Body of European Regulators
for Electronic Communications
BEREC

BoR (13) 05

International Roaming
BEREC Benchmark Data Report
January 2012 – June 2012

28 January 2013

Contents

Executive summary

1.1 This BEREC Benchmark Report on International Roaming (the "Report") presents the results of the tenth round of data collection on European international roaming services undertaken by the Body of European Regulators for Electronic Communications (BEREC). The Report covers the period 1 January 2012 – 30 June 2012, i.e. quarter 1 and quarter 2 2012. The Report also includes data from previous rounds of data collection conducted by BEREC and its predecessor, the European Regulators Group (ERG), to provide context for the current figures. The earliest data is from quarter 2 2007, when regulation was about to enter into force.

1.2 The applicable regulatory framework for this data collection was the amended Roaming Regulation (EC) No 544/2009[1] applied in the EU (European Union) and the EEA EFTA countries[2], with requirements for retail and wholesale regulated tariffs for voice and SMS roaming, and a wholesale regulated tariff for data roaming. With regard to the previous quarters included for comparison, it should be noted that from quarter 3 2009 to quarter 1 2010, Regulation 544/2009 applied in the EU while the first Roaming Regulation (EC) No 717/2007 remained in force in Norway, Iceland and Liechtenstein, with slightly higher voice caps, no SMS caps and no wholesale data cap. Roaming Regulation (EC) No 544/2009 came into force on 1 July 2009 and expired at the end of June 2012. On 30 May 2012 the Council of the European Union (EU) approved International Roaming Regulation III No 531/2012, which entered into force on 1 July 2012. This is the last report before the new Roaming Regulation came into force.

BEREC Benchmark Report on International Roaming

1.3 This and subsequent Reports will provide information on the evolution of wholesale and retail prices for voice, SMS and data roaming services. The information gathered by BEREC continues to suggest a good level of compliance with the Roaming Regulation in all EU Member States. At the retail level, all consumers have access to a Eurotariff and a Euro-SMS tariff. At the wholesale level, the voice, SMS and data roaming charges set between operators are in line with the declining regulated average caps. In this collection, 2 countries reported average prices that were slightly above the regulated cap. In some cases, the situation seems to have been caused by inaccuracies in reporting for the data collection itself.

1.4 NRAs are monitoring compliance with the provisions of the Regulation to gather further information on the possible reasons for this reported price. BEREC will keep monitoring this issue closely. During the data collection period, the applicable caps were:

[1] http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2009:167:0012:0023:EN:PDF

[2] For the purposes of this Report, 'EEA EFTA' (European Economic Area, European Free Trade Association) refers to Norway and Iceland. Data from Liechtenstein was not available. Figures from Switzerland are excluded from both "EEA" and "EEA EFTA" averages.

Service and Price Cap (ex VAT)	Q1– Q2 2012
Wholesale voice (€c/minute)	18
Eurotariff voice (making call) (€c/minute)	35
Eurotariff voice (receiving call) €c/minute)	11
Wholesale SMS (€c/SMS)	4
Euro-SMS sent (€c/SMS)	11
Euro-SMS received (€c/SMS)	0
Wholesale data (€c/MB)	50

1.5 In general, average Eurotariff retail voice roaming rates (see Figures 1 and 3) remained fairly near the regulated caps in most EU Member States during the data collection period. For calls made, the EU average Eurotariff was €0.313 in Q1 2012, and €0.306 for Q2 2012, compared to a cap of €0.35 (i.e. on average 4 cents less than the cap). In Q1 and Q2 2012, the EU average unregulated voice tariff for calls made (Figures 1 and 3) was only slightly lower than during the equivalent period of 2011 (€0.359 and €0.359, compared to €0.365 and €0.367 in Q1 and Q2 2011).

1.6 The EU average Eurotariff rate was nearer the cap for calls received at €0.096 during Q1 2012 and €0.095 in Q2 2012, compared to a cap of €0.11. For calls received, unregulated prices were only slightly lower in Q1 and Q2 2012 than in 2011 (€0.140 and €0.143, compared to €0.150 and €0.155 in the same periods in 2011).

1.7 As can be seen in Figure 5 and 6, the nature of the difference in the average EEA price for regulated and unregulated voice prices has changed over time. Since 2010 the tariffs for alternative tariffs have been higher than for Eurotariffs. The price for Eurotariffs has been steadily lowered while the price of alternative tariffs has been more stable despite the changes on the roaming market.

1.8 Considering ‘Rest of World’ retail voice roaming calls (Figures 9 and 10), typical prices are significantly greater than for calls within EU countries. Comparing the same quarters of 2011 and 2012, while there is no consistent trend in average country prices for calls made or received, the average for all EU-based providers has decreased. There are no indications that operators have tended to raise the prices of unregulated ‘Rest of World’ roaming calls to make up for loss of revenue due to the regulated price caps.

1.9 Regarding the effects of standardisation of billing units for Eurotariff calls (Figure 11), the 2009 amended Regulation requires per second billing for Eurotariff calls made, with the possibility of charging for an initial minimum period of up to 30 seconds to cover the costs of setting up the call. This has led to a significant drop in the EU average surcharge for calls made, from around 26% in Q2 2009 to 5.59% in Q1 2012 and 5.82% in Q2 2012. For Eurotariff calls received, the Regulation requires per second billing only, to result in a surcharge of 0%, down from around 18% before the 2009 Regulation.

1.10 At the wholesale level (Figures 12 and 14), average voice prices are below the regulated wholesale cap of €0.18, with an EU average of €0.150 for Q1 and €0.149 for Q2 2012.

1.11 Under the 2009 Regulation, the average wholesale voice charge must be aggregated on a per second basis, adjusted to take account of the possibility for the operator of the visited network to apply an initial minimum charging period not exceeding 30 seconds. This has led to a significantly lower surcharge (Figure 13) in EU countries, from around 22% in Q2 2009 to 4.8% in Q1 and 4.7% in Q2 2012..

1.12 The introduction of the Euro-SMS in the EU in accordance with the 2009 Regulation has led to an EU average Euro-SMS price (Figures 15 and 16) of around €0.10 in Q1 – Q2 2012, compared to a regulated cap of €0.11. The EU average price for unregulated SMS is higher at around €0.12 (Q1 and Q2 2012). Before the 2009 Regulation, the EU average SMS price was around €0.27 - €0.24 (Q1 – Q2 2009).

1.13 At the wholesale level, the 2009 Regulation has led to a reduction in the average EU SMS price (Figure 19) to €0.035, near the level of the cap. In comparison, the EU average price was €0.136 - €0.133 in Q1 – Q2 2009, before the 2009 Regulation came into force.

1.14 Regarding EU volumes on voice, SMS and data roaming services (Figures: 7a - 8b, 18a – 18b, 21a – 21b), one particular issue stands out as being the significant difference between these services. While volumes for voice and SMS services remain almost at the same level (graphs shows a slight increase in volumes for SMS and calls received, calls made stays at the same level since 2009), data services peaks each year (data (up around 629.83% in Q2 2012 compared to Q2 2008). This Benchmark Report identified the decrease in volumes in some countries (voice and SMS services comparing to Q1/Q2 2011). This might be caused by economic crisis and is most pronounced in some Mediterranean Countries (especially for calls made). Users of roaming services were more likely to use data services than others. Comparing the same quarters 2011/2012 the use of data services in all countries increased (from 9.19% to more than 300%).

1.15 Considering data roaming services, EU average off-net retail prices (Figures 20 and 23, meaning prices charged where the home network and foreign host network are not owned by companies within the same group) continue to follow the downward trend noted in previous Reports, to €1.31 (prepaid) and €1.22 (postpaid) in Q2 2012 per MB. There is a considerable difference between EU average on-net and off-net data roaming prices, where on-net is cheaper. Meanwhile the difference between average prepaid and postpaid prices has narrowed. At the same time there are variations at individual country level and between operators.

1.16 At the wholesale level, an average data cap of €0.50 applies in the EU in accordance with the 2009 Regulation. The EU average price for non-group wholesale data (Figure 22) has fallen to €0.138 per MB in Q2 2012, compared with an EU average of €1.20 in Q2 2009, just before the Regulation came into effect.

1.17 In response to the data collection, no operators reported circumstances under which traffic steering can lead to consumers paying higher rates for roaming. No significant problems of inadvertent roaming were identified by operators.

Evidence of market forces at work

1.18 For voice roaming services, average EEA prices are near the regulated caps. This suggests that providers see little attraction in competing on Eurotariff rates, despite the fact that there is a significant margin between typical wholesale prices and retail caps.

1.19 BEREC notes from previous data collections that the European average price paid per minute for voice calls under alternative tariffs was not, as would be expected, below the average price for the Eurotariff. These results were repeated in the second half of 2011 and the first half of 2012. Moreover the gap widened, especially for incoming calls.

1.20 This is clearly illustrated in Figure 3. In almost half of the Member States, the national average price for incoming calls for alternative tariffs is significantly above the Eurotariff average price (a factor of 2 is typical for those Member States).

1.21 This is a matter of considerable concern. BEREC (and previously ERG) has supported the flexibility in the Roaming Regulation, which allows retail providers to offer alternative tariffs which widen choice for consumers and allow better deals for customers with particular patterns of service demand. The Eurotariffs account for the majority of voice and SMS traffic. Nevertheless, there is a substantial minority of customers who use alternative tariffs. In the first half of 2012, 35% of calls made and 39% of calls received were based on non Eurotariffs. For text messages sent while roaming within EEA countries, unregulated non-Euro SMS tariffs accounted for 15% of the total volume.

1.22 It is not a problem that customers using alternative tariffs will, from time to time, pay more for a particular call or SMS than they would have done under the Eurotariff. Nevertheless, they would expect to gain on other calls and texts and at least break even overall. However, this appears to be very far from the situation which applies to alternative tariffs in a number of Member States.

1.23 For the moment, the reasons for the discrepancy remain a matter of speculation. Some may be attributable to the sale of roaming bundles which are too large to suit most customers in practice. Alternative tariffs may employ larger billing units (per minute, rather than per second) which thereby reintroduces hidden surcharges which regulation has curtailed for the Eurotariff. Or headline rates for alternative tariffs may have remained stable or even increased over time while Eurotariff rates decreased.

1.24 Whether a combination of these reasons or another effect accounts for the discrepancy, it seems that a number of consumers have made bad choices. The observed effect was clearly not the outcome intended when Council and Parliament decided that there should be freedom to provide alternative tariffs alongside the Eurotariffs. Clearer information from providers about the relative pros and cons of different tariff options seems a necessary step for the reversal of this extremely undesirable trend. Article 14.3 of the version of the Roaming Regulation in force during the related period required providers to take necessary steps to provide information to their customers. At the same time in addition to transparency and bill shock obligations, the new Roaming Regulation (EC) No 531/2012 put the obligation on domestic operators to inform all their roaming customers in a clear, understandable and easily accessible form about the possibility to opt for alternative roaming services.

1.25 The picture is different for EEA data roaming, where average wholesale and retail charges have fallen significantly between Q2 2008 and Q2 2012. There was a noticeable slowing in the reduction in prices in late 2009 and early 2010, although the rate of decrease picked up in the last four quarters. EU average retail off-net prices fell between Q2 2011 and Q2 2012 by 37%. This data collection also found a continued drop in EU average charges for wholesale non-group data roaming of around 48% between Q2 2011 and Q2 2012.

1.26 BEREC notes that a sizeable margin remains between the average wholesale and retail tariffs. While the difference between average non-group wholesale and off-net retail rates has narrowed in absolute terms in the past year, it remains significant (with retail representing a 749% or €1.217 margin over the wholesale rate in Q1 2012, and 778% or €1.071 in Q2 2012. Starting 1 July 2012, the EU's data roaming retail price caps has been in effect which means that the Euro-data tariff which a roaming provider may levy on its roaming customer for the provision of a regulated data roaming service shall not exceed €0,70 per megabyte used. This should lead to a significant drop in prices and margin between wholesale and retail level.

Introduction

2.1 The European Regulators Group (ERG) worked on the long-standing issue of high prices for international roaming services. Following its creation in January 2010, the Body of European Regulators in Electronic Communications (BEREC) has taken over responsibility for this work from ERG.

The 2007 Regulation

2.2 In 2005, ERG undertook a study of international roaming that concluded that the EC Regulatory Framework did not provide the necessary tool-kit for NRAs to tackle the problems identified. ERG wrote to the Commission in December 2005 highlighting its concerns.

2.3 On 8 February 2006, Commissioner Reding announced an intention to regulate international roaming services with a “call for input” on how this might be undertaken[3]. ERG responded[4] to the Commission’s proposals.

2.4 After significant debate, the first Regulation on international roaming services was published on 29 June 2007. The primary provisions capped wholesale and retail charges voice calls and set a number of transparency provisions to help to ensure that consumers were well informed. The provisions of the Regulation entered into force at different times, with retail and transparency provisions taking full effect by the end of September 2007 and wholesale provisions calculated annually from the end of August 2007.

The 2009 amended Regulation

2.5 On 7 May 2008, the Commission launched a public consultation on the functioning of the 2007 Regulation. ERG’s[5] views expressed in response to the consultation were

[3]http://ec.europa.eu/information_society/activities/roaming/roaming_regulation/first_phase/index_en.htm
[4]http://www.erg.eu.int/doc/whatsnew/erg_response_22_march_2006.pdf and http://www.erg.eu.int/doc/whatsnew/erg_response_11_may_2006.pdf
[5]http://erg.eu.int/doc/publications/erg_08_35rev1_resp_intern_roaming_cons_080729.pdf

substantially reflected in the Commission's legislative proposals,[6] published on 23 September 2008, to extend the 2007 Regulation in duration and scope.

2.6 On 22 April 2009, the European Parliament adopted Regulation (EC) No 544/2009 at first reading, with a view to amending Regulation (EC) No 717/2007. Subsequently, on 8 June 2009 the Council of EU Telecoms Ministers formally adopted the new EU roaming rules approved by the European Parliament. The definitive text of Regulation (EC) No 544/2009 was published in the Official Journal of the European Union on 29 June 2009[7].

2.7 In particular, the Regulation introduced the following measures, applicable from 1 July 2009 to 30 June 2012:

- an extension of wholesale and retail price regulation for voice, with a yearly decrease in the level of the caps
- price regulation of SMS roaming services at both the wholesale and retail levels
- price regulation of data roaming services at the wholesale level

And from July 2010 to June 2012:

- retail transparency measures to protect consumers from "bill shock" when data roaming

2.8 On 29 June 2010, the Commission published an interim Report[8] on the functioning of the 2009 Regulation. The Commission's Digital Agenda for Europe[9] also included a target for roaming, where 'the difference between roaming and national tariffs should approach zero by 2015'.

2.9 In accordance with the 2009 Regulation, BEREC provided advice to the Commission on the functioning of the Regulation and future regulatory options in a December 2010 Report[10], supplemented by its February 2011 response to the Commission's public consultation[11].

2.10 The Commission then published a full review of the functioning of the Regulation and legislative proposals for a new Regulation, in July 2011[12].

2.11 On 30 May 2012 the Council of the European Union (EU) approved International Roaming Regulation III[13], which entered into force on 1 July 2012.

2.12 This Report is the tenth in a series of reports, previously produced by ERG, providing an overview of international roaming prices and volumes across the EU. This Report covers the period 1 January 2012 – 30 June 2012.

---

[6] http://ec.europa.eu/information_society/activities/roaming/docs/regulation/reg_en.pdf
[7] http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2009:167:0012:0023:EN:PDF
[8] http://ec.europa.eu/information_society/activities/roaming/docs/interim_report2010.pdf
[9] http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2010:0245:FIN:EN:PDF
[10] http://erg.eu.int/doc/berec/bor_10_58.pdf
[11] http://ec.europa.eu/information_society/activities/roaming/docs/cons11/Berec.pdf
[12] http://ec.europa.eu/information_society/activities/roaming/index_en.htm
[13] Regulation (EU) No 531/2012 of the European Parliament and of the Council of 13 June 2012 on roaming on public mobile communications networks within the Union

2.13 Individual NRAs are required "…*to monitor developments in wholesale and retail charges"* for voice roaming services under the 2007 Regulation, and for voice, SMS and data roaming services under the 2009 Regulation (Art. 7(3)). It shall also include information on inadvertent roaming and traffic steering (Art.11). This monitoring informed the Commission's interim and full reviews of the functioning of the Regulation.

2.14 BEREC believes that the information collected in existing and subsequent reports should provide a sound basis for any decisions regarding future regulation. In addition, BEREC considers it important to collect and publish a wider range of information than that explicitly set out in Articles 16 and 19 in order to give a better picture of the effect of the current Regulation and the state of evolution of roaming services.

2.15 BEREC has included data from previous reports for comparison. BEREC considers that the data collected from just before the implementation of the 2007 Regulation for voice and the 2009 Regulation for SMS and wholesale data, can serve as a "benchmark" against which data following implementation can be assessed. However, due to the highly seasonal nature of the roaming market, due care must be taken when comparing different periods of time; comparing subsequent periods without taking seasonality into account could lead to invalid conclusions.

2.16 While the monitoring obligations are addressed to individual NRAs, ERG and now BEREC considers that it can add value by pursuing the following objectives:

- Simplifying the process, not only for NRAs as BEREC acts as a central point for the data collection, but also for the Commission, as the data is received from a single source and, following data processing, checking it for inconsistencies;

- Coordinating the actions of individual NRAs, as the data collection exercise uses a single and commonly agreed data collection model, and the process is synchronised and based on the same collection periods. BEREC consults the market players and the Commission before finalising the data collection templates;

- As far as possible, providing a common response to the different questions posed during the collection process by operators and NRAs, as BEREC serves as the forum where these questions are commonly debated and addressed.

2.17 Following publication of previous reports, some operators have provided their NRA with more accurate data for one or more previous periods. These updates have been incorporated into the data used in this Report, which may create some inconsistencies with previous reports. In such cases, the data from the most recent Report takes precedence. Similarly, it is possible that data in this Report might be updated in a subsequent Report.

2.18 This Report includes data for Norway and Iceland, where the 2007 Regulation was in force from the end of 2007 to quarter 2 2010, when the 2009 amended Regulation came into effect. An average of the Norwegian and Icelandic data is shown under 'EEA EFTA average'[14]. The Report also includes data for Switzerland (where the Regulations do not apply), collected by the Federal Office of Communications on behalf of the Swiss NRA ComCom.

[14] For the purposes of this Report, 'EEA EFTA' refers to Norway and Iceland. Data from Liechtenstein was not available. Figures from Switzerland are excluded from both "EEA" and "EEA EFTA" averages.

Methodology for data collection

2.19 ERG first consulted on a draft version of its data questionnaire during September 2007. Following comments received, ERG amended the data questionnaire sent to providers[15], with an accompanying Explanatory Memorandum, in October 2007. Information gathered as part of this exercise has been used in the formulation of this Report. Market players and the Commission have been informally consulted on subsequent revisions of the template.

2.20 The information gathered for this Report covers both retail and wholesale prices and volumes for voice, SMS and data roaming services. In addition, information was gathered on traffic steering and inadvertent roaming. Each NRA aggregated individual provider data to provide a national aggregate to BEREC. Therefore, only national aggregated data appears in this Report.

2.21 Over 130 providers of international roaming services provided information for this Report. These include virtually all of the mobile network operators in the EU, as well as a significant number of MVNOs that provide EU roaming services. BEREC estimates that this covers around 95% of EU consumers using international roaming services today.

Format of the Report

2.22 The main body of this Report is set out in Section 3 below, which provides an overview of the data gathered to date. Section 4 gives explanations for some "anomalous" results, which in some cases may not be a fair reflection of reality. Annex 1 lists the providers that supplied information to NRAs for inclusion in this Report. A new annex 2 supplies the underlying data to the figures reported in Section 3.

Overall data summary

3.1. All EU countries took part in this data gathering exercise; Iceland and Norway also participated, given the extension of the 2007 Regulation to those countries from December 2007 and the implementation of the 2009 Regulation in Q2 2010. In addition, Switzerland contributed to this data collection, although the 2007 and the 2009 Regulation are not applicable there[16]. A comprehensive range of information was requested by NRAs from their national providers of international roaming services.

3.2. The data presented below represents the results of both the current and previous BEREC and ERG data collections, and provides an overview of international roaming for the period 1 January 2012 to 30 June 2012, split by calendar quarter.

3.3. For ease of comparison, all retail prices included in the charts below exclude VAT. They are an average of prices paid by postpaid and prepaid customers, including business users with standard business or consumer tariffs. Prices paid by "special

[15] *http://www.erg.eu.int/doc/publications/erg_07_47_rev1_data_model_spec_roaming_reg.xls*
http://www.erg.eu.int/doc/publications/erg_07_47_rev1b_data_model_spec_on_roaming_reg_exp_mem.pdf

[16] For the purposes of this Report, 'EEA EFTA' refers to Norway and Iceland. Data from Liechtenstein was not available. (Figures from Switzerland are excluded from "EEA" and "EEA EFTA" averages.

corporate" customers[17] are not included. All averages are based on billed minutes of voice calls or billed megabytes of data, unless expressly stated otherwise. Tariff plans with no customers were not taken into account, as there will be no volume or revenue associated with these.

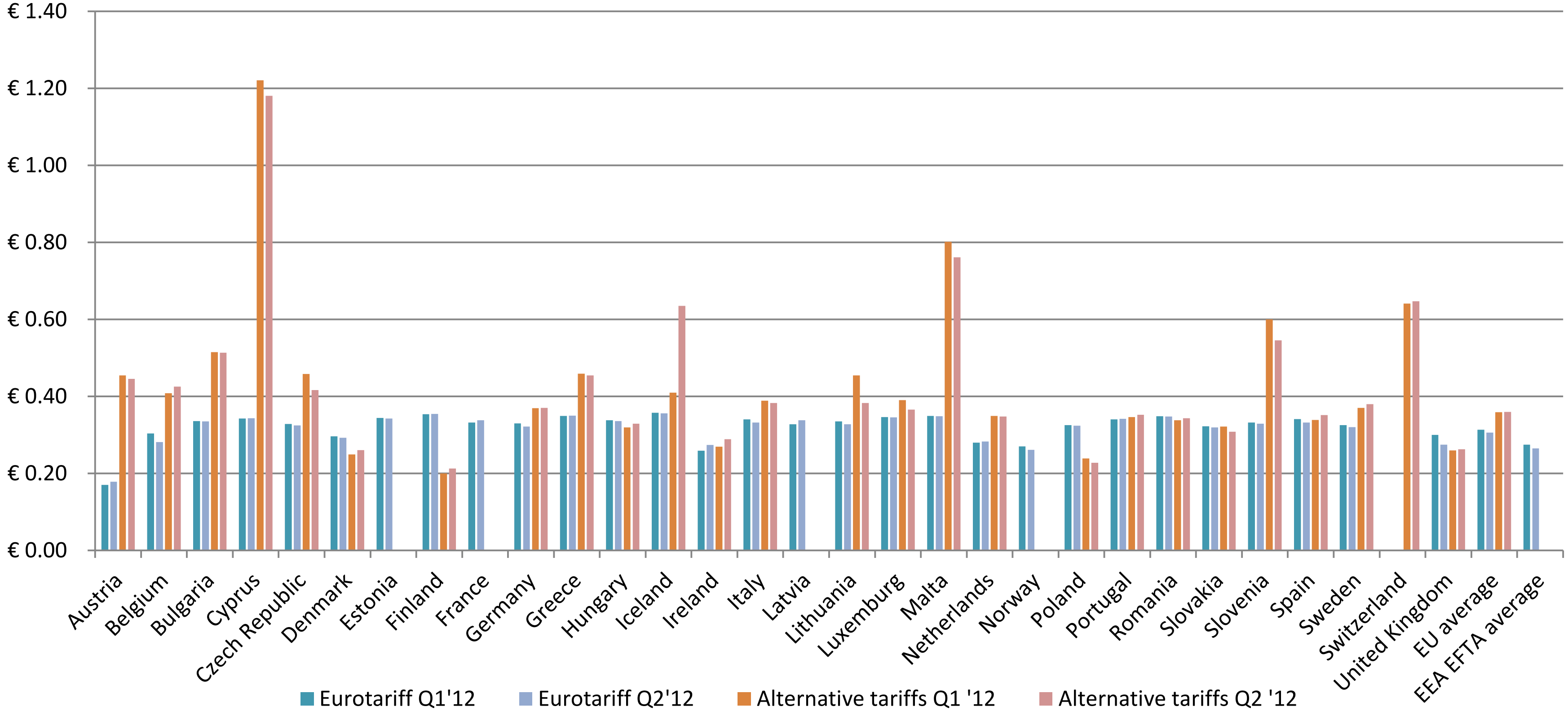
3.4. For data services, a distinction is made between group and non-group at the wholesale level and on-net and off-net at the retail level. 'Group' means the data pertains to traffic between entities within the same group where such entities are fully-owned or majority-owned by the group. 'Non-group' traffic is that data which does not fall under the group definition. At the retail level, 'on-net' traffic concerns traffic that would be qualified as group traffic at the wholesale level and 'off-net' traffic is the retail equivalent of non-group traffic.

3.5. In order to show the impact of the 2009 amended Roaming Regulation, which entered into force in the EU in Q2 2009 but was implemented in the EEA EFTA countries during Q2 2010, this Report contains separate averages for the EU and the EEA EFTA countries in some Figures.

[17] This means undertakings that have negotiated a bespoke tariff for international roaming that is not available to individual customers.

Retail voice (excl. special corporate)

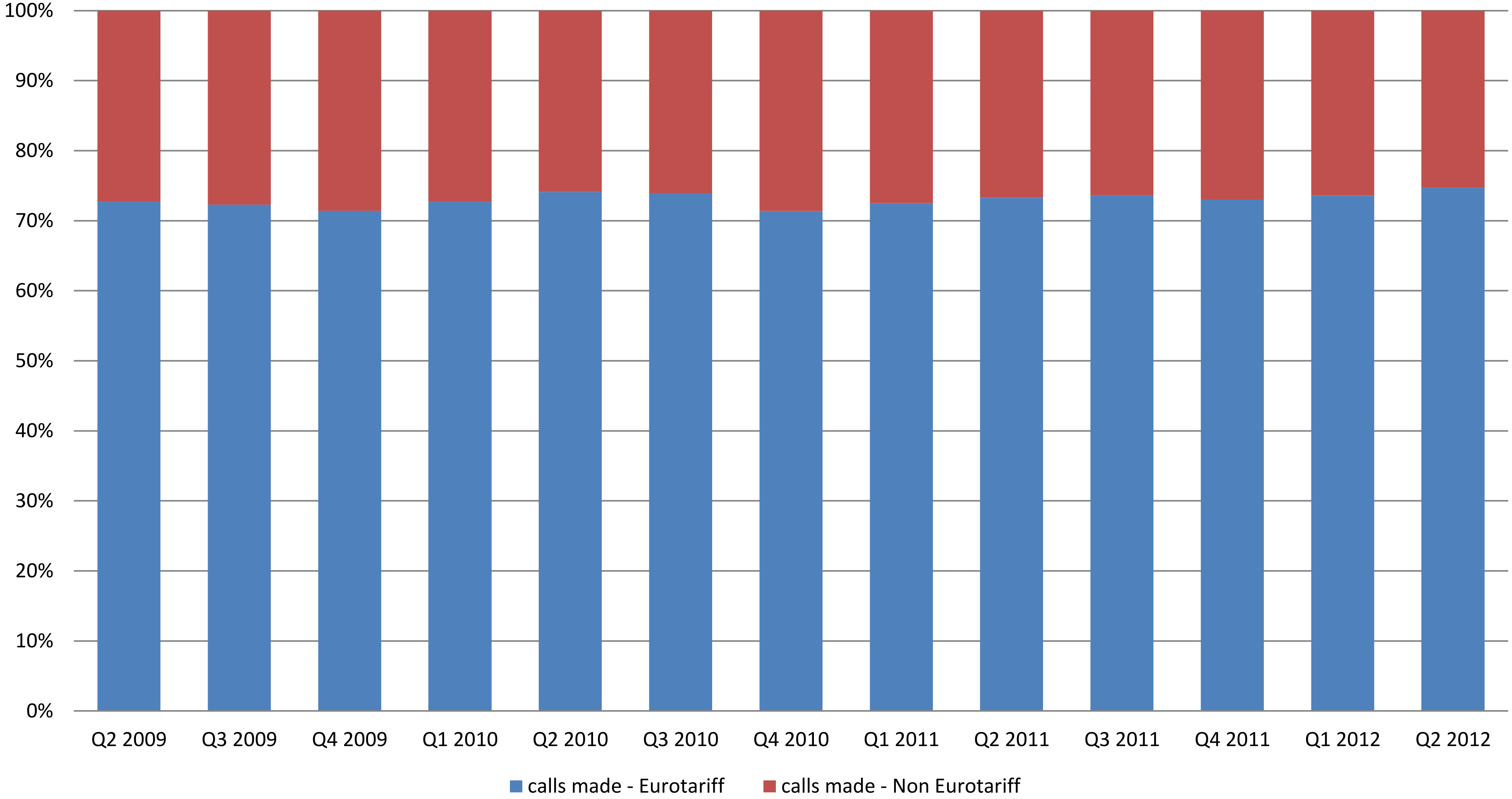
Figure 1: Average retail price per minute for intra-EEA roaming voice calls made: Eurotariff and alternative tariffs



EU average: Eurotariff Q1 2012 = € 0.313; Eurotariff Q2 2012 = € 0.306; Alternative tariffs Q1 2012 = € 0.359; Alternative tariffs Q2 2012 = € 0.359

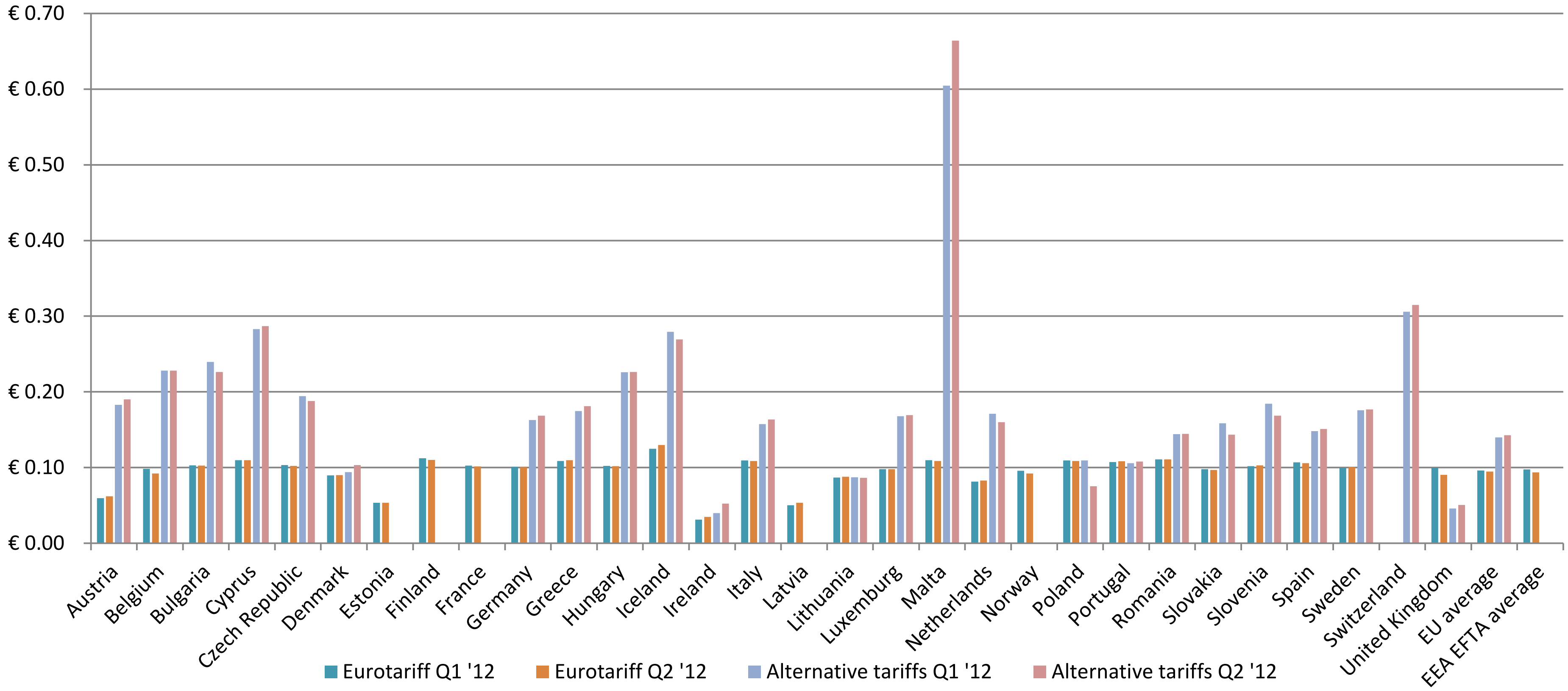
While the average Eurotariff varies between countries, the EU average is around 4 cents below the regulated cap of € 0.35.On average the Eurotariff offered a slightly better deal for calls made than alternative tariff plans.

Figure 2: EEA percentage of calls made: Eurotariff and alternative tariffs (actual minutes)



EEA total: Eurotariff: Q1 2012 = 742.344, 74% of total calls made; Q2 2012: 898.038, 75% of total calls made, Alternative tariffs: Q1 2012 = 266.533, 26% of total calls made; Q2 2012 = 303.775, 25% of total calls made.

Figure 3: Average retail price per minute for intra-EEA roaming voice calls received: Eurotariff and alternative tariffs

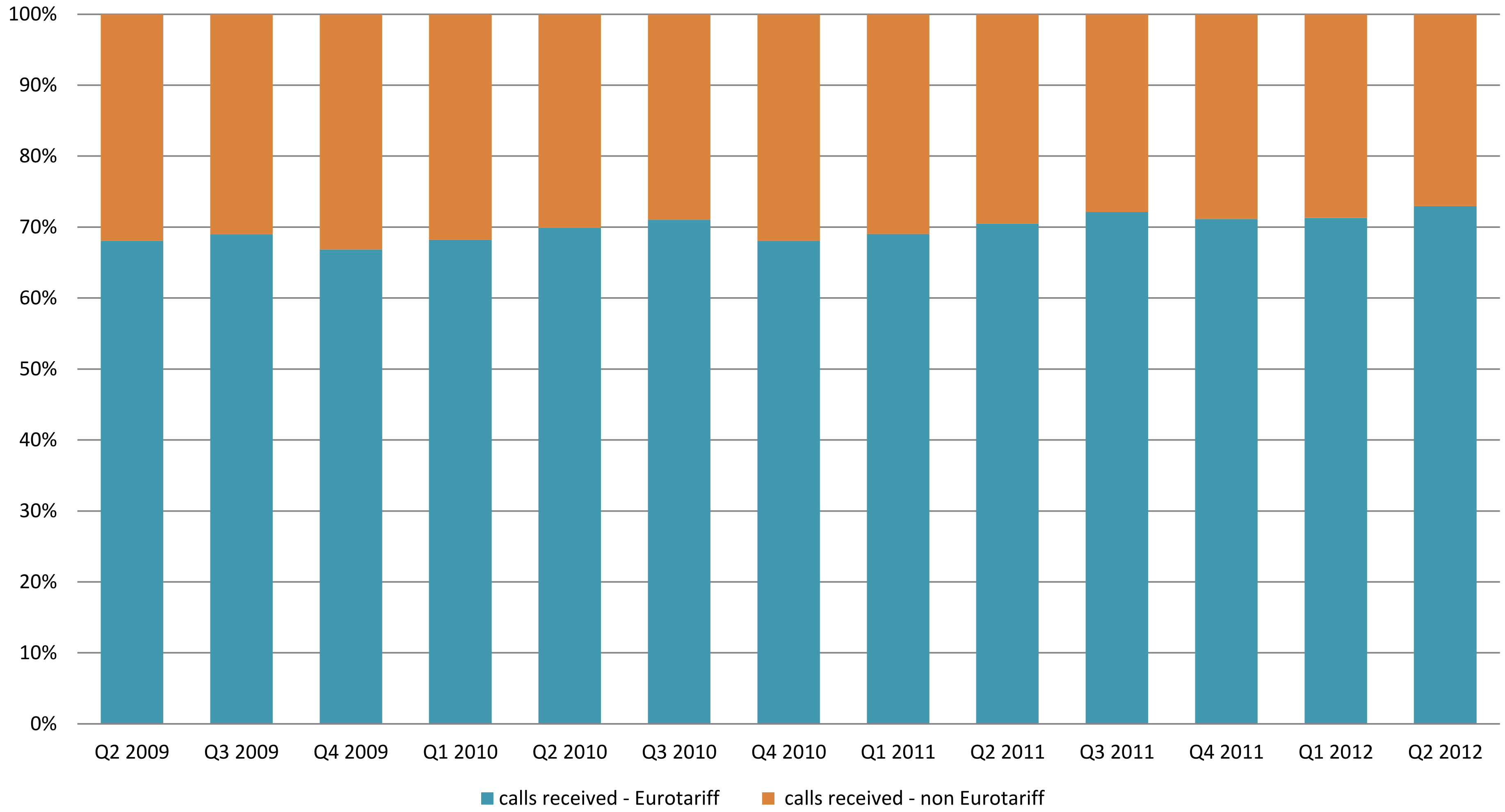


EU average: Eurotariff Q1 2012 = € 0.096 ; Q2 2012 = € 0.095; Alternative tariffs Q1 2012 = € 0.140*; Alternative tariffs Q2 2012 = € 0.143*

For calls received, the Eurotariff offered a better deal than alternative tariffs in most countries. The EU average for the Eurotariff was below the regulated Eurotariff cap of € 0.11 (difference of around 1€c), while the EU average for alternative tariffs was above the regulated cap in Q1 2011 and in Q2 2012.

*The German average for alternative tariffs has been calculated based on actual minutes instead of billed minutes

Figure 4: EEA percentage of calls received: Eurotariff and alternative tariffs



EEA total: Eurotariff: Q1 2012 = 769.301, 71% of total calls received; Q2 2012: 912.922, 73% of total calls received, Alternative tariffs: Q1 2012 = 338.529, 29% of total calls received; Q2 2012 = 433.581, 27 % of total calls received

Figure 5: EEA average retail price per minute for intra-EEA roaming voice calls made : Eurotariff and alternative tariffs (EU only for Q2 2009 - Q1 2010)*

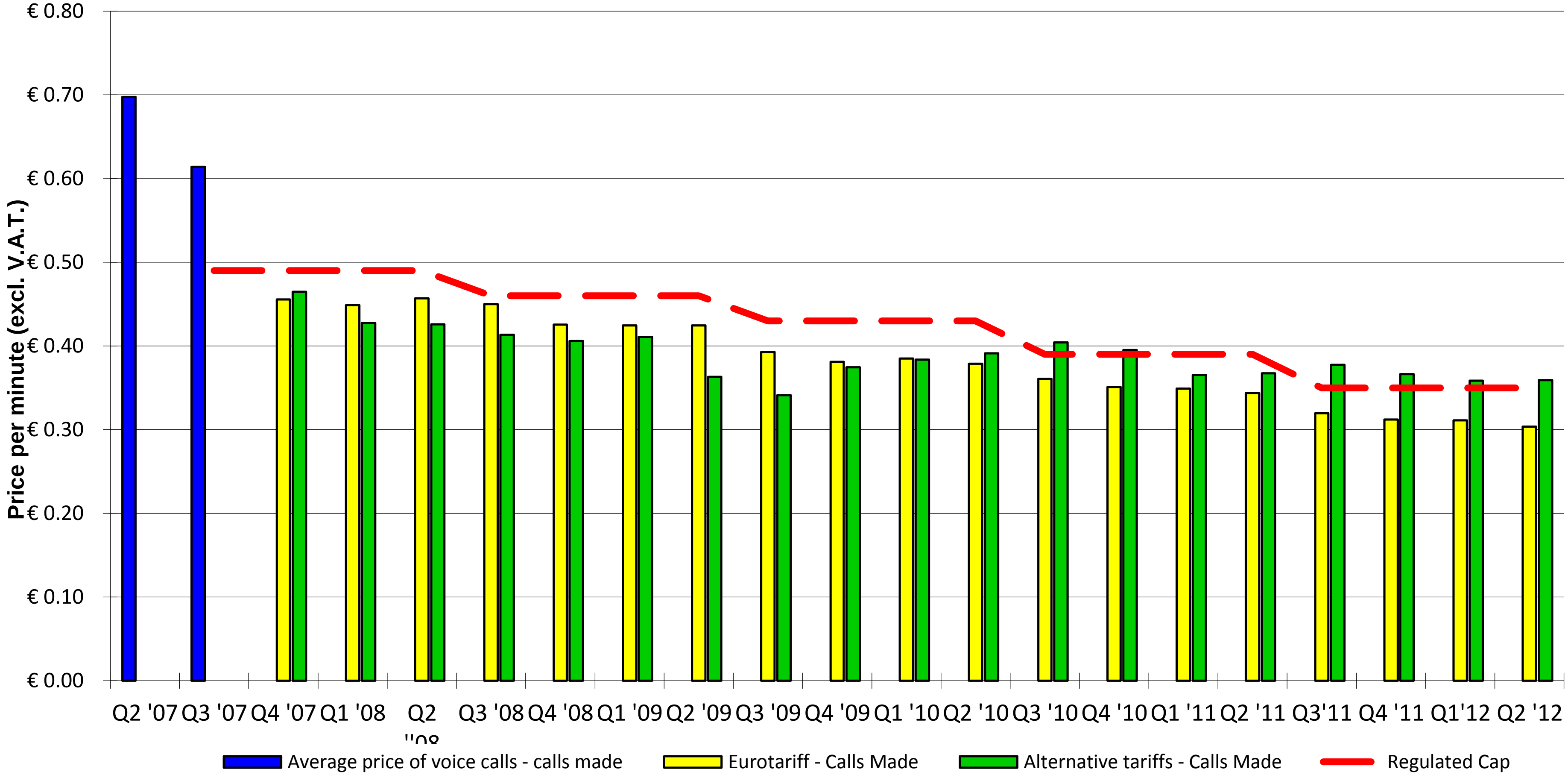


Figure 5 demonstrates how the EEA average price for calls made has evolved since introduction of the Regulation in Q3 2007. The Eurotariff averages are consistently below the Eurotariff cap. The average alternative voice tariffs have been above the regulated cap in the last four quarters.

Figure 6: EEA average retail price per minute for intra-EEA retail roaming voice calls received: Eurotariff and alternative tariffs (EU only for Q2 2009 - Q1 2010)*

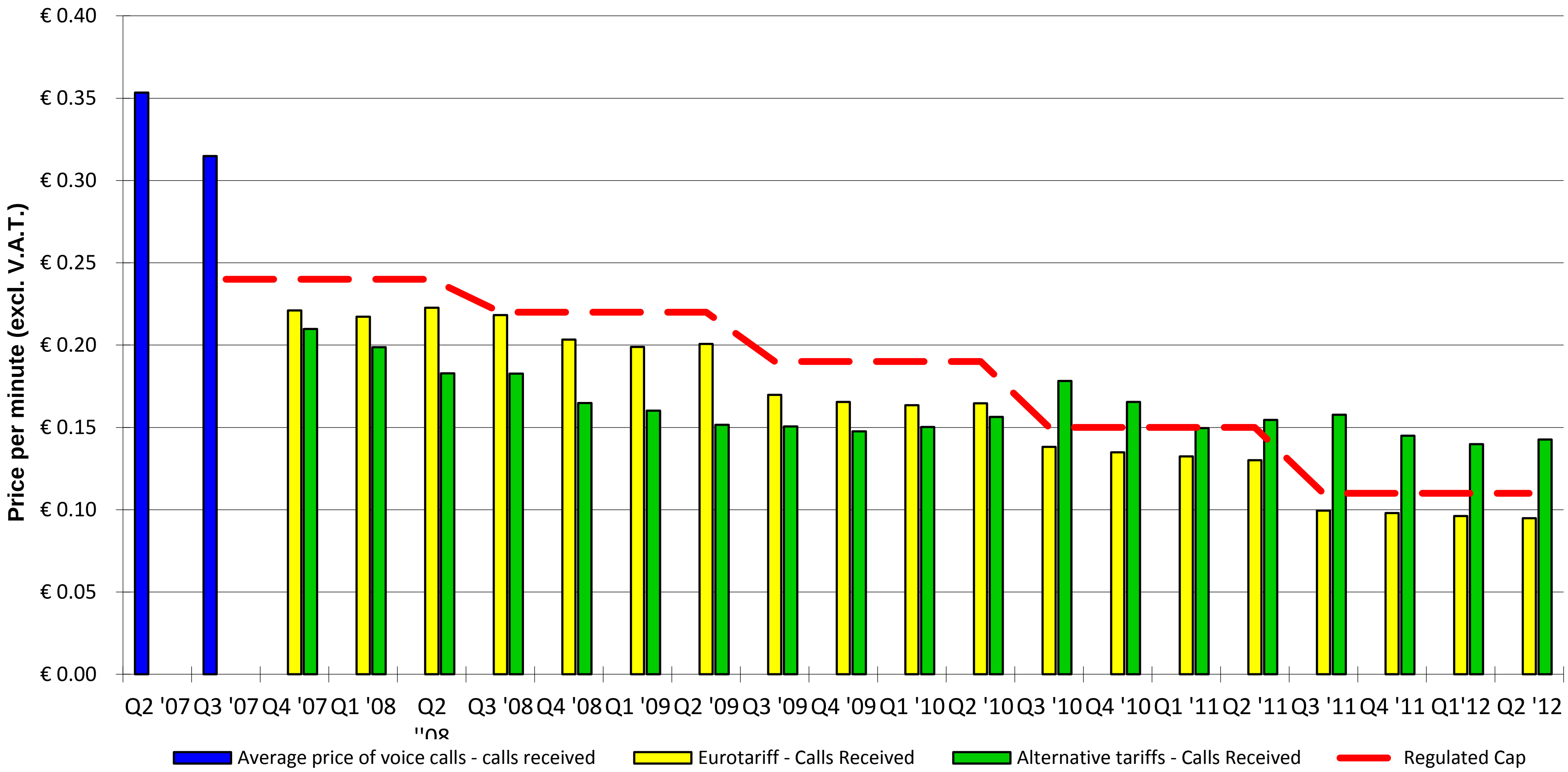
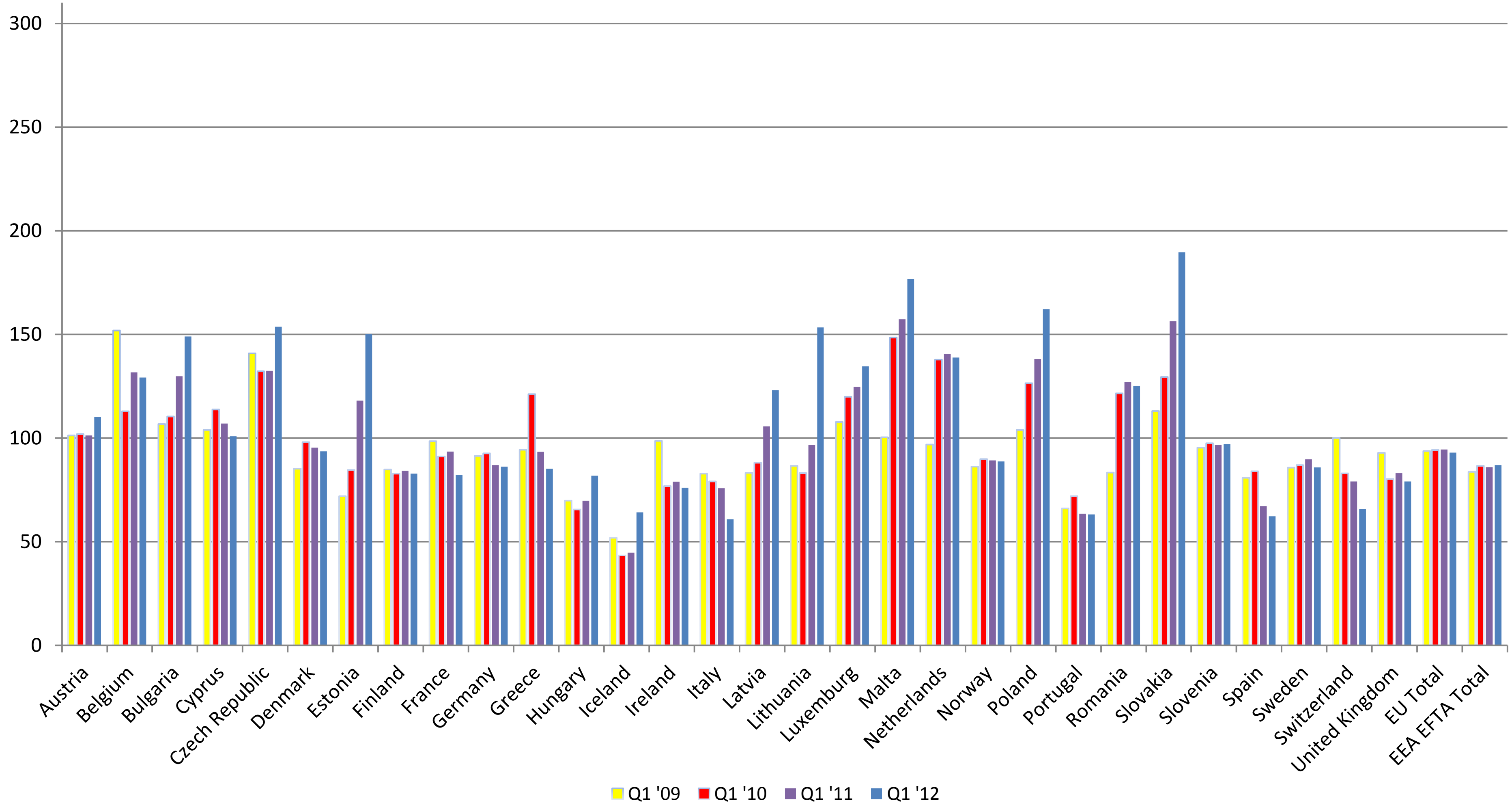


Figure 6 is similar to Figure 5, but for calls received. Originally, average prices for alternative tariffs were consistently lower than average Eurotariff prices. This changed in mid-2010, when average alternative prices became higher than the Eurotariff cap. Alternative prices have started decreasing but still remain above Eurotariff prices and in 2012 were above the price cap.

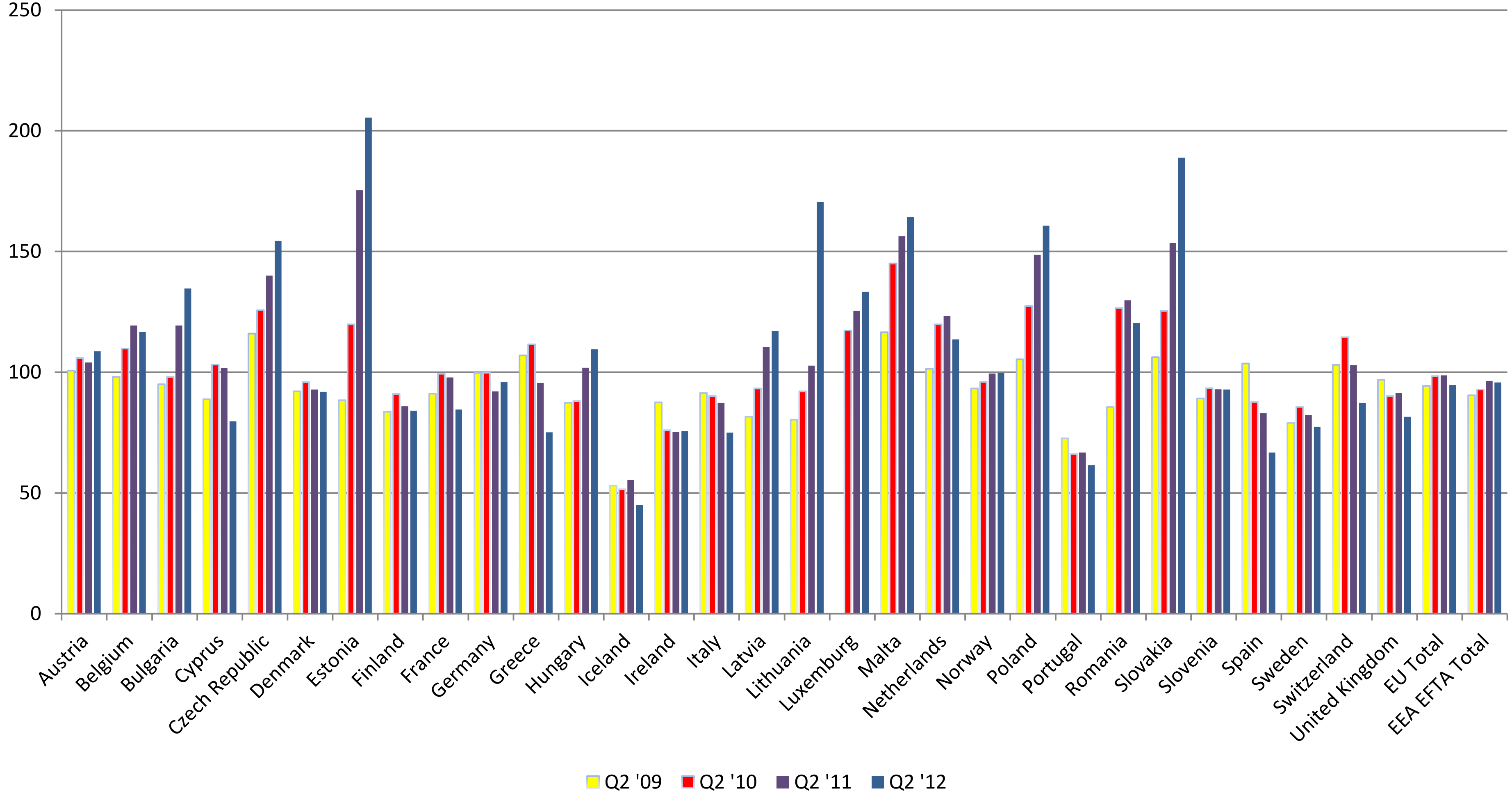
Figure 7a: Volumes of intra-EEA roaming calls made in Q1 2012
(Actual minutes, Q1 2008 = 100)



EU average: Q1 2009 = 93.783; Q1 2010 = 94.294; Q1 2011 = 94.523, Q1 2012 = 93.039

For Q1, the country averages follow no clear trend year on year, while the overall averages remains stable.

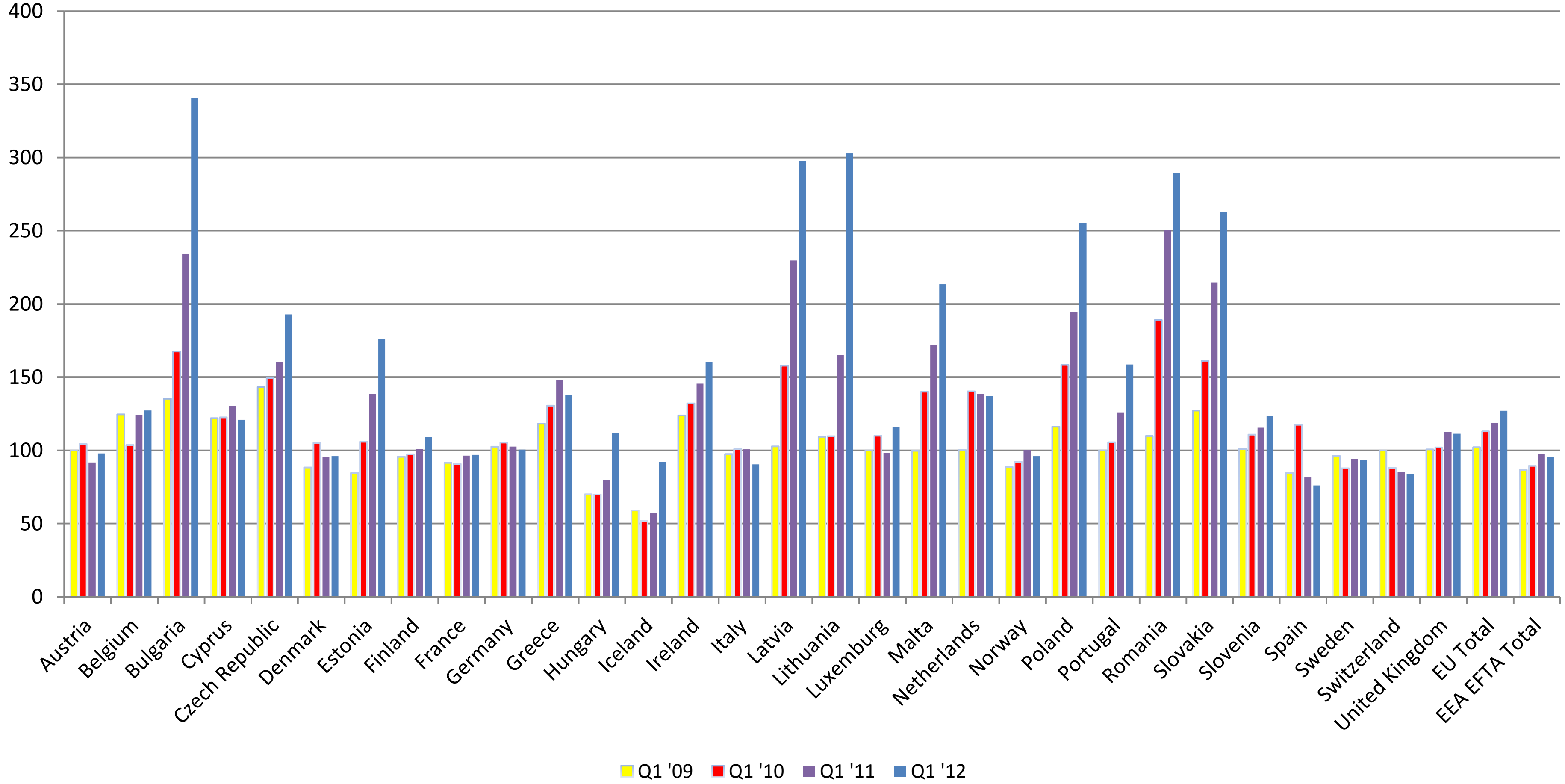
Figure 7b: Volumes of intra-EEA roaming calls made in Q2 2012
(Actual minutes, Q2 2008 = 100)



EU average: Q2 2009 = 94.391; Q2 2010 = 98.370; Q2 2011 = 98.710, Q2 2012 = 94.675

The same picture can be seen in Q2, the country averages follow no clear trend year on year, while the overall averages remains stable.

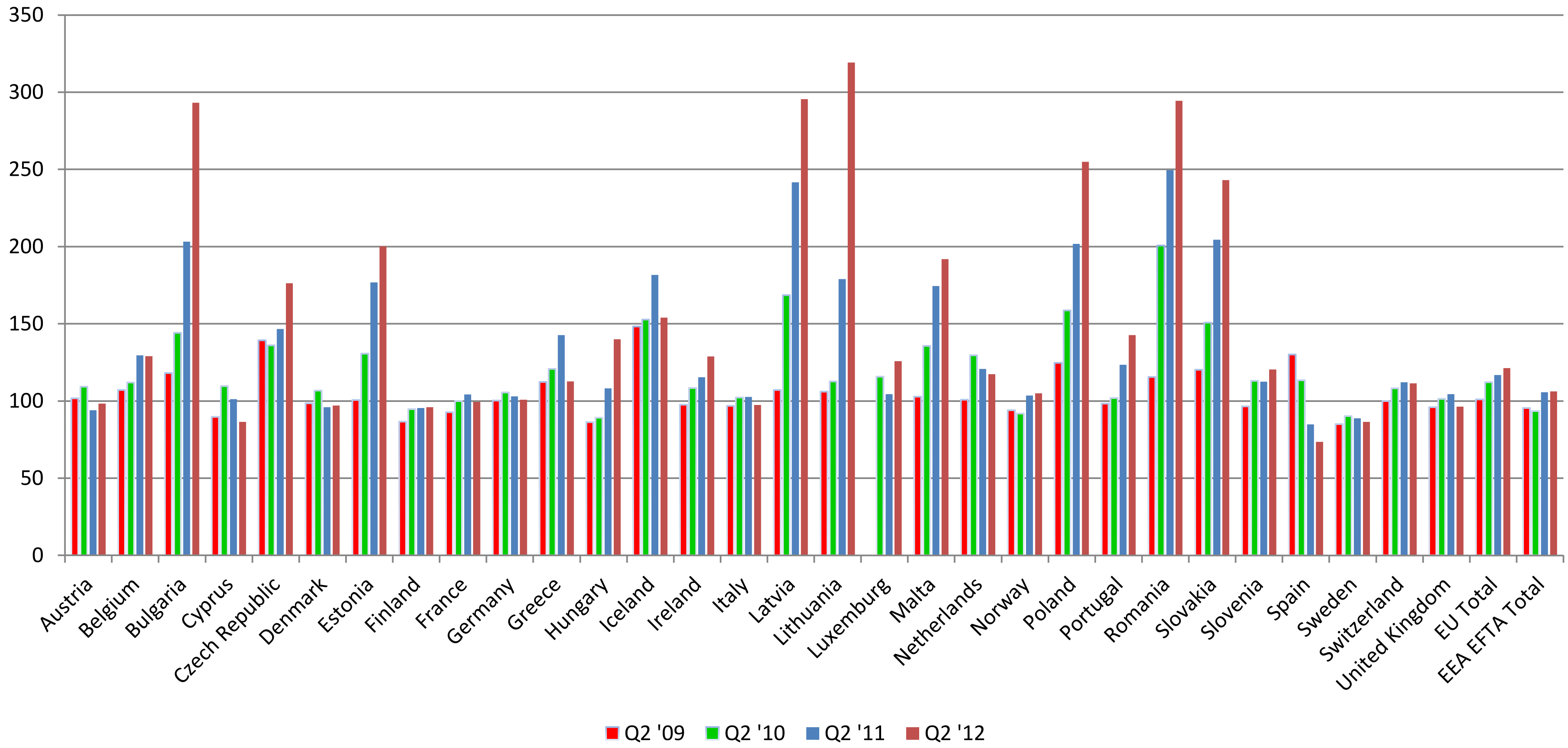
Figure 8a: Volumes of intra-EEA roaming calls received in Q1 2012
(Actual minutes, Q1 2008 = 100)



EU average: Q1 2009 = 102.196; Q1 2010 = 113.127; Q1 2011 = 118.875, Q1 2012 = 127.062

For Q1 calls received, many countries reported an increase year on year, with a few reporting strong increases in 2012.

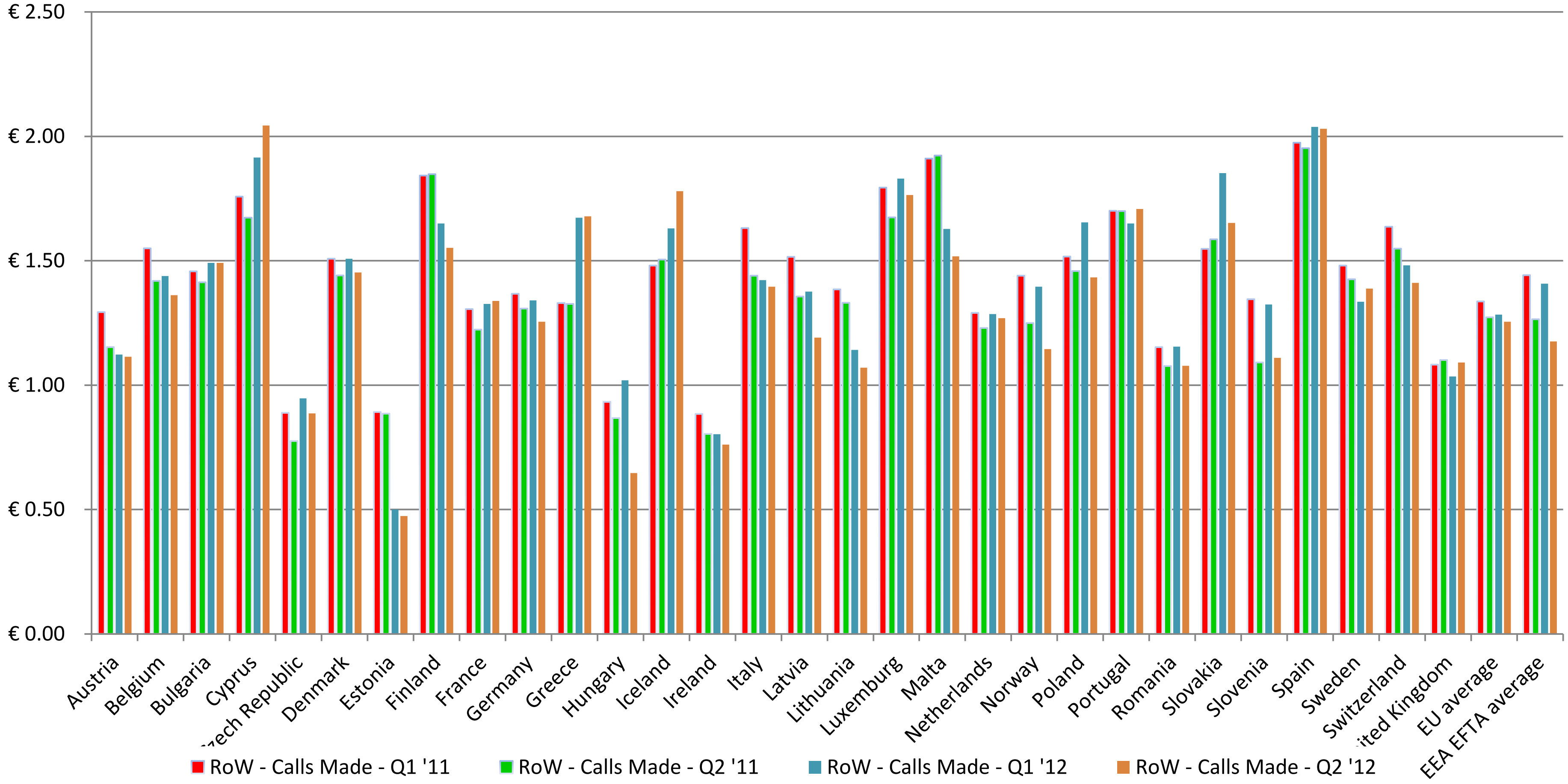
Figure 8b: Volumes of intra-EEA roaming calls received in Q2 2012
(Actual minutes, Q2 2008 = 100)



EU average: Q2 2009 = 101.061; Q2 2010 = 112.173; Q2 2011 = 116.751 ; Q2 2012 = 121.331

For Q2 calls received, a similar pattern can be observed to Q1 – many countries reported an increase year on year, with a few reporting a strong increase in 2012.

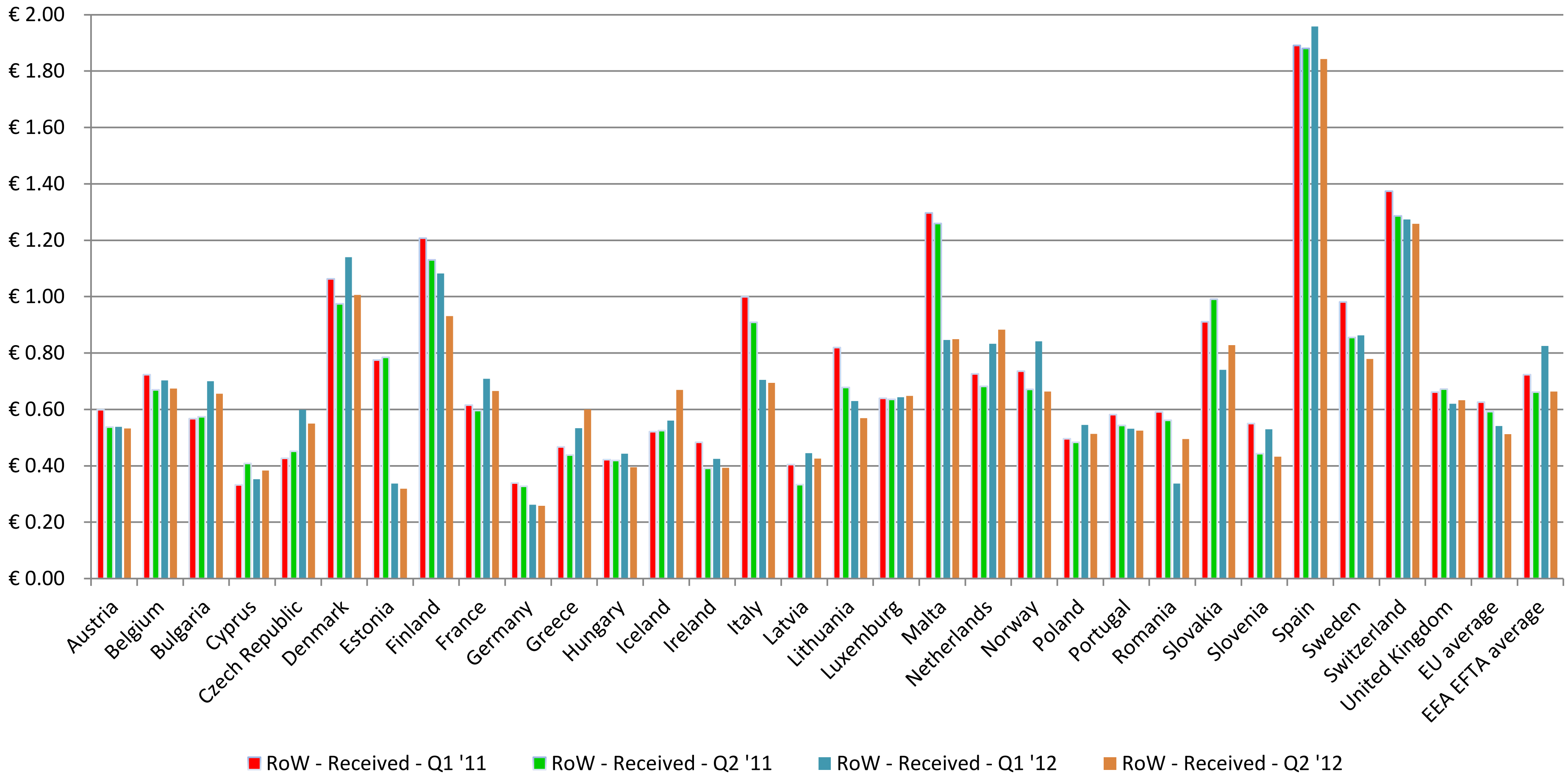
Figure 9: Average retail price per minute for roaming voice calls made by EEA customers outside EEA



EU average: Q1 2011 = € 1.336; Q2 2011 = € 1.273; Q1 2012 = € 1.284; Q2 2012 = € 1.255.

Figure 9 gives an overview of developments in average prices for making roaming calls where either caller or receiver (or both) is outside the EEA. While there is no consistent trend at country level, the average for all EU-based providers has decreased slightly.

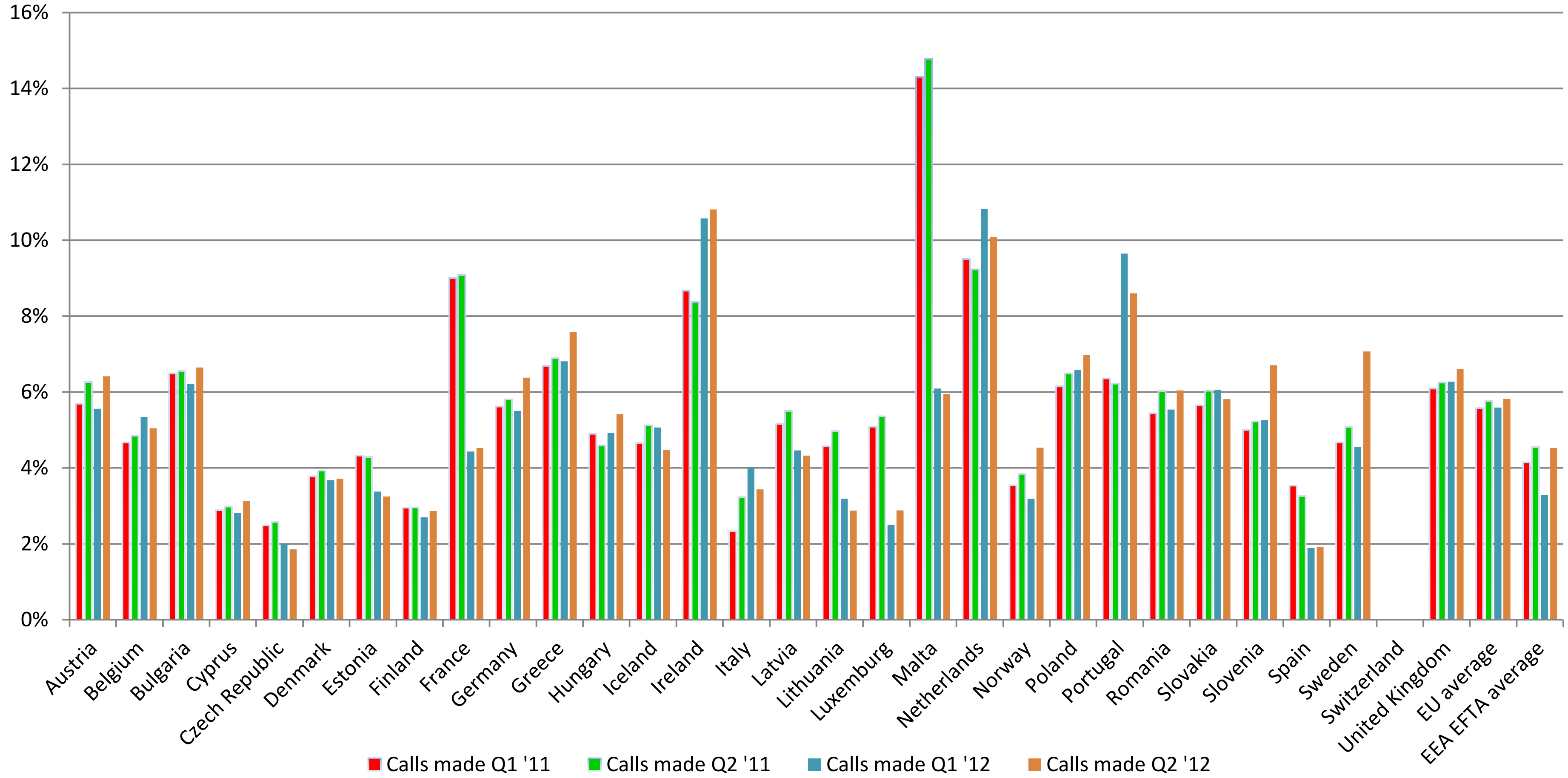
Figure 10: Average retail price per minute roaming voice calls received by EEA customers outside EEA



EU average: Q1 2011 = € 0.626; Q2 2011 = € 0.592; Q1 2012 = € 0.541; Q2 2012 = € 0.512.

Figure 10 shows a similar picture to Figure 9, where either caller or receiver (or both) is outside the EEA. In this case, the EU average price for calls received has fallen from 2011 to 2012.

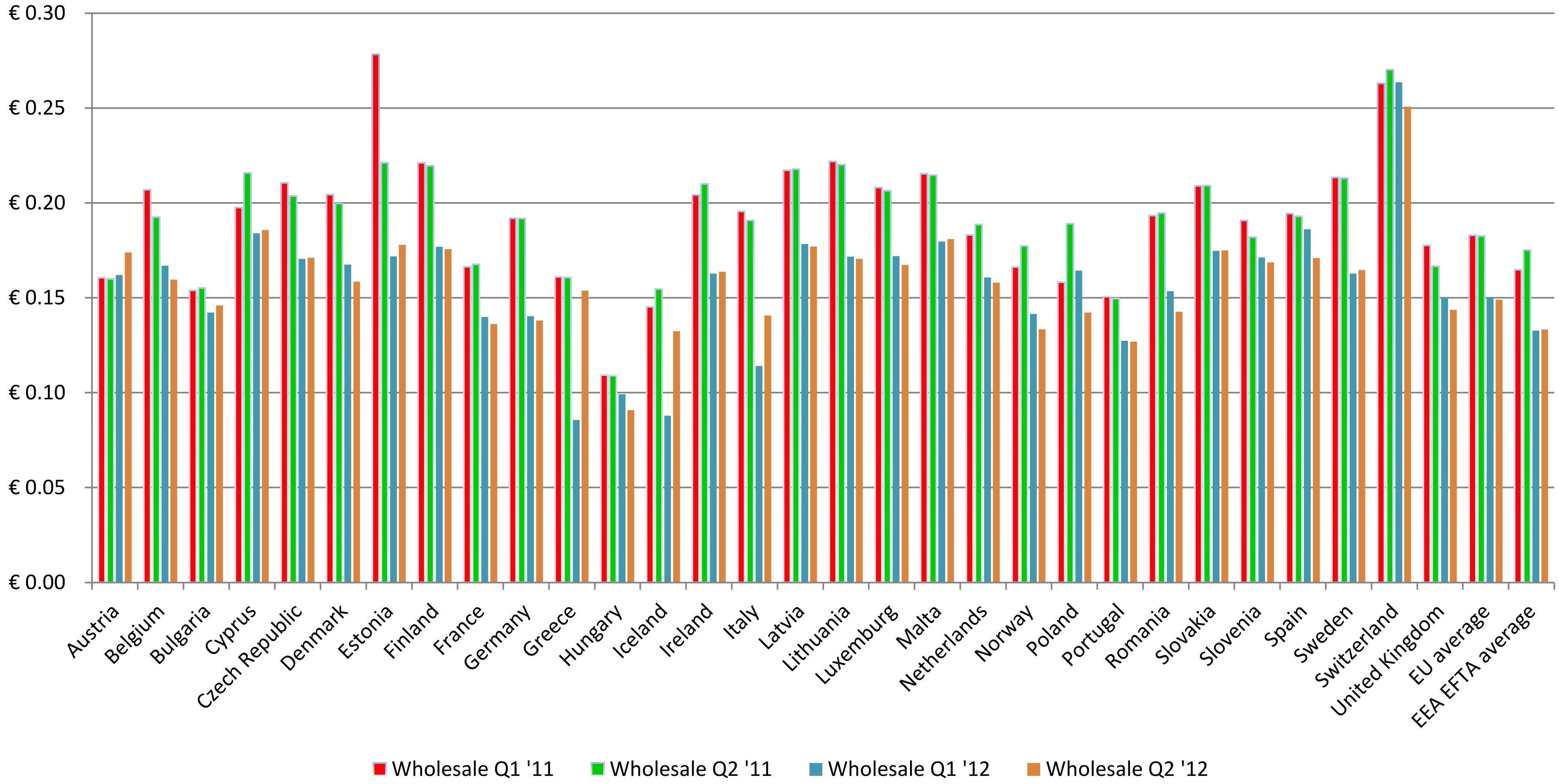
Figure 11: Surcharge as a result of billed minutes for intra-EEA roaming voice calls made : Eurotariff



EU average: Calls made Q1 2011 = 5.57%; Calls made Q2 2011 = 5.76%; Calls made Q1 2012 = 5.59%; Calls made Q2 2012 = 5.82%.

Figure 11 illustrates the effects of billing standardisation, whereby the average price calculated on the basis of billed minutes is lower than that calculated on the basis of actual minutes. These figures have reduced sharply since the 2009 Regulation in line with the policy intention.

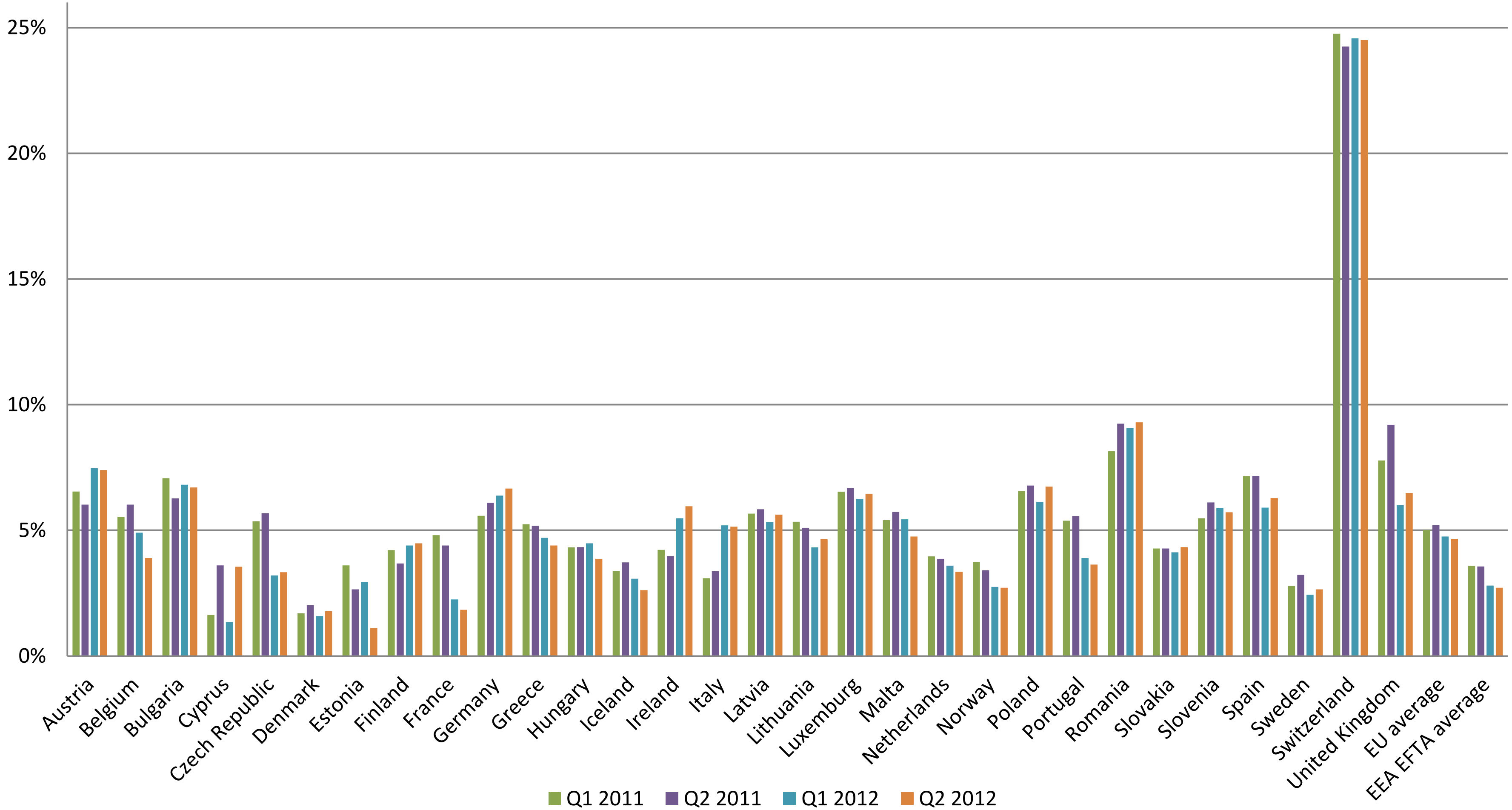
Figure 12: Average wholesale price per minute for intra-EEU roaming voice calls: charges to non-group companies



EU average: Q1 2011 = € 0.183; Q2 2011 = € 0.183; Q1 2012 = € 0.150; Q2 2012 = € 0.149

Figure 12 illustrates average prices for voice minutes at the wholesale level. The EU averages are 3 cent below the regulated wholesale price cap of € 0.18 in Q1 – Q2 2012.

Figure 13: Surcharge as a result of billed minutes for intra-EEA wholesale voice calls (non-group companies)



EU average: Q1 2011 = 5.02%; Q2 2011 = 5.21%; Q1 2012 = 4.79%, Q2 2012 = 4.71%.

Figure 13 illustrates the effects of billing standardisation at the wholesale level.

Figure 14: EEA average price per minute for wholesale non-group roaming voice calls (EU only for Q2 2009 - Q1 2010)*

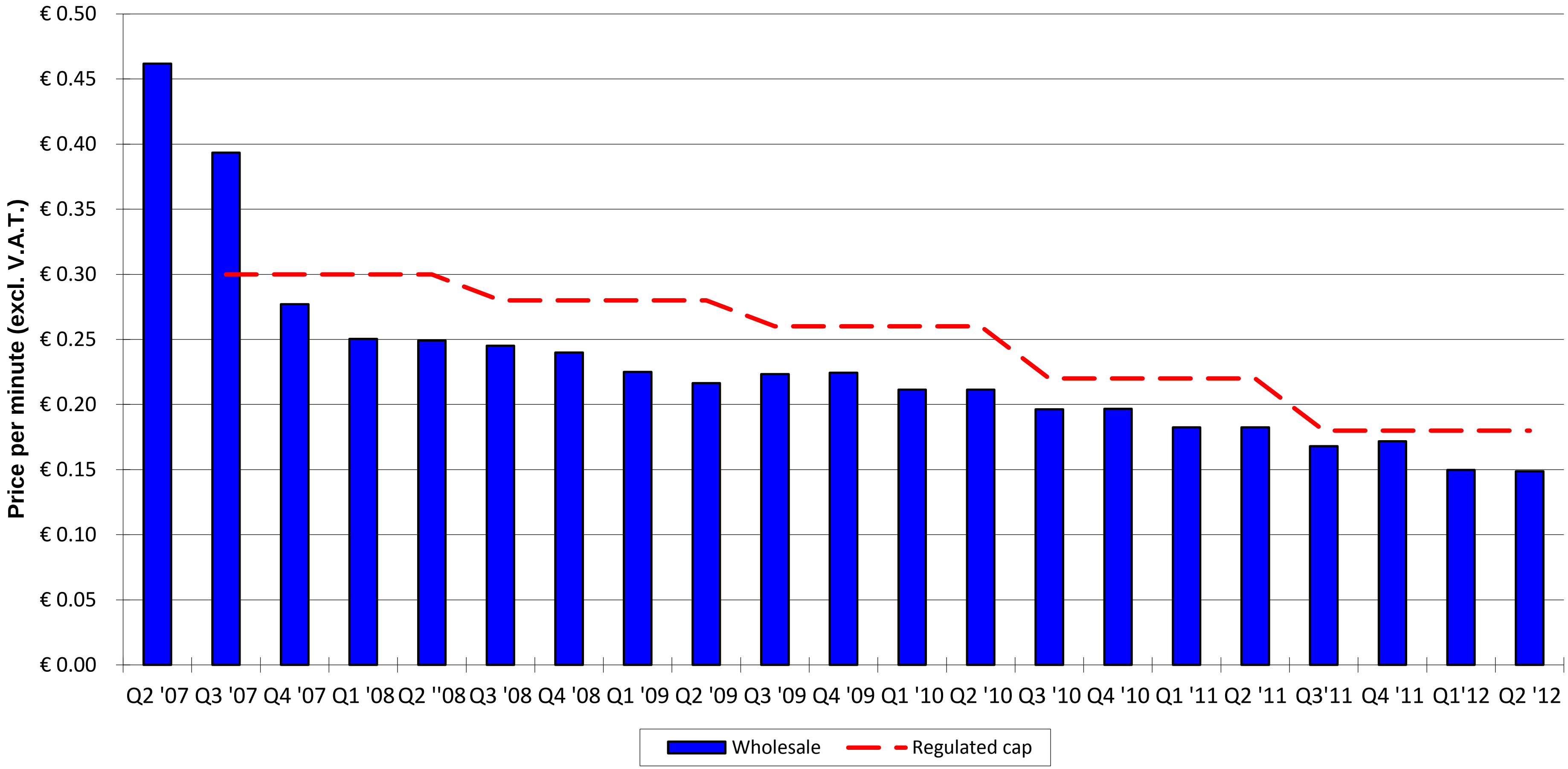
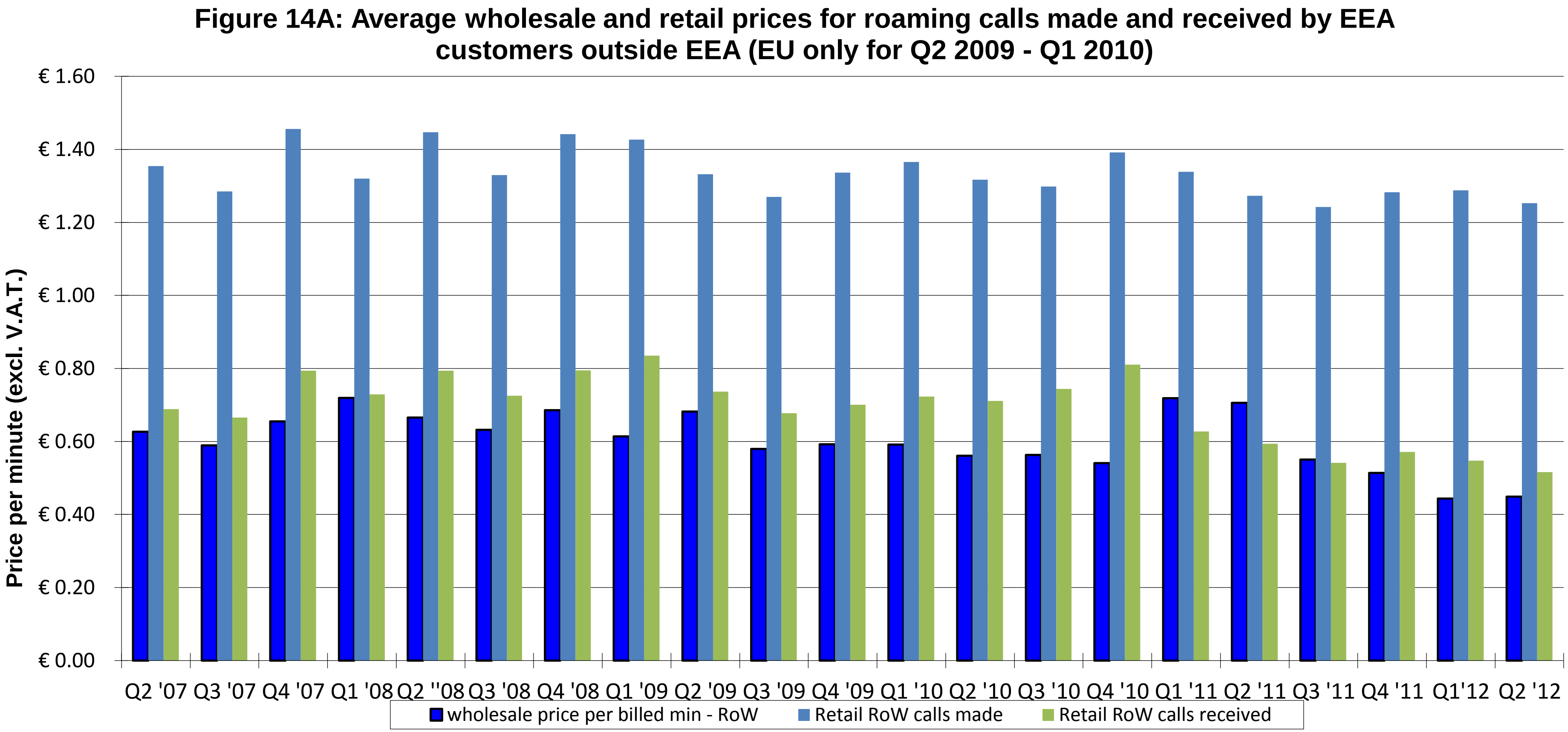


Figure 14 illustrates the EEA average price at the wholesale level from Q2 2007 to Q4 2011 (with the EU-only average for Q2 2009 to Q1 2010). It illustrates the clear drop in the average soon after the implementation of the 2007 Regulation. Since then, the average wholesale price for countries covered by the Regulation has been below the regulated cap by a few €c per minute.



EEA average:

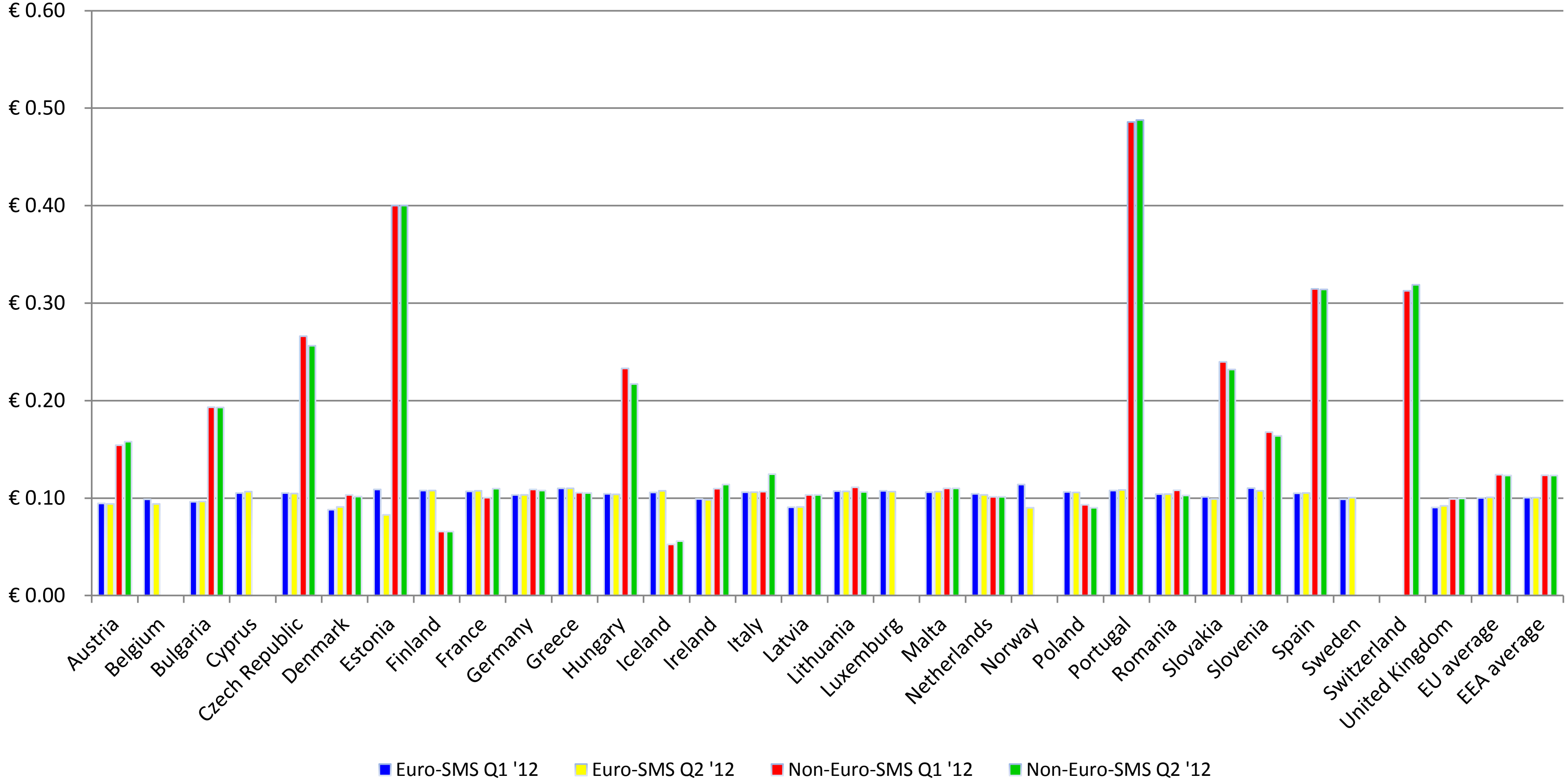
Wholesale: Q1 2008: € 0.719; Q1 2009 = € 0.614; Q1 2010 = € 0.592; Q1 2011 = €0.719; Q1 2012 = 0.444

Retail calls made: Q1 2008= € 1.320; Q1 2009= € 1.427; Q1 2010 = € 1.366; Q1 2011= € 1.339; Q1 2012 = 1.288

Retail calls received: Q1 2008= € 0.729; Q1 2009= € 0.835; Q1 2010= € 0.723; Q1 2011= € 0.628; Q1 2012 = 0.547

Average wholesale and retail prices have fluctuated over time, usually in the same direction.

Figure 15: Average price for Euro-SMS and Non-Euro-SMS



EU average: Euro-SMS Q1 2012 = € 0.100; Euro-SMS Q2 2012 = € 0.101; Non-Euro-SMS Q1 2012 = € 0.124; Non-Euro-SMS Q2 2012 = € 0.123.

On average Euro-SMS offers the better deal but in half of the EU countries the difference between Euro-SMS and non-Euro-SMS is neglible.

Figure 16: Average price per retail SMS (Euro + Non Euro SMS tariffs)
(EU only for Q2 2009 - Q1 2010)

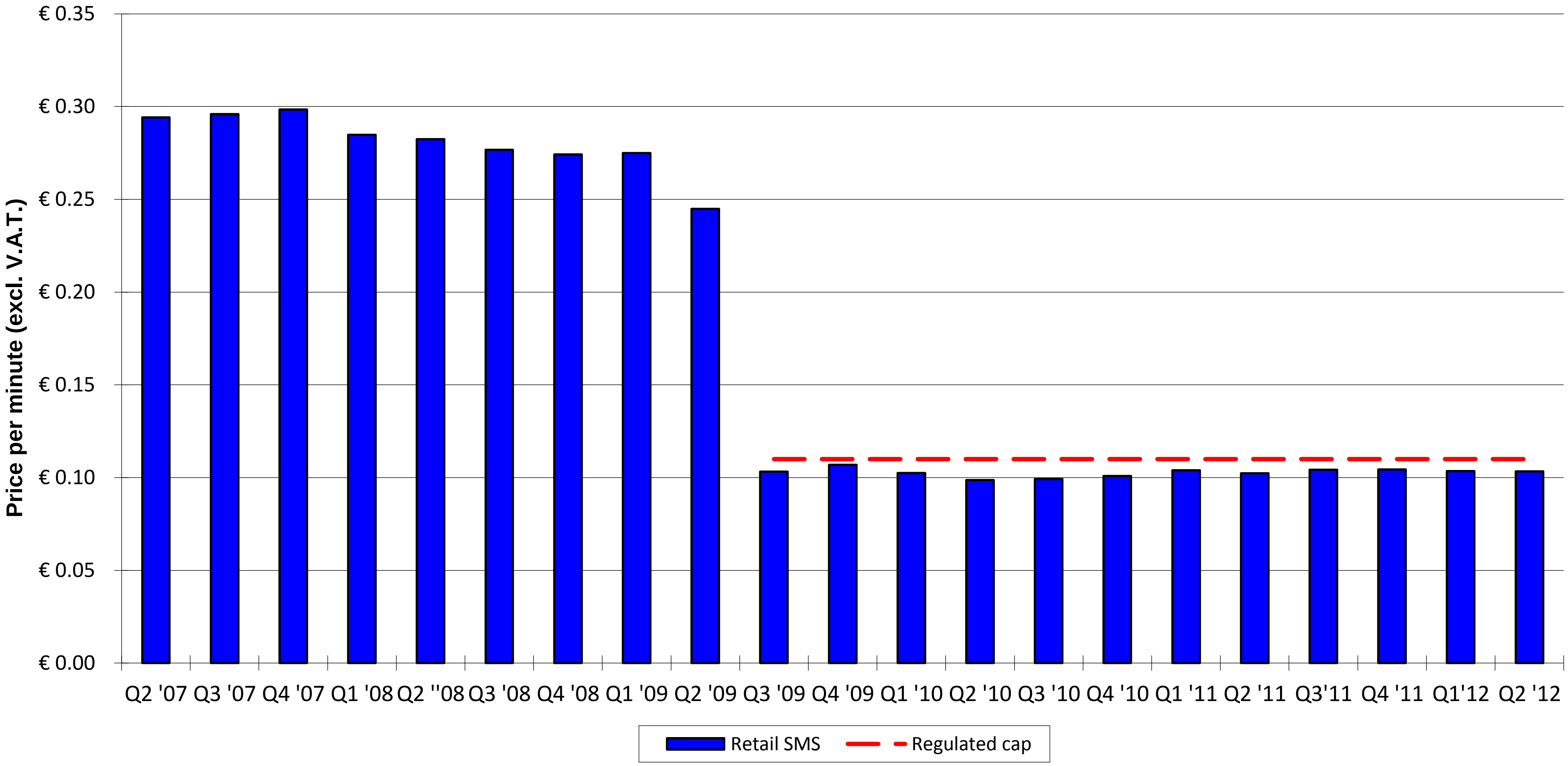
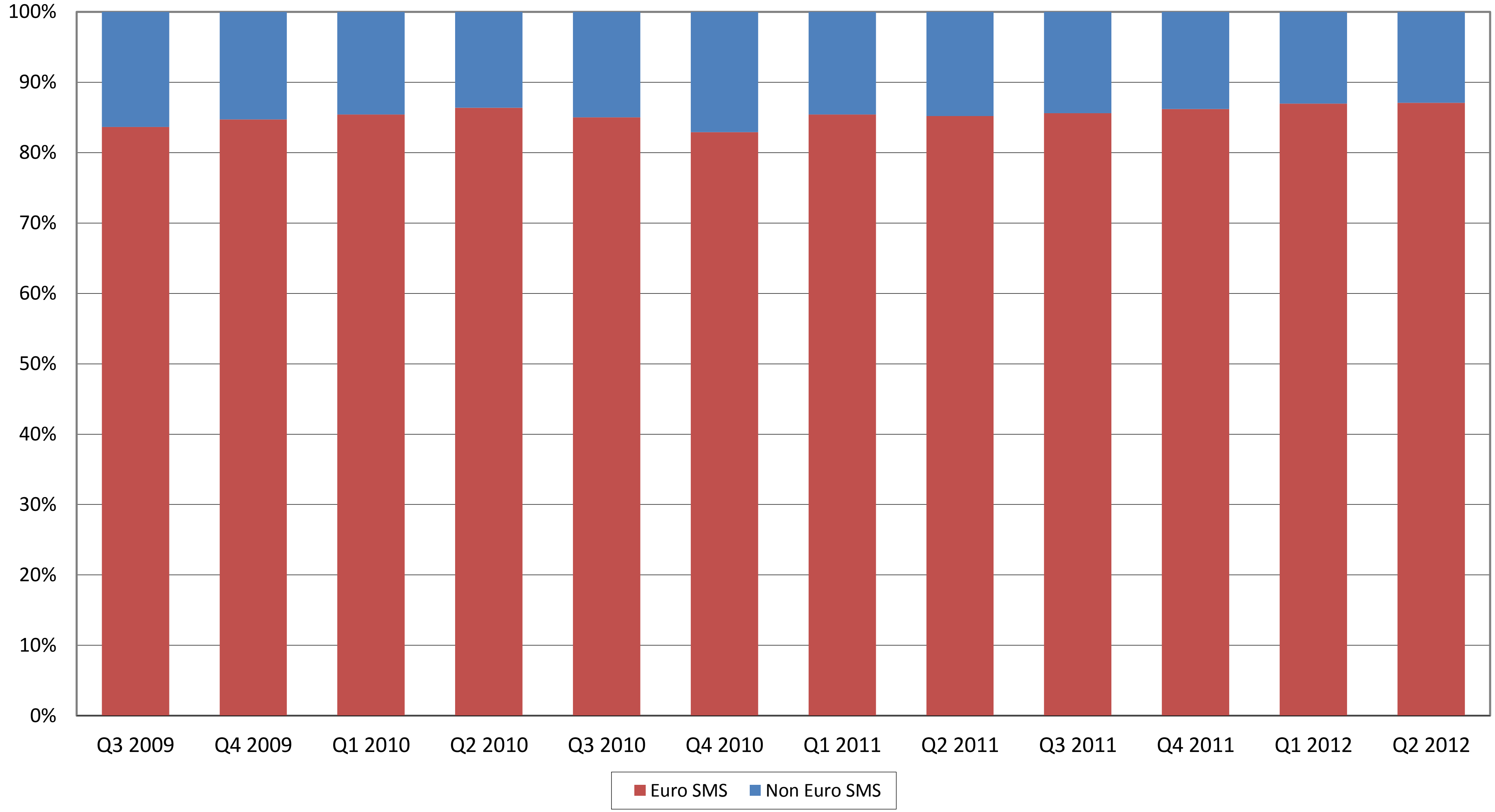


Figure 16 gives an overview of the EEA average price for all retail SMS messages, covering the regulated Euro-SMS tariff and alternative tariffs from Q3 2009 (EU only for Q2 2009 – Q1 2010).

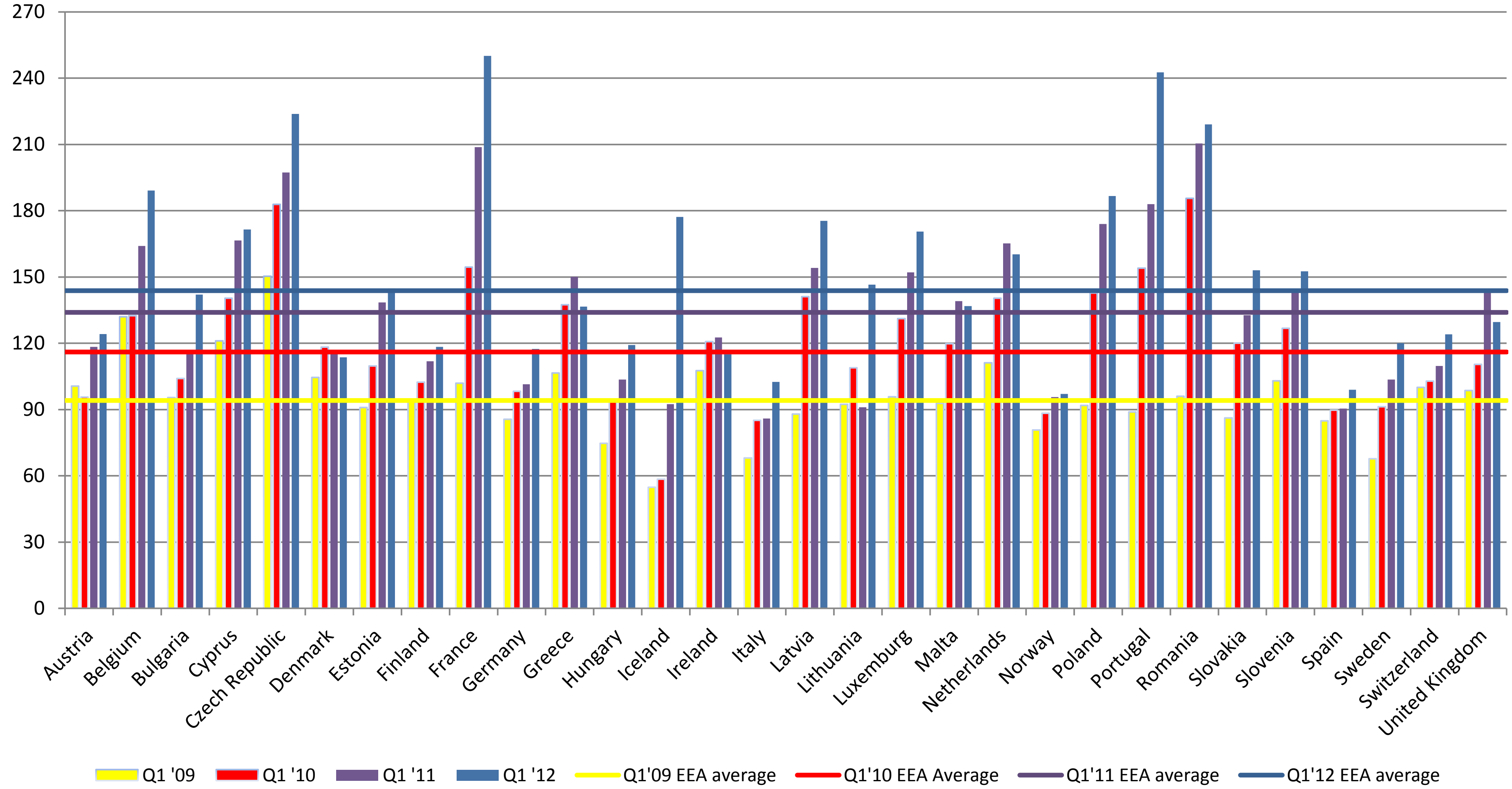
Figure 17: EEA percentage of SMS messages: Euro SMS and Non Euro SMS



EEA average: Eurotariff: Q1 2012 = 818.353, 87% of total SMS messages; Q2 2012 = 1026.886, 87% of total SMS messages

Alternative tariffs: Q1 2012 = 122.644, 13% of total SMS messages; Q2 2012: 152.294, 13% of total SMS messages

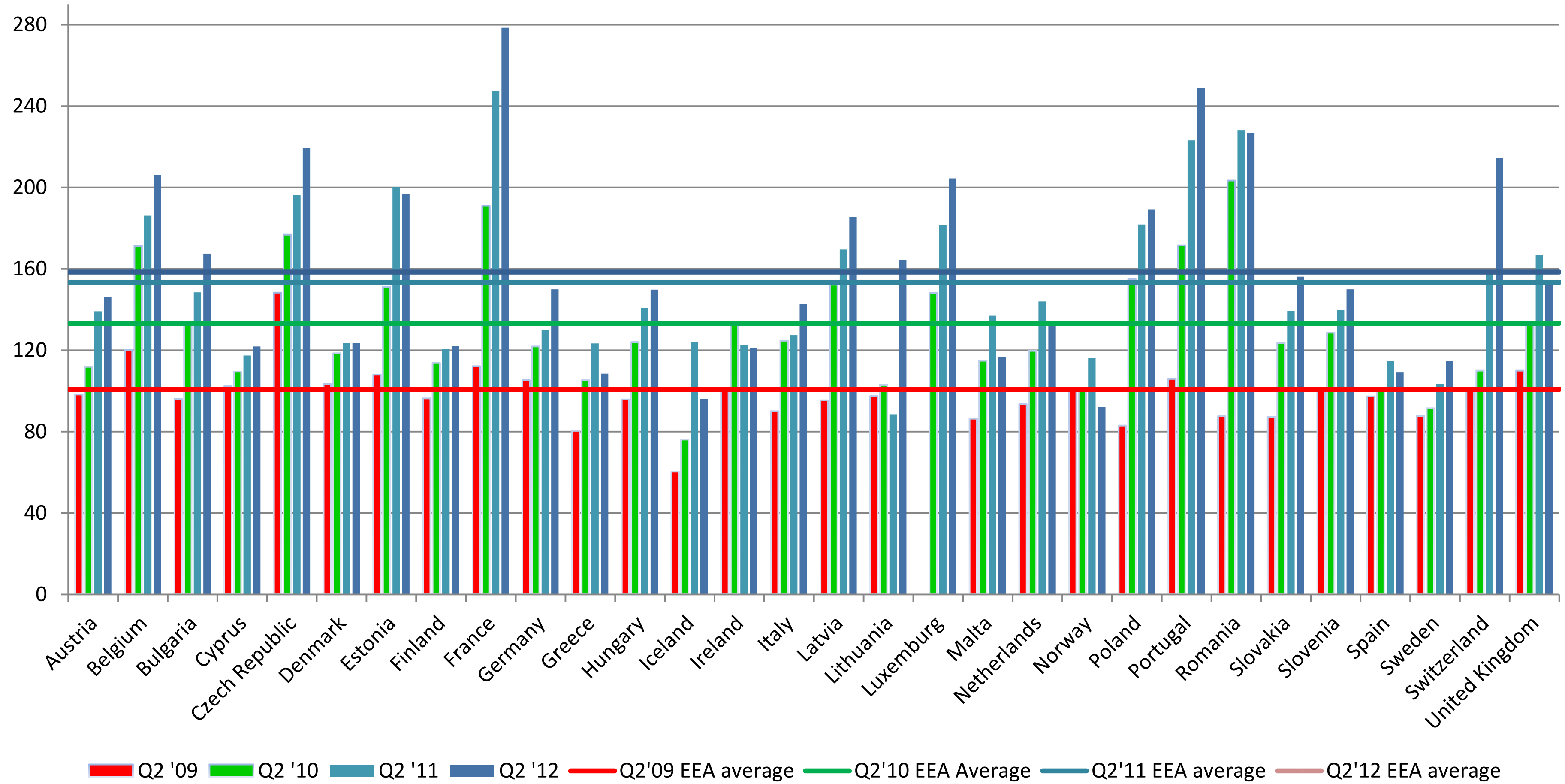
Figure 18a: Volumes of retail intra-EEA roaming SMS sent in Q1 (Q1 2008 = 100)



EU total: Q1 2009 = 94.688; Q1 2010 = 117.246; Q1 2011 = 135.581, Q1 2012 = 145.635

The volumes of roaming SMS messages sent have increased year-on-year in nearly all EU countries, in some cases quite significantly.

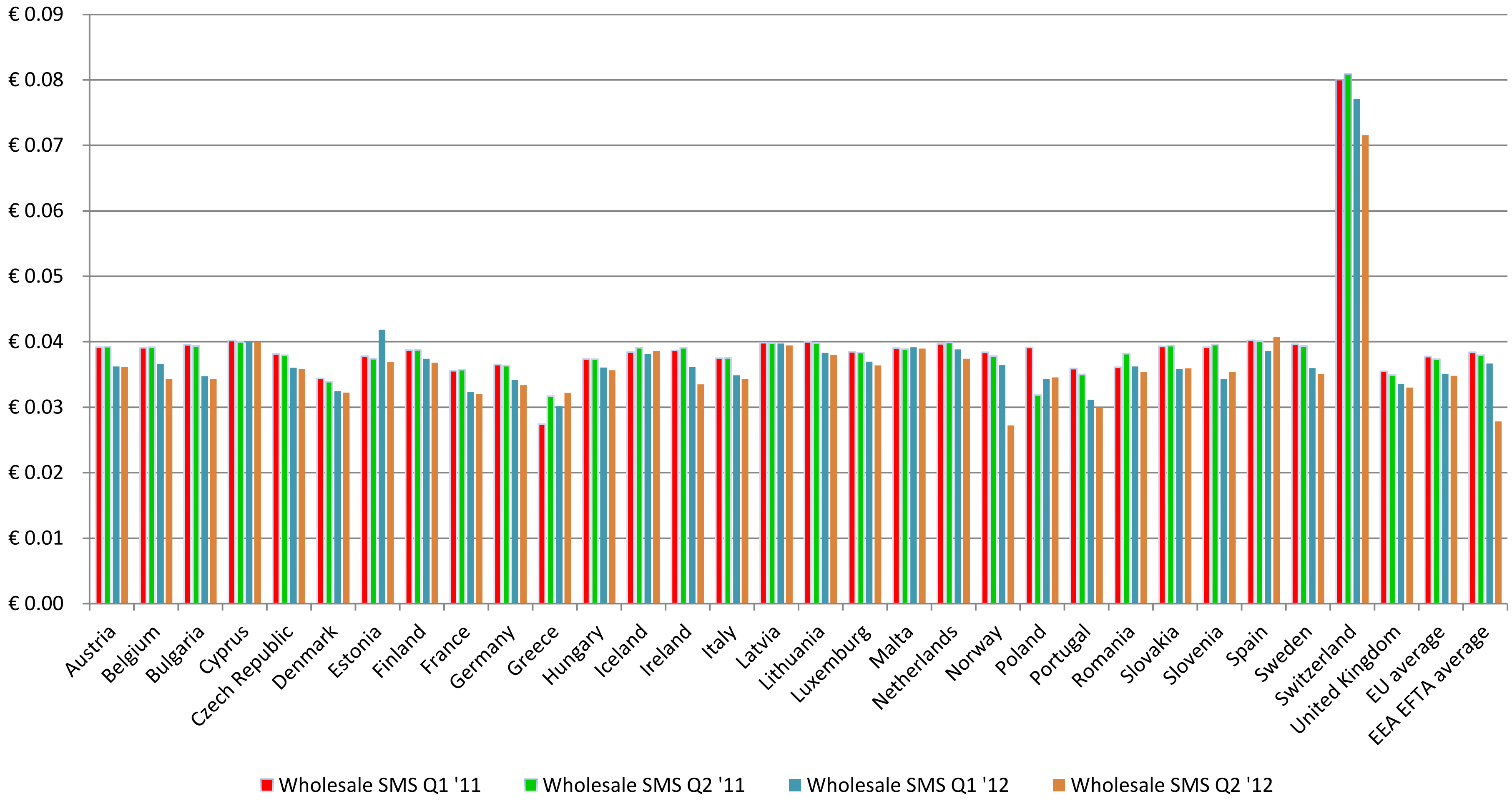
Figure 18b: Volumes of retail intra-EEA roaming SMS sent in Q2 (Q2 2008 = 100)



EU average: Q2 2009 = 100.826; Q2 2010 = 134.704; Q2 2011 = 155.029 ; Q2 2012 = 161.288

As above, the volumes of all roaming SMS messages sent have increased year-on-year in nearly all EU countries, in some cases quite significantly.

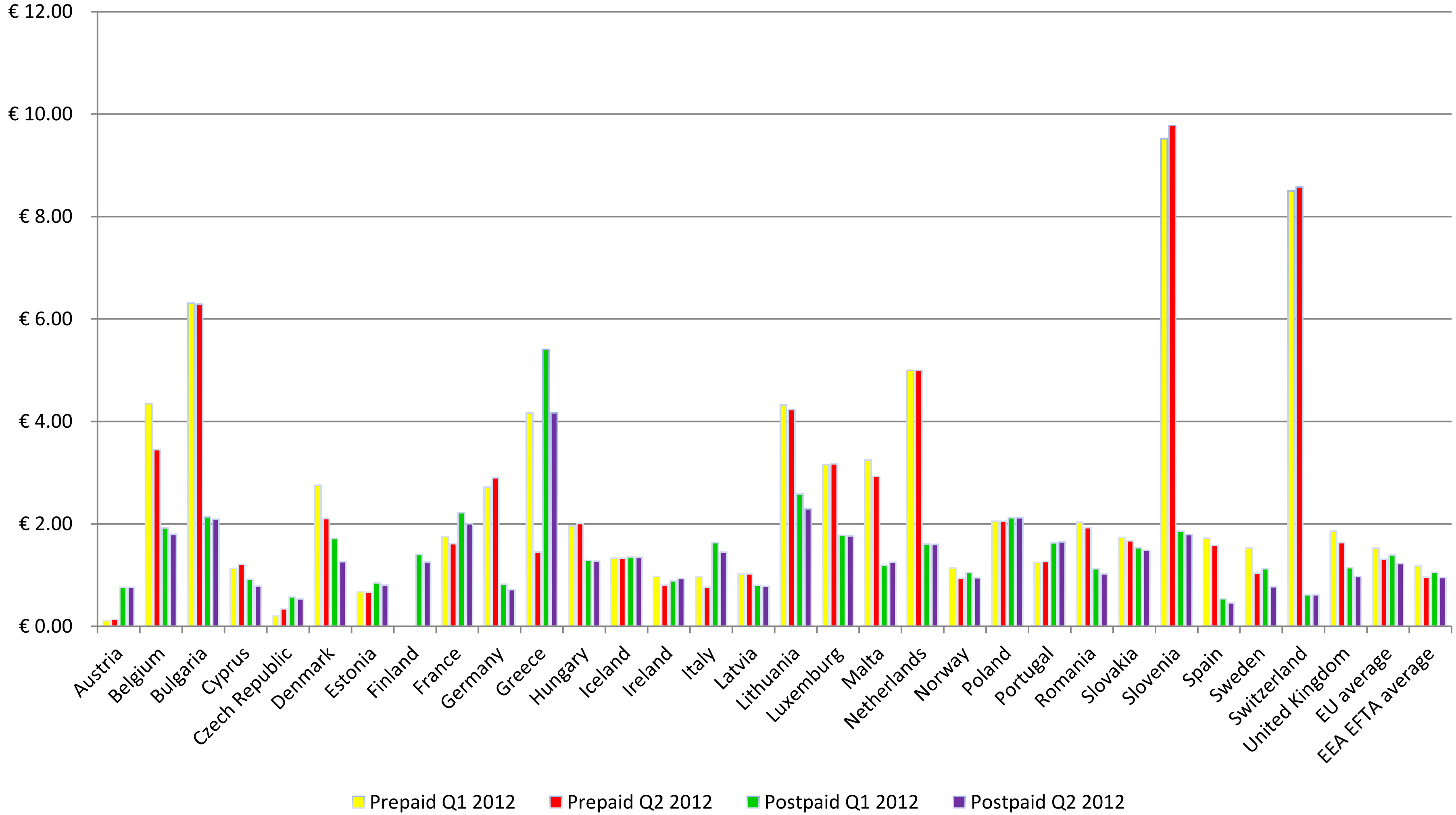
Figure 19: Average wholesale price per intra-EEA roaming SMS: charges to non-group companies



EU average: Q1 2010 = € 0.038; Q2 2011 = € 0.037; Q1 2012 = € 0.035; Q2 2012 = € 0.035.

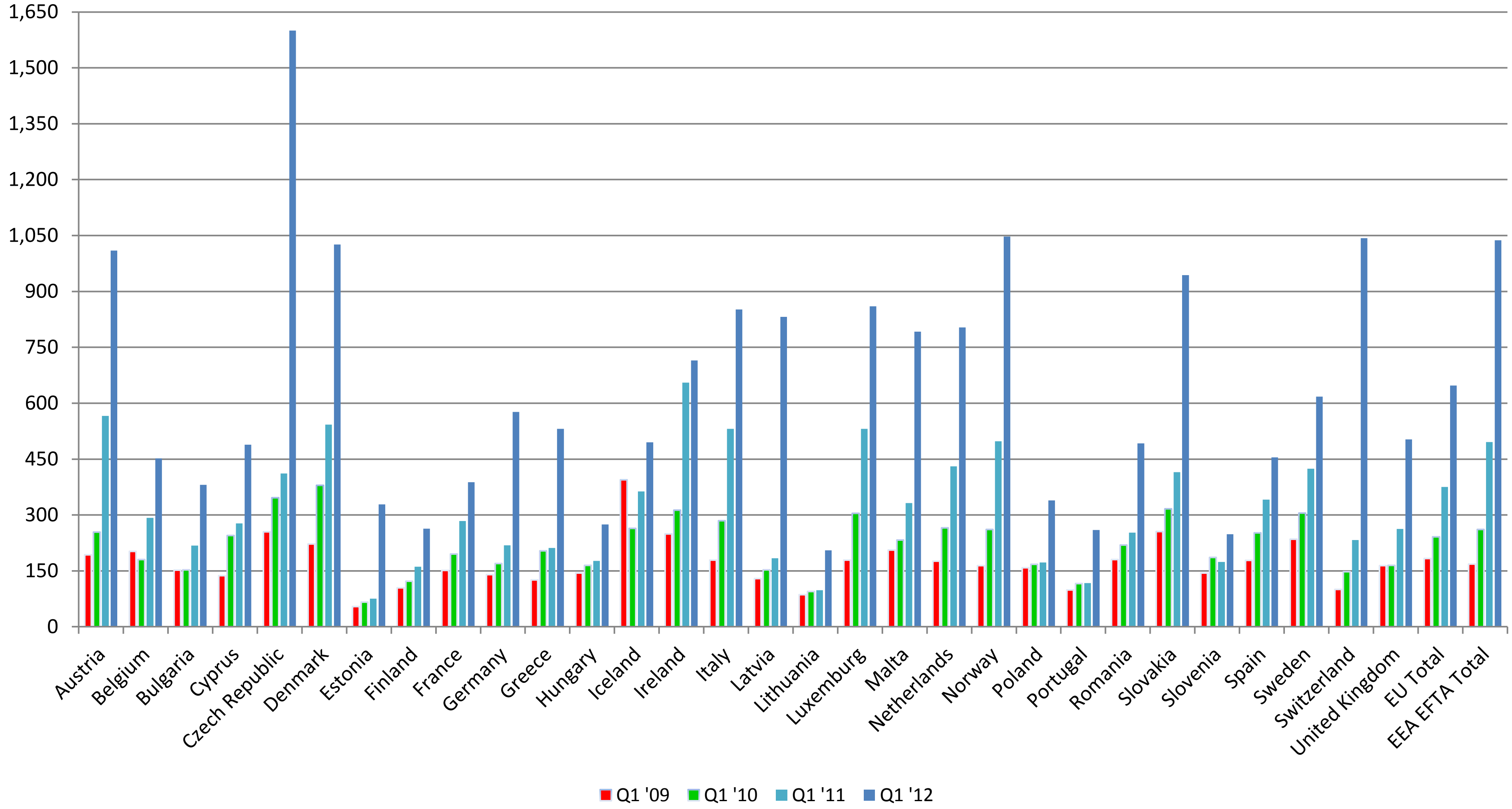
Average wholesale prices comply with the regulated cap of € 0.04.

Figure 20: Average off-net retail data price per Mb



EU average: Prepaid Q1 2012 = € 1.529; Prepaid Q2 2012 = € 1.314; Postpaid Q1 2012= € 1.392; Postpaid Q2 2012 = € 1.224

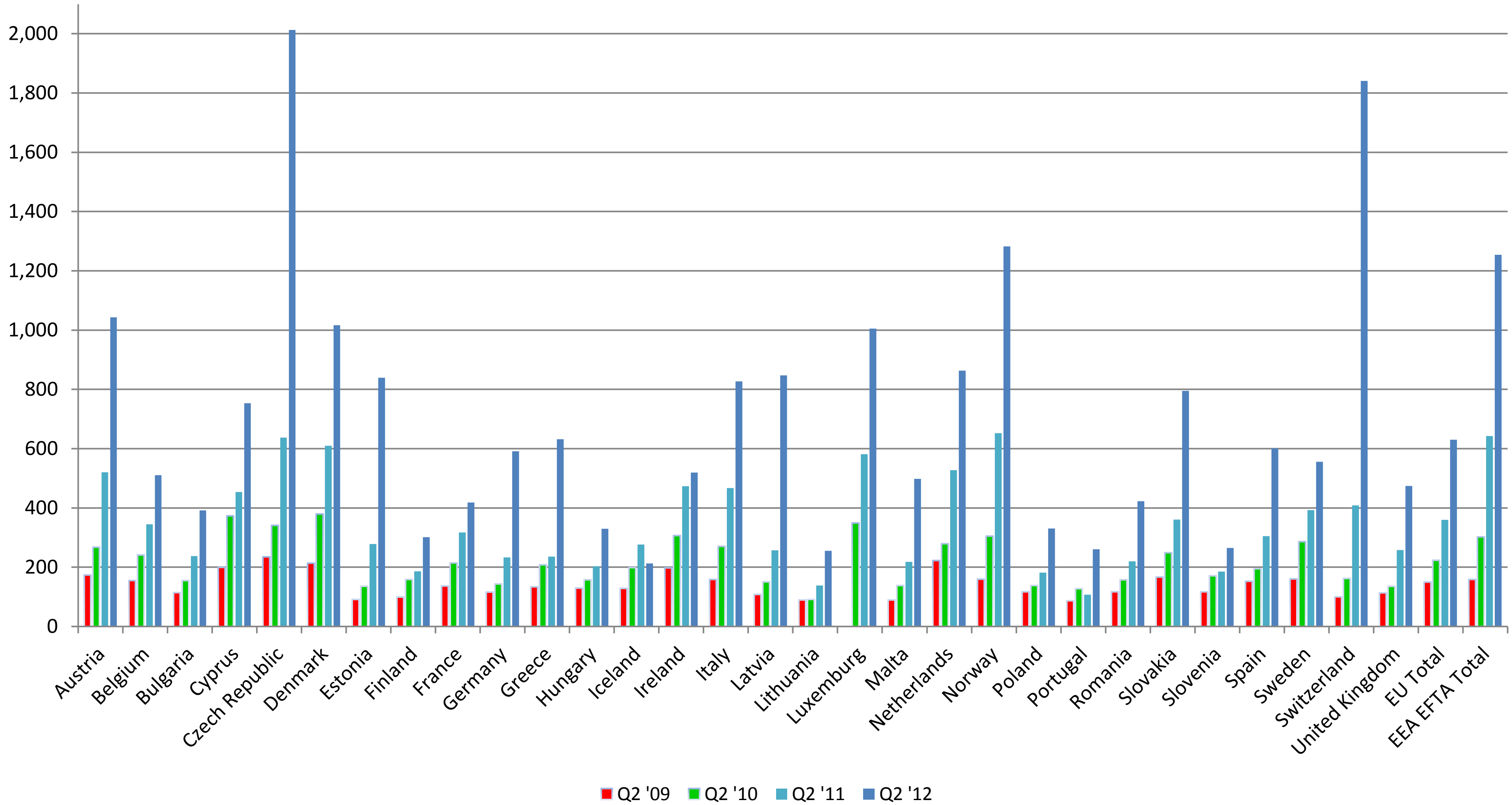
Figure 21a: Volumes of (off-net and on-net) retail data in Q1 2012 (Q1 2008 = 100)



EU average: Q1 2009 = 182.927; Q1 2010 = 241.160; Q1 2011 = 375.004, Q1 2012=647.704.

There has been a significant increase in data volumes in all countries year on year.

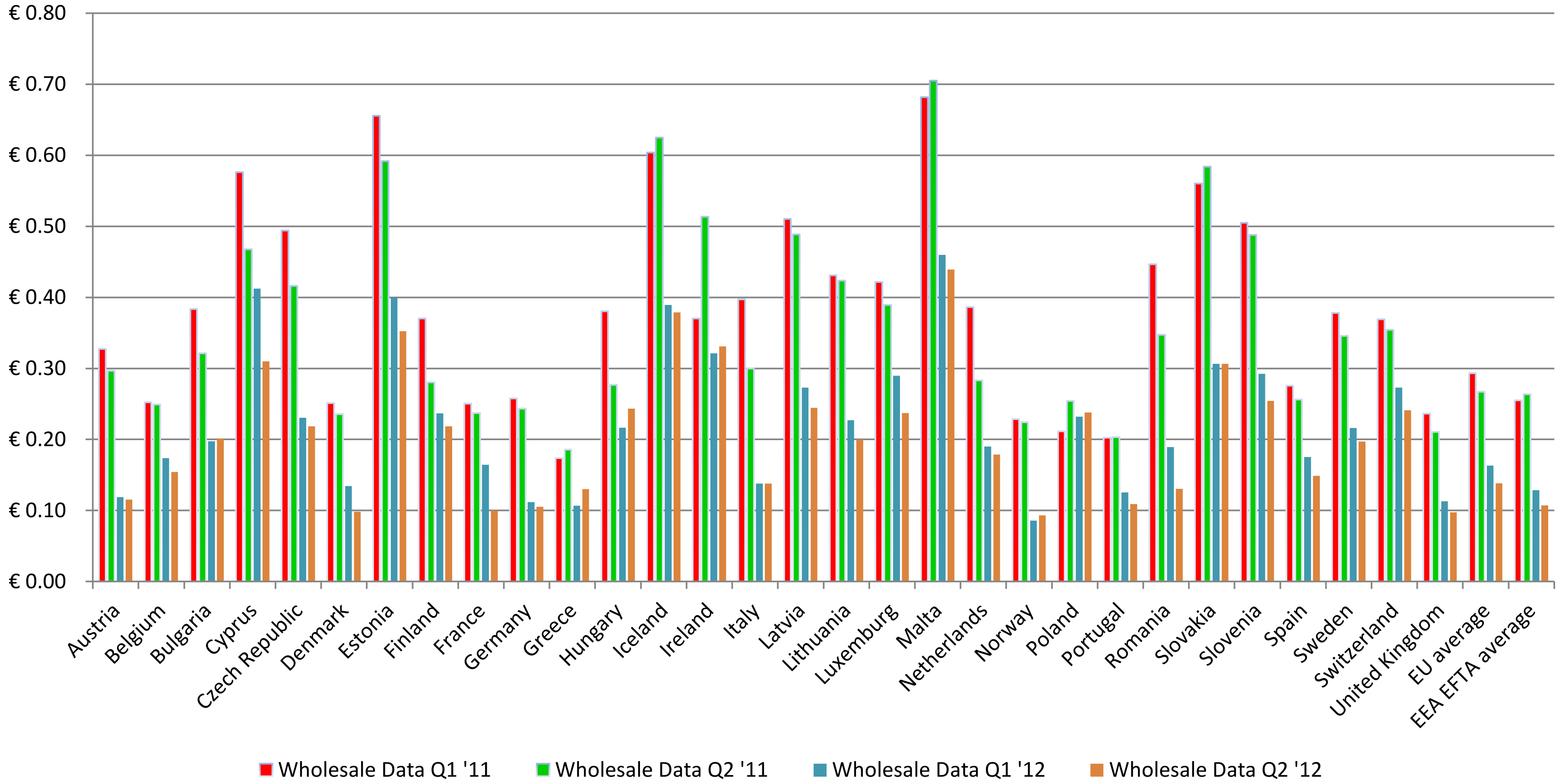
Figure 21b: Volumes of (off-net and on-net) retail data in Q2 2012 (Q2 2008 = 100)



EU average : Q2 2009 = 149.512; Q2 2010 = 222.984; Q2 2011 = 359.904, Q2 2012=629.832

In Q2, usage of retail data services has followed the same trend with a significant increase in data volumes in all countries year on year.

Figure 22: Average wholesale data price per Mb for intra-EEA roaming: charges to non-group companies



EU average: Q1 2011 = € 0.293; Q2 2011 = € 0.267; Q1 2012 = € 0.163; Q2 2012 = € 0.138.

A steady decrease in the EU average wholesale price can be observed year on year. In Q1-Q2 2012, the average in all countries is well below the regulated safeguard cap of € 0.50 per Mb.

Figure 23: Average price per Mb for retail and wholesale intra-EEA roaming data (EU only for Q2 2009 - Q1 2010)

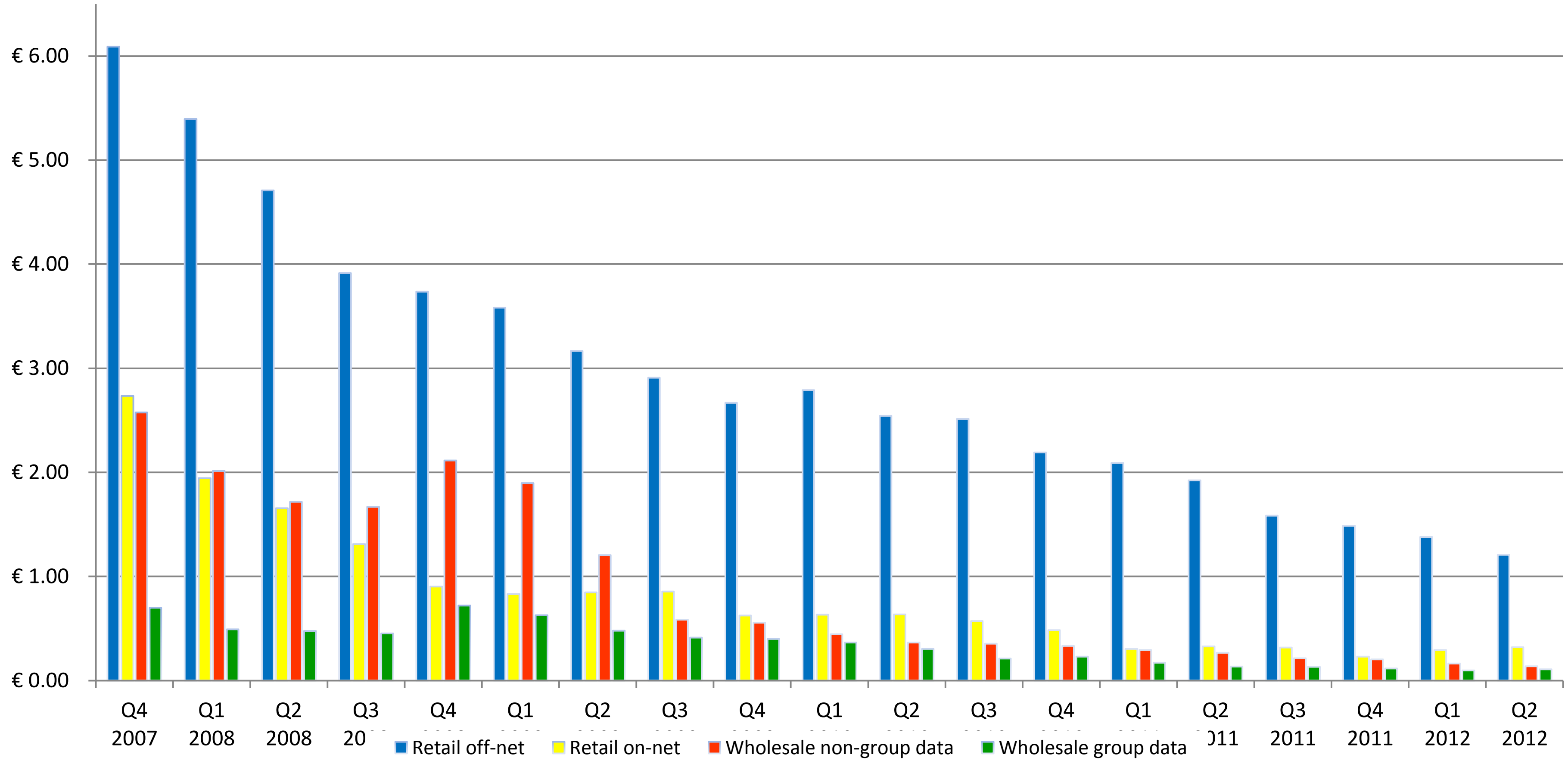


Figure 24 compares the average EEA price trends for retail and wholesale data services (EU-only averages were used for Q2 2009 – Q1 2010). It shows the continued downward trend in the average price for data services at both the retail and wholesale levels. The impact of the 2009 Regulation on wholesale non-group data prices is clearly visible. However, the retail margin for off-net traffic has always been large and has increased significantly in relative terms since Q4 2007. In Q2 and Q2 2012, it was more than 778% of the average non-group wholesale price.

Section 4

Further issues

Traffic steering

4.1. As part of this collection, BEREC gathered information in relation to traffic steering and inadvertent roaming, as required under Article 7 of the 2007 and the 2009 Roaming Regulations. Traffic steering is a technique used by mobile operators to steer traffic on to a preferred or partner network. There are a number of methods used to achieve this, but the result is that the consumer will roam onto the foreign network of their home network's choice. Evidence suggests that this is used to provide an enhanced or lower priced service to the roaming consumer. None of the providers that responded to the information request stated that traffic steering was used to the disadvantage of consumers through higher charges.

Inadvertent roaming

4.2. Inadvertent roaming can occur near international borders. When a consumer is close to a border it is possible that they will pick-up a foreign mobile operator's network signal even if they are not actually located in the country of the foreign operator. In such cases, the consumer may be charged as if they were internationally roaming when in fact they are still physically located in their home country.

4.3. Most respondents to the data collection did not identify this as a significant problem, with apparently relatively few consumers adversely affected. Whereas inadvertent roaming traditionally occurred with voice services, BEREC understands that, as consumer take-up of mobile data services has become more common, some cases of inadvertent roaming for data have also arisen.

4.4. BEREC understands that providers operate a number of mechanisms to deal with the question of inadvertent roaming: information is generally available on provider websites; where a particular issue has been identified providers have generally taken additional steps to ensure consumers are aware of it; in some cases operators offer bespoke tariffs for neighbouring countries; some operators have developed network coverage in border areas to tackle the problem. Providers also reported that where roaming has occurred inadvertently, they investigate the complaints and may offer compensation or refund the roaming charges as a goodwill gesture.

Implementation in EEA EFTA countries

4.5. The 2007 Regulation entered into force in the EEA EFTA countries Norway, Iceland (and Liechtenstein) on 22 December 2007, meaning that in those countries, data for the regulated wholesale voice rate and the Eurotariff is available from quarter 1 2008 only. The 2009 Regulation was adopted in the EEA EFTA countries during Q2 2010. Therefore the regulated SMS and data caps did not apply before this quarter, and the voice caps were at the slightly higher levels than required by the 2009 Regulation in Q1 2010. To reflect this, separate EU and EEA EFTA averages are shown in various Figures. Note that for the purposes of this Report, 'EEA EFTA' refers to Norway and Iceland only.

Summary of data 'gaps' and apparently 'anomalous' results

4.6. This round of data collection revealed that there remains a limited number of operators that have some problems supplying reasonable quality data. This is not at all unusual for a comprehensive data collection of this type. In most cases the NRA was able to work with the company to resolve or alleviate the problem. In other cases, where system upgrades will be necessary to comply with the data collection or where systems failures were the source of the problem, the company was asked to provide the best possible estimate currently available and to complete upgrades in time to provide high quality data in future.

Actual/billed minutes

4.7. Although NRAs have strongly encouraged their operators to supply the figures for actual and billed minutes for voice roaming services, a small number of operators still had problems supplying the requested data. Overall, BEREC feels the differences between actual and billed minutes indicated by this Report are a fair reflection of actual practices.

Wholesale discounts

4.8. At the wholesale level, operators often receive discounts based on variables like volume of traffic, calculated at the end of a 12-month period. When providing data for these Reports, operators may estimate the effect of such discounts on data for each quarter. Because the actual discount may vary from the estimate, there may be an apparently 'anomalous' result for the quarter when the discount is actually applied. This should be kept in mind when comparing wholesale figures for different quarters in the same year.

Varying response rate

4.9. A further issue that may cause an apparent change in price between quarters, when tariffs have remained the same, is a variance in the operators that provide reliable data for a particular data category in a quarter. This can also cause strong volume changes.

Exchange rate issues

4.10. For ease of comparison, the Euro is used throughout this Report. Within the EU, currency fluctuations between the Euro and other national currencies are likely to have affected the average prices reported for EEA countries outside the Euro zone.

Overview of compliance issues

4.11. As stated elsewhere in this Report, overall compliance with the provisions of the 2007 and the 2009 Regulations has generally been good. All mobile operators offer their consumers a Eurotariff and Euro-SMS tariff, wholesale rates appear to have fallen in line with the requirements set out in the Regulations, and consumer transparency has improved.

Annex 1: List of respondents

Below are the operators that provided data for the period 1 January – 30 June 2012:

Austria

A1 Telekom Austria

T-Mobile Austria

Orange Austria

Hutchison 3G Austria

Yesss!

Belgium

Belgacom Mobile

KPN Group Belgium (Base)

Mobistar

Bulgaria

Bulgarian Telecommunication Company AD (Vivacom)

Cosmo Bulgaria Mobile EAD

Mobiltel EAD

Cyprus

Cytamobile-Vodafone

EAD MTN Cyprus (AreebaLtd)

Czech Republic

Telefónica O2 Czech Republic

T-Mobile Czech Republic

Vodafone Czech Republic

Denmark

Hi3G Denmark

TDC

Telenor

TeliaDanmark

Estonia

AS EMT

Elisa Eesti AS

OÜ Top Connect

ProGroup Holding OÜ

TELE 2 Eesti AS

Finland

AlandsMobiltelefonAb

DNA Ltd

Elisa Corporation

TeliaSonera Finland Oyj

France

Bouygues Telecom

Orange Caraïbe

Orange France

SFR

Free Mobile

Germany

E-Plus Mobilfunk GmbH &Co. KG

Telefónica Germany GmbH & Co. OHG

Telekom Deutschland GmbH

Vodafone D2 GmbH

Greece

COSMOTE Mobile

Vodafone Panafon S.A.

Wind HellasTelecommunications S.A.

Hungary

Telenor MagyarországZrt

T-Mobile
Vodafone MagyarországZrt

Iceland
Nova
Síminn hf.
Vodafone Iceland

Ireland
Eircom Limited/E Mobile
Hutchison 3G Ireland Limited
Meteor Mobile Communications Limited
Telefónica Ireland Limited/(O2)
Tesco Mobile Ireland Limited
Vodafone Ireland Limited

Italy
Carrefour Italia Mobile
Coop Voce
Fastweb
H3G Italia
Noverca Italia
Poste Mobile
Telecom Italia
Tiscali Italia
Vodafone Omnitel
WindTelecomunicazioni

Latvia
Bite Latvia
LatvijasMobilaisTelefons
Tele2

Lithuania
BitėLietuva
Eurocom
Omnitel
Tele2
Teledema

Malta
Melita Mobile Ltd
Mobisle Communications Ltd (GO Mobile)
RedtouchFone Ltd
Vodafone Malta Ltd
YOM

Netherlands
KPN B.V.
Lebara B.V.
Lycamobile Distribution Ltd
Tele2 Netherlands B.V.
T-Mobile Netherlands B.V.
Vodafone Libertel B.V.

Norway
Telenor
NetCom
Network Norway
Tele2
Lebara
Ventelo
OneCall

Poland
CenterNet S.A.
P4 Sp. z.o.o.
Polkomtel S.A.
PTC Sp. z.o.o.
PTK Centertel Sp. z.o.o.

Portugal
CTT – Correios de Portugal, S.A
OPTIMUS – Comunicações, S.A

TMN - TelecomunicaçõesMóveisNacionais, SA

Vodafone Portugal - ComunicaçõesPessoais, SA

ZON TV Cabo Portugal, S.A.

Romania

Cosmote RMT

Orange Romania

RCS&RDS

Vodafone Romania

SlovakRepublic

TelefónicaSlovakia

Orange Slovensko

Slovak Telekom

Slovenia

Debiteld.d.

IZI mobild.d.

Mobiteld.d.

Si.mobild.d.

T-2 d.o.o.

Tušmobild.o.o.

Spain

Euskaltel

Orange

TelefónicaMóviles de España

Vodafone

Yoigo

Sweden

Hi3G Access AB

Tele2 Sverige AB

Telenor Sverige AB

TeliaSonera AB

Switzerland

Orange Communications AG

Sunrise Communications AG

Swisscom (Schweiz) AG

United Kingdom

3 UK

O2 UK

BT

Everything Everywhere

Vodafone UK

Tesco Mobile

Virgin Mobil

Annex 2: Underlying data, corresponding to figures

NA - Data not available

Figure 1: Average retail price per minute for intra-EEA roaming voice calls made: Eurotariff and alternative tariffs (billed minutes)

Eurotariff - Calls made (Average (Prepaid + Postpaid)		
Country	Quarter	
	Q1 2012	Q2 2012
Austria	0.170	0.178
Belgium	0.303	0.281
Bulgaria	0.335	0.335
Cyprus	0.342	0.343
Czech Republic	0.328	0.324
Denmark	0.296	0.292
Estonia	0.344	0.342
Finland	0.354	0.354
France	0.332	0.338
Germany	0.330	0.322
Greece	0.349	0.350
Hungary	0.337	0.335
Iceland	0.357	0.356
Ireland	0.259	0.274
Italy	0.340	0.332
Latvia	0.327	0.338
Lithuania	0.335	0.327
Luxemburg	0.346	0.345
Malta	0.349	0.348
Netherlands	0.280	0.283
Norway	0.270	0.261
Poland	0.325	0.323
Portugal	0.340	0.341
Romania	0.349	0.347
Slovakia	0.322	0.319
Slovenia	0.332	0.329
Spain	0.341	0.332
Sweden	0.325	0.320
Switzerland	NA	NA
United Kingdom	0.300	0.274
EU average	0.313	0.306
EEA EFTA average	0.274	0.264
EEA average	0.311	0.304

Alternative tariffs - Calls made (Average (Prepaid + Postpaid)		
Country	Quarter	
	Q1 2012	Q2 2012
Austria	0.454	0.446
Belgium	0.408	0.425
Bulgaria	0.515	0.513
Cyprus	1.221	1.181
Czech Republic	0.458	0.416
Denmark	0.249	0.260
Estonia	NA	NA
Finland	0.200	0.212
France	NA	NA
Germany	0.369	0.370
Greece	0.459	0.454
Hungary	0.319	0.329
Iceland	0.409	0.635
Ireland	0.269	0.288
Italy	0.388	0.383
Latvia	NA	NA
Lithuania	0.454	0.383
Luxemburg	0.390	0.365
Malta	0.802	0.761
Netherlands	0.349	0.347
Norway	NA	NA
Poland	0.239	0.227
Portugal	0.346	0.352
Romania	0.338	0.343
Slovakia	0.321	0.308
Slovenia	0.599	0.546
Spain	0.339	0.351
Sweden	0.370	0.380
Switzerland	0.640	0.647
United Kingdom	0.260	0.262
EU average	0.359	0.359
EEA EFTA average	0.409	0.635
EEA average	0.359	0.359

Figure 2: Retail roaming voice minutes for intra-EEA roaming voice calls made (millions of minutes): Eurotariff and alternative tariffs (actual minutes)

Eurotariff – calls made													
Quarter	**Q2'09**	**Q3'09**	**Q4'09**	**Q1'10**	**Q2'10**	**Q3'10**	**Q4'10**	**Q1'11**	**Q2'11**	**Q3'11**	**Q4'11**	**Q1'12**	**Q2'12**
EEA Total	869.562	1175.806	744.642	739.592	918.915	1224.255	786.107	742.741	916.728	1223.508	768.176	742.344	898.038
Alternative tariff – calls made													
Quarter	**Q2'09**	**Q3'09**	**Q4'09**	**Q1'10**	**Q2'10**	**Q3'10**	**Q4'10**	**Q1'11**	**Q2'11**	**Q3'11**	**Q4'11**	**Q1'12**	**Q2'12**
EEA Total	326.293	450.682	298.021	277.434	321.072	431.420	315.012	281.302	334.689	437.869	283.851	266.533	303.775

% of calls made (considering only Eurotariff) in the total number of retail roaming voice minutes													
Quarter	**Q2'09**	**Q3'09**	**Q4'09**	**Q1'10**	**Q2'10**	**Q3'10**	**Q4'10**	**Q1'11**	**Q2'11**	**Q3'11**	**Q4'11**	**Q1'12**	**Q2'12**
EEA Total	72.715%	72.291%	71.417%	72.721%	74.107%	73.943%	71.392%	72.530%	73.255%	73.644%	73.019%	73.581%	74.724%
% of calls made (considering only Alternative tariffs) in the total number of retail roaming voice minutes													
Quarter	**Q2'09**	**Q3'09**	**Q4'09**	**Q1'10**	**Q2'10**	**Q3'10**	**Q4'10**	**Q1'11**	**Q2'11**	**Q3'11**	**Q4'11**	**Q1'12**	**Q2'12**
EEA Total	27.285%	27.709%	28.583%	27.279%	25.893%	26.057%	28.608%	27.470%	26.745%	26.356%	26.981%	26.419%	25.276%

Figure 3: Average retail price per minute for intra-EEA roaming voice calls received (millions of minutes): Eurotariff and alternative tariffs (billed minutes)

Eurotariff - Calls Received (Average (Prepaid + Postpaid)		
Country	Quarter	
	Q1 2012	Q2 2012
Austria	0.059	0.062
Belgium	0.098	0.092
Bulgaria	0.103	0.103
Cyprus	0.110	0.110
Czech Republic	0.103	0.102
Denmark	0.090	0.090
Estonia	0.054	0.053
Finland	0.112	0.110
France	0.102	0.101
Germany	0.101	0.100
Greece	0.109	0.110
Hungary	0.102	0.102
Iceland	0.125	0.130
Ireland	0.031	0.035
Italy	0.109	0.109
Latvia	0.050	0.053
Lithuania	0.087	0.088
Luxemburg	0.098	0.098
Malta	0.110	0.109
Netherlands	0.081	0.083
Norway	0.096	0.092
Poland	0.109	0.109
Portugal	0.107	0.108
Romania	0.111	0.111
Slovakia	0.098	0.097
Slovenia	0.102	0.103
Spain	0.107	0.106
Sweden	0.099	0.101
Switzerland	NA	NA
United Kingdom	0.100	0.090
EU average	0.096	0.095
EEA EFTA average	0.098	0.094
EEA average	0.096	0.095

Alternative tariff - Calls Received (Average (Prepaid + Postpaid)		
Country	Quarter	
	Q1 2012	Q2 2012
Austria	0.183	0.190
Belgium	0.228	0.228
Bulgaria	0.240	0.226
Cyprus	0.283	0.287
Czech Republic	0.194	0.188
Denmark	0.094	0.103
Estonia	NA	NA
Finland	NA	NA
France	NA	NA
Germany	0.163	0.168
Greece	0.175	0.181
Hungary	0.226	0.226
Iceland	0.279	0.269
Ireland	0.040	0.053
Italy	0.157	0.164
Latvia	NA	NA
Lithuania	0.087	0.086
Luxemburg	0.168	0.169
Malta	0.605	0.664
Netherlands	0.171	0.160
Norway	NA	NA
Poland	0.109	0.075
Portugal	0.106	0.108
Romania	0.144	0.145
Slovakia	0.159	0.144
Slovenia	0.184	0.168
Spain	0.148	0.151
Sweden	0.176	0.177
Switzerland	0.306	0.315
United Kingdom	0.046	0.051
EU average	0.140	0.143
EEA EFTA average	0.279	0.269
EEA average	0.140	0.143

Figure 4: Retail roaming voice minutes for intra-EEA roaming voice calls received: (Eurotariff and alternative tariffs)

Eurotariff												
Q2 2009	Q3 2009	Q4 2009	Q1 2010	Q2 2010	Q3 2010	Q4 2010	Q1 2011	Q2 2011	Q3 2011	Q4 2011	Q1 2012	Q2 2012
710.896	962.986	649.485	654.133	805.291	1047.815	724.383	698.488	849.243	1122.781	782.071	769.301	912.922
Alternative Tariff												
Q2 2009	Q3 2009	Q4 2009	Q1 2010	Q2 2010	Q3 2010	Q4 2010	Q1 2011	Q2 2011	Q3 2011	Q4 2011	Q1 2012	Q2 2012
333.576	433.581	321.839	304.611	346.834	427.639	340.081	313.172	356.011	433.584	316.998	309.828	338.529

% of calls received (considering only Eurotariff) in the total number of retail roaming voice minutes													
Quarter	Q2'09	Q3'09	Q4'09	Q1'10	Q2'10	Q3'10	Q4'10	Q1'11	Q2'11	Q3'11	Q4'11	Q1'12	Q2'12
EEA Total	68.063%	68.954%	66.866%	68.228%	69.896%	71.016%	68.051%	69.044%	70.462%	72.141%	71.158%	71.289%	72.949%
% of calls received (considering only Alternative tariffs) in the total number of retail roaming voice minutes													
Quarter	Q2'09	Q3'09	Q4'09	Q1'10	Q2'10	Q3'10	Q4'10	Q1'11	Q2'11	Q3'11	Q4'11	Q1'12	Q2'12
EEA Total	31.937%	31.046%	33.134%	31.772%	30.104%	28.984%	31.949%	30.956%	29.538%	27.859%	28.842%	28.711%	27.051%

Figure 5: EEA average retail price per minute for intra-EEA roaming voice calls made: Eurotariff and alternative tariffs (EU only for Q2 2009 - Q1 2010)*

Eurotariff – calls made												
Q2 2009	Q3 2009	Q4 2009	Q1 2010	Q2 2010	Q3 2010	Q4 2010	Q1 2011	Q2 2011	Q3 2011	Q4 2011	Q1 2012	Q2 2012
0.425	0.393	0.381	0.385	0.379	0.361	0.351	0.349	0.344	0.320	0.312	0.311	0.304
Alternative Tariff – calls made												
Q2 2009	Q3 2009	Q4 2009	Q1 2010	Q2 2010	Q3 2010	Q4 2010	Q1 2011	Q2 2011	Q3 2011	Q4 2011	Q1 2012	Q2 2012
0.363	0.341	0.374	0.384	0.391	0.404	0.395	0.365	0.367	0.378	0.366	0.359	0.359

Figure 6: EEA average retail price per minute for intra-EEA retail roaming voice calls received: Eurotariff and alternative tariffs (EU only for Q2 2009 - Q1 2010)

Eurotariff – calls received												
Q2 2009	Q3 2009	Q4 2009	Q1 2010	Q2 2010	Q3 2010	Q4 2010	Q1 2011	Q2 2011	Q3 2011	Q4 2011	Q1 2012	Q2 2012
0.201	0.170	0.165	0.164	0.165	0.138	0.135	0.132	0.130	0.100	0.098	0.096	0.095
Alternative Tariff – calls received												
Q2 2009	Q3 2009	Q4 2009	Q1 2010	Q2 2010	Q3 2010	Q4 2010	Q1 2011	Q2 2011	Q3 2011	Q4 2011	Q1 2012	Q2 2012
0.152	0.151	0.148	0.150	0.156	0.178	0.166	0.150	0.155	0.158	0.145	0.140	0.143

Figure 7a and 7b: Volumes of intra-EEA roaming calls made in Q1 and Q2 2012 (Actual minutes, Q1 and Q2 2008 = 100)

Volumes of intra-EEA roaming calls made in Q1 and Q2 2012 (Actual minutes, Q1 and Q2 2008 = 100)		
Country	Quarter	
	Q1 2012	Q2 2012
Austria	110.236	108.676
Belgium	129.182	116.803
Bulgaria	148.999	134.743
Cyprus	100.866	79.730
Czech Republic	153.756	154.454
Denmark	93.604	91.882
Estonia	150.096	205.533
Finland	82.924	84.025
France	82.224	84.552
Germany	86.278	95.843
Greece	85.271	75.110
Hungary	81.893	109.493
Iceland	64.205	45.107
Ireland	76.044	75.708
Italy	60.828	75.040
Latvia	123.061	117.102
Lithuania	153.465	170.532
Luxemburg	134.566	133.257
Malta	176.803	164.270
Netherlands	138.927	113.621
Norway	88.759	99.701
Poland	162.157	160.719
Portugal	63.212	61.481
Romania	125.167	120.347
Slovakia	189.674	188.890
Slovenia	97.065	92.899
Spain	62.258	66.768
Sweden	85.865	77.402
Switzerland	65.810	87.276
United Kingdom	79.125	81.541
EU average	93.039	94.675
EEA EFTA average	87.006	95.832
EEA average	92.820	94.717

Figure 8a and 8ab: Volumes of intra-EEA roaming calls received in Q1 and Q 2012 (Actual minutes, Q1 and Q2 2008 = 100)

Volumes of intra-EEA roaming calls received in Q1 2012		
Country	Quarter	
	Q1 2012	Q2 2012
Austria	97.827	98.240
Belgium	127.268	129.116
Bulgaria	340.634	293.179
Cyprus	120.911	86.452
Czech Republic	192.756	176.187
Denmark	96.061	97.112
Estonia	176.031	200.176
Finland	108.880	96.079
France	97.053	99.479
Germany	100.451	100.891
Greece	137.914	112.623
Hungary	111.669	140.003
Iceland	92.066	153.993
Ireland	160.510	128.838
Italy	90.358	97.512
Latvia	297.586	295.553
Lithuania	302.668	319.162
Luxemburg	116.050	125.805
Malta	213.451	191.900
Netherlands	137.178	117.341
Norway	95.979	104.886
Poland	255.475	254.837
Portugal	158.604	142.764
Romania	289.503	294.456
Slovakia	262.520	243.152
Slovenia	123.597	120.354
Spain	76.006	73.606
Sweden	93.656	86.529
Switzerland	84.144	111.483
United Kingdom	111.399	96.424
EU average	127.062	121.331
EEA EFTA average	95.716	106.220
EEA average	126.106	120.897

Figure 9: Average retail price per minute for roaming voice calls made by EEA customers outside EEA

Average retail price per minute for roaming voice calls made by EEA customers outside EEA		
Country	Quarter	
	Q1 2012	Q2 2012
Austria	1.123	1.114
Belgium	1.438	1.361
Bulgaria	1.491	1.491
Cyprus	1.915	2.044
Czech Republic	0.947	0.886
Denmark	1.508	1.453
Estonia	0.500	0.473
Finland	1.649	1.552
France	1.326	1.339
Germany	1.341	1.255
Greece	1.674	1.679
Hungary	1.019	0.647
Iceland	1.630	1.780
Ireland	0.803	0.761
Italy	1.422	1.396
Latvia	1.376	1.191
Lithuania	1.141	1.070
Luxemburg	1.830	1.765
Malta	1.628	1.517
Netherlands	1.286	1.269
Norway	1.395	1.145
Poland	1.655	1.433
Portugal	1.649	1.708
Romania	1.155	1.078
Slovakia	1.852	1.652
Slovenia	1.325	1.110
Spain	2.038	2.031
Sweden	1.336	1.388
Switzerland	1.482	1.412
United Kingdom	1.035	1.090
EU average	1.284	1.255
EEA EFTA average	1.408	1.176
EEA average	1.288	1.253

Figure 10: Average retail price per minute for roaming voice calls received by EEA customers outside EEA

Average retail price per minute for roaming voice calls received by EEA customers outside EEA		
Country	Quarter	
	Q1 2012	Q2 2012
Austria	0.538	0.533
Belgium	0.703	0.674
Bulgaria	0.700	0.656
Cyprus	0.352	0.383
Czech Republic	0.599	0.550
Denmark	1.140	1.006
Estonia	0.337	0.319
Finland	1.082	0.931
France	0.709	0.666
Germany	0.262	0.258
Greece	0.533	0.600
Hungary	0.443	0.395
Iceland	0.561	0.670
Ireland	0.425	0.393
Italy	0.705	0.694
Latvia	0.445	0.425
Lithuania	0.630	0.569
Luxemburg	0.643	0.648
Malta	0.846	0.849
Netherlands	0.832	0.882
Norway	0.841	0.663
Poland	0.545	0.513
Portugal	0.532	0.525
Romania	0.337	0.495
Slovakia	0.740	0.828
Slovenia	0.530	0.432
Spain	1.958	1.843
Sweden	0.863	0.779
Switzerland	1.274	1.258
United Kingdom	0.620	0.633
EU average	0.541	0.512
EEA EFTA average	0.825	0.664
EEA average	0.547	0.516

Figure 11: Surcharge as a result of billed minutes for intra-EEA roaming voice calls made: Eurotariff

Surcharge as a result of billed minutes for intra-EEA roaming voice calls made :Eurotariff		
Country	Quarter	
	Q1 2012	Q2 2012
Austria	5.56%	6.42%
Belgium	5.35%	5.04%
Bulgaria	6.21%	6.65%
Cyprus	2.81%	3.12%
Czech Republic	1.99%	1.85%
Denmark	3.67%	3.72%
Estonia	3.38%	3.25%
Finland	2.70%	2.86%
France	4.44%	4.53%
Germany	5.51%	6.38%
Greece	6.81%	7.58%
Hungary	4.92%	5.42%
Iceland	5.06%	4.47%
Ireland	10.58%	10.81%
Italy	4.03%	3.43%
Latvia	4.46%	4.33%
Lithuania	3.19%	2.87%
Luxemburg	2.50%	2.88%
Malta	6.09%	5.94%
Netherlands	10.83%	10.08%
Norway	3.19%	4.53%
Poland	6.58%	6.97%
Portugal	9.65%	8.60%
Romania	5.54%	6.04%
Slovakia	6.06%	5.81%
Slovenia	5.26%	6.70%
Spain	1.89%	1.92%
Sweden	4.55%	7.07%
Switzerland	NA	NA
United Kingdom	6.27%	6.60%
EU average	5.59%	5.82%
EEA EFTA average	3.29%	4.53%
EEA average	5.48%	5.76%

Figure 12: Average wholesale price per minute for intra-EEA roaming voice calls: charges to non-group companies (billed minutes)

Average wholesale price per minute for intra-EEA roaming voice calls: charges to non-group companies (billed minutes)		
Country	Quarter	
	Q1 2012	Q2 2012
Austria	0.162	0.174
Belgium	0.167	0.160
Bulgaria	0.142	0.146
Cyprus	0.184	0.186
Czech Republic	0.171	0.171
Denmark	0.168	0.159
Estonia	0.172	0.178
Finland	0.177	0.176
France	0.140	0.136
Germany	0.140	0.138
Greece	0.086	0.154
Hungary	0.099	0.091
Iceland	0.088	0.132
Ireland	0.163	0.164
Italy	0.114	0.141
Latvia	0.178	0.177
Lithuania	0.172	0.170
Luxemburg	0.172	0.167
Malta	0.180	0.181
Netherlands	0.161	0.158
Norway	0.141	0.133
Poland	0.164	0.142
Portugal	0.127	0.127
Romania	0.153	0.143
Slovakia	0.175	0.175
Slovenia	0.171	0.169
Spain	0.186	0.171
Sweden	0.163	0.165
Switzerland	0.264	0.251
United Kingdom	0.150	0.144
EU average	0.150	0.149
EEA EFTA average	0.133	0.133
EEA average	0.150	0.149

Figure 13: Surcharge as a result of billed minutes for intra-EEA wholesale voice calls (non-group companies)

Surcharge as a result of billed minutes for intra-EEA wholesale voice calls (non-group companies)		
Country	Quarter	
	Q1 2012	Q2 2012
Austria	7.48%	7.40%
Belgium	4.91%	3.90%
Bulgaria	6.82%	6.71%
Cyprus	1.36%	3.55%
Czech Republic	3.20%	3.33%
Denmark	1.59%	1.78%
Estonia	2.94%	1.11%
Finland	4.40%	4.49%
France	2.25%	1.84%
Germany	6.38%	6.67%
Greece	4.70%	4.39%
Hungary	4.49%	3.87%
Iceland	3.07%	2.62%
Ireland	5.48%	5.96%
Italy	5.20%	5.14%
Latvia	5.33%	5.62%
Lithuania	4.32%	4.65%
Luxemburg	6.25%	6.46%
Malta	5.44%	4.76%
Netherlands	3.59%	3.34%
Norway	2.75%	2.72%
Poland	6.13%	6.74%
Portugal	3.90%	3.64%
Romania	9.07%	9.30%
Slovakia	4.12%	4.33%
Slovenia	5.90%	5.72%
Spain	5.91%	6.28%
Sweden	2.44%	2.65%
Switzerland	24.57%	24.50%
United Kingdom	6.00%	6.49%
EU average	4.79%	4.71%
EEA EFTA average	2.80%	2.72%
EEA average	4.74%	4.66%

Figure 14: EEA average price per minute for wholesale non-group roaming voice calls (EU only for Q2 2009 - Q1 2010),billed minutes

EEA average price per minute for wholesale non-group roaming voice calls (EU only for Q2 2009 - Q1 2010),billed minutes													
Quarter	Q2'09	Q3'09	Q4'09	Q1'10	Q2'10	Q3'10	Q4'10	Q1'11	Q2'11	Q3'11	Q4'11	Q1'12	Q2'12
EEA Total	0.216	0.223	0.224	0.211	0.212	0.196	0.197	0.183	0.182	0.168	0.172	0.150	0.149

Figure 14 A: Average wholesale and retail prices for roaming calls made and received by EEA customers outside EEA (EU only for Q2 2009 - Q1 2010)

Wholesale RoW													
Quarter	Q2'09	Q3'09	Q4'09	Q1'10	Q2'10	Q3'10	Q4'10	Q1'11	Q2'11	Q3'11	Q4'11	Q1'12	Q2'12
EEA Total	0.682	0.580	0.592	0.592	0.561	0.563	0.541	0.719	0.706	0.550	0.514	0.444	0.449
Retail calls made													
Quarter	Q2'09	Q3'09	Q4'09	Q1'10	Q2'10	Q3'10	Q4'10	Q1'11	Q2'11	Q3'11	Q4'11	Q1'12	Q2'12
EEA Total	1.332	1.270	1.337	1.366	1.317	1.299	1.392	1.339	1.273	1.242	1.283	1.288	1.253
Retail calls received													
Quarter	Q2'09	Q3'09	Q4'09	Q1'10	Q2'10	Q3'10	Q4'10	Q1'11	Q2'11	Q3'11	Q4'11	Q1'12	Q2'12
EEA Total	0.736	0.678	0.701	0.723	0.711	0.744	0.810	0.628	0.594	0.542	0.571	0.547	0.516

Figure 15: Average price for Euro-SMS and Non-Euro-SMS

Average price for Euro-SMS and Non-Euro-SMS				
Country	Euro – SMS		Non Euro - SMS	
	Q1 2012	Q2 2012	Q1 2012	Q2 2012
Austria	0.095	0.094	0.154	0.158
Belgium	0.099	0.094	NA	NA
Bulgaria	0.096	0.096	0.193	0.193
Cyprus	0.105	0.107	NA	NA
Czech Republic	0.105	0.105	0.266	0.256
Denmark	0.088	0.091	0.103	0.102
Estonia	0.109	0.083	0.400	0.400
Finland	0.108	0.108	0.066	0.066
France	0.107	0.107	0.100	0.110
Germany	0.103	0.103	0.109	0.108
Greece	0.110	0.110	0.106	0.105
Hungary	0.104	0.104	0.233	0.217
Iceland	0.106	0.107	0.052	0.056
Ireland	0.099	0.098	0.110	0.114
Italy	0.106	0.106	0.107	0.125
Latvia	0.091	0.091	0.103	0.103
Lithuania	0.107	0.107	0.111	0.106
Luxemburg	0.107	0.106	NA	NA
Malta	0.106	0.107	0.110	0.110
Netherlands	0.104	0.103	0.101	0.101
Norway	0.114	0.090	NA	NA
Poland	0.106	0.106	0.093	0.090
Portugal	0.108	0.108	0.486	0.488
Romania	0.104	0.104	0.108	0.103
Slovakia	0.101	0.099	0.240	0.232
Slovenia	0.110	0.107	0.168	0.164
Spain	0.105	0.105	0.315	0.314
Sweden	0.099	0.101	NA	NA
Switzerland	NA	NA	0.313	0.319
United Kingdom	0.090	0.092	0.099	0.099
EU average	0.100	0.101	0.124	0.123
EEA EFTA average	0.100	0.100	0.123	0.123
EEA average	0.113	0.090	0.052	0.056

Figure 16: Average price per retail SMS (Euro + Non Euro SMS tariffs) (EU only for Q2 2009 - Q1 2010)

Average price per retail SMS (Euro + Non Euro SMS tariffs) (EU only for Q2 2009 - Q1 2010)													
Quarter	Q2'09	Q3'09	Q4'09	Q1'10	Q2'10	Q3'10	Q4'10	Q1'11	Q2'11	Q3'11	Q4'11	Q1'12	Q2'12
EEA Total	0.245	0.103	0.107	0.102	0.099	0.099	0.101	0.104	0.102	0.104	0.104	0.103	0.103

Figure 17: Volumes of retail EEA Roaming SMS messages (millions of sms)

Euro SMS													
Quarter	Q2'09	Q3'09	Q4'09	Q1'10	Q2'10	Q3'10	Q4'10	Q1'11	Q2'11	Q3'11	Q4'11	Q1'12	Q2'12
EEA Total		1111.250	603.732	648.548	856.768	1366.754	753.739	748.864	972.876	1502.899	803.684	818.353	1026.886
Non Euro SMS													
Quarter	Q2'09	Q3'09	Q4'09	Q1'10	Q2'10	Q3'10	Q4'10	Q1'11	Q2'11	Q3'11	Q4'11	Q1'12	Q2'12
EEA Total	698.632	217.410	108.948	110.821	135.339	241.027	155.308	127.865	169.152	252.966	128.891	122.644	152.294
% of Euro SMS messages in the total number of messages													
Quarter	Q2'09	Q3'09	Q4'09	Q1'10	Q2'10	Q3'10	Q4'10	Q1'11	Q2'11	Q3'11	Q4'11	Q1'12	Q2'12
EEA Total		16.363%	15.287%	14.594%	13.642%	14.991%	17.085%	14.584%	14.812%	14.407%	13.821%	13.033%	12.915%
Non Euro SMS													
Quarter	Q2'09	Q3'09	Q4'09	Q1'10	Q2'10	Q3'10	Q4'10	Q1'11	Q2'11	Q3'11	Q4'11	Q1'12	Q2'12
EEA Total		83.637%	84.713%	85.406%	86.358%	85.009%	82.915%	85.416%	85.188%	85.593%	86.179%	86.967%	87.085%

Figure 18a and 18b: Volumes of retail intra-EEA roaming SMS sent in Q1 and Q2 2012 (Q1 and Q2 2008 = 100)

Volumes of retail intra-EEA roaming SMS sent in Q1 and Q2 2012 (Q1 and Q2 2008 = 100)		
Country	Quarter	
	Q1 2012	Q2 2012
Austria	124.120	146.205
Belgium	189.119	206.119
Bulgaria	142.042	167.560
Cyprus	171.466	121.912
Czech Republic	223.800	219.400
Denmark	113.643	123.577
Estonia	144.758	196.621
Finland	118.379	122.104
France	250.097	278.475
Germany	117.407	149.944
Greece	136.599	108.562
Hungary	119.144	149.813
Iceland	177.122	96.017
Ireland	115.060	121.032
Italy	102.469	142.700
Latvia	175.405	185.481
Lithuania	146.569	164.177
Luxemburg	170.546	204.437
Malta	136.808	116.427
Netherlands	160.223	133.700
Norway	97.006	92.213
Poland	186.588	189.136
Portugal	242.645	248.854
Romania	219.027	226.675
Slovakia	152.973	156.165
Slovenia	152.607	149.880
Spain	98.902	109.017
Sweden	119.992	114.738
Switzerland	124.014	214.297
United Kingdom	129.653	152.125
EU average	145.635	161.288
EEA EFTA average	99.832	92.352
EEA average	143.790	158.398

Figure 19: Average wholesale price per intra-EEA roaming SMS: charges to non-group companies

Average wholesale price per intra-EEA roaming SMS: charges to non-group companies		
Country	Quarter	
	Q1 2012	Q2 2012
Austria	0.036	0.036
Belgium	0.037	0.034
Bulgaria	0.035	0.034
Cyprus	0.040	0.040
Czech Republic	0.036	0.036
Denmark	0.032	0.032
Estonia	0.042	0.037
Finland	0.037	0.037
France	0.032	0.032
Germany	0.034	0.033
Greece	0.030	0.032
Hungary	0.036	0.036
Iceland	0.038	0.039
Ireland	0.036	0.033
Italy	0.035	0.034
Latvia	0.040	0.039
Lithuania	0.038	0.038
Luxemburg	0.037	0.036
Malta	0.039	0.039
Netherlands	0.039	0.037
Norway	0.036	0.027
Poland	0.034	0.035
Portugal	0.031	0.030
Romania	0.036	0.035
Slovakia	0.036	0.036
Slovenia	0.034	0.035
Spain	0.039	0.041
Sweden	0.036	0.035
Switzerland	0.077	0.072
United Kingdom	0.034	0.033
EU average	0.035	0.035
EEA EFTA average	0.037	0.028
EEA average	0.035	0.035

Figure 20: Average off-net retail data price per Mb

Prepaid: average off-net retail data price per Mb		
Country	Quarter	
	Q1 2012	Q2 2012
Austria	0.110	0.138
Belgium	4.349	3.452
Bulgaria	6.310	6.290
Cyprus	1.131	1.212
Czech Republic	0.207	0.344
Denmark	2.754	2.104
Estonia	0.678	0.666
Finland	NA	NA
France	1.750	1.616
Germany	2.720	2.901
Greece	4.164	1.451
Hungary	1.964	2.007
Iceland	1.332	1.332
Ireland	0.972	0.810
Italy	0.971	0.766
Latvia	1.021	1.027
Lithuania	4.324	4.232
Luxemburg	3.160	3.172
Malta	3.247	2.924
Netherlands	5.000	5.000
Norway	1.142	0.937
Poland	2.054	2.054
Portugal	1.244	1.269
Romania	2.035	1.926
Slovakia	1.734	1.672
Slovenia	9.520	9.780
Spain	1.719	1.582
Sweden	1.532	1.042
Switzerland	8.504	8.577
United Kingdom	1.861	1.634
EU average	1.529	1.314
EEA EFTA average	1.179	0.965
EEA average	1.526	1.311

Postpaid: average off-net retail data price per Mb		
Country	Quarter	
	Q1 2012	Q2 2012
Austria	0.760	0.762
Belgium	1.922	1.794
Bulgaria	2.140	2.087
Cyprus	0.916	0.787
Czech Republic	0.575	0.536
Denmark	1.717	1.263
Estonia	0.849	0.810
Finland	1.401	1.255
France	2.218	2.003
Germany	0.823	0.717
Greece	5.408	4.168
Hungary	1.285	1.270
Iceland	1.352	1.347
Ireland	0.888	0.936
Italy	1.636	1.447
Latvia	0.802	0.784
Lithuania	2.584	2.294
Luxemburg	1.776	1.765
Malta	1.190	1.251
Netherlands	1.611	1.599
Norway	1.051	0.951
Poland	2.119	2.119
Portugal	1.631	1.652
Romania	1.125	1.027
Slovakia	1.534	1.484
Slovenia	1.856	1.791
Spain	0.540	0.457
Sweden	1.123	0.772
Switzerland	0.616	0.617
United Kingdom	1.147	0.977
EU average	1.392	1.224
EEA EFTA average	1.056	0.955
EEA average	1.367	1.200

Figure 21a and 21b: Volumes of (off-net and on-net) retail data (Q1,Q2 2008 = 100)

Volumes of (off-net and on-net) retail data (Q1,Q2 2008 = 100)		
Country	Quarter	
	Q1 2012	Q2 2012
Austria	1009.307	1043.008
Belgium	451.916	510.683
Bulgaria	380.899	391.360
Cyprus	488.550	753.024
Czech Republic	1599.830	2012.956
Denmark	1026.039	1016.232
Estonia	328.791	839.759
Finland	263.057	300.990
France	387.654	418.646
Germany	576.727	591.393
Greece	531.358	632.010
Hungary	274.468	329.926
Iceland	494.710	213.001
Ireland	715.038	519.270
Italy	851.688	827.254
Latvia	831.762	846.999
Lithuania	205.026	255.611
Luxemburg	860.328	1004.944
Malta	791.909	498.302
Netherlands	803.654	863.636
Norway	1046.886	1282.601
Poland	338.983	330.735
Portugal	259.365	260.827
Romania	492.230	423.158
Slovakia	943.506	794.902
Slovenia	248.273	265.156
Spain	454.422	600.889
Sweden	617.580	555.944
Switzerland	1042.882	1840.932
United Kingdom	502.633	473.883
EU average	647.704	629.832
EEA EFTA average	1037.215	1253.725
EEA average	655.766	643.141

Figure 22: Average wholesale data price per Mb for intra-EEA roaming: charges to non-group companies

Average wholesale data price per Mb for intra-EEA roaming: charges to non-group companies		
Country	Quarter	
	Q1 2012	Q2 2012
Austria	0.119	0.115
Belgium	0.174	0.154
Bulgaria	0.197	0.202
Cyprus	0.412	0.310
Czech Republic	0.231	0.218
Denmark	0.134	0.098
Estonia	0.400	0.352
Finland	0.237	0.218
France	0.164	0.100
Germany	0.112	0.105
Greece	0.107	0.130
Hungary	0.216	0.244
Iceland	0.389	0.379
Ireland	0.321	0.331
Italy	0.138	0.138
Latvia	0.273	0.245
Lithuania	0.227	0.200
Luxemburg	0.290	0.237
Malta	0.460	0.439
Netherlands	0.190	0.179
Norway	0.086	0.093
Poland	0.232	0.238
Portugal	0.125	0.109
Romania	0.189	0.130
Slovakia	0.306	0.306
Slovenia	0.292	0.254
Spain	0.175	0.149
Sweden	0.216	0.197
Switzerland	0.273	0.241
United Kingdom	0.113	0.097
EU average	0.163	0.138
EEA EFTA average	0.129	0.107
EEA average	0.162	0.138

Figure 23: Average price per Mb for retail and wholesale intra-EEA roaming data (EU only for Q2 2009 - Q1 2010)

Non - Group Retail Data (Prepaid + Postpaid)													
Quarter	Q2'09	Q3'09	Q4'09	Q1'10	Q2'10	Q3'10	Q4'10	Q1'11	Q2'11	Q3'11	Q4'11	Q1'12	Q2'12
EEA Total	3.165	2.909	2.668	2.789	2.542	2.514	2.192	2.090	1.923	1.583	1.487	1.379	1.208
Group Retail Data (Prepaid + Postpaid)													
Quarter	Q2'09	Q3'09	Q4'09	Q1'10	Q2'10	Q3'10	Q4'10	Q1'11	Q2'11	Q3'11	Q4'11	Q1'12	Q2'12
EEA Total	0.847	0.856	0.623	0.633	0.635	0.572	0.483	0.304	0.329	0.318	0.231	0.294	0.319
Wholesale Data: Non-group only													
Quarter	Q2'09	Q3'09	Q4'09	Q1'10	Q2'10	Q3'10	Q4'10	Q1'11	Q2'11	Q3'11	Q4'11	Q1'12	Q2'12
EEA Total	1.205	0.585	0.554	0.443	0.364	0.354	0.333	0.292	0.267	0.213	0.204	0.162	0.138
Wholesale Data: Group only													
Quarter	Q2'09	Q3'09	Q4'09	Q1'10	Q2'10	Q3'10	Q4'10	Q1'11	Q2'11	Q3'11	Q4'11	Q1'12	Q2'12
EEA Total	0.479	0.413	0.400	0.364	0.304	0.211	0.228	0.171	0.134	0.132	0.115	0.097	0.108