Body of European Regulators
for Electronic Communications

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International Roaming
BEREC Benchmark Data Report
April 2014 – September 2014

February 2015

Contents

Introduction

This BEREC Benchmark Report on International Roaming (the “Report”) presents the results of the 14th 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 April 2014 – 30 September 2014, i.e. quarters 2 and 3 for 2014. 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 the Roaming Regulation was about to enter into force.

The applicable regulatory framework for this data collection is the Roaming Regulation (EU) No 531/2012 (Third Roaming Regulation) applied in the European Union (EU) and the EEA EFTA countries[1], with requirements for retail and wholesale regulated tariffs for voice, SMS and data roaming. The Regulation also included provisions on the separate sale of roaming services. In addition, Switzerland contributed to the data collections, although the 2007, 2009 and 2012 Roaming Regulation is not applicable there[2].

BEREC is required to collect regularly data from national regulatory authorities on the development of retail and wholesale charges for voice, SMS and data roaming services and to notify this data to the Commission under Article 19, paragraph 4 of the Roaming Regulation.

BEREC believes that the information collected in existing and subsequent reports provides a sound basis for any decisions regarding future regulation. In addition, BEREC considers it important to collect and publish a wider range of information in order to give a better picture of the effect of the EU Roaming Regulation and to present the evolution of roaming services.

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

- 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;
- 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.

[1] For the purposes of this Report, ‘EEA EFTA’ (European Economic Area, European Free Trade Association) refers to Liechtenstein, Norway and Iceland.

[2] Figures from Switzerland are excluded from both “EEA” and “EEA EFTA” averages.

Regulatory evolution

The ERG initially worked on the long-standing issue of high prices for international roaming services. Following its creation in January 2010, BEREC took over responsibility for this work from ERG.

The 2007 Regulation

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.

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 for the Eurotariff 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[3].

The 2009 amended Regulation

On 7 May 2008, the Commission launched a public consultation on the functioning of the 2007 Regulation. ERG's views expressed in response to the consultation were substantially reflected in the Commission's legislative proposals,[4] published on 23 September 2008, to extend the 2007 Regulation in duration and scope.

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[5,6].

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

- an extension of wholesale and retail price regulation for voice, with yearly decreases in the levels 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.

[3] In Norway and Iceland the 2007 Regulation was in force from the end of 2007 to quarter 2 2010
[4] http://ec.europa.eu/information_society/activities/roaming/docs/regulation/reg_en.pdf
[5] http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2009:167:0012:0023:EN:PDF
[6] 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.

The 2012 Regulation

On 29 June 2010, the Commission published an interim Report[7] on the functioning of the 2009 Regulation. The Commission's Digital Agenda for Europe[8] also included a target for roaming, where 'the difference between roaming and national tariffs should approach zero by 2015'.

In accordance with the 2009 Regulation, BEREC provided advice to the Commission on the functioning of the Regulation and future regulatory options in its December 2010 Report[9], supplemented by its February 2011 response to the Commission's public consultation[10].

The Commission then published a full review of the functioning of the Regulation and legislative proposals for a new Regulation in July 2011[11].

On 30 May 2012 the Council of the European Union approved the International Roaming Regulation III[12], which entered into force on 1 July 2012[13].

The Regulation introduced the following measures, applicable from 1 July 2012:

- an extension of wholesale and retail price regulation for voice and SMS with yearly decreases in the levels of the caps until July 2014 with those caps to remain in force until July 2022 for wholesale services, and until July 2017 for the Eurotariffs, subject to a further review in July 2016;

- an extension of wholesale price regulation for data with yearly decreases in the levels of the caps until July 2014 with those caps to remain in force until July 2022;

- price regulation of data roaming services at the retail level with a yearly decrease in the level of the cap until July 2014 with the cap to remain in force until July 2017, being subject to a further review in July 2016;

- the obligation for MNOs to meet all reasonable requests for wholesale roaming access, which comprises direct wholesale roaming access and wholesale roaming resale access under the rules set out in the Roaming Regulation. The Regulation also included provisions on the separate sale of roaming services which entered into force on 1 July 2014.

[7] http://ec.europa.eu/information_society/activities/roaming/docs/interim_report2010.pdf
[8] http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2010:0245:FIN:EN:PDF
[9] http://erg.eu.int/doc/berec/bor_10_58.pdf
[10] http://ec.europa.eu/information_society/activities/roaming/docs/cons11/Berec.pdf
[11] http://ec.europa.eu/information_society/activities/roaming/index_en.htm
[12] http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2012:172:0010:0035:EN:PDF
[13] With regard to the EEA EFTA countries, it must be noted that the Roaming Regulation applies in these countries as from 7 December (Norway and Liechtenstein) and 21 December (Iceland) 2012.

Methodology for data collection

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, with an accompanying Explanatory Memorandum, in October 2007.

In order to verify operators' compliance with the new Roaming III Regulation, BEREC updated the questionnaire. NRAs and the Commission were informally consulted on subsequent revisions of the template.

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

Over 150 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.

There is a limited number of operators who 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 new format of the data collection, the company was asked to provide the best possible estimate currently available and to complete upgrades in time to provide high quality data in the future.

The prices for the Eurotariff[14] may exceed the price caps due to the 30 second minimum initial charging interval and in some cases non-regulated calls have been included due to problems with reporting.

Some operators had problems making the split between EEA[15] countries and other European countries and this may affect certain graphs showing the surcharge as a result of billed minutes for intra-EEA roaming voice calls.

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.

In a few cases the number of operators changed, which may cause an apparent change in price between quarters. This can also lead to strong volume changes.

When wholesale prices are above the price caps, in most cases the reason is that the average price to comply with the regulation is the annual price and not a quarterly one, and in such

[14] Roaming providers are required to make available to their customers in the countries listed above the Eurotariff that may be combined with any retail tariff. The roaming provider must apply the Euro-tariff automatically to all current roaming customers, with the exception of customers who select a special roaming tariff (e.g. a roaming package).

[15] European Economic Area. Roaming regulation applies to all Member States from the European Union and three of four member states of the European Free Trade Association (EFTA) (Iceland, Liechtenstein and Norway).

cases some quarters compensate for other quarters. Another reason may also be inaccuracies in reporting for the data collection itself.

For ease of comparison, the Euro is used throughout this Report. Within the EEA, 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.

With regard to wholesale roaming resale access according to Article 3 para. 4 Roaming Regulation, MNOs may charge fair and reasonable prices for components not covered by para. 3. Thus prices may be higher than the price caps given in Article 7 para. 1. Some data also includes volumes and tariffs coming from roaming in non-EU countries in Europe. It should also be noted that the average wholesale roaming voice tariff for agreements applying Article 3 of the Roaming Regulation might be above the cap because the calculation is based on actual minutes (the Regulation permits to invoice 30 seconds for calls that are shorter). In one case annexes to contracts signed by the MNO and its MVNO/ MVNE, which introduce (among other aspects) new maximum rates under the EU regulation, were agreed between the parties and are currently in the signing process. Once the annexes have been signed, the regulated rates will be applied retroactively (i.e. from 01.07.2013).

In the case of EFTA countries, the Roaming Regulation applies in these countries as of 7 December 2012 (Norway and Liechtenstein) and 21 December 2012 (Iceland).

The Report includes data from Croatia where the Roaming Regulation applies as of 1 July 2013 as historical data are not available.

Main Findings

The information gathered by BEREC continues to show a good level of compliance with the Roaming Regulation in all EU Member States. At the retail level, all consumers have access to a Euro-Voice, Euro-data 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. Some countries reported average prices slightly above the price caps.[16]

[16] The reasons for most such cases are explained in the Methodology Chapter. Moreover, NRAs are monitoring compliance with the provisions of the Regulation to gather further information on possible reasons for reported prices that are higher than the caps. BEREC will keep monitoring this issue closely.

Evolution of prices

The applicable caps and the related EEA average prices during the data collection period were:

Service at Retail level (no VAT)	Q2 2014		Q3 2014	
	Price Cap	EEA Average	Price Cap	EEA Average
Eurotariff voice (making call) (€c/min)	24	19.9	19	16.1
Eurotariff voice (receiving call) €c/min)	7	5.4	5	3.9
Euro-SMS sent (€c/SMS)	8	6.7	6	5.1
Data transfer (€c/MB)	45	13.0	20	7.9

Service at wholesale level (no VAT)	Q2 2014		Q3 2014	
	Price Cap	EEA Average	Price Cap	EEA Average
Wholesale voice (€c/minute)	10	6.3	5	5
Wholesale SMS (€c/SMS)	2	1.6	2	1.6
Wholesale data (€c/MB)	15	3.7	5	2.7

Calls made (retail)

In general, average Eurotariff retail voice roaming rates (Figures 1 to 3) remained fairly below the regulated caps in most EEA Member States during the data collection period. For calls made, the EEA average Eurotariff was €0.199 in Q2 2014 and €0.161 in Q3 2014 compared to a cap of €0.24 and €0.19 respectively. The EEA average unregulated prices for alternative tariffs (Figure 1 to 3) was lower than during the equivalent period one year ago: €0.278 and €0.250 respectively in Q2 2014 and Q3 2014 compared to €0.307 and €0.283 in Q2 2013 and Q3 2013.

Calls received (retail)

For calls received (Figures 4 and 5), the EEA average Eurotariff rate was nearer the cap at €0.054 during Q2 2014 and €0.039 in Q3 2014, compared to a cap of €0.070 and €0.050 respectively. For calls received, (Figure 6), unregulated prices are lower than during the equivalent period one year ago (€0.122 during Q2 2014 and €0.115 in Q3 2014 compared to €0.125 and €0.129 in Q2 2013 and Q3 2013).

Surcharge for voice calls (retail)

Regarding the effects of standardisation of billing units for Eurotariff calls (Figures 7-8), the 2012 Regulation (the mechanism introduced in the amended 2009 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 EEA average surcharge for calls made, from around 21% in Q2 2009 to 6.78% in Q2 2014 and to 5.85% in Q3 2014.

Calls made (wholesale)

At the wholesale level, (Figures 9-10) the EEA average Eurotariff was €0.063 in Q2 2014 and 0.050 in Q3 2014 compared to a cap of €0.10 and €0.05 respectively. The regulation has led to a constant reduction in the average EEA wholesale prices for intra-EEA roaming voice calls (Figure 11).

Surcharge for voice calls (wholesale)

At the wholesale level the surcharge for voice calls (Figure 12-13) decreased to 4.25% in Q2 2014 and to 4.30% in Q3 2014.

Prices rest of the world (RoW)

With regard to ‘Rest of World’ retail voice roaming calls (Figures 20 - 24), typical prices were significantly higher than for calls within EEA countries. Comparing the medium-term trends (Figure 24), a decreasing trend coupled with a yearly constant oscillation (Q1 > Q2 > Q4 > Q3) for calls made and received is shown. There are no indications that operators have in general tended to raise the prices of unregulated ‘Rest of World’ roaming calls to make up for loss of revenue due to lower regulated price caps.

SMS (retail)

The introduction of the Euro-SMS in the EEA in accordance with the 2009 Regulation continued in the 2012 Regulation and led to an EEA average Euro-SMS price (Figures 25 - 26) of around €0.067 in Q2 2014 and €0.051 in Q3 2014, compared to a regulated cap of €0.08 and €0.06 respectively. The EEA average price for unregulated SMS was higher, at €0.112 in Q2 2014 and €0.090 in Q3 2014. Before the 2009 Regulation, the EEA average SMS price was around €0.27 in Q1 2009 (Figure 27).

SMS (wholesale)

At the wholesale level, the 2012 Regulation led to a reduction in the average EEA SMS price (Figures 28-30) to €0.016 in Q2 2014 and Q3 2014. In comparison, the EEA average price was €0.133 in Q2 2009, before the 2009 Regulation came into force.

Data (retail)

The 2012 Regulation introduced new retail price caps for data services. This has led to a progressive drop in retail prices (Figures 34 – 35). There is not a significant difference between the data Eurotariff and alternative tariffs for the relevant period: €0.130 and €0.079 in Q2 2014 and Q3 2014 for the Eurotariff compared to €0.140 and €0.085 for alternative tariffs.

Data (wholesale)

At the wholesale level, average data caps of €0.15 in Q2 2014 and €0.05 in Q3 2014 apply in the EEA under the 2012 Regulation. The EEA average price for non-group wholesale data (Figure 37-39) fell to €0.037 per MB in Q2 2014 and €0.027 per MB in Q3 2014, compared to €0.081 and €0.076 in Q2 2013 and Q3 2013.

Wholesale agreements (article 3)

In the case of wholesale agreements based on Article 3 of the Roaming Regulation, only some operators submitted this data. BEREC's International Roaming Compliance Report[17] showed that operators negotiated roaming services at the wholesale level individually and that the provision of such services was based on commercial agreements. Some light MVNOs as well as resellers stated that these services continued to be provided on the basis of the existing contracts with national host MNOs.

Evolution of volumes

In respect of EEA volumes on voice, SMS and data roaming services (Figures 16-19, 32-33 and 41-42), one particular issue stands out which is the significant difference between these services. While volumes for voice and SMS services show a minimal or small increase from 2008 (1.2 times for calls made, 1.6 times for calls received and 1.6 times for SMS sent comparing Q3 2014 and Q3 2008), data service volumes increased up to around 46 times in Q3 2014 compared to Q3 2008 correspondent quarters.[18]

Evidence of market forces at work

For voice roaming services, average EEA prices are close to 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.

On the other hand, as also reported in the previous Benchmark Reports, the European average alternative price for calls made remains significantly above the Eurotariff average price (Figure 3).

The Eurotariffs account for the majority of voice and SMS traffic. Nevertheless customers opt for these alternative tariffs and in Q3 2014, 37.95% of calls made and 25.81% of calls received were based on non-Eurotariffs (Figures 14 – 15). For text messages sent while roaming within EEA countries, unregulated non-Euro SMS tariffs accounted for 20.13% of the total volume (Figure 31). There is a significant different trend in the case of data roaming services. In Q3 2014 around 56.87% of data traffic was based on the non-Euro data tariff while roaming

[17] BEREC International Roaming Compliance Report (Regulation (EU) No 531/512 of the European Parliament and of the Council of 13 June 2012 on roaming), the link:
http://berec.europa.eu/eng/document_register/subject_matter/berec/reports/1482-berec-international-roaming-compliance-report-regulation-eu-no-531512-of-the-european-parliament-and-of-the-council-of-13-june-2012-on-roaming

[18] It should be noted that the results displayed in the charts might take into account values from a different number of operators that submitted data in the relevant quarters. In this Report Croatia is also included which could affect total volumes as well.

(Figure 40)[19]. In this regard, the BEREC Report on Transparency and Comparability of International Roaming Tariffs[20] also showed that a large number of operators offered a variety of packages of roaming data services. Positive outcomes of competition dynamics for data roaming are also signalled by the much bigger differential (compared to voice calls and SMS) between the regulated caps and the average Euro and Non-Euro data price for MB both at retail and wholesale levels.

LBO services

In 2014 Art 4 and 5 (Separated sale of retail roaming services) of the Roaming III Regulation entered into force. Until now only one operator from Lithuania offering LBO services submitted data to BEREC for Q3 2014.

[19] It must be noted that not all countries provided data for prepaid or postpaid alternative tariffs and care should be taken when comparing percentages with voice and SMS services.

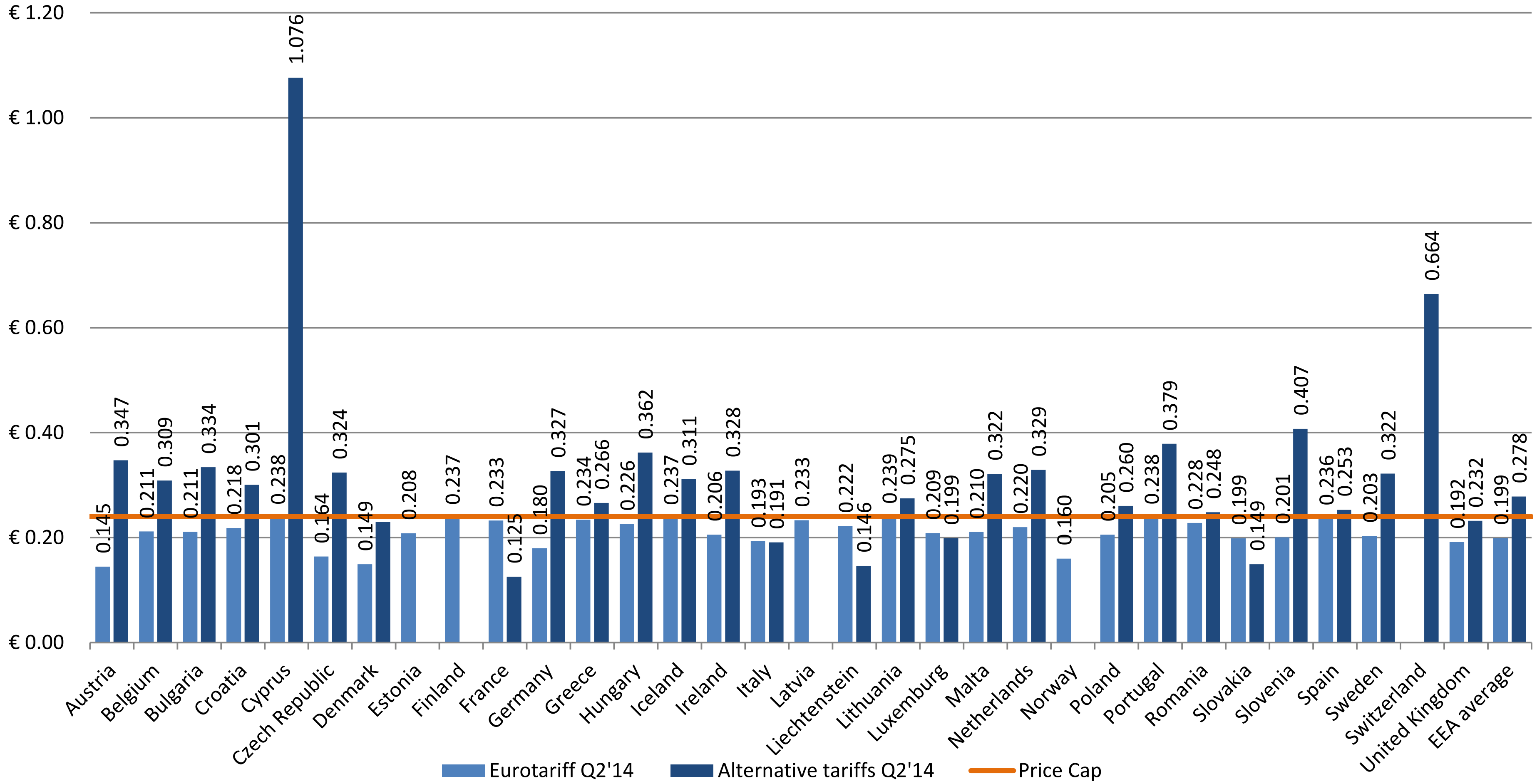
[20] http://berec.europa.eu/eng/document_register/subject_matter/berec/reports/3903-report-on-transparency-and-comparability-of-international-roaming-tariffs

Charts

Voice roaming services

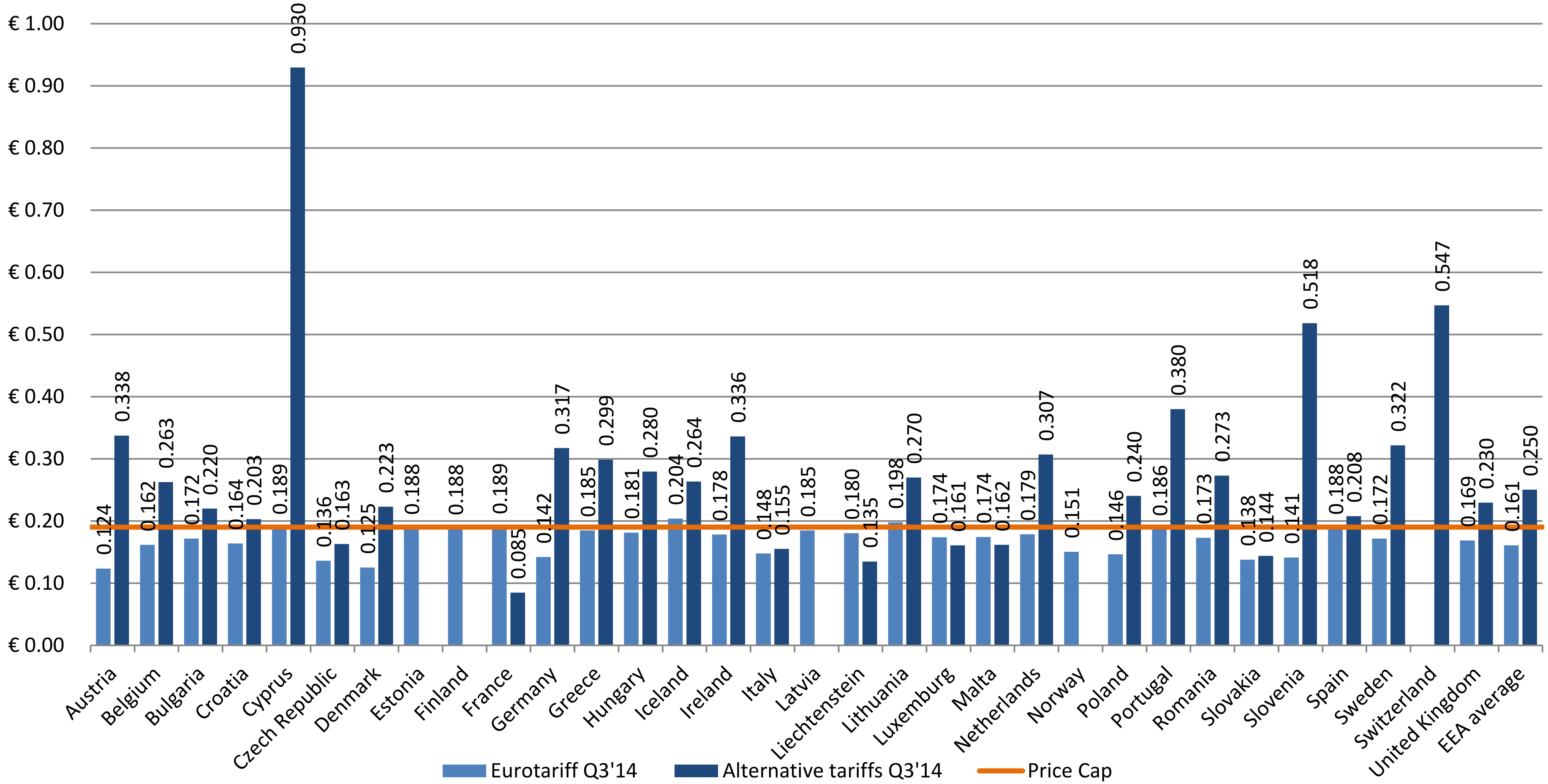
Retail prices

**Figure 1: Average retail price per minute for intra-EEA roaming voice calls made:
Eurotariff and alternative tariffs (Q2 2014)**



Data for alternative tariffs for some countries have not been reported and for others there are no alternative tariffs.

Figure 2: Average retail price per minute for intra-EEA roaming voice calls made: Eurotariff and alternative tariffs Q3 2014



Data for alternative tariffs for some countries have not been reported and for others there are no alternative tariffs.

Figure 3: EEA average retail price per minute for intra-EEA roaming voice calls made

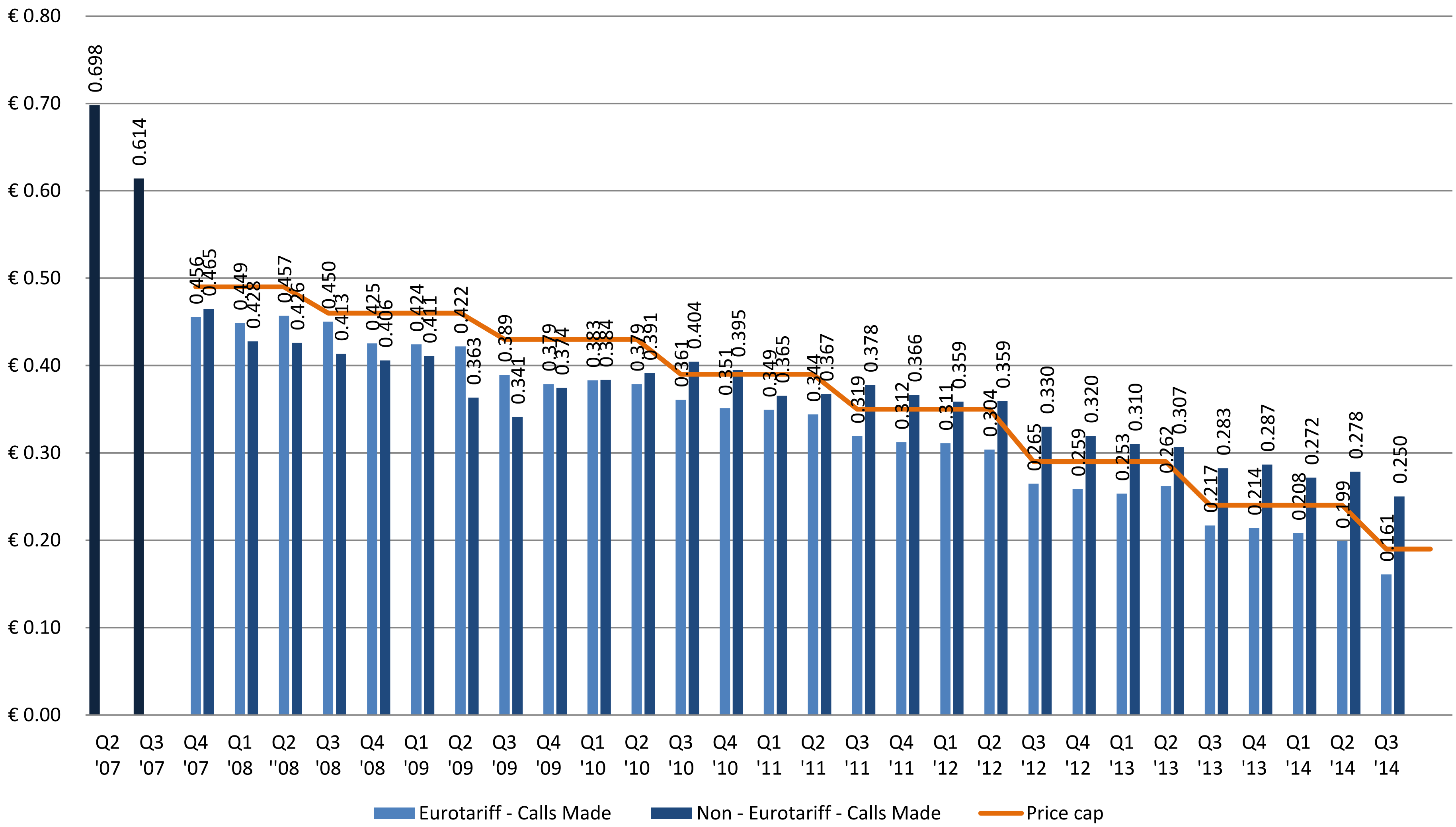
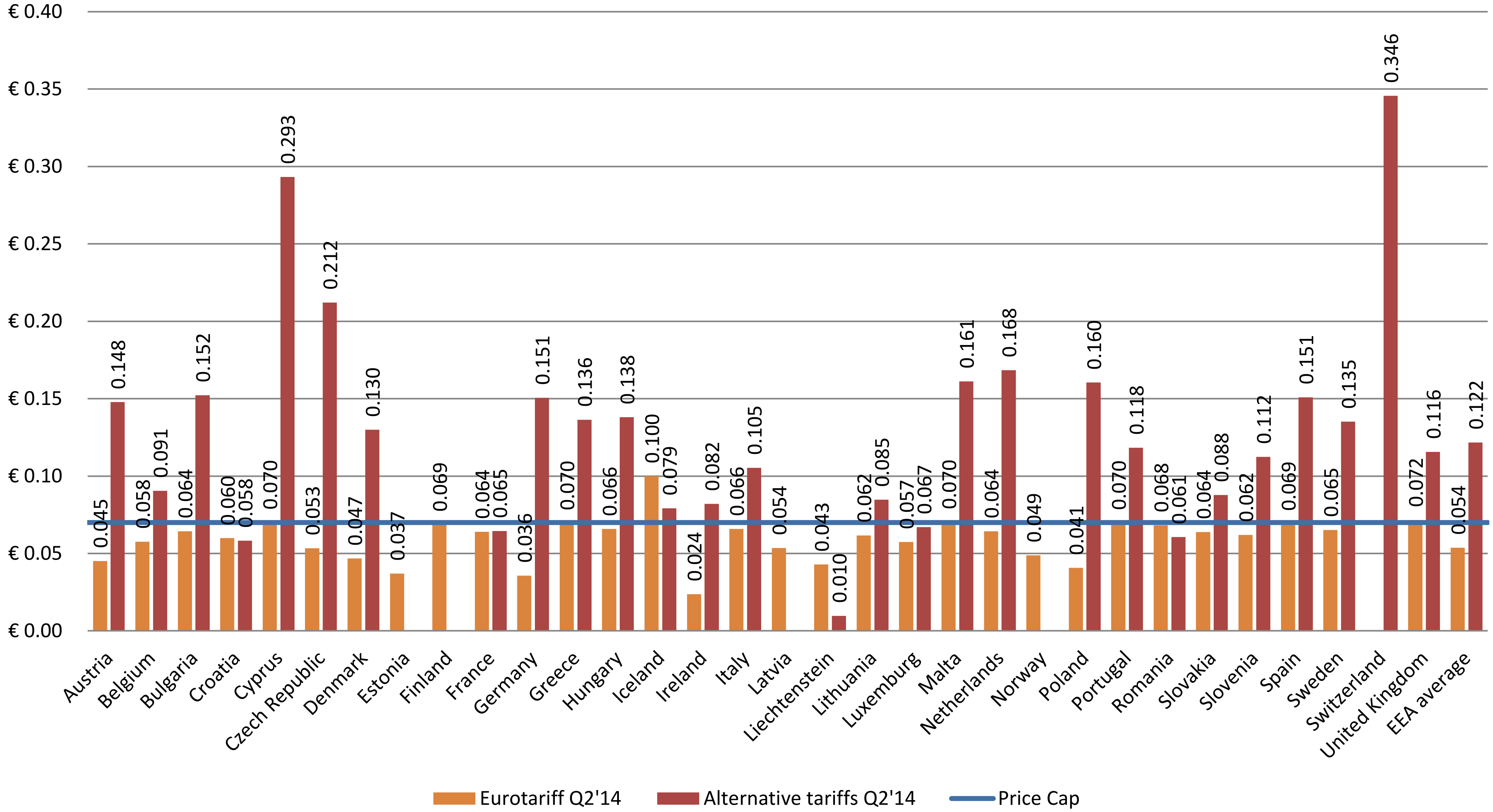
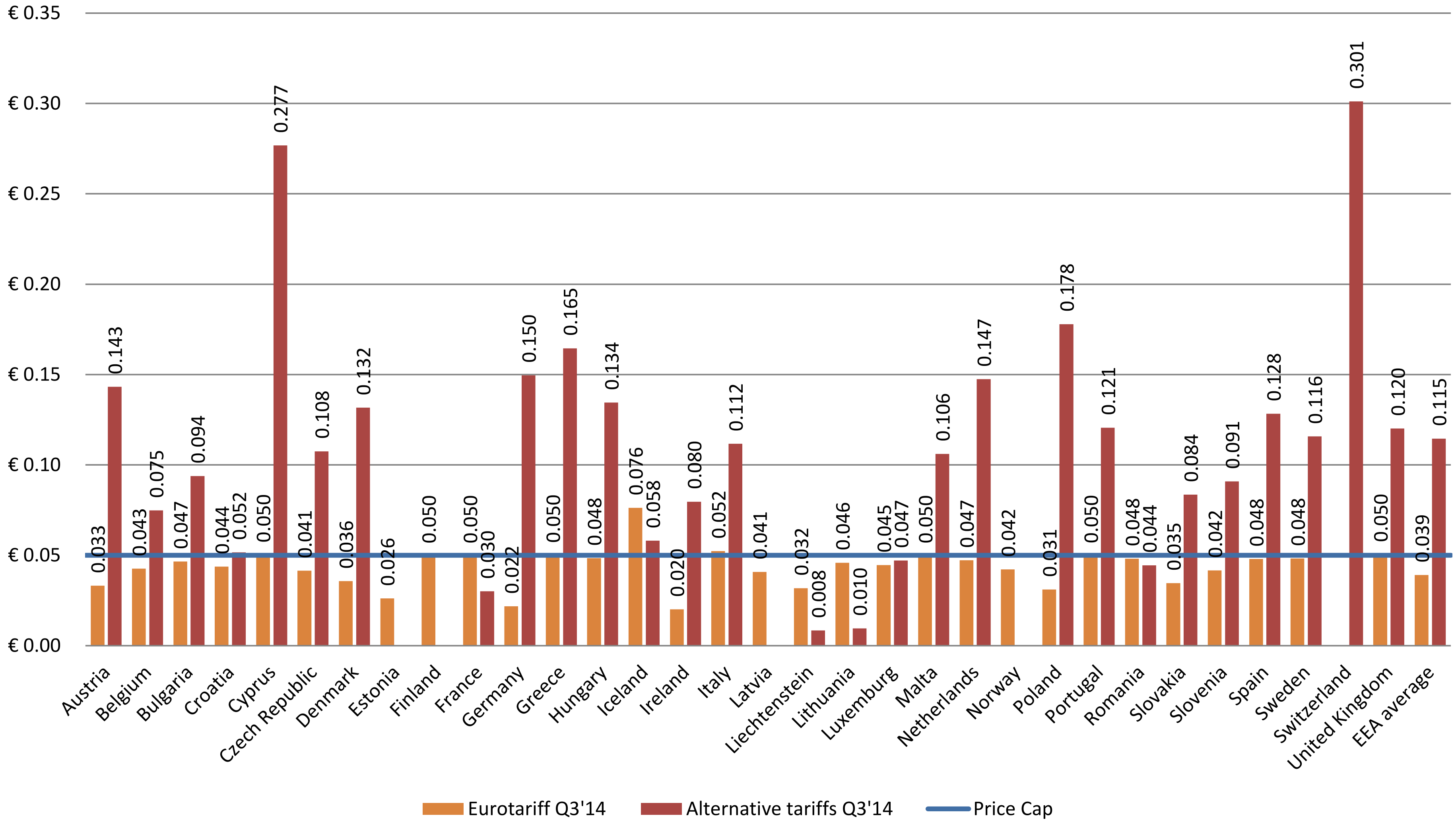


Figure 4: Average retail price per minute for intra-EEA roaming voice calls received: Eurotariff and alternative tariffs Q2 2014



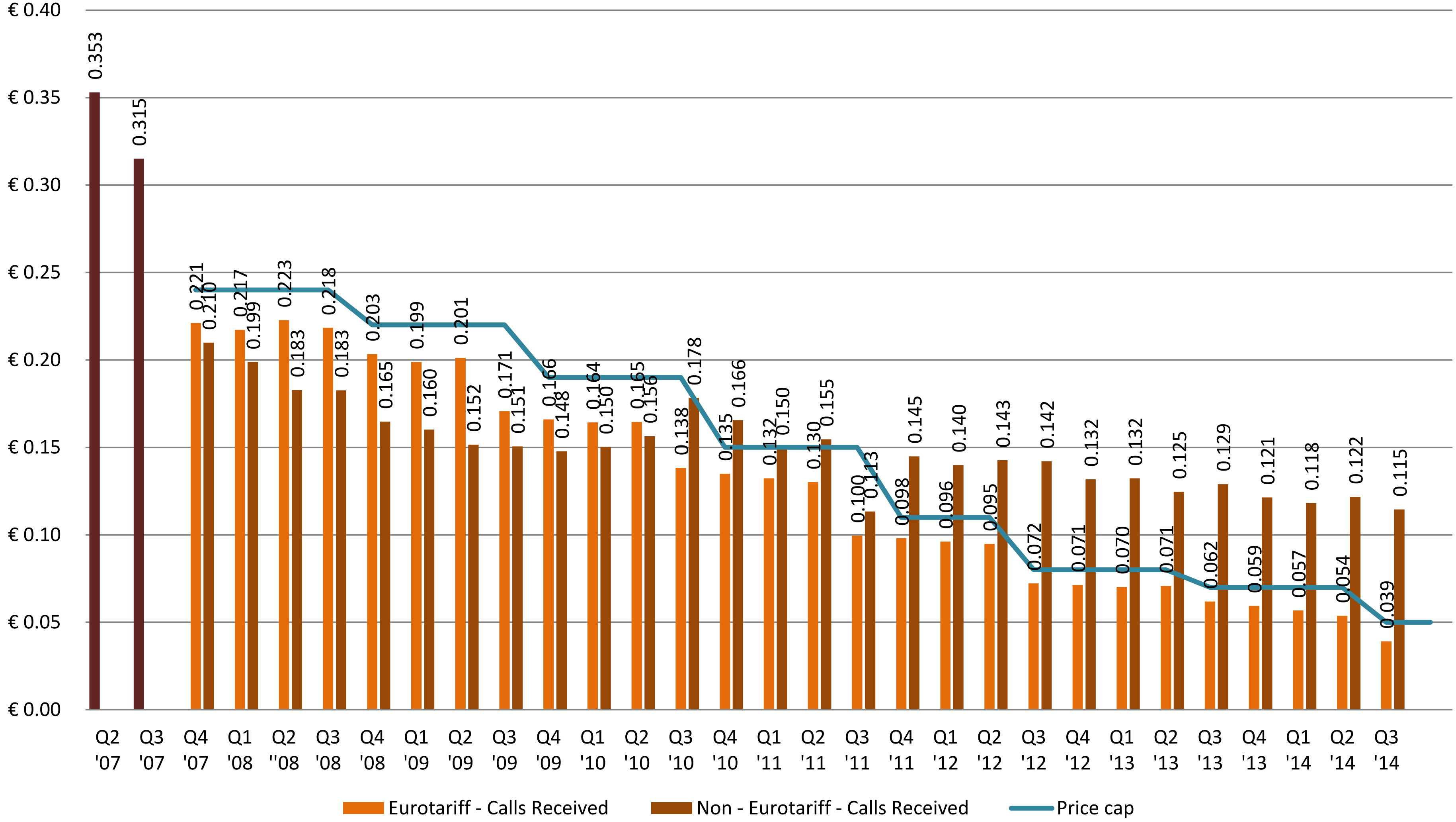
Data for alternative tariffs for some countries have not been reported and for others there are no alternative tariffs.

Figure 5: Average retail price per minute for intra-EEA roaming voice calls received: Eurotariff and alternative tariffs Q3 2014



Data for alternative tariffs for some countries have not been reported and for others there are no alternative tariffs.

Figure 6: EEA average retail price per minute for intra-EEA retail roaming voice calls received



Surcharge for roaming voice calls made

Figure 7: Surcharge as a result of billed minutes for intra-EEA roaming voice calls made: Eurotariff Q2 2014

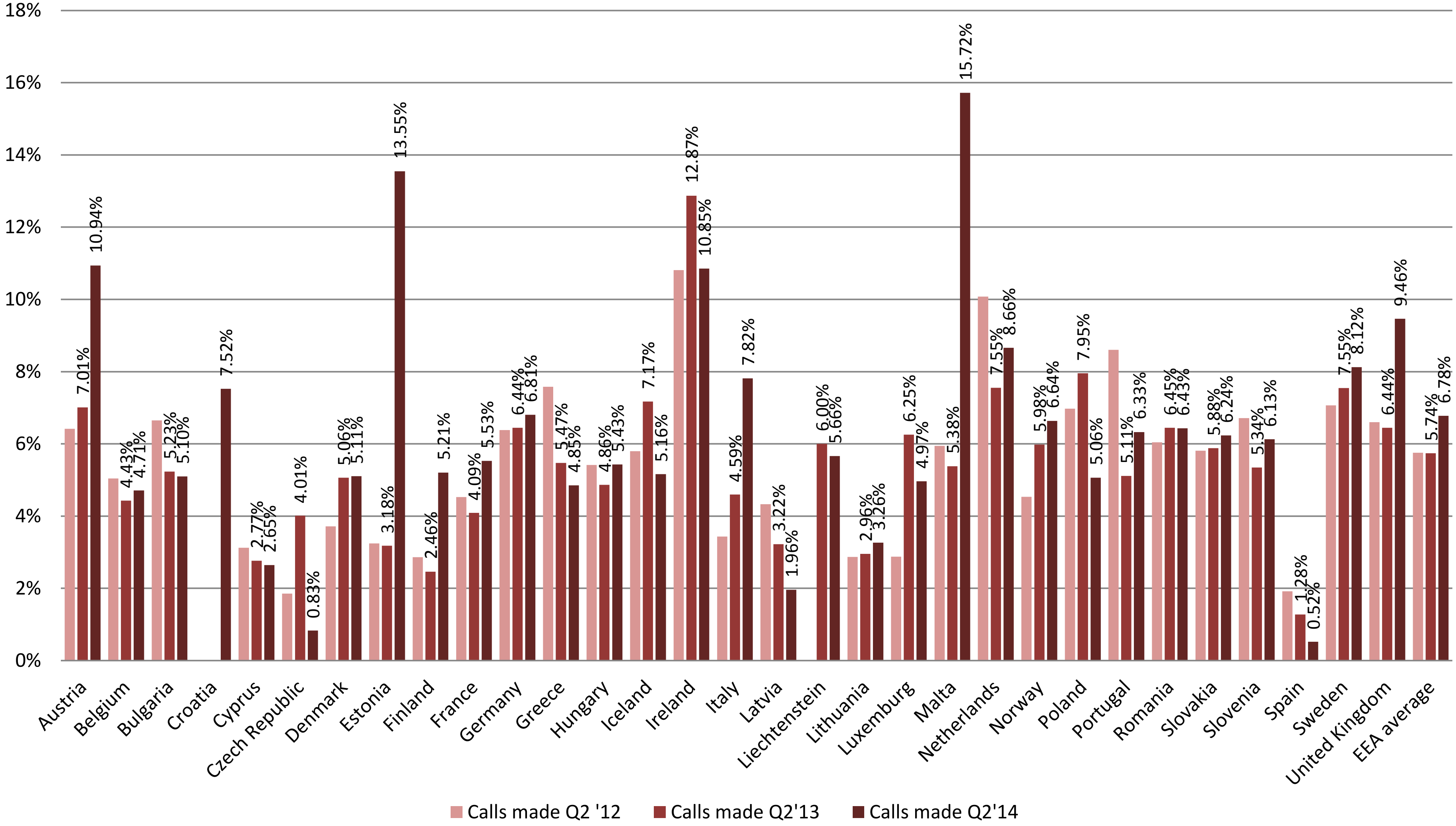
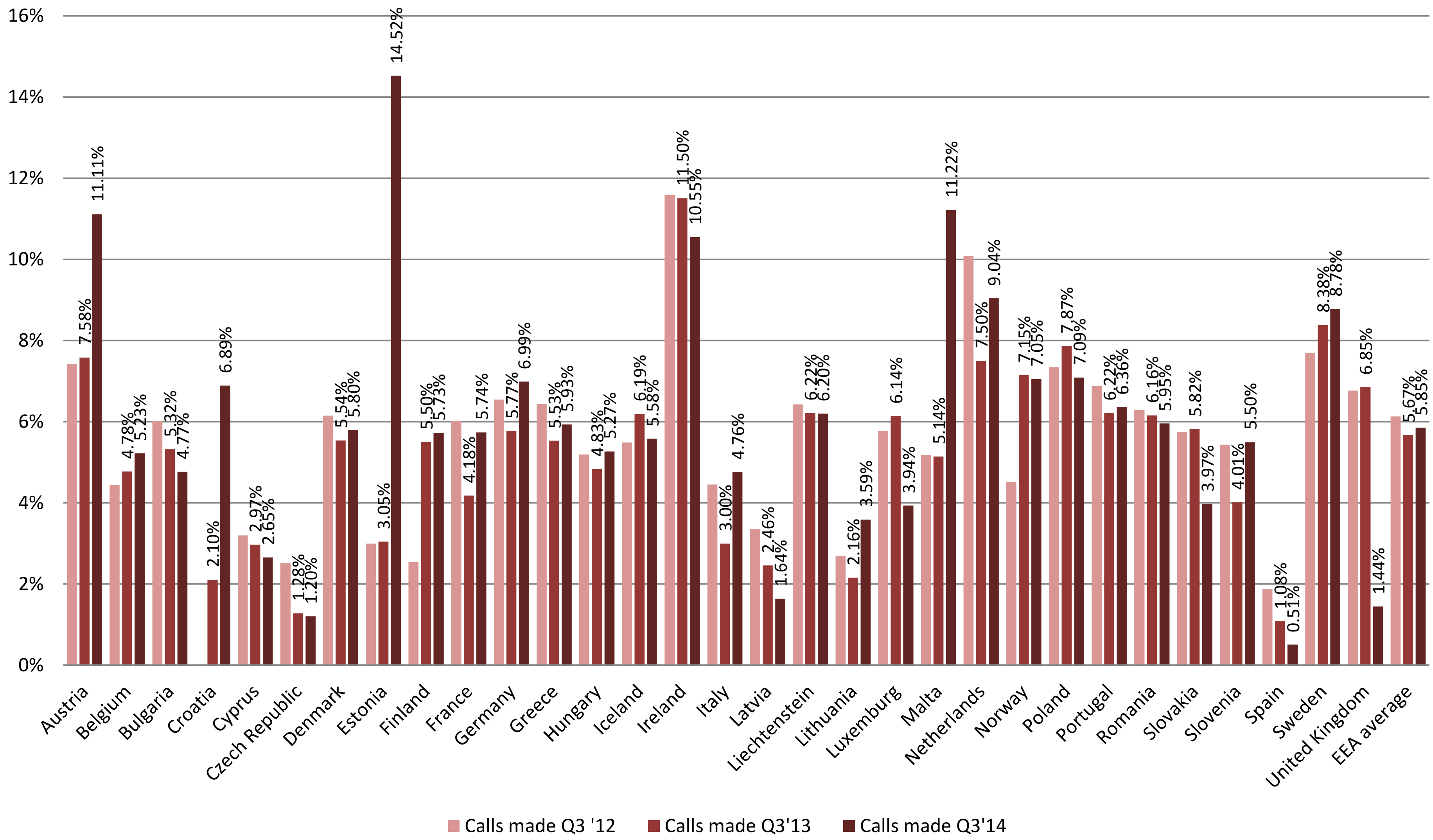


Figure 8: Surcharge as a result of billed minutes for intra-EEA roaming voice calls made: Eurotariff Q3 2014



Wholesale prices

Figure 9: Average wholesale price per minute for intra-EEU roaming voice calls: charges to non-group companies (wholesale roaming inbound) Q2 2014

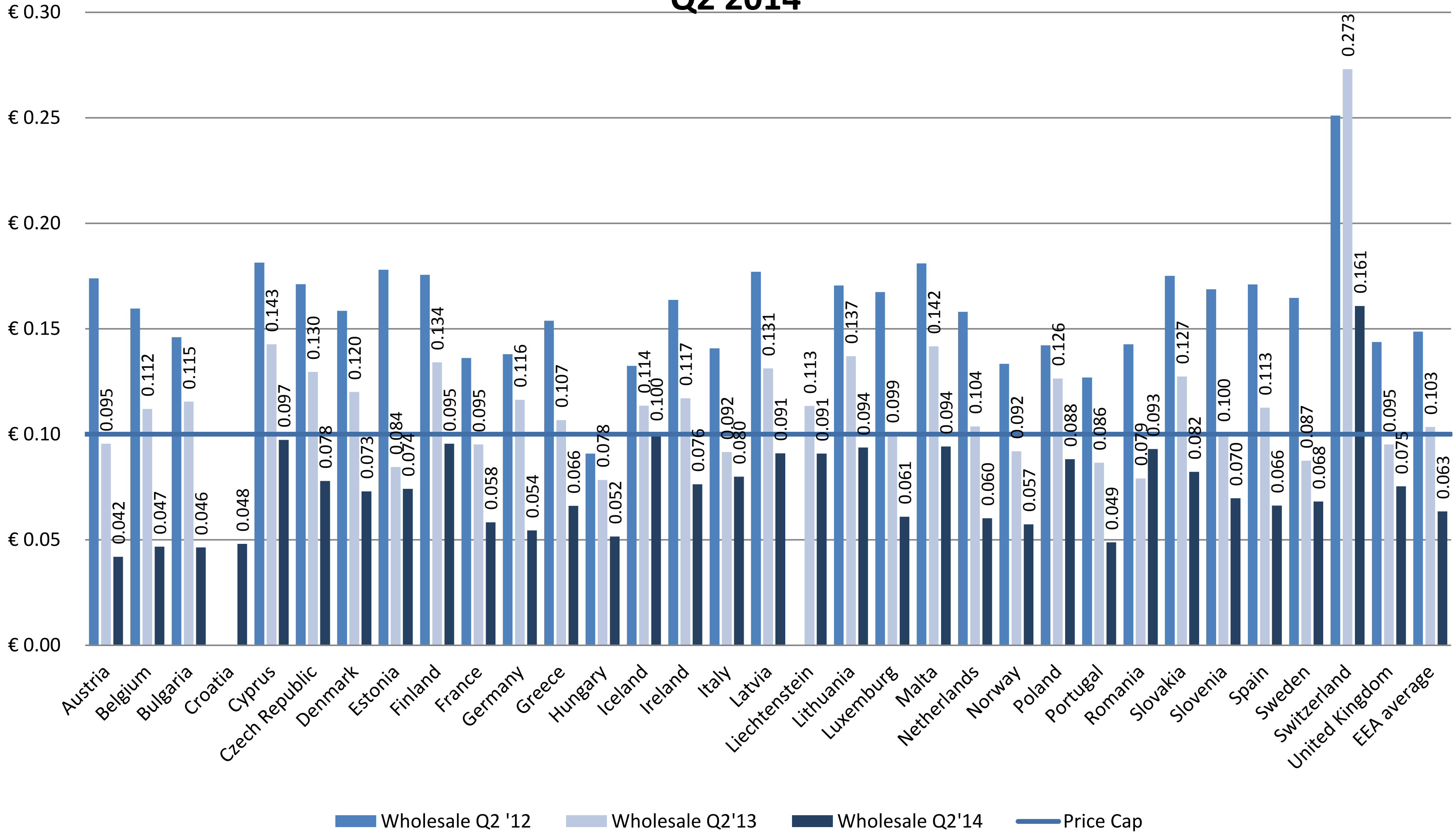


Figure 10: Average wholesale price per minute for intra-EEU roaming voice calls: charges to non-group companies (wholesale roaming inbound) Q3 2014

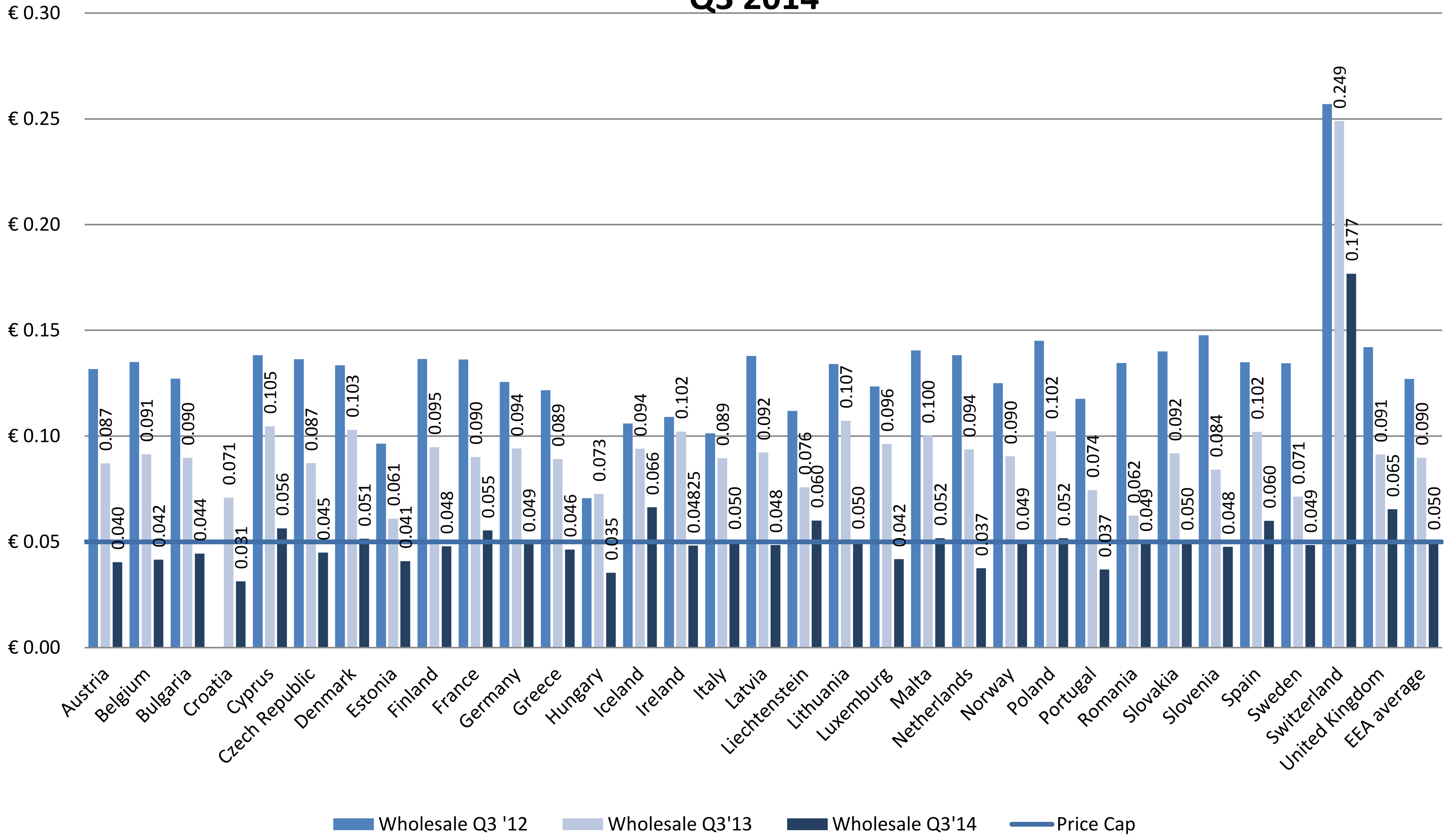
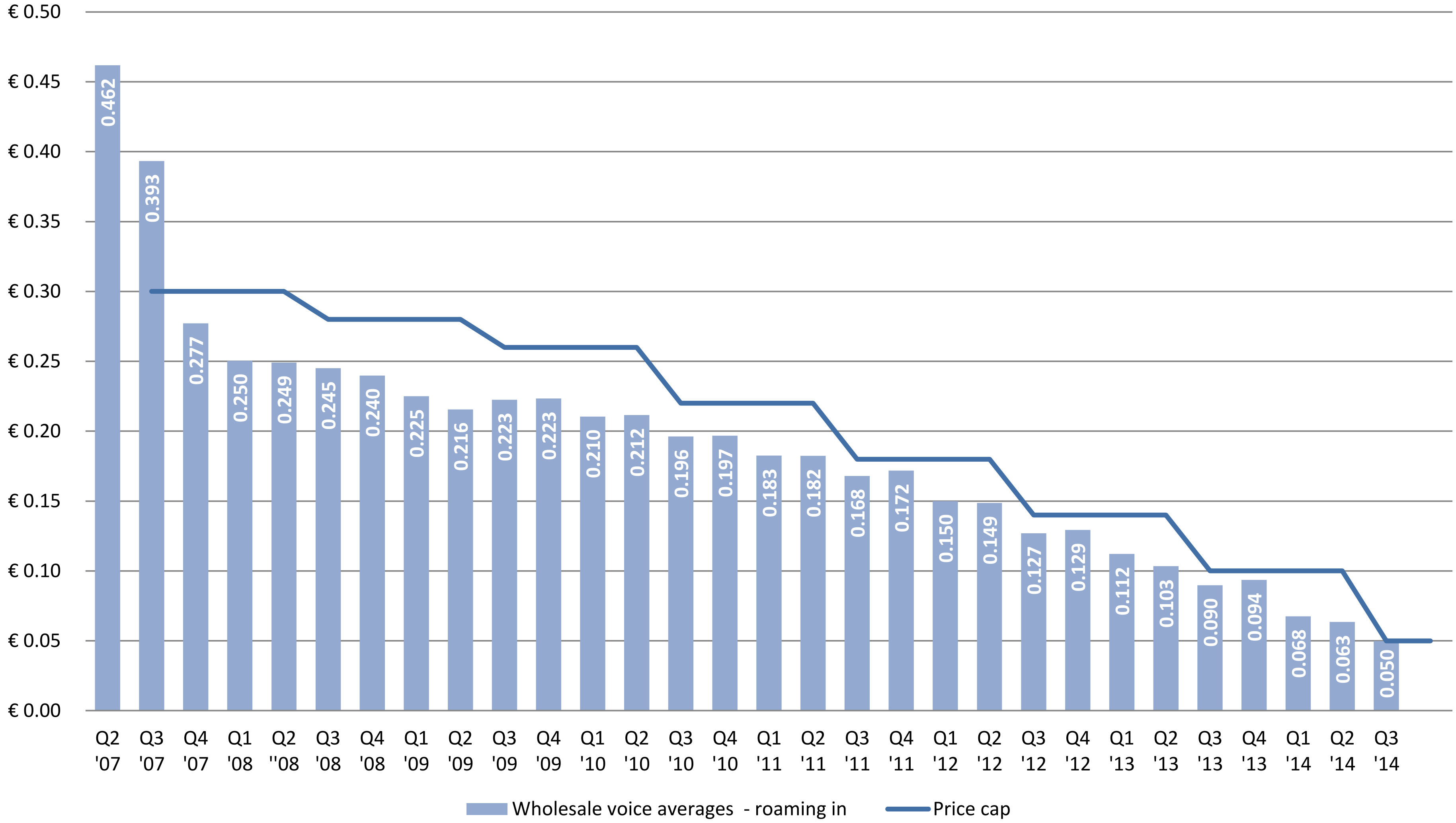


Figure 11: EEA average price per minute for wholesale non-group roaming voice calls



Surcharge for wholesale voice calls

Figure 12: Surcharge as a result of billed minutes for intra-EEA wholesale voice calls (non-group companies) Q2 2014

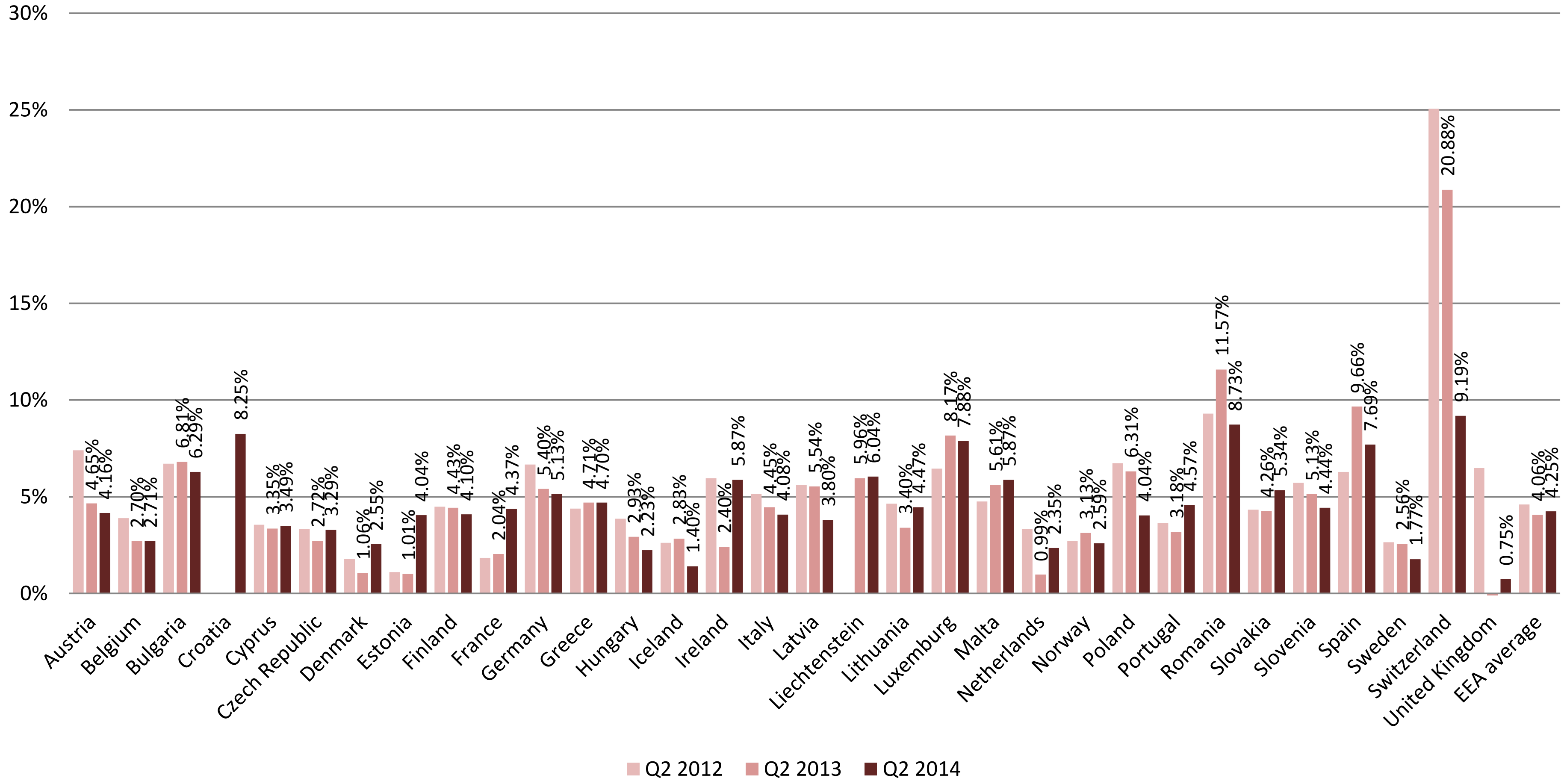
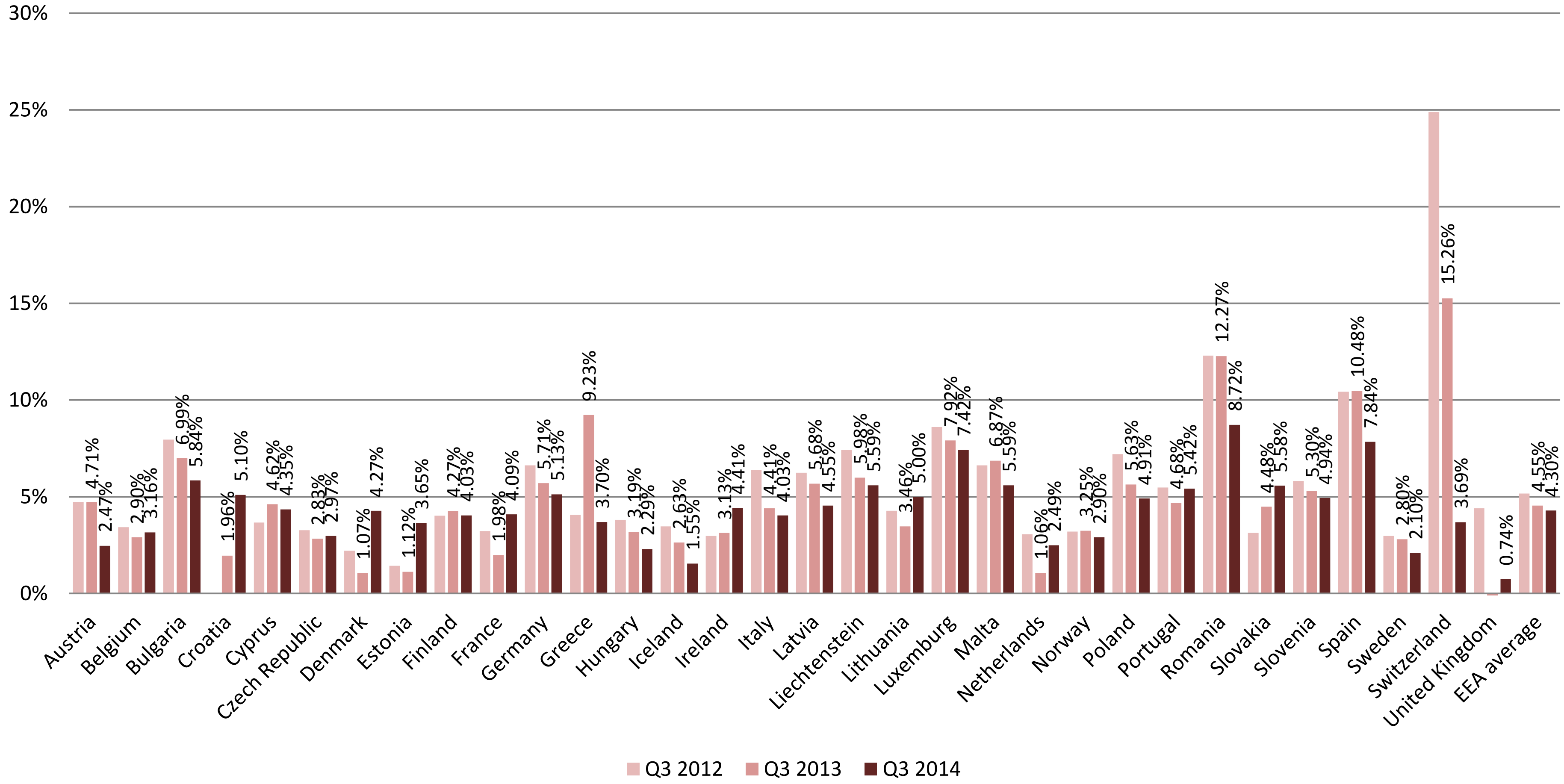


Figure 13: Surcharge as a result of billed minutes for intra-EEA wholesale voice calls (non-group companies) Q3 2014



Percentage of alternative tariffs on total volumes for calls made/received

Figure 14: EEA percentage of calls made: Eurotariff and alternative tariffs (millions of minutes)

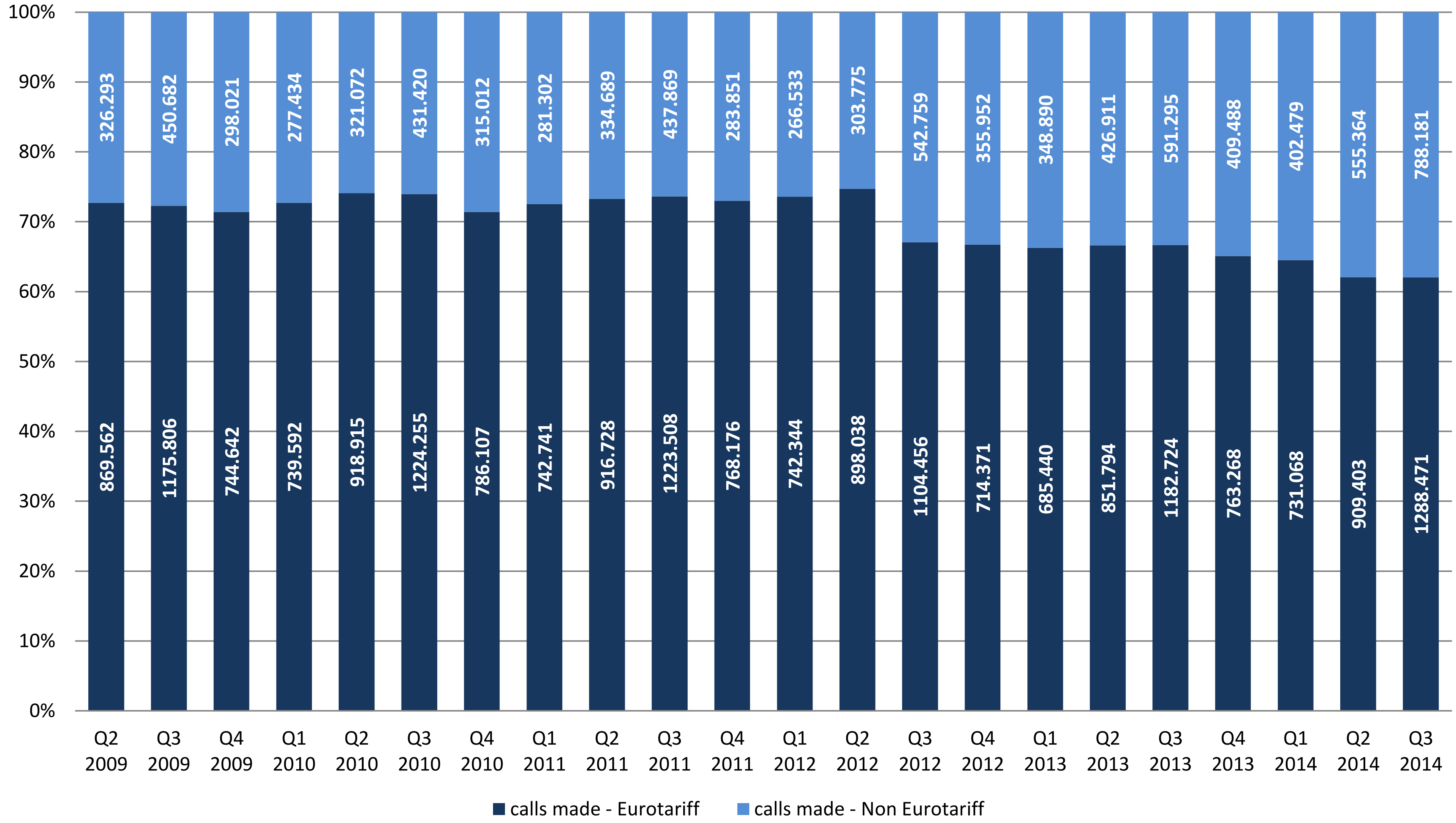
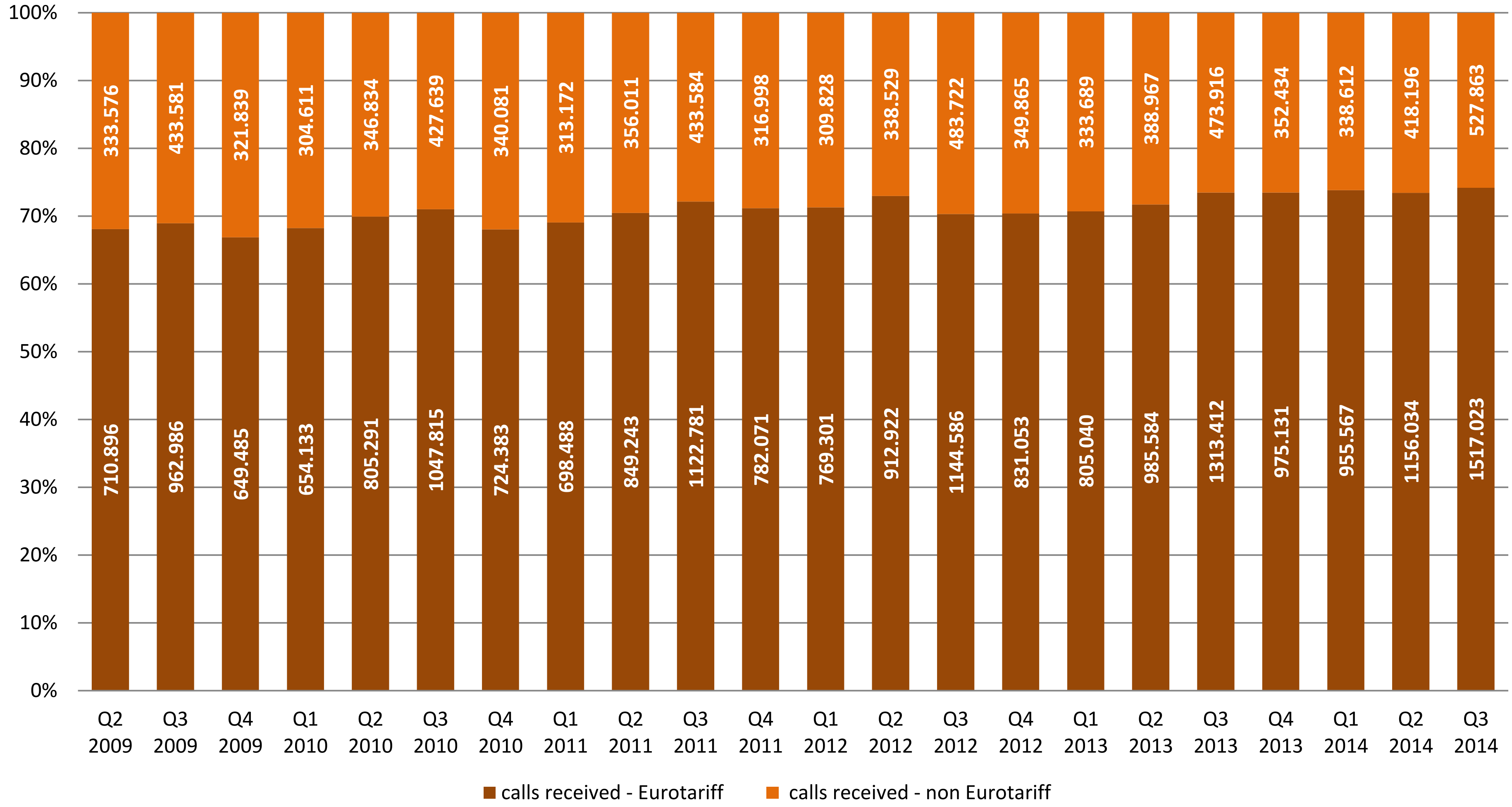
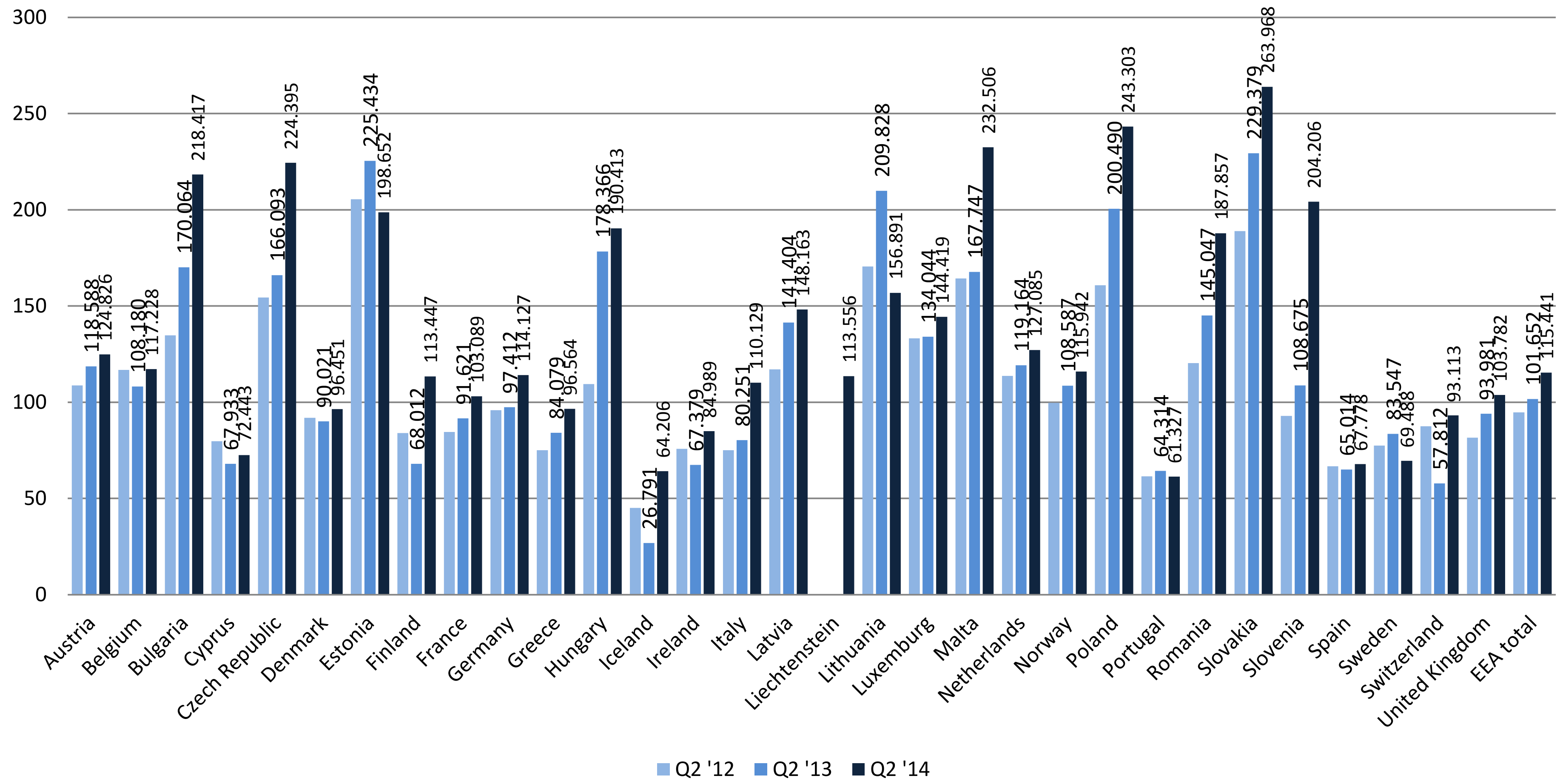


Figure 15: EEA percentage of calls received: Eurotariff and alternative tariffs (millions of minutes)



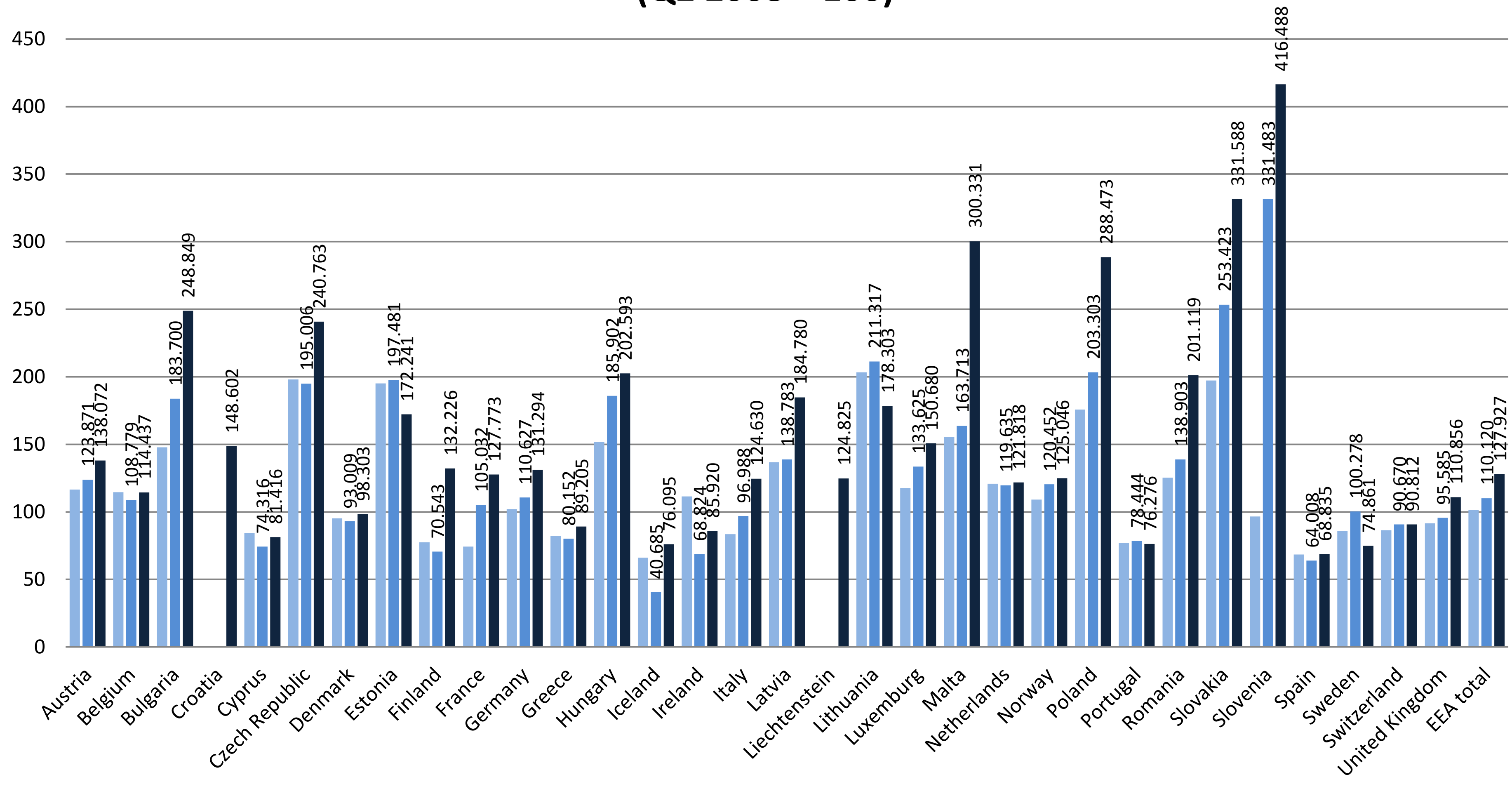
Volumes of retail roaming voice calls

Figure 16:
Outgoing international roaming traffic Index, intra-EEA roaming calls in Q2 2014
(Q2 2008 = 100)



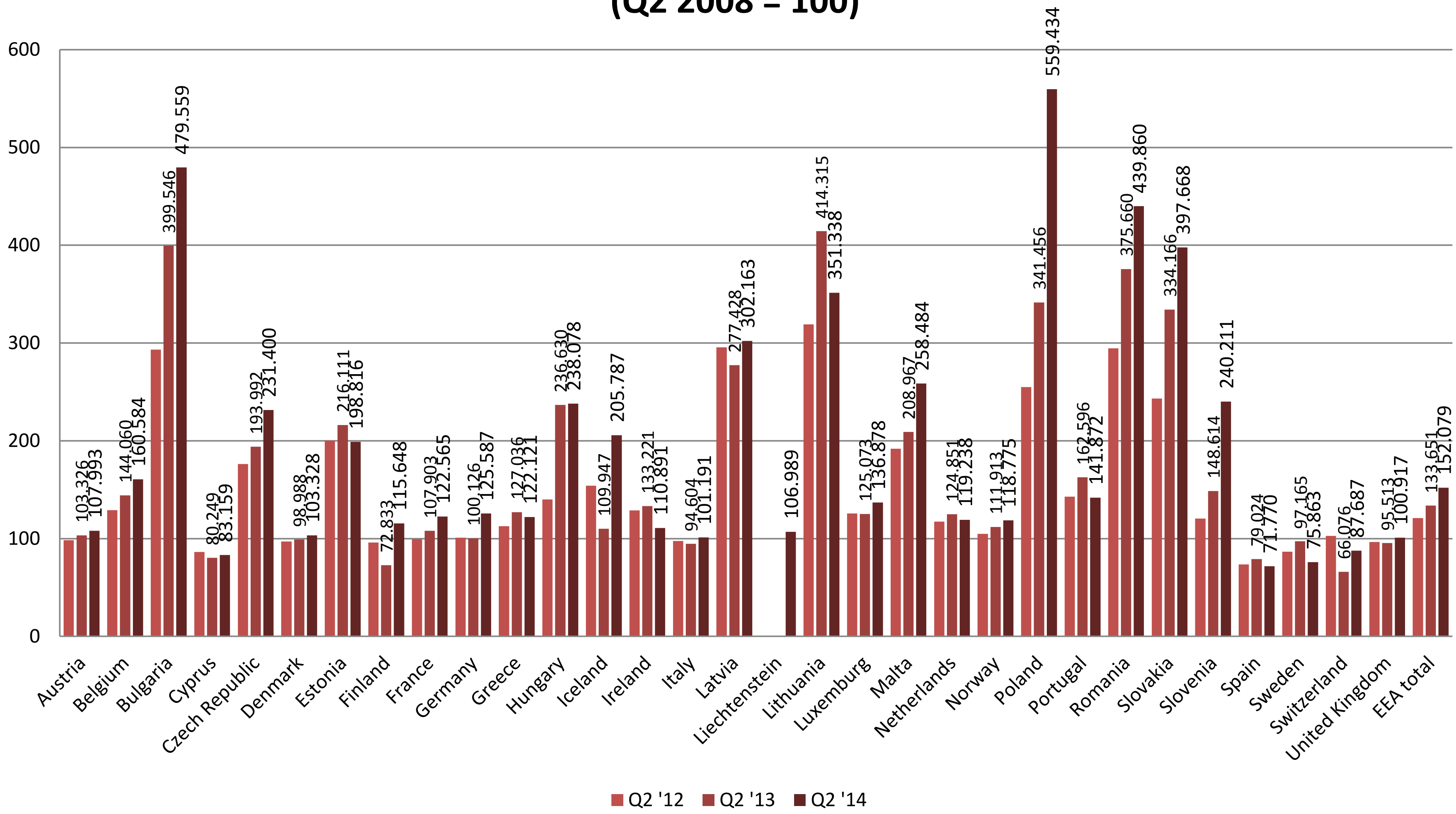
Liechtenstein based on Q2 2013 = 100

Figure 17: Outgoing international roaming traffic Index, intra-EEA roaming calls in Q3 2014 (Q2 2008 = 100)



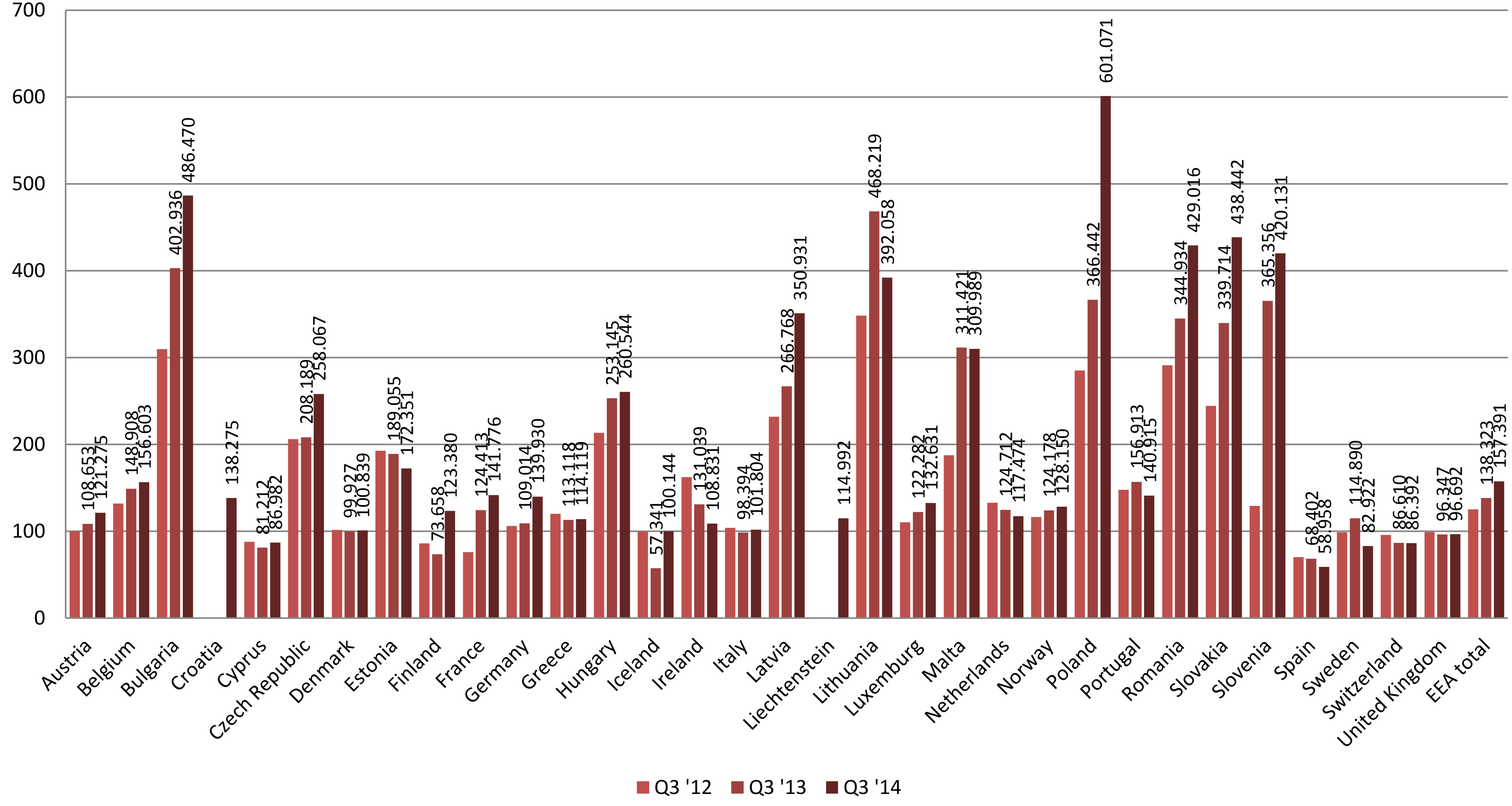
Croatia and Liechtenstein based on Q3 2013 = 100, Switzerland based on Q3 2009 = 100

Figure 18: Incoming international roaming traffic Index, intra-EEA roaming calls in Q2 2014 (Q2 2008 = 100)



Liechtenstein based on Q2 2013 = 100

Figure 19: Incoming international roaming traffic Index, intra-EEA roaming calls in Q3 2014 (Q2 2008 = 100)



Croatia and Liechtenstein based on Q3 2013 = 100, Switzerland based on Q3 2009 = 100

Retail and wholesale prices - outside EEA

Figure 20: Average retail price per minute for roaming voice calls made by EEA customers outside EEA Q2 2014

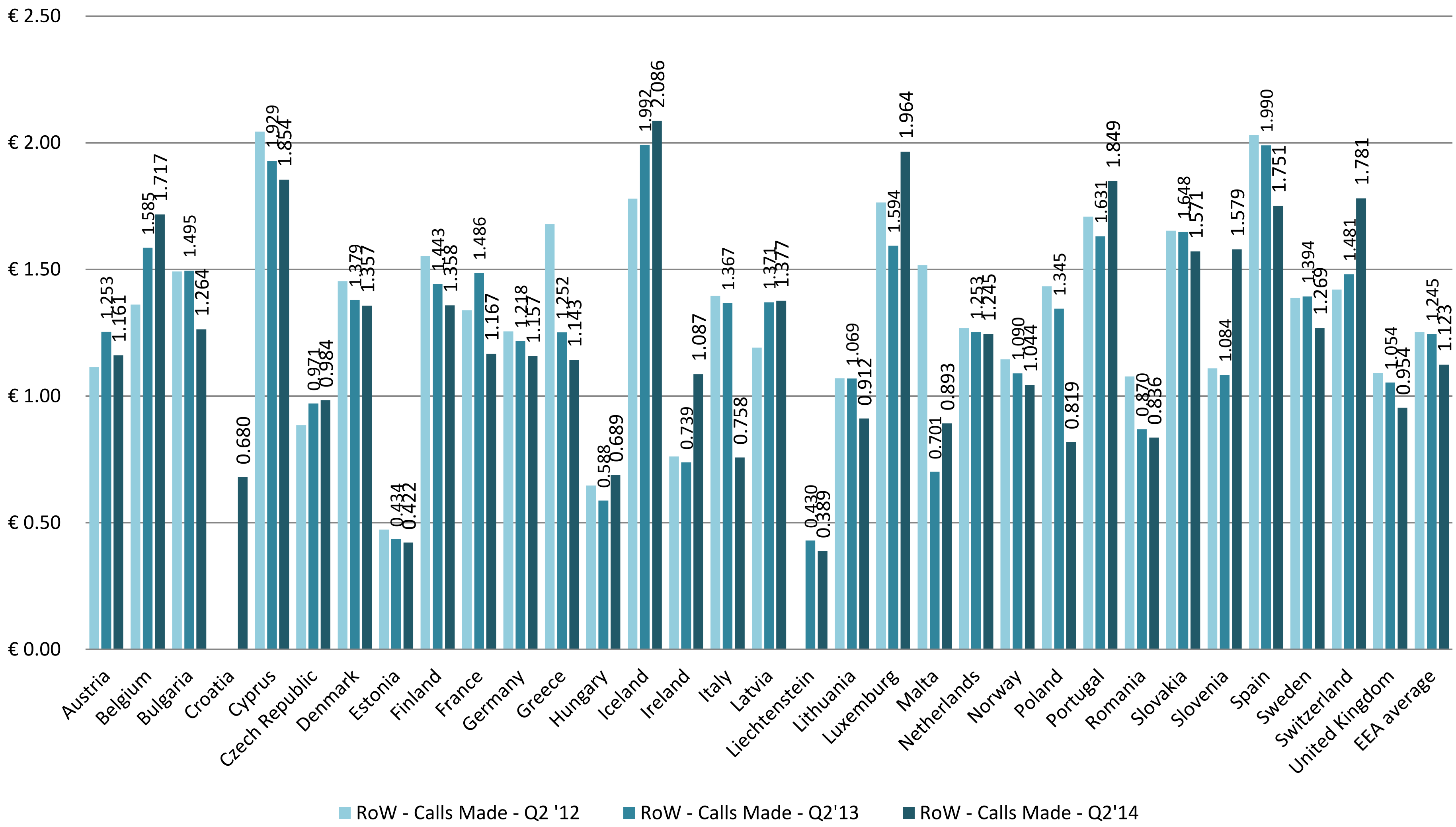


Figure 21: Average retail price per minute for roaming voice calls made by EEA customers outside EEA Q3 2014

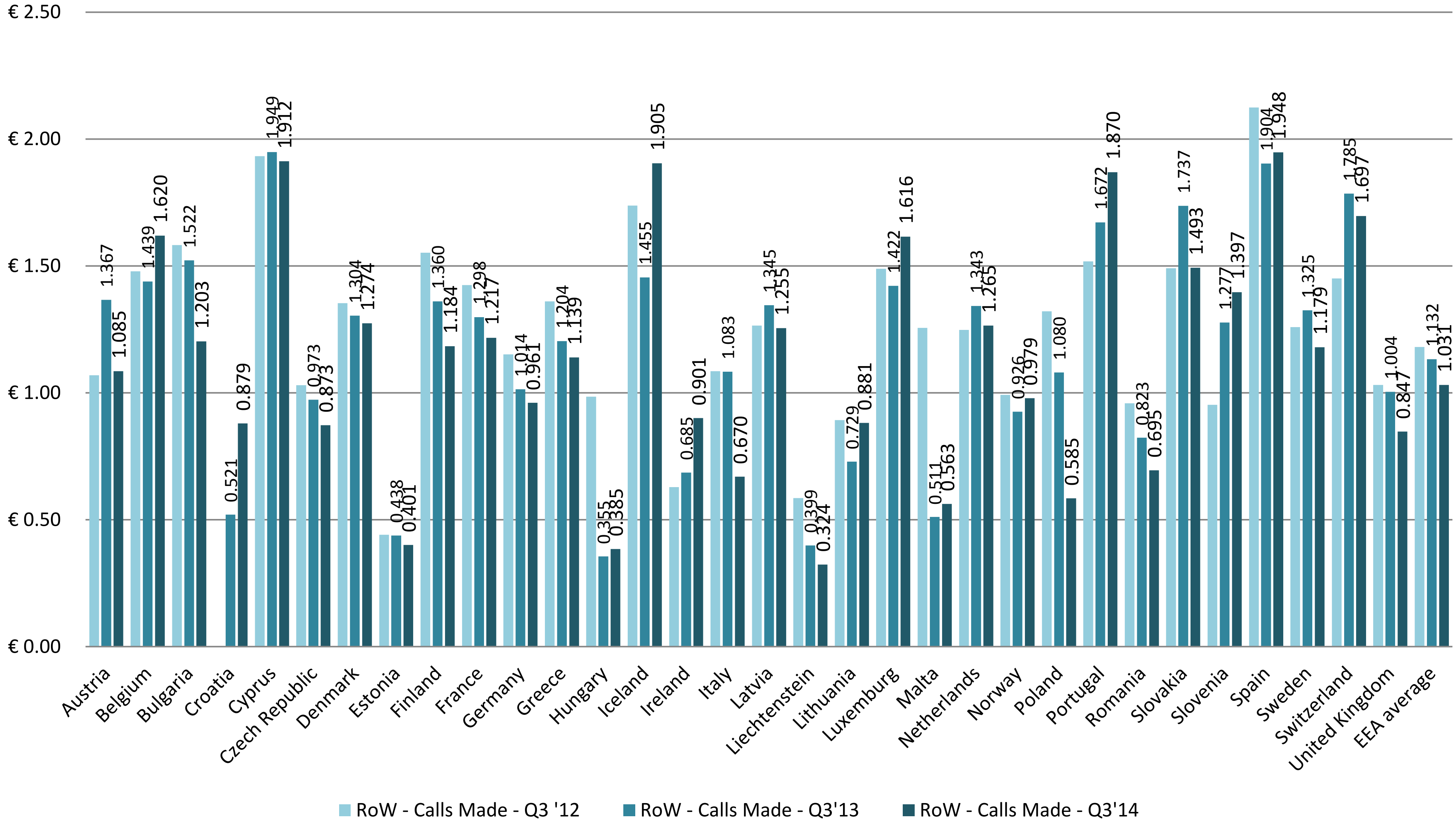


Figure 22: Average retail price per minute roaming voice calls received by EEA customers outside EEA Q2 2014

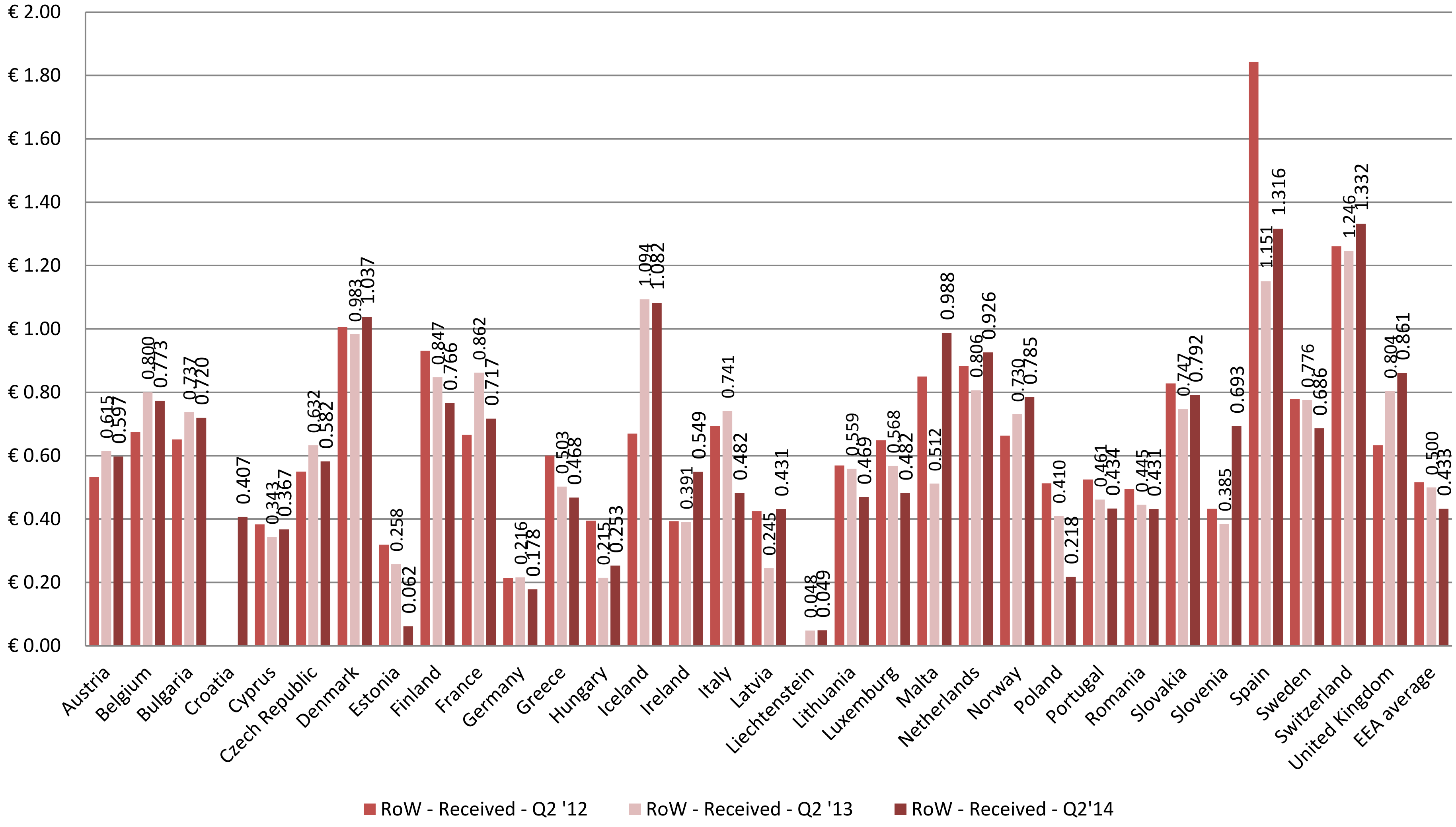


Figure 23: Average retail price per minute roaming voice calls received by EEA customers outside EEA Q3 2014

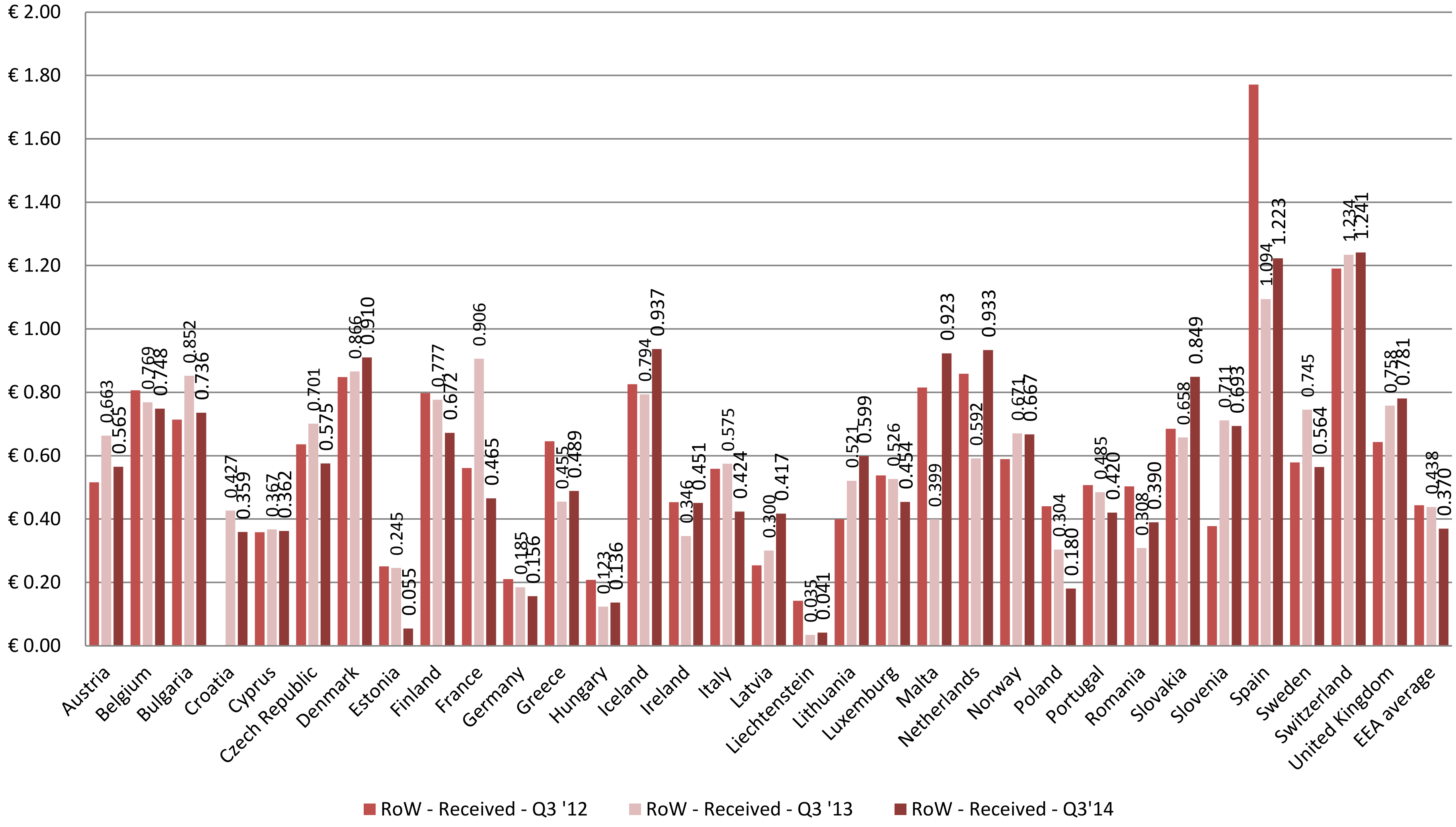
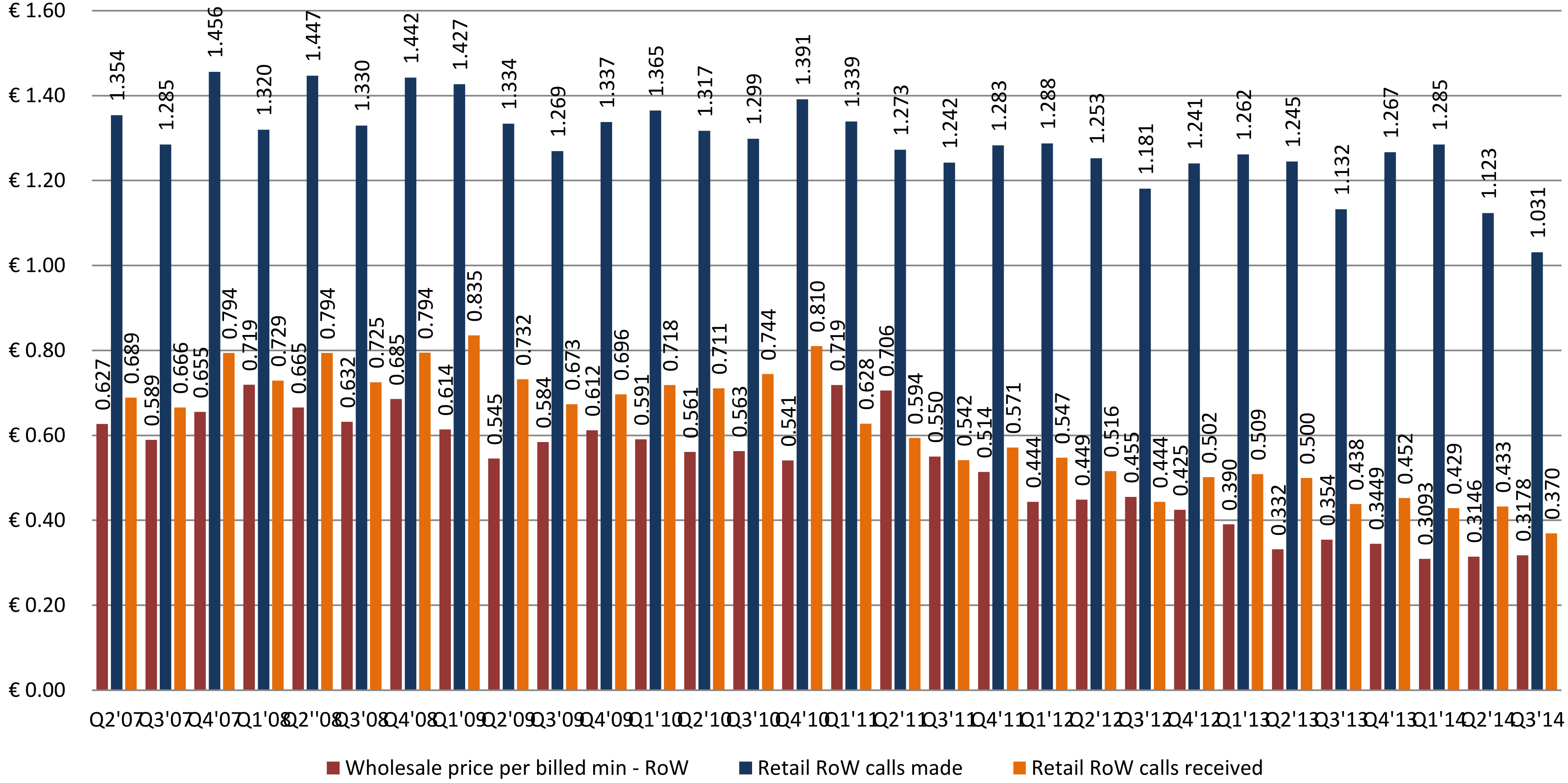


Figure 24: Average wholesale and retail prices for roaming calls made and received by EEA customers outside EEA (EU only for Q2 2009 - Q1 2010)



SMS roaming Services

Retail prices

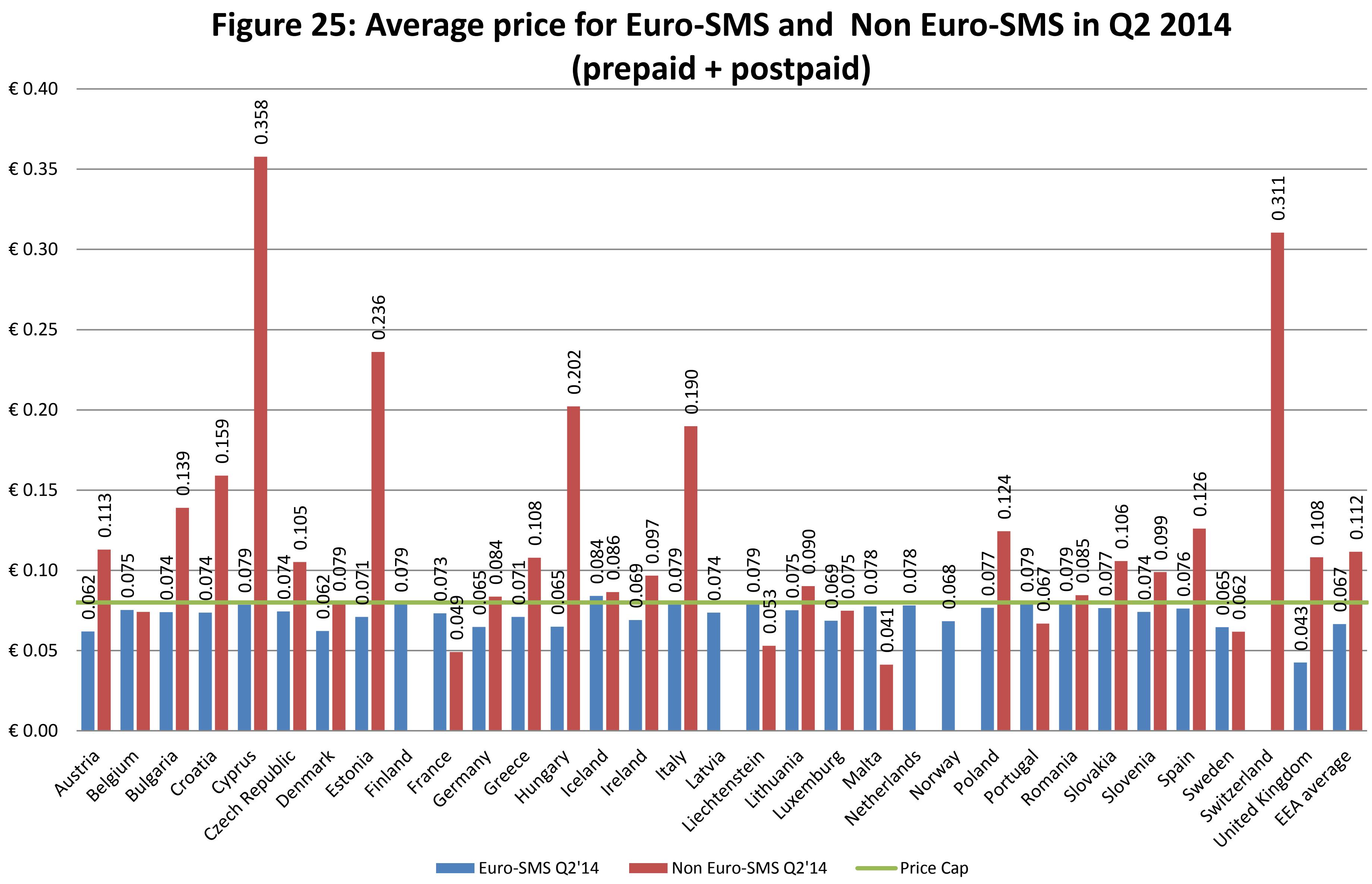


Figure 25: Average price for Euro-SMS and Non Euro-SMS in Q2 2014
(prepaid + postpaid)
€ 0.40
€ 0.35
€ 0.30
€ 0.25
€ 0.20
€ 0.15
€ 0.10
€ 0.05
€ 0.00
Austria 0.062 0.113
Belgium 0.075 0.074
Bulgaria 0.074 0.139
Croatia 0.074 0.159
Cyprus 0.079 0.358
Czech Republic 0.074 0.105
Denmark 0.062 0.079
Estonia 0.071 0.236
Finland 0.079
France 0.073 0.049
Germany 0.065 0.084
Greece 0.071 0.108
Hungary 0.065 0.202
Iceland 0.084 0.086
Ireland 0.069 0.097
Italy 0.079 0.190
Latvia 0.074
Liechtenstein 0.079 0.053
Lithuania 0.075 0.090
Luxemburg 0.069 0.075
Malta 0.078 0.041
Netherlands 0.078
Norway 0.068
Poland 0.077 0.124
Portugal 0.079 0.067
Romania 0.079 0.085
Slovakia 0.077 0.106
Slovenia 0.074 0.099
Spain 0.076 0.126
Sweden 0.065 0.062
Switzerland 0.311
United Kingdom 0.043 0.108
EEA average 0.067 0.112
Euro-SMS Q2'14
Non Euro-SMS Q2'14
Price Cap

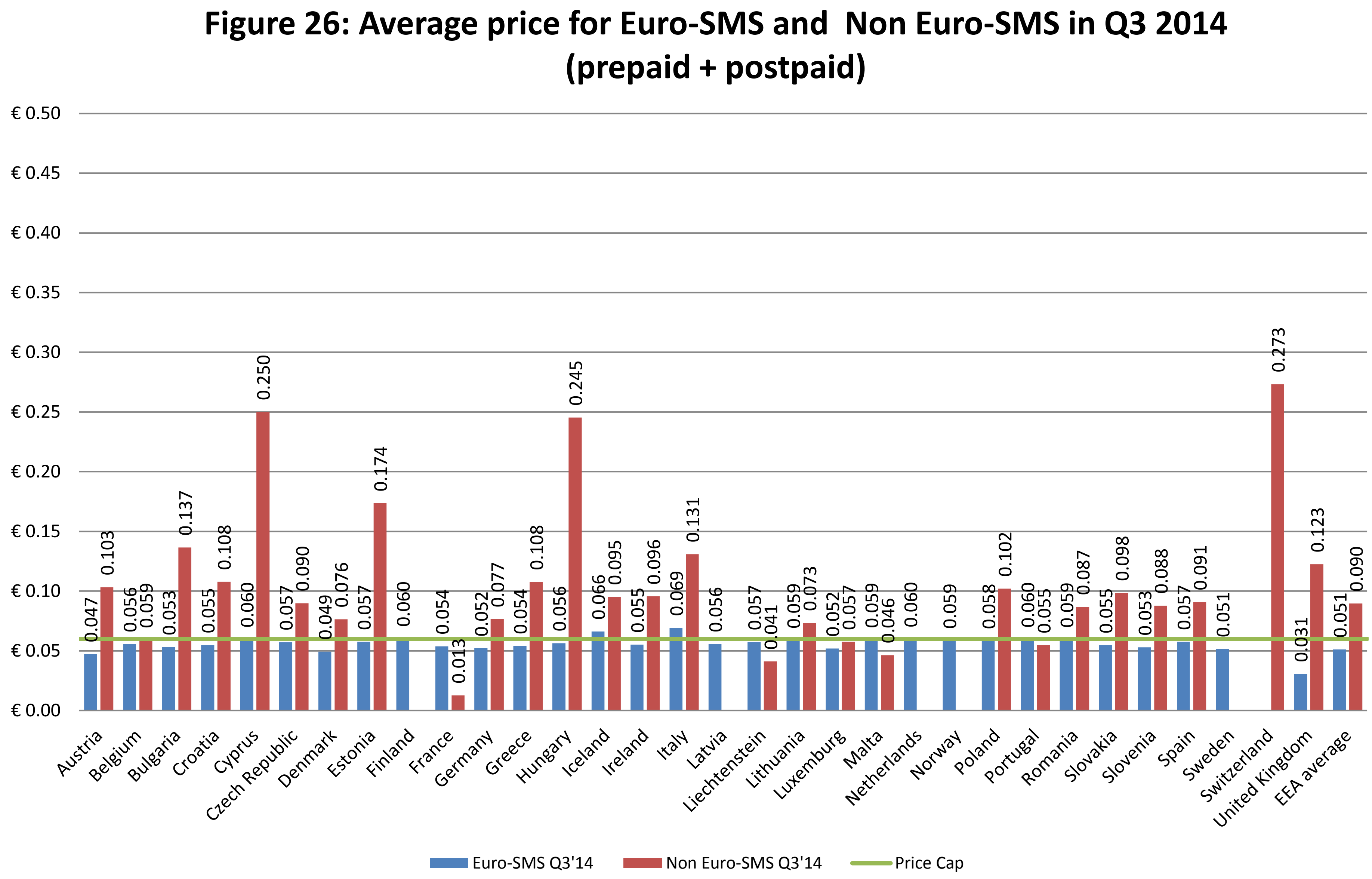
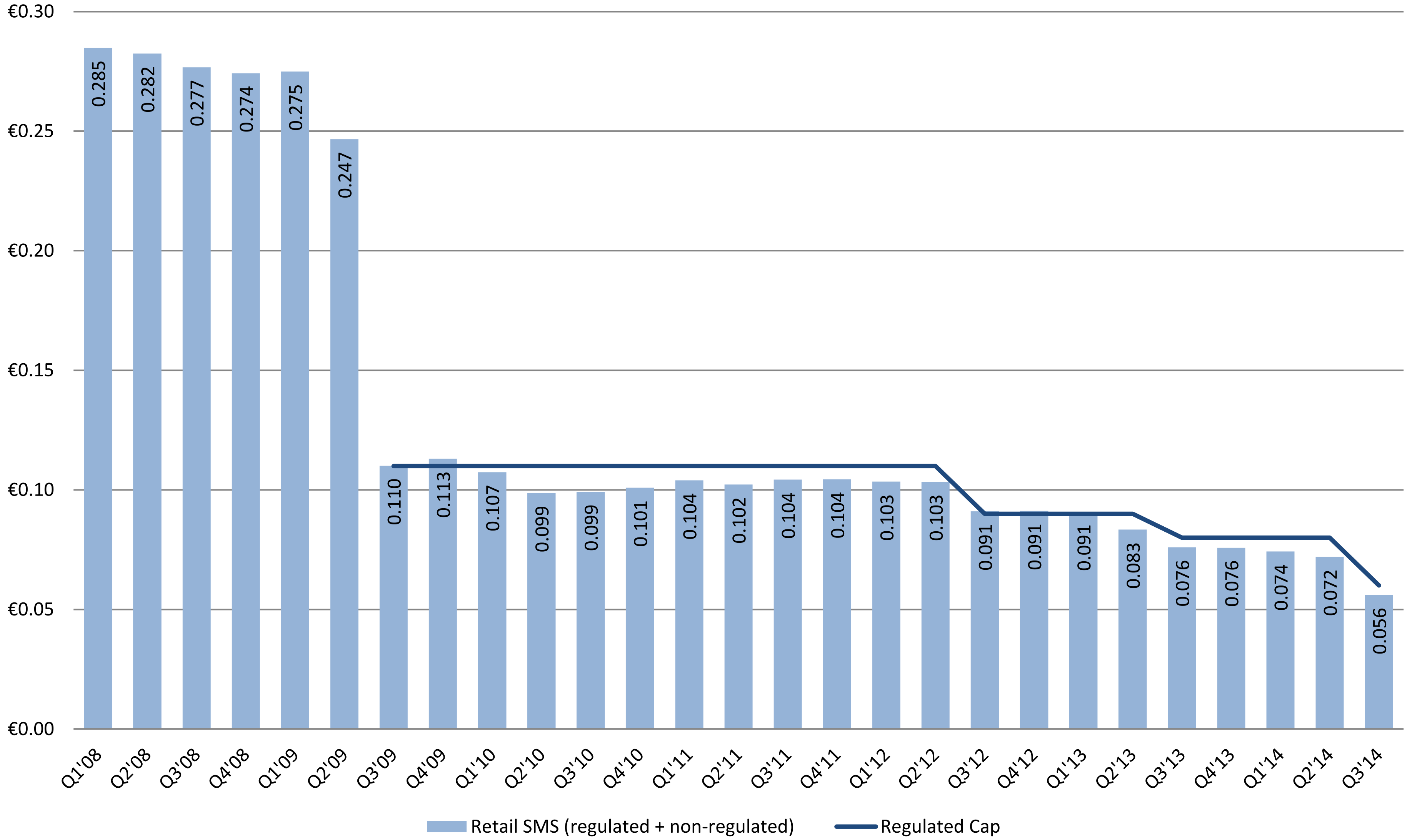


Figure 26: Average price for Euro-SMS and Non Euro-SMS in Q3 2014
(prepaid + postpaid)
€ 0.50
€ 0.45
€ 0.40
€ 0.35
€ 0.30
€ 0.25
€ 0.20
€ 0.15
€ 0.10
€ 0.05
€ 0.00
Austria 0.047 0.103
Belgium 0.056 0.059
Bulgaria 0.053 0.137
Croatia 0.055 0.108
Cyprus 0.060 0.250
Czech Republic 0.057 0.090
Denmark 0.049 0.076
Estonia 0.057 0.174
Finland 0.060
France 0.054 0.013
Germany 0.052 0.077
Greece 0.054 0.108
Hungary 0.056 0.245
Iceland 0.066 0.095
Ireland 0.055 0.096
Italy 0.069 0.131
Latvia 0.056
Liechtenstein 0.057 0.041
Lithuania 0.059 0.073
Luxemburg 0.052 0.057
Malta 0.059 0.046
Netherlands 0.060
Norway 0.059
Poland 0.058 0.102
Portugal 0.060 0.055
Romania 0.059 0.087
Slovakia 0.055 0.098
Slovenia 0.053 0.088
Spain 0.057 0.091
Sweden 0.051
Switzerland 0.273
United Kingdom 0.031 0.123
EEA average 0.051 0.090
Euro-SMS Q3'14
Non Euro-SMS Q3'14
Price Cap

Figure 27: Average EEA price per retail SMS (Euro + Non Euro SMS tariffs)



Wholesale prices

Figure 28: Average wholesale price per intra-EEA roaming SMS: charges to non-group companies

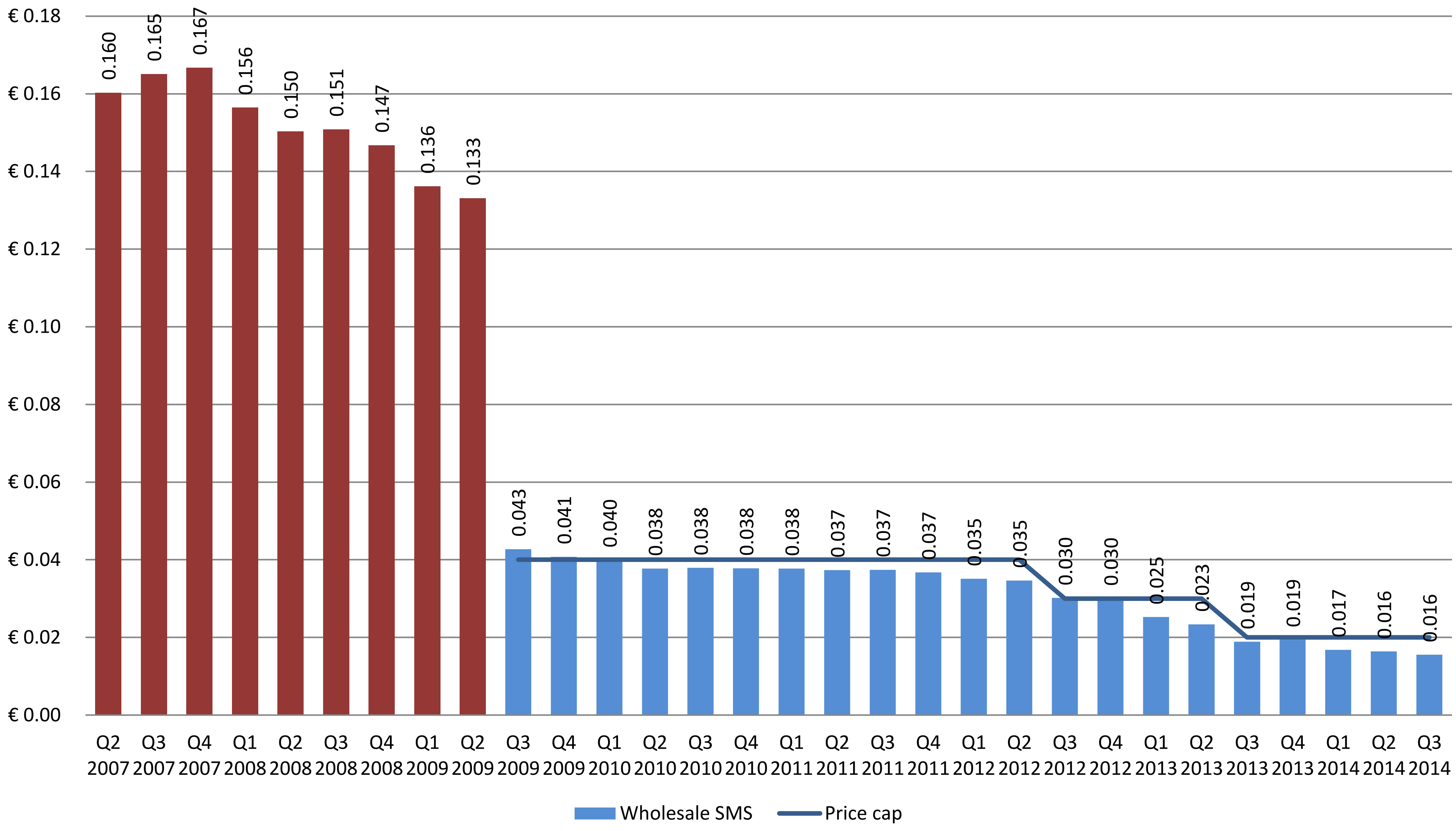


Figure 29: Average wholesale price per intra-EEA roaming SMS: charges to non-group companies in Q2 2014

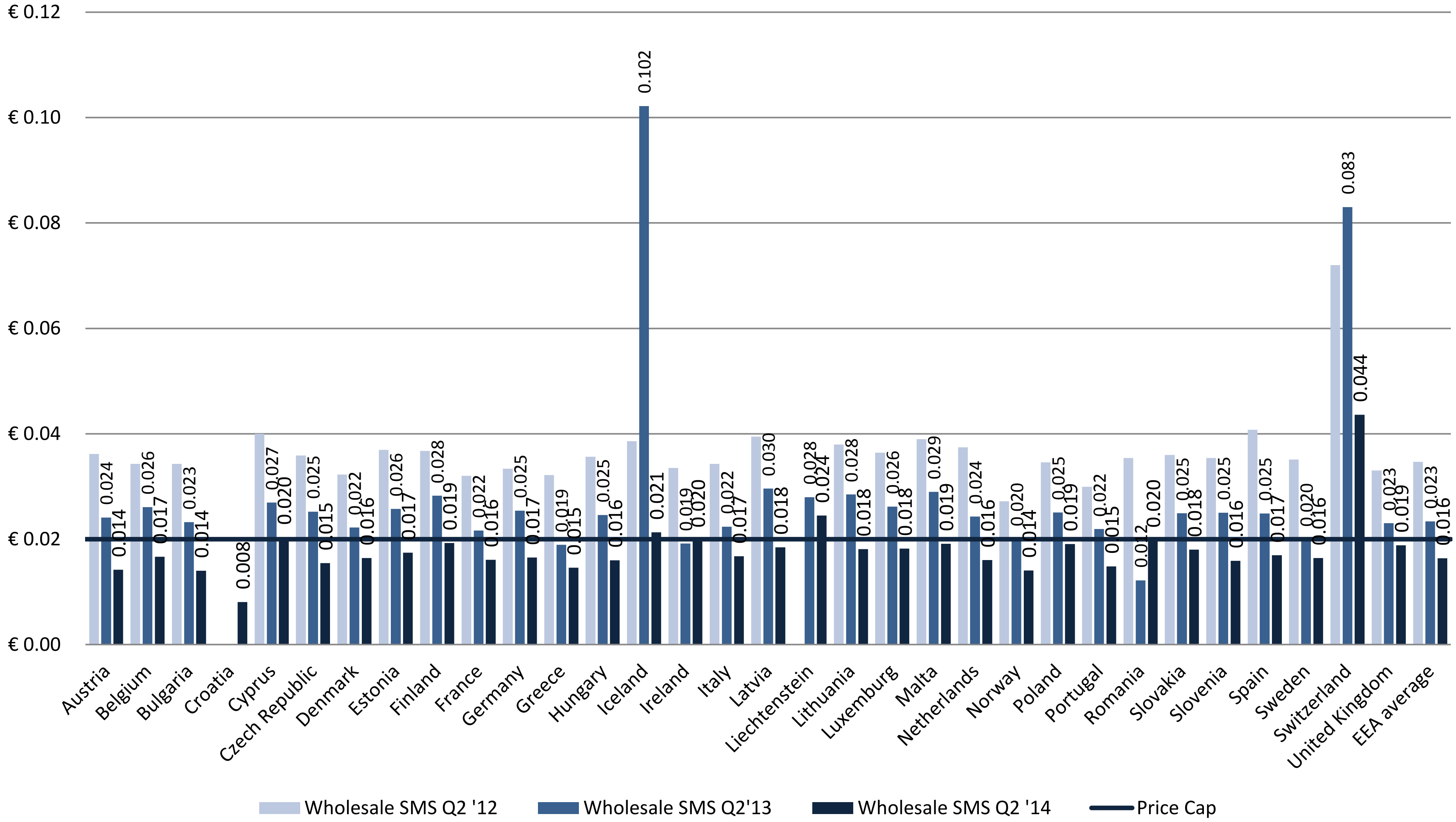
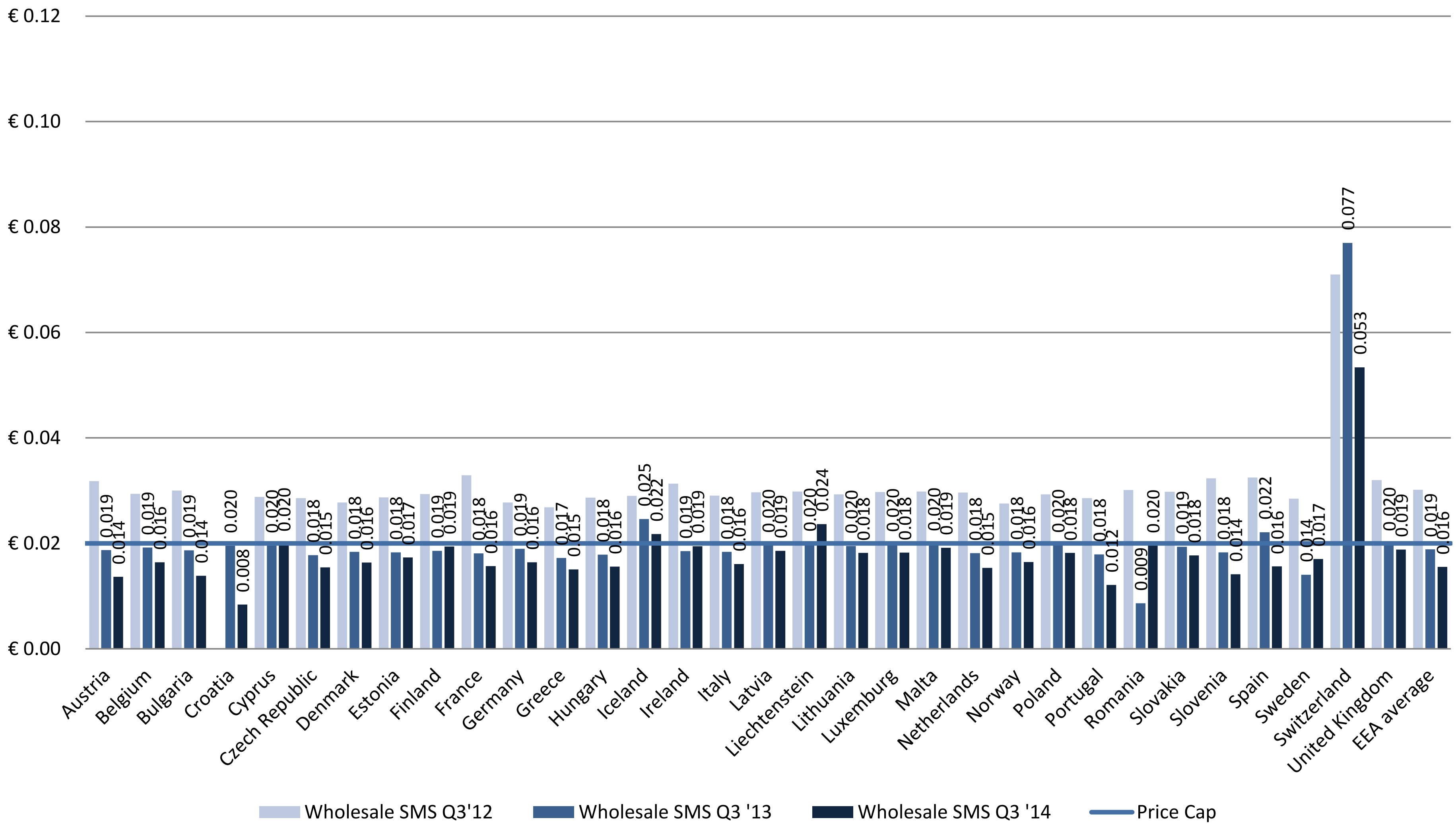
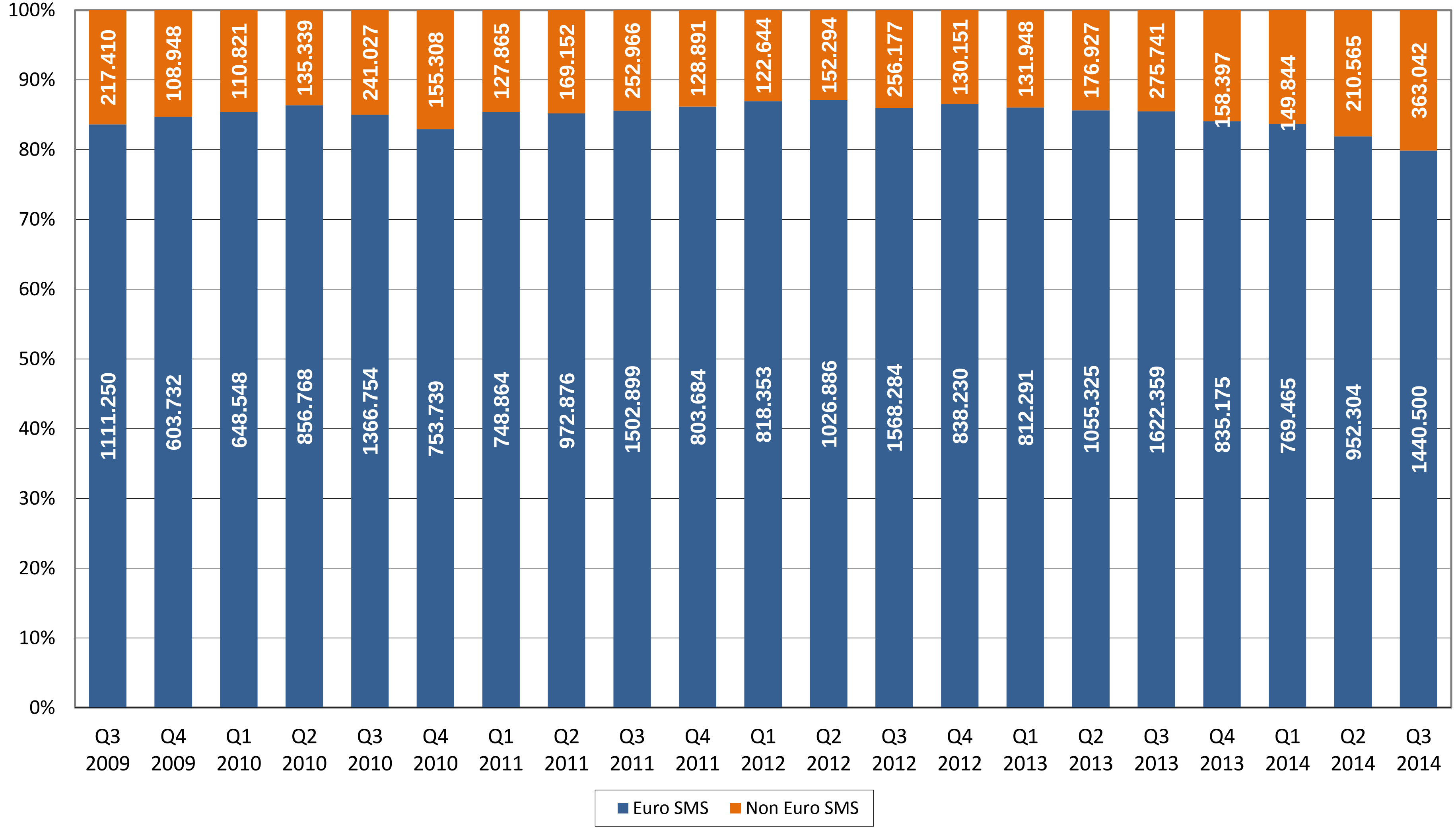


Figure 30: Average wholesale price per intra-EEA roaming SMS: charges to non-group companies in Q3 2014



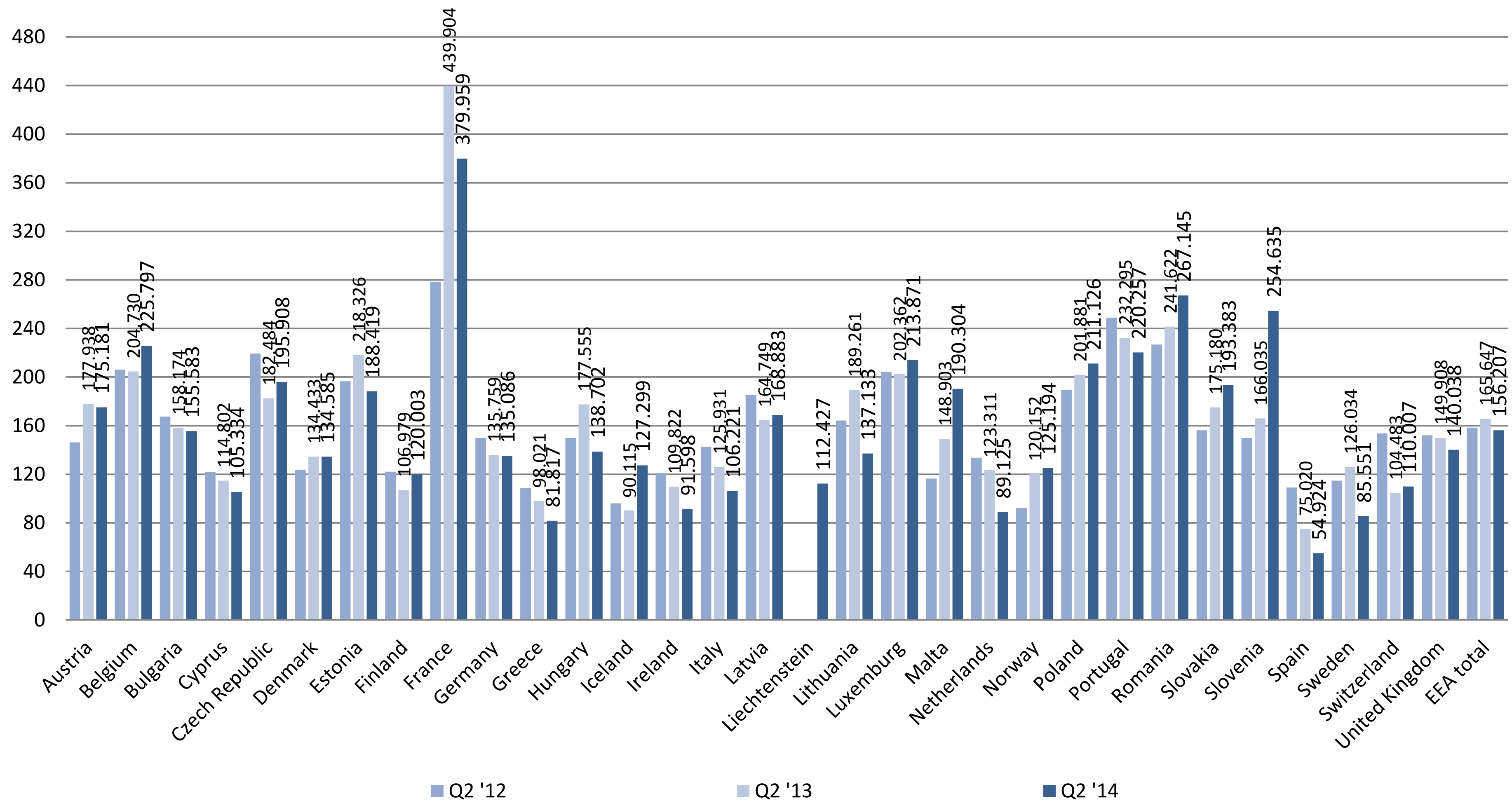
Percentage of SMS from alternative tariffs on total roaming SMS messages

Figure 31: EEA percentage of SMS messages: Euro SMS and Non Euro SMS (millions of messages)

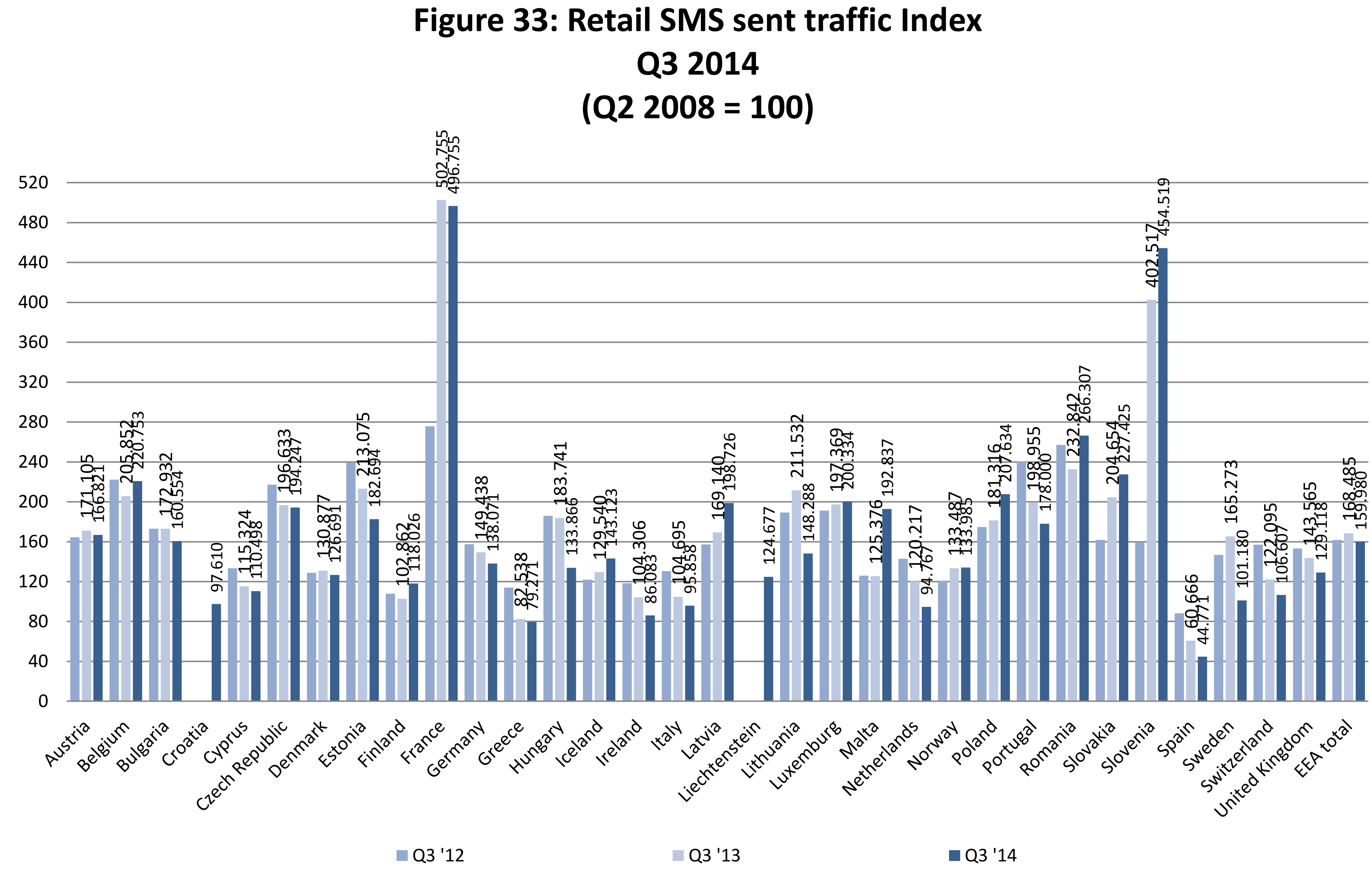


Volumes of retail roaming SMS

Figure 32: Retail SMS sent traffic Index
Q2 2014
(Q2 2008 = 100)



Liechtenstein based on Q2 2013 = 100



Croatia and Liechtenstein based on Q3 2013 = 100, Switzerland based on Q3 2009 = 100

DATA roaming services

Retail prices

Figure 34: Average retail data price per Mb in Q2 2014 (prepaid+postpaid)

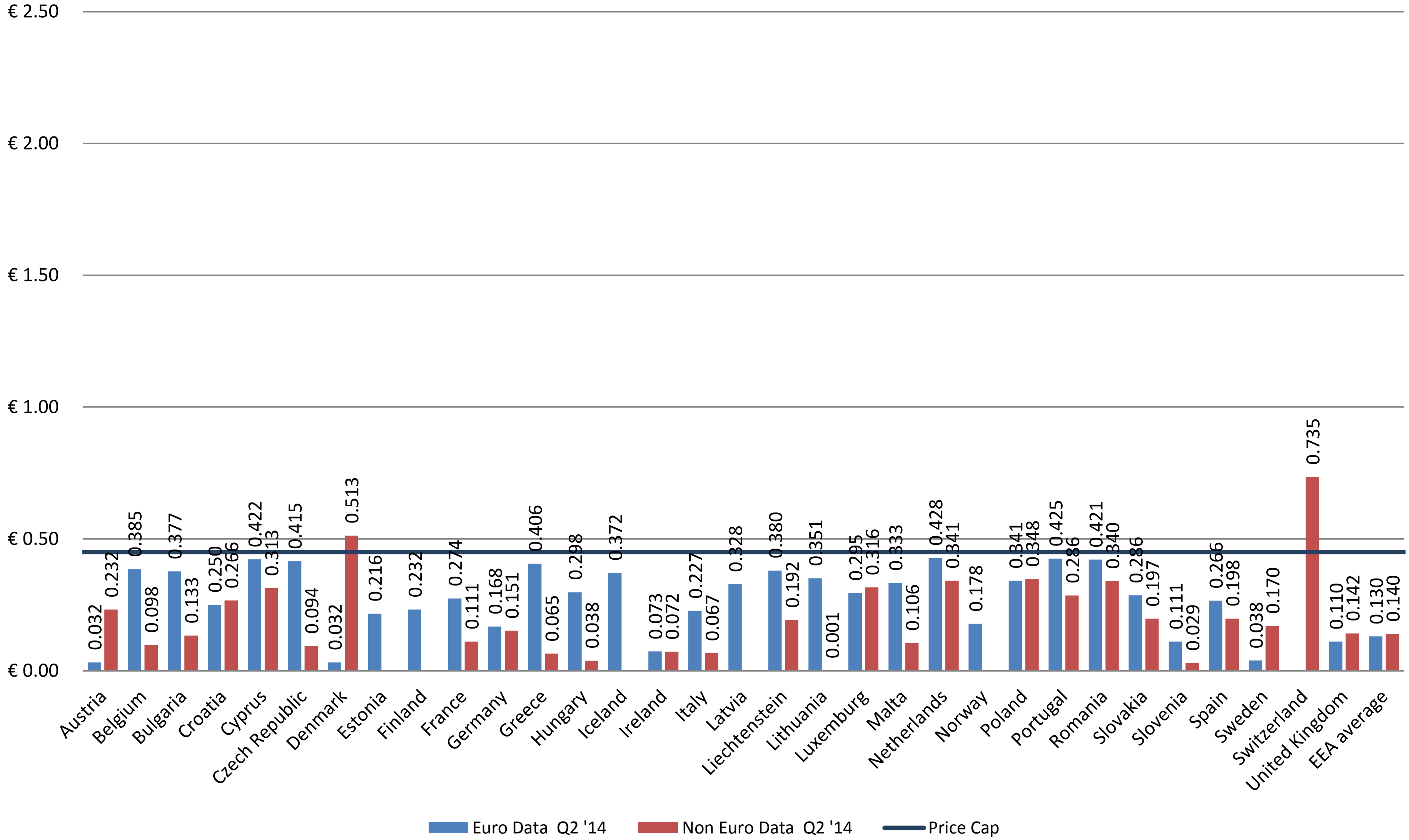


Figure 35: Average retail data price per Mb in Q3 2014 (prepaid+postpaid)

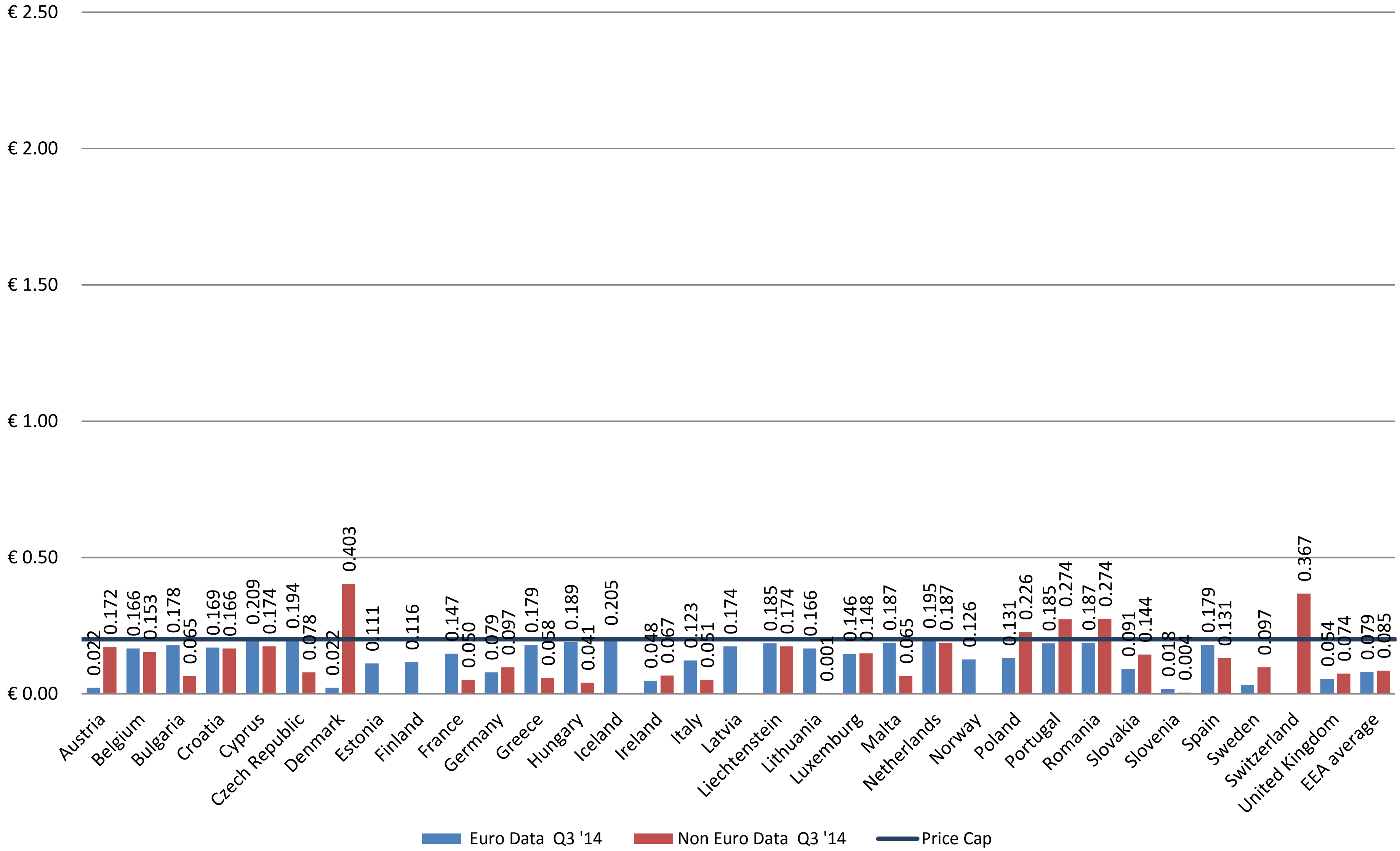
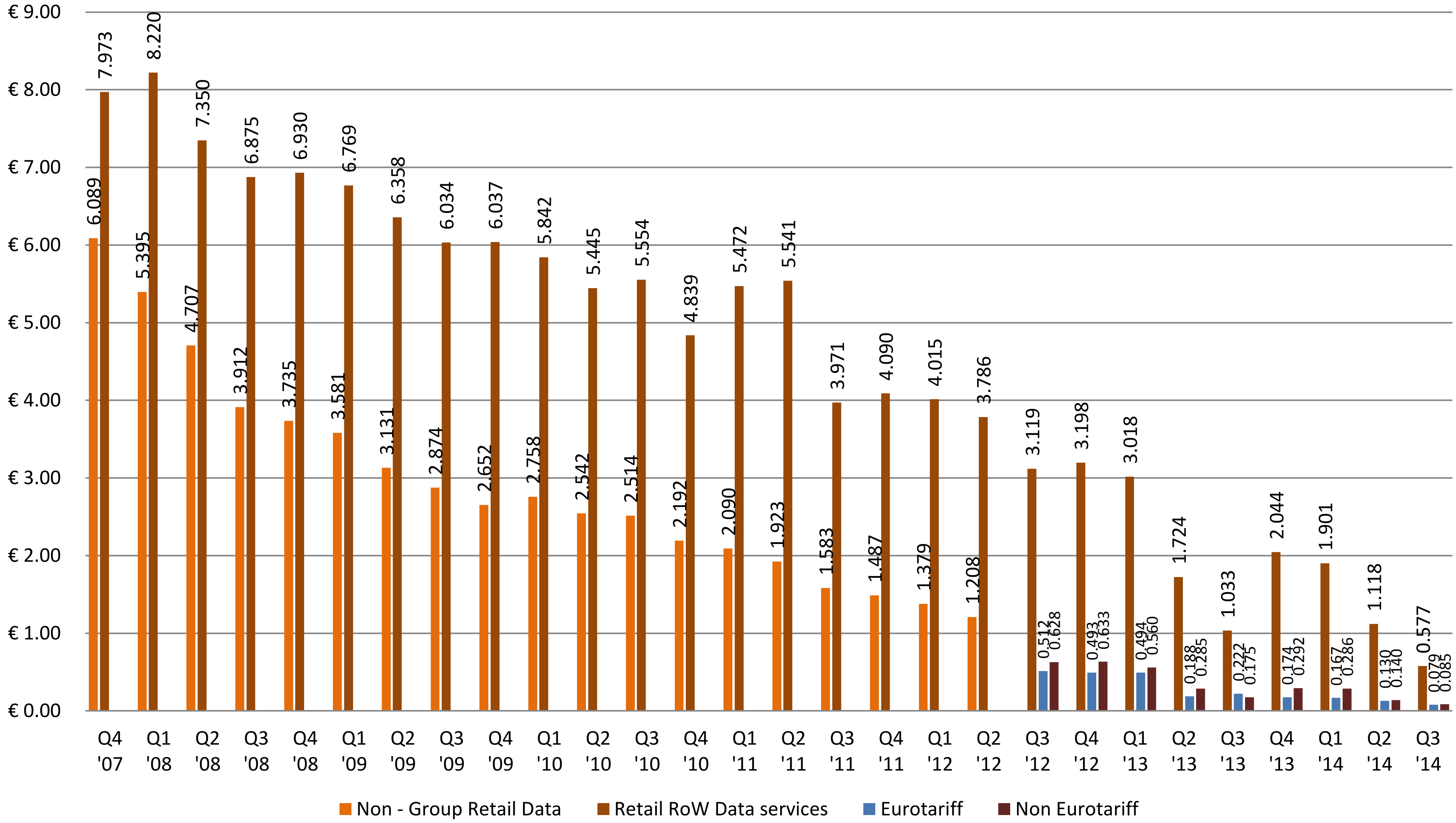


Figure 36: EEA average price per Mb for retail EU/EEA and RoW data (Eurotariff and Non Eurotariff: prepaid + postpaid)



Wholesale prices

Figure 37: Average wholesale data price per Mb (prepaid+postpaid), EEA average

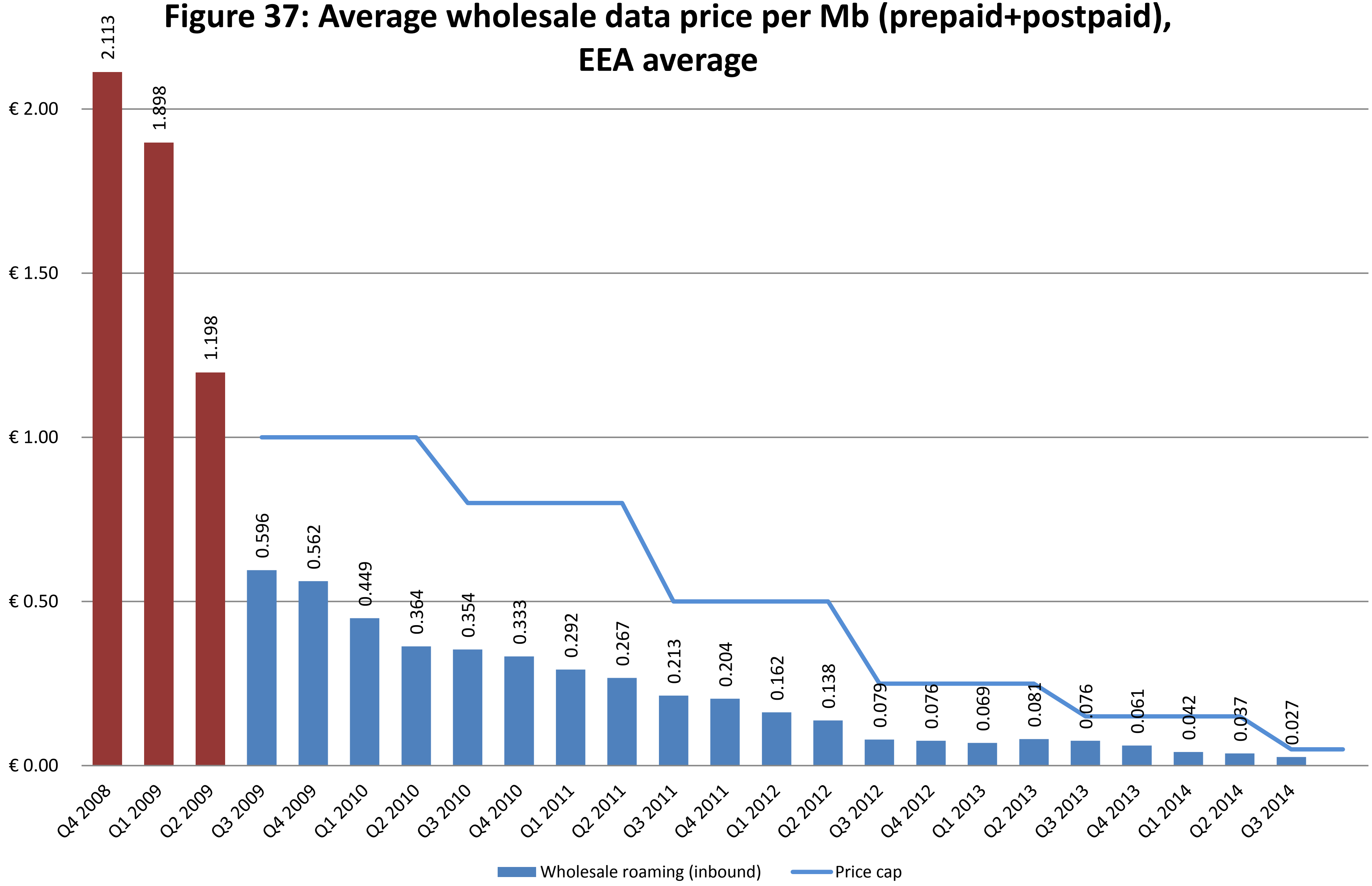


Figure 38: Average wholesale data price per Mb in Q2 2014 (prepaid+postpaid)

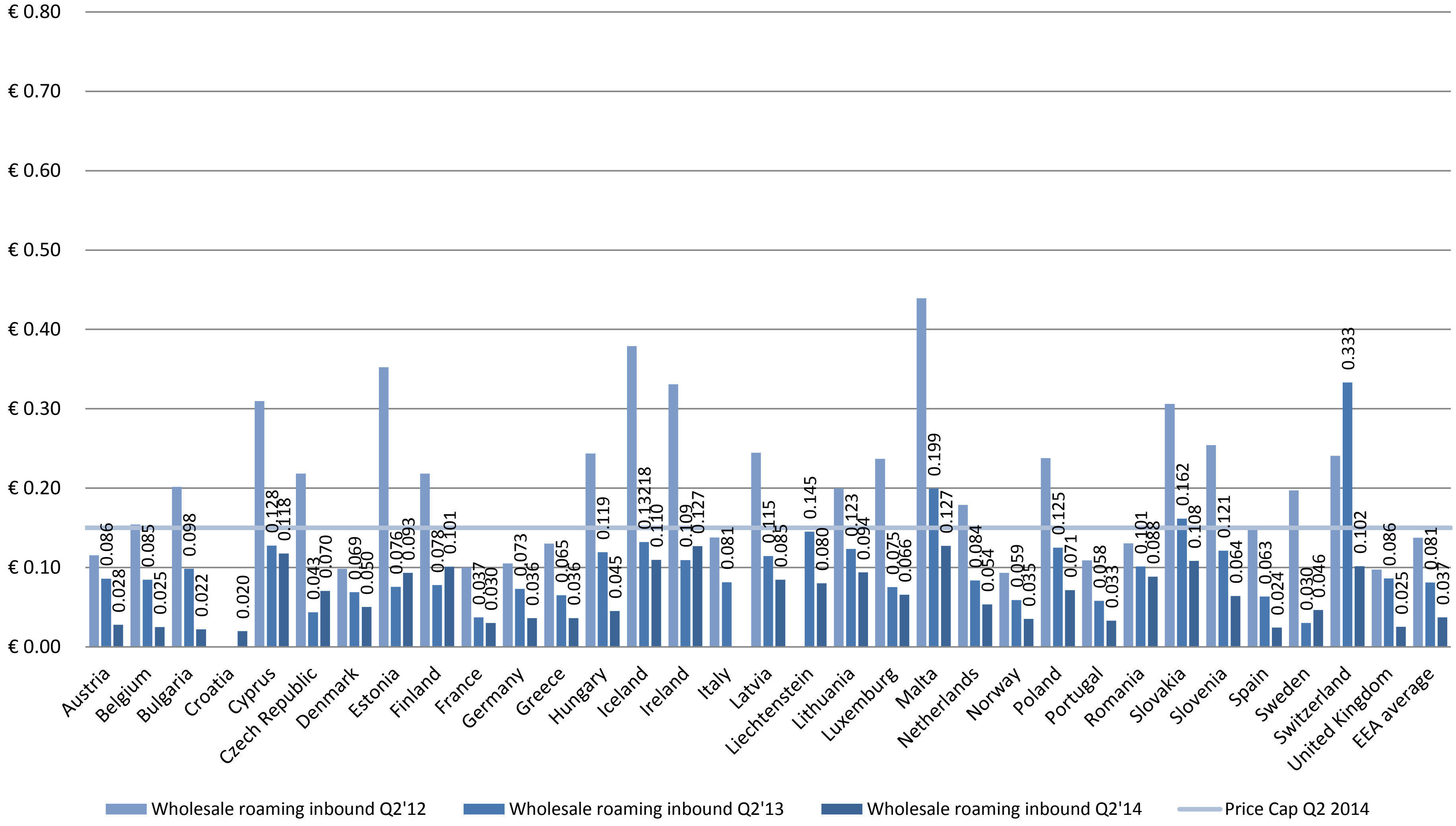
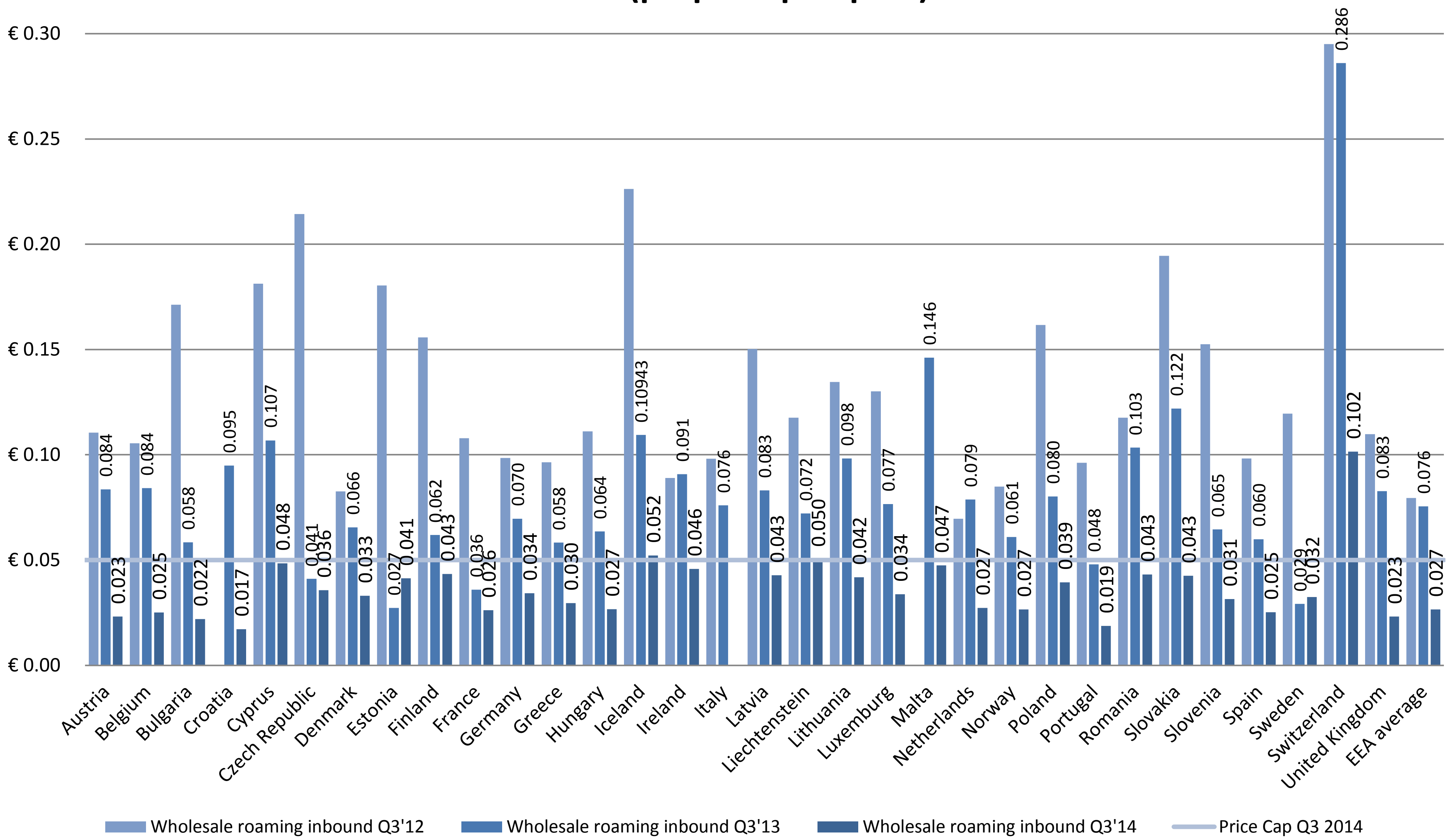
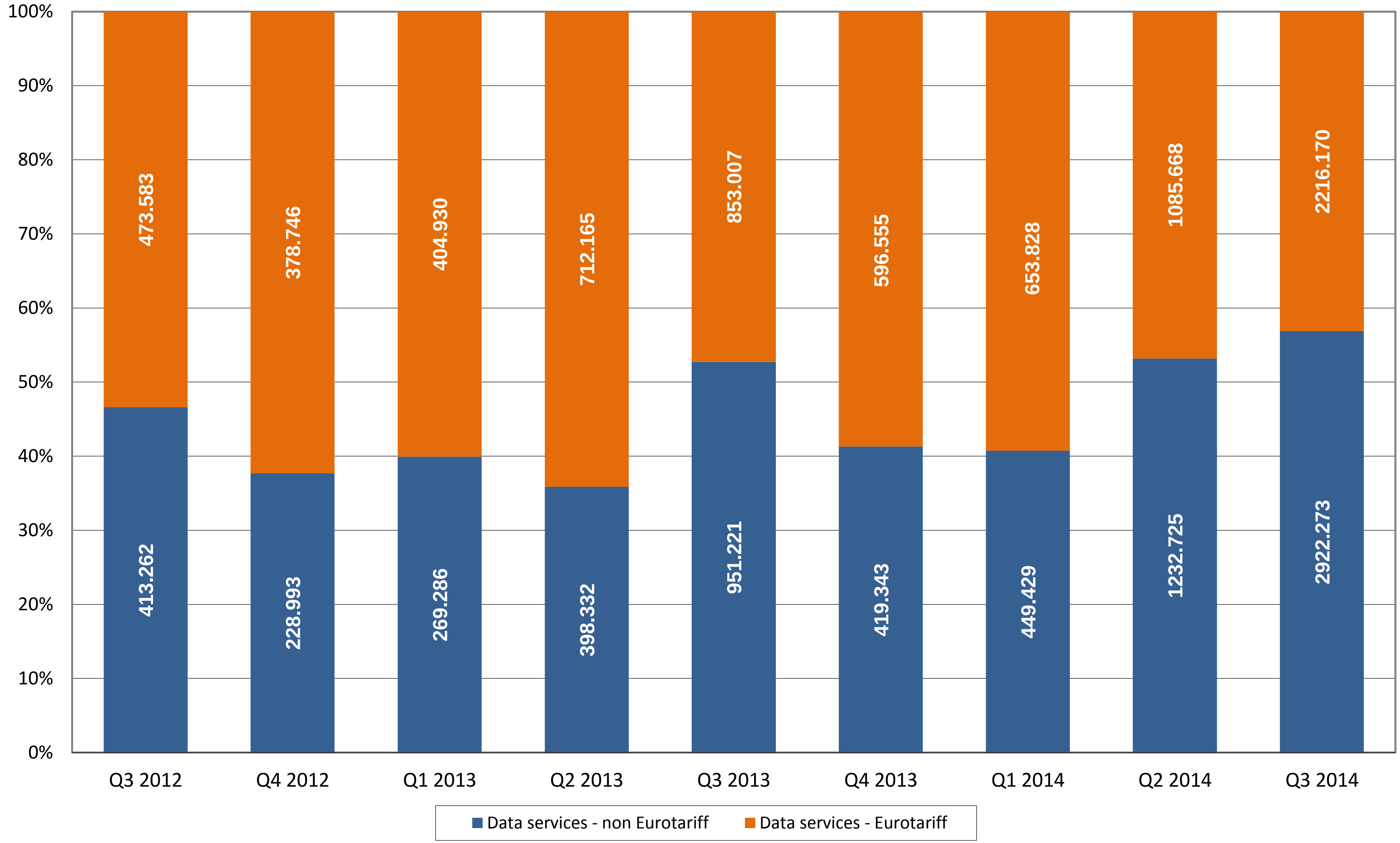


Figure 39: Average wholesale data price per Mb in Q3 2014 (prepaid+postpaid)



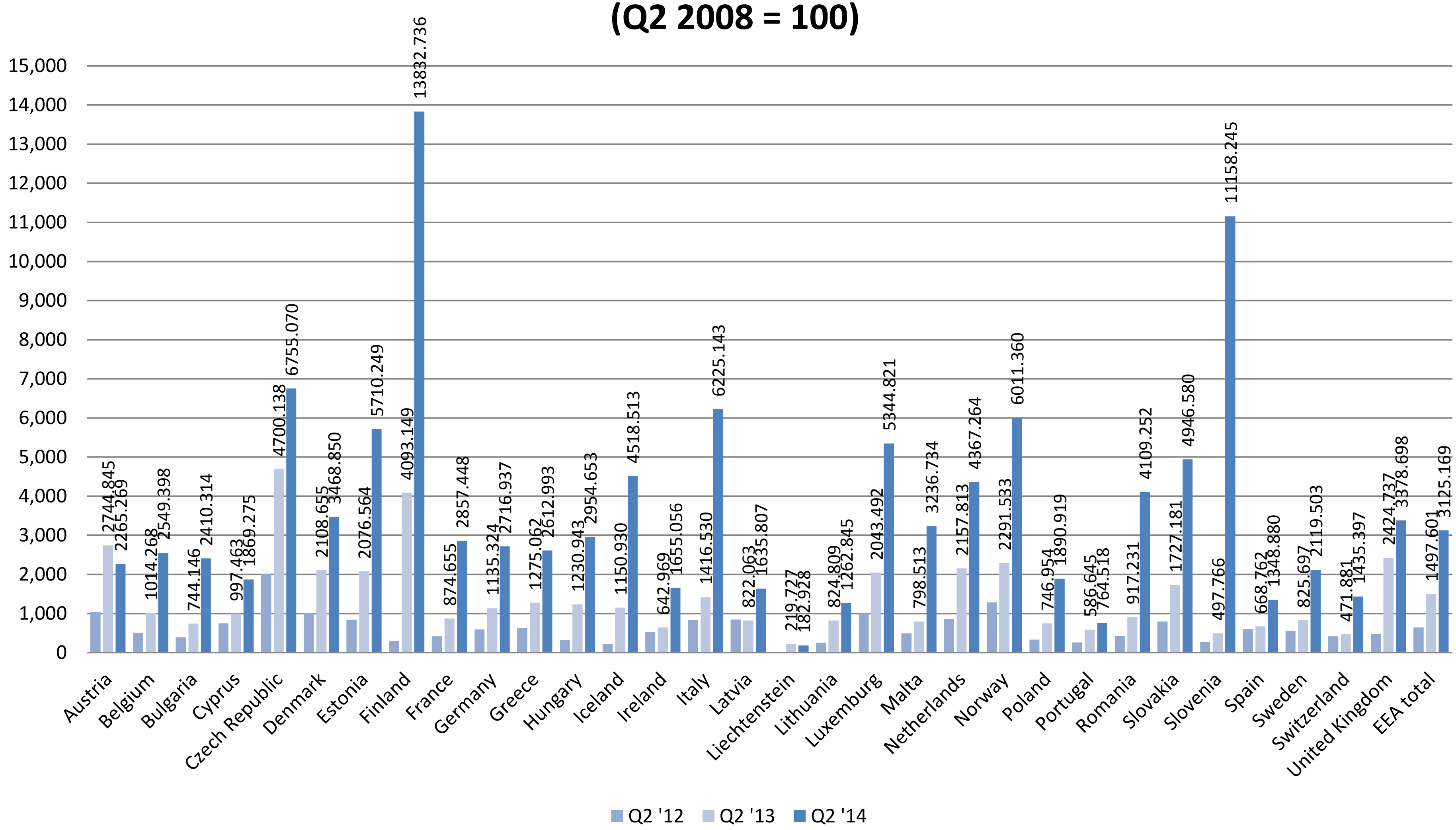
Percentage of volumes of Data from alternative tariffs over total data roaming volumes

Figure 40: EEA percentage of Data service: Eurotariff and Non Eurotariff



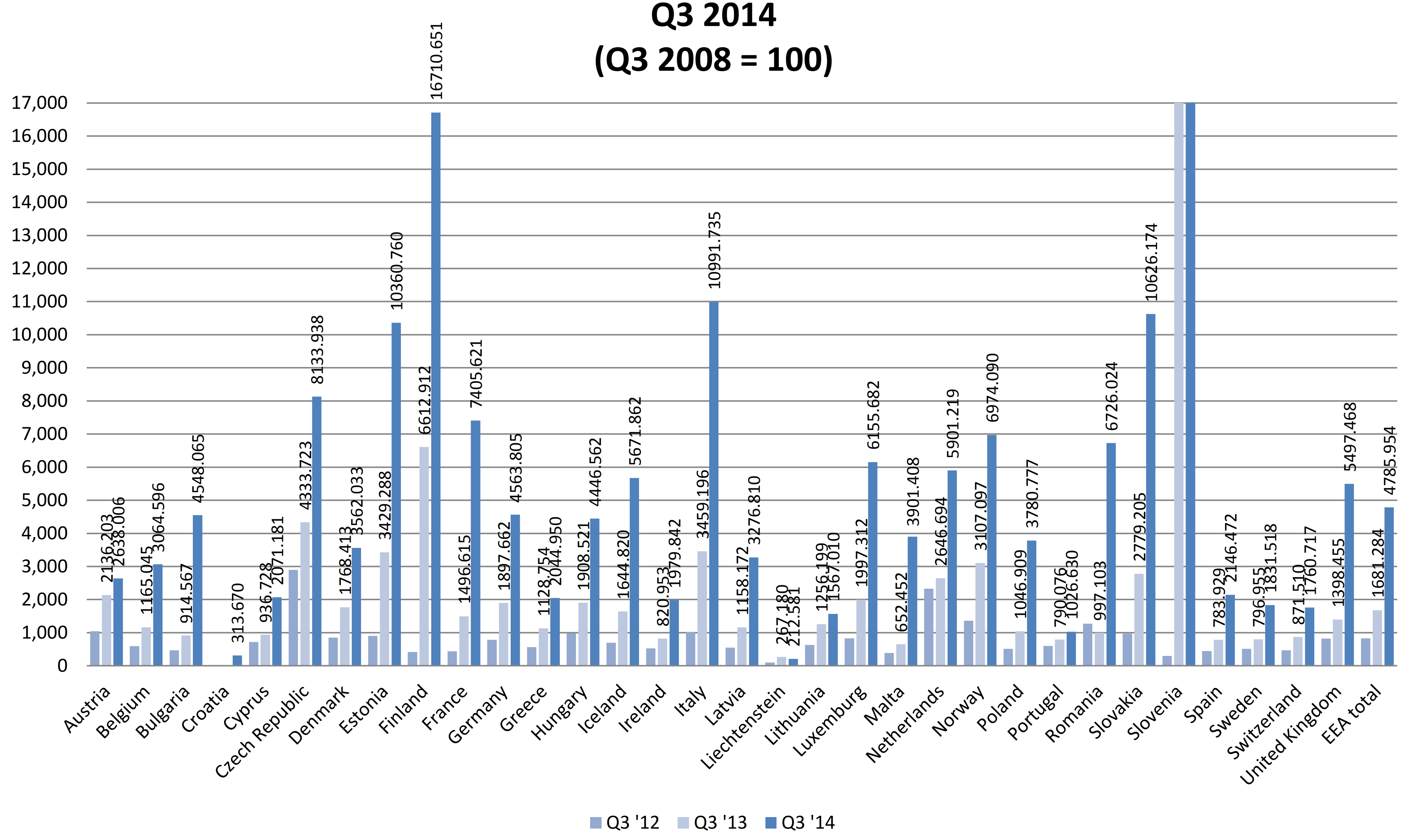
Volumes of retail Data services

Figure 41: Retail data traffic Index (prepaid+postpaid)
Q2 2014
(Q2 2008 = 100)



Liechtenstein based on Q2 2012 = 100

Figure 42: Retail data traffic Index (prepaid+postpaid) Q3 2014 (Q3 2008 = 100)



Croatia and Liechtenstein based on Q3 2013 = 100, Switzerland based on Q3 2009 = 100

Wholesale roaming (outbound): Agreements applying Article 3 of the Roaming Regulation

Figure 43: Wholesale averages outbound roaming: Voice: Agreements applying Article 3 Roaming Regulation

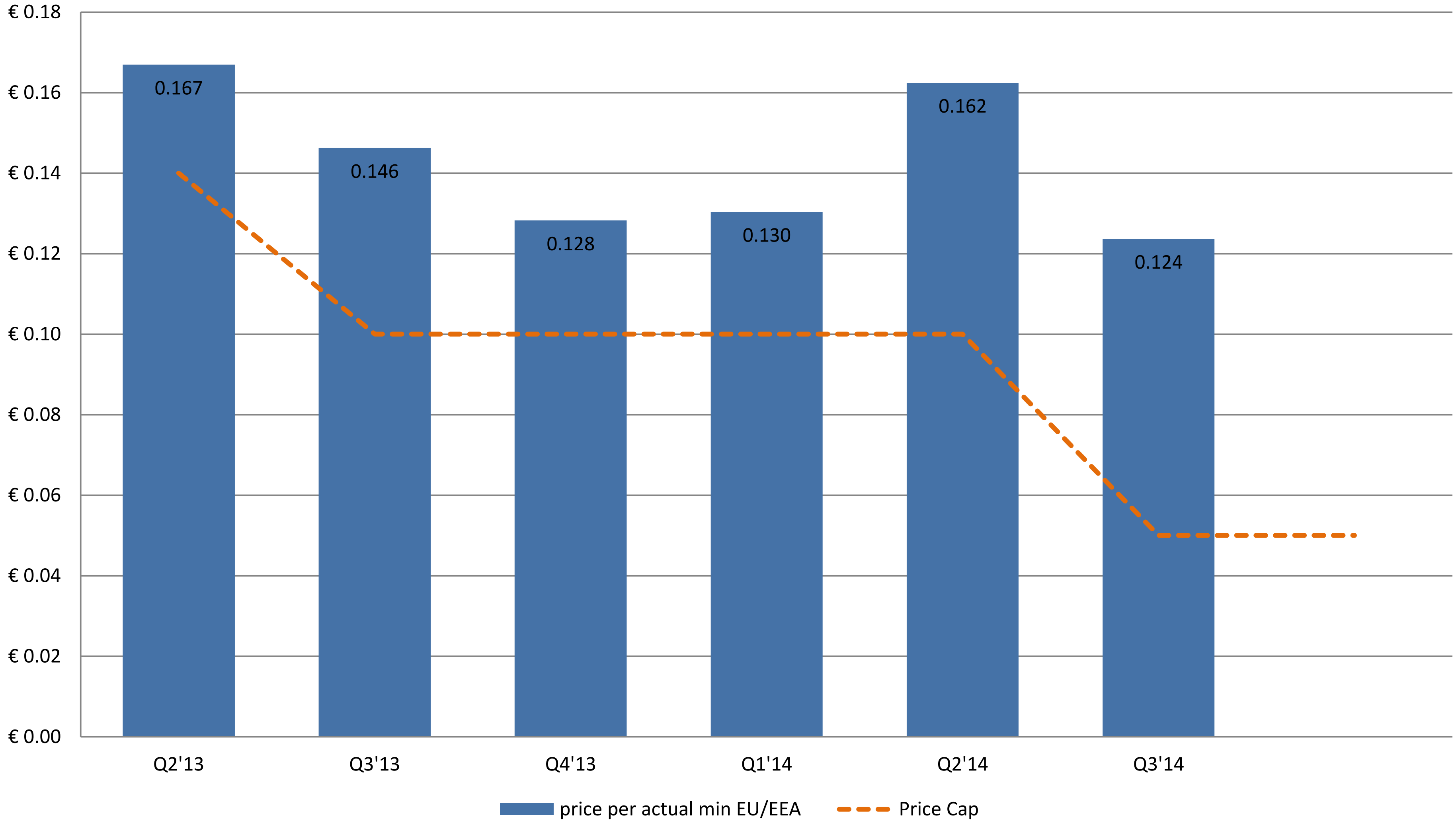


Figure 44: Wholesale averages outbound roaming: SMS Agreements applying Article 3 Roaming Regulation

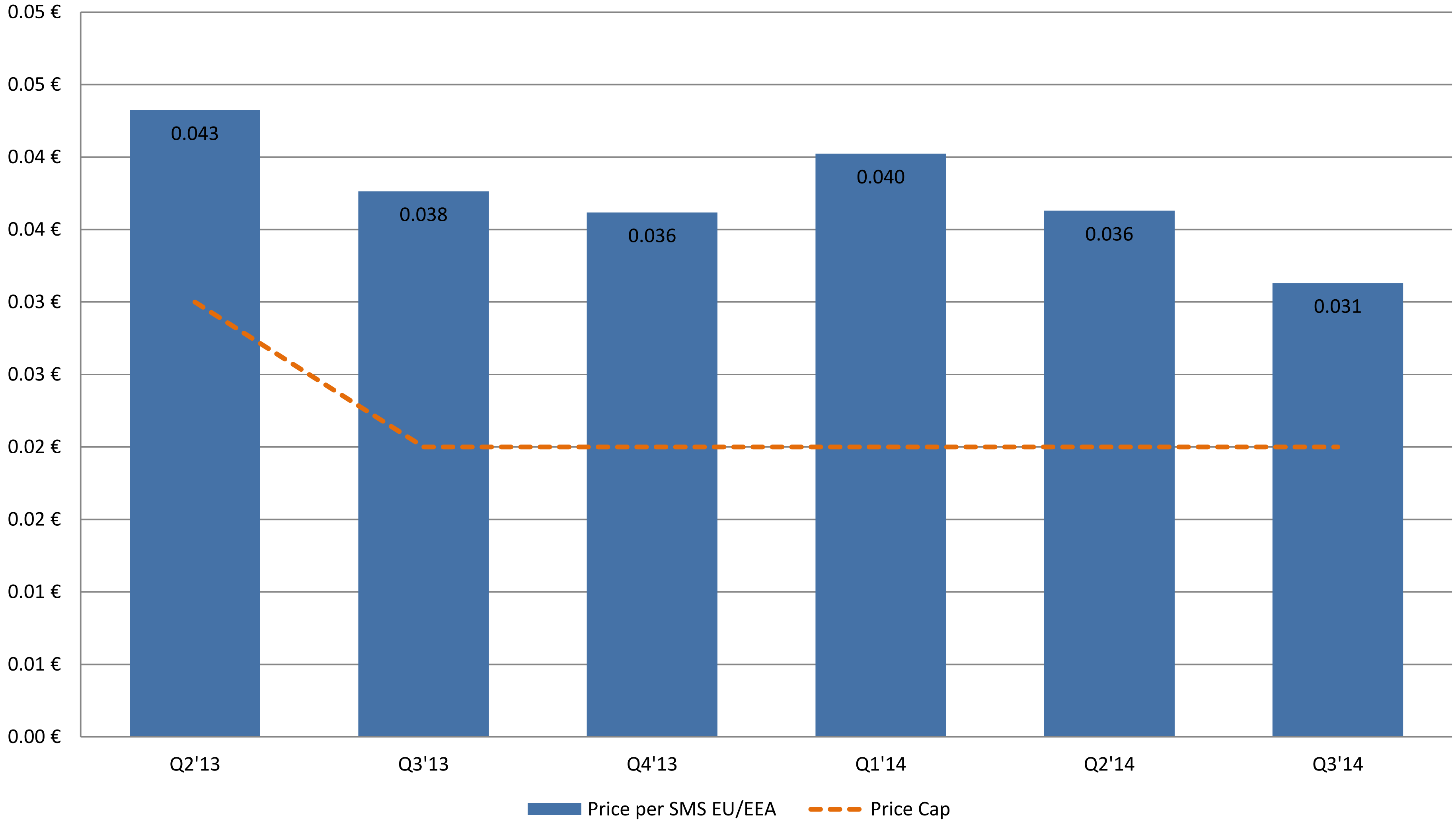
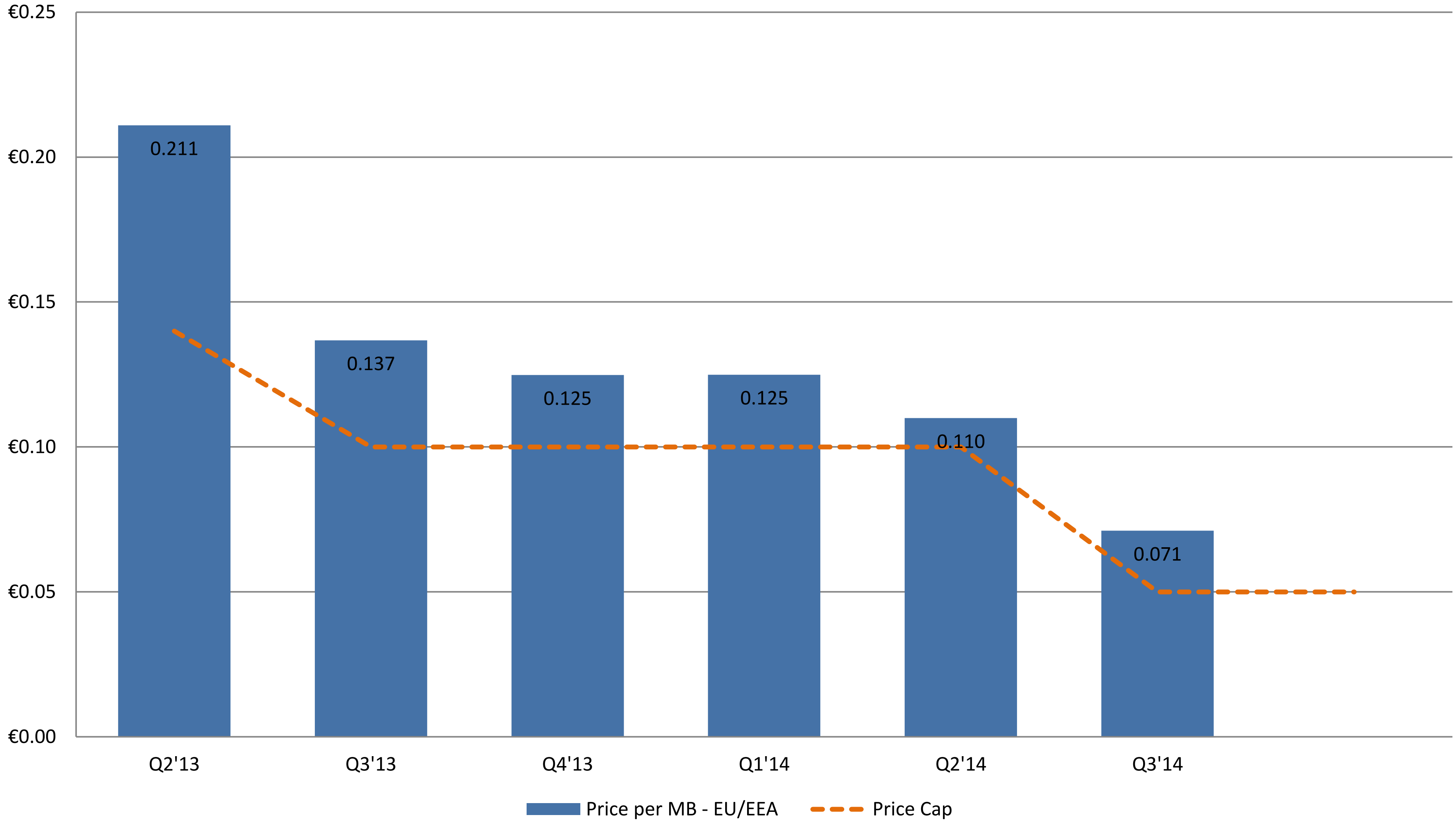


Figure 45: Wholesale EEA average outbound roaming: DATA, Agreements applying Article 3 Roaming Regulation



List of respondents

Operators that provided data for the period 1 October 2013–31 March 2014:

Austria
A1 Telekom Austria
T-Mobile Austria
Hutchison 3G Austria
Lycamobile

Belgium
Belgacom Mobile
KPN Group Belgium (Base)
Mobistar

Bulgaria
Bulgarian Telecommunication Company (Vivacom)
Cosmo Bulgaria Mobile, as of 28 October 2014 renamed to Telenor Bulgaria
Mobiltel

Croatia
Hrvatski Telekom
Vipnet
Tele2

Cyprus
Cyta
MTN Cyprus
Primetel

Czech Republic
BEI MULTIMEDIA INTERACTIVE
Bonerix
CENTROPOL TELECOM
CZECH NEWS CENTER
ČEZ Prodej
O2 Czech Republic
SAZKA
TERMS
Tesco Mobile ČR
T-Mobile Czech Republic
Vodafone Czech Republic

Denmark
Hi3G Denmark
TDC
Telenor
TeliaDanmark

Estonia
AS EMT
Elisa Eesti
OÜ Top Connect
TELE 2 Eesti

Finland
Ålands Telekommunikation
DNA
Elisa Corporation
TeliaSonera Finland

France
SFR
Bouygues Telecom
Orange Caraïbe
Orange France
Free Mobile
El Telecom
Lycamobile
SRR

Germany
E-Plus Mobilfunk
Telefónica Germany
Telekom Deutschland
Vodafone D2

Greece
COSMOTE Mobile
Vodafone Panafon
Wind HellasTelecommunications

Hungary
Telenor Magyarország

T-Mobile
Vodafone Magyarország
Tesco Mobile

Iceland
Nova
Síminn
Vodafone Iceland

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

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

Liechtenstein
Datamobile
Orange (Liechtenstein)
Telecom Liechtenstein
Swisscom (Schweiz)

Lithuania
BitėLietuva
Eurocom
Omnitel
Tele2
Teledema

Luxembourg
Entreprise des postes et télécommunications
Post Télécom
Tango
Orange Communications Luxembourg
Luxembourg Online Mobile
Transatel Lux.

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

Netherlands
KPN
Lebara
Lycamobile Distribution
Tele2 Netherlands
T-Mobile Netherlands
Vodafone Libertel

Norway
Telenor
TeliaSonera Norge
Network Norway
Tele2
MyCall
Ventelo
OneCall

Poland
P4
Polkomtel
T-Mobile Polska
Orange Polska

Portugal
CTT – Correios de Portugal
NOS Comunicações, S.A
MEO – Serviços de Comunicações e Multimédia,S.A.
Vodafone Portugal – Comunicações Pessoais.S.A.
LycaMobile Portugal,Lda
Mundio Mobile (Portugal) Limited

Romania
Telekom RMC
Orange Romania
RCS&RDS
Vodafone Romania

Slovak Republic
O2 Slovakia
Orange Slovensko
Slovak Telekom

Slovenia
Debitel
Izi mobil
Si.mobil
T-2
Telekom Slovenije
Telemach
Tušmobil

Spain
Euskaltel
Orange
TelefónicaMóviles de España
Vodafone
Yoigo

Sweden
Hi3G Access
Telenor Sverige
TeliaSonera

Switzerland
Orange Communications
Sunrise Communications
Swisscom (Schweiz)

United Kingdom
3 UK
O2 UK
Everything Everywhere
Vodafone UK
Tesco Mobile
Virgin Mobil