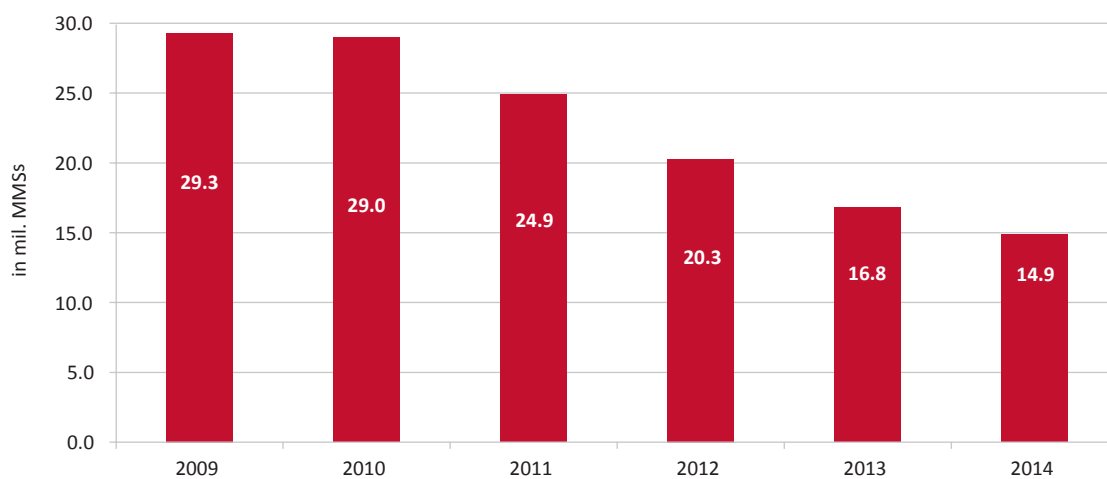
Source: EETT (based on data provided by the licensed operators)

Chart 1.69: SMSs per user category



Source: EETT (based on data provided by the licensed operators)

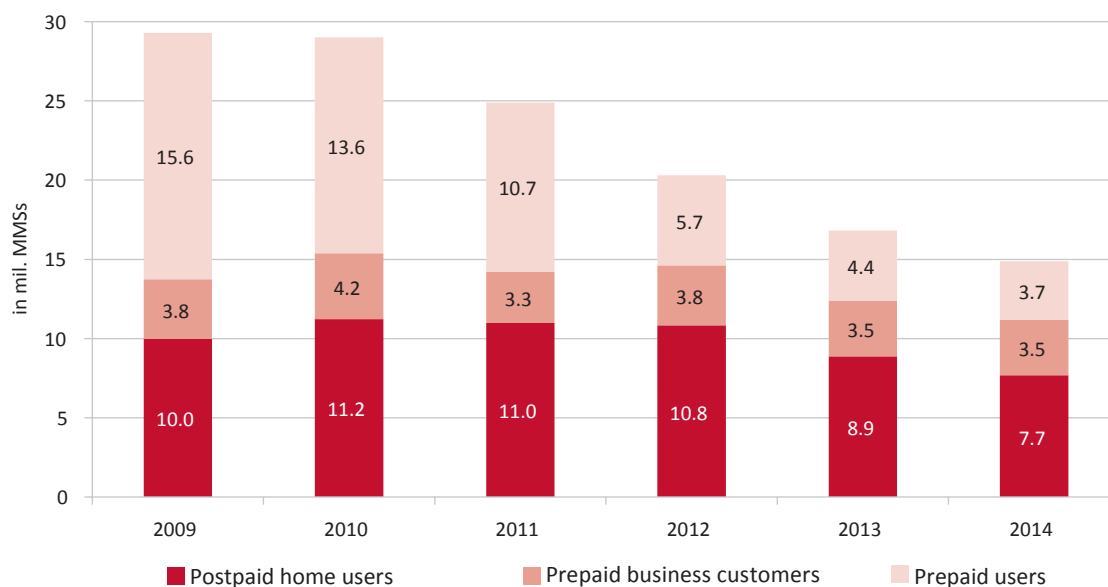
Chart 1.70: Total MMSs



Source: EETT (based on data provided by the licensed operators)

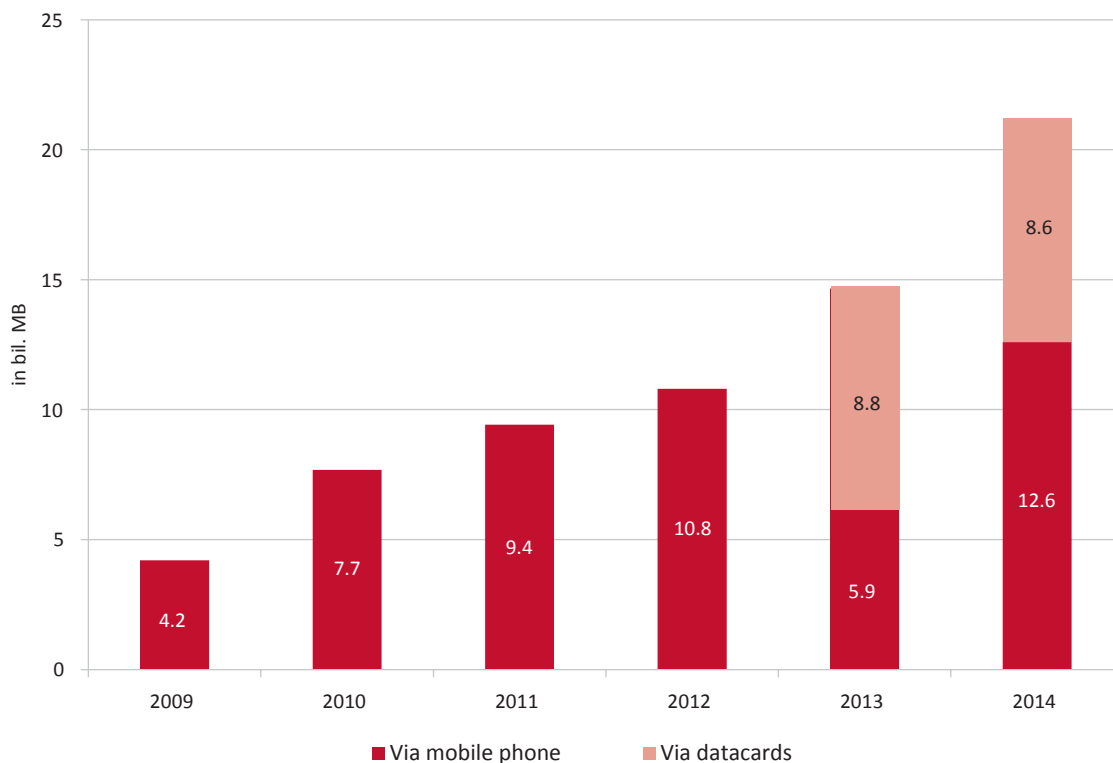


Chart 1.71: MMSs per user category



Source: EETT (based on data provided by the licensed operators)

Chart 1.72: Total number (MB) of data services



Source: EETT (based on data provided by the licensed operators)

Mobile telephony revenues

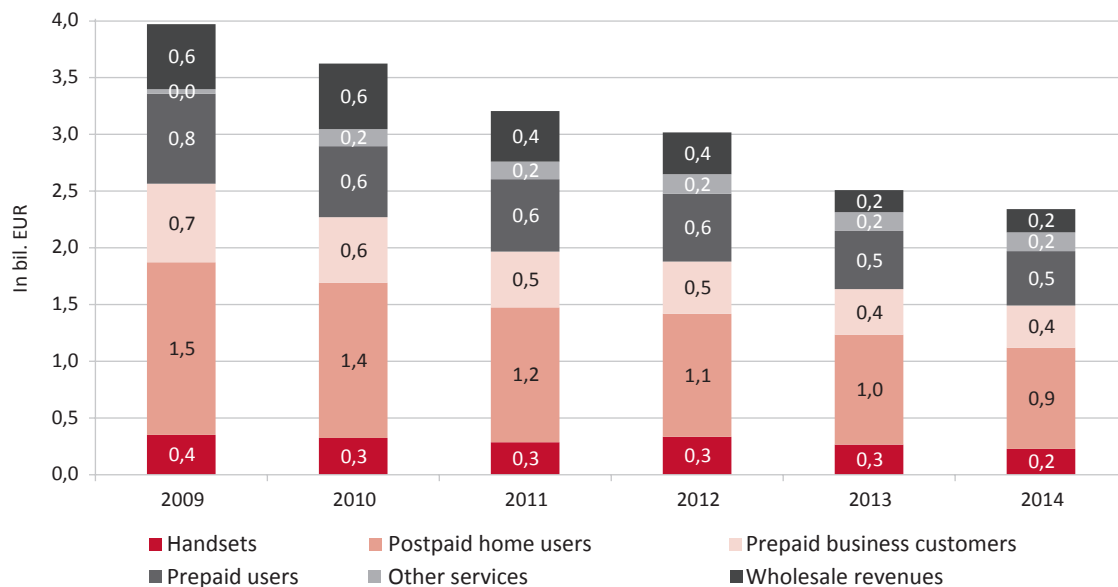
In 2014, the mobile telephony retail revenues per category (handsets, postpaid, prepaid etc.) fell further by 6.7%, amounting to 2.3 billion euros (compared to 2.5 billion euros in 2013) (Chart 1.73). Individual revenue categories also dropped,

with the largest decline experienced by revenues from handsets (14%), followed by the home users (7.9%) and postpaid business customers revenues (7.6%).

The average revenue per postpaid and prepaid user amounted to 291 euros (decreased by 7.2%)

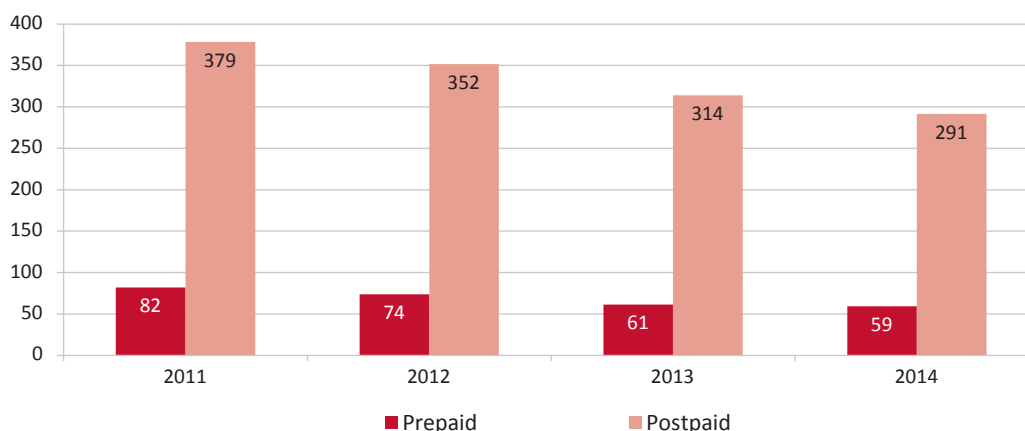
and 59 euros (decreased by 3.2%) respectively, compared to the previous year (Chart 1.74). As regards the average revenue per mobile telephony user in the EU member states (2013 data), Greece with 143 euros (compared to 168 euros in 2012) continues to be below the EU average (168 euros) (Chart 1.75).

Chart 1.73: Mobile telephony retail revenues



Source: EETT (based on data provided by the licensed operators)

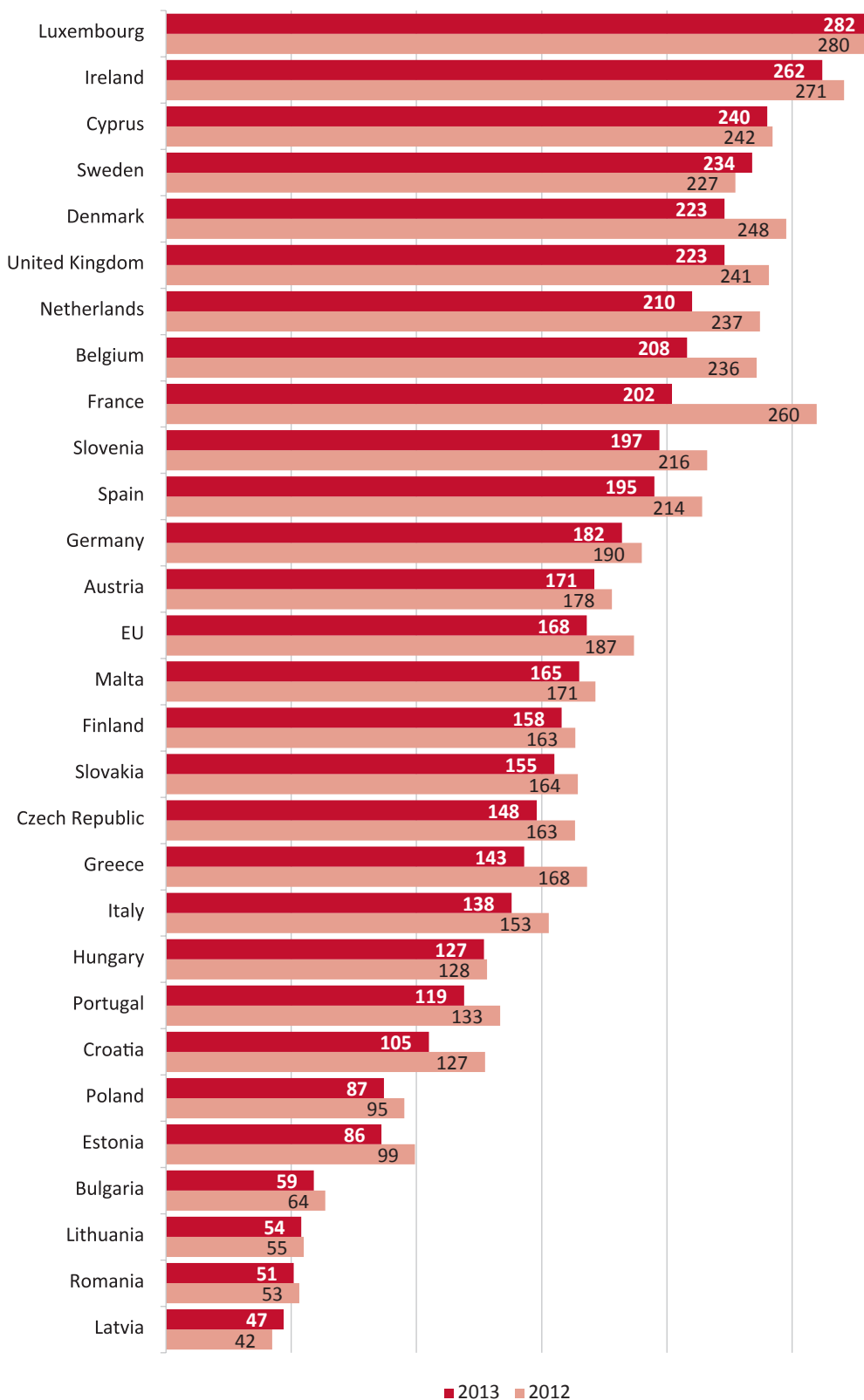
Chart 1.74: Average revenue per mobile user



Source: EETT (based on data provided by the licensed operators)



Chart 1.75: Average revenue per mobile telephony user (ARPU) in the EU



Source: European Commission, Digital Agenda Scoreboard 2015

1.2.5. Comparing fixed telephony to mobile telephony

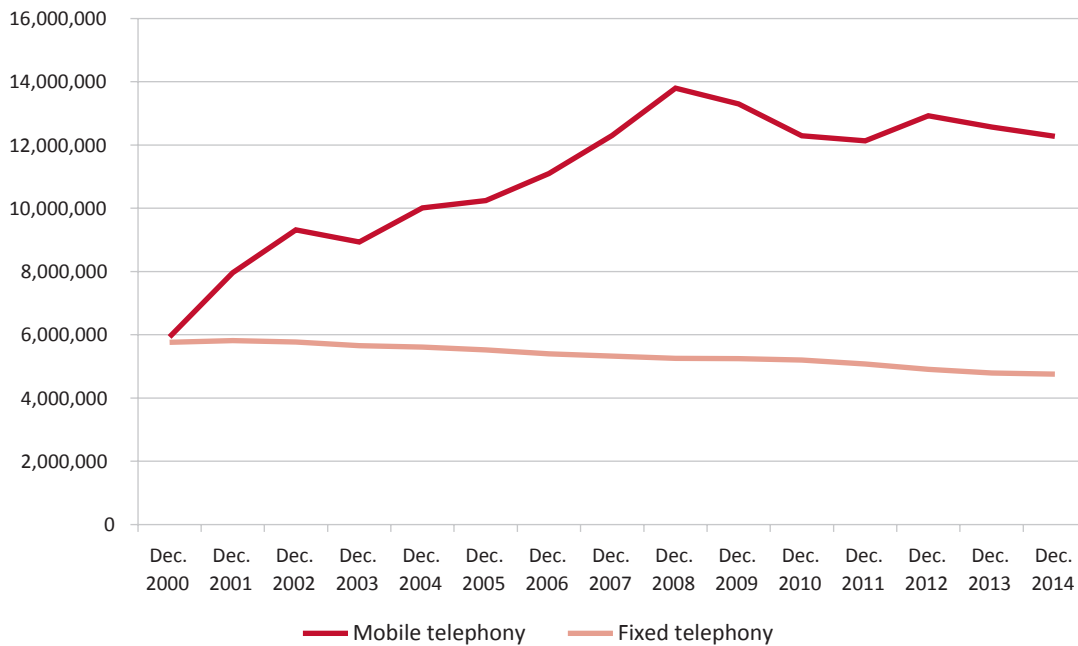
As depicted in Chart 1.76, in 2000 the fixed telephony subscriptions/connections were at the same level with those of mobile telephony (5.8 and 5.9 millions respectively). The mobile telephony connections have drastically increased during the following years and amounted to 12.3 millions in 2014 (a 107% increase compared to 2000). The fixed telephony connections registered a small but continuous decrease and reached 4.8 millions in 2014 (a 17% drop compared to 2000).

Moreover, Chart 1.77 shows the progress of the fixed and mobile telephony revenues for the period 2011-2014. Despite that most revenues are deriving from the mobile telephony, the general course of the revenues is downward (with the exemption of the fixed telephony revenues during 2011-2012). The drop in the mobile telephony revenues compared to 2011 is estimated at 27% and the respective one for fixed telephony revenues is 6% (compared to 2012).

The volume of calls from mobile phones, which since 2008,

have exceeded those from fixed phones, increased by 1.2% compared to 2013 and corresponded to 62% of total traffic (compared to 59% in 2013). Calls from fixed phones continued their downward trend and in 2014 amounted to 16.9 million minutes, compared to 18.3 million minutes in 2013 (down by 8.1%). Charts 1.78 and 1.79 present the traffic volume from fixed and mobile phones and the respective market shares, taking into account national fixed calls, calls to mobile phones as well as international calls.

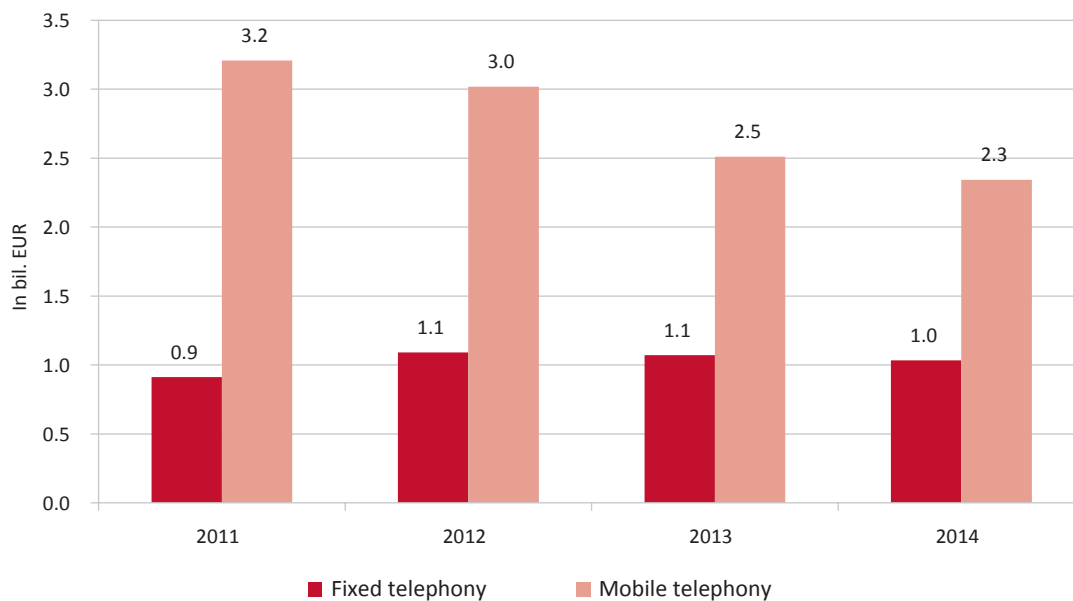
Chart 1.76: Connections/subscriptions for fixed and mobile telephony



Source: EETT (based on data provided by the licensed operators)

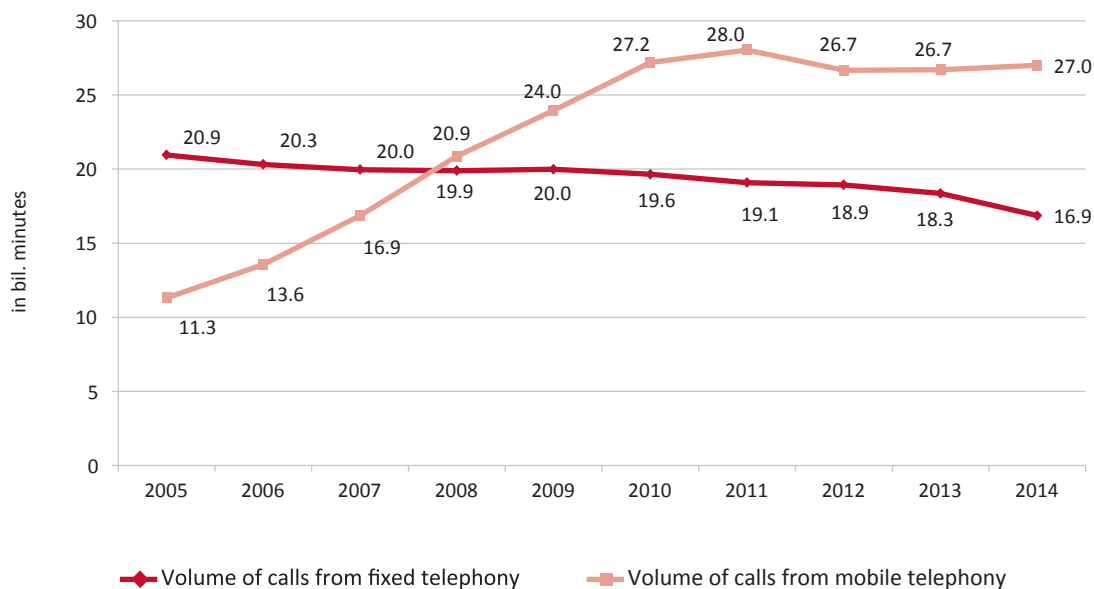


Chart 1.77: Revenues for fixed and mobile telephony



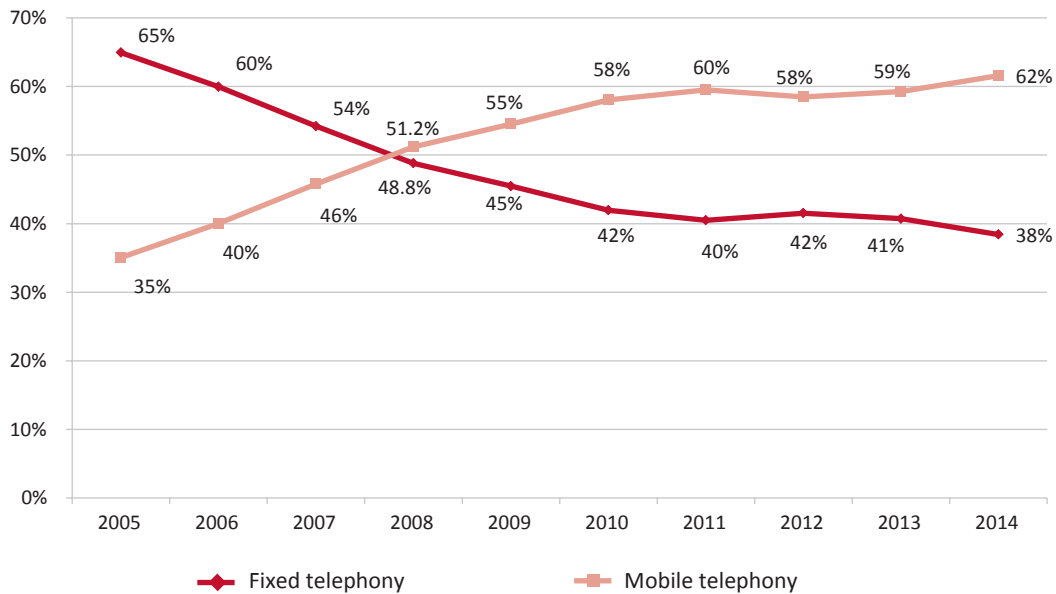
Source: EETT (based on data provided by the licensed operators)

Chart 1.78: Volume of calls from fixed and mobile phones



Source: EETT (based on data provided by the licensed operators)

Chart 1.79: Market shares of fixed and mobile telephony



Source: EETT (based on data provided by the licensed operators)

1.2.6. Interconnection

Fixed telephony

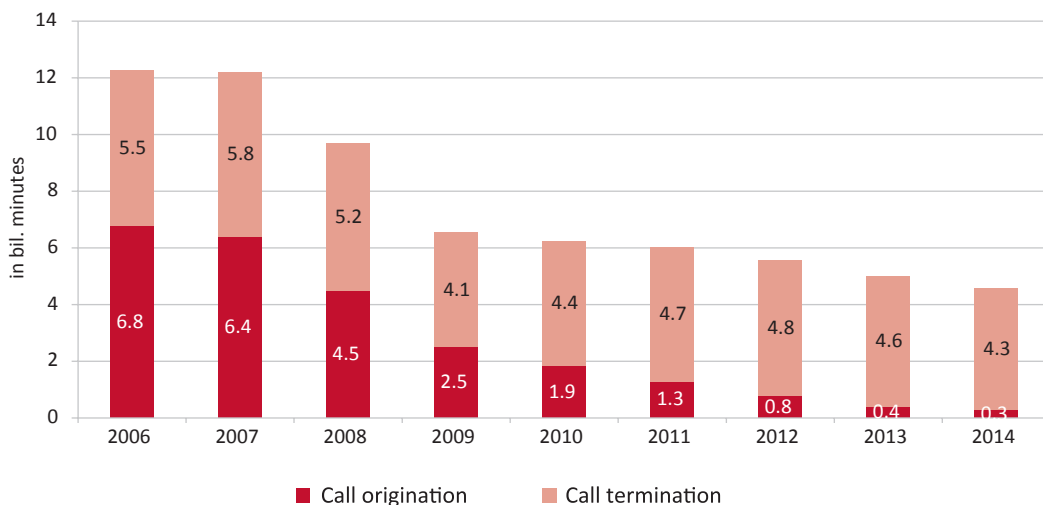
Chart 1.80 presents the interconnection traffic of OLOs over time including call origination and termination from/to OTE's network. During 2014, call origination continued its downward trend and amounted to 280

million minutes (a 31% drop compared to 2013). Similarly, call termination dropped by 7% compared to 2013 (4.28 billion minutes compared to 4.59 billion minutes respectively).

Charts 1.81-1.82 present the actual local and single termination fees in the EU member states, according to

the Body of European Regulators for Electronic Communications (BEREC). The data show that Greece is among the countries with the lowest charges, given that at the end of 2014, it was ranked 6th for local fee, and 3rd for the single fee, thus being in both cases below the EU average.

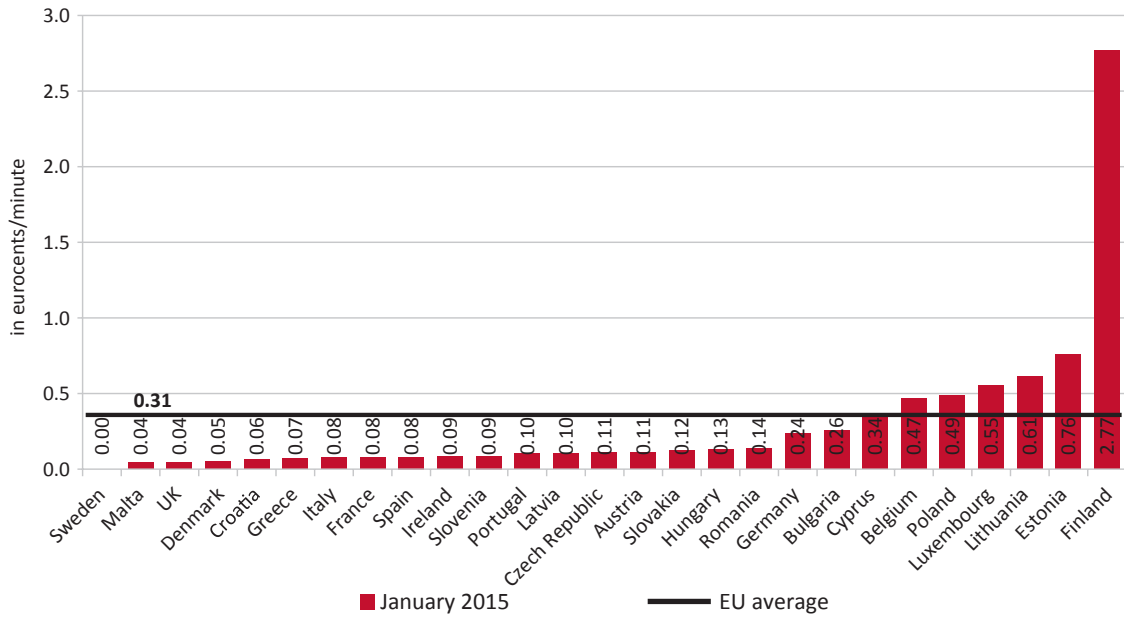
Chart 1.80: Interconnection traffic of alternative operators via OTE



Source: EETT (based on data provided by the licensed operators)

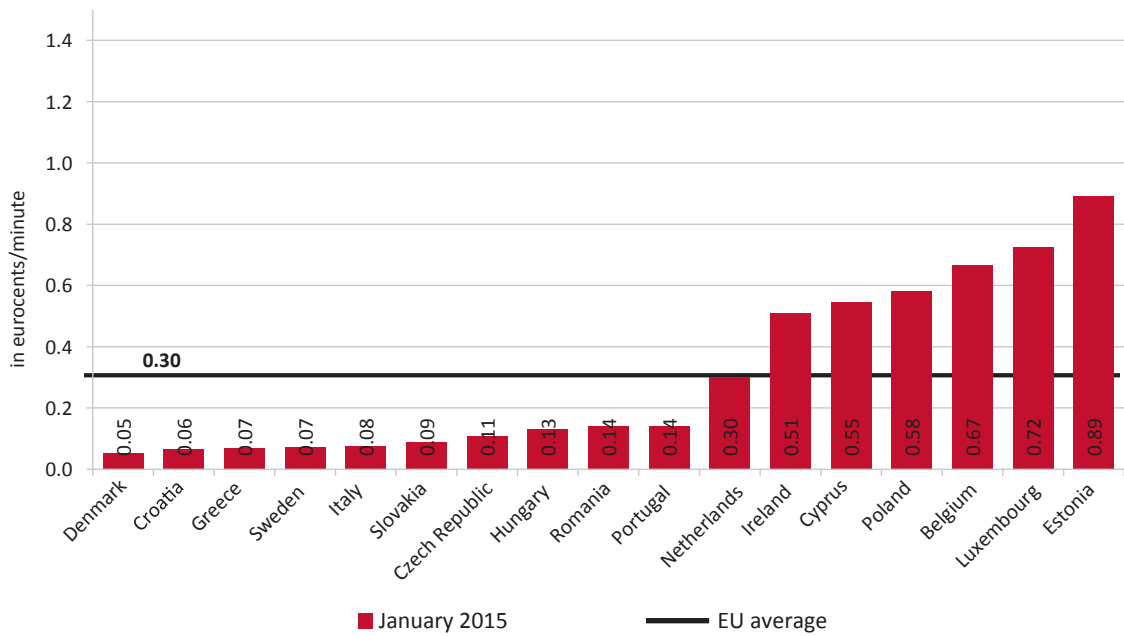


Chart 1.81: Actual local interconnection fees (January 2015)



Source: BEREC

Chart 1.82: Actual single interconnection fees (January 2015)



Source: BEREC

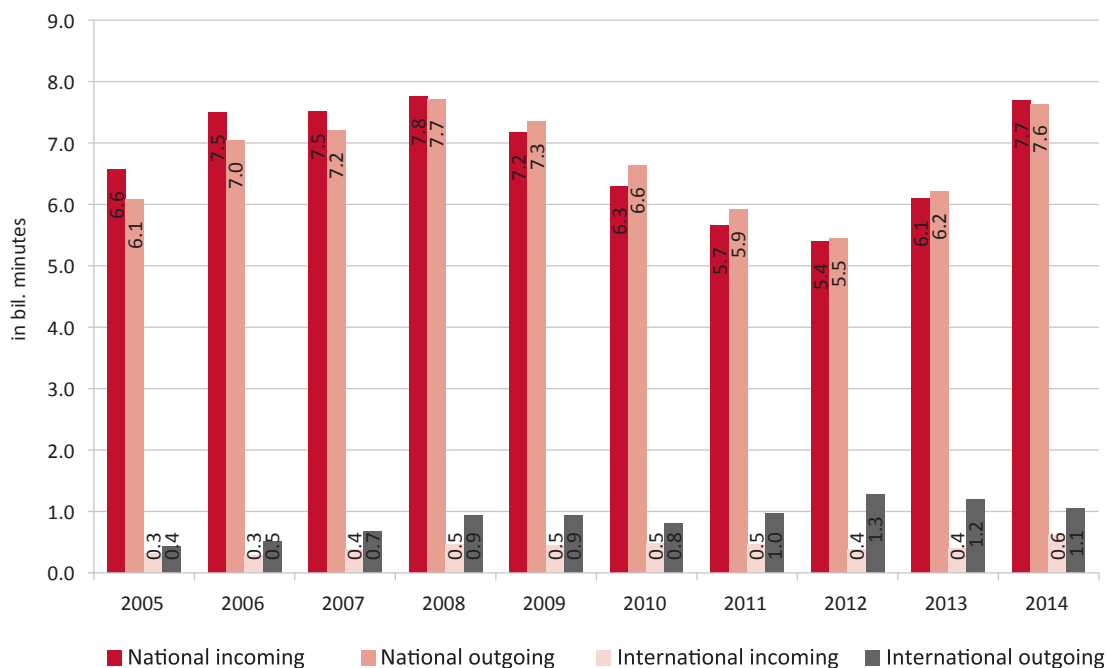
Mobile Telephony

The Interconnection traffic for MTOs in 2014 increased significantly, as shown in Chart 1.83, which presents the national and international interconnection (incoming and outgoing) traffic for the three MTOs. Total increase reached 22% compared to 2013, corresponding to additional 3.07 billion minutes on an annual basis. Moreover, national outgoing traffic increased by 23%, while national incoming traffic

increased by 26%. In 2014 on-net traffic for the three MTOs amounted approximately to 18.3 billion minutes, a reduction of almost 5%, compared to 2013 (approximately 965 millions), accounting for 52% of the total interconnection traffic (which includes both incoming and outgoing traffic) (Chart 1.84). At the same time, the gradual reduction of termination rates in the mobile telephony networks continued and as of January 1st, 2015, they stand

at 1.10 eurocents per traffic minute (Chart 1.85). Chart 1.86 presents the average national termination rate to mobile telephony networks for the 28 EU member states (comparing years 2014 and 2015). Taking into account the aforementioned reduction of termination rates (glide path) on 01-01-2015, Greece now ranks 9th, with an average termination rate of 1.10 eurocents per minute compared to the EU average of 1.20 (Chart 1.87).

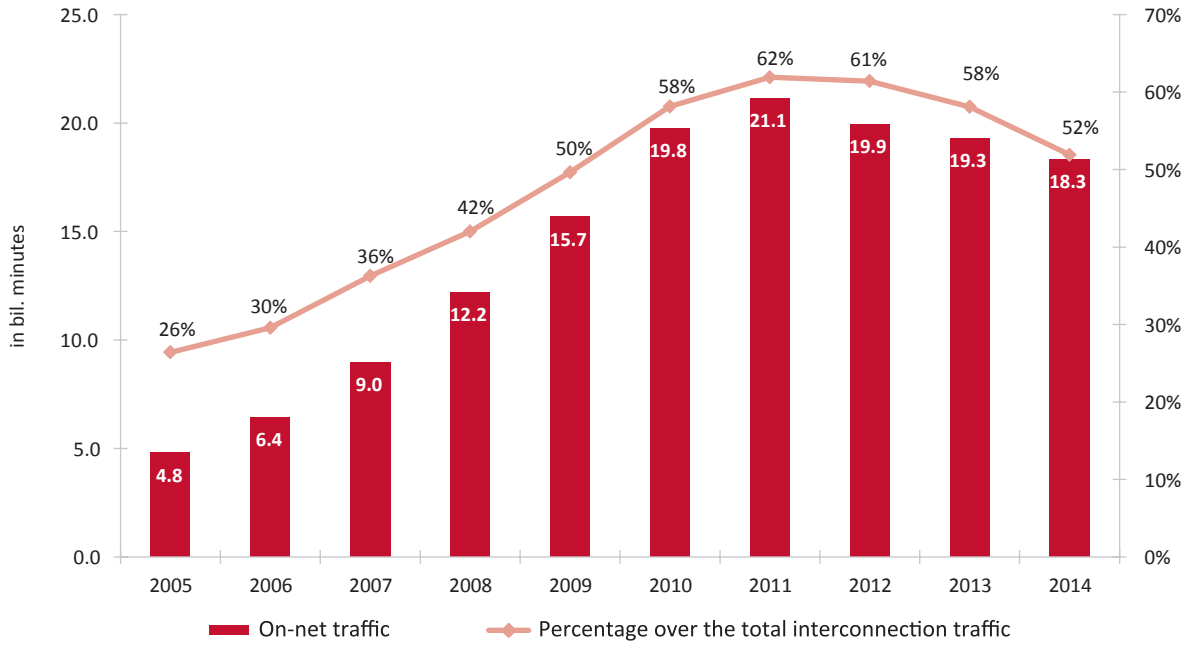
Chart 1.83: MTOs' interconnection traffic



Source: EETT (based on MTOs data)

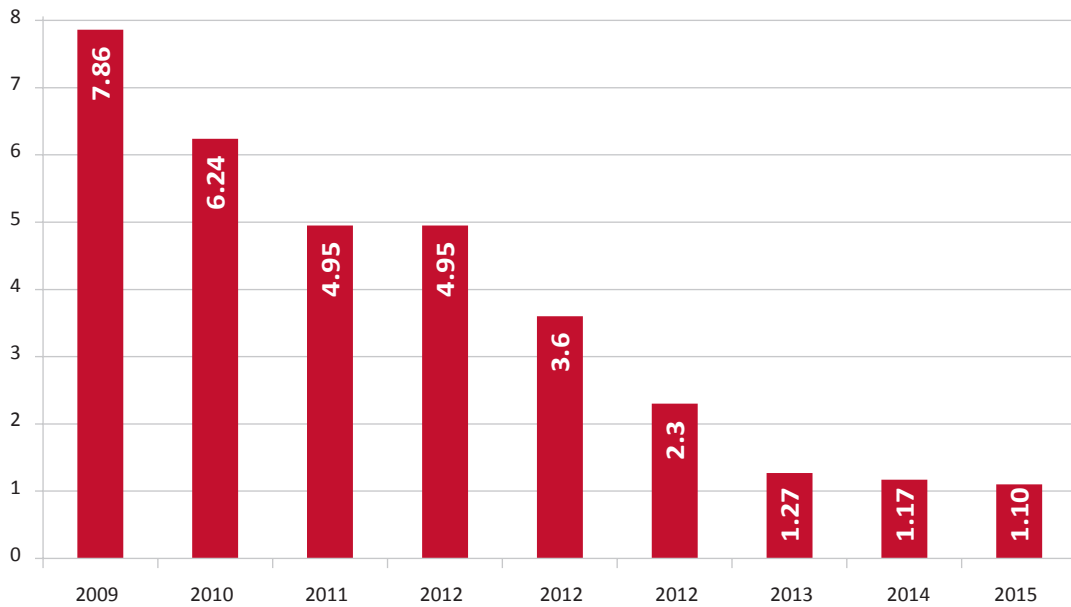


Chart 1.84: MTOs on-net traffic



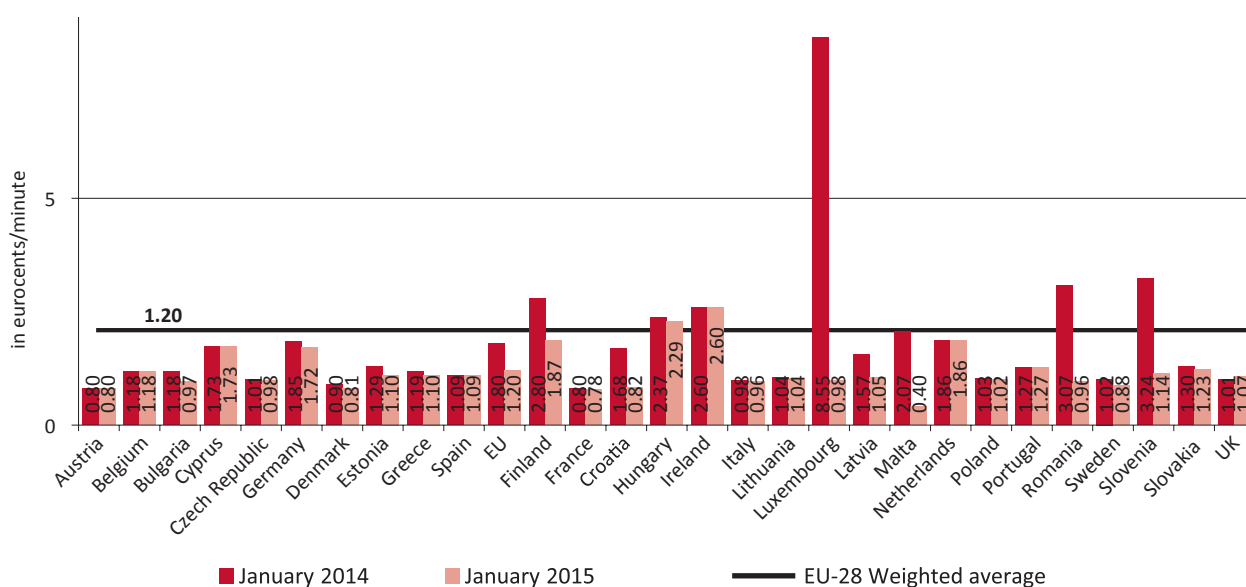
Source: EETT (based on MTOs data)

Chart 1.85: Decrease in mobile call termination fees



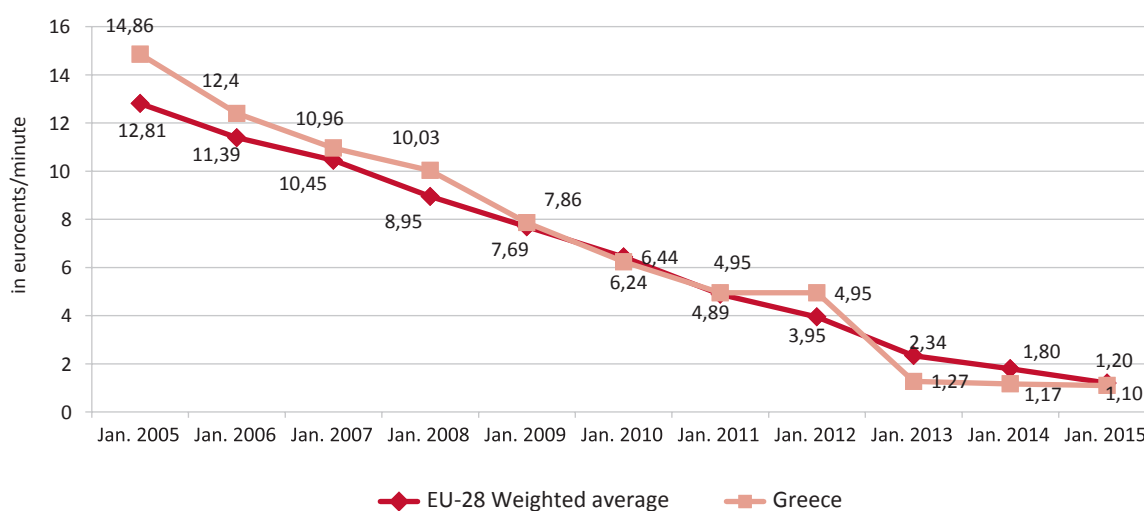
Source: EETT

Chart 1.86: Average national termination fee from fixed to mobile phone



Source: BEREC

Chart 1.87: Average national termination fee from fixed to mobile phone



Source: BEREC

1.2.7. Number portability

Number portability continues to benefit consumers who wish to change operator, both in mobile and fixed telephony. During 2014, 959,362 applications for mobile telephony numbers were submitted (compared to 1,497,198 applica-

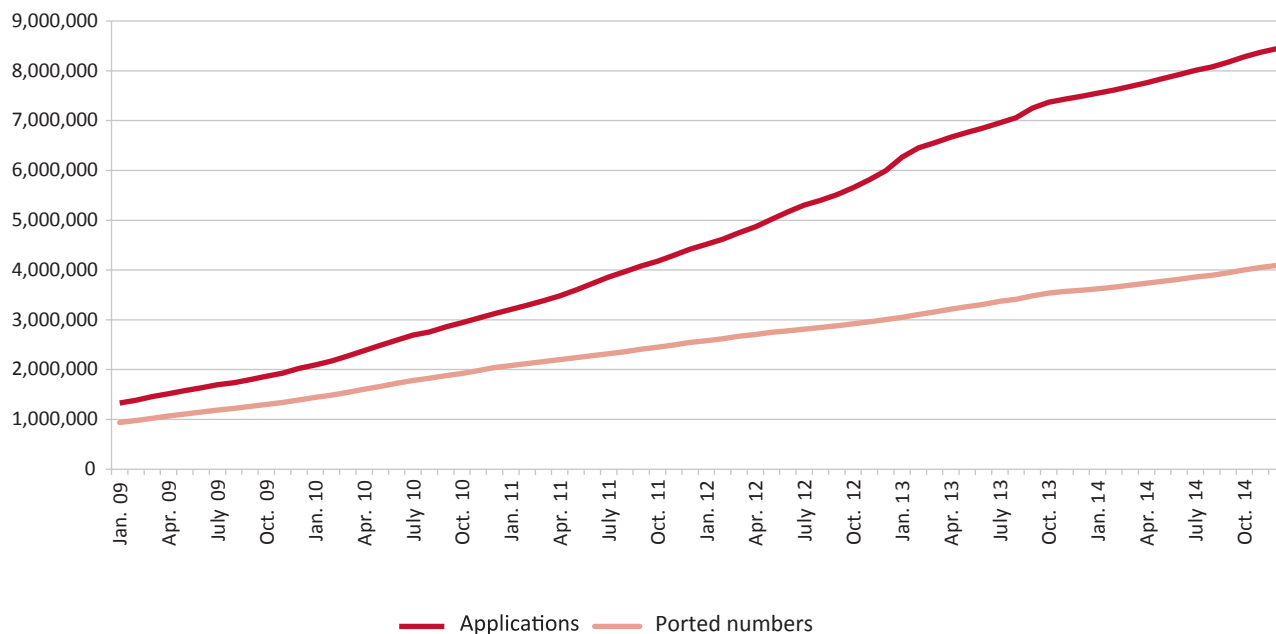
tions in 2013, in other words a drop of 35.9%) and 495,032 numbers were ported (a drop of 16% compared to 2013).

In fixed telephony, 882,443 applications were submitted (compared to 1,214,209 applications in 2013, namely a drop of 27.3%) and

621,032 numbers were ported (increased by 7.1% compared to 2013). Charts 1.85 and 1.86 show the progress of applications and of ported numbers for mobile and fixed telephony, whilst Chart 1.90 presents the ported numbers per month.

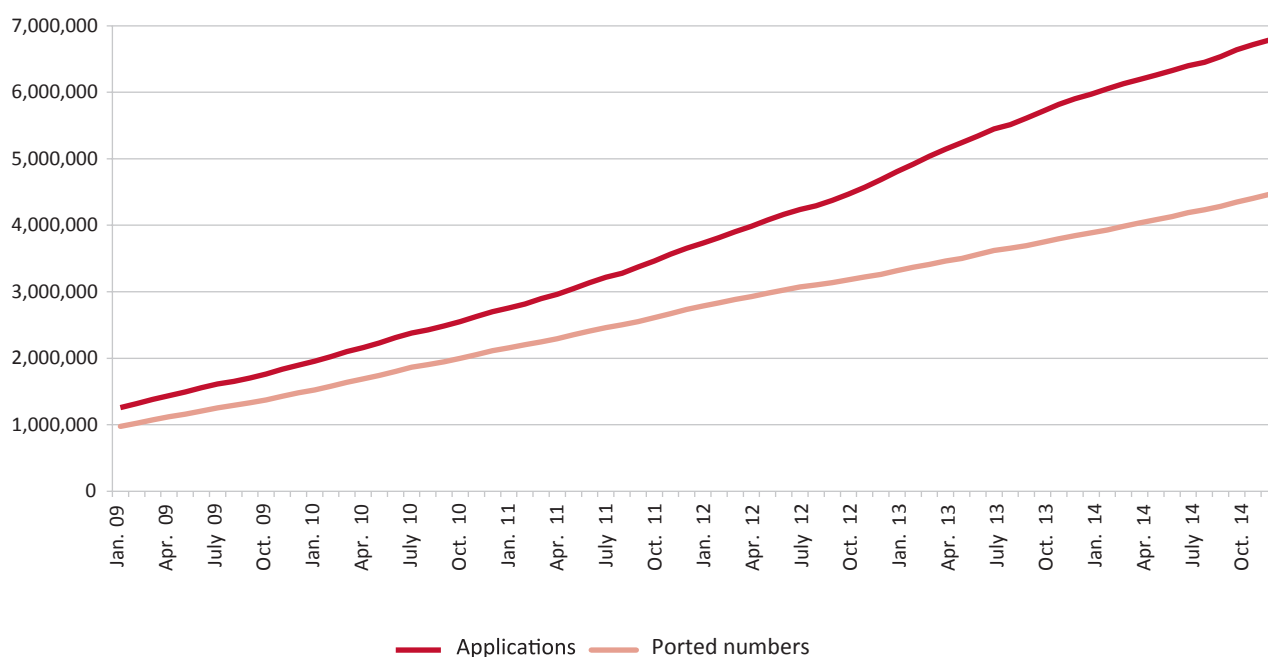


Chart 1.88: Number portability for mobile telephony



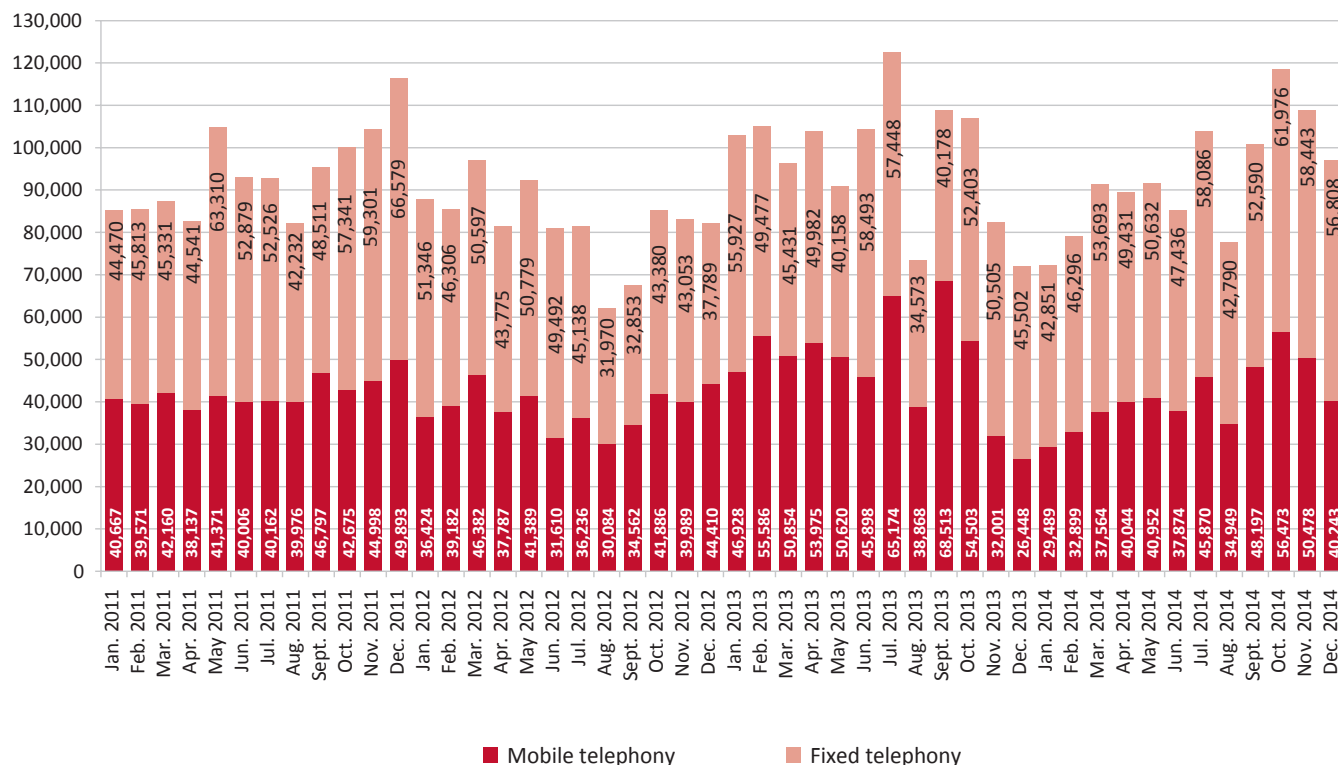
Source: EETT

Chart 1.89: Number portability for fixed telephony



Source: EETT

Chart 1.90: Number portability: ported numbers per month



Source: EETT

1.2.8. Domain names in [.gr]

The increase in both the number of applications and total assigned [.gr] domain names persisted throughout 2014. Their total number, including subdomains (com.gr, net.gr, org.gr, edu.gr, gov.gr), exceeded 430,000¹⁶. Chart 1.91 presents the development of the total number of domain names over time, for

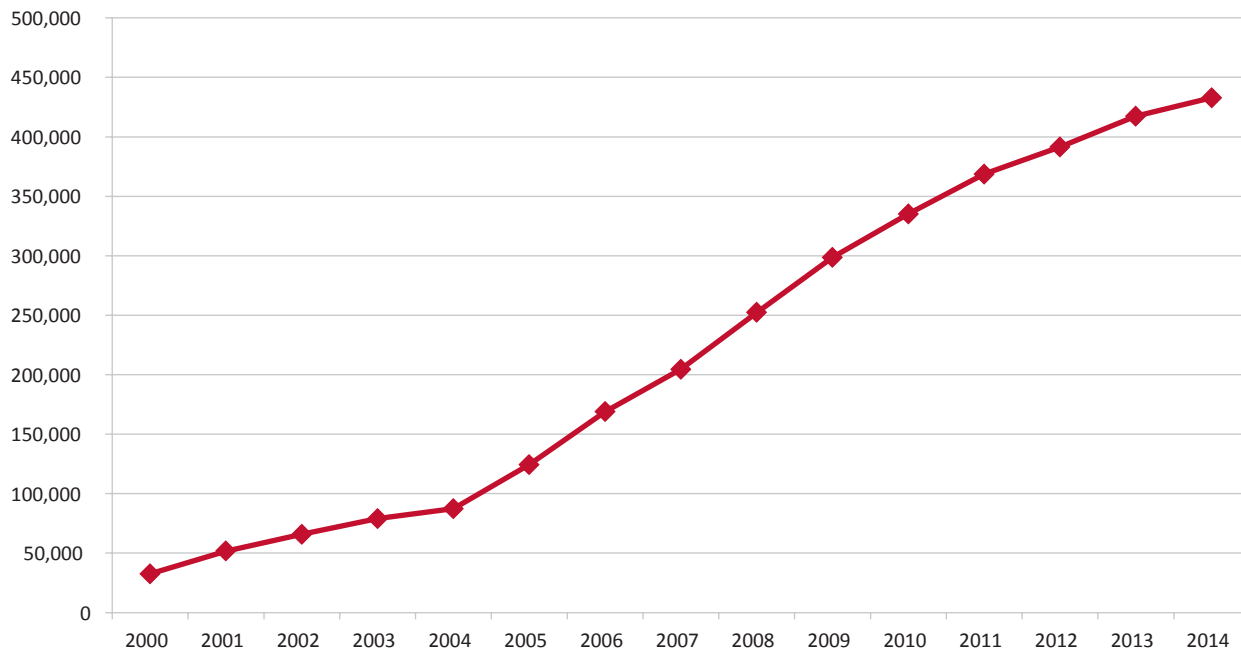
the period 2000-2014. Accordingly, Chart 1.92 presents the progress of the requested and assigned domain names over time, whilst Chart 1.93 shows the progress of the assignment over the submitted applications. Chart 1.94 presents the annual progress of the average assignment percentage for the period 2002-2014, that rose to 77% in 2014 from 32% in 2013. It should

be reminded that the low percentage in 2013 was attributed to the numerous requests that were submitted for the same domain name automatically, so that the applicants can secure the renewal of its registration at the time that the previous registration expires. Pursuant to a recommendation to registrars, the situation smoothed over considerably during 2014.

16. It should be noted that the information on the total number of domain names for the last years has been corrected, so as to reflect the “net” total number of active domain names.

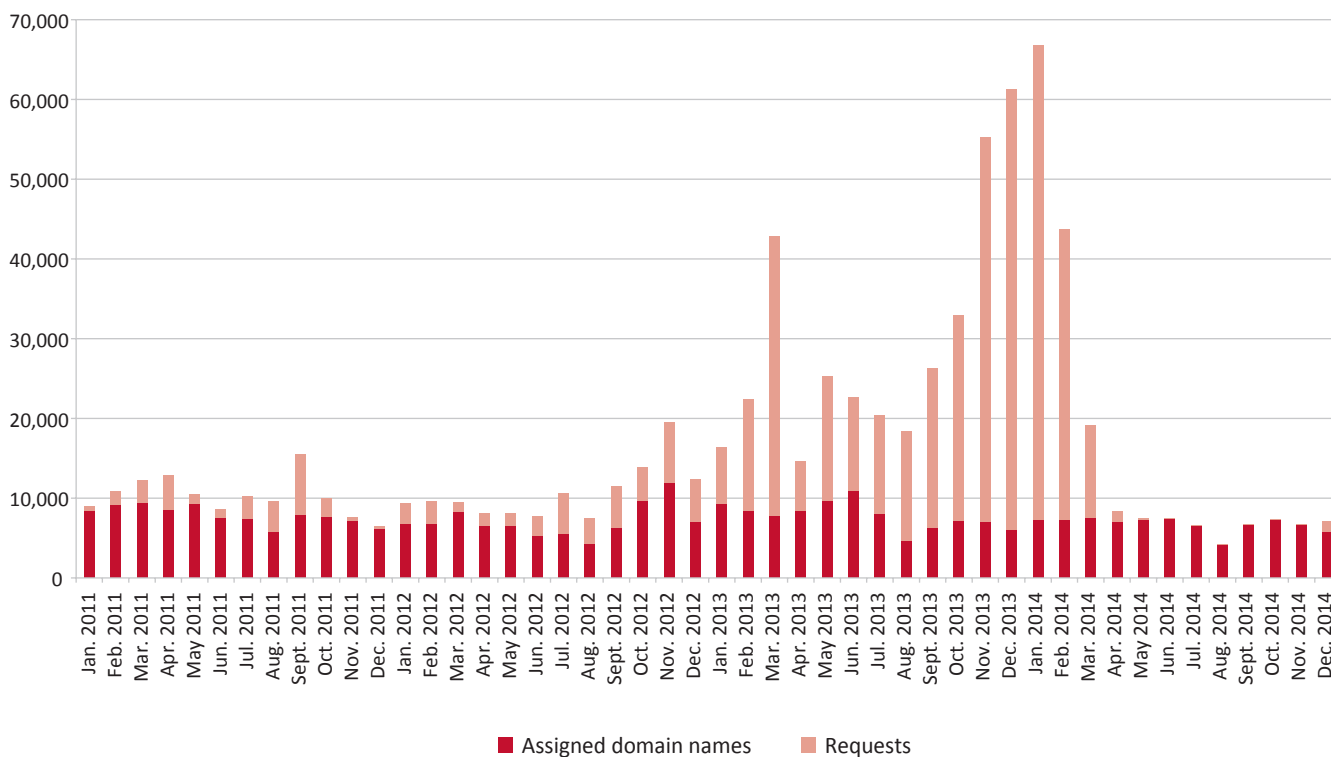


Chart 1.91: Number of domain names



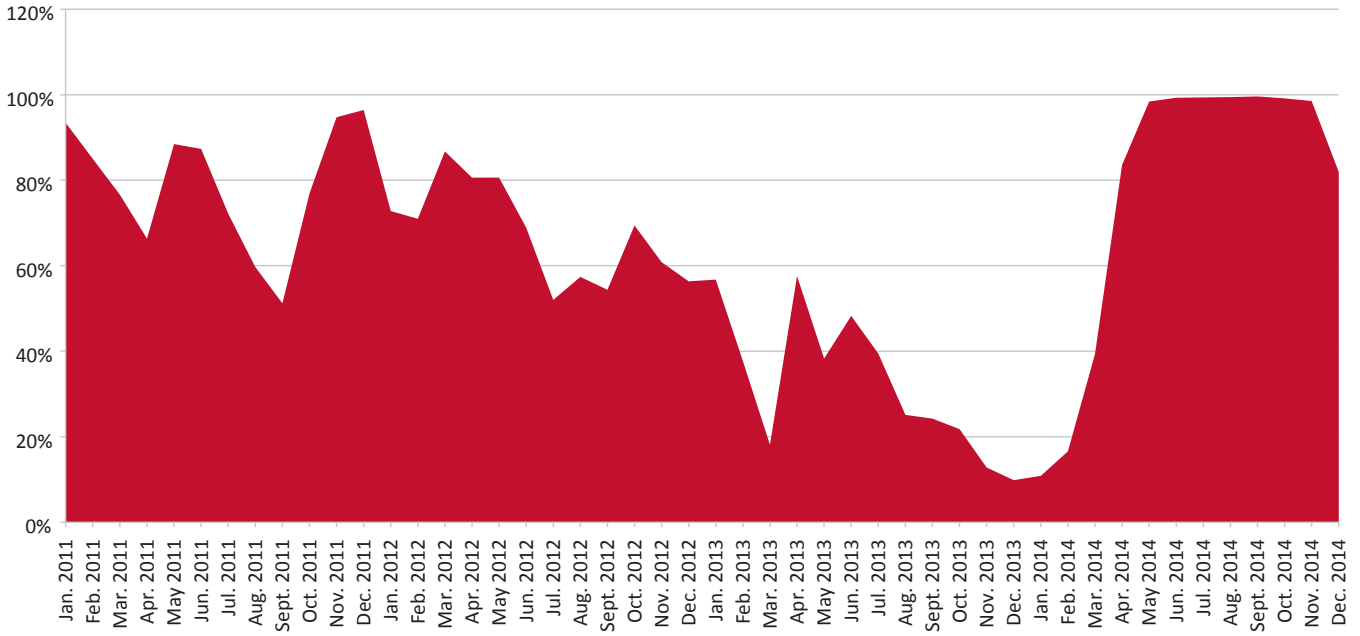
Source: EETT (based on data provided by the licensed operators)

Chart 1.92: Number of requested and assigned domain names



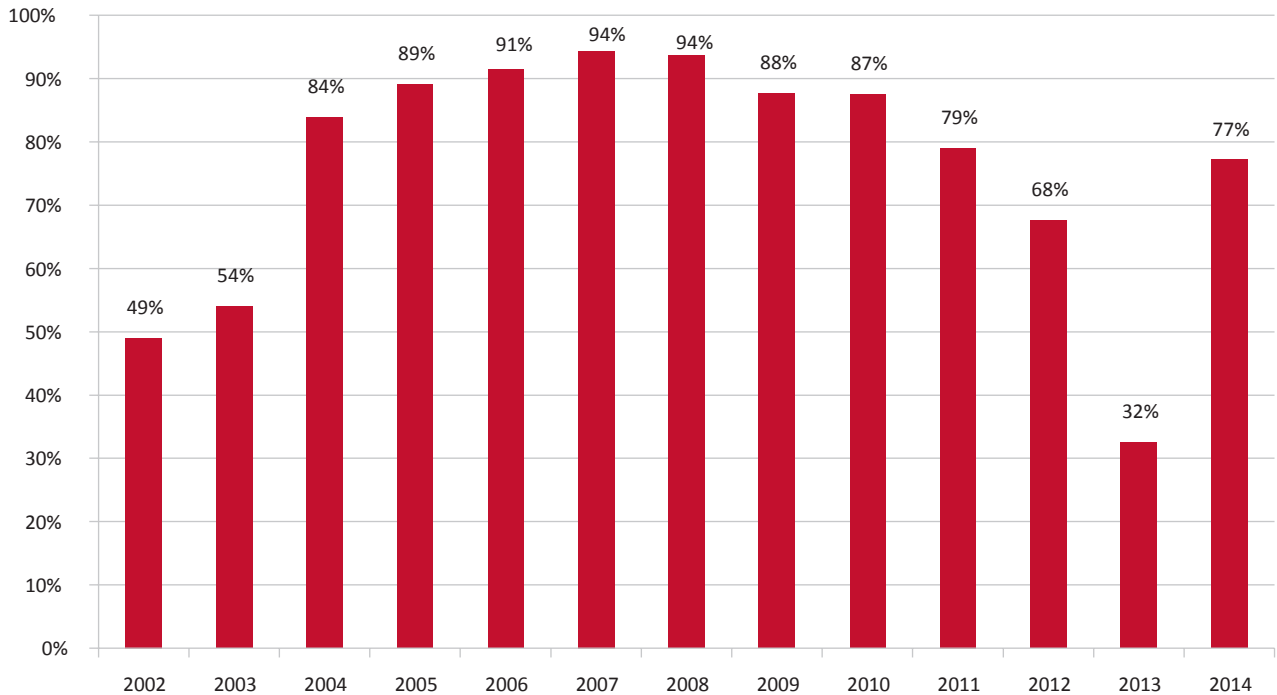
Source: Institute of Computer Science of the Foundation for Research and Technology (ICS-FORTH)

Chart 1.93: Assignment percentage over the number of applications



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

Chart 1.94: Average percentage of assignments



Source: EETT

2

2.1. The course of postal market: trends, developments and perspectives

2.1.1. Globally

Basic economics

In 2013, global economic growth continued at a pace of 3.3%. Global postal revenues¹⁷, following the general trend, reached 429.8 billion euros, with an average growth rate of 3.7% and average operational profitability of 5.2%

In 2013, the global postal market was characterized by letter post volume decline by 4%, which is attributed to the substitution of

physical mail by electronic and the economic crisis in Europe. On the other hand, postal revenues increased on the grounds that postal service providers focus on their companies' reengineering through strategies of cost reduction, increase of delivery points etc., in order to cope with competition. Additionally, online purchases reached 483 billion euros, a increased by 20% with respect to 2012, where two-thirds of global e-commerce refer to North America and Europe. The sharp growth in e-commerce resulted in parcel by 5.6% and express mail revenue growth by 11.2%

As a result, parcel and express service market shares reached 16.3% of global postal market for 2013. Considering market globalization and consumers' increasing needs for cross-border online purchases, postal service providers started investing in cross-border services, thus international parcels in 2013 gained 19% market share as regards to global postal volume.

Trends in global postal market

Modern trends in global postal markets¹⁸ are summarized as follows:

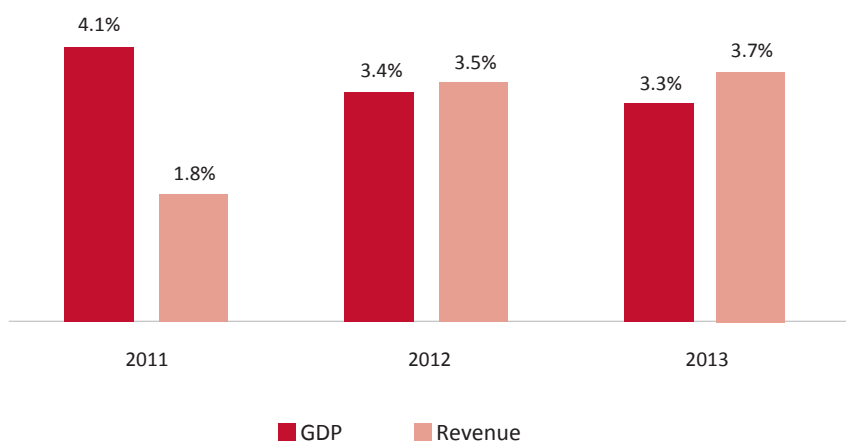
1. *E-commerce and cross-border postal services:* Apart from the traditional letter and parcel post,

17. IPC, «Global Postal Industry Report» (December 2014) and UPU, «Annual Report 2013».

18. IPC, «Strategic Perspectives on the Postal Market» (May 2014).

POSTAL SERVICES

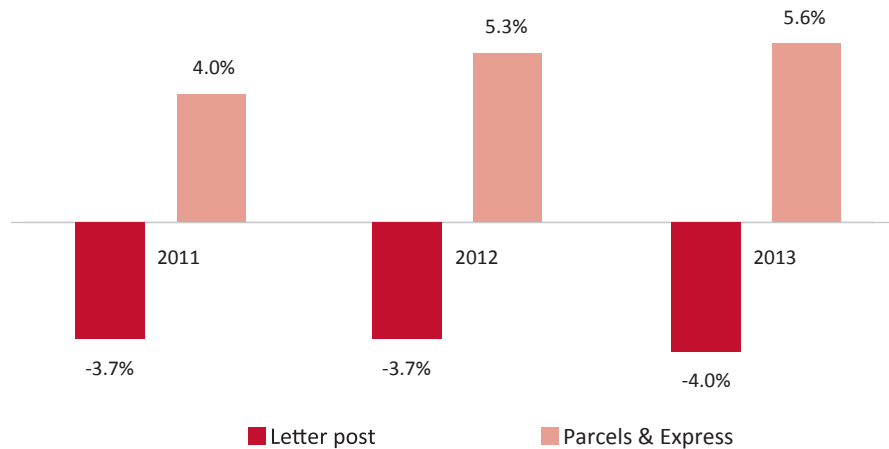
Chart 2.1: Global GDP growth rate vs global postal revenue growth rate (2011-2013)



Source: IPC, «Global Postal Industry Report» (December 2014)



Chart 2.2: Letter post volume growth rate vs parcel & express volume growth rate internationally (2011-2013)



Source: IPC, «Global Postal Industry Report» (December 2014)

e-commerce has been established as the most significant source of growth for postal companies, whilst cross-border postal services constitute a new developing sector itself. In that context:

- In Japan, “Japan Post” organized training seminars co-hosted by big e-commerce support companies, including eBay and PayPal and targeted small e-commerce businesses.
- In Belgium, “bpost” has introduced an innovative service called “shop & deliver”, which offers a portal through which consumers can purchase their weekly groceries and have them delivered along with services such as dry cleaning during a time slot of their choice.
- In USA, “USPS” has introduced a new service called “parcels select” for small parcels weighing from 100g to 1.59kg with a free track & trace service.

2. *Direct marketing services:* Postal providers, recognizing traditional postal services as an effective direct marketing tool, encourage letter post usage in CRM (customer relationship management) programs. Specifically:

- In Australia, “Australia Post” commissioned the “Association for Data Marketing & Advertising” company to find out how marketers ensure the usage of correct channels to not only reach their target group but also to deliver according to customers’ expectations and needs.
- In Netherlands, “PostNL” developed a direct marketing service portfolio, embracing both addressed and unaddressed mail, combined with advertising services targeted at “smart” mobile devices.
- In USA, “USPS” introduced “every door direct mail”, an unaddressed mail service, which generates

monthly revenue of USD 50.000.

3. *Digital services:* Several postal service providers, taking advantage of technology and communication potential, invest in digital services in order to counterbalance letter post decline and acquire market share in digital market. Thereby:

- In Switzerland, “Swiss Post” has launched a new product called “ePostSelect”, which, through a web interface, collects preference information for physical or digital delivery from consumers.
- In Italy, “Poste Italiane” set up a new business unit “Postecom” dedicated to innovation and digitization.
- In Japan, “Japan Post” has released an online address book, which is integrating with a postcard design kit and postman on Facebook.

4. *Environmental sustainability:* Postal service providers put effort to protect the environment and

reduce carbon emission through a wide range of products and services, while at the same time they receive recognition from their customers regarding their “green” mail products. In this context:

- In Sweden, “Klimatekonomisk” green mail covers six letter products and accounts for 7% of total mail.
- In Africa, “South African Post Office”, a leader in sustainable management and operations, encourages, through the Pan African Postal Union, further initiatives in the continent.
- In USA, “USPS” engages more

than 500.000 employees through local “Lean Green Teams” to identify energy efficiencies, which will help meet targets for a 20% reduction in gas emissions by 2020, while focusing on the use of biofuels.

The main targets for the global postal market for the next three years, as stated by UPU (Universal Postal Union), are summarized¹⁹ as follows:

- Enhancement of service provision quality,
- Enhancement of operational procedures,
- Increased efficiency of postal network,

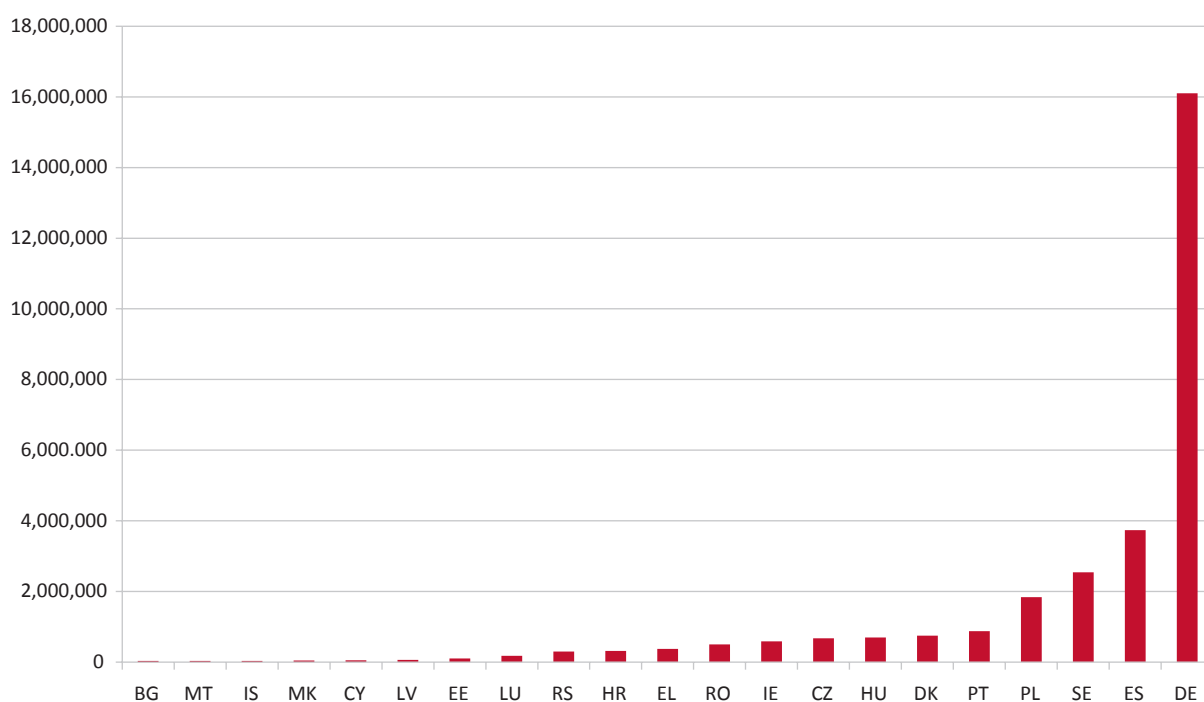
- Value added services for consumers,
- Upgrade and differentiation of parcels services,
- Reinforcement and promotion of e-commerce, especially cross-border.

2.1.2. In Europe

Basic economics

The contribution of European postal market to the growth of European economy remains significant. In 2013, within EU²⁰, approximately 71.5 billion of letter post items were handled (excluding letters without recipient address), presenting a 4.8% decrease vs 2012.

Chart 2.3: Letter post volume per country (in thousand items) (2013)



Source: Postal Statistics, Postal Directive Committee (2014)

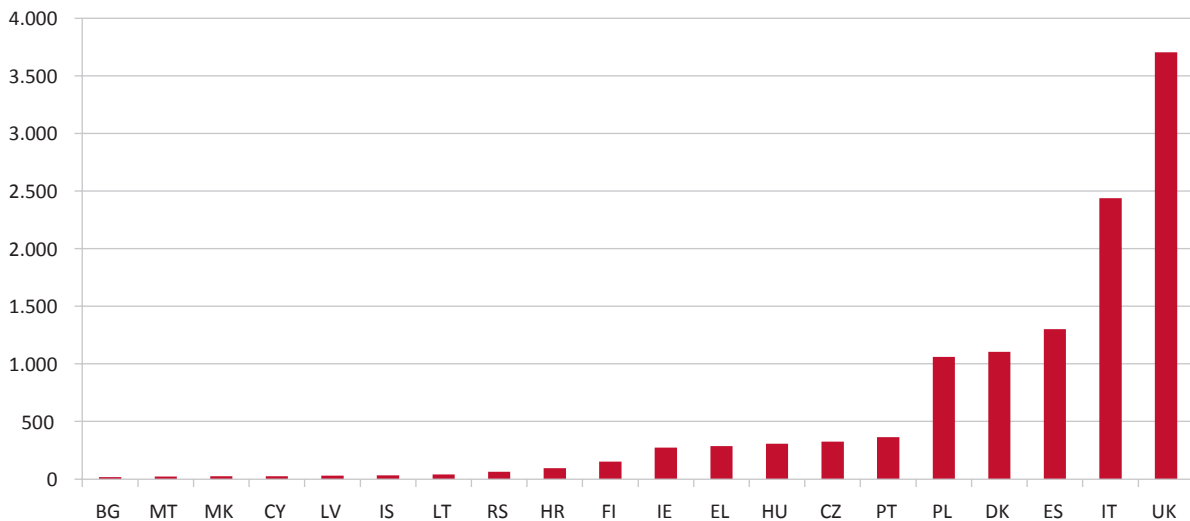
19. UPU, “Annual Review 2013” (2014).

20. Postal Statistics 2012-2013, “A preliminary analysis”, Postal Directive Committee (2014).



In US, total revenue is summing up to 23 billion euros for 2013 (excluding USP in Germany and Romania), almost at the same amount compared to 2012.

Chart 2.4: US revenue per country (in mil. EUR) (2013)



Source: Postal Statistics, Postal Directive Committee (2014)

European liberalized postal market

Competition growth rate in the liberalized postal markets in EU member states is presented in Chart 2.5. It is noted that postal markets have been “liberalized” at different points of time.

Growth level in postal markets varies among EU countries²¹. For instance, Belgium has been least affected with modest losses compared to other countries, for reasons such as enhanced service provision by USP (bpost), competitive pricing to large senders etc. Denmark, on the other hand, presents the strongest volume decline since 2008, since the Danish

government has implemented an e-government strategy. It is the first European country which in 2015 made mandatory the electronic communications between the State and its citizens, whereas since 01-11-2014, all citizens have to own an email address.

Moreover, despite the presence of alternative postal service providers in many countries, competition remains low and USPs dominate the market. In countries, such as Belgium, Denmark, France, Ireland, Luxemburg and United Kingdom, USPs hold 98% or more of the total market to provide end-to-end services.

Pricing trends in European postal market

Regarding the pricing of domestic letter up to 20gr²², increased prices are shown in the southern part of EU, whereas the prices remain higher in Western Europe.

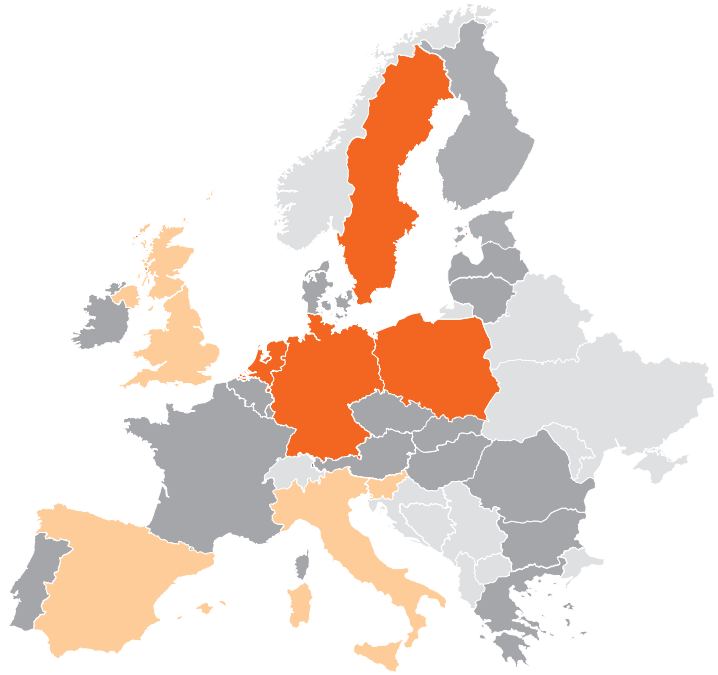
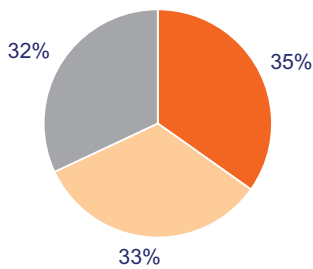
21. Wik Consult, «Review of the Postal Market 3 years after full market opening on 01-01-2011», (February 2015).

22. Postal Statistics 2012-2013, «A preliminary analysis», Postal Directive Committee (2014).

Chart 2.5: Postal market liberalization in EU member states (2013)²³

- Full end-to-end competition
- Competition with limitations
- No relevant competition (less than 5%)

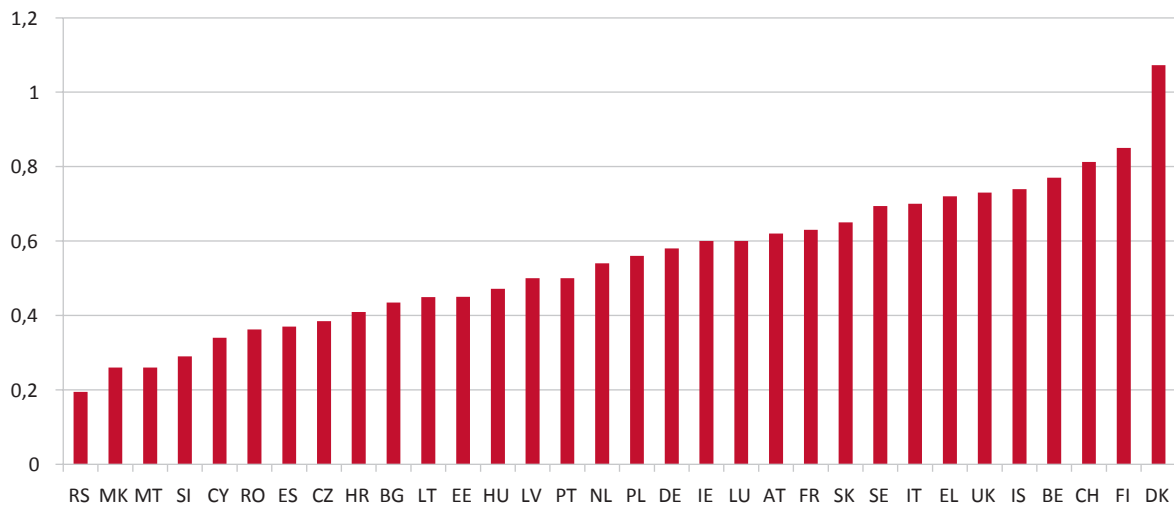
Volumes addressed mail in %*



* Figures are based on market volumes

Source: Postnl, «European Postal Markets, 2014 an overview» (February 2014)

Chart 2.6: Domestic letter price up to 20gr per country (2013)



Source: Postal Statistics, Postal Directive Committee (2014)

23. It should be noted that in 2014, the color of Greece has turned to orange.



Specifically, a study conducted by WIK Consult²⁴, showed that prices for heavy items are increasing at a slower pace than prices for light items. This is due to reasons such as the competition by parcel and express service providers which lowers prices and the increased demand for heavy items through e-commerce, which leads to reductions in average costs for these products. Also, retail price invoices show a higher increase compared to prices of corporate clients.

New services and trends in European postal market

Many postal service providers in EU, USP or not, estimate that traditional mail will continue to hold a significant place in the market, however with decreasing revenue, and pursue new business models, aiming at the increase or at least maintenance of their market shares. These models are distinguished in two main categories; e-post and e-commerce services.

E-post services

The increasing need of consumers for reliable providers to handle the electronic transition of their documents and their electronic transactions led many postal companies to the provision of related services. Postal service providers offer a certified and secure electronic environment for the provision of services such as:

- identification and security or documents,

- provision of unique electronic addresses, which are directly connected to the postal address of the user,
- e-government,
- financial transactions i.e., bills and purchase payments,
- e-invoicing and e-billing,
- documents administration i.e., scanning and archiving mostly for big organizations,
- hybrid and reverse hybrid mail,
- e-stamps.

E-commerce services

To following the global trend, European postal service providers readjust their operations in order to respond to users' requirements and e-sellers' needs. For instance²⁵:

- in the UK, second priority services for items over 1kg have been introduced,
- in France, letters can be up to 3cm thick instead of 2cm,

- in Germany, discounts are provided for sending merchandise,
- in the Netherlands, small packages fit into the letterbox,
- in Sweden, B2C delivery is provided for items up to 2kg.

2.1.3. In Greece

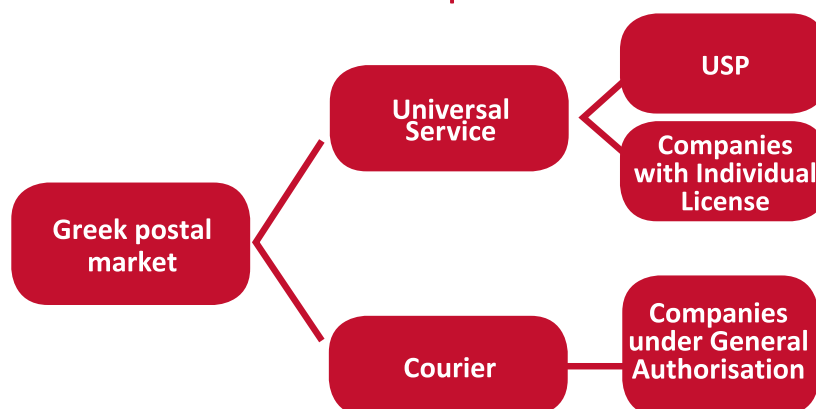
The Greek postal market consists of two sectors:

- a) the US sector, with USP and private companies with Individual License and
- b) the courier sector, with companies under General Authorisation.

The USP designated by the Greek state, is Hellenic Post (ELTA).

In 2014 the Greek postal market followed the global stabilizing trend. In spite of the decline in traditional post, letter market holds, in volume and revenues alike, the biggest market share in the postal market. Regarding the courier sector, the upward trend in parcel delivery continued, which significantly contributes to revenue increase.

Chart 2.7: Greek postal market



24. Wik Consult, «Pricing trends in the postal sector».

25. Wik Consult, «Pricing trends in the postal sector».

2.2. Evolution of the main financials in the postal services market in Greece

2.2.1. Financial data

The following section presents the main financials of the companies operating in the postal market, according to the financial statements of the licensed operators in 2014. As regards the companies under General Authorisation and with Individual License, the figures provided concern the main companies of the sector, as the majority

thereof are not obliged to publish financial statements, since they are sole proprietorship companies. It is also noted, that the financial data of companies under General Authorisation and with Individual License are presented consolidated, since, due to market liberalization, some postal service providers under General Authorisation have acquired Individual License as well.

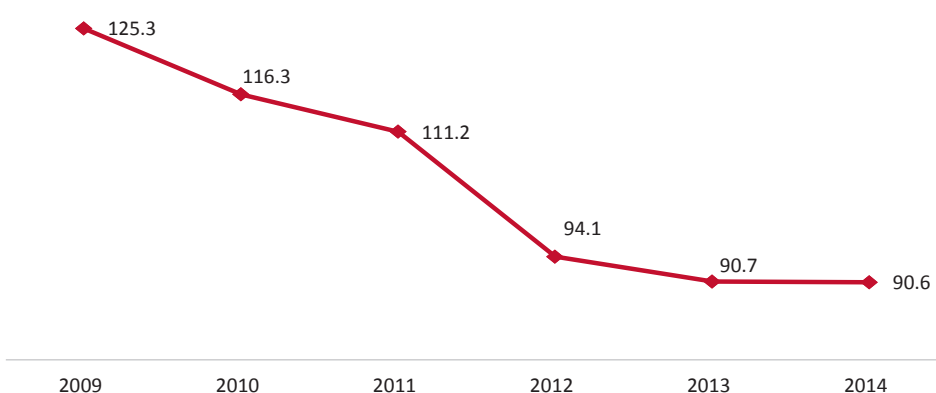
Turnover

The postal service market follows the same negative trend, which is

prevalent in almost all the sectors of the economy, remaining however unchanged compared to 2013, as indicated in Chart 2.8.

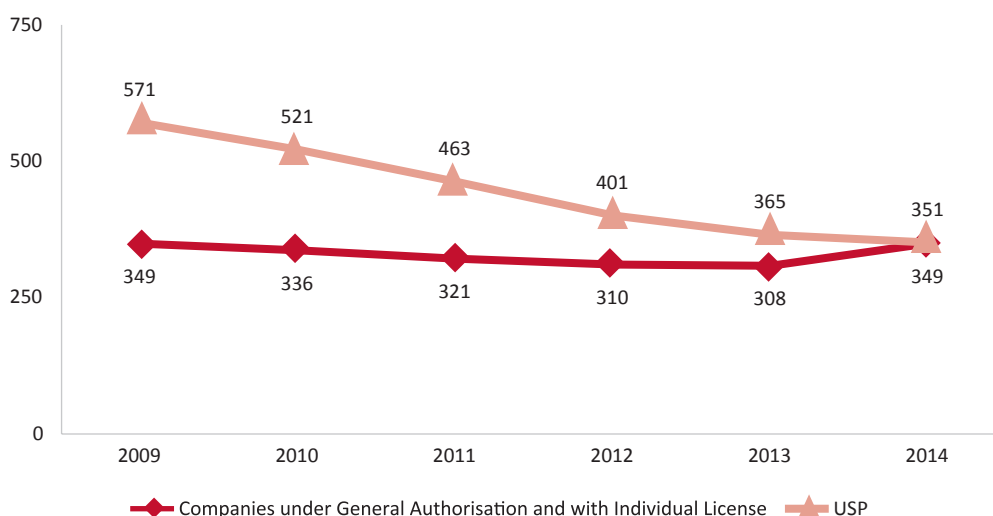
Chart 2.9 presents the turnover of the postal market. Although postal service providers operating under General Authorisation and with Individual License follow a relatively upwards course, USP's turnover has been shrinking over the past six-year period at a rate of 9.3%, thus the two sectors converge in 2014.

Chart 2.8: Evolution of postal market turnover index (base year 2005)



Source: HELLASTAT, Evolution of the turnover index in the service sector (March 2015)

Chart 2.9: Turnover of postal service providers (in mil. EUR)



Source: Annual financial statements 2014



It is noted that the companies' turnover may include information from non-postal activities; therefore there may be differences with respect to the level of revenues analyzed in the following chapters and concern the postal market exclusively.

Profitability

Table 2.1 sets out the main financials on the profitability of postal service providers.

It is clear that although turnover is almost the same for both USP and companies under General Authorisation and with Individual License, gross profit margin is significantly low for USP.

Balance sheet analysis

Chart 2.10 presents the asset allocation for USP and companies under General Authorisation and with Individual License. The latter hold the

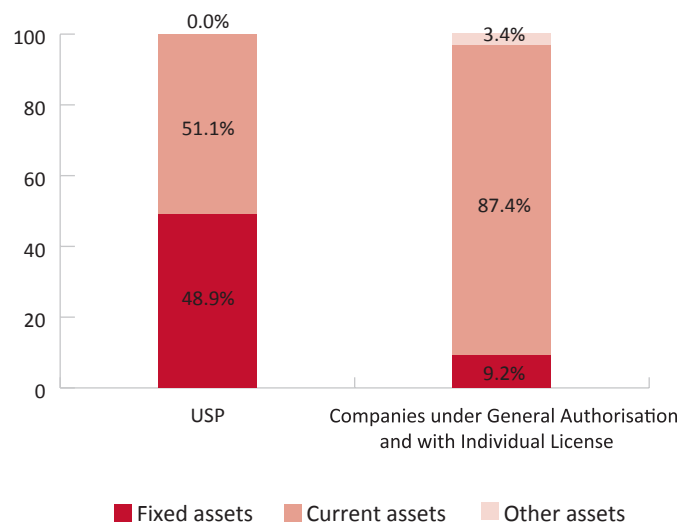
majority of their capital (87.4%) in liquid assets (current assets), whilst USP balance sheet indicates an equal allocation between fixed assets and current assets.

Table 2.1: Main postal service providers' financials (in mil. EUR) (2014)

	Turnover	Gross profit	Gross profit margin	Net profit	Net profit margin
USP	350.9	36.9	10.5%	4.4	1.3%
Companies under General Authorisation and with Individual License	349.2	63.1	18.1%	12.9	3.7%

Source: Annual financial statements 2014

Chart 2.10: Assets allocation in the postal market (2014)



Source: Annual financial statements 2014

As regards the structure of liabilities, USP's obligations count for 91.9% of its liabilities. This percentage is significantly lower for companies under General Authorisation and

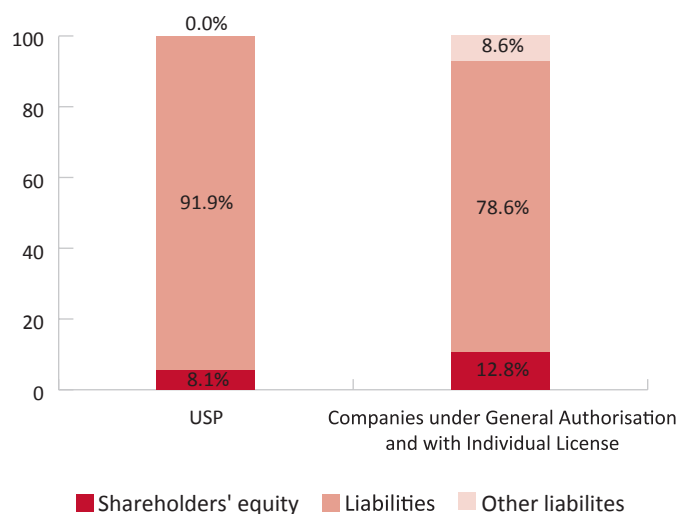
companies with an Individual License (Chart 2.11).

Ratio analysis

Table 2.2 sets out the main ratios

as derived from an analysis of the balance sheets of the postal service providers.

Chart 2.11: Liabilities' allocation in the postal market (2014)



Source: Annual financial statements 2014

Table 2.2: Postal market financial indicators (2009-2014)

	2009	2010	2011	2012	2013	2014
Liquidity ratio						
USP	0.89	0.92	0.94	0.93	0.86	0.89
Companies under General Authorisation and with Individual License	1.13	1.22	1.12	1.15	1.36	1.30
Turnover ratio						
USP	0.62	0.70	0.61	0.61	0.84	0.81
Companies under General Authorisation and with Individual License	2.25	2.14	2.14	2.14	2.09	2.45
Day sales outstanding ratio						
USP	61.42	65.74	60.85	58.62	74.14	99.19
Companies under General Authorisation and with Individual License	121.06	130.26	130.26	121.52	109.58	91.48
Return on capital						
USP	-0.19	0.02	0.03	0.03	-0.15	0.13
Companies under General Authorisation and with Individual License	0.15	0.18	0.18	-0.38	0.29	0.71

Source: EETT (based on the information given by the postal service providers)



The liquidity ratio for companies under General Authorisation and with Individual License remains higher than one in the last six years, which demonstrates their ability to confront short term liabilities by using current assets. The ratio is less than one for USP, almost stable in the six-year period.

The turnover ratio is higher than one for companies under General Authorisation and with Individual License, mostly due to courier companies, which are current asset intensive (mainly receivables). The corresponding USP ratio is below one, as ELTA has invested in fixed

assets, whereas its turnover has been declining over time.

The day sales outstanding ratio for companies under General Authorisation and with Individual License, although decreased by 17% as compared to 2013, remains high. On the other hand, USP presents a continuously increasing ratio, indicative of the liquidity reduction due to the economic crisis.

The return on capital is low for USP, however positive and higher as compared to 2013. On the contrary, the ratio is significantly increased for the companies under General

Authorisation and with Individual License, which is indicative of the recovery of the sector.

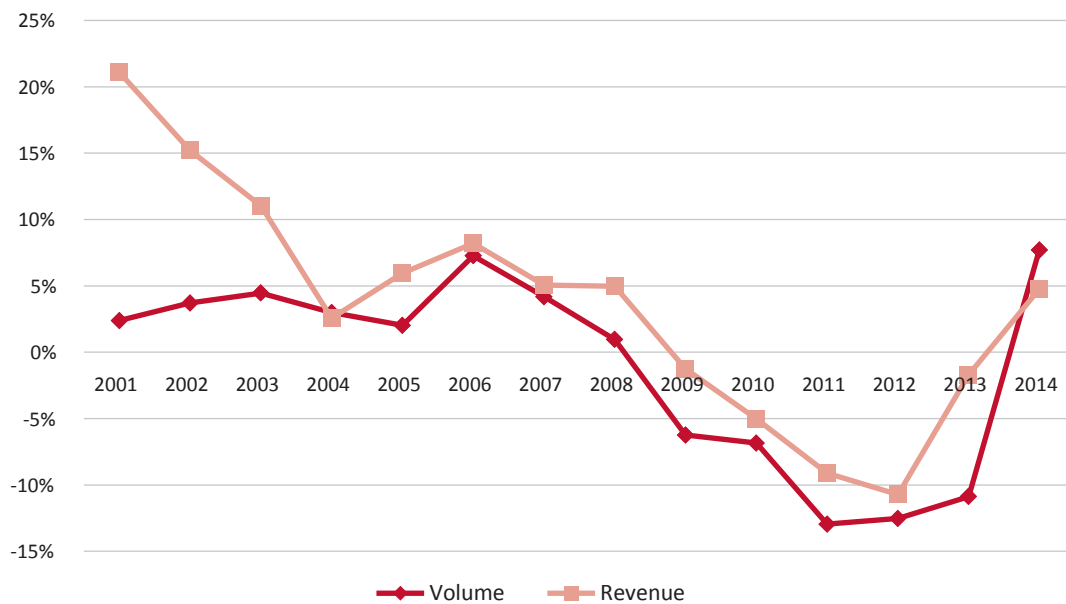
2.2.2. Postal volume and revenue

Total postal volume and revenue

In 2014, following the general stabilizing trend in Greece and Europe, postal market showed signs of recovery. Specifically, 496 million items were handled, generating revenues of 590 million euros. Compared to 2013, there was a 7.7% increase in the volume of postal items and 4.8% in related revenues.

The course of the postal market as of 2001 is depicted in Chart 2.12.

Chart 2.12: Annual rate of change of postal volume and revenue



Source: EETT (based on the information given by the postal service providers)

Volume and revenue per postal sector

Tables 2.3 and 2.4 demonstrate the performance of the three postal sectors since 2009.

Postal market recovery is mainly due to courier companies, whereas it is worth mentioning the inversion in the downwards trend of USP's revenue.

Table 2.3: Postal volume (in thousand items)

	2009	2010	2011	2012	2013	2014	2014/13	Compound growth rate 2009-2014
USP	671,669	622,526	531,343	461,361	402,818	411,475	2.1%	-9.3%
Companies with Individual License	6,711	6,765	10,933	8,065	5,326	26,854	404.2%	32.0%
Companies under General Authorization	49,987	49,187	48,286	47,162	52,278	57,563	10.1%	2.9%
Total	728,367	678,478	590,562	516,588	460,422	495,892	7.7%	-7.4%
Annual rate of change (%)	-6.2%	-6.8%	-13.0%	-12.5%	-10.9%	7.7%	-	-

Source: EETT (based on the information given by the postal service providers)

Table 2.4: Postal revenue (in thousand EUR)

	2009	2010	2011	2012	2013	2014	2014/13	Compound growth rate 2009-2014
USP	448,631	417,134	370,864	317,486	282,919	272,658	-3.6%	-9.5%
Companies with Individual License	2,549	2,498	4,066	3,486	2,471	14,496	486.7%	41.6%
Companies under General Authorization	291,907	286,149	266,612	251,814	277,628	302,753	9.0%	0.7%
Total	743,087	705,781	641,542	572,786	563,018	589,907	4.8%	-4.5%
Annual rate of change (%)	-1.3%	-5.0%	-9.1%	-10.7%	-1.7%	4.8%	-	-

Source: EETT (based on the information given by the postal service providers)



Volume and revenue per postal service

Chart 2.13 demonstrates the distribution of postal items i.e., letters, parcels and small packages in the postal market.

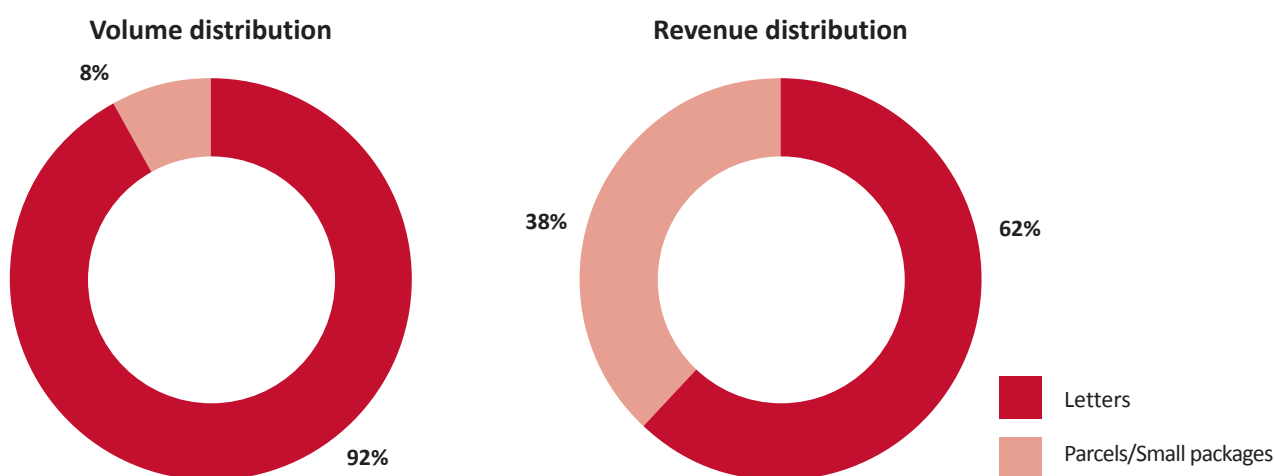
Although handling letters has been traditionally a key activity for postal service providers, the parcel market, which handles 8% of postal items,

generates 38% of total revenue. The parcel/small package market share increased by 37.8% as regards volume and by 23.7% as regards revenue, compared to 2013.

Table 2.5 demonstrates the evolution of the postal market in terms of letters and parcels-small packages during the six-year period 2009-2014.

The letter mail decline in the six-year period is attributed to the switch from letter to electronic mail as a means of correspondence for individuals and companies (both private and public). On the other hand, e-commerce growth has significantly boosted the parcel market, which presents a continuous increase in revenue.

Chart 2.13: Volume and revenue per postal service (2014)



Source: EETT (based on the information given by the postal service providers)

Table 2.5: Volume (in thousand items) and revenue (in thousand EUR) per postal market sector (2009-2014)

	2009	2010	2011	2012	2013	2014	2014/13	Compound growth rate 2009-2014
Volume								
Letters	706,603	656,266	568,239	494,601	437,211	458,555	4.7%	-8.3%
Parcels/Small packages	21,764	22,212	22,324	21,987	23,211	37,336	37.8%	11.4%
Total	728,367	678,478	590,562	516,588	460,422	495,892	7.2%	-7.4%
Revenue								
Letters	579,944	547,053	495,189	427,611	393,508	367,682	-7.0%	-8.7%
Parcels/Small packages	163,143	158,728	146,353	145,175	169,510	222,225	23.4%	6.4%
Total	743,087	705,781	641,542	572,786	563,018	589,907	4.6%	-4.5%

Source: EETT (based on the information given by the postal service providers)

Volume and revenue per domestic – international service

Table 2.6 presents the trends regarding the handling of postal items domestically and internationally since 2009.

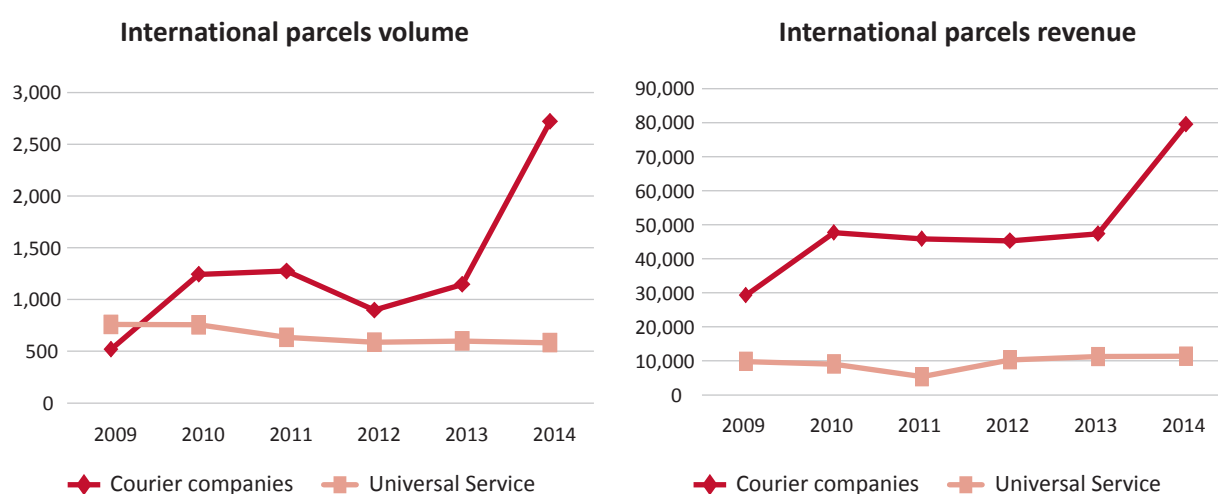
As shown in the above table, domestic and mostly international services have grown in 2014, mainly due to the increased number of parcels handled by courier companies, as it is shown in Chart 2.14.

Table 2.6: Volume (in thousand items) and revenue (in thousand EUR) domestically & internationally

	2009	2010	2011	2012	2013	2014	2014/13	Compound growth rate 2009-2014
Volume								
Domestically	648,915	607,049	524,936	457,198	406,642	436,773	7.4%	-7.6%
Internationally	79,452	71,429	65,626	59,390	53,780	59,119	9.9%	-5.7%
Total	728,367	678,478	590,562	516,588	460,422	495,891	7.7%	-7.4%
Revenue								
Domestically	617,964	571,055	512,799	445,121	436,329	430,010	-1.4%	-7.0%
Internationally	125,123	134,726	128,743	127,665	126,689	159,897	26.2%	5.0%
Total	743,087	705,781	641,542	572,786	563,018	589,907	4.8%	-4.5%

Source: EETT (based on the information given by the postal service providers)

Chart 2.14: Distribution of international parcels per volume (in thousands) and revenue (in thousand EUR) (2014)



Source: EETT (based on the information given by the postal service providers)



2.3. Competition in postal market

2.3.1. Market shares

In 2014, USP held 83% of total market in terms of volume and 46% in terms of revenue (Chart 2.15).

Regarding the provided services, the following chart shows that

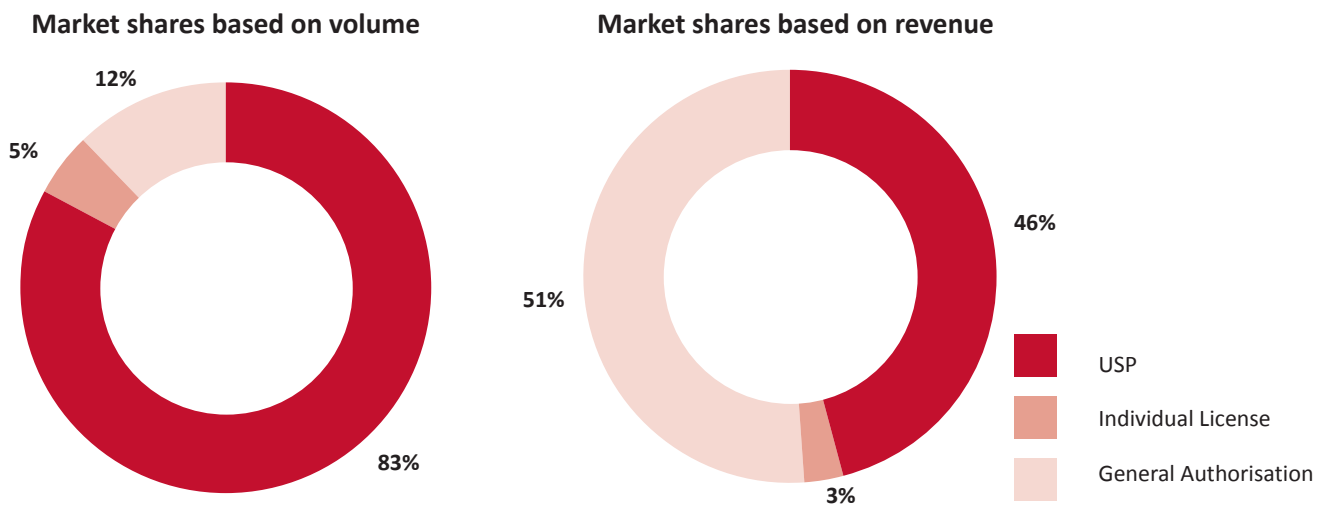
US dominates the letter market, holding 94.3% of total volume and 73.7% of total revenue.

On the other hand, courier companies dominate the parcel market, with significantly increased market share compared to USP, whose share has been decreasing since 2009 at a pace of 16.4% in

terms of volume and 10.5% in terms of revenue.

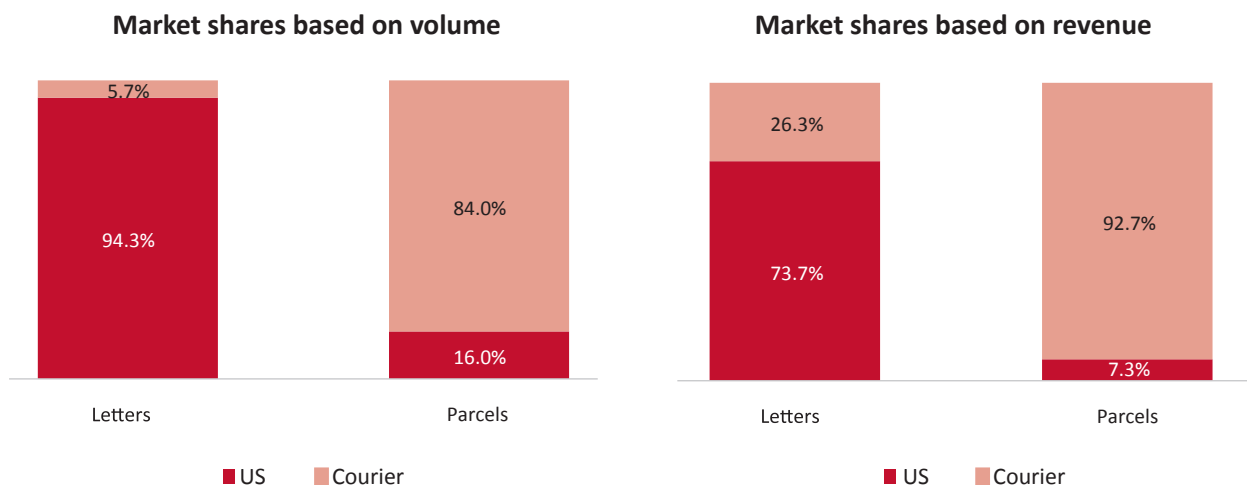
The annual revenue increase in the courier sector leads to increased market share, which, in 2013 almost equals USP's and in 2014, for the first time, it exceeds USP's share.

Chart 2.15: Postal market shares in terms of volume and revenue (2014)



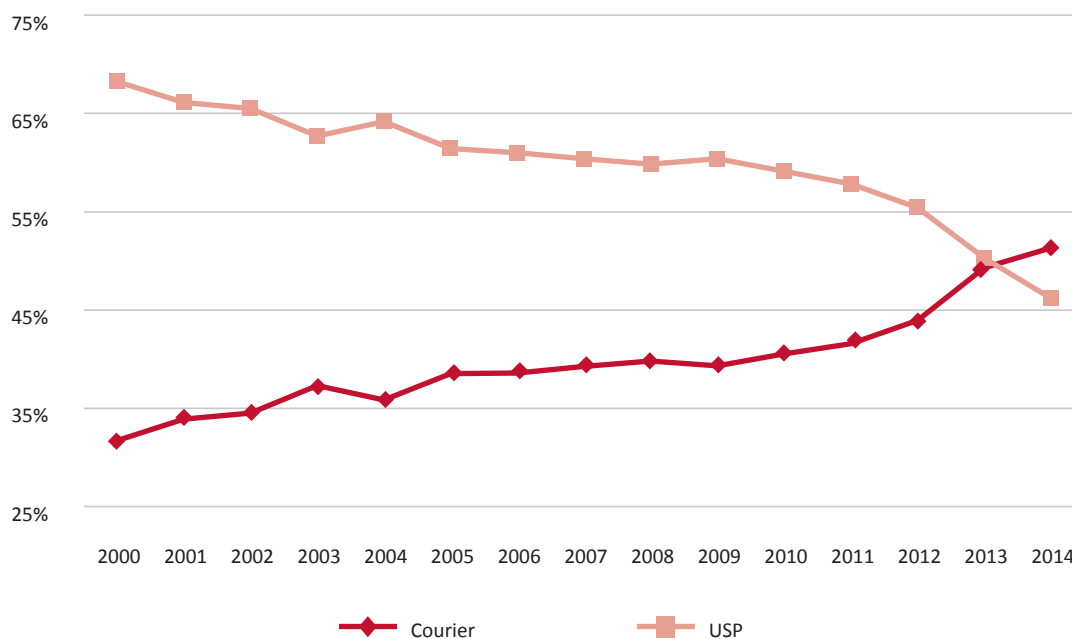
Source: EETT (based on the information given by the postal service providers)

Chart 2.16: Letter and parcel market shares regarding volume and revenue for US and courier (2014)



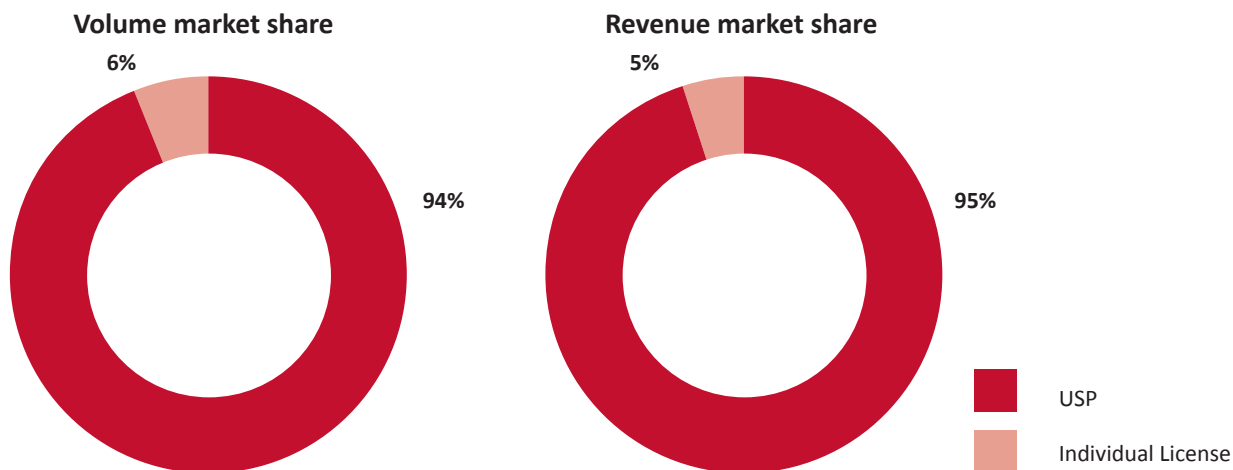
Source: EETT (based on the information given by the postal service providers)

Chart 2.17: USP and courier market shares in terms of revenue



Source: EETT (based on the information given by the postal service providers)

Chart 2.18: US market shares in terms of volume and revenue (2014)



Source: EETT (based on the information given by the postal service providers)

2.3.2. The Universal Service market

In 2014, USP remained the dominant player in the US market, having handled 94% of the postal items

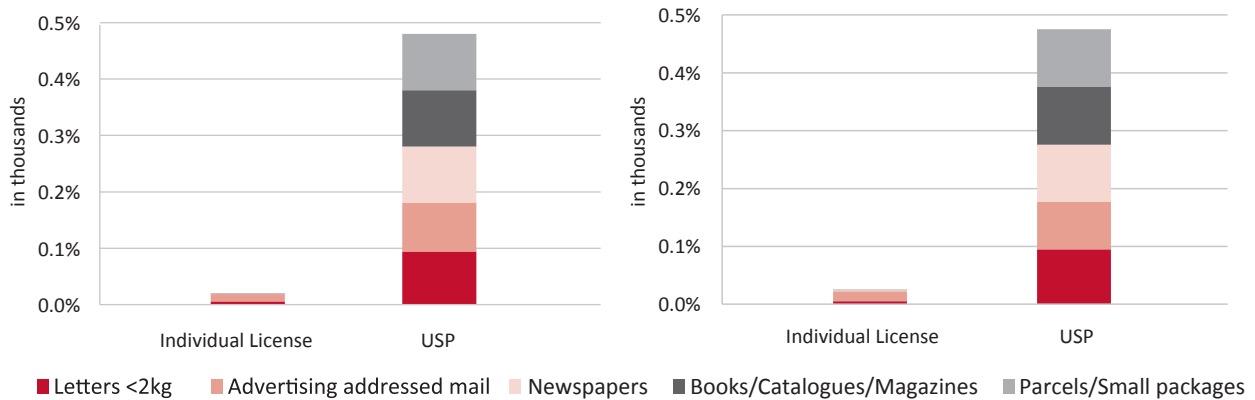
and generated 95% of the related revenue.

Regarding US services, USP holds high market shares, as it is shown in Chart 2.19. Nevertheless, the

growth of companies with Individual License in letter and advertising mail is obvious.



Chart 2.19: US services' market shares in terms of volume and revenue (2014)



Source: EETT (based on the information given by the postal service providers)

Table 2.7 demonstrates the market shares of USP regarding US services.

Table 2.7: USP market shares per service within US (2014)

	Of total items	Of total revenue
Letters	94.1%	94.9%
Advertising mail	87.1%	82.6%
Books/Catalogues/Magazines	99.6%	98.9%
Total	93.9%	95.0%

Source: EETT (based on the information given by the postal service providers)

Universal Service Provider (USP)

According to the current legal framework, ELTA is the Greek USP and has undertaken the obligation to provide US for a period of 15 years since the beginning of market liberalization to December 31, 2028.

USP's postal services portfolio for 2014 is presented in Table 2.8.

In recent years, factors such

as postal market liberalization and increasing competition, e-government and letter substitution by electronic mail have significantly affected USP services, which have led to a revenue drop by 9.5% and return to the year 2000 levels.

Nevertheless, the annual change for both volume and revenue seems to recover in recent years. It is worth

mentioning the increase in postal item volume.

According to L. 4053/2012²⁶, USP is obliged provide to users, regardless their location in the Greek territory, permanently and at affordable prices, with postal services of a specific quality. Chart 2.22 presents the results of quality measurements for the provision of US regarding domestic priority mail.

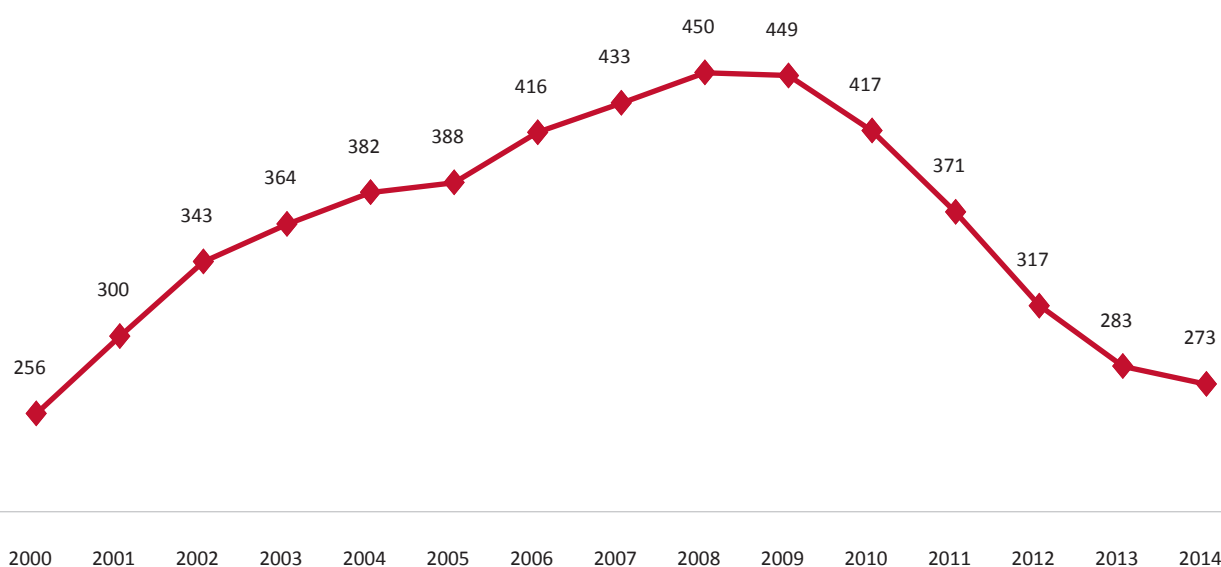
26. GG 44/A/07-03-2012, "Regulation of the postal market, electronic communications issues and other provision".

Table 2.8: US volume and revenue distribution (2014)

	Of total items	Of total revenue
Letters	89.4%	88.1%
Advertising mail	5.8%	2.5%
Newspapers	1.5%	1.8%
Books/Catalogues/Magazines	2.6%	1.6%
Parcels <20kg (incl.small packages)	0,8%	6,1%
Total	100%	100%

Source: EETT (based on the information given by the postal service providers)

Chart 2.20: USP revenue (2000-2014) (in mil. EUR)



Source: Annual financial statements 2014

It should be noted that ELTA's obligation under MD 72142/1663/2014 (GG 3423/B/19-12-2014) is 87% within one day and 98% within three days. In 2014, USP's delivery percentages dropped and average delivery time increased, remaining, however, within targets.

Regarding its clientele, 83% of customers hold a contract with

USP. Public sector counts for 30% of the clientele, telecommunications for 20% and consumers for only 20%.

As regards infrastructure issues, in 2014, USP maintained 696 post offices and 720 agencies, numbers that have declined by 4.3% and 0.8% respectively, compared to 2013. Moreover, USP owned 787 cars and 1,907 motorbikes.

In 2014 the number of employees declined by 9.9% compared to 2013, to a headcount of 7,185 employees.

Companies with Individual License

In the US, apart from USP, there are also eleven companies operating with an Individual License. Chart 2.23 shows that the number of these companies has signifi-

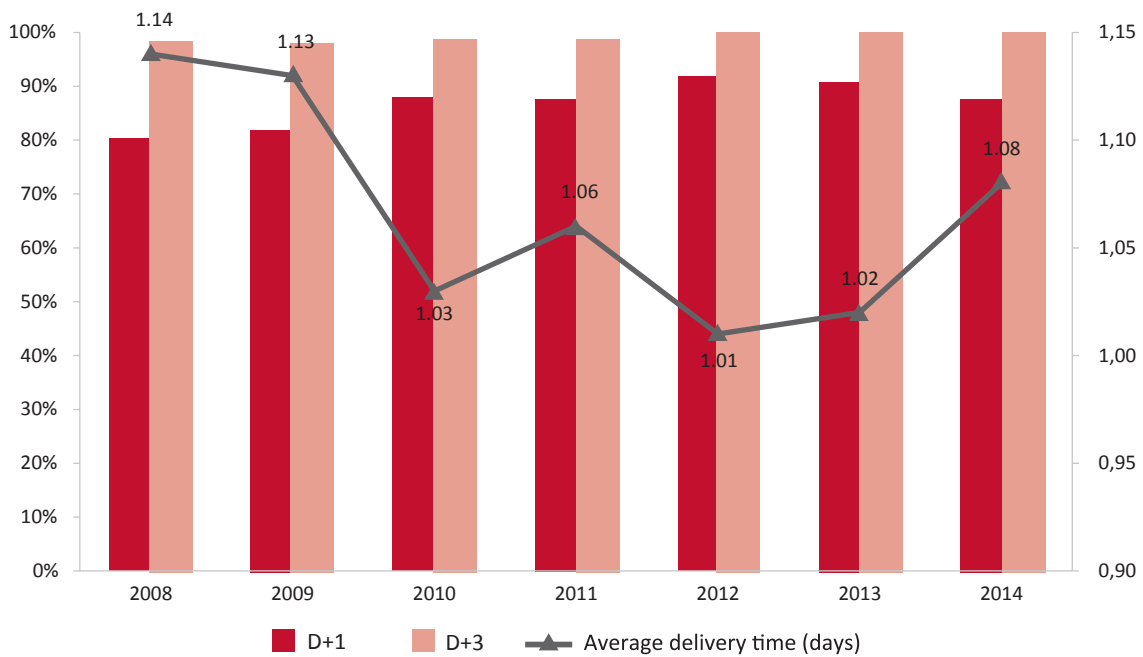


Chart 2.21: Annual change in volume and revenue (2001-2014)



Source: Annual financial statements 2014

Chart 2.22: Measurement results regarding domestic first priority mail



Source: "Measurement results for the time handling of first priority mail"

cantly increased in 2014, due to market liberalisation.

Until market liberalization, the companies with Individual License had been offering selective services to a limited number of customers, mainly in wholesale, following a “niche in the market” strategy. In 2014, this changes, since companies, with a strong market share in the courier market, expressed their interest in

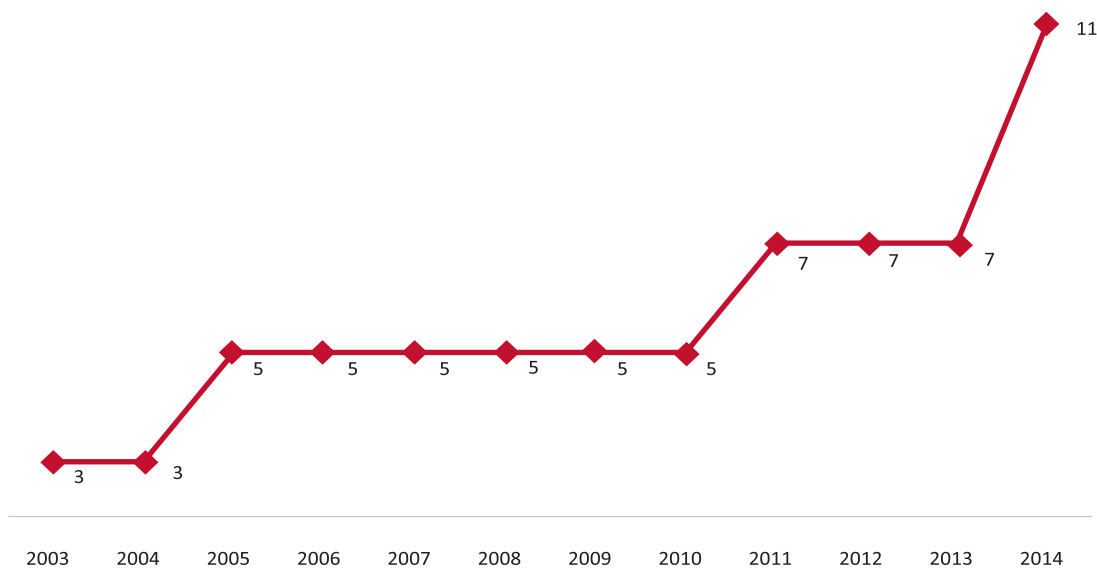
the provision of letter post services. In 2014, the companies with Individual License handled 6.1% of postal items, corresponding to 5.0% of total revenue, increased by 1.3% and 0.9% as regards 2013.

Specifically, in 2014, four companies operated in letter mail, five in advertising mail, two in newspapers, one in books/catalogues/magazines and two in parcels delivery. It is worth noting that five

out of the eleven companies provided only one service and four of them were in the advertising mail business. It is also mentioned that among the companies, which handled letter mail, 82% is delivered by only one.

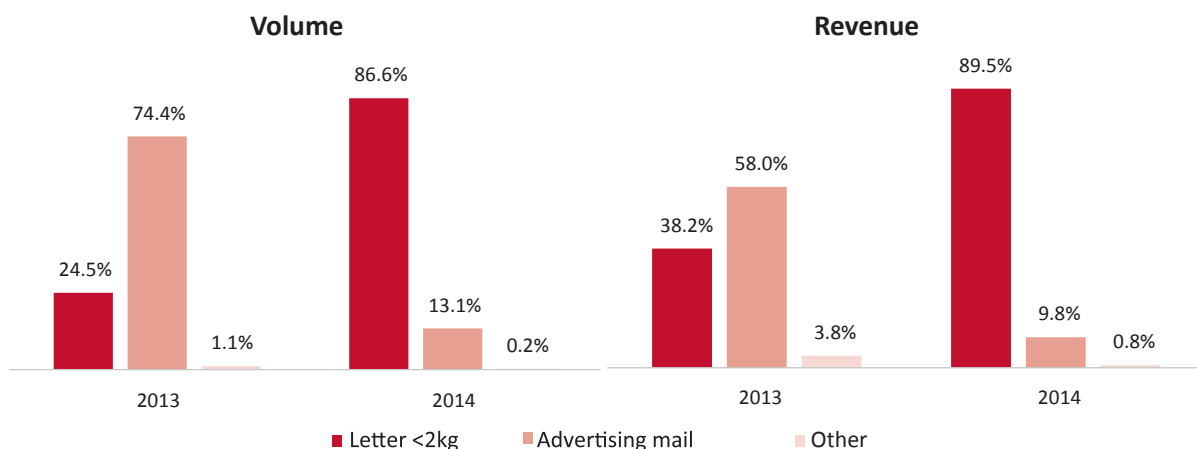
Therefore, although the main activity of those companies used to be advertising mail, in 2014 letter mail service is prevailing.

Chart 2.23: Number of companies with an Individual License



Source: EETT (Registry of postal service providers)

Chart 2.24: Portfolio of companies with Individual License (2013-2014)



Source: EETT (based on the information given by the postal service providers)



Therefore, the portfolio of companies with Individual License is formed as follows:

Table 2.9: Volume and revenue for companies with Individual License services (2014)

	Total items	Total revenue
Letter <2kg	86.6%	89.5%
Advertising mail	13.1%	9.8%
Newspapers <2kg	0.2%	0.6%
Books/Catalogues/Magazines	0.0%	1.0%
Parcels <20kg	0.0%	0.0%
Total	100%	100%

Source: EETT (based on the information given by the postal service providers)

2.3.3. The market of courier services

The courier sector is a growing and competitive market, with significant activity in the parcels and small packages area. These companies operate under General Authorisation and provide courier services, meaning express delivery of postal items, including monitoring and track & trace systems.

For 2014, volume and revenue distribution per category of postal items is depicted in Chart 2.25.

Parcels and small packages volume significantly outweighs letters volume, whereas letters generate much less revenue. On the other hand, it is worth mentioning the remarkable small packages activity.

Courier companies own 1,636 branches, including network outlets and mailing boxes, more than 2,700 cars and 2,300 motorbikes. Furthermore, 8,600 people were

employed, 88% of whom were employed on a full time basis and whereas 54% were distributors.

For the better comprehension of competition within the courier market, Porter's five forces model²⁷ is applied. The model analyzes: a) intensity of competition, b) threat of new entrants, c) threat of substitute products or services, d) bargaining power of customers and e) bargaining power of suppliers. The five forces are indicative of the competition conditions in the courier market that every postal service provider has to cope with and of the degree that the courier market is competitive and offers opportunities for new business development.

(a) Intensity of competition

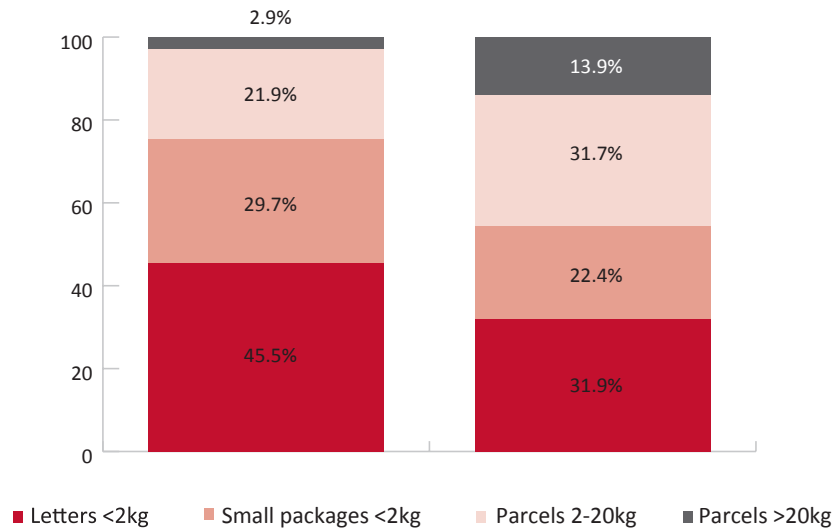
As shown in Chart 2.26, in 2014, 365 companies under General Authorisation operated in the postal market, 6% less than in 2013.

Specifically, there are six compa-

nies handling 84% of the postal items and generating 82% of market revenue. The following charts present the market shares of the six largest companies in the sector in terms of volume and revenue.

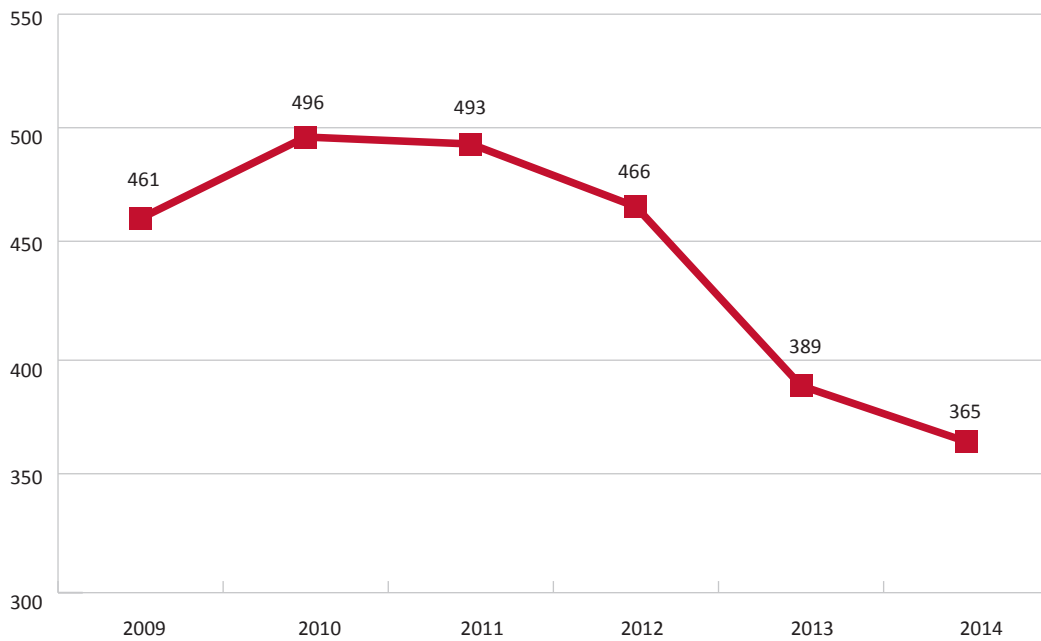
27. Porter M.E. (1979) "How Competitive Forces Shape Strategy", Harvard Business Review (March-April 1979).

Chart 2.25: Volume and revenue distribution of courier postal services (2014)



Source: EETT (based on the information given by the postal service providers)

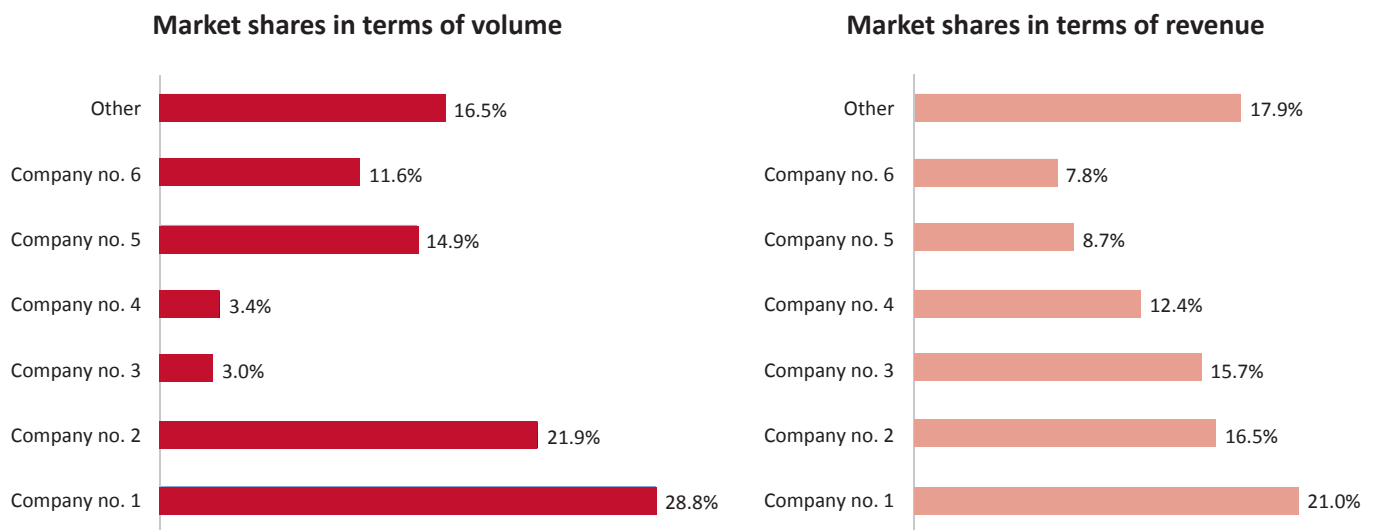
Chart 2.26: Number of existing competitors in the postal market



Source: EETT (based on the information given by the postal service providers)

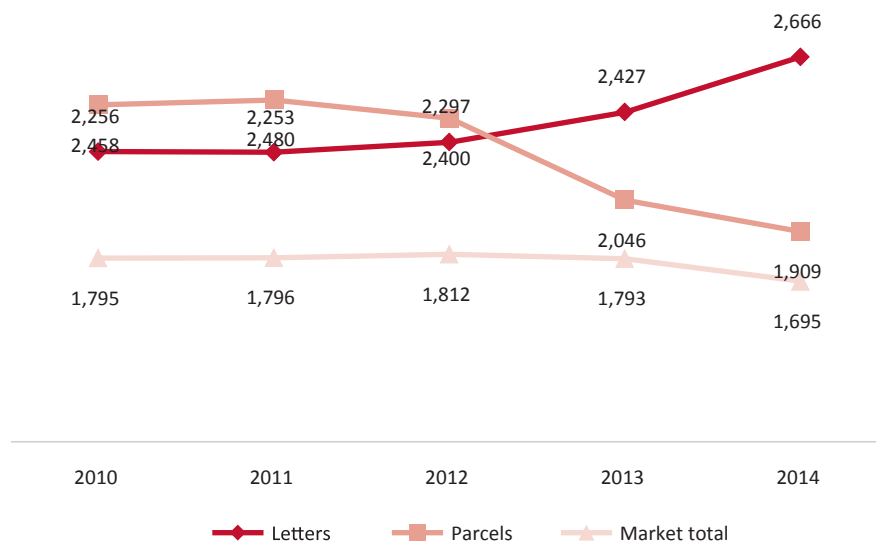


Chart 2.27: Courier companies market shares in terms of volume revenue (2014)



Source: EETT (based on the information given by the postal service providers)

Chart 2.28: Herfindahl-Hirschman Index



Source: EETT (based on the information given by the postal service providers)

The Herfindahl-Hirschman index²⁸ (HHI) gives an indication of the degree of competition among courier companies. The index shows the level of market concentration, i.e., the degree in which a small number

of companies represents a large part of the market. A high HHI index shows a high degree of market concentration in a small number of companies. Specifically, a HHI index between 1,000 and 1,800 indicates

a moderate level of market concentration.

Demonstrating a 24% decline, the letters courier market is characterised by a high degree of concentration, since 80% of mail is handled

28. Hirschman A. (1945), National Power and the Structure of Foreign Trade, Berkley & Los Angeles: Publications of the Bureau of Business and Economic Research, University of California and Herfindahl, O.C. (1950), Concentration in the U.S. Steel Industry, Columbia University, unpublished Ph.D. thesis.

$HHI = \sum_{i=1}^n s_i^2$, where s stands for the market share of company "i" and n stands for the number of companies.

by four companies. Parcel market, although declining in the five-year period, presents a high degree of competition, mostly due to its increasing trend. Overall, through the years the courier market remains moderately concentrated.

Courier companies offer added value services to customers, i.e., rapid delivery, the possibility to track and trace postal items throughout all delivery phases, as well as procedures which facilitate e-commerce, such as delivery at a specified time and place, convenient return process of postal items etc., aiming at gaining competitive advantage in the courier market and vs USP.

In the same context, taking into advantage the cross-border e-commerce development, 30% of courier companies are activate internationally²⁹. Specifically, 12% of domestic postal items are delivered abroad, corresponding to 27% of total revenue. Moreover, the majority of postal items are delivered to and from the EU (68% and 71.6% respectively), whereas a significant percentage is handled to (10%) and from (13.5%) Asia.

(b) Barriers for new entrants

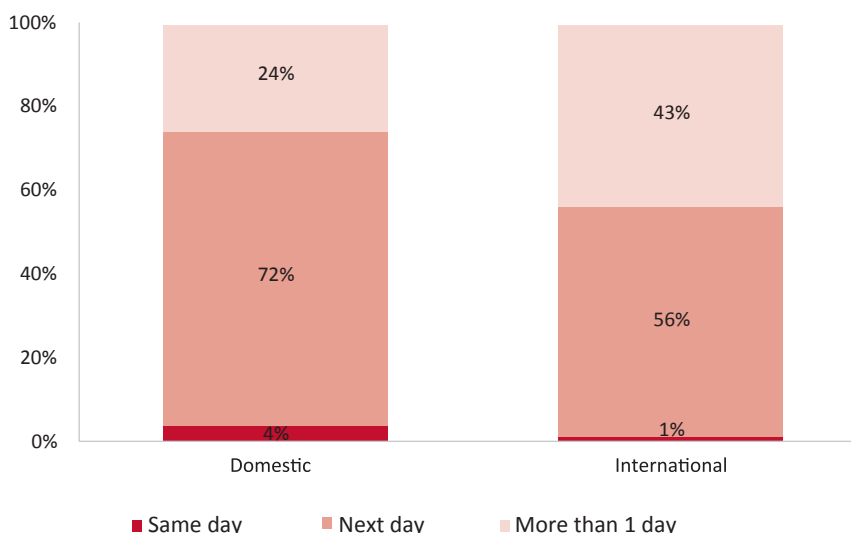
In the courier sector, where competition is significant, the main obstacles for new entrants refer to economic issues, related to the Greek

economic crisis and business issues, as follows³⁰:

- a) Consumers demand, which is defined by factors such as company's reliability, pricing and quality in customer service.
- b) Market problems, such as compression of prices, the high cost to buy and maintain the vehicles and the high number of competitors in the market.

As shown in Chart 2.30, in 2014, the number of new entrants in the courier market is reduced as compared to previous years. Especially, since 2012 the number of new companies has been declining.

Chart 2.29: Delivery time of postal items (2014)



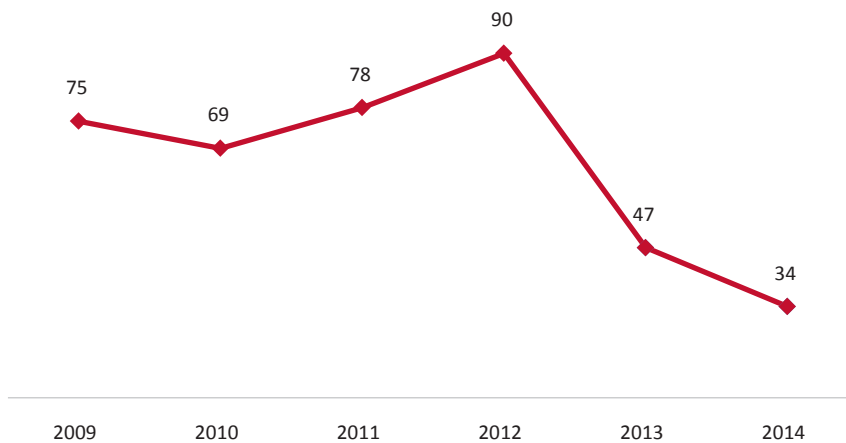
Source: EETT (based on the information given by the postal service providers)

29. EETT (based on the information given by the postal service providers).

30. EETT (based on the information given by the postal service providers).



Chart 2.30: Number of new competitors in the courier market (2009-2014)



Source: EETT (Registry of postal service providers)

(c) Substitute products/services

Regarding letter mail, Internet is the most important “threat”, due to the alternative communication services it offers to consumers and mostly to companies.

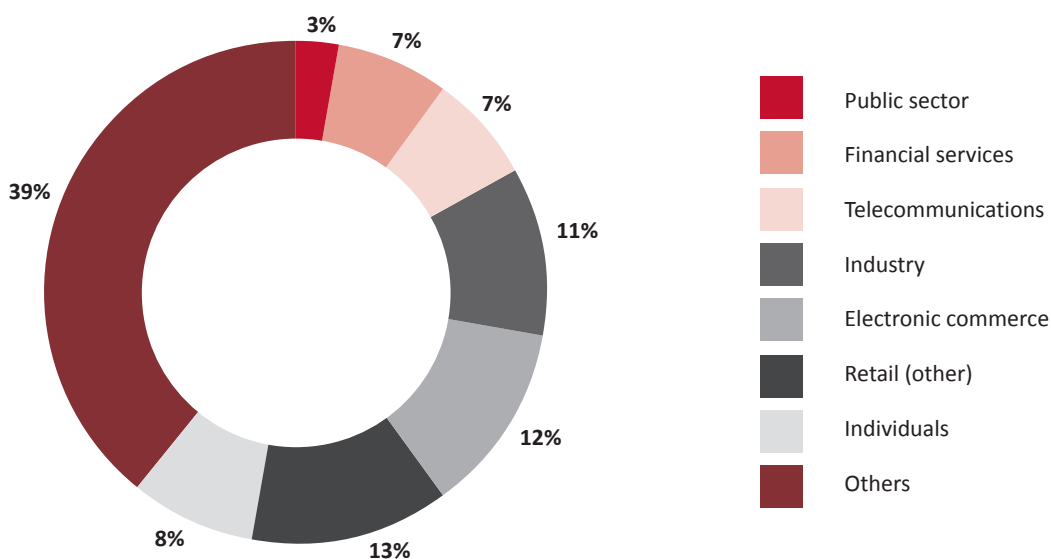
As regards parcels, it is obvious that there are no substitutes,

but only supplementary services. Since the market is evolving, due to its relation to web marketing and e-commerce, there is the possibility for the development of supplementary services of additional mail, such as confirmations, bills, payments etc.

(d) Bargaining power of customers

The clientele of courier companies is mostly compiled by companies rather than consumers, as indicated in Chart 2.31. Main business clients come from commerce, including e-commerce and industry.

Chart 2.31: Courier companies’ clientele with regard to revenue (2014)



Source: EETT (based on the information given by the postal service providers)

Furthermore, 87% of the clientele hold a contract³¹, generating 89% of revenue. 77% of customers hold contracts up to 30,000 euros and a very small percentage (0.4%) hold contracts above 150,000 euros annually. Chart 2.32 depicts revenue per customer type.

Taking under consideration the development of e-commerce and consequently its significance to the viability of courier companies,

e-merchants are becoming more powerful. In that context, it is noteworthy that there are companies absolutely dependent on one customer, whom in order to maintain, they compress prices and reduce their operating costs.

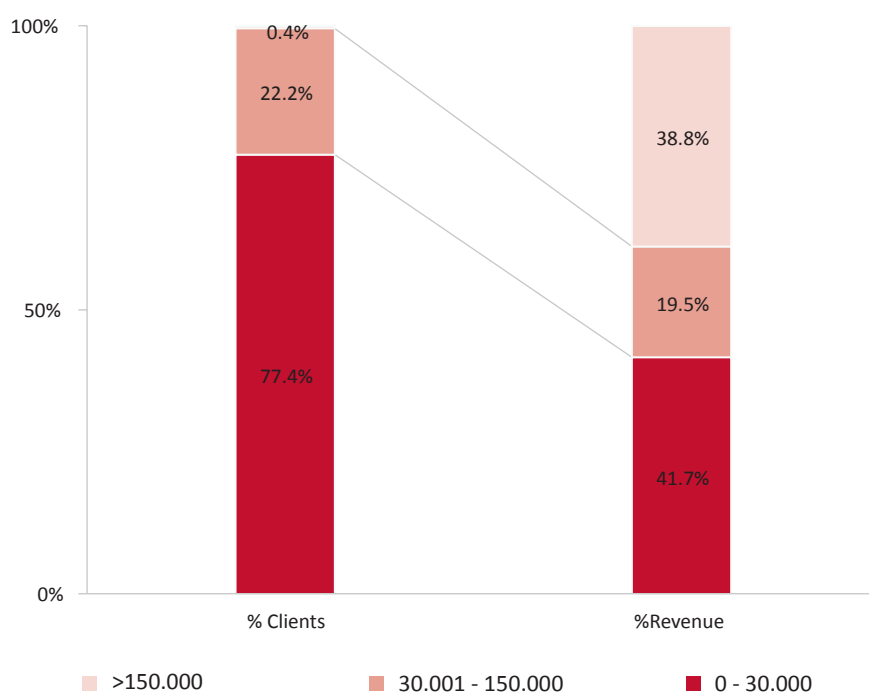
(e) Bargaining power of suppliers

The suppliers of postal market, such as the producers of selection machines, transportation vehicles, mail

handling machines etc., influence the operation of the postal company without affecting competition in terms of pricing, delivery frequency or network coverage.

Nevertheless, postal service providers, in order to cope with competition, are willing to invest³² in new technologies and vehicles and less in network development and advertising.

Chart 2.32: Revenue distribution per customer type for courier companies (2014)



Source: EETT (based on the information given by the postal service providers)

31. EETT (based on the information given by the postal service providers).

32. EETT (based on the information given by the postal service providers).



2.4. Study on e-commerce

EETT, taking into account the growing prospects of e-commerce in Greece and its strategic significance for the postal sector, conducted a study³³ completed in March 2015, regarding e-commerce users' preferences on parcel delivery services. Findings of this study are presented below.

2.4.1. Trends in the European market

E-commerce is the most rapidly developing sales channel globally. Revenue³⁴ from retail sales through e-commerce is expected to rise in 2014 by 20.1%, exceeding 2 trillion euros. In Europe, an increase over 10% is foreseen, between 2013 and 2016. E-commerce development varies among countries, with UK, Germany and France dominating and on the other hand, Greece, Turkey, Ukraine, Hungary and Russia presenting rapid growth rates.

In related announcements and initiatives³⁵ by EU, high quality standards for the delivery services concerning the purchases through the Internet, have been recognized as one of the main parameters for the development of e-commerce. The delivery services, which e-shops offer, are one of the factors that influence consumers' buying decisions.

Postal items delivery issues

(a) Postal service providers

According to Copenhagen Economics³⁶, e-commerce product delivery varies among countries. Apart from the traditional postal services, which exist in all EU countries, in the very mature e-commerce markets, delivery services are also offered by alternative providers, such as parcel brokers, consolidators and fourth party logistics providers.

On the grounds of geographical coverage, postal service providers are pursuing synergies regarding delivery issues based on criteria such as price, quality of delivery services, mutuality and the existence or not of delivery networks.

In the case of cross-border transactions, synergy models are applied between the USPs based on mutual agreements, the USPs and their subsidiaries at the destination countries to take advantage of their network, the USPs and the courier companies for cost and efficiency reasons and finally between courier companies for reasons such as network expansion and variety of delivery choices.

(b) E-shops

E-shops may choose the postal service providers to co-operate as well as the type of their cooperation, based on criteria including the e-shop size, the geographical coverage offered by the postal service

provider, the existence or not of physical shop, the services/products offered by the e-shop, the maturity of the e-market and the delivery cost.

The following features regarding delivery service are considered of great importance by e-shops:

- home or office delivery,
- delivery within 2-4 days, delivery within specific timeframe and next day delivery,
- track & trace services,
- notification on delivery,
- choice regarding delivery cost, between small range of services with low prices or large range of services with many price levels,
- return of postal item at post office or other collection point.

c) Consumers

According to consumers, the following features are considered to be of great importance:

- delivery within 2-4 days or at a pre-agreed time,
- pickup of postal item from a pre-defined point such as post office or kiosk,
- option for re-routing the postal item
- track & trace services,
- electronic notification on delivery,

33. EETT decision 738/017/30-10-2014 «Composition of working group to conduct a study regarding e-commerce users preferences on parcel delivery services in Greece».

34. UPU Forum 2014.

35. E-commerce communication, COM (2011) 942 final; Resolution (P7_TA(2010)0320) of 21/9/2010 on completing the internal market for e-commerce; Council of the EU, Conclusions on the Digital Single Market and Governance of the Single Market, 31/5/2012; ESC opinion INT 674 of 3/2013 on the Green Paper; Resolution (P7_TA-PROV(2012)0468) of 11/12/2012 on completing the Digital Single Market (2012/2030(INI)).

36. Copenhagen Economics, "E-commerce and delivery", July 15th 2013.

- low delivery cost, regardless if it is the first purchase or a repetitive one,
- return of postal item at post office or other collection point.

Comparative evaluation of e-commerce fees in EU

The following table demonstrates the prices of a 2kg parcel for delivery by the USP of each country

member within and outside EU. These prices pertain to single shipment, based on the retail price list and are indicative of the shipping cost in every country.

Table 2.10: Shipment cost of a 2kg parcel by USP (in EUR)

	Domestic shipment	Cross-border shipment to the most inexpensive EU destination	Cross-border shipment to the most expensive EU destination
Romania	0.82	10.95	20.95
Cyprus	1.72	8.40	22.92
Czech Republic	1.72	8.40	22.92
Malta	1.77	11.31	26.74
Latvia	2.32	11.54	19.45
Lithuania	2.69	10.91	21.99
Slovakia	2.80	9.00	20.50
Poland	3.12	8.87	19.66
Denmark	3.26	11.60	19.75
Estonia	3.26	11.60	19.75
Slovenia	3.40	13.67	13.67
Portugal	4.05	22.75	26.75
Greece	4.10	29.63	29.63
Austria	4.31	14.06	14.06
Hungary	4.34	18.70	34.60
Germany	5.90	15.00	15.00
Belgium	6.40	16.20	32.40
United Kingdom	6.46	15.76	15.76
The Netherlands	6.75	9.00	19.30
Luxemburg	7.00	12.00	24.00
Finland	7.20	18.00	31.00
Ireland	7.50	27.50	32.00
France	8.50	17.85	17.85
Italy	9.10	34.28	34.28
Sweden	12.90	31.20	31.20
Bulgaria	0.81- 1.43	12.53	24.85
Spain	5.51- 8.54	29.85	32.20

Source: "E-commerce and delivery", Copenhagen Economics (2013)



According to the above table, Greece is in the middle of the ranking, regarding domestic shipment, whereas it is the fourth most expensive country following Italy, Sweden and Spain regarding cross-border shipments. In UK, Germany and France, the most highly ranked countries in e-commerce market, domestic shipping cost is high, whereas cross-border shipping cost is relatively lower.

EU initiatives for the reinforcement of e-commerce

With a view to reinforce e-commerce, EU published the Green Paper³⁷, which focuses on parcel cross-border delivery, small and medium size enterprises' needs and the less developed and accessible areas, on the grounds that e-commerce should be accessible to all citizens and companies, regardless parcel size and location. As a follow-up, the Commission published a "roadmap", aiming at the design of a future route through the pursuit of three goals:

- increased transparency and information to all involved parties in e-commerce value chain,
- improved availability, quality and affordability of delivery solutions and
- enhanced complaint handling and protection mechanisms for consumers.

In the same context, WIK³⁸ pro-

poses six initiatives, which support e-commerce development through the better operation of parcel delivery systems in Europe:

1. information platform on delivery services,
2. e-commerce scoreboard on delivery and price performance,
3. delivery aspects in e-commerce trust marks,
4. improvement of parcel services in rural areas,
5. interoperability of cross-border delivery operations and
6. methodology to measure cross-border transit time.

At national level, local initiatives are taken to support e-commerce. E-commerce associations and other related entities aim at the provision of better and integrated information through activities for their members, publications and informative sites.

2.4.2. Trends in Greece

In Greece, B2C e-commerce market followed an upwards trend in 2014³⁹, as consumers increased the number of e-purchase categories by 10% within the year.

According to the Hellenic Statistical Authority⁴⁰, three out of ten people between 16 and 74 years old, who had used the Internet at least once, made in the first quarter of 2014 an e-purchase or online order of products or services.

The percentage of these users is 29.5%, increased by 9.3% compared to the respective period in 2013.

The past four years, the percentage of Internet users, who have never made any online order or purchase in the first quarter of every year, is reduced from 70.9% in 2010 to 53.7% in 2014, i.e., by 32.0%.

Estimations for 2015 are positive, since it is expected that six out of ten e-consumers will increase the value of their e-purchases and only one out of ten will reduce respectively.

Results from EETT interviews with postal service providers in the context of the e-commerce study

EETT conducted interviews with executives of the 12 biggest postal companies. The main conclusions are summarized as follows:

- The sharp increase in e-commerce changed the delivery framework with B2C prevailing B2B, which used to dominate the market in previous years. As a result, the market is going through an adaptation period.
- Shipment proportion to non-urban centers is higher vs urban centers. Although urban centers gather more than 60% of the population, they receive only 40% of e-commerce parcels.
- It is estimated that 30% of to-

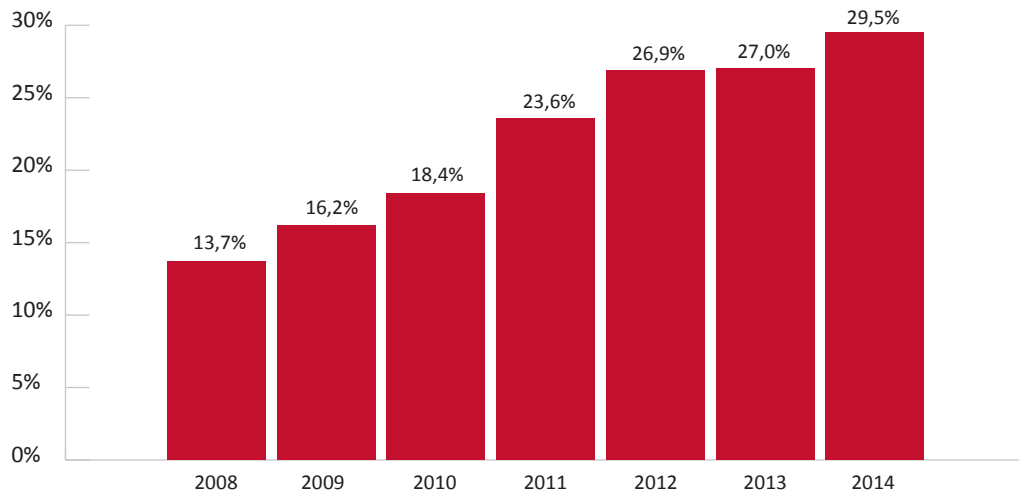
37. "An integrated parcel delivery market for the growth of e-commerce in the EU", November 2012.

38. WIK-Consult, «Design and development of initiatives to support the growth of e-commerce via better functioning parcel delivery systems in Europe», August 2014.

39. ELTRUN, "Annual study on e-commerce" (2014).

40. ELSTAT, "Research on information and communication technologies usage by households, 2014" (December 2014).

Chart 2.33: Internet users that purchased online (2008-2014)



Source: ELSTAT

tal courier shipments, i.e., 15-20 million shipments per year, pertain to purchases through e-commerce. 90% of them refer to cash-on-delivery services.

- For international shipments, Greek postal service providers cooperate with international providers and not directly with e-shops. Most of the times, e-shops choose one provider to handle all the international shipments.
- E-shops choose postal service providers based on criteria including pricing, value added services (such as track & trace systems, delivery etc.), the time to render the money received, IT tools for e-mail/SMS notification, label automation etc.
- Consumers prefer home or office delivery (~75%) vs pick-up from post office (~25%).

During the interviews, the follow-

ing issues have been recorded:

- Technological issues, such as unsatisfactory broadband connections, which increase postal companies' identify cost.
- Difficulty to locate the recipient due to mistaken/incomplete address or unsuccessful telephone communication often leads to product return. Note that first attempt failure counts for 50-60%.
- E-shops consider providers' compliance with the pre-agreed time limit for parcel delivery as very significant:
 - (a) Any delay increases the probability of no parcel receipt, especially in the case of cash-on-delivery service, where the customer might change his mind.
 - (b) The big e-shops tend to absorb the shipping cost.
 - (c) Specialized services, such as same-day delivery or delivery

within a specified timeframe, are not always offered by e-shops, due to the increased cost.

- Many postal service providers offer added value services to e-shops with no additional charge in order to cope with competition.
- There is no definite trend, regarding return policies.

Results of EETT study on the charges of e-commerce delivery services in Greece in the context of the e-commerce study

In the context of the evaluation of delivery service fees, 90 websites, representative of the main sectors in the Greek market, were evaluated regarding delivery terms.

E-shops in Greece set their pricing policy according to factors, the main of which are:

- Value of purchase: Delivery cost may be absorbed, if the value of purchase exceeds a specific



amount, often 30 or 50 euros.

- Delivery place: Although a uniform charge for delivery in Greece is common, charges tend to vary depending on the delivery place, i.e., if the product is delivered within Attica or the rest of Greece or to inaccessible areas and if the product is picked up from postal office or delivered to the consumer.
- Means of delivery: There are often more than one alternative, i.e., courier company, transportation company or company's vehicles. Many e-shops inform consumers about the courier company they cooperate with, while other e-shops cooperate with more than one courier companies.
- Weight and volume: In case of heavy and bulky items, such as home appliances, the charge is defined based on the volume-

measured weight. Some e-shops refer to extra cost per kilo when the order exceeds a specific weight, i.e., 2kg.

- Delivery time: Special delivery services, such as delivery on Saturday or on holidays or same day delivery, with extra charge, are often offered to customers.

The prices charged by e-shops for delivery services vary. Specifically:

- Most e-shops charge consumers with an average shipping cost of 3-4 euros. Cost is increasing to 6-7 euros for shipment to remote areas or outside their store network.
- Few e-shops offer free delivery within Greece, irrespective of the value of the purchase.
- Many e-shops have their products delivered abroad, where charges depend on destination. The prices may vary for delivery

to Cyprus, to EU state members or to the rest of the world. Charges may also be set individually or in agreement with the consumer.

Results from EETT's satisfaction survey on postal delivery services in the context of the e-commerce study

EETT conducted in March 2015, by its own means, and in cooperation with GRECA (Greek E-Commerce Association) a qualitative online survey of e-shops to evaluate their satisfaction over delivery services. The responses of e-shops that participated and are listed below, highlight e-commerce key trends / market prospects, provide a very clear picture of their level of satisfaction for every aspect of the delivery services and also indicate areas for improvement to meet market needs.

E-shop customer satisfaction survey results

1. In addition to the e-shop, do you also have an actual store?

68% of online shops have an actual store.

2. In which of the following categories would you classify the products that you sell online?

- Clothing/Footwear and accessories: 26%
 - Household goods: 22%
 - Computers and electronics: 22%
 - Baby care products: 15%
 - Personal care products: 8%
 - Books: 5%
-

Note: The total is greater than 100% as a store may sell products of two or more categories.

3. How many parcels do you send per year in Greece?

Average annual number of parcels: 20.000.

4. What percentage of your goods are delivered to the following destinations?

- Prefectures of Attica and Thessalonica: 41%
- Rest of Greece: 59%
- Abroad: less than 10%

5. What kind of delivery services do you use?

- Courier services: 71%
- ELTA: less than 10%
- Transport company: less than 10%
- Own means of delivery: less than 10%
- In-store pick up: less than 10%
- Other: less than 10%

6. What percentage of your customers chooses to pay with cash on receipt of their products?

Over 70%.

7. How important do you consider the following factors in your decision to cooperate with a postal company?

	Very much	Fairly	Slightly	Not at all
Cost of delivery services and refunds	78%	20%	0%	0%
Reliability in delivery time	75%	22%	2%	0%
Good condition of the deliverable package	77%	18%	3%	0%
Additional delivery services (early morning delivery- time commitment- holidays- package services, etc.)	14%	38%	31%	14%
Support services for you and your customer (issue management- refunds- track & trace service- sms or email alerts etc)	58%	34%	6%	0%
Possibility of electronic data interchange and interaction with information system	57%	29%	11%	2%
Flexibility in the parcel delivery (at home- at courier shop- other places etc.)	31%	51%	9%	8%
Distributor's conduct and appearance	40%	34%	22%	3%
Reliable procedure for collecting cash on delivery	75%	18%	2%	3%



8. How satisfied are you with the courier company/companies with which you have partnered with over the following?

	Very much	Fairly	Slightly	Not at all
Cost of delivery services and refunds	34%	38%	26%	0%
Reliability in delivery time	26%	60%	11%	0%
Good condition of the deliverable package	20%	63%	11%	2%
Additional delivery services (early morning delivery- time commitment- holidays- package services, etc.)	9%	46%	25%	9%
Support services for you and your customer (issue management- refunds- track & trace service- sms or email alerts etc)	17%	51%	20%	6%
Possibility of electronic data interchange and interaction with information system	20%	42%	23%	11%
Flexibility in the parcel delivery (at home – at courier shop- other places etc.)	20%	42%	29%	3%
Distributor’s conduct and appearance	17%	46%	22%	9%

Note: For simplicity reasons, the data of the above tables have been rounded.

9. Return policy:

- There is an agreement with the courier company for product return policy that is free or low cost and convenient to the customer : 66%
- The customer is responsible for the return: 31%

10. Which of the following information concerning the delivery of parcels, do you provide to your customers on your website?

- Delivery cost: 89%
- Delivery time: 75%
- Ability to choose between delivery companies: 22%
- Additional delivery services and charges: 26%
- Information on the delivery progress: 57%
- Return policy and procedure: 88%

11. How important to the customer shopping experience, do you think delivery services are?

86% of the participants considers delivery services to be very important, while another 12% considers them to be quite significant.

12. What are the three (3) main problems that you need to deal with, concerning the delivery services that you use?*

The problem indicated by the most of the participants (about 30%) is the shipping cost, especially for destinations abroad or the additional cost for the collection of cash on delivery. The cost often becomes even higher due to measuring of volume that courier companies use that leads to overcharging parcels that are large but not heavy. Other problems that were also highlighted (10% each) were the non-existence of web services and the reliability of delivery time.

Regarding technology, it is either poor or accompanied by operational problems regarding the printing of labels, reporting, customer's information in different electronic means, troubleshooting during handling etc.

Moreover, in terms of reliability, problems relating to the failure of the courier services to meet the advertised delivery times were highlighted. A 9% of the participants considers as a problem the poor coverage of inaccessible and remote areas, while in the same category another 8% considers that agencies in the Greek region are not as reliable as the courier companies' own stores. Note that delivery failure means in most cases, loss of payment and very likely loss of sale.

Other problems (about 8% of the answers) refer to the misconduct of employees towards customers or towards the e-shop company, poor appearance and several cases of inability to complain to a representative.

Finally, around 6% of the participants stated their concern over the following problems:

- Returns of the objects for a number of reasons and lack of a specific policy that facilitates the customer.
 - Delays on delivery of returns.
 - Poor condition of parcels.
 - Lack of flexibility in the means and delivery times.
 - Problems with ELTA (lost packets).
-

13. How do you think parcel delivery services could be improved and what new services would you like courier companies to provide?

- Additional receipt and delivery options (e.g., delivery to branch offices in the region, delivery on Sundays, possibility to indicate specific delivery time, telephone appointment for delivery, delivery in shorter time limits- one hour, instead of two or four hours or within the same day over a more extensive network, or evenings, or elsewhere the network of courier company such as kiosks, gas stations, convenience stores, super markets etc., pick-up points for arrivals working days / hours, indications of return points, extension of receipt and delivery time).

- Improvement on technological features (e.g., interconnection systems, modernization of web services for cost calculation, tracking orders, reporting and delivery analysis, information on the parcel's arrival at the delivery point, sms alerts, and notices if the recipient is absent, linking of the tracking system with opencart platform, better information on undelivered parcels).

- Collection of large packages. Low cost transportation for heavy objects within the city.

- Delivery of refrigerated and frozen products.

- Better pricing terms for delivery abroad (e.g., massive shipment of items abroad at lower cost and longer delivery time).

- Reduction or abolition of delivery costs.

- Better compliance with the specific time of delivery.

- Single and decent appearance of distributors and improvement of their conduct towards the consumer.

- Database on EETT's website, including all transport agencies and indication of the destinations they serve.

- Payment to the local agencies only to be made after the parcel's delivery as an incentive to serve remote areas.

- Conduction of a "black list" along with e-shops, in order to register there all the customers who systematically refuse to receive their orders, to protect all (e-shops and courier companies) from high rates of refusal.

- Better handling of delivered packages, especially of fragile ones.

**Note: In this question, respondents expressed freely their suggestions.*

Index of charts & tables

(a) Charts

Chart 1.1: Next Generation Access (NGA) broadband coverage in the EU	10
Chart 1.2: Next Generation Access (FTTP, VDSL and Docsis 3.0 cable) coverage per EU country (2014)	10
Chart 1.3: Telecommunications' contribution to Greece's GDP (in million EUR)	13
Chart 1.4: Number of personnel	14
Chart 1.5: Progress of the monthly Consumer Price Index (General Index-Communications Sub-Index)	14
Chart 1.6: Change of the monthly Consumer Price Index compared to the respective index of the previous year	15
Chart 1.7: Progress of licensed operators' basic financials	16
Chart 1.8: Electronic communications operators' turnover	17
Chart 1.9: Electronic communications operators' gross profits	17
Chart 1.10: Electronic communications operators' total assets	18
Chart 1.11: Investment by electronic communications' providers	18
Chart 1.12: Acid-Test Ratio	19
Chart 1.13: Gross Profit Margin Ratio	19
Chart 1.14: Activity Ratios	20
Chart 1.15: Progress of broadband lines	21
Chart 1.16: Broadband penetration rate in the EU (2014)	22
Chart 1.17: Broadband penetration in the EU (2014)	23
Chart 1.18: Annual growth rate of broadband penetration in Greece and the EU	24
Chart 1.19: Progress of broadband penetration rate in Greece and the EU	24
Chart 1.20: Progress of LLU lines	25
Chart 1.21: Average monthly cost of a full LLU line in EU member states (October 2014)	26
Chart 1.22: Average monthly cost of a shared LLU line in EU member states (October 2014)	26

INDEX OF CHARTS & TABLES

Chart 1.23: Progress of VDSL lines	27
Chart 1.24: Distribution of broadband lines per technology (December 2014)	28
Chart 1.25: Progress of broadband lines per technology (number of lines)	28
Chart 1.26: Progress of broadband lines per technology (% of the total)	29
Chart 1.27: Broadband lines with non DSL technologies in the EU (2014)	29
Chart 1.28: Distribution of broadband line speeds (December 2014)	30
Chart 1.29: Progress of broadband line speed	30
Chart 1.30: Progress of the average access speed of retail & wholesale ADSL lines	31
Chart 1.31: Percentage of lines with speeds >30Mbps in the EU member states	31
Chart 1.32: Mobile telephony subscribers that used Internet	32
Chart 1.33: Penetration of telephone lines in Greece's population	33
Chart 1.34: Annual percentage change of telephony lines	33
Chart 1.35: OTE's market share based on the number of telephone lines	34
Chart 1.36: Alternative operators' lines via carrier pre-selection and full LLU	35
Chart 1.37: Activated lines for wholesale line rental	35
Chart 1.38: Pre-selection lines as a percentage of OTE's PSTN and ISDN lines	36
Chart 1.39: OTE's market shares (based on outgoing traffic)	37
Chart 1.40: OTE and OLOs' market shares (based on the traffic volume of the main call types) (2014)	38
Chart 1.41: Market shares of OTE, the five largest OLOs and other OLOs (based on the traffic volume of the main call types)	38
Chart 1.42: OTE's market shares per call type (based on traffic volume)	39
Chart 1.43: Progress of the fixed outgoing traffic volume	40
Chart 1.44: Progress of the fixed outgoing traffic volume	41

Chart 1.45: Annual change of fixed outgoing traffic volume	41
Chart 1.46: Distribution of fixed outgoing traffic	41
Chart 1.47: Progress of fixed outgoing traffic for main call types	42
Chart 1.48: Annual change of the fixed outgoing traffic	42
Chart 1.49: Distribution of the fixed outgoing traffic for main call types	42
Chart 1.50: Outgoing traffic volume for OTE and OLOs (not incl. dial-up)	43
Chart 1.51: Annual change of outgoing traffic volume for OTE and OLOs (not incl. dial-up)	44
Chart 1.52: Outgoing traffic volume (not incl. dial-up) and managed VoIP traffic	44
Chart 1.53: Retail revenues from the provision of telephone services, Internet and broadband TV content	45
Chart 1.54: OTE's market share (based on retail revenues from telephony, Internet and broadband TV content services)	46
Chart 1.55: Distribution of the retail revenues from telephony, Internet and broadband TV content services (2014) (in mil. EUR)	46
Chart 1.56: Retail revenues (of fixed services) from bundled services packages	47
Chart 1.57: Homezone subscriptions	47
Chart 1.58: Outgoing traffic from telephony services rendered in zone from Homezone packages	47
Chart 1.59: Mobile telephony connections/subscriptions	48
Chart 1.60: Progress of the mobile telephony subscribers (prepaid and postpaid)	49
Chart 1.61: MTOs market shares on the number of mobile telephony connections	49
Chart 1.62: Mobile telephony penetration in the EU	50
Chart 1.63: Volume of voice calls originating from mobile phones	52
Chart 1.64: Voice calls per category	52
Chart 1.65: Voice calls per category	53
Chart 1.66: Voice calls per user category	53

INDEX OF CHARTS & TABLES

Chart 1.67: Total number of SMSs	54
Chart 1.68: SMSs per category	54
Chart 1.69: SMSs per user category	55
Chart 1.70: Total MMSs	55
Chart 1.71: MMSs per user category	56
Chart 1.72: Total number (MB) of data services	56
Chart 1.73: Mobile telephony retail revenues	57
Chart 1.74: Average revenue per mobile user	57
Chart 1.75: Average revenue per mobile telephony user (ARPU) in the EU	58
Chart 1.76: Connections/subscriptions for fixed and mobile telephony	59
Chart 1.77: Revenues for fixed and mobile telephony	60
Chart 1.78: Volume of calls from fixed and mobile phones	60
Chart 1.79: Market shares of fixed and mobile telephony	61
Chart 1.80: Interconnection traffic of alternative operators via OTE	61
Chart 1.81: Actual local interconnection fees (January 2015)	62
Chart 1.82: Actual single interconnection fees (January 2015)	62
Chart 1.83: MTOs' interconnection traffic	63
Chart 1.84: MTOs on-net traffic	64
Chart 1.85: Decrease in mobile call termination fees	64
Chart 1.86: Average national termination fee from fixed to mobile phone	65
Chart 1.87: Average national termination fee from fixed to mobile phone	65
Chart 1.88: Number portability for mobile telephony	66

Chart 1.89: Number portability for fixed telephony	66
Chart 1.90: Number portability: ported numbers per month	67
Chart 1.91: Number of domain names	68
Chart 1.92: Number of requested and assigned domain names	68
Chart 1.93: Assignment percentage over the number of applications	69
Chart 1.94: Average percentage of assignments	69
Chart 2.1: Global GDP growth rate vs global postal revenue growth rate (2011-2013)	71
Chart 2.2: Letter post volume growth rate vs parcel & express volume growth rate internationally (2011-2013)	72
Chart 2.3: Letter post volume per country (in thousand items) (2013)	73
Chart 2.4: US revenue per country (in mil. EUR) (2013)	74
Chart 2.5: Postal market liberalization in EU member states (2013)	75
Chart 2.6: Domestic letter price up to 20gr per country (2013)	75
Chart 2.7: Greek postal market	76
Chart 2.8: Evolution of postal market turnover index (base year 2005)	77
Chart 2.9: Turnover of postal service providers (in mil. EUR)	77
Chart 2.10: Assets allocation in the postal market (2014)	78
Chart 2.11: Liabilities' allocation in the postal market (2014)	79
Chart 2.12: Annual rate of change of postal volume and revenue	80
Chart 2.13: Volume and revenue per postal service (2014)	82
Chart 2.14: Distribution of international parcels per volume (in thousands) and revenue (in thousand EUR) (2014)	83
Chart 2.15: Postal market shares in terms of volume and revenue (2014)	84
Chart 2.16: Letter and parcel market shares regarding volume and revenue for US and courier (2014)	84

INDEX OF CHARTS & TABLES

Chart 2.17: USP and courier market shares in terms of revenue	85
Chart 2.18: US market shares in terms of volume and revenue (2014)	85
Chart 2.19: US services market shares in terms of volume and revenue (2014)	86
Chart 2.20: USP revenue (2000-2014) (in mil. EUR)	87
Chart 2.21: Annual change in volume and revenue (2001-2014)	88
Chart 2.22: Measurement results regarding domestic first priority mail	88
Chart 2.23: Number of companies with an Individual License	89
Chart 2.24: Portfolio of companies with Individual License (2013-2014)	89
Chart 2.25: Volume and revenue distribution of courier postal services (2014)	91
Chart 2.26: Number of existing competitors in the postal market	91
Chart 2.27: Courier companies market shares in terms of volume revenue (2014)	92
Chart 2.28: Herfindahl-Hirschman Index	92
Chart 2.29: Delivery time of postal items (2014)	93
Chart 2.30: Number of new competitors in the courier market (2009-2014)	94
Chart 2.31: Courier companies' clientele with regard to revenue (2014)	94
Chart 2.32: Revenue distribution per customer type for courier companies (2014)	95
Chart 2.33: Internet users that purchased online (2008-2014)	99

(b) Tables

Table 1.1: Licensed operators per category	12
Table 1.2: Active fixed & mobile telephony operators	12
Table 1.3: Electronic communications operators financials (in billion EUR)	13
Table 1.4: Progress of telephone lines	34
Table 1.5: Market shares of OTE, the five largest OLOs and other OLOs (based on the traffic volume of the main call types)	39
Table 1.6: OTE's market shares per call type (based on traffic volume)	40
Table 1.7: Volume per call type (in bil. minutes)	43
Table 1.8. Total and active connections/subscriptions (without datacards)	49
Table 2.1: Main postal service providers' financials (in mil. EUR) (2014)	78
Table 2.2: Postal market financial indicators (2009-2014)	79
Table 2.3: Postal volume (in thousand items)	81
Table 2.4: Postal revenue (in thousand EUR)	81
Table 2.5: Volume (in thousand items) and revenue (in thousand EUR) per postal market sector (2009-2014)	82
Table 2.6: Volume (in thousand items) and revenue (in thousand EUR) per domestically & internationally	83
Table 2.7: USP market shares per service within US (2014)	86
Table 2.8: US volume and revenue distribution (2014)	87
Table 2.9: Volume and revenue for companies with Individual License services (2014)	90
Table 2.10: Shipment cost of a 2kg parcel by USP (in EUR)	97

INDEX OF CHARTS & TABLES



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