

# ERGP Report

## on the benchmarking of the universal service tariffs

November 2014



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### **EXECUTIVE SUMMARY**

This ERGP report compares prices of Universal Service (US) products across Europe and considers possible drivers of price differentials across countries. The analysis undertaken goes beyond a simple price comparison. Specifically, single parameter linear regression models were used to investigate dependencies between price and i) country specific variables and ii) company specific variables.

Notwithstanding the limitation of this, it was found that price (for both letters and parcels) was moderately correlated with labour rates. This result was expected due to the significant proportion of labour costs in the provision of postal services.

Other correlations were not found when tested. The data found not to be correlated included parameters relating to geography, urban development, and quality of service. However the limited nature of the analysis means that no firm conclusions could be drawn from this.



### 1 Introduction

The report includes information collated from 31 countries (listed in Annex 1) relating to each country's national postal market. The report attempts to capture the most recent data at the time of drafting (April to October 2014) with the result that prices reported are not those in place at a certain datum.

It should be noted that **prices** and not cost were investigated.

Initial work involved the identification of parameters (country and company specific) which were viewed likely to influence price. Parameter values were sourced externally (Eurostat<sup>1</sup>, WIK) and internally (ERGP questionnaire April 2014, updated September 2014). In addition, product characteristics, which could influence prices, were included in the analysis.

To better understand how bulk mail prices might be benchmarked, each country provided a description of the structure of bulk mail prices in their national market. This then informed the structure of an internal ERGP questionnaire on bulk mail prices which provided the data used to analyse prices in the bulk mail market.

Statistical analysis (single parameter linear regression analysis) was used to investigate correlations between prices and country, company and product specific characteristics.

In order to complete the analysis of prices on a like for like basis, prices were firstly converted into Euros (using 2012 average annual rates) and then expressed in terms of purchasing power parity (adjusted for differences in general price level<sup>2</sup>).

The following section of this report (chapter 2) describes factors which the ERGP considered might influence prices. Chapter 3 details the analysis completed.

### 2 Benchmarking

One of the challenges in benchmarking is to find one or more appropriate companies or countries to compare.

As described in the following section, differences driving price may relate to the scope of USO, country specifics or company specifics. Furthermore differences in product characteristics, product structure as well as consumer behaviour may influence both prices and the underlying cost.

This report provides a broad range of information which could form a start point for benchmarking.

<sup>&</sup>lt;sup>1</sup> Indicators for the year 2012 (without any further specification).

<sup>&</sup>lt;sup>2</sup> Comparative price level indices show the extent of price level differences and tell which countries are more expensive to live in.



Ideally a benchmark should be limited to a few comparable countries and should analyse the specific situation in each country and company in much more detail than could be done within this report.

Nevertheless the report identifies parameters which may influence prices and, using simple linear regression, tests the extent to which variation in prices across member states could be accounted for by variation in a specific parameter.

Linear regression seeks to explain the value of a dependent variable (within this report the price of a certain product) by the value of one (simple regression) or more (multiple regression) independent variables (in this report country specific and company specific variables).

The "coefficient of determination" or "R<sup>2</sup>" is one of the key measures produced in linear regression analysis. It explains to what extent the variability of the dependent variable (e.g. price) can be explained by its linear relationship with the independent variable (e.g. country or company specific variables).

The coefficient of determination, in any linear regression model, ranges from 0% to 100%; a value of 100% means that the variance of the dependent variable (e.g. prices for letter) can be completely explained by the parameter being investigated.

The coefficient of determination produced by each linear regression was reviewed to determine the extent to which the parameter under consideration could be considered to influence price. The higher the value, the greater extent to which the parameter could be considered to influence price.

ERGP is aware of the limitation of using single parameter regression models at the high level adopted, but further statistical analyses would go beyond the scope of this report.

### 2.1 Scope of the Universal Service Obligation (USO)

### 2.1.1 Overview

In this section we discuss how the scope of the Universal Service Obligation (USO) may influence tariffs. Specifically the scope of the USO may influence the cost of services which in turn may influence prices.

Under the pricing principles set out in Article 12 of the Third Postal Directive<sup>3</sup>, tariffs of USO products should be cost oriented, non-discriminatory, transparent and affordable. Further the service standard of the USO, for example the number of delivery days or the service levels, may influence the costs incurred, which in turn influence prices.

The scope of the USO within member states is defined with reference to the Postal Directive and includes at a minimum single piece letters and parcels. However, the precise implementation varies by member state and can be considered with reference to:-

<sup>&</sup>lt;sup>3</sup> Directive 2008/06/EC

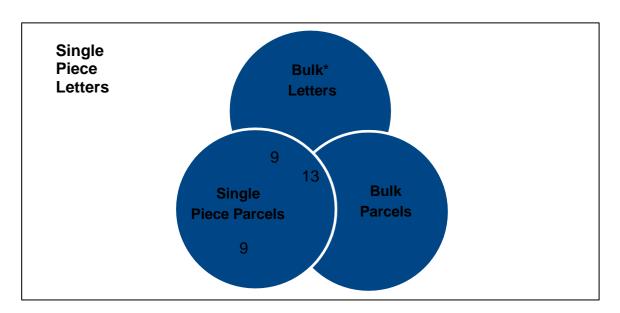


- The range of services included;
- Frequency of collection and delivery;
- The service targets applied.

Further, whilst not directly correlated to the scope of the USO, the 6<sup>th</sup> VAT Directive of 1977 states that VAT exemptions should exist for public postal services. The correct interpretation of this statement has been the subject of much debate as discussed later in this chapter. The inclusion or exclusion of VAT, as it applies only to the USO provider, and can influence both competition and price, dependent on the end user's ability to reclaim the VAT.

### 2.1.2 Range of Services in USO

We observe that there is a difference in scope of services included across countries. Whilst, all countries include single piece letters and parcels, others include bulk letters (considered here to include bulk mail, direct mail and periodicals) and / or bulk parcels.



#### Figure 2-1: Variation in Service Scope of USO by Countries in 2013 (By Number of Countries)<sup>4</sup>

\* Bulk defined to be included if one or more of Bulk Mail, Direct Mail, or Periodicals are included in the USO definition.

<sup>&</sup>lt;sup>4</sup> WIK Consult Report "*Main Developments in the Postal Sector (2010-2013)*" Table 2-16 ; Reviewed by Member States in ERGP Working Group



#### Figure 2-2: Table of Variation in Service Scope of USO in 2013 by country

Scope	Number	Countries
Single Piece Only	9	Bulgaria, Czech Republic, Germany, Estonia, Croatia,
		Lithuania, Netherlands, Poland, United Kingdom
Single Piece and	9	Greece, France, Iceland, Italy, Cyprus, Latvia,
Bulk Letters		Slovenia, Sweden, Norway
All	13	Austria, Belgium, Denmark, Hungary, Ireland, Spain,
		Luxembourg, Malta, Portugal, Romania, Serbia,
		Slovakia, Switzerland

#### 2.1.3 Quality of Service

The quality of service of the USO may influence costs which in turn influence prices. Quality of service can be considered with respect to five dimensions as outlined in the recent ERGP report "*Quality of Service and End User Satisfaction*"<sup>5</sup>.

These include:-

- Measurement of the quality of service concerning transit time
- Collection and Delivery
- Access Points
- Measurements of consumer satisfaction
- Surveys regarding customers' needs.

We consider the first two of these, providing an overview of how these may differ by member states and how they may influence prices.

#### **2.1.3.1** Transit Time Service Standards

The Postal Directive also requires "*the permanent provision of a postal service of specified quality*"<sup>6</sup>. Service standards are typically set and monitored by the National Regulatory Authority (NRA) and typically relate to the percentage of mail being delivered within a specified time limit e.g. the UK set a standard of 93% for the proportion of priority (D+1) single piece mail that should arrive the next day.

The charts below show each member state's achieved letter service level against target.

The targets for priority single piece letters range from 80% to 97% with the majority of member states exceeding their targets and achieving between 90% and 97% service performance.

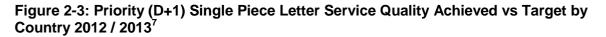
<sup>&</sup>lt;sup>5</sup> ERGP Report 2013 "Quality of Service and End User Satisfaction"

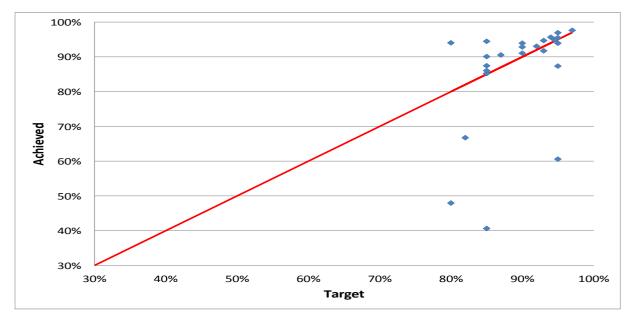
<sup>&</sup>lt;sup>6</sup> Third Postal Directive, Article 3



The targets for non-priority single piece letters range from 80% to 93% for D+2 services applicable in some countries, to 85% to 98.5%. Not all member states have targets for non-priority mail.

(The line indicates achievement of target, markers to the left of the line have exceeded the target, and those to the right have not met the target.)

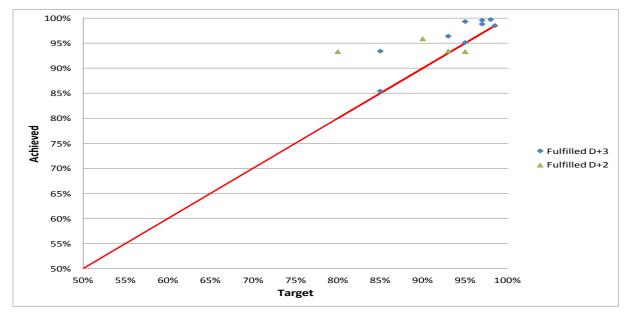




<sup>&</sup>lt;sup>7</sup> Source: 2014 ERGP Survey







Both quality of service targets and performance may influence costs, which in turn may influence price.

Considering quality of service targets, for example, transit targets may influence the amount of air transportation required or the amount of sortation completed at night.

Further, poor quality of service performance could also increase costs, for example, by the double or triple handing of mail items.

Nevertheless, the relationship between quality and costs may be difficult to observe on a European level as countries and operators differ so widely. Factors such as the size of the country, the density of population, the structure of mail flows, the efficiency of the mail operator, for instance, are all likely to have an influence on the quality of service and on the costs.

#### 2.1.3.2 Frequency of Collection and Delivery

Article 3 of the Postal Directive requires delivery and collection of the universal service on at least five working days a week but makes allowance for exceptional circumstances or geographies. All member states comply with the directive with some extending the requirement to 6 days per week for letters within the USO (Austria<sup>9</sup>, Denmark, Estonia,

<sup>&</sup>lt;sup>8</sup> Source: 2014 ERGP Survey

<sup>&</sup>lt;sup>9</sup> 6 days for newspapers, 5 days for all other products



Norway, France, Malta, Norway and UK).<sup>10</sup> The Netherlands has recently reduced its delivery days from 6 to 5.

Exceptions have been granted in many countries, mainly related to geography.

We would expect the USO provider to incur greater costs dependent on the number of delivery and collection days. This in turn would be expected to lead to differences in prices.

### 2.1.4 VAT Exemptions

This subject of VAT exemptions in post has been a cause of considerable debate and legal cases, a summary of which is outlined in WIK's report *"Main Developments in the Postal Sector (2010-2013)"*<sup>11</sup> and the ERGP report *"Net Cost of USO – VAT Exemption a benefit or burden*".<sup>12</sup>

As stated in the above reports, the 1977 Sixth VAT Directive mandates that the supply of *"public postal services*" should be exempt from VAT. The correct interpretation of this statement has been subject to review by the European Commission<sup>13</sup> and through legal cases before the Court of Justice of the European Union.<sup>14</sup>

The resulting interpretation is that VAT exemption should only apply as far as the strict discharge of the universal service obligation is concerned. Hence, USO services provided by a designated provider should be exempt from VAT, however VAT remains applicable to the equivalent services when provided by non USO providers.

The prices reviewed in this document are shown excluding VAT, however member states do not apply the VAT exemption consistently, as documented in detail in the ERGP report (referenced above) and summarised in the table below.

<sup>&</sup>lt;sup>10</sup> ERGP Report 2013 on the Quality of Service and End User Satisfaction

<sup>&</sup>lt;sup>11</sup> WIK "Main Developments in the Postal Sector (2010-2013)" Chapter 2.2.5

<sup>&</sup>lt;sup>12</sup> ERGP Report 2012

<sup>&</sup>lt;sup>13</sup> European Commission IP/06/484 (10 Apr 2006)

<sup>&</sup>lt;sup>14</sup> European Commission IP/08/141 (31 Jan 2008) and Case C-357/07 TNT Post UK Ltd v The Commissioners for HMRC [2009] ECR I-3025



### Figure 2-5 Table Showing USO VAT Status across Member States<sup>15</sup>

Country	VAT exemption regime applied	VAT rate on postal services	VAT exemption on all postal services (USP and alternatives)	Only the USP is exempted	VAT exemption on US only	VAT exemption on all USP's products	Recent changes	Effect of VAT changes
Austria	√	20%		~	~		The VAT exemption was lifted from non US products	The final prices were changed in the dimension of the amount VAT
Belgium	$\checkmark$	21%		√	$\checkmark$			one amount vin
Bulgaria	~	20%		√		1	"Postal money orders" service has been taken out from the US scope, respectively lifted from the VAT exemption	The prices for "Postal money orders" has been increased after the service was taken out of USO
Croatia	4	23%		4	~		The VAT exemption was lifted from items of correspondence up to 2 kilograms, packages up to 10 kilograms, and up to 20 kilograms in international incoming traffic, cecograms up to 7 kilograms	USP asked the increase in prices
Cyprus	~	NA		√		√		
Czech Republic	$\checkmark$	20%		√	√			
Denmark	1	25%		1	√			
Estonia	√	20%		1	√			
Finl and	~	23%		~	~		Since June 2011, the USP is VAT exempt	Decrease of parcels prices by 15% and stability of letters' tariffs
France	~	19,6%			~		The VAT exemption was lifted on some services from the Industrial Direct marketing and thus are no longer part of the US scope, thus subject to VAT	No change in net prices (VAT is added to current prices) and an adjustment of the services to offset the effects of VAT for some clients who cannot recoup VAT
Germany	~	19%		~	~		The VAT exemption scope was reduced. Bulk mail and access- services of Deutsche Post AG are not longer VAT exempted	Deutsche Post AG has reduced prices for access- services according to section 28 of the Postal Act (incidental services)
Greece	√	23%		√	√			
Hungary	<u>√</u>	27%		<b>√</b>	√			
Italy	√	21%		√	√		VAT at 22% as of <b>July 2013</b>	
Latvi a	1	22%		√	Only letters up to 50 gr.			
Lithuania	√	21%		<u>√</u>	<i>√</i>			
Luxembourg	√ √	15%			√ √			
Malta Norway	Ň	18% 25%		v v	Ŷ			
Poland	√	23%		√		~		
Portugal	1	23%		V.	√			
Rep. of Macedonia	√	18%		√		√		
Romania	√	24%		√	√			
Slovakia	√	20%		√	√			
Slovenia	√	20%		√	√			
Spain	√	1896		√	√		The VAT exemption was lifted from 2005 to 2010 on USO from non reserved services	NA
Sweden		25%						
Switzerland	√	8%					Since 2009, the USP opted for liability to taxation under art. 22, para 1, of the VAT Act. All postal services are since liable to VAT	There were no change in final price
The Netherlands	V	1996		V	Some US: letters up to 2 kg, parcels up to 10 kg, postal items in braille up to 7 kg; domestic transport of registered items and value- registered items			
United Kingdom	~	20%		~	√		Bulk products came out of USO and lost their VAT exemption status. A minor product "keepsafe" was added to the USO scope and became subject to VAT	NA

<sup>&</sup>lt;sup>15</sup> ERGP Report on Net Cost of USO. Note, since this table was produced the VAT in Slovenia has now been changed to 22%, and that of the Czech Republic to 21 %



### 2.2 Country specifics

Other factors that might influence prices relate to country specific data. It seems a priori that price differences between products with similar characteristics might be explained by country specifics of an economic nature: general price level and costs, on the one hand, and drivers of demand, on the other hand, such as affordability and the level of competition.

In this section, potential drivers of price relating to country specific factors are identified together with the data used to represent each potential price driver in our simple regression models.

The parameters considered were:-

- Labour Costs
- Internet Usage (e-substitution)
- Affordability
- Urbanisation
- Postal Access Points (excluding letter boxes)
- Postal Items per Inhabitant
- Postal Competition (end to end only)

### 2.2.1 General Price Level

The differences in prices of homogeneous products (for instance, domestic priority single piece stamped letter up to 20 g,) highlights the difficulties of comparing prices across borders across such an economically diversified international context. To enable a meaningful comparison, prices have been converted into Euros and adjusted for differences in general price level when investigating each potential price driver.

Table 2-1 shows price level disparities.

Comparative price level indices show the extent of price level differences and tell which countries are more expensive to live in (the highest values of the calculated index indicate the most expensive countries to live in). A price index higher than 100 indicates a relatively expensive country.



### Table 2-1 Price level disparities<sup>16</sup>

Countries	Price level disparity index
Austria	109,9
Belgium	110,9
Bulgaria	45,1
Croatia	65,4
Cyprus	87,8
Czech Republic	70,4
Denmark	136,5
Estonia	71,4
Finland	120,8
FYROM	40,0
France	112,0
Germany	103,4
Greece	89,3
Hungary	57,5
Iceland	112,2
Ireland	108,6
Italy	100,4
Latvia	66,8
Lithuania	60,3
Luxembourg	120,3
Malta	74,6
Montenegro	48,9
Netherlands	109,9
Norway	156,1
Poland	57,8
Portugal	80,6
Romania	48,4
Serbia	45,5
Slovakia	67,8
Slovenia	80,3
Spain	91,2
Sweden	133,1
Switzerland	153,7
United Kingdom	113,3

<sup>&</sup>lt;sup>16</sup> Source: Eurostat 2012, Price level indices (EU 28 = 100), Purchasing power parities (PPPs), Price level indices and real expenditures for ESA95 aggregates.



### 2.2.2 Labour Costs

The postal sector is considered to be a relatively labour-intensive industry.

Table 2-2 indicates the total (wage and non-wage) hourly labour costs in the services of the business economy converted into Euro at exchange rates adjusted for differences in general price level.

It shows large differences between countries with high cost of labour in the upper quartile of the series (Switzerland, Belgium, Sweden, ...) and countries with low cost of labour in the lower quartile (Bulgaria, Latvia, Lithuania, ...).

Despite adjustment for differences in general price level (i.e. the labour cost is divided by the price level disparity index), the dispersion is relatively large (the interquartile range<sup>17</sup> equals 79.9% of the median<sup>18</sup> value).

<sup>&</sup>lt;sup>17</sup> The quartiles of a data set are the three points that divide the ranked set of data values into four equal groups, each group comprising of a quarter of the data. The interquartile range equals the difference between the third point (or upper quartile) and the first point (or lower quartile). It provides a measure of the spread of the data (the statistical dispersion).

statistical dispersion). <sup>18</sup> The median is the data point which splits the ranked data set into two equal groups, each group comprising half of the data. The median is another name for the second quartile as described above.



#### Table 2-2 Labour costs<sup>19</sup>

Total (wage and non-wage) h business economy (EUR)	nourly labour costs in the ser	vices of the
Countries	at the current exchange rates	at the exchange rates adjusted for differences in general price level
Austria	29,2	26,6
Belgium	40,4	36,4
Bulgaria	4,0	8,8
Croatia	8,3	12,7
Cyprus	17,3	19,7
Czech Republic	10,9	15,5
Denmark	40,3	29,5
Estonia	8,8	12,3
Finland	29,6	24,5
France	34,7	31,0
Germany	28,4	27,5
Greece	15,6	17,5
Hungary	7,8	13,6
Ireland	26,6	24,5
Italy	27,6	27,5
Latvia	6,6	9,8
Lithuania	5,9	9,9
Luxembourg	37,9	31,5
Malta	12,8	17,2
Netherlands	30,7	27,9
Norway	45,1	28,9
Poland	7,2	12,5
Portugal	12,7	15,8
Romania	5,0	10,3
Slovakia	8,5	12,5
Slovenia	15,3	19,1
Spain	20,1	22,0
Sweden	42,2	31,7
Switzerland	58,1	37,8
United Kingdom	20,4	18,0

<sup>&</sup>lt;sup>19</sup> Source: Eurostat 2012, Labour cost levels (Services of the business economy), Total labour costs (total). Calculations performed by ERGP. These labour rates are not for delivery of postal services, actual labour rates for delivery of postal services may be higher or lower in respective European countries.



### 2.2.3 E-Substitution

E-substitution might be considered to be closely related to levels of internet usage which could be seen to influence demand.

Table 2-3 provides data on the different levels of internet usage across member states. The table shows the percentage of people undertaking different internet related activities by country. (Data are for the year 2012 unless otherwise specified.)



### Table 2-3 Internet use and activities<sup>20</sup>

Countries	Sending/receivinge-mails	Posting messages to social media sites or instant messaging	Reading and posting opinions on civic or political issues via websites (2011)	Taking part in on-line consultations or voting to define civic or political issues (2013)	Participating in social or professional networks (2013)	Reading online news sites/newspapers/news magazines (2013)	Interaction with public authorites	Sending filled forms	Online purchase	No Internet use
Austria	73%	37%	16%	11%	42%	41%	53%	26%	48%	17%
Belgium	74%	49%	5%	4%	49%	36%	50%	29%	45%	15%
Bulgaria	42%	30%	10%	3%	38%	38%	27%	11%	9%	42%
Croatia	49%	35%	8%	7%	40%	56%	26%	9%	23%	35%
Cyprus	46%	37%	7%	3%	45%	48%	30%	15%	21%	36%
Czech Republic	69%	25%	14%	3%	38%	63%	30%	13%	32%	19%
Denmark	86%	48%	24%	11%	66%	70%	83%	69%	73%	6%
Estonia	70%	44%	17%	6%	52%	73%	55%	33%	23%	19%
Finland	81%	49%	43%	19%	51%	79%	70%	45%	65%	7%
France	72%	33%	8%	10%	40%	41%	61%	40%	57%	15%
Germany	76%	34%	23%	10%	44%	57%	51%	15%	65%	15%
Greece	41%	32%	15%	5%	37%	46%	34%	18%	20%	42%
Hungary	67%	43%	14%	3%	58%	60%	42%	21%	25%	26%
Iceland	93%	65%	40%	25%	80%	83%	86%	75%	54%	3%
Ireland	66%	46%	12%	3%	50%	33%	49%	38%	46%	18%
Italy	48%	29%	13%	6%	33%	40%	19%	8%	17%	37%
Latvia	63%	37%	27%	4%	55%	64%	47%	17%	27%	24%
Lithuania	53%	47%	21%	6%	44%	62%	36%	29%	20%	31%
Luxembourg	87%	50%	28%	13%	60%	77%	61%	25%	68%	6%
Malta	60%	44%	14%	9%	52%	48%	41%	17%	44%	29%
Netherlands	89%	65%	25%	7%	60%	56%	67%	50%	65%	6%
Norway	89%	58%	27%	10%	70%	87%	78%	51%	76%	4%
Poland	51%	42%	6%	2%	37%	27%	32%	11%	30%	32%
Portugal	53%	45%	15%	7%	45%	45%	39%	27%	22%	34%
Romania	38%	22%	7%	2%	34%	29%	31%	4%	5%	48%
Slovakia	70%	47%	8%	3%	49%	43%	42%	17%	45%	18%
Slovenia	57%	45%	14%	8%	39%	57%	48%	15%	34%	28%
Spain	62%	43%	14%	10%	48%	50%	45%	23%	31%	27%
Sweden	86%	54%	11%	14%	60%	80%	78%	45%	74%	5%
Switzerland	80%	27%	28%	n.a.	31%	63%	61%	n.a.	47%	14%
United Kingdom	78%	57%	12%	8%	61%	58%	43%	26%	73%	10%

<sup>&</sup>lt;sup>20</sup> Source: Eurostat 2012, Internet use and activities.



### 2.2.4 Affordability

Affordability can be measured with reference to the differences in nominal prices and net earnings. Table 2-4 shows annual net earnings for a single person without children, which is the most homogeneous net earnings index. Consistent with our approach investigating each potential parameter, the figures have been converted into Euros and adjusted for differences in general price level.

Despite adjustment, the figures show large differences between countries in the upper quartile (or top 25%, refer to earlier footnote on quartiles for definition) of the series with annual net earnings above or equal to than EUR 25.000 (Switzerland, Luxembourg, Norway, ...) and countries in the lower quartile with annual net earnings equal to or below EUR 11.400 (Bulgaria, Romania, Latvia, ...).



### Table 2-4 Annual net earnings – Single person without children<sup>21</sup>

Countries	Annual net earnings (EUR) - single person without children
Austria	24.538
Belgium	23.769
Bulgaria	7.982
Cyprus	13.560
Czech Republic	11.040
Denmark	23.681
Estonia	12.285
Finland	24.240
France	23.472
Germany	26.039
Greece	16.787
Hungary	10.543
Ireland	24.664
Italy	19.926
Latvia	9.300
Lithuania	9.354
Luxembourg	30.775
Malta	22.160
Netherlands	28.746
Norway	29.642
Poland	12.092
Portugal	15.269
Romania	8.360
Slovakia	11.171
Slovenia	14.360
Spain	21.332
Sweden	25.280
Switzerland	38.342
United Kingdom	28.003

<sup>&</sup>lt;sup>21</sup> Source: Eurostat 2012, Annual net earnings (National currency). Calculations performed by ERGP.



### 2.2.5 Urbanisation and Population Density

Other country specific factors include transport and accessibility. These might be linked to geography (population density) or urban environment (distribution of population by degree of urbanisation and by dwelling type). Table 2-5 summarizes geographical and urban-related series and Table 2-6 shows the average population density. There is no clear statistical relationship between these that could be used to establish a strict typology of European countries taking into account population density on the one hand and geographical and urban-related variables on the other hand.



### Table 2-5 Distribution of population by degree of urbanisation and dwelling type<sup>22</sup>

			Distributio	on of populat	ion (total)		
	by deg	ree of urbani		<u> </u>	by dwelli	ing type	
Countries	Densely- populated area (density greater than 500 inhabitants/km², population of at least 50.000 inhabitants)	Intermediate urbanised area (density greater than 100 inhabitants/km², population of at least 50.000 inhabitants)	Thinly-populated area	Detached house	Semi-detached house	Flat in a building with less than ten dwellings	Flat in a building with ten or more dwellings
Austria	30,2%	28,1%	41,8%	49,2%	7,2%	16,9%	25,6%
Belgium	53,7%	42,0%	4,3%	37,1%	41,8%	14,4%	6,4%
Bulgaria	42,8%	22,6%	34,6%	46,0%	10,5%	5,4%	37,8%
Croatia	29,7%	19,9%	50,4%	73,0%	6,1%	6,3%	14,5%
Cyprus	51,5%	21,7%	26,8%	47,0%	27,7%	15,8%	8,3%
Czech Republic	30,2%	31,0%	38,8%	37,2%	9,9%	12,5%	40,0%
Denmark	33,7%	21,7%	44,6%	57,1%	12,5%	7,0%	23,0%
Estonia	42,0%	16,9%	41,1%	29,8%	4,6%	9,9%	55,1%
Finland	26,3%	14,0%	59,7%	47,2%	18,6%	1,5%	32,1%
France	45,8%	19,7%	34,5%	44,2%	22,5%	11,1%	22,0%
Germany	35,3%	39,6%	25,2%	28,6%	16,7%	35,9%	17,3%
Greece	47,8%	12,4%	39,8%	32,1%	8,1%	35,0%	24,7%
Hungary	29,6%	32,6%	37,8%	63,9%	5,4%	4,4%	25,7%
Iceland	63,8%	0,0%	36,2%	34,9%	18,2%	14,1%	31,8%
Ireland Italy	34,2% 43,5%	27,4% 41,0%	38,4% 15,5%	35,7% 22,0%	59,9% 26,5%	2,3% 24,8%	2,1% 26,2%
Latvia	45,3%	41,0%	46,8%	22,0%	20,5%	24,0%	26,2% 55,8%
Lithuania	43,3%	8,0% 10,3%	40,8%	31,8%	3,0% 6.8%	6,6%	55,8% 51,0%
Luxembourg	15,9%	37,8%	46,3%	36,4%	29,9%	22,7%	10,5%
Malta	88,9%	11,0%	0,1%	4,5%	44,8%	46,6%	3,7%
Netherlands	47,3%	38,0%	14,7%	16,2%	60,0%	4,9%	13,7%
Norway	53,3%	16,9%	29,8%	60,7%	20,2%	3,4%	10,0%
Poland	33,9%	24,5%	41,6%	48,9%	4,7%	9,6%	36,6%
Portugal	43,1%	28,6%	28,3%	40,6%	17,8%	24,1%	17,2%
Romania	33,7%	23,8%	42,5%	60,5%	1,7%	3,6%	34,2%
Slovakia	24,1%	31,5%	44,4%	49,9%	1,8%	6,8%	41,3%
Slovenia	18,8%	37,4%	43,9%	66,6%	4,1%	7,8%	21,1%
Spain	50,4%	22,9%	26,7%	13,6%	21,2%	18,9%	46,1%
Sweden	20,8%	17,0%	62,2%	50,6%	8,9%	8,8%	31,4%
Switzerland	26,1%	49,4%	24,5%	23,8%	13,1%	37,2%	22,4%
United Kingdom	57,0%	29,4%	13,6%	23,9%	60,9%	9,1%	5,4%

<sup>&</sup>lt;sup>22</sup> Source: Eurostat 2012, Distribution of population by degree of urbanisation, dwelling type and income group (source: SILC).



### Table 2-6 Population density<sup>23</sup>

Countries	Population density (inhabitant/km²)
Austria	100,5
Belgium	364,5
Bulgaria	65,9
Croatia	75,4
Cyprus	93,4
Czech Republic	133,3
Denmark	129,8
Estonia	29,2
Finland	16,0
FYROM	80,2
France	115,2
Germany	229,5
Greece	84,1
Hungary	106,6
Iceland	3,1
Ireland	65,3
Italy	197,6
Latvia	31,5
Lithuania	45,8
Luxembourg	205,3
Malta	1.327,4
Montenegro	45,0
Netherlands	403,3
Norway	15,5
Poland	123,2
Portugal	114,2
Romania	84,1
Serbia	92,9
Slovakia	110,3
Slovenia	101,5
Spain	92,6
Sweden	21,1
Switzerland	193,7
United Kingdom	261,5

<sup>&</sup>lt;sup>23</sup> Source: Eurostat 2012, Land cover overview; Population on 1 January by age and sex. Calculations performed by ERGP.



### 2.2.6 Postal Access Points

Price differences might also be explained by postal statistics: cost factors (the number of access points to postal services), economies of scale (the number of postal items per inhabitant), and competition in the postal market (the number of key postal services providers, the cumulative market share of the major postal services providers).

Table 2-7 shows the total number of access points to postal services (excluding letter boxes) and the number of permanent access points to postal services (excluding letter boxes) per thousand square kilometres.

Except in Iceland (0,6), Finland (2,7), Sweden (4,0), Cyprus (6,6), Germany (103,6) and Malta (205,7) for different and purely circumstantial reasons, the number of permanent access points to postal services per thousand square kilometres does not present any large differences: the first quartile<sup>24</sup> equals 22,6 and the median<sup>25</sup> equals 30,8 whereas the average equals 32,2.

The countries surveyed can be divided into 3 categories according to the access points' density: low (Lithuania, Former Yugoslav Republic of Macedonia, Greece, Spain and Serbia), intermediate (Latvia, Slovenia, Romania, Hungary, Austria, France, Slovakia, Bulgaria and Croatia) and high (Portugal, Czech Republic, Belgium, Italy, Poland, United Kingdom, Netherlands and Switzerland).

<sup>&</sup>lt;sup>24</sup> Refer to earlier footnote definition. The first (also called the lower) quartile splits off the lowest 25% of a data set from the highest 75%.

<sup>&</sup>lt;sup>25</sup> Refer to earlier definition. The median splits off the lower half of a data set from the higher half.



### Table 2-7 Access points to postal services<sup>26</sup>

Number of permanen (exclu	t access points to p uding letter boxes)	ostal services
Countries	Total Number	Number per thousand square kilometres
Austria	2.501	29,8
Belgium	1.353	50,2
Bulgaria	4.042	36,5
Croatia	2.119	37,4
Cyprus	61	6,6
Czech Republic	3.403	43,1
Finland	922	2,7
FYROM	330	12,8
France	17.000	30,8
Germany	36.999	103,6
Greece	2.054	15,6
Hungary	2.741	29,5
Iceland	63	0,6
Italy	13.676	45,4
Latvia	1.676	25,9
Lithuania	836	12,8
Malta	65	205,7
Netherlands	2.205	53,1
Poland	14.382	46,0
Portugal	3.861	41,9
Romania	6.859	28,8
Serbia	1.499	19,3
Slovakia	1.700	34,7
Slovenia	560	27,6
Spain	9.490	18,8
Sweden	1.815	4,0
Switzerland	2.254	54,6
United Kingdom	12.000	49,3

### 2.2.7 Postal Items per Inhabitant

Table 2-8 shows the number of letter items per inhabitant, including addressed advertising items (direct mail), hybrid mail, registered and insured letters, but excluding newspapers.

<sup>&</sup>lt;sup>26</sup> Source: 2014 ERGP Survey



This series shows considerable differences. The countries surveyed can be divided into 3 categories according to the number of letter items per inhabitant: low (Hungary, Latvia, Bulgaria, Romania, Lithuania, Former Yugoslav Republic of Macedonia, Greece and Serbia), intermediate (Slovakia, Cyprus, Croatia, Spain, Portugal, Italy, Malta, Germany, Iceland, Slovenia and Poland) and high (Finland, United Kingdom, Belgium, France, Sweden, Switzerland and Cyprus).

Table 2-8 Letter-items per inhabitant, per year <sup>2</sup>
--

Countries	Number of letter post items per inhabitant, including addressed advertising items (direct mail), hybrid mail, registered and insured letters, excluding newspapers, per year	
Belgium	220,1	
Bulgaria	21,0	
Croatia	68,0	
Cyprus	67,5	
Finland	193,9	
FYROM	31,0	
France	224,9	
Germany	106,2	
Greece	42,9	
Hungary	0,9	
Iceland	110,4	
Italy	88,7	
Latvia	19,0	
Lithuania	24,8	
Malta	98,0	
Poland	131,4	
Portugal	77,6	
Romania	24,4	
Serbia	43,2	
Slovakia	55,2	
Spain	74,6	
Sweden	267,4	
Switzerland	333,8	
United Kingdom	216,7	

<sup>&</sup>lt;sup>27</sup> Source: 2014 ERGP Survey



Country classifications or categorisations (1) according to the number of permanent access points to postal services per thousand square kilometres and (2) according to the number of letter items per inhabitant and per year correspond in the lower category for Lithuania, the Former Yugoslav Republic of Macedonia, Greece and Serbia, in the intermediate category for Slovenia, Slovakia and Croatia, and in the upper category for Belgium, the United Kingdom and Switzerland. The expansion of postal services in the other countries cannot be unambiguously identified based on these parameters.

### 2.2.8 Competition in Post

Competition in post can be characterised by the number of end to end postal services providers and the cumulative market share of the major postal services providers. In the different countries the postal market can be identified on the one hand as monopolistic, oligopolistic or fair, on the other hand as concentrated or fragmented. Table 2-9 shows the number of end to end postal service providers and the cumulative market share (based on revenues) of the 3 major postal service providers, including the designated universal service provider for both the letter and parcel markets.



### Table 2-9 Competition on the postal market<sup>28</sup>

	Competition <sup>29</sup>			
	Letters		Postal parcels	
Countries	Number of key postal services provider, including the USP	Cumulative market share (based on revenues) of the 3 major postal service providers, including the USP	Number of key postal service providers, including the USP	Cumulative market share (based on revenues) of the 3 major postal service providers, including the USP
Austria	1	95,0%	10	n.a.
Belgium	2	100,0%	8	93,0%
Bulgaria	6	98,6%	6	99,6%
Croatia	3	100,0%	5	88,7%
Cyprus	1	100,0%	1	100,0%
Czech Republic	3	100,0%	5	n.a.
Finland	2	100,0%	20	70,0%
FYROM	4	99,1%	4	74,2%
France	1	99,0%	1	99,0%
Germany	3	90,0%	5	70,0%
Greece	9	85,4%	9	40,6%
Hungary	1	100,0%	279	46,3%
Iceland	2	100,0%	1	100,0%
Ireland	7	n.a.	7	n.a.
Italy	2	99,0%	1	100,0%
Latvia	4	55,0%	3	58,0%
Lithuania	39	82,4%	32	58,5%
Malta	2	100,0%	2	100,0%
Netherlands	2	99,0%	n.a.	n.a.
Portugal	1	100,0%	1	100,0%
Romania	11	n.a.	11	n.a.
Serbia	1	100,0%	1	100,0%
Slovakia	10	97,7%	15	66,2%
Slovenia	6	n.a.	9	n.a.
Spain	2	97,0%	6	n.a.
Sweden	2	99,5%	5	n.a.
Switzerland	1	100,0%	11	93,0%
United Kingdom	1	99,0%	8	50,0%

<sup>28</sup> Source: 2014 ERGP Survey <sup>29</sup> end-to-end competition



Based on a 95% confidence interval<sup>30</sup>, there is clearly no statistical relationship between market openness (the number of key postal services providers) and concentration (the cumulative market share of the major postal services providers). On the basis of this observation, it must be concluded that establishing a single typology of European countries is not possible.

This analysis did not consider the prevalence of access competition.

### 2.3 Company specifics

Other factors that might influence prices relate to company specific data.

The postal companies themselves are very different, which may also cause differences in prices. Differences can be observed in the scope of business (businesses outside traditional postal services, international businesses), the degree of automation and the product mix (single piece, bulk, letter, parcel, financial services etc).

In this section, potential drivers of price relating to country specific factors are identified together with the data used to represent each potential price driver in our simple regression models.

The parameters considered were:-

- Scope of Postal Company's Business
- Level of Automation
- Product Mix

#### 2.3.1 Company Scope

The following table shows the share of revenue for letter, parcels and financial services. Less than one third of the revenue coming from letter can be observed in Germany, Bulgaria, Serbia and Norway. More than two third of the revenue coming from letter can be observed in Lithuania, Former Yugoslav Republic of Macedonia, Portugal, Greece, Belgium and Poland.

In most countries the postal operator offers financial services except in Finland, Sweden, United Kingdom and Germany (only pension services). No information was available for Croatia, Denmark, Estonia, Iceland, Montenegro and Netherlands.

In Slovakia, Latvia, Italy, Former Yugoslav Republic of Macedonia, France, Hungary, Switzerland and Serbia 20% or more of the revenue is generated from financial services. One may suppose that a strong business coming from financial services may influence prices in letter or parcel markets. Analysis of the data available did not show a correlation

<sup>&</sup>lt;sup>30</sup> Confidence intervals are used to describe how reliable survey results are.



between prices of a single piece letter up to 20g or a 2 kg parcel expressed in Euro and the different revenue-shares of letter, parcel or financial services.

Countries	Letters	Parcels	Financial
Austria	64,0%	36,0%	0,0%
Belgium	78,5%	7,0%	9,0%
Bulgaria	26,1%	2,9%	4,8%
Cyprus	79,7%	15,6%	0,1%
Czech Republic	42,0%	14,0%	21,0%
FYROM	67,9%	2,2%	21,8%
France	47,4%	7,1%	25,0%
Germany	15,8%	6,8%	-
Greece	75,4%	3,8%	14,5%
Hungary	48,6%	23,8%	27,6%
Iceland	62,8%	20,6%	-
Italy	12,0%	1,9%	20,5%
Latvia	60,0%	7,0%	20,0%
Lithuania	67,3%	11,9%	18,7%
Poland	80,3%	7,3%	n/a
Portugal	74,0%	18,0%	8,0%
Serbia	32,1%	0,6%	35,5%
Slovakia	54,0%	6,0%	20,0%
Spain	78,0%	5,0%	<1%
Sweden	60,4%	33,3%	0,0%
Switzerland	34,5%	18,4%	27,7%
United Kingdom	52,0%	48,0%	0,0%

### Table 2-10 Revenue share intracompany<sup>31</sup>

A lot of postal operators run businesses in countries other than their home country, e.g. Finland, Sweden, United Kingdom, Germany, Austria, Belgium, France, Ireland, Norway, Portugal, Switzerland and Netherlands. These subsidiaries are not only in Europe but around the world.

Some of the countries offer services besides traditional postal and financial services, such as third party and logistics and express services.

<sup>&</sup>lt;sup>31</sup> Source: 2014 ERGP Survey



### 2.3.2 Levels of Automation

Additionally across Europe there are very different levels of automation. There are some countries with 100% hand sorting and others with all sorting done by machines. This may influence prices, but due to the small numbers of countries with data available a statistical analysis was not possible.

### 2.3.3 Product Mix

The ERGP also considered that price (and costs) might be influenced by product mix, and in particular the relative volume of bulk mail. As there was only data from 16 countries available, a statistical analysis was not possible. The range of the relative share of bulk mail ranges from 32% up to 100%.

Countries	Approximate share of bulk letters (in % of total letter mail items)	
Cyprus	90,0%	
FYROM	60-70%	
France	32%	
Greece	52,7%	
Hungary	89,8%	
Iceland	56,4%	
Italy	73,0%	
Lithuania	50,8%	
Malta	100,0%	
Portugal	57,0%	
Serbia	76,0%	
Slovakia	50,0%	
Spain	80%	
Sweden	68,0%	
Switzerland	48,7%	
United Kingdom	70,0%	

#### Table 2-11 relative share bulk letters<sup>32</sup>

<sup>&</sup>lt;sup>32</sup> Source: 2014 ERGP Survey



### 3 Product Analysis

This chapter describes the analysis conducted to investigate which of the parameters outlined in chapter 2 influenced prices.

In order to conduct the analysis, common definitions of products were sought. However, very dissimilar weight categories were observed across countries.

In the letter market there are numerous countries with a first weight category of up to 20g. Other countries have a much wider range of first weight step (e.g. Poland up to 350g). So, when comparing prices for 20g one should bear in mind that e.g. for Poland the price is the same for letters up to 350g.

Further, in some countries customers can use cheaper non-priority mail, whereas in other countries customers don't have this choice.

There are even more differences in the product structures of parcels. To facilitate comparison, specific product types were selected which included consideration of different weights, formats (length, etc.), payment methods (e.g. in Germany: different prices exist for Ordinary Parcels between those paid at a branch and online), destination (e.g. Bulgaria and Former Yugoslav Republic of Macedonia have different prices for "same city"/"same settlement" and "other city"/"other settlement") and speed of delivery (e.g. priority parcels are offered in Switzerland and Poland).

The products chosen to investigate price drivers and for comparison across countries were:-

- Single piece letter 20g priority
- Single piece letter 50g priority
- Single piece letter 500g priority
- Single piece parcel 1kg
- Single piece letter 2kg
- Single piece letter 10kg
- Bulk mail

### 3.1 Single piece letter 20g priority

To compare prices in the report, the following prices were taken, for those countries where a choice was available:

- Norway: the price for a letter up to 2cm thickness (there are also prices for letters up to 7cm thickness)
- Lithuania: the price for a letter up to 2cm thickness (there is also a price for large items (the sum of length, width, and thickness not more than 900 mm, the greatest dimension may not exceed 600 mm)



Table 3-1 compares the prices for a domestic letter<sup>33</sup> up to 20 g<sup>34</sup>, converted into EUR

- at the current exchange rates (2012 average annual rates) and
- at the adjusted exchange rates, i.e. at the exchange rates adjusted for differences in general price level<sup>35</sup>.

 <sup>&</sup>lt;sup>33</sup> Prices (excluding VAT) for a domestic priority single piece letter-post item up to 20 g within the universal service, stamped.
 <sup>34</sup> In practice, however: up to 30 g in Hungary, up to 50 g in Belgium, Bulgaria, Croatia, the Czech Republic,

<sup>&</sup>lt;sup>34</sup> In practice, however: **up to 30 g** in Hungary, **up to 50 g** in Belgium, Bulgaria, Croatia, the Czech Republic, Finland, Luxembourg, Malta, Slovakia and Sweden, **up to 100 g** in Ireland, Switzerland and the United Kingdom, and **up to 350 g** in Poland.
<sup>35</sup> Cf. Eurostat 2012, Price level indices (EU 28 = 100), Purchasing power parities (PPPs), Price level indices and

<sup>&</sup>lt;sup>35</sup> Cf. Eurostat 2012, Price level indices (EU 28 = 100), Purchasing power parities (PPPs), Price level indices and real expenditures for ESA95 aggregates. Comparative price level indices show the extent of price level differences and tell which countries are more expensive to live in.



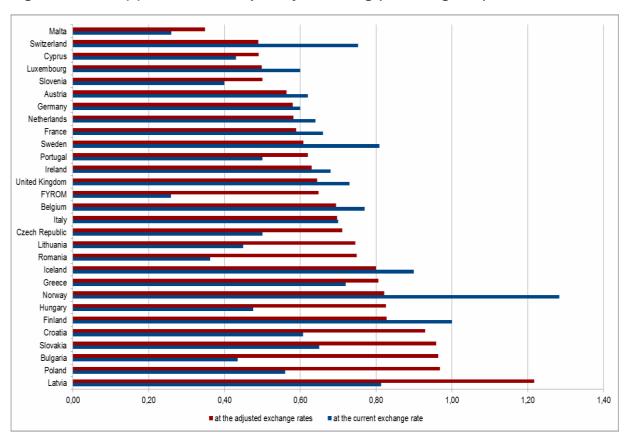
# Table 3-1 Price ( $\in$ ) for a domestic priority single piece letter-post item 20 g within the universal service, stamped (excluding VAT)<sup>36</sup>

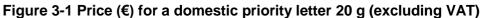
Countries	at the current exchange rate	at the adjusted exchange rates
Austria	0,62	0,56
Belgium	0,77	0,69
Bulgaria	0,43	0,96
Croatia	0,61	0,93
Cyprus	0,43	0,49
Czech Republic	0,50	0,71
Finland	1,00	0,83
France	0,66	0,59
FYROM	0,26	0,65
Germany	0,60	0,58
Greece	0,72	0,81
Hungary	0,48	0,83
Iceland	0,90	0,80
Ireland	0,68	0,63
Italy	0,70	0,70
Latvia	0,81	1,22
Lithuania	0,45	0,75
Luxembourg	0,60	0,50
Malta	0,26	0,35
Netherlands	0,64	0,58
Norway	1,28	0,82
Poland	0,56	0,97
Portugal	0,50	0,62
Romania	0,36	0,75
Slovakia	0,65	0,96
Slovenia	0,40	0,50
Sweden	0,81	0,61
Switzerland	0,75	0,49
United Kingdom	0,73	0,64
arithmetical mean	0,63	0,71
median	0,62	0,69

<sup>&</sup>lt;sup>36</sup> Source: 2014 ERGP Survey



Figure 3-1 shows the differences and highlights the difficulties of comparing prices across borders in a so economically diversified international context.





ERGP looked into dependencies between prices and labour cost. The postal sector is a relatively labour-intensive industry. Letter prices and labour costs are positively and, based on a 98% confidence interval, significantly correlated. The correlation coefficient<sup>37</sup> between the letter prices<sup>38</sup> and the hourly labour costs in the services of the business economy (both converted into EUR at the current exchange rates) equals 0,606. The linear regression<sup>39</sup> explains the dispersion to a certain extent: the coefficient of determination<sup>40</sup> (the square of the correlation coefficient) equals 36,7%. This means that 36,7% of the dispersion in prices is explained by differences in labour cost.

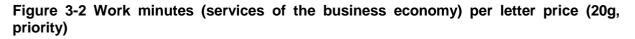
<sup>&</sup>lt;sup>37</sup> The correlation coefficient indicates the degree to which the movements of two variables are associated. Its value may vary within the limits from -1 to +1. -1 indicates perfect negative correlation and +1 indicates perfect positive correlation. Correlation does not imply causation.
<sup>38</sup> Prices (excluding VAT) for a domestic priority single piece letter-post item up to 20 g within the universal

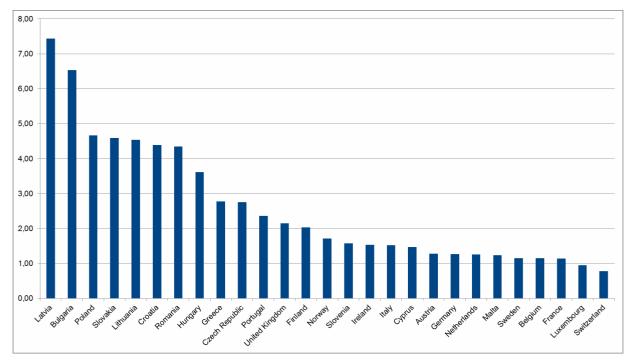
<sup>&</sup>lt;sup>38</sup> Prices (excluding VAT) for a domestic priority single piece letter-post item up to 20 g within the universal service, stamped. <sup>39</sup> Linear regression is an approach for modelling the relationship between a dimensional service.

<sup>&</sup>lt;sup>39</sup> Linear regression is an approach for modelling the relationship between a dependent variable and one (simple linear regression) or more (multiple linear regression) explanatory variables.

<sup>&</sup>lt;sup>40</sup> The coefficient of determination indicates how well data fit a statistical model.







As outlined in chapter 2, affordability can be measured as a comparison between nominal prices for standard letters and net earnings, the most homogeneous of which across Europe are those for a single person without children. Figure 3-3 indicates the letter prices<sup>41</sup> expressed in part (per thousand) of the daily net earnings of a single person without children. This indicator varies from 4,7 ‰ (more affordable) in Switzerland to 47,8 ‰ (less affordable) in Latvia.

<sup>&</sup>lt;sup>41</sup> Prices (excluding VAT) for a domestic priority single piece letter-post item 20 g within the universal service, stamped.



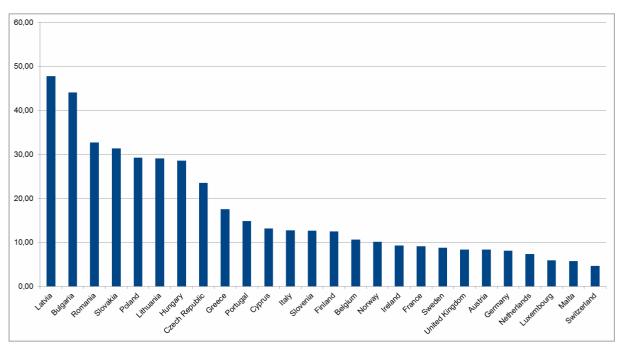


Figure 3-3 Letter price (20g, priority) in part of the daily net earnings (‰)

Other <u>country specifics in relation with issues regarding transport and accessibility</u> are geographical (population density) or linked to urban environment (distribution of population by degree of urbanisation and by dwelling type). However, the correlation coefficients between the price series and these geographical and urban-related series calculated from the data available are low.

Based on a 98% confidence interval, the correlation coefficient between the letter prices<sup>42</sup> and the population density, is statistically significant. But the linear regression explains the dispersion to a small extent: only 20,2% of the dispersion in letter prices is explained by differences in population density.

On the other hand, the correlation coefficients between the letter prices<sup>43</sup> and the distribution of the population by degree of urbanisation (densely-populated areas, intermediate urbanised areas and thinly-populated areas) are not statistically significant. In other words, there is no observed relationship between letter price and urbanisation degree.

On the contrary, the correlation coefficients between the letter prices<sup>44</sup> and the distribution of the population by dwelling type (detached house, semi-detached house, flat in a building with less than ten dwellings and flat in a building with ten or more dwellings) are all significant. But even then the linear regression explains moderately the dispersion, since the coefficient of (multiple) determination does not exceed 49,1%.

<sup>&</sup>lt;sup>42</sup> Price (excluding VAT) for a domestic priority single piece letter-post item 20 g within the universal service, stamped, converted into EUR at the exchange rates adjusted for differences in general price level.
<sup>43</sup> Id.

<sup>&</sup>lt;sup>44</sup> Id.



### 3.2 Single piece letter 50g priority

This and the following chapter (parcels) will show the same charts as shown in the chapter before (for single piece letter 20g priority). So first a table shows the prices of the product at current and at adjusted exchange rate, followed by a diagram based on this figures (sorted by the price at adjusted exchange rate). A next diagram will show how many minutes of work is covered by the price and finally a diagram shows the percentage (per mill) of the price related to the daily net-income.

As in the chapter before the following table and figure compares the prices for a domestic letter of 50 g, converted into EUR

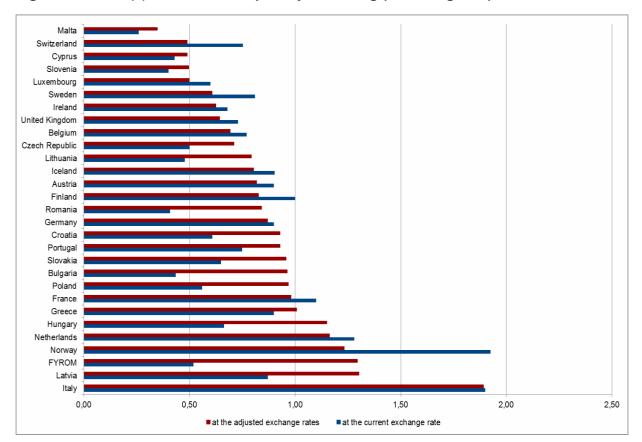
- at the current exchange rates (2012 average annual rates) and
- at the adjusted exchange rates, i.e. at the exchange rates adjusted for differences in general price level.

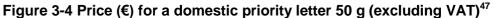


Country	at the current exchange rate	at the adjusted exchange rates
Austria	0,90	0,82
Belgium	0,77	0,69
Bulgaria	0,43	0,96
Croatia	0,61	0,93
Cyprus	0,43	0,49
Czech Republic	0,50	0,71
Finland	1,00	0,83
France	1,10	0,98
FYROM	0,52	1,30
Germany	0,90	0,87
Greece	0,90	1,01
Hungary	0,66	1,15
Iceland	0,90	0,80
Ireland	0,68	0,63
Italy	1,90	1,89
Latvia	0,87	1,30
Lithuania <sup>46</sup>	0,48	0,79
Luxembourg	0,60	0,50
Malta	0,26	0,35
Netherlands	1,28	1,16
Norway	1,92	1,23
Poland	0,56	0,97
Portugal	0,75	0,93
Romania	0,41	0,84
Slovakia	0,65	0,96
Slovenia	0,40	0,50
Sweden	0,81	0,61
Switzerland	0,75	0,49
United Kingdom	0,73	0,64
arithmetical mean	0,78	0,87
median	0,73	0,84

 <sup>&</sup>lt;sup>45</sup> Same price for letters up to 100 g in Ireland, Switzerland and the United Kingdom, and up to 350 g in Poland.
 <sup>46</sup> Lithuania: price for 50 g letter up to 2cm thickness (there are also price for 50 g large correspondence item (the sum of length, width, and thickness – not more than 900 mm, the greatest dimension may not exceed 600 mm)







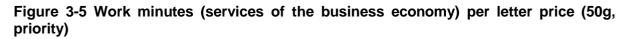
As in the chapter before ERGP analysed the dependencies between prices and labour cost. The correlation between prices and labour cost for a 50g letter is less than for 20g letter. The coefficient of determination is 25,6% (36,7% for a 20g letter). Furthermore ERGP investigated possible dependencies between price and the following parameters:

- Flat in a building with ten or more dwellings
- Thinly-populated area
- Densely-populated area (density greater than 500 inhabitants / km2, population of at least 50.000 inhabitants)
- requirement D+1
- number of letters per inhabitant
- share of letter revenue
- share of bulk mail

These parameters didn't show significant relationship with the price of 50g letter.

<sup>&</sup>lt;sup>47</sup> Source: 2014 ERGP Survey





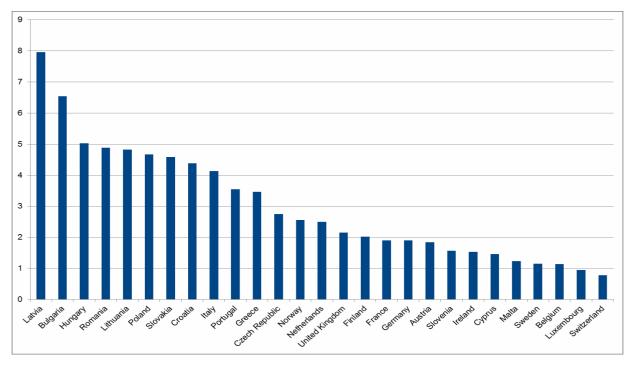
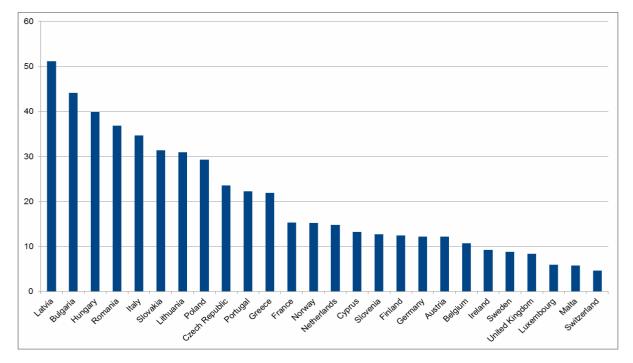


Figure 3-6 Letter price (50g, priority) in part of the daily net earnings (‰)





As mentioned in the chapter before, one way affordability can be measured is comparing nominal prices and net earnings. Figure 3-6 indicates the letter prices<sup>48</sup> expressed in part (per thousand) of the daily net earnings of a single person without children. This indicator varies from 4,7 % (more affordable) in Switzerland to 51,1 % (less affordable) in Latvia.

### 3.3 Single piece letter 500g priority

The next table and figure compares the prices for a domestic letter of 500 g, converted into EUR in the same way as it was done for 20 g and 50g. 500g was chosen as an example for a larger item, sent by letter rather than by parcel.

<sup>&</sup>lt;sup>48</sup> Prices (excluding VAT) for a domestic priority single piece letter-post item 50 g within the universal service, stamped.

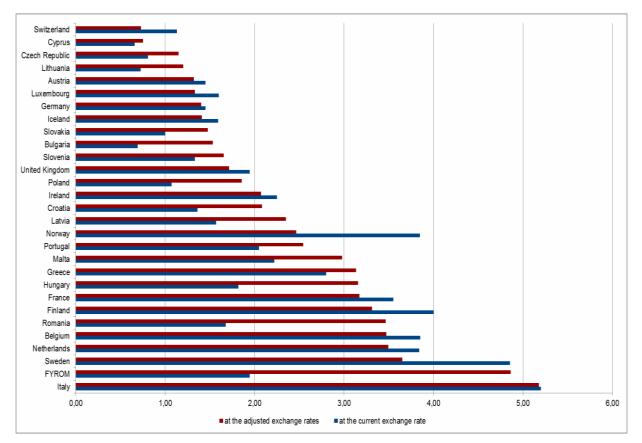


Table 3-3 Price (€) for a domestic priority letter 500 g (excludin
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Country	at the current exchange rate	at the adjusted exchange rates
Austria	1,45	1,32
Belgium	3,85	3,47
Bulgaria	0,69	1,53
Croatia	1,36	2,08
Cyprus	0,66	0,75
Czech Republic	0,81	1,15
Finland	4,00	3,31
France	3,55	3,17
FYROM	1,94	4,86
Germany	1,45	1,40
Greece	2,80	3,14
Hungary	1,82	3,16
Iceland	1,59	1,41
Ireland	2,25	2,07
Italy	5,20	5,18
Latvia	1,57	2,35
Lithuania <sup>49</sup>	0,72	1,20
Luxembourg	1,60	1,33
Malta	2,22	2,98
Netherlands	3,84	3,49
Norway	3,85	2,47
Poland	1,07	1,86
Portugal	2,05	2,54
Romania	1,68	3,46
Slovakia	1,00	1,47
Slovenia	1,33	1,66
Sweden	4,86	3,65
Switzerland	1,13	0,73
United Kingdom	1,94	1,72
arithmetical mean	2,15	2,38
median	1,68	2,08

<sup>&</sup>lt;sup>49</sup> Lithuania: price for 500 g letter up to 2cm thickness (there are also price for 500 g large correspondence item (the sum of length, width, and thickness – not more than 900 mm, the greatest dimension may not exceed 600 mm)





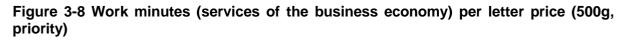


As in the chapters before ERGP analysed the dependencies between prices and labour cost. The correlation between prices and labour cost for a 500g letter is less than for 20g letter. The coefficient of determination is 28,5% (36,7% for a 20g letter). Furthermore ERGP investigated possible dependencies between price and the following parameters:

- Flat in a building with ten or more dwellings
- Thinly-populated area
- Densely-populated area (density greater than 500 inhabitants / km2, population of at least 50.000 inhabitants)
- requirement D+1
- number of letters per inhabitant
- share of letter revenue
- share of bulk mail

These parameters didn't show significant relationship with prices.





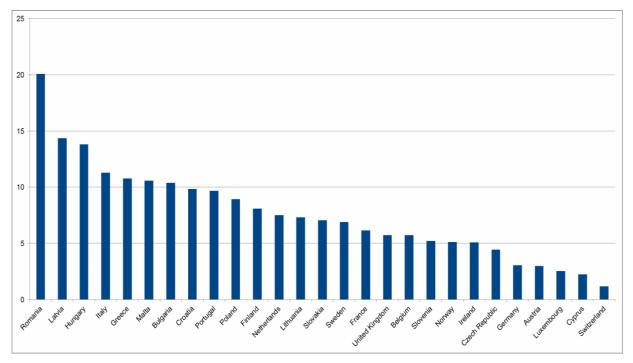
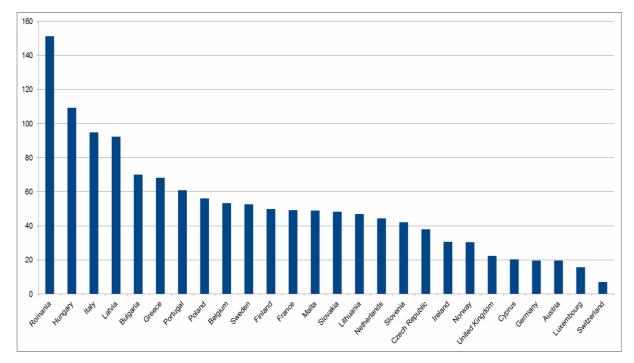


Figure 3-9 Letter price (500g, priority) in part of the daily net earnings (‰)





As mentioned in the chapter before, one way affordability can be measured is comparing nominal prices and net earnings.

Figure 3-9 indicates the letter prices<sup>50</sup> expressed in part (per thousand) of the daily net earnings of a single person without children. This indicator varies from 7,0 ‰ (more affordable) in Switzerland to 151,3 ‰ (less affordable) in Romania.

<sup>&</sup>lt;sup>50</sup> Prices (excluding VAT) for a domestic priority single piece letter-post item 500 g within the universal service, stamped.



### 3.4 Single piece parcel 1kg

To compare prices for parcels in the report, the following prices were taken, if there were different prices (for 1kg, 2kg and 10kg):

- Bulgaria: price for "other settlement" (additional there is a price for "same settlement")
- FYR Macedonia: price for "other city" (additional there is a price for "same city")
- Poland: prices for priority (D+1) (additional there is a price for D+3)
- Serbia: prices for Serbia has been left out as there is a price-function, which makes it difficult to find comparable prices (Price has two components : weight and insured value. P - part of price for insured value= 1% of insured value)
- Switzerland: prices for priority (D+1) (additional there is a price for D+2)

As in the chapters before the following table and figure compares the prices for a domestic single piece parcel of 1 kg, converted into EUR

- at the current exchange rates (2012 average annual rates) and
- at the adjusted exchange rates, i.e. at the exchange rates adjusted for differences in general price level<sup>51</sup>.

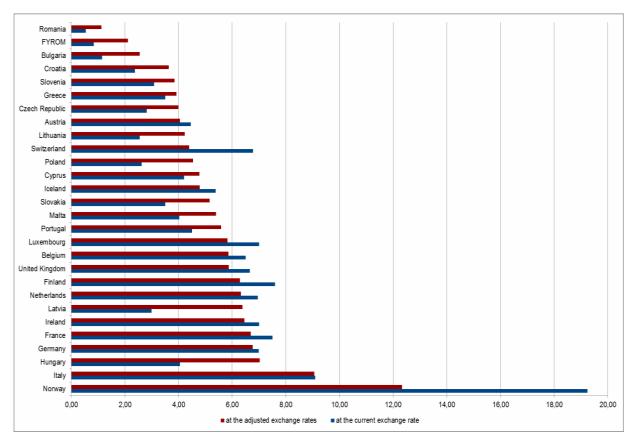
<sup>&</sup>lt;sup>51</sup> Cf. Eurostat 2012, Price level indices (EU 28 = 100), Purchasing power parities (PPPs), Price level indices and real expenditures for ESA95 aggregates. Comparative price level indices show the extent of price level differences and tell which countries are more expensive to live in.



#### Table 3-4 Price (€) for a domestic parcel up to 1kg (excluding VAT)

Country	at the current exchange rate	at the adjusted exchange rates
Austria	4,45	4,05
Belgium	6,50	5,86
Bulgaria	1,15	2,55
Croatia	2,38	3,64
Cyprus	4,20	4,78
Czech Republic	2,81	3,99
Finland	7,60	6,29
France	7,50	6,70
FYROM	0,84	2,11
Germany	6,99	6,76
Greece	3,50	3,92
Hungary	4,05	7,02
Iceland	5,38	4,79
Ireland	7,00	6,45
Italy	9,10	9,06
Latvia	2,99	6,39
Lithuania	2,55	4,23
Luxembourg	7,00	5,82
Malta	4,02	5,39
Netherlands	6,95	6,32
Norway	19,25	12,33
Poland	2,62	4,54
Portugal	4,50	5,58
Romania	0,54	1,12
Slovakia	3,50	5,16
Slovenia	3,09	3,85
Switzerland	6,77	4,40
United Kingdom	6,66	5,87
arithmetical mean	5,61	5,65
median	4,48	5,49







ERGP analysed the dependencies between prices and labour cost. The coefficient of determination is 54,1%, which is higher than the coefficient of determination of a letter of 20 g. Furthermore ERGP investigated possible dependencies between price and the following parameters:

- Flat in a building with ten or more dwellings
- Thinly-populated area
- Densely-populated area (density greater than 500 inhabitants / km2, population of at least 50.000 inhabitants)
- Number of postal parcels, including insured and registered parcels, excluding express items
- Number of parcels per inhabitant
- Online purchase
- share of parcel revenue

These parameters didn't show significant relationship with prices.



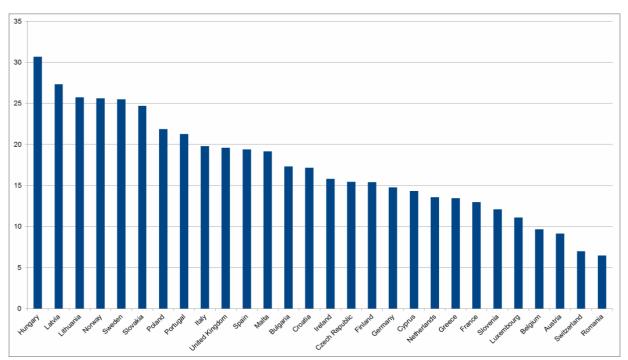
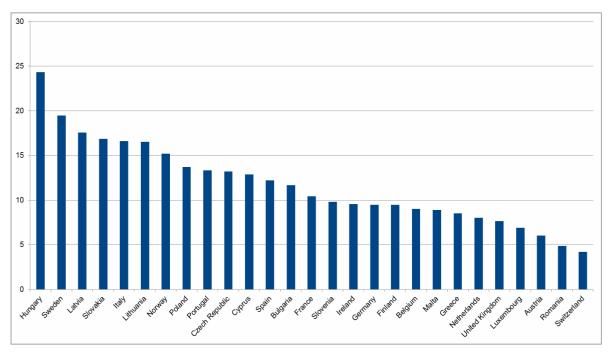


Figure 3-11 Work minutes (services of the business economy) per parcel price (1 kg)

Figure 3-12 Parcel price (1 kg) in part of the daily net earnings (%)





As mentioned in the chapters before, one way affordability can be measured is a comparison between nominal prices and net earnings. Figure 3-9 indicates the parcel prices<sup>52</sup> expressed as percentage of the daily net earnings of a single person without children. This indicator varies from 4,19 % (more affordable) in Switzerland to 24,3 % (less affordable) in Hungary.

<sup>&</sup>lt;sup>52</sup> Prices (excluding VAT) for a domestic single piece parcel 1kg within the universal service.



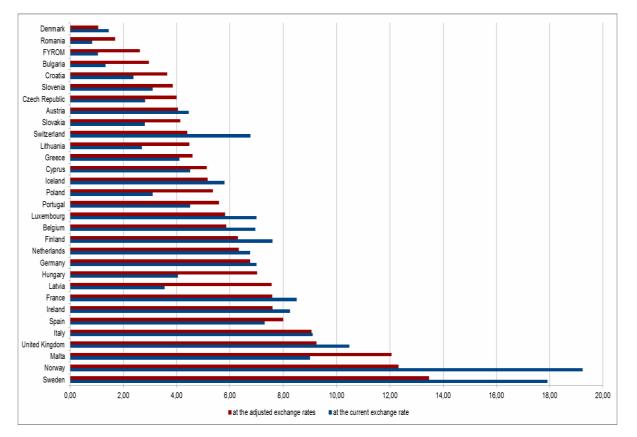
# 3.5 Single piece parcel 2kg

The next table and figures compare the prices for a domestic single piece parcel up to 2kg in the same way as it was done for in the chapters before.

Country	at the current	at the adjusted		
-	exchange rate	exchange rates		
Austria	4,45	4,05		
Belgium	6,95	5,86		
Bulgaria	1,33	2,95		
Croatia	2,38	3,64		
Cyprus	4,50	5,13		
Czech Republic	2,81	3,99		
Denmark	1,44	1,06		
Finland	7,60	6,29		
France	8,50	7,59		
FYROM	1,04	2,61		
Germany	6,99	6,76		
Greece	4,10	4,59		
Hungary	4,05	7,02		
Iceland	5,79	5,16		
Ireland	8,25	7,60		
Italy	9,10	9,06		
Latvia	3,54	7,56		
Lithuania	2,70	4,47		
Luxembourg	7,00	5,82		
Malta	9,00	12,06		
Netherlands	6,75	6,32		
Norway	19,25	12,33		
Poland	3,10	5,36		
Portugal	4,50	5,58		
Romania	0,82	1,69		
Slovakia	2,80	4,13		
Slovenia	3,09	3,85		
Spain	7,30	8,00		
Sweden	17,92	13,47		
Switzerland	6,77	4,40		
United Kingdom	10,48	9,25		
arithmetical mean	6,11	6,25		
median	5,15	5,70		

Table 3-5 Price (€) for a domestic parcel 2kg (excluding VAT)







ERGP analysed the dependencies between prices and labour cost. The coefficient of determination is 46,9 %, which is higher than the coefficient of determination of a letter of 20 g but less than the coefficient of determination of a parcel of 1 kg.

Furthermore ERGP investigated possible dependencies between price and the following parameters:

- Flat in a building with ten or more dwellings
- Thinly-populated area
- Densely-populated area (density greater than 500 inhabitants / km2, population of at least 50.000 inhabitants)
- Number of postal parcels, including insured and registered parcels, excluding express items
- Number of parcels per inhabitant
- Online purchase
- share of parcel revenue

These parameters didn't show significant relationship with prices.



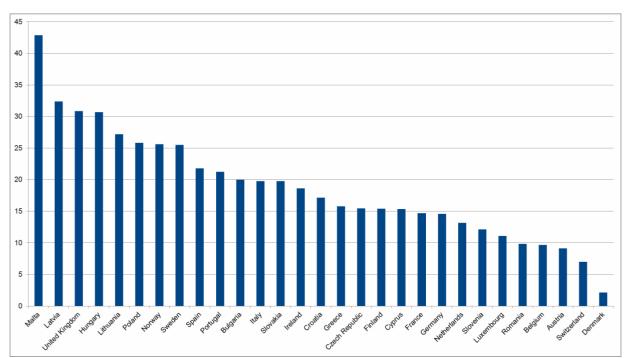
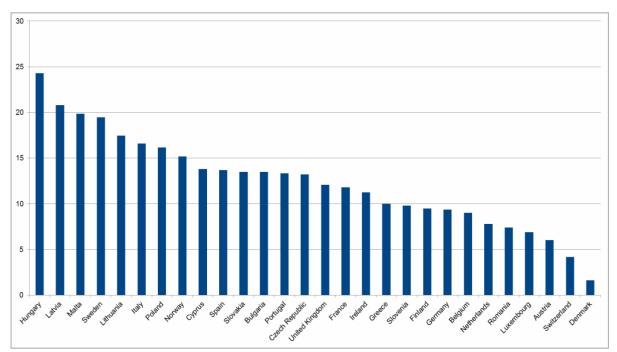


Figure 3-14 Work minutes (services of the business economy) per parcel price (2 kg)

Figure 3-15 Parcel price (2 kg) in part of the daily net earnings (%)





As mentioned in the chapters before, one way affordability can be measured is comparing nominal prices and net earnings. Figure 3-15 indicates the parcel prices<sup>53</sup> expressed as percentage of the daily net earnings of a single person without children. This indicator varies from 4,19 % (more affordable) in Switzerland to 24,3 % (less affordable) in Hungary.

<sup>&</sup>lt;sup>53</sup> Prices (excluding VAT) for a domestic single piece parcel 2kg within the universal service.



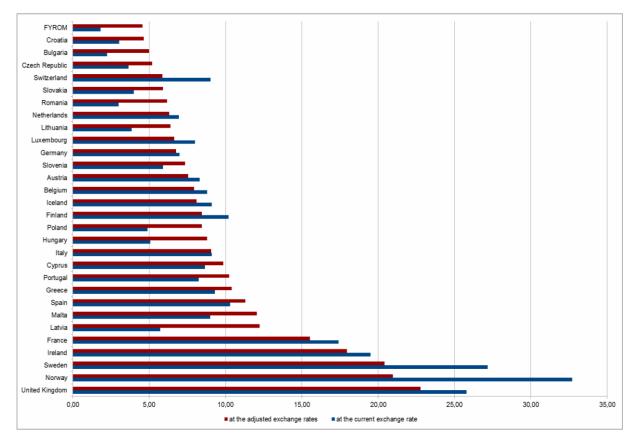
# 3.6 Single piece parcel 10kg

The next table and figure compare the prices for a domestic single piece parcel up to 2kg in the same way as it was done for in the chapters before.

Country	at the current	at the adjusted
Country	exchange rate	exchange rates
Austria	8,30	7,55
Belgium	8,80	7,93
Bulgaria	2,25	4,99
Croatia	3,04	4,65
Cyprus	8,65	9,85
Czech Republic	3,66	5,20
Finland	10,20	8,44
France	17,40	15,54
FYROM	1,82	4,56
Germany	6,99	6,76
Greece	9,30	10,41
Hungary	5,07	8,79
Iceland	9,10	8,11
Ireland	19,50	17,96
Italy	9,10	9,06
Latvia	5,73	12,24
Lithuania	3,86	6,39
Luxembourg	8,00	6,65
Malta	9,00	12,06
Netherlands	6,95	6,32
Norway	32,72	20,96
Poland	4,89	8,45
Portugal	8,25	10,24
Romania	2,99	6,18
Slovakia	4,00	5,90
Slovenia	5,91	7,36
Spain	10,30	11,29
Sweden	27,17	20,42
Switzerland	9,03	5,87
United Kingdom	25,80	22,77
arithmetical mean	9,63	9,81
median	8,28	8,28

Table 3-6 Price (€) for a domestic parcel 10kg (excluding VAT)







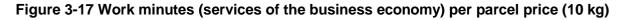
ERGP analysed the dependencies between prices and labour cost. The coefficient of determination is 31,7 %, which is higher than the coefficient of determination of a letter of 20 g but less than the coefficient of determination of a parcel of 1 and 2 kg.

Furthermore ERGP investigated possible dependencies between price and the following parameters:

- Flat in a building with ten or more dwellings
- Thinly-populated area
- Densely-populated area (density greater than 500 inhabitants / km2, population of at least 50.000 inhabitants)
- Number of postal parcels, including insured and registered parcels, excluding express items
- Number of parcels per inhabitant
- Online purchase
- share of parcel revenue

These parameters didn't show significant relationship with prices.





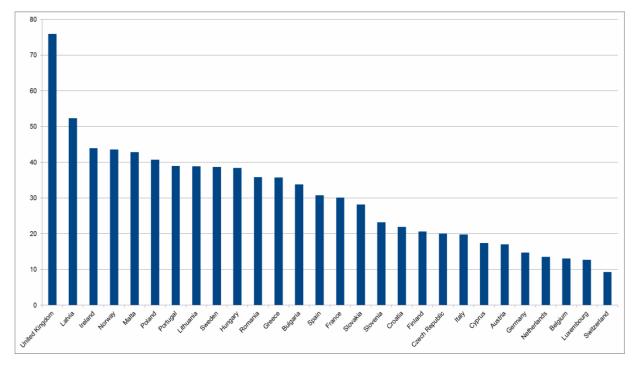
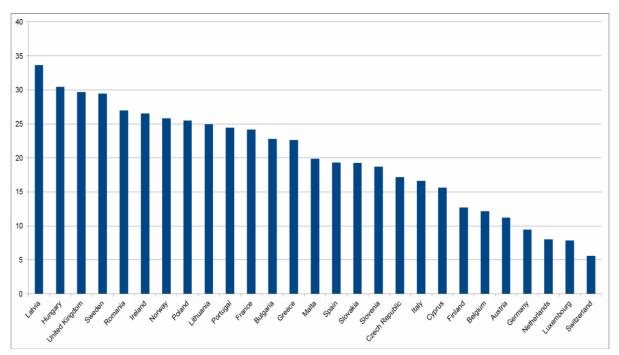


Figure 3-18 Parcel price (10 kg) in part of the daily net earnings (%)





As mentioned in the chapters before, one way affordability can be measured is comparing nominal prices and net earnings. Figure 3-18 indicates the parcel prices<sup>54</sup> expressed as percentage of the daily net earnings of a single person without children. This indicator varies from 5,59 % (more affordable) in Switzerland to 33,7 % (less affordable) in Latvia.

<sup>&</sup>lt;sup>54</sup> Prices (excluding VAT) for a domestic single piece parcel 10kg within the universal service.



# 3.7 Bulk (Letter) Mail

#### 3.7.1 Definition and differences across Europe

Bulk mail refers to large batches of (similar) mail items deposited to the postal operator in one instance at designated drop off points. (Note that the data collected and presented here refers to letter mail products only, and not to bulk parcels.) The scope of supplied bulk mail services differs between different countries quite extensively. In some countries, bulk mail services are only offered for one or a few different letter mail products, while in others there is a bulk mail service for most or all of the different letter mail products.

As seen in section 2.1.2 bulk letter mail services are part of the USO in 20 out of 30 countries in the study. Being part of USO could theoretically also affect the pricing of these USO bulk mail services in comparison to non-USO bulk mail services, due to the pricing requirements of Article 12 in the Postal Directive that apply to the former services. For example, for USO bulk mail services cost savings due to the more efficient processing of bulk mail items should be reflected in the pricing. The scope of this study is only on USO bulk letter mail products, and the analysis below is based on the available data presented in Table 3-1 for two main types of letter mail products.

Priority letter mail	Non-priority letter mail	Direct mail
Austria	Belgium	Austria (priority)
Belgium	Croatia	Belgium
Bulgaria	Cyprus	Germany
Cyprus	Greece	Norway
Germany	Italy	Slovakia
Hungary	FYROM	Sweden
Iceland	Norway	Republic of Serbia
Malta	Portugal	
Norway	Republic of Serbia	
Slovakia	Romania	
Slovenia <sup>55</sup>	Slovakia	
Sweden	Slovenia <sup>56</sup>	
	Spain	
	Sweden	
	Switzerland	

#### Table 3-1 Available data on bulk letter mail

<sup>&</sup>lt;sup>55</sup> In Slovenia bulk mail as a service does not exists. There are discounts on quantity for single piece mail. Slovenia does not have priority and non-priority letters. Standard letter (stamp A, machine sorted) and ordinary letter (stamp B) have both the same quality requirements.



#### 3.7.2 Discounts for bulk mail

There are two types of discounts that apply to bulk letter mail that is offered in almost all countries and products of the study (as in Table 3-2) – discounts for volume and discounts for preparatory work (such as pre-sorting). In Hungary and Belgium revenue is used instead of volume (no data available from Malta). Other often occurring criteria for granting discounts are required pre-announcements of deposits and early (day-time) deposits.

The requirement of cost-oriented prices is implemented in different ways across Europe. In some countries each discount should be cost-oriented (Italy, Norway, Republic of Serbia, Spain, Sweden, Switzerland), in one country the discounts taken together should be cost-oriented (Bulgaria), and in three countries both these criteria should be fulfilled (Germany, Iceland, Slovakia).

Further, it is quite common procedure to require that discounts are non-discriminatory (Belgium, Bulgaria, Germany, Ireland, Iceland, Italy, FYROM, Portugal, Romania, Republic of Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland) and/or published [Belgium, Bulgaria, Germany (not applicable to direct mail), Greece, Hungary, Ireland, Iceland, Italy, FYROM, Norway, Portugal, Romania, Republic of Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland].

#### 3.7.3 Adressed bulk mail price comparison

The comparison is limited to those countries where it has been possibly to find price data, and is presented for two main bulk letter mail products: priority (D+1 delivery) and non-priority letters. The comparison is based on list prices and is calculated for letter weights of 20 g, 50 g and 100 g per item, respectively. However, one should bear in mind that different criteria for qualifying for the bulk mail service are applied across the countries (for example minimum amount of letters per shipment).

	At current exchange rate (EUR)			At adjusted exchange rate (EUR)		
Country	20g	50g	100g	20g	50g	100g
Austria	0,62	0,90	1,45	0,56	0,82	1,32
Belgium	0,51	0,63	0,71	0,46	0,57	0,64
Bulgaria	0,16	0,16	0,18	0,36	0,36	0,40
Cyprus	0,29	0,30	0,40	0,33	0,34	0,46
Hungary	0,39	0,51	0,69	0,67	0,88	1,20
Iceland	0,67	0,67	1,03	0,59	0,59	0,91
Malta	0,24	0,24	0,36	0,32	0,32	0,48
Slovakia	0,65	0,65	0,80	0,96	0,96	1,18
Sweden	0,39	0,45	0,56	0,29	0,34	0,42

#### Table 3-2 List prices for bulk priority letter mail



In current prices, Bulgaria has the lowest prices for bulk priority letters. Taking price level disparities into account, Sweden, Malta and Bulgaria stand out as being the countries with the lowest prices (see further Figure 3-19).

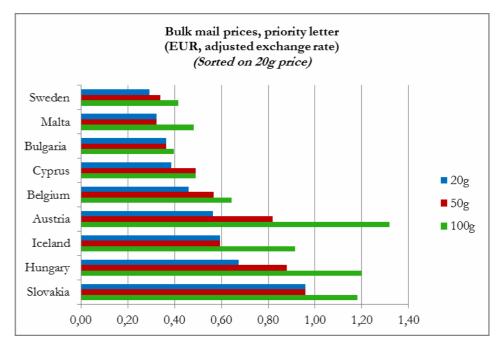


Figure 3-19 List prices for bulk priority letters, adjusted exchange rates

	At curre	At current exchange rate (EUR)			At adjusted exchange rate (EUR)		
Country	20g	50g	100g	20g	50g	100g	
Croatia	0,41	0,41	0,59	0,63	0,63	0,91	
Greece	0,57	0,83	0,83	0,64	0,93	0,93	
Italy	0,30	0,52	1,20	0,30	0,52	1,20	
FYROM	0,26	0,52	0,55	0,65	1,29	1,38	
Portugal	0,28	0,48	n/a	0,35	0,60	n/a	
Republic of Serbia	0,16	0,25	0,25	0,36	0,55	0,55	
Romania	0,23	0,36	0,45	0,47	0,75	0,94	
Slovakia	0,45	0,45	0,60	0,66	0,66	0,88	
Sweden	0,28	0,31	0,38	0,21	0,24	0,28	
Switzerland	0,35	0,42	0,44	0,23	0,27	0,28	

For non-priority bulk letters, Republic of Serbia has the lowest prices. Taking price level disparities into account, Switzerland and Sweden stand out as the two countries with the lowest price levels for non-priority bulk letters (see further Figure 3-20)



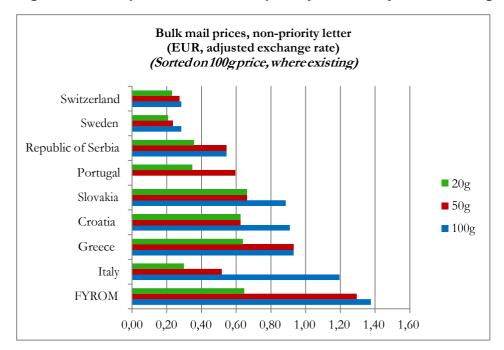


Figure 3-20 List prices for bulk non-priority letters, adjusted exchange rates

Now, it is important to remember that the prices considered so far are list prices. For a specific shipment, additional discounts may apply. To get a more general view of the final bulk letter prices (or price level) postal customers face across countries in Europe, we would need to have estimates of the average discounts in each country. Such figures are however not available. Instead, we have collected the minimum and maximum discount levels on bulk mail for each country in the sample (Tables 3-4 to 3-6). The discount levels are calculated as the percentage of the <u>single piece price in each country</u>.

Table 3-4 Minimum and maximum discounts from corresponding single piece price, on	
priority bulk mail letters	

Country	Min	Max
Austria	0,5%	7,5% 6,0% <sup>57</sup>
Belgium	1,0%	6,0% <sup>57</sup>
Bulgaria	0,5%	7,0%
Cyprus	1,0%	2,0%
Germany	22,0%	40,0%
Hungary	1,0%	7,0%
Iceland	4,0%	12,0%
Norway	2,0%	25,0%
Slovakia	4,6%	n.a.
Slovenia	3,0%	12,0%
Sweden	7,2%	57,6%

<sup>&</sup>lt;sup>57</sup> volume up to 6% and operational discounts up to 7%



#### Table 3-5 Minimum and maximum discounts from corresponding single piece price, on non-priority bulk mail letters

Country	Min	Max
Bulgaria	0,5%	7,0%
Croatia	10-18 %	53-55 %
Cyprus	1,0%	2,0%
Greece	0,5%	5,0%
Hungary	1,0%	7,0%
FYROM	5,0%	13,0%
Norway	2,0%	25,0%
Portugal <sup>58</sup>	19,0%	33,0%
Republic of Serbia	5,0%	20,0%
Romania	1,0%	49,0%
Slovakia	6,7%	n.a.
Slovenia	3,0%	12,0%
Spain	20-30%	50-60%
Sweden	14,5%	61,8%
Switzerland	8,9%	n.a.

Table 3-6 Minimum and maximum discounts from corresponding single piece price, on	
bulk direct mail letters	

Country	Min	Max
Austria	1,0%	3,0%
Belgium	1,0%	8,0% <sup>59</sup>
Germany	1,0%	8,0%
Norway	2,0%	25,0%
Republic of Serbia	5,0%	20,0%
Slovakia	7,5%	n.a.
Sweden	14,4%	62,8%

<sup>&</sup>lt;sup>58</sup> Minimum and maximum discounts for letters up to 20 grams <sup>59</sup> discounts depends on kind of DM services and kind of operational discounts



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# 5 Appendix

Countries

- Austria
- Belgium
- Bulgaria
- Croatia
- Cyprus
- Czech Republic
- Finland
- Former Yugoslav Republic of Macedonia (FYROM)
- France
- Germany
- Greece
- Hungary
- Iceland
- Ireland
- Italy
- Latvia
- Lithuania
- Luxembourg
- Malta
- Netherlands
- Norway
- Poland
- Portugal
- Romania
- Serbia
- Slovakia
- Slovenia
- Spain
- Sweden
- Switzerland
- United Kingdom



### Table 5-1 Exchange Rate at the 2012 average annual rates<sup>60</sup>

Belgium1,0000Bulgaria0,5115Croatia0,1321Cyprus1,0000Czech Republic0,0385Denmark0,1341Estonia1,0000Finland1,0000Former Yugoslav Republic of Macedonia0,0162France1,0000Germany1,0000Greece1,0000Hungary0,0034Iceland1,0000Italy1,0000Latvia1,4268Lithuania0,2899Luxembourg1,0000Montenegro1,0000Norway0,1283Poland0,2383Portugal1,0000Slovakia1,0000Slovakia1,0000Spain1,0000Spain1,0000Switzerland0,0815Switzerland0,8125		
Bulgaria0,5115Croatia0,1321Cyprus1,0000Czech Republic0,0385Denmark0,1341Estonia1,0000Finland1,0000Former Yugoslav Republic of Macedonia0,0162France1,0000Germany1,0000Greece1,0000Iteland0,0062Ireland1,0000Iteland1,0000Latvia1,4268Lithuania0,2899Luxembourg1,0000Montenegro1,0000Norway0,1283Poland0,2383Portugal1,0000Slovakia1,0000Slovakia1,0000Spain1,0000Spain1,0000Switzerland0,2815Switzerland0,2815	Austria	1,0000
Croatia0,1321Cyprus1,0000Czech Republic0,0385Denmark0,1341Estonia1,0000Finland1,0000Former Yugoslav Republic of Macedonia0,0162France1,0000Germany1,0000Greece1,0000Hungary0,0034Iceland1,0000Italy1,0000Latvia1,4268Lithuania0,2899Luxembourg1,0000Malta1,0000Northeregro1,0000Northerlands1,0000Nortway0,1283Poland0,2383Portugal1,0000Slovakia1,0000Spain1,0000Spain1,0000Sweden0,1156Switzerland0,8125	-	1,0000
Cyprus         1,0000           Czech Republic         0,0385           Denmark         0,1341           Estonia         1,0000           Finland         1,0000           Former Yugoslav Republic of Macedonia         0,0162           France         1,0000           Germany         1,0000           Greece         1,0000           Hungary         0,0034           Iceland         0,0062           Ireland         1,0000           Italy         1,0000           Latvia         1,4268           Lithuania         0,2899           Luxembourg         1,0000           Malta         1,0000           Nortway         0,1283           Poland         0,2383           Portugal         1,0000           Slovenia         1,0000           Slovenia         1,0000           Spain         1,0000           Sweden         0,1156           Switzerland         0,8125	Bulgaria	0,5115
Czech Republic         0,0385           Denmark         0,1341           Estonia         1,0000           Finland         1,0000           Former Yugoslav Republic of Macedonia         0,0162           France         1,0000           Germany         1,0000           Greece         1,0000           Hungary         0,0034           Iceland         0,0062           Ireland         1,0000           Iatiy         1,0000           Latvia         1,4268           Lithuania         0,2899           Luxembourg         1,0000           Montenegro         1,0000           Netherlands         1,0000           Netherlands         1,0000           Norway         0,1283           Poland         0,2266           Serbia         0,0089           Slovakia         1,0000           Slovakia         1,0000           Sweden         0,1156           Switzerland         0,8125	Croatia	0,1321
Denmark0,1341Estonia1,0000Finland1,0000Former Yugoslav Republic of Macedonia0,0162France1,0000Germany1,0000Greece1,0000Hungary0,0034Iceland0,0062Ireland1,0000Italy1,0000Latvia1,4268Lithuania0,2899Luxembourg1,0000Malta1,0000Norway0,1283Portugal1,0000Romania0,2383Portugal1,0000Slovakia1,0000Slovakia1,0000Spain1,0000Sweden0,1156Switzerland0,8125	Cyprus	1,0000
Estonia1,0000Finland1,0000Former Yugoslav Republic of Macedonia0,0162France1,0000Germany1,0000Greece1,0000Hungary0,0034Iceland0,0062Ireland1,0000Italy1,0000Latvia1,4268Lithuania0,2899Luxembourg1,0000Malta1,0000Nortenegro1,0000Nortway0,1283Poland0,2383Portugal1,0000Slovakia1,0000Slovakia1,0000Spain1,0000Sweden0,1156Switzerland0,8125	Czech Republic	0 <i>,</i> 0385
Finland1,0000Former Yugoslav Republic of Macedonia0,0162France1,0000Germany1,0000Greece1,0000Hungary0,0034Iceland0,0062Ireland1,0000Italy1,0000Latvia1,4268Lithuania0,2899Luxembourg1,0000Malta1,0000Nortenegro1,0000Nortway0,1283Poland0,2383Portugal1,0000Slovakia1,0000Slovakia1,0000Spain1,0000Sweden0,1156Switzerland0,8125	Denmark	0,1341
Former Yugoslav Republic of Macedonia         0,0162           France         1,0000           Germany         1,0000           Greece         1,0000           Hungary         0,0034           Iceland         0,0062           Ireland         1,0000           Italy         1,0000           Latvia         1,4268           Lithuania         0,2899           Luxembourg         1,0000           Malta         1,0000           Netherlands         1,0000           Norway         0,1283           Poland         0,2383           Portugal         1,0000           Slovakia         1,0000           Slovakia         1,0000           Spain         1,0000           Sweden         0,1156	Estonia	1,0000
France       1,0000         Germany       1,0000         Greece       1,0000         Hungary       0,0034         Iceland       0,0062         Ireland       1,0000         Italy       1,0000         Latvia       1,4268         Lithuania       0,2899         Luxembourg       1,0000         Malta       1,0000         Nortenegro       1,0000         Norway       0,1283         Poland       0,2383         Portugal       1,0000         Romania       0,2266         Serbia       0,0089         Slovakia       1,0000         Spain       1,0000         Sweden       0,1156         Switzerland       0,8125	Finland	1,0000
Germany         1,0000           Greece         1,0000           Hungary         0,0034           Iceland         0,0062           Ireland         1,0000           Italy         1,0000           Latvia         1,4268           Lithuania         0,2899           Luxembourg         1,0000           Malta         1,0000           Montenegro         1,0000           Norway         0,1283           Poland         0,2383           Portugal         1,0000           Romania         0,2266           Serbia         0,0089           Slovakia         1,0000           Spain         1,0000           Sweden         0,1156           Switzerland         0,8125	Former Yugoslav Republic of Macedonia	0,0162
Greece         1,0000           Hungary         0,0034           Iceland         0,0062           Ireland         1,0000           Italy         1,0000           Latvia         1,4268           Lithuania         0,2899           Luxembourg         1,0000           Malta         1,0000           Nortenegro         1,0000           Norway         0,1283           Poland         0,2383           Portugal         1,0000           Sorbia         0,0089           Slovakia         1,0000           Slovenia         1,0000           Spain         1,0000           Switzerland         0,8125	France	1,0000
Hungary       0,0034         Iceland       0,0062         Ireland       1,0000         Italy       1,0000         Latvia       1,4268         Lithuania       0,2899         Luxembourg       1,0000         Malta       1,0000         Montenegro       1,0000         Netherlands       1,0000         Norway       0,1283         Poland       0,2383         Portugal       1,0000         Slovakia       1,0000         Slovenia       1,0000         Spain       1,0000         Switzerland       0,8125	Germany	1,0000
Iceland         0,0062           Ireland         1,0000           Italy         1,0000           Latvia         1,4268           Lithuania         0,2899           Luxembourg         1,0000           Malta         1,0000           Montenegro         1,0000           Netherlands         1,0000           Norway         0,1283           Poland         0,2266           Serbia         0,0089           Slovakia         1,0000           Slovakia         1,0000           Systerland         0,01156           Switzerland         0,8125	Greece	1,0000
Ireland       1,0000         Italy       1,0000         Latvia       1,4268         Lithuania       0,2899         Luxembourg       1,0000         Malta       1,0000         Montenegro       1,0000         Norway       0,1283         Poland       0,2383         Portugal       1,0000         Romania       0,2266         Serbia       0,0089         Slovakia       1,0000         Spain       1,0000         Sweden       0,1156         Switzerland       0,8125	Hungary	0,0034
Italy       1,0000         Latvia       1,4268         Lithuania       0,2899         Luxembourg       1,0000         Malta       1,0000         Montenegro       1,0000         Netherlands       1,0000         Norway       0,1283         Poland       0,2383         Portugal       1,0000         Romania       0,2266         Serbia       0,0089         Slovakia       1,0000         Spain       1,0000         Sweden       0,1156         Switzerland       0,8125	Iceland	0,0062
Latvia       1,4268         Lithuania       0,2899         Luxembourg       1,0000         Malta       1,0000         Montenegro       1,0000         Netherlands       1,0000         Norway       0,1283         Poland       0,2383         Portugal       1,0000         Romania       0,2266         Serbia       0,0089         Slovakia       1,0000         Spain       1,0000         Sweden       0,1156         Switzerland       0,8125	Ireland	1,0000
Lithuania       0,2899         Luxembourg       1,0000         Malta       1,0000         Montenegro       1,0000         Netherlands       1,0000         Norway       0,1283         Poland       0,2383         Portugal       1,0000         Romania       0,2266         Serbia       0,0089         Slovakia       1,0000         Spain       1,0000         Sweden       0,1156         Switzerland       0,8125	Italy	1,0000
Luxembourg       1,0000         Malta       1,0000         Montenegro       1,0000         Netherlands       1,0000         Norway       0,1283         Poland       0,2383         Portugal       1,0000         Romania       0,2266         Serbia       0,0089         Slovakia       1,0000         Spain       1,0000         Sweden       0,1156         Switzerland       0,8125	Latvia	1,4268
Malta       1,0000         Montenegro       1,0000         Netherlands       1,0000         Norway       0,1283         Poland       0,2383         Portugal       1,0000         Romania       0,2266         Serbia       0,0089         Slovakia       1,0000         Slovenia       1,0000         Spain       1,0000         Sweden       0,1156         Switzerland       0,8125	Lithuania	0,2899
Montenegro         1,0000           Netherlands         1,0000           Norway         0,1283           Poland         0,2383           Portugal         1,0000           Romania         0,2266           Serbia         0,0089           Slovakia         1,0000           Slovakia         1,0000           Spain         1,0000           Sweden         0,1156           Switzerland         0,8125	Luxembourg	1,0000
Netherlands         1,0000           Norway         0,1283           Poland         0,2383           Portugal         1,0000           Romania         0,2266           Serbia         0,0089           Slovakia         1,0000           Slovenia         1,0000           Spain         1,0000           Sweden         0,1156           Switzerland         0,8125	Malta	1,0000
Norway         0,1283           Poland         0,2383           Portugal         1,0000           Romania         0,2266           Serbia         0,0089           Slovakia         1,0000           Slovenia         1,0000           Spain         1,0000           Sweden         0,1156           Switzerland         0,8125	Montenegro	1,0000
Poland         0,2383           Portugal         1,0000           Romania         0,2266           Serbia         0,0089           Slovakia         1,0000           Slovenia         1,0000           Spain         1,0000           Sweden         0,1156           Switzerland         0,8125	Netherlands	1,0000
Portugal         1,0000           Romania         0,2266           Serbia         0,0089           Slovakia         1,0000           Slovenia         1,0000           Spain         1,0000           Sweden         0,1156           Switzerland         0,8125	Norway	0,1283
Romania         0,2266           Serbia         0,0089           Slovakia         1,0000           Slovenia         1,0000           Spain         1,0000           Sweden         0,1156           Switzerland         0,8125	Poland	0,2383
Serbia         0,0089           Slovakia         1,0000           Slovenia         1,0000           Spain         1,0000           Sweden         0,1156           Switzerland         0,8125	Portugal	1,0000
Slovakia         1,0000           Slovenia         1,0000           Spain         1,0000           Sweden         0,1156           Switzerland         0,8125	Romania	0,2266
Slovenia         1,0000           Spain         1,0000           Sweden         0,1156           Switzerland         0,8125	Serbia	0,0089
Spain         1,0000           Sweden         0,1156           Switzerland         0,8125	Slovakia	1,0000
Sweden0,1156Switzerland0,8125	Slovenia	1,0000
Switzerland 0,8125	Spain	1,0000
	Sweden	0,1156
United Kingdom 1 1770	Switzerland	0,8125
	United Kingdom	1,1779

<sup>&</sup>lt;sup>60</sup> Source: Eurostat 2012



#### **Regression Analysis**

#### Figure 5-1 Example Regression Analysis

		letter price
		(at the
		adiusted
	Thinly-	exchange
	populated	rates) up to
	area	20g
Austria	area 41,8%	20g 0,56
Belgium	41,8%	0,56
Bulgaria Croatia	34,6% 50,4%	0,96
		0,93
Cyprus	26,8%	0,49
Czech Republic	38,8%	0,71
Finland	59,7%	0,83
France	34,5%	0,59
Germany	25,2%	0,58
Greece	39,8%	0,81
Hungary	37,8%	0,83
Iceland	36,2%	0,54
Ireland	38,4%	0,63
Italy	15,5%	0,70
Latvia	46,8%	1,22
Lithuania	47,3%	0,75
Luxembourg	46.3%	0,50
Malta	0,1%	0,35
Netherlands	14.7%	0,58
Norway	29,8%	0.82
Poland	41.6%	0.97
Portugal	28.3%	0.62
Romania	42,5%	0,75
Slovakia	44.4%	0,96
Slovenia	43,9%	0,50
Sweden	62,2%	0,61
Switzerland	24,5%	0.49
United Kingdom	13.6%	0.64

