

International Roaming

ERG Benchmark Data Report for
April 2008 – September 2008

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Contents

Section		Page
1	Executive Summary	3
2	Introduction	6
3	Overall data summary	9
4	Further Issues	34
 Annex		 Page
1	Explanations for missing or outlying data	35
2	Exchange Rates outside of the Eurozone	37
3	List of respondents	39

Section 1

Executive Summary

1.1 The Regulation on international roaming services (Regulation (EC) No 717/2007¹) has generally been implemented with a high level of compliance in all EU Member States. All consumers have access to a voice Eurotariff with capped maximum rates. Information gathered by the European Regulators Group (ERG) suggests that average wholesale charges (set between operators) are also in line with the regulated cap.

1.2 The active provision of tariff information through “push” SMS services and the ability to receive personalized tariff information through a free of charge phone number has been implemented successfully by all providers.

ERG Benchmark Report on International Roaming

1.3 This ERG Benchmark Report on International Roaming (the “Report”) presents the results of the third round of data collection on European international roaming services undertaken by ERG, covering the period 1 April 2008 to 30 September 2008. As such it covers the first full peak travel season with the Regulation in force, and completes a year’s data on implementation. This gives the first opportunity to compare volumes from the period before implementation of the Regulation with the same period a year later, after implementation. It also includes data from the previous rounds of data collection for comparison purposes.

1.4 This and subsequent Reports will provide information on the evolution of wholesale and retail prices for voice, SMS and data roaming services. This is intended to provide a sound evidence base for the Commission’s review of the Regulation and for any decisions regarding its extension in duration and scope, as proposed by the European Commission in September 2008.

1.5 The third ERG data collection provides evidence that national averages for wholesale and retail Eurotariff voice prices were in full compliance with the Regulation in all Member States. Average retail prices remain at or just below the maximum cap in around two thirds of Member States, however. At the wholesale level, there was a clear decrease in the average rate in all countries compared to pre-Regulation. For SMS there appears to have been little movement in prices in most Member States, at the retail and wholesale levels. The average data price per megabyte shows a diverse picture, particularly at the retail level where the differences in price between countries remain large. At the overall ERG level, however, both retail and wholesale prices for data roaming have been following a significant downward trend between the fourth quarter of 2007 and the third quarter of 2008.

1.6 There is also an indication that Eurotariff voice minutes billed exceeded actual elapsed minutes by a significant margin (typically 25% at the retail level for calls made and 19% for call received) as a consequence of the practice of many providers of using charging intervals of more than one second. At the wholesale level, voice minutes billed exceeded

¹ http://eur-lex.europa.eu/LexUriServ/site/en/oj/2007/l_171/l_17120070629en00320040.pdf

actual elapsed minutes by around 23%. These results are broadly consistent with those previously reported.

Evidence of market forces at work

1.7 For voice there is limited evidence of market forces at work. Prices are rather stable and mostly clustered just below the respective caps. For SMS, market forces are even less in evidence, given the stability of the prices in almost all countries surveyed.

1.8 The picture is however very different for data roaming. The average unregulated wholesale and retail charges fell significantly between the fourth quarter of 2007 and the third quarter of 2008. However, while the European averages have fallen over this period, Figures 12, 13 and 14 show that this has not been the case throughout Europe. There is also significant price variation across Europe for which an objective explanation is not apparent.

1.9 In responding to the Commission consultation, ERG² identified some arguments to support the proposition that market forces would be stronger for data roaming than had proved to be the case for voice and SMS. The data collection tends to confirm the validity of this analysis, although it is not yet clear how effective these forces will be in further reducing prices in future, especially in some countries. In its consultation response, ERG also noted that it would be difficult to assess the extent to which threats of regulatory intervention had stimulated the price cuts.

²http://erg.eu.int/doc/publications/erg_08_35rev1_resp_intern_roaming_cons_080729.pdf

Section 2

Introduction

2.1 The European Regulators Group (ERG) has been at the forefront of tackling the long standing issue of high prices for international roaming services. 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.

The Regulation

2.2 On 8 February 2006, Commissioner Reding announced an intention to Regulate International roaming services with a “call for input” on how this might be undertaken³. ERG responded⁴ to the Commission’s proposals.

2.3 After significant debate, the final Regulation on international roaming services was published on 29 June 2007. The primary provisions cap wholesale and retail charges and set a number of transparency provisions, helping to ensure that consumers are well informed. The provisions of the Regulation entered into force at different times, with wholesale provisions starting at the end of August 2007, and retail and transparency provisions taking full effect at the end of September 2007.

2.4 On 23 September 2008, the Commission published a proposal to extend the current Regulation in duration and scope⁵. In particular, the Commission proposed from July 2009 to July 2013:

- extended 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
- safeguard price regulation of data roaming services at the wholesale level

And from July 2010 to July 2013:

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

2.5 This followed a consultation by the Commission launched on 7 May 2008. ERG’s views, as set out in its 28 July 2008 response to that Consultation,⁶ were substantially reflected by the Commission in its legislative proposal.

³http://ec.europa.eu/information_society/activities/roaming/roaming_regulation/first_phase/index_en.htm

⁴http://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

⁵http://ec.europa.eu/information_society/activities/roaming/docs/regulation/reg_en.pdf

⁶http://erg.eu.int/doc/publications/erg_08_35rev1_resp_intern_roaming_cons_080729.pdf

This Report

2.6 According to the current Roaming Regulation, in particular Art.7 and Art.11, individual NRAs are required, “...to monitor developments in wholesale and retail charges” (Art.7.3), and the Commission, “...to report to the Parliament and the Council no later than 30 December 2008”, on the functioning of the Regulation making use, if appropriate, “...of the information supplied pursuant to Article 7(3).” (Article11.1).

2.7 Although the obligations are addressed to individual NRAs, ERG considers it adds value by pursuing the following objectives:

- To simplify the process, not only for NRAs by acting as a central point for the data collection, but also for the Commission by providing it with data from a single source and following data processing, whereby ERG gathers all the information and checks it for inconsistencies
- To coordinate the actions of individual NRAs by using a single and commonly agreed data collection model, a synchronised process and the same collection periods
- To, as far as possible, provide a common response to questions posed during the collection process by operators and NRAs by providing a central forum where these questions may be debated and addressed

2.8 In addition, ERG considers it important to collect and publish a wider range of information than that explicitly set out in Articles 7 and 11 in order to give a full picture of the effect of the Regulation and the state of evolution of the roaming market. ERG therefore consulted not only the market players (during September 2007) but also the Commission before finalising its data collection template.

2.9 ERG believes that the information collected in existing and subsequent Reports should provide a sound basis for review of the Regulation and for any decisions regarding its extension.

2.10 This Report is the third in a series of reports that ERG will produce providing an overview of international roaming across the EU. This Report covers the period April 2008 to September 2008. It covers the first full peak travel season with the Regulation in force, and completes a year’s data on implementation. It gives the first opportunity to see developments in the volume of roaming services used by consumers.

2.11 ERG has also included data from its previous Reports (covering April 2007 – March 2008) for comparison. ERG considers that the data collected from just before the implementation of the Regulation can serve as a “benchmark” against which data from after 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; in particular, comparing subsequent periods without taking seasonality into account could lead to invalid conclusions.

2.12 Following publication of the first⁷ and second⁸ Reports, some operators provided more accurate data for the periods from April 2007 to March 2008. These updates have been incorporated into the data used in this Report, which may create some inconsistencies with the previous Reports. In such cases, the data from this Report take precedent.

Methodology for data collection

2.13 ERG consulted on a draft version of its data collection questionnaire during September 2007. Following comments received, ERG amended the data questionnaire sent to providers⁹ with an accompanying Explanatory Memorandum in October 2007. Information gathered as part of this exercise has been used in the formulation of the Reports.

2.14 After the first round of data collection and publication of the first Report, the questionnaire was slightly altered to gain a better understanding of the difference between group and non-group data roaming prices and SMS roaming prices at the retail level. Further minor changes were made in the third questionnaire in order to improve consistency between different operators.

2.15 The information gathered for this Report covers both retail and wholesale prices 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 ERG. Therefore, only national aggregated data appears in this Report.

2.16 Well over 100 providers of international roaming services provided information for this Report. These include virtually all mobile operators in the EU, as well as a significant number of MVNOs that provide roaming services in the EU¹⁰. ERG estimates that this covers over 95% of EU consumers using international roaming services today.

Format of the Report

2.17 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 provides a summary of compliance issues reported to NRAs and outlines the proposals for future data collections. Annex 1 gives explanations for some “anomalous” results that may not be a fair reflection of reality. Annex 2 explains how countries outside of the Eurozone applied the Euro exchange rate when reporting data for this Report. Annex 3 lists the providers that supplied information to NRAs for inclusion in this Report.

⁷ http://erg.eu.int/doc/publications/erg_07_85_intl_roaming_rep.pdf

⁸ http://erg.eu.int/doc/publications/erg_08_36_intern_roam_rep_080812.pdf

⁹ 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

¹⁰ Operators and MVNOs from Norway and Iceland (which adopted the Regulation in January 2008) also contributed to the data collected for this Report.

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 Regulation to those countries from December 2007. 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 this and previous ERG data collections, and provides an overview of international roaming for the period 1 April 2007 to 30 September 2008, split by calendar quarter.

3.3 Given that the provisions of the Regulation did not take full effect until the end of September 2007, the data for the first Report was collected on a “best efforts” basis and should not be considered complete or comprehensive. For the second and third collections, unfortunately some providers were still unable to provide all of the data requested, despite the expectation expressed by NRAs that they would upgrade their systems in time for the second data collection. In some cases this has led to best estimates being provided where actual data are not available, or no data being provided if estimates are considered too imprecise. However, these system deficiencies do not appear to have a material impact on the overall results.

3.4 The third Report is the first Report to show the effects of a full year's implementation of the Regulation. ERG considers the data shows the successful implementation of both the wholesale and retail voice roaming caps, consistent with the requirements of the Regulation.

Voice roaming

3.5 For intra-EEA roaming voice calls (Figures 1-4), there is limited evidence of market forces at work. Wholesale prices have been set, on average, a few cents below the cap. On the other hand, there seems to have been little movement since the beginning of 2008 whereas input costs continue to fall, mainly as a consequence of reductions in regulated termination rates (see Figure 22). At the retail level, Eurotariff rates tend to have clustered just below the respective caps. However, European average rates for special tariffs – which may provide more attractive rates for customers with particular calling patterns – have proved to be a few cents lower. See Figures 20 and 21.

3.6 The average effect of billing unitisation for the Eurotariff (the practice of charging in units of more than a second) is similar to that reflected in the previous ERG Reports (Figure 7). On average, customers pay a “hidden surcharge” above their personal “headline” rate. Based on average prices in quarters two and three 2008, for Eurotariff calls made this mark-up was circa 25% and for Eurotariff calls received the mark-up came to 20%. The corresponding uplift at the wholesale level was about 24%.

3.7 The average price of retail roaming outside the EU/EEA (Figures 5 and 6) is significantly higher than the average price of intra-EU/EEA roaming. The reasons for the extent of the difference cannot at present be identified clearly. It has been suggested that higher wholesale rates charged by operators in third countries plays a large role. ERG also notes the considerable variation across Europe in average retail prices for roaming outside the EU/EEA. This may partly be attributable to the fact that some market players have favourable deals with their counterparts in neighbouring countries that are not members of the EU/EEA. These are effects that might usefully be looked at more closely in the future.

SMS roaming

3.8 If anything, there is less evidence of market forces at work on SMS prices (Figures 10 and 11). Average wholesale and retail prices for SMS roaming services have varied little over the last year. While there is considerable variation across Europe, the picture for most countries is stable.

Data roaming

3.9 European average wholesale data roaming prices have been on a downward trend since the first ERG data collection in quarter two 2007¹¹. Furthermore, the distribution of prices has narrowed for the second and third quarters of 2008 compared to previous quarters. Average retail prices have a wider distribution, with some countries still experiencing much higher prices than the European average. The overall European trend in retail prices since quarter two 2007 is downwards, nonetheless. While the downward progress of the European average retail price has been reasonably smooth, the corresponding national reductions have been less regular. The average European reductions were significant – about 33% at wholesale level, 42% for retail roaming on-net and 23% for retail roaming off-net¹²

Volume changes

3.10 This is the first Report to consider the trend in volume of roaming services used. That is because, due to the significant seasonal variation in demand for roaming services, it was necessary to be able to compare data for the same quarters in consecutive years. Therefore some additional charts have been included in this Report.

3.11 The data on volumes shows that, with a few minor exceptions, volumes are up year on year in all countries. This holds true for all services examined, regardless of whether they are subject to price regulation. A direct comparison of the developments in the volumes of regulated voice services and unregulated SMS services (for which prices have remained static) reveals a very similar trend. It is not clear how to interpret this and ERG is reluctant to draw definitive conclusions at this stage. It could imply that the assumption that some had made that price reductions would stimulate large increases in volumes does not hold water. On the other hand, the rise in SMS roaming volumes could also be seen as a natural consequence of the still increasing domestic SMS volumes in many member states.

General Comments

3.12 For ease of comparison, **all retail prices included in the charts below exclude VAT**. All averages are based on billed minutes of voice call or megabytes of data, unless expressly stated otherwise.

¹¹ ERG notes that the drop between the latest two quarters (quarter two and quarter three 2008) is smaller than the drops between previous quarters. It would however be premature to draw strong conclusions from the results of any one quarter, noting in particular that wholesale prices are usually negotiated on a yearly basis.

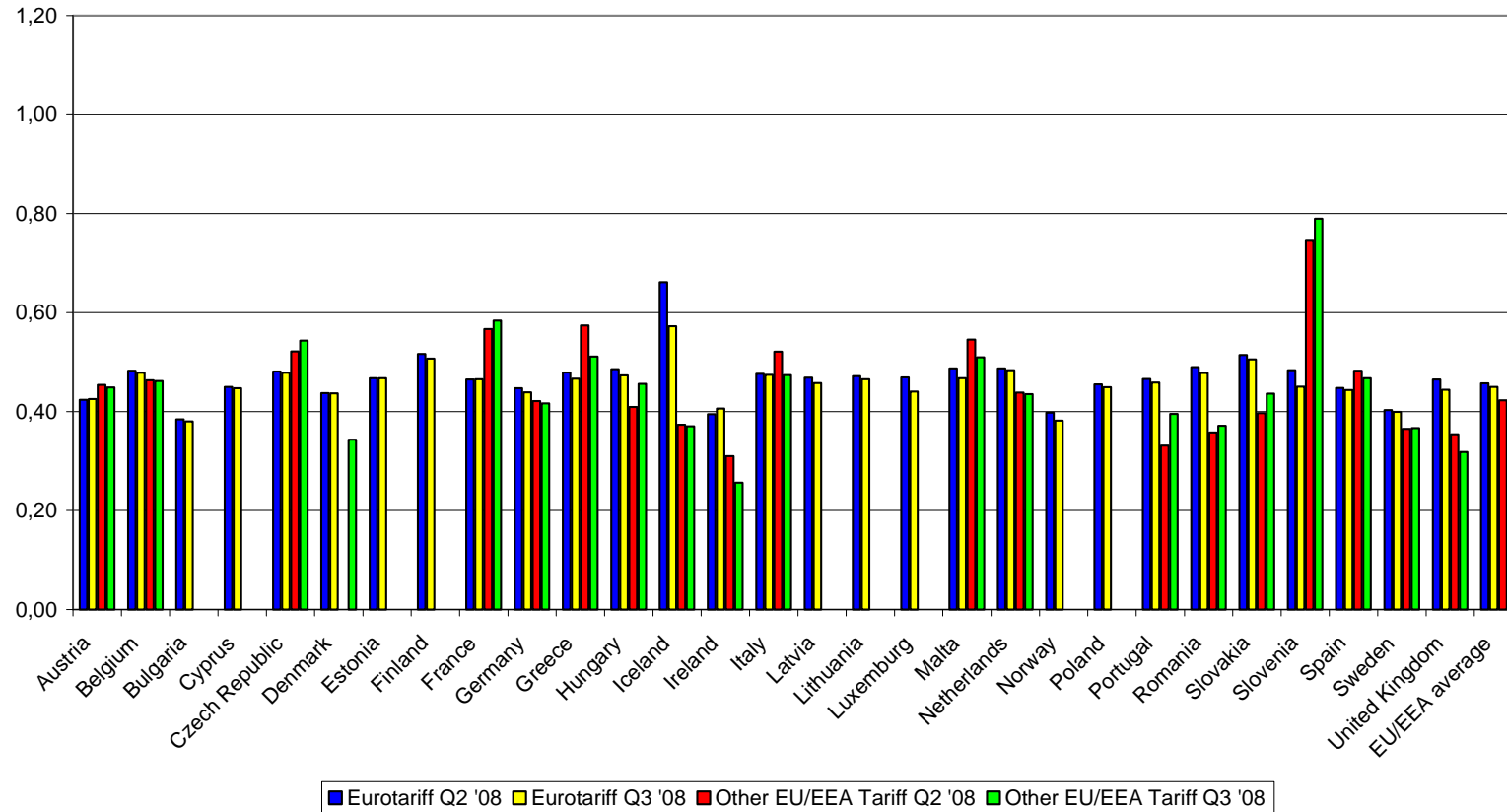
¹² "On-net" means roaming on the network of an operator within the same group as the home operator. "Off-net" means roaming on the network of an operator outside of the home operator's group.

3.13 For Figures 1 to 7 the data for voice calls only concerns pre-pay and post-paid consumers. Data for tariffs that fit the “special corporate” tariff¹³ definition is excluded from these graphs.

3.14 For explanation of some missing or “anomalous” results included in these charts, see Annex 1. For specific issues regarding exchange rates, see Annex 2.

¹³ For the purpose of the data collection “special corporate” is defined as an undertaking that has negotiated a bespoke tariff for roaming that is not available to individual customers (this is distinct from post-pay or pre-pay consumer tariffs).

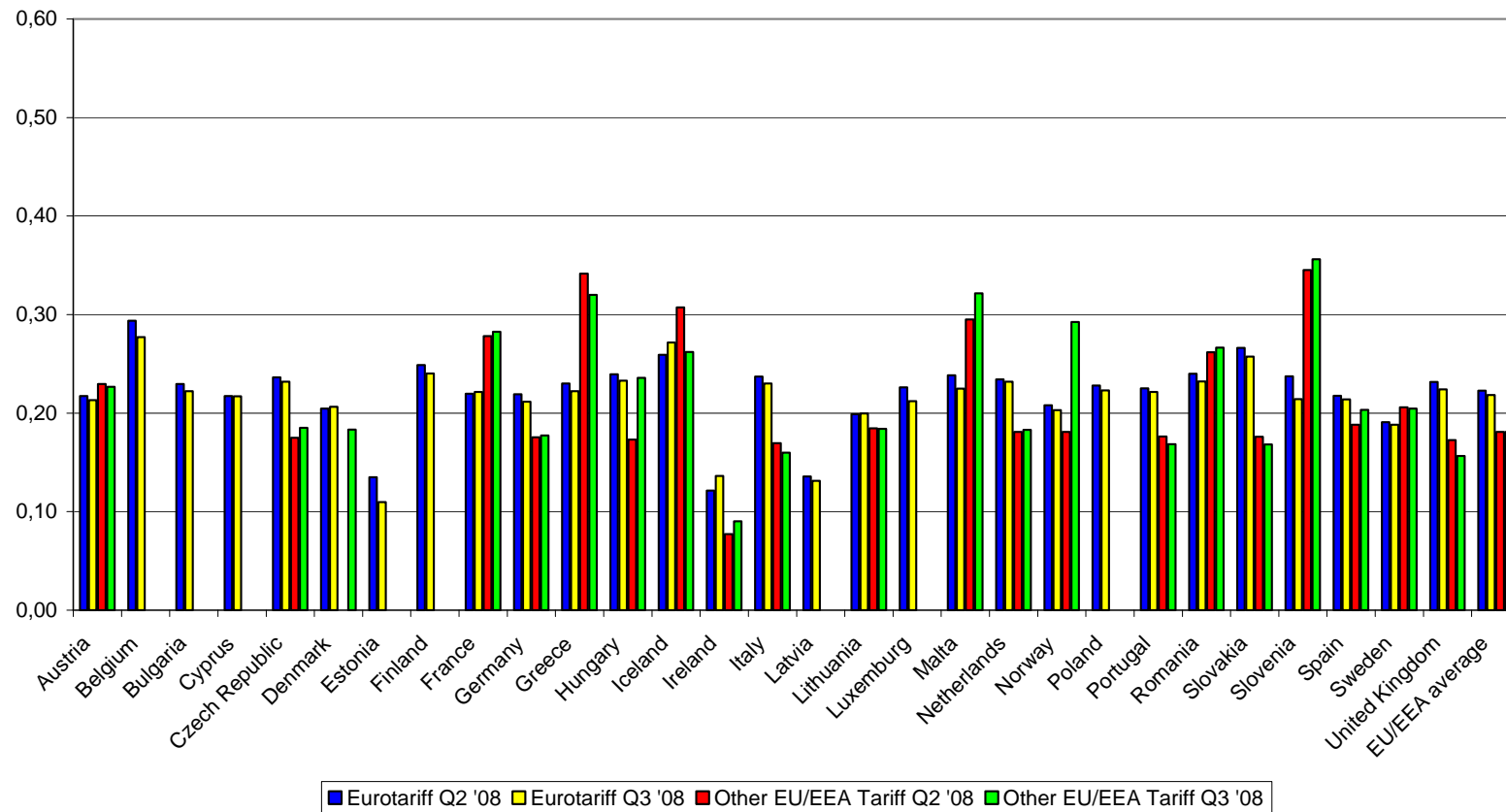
Figure 1: Average retail price per minute voice call made for for all consumers (excluding special corporate): Eurotariff and other EU/EEA tariffs (based on billed minutes)



EU/EEA average: Eurotariff Q2 2008 = € 0.457; Eurotariff Q3 2008 = € 0.450; Other EU/EEA tariffs Q2 2008 = € 0.423; Other EU/EEA tariffs Q3 2008 = € 0.410.

Figure 1 indicates that for calls made, the average Eurotariff was below the regulated tariffs of €0.49 and €0.46 (as of 30 August 2008). The chart also shows that the average price for alternative EU/EEA tariffs is at a slightly lower but similar level.

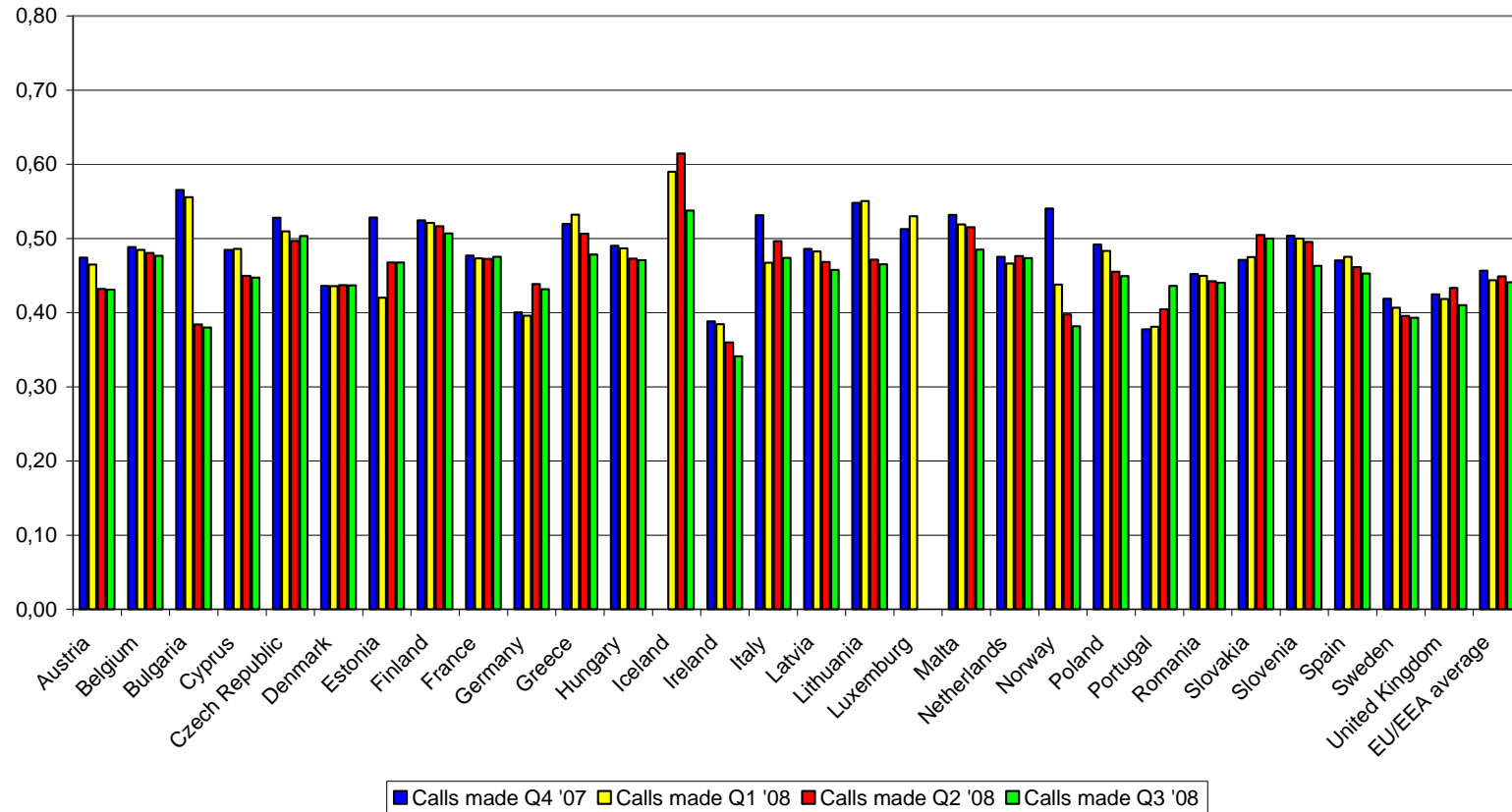
Figure 2: Average retail price per minute voice call received for all consumers (excluding special corporate): Eurotariff and other EU/EEA tariffs (based on billed minutes)



EU/EEA average: Eurotariff Q2 2008 = € 0.223; Eurotariff Q3 2008 = € 0.218; Other EU/EEA tariffs Q2 2008 = € 0.181; Other EU/EEA tariffs Q3 2008 = € 0.181.

Figure 2 indicates that for calls received, the average Eurotariff was below the regulated tariffs of €0.24 and €0.22 (as of 30 August 2008). The chart also shows that the average price for alternative EU/EEA tariffs is at a slightly lower level, although there is considerable variation by country.

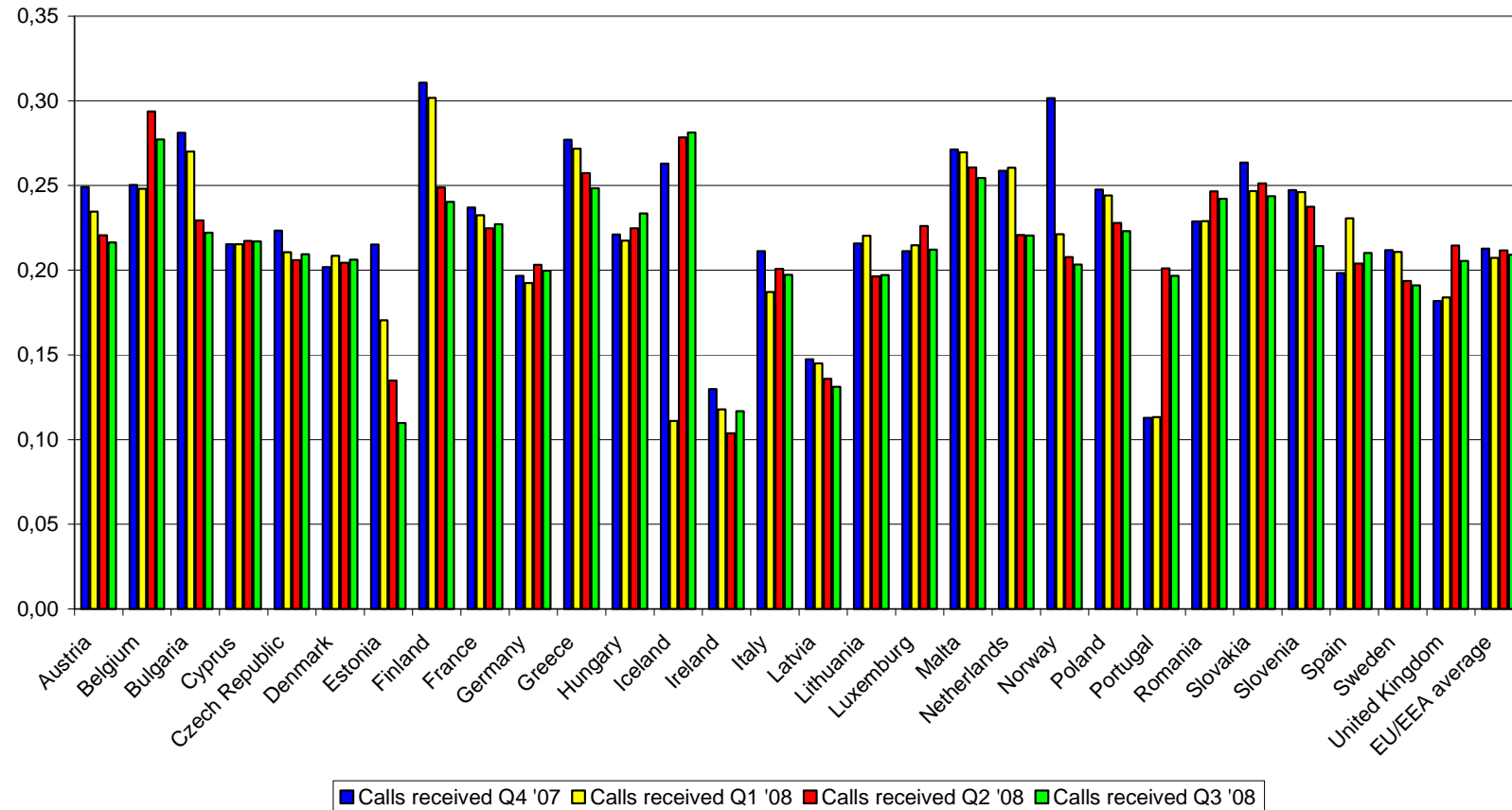
Figure 3: Average retail price per minute voice call made for all consumers (excluding special corporate): average of Eurotariff and other EU/EEA tariffs (based on billed minutes)



EU/EEA average: Q4 2007 = € 0.457; Q1 2008 = € 0.444 ; Q2 2008 = € 0.449; Q3 2008 = € 0.441.

Figure 3 shows that the average price for making voice calls within the EU (for both the Eurotariff and other EU/EEA tariffs) has been relatively stable after the implementation of the Regulation. For the EEA countries that implemented the Regulation at the beginning of 2008, a significant drop is noticeable, comparable to the drop seen for EU countries in the last Report.

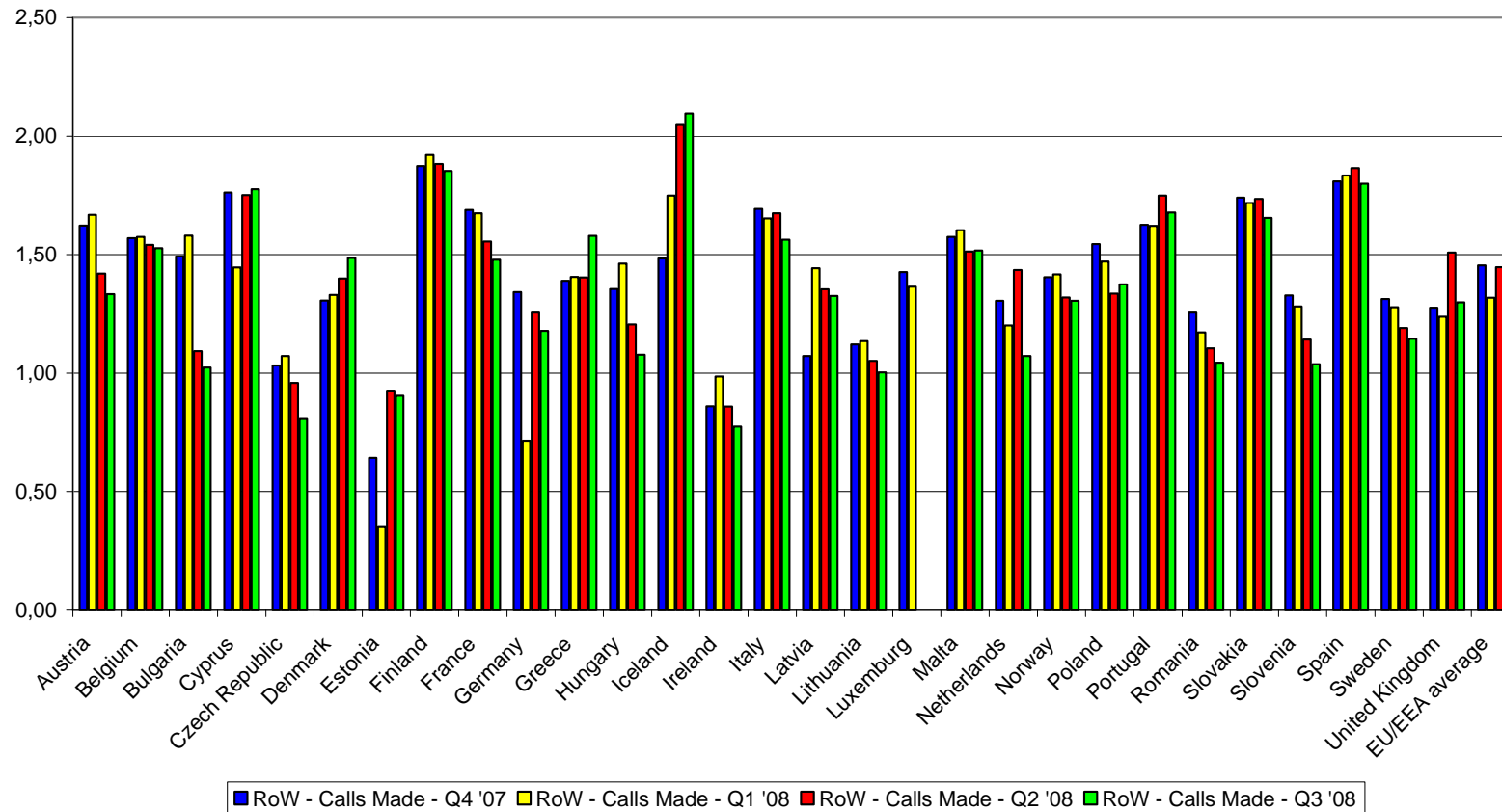
Figure 4: Average retail price per minute voice call received for all consumers (excluding special corporate): average of Eurotariff and other EU/EEA tariffs (based on billed minutes)



EU/EEA average: Q4 2007 = € 0.213; Q1 2008 = € 0.207; Q2 2008 = € 0.212; Q3 2008 = € 0.209.

Figure 4 shows a similar picture to that of Figure 3, but for calls received. Here too the average price has been relatively stable after the implementation of the Regulation, with some drops for the EEA countries that implemented the Regulation at the beginning of 2008.

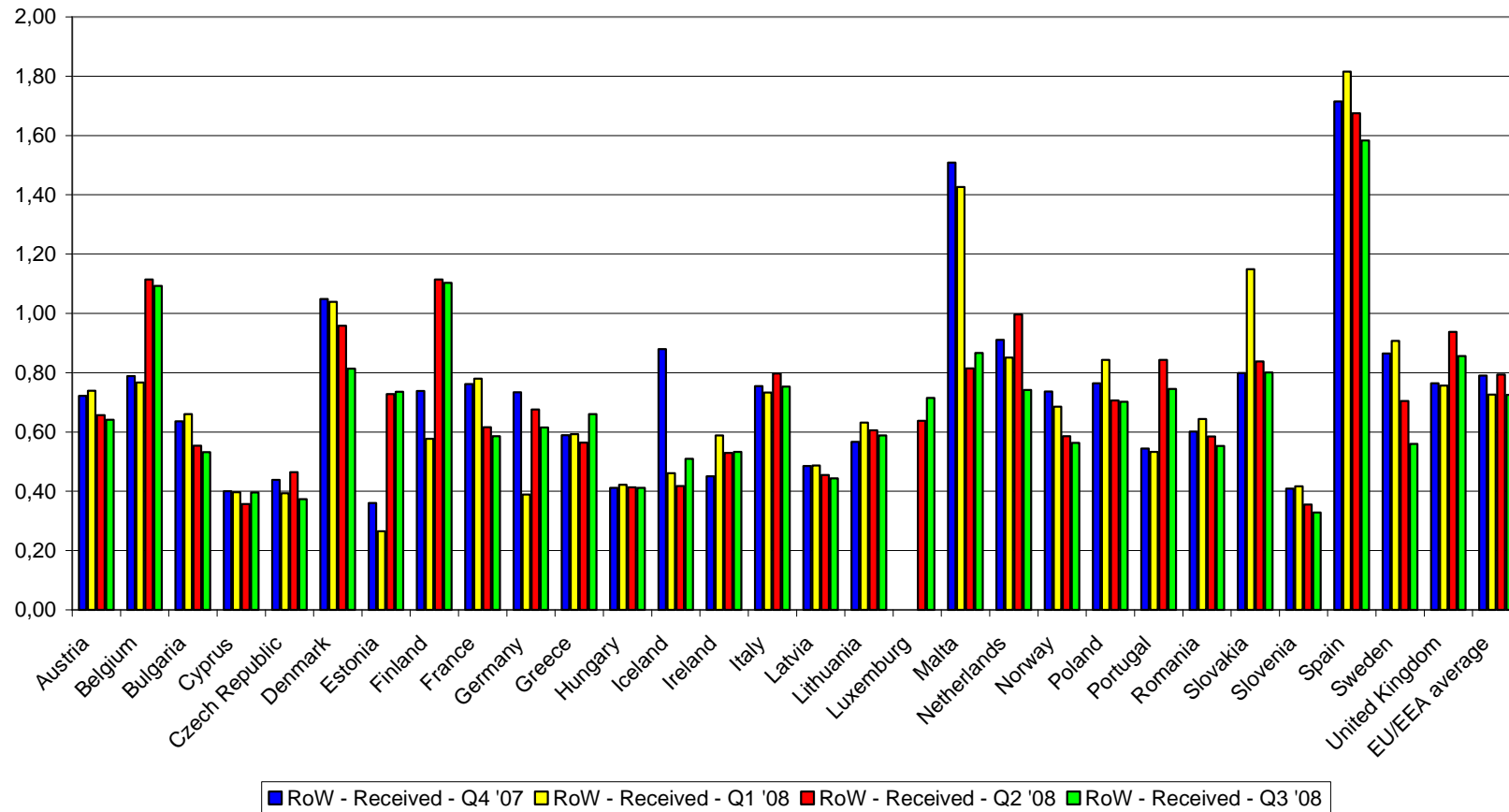
Figure 5: Average retail price per minute voice call made for all consumers (excluding special corporate): Rest of World tariffs (based on billed minutes)



EU/EEA average: Q4 2007 = € 1.455; Q1 2008 = € 1.319; Q2 2008 = € 1.450; Q3 2008 = € 1.332.

Figure 5 gives an overview of developments in average prices for making calls from the EU/EEA to non-EU/EEA countries or from non-EU/EEA countries to the EU/EEA. Fluctuations in average prices by country are likely to be due to seasonal effects, with no clear discernable trend either upwards or downwards.

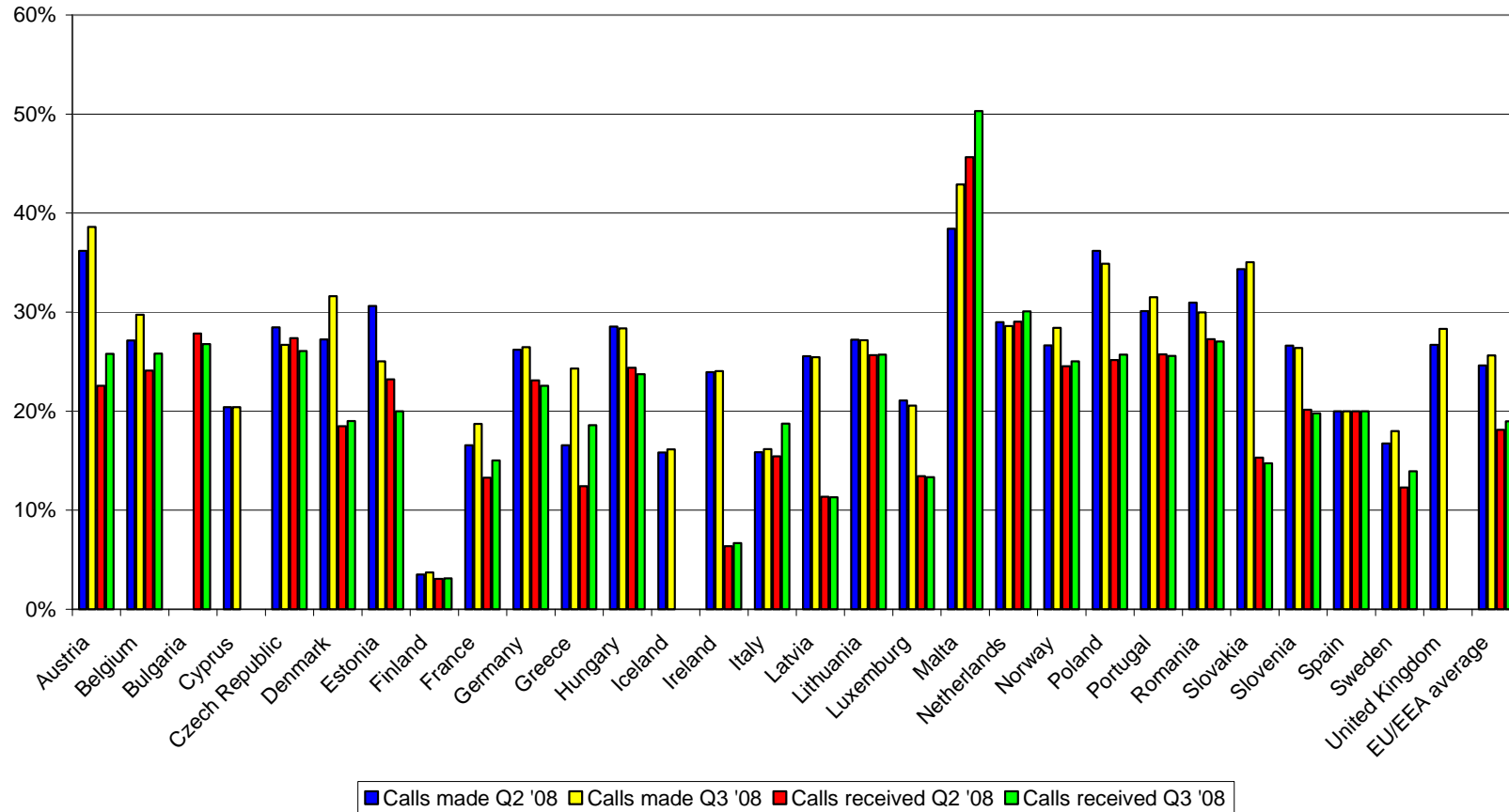
Figure 6: Average retail price per minute voice call received for all consumers (excluding special corporate): Rest of World tariffs (based on billed minutes)



EU/EEA average: Q4 2007 = €0.790; Q1 2008 = €0.726; Q2 2008 = €0.797; Q3 2008 = €0.728.

Figure 6 shows a similar picture to Figure 5, but for calls received in non-EU/EEA countries and originating in the EU/EEA, or calls received in the EU/EEA and originating in non-EU/EEA countries. Again, there is no obvious trend.

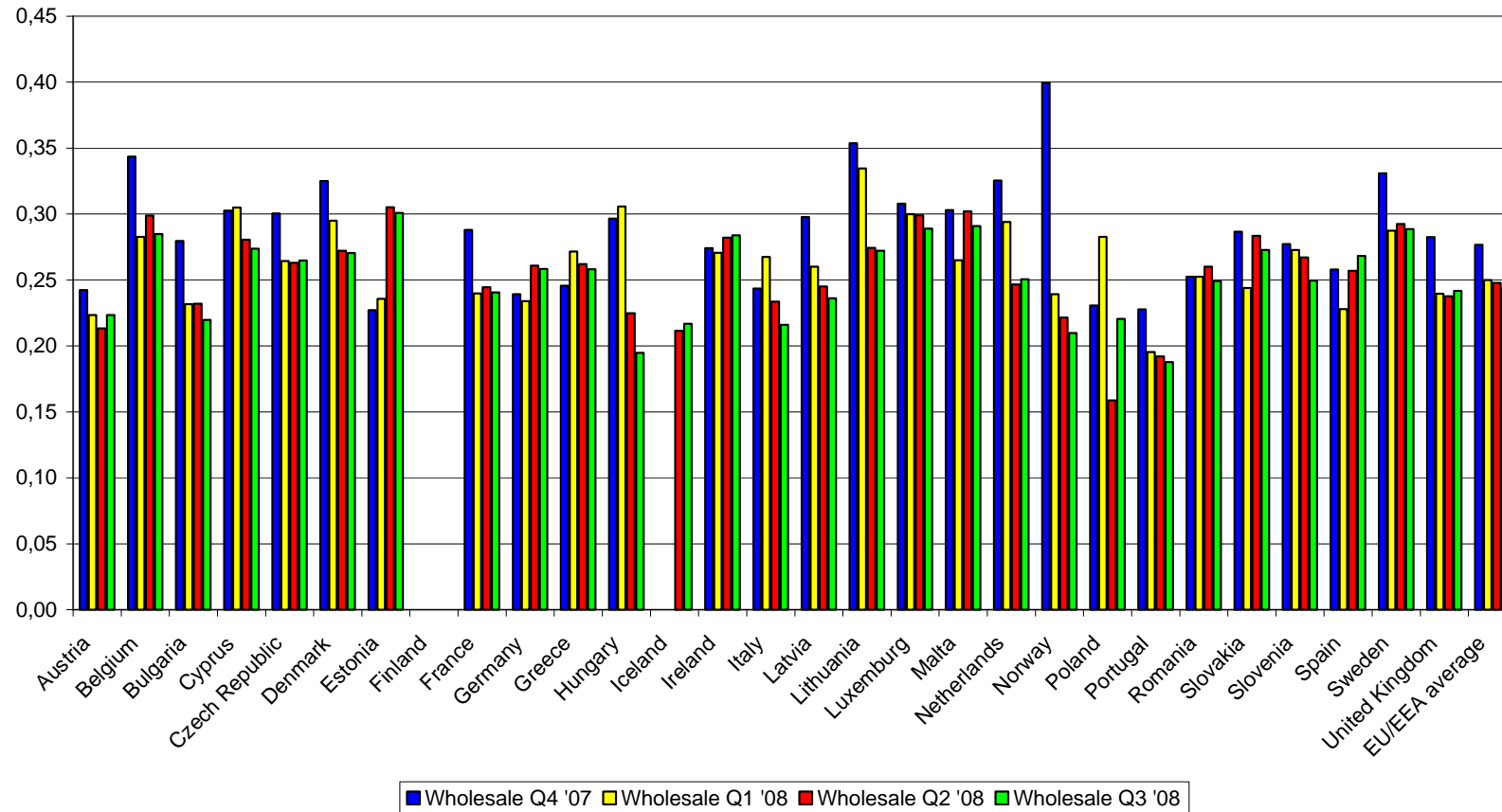
Figure 7: Surcharge as a result of billed minutes for voice calls made and received for all consumers (excluding special corporate): Eurotariff



EU/EEA average: Calls made Q2 2008 = 24.5%; Calls made Q3 2008 = 25.5%; Calls received Q2 2008 = 19.8%; Calls received Q3 2008 = 20.7%

Figure 7 illustrates the effects of billing unitisation, whereby the average Eurotariff price calculated on the basis of billed minutes is higher than that calculated on the basis of actual minutes. The effect seems to be more pronounced for calls made than for calls received.

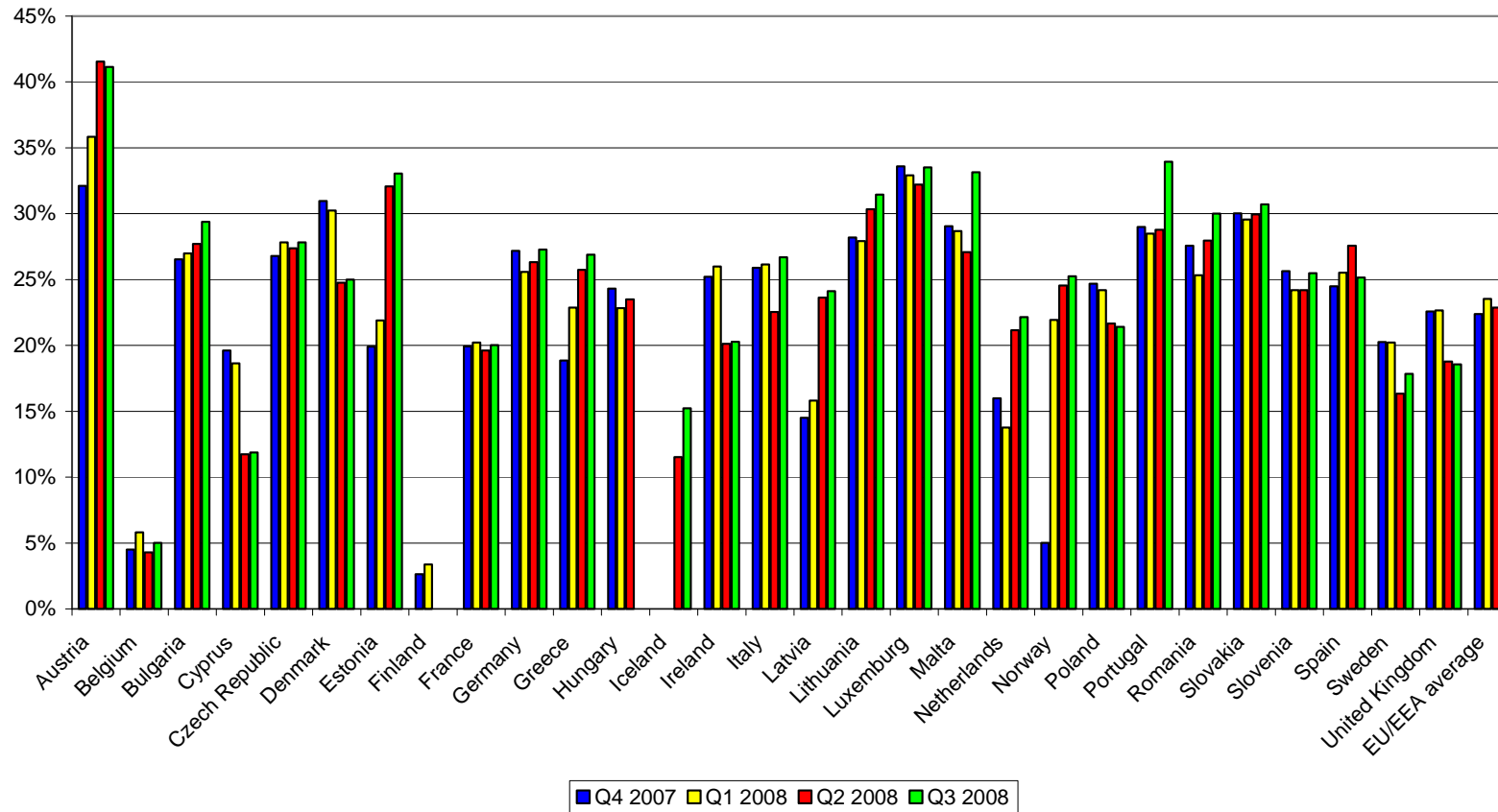
**Figure 8: Average wholesale price per minute voice call: EU/EEA, non-group companies
(based on billed minutes)**



EU/EEA average: Q4 2007 = € 0.276; Q1 2008 = € 0.249 ; Q2 2008 = € 0.248; Q3 2008 = € 0.244

Figure 8 illustrates average prices at the wholesale level and compliance with the imposed cap of €0.30 and €0.28 (as of 30 August 2008), with averages (based on billed minutes) well below the regulated cap.

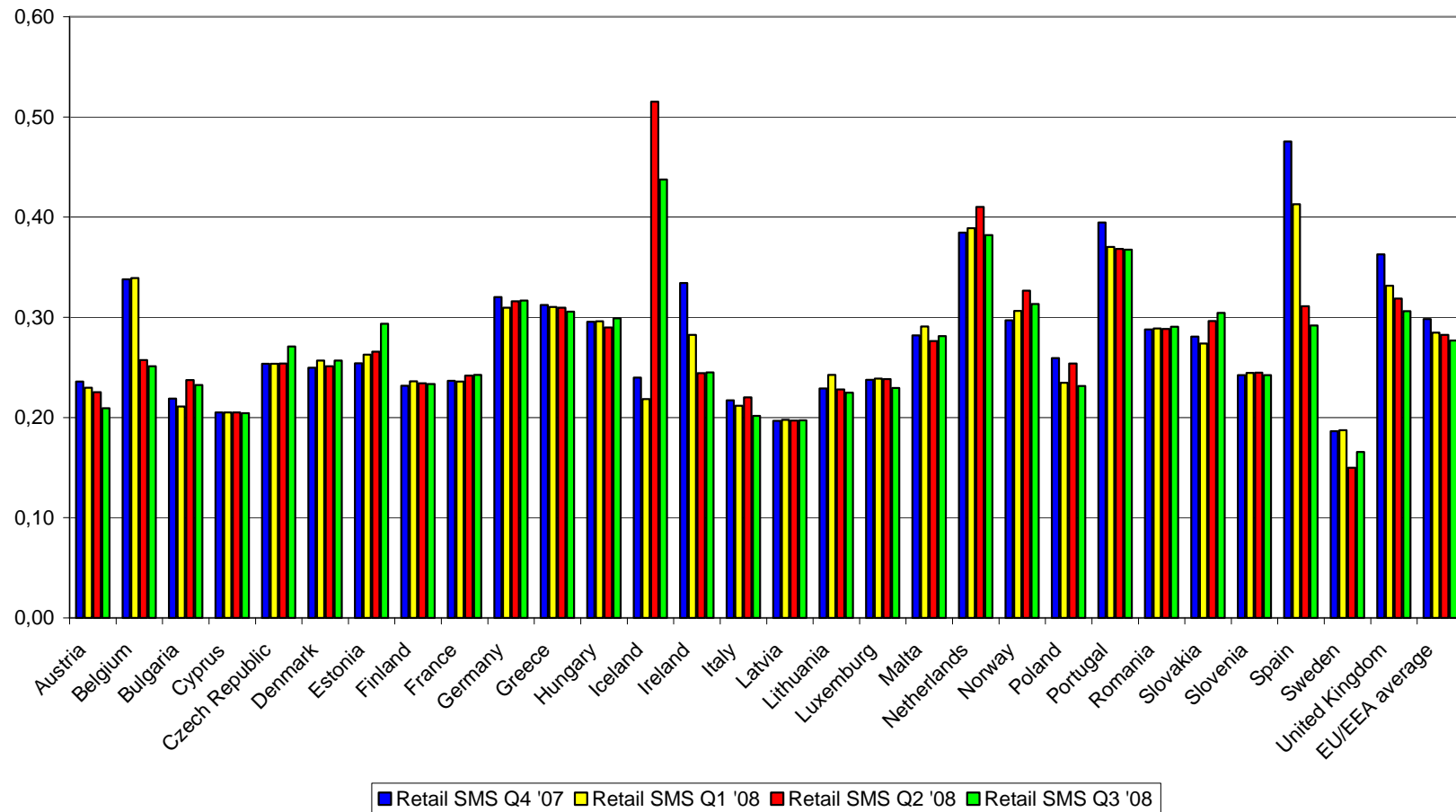
Figure 9: Surcharge as a result of billed minutes for wholesale voice calls (EU/EEA, non-group companies)



EU/EEA average: Q4 2007 = 22.3%; Q1 2008 = 23.5%; Q2 2008 = 22.9%; Q3 2008 = 24.4%

Figure 9 illustrates the effect of billing unitisations at the wholesale level. On average the surcharge is similar to that for calls made at the retail level (Figure 7).

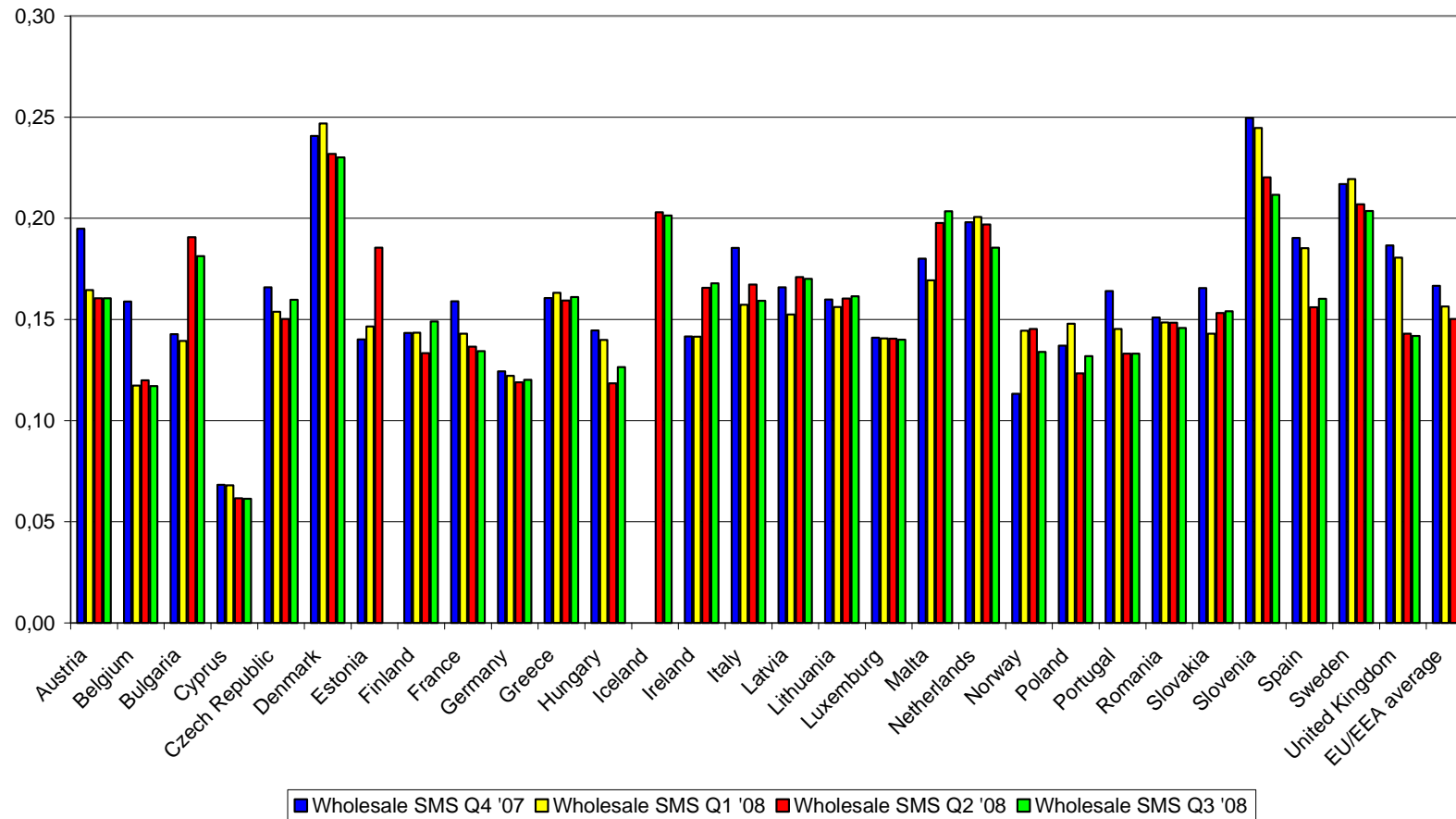
Figure 10: Average retail price per SMS: EU/EEA



EU/EEA average: Q4 2007 = €0.298; Q1 2008 = €0.285; Q2 2008 = €0.282; Q3 2008 = €0.277.

Figure 10 gives an overview of the development in the average price for sending an SMS within the EU/EEA. With some exceptions, the average price has remained relatively stable.

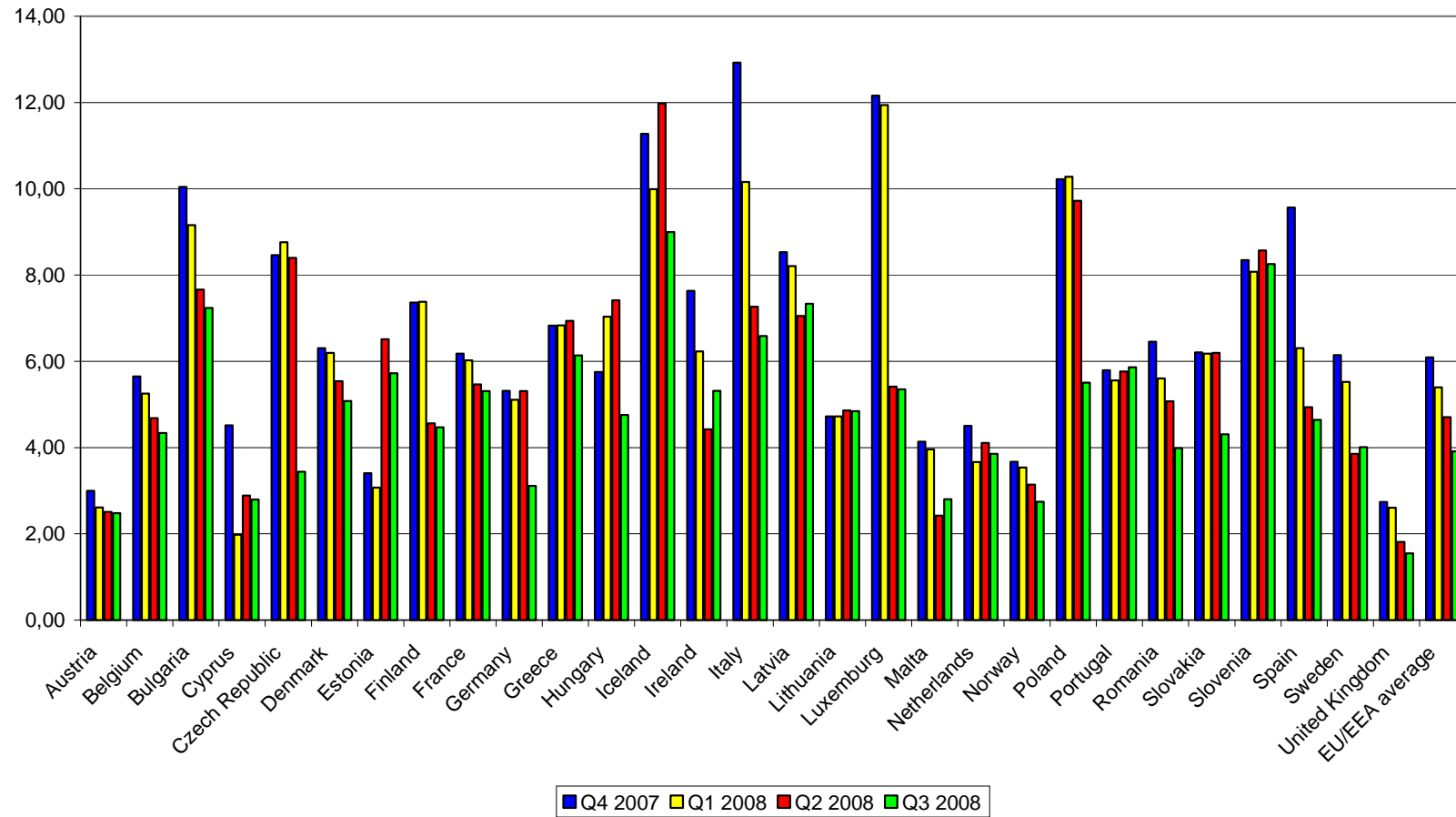
Figure 11: Average wholesale price per SMS: EU/EEA, non-group companies



EU/EEA average: Q4 2007 = € 0.165; Q1 = € 0.154; Q2 2008 = € 0.150; Q3 2008 = € 0.150.

.Figure 11 is similar to Figure 10, but now at the wholesale level. Again, the average price has remained fairly constant after a small drop from Q4 2007 to Q1 2008.

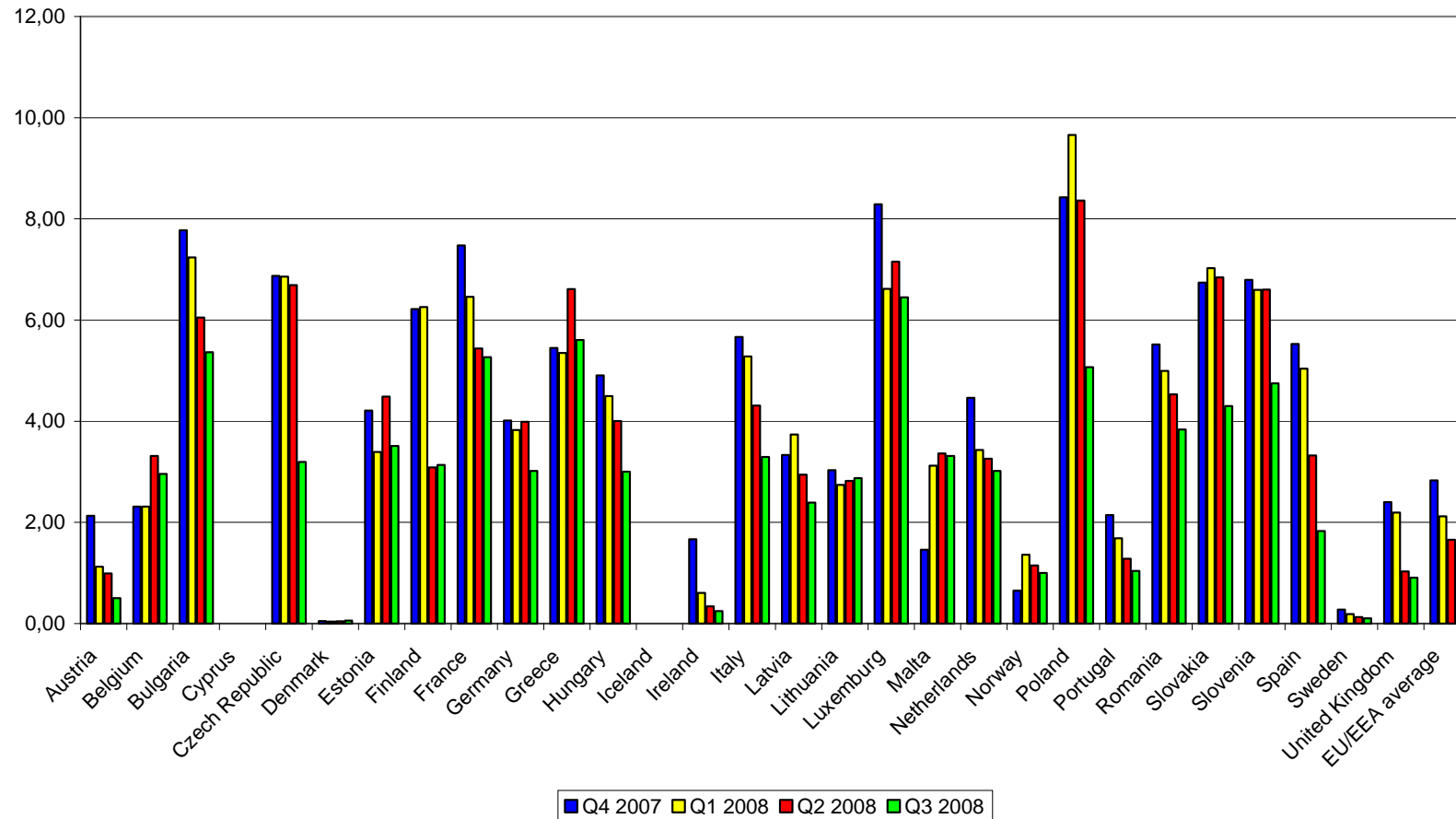
Figure 12: Average EU/EEA off-net retail price per data MB (based on billed megabytes)



EU/EEA average: Q4 2007 = € 6.093; Q1 = € 5.396; Q2 2008 = € 4.707; Q3 2008 = € 3.912.

Figure 12 gives an overview of the average retail price for off-net roaming data services within the EU. The graph shows a clear downward trend, but with large variations between countries.

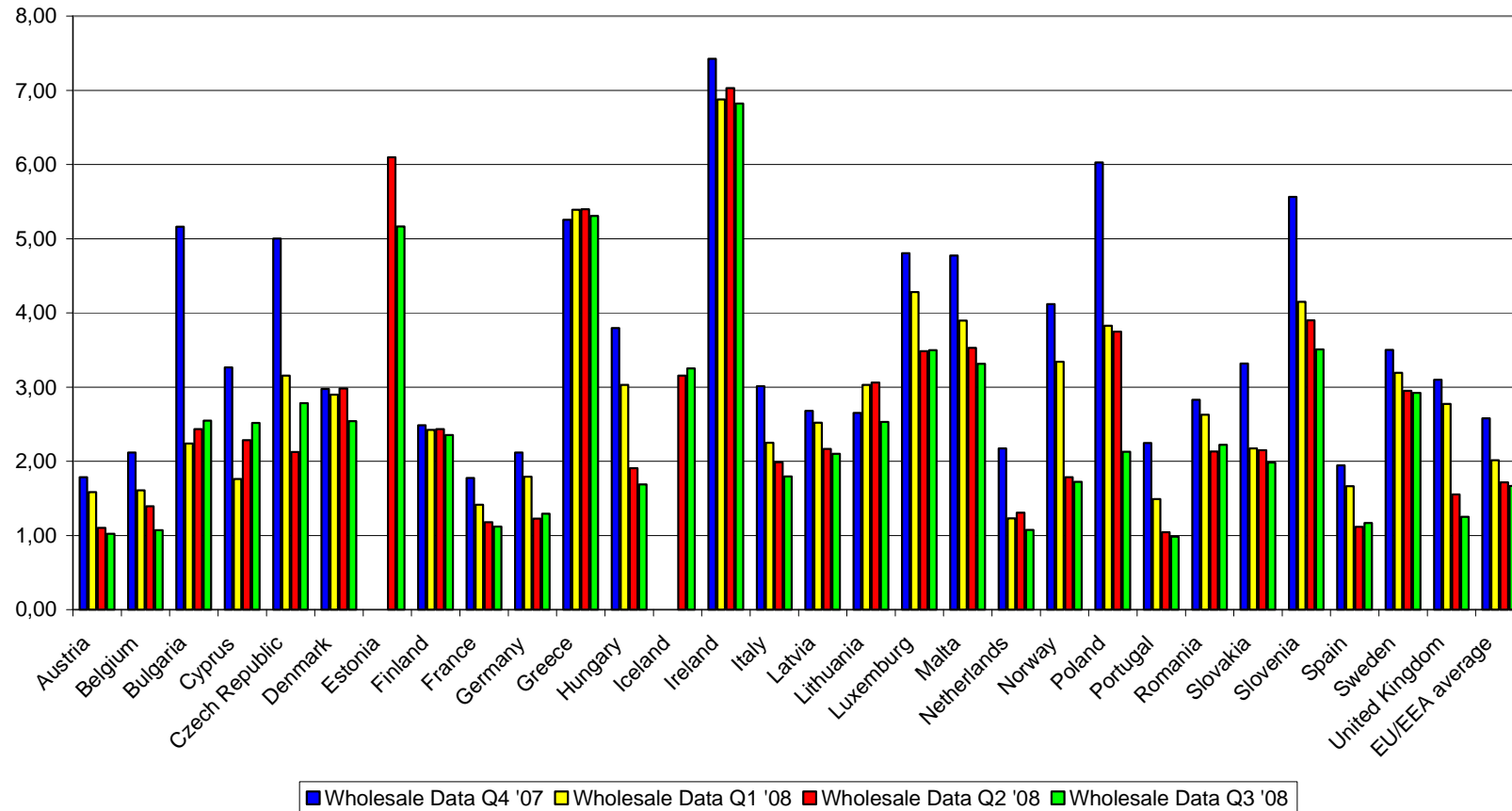
Figure 13: Average EU/EEA on-net retail price per data MB (based on billed megabytes)



EU/EEA average: Q4 2007 = €2.832; Q1 = €2.120; Q2 2008 = €1.656; Q3 2008 = €1.310.

Figure 13 is similar to Figure 12, but now for on-net prices. Again the chart shows a clear downward trend, with large variations between countries. For some countries the averages are very low. For explanations please refer to Annex 1.

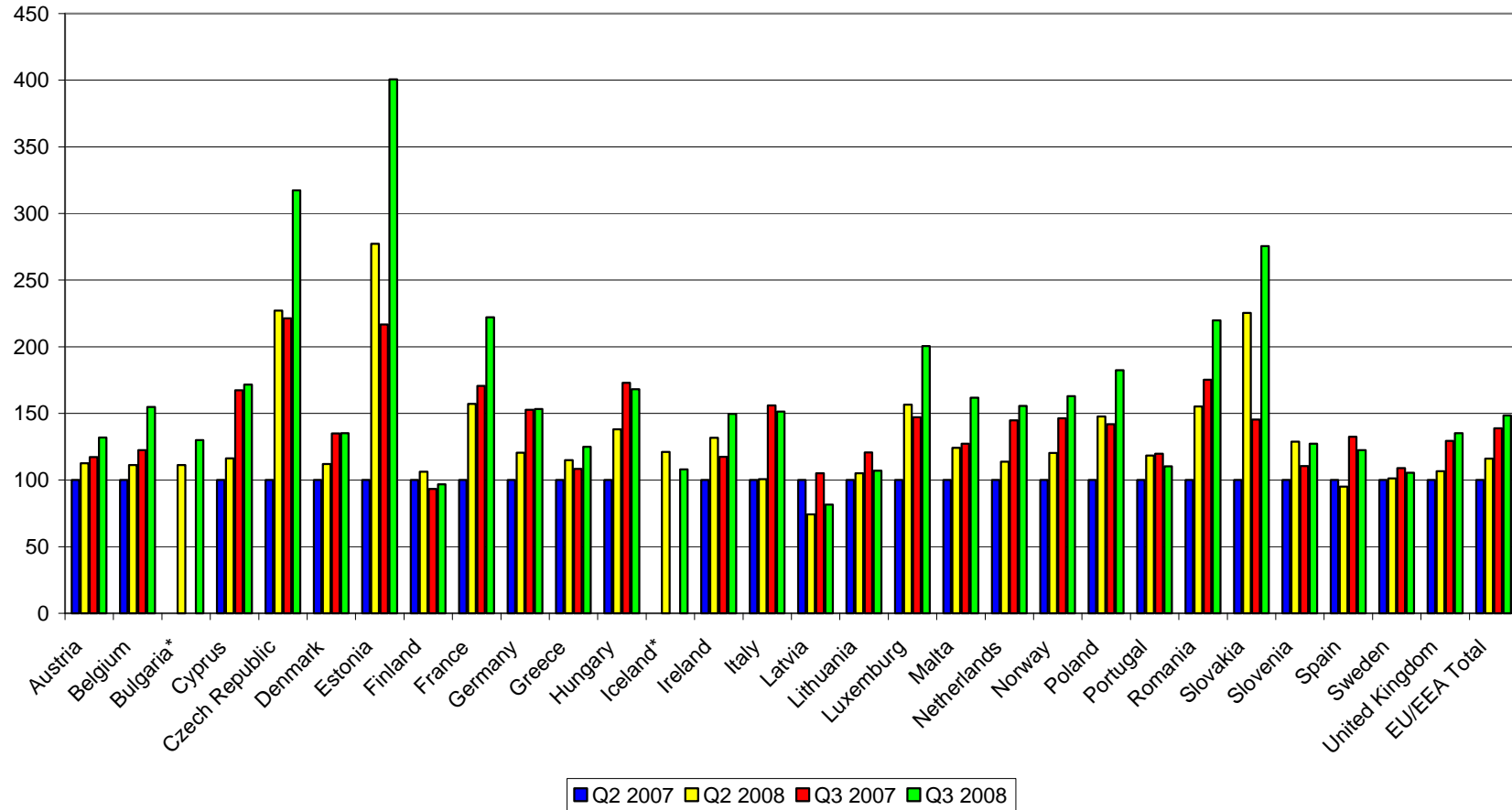
Figure 14: Average wholesale price per data MB for inbound roaming: EU/ EEA, non-group companies (based on billed megabytes)



EU/EEA average: Q4 2007 = € 2.578; Q1 2008 = € 2.014; Q2 2008 = € 1.723; Q3 2008 = € 1.677.

Figure 14 illustrates an overall downward trend in the average price per MB for data services within the EU/EEA at the wholesale level, although significant variations between countries remain.

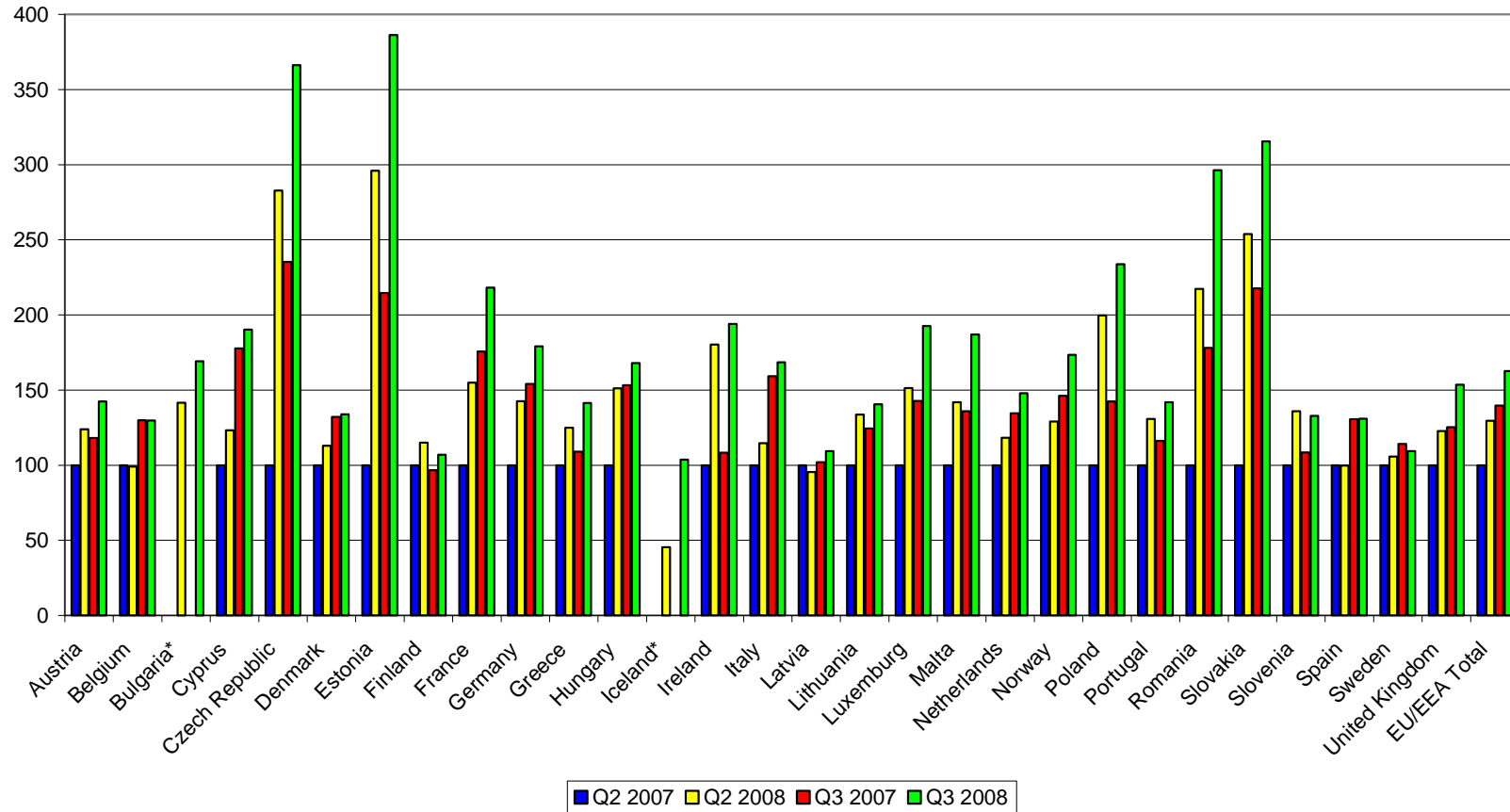
**Figure 15: Volumes of EU/EEA calls made (all consumers excluding special corporate)
(Actual minutes, Q2 2007 = 100)***



EU/EEA average: Q2 2007 = 100; Q2 2008 = 116; Q3 2007 = 139; Q3 2008 = 149.

Figure 15 shows the (highly seasonable) growth in the volumes of Eurotariff calls made.

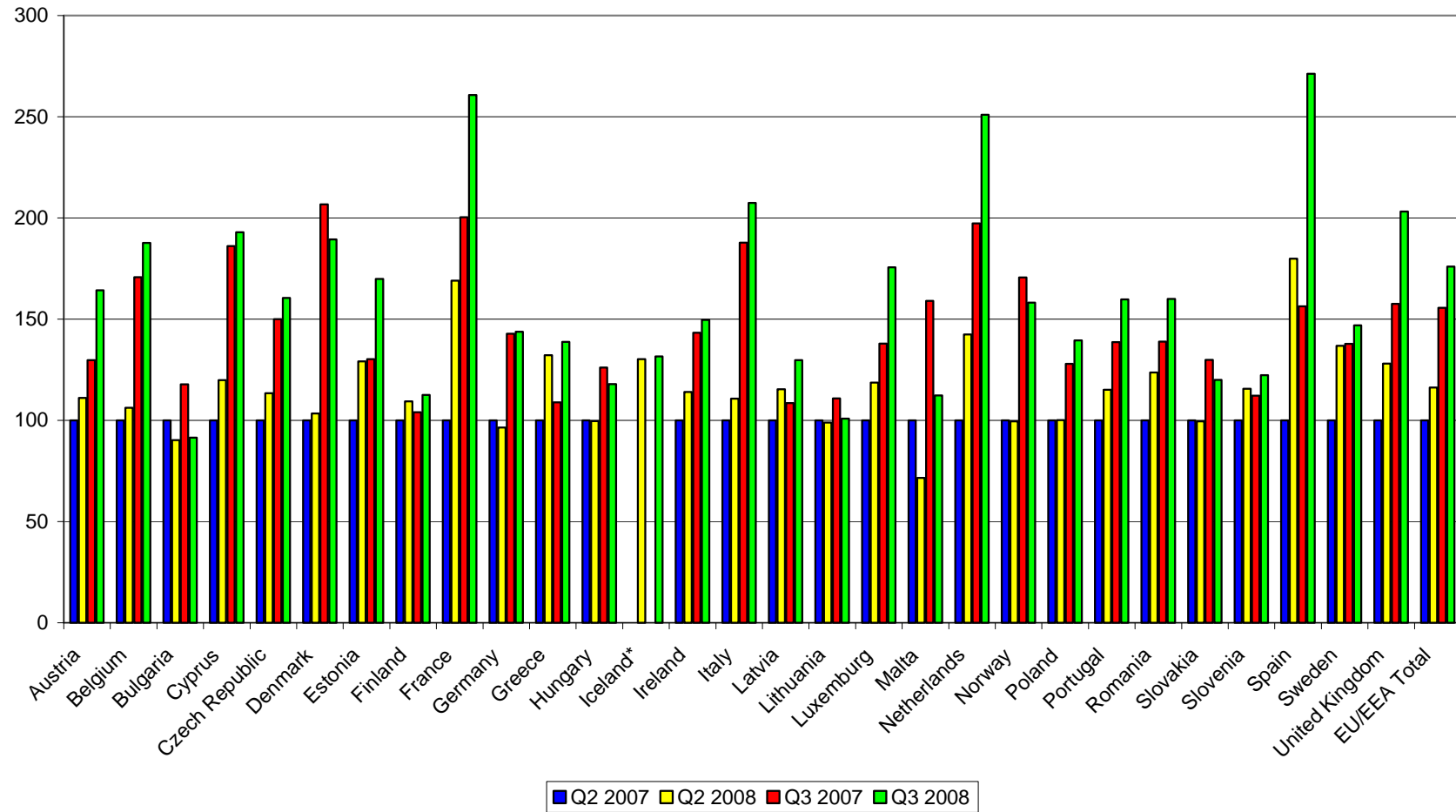
**Figure 16: Volumes of EU/EEA calls received (all consumers excluding special corporate)
(Actual minutes, Q2 2007 = 100)***



EU/EEA average: Q2 2007 = 100; Q2 2008 = 130; Q3 2007 = 140; Q3 2008 = 163.

Figure 16 is similar to Figure 15, but now for calls received. The growth in the volume of Eurotariff calls received appears even stronger than that of calls made (Figure 15).

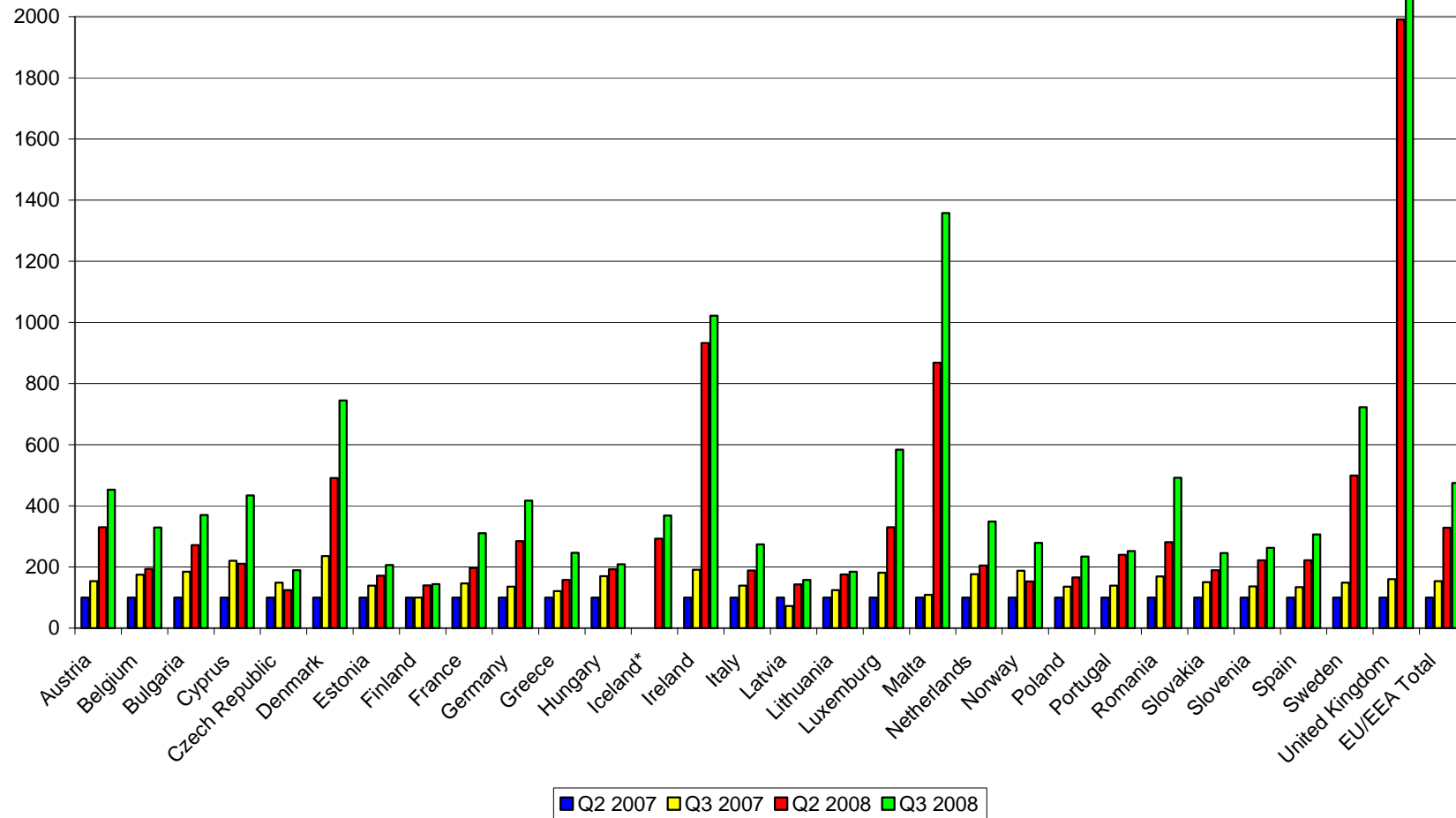
Figure 17: Volumes of retail EU/EEA SMS sent (Q2 2007 = 100)*



EU/EEA average: Q2 2007 = 100; Q2 2008 = 116; Q3 2007 = 156; Q3 2008 = 176.

Figure 17 illustrates the growth in volumes of SMS messages.

Figure 18: Volumes of retail data (Q2 2007 = 100)*



EU/EEA average: Q2 2007 = 100; Q3 2007 = 153; Q2 2008 = 328; Q3 2008 = 475.

Figure 18 illustrates the strong growth in data volumes. The magnitude of growth varies considerably between countries.

**Figure 19: EU/EEA trends in volume for retail voice calls and SMS
(Q2 2007 = 100)**

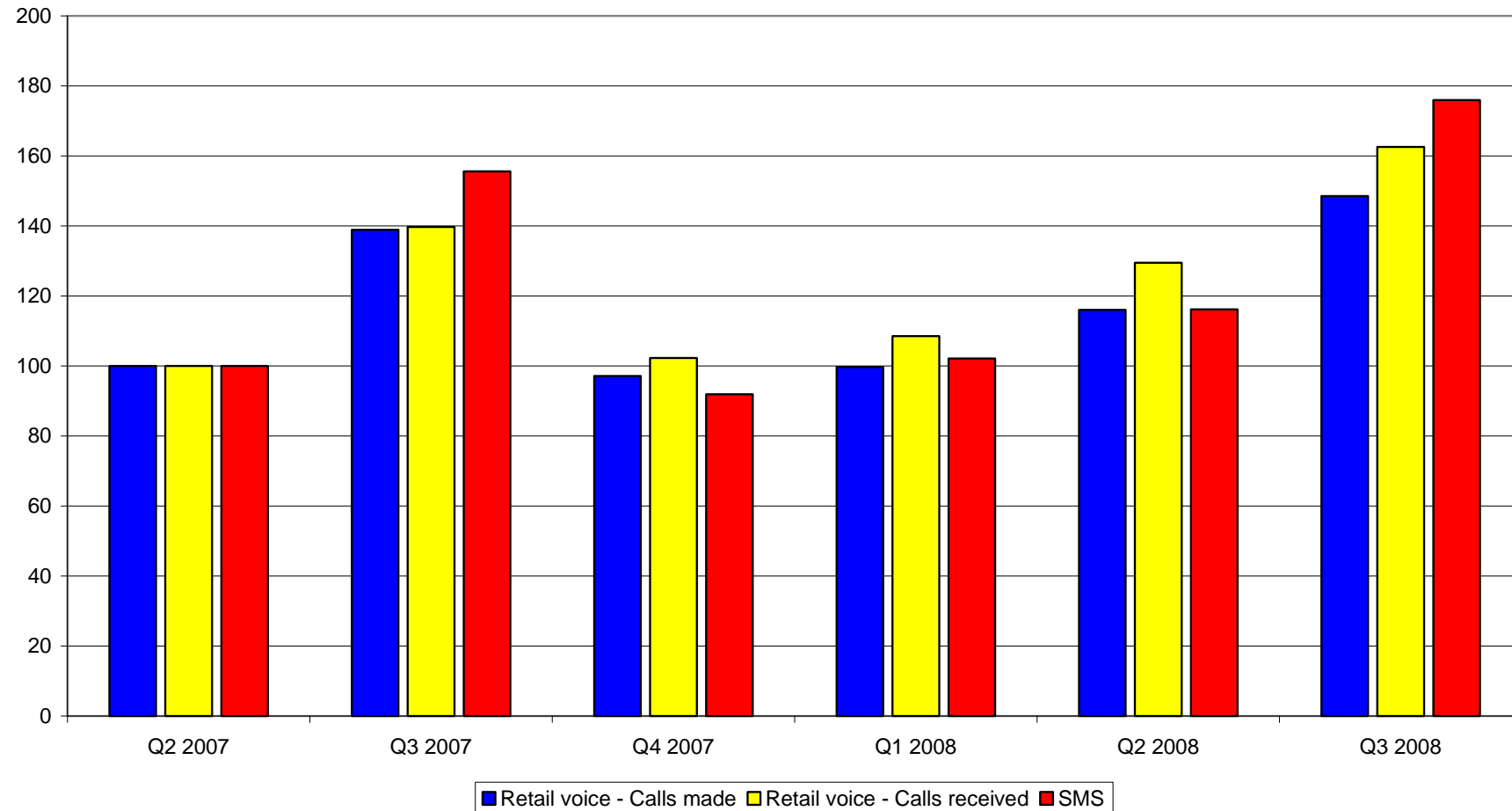


Figure 19 compares the growth in volumes of regulated voice calls with unregulated SMS messages. The growth for both voice and SMS seems similar, with SMS showing larger growth in some periods.

Figure 20: EU/EEA average prices per minute for retail voice calls made (based on billed minutes)

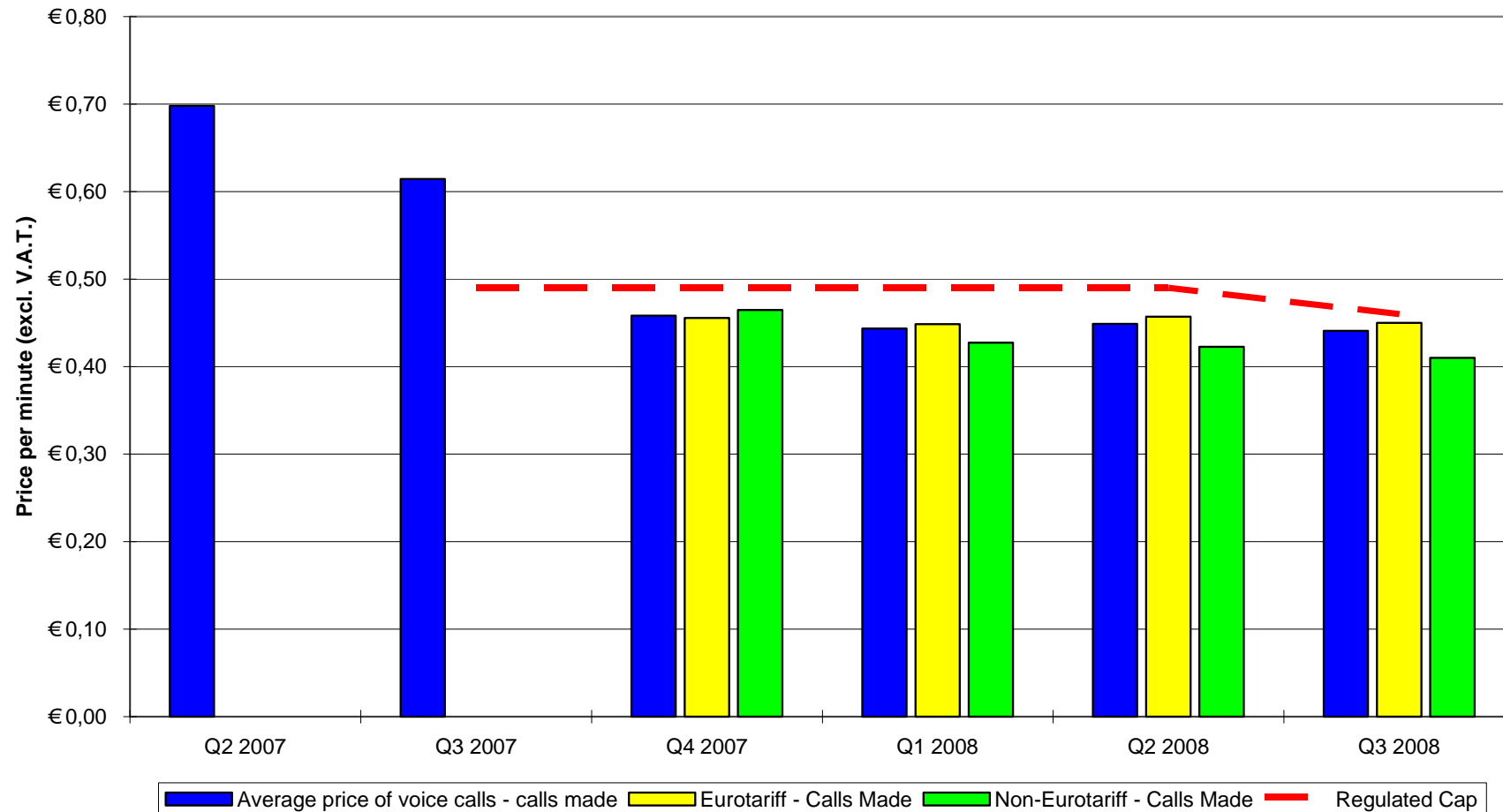


Figure 20 demonstrates how the average price for calls made has come down since introduction of the Regulation and that both Eurotariff and non-Eurotariff averages are below the Eurotariff cap.

Figure 21: EU/EEA average prices per minute for retail voice calls received (based on billed minutes)

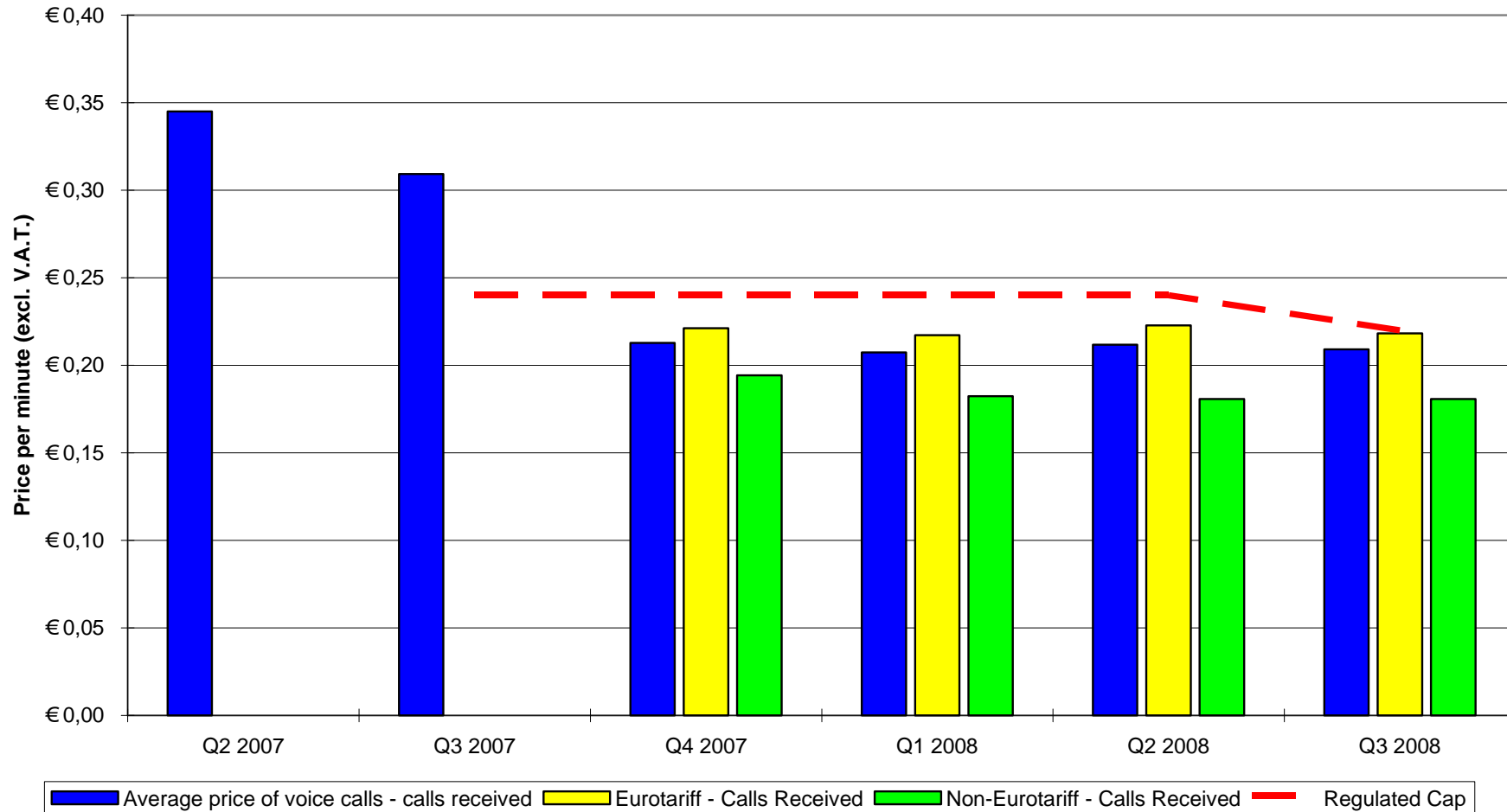


Figure 21 shows a similar picture as Figure 20, but for calls received.

**Figure 22: EU/EEA averages prices per minute for wholesale non-group voice calls
(based on billed minutes)**

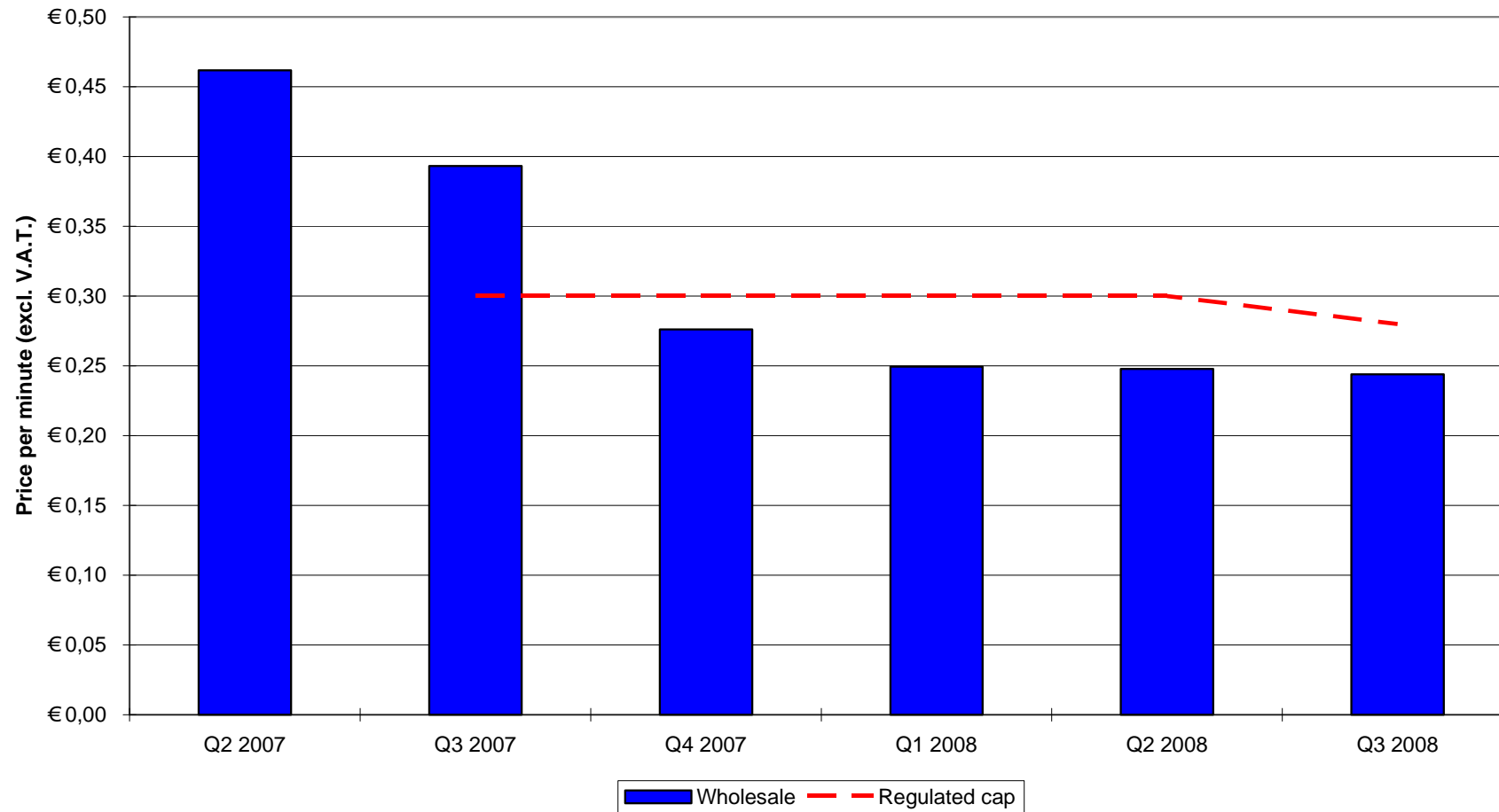


Figure 22 shows that at the wholesale level prices have dropped since the Regulation came into force and that the averages are well below the cap.

Figure 23: EU/EEA average prices per megabyte for retail and wholesale data

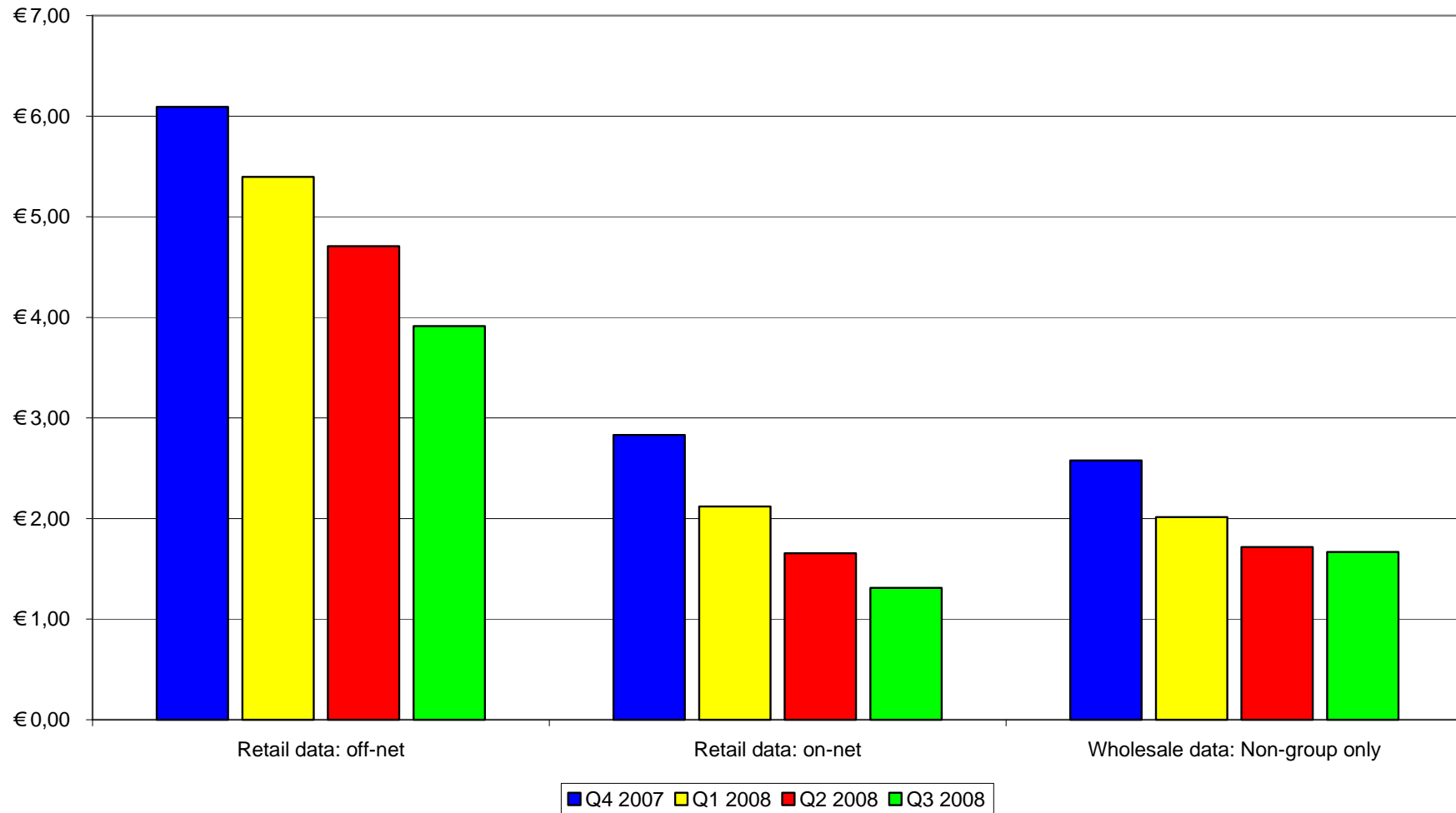


Figure 23 shows the development in average prices for data roaming services.

Transparency information

3.15 As part of the Regulation, all operators are required to satisfy certain transparency obligations. At present, all operators are able to meet the required criteria set out in the Regulation. All NRAs continue to monitor that the transparency obligations are met by the operators.

Additional information

3.16 In addition to the information above, ERG also gathered information in relation to Traffic Steering and Inadvertent Roaming, as required under Article 7 of the Regulation.

3.17 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 roams onto the foreign network of their home network's choice. Evidence suggests that this is used to provide a better or cheaper service to the roaming consumer.

Traffic steering

3.18 None of the providers that responded to the data collection stated that traffic steering was used to the disadvantage of consumers through higher charges. In general, such techniques were used to offer consumers a better deal, through either lower retail prices or enhanced services, or both.

Inadvertent roaming

3.19 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 in their home country.

3.20 The issue of inadvertent roaming was recognised by the majority of respondents to the data collection. In general however, this was not identified as a big problem with relatively few consumers adversely affected.

3.21 Many providers have adopted a number of mechanisms to deal with inadvertent roaming. Information was generally available on provider websites, and where a particular issue was identified, (for example between Northern Ireland and the Republic of Ireland) providers took additional steps to ensure consumers were aware of the issue, in some cases even offering bespoke tariffs.

3.22 The majority of providers also reported that where roaming genuinely occurs inadvertently, charges may be waived as a goodwill gesture.

Section 4

Further Issues

Overview of compliance

4.1 As stated elsewhere in this Report, overall compliance with the provisions of the Regulation has been very good. All mobile operators offer their consumers a Eurotariff, compliant with the rates set down in Article 4 of the Regulation, wholesale rates appear to have fallen in line with the requirements set out in Article 3 of the Regulation, and consumer transparency has improved.

Summary explanation of missing or outlying data

4.2 This third round of data collection revealed that a limited number of operators still had some problems supplying reasonable quality data. This is not at all unusual for a comprehensive data collection of this type. In many cases the NRA was able to work with the company to resolve or alleviate the problem. In others cases, where system upgrades will be necessary to comply with the data collection, the company was asked to provide the best possible estimate available currently and to complete the upgrades in time to provide high quality data for the next collection.

4.3 Further details on missing or apparently anomalous data are included in Annex 1.

Actual/billed minutes

4.4 Although NRAs have put pressure on 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, ERG feels the differences between actual and billed minutes indicated by this Report are a fair reflection of actual practices.

Exchange rate for non-Eurozone countries

4.5 In the middle of quarter 3 2008, the Eurotariff and wholesale voice caps were reduced in accordance with the Regulation (30 August 2008). Countries outside of the Eurozone were required to calculate the level of the new caps in their national currency using an exchange rate published in the Official Journal of the European Union (OJEU). Details on the application of the new exchange rate to the data collected for quarter 3 2008 are set out in Annex 2.

Future data collection

4.6 ERG intends to continue collecting data on a 6 monthly basis, with data split by quarter. The next period for data collection will therefore be from 1 October 2008 to 31 March 2009. ERG expects to report on this data in the summer of 2009.

Annex 1

Explanations for missing or outlying data

Retail voice calls

A1.1 Greece: For one operator, pre-paid data for voice calls and SMS was broken down into EU/EEA and Rest of World according to the breakdown for post-pay services.

A1.2 Luxemburg: No data on Non-Eurotariff voice tariffs is available because operators were unable to provide the national regulator ILR with reliable data.

A1.3 Portugal: The apparent jump in the average price for receiving a call in Figures 4 and 6 is not a result of a price increase by operators, but rather a change in the method of calculating the average price for Non-Eurotariff calls that are charged at a fixed price, regardless of the length of the call.

Voice Call Billing Unitisation

A1.4 Lithuania: For one MNO a factor (equal to 1.2) was used to calculate retail billed minutes from actual minutes, based on the MNO's own calculations.

A1.5 Norway: A significant number of operators changed from charging per second to charging per minute during quarter one 2008. The full effect of these changes is visible in quarter two 2008. This is the main reason for the increased difference between actual and billed minutes from quarter one to quarter two 2008.

Retail Data Roaming

A1.6 Denmark and Sweden: For retail data roaming, Denmark and Sweden have apparently low average figures for on-net prices in quarter four 2007 and quarter one 2008 (Figure 13). These averages are not representative of all Danish and Swedish operators, but rather due to one MNO's flatrate domestic subscriptions, which include unlimited international data roaming on selected partner networks in the monthly subscription fee, and which have lead to high volumes without roaming-specific revenue.

A1.7 Ireland: For retail data roaming, Ireland has apparently low aggregate figures for on-net prices from quarter four 2007 to quarter three 2008 (Figure 13). These averages are not representative of all Irish operators, but rather due to one MNO's data roaming proposition, which allows data roaming on selected partner networks at domestic rates. This has led to high volumes of data with comparatively low associated revenues.

A1.8 Luxemburg: Operators were not able to provide a split between on-net and off-net results for data volumes and revenue. All results were reported as Non-Group.

A1.9 Spain: Some operators experienced difficulties in disaggregating on-net retail data results from the off-net retail data results. The figures used for the Report are based on the best estimates operators were able to provide.

Volumes

A1.10 In general, ERG notes that some baseline figures on volumes of retail data roaming (quarters two and three 2007) were very low, which might cause the percentage increase in volume to be over-emphasised in some cases (Figure 18).

A1.10 Bulgaria: For Figures 15 and 16, quarter four 2007 = 100. This is due to a lack of reliable information for quarter two 2007.

A1.12 Iceland: quarter four 2007 = 100 for all the charts (Figure 15 – Figure 18) illustrating the trends in volumes, rather than quarter two 2007. This is because Iceland did not collect information for quarter two or quarter three 2007, when the Regulation was not in force in the EEA countries.

Annex 2

Exchange Rates outside of the Eurozone

A2.1 Some countries that fall under the Regulation do not use the Euro. This has led to some issues as the regulated cap dropped on 30 August, which falls during this collection period. According to the Regulation the exchange rate that should be used to determine the new cap is that from the Official Journal of the European Union (OJEU) published on 30 July 2008. Due to larger than normal fluctuations in the exchange rate this has had a significant impact in some countries. This Annex gives an overview of the way that NRAs and operators have dealt with this for the data collection.

A2.2 Bulgaria, Denmark, Estonia: The exchange rate is fixed between the national currency and the Euro.

A2.3 Czech Republic: The exchange rate published on 30 July 2008 was applied to the entire July - September period of the data collection (quarter three 2008). The difference between exchange rates published in July 2007 and July 2008 is about 17%. To adjust for this ERG has calculated a weighted average of the exchange rates for this period and adjusted the revenues for the July – September period.

A2.4 Hungary: For the period 1 April to 30 August 2008, the exchange rate published in the OJEU on 30 June 2007 was used (1 € = 246,15 HUF). For September 2008 the rate published in the OJEU on 30 July 2008 (1 € = 230,76 HUF) was used.

A2.5 Iceland: For the previous Report the operators used the average exchange rate during the period. For this round of data collection one operator used the OJEU rate of 30 July 2008. The ERG has adjusted the data from this operator by using the exchange rate for the April – June period and a weighted average for the July – September 2008 period. The other operator used the Euro as the basis for their calculations and was thus not affected by changes in the exchange rate. Due to the serious economic changes faced by Iceland since October, the Iceland Krona dropped in value significantly. It seems likely this will also affect the next round of data collection.

A2.6 Poland: For the conversion from Polish zloty to the Euro, the exchange rate published in the OJEU on 30 July 2008 was used for the entire period of April – September 2008. ERG has adjusted the Polish data by using the exchange rate published in the OJEU on 30 July 2007 for the April – June 2008 period and a weighted average for the July – September 2008 period.

A2.7 Romania: There were no exchange rate issues as the tariffs of all Romanian operators are expressed in Euros.

A2.8 Slovakia: In July and August 2008 the exchange rate was 33.635 and in September it was 30.385. A weighed average rate was calculated $((33.635 * 0.66666) + (30.385 * 0.33333)) = 32.552$ and applied to the data for quarter three 2008.

A2.9 Sweden: The 30 July 2007 exchange rate was used for the entire April – September 2008 period. ERG has adjusted the Swedish data for the July – September period using a weighted average.

A2.10 United Kingdom: For the period 1 April to 30 August, the exchange rate for 30 June 2007 was used. For September the rate published in the OJEU on 30 July 2008 was used.

Some operators applied these rates themselves. Others submitted their data for August and September 2008 separately in pounds sterling and Ofcom applied the exchange rates.

Annex 3

List of respondents

Austria

Hutchison 3G Austria
 Mobilkom Austria
 Orange Austria
 T-Mobile Austria
 Yesss!

Belgium

Belgacom Mobile
 Mobistar
 One Base

Bulgaria

BTC Mobile EOOD
 Cosmo Bulgaria Mobile
 Mobiltel EAD

Cyprus

Cytamobile-Vodafone
 EAD MTN Cyprus (Areeba Ltd)

Czech Republic

Telefónica O2 Czech Republic
 T-Mobile Czech Republic
 Vodafone Czech Republic

Denmark

3
 Sonofon
 TDC
 TeliaSonera
 Telmore

Estonia

AS EMT
 Elisa Eesti AS
 OÜ Top Connect
 ProGroup Holding OÜ
 TELE 2 Eesti AS

Finland

Alands Mobiltelefon Ab
 DNA Networks Ltd
 Elisa Corporation

TeliaSonera Finland Oyj
 France
 Auchan mobile
 Bouygues Telecom
 Coriolis
 Debitel
 Digicel AFG
 Mobisud
 Orange Caraïbe
 Orange France
 Orange Réunion
 SFR
 SRR
 Ten
 Transatel
 Virgin

Germany

E-Plus Mobilfunk GmbH & Co. KG
 O2 Germany GmbH & Co. OHG
 T-Mobile Deutschland GmbH
 Vodafone D2 GmbH

Greece

COSMOTE Mobile
 Telecommunications S.A.
 Vodafone Panafon S.A.
 Wind Hellas Telecommunications S.A.

Hungary

Pannon GSM Távközlési Zrt
 T-Mobile
 Vodafone Magyarország Zrt

Iceland

Síminn hf.
 Vodafone Iceland

Ireland

Eircom Mobile
 Hutchison 3G Ireland
 Meteor Mobile Communications
 O2 Communications Ireland
 Tesco Mobile
 Vodafone Ireland

Italy

Carrefour Italia Mobile
Coop Voce
H3G Italia
Poste Mobile
Telecom Italia
Vodafone Omnitel
Wind Telecomunicazioni

Latvia

Bite Latvia
Latvijas Mobilais Telefons
Tele2

Lithuania

Bitė Lietuva
Omnitel
Tele2

Malta

Mobisle Communications Ltd (GO Mobile)
Vodafone Malta Ltd

Netherlands

AH Mobiel
Debitel Nederland B.V.
KPN B.V.
Ortel Mobile B.V.
Qick - MRGQ B.V.
Tele2 Netherlands B.V.
T-Mobile Netherlands B.V.
UPC Nederland Mobile B.V.
Vodafone Libertel B.V.

Poland

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
Sonaecom - Serviços de Comunicações, SA
TMN - Telecomunicações Móveis Nacionais, SA
Vodafone Portugal - Comunicações Pessoais, SA

Romania

Cosmote RMT
Orange Romania

Vodafone Romania

Slovak Republic

Telefónica O2 Slovakia
Orange Slovensko
T-Mobile Slovensko

Slovenia

Debitel
Izimobil
Mobitel
Simobil
Tušmobil

Spain

Euskaltel
Orange
Telefónica Móviles de España
Vodafone
Yoigo

Sweden

Hi3G Access AB
Östkraft AB
Spring Mobil AB
Tele2 Sverige AB
Telenor Sverige AB
TeliaSonera AB
Ventelo Sverige AB

United Kingdom

3 UK
O2 UK
Orange UK
T-Mobile UK
Vodafone UK
Virgin Mobile