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Intra-Community cross-border parcel delivery

A study for the European Commission

FTI Consulting

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Preface

FTI Consulting (“FTI”) has been commissioned by the European Commission, Directorate General Internal Markets and Services, to provide a study on intra-Community cross-border parcel delivery.

The objective of the study is to gain a deeper understanding of the intra-Community cross-border parcel delivery market, in terms of its structure, regulatory environment and the conduct of its participants. In particular, this study will shed light on the extent to which price differentials exist between domestic and cross-border prices, and what are their causes, and provide recommendations for market improvements in terms of eliminating barriers, improving competition, leading to better prices for consumers.

The project involved significant data collection work. We contacted all national postal operators and national regulatory authorities in the EU-27, as well as a number of other stakeholders including TNT, La Poste, Poste Italiane, Royal Mail, the International Post Corporation, PUG, EMOTA, FEDMA, the representatives of DHL, FedEx, TNT Express and UPS, Amazon and e-Bay.

We are very grateful to these stakeholders for their input into the project. We would also like to thank all the staff at the European Commission who gave us valuable insight and feedback.

The authors of this study were Dr Meloria Meschi, Toby Irving and Mark Gillespie, with Chris Osborne as the quality assurer.

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Table of Contents

1	Executive Summary.....	1
1.1	Main Findings	1
1.2	Recommendations.....	11
2	Introduction.....	16
2.1	Overview of the study	16
2.2	Our methodology	17
2.3	Structure of this report	20
3	E-Commerce in the European Union	22
3.1	Introduction	22
3.2	E-commerce in the EU: definition	23
3.3	Demand for B2C e-commerce and other distance sales.....	27
3.4	Supply of e-commerce.....	37
3.5	Our estimates of cross-border B2C e-commerce.....	43
3.6	Barriers to cross-border e-commerce.....	54
3.7	Conclusions	67
4	The European parcels market	70
4.1	Introduction	70
4.2	Product definition	70
4.3	Market size.....	74
4.4	Our estimates of B2C parcel volumes in the EU	82
4.5	Delivery options	89
4.6	Implications of industry structure for stakeholders	116
4.7	The regulatory environment.....	122
4.8	Termination agreements.....	131
4.9	Quality of service monitoring	137
4.10	Other regulatory issues.....	143
4.11	Conclusions	154
5	Price differentials and their causes	158
5.1	Introduction	158
5.2	Products and prices	160
5.3	Price differentials	169
5.4	Causes of price differentials	184
5.5	Econometric modelling of price differentials	194
5.6	Model results	203
5.7	Conclusions	215
6	Conclusions and Recommendations	219
6.1	Conclusions	219
6.2	Removal of information barriers	222
6.3	Removal of quality of service barriers	224
6.4	Removal of price barriers.....	225
Appendix 1	Example survey – National postal operator.....	228
Appendix 2	Example survey – National Regulatory Authority	250
Appendix 3	Product names	256

Appendix 4	Product description	258
Appendix 5	Average published prices	276
Appendix 6	Regression analysis – Descriptive statistics.....	280
Appendix 7	Regression analysis – Supplementary results	293

Glossary

Item	Description
Amazon	The largest e-commerce retailer in Europe, and an example of a business-to-consumer operator
B2B	Business-to-business. B2B e-commerce identifies trade transactions between businesses taking place via the internet. B2B post identifies postal flows between businesses
B2C	Business-to-consumer. B2C e-commerce identifies trade transactions from businesses to consumers taking place via the internet. B2C post identifies postal flows from businesses to consumers
Benchmark price (BP)	The estimated cross-border price that would correspond to the domestic prices charged by the origination and destination country. We estimate three different BPs, which are described below
Benchmark price1 (BP1)	This BP is estimated as the sum of the domestic price in the originating country and the domestic price in the destination country
Benchmark price2 (BP2)	This BP is estimated by using a proportion of the originating country's domestic price and a proportion of the destination country's domestic price, plus an estimate for the cross-border transport cost and an allowance for administrative costs
Benchmark price3 (BP3)	This BP is only applicable to parcels, and is the same as that used to construct BP2, but uses the ILR instead of the destination country's domestic price; it also does not contain an estimate of administrative costs, which should be included in the ILR
Base rate	A part of the ILR system (for definition of Inward Land Rate system see below), which comprises a flat charge for any parcel delivered, and then a varying charge which increases based on the weight of the parcel delivered
Bonus payment	A part of the ILR system, specifically an additional amount of compensation on top of the base rate which can be earned by a receiving country's postal operator if it provides a particular level of delivery service
Business consumer	A user of postal services who is a business
C2C	Consumer-to-consumer. C2C e-commerce identifies trade transactions between consumers taking place via the internet. C2C post identifies postal flows between consumers
CEN	European Committee for Standardization
CEP	Courier, express and parcel

Designated USP	Designated universal service provider. The postal operator that has the remit of fulfilling the universal service obligation based on entrustment. While competitors may exist in a country's postal market, the designated USP is the only provider who commits to providing nationwide coverage of basic letter and parcel delivery (as identified in universal service requirements). The designated USP is normally the former monopolist
Differential1 (DIFF1)	The percentage difference between the cross-border price and the sum of the two domestic prices of the origin and destination country
Differential2 (DIFF2)	The percentage difference between the cross-border price and the benchmark price
Differential3 (DIFF3)	The percentage difference between the cross-border price and the benchmark price calculated including the ILR
e-Bay	An online marketplace which facilitates C2C trade; a proportion of which is conducted across-borders
EC	European Commission
E-commerce	All purchases and sales made via websites or automated data exchanges, excluding normal e-mail messages that are manually typed. ¹ In effect, the e-commerce market is one where goods or services are purchased online
EMOTA	European Multi-channel and Online Trade Association. This organization represents all aspects of distance selling in general, and e-commerce in particular, and advocates a barrier-free European single market for distance sales ²
EMS	Express Mail Service. A priority mail service provided by designated postal operators who are members of the Universal Postal Union. The EMS is regulated by the EMS Cooperative, whose members are designated postal operators within the meaning of Article 2 of the Universal Postal Union Convention that joined the cooperative
End consumer	A user of postal services who is an individual
EPG	Enhanced Parcel Group. Comprises 27 postal operators who agree to deliver their parcels through an integrated delivery network and commit to providing a high quality of customer service ³
ERGP	European Regulators Group for Postal Services, a group

¹ Eurostat news release – Information and Communication Technologies: “E-commerce accounted for 12% of enterprises’ turnover in the EU in 2008”, 12 2010 – 19 January 2010, page 4.

² <http://www.emota.eu/>.

³ <http://www.ipc.be/en/Services/EPG.aspx>.

	established in August 2010, which aims to strengthen cooperation between independent national regulatory authorities
EU	European Union
Express product	A postal item (which can be either a packet or a parcel in terms of its dimensions) for which customers pay a premium for faster delivery service. Express products may be given priority in operators' networks, or separate express designated delivery pipelines may exist, to reduce delivery times
FEDMA	Federation of European Direct and Interactive Marketing. Their aim is to promote the European direct and interactive marketing industry, and represents companies with multinational businesses as well as most of the European Direct Marketing Associations ⁴
First Postal Directive	Directive 97/67/EC of 15 December 1997
FTI	FTI Consulting
GDP	Gross Domestic Product
ILR	Inward Land Rate. A system of payment between parcel postal operators for the delivery of incoming parcels. ILRs apply only between designated operators within the meaning of Article 2 of the UPU convention. To ensure that the payment for the delivery of parcels is linked to the quality of service provided, in 2006 the Postal Operators Council approved a system of bonus payments for the provision of parcels service features added to a base rate. ⁵ Participating members may choose to enter agreements other than the ILR, such as the EPG or bilateral agreements
IPC	International Post Cooperation. The organisation works with the postal industry, developing new technologies and provides quality of service monitoring and statistics. All IPC members must belong to the Universal Postal Union and have a universal service obligation for the provision of mail services ⁶
Large enterprise	A large enterprise is a business which employs more than 250 people, and which has a turnover of over €50m
Medium enterprise	The EC ⁷ defines medium enterprises as those businesses having between 50 and 250 employees and a turnover between €10m and €50m
Micro enterprise	The EC ⁸ defines micro enterprises as those businesses having less than 10 employees and a turnover of €2m or less

⁴ <http://www.fedma.org/>.

⁵ <http://www.upu.int/en/activities/parcels/inward-land-rates/about-inward-land-rates.html>.

⁶ <http://www.ipc.be/en/About/Membership.aspx>.

⁷ http://ec.europa.eu/enterprise/policies/sme/facts-figures-analysis/sme-definition/index_en.htm.

⁸ http://ec.europa.eu/enterprise/policies/sme/facts-figures-analysis/sme-definition/index_en.htm.

MS	Member States. The 27 members of the European Union: Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, the UK
National postal operator	The former state monopoly, or a universal service provider (the USP), which is the institution in most Member States that has been designated under Article 4 of the Second Postal Directive as the national USP, for the entire national territory
Online brokers	Web brokerage services that offer discounted rates to deliver parcels cross-border, available to individual shippers (different to consolidators in that brokers do not perform the shipment themselves)
Packages	A generic term encompassing the postal item categories of packs, parcels and express products
Packet	A postal item that is of a similar size to a letter, but that marginally breaches the traditional letter format size dimensions'. Packets have a maximum weight limit of 2kg
Parcel	A postal item with higher weight and size restrictions than a packet. Parcels can typically weight up to 20-30kg, and can be of a much larger dimension
Parcel operator	A company which offers day-certain and day-uncertain parcel delivery services either domestically and/or cross-border. Parcel operators include the subsidiaries of national postal operators and other private companies. They do not offer time certain products (for example by 12am the next day) making it distinct from an express integrator.
POC	Postal Operations Council. The technical and operational arm of the Universal Postal Union. Its remit includes making recommendations to member countries regarding technological or operational standards, where it is necessary to have uniform practices across countries, an example of this being the ILR system
Postal Directive	Comprises the First Postal Directive, the Second Postal Directive and the Third Postal Directive
Postal item	A generic term encompassing the categories of packs, parcels and express products
Postal user	Any consumer of postal products. Postal users can be business consumers or end consumers of postal services

PUG	Postal Users' Group. This is an ad hoc platform of major EU postal users and their representative organizations (for example the International Chamber of Commerce, EMOTA, and FEDMA) ⁹
Second Postal Directive	Directive 2002/39/EC of 10 June 2002
Small customers	A consumer of postal products (either an individual or a business), who only uses products occasionally (no more than a few items at a time, and no more than a few dispatches a month)
Small enterprise	The EC ¹⁰ defines small enterprises as those businesses having less than 50 employees and a turnover of €10m or less
SME	Small and medium enterprises. The EC ¹¹ defines SMEs as those businesses having less than 250 employees and a turnover of €50m or less
Third Postal Directive	Directive 2008/06/EC of 20 February 2008
Track-and-trace	A characteristic of the logistical process where a customer can follow each stage of their item's progress, from posting, to delivery. It typically involves affixing a barcode or radio frequency identification device (RFID) to the postal item, which sends information to a central database on the items position
UPU	Universal Postal Union. A specialised agency of the United Nations, comprising 191 member countries and interacting with postal sector players in an advisory and mediating role as well as collecting certain postal sector data ¹²
USO	Universal Service Obligation. The scope of services of general economic interest (SGEI) in the postal sector that is present in each MS. The entrustment of USO commits the designated USP to provide countrywide services, so that all consumers and businesses have access to a basic set of postal services. The products covered by the USO vary by country, but tend to include basic packet, and parcel products (i.e. products without added characteristics such as track-and-trace), and to exclude express products
VAT	Value added tax. It is a general, broadly based consumption tax assessed on the value added to goods and services. It is a consumption tax because it is borne by the final consumer. It is not a charge on business ¹³

⁹ <http://www.fedma.org/index.php?id=123>.

¹⁰ http://ec.europa.eu/enterprise/policies/sme/facts-figures-analysis/sme-definition/index_en.htm.

¹¹ http://ec.europa.eu/enterprise/policies/sme/facts-figures-analysis/sme-definition/index_en.htm ..

¹² <http://www.upu.int/en.html>.

¹³ http://ec.europa.eu/taxation_customs/taxation/vat/how_vat_works/index_en.htm. – EC website.

List of Tables

Table Number	Page Number	Title
1.1	1	Distance sales: number of firms and market size
3.1	40	Largest ten European online retailers
3.2	45	Estimated size of distance selling and e-commerce market
4.1	71	UPU format definitions for cross-border parcels
4.2	74	Parcel flows
4.3	76	European CEP (excluding packets) market shares by value: B2B, B2C and Total, 2008
4.4	79	Cross-border parcel information from the UPU in 2008 (000s of items)
4.5	83	Estimated volumes of mail items generated by distance sales
4.6	88	Estimated volumes of mail items generated by distance sales with alternative assumptions about the average value of a postal item
4.7	90	Parcel flows
4.8	94	Turnover required for lorry dispatching
4.9	126	National USPs
4.10	127	Competition enforcement
4.11	133	ILR bonus system
4.12	135	EU members of the EPG
4.13	140	Percentage of consumers experiencing delivery delays and losses, 2010
4.14	142	Regulation of user protection procedures and remedies
5.1	184	Differential ² variable by product and weight
5.2	186	Qualitative differences between cross-border and domestic packets
5.3	187	Qualitative differences between cross-border and domestic parcels
5.4	188	Qualitative differences between cross-border and domestic express products
5.5	189	Trade flows and price differentials by EU area
5.6	204	Price differential model results: packets
5.7	208	Price differential model results: parcels

5.8	211	Price differential model results: express products
A5.1	277	Domestic and weighted average cross-border prices of sending 2kg postal items
A6.1	282-284	Descriptive statistics for input variables to regression model – packets
A6.2	285-288	Descriptive statistics for input variables to regression model – parcels
A6.3	289-292	Descriptive statistics for input variables to regression model – express products
A7.1	294	Price differential model (excluding scale effect (import methodology)) results: packets
A7.2	295	Price differential model (excluding scale effect (import methodology)) results: parcels
A7.3	296	Price differential model (excluding scale effect (import methodology)) results: express products

List of figures

Figure Number	Page Number	Title
3.1	24	B2B and B2C as proportion of total e-commerce
3.2	25	Proportion of turnover originated by B2B and B2C. EC-27, 2010
3.3	27	EU B2C e-commerce, 2006
3.4	28	Individuals who bought online in the EU
3.5	29	Percentage of individuals who bought online. By country, 2010
3.6	31	% of individuals who bought online from another EU country compared to internet penetration, 2010
3.7	33	Distance purchasing by individuals with internet access at home
3.8	34	Cross-border e-commerce and income per capita
3.9	35	Consumer confidence with e-commerce in the EU, 2006-2010
3.10	36	Consumer confidence with domestic and cross-border e-commerce by country of residence, 2010
3.11	38	Percentage of retailers using the internet as a sales channel, 2010
3.12	41	Distribution of e-retailers by sales
3.13	42	Proportion of retailers that sell cross-border
3.14	48	Proportion of EU enterprises that make distance and internet sales, by firm size
3.15	51	Online internet purchases by type, EU-27,2010
3.16	53	Distribution of turnover by enterprise size. Distance sales and e-commerce
3.17	60	Reasons not to use cross-border e-commerce, 2010
3.18	61	Foreign language proficiency in the EU
3.19	64	Barriers to cross-border sales: sellers, 2008
3.20	66-67	Market experiences about barriers to cross-border e-commerce
4.1	73	The CEP market
4.2	75	EU CEP market (excludes packets)
4.3	80	Country shares in the EU CEP market
4.4	81	Turnover shares in CEP markets: Western, Southern and Eastern Europe

4.5	92	Cross-border delivery routes for cross-border B2C market
4.6	95-96	Market experiences of vendor conveyance: Amazon
4.7	97	Diagram of postal costs
4.8	102	Market experiences about different parcel logistics for different types of users – eBay example
4.9	104	What consolidators do
4.10	107	Cross-border network of national postal operators' subsidiaries
4.11	108	National postal operators' subsidiaries non-account customer pipeline
4.12	112	Integrator pipeline
4.13	117	Market forces in the postal market
5.1	165	Domestic and weighted average cross-border prices for 1kg packets (€)
5.2	166	Domestic and weighted average cross-border prices for 1kg parcels (€)
5.3	166	Domestic and weighted average cross-border prices for 1kg express products (€)
5.4	168	Average cross-border price of sending 2kg postal items between different areas of Europe (€)
5.5	170	Domestic postal pipeline
5.6	171	Cross-border postal pipeline
5.7	173	Cross-border prices for selected countries (€)
5.8	178	Cross-border and benchmark prices. Averages, for 2kg products (€)
5.9	180	Price differentials for packets
5.10	181	Price differentials for parcels
5.11	183	Price differentials for express products
5.12	191	Price differentials by area: 2kg packets
5.13	192	Price differentials by area: 2kg parcels
5.14	193	Price differentials by area: 2kg express products
5.15	196	Model specification
A3.1	256-257	Names of postal products
A5.1	278	Domestic and weighted average cross-border prices of 2kg packets (€)
A5.2	278	Domestic and weighted average cross-border prices of 2kg parcels (€)
A5.3	279	Domestic and weighted average cross-border prices of 2kg express products (€)

1 Executive Summary

1.1 Main Findings

Our research and detailed numerical analysis suggest the following conclusions regarding the intra-EU cross-border parcel market and its links with e-commerce.

1.1.1 E-commerce (Chapter 3)

Only 9%¹⁴ of EU consumers and 18%¹⁵ of EU retailers use cross-border e-commerce, and there are no data on how the (domestic and cross-border) market is shared among enterprises of different sizes.

Using data from a number of datasets produced by Eurostat and the European Commission, we have estimated the turnover and number of EU distance sales firms in the small, medium and large size categories. These are the first publicly available estimates which are consistent at the EU level, and are summarised in Table 1.1.

Table 1.1 Distance sales: number of firms and market size

		Small firms	Medium firms	Large firms	Total
1	Number of firms (1,000)	391	62	12	465
2	Distance Sales (DS)	276	51	10	337
3	E-commerce (E-C)	199	39	8	247
4	Cross-border DS	80	18	3	102
5	Cross-border E-C	67	15	3	85
6	Turnover (€bn)	1,281	1,328	2,803	5,411
7	Distance Sales (DS)	90	109	159	358
8	E-commerce (E-C)	65	84	129	277
9	Cross-border DS	13	20	28	61
10	Cross-border E-C	9	14	19	42

Source: FTI calculations, EC DG ENTR (2010), Eurobarometer surveys (2011), Eurostat's European Business database (2009)¹⁶

¹⁴ European Commission, *Consumer Conditions Scoreboard, Consumers at home in the single market*, 5th Edition, March 2011. From figure 3, page 11.

¹⁵ Section 3.5, 85,000 firms are estimated to perform cross-border e-commerce out of a total of 465,000.

¹⁶ See footnotes 82, 83 and 84.

Of the 465,000 non-micro retail enterprises in the EU,¹⁷ about one in three (72%) and one in two (53%) engage in distance sales and e-commerce, respectively, but only 22% and 18% also operate cross-border.¹⁸ **We estimate that in the EU, distance sales and e-commerce represent 7% and 5% of retail turnover, a mere 1% of which is generated cross-border for each activity.¹⁹ There is therefore significant potential for cross-border e-commerce and distance sales to increase, both in absolute terms and as compared to domestic values.**

Large numbers of small retailers are involved in e-commerce activities, but their participation rates are lower: only one in two engage in e-commerce, and about one in five in cross-border e-commerce. **Small retailers have a 22% share of cross border e-commerce turnover: this is not insignificant, and has the potential to grow significantly if the participation of small retailers to cross-border e-commerce increases.**

There are significant barriers to cross-border e-commerce growth which affect small and medium enterprises and need removing in order for the market to grow. We have considered barriers related to delivery and other barriers, and have adopted this classification because the focus of our study is on delivery markets.

There are three sets of barriers to e-commerce that are directly related to delivery and affect consumers and retailers, and in particular small retailers:

- **prices:** higher prices for cross-border deliveries, when compared to domestic deliveries, represent a serious concern for many consumers and retailers. Small retailers, which send few parcels infrequently, pay higher delivery prices than their larger competitors;
- **quality of service:** consumers and retailers are concerned that quality of service (length of delivery times; delayed, damaged or lost items) is worse for cross-border deliveries than for domestic ones; and,

¹⁷ Row 1 in Table 1.1.

¹⁸ Calculated as rows 2, 3, 4 and 5 respectively divided by row 1 in Table 1.1.

¹⁹ Calculated as rows 7, 8, 9 and 10 respectively divided by row 6 in Table 1.1.

- **information:** consumers and retailers, especially small retailers, suffer from a lack of information in a number of areas. Retailers worry about different addressing standards across the Member States and about different contractual procedures and consumer rights provisions. Consumers, on the other hand, are worried about how to redress problems that may arise from a cross-border purchase: how to complain if goods are delayed, damaged or lost, and how to return unwanted items.

Consumers also face non-delivery barriers that discourage them from cross-border e-commerce: language barriers; not being able to buy because the retailer would not sell to foreign addresses; worries about different product standards (which are themselves linked to worries about returns); and worries about fraud.

For retailers, language, cultural and advertising barriers, issues with payments (including fraud), VAT, and other tax issues and worries about the fragmentation of consumer rights are all barriers to cross-border e-commerce. All these barriers increase the cost of doing business, and disproportionately affect small retailers.

We find that a fundamental issue with those barriers that are removable (language and cultural barriers are quite difficult to overcome) is that they often arise from a lack of information which mines confidence and generates market imperfections:

- the European Consumer Centres (ECC) Network assists consumers with their cross-border complaint procedures and operates through national websites;
- the European Committee for Standardization (CEN) has developed a new Pan-European addressing standard,²⁰ to be published in February 2012; and,
- consumer rights, including the right of withdrawal, have been strengthened and harmonised by the Consumer Rights Directive (approved by the EU Parliament on 11 October 2011).²¹ Moreover, the proposed (optional) Common EU Sales

²⁰ Standard EN 14142-1:2011.

²¹ European Union, 2008 (0196COD) and PE-CONS 26/11.

Law²² aims at removing transaction costs arising from different national sales laws.

The problem is that consumers and retailers are not aware of these tools. Large retailers have the resources to acquire the information, but small retailers and consumers are simply uninformed. This market imperfection hampers the growth of cross-border e-commerce because it reduces participation by consumers and small enterprises.

Regarding worries about the quality of service of cross-border deliveries, we find that there is evidence that in the majority of Member States the quality of service is as good for cross-border deliveries as for domestic ones. Consumers and retailers, however, especially small retailers, are not aware of this and often perceive the situation differently. **Data on quality of service achieved for cross-border parcel delivery are not in the public domain. This lack of information is a serious drawback: unless consumers and small businesses know what to expect from cross-border delivery services, they will shy away from buying and selling cross-border in fear of lengthier delivery times and higher rates of damaged and lost items.**

There is real potential for growth in cross-border e-commerce, which cannot be untapped unless a series of barriers are removed. The removal of these barriers should be a priority.

1.1.2 The EU parcels market (Chapter 4)

We have derived what we believe to be the first publicly available estimates of B2C parcel volumes, and of the shares of these volumes represented by small, medium and large enterprises.

We estimated the number of cross-border parcels to range between 181 million and 453 million a year, based on an average value of €40 - €100 per B2C sale. This represents about 10% of total volumes generated by B2C activities. Small

²² European Commission press release (11 October 2011): *European Commission proposes an optional Common European Sales Law to boost trade and expand consumer choice.*

retailers send on average between around 500 and 1,200 parcels a year while large ones send between 25,000 and 62,000.

We estimate that small retailers, excluding micro enterprises, account for 22% of total volumes of cross-border items sent: this is a significant share, especially because small retailers are an important proportion of retailers, and therefore a significant driver for e-commerce growth. However, because the traffic profile of a buyer of parcel services (volume, frequency, and reliability of dispatch) determines the delivery options it has and the price it pays, small retailers are disadvantaged: they may not be able to pass on high cross-border prices to their customers, because e-commerce markets are competitive. This lowers their market participation, and has a negative impact on the growth of cross-border e-commerce.

Different delivery options are available in the EU to parcel senders, with large B2C businesses having an array of delivery offers to choose from, including undertaking the task, or at least part of it, on their own; national postal operators; global integrators; national postal operators' subsidiaries; consolidators; and online brokers. Operationally, this market is known as "CEP" (courier, express and parcels).

Although not all options are available in every Member State or to every customer, we find that in the largest countries, competition for small, infrequent senders is increasing: online brokers, (in the UK, Germany, France and Italy) offer highly discounted rates on single shipments by integrators, subsidiaries of national postal operators and sometimes national postal operators themselves; parcel consolidators offer discounts off the retail prices of the national postal operators and can help small and individual customers with documentation and labelling procedures; and subsidiaries of national postal operators are setting up retail parcel shop networks.

There is evidence, however, that small customers tend not to take advantage of these deals: they mainly use national postal operators. What causes this behaviour is lack of knowledge of the cross-border market, which breeds lack of confidence and trust: small senders do not know what is available; what are the prices and quality of service; what to do to send a parcel cross-border (documentation, labelling, and address format). These information and trust

barriers prevent the cross-border delivery market from growing and competition to take hold through viable commercial entry; they may allow national postal operators to retain market power in specific market segments such as basic cross-border parcel services,²³ which may result in higher prices for customers in those segments.

There is, in our view, a two-tier market for EU cross-border parcels:

- **Large retailers with large and predictable traffic profiles enjoy the full benefits of competitive markets, with prices that are lower the larger the volumes they send; while,**
- **individual consumers and businesses that send low parcel volumes infrequently, or reside in peripheral countries and non-urban areas, have fewer actual or perceived alternatives, and pay higher prices than large retailers. For small senders in the larger countries, the lack of knowledge of and trust in, alternative options contribute significantly to high prices, while those senders who reside in low density countries or areas have little choice other than to use national postal operators or global integrators,²⁴ and pay higher prices. High prices result in low volumes and less competition, a perverse mechanism that prevents growth in this market segment.**

For small senders operating in markets or areas where competition has yet to fully develop, therefore, good regulation and an appropriate USO system are paramount. For those who operate in the largest markets and living in densely populated areas, effective price regulation and the removal of information asymmetries are both important.

Cross-border USO products give consumers and businesses in even the remotest areas the opportunity to send and receive a parcel to and from any address in the EU. The price regulation of USO products is a duty of the National Regulatory Authorities (NRA's), but we find that price regulation of

²³ By basic parcel services we mean individual, over-the-counter parcel products.

²⁴ However, global integrators have logistic networks designed to cater for large business customers.

cross-border parcels has yet to take hold. This has consequence for efficient pricing and may be responsible for small senders paying cross-border delivery prices that are too high, when compared to comparable domestic prices, and for their low participation to cross-border distance sales markets.

This lack of regulation may be caused by three concurrent factors, which may affect different Member States to a different extent:

- **confusion as to what cross-border parcel products are in the USO:** although there appears to be an agreement that ‘basic’ parcels are to be included in the USO, the meaning of ‘basic’ varies widely among countries and in some cases it has not been defined as yet;
- **potential lack of adequate data on volumes, quality of service, costs and termination rates.** Article 12 of the Postal Directive requires NRAs to set cost oriented prices for all USO products; and Article 13 extends this requirement to the USO delivery of cross-border parcels (these prices are called termination rates). However NRAs cannot set cost-oriented prices unless they have *appropriate* information on volumes, quality of service and costs. Setting cost oriented prices for individual products requires a methodology to allocate costs between USO and non USO products by pipeline activity. Article 14 of the Postal Directive provides guiding criteria for the development of such cost allocation methodology, and it requires NRAs to approve the methodology. To do this, NRAs need detailed data from the universal service provider, which is obliged to provide them by Article 22a of the Postal Directive. To date, however, not all NRAs may have obtained the detailed information they need to regulate cross-border prices; and,
- **scarce cooperation among NRAs in the regulation of USO cross-border parcels.** NRAs need to assess termination rates and prices of outbound cross-border parcels, which requires that they determine whether termination rates charged by national postal operators in other Member States are cost oriented. This requires co-operation among NRAs, in the letter of Article 22 of the Postal Directive. To date, co-operation has been weak: the newly created European Regulators Group for Postal Services (ERGP) provides the right arena to strengthen it.

An assessment of the cross-border parcel market cannot exclude consideration of the termination rates that postal operators charge each other to deliver parcels originating from other Member States. Termination rates paid for USO deliveries should be known and assessed by NRAs to determine whether they are cost oriented. There are three types of parcel terminal agreements: Inward Land Rates (ILRs), EPGs and bilateral agreements:

- ILR are per-parcel charges with weight steps and bonuses for value added features. They are set by individual national postal operators and are quite high, in many cases higher than the *entire* domestic price.²⁵ We understand that ILRs are used rarely, and mainly by small countries and some countries in Eastern Europe. The high values of the ILRs suggest that they are not cost oriented;
- the EPGs are administered through the International Post Cooperation (IPC) and are based on traffic profiles, with “a *payment system based on performance*.”²⁶ Differently from ILRs, EPGs are linked to quality standards and are therefore more efficient than ILRs.
- Bilateral agreements are contractual agreements generally resulting from tendering and are *entirely* confidential.

The fact that little is disclosed about termination rates, so that NRAs may not be privy of them, is a clear problem for efficient regulation. We are not advocating that termination rates for USO deliveries should be public. They should not. They should, however, be disclosed to NRAs to allow them to discharge their regulatory duties: to assess whether high cross-border (versus comparable domestic) prices for the services they regulate are caused by high termination rates and to take opportune measures to ensure that termination rates reflect delivery costs.

In assessing the EU parcel market, we have considered adjacent legislations that are capable of creating barriers to the well functioning of cross-border parcel

²⁵ We were given the ILRs by national postal operators in strict confidentiality.

²⁶ <http://www.ipc.be/en/Services/EPG.aspx> - IPC website

markets by increasing parcel operators' costs. We have found that the largest cost barrier is represented by distortion in the EU transport network, which is not properly interconnected. The White Paper²⁷ recently published by the European Commission addresses these issues: among various initiatives, that of adopting a single, multi-modal transport document (electronic) will reduce transport and administrative costs, and therefore reduce delivery costs and provide a more suitable ground for cross-border growth in parcel flows.

1.1.3 Cross-border price differentials (Chapter 5)

Our reviews of the cross-border e-commerce and parcel markets indicate that the prices paid by small senders to send parcels across the border using national postal operators may be too high and not reflective of underlying costs. We have therefore investigated whether this is so.

Our analysis relies on cross-border retail prices by national postal operators – the only publicly available, non-confidential prices – and we find *prima facie* evidence that they are indeed much higher than domestic prices for similar products.

In order to make domestic and cross-border prices comparable, we have constructed benchmark prices that reflect the different (longer) pipeline structure and the additional transport and administrative costs incurred by cross-border deliveries and have compared the *published retail cross-border prices that national postal operators charge for packets, parcels and express items to these benchmarks*. These are the prices that non-account customers pay and thus represent prices charged to many small enterprises, micro enterprises and individuals. We estimate parcels sent by these groups to account for about 20% of total cross-border parcel²⁸ volumes, a significant volume share. We address the following questions:

- whether domestic and cross-border prices are substantially different;
- what are the causes for these differences; and,

²⁷ EC White Paper: *Roadmap to a Single European Transport Area – Towards a competitive and resource efficient transport system*, 28 March 2011, COM(2011) 144 final.

²⁸ Here, total parcel volumes include packets and express products by national postal operators.

- how competitive conditions, scale and other relevant factors affect price differentials.

Our analysis shows that cross-border prices are indeed much higher than domestic benchmark prices and therefore too high. For parcels, they are on average *twice* as high as domestic benchmark prices, while for packets, which are part of *letter mail*, they are about 30% higher.

As expected cross-border price differentials are lowest within the six largest Member States²⁹ (15% for packets, 40% for parcels, 55% for express products) and highest within the more peripheral countries, corresponding to those whose letter mail markets will be fully liberalised in 2013 (47% for packets, 65% for parcels, 61% for express products).

Even within the six largest Member States, price differentials between cross-border and comparable domestic products are very high: to investigate the causes of price differentials, and their impact, we have developed an econometric model. Our model measures the impact of scale (volumes) and competition on cross-border differentials, while controlling for differences in qualitative attributes between cross-border and domestic products. We tested our model on packets, parcels and express products. The results show that:

- as expected, price differentials decrease with scale: the higher the volumes that one national postal operator sends to another, the lower their unit costs and the lower the price that customers pay;
- however, and unexpectedly, if one national postal operator received higher volumes from another, the price that customers have to pay to send those volumes does not change. This means that although the unit cost of delivery is lower because of the higher volume, the savings are not passed on to customers through lower prices: either the delivery operator keeps the savings by not reducing termination rates, or the sending operator pays lower termination rates but keeps the savings to itself. This shows that there is

²⁹ Germany, France, Italy, the Netherlands, Spain and the UK.

market power, but without information on termination rates it cannot be established which of the two operators profits from it;

- higher competition in the country from which the parcel is sent does not influence the price differential: cross-border prices are shielded from domestic competition; and,
- higher cross-border competition has a strong impact on cross-border price differentials: for cross-border flows between the six largest countries, differentials are significantly lower even after the impact of all other factors has been taken into account.

We therefore find evidence of market power in the cross-border parcel market for small, infrequent senders, which include many small and micro retailers. Market power is caused by two factors that reinforce each other in a vicious circle of low demand, low competitive entry and high prices.

On the one hand, the buyers of these products (the *demand side* of the market) either do not have alternatives to the national postal operators, or if they do, they do not use them either because they do not know that these alternatives exist, or because they do not trust them. This causes the elasticity of demand to be low, and prices to be high.

On the other hand, national postal operators (the *supply side* of the market), are able to maintain high prices because of lack of competition. In so far as these products are part of the USO, Articles 12 and 13 of the Postal Directive require their prices to be cost oriented and based on efficient service provision. Our results indicate that cross-border prices may not be cost-oriented, suggesting that regulation is not effective.

1.2 Recommendations

Our recommendations are as follows, condensed from the more detailed recommendations which can be found in **Chapter 6**.

1.2.1 Removal of information barriers

Our review of cross-border e-commerce and parcel markets shows that there are powerful information barriers that result in market imperfections and hinder the development of cross-border e-commerce and delivery markets.

These barriers overwhelmingly affect consumers and small retailers (especially those who reside in non-urban areas and peripheral countries) and their removal will increase both demand for and supply of, e-commerce. Higher participation rates by small enterprises would increase the parcel volumes they send and initiate a virtuous circle where higher volumes will reduce prices and increase competitive entry by parcel delivery operators, lowering prices and further increasing volumes.

We recommend the following actions aimed at removing information barriers:

- 1. In view of high level consumer protection (e.g. possibility of redress; remedies available) it is imperative that Member States implement the recently adopted Consumer Rights Directive as soon as possible and in line with its objectives.**

The Consumer Rights Directive fully harmonises and strengthens consumer rights across the Member States. Harmonisation lowers uncertainty for retailers and the cost of gathering information. Strengthening consumer rights reduces demand-side barriers.

A speedy implementation of the Directive by the Member States will have a positive impact on consumers and retailers, especially small retailers. The ensuing growth in e-commerce will lead to growth in parcel deliveries, with larger volumes and better prices.

- 2. The EC should encourage MS to develop information campaigns on cross-border consumer rights using appropriate channels.**

This addresses the lack of information about consumer rights. Disseminating information is fundamental: demand and supply of cross-border e-commerce will only increase if buyers and sellers are informed of the existence of strong, harmonised consumer rights. This will lead to building trust in selling and purchasing cross-border.

- 3. All vendors should provide a link to national ECC Network contact points. They should clearly indicate that consumers have the right to return products and be reimbursed, and the procedure for doing so.**

This recommendation addresses the lack of information on complaint procedures in case consumers encounter problems with cross-border e-commerce purchases (including delivery delays, damages and losses). By providing a link to the ECC Network (which has a single address for the whole EU) on their website, e-commerce retailers would remove this market imperfection at a small cost, thereby increasing demand.

- 4. When the CEN addressing standard is published in February 2012, the EPG and its members should work closely with CEN to ensure its effective implementation.**

Different addressing standards are a cost barrier, especially for small and individual senders. Access to the new addressing standard should be made as easy as possible and its implementation monitored. This would reduce costs and increase the competitiveness and participation of small retailers to cross-border e-commerce.

- 5. The Member States should promote awareness campaigns to inform SMEs of alternative cross-border delivery options (mail consolidators, online parcel brokers, retail networks of subsidiaries of other national postal operators). The information could be distributed through Chambers of Commerce and trade associations.**

This recommendation addresses the market imperfection created by the fact that many small retailers are either unaware of alternative delivery options in their country, or do not trust such options. These barriers hinder competition and allow national postal operators to retain high market shares and high prices, which often leads to lower participation of small retailers to cross-border e-commerce.

We believe that information on alternatives needs to be distributed through appropriate channels, which are the venues most frequented by business people: trade associations and Chambers of Commerce. The diffusion of this information will induce customers to switch, reduce prices and help the market to grow.

1.2.2 Removal of quality of service barriers

6. **NRAs should encourage transparency on quality of service standards. Information should be published on NPO's and NRA's sites.**

Long delivery times and item damages or losses are a barrier to cross-border e-commerce, but no data is available on quality performance of cross-border parcel deliveries. This does not help consumers or retailers overcoming their concerns and lowers consumer and retailer participation to cross-border e-commerce.

Quality of service information should be publicly available to remove a considerable barrier to e-commerce growth and, consequently, increase the size of the cross-border parcel market.

7. **Corresponding to Unex quality of service measures for letter mail, the IPC could consider the publication of quality of service measures for parcels.**

Concerns about poor quality of service lower the demand for cross-border delivery services: it would be in the interest of IPC members to alleviate these concerns by help making quality of service information available.

1.2.3 Removal of price barriers

8. **NRA should consider how to ensure that the Postal Directive is correctly implemented:**

- **the scope of the USO should be clear;**
- **article 13 requires termination charges for cross-border USO products to be cost oriented and linked to the quality of service: the NRAs must enforce this;**
- **appropriate cost allocation mechanisms must be developed within the letter of Article 14 and assessed by NRAs with data provided by the NPO (Article 22a). Data on volumes, pipeline costs and termination charges are part of this requirement: NRAs should obtain and use them in view of enforcing Articles 12 and 13;**
- **NRA must use this information to (i) ensure that cross-border parcel prices, and termination charges (paid to the NPO to discharge its**

delivery duties within the scope of the USO) are cost oriented and/or (ii) assess whether there is evidence of market power being abused; and,

- **NRA should consider appropriate ways to share among themselves information necessary to discharge their duties in cross-border markets (in the spirit of Article 22).**

Price barriers are most likely to affect small and micro retailers, and retailers and consumers living in peripheral areas of countries: they pay high prices to send parcels through national postal operators, and often use universal service products. This suggests that national postal operators have market power and that price regulation is not effective.

Our recommendations are aimed at enabling effective regulation. Setting prices more in line with underlying costs must be a priority. Lower prices will increase volumes and participation of small retailers, decrease the price they pay, and increase their participation to cross-border markets.

2 Introduction

FTI Consulting (“FTI”) has been commissioned by the European Commission, Directorate General Internal Markets and Services, to provide a study on Intra-community cross-border parcel delivery.

2.1 Overview of the study

Delivery markets across Europe are characterised by high concentration: relatively few large postal users, and countries, represent a large proportion of turnover. The prices paid by these customers are negotiated and are never publicly available. The available prices are those paid by small customers.

Because we knew this from the start, we developed a methodology that allows us to evaluate the relative size of the two sender groups (the large and the small postal users), the constraints they face in the e-commerce space, and the extent to which they can be treated together when assessing outcomes in the market for parcel delivery.

We start out with an overview of EU e-commerce, and provide an assessment of how this market is divided between domestic and cross-border, and among small, medium and large enterprises. In particular, we estimate the number of firms from each segment size that operate in the market, and their turnover. These are the first publicly available estimates which are consistent at the EU level. We conclude our analysis with a review of barriers to e-commerce growth, and how these barriers affect end-consumers and enterprises.

We then focus on the EU delivery market, and estimate its size and how the market is split between firms of different size. We obtain estimates of how many parcels are sent in total and per-capita by large, medium and small enterprises. We review and assess the options that end-consumers and micro enterprises have when sending parcels domestically and cross-border: vendor conveyance, postal pipelines and integrator pipelines. We conclude our analysis of the delivery market by reviewing and assessing regulatory developments.

Next, we assess prices and price differentials for those products which are bought by small senders. Large customers have bargaining power, since the market for their custom appears to be competitive, at least in those countries where the

majority of business takes place. This is clear when one considers the sizeable discounts from published tariffs³⁰ that operators are prepared to offer to account customers sending large volumes, and the number of alternative delivery options available to large customers. However, small customers who do not send parcels regularly and do not have an account would typically have to pay the published prices for both cross-border and domestic products.³¹

We develop an econometric model which estimates the extent to which price differentials between cross-border and domestic products are caused by scale, competition, qualitative and other factors, and conclude with recommendations for market improvements.

2.2 Our methodology

In approaching this study, we were aware that there are serious information gaps on the e-commerce and postal markets.

In particular, there is no comprehensive information at the EU level on how many small, medium and large enterprises are engaged in cross-border e-commerce or distance sales to customers. There are some datasets on the market shares of different enterprise types (by economic activity, and, separately, size³²), however these do not provide an entire market overview, and are often out of date. In chapter 3 we develop our own estimates of how many enterprises take part in e-commerce or distance sales, as well as the turnover attributed to these.

In addition, there is no publicly available information on the negotiated prices that are paid by businesses to send packets, parcels or express products, to consumers. Data on bilateral postal flows are also non-existent in the public domain, as are operators' costs. Finally when delivering cross-border, postal operators need to interconnect with each other (except in cases of large integrated

³⁰ This information is found on national postal operators' websites.

³¹ Our desk research shows that, out of 27 national postal operators, only four offer cross-border discounts to non-account customers which are different to domestic discounts to non-account customers. For the remainder, there is either no information mentioned on the national postal operators' websites, or discounts are only available for account customers (which we are not considering), or the discounts for cross-border delivery are the same as for domestic delivery.

³² Including Eurostat: Data in focus, 1/2010, ICT usage in enterprises 2009 - figures 5 to 8 - http://epp.eurostat.ec.europa.eu/cache/ITY_OFFPUB/KS-QA-10-001/EN/KS-QA-10-001-EN.PDF.

delivery networks as run for example by large integrators): the types of agreements that exist for this are known in general terms (such as whether the agreement is multilateral, bilateral, intra-EU etc), but their actual workings, and the prices paid are confidential.

We therefore needed to develop a research approach based on what information is available, whilst attempting to obtain details from postal operators. However we could only hope to obtain some generic information from postal operators and national regulatory authorities, whose involvement in cross-border markets is minimal. This is because a large part of the market has long been liberalised: only a part of the market is USO and the USO cross-border market is not always clearly identifiable, whilst most regulators have yet to start the process of regulating it and appear to lack the information to do so.

To estimate the size of the EU cross-border and domestic distance sales markets in the EU, and the packages that are sent by small, medium and large enterprises, we used data from EU databases and publications such as Eurobarometer and combined them together in a model.

Our empirical analysis on price differentials focuses on that part of the market where small senders (individuals, micro and small enterprises) operate. These senders either pay full price (as published in the publicly available price list of the delivery operator), or obtain small discounts on both domestic and cross-border products, which result in similar price differentials. This allowed us to perform the analysis using data which is in the public domain.

We collected prices and product specifications for comparable products offered by the national postal operators in all the Member States: these publicly available data can be found on the websites of the national operators. We also used trade data as a proxy for parcel flows.

We sent questionnaires to national postal operators asking information on cost shares, share of postal flows by destination, type of cross-border transport used, termination agreements, and presence of competitors in the market. The national postal operators from the following countries replied, although with differing degrees of completeness:

- Belgium, Czech Republic, Denmark, France, Germany, Greece, Hungary, Ireland, Italy, Luxembourg, Malta, Portugal, Slovakia, Slovenia, Spain, Sweden, and the UK; the Netherlands did not send a written reply, but answered our questions via teleconference.

Full details of the national postal operator questionnaire can be found in Appendix 1. The information contained in the responses to these questionnaires is strictly confidential, and can only be shown in aggregate.

We also sent questionnaires to national regulatory authorities, asking for information about USO products, market shares and competition. The national regulatory authorities from the following countries replied, although with differing degrees of completeness:

- Belgium, Cyprus, Czech Republic, France, Germany, Greece Hungary, Ireland, Latvia, Malta, Portugal, Slovenia, Sweden, and the UK.

Where the NRAs were unable to provide us with complete responses to our questions, this lack of data was a hindrance to analysing the postal market, and it clearly sets limits to their ability to perform their regulatory duties as prescribed by the Postal Directive. Full details of the NRA questionnaire can be found in Appendix 2.

Further desk research provided information on the other variables that we used in our econometric model: geographic and demographic variables, proxies for parcel volumes, and the competitive environment. Desk research was also the basis of much of the qualitative information contained in the study.

Finally, our understanding of the workings of cross-border delivery markets, competition in these markets, and the role played by small and large senders also benefited from meetings, e-mail exchanges or telephone conversations with a number of stakeholders. These include TNT, La Poste, Poste Italiane, Royal Mail, the International Post Corporation, the Postal Users Group, EMOTA, FEDMA, the representatives of DHL, FedEx, TNT Express and UPS, Amazon and e-Bay.

2.3 Structure of this report

The remainder of the report sets out how we reached the conclusions set out above:

- **Chapter 3** describes the European e-commerce market (Section 3.2) and examines the demand for and supply of B2C e-commerce (Sections 3.3 and 3.4). It then presents our estimates of the number of firms operating in the cross-border B2C e-commerce market and their turnover, by firm size (Section 3.5). A review and assessment of barriers to e-commerce follows, including delivery related barriers (Section 3.6). Conclusions to the chapter highlight the main findings and challenges identified.
- **Chapter 4** contains our review and assessment of intra-EU parcel delivery markets. It sets out with reviews of the existing estimates of the value of the EU parcels market and of its evolution, (Sections 4.2 and 4.3). The chapter continues with a presentation of our estimates of EU parcel volumes that originate from distance selling, in total and by firm size (Section 4.4). Market logistics and market players are discussed next (Section 4.5), followed by an assessment of the implications for shareholders of the current industry structure (Section 4.6). The chapter then considers and assesses the EU regulatory environment and how it relates to cross-border parcel deliveries: the EU regulatory framework defined by the Postal Directive (Section 4.7); termination agreements (Section 4.8), and quality of service monitoring (Section 4.9). Adjacent regulatory issues are discussed in Section 4.10: VAT regimes (4.10.1), data and consumer protection (4.10.2), transport policy (4.10.3) and competition issues (4.10.4). Conclusions to the chapter highlight the main findings and challenges identified.
- **Chapter 5** provides an assessment of the prices paid by small, infrequent customers that do not have an account with national postal operators: these are the published prices for packets, parcels and national postal operators' express parcels. The chapter analyses cross-border and domestic prices (Section 5.2); sets out our approach to estimating price differentials that accurately reflect the underlying domestic and cross-border pipelines; and reviews our findings (Section 5.3). It then investigates the causes of price differentials (Section 5.4) and describes the econometric methodology we develop to assess the impact of competition and scale, amongst other drivers,

on price differentials (Section 5.5). Model results for packets, parcels and express parcels are discussed next (Section 5.6). Conclusions to the chapter highlight the main findings and challenges identified.

- **Chapter 6** sets out the conclusions and recommendations resulting from the study.

3 E-Commerce in the European Union

3.1 Introduction

Parcel delivery and e-commerce are closely linked: growth in e-commerce generates growth in parcel deliveries, while any barriers to e-commerce that are caused by imperfections in the delivery market are capable of slowing down e-commerce growth, and therefore growth in the delivery market itself.

Any analysis of cross-border delivery markets therefore must start from an understanding of cross-border e-commerce, and in particular the size of the market; how it is divided between businesses of different sizes; which barriers exist that prevent it from developing further; and whether these barriers affect market players differently, especially small businesses.

Studies commissioned by the EC³³ show that almost half of EU consumers would not use cross-border e-commerce because of worries about delivery: long delivery times; high prices; and what to do about delays, losses and returning items are all barriers for consumers. On the other side of the market, some e-commerce businesses and parcel operators have developed business models which achieve shorter delivery times and lower prices than the 'traditional' national postal operators pipeline. These business models (which we discuss in Chapter 4) tend not to benefit all e-commerce enterprises in the same way: those with low turnover, and thus small and infrequent parcel volumes, may find it more difficult to obtain low prices, and may therefore not be able to compete with large e-commerce retailers.

To understand the extent of the problem, we need to know how many businesses fall into this category and their market share. However, few estimates are available of the size of the e-commerce market in the EU-27, and none of the size of the cross-border market. There is no information on how many enterprises participate

³³ Eurobarometer, *Consumers Attitudes Towards Cross-border Trade and Consumer Protection*, Analytical Report, Flash Eurobarometer 299, March 2011.

in the market (either overall or cross-border), and of these, how many are small, medium or large firms.³⁴

In this chapter, drawing together data from a number of EU datasets,³⁵ we therefore estimate the number of small, medium and large firms that engage in e-commerce and other forms of distance sales in the EU-27, and their turnover. We then estimate average turnover per firm, again by firm size.³⁶ This is the first time such estimates are produced for the EU-27.

This chapter starts with a definition of e-commerce and a brief analysis of demand and supply for cross-border e-commerce. We then assess market size and discuss delivery and non-delivery barriers to cross-border e-commerce, before drawing our conclusions.

3.2 E-commerce in the EU: definition

Eurostat defines e-commerce as *“purchases and sales made via websites or via automated data exchange, but excluding normal e-mail messages that are manually typed”*.³⁷ In effect, the e-commerce market is one where goods or services are purchased online.

E-commerce sales can be made by businesses or by consumers. When consumers make sales to other consumers (“C2C”), businesses act as intermediaries between them, offering consumers a platform on which to trade. The most popular platform for C2C e-commerce is eBay, the online auction and shopping website (“online market place”) with subsidiaries in the UK and Germany.

There are two types of e-commerce transactions directly involving businesses: sales and purchases between businesses (“B2B”) and sales from businesses to consumers (“B2C”). B2B represents the largest proportion of business e-

³⁴ Small enterprises have between 10 and 49 employees and turnover between €2m and €10m. Medium enterprises have 50-249 employees and turnover between €10m and €50m. Large enterprises employ 250 plus employees and have turnover in excess of €50m.

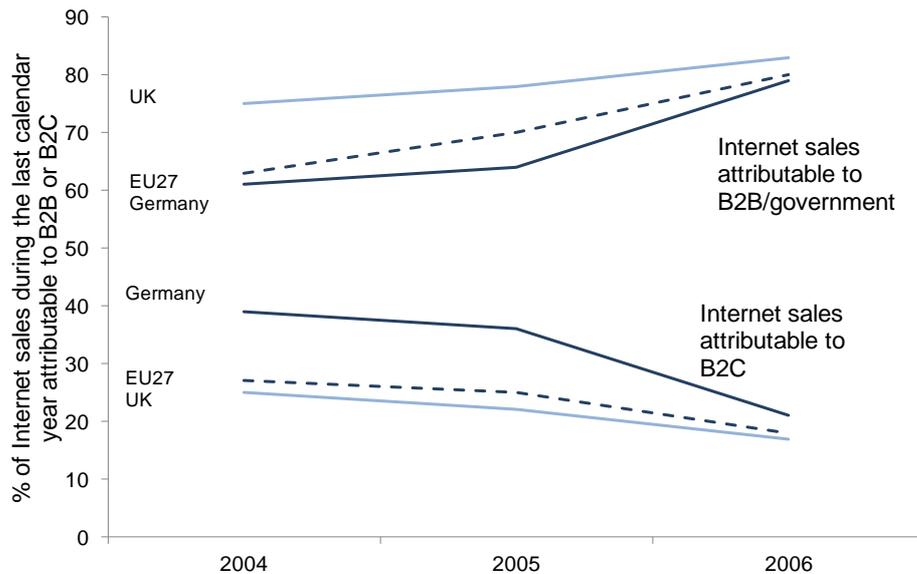
³⁵ All data used is referenced in footnotes throughout the chapter.

³⁶ These estimates enable us to produce estimates of parcel volumes by firm size in Chapter 4.

³⁷ Eurostat news release – Information and Communication Technologies: *“E-commerce accounted for 12% of enterprises’ turnover in the EU in 2008”*, 12 2010 – 19 January 2010, page 4.

commerce turnover, and this proportion is growing. Figure 3.1 shows that just about one fifth of business e-commerce turnover (until 2006, the most recently available data) in the EU-27 is represented by B2C sales.³⁸

Figure 3.1 B2B and B2C as proportion of total e-commerce



Source: Eurostat – Information society statistics³⁹

Considering business e-commerce in its *entirety* (the sum of B2B and B2C), the Information Society Statistics published by Eurostat⁴⁰ show that 64% of EU businesses had their own website in 2009, and that 57% of these websites were used to provide brochures or price lists. During the same year, **11% of EU businesses received orders online from other businesses or from**

³⁸ http://epp.eurostat.ec.europa.eu/portal/page/portal/information_society/data/database; Internet sales over the last calendar year- Business to Business/Government, as a percentage of total turnover and Internet sales over the last calendar year- Business to Customer, as a percentage of total turnover (NACE Rev. 1.1) (isoc_ec_eval); variable Internet sales over the last calendar year (B2B and B2C), as a percentage. Excluding non-financial sector and considering businesses employing more than 10 employees.

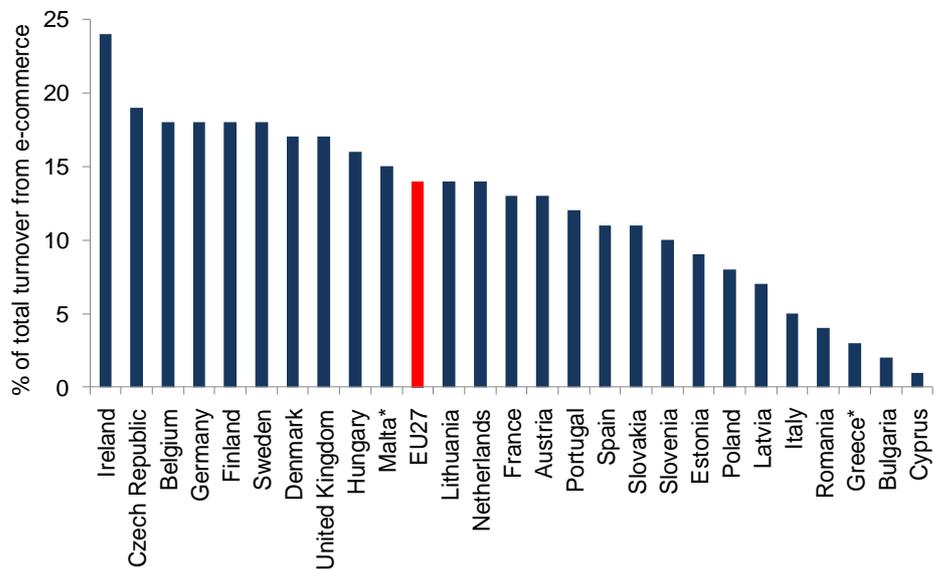
³⁹ http://epp.eurostat.ec.europa.eu/portal/page/portal/information_society/data/database; as above, footnote 38.

⁴⁰ http://epp.eurostat.ec.europa.eu/statistics_explained/index.php/Information_society_statistics; EC website.

consumers, while 23% of businesses, almost a quarter, made purchases online.⁴¹

In monetary terms, on average in the EU, B2B and B2C e-commerce represented 14% of business turnover in 2010,⁴² although there are some disparities between countries, as shown in Figure 3.2.

Figure 3.2 Proportion of turnover originated by B2B and B2C. EU-27, 2010



Source: Eurostat – information society statistics⁴³

In particular, the country where e-commerce represents the largest proportion of enterprise turnover is Ireland, with 24%, while the lowest proportions are recorded in Cyprus (1%), Bulgaria (2%), Romania (4%) and Italy (5%). On average, in 2009

⁴¹ http://epp.eurostat.ec.europa.eu/statistics_explained/index.php/Information_society_statistics. The statistics refer to enterprises with at least 10 employees and not in the financial sectors, that have placed or received at least 1% of their orders online.

⁴² http://epp.eurostat.ec.europa.eu/portal/page/portal/information_society/data/database; Value of purchases and sales by Internet and/or networks other than Internet (NACE Rev. 1.1 and NACE REV. 2) (isoc_ec_eval and isoc_ec_evaln2); variable e_eturn: Enterprises' total turnover from e-commerce. Excluding non-financial sector and considering businesses employing more than 10 employees.

⁴³ Note that figures for Malta are 2009 data, figures for Greece are 2008 data, and there was no available data for Luxembourg. See footnote 42 for variable names.

72% of total B2B and B2C turnover related to domestic sales and purchases, and 20% to transactions between buyers and sellers residing in different Member States.⁴⁴

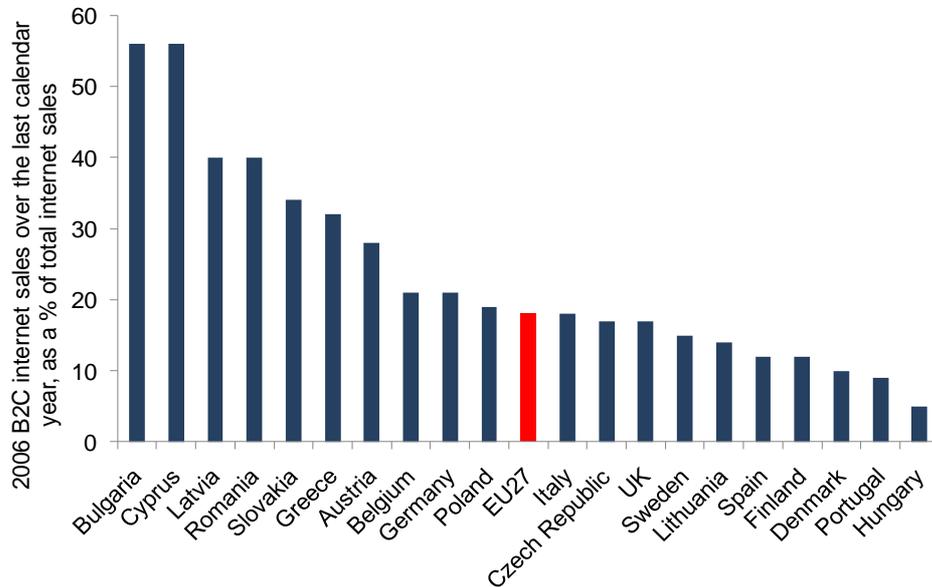
The figures discussed above relate to total business e-commerce, i.e. B2B and B2C. In what follows, we concentrate our attention on e-commerce flows that involve consumers, according to the scope of the present study, which is the analysis of the cross-border parcel market.

First, in making a distinction between domestic and cross-border e-commerce, we consider the latter as comprising e-commerce transactions between buyers located in one of the EU-27 countries and sellers' websites located in another Member State. Second, when producing our estimates of the size and value of the market, we also include other forms of distance sales (mail order and telephone), since B2C transactions from these also result in parcel consignments.

Figure 3.3 shows B2C internet sales as a proportion of total business internet sales in 2006, by country. The countries where total business e-commerce turnover is lower (Cyprus and Bulgaria) have a higher incidence of B2C turnover, with the average incidence being about 20% in the EU in 2006. Below, we discuss demand (individual consumers), supply, and market size.

⁴⁴ http://epp.eurostat.ec.europa.eu/statistics_explained/index.php/Information_society_statistics. The turnover figures relate to enterprises with more than 10 employees in the EU-27, with 4% of turnover generated by e-commerce for small and 17% for large businesses.

Figure 3.3 EU B2C e-commerce, 2006⁴⁵



Source: Eurostat – information society statistics⁴⁶

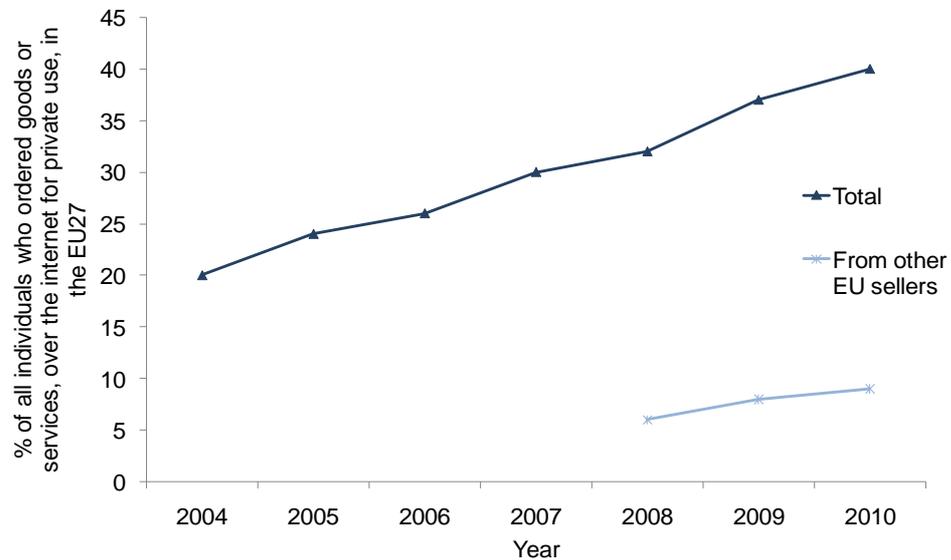
3.3 Demand for B2C e-commerce and other distance sales

The growth of e-commerce has been steady over recent years, although cross-border e-commerce does not appear to have taken off at the same speed. This is shown in Figure 3.4, which plots the proportion of individuals resident in the EU who have made an on-line purchase during the past 12 months and the proportion of those who have bought over the internet from other EU countries.

⁴⁵ 2006 was the latest year for which this dataset was available. There were no 2006 values for Estonia, Ireland, France, Luxembourg, Malta, the Netherlands or Slovenia.

⁴⁶ http://epp.eurostat.ec.europa.eu/portal/page/portal/information_society/data/database; Internet sales over the last calendar year- Business to Customer, as a percentage of total turnover (NACE Rev. 1.1) (isoc_ec_eval); variable Internet sales over the last calendar year (B2C), as a percentage of total internet sales. Excluding non-financial sector and considering businesses employing more than 10 employees. The Information Society Statistics do not contain data on other forms of distance sales.

Figure 3.4 Individuals who bought online in the EU



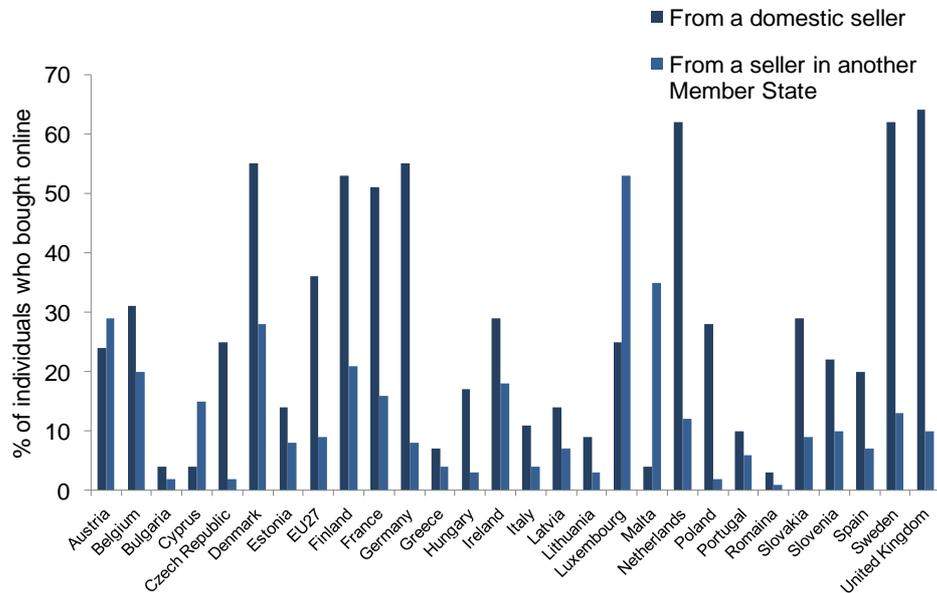
Sources: Eurostat Community surveys on ICT usage in households and by individuals⁴⁷

In 2010, 40% of Europeans had bought a good or service online in the past 12 months, but only 9% had done so cross-border. However this overall figure hides deep differences among the Member States.

Figure 3.5 shows the proportion of individuals who, in the past 12 months, have bought online domestically or cross-border, by Member State. There is considerable variation in the propensity of individual consumers to engage in e-commerce, both domestically and cross-border, across the EU. The largest countries (Germany, France and the UK) and the Nordic countries (Sweden, Finland and Denmark) are those with the largest proportions of individuals buying online domestically.

⁴⁷ European Commission, *Consumer Conditions Scoreboard, Consumers at home in the single market*, 5th Edition, March 2011. From figure 3, page 11.

Figure 3.5 Percentage of individuals who bought online. By country, 2010



Source: Eurostat - Information Society Statistics⁴⁸

Figure 3.5 also shows that more than half of consumers in Luxembourg ordered online from another EU country in 2010, but only one percent ordered goods from abroad in Romania, two percent in Bulgaria and the Czech Republic, and three percent in Hungary. Moreover, residents in the smallest Member States (Luxembourg, Malta and Cyprus) buy more from other EU countries than domestically, whilst citizens in the Southern countries (Greece, Italy, and Portugal) have a low propensity to shop online altogether. Finally, we note that in Austria more people buy online cross-border than domestically: this is most probably a consequence of the proximity of Austria to Germany, and of their sharing of a common language.

The disparities in the use of cross-border e-commerce by consumers in the EU have the following different causes:

⁴⁸ http://epp.eurostat.ec.europa.eu/portal/page/portal/information_society/data/database: Internet purchases by individuals (isoc_ec_ibuy). Variables: i_bfdom Individuals who ordered goods or services over the Internet from national sellers in the last 12 months and i_bfeu Individuals who ordered goods or services over the Internet from sellers from other EU countries in the last 12 months.

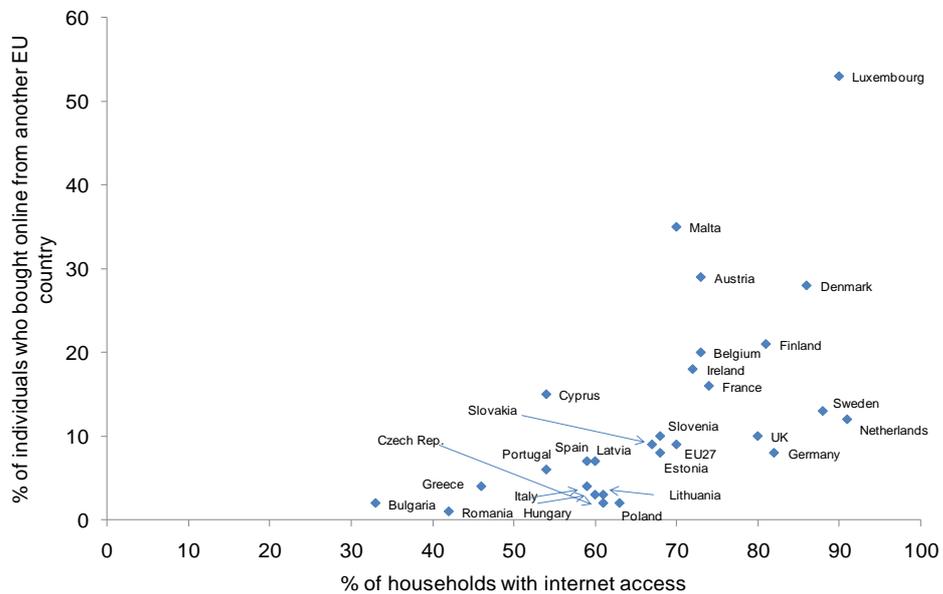
- Macroeconomic factors (investigated in Section 3.3.1):
 - Internet penetration
 - Availability of goods domestically
 - Common language
 - Cultural links
 - Per-capita income
- Consumer confidence, a lack of which may make individuals less likely to buy from another Member State – confidence is affected by delivery and non-delivery barriers (which are listed in Section 3.6).

3.3.1 Macroeconomic factors

Macroeconomic factors that affect the propensity to buy online from another Member State over the internet include internet penetration and a country's per-capita income. Both these factors are expected to have a positive impact on B2C e-commerce and on the propensity of individuals to purchase from abroad.

In Figure 3.6 we show a scatter plot of the proportion of individuals who bought online from another Member State compared to internet penetration.

Figure 3.6 % of individuals who bought online from another EU country compared to internet penetration, 2010



Source: Eurostat – information society statistics^{49,50}

The correlation between internet penetration and the proportion of individuals who bought online from another EU country diverges as internet penetration rates increases. This suggests that something other than internet penetration explains cross-border e-commerce. For example, Luxembourg is an obvious outlier in the figure above and its position may be explained by the country’s small size.

Consumers in Luxembourg might be more likely to purchase from abroad given the potentially limited number of domestically available goods, which as a result may also be relatively expensive. A common language and cultural links to the large markets of France and Germany may also encourage consumers in Luxembourg to purchase cross-border. Other countries that may require relatively large imports from abroad, irrespective of the level of internet access, include Malta and Cyprus. These countries also appear to deviate from the trend shown above and this may

⁴⁹ http://epp.eurostat.ec.europa.eu/portal/page/portal/information_society/data/database: Isoc_ec_ibuy-Internet purchases by individuals, Variable: i_bfeu, individuals who ordered goods or services over the internet from sellers from other EU countries in the last 12 months.

⁵⁰ [http://epp.eurostat.ec.europa.eu/portal/page/portal/information_society/data/database: Households – Level of Internet access \(isoc_ci_in_h\), Variable: h_iacc, households with Internet access.](http://epp.eurostat.ec.europa.eu/portal/page/portal/information_society/data/database: Households – Level of Internet access (isoc_ci_in_h), Variable: h_iacc, households with Internet access.)

explain some of the reduction in correlation associated with higher rates of internet penetration.

For Austria, the proximity to Germany, their common language and cultural links are most likely to play a strong role on influencing the decision to use cross-border internet vendors. A common language and/or cultural links with neighbouring countries might also explain the outlying position of Denmark.

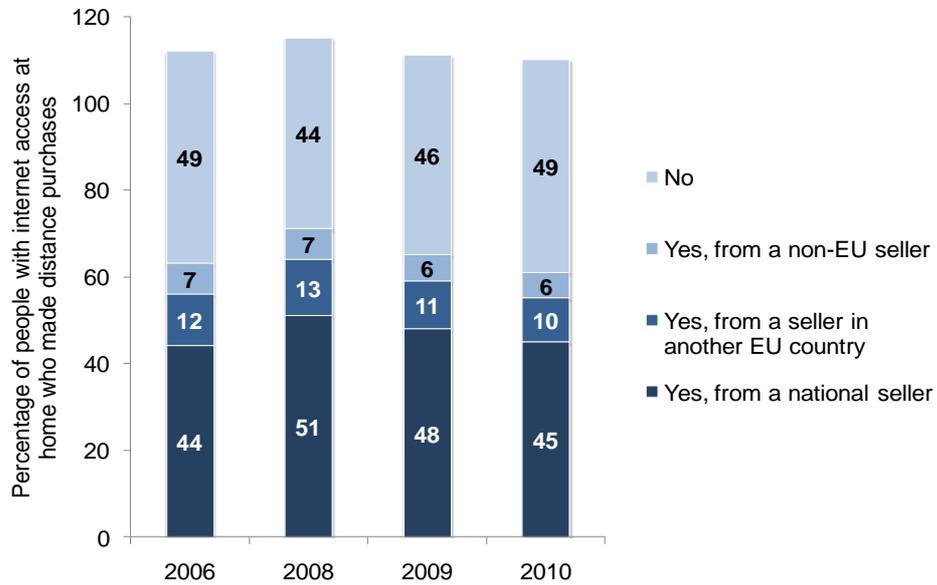
Overall, the percentage of individuals who have internet at home and use distance sellers⁵¹ has decreased between 2008 and 2010, as shown in Figure 3.7:⁵² in 2008, of the individuals with internet at home, 51% bought from a domestic distance seller and 13% from a distance seller located in another Member State. These percentages had fallen to 45% and 10% respectively in 2010.

This does not mean that the *number* of individuals using distance sellers is actually decreasing, since internet penetration is growing quickly in a number of EU countries. However, what this means is that people with new internet connections are less likely to use distance sellers, either because they come from countries where the incidence of e-commerce is low or because of other reasons.

⁵¹ Distance sellers are classified as the use of the following channels: the internet, telephone and the post (i.e. catalogues). Of all retailers that do distance selling, 73% are e-commerce vendors (Eurobarometer, *Retailers Attitudes Towards Cross-border Trade and Consumer Protection*, Analytical Report, Flash Eurobarometer 300, March 2011).

⁵² Note that each bar in the graph can add to more than 100% as people can buy from both domestic and cross-border distance sellers.

Figure 3.7 Distance purchasing by individuals with internet access at home'



Source: Flash Eurobarometer 299 (2011)^{53,54}

One important factor that could explain this lack of increase in cross-border purchases as internet penetration spreads is per-capita income. As internet usage spreads in countries where income per-capita is lower, one expects fewer cross-border purchases, because individuals in low-income countries may not be able to afford higher cross-border prices.

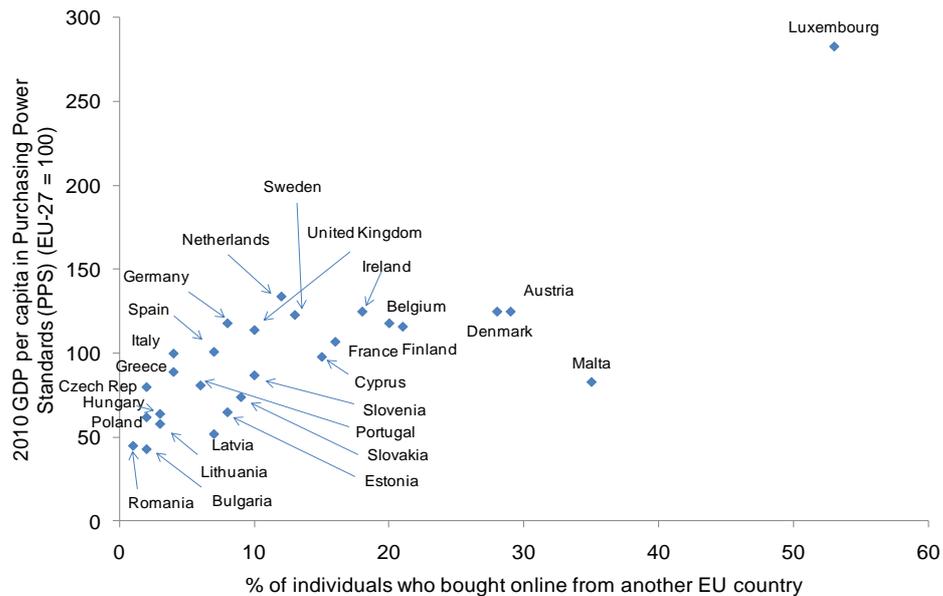
The relationship between the propensity to buy online from another Member State and income per capita (GDP per capita) is shown in Figure 3.8. For most countries, there appears to be a positive relationship: a higher GDP per-capita is accompanied by higher cross-border e-commerce.

⁵³ Eurobarometer, *Consumers Attitudes Towards Cross-border Trade and Consumer Protection*, Analytical Report, Flash Eurobarometer 299, March 2011. Chapter 1, Section 1.1.1, page 14.

⁵⁴ Note that the data sourced from the Eurobarometer Surveys is obtained from surveys conducted by the Gallup Organization, on request of the European Commission. The results are different to the Eurostat 'Information Society' statistics.

There are, however, a number of exceptions: Austria, Denmark, Malta and Luxembourg again appear as the most notable, for the reasons we have explained previously.

Figure 3.8 Cross-border e-commerce and income per capita



Source: Eurostat - information society statistics, national accounts (including GDP) statistics^{55 56}

The figures above show that **there are clear links between macro-economic factors (income levels and the availability of broadband internet) and cross-border e-commerce, and that individuals in countries which are either very small or have strong language and cultural links with neighbouring countries are more likely to use cross-border e-commerce**, everything else being the same.

The figures above, however, also show that **in the majority of countries less than one in five individuals (20%) engages in cross-border e-commerce.**

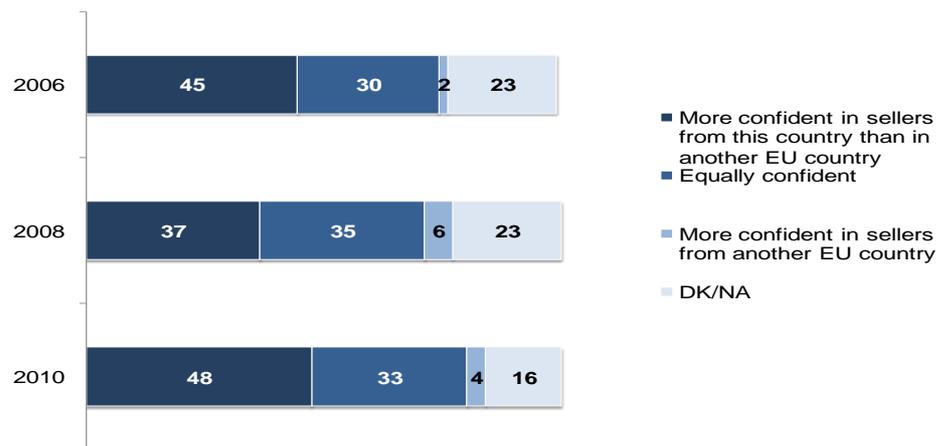
⁵⁵ http://epp.eurostat.ec.europa.eu/portal/page/portal/information_society/data/database;isoc_ec_ibuy-Internet purchases by individuals, Variable: i_bfeu, individuals who ordered goods or services over the internet from sellers from other EU countries in the last 12 months.

⁵⁶ <http://epp.eurostat.ec.europa.eu/portal/page/portal/eurostat/home> : GDP per capita in PPS, Variable: tsieb010, GDP per capita in Purchasing Power Standards (PPS) (EU-27=100).

3.3.2 Consumer confidence

One of the reasons why individuals may not choose cross-border e-commerce is confidence: Eurobarometer⁵⁷ reports that **almost half of (48%) consumers are more confident buying online domestically than cross-border**. Only 4% said that the opposite was true, while a third of those interviewed declared that they felt equally confident when buying online from a domestic or cross-border seller.⁵⁸

Figure 3.9 Consumer confidence with e-commerce in the EU, 2006-2010



Source: Flash Eurobarometer 299 (2011)⁵⁹

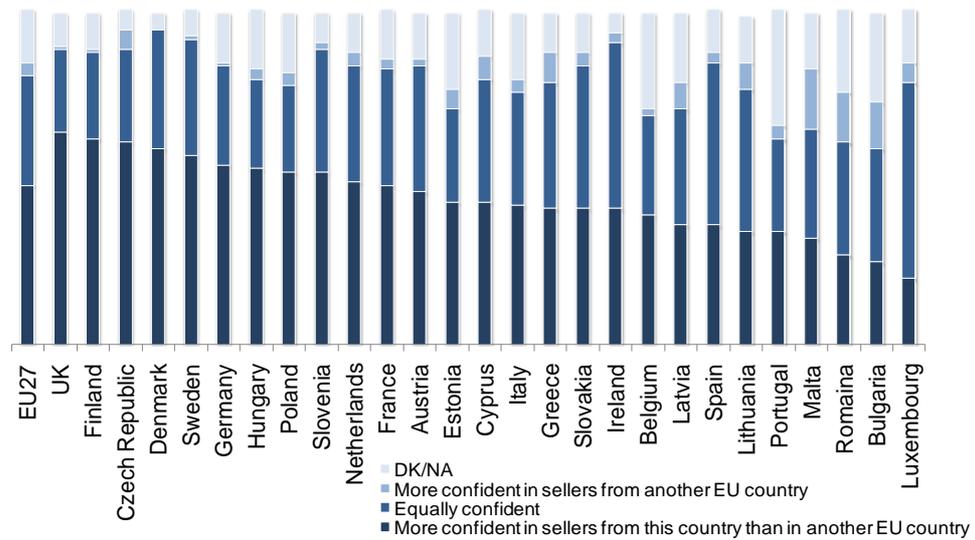
When looking at consumer confidence at the country level (Figure 3.10), we see that there are large variations across the Member States⁶⁰ although there does not appear to be a clear geographic pattern.

⁵⁷ Eurobarometer, *Consumers Attitudes Towards Cross-border Trade and Consumer Protection*, Analytical Report, Flash Eurobarometer 299, March 2011. Chapter 2, Section 2.1, page 25.

⁵⁸ We note that, compared to 2008, the proportions of respondents who feel either more or equally confident with cross-border sellers have decreased, as shown in Figure 3.9. This result should be taken with care, because it may reflect different sample compositions in terms of nationality of respondents. If for example, more individuals in the 2010 sample came from countries where people have less confidence in cross-border e-commerce, the results may show that overall confidence levels have decreased.

⁵⁹ Eurobarometer, *Consumers Attitudes Towards Cross-border Trade and Consumer Protection*, Analytical Report, Flash Eurobarometer 299, March 2011, page 25, from Q6 (FI299, 2010) / QC16 (EBS298, 2008) / QB22 (EBS252, 2006). For each of the following, would you be more confident making purchases from sellers/providers located in another European Union country, in [OUR COUNTRY] or equally confident in both? Base: all respondents, % EU-27.

Figure 3.10 Consumer confidence with domestic and cross-border e-commerce by country of residence, 2010



Source: Flash Eurobarometer 299 (2011)⁶¹

Macroeconomic factors are therefore not alone in determining whether consumers engage in cross-border e-commerce. **Consumer confidence is an issue, with half of the consumers in the EU not trusting cross-border sellers as much as they trust domestic ones: the causes of this lack of confidence are barriers to cross-border e-commerce.**

Concerns about the quality and security of cross-border purchases, about delays in delivery or loss of items, and about high delivery prices are all factors that contribute to undermine consumer confidence and to lower the demand for cross-

⁶⁰ Eurobarometer, *Consumers Attitudes Towards Cross-border Trade and Consumer Protection*, Analytical Report, Flash Eurobarometer 299, March 2011. Chapter 2, Section 2.1., page 27.

⁶¹ Eurobarometer, *Consumers Attitudes Towards Cross-border Trade and Consumer Protection*, Analytical Report, Flash Eurobarometer 299, March 2011, page 27, Levels of confidence when purchasing goods or services via the Internet, Q6. For each of the following, would you be more confident making purchases from sellers/providers located in another European Union country, in [OUR COUNTRY] or equally confident in both? Base: all respondents, % by country.

border e-commerce. These factors constitute barriers to the development of cross-border e-commerce.

Other demand side barriers are related to supply: consumers may be willing to buy cross-border, but may be unable to do so because, for example, the website will not accept payment from their Member State, or shipments to their country are not available. This may be because of barriers affecting suppliers (i.e. businesses engaging in B2C), with some of the barriers that affect consumers also affecting businesses, undermining supply.

We discuss the supply side of the market first, and then discuss the barriers to cross-border e-commerce for individual consumers and for businesses.

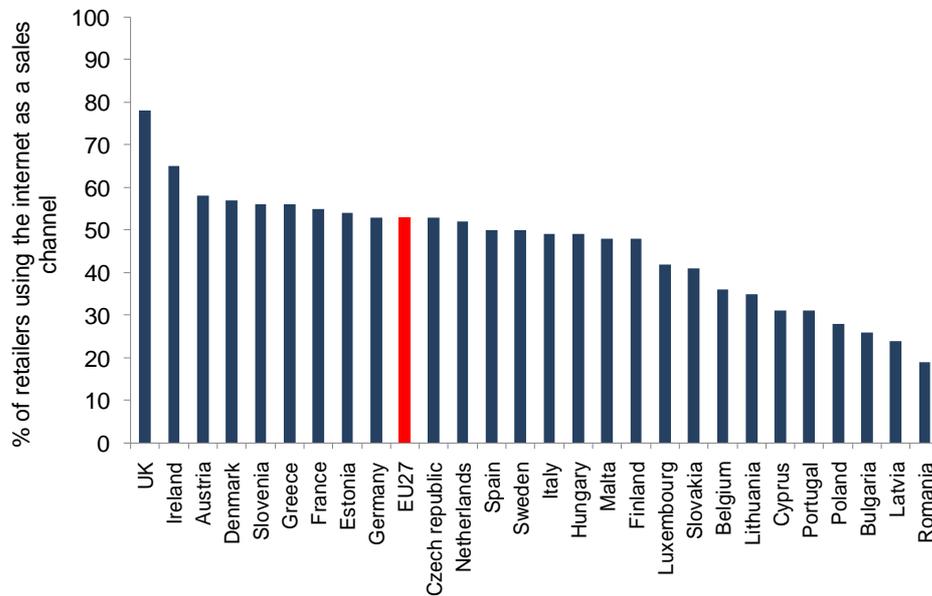
3.4 Supply of e-commerce

Businesses engaged in B2C e-commerce sell a wide range of goods and services including clothes, home furnishings, computer and consumer electronics, apparel and accessories and mass merchandise.

The most recent Eurobarometer survey of retailers⁶² shows that **53% of retailers use the internet as a sales channel**, up 2% from 2009. **This proportion differs widely across countries, varying from 78% in the UK to 19% in Romania**, as shown in Figure 3.11. **It is interesting to note, however, that in more than half the Member States the proportion of retailers that use the internet as a sales channel is 50% or higher.**

⁶² Eurobarometer, *Retailers Attitudes Towards Cross-border Trade and Consumer Protection*, Analytical Report, Flash Eurobarometer 300, March 2011. Chapter 1, Section 1.1, page 9. Note that this survey excludes retailers with less than 10 employees; it also excludes retailers in financial services.

Figure 3.11 Percentage of retailers using the internet as a sales channel, 2010



Source: Flash Eurobarometer 300 (2011)⁶³

There are few existing estimates of the *value* of the European B2C market in terms of total sales of goods and services (total turnover). None of these estimates distinguish between domestic and cross-border turnover, or between businesses of different size, or consider other forms of distance sales that involve physical shipments of goods. For the purpose of this study, we need to understand:

- what the value (turnover) of the cross-border distance sales (and B2C) market is, in total and by enterprise size; and,
- the number of small, medium and large enterprises which engage in cross-border e-commerce and other forms of cross-border distance sales.

⁶³ Eurobarometer, *Retailers Attitudes Towards Cross-border Trade and Consumer Protection*, Analytical Report, Flash Eurobarometer 300, March 2011, page 12, Retailers' sales channels: the Internet D3. Which of the following sales channels do you use? Base: all retailers, % of mentions by country.

These estimates are needed in order to estimate cross-border B2C parcel volumes (number of parcels), and thus the size of the delivery market, both in total and by enterprise size.⁶⁴

Considering the *aggregate value* of the European online retail market, the Centre for Retail Research at Nottingham University estimates that the market was worth €171.8bn in 2010,⁶⁵ while Europe Top 300 puts the 2010 value at €115.4bn.⁶⁶ The figures appear not to include all the 27 Member States, but they include non-EU countries such as Switzerland and Norway. Moreover, both estimates do not distinguish between domestic and cross-border sales; and they appear to exclude retailers in the tourism industry, who are very active e-commerce players.

The figures from Top 300 Europe indicate that the European market is not concentrated, with the top ten online retailers accounting for just over 20% of total European B2C e-commerce sales.⁶⁷ Amazon is the largest online retailer with a share of just under 8% of the European market. Table 3.1 shows the market share of the largest ten players, all companies with online retail sales in excess of €1bn in 2010.

⁶⁴ We produce these estimates in the next chapter.

⁶⁵ <http://www.retailresearch.org/onlinetailing.php> accessed on 5 July 2011. The study reports a value of £145.6bn which, at the monthly average exchange rate of €1.18 in December 2010, corresponds to €171.8bn.

⁶⁶ Top 300 Europe: Rankings, Profiles and Statistics of Europe's 300 Largest Retail Web Sites, Internet retailer, 2011 Edition.

⁶⁷ Top 300 Europe: Rankings, Profiles and Statistics of Europe's 300 Largest Retail Web Sites, Internet retailer, 2011 Edition. Figures also include European countries that are not EU members.

Table 3.1 Largest ten European online retailers

Rank	Retailer	2010 Online sales (€bn)	Share of total European B2C e-commerce market
1	Amazon.com Inc. (Europe)	8.99	7.79%
2	Otto Group	3.68	3.19%
3	Tesco Stores	3.02	2.62%
4	Staples Inc. (Europe)	2.71	2.35%
5	PPR SA	2.21	1.91%
6	Home Retail Group	1.36	1.18%
7	3 Suisses	1.13	0.98%
8	CDiscount.com	1.13	0.98%
9	Neckermann Gruppe	1.06	0.92%
10	Dixons Stores Group	1.05	0.91%
Largest 10 European online retailers		26.34	22.83%
Total European B2C e-commerce market (€bn)			115.40

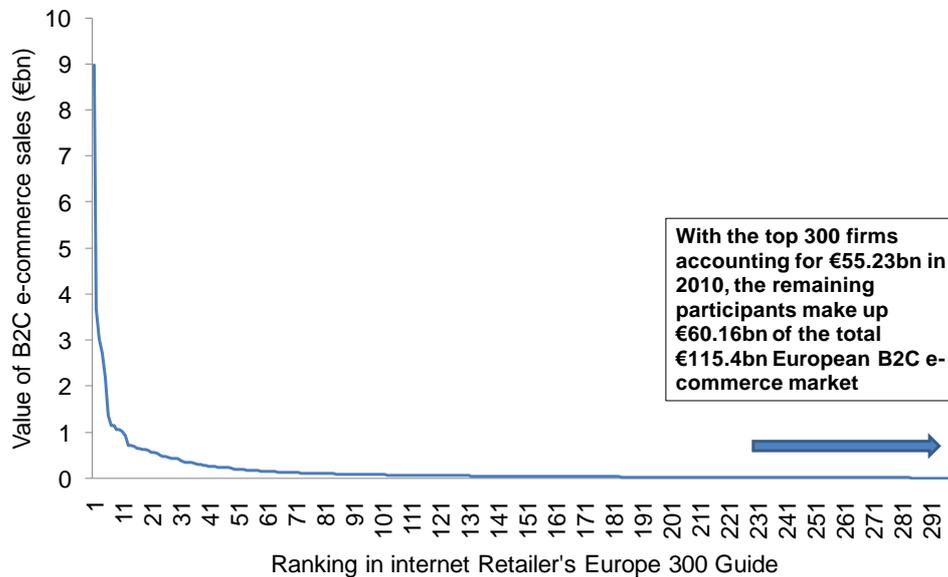
Source: *Top 300 Europe, 2011 Edition - internet Retailer*^{68, 69}

While Amazon has e-commerce sales of €9bn and a market share of almost 8%, the second largest company (Otto Group) accounts for just over 3% of the European market and only six companies have sales accounting for more than 1%. This lack of concentration is confirmed in Figure 3.12, which shows the distribution of the 300 largest e-commerce retailers by total sales value across Europe.

⁶⁸ We applied a USD/EUR exchange rate of 0.6981 (from www.oanda.com) to the 2010 European B2C e-commerce market values of each of the top 300 firms, as well as the market total, which were denominated in dollars by internet Retailer.

⁶⁹ Top 300 Europe: Rankings, Profiles and Statistics of Europe's 300 Largest Retail Web Sites, Internet retailer, 2011 Edition. Figures also include European countries that are not EU members.

Figure 3.12 Distribution of e-retailers by sales



Source: FTI calculations from data in *Top 300 Europe, 2011 Edition - internet Retailer*^{70, 71}

However, whilst it is clear that total turnover from e-commerce is not concentrated, the companies in the market are not small: 262 out of the top 300 (52% of the total market) had 2010 e-commerce sales of €10m or more, and in general these sales were much higher.^{72, 73}

This result is confirmed by statistics on the distribution of e-commerce by company size in the EU: Eurobarometer⁷⁴ data show that, **while 50.8% of small**

⁷⁰ Top 300 Europe: Rankings, Profiles and Statistics of Europe's 300 Largest Retail Web Sites, Internet retailer, 2011 Edition. Figures also include European countries that are not EU members.

⁷¹ We applied a USD/EUR exchange rate of 0.6981 (from www.oanda.com) to the 2010 European B2C e-commerce market values of each of the top 300 firms, as well as the market total, which were denominated in dollars by internet Retailer.

⁷² Top 300 Europe: Rankings, Profiles and Statistics of Europe's 300 Largest Retail Web Sites, Internet retailer, 2011 Edition. Figures also include European countries that are not EU members.

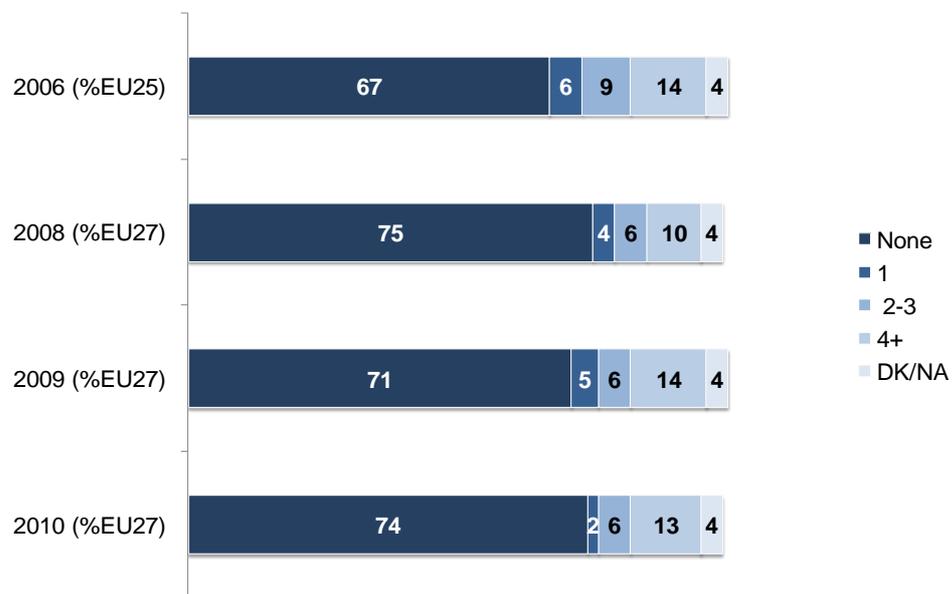
⁷³ We applied a USD/EUR exchange rate of 0.6981 (from www.oanda.com) to the 2010 European B2C e-commerce market values of each of the top 300 firms, as well as the market total, which were denominated in dollars by internet Retailer.

⁷⁴ Eurobarometer, *Retailers Attitudes Towards Cross-border Trade and Consumer Protection*, Analytical Report, Flash Eurobarometer 300, March 2011. Table 4B.

enterprises⁷⁵ use the internet as a sales channel, the proportion increases to 63.3% for medium enterprises⁷⁶ and to 65.5% for large businesses.⁷⁷

Figure 3.13, with data from Eurostat's Eurobarometer,⁷⁸ shows that **the degree of internationalisation of EU retailers is not high, with less than one quarter of all retailers making B2C cross-border sales in 2010** and only 13% selling in four countries or more.

Figure 3.13 Proportion of retailers that sell cross-border



Source: Flash Eurobarometer 300 (2011)⁷⁹

Thus, while slightly more than half of retailers in the EU use e-commerce as a sales channel, only 21%, roughly one in five, engage in any cross-border e-

⁷⁵ Flash Eurobarometer 300 defines small enterprises as those employing between 10 and 49 employees.

⁷⁶ Medium enterprises are defined as those employing between 50 and 249 employees. We note that Flash Eurobarometer 300 calls these firms "SMEs".

⁷⁷ Flash Eurobarometer 300 defines large businesses as those employing 250 employees or more.

⁷⁸ Eurobarometer, *Retailers' Attitudes Towards Cross-border Trade and Consumer Protection*, Analytical Report, Flash Eurobarometer 300, March 2011. Chapter 2, Section 2.1, page 19. "To how many EU countries do you currently make cross-border sales to final consumers?" Base: all retailers.

⁷⁹ Eurobarometer, *Retailers' Attitudes Towards Cross-border Trade and Consumer Protection*, Analytical Report, Flash Eurobarometer 300, March 2011. Chapter 2, Section 2.1, page 19. "To how many EU countries do you currently make cross-border sales to final consumers?" Base: all retailers.

commerce.⁸⁰ This result is confirmed by a mystery shopping exercise carried out across the EU in 2009,⁸¹ which showed that for 61% of the cross-border offers identified by the mystery shoppers, the seller would not accept the foreign order.

3.5 Our estimates of cross-border B2C e-commerce

In the absence of available estimates on size (number of enterprises) and value of the B2C e-commerce market in the EU-27, we have produced estimates of market size, and of how the market is split among enterprises of different size. Our estimates refer to both total and cross-border B2C market and include goods and services. To our knowledge, there are no comparable estimates available at the EU-27 level.

To produce our estimates, we have combined data from three separate databases: the Annual Report on Small and Medium-sized Enterprises produced by the EC,⁸² the 2011 Eurobarometer survey,⁸³ and Eurostat's European Business database.⁸⁴ Based on this information we have estimated:

⁸⁰ Eurobarometer, *Retailers Attitudes Towards Cross-border Trade and Consumer Protection*, Analytical Report, Flash Eurobarometer 300, March 2011. Our calculations from data in Table 4B. The proportion of firms that use cross-border distance selling is 23%; 82% of these use the internet, i.e. 19% of all firms.

⁸¹ Mystery Shopping Evaluation of Cross-border E-commerce in the EU, conducted by YouGov Psychonomics on behalf of the EC, Health and Consumers Directorate General, October 2009. The study considered 100 products which were strictly comparable across the Member States and found a total of 3,804 and 12,090 cross-border offers, of which they tested 2,609 and 10,964 respectively.

⁸² EC, Directorate General for Enterprise and Industry (DGENTR), May 2010. Micro enterprises have less than 10 employees and less than €2m turnover. Small enterprises have between 10 and 49 employees and turnover between €2m and €10m. Medium enterprises have 50-249 employees and turnover between €10m and €50m. Large enterprises employ 250 plus employees and have turnover in excess of €50m. The analysis excludes enterprises operating in the financial sector. The primary criterion used to classify the businesses surveyed is the number of employees. 92% of the firms are micro enterprises, of which half comprise a single worker. The data refer to 2009.

⁸³ Eurobarometer, *Retailers Attitudes Towards Cross-border Trade and Consumer Protection*, Analytical Report, Flash Eurobarometer 300, March 2011. This survey is based on a sample of 6,706 enterprises in the EU-27, Norway and Iceland. These firms were selected across business sectors which are most likely to engage in internet sales, and include firms in the goods and services sectors. The sample includes 5,650 small, 786 medium and 150 large enterprises. Micro enterprises are excluded and the survey includes retailers that sell financial services. The data refer to 2010.

⁸⁴ Eurostat: European Business: Facts and figures, 2009 edition (2009) - Selected Indicators for all activities. Indic_SB: Number of enterprises by disaggregated sector, 2007.

- the number of distance⁸⁵ and e-commerce enterprises in the EU, both in aggregate and by enterprise size;
- the number of cross-border distance sellers in the EU (excluding micro enterprises), both in aggregate and by enterprise size; and
- total and cross-border EU-27 turnover (excluding micro enterprises) for distance selling and e-commerce activities, both in aggregate and by enterprise size.

Our estimates cover the whole EU-27 and the sectors that have been considered in the Eurobarometer survey: retail, hotel and restaurants and transport.⁸⁶ For these reasons, they cannot be directly compared with the estimates by the Centre for Retail Research or Europe Top 300, which appear to consider only retailers operating in a subset of EU-27 countries plus other European countries which are not EU Members. Table 3.2 summarises our findings. It does not include estimates for cross-border internet e-commerce since there is no information available for it, apart from one figure on the proportion of cross-border distance sellers that use internet as a sales channel.⁸⁷ As discussed further below in this section, however, we have been able to provide some estimates of the number of firms and the value of this market.

⁸⁵ Distance sellers use three sales channels: the telephone, the post (catalogues), and the internet (e-commerce) rather than e-commerce alone.

⁸⁶ For the transport sector, we have only considered specialised retailers, i.e. travel agencies.

⁸⁷ Eurobarometer, *Retailers Attitudes Towards Cross-border Trade and Consumer Protection*, Analytical Report, Flash Eurobarometer 300, March 2011, Table 4B.

Table 3.2 Estimated size of distance selling and e-commerce market: goods and services, retail sector.

	Small enterprises (10-49 employees)	Medium enterprises (50-249 employees)	Large enterprises (250+ employees)	Total A (small + medium + large enterprises)	Total EU27 - (Total A plus micro enterprises)
All industries (rows 1 - 10)					
1 Total number of enterprises (1,000)	1,424	226	43	1,693	20,752
2 - Percentage (of Total EU27 enterprises)	7%	1%	0%	8%	100%
3 - Percentage using distance sales	71%	82%	81%	75%	
4 - Percentage using e-commerce	51%	63%	66%	53%	
5 - Percentage using cross-border distance sales	20%	30%	28%	23%	
6 Turnover (EUR bn)	4,659	4,828	10,231	19,718	24,266
7 - Percentage (of Total EU27 enterprises)	19%	20%	42%	81%	100%
8 Estimated median distance selling turnover	10%	10%	7%	10%	
9 Estimated median e-commerce turnover	10%	10%	7%	10%	
10 Estimated median cross-border distance turnover	5%	5%	4%	5%	
Retail, hotels & restaurants and travel agencies sector (rows 11 - 21)					
11 Number of enterprises (Total EU27, 1,000)	391	62	12	465	5,705
12 Turnover (EUR bn)	1,281	1,328	2,803	5,411	
13 Enterprises using distance selling	276	51	10	337	
14 Turnover of enterprises using distance selling (EUR bn)	903	1,089	2,265	4,257	
15 Estimated turnover due to distance selling (EUR bn)	90	109	159	358	
16 Enterprises using e-commerce (1,000)	199	39	8	247	
17 Turnover of e-commerce enterprises (EUR bn)	651	840	1,836	3,327	
18 Estimated turnover due to e-commerce (EUR bn)	65	84	129	278	
19 Enterprises using cross-border distance selling (1,000)	80	18	3	102	
20 Turnover of cross-border distance selling enterprises (EUR bn)	262	394	796	1,451	
21 Estimated turnover due to cross-border distance selling (EUR bn)	13	20	28	61	

Source: FTI Calculations, EC DG ENTR (2010), Eurobarometer surveys (2011), Eurostat's European Business database (2009)⁸⁸

⁸⁸ See footnotes 82, 83, and 84.

There are a total of 20.8 million enterprises operating in the non-financial sector of the EU⁸⁹, and 92% of these are micro enterprises.⁹⁰ The 43,000 large firms (0.2% of the total) represent 42% of total turnover. Small and medium enterprises represent a further 39% of turnover, split almost equally between them.⁹¹

In the EU, there are 5.7m⁹² enterprises in the retail sector.⁹³ Of these, only 465,000 are small, medium, or large firms; the rest are micro enterprises.⁹⁴

The proportions of retail enterprises that engage in distance selling, e-commerce and cross-border distance selling are shown in row 3, 4, and 5 of Table 3.2; unfortunately, this information is not available for micro-enterprises, for which it is not possible to produce estimates.⁹⁵

Distance selling is more common than e-commerce (75% of enterprises versus 53%), while fewer small enterprises sell through these channels than medium or large firms. **There is a difference of 15 percentage points in the proportion of small and large retail enterprises that use e-commerce (51% versus 66%),** as shown in row 4.

Row 5 shows that **the proportion of retail firms that use cross-border distance sales is 23%, with only 20% of small firms doing so versus 28% of large firms.**

⁸⁹ The financial sector is excluded because enterprise-level data are not available for this sector. We have assumed that the turnover proportions for distance selling for small, medium and large enterprises are the same as those for e-commerce. This is because Eurobarometer reports the proportion of turnover that goes to e-commerce by segment, but it does not report the same proportions for distance selling. We have assumed that the proportion of small, medium and large firms in the sectors considered are the same as the overall proportions.

⁹⁰ Table 3.2, rows 1 and 2. See footnote 82 for the data source.

⁹¹ Table 3.2, rows 6 and 7. See footnote 82 for the data source.

⁹² Table 3.2, row 11. These data are not disaggregated by enterprise size and are available for 2007 (see footnote 84).

⁹³ In what follows, unless otherwise specified we use the term “retail” to signify the retail sector, hotels and restaurants and travel agencies. This is the closest definition to that used by Flash Eurobarometer 300, which is the source of data on sales channels.

⁹⁴ The estimates were obtained by applying to row 11 the percentages in row 2, i.e. assuming that the retail sectors we are considering have the same size distribution as the overall economy. This is a simplifying assumption which we had to make since there are no data on the breakdown of EU enterprises by size and sector.

⁹⁵ See footnote 83 for description of the data source.

Rows 13, 16 and 19 in Table 3.2 present **our estimates⁹⁶ of the number of EU-27 retail enterprises (excluding micro enterprises) that use distance selling (337,000), e-commerce (247,000) and cross-border distance selling (102,000) in the EU.**

Aggregate data⁹⁷ show that about 83% of cross-border distance sellers use the internet as a sales channel. Thus, **of the 102,000 EU enterprises that use cross-border distance sales (row 19), we estimate that 85,000 use cross-border e-commerce. This represents 34% of the enterprises that use e-commerce and 18% of all retail enterprises** (excluding micro enterprises).

There is also no information on the use of cross-border e-commerce by retail firms of different sizes. To obtain our estimate of the number of EU enterprises using cross-border e-commerce by enterprise size we have assumed that the same size split applies to enterprises that do cross-border e-commerce and cross-border distance sale.⁹⁸ Therefore according to our estimates **66,685 small, 15,413 medium and 2,803 large enterprises engage in cross-border e-commerce in the EU.**

Row 5 in Table 3.2 shows that 20% of small retail enterprises make cross-border long distance sales, versus 30% of medium and 28% of large enterprises.⁹⁹ Our estimates for cross-border e-commerce show that the corresponding figures are 17%, 25% and 23% respectively.

Figure 3.14 summarises the incidence of each sales channel by enterprise class size; it is lower for small firms than for medium and large ones.

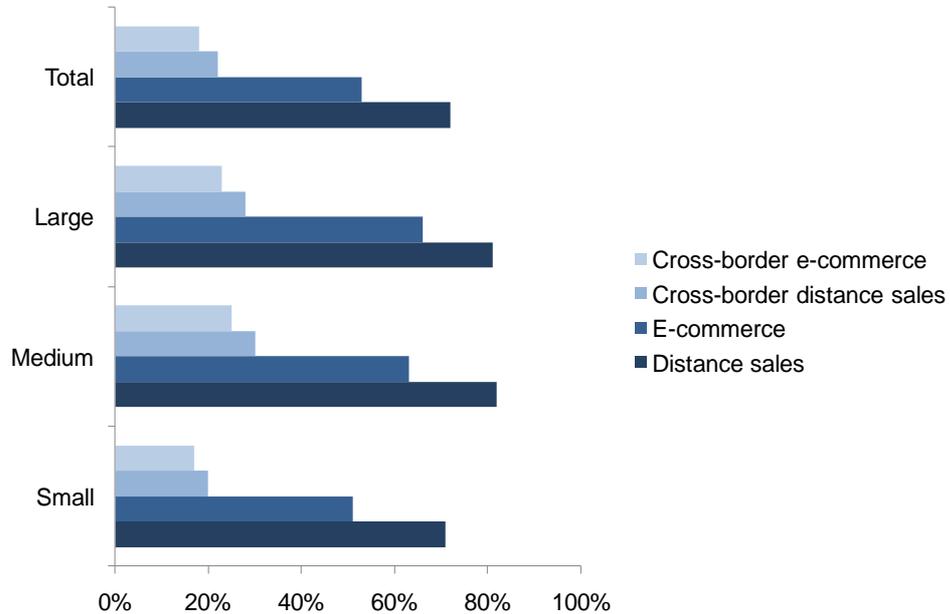
⁹⁶ We applied to row 12 the percentages in rows 3, 4 and 5. These refer to retailers, since they come from *Flash Eurobarometer 300*.

⁹⁷ Eurobarometer, *Retailers Attitudes Towards Cross-border Trade and Consumer Protection*, Analytical Report, Flash Eurobarometer 300, March 2011, Table 4B.

⁹⁸ The proportions in row 19 of Table 3.2 are 79%, 18% and 3% for small, medium and large enterprises.

⁹⁹ The percentages for medium and large enterprises, at 29.7% and 28.4% respectively, are not statistically different due to the small size of the sample of large retail enterprises.

Figure 3.14 Proportion of EU enterprises that make distance and internet sales, by firm size



Source: FTI calculations, EC DGENTR (2010), Eurobarometer surveys (2011), Eurostat's European Business database (2009)¹⁰⁰

Our estimates of turnover¹⁰¹ from distance selling, e-commerce and cross-border distance selling¹⁰² are presented in rows 15, 18 and 21 of Table 3.2 and shown graphically in Figure 3.16. The value of the distance selling market (excluding

¹⁰⁰ See footnotes 82, 83 and 84.

¹⁰¹ Turnover estimates need to be considered with care, because they are based on figures provided by a small number of respondents (Eurobarometer, *Retailers Attitudes Towards Cross-border Trade and Consumer Protection*, Analytical Report, Flash Eurobarometer 300, March 2011. Chapter 1, Section 1.2, page 14). We note, for example, that of the 53% of enterprises that use the Internet as a sales channel in the EU, 34% could not report their e-commerce turnover with any degree of reliability.

¹⁰² These estimates have been obtained using the following steps: 1) calculate the total turnover of the firms in the sector (this is simply the turnover per enterprise times the number of enterprises in the sector for that segment); 2) calculate the turnover of the firms in the sector that do distance selling (or e-commerce, or cross-border distance selling), by multiplying total turnover times the share of the firms that do the particular total activity; 3) calculate the value of this turnover that comes from distance selling (or e-commerce, or cross-border distance selling), by multiplying the firms' turnover times the median turnover for each of these three types of sales. The estimated median turnovers are in rows 13, 14 and 15. These were obtained by computing the median turnover for small, medium and large e-commerce firms that is in Table 10b of the *Flash Eurobarometer 300* (2011). Values for the total market were calculated by summing the respective turnovers of the small, medium and large enterprises.

micro enterprises) is €358bn, of which €90bn (25%) goes to small enterprises, €109bn (30%) to medium enterprises, and the remaining 45% (€159bn) to large ones.

Our estimate of turnover for the EU e-commerce market (excluding micro enterprises) is €277bn. This is larger than the estimated €172bn produced by the Centre for Retail Research. However, the two figures are not compatible since we are considering all B2C e-commerce, and not only that which is carried out by retailers.

If we only include retailers¹⁰³ in our calculations, we obtain an overall turnover figure of €184bn, which compares well with that produced by the Centre for Retail Research.

Of the €277bn e-commerce turnover, we estimate that 23% (€65bn) goes to small enterprises, 30% (€84bn) to medium enterprises, and 45% (€129bn) to large enterprises. These figures imply that the yearly e-commerce turnover per enterprise is about €327,000 for small, €2.1m for medium, and €16.6m for large enterprises.

Moving to cross-border distance sales, estimated total turnover (excluding micro enterprises) is €61bn. This is about half of the turnover from distance sales. Small enterprises have a 22% share (€13bn), medium enterprises a 32% share (€20bn), and large firms a 46% share (€28bn). This corresponds to average cross-border sales of about €164,000 for small enterprises, €1.1m for medium, and €8.3m for large ones.

Although no data is available from cross-border e-commerce, as opposed to cross-border distance sales, if we assume that the same proportion of e-commerce turnover goes cross-border as for distance sales (17%¹⁰⁴), **we estimate cross-**

¹⁰³ Eurostat: European Business - Selected Indicators for all activities. Indic_SB: Number of enterprises by disaggregated sector, 2007. The number of enterprises that can be classified as retailers is 3.8m.

¹⁰⁴ This is the ratio between €61bn (row 21, estimated turnover from cross-border distant sales) and €358bn (row 15, estimated turnover from distant sales).

border e-commerce turnover at €47bn.¹⁰⁵ Small enterprises represent 22% of the cross-border e-commerce market, or €10bn in turnover. Medium enterprises have a 32% share (€15bn) and large firms a 46% share (€22bn) of the market.¹⁰⁶ In terms of annual cross-border sales per enterprise, small firms have annual sales of €152,000 each, while the corresponding figures for medium and large enterprises are €1mn and €7.7mn.

Our estimates of turnover and number of firms involved in e-commerce and distance selling in Europe represent the first attempt to assess the current size of the whole EU market, overall and cross-border. The overall figure, once expressed in comparable terms, is in line with existing estimates.

However, our estimates and those by the Centre for Retail Research and Top 300 Europe are *understated*, because they exclude micro-enterprises, i.e. enterprises that employ less than 10 people. These enterprises represent 19% of total enterprise turnover, 92% of firms, and 30% of employment in the EU-27.¹⁰⁷ There is no information either on their distribution by sector of activity or on their use of e-commerce. For this reason, it is impossible to estimate their contribution to e-commerce.

As we explain above, our estimates rely on survey data from Eurobarometer¹⁰⁸ on the proportion of small, medium and large enterprises that use distance sales, overall and cross-border, to calculate the number of firms by class size that are engaged in these activities, and their turnover. These estimates include both enterprises selling physical goods, that need to be physically delivered and therefore potentially sent as parcels, and digital goods, which consumers download and are therefore “delivered” electronically.

¹⁰⁵ The ratio between €61bn (row 21, estimated turnover from cross-border distant sales) and €358bn (row 15, estimated turnover from distant sales), applied to €277bn in row 15 (estimated turnover due to distance selling).

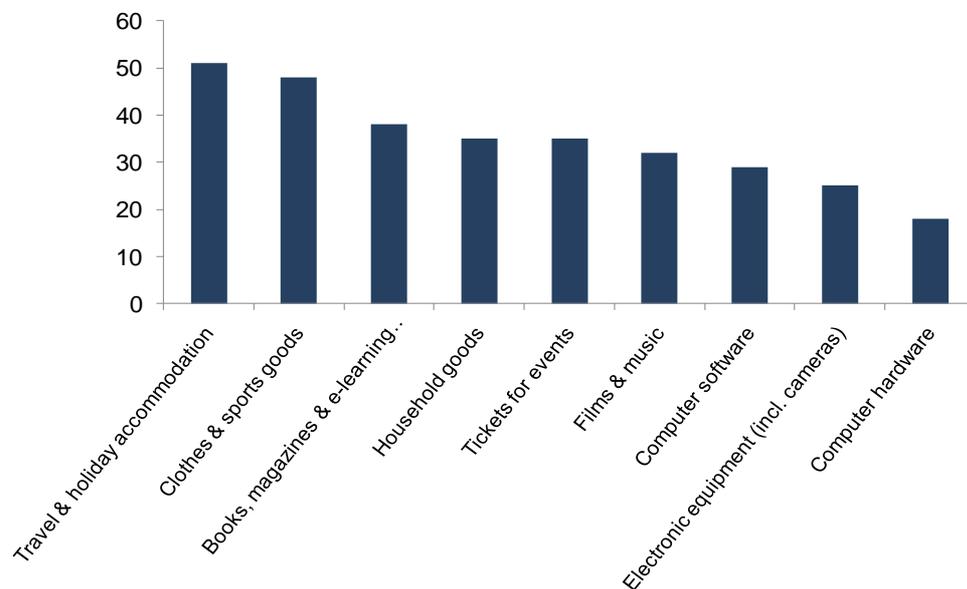
¹⁰⁶ In the absence of actual data we are applying the enterprise split for cross-border distance selling (22%, 32% and 46% for small, medium and large enterprises respectively) to cross-border e-commerce.

¹⁰⁷ EC, Directorate General for Enterprise and Industry (DGENTR), May 2010. Micro enterprises have less than 10 employees and less than €2m turnover. Half of the micro enterprises comprise a single worker. The data refer to 2009.

¹⁰⁸ http://ec.europa.eu/consumers/strategy/docs/retailers_eurobarometer_2011_en.pdf, and in particular the technical annex.

Figure 3.15 shows the distribution of online purchases by EU consumers in 2010.¹⁰⁹ The most frequently bought items were travel and holiday accommodation (purchased by 50% of the buyers). This type of good, as well as film and music, computer software and tickets for events, does not usually require delivery because it is downloadable and/or printable (e.g. electronically purchased tickets). This is becoming true also for books and magazines, which can be downloaded on tablets (e.g. e-books and e-magazines).

Figure 3.15 Online internet purchases by type, EU-27, 2010



Source: Eurostat - information society statistics.¹¹⁰ The figures are expressed as % of individuals who both ordered or ordered over the internet in the past 12 months.

Downloading reduces the distance to nil, and therefore also the size of the cross-border market that relies on deliveries to complete transactions. In the next chapter we provide detailed estimates of turnover and number of firms in the market segment that uses parcel deliveries, and produce a range of estimates for the number of parcels sent by small, medium and large enterprises, and in total.

¹⁰⁹ Eurostat information society statistics, isoc_ec_ibuy – percentage of individuals who ordered goods or services, over the internet, for private use, in the past year.

¹¹⁰ Eurostat information society statistics, isoc_ec_ibuy – percentage of individuals who ordered goods or services, over the internet, for private use, in the past year.

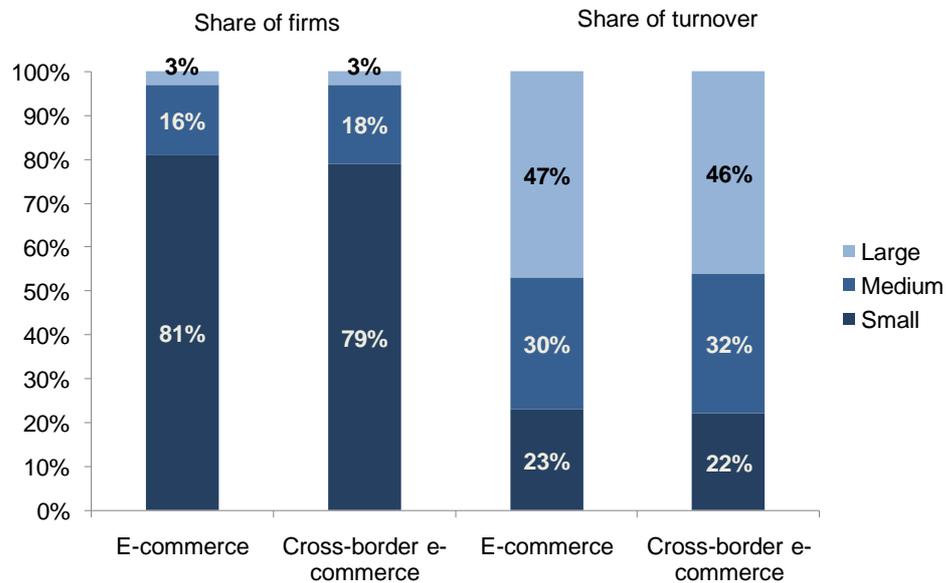
We anticipate here that about half (48%) of the domestic turnover from distance sales involves the physical delivery of goods against 30% for cross-border sales.¹¹¹ This confirms that barriers are higher form cross-border than for domestic e-commerce.

Figure 3.16 summarises our estimates of the shares of turnover and firms attributed to small, medium and large enterprises for e-commerce and cross-border e-commerce. About 3% of all firms that engage in e-commerce are large firms; they earn 46% or 47% of turnover. By contrast, small firms represent 79% of firms but only 22% of cross-border e-commerce turnover.

The fact a large number of small firms represent a small proportion of turnover has consequences for their competitiveness. Economies of scale in delivery are large and parcel operators are much more likely to pursue the custom of and offer discounts to, large firms. Smaller enterprises can benefit from scale economies in areas where there is a higher concentration of them – for example, in the largest EU markets where delivery options exist that cater to them (for example, consolidators and online brokers, which we discuss in the next chapter). In areas where firm density is low, small firms are most likely to face higher delivery costs due to lack of scale. This helps to explain their lower participation to e-commerce in general, and to cross-border e-commerce in particular.

¹¹¹ The data is presented in rows 5 and 6 of Table 4.5.

Figure 3.16 Distribution of turnover by enterprise size. E-commerce and cross-border e-commerce



Source: FTI calculations, EC DG ENTR (2010), Eurobarometer surveys (2011), Eurostat's European Business database (2009)¹¹²

Both turnover and participation figures for small enterprises are low: growth in e-commerce has not yet consistently benefitted all types of business, since small enterprises tend to participate less in cross-border e-commerce than larger ones. This result is in line with the conclusions of a large study examining e-commerce adoption in the EU, which found that *“E-commerce adoption appears to be less likely among small-and-medium-size enterprises, and among those firms belonging to industries with a low proportion of skilled-workers and low levels of engagement in research and development activities.”*¹¹³

Industries with a low proportion of skilled-workers and low levels of R&D engage less in e-commerce since they are less likely be able to integrate new technologies into their operations. The products of these industries tend to be commoditised,

¹¹² See footnotes 82, 83 and 84.

¹¹³ Vicente, Maria Rosaria, and Ana Jesus Lopez, *Patterns of E-Commerce Adoption and Intensity: Evidence for the European Union 27*, Fundacion de la Cajas de Ahorros, Documento de Trabajo No 471/2009, Madrid, 2009.

and financial resources to create and maintain technological sales channels, such as those required by e-commerce, are not available.¹¹⁴ It is not surprising, therefore, that firms with these characteristics show a low propensity to participate in e-commerce.

The study performed econometric analysis on a random sample of 10,000 establishments and found that firm's size mattered for the adoption of e-commerce, "*bigger firms are more likely to adopt than the smallest.*"

Concerning the effect of low cross-border e-commerce adoption by small enterprises: if the proportion of small firms using cross-border distance sales was the same as that of large ones, our calculations show that total EU turnover from distance sales would increase to €66bn, by almost 10%.

There are a number of reasons why smaller firms might have been slower to adopt e-commerce based sales.¹¹⁵ The EC explains that "*SMEs that have not yet developed the economies of scale to go cross-border may consider language, [delivery] logistics and payment issues as a significant hurdle.*"¹¹⁶

Like consumers, therefore, businesses also face barriers to cross-border e-commerce. As with consumers, issues related to delivery (logistics) represent significant barriers. We review these barriers in the next section.

3.6 Barriers to cross-border e-commerce

When deciding whether to shop online from a retailer that is located in a different country or whether to sell to consumers who live cross-border, both consumers and businesses face a number of obstacles. These obstacles increase the cost of cross-border transactions to both consumers and businesses, and hinder growth in the market.

¹¹⁴ An interesting discussion of the advantages and characteristics of R&D intensive industries can be found in OECD, *The Knowledge Based Economy*, 1996; accessed on 23 October 2011 at: <http://www.oecd.org/dataoecd/51/8/1913021.pdf>.

¹¹⁵ Vicente and Lopez, 2009.

¹¹⁶ Commission Staff Working Document, Report on Cross-border E-commerce in the EU, 5 March 2009, SEC(2009) 283 final, Page 71.

In particular, as discussed above, small (and micro) businesses will be hit proportionately more, because they have a smaller scale (lower turnover).

We have identified certain barriers to e-commerce, and for the purpose of this study we divide them into two groups: those which are related to delivery, and those which are related to other aspects of e-commerce transactions.

Barriers that are related to delivery include,

- price related barriers:
 - worries about, and issues with high prices in comparison to domestic prices;
- quality of service barriers:
 - worries about length of delivery times,
 - worries about delayed, damaged and/or lost item; and,
- information barriers:
 - worries about address delivery standards;
 - worries about poor quality and complaint procedures for delayed, damaged and/or lost items; and,
 - worries about returning goods.

These barriers are directly or indirectly related to (postal) delivery markets, and result in lower cross-border parcel flows.

Barriers that are not related to delivery and that affect consumers include:

- language;
- not being able to place an order because the vendor would not sell to a foreign customer;
- worries about not being able to use the product purchased (for example, because of different standards used); and,
- worries about falling victim of fraud.

Barriers that are not related to delivery and that affect sellers, include:

- language and cultural issues;
- advertising;
- payment issues (including fraud);
- VAT and other tax issues; and,
- lack of harmonization in regulation (for example, laws regulating transactions with consumers);

We provide a brief review of these barriers below.

3.6.1 Delivery-related barriers

In the EU, almost one in two consumers (46.7%) declares not to be interested in making a cross-border transaction because of worries about the delivery.¹¹⁷ Barriers for consumers, that are directly related to delivery, include high prices; the fear that the good will be lost or delayed during transport; cross-border delivery times which are too long or problems with receiving goods while not at home (seen by 10% of all people who do not purchase online altogether as the cause why they do not do so¹¹⁸).

Delivery, or cross-border logistics, also represents an important obstacle for 57%¹¹⁹ of retailers. **High prices are an important barrier for consumers and retailers:**

*“For the same distance, it is more costly to send a parcel to another country within the EU than it is to ship it domestically – a “border” effect that is a particular deterrent for small companies”.*¹²⁰

¹¹⁷ Eurobarometer, Consumer attitudes towards cross-border trade and consumer protection, Analytical Report, *Flash Eurobarometer 299*, March 2011. Chapter 2, Section 2.2, page 30. Q5, ‘Thinking generally about purchasing goods or services from sellers/providers located elsewhere in the European Union, which we refer to as “cross-border shopping”, please tell me to what extent you agree or disagree with each of the following statements’. Base: all respondents, % EU-27. Please note that what aspect of “the delivery” they are worried about is not specified in the question.

¹¹⁸ Eurostat, Information society statistics. Individuals who, in the last 12 months, haven't ordered goods or services over the Internet, because of too long delivery times or because of problems receiving the ordered goods at home: perceived barriers to buy/order over the internet (variable *isoc_ec_inb*).

¹¹⁹ Eurobarometer, *Business attitudes towards cross-border sales and consumer protection*, Analytical report, *Flash Eurobarometer 224*, July 2008. Chapter 2, Section 2.1, Graph 15, Practical obstacles to B2C cross-border trade, page 21. ‘Please tell me how important do you think these obstacles are to cross-border sales’. Base: those who did not spontaneously claimed that they are not interested at all in cross-border trade, % by EU-27.

For consumers, this “border” effect is borne out by a Mystery Shopping Evaluation¹²¹ carried out on behalf of the EC, which found that the delivery price¹²² charged by e-commerce and distance vendors to consumers is on average twice as high for cross-border than for domestic deliveries (€16 versus €8). This figure does not represent the delivery price paid by the e-commerce vendor to the parcel operator. Rather, it is the price that the vendor charges the consumer for delivery.

The delivery price paid by the vendor to the parcel operator, which is the focus of our study, varies with the characteristics of the vendor itself, i.e. with the volume and frequency of its shipments. The delivery price that the consumer pays the vendor depends on the delivery price that the vendor pays and on the ability of the vendor itself to pass such a price on to the consumer. Small e-commerce enterprises may not be able to pass on the whole price they pay, and may on average pay more than the €16 paid on average by consumers for cross-border delivery.

Consumers’ concerns with cross-border delivery are not however limited to price. **Quality of service barriers such as losses or delays of cross-border parcels and delivery times that are too long are also a concern.** For example, the Mystery Shopping Evaluation¹²³ found that the delivery time offered by e-commerce and distance vendors to consumers is on average three days longer for cross-border than for domestic deliveries (seven versus four days).¹²⁴

There is a trade-off between price and speed and timeliness of delivery which is quite important. The faster the delivery, the more it costs. However, the slower

¹²⁰ Commission Staff Working Document, *Report on Cross-border E-commerce in the EU*, 5 March 2009, SEC(2009), 283 final, page 67.

¹²¹ Mystery Shopping Evaluation of Cross-border E-commerce in the EU, conducted by YouGov Psychonomics on behalf of the EC, Health and Consumers Directorate General, October 2009. Page 5.

¹²² Note that the price charged by the e-commerce vendor to the consumer is not the same price that the vendor pays for delivery.

¹²³ Mystery Shopping Evaluation of Cross-border E-commerce in the EU, conducted by YouGov Psychonomics on behalf of the EC, Health and Consumers Directorate General, October 2009. Page 5.

¹²⁴ Delivery includes shipment, so it is not directly comparable with delivery only. We learned from our discussions with PUG and Emota that consumers do not expect cross-border deliveries to take the same time as domestic ones, but consider delivery to be of poor quality if promised delivery times are not respected.

and less punctual the delivery, the less consumers will be satisfied with it, and the less likely they will be to make further purchases.

Thus, when making a decision to shop online cross-border, not being able to receive their parcels on time and at a good price is a barrier for consumers. We discuss in the next chapter how e-commerce businesses and delivery operators (postal operators and other industry players) are increasingly adopting business models that bypass traditional cross-border postal pipelines to cater to these needs.

However, we point out at this stage that large e-commerce businesses have more choice in terms of logistics and more bargaining power when negotiating delivery prices than small ones and that there is a section of the cross-border market - those small business or consumers who send few parcels infrequently – that still faces high delivery prices.¹²⁵

Worries about receiving damaged goods, or about parcels being lost in the delivery process are a significant barrier for consumers. These worries are, however, largely unfounded. The most recent Mystery Shopping experiment¹²⁶ found that 94% of the goods ordered were delivered and of these, 99% conformed to what was actually ordered. **Worries that the quality of service is worse for cross-border deliveries are therefore an information barrier:** “not knowing” results in erroneous perceptions and the resulting lack in trust has a negative impact on cross-border e-commerce.

Another important information barrier to cross-border e-commerce and distance sales **is the array of different delivery standards across the Member States.**¹²⁷

For example, in a standard UK address, the postcode is placed after the name of the city, while in most other EU countries it is placed before. The reverse is true for the street number. Many small and medium enterprises do not have knowledge of

¹²⁵ Chapter 5 analyses price differentials for cross-border parcels.

¹²⁶ Online Cross-border Mystery Shopping: State of the eUnion, The European Consumers Centre Network, 9/2011. http://ec.europa.eu/consumers/ecc/docs/mystery_shopping_report_en.pdf.

¹²⁷ See, for example, <http://www.thinkdirect.biz/Presentations/EuropeanAddressFormats.htm> (accessed 5 September).

them: this increases their costs because it affords them fewer delivery options in many countries.

The European Committee for Standardization (CEN) has developed a new standard¹²⁸ to simplify European postal address standards by providing

*“a methodology for the specification of postal address templates, which stipulate how a postal address is to be written, including the order in which postal address elements are to appear, required and optional elements, and the presentation or rendition of the elements, subject to constraints on the space available for that task. ...”*¹²⁹

The ‘Date of publication’¹³⁰ for the new standard is 29 February 2012, by which time there will be the basis of a common European address standard capable of removing an important information barrier.

Although only indirectly related to delivery, 57% of consumers mentioned concerns about returning goods and resolving issues with faulty products, and uncertainty about consumer rights (the resolution of complaints, for example) as a reason not to shop online across-borders, as shown in Figure 3.17.

In particular, EU consumers have a right of withdrawal when they buy from a distance seller from another Member State.¹³¹ When doing so, consumers have the right to be reimbursed for all expenses incurred when purchasing the product, including delivery costs. However, a Mystery Shopping experiment¹³² found that in 57% of the cases consumers are only partially reimbursed. This happens because consumers do not appear to be aware of their rights. They worry that the postage price to return a parcel cross-border is high; that the procedure may take much longer than a domestic return; that any issue must be dealt with in a foreign language; and are uncertain about foreign country complaint procedures.

¹²⁸ Standard EN 14142-1:2011.

¹²⁹ <http://esearch.cen.eu/esearch/> - CEN website standard search facility, the standard was found when ‘address’ was inserted in the ‘Title’ search bar.

¹³⁰ Date of publication – the latest date by which a European Standard has to be implemented at national level by publication of an identical national standard or by endorsement (Source CEN website - <http://www.cen.eu/boos/Pages/glossary.aspx#d>).

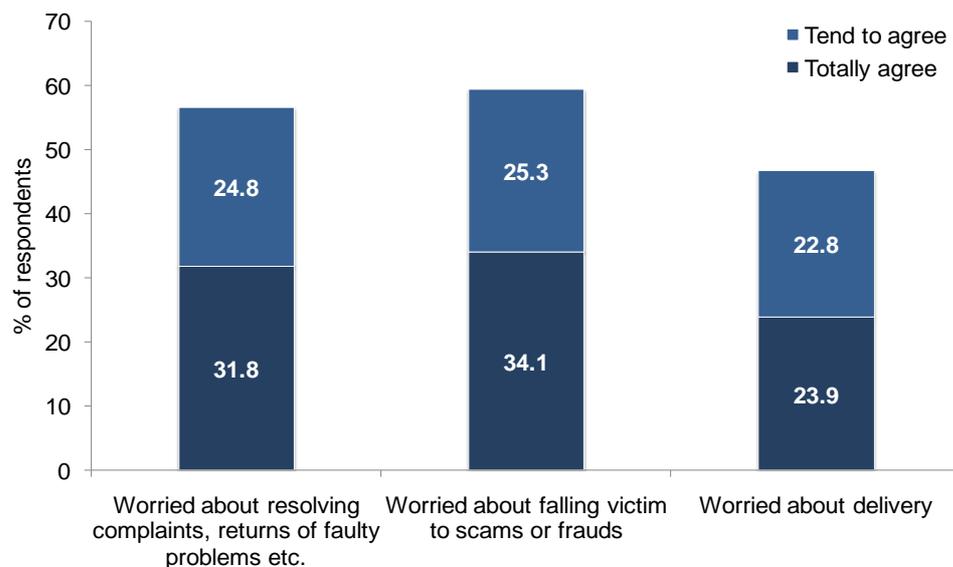
¹³¹ Distance Selling Directive (Dir 97/7/EC) establishes this right.

¹³² Online Cross-border Mystery Shopping: State of the eUnion, The European Consumers Centre Network, 9/2011. http://ec.europa.eu/consumers/ecc/docs/mystery_shopping_report_en.pdf.

When problems with delivery, or other problems in relation to e-commerce occur, consumers have a network of centres (the European Consumer Centres Network),¹³³ operating in each country, from which they can obtain help and advice. However, only 31% of consumers know that this advice is available, and where to get it.¹³⁴ As a consequence, they are deterred from shopping cross-border.

Large vendors such as Amazon are helping consumers to tackle these problems by providing local return addresses to their customers. Small and medium vendors may not have the resources to do this, and may therefore lose custom as consumers would not trust purchasing from them for fear of losing out if problems occur.

Figure 3.17 Reasons not to use cross-border e-commerce, 2010



Source: Flash Eurobarometer 299 (2011)¹³⁵

¹³³ http://ec.europa.eu/consumers/ecc/index_en.htm.

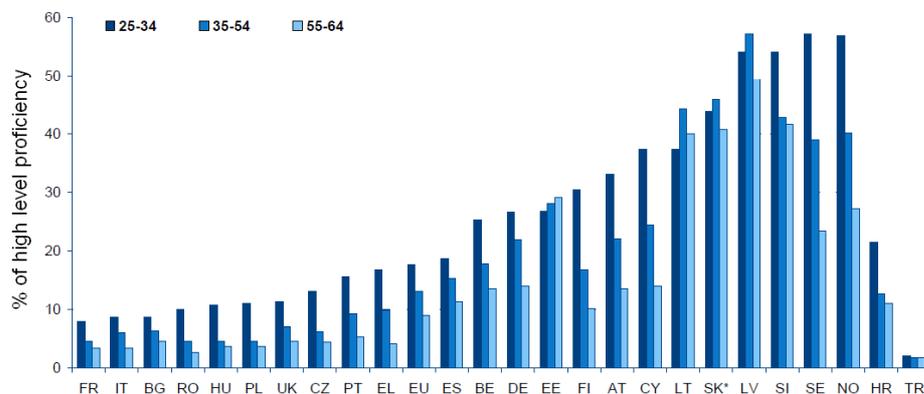
¹³⁴ Eurobarometer, Consumer attitudes towards cross-border trade and consumer protection, Analytical Report, *Flash Eurobarometer 299*, March 2011. Table 11a.

¹³⁵ Eurobarometer, Consumer attitudes towards cross-border trade and consumer protection, Analytical Report, *Flash Eurobarometer 299*, March 2011. Chapter 2, Section 2.2, page 30. Q5, 'Thinking generally about purchasing goods or services from sellers/providers located elsewhere in the European Union, which we refer to as "cross-border shopping", please tell me to what extent you agree or disagree with each of the following statements'. Base: all respondents, % EU-27.

3.6.2 Non-delivery barriers for consumers

Many people in the EU perceive that they do not know **foreign languages** well, with younger generations being more comfortable than older ones, as shown in Figure 3.18. In Eastern Europe the gap between the young and the adults is narrower, but this is because many adults speak Russian as a second language.

Figure 3.18 Foreign language proficiency in the EU¹³⁶



Source: Eurostat Adult Education Survey

Having to shop online from a website that is in a foreign language is daunting for many people, and even more so, we believe, is the thought of having to deal in writing or by phone with a seller speaking a foreign language if problems occur. The latest Consumer Eurobarometer survey found that in 2010, 57% of consumers were not prepared to buy from a website in another language.¹³⁷

Language is not the only intangible barrier to cross-border purchases. Like many things, a language is a standard. There are **many different standards and conventions in the EU** that affect product sales. For example, different language standards affect books, DVDs, and music CDs.¹³⁸ Different countries use different size standards for shoes and clothes, and different transmission standards for

¹³⁶ Eurostat, Statistics in Focus 49/2010: Population and Social Conditions, Figure 4 page 7.

¹³⁷ Eurobarometer, Consumer attitudes towards cross-border trade and consumer protection, Analytical Report, *Flash Eurobarometer 299*, March 2011. Page 6.

¹³⁸ Source: telephone interview with Amazon.

audio or television appliances. Electricity plugs may also differ; this list is far from exhaustive.

The existence of different standards is bound to have a negative effect on consumers' propensity to shop abroad: concerned about not being able to use what they buy, consumers may decide not to buy altogether rather than risk having to return the good.

This is a concern, since **EU citizens appear to be unsure about where to obtain information on cross-border shopping.**

*“Only 37% of European citizens who had made at least one cross-border purchase declared that they knew where to get information and advice about cross-border shopping, compared with 21% in the European Union as a whole. The same is true for 28% of respondents who have an internet connection at home”.*¹³⁹

As seen in Figure 3.17, 60% of consumers agree that **worries about falling victim of fraud or scams** are a reason not to shop online cross-border: payment security, privacy concerns (identity theft) or the risk of finding fraudulent vendors are a deterrent for consumers. Although it is not clear why it should be easier to fall victim of fraud when shopping cross-border than when shopping domestically, this is something that clearly worries consumers and the problem is compounded by their lack of knowledge on where to obtain help. This has negative consequences for the development of cross-border e-commerce and associated markets, such as the delivery market.

3.6.3 Non-delivery barriers for sellers

For sellers, barriers to cross-border e-commerce mean higher absolute costs. Consider for example **language and other cultural barriers**, as well as differences in consumer taste among the Member States, which lead to higher advertising costs:

“In practical terms, this signifies that companies trading on a pan-European basis must manage an inventory of several combinations of every product sold (referred to as a Stock Keeping Unit), for example, different keyboards or native software languages. SKU management remains a challenge compared to an integrated market such as the

¹³⁹ Commission Staff Working Document – Report on cross-border e-commerce in the EU, page 12.

US, further complicated by the co-existence of a wide variety of national technical requirements. The complexities of managing several thousand combinations in several language versions are too costly, especially for low price-point items (for example, offering a German keyboard on a UK site on the off-chance that a German consumer residing in the UK will want to purchase it).¹⁴⁰

Thus, different languages and cultures in the EU require sellers to expand their product offer, which is costly. At the same time, firms wanting to be successful in cross-border e-commerce need to deal with fragmented payment systems¹⁴¹, incur high marketing and advertising costs to acquire brand recognition, loyalty or a national certification from another Member State. These are important to influence consumer choice, in particular considering that confidence issues tend to stop consumers from shopping cross-border.¹⁴²

The higher costs involved with offering multi-lingual services are an important barrier. Consumers do not feel comfortable making transactions in a foreign language, but for sellers, and especially for small and medium enterprises, the escalation in cost attached to offering these types of services is a serious deterrent:

“The inability to understand a site in a foreign language was mentioned by most respondents as a major inhibiting factor. In addition, communication problems were often mentioned in relation to after-sales services and the difficulties of following up on complaints in a foreign tongue. A trader may market his products with advertising in the local language but may fail to offer that language as part of his customer service afterwards. In general, respondents were of the opinion that it is more difficult to get good after-sales services from a trader based in another Member State.”¹⁴³

Figure 3.19 shows the obstacles that deter businesses from engaging in cross-border sales. Importantly, like consumers, sellers consider payment fraud (63%), difficulties in resolving complaints and conflicts (59%), and language differences

¹⁴⁰ Commission Staff Working Document – Report on cross-border e-commerce in the EU, page 67.

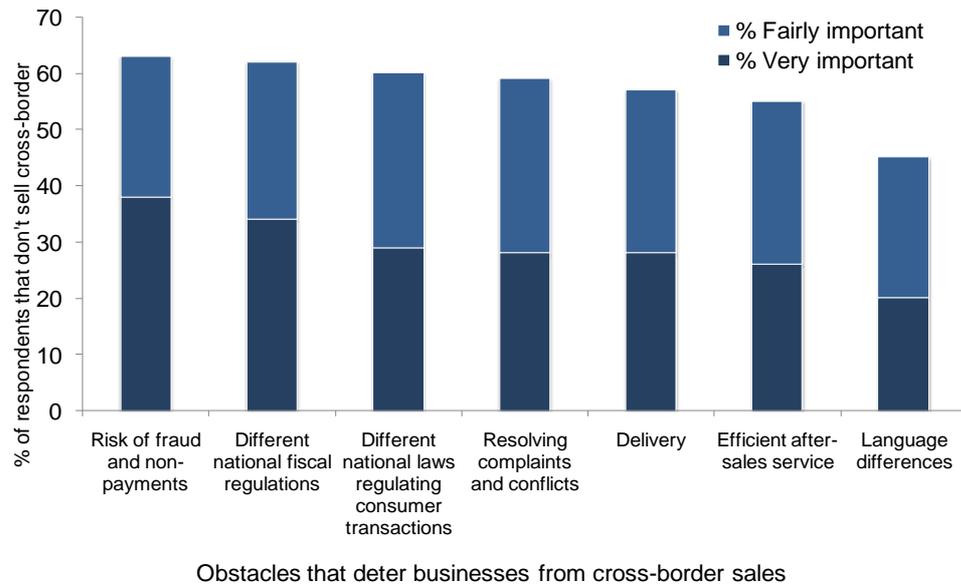
¹⁴¹ The Commission Staff Working Document – Report on cross-border e-commerce in the EU mentions improving payment systems and logistics and tackling technical barriers as actions necessary to reduce barriers to e-commerce. The Directive on payment services and the Single Euro Payments Area are steps being taken in this direction.

¹⁴² Commission Staff Working Document – Report on cross-border e-commerce in the EU, 2009, page 12.

¹⁴³ Commission Staff Working Document – Report on cross-border e-commerce in the EU, page 55.

(45%) as serious barriers. Sellers are also worried about the cost of setting up appropriate after-sales services (55%).¹⁴⁴

Figure 3.19 Barriers to cross-border sales: sellers, 2008



Source: Flash Eurobarometer 224 (2008)¹⁴⁵

The **fragmentation of EU regulations on consumer transactions** is seen as an important obstacle by 60% of sellers: one-third of the retailers interviewed declared that they would be interested in making cross-border sales if laws regulating transactions with consumers were harmonised across the EU, and 31% of those

¹⁴⁴ Eurobarometer, *Business attitudes towards cross-border sales and consumer protection*, Analytical report, Flash Eurobarometer 224, July 2008. Chapter 2, Section 2.1, Graph 15, Practical obstacles to B2C cross-border trade, page 21. "Please tell me how important do you think these obstacles are to cross-border sales". Base: those who did not spontaneously claimed that they are not interested at all in cross-border trade, % by EU-27.

¹⁴⁵ Eurobarometer, *Business attitudes towards cross-border sales and consumer protection*, Analytical report, Flash Eurobarometer 224, July 2008. Chapter 2, Section 2.1, Graph 15, Practical obstacles to B2C cross-border trade, page 21. "Please tell me how important do you think these obstacles are to cross-border sales". Base: those who did not spontaneously claimed that they are not interested at all in cross-border trade, % by EU-27.

interviewed thought that they would achieve higher cross-border sales if this were the case.¹⁴⁶

The EC is taking steps to address the current fragmentation of contract law. In October 2011, it proposed an optional Common European Sales Law with the aim of boosting trade and expanding consumer choice: “*The 27 different sets of [national contract laws] can lead to additional transaction costs, a lack of legal certainty for businesses and a lack of consumer confidence.*”¹⁴⁷

The EC estimates these additional transaction costs at €10,000 per firm for each additional export market, which is a non-trivial figure, especially for small firms, and which is partially responsible for their low participation to cross-border e-commerce and for at least three million consumers a year being refused a cross-border sale or delivery by the vendor.¹⁴⁸

Such **regulatory barriers result in significant compliance costs for businesses**, which “*considerably diminish the appeal or feasibility of cross-border expansion.*”¹⁴⁹ Only 29% of retailers¹⁵⁰ knew where to find information or advice about consumer legislation in other Member States, and addressing the fragmentation of consumer protection rules in the 27 Member States was identified as an action need by the Commission, as well as helping disseminate information for consumers and sellers and promoting alternative dispute resolution schemes and the cross-border small claims procedure.¹⁵¹

¹⁴⁶ Eurobarometer, *Retailers Attitudes Towards Cross-border Trade and Consumer Protection*, Analytical Report, Flash Eurobarometer 300, March 2011, page 5.

¹⁴⁷ European Commission press release (11 October 2011): *European Commission Proposes an Optional Common European Sales Law to Boost Trade and Expand Consumer Choice.*

¹⁴⁸ European Commission press release (11 October 2011): *European Commission Proposes an Optional Common European Sales Law to Boost Trade and Expand Consumer Choice.*

¹⁴⁹ Commission Staff Working Document, *Report on Cross-border E-commerce in the EU*, 5 March 2009, SEC(2009) 183 final, page 3.

¹⁵⁰ Eurobarometer, *Retailers Attitudes Towards Cross-border Trade and Consumer Protection*, Analytical Report, Flash Eurobarometer 300, March 2011, page 5.

¹⁵¹ European Commission, *Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions on Cross-Border Business to Consumer e-Commerce in the EU*, 22/10/2009.

On 11 October 2011 the EU Council of Ministers approved the Consumer Rights Directive,¹⁵² which includes regulations improving consumer protection.¹⁵³ Consumer protection legislation is now fully harmonised under the Directive, so that businesses have a common set of rules governing consumer rights that they can follow. This Directive is a positive step towards harmonising consumer protection rules and lowering the costs associated with their fragmentation.

The incidence of the administrative cost of acquiring information and complying with regulations is higher, the smaller the size of the seller. This includes compliance with VAT¹⁵⁴ and other regulations, such as custom clearance, information exchange with appropriate government authorities, and copyright management¹⁵⁵: Figure 3.19 shows that 62% of retailers perceive this as an obstacle to cross-border trade. In the box below, we report what some market players told us about their experience with cross-border e-commerce

Figure 3.20 Market experiences about barriers to cross-border e-commerce

Amazon cited language as a key barrier for consumers accessing their business. They felt that people would only go onto one of their websites to make purchases if they could understand what was being sold. In addition, some of their catalogue is language specific (books, DVDs, CDs). For example, a Slovakian consumer is unlikely to want to purchase a book written in French, and this will reduce the potential of cross-border e-commerce.

Amazon also spoke of the problem of returning items cross-border: consumers feel more confident returning items if there is a domestic returns service (e.g. being able to print a label with a national address to which they can return items).

The number one barrier to cross-border e-commerce for consumers mentioned by the Postal Users Group (PUG) is payment, and concerns about the levels of security when making online purchases with a debit or credit card. The number two problem is delivery, or better how long it takes for the whole process to be completed (including leaving the stock house). Long delivery times can be exacerbated by differing address standards (e.g. Spanish letters involve two first names); small senders may have problems knowing

¹⁵² See Press Release, Memo/11/ 675, Brussels 10 October 2011. Available at: <http://europa.eu/rapid/pressReleasesAction.do?reference=MEMO/11/675&type=HTML>.

¹⁵³ For example, the Directive limits surcharges for credit card payments, so that vendors cannot charge consumers more than the costs that they are charged by the credit card merchant for the transaction. It also extends the right of withdrawal to 14 days and requires distance sellers to issues “model withdrawal forms” to use to return the goods, along with address and contact details.

¹⁵⁴ To simplify VAT procedures, the EC has proposed to introduce a one-stop scheme to allow cross-border sellers to fulfil certain VAT obligations in their own country.

¹⁵⁵ Commission Staff Working Document, *Report on Cross-border E-commerce in the EU*, 5 March 2009, SEC(2009) 183 final, page 3.

local standards, and as such may refrain from sending cross-border, or may incur the delays involved with incorrect labelling.

eBay's experience shows that even where sellers have a potentially large market abroad, they may decline to sell cross-border because they are worried about sending items internationally. Barriers to these sellers include a lack of knowledge regarding how the cross-border delivery process works: smaller sellers tend to only know about delivery solutions using post offices, which charge high prices for the sending of individual items. As a result, sellers do not know about alternative, potentially cheaper methods of delivery. However, in either case, the sellers' lack of scale counts against them as they do not have the volumes to negotiate lower prices, and it becomes cost ineffective to send items cross-border.

In addition, eBay's sellers worry about delivery times: they associate cross-border sending with a higher risk of delay, which could lead to bad feedback on their profile. There was also a more general feeling of cross-border sending being a new and/or complicated experience which sellers might rather not undertake.

3.7 Conclusions

With only 9%¹⁵⁶ of consumers and 18%¹⁵⁷ of retailers using cross-border e-commerce, the EU cross-border e-commerce market is much smaller than its domestic counterpart. There are also ample differences in the participation rates of small and large enterprises, but no information is available on the number of participating firms and their turnover by firm size.

We have therefore estimated the turnover and numbers of small, medium and large retail firms that operate in e-commerce and distance selling in the EU,¹⁵⁸ both in total and cross-border. This is the first time that such estimates have been produced for the EU-27.

At €47bn, EU cross-border e-commerce turnover represents approximately one percent of retail turnover and 17% of e-commerce turnover. The shares of cross-border e-commerce turnover represented by small and large firms are 22% and 46%: small enterprises have a non-trivial share of this market.

There is a clear growth opportunity in cross-border e-commerce, which is being missed because of the existence of barriers that affect both consumers and sellers.

¹⁵⁶ European Commission, *Consumer Conditions Scoreboard, Consumers at home in the single market*, 5th Edition, March 2011. From figure 3, page 11.

¹⁵⁷ Section 3.5, 85,000 firms are estimated to perform cross-border e-commerce out of a total of 465,000.

¹⁵⁸ The retail sector comprises retail, hotels, restaurants and travel agencies.

For the purpose of this study, we have divided these barriers into those that are related to delivery and those that are not.

Delivery related barriers, which affect both consumers and retailers include:

- **prices:** higher prices for cross-border deliveries in comparison to similar/comparable domestic delivery services are a worry for consumers and retailers. Smaller businesses, which have low cross-border e-commerce turnover and send low parcel volumes infrequently, pay higher delivery prices than larger businesses;
- **quality of service:** worries about length of delivery times; delayed, damaged or lost items worry consumers and retailers; and,
- **information:** retailers worry about different addressing standards across the Member States, whilst consumers and retailers worry about legal issues such as different complaint/redress procedures for delayed, damaged or lost items, and about procedures to return unwanted goods.

Barriers to e-commerce that are not related to delivery and affect consumers include language; the inability to purchase a good because the retailer would not ship it to the foreign address; the worry that the product will not be usable; and concerns about fraud.

Language, and cost increases deriving from different cultural and advertising needs also affect retailers and represent non-delivery barriers, together with payments (including fraud), VAT, and other tax issues and worries about the fragmentation of consumer rights.

Whilst barriers related to language and culture are quite difficult to overcome, much has been, and is being done at the European level to remove other barriers:

- worries about resolution of complaints, including delivery delays, damages and losses: the ECC Network has been set up to assist consumers with their cross-border complaint procedures and operates through national websites;
- worries about different addressing standards: CEN is developing a new pan-European standard, to be published in February 2012;

- worries about returning unwanted goods and the fragmentation of consumer rights: the right of withdrawal exists since 1996, and it has been strengthened by the Consumer Rights Directive (11 October 2011), which introduces a common sets of laws aimed at addressing the fragmentation of consumer rights across the EU. Moreover, the (optional) common EU Sales Law aims at removing transaction costs arising from different sales laws.

Although much has been, and is being done, to remove these barriers, consumers and retailers simply do not know. Large retailers have the resources to gather the information, but small retailers and consumers are uninformed about the tools available to them. Lack of information is a market imperfection hindering cross-border e-commerce growth and the participation of small enterprises, and needs to be removed.

Considering delivery related barriers, worries about the quality of service being lower for cross-border delivery represent a serious constraint, because they significantly impact the demand for cross-border e-commerce.

There is evidence that in the majority of Member States quality of service is no worse for cross-border deliveries and there are well defined EU consumer rights and appropriate channels for redress, but consumers and retailers, especially small retailers, are not informed. **Data on the quality of delivery services for cross-border parcels do exist, but they are not in the public domain. This lack of information is a serious drawback that needs to be addressed: consumers and small businesses need to know what to expect from cross-border delivery services; transparency is key to market growth.**

Finally, consumers and retailers worry about the price of delivery. We shall consider delivery markets in Chapter 4, and cross-border price differentials in Chapter 5.

4 The European parcels market

4.1 Introduction

The growth of e-commerce has brought about an increase in parcel flows. While traditional letter mail is decreasing because of e-substitution, the number of parcels sent is increasing, both domestically and cross-border. However, cross-border e-commerce flows are lower than one would expect them to be, with delivery and non-delivery barriers on the demand and supply side preventing cross-border e-commerce from growing faster. This chapter focuses on the European parcels market, which comprises packets, parcels and express parcel products.

The chapter starts by looking at the market size, and in particular, estimating the flows of B2C packages that are sent cross-border within the EU by large, small and medium enterprises. The size of these flows is important, because it determines the sending options available to each player, including micro-enterprises and individual end consumers.

We turn next to reviewing delivery logistics, and how the cross-border market is regulated, if at all. In the conclusions section, we draw all the strands together and provide an assessment of the market.

We sought the views of several players in the European parcels market such as Amazon, e-Bay, the PUG, EMOTA, the International Post Corporation (“IPC”), national postal operators and parcel operators to get further information, and we refer to some of their comments within this chapter.

4.2 Product definition

Cross-border delivery services within the EU are provided by many operators delivering a variety of different products and postal formats. Although we use the term *parcel* generically, the Universal Postal Union (“UPU”, which is a specialised agency of the United Nations) defines three postal products that correspond to this generic term.

The UPU definition is shown in Table 4.1. According to this definition, the distinguishing criteria between cross-border parcels and packets are weight and

dimensions. Express products are characterised by speed, being forwarded and delivered in the most rapid way.

Table 4.1 UPU format definitions for cross-border parcels

Product	Physical characteristics	Speed of delivery
Packets (letter post items)	Maximum of 2kg, dimension restrictions	Priority and non-priority
Parcels	Maximum of 20kg with optional higher weight accepted	Priority and non-priority
Express products	Documents or goods	Forwarded and delivered in most rapid way

Source: UPU document

A packet can be characterised as an item that is of a similar size to a letter, but that marginally breaches the traditional letter size dimensions. Different Member States have different dimension restrictions for packets, but the sum of these products' length, height and width is usually no more than 900 millimetres.¹⁵⁹ A packet cannot weigh more than 2 kilograms, while parcels have much higher weight restrictions and can be of a much larger dimension. For the purpose of regulation, packets are letter mail.

Cross-border packets and parcels can be priority or non-priority. Priority items tend to travel by air, while non-priority ones generally travel overland and have much longer delivery times. In the EU, there is a proliferation of products to cater to users' needs, with features such as proof of delivery, track-and-trace, and insurance added as a bundle and included in the product price, or added in piecemeal fashion at additional cost. These products can help to boost consumer confidence in cross-border delivery, as they provide some level of guarantee to the delivery service, and consumers are increasingly demanding these products as standard.

¹⁵⁹ The detail on country specific dimension restrictions is laid out in the product description matrices. See Appendix 4.

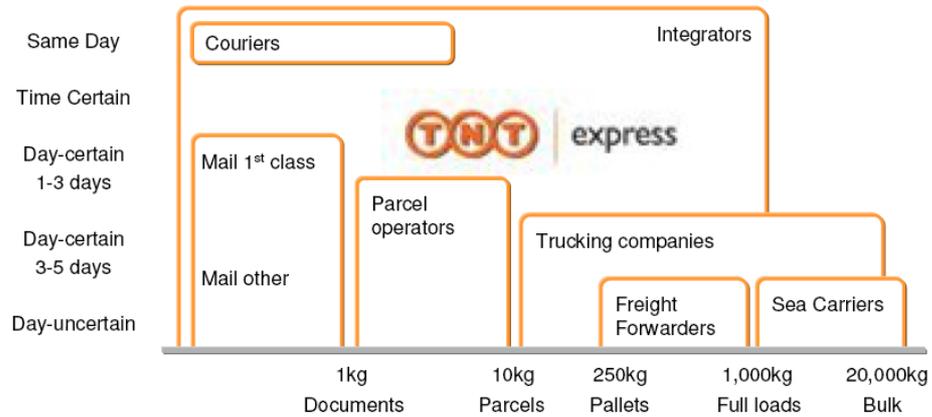
As part of letter mail, packets tend not to have additional features such as track-and-trace, which is instead found in many parcels.¹⁶⁰ Packets and parcels are delivered by national postal operators; they can also be delivered by competitors. We discuss delivery logistics below.

National postal operators also provide express parcels to postal users, either through interconnection with the national postal operator in the destination country (through the EMS co-operative organized within the UPU context, see section 4.8.4), or through their own subsidiaries. There are also global integrators (henceforth integrators) that operate their own end-to-end delivery networks. The larger players in this segment are international firms such as DHL, TNT, FedEx, and UPS and their networks are pan-European.

The operational definition of the market is different from that of the UPU because it segments the parcel market along the dimensions of speed and weight, rather than those of weight and dimension. For operational purposes, the market is called CEP, which stands for courier, express and parcels. Figure 4.1, from the TNT Express Annual Report 2010, shows how the market is divided among integrators, mail and parcel operators, and logistics specialists, along these two dimensions. Whilst the weight segmentation might not be the same for all companies, the general pattern is what is found in the CEP market.

¹⁶⁰ Belgium is one of the very few countries where the national postal operator offers domestic packet products with track-and-trace. The vast majority of the parcel products which we have used for our price analysis in Chapter 5, for example, have track-and-trace.

Figure 4.1 The CEP market



Source: TNT Express supplementary report 2010 (2011) ¹⁶¹

There is a clear overlap between mail and parcel operators¹⁶² (such as the subsidiaries of national postal operators) and integrators in the product space. Day- and time-certain services are available from integrators and private courier companies (many of which only operate domestically or in urban areas). These services are not typically offered by national postal operators, but they are increasingly being offered by parcel operators. For example Parcelforce Worldwide (the international parcel and express subsidiary of Royal Mail) offers an express service with next working day delivery of parcels to Europe.

In practice, integrators cover the same segments as parcel operators, but the reverse is not always true. Moreover, many national postal operators offer cross-border priority parcel services that are non-express but are delivered within the week and are traceable; this in addition to their interconnection express services.

Throughout this study, we use the term parcel generically, meaning either a packet or a CEP item, unless we specify otherwise.

¹⁶¹ http://group.tnt.com/Images/TNT-Express-Report-2010_tcm177-540070.pdf, accessed 16 July 2011, page 10.

¹⁶² A parcel operator is a company which offers day-certain and day-uncertain parcel delivery services either domestically and/or cross-border. Parcel operators include the subsidiaries of national postal operators and other private companies. They do not offer time certain products (for example by 12am the next day), which distinguishes them from integrators.

4.3 Market size

Cross-border deliveries are initiated either by a business customer or by an end consumer and are typically conveyed by a national postal operator, a competitor, an integrator or in some cases, for certain parts of the service, directly by the sender of a parcel, for example, an e-commerce or distance sales enterprise (the “vendor”).

Where vendors carry out some of the conveyance themselves, they have sufficient scale to use a combination of their own logistic operations and the networks of postal operators to meet their fulfilment needs. Business consumers or end consumers are also the recipients of the flows. This is exemplified in Table 4.2.

Table 4.2 Parcel flows

From / To	Business consumer	End consumer
Business consumer	B2B	B2C
End consumer	C2B	C2C

Source: FTI

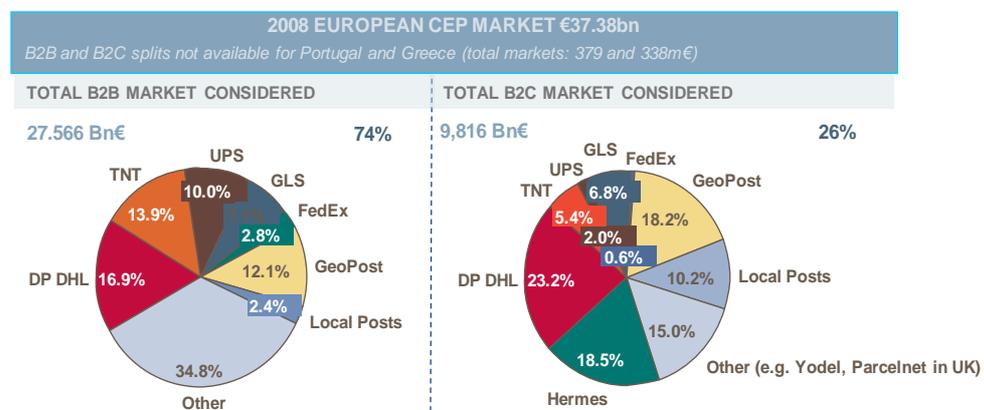
There is little public information on the overall size of the market, in terms of both value and volumes. National postal operators, competitors or integrators do not release volume or sales data for different parcel products or specific geographic areas, because it is crucial business information which they wish to keep confidential. Moreover, as markets become increasingly competitive, any information that may exist on national postal operators only, such as that gathered by the UPU, is not sufficient to assess market size since it does not represent the whole market..

We report below existing estimates of aggregate turnover and volumes. These estimates do not cover all Member States, and they exclude packets, which are part of letter mail. We then present our estimates of postal flows arising from domestic and EU-cross-border distant sales, disaggregated by enterprise size. Because they are obtained from data on e-commerce and distance sales, our estimates include all forms of consignments, i.e. packets and CEP.

4.3.1 Existing aggregate turnover and volume estimates, CEP

The IPC estimates that, in 2008, the EU B2B and B2C CEP market had a turnover of €37.4bn, of which about three quarters, €27.6bn, was B2B and one quarter, €9.8bn, was B2C (Figure 4.2); the share of the market that is cross-border was about ten percent, i.e. in the region of €1bn.¹⁶³ We were not provided with data on the C2C market.

Figure 4.2 EU CEP market (excludes packets)



Cross-border market circa. 10% in both segments

Source: IPC, *Cross-border parcel study*

For the same year, a study by ITA and Wik for the EC¹⁶⁴ estimated the EU CEP market, including C2C, to be worth €42.2bn, with B2C and C2C shares of 15% and 5% respectively. The study estimated a cross-border share of between 15% and 20%, larger than the 10% estimated by the IPC. No estimates are available beyond 2008.

The total CEP market (including B2B and B2C) is dominated by integrators and subsidiaries of national postal operators. Through the creation of these cross-

¹⁶³ International Post Corporation, *Cross-Border Parcel Study*, page 4. Figure excludes Portugal and Greece.

¹⁶⁴ ITA Consulting and WIK Consult, *"The Evolution of the European Postal Market since 1997"*, Report for the EC, 2009. ITA/Wik estimate the breakdown between parcels and express to be 65%-35% and that intra-EU flows represent between 15% and 20% of the total.

border subsidiaries, national postal operators are becoming more integrated logistics companies. DHL has the largest market shares, followed by GeoPost, the CEP subsidiary of La Poste (Table 4.3). National postal operators, which are particularly weak in the B2B sector, only have a 4% share of the total market.

Table 4.3 European CEP market shares by value: B2B, B2C and Total, 2008

Operator	B2B market	B2C market	Total market
DHL	17%	23%	19%
Hermes	0%	19%	5%
TNT	14%	5%	12%
UPS	10%	2%	8%
GLS	7%	7%	7%
FedEx	3%	1%	2%
GeoPost	12%	18%	14%
National postal operators	2%	10%	4%
Other	35%	15%	30%
Total market	100%	100%	100%
Total market (€bn)	27.6	9.8	37.4
Cross-border market (€bn)	2.8	1.0	3.7

Source: International Post Corporation¹⁶⁵

The largest EU CEP market is Germany, with a 24.8% share; the UK, France, Spain and Italy account for 16.6%, 16.0%, 10.4%, and 9.4% respectively; the remaining 22.8% is accounted for by the 22 other Member States.¹⁶⁶

The Annual Reports of the national postal operators shed some light on market outlook and on the situation in individual Member States. The main messages coming from the latest available Annual Reports¹⁶⁷ of the largest EU operators (An Post, Austrian Post, bpost, Correos, Deutsche Post DHL, La Poste, Poste Italiane, Royal Mail and TNT) are that letter mail volumes are declining (due to the substitution of physical letters by electronic communication), while CEP volumes are rising, aided by e-commerce. For this reason, this segment is where the

¹⁶⁵ International Post Corporation, *Cross-Border Parcel Study*, page 4. Figures exclude Portugal and Greece.

¹⁶⁶ ITA Consulting and WIK Consult, "The Evolution of the European Postal Market since 1997", Report for the EC.

¹⁶⁷ As of June 2011.

highest profit margins are to be found, while greater consumer expectations for reliability and delivery speed have increased the quality of service.

In particular, the following information related to CEP products is available from the Annual Reports:

- in Austria,¹⁶⁸ parcel volumes continue to rise, mainly driven by domestic parcel volume increases: in 2010, total parcel volumes were 141.8m, of which 87.4m were B2B and the rest B2C or C2C. Parcel volumes grew 12% between 2009 and 2010, rising from 50m to 56m parcels transported, and Austrian Post's Parcel & Logistics Division saw revenues increase 4.4%, from €768.4m in 2009, to €802m in 2010;
- in Belgium,¹⁶⁹ the parcel and international¹⁷⁰ markets are relatively small, but have high growth potential. In 2010, international mail and domestic parcels accounted for €200m and €120.8m of operating income respectively. Within international mail, a segment that grew almost 15% between 2009 and 2010, parcels accounted for only €7m – a small amount but a significant increase from the €0.5m figure for 2008. The operating income of the domestic parcels segment increased 11.9% over the same period;
- the Dutch¹⁷¹ domestic parcels market was worth approximately €1.1bn in 2010, €340m (32%) of which was in the fast growing B2C market. The number of parcels delivered in the Netherlands grew by 6.7% in 2010 from 90 to 96 million parcels, aided by online shopping;
- Deutsche Post's¹⁷² revenues for Parcel Germany increased from €2.57bn to €2.73bn between 2009 and 2010, while during the same time period, the revenues of the Global Mail segment grew from €1.68bn to €1.74bn. Revenue from their express segment grew from €9.9bn in 2009 to €11.1bn in 2010 (an increase of 10.7%);

¹⁶⁸ Austrian Post Annual Report 2010.

¹⁶⁹ bpost Annual Report 2010.

¹⁷⁰ This includes all foreign flows.

¹⁷¹ TNT Annual Report 2010.

¹⁷² Deutsche Post DHL Annual Report 2010.

- in France,¹⁷³ La Poste Group earned an operating income of about €20.5bn in 2009; parcels and express accounted for €4.5bn, 3.6% less than in 2008. Of this, about €1.4bn came from ColiPoste, the segment handling individual parcel deliveries to the general public; and approximately €3.1bn from GeoPost, the subsidiary which operates domestically and abroad;;
- in Italy,¹⁷⁴ revenues from the Express Delivery and Parcel division have declined year on year from 2008 to 2010, and fell by €14m in 2010, from €175m to €161m, reflecting the progressive deterioration in volumes for both the international and domestic markets, and a downturn in publishers' mailings;
- In Spain,¹⁷⁵ between 2008 and 2009, inbound international¹⁷⁶ parcel volumes grew by 17.3%, while outbound volumes fell by 1.9%. Inbound express volumes grew by almost 32%, compensating for a fall in outbound volumes of 15.7%; and,
- In the UK,¹⁷⁷ the Royal Mail Group divisions that deliver parcels are Parcelforce Worldwide (for express parcels) and GLS (for European parcels). In 2010, GLS represented almost €1.5bn of the Group's €9.3bn revenues, with Parcelforce Worldwide accounting for €0.4bn.

Considering market volumes, the UPU collects and publishes information on domestic and cross-border parcel volumes (rather than packets and express), including the number of cross-border parcels sent to all foreign destinations from a number of countries. The data comes from the national postal operators of the UPU member countries, and is collated by the UPU.

The countries for which the UPU provides volume information are shown in Table 4.4. No data is available for most of the large countries within the EU (Germany, France, the UK, Spain, Belgium and the Netherlands), because national postal operators do not release postal volumes data due to commercial sensitivity, and these countries are the most likely to have commercial competitors. International

¹⁷³ La Poste Group Financial Report 2009.

¹⁷⁴ Poste Italiane Annual Report 2010.

¹⁷⁵ Correos Annual Report 2009.

¹⁷⁶ This includes all foreign flows.

¹⁷⁷ Royal mail Group Annual Report 2009-2010.

parcels refer to parcels from all foreign destinations (including intra-EU and destinations outside of the EU).

The available data suggest that international parcels represent 3% of parcel volumes. A number of Member States show ratios that are much higher than 3%; these tend to be in island states where there might be a disproportionate amount of cross-border trade.

Table 4.4 Cross-border parcel information from the UPU in 2008 (000s of items)

Country	Domestic letter mail	Ordinary parcels - domestic	Ordinary parcels - international	Cross border parcels as a proportion of total parcels
Cyprus	48,953	0	8	98%
Malta	44,563	1	21	98%
Luxembourg	113,900	202	111	35%
Latvia	51,686	48	22	31%
Czech Rep.	2,662,254	683	220	24%
Lithuania	49,369	212	27	11%
Greece	634,543	1,479	118	7%
Estonia	44,943	1,109	87	7%
Portugal	994,481	1,837	86	4%
Bulgaria	49,241	614	27	4%
Italy	6,138,271	8,191	354	4%
Slovakia	531,113	3,633	108	3%
Finland	821,000	26,600	700	3%
Romania	568,939	3,903	82	2%
Poland	1,228,290	23,078	380	2%
Hungary	893,370	2,123	35	2%
Total	14,874,914	73,712	2,387	3%

Source: UPU

4.3.2 Market trends

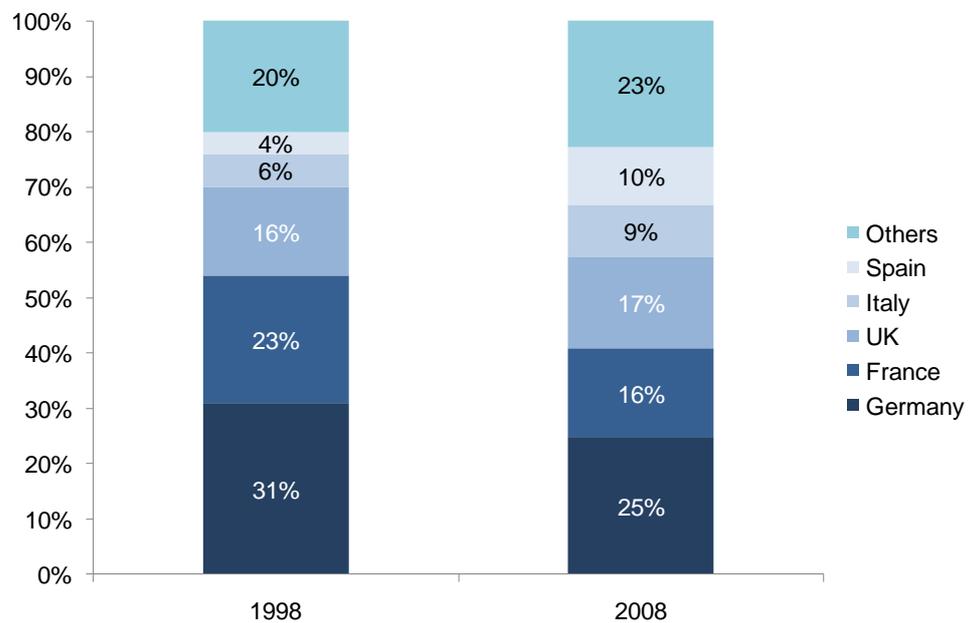
A report on the evolution of the EU postal market for the decade 1998-2008¹⁷⁸ estimated that the value of the CEP market in the 27 Member States increased by more than 80% over the period, increasing from €23.4bn to €42.2bn. This corresponds to a compound annual growth rate (CAGR) of 6.1%, and it is higher than GDP growth, which had a CAGR of 3.5% over the same time period. By comparison, letter mail volumes (which include packets) registered a CAGR of 0.4%.

¹⁷⁸ ITA Consulting and Wik Consult, The Evolution of the European Postal Market Since 1997: A Study for the EC, DG Internal Market and Services, 2009.

Importantly, the market share of the five largest countries changed only slightly over the decade, from 80% to 77.8%, and Germany remained the largest market, although its market share fell slightly, as shown in Figure 4.3.

The German and French markets grew below the 6.1 percent average over the ten year period, while markets in the UK, Spain and Italy grew at a CAGR above the average, and thus they increased their market share and relative position.

Figure 4.3 Country shares in the EU CEP market¹⁷⁹



Source: ITA Consulting and Wik Consult (2009)

Western Europe¹⁸⁰ is where the industry started its development, and is today characterised by mature markets with moderate growth and high concentration. It remains, however, the biggest European market area in turnover terms: Germany, France and the UK alone represent 57.4% of the EU market value.

¹⁷⁹ ITA Consulting and Wik Consult, The Evolution of the European Postal Market Since 1997: A Study for the EC, DG Internal Market and Services, 2009.

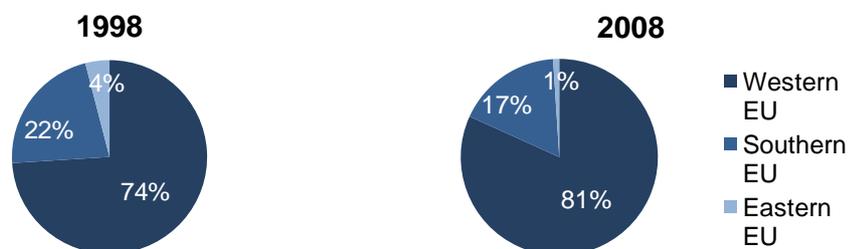
¹⁸⁰ Western European Member States: Austria, Belgium, Denmark, Finland, France, Germany, Ireland, Luxembourg, the Netherlands, Sweden and the UK.

Southern Europe¹⁸¹ (which includes Italy and Spain) has experienced fairly strong growth over the 10-year period while Eastern Europe,¹⁸² the smallest regional market, shows the fastest growth. Market turnover reads as follows:

- Western Europe: EUR 31.3 billion in 2008 (up from 19.0bn in 1998) and CAGR of 5.1%;
- Southern Europe: EUR 9.3 billion in 2008 (up from 4.0bn in 1998) and CAGR of 8.8%; and,
- Eastern Europe: EUR 1.8 billion in 2008 (up from 0.4bn in 1998) and CAGR of 17.3%.¹⁸³

Figure 4.4 shows the evolution of market shares (in value) in Western, Southern and Eastern Europe between 1998 and 2008. This is not to say that the value of the market in Eastern and Southern Europe has fallen over the time period, but that the size of the market in those regions has grown less than in Western Europe.

Figure 4.4 Turnover shares in CEP markets: Western, Southern and Eastern Europe¹⁸⁴



Source: Ita Consulting and Wik Consult (2009)

¹⁸¹ Southern European Member States: Cyprus, Greece, Italy, Malta, Portugal and Spain.

¹⁸² Eastern European Member States: Bulgaria, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia and Slovenia.

¹⁸³ ITA Consulting and Wik Consult, The Evolution of the European Postal Market Since 1997: A Study for the EC, DG Internal Market and Services, 2009, p142.

¹⁸⁴ ITA Consulting and Wik Consult, The Evolution of the European Postal Market Since 1997: A Study for the EC, DG Internal Market and Services, 2009.

4.4 Our estimates of B2C parcel volumes in the EU

While there are estimates of turnover for the CEP market, i.e. of the revenues accruing to the operators, no volume estimates are available. Understanding the potential size of intra-EU parcel flows originated by distance sales firms of differing sizes, is important. Without this understanding, it is impossible to assess whether and to what extent there are e-commerce and distance sales firms that are less competitive than others due to delivery-related price barriers.

For this reason, we have extended our estimates of the EU-27 B2C market (presented in Section 3.5), to estimate the overall size of postal flows generated by distance sales (which include e-commerce), and by small, medium and large distance sales enterprises. Our estimates are aggregate values and therefore include all parcels sent cross-border, i.e. packets and CEP products. These estimates represent the first volume assessment available for the EU-27.

It should be noted that our estimates are based on the same primary datasets published by the EC and discussed in Section 3.5. They exclude micro enterprises, for which no data are available: when we refer to the 'total' market, we mean the market comprising small, medium, and large enterprises, and excluding micro enterprises.

Our estimates of EU domestic and cross-border volumes are presented in Table 4.5.

Table 4.5 Estimated volumes of mail items generated by distance sales

	Small	Medium	Large	Total
1 Estimated total distance sales turnover (€bn)	90	109	159	358
2 Estimated domestic distance sales turnover (€bn)	77	89	131	297
3 Estimated cross-border distance sales turnover (€bn)	13	20	28	61
4 Share of firms' total distance sales turnover which involves physical goods	45.1%	45.1%	45.1%	45.1%
5 Share of firms' domestic distance sales turnover which involves physical goods	48.2%	48.2%	48.2%	48.2%
6 Share of firms' cross-border distance sales turnover which involves physical goods	29.9%	29.9%	29.9%	29.9%
7 Estimated B2C turnover from physical goods (€bn)	41	49	71	161
8 Estimated domestic B2C turnover from physical goods (€bn)	37	43	63	143
9 Estimated cross-border B2C turnover from physical goods (€bn)	4	6	8	18
10 Average value of 1 item sent (€)	69	69	69	69
11 Total number of items sent (mn items, annually)	588	709	1,032	2,329
12 Number of items sent domestically (mn items, annually)	537	621	909	2,068
13 Number of items sent cross-border (mn items, annually)	56	85	120	262
14 Average annual enterprise turnover from distance sales (€mn)	0.33	2.14	16.60	1.06
15 Average annual enterprise turnover from cross-border distance sales (€mn)	0.16	1.07	8.30	0.60
16 Average number of domestic items sent annually per firm	1,946	12,177	95,200	6,141
17 Average number of domestic items sent monthly per firm	162	1,015	7,933	512
18 Average number of cross-border items sent annually per firm	706	4,612	35,819	2,572
19 Average number of cross-border items sent monthly per firm	59	384	2,985	214

Source: FTI calculations, EC DG ENTR (2010), Eurobarometer surveys (2011), Eurostat's European Business database (2009), Australian Customs and Border Protection Service (2011)¹⁸⁵

¹⁸⁵ See footnotes 82, 83, 84 and 191.

Row 1 shows total distance sales turnover, totalling €358bn, and row 3 shows cross-border distance sales turnover, which we estimate to be €61bn (see also row 21 in Table 3.2). Turnover from domestic distance sales (row 2) is calculated by subtracting cross-border distance sales from total distance sales.

From the point of view of the number of parcels sent, it is distance sales more than e-commerce which is most useful to look at. This is because a cross-border parcel is sent whenever an order is placed through distance sales channel, whether this is online, by telephone, or via a catalogue.

Not all items sold through distance channels, however, result in a physical delivery; for example, travel and accommodation purchases almost always involve a digital transfer of booking details: we have used Eurobarometer data¹⁸⁶ based on the primary sales activity of firms, to estimate what share of the distance sales turnover translates into turnover of items which are physically sent.¹⁸⁷ This is essentially a distinction between goods and services.

Sales of goods that are sent physically (rather than digitally) account for 29.9%¹⁸⁸ of cross-border and 48.2%¹⁸⁹ of domestic distance sales turnover. Thus, almost half of domestic distance sales result in a parcel, compared to less than one in three for cross-border sales.

¹⁸⁶ Eurobarometer, *Retailers Attitudes Towards Cross-border Trade and Consumer Protection*, Analytical Report, Flash Eurobarometer 300, March 2011, Table 5b and 6b, QD4 'Which of the following product categories is the largest in your sales'.

¹⁸⁷ From the categories found in the tables in the above footnote, we class the following product categories from table 5b as those involving a physical transfer: Food and drinks; Clothing, footwear and accessories (including jewellery and cosmetics); Furniture, furnishings and decoration (including do-it-yourself goods and maintenance products; Housing appliances, electronic goods and information technology goods; Leisure goods (ex. Books, audio-visual material, toys); Cars, motor vehicles and other parts; Other goods.

We class the following product categories from table 6b as those not involving a physical transfer: Financial services; Telecommunications services; Energy or transport services; Hotels and restaurants; Other services.

¹⁸⁸ The 29.9% was obtained by summing the percentages for each of the 7 goods categories under the 'Cross-border distant sales to EU: Do distant cross-border sales'. We assume that if 4.6% of companies say that food and drink is the product category contributing the most to sales within a particular company, then 4.6% of all companies' turnover is from food and drink.

¹⁸⁹ The 48.2% was obtained by summing the percentages for each of the 7 goods categories under the 'Cross-border distant sales to EU: Domestic sales only'. We assume that if 14.6% of companies say that cars, motor vehicles and other parts is the product category contributing the most to sales within a particular company, then 14.6% of all companies' turnover is from cars, motor vehicles and other parts.

This is in itself a useful statistic, because it shows that consumers are less likely to buy goods that need to be delivered from distance sellers from other Member States than from domestic ones. It is, therefore, an indication of the degree to which delivery-related barriers affect cross-border distance sales markets.

There is no data available on how the share of physical goods changes with the size of the distance sales retailer; therefore we have had to assume that the shares are the same across small, medium and large enterprises. This is a simplifying assumption that increases the margin of error of our estimates, but it is a necessary assumption, dictated by data limitations.

Our estimated cross-border B2C turnover generated by physical goods is just over €18bn;¹⁹⁰ small enterprises accounted for nearly €4bn of this, medium ones for nearly €6bn, and large enterprises for over €8bn. The IPC and Ita-Wik figures mentioned in Section 4.3.1 are not comparable to our estimates: while our estimate of €18bn refers to the actual value of the physical goods sent, the IPC and Ita-Wik estimates represent the turnover to delivery agents (national postal operators, integrators etc) from the parcels containing the goods.

With the average purchase value of a cross-border physical good being €69,¹⁹¹ we estimate that there were 262m packages sent cross-border within the EU, of which nearly half were sent by large businesses (120m), and a little over 20% were sent by small businesses (56m). This is shown in row 13.

If we assume that the average values of domestic and cross-border purchases are the same, we calculate that there were over 2.3bn B2C parcels sent domestically and cross-border within the EU, of which around 1bn were sent by large businesses (row 11). **Our estimates therefore suggest that the number of**

¹⁹⁰ This was obtained by multiplying the value in row 6 to the turnover figure in row 3.

¹⁹¹ Australian Customs and Border Protection Service data (2011), <http://www.customs.gov.au/webdata/resources/files/AirCargo-Data-LowValueThreshold-website.pdf>. They mention the number of parcels *imported* to Australia (so these goods are cross-border items) as being 8,020,565 between July 2009 and June 2010, with their cumulative value amounting to 874,136,452 AUD. This gives the average value per item as 109 AUD. Applying the average annual exchange rate of 0.6356 EUR to the AUD, sourced from www.oanda.com; this gives an average item value of €69. This is the only estimate available.

cross-border parcels sent is a little over 10% of the total. These estimates are approximate, and depend heavily on the assumption that the value of an average cross-border and domestic distance sale purchase is the same, and that this value is €69.

We advise against drawing any comparison between this and the IPC or Ita-Wik estimates. Our estimates are approximate estimates of the number of parcels that distance sales enterprises need to send every year. Not all these items will be sent via CEP. Some will be packets, which are not part of CEP. For the others, as we will discuss below, there are a number of delivery options, some of which bypass cross-border pipelines, especially when the distance sales business sending the parcel is a large firm.

Finally, to calculate the number of parcels sent each year on average by small, medium and large enterprises, we have adjusted average enterprise turnover (rows 14 and 15) by the share of turnover involving physical goods (rows 5 and 6), and then divided by the average purchase value of a physical good (€69) to obtain the approximate average number of parcels that are sent each year by a small, a medium and a large firm. This is an important measure, since the ability to negotiate discounts with postal operators depends critically on the frequency and scale of dispatches.

Our estimates suggest that the average annual number of cross-border parcels sent by each enterprise¹⁹² is 706 for small, 4,612 for medium and 35,819 for large firms. The respective figures for domestic parcels¹⁹³ are 1,946, 12,177, and 95,200.

Given the dependence of our estimates on the average value of a postal item (€69), in Table 4.6 we have provided estimates of parcel volumes generated by

¹⁹² Row 18 – this is the average number of cross-border items sent by each enterprise which perform cross-border distance selling, and not every enterprise.

¹⁹³ Row 19 – this is the average number of domestic items sent by each enterprise which performs distance selling.

distance sales if it is assumed that the average value of a postal item is €20, €40 or €100. The estimates are calculated in the same way as in Table 4.5.¹⁹⁴

Although we have included estimates for an average value of a postal item of €20, this may be too low a value, particularly for small businesses that are infrequent senders and pay published prices for cross-border parcels. For example, we show in Chapter 5 (Figure 5.2) that the average published price to send a one kilogram parcel from one Member State to another is about €15. Since this is the smallest weight for a parcel, a postage price of €15 is likely to make the transaction economically unviable. This is likely to result in different sales distributions (by value) for large versus small businesses; however, with the data currently available it is not possible to ascertain whether it is in fact the case that small businesses send more expensive items abroad than large businesses.

When we assume that the average value of a postal item falls to €40, we estimate that there were over 4bn (row 2) B2C parcels sent both domestically and cross-border within the EU (given that the estimated B2C turnover for which parcels are used stays the same). We estimate that the total number of B2C parcels sent would be just over 1.6bn (row 10) if the average value of a postal item was €100 and would be as high as 8bn (row 18) if the average value of a postal item was €20.

¹⁹⁴ Rows (10, 18) – (12, 20) are equivalent to rows 11 – 13 in Table 4.5.

Table 4.6 Estimated volumes of mail items generated by distance sales with alternate assumptions about the average value of a postal item

	Small	Medium	Large	Total
1 Average value of 1 item sent (€)	40	40	40	40
2 Total number of items sent (mn items, annually)	1,018	1,228	1,787	4,034
3 Number of items sent domestically (mn items, annually)	931	1,075	1,575	3,581
4 Number of items sent cross-border (mn items, annually)	98	147	208	453
5 Average number of domestic items sent annually per firm	3,371	21,089	164,868	10,636
6 Average number of domestic items sent monthly per firm	281	1,757	13,739	886
7 Average number of cross-border items sent annually per firm	1,223	7,987	62,031	4,454
8 Average number of cross-border items sent monthly per firm	102	666	5,169	371
	Small	Medium	Large	Total
9 Average value of 1 item sent (€)	100	100	100	100
10 Total number of items sent (mn items, annually)	407	491	715	1,614
11 Number of items sent domestically (mn items, annually)	372	430	630	1,432
12 Number of items sent cross-border (mn items, annually)	39	59	83	181
13 Average number of domestic items sent annually per firm	1,348	8,436	65,947	4,254
14 Average number of domestic items sent monthly per firm	112	703	5,496	355
15 Average number of cross-border items sent annually per firm	489	3,195	24,812	1,782
16 Average number of cross-border items sent monthly per firm	41	266	2,068	148
	Small	Medium	Large	Total
17 Average value of 1 item sent (€)	20	20	20	20
18 Total number of items sent (mn items, annually)	2,037	2,456	3,575	8,068
19 Number of items sent domestically (mn items, annually)	1,862	2,150	3,150	7,161
20 Number of items sent cross-border (mn items, annually)	195	295	416	906
21 Average number of domestic items sent annually per firm	6,742	42,178	329,736	21,272
22 Average number of domestic items sent monthly per firm	562	3,515	27,478	1,773
23 Average number of cross-border items sent annually per firm	2,445	15,973	124,062	8,908
24 Average number of cross-border items sent monthly per firm	204	1,331	10,338	742

Source: FTI calculations, EC DGENTR (2010), Eurobarometer surveys (2011), Eurostat's European Business database (2009)¹⁹⁵

Considering small firms, the number of parcels sent cross-border per year by the average firm ranges from slightly below 500 to as many as 2,500 – depending on the assumption about the average value of a long distance purchase.

Given the limitations of the data available, it is not possible to produce more precise estimates. However, in interpreting these results, it is important to bear in mind that:

- the monthly distribution of sales is not uniform. Retail sales peak in the Christmas period: a firm sending, say, 1,200 parcels a year is unlikely to send 100 parcels a month. It is much more likely to send a larger proportion of

¹⁹⁵ See footnotes 82, 83 and 84.

parcels before Christmas and fewer than 100 per month for the rest of the year; and,

- these estimates are *averages*: there will be firms sending more, and firm sending less. The actual distribution of sales per firm is not known, and the average is the most informative statistic that can be produced.

Even with these limitations, our estimates suggest that medium distance sellers send, on average, about one tenth of the parcels that are sent by large ones, and small enterprises send much less than that. Small firms account for 22% of the total volume of cross-border items sent:¹⁹⁶ this is not an insignificant proportion. Given participation in cross-border e-commerce is lower for small enterprises, this proportion can be increased by reducing barriers to cross-border e-commerce, since barriers tend to affect smaller enterprises the most.

However, because retail sales tend to be concentrated around the Christmas period, and because the distribution of firms is not uniform, we believe that some small enterprises will be able to send sizeable parcel volumes at particular points in time. The implication of this for the postage pricing will be discussed below and in more detail in Chapter 5.

4.5 Delivery options

Cross-border flows of parcels are initiated either by a business or an end consumer. Businesses and consumers are also the recipients of the flows. This is exemplified in Table 4.7

¹⁹⁶ Given that there is no information on how the share of physical goods changes depending on the size of the distance sales company; we have had to assume that the shares are the same across small, medium and large enterprises. This means that small enterprises' share of cross-border postal flows is the same as their share of cross-border turnover. This is a simplifying assumption, based on data constraints.

Table 4.7 Parcel flows

From / To	Business consumer	End consumer
Business consumer	B2B	B2C
End consumer	C2B	C2C

Source: FTI

Parcels sent by consumers to businesses (C2B) tend to be returns of faulty or unwanted items bought through distance sales channels. These flows are small: the prospect of having to return an item cross-border is daunting, and setting up return addresses in the country where the buyer is located increases cross-border sales.¹⁹⁷

Parcels sent by individual consumers to other consumers (C2C) originate either from online sales transactions facilitated by an online market place, such as eBay, or from social motives. The most recent estimates for the proportion of CEP turnover that is C2C is 5%.¹⁹⁸ If we assume that C2C CEP volumes represent the same proportion of C2C CEP turnover, then we have an estimate of five per cent for the volumes of CEP that are C2C. However, we note that firstly, CEP volumes exclude packets, and are therefore not comparable with the volume estimates of Section 4.4. Secondly, individual consumers pay higher postage prices than larger businesses: if C2C has a five percent share of CEP *turnover*, its share of CEP volumes is most likely to be *smaller*. Without data, we cannot say how much smaller, but since delivery-related barriers to e-commerce affect individual senders disproportionately, we expect reductions in these barriers to have a large beneficial effect on C2C volumes.

Parcels sent by businesses are for the most part delivered to other businesses, as discussed in Section 4.3.1. Parcels delivered to individual consumers are the result of e-commerce and distance selling: it is these B2C items, and those sent C2C, that are the focus of this study.

¹⁹⁷ Source: telephone interview with Amazon.

¹⁹⁸ ITA Consulting and WIK Consult, "The Evolution of the European Postal Market since 1997", Report for the EC, 2010. ITA/Wik estimate the C2C market segment to represent approximately 5% in terms of revenue.

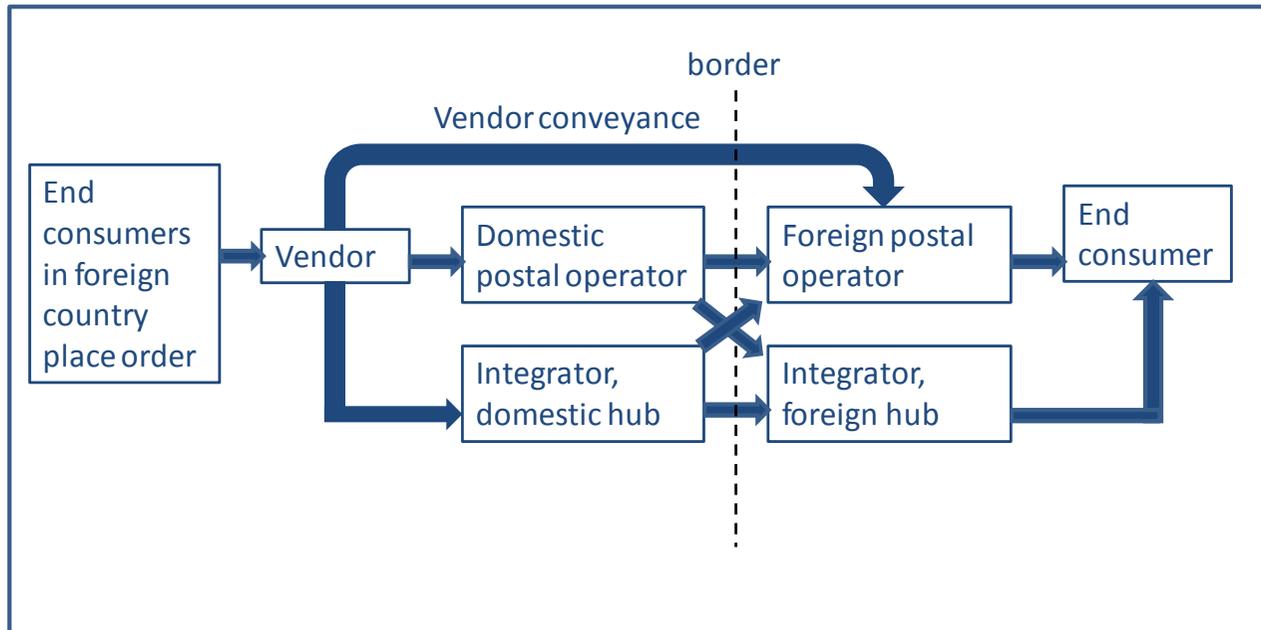
In this section, we review the delivery options available in the EU. Our review starts with vendor conveyance, followed by the traditional cross-border pipeline, and the operations of consolidators and subsidiaries of national postal operators. We then consider the role of integrators and how their products differ from the cross-border express products offered by national postal operators. We then discuss online parcel brokers and conclude with an assessment of the various logistic options in terms of their availability and benefit for different types of users.

4.5.1 Vendor conveyance

Cross-border parcels are typically conveyed by a national or other postal operator, an integrator or in some cases, for certain parts of the service, directly by the sender, an e-commerce or other distance sales company (the “vendor”). Where vendors carry out some of the conveyance themselves, they have sufficient scale to use a combination of their own logistic operations and the networks of postal operators to meet their fulfilment needs. In these cases, the vendor transports the items across a national border and uses local postal operators for delivery to customers’ delivery points.

Figure 4.5 shows the different methods by which a parcel sent by a vendor might travel across a national border to the end consumer. Different products are used in the three channels, and not all postal users can use all the channels. We discuss vendor conveyance below; in the next sections, we discuss the postal and express pipelines in turn.

Figure 4.5 Cross-border delivery routes for cross-border B2C market¹⁹⁹



Source: FTI analysis

¹⁹⁹ The traditional' cross-border delivery route involves domestic national postal operators delivering to foreign national postal operators, although occasionally they use an integrator for delivery in a destination country. As well as using the integrated pipeline in the destination country, integrators may choose to use national postal operators in the destination country to deliver to remote areas. The integrator pipeline includes global integrators and subsidiaries of national postal operators.

Large vendors often have the ability to use their own logistics to take packets and parcels directly to the destination country, to be injected into the domestic pipeline (so called "direct access") and delivered either by the national postal operator or by a competitor.

Vendor conveyance lowers transit times and delivery costs because it shortens the pipeline (we discuss the cross-border postal pipeline below) and only requires the vendor to pay domestic prices.²⁰⁰ Because the domestic price plus the cost of conveyance is lower than the cross-border price the vendor would pay for a comparable service, this option yields the largest cost savings for distance sellers.

It is important to understand what type of distance seller can take advantage of this option, which results in a cost advantage *vis-a-vis* other distance sellers. Vendor conveyance uses road transport; lorry costs are fixed and thus the cost of sending a single item (unit cost) increases substantially if a vendor cannot fill a lorry and use it regularly and predictably. **Scale, frequency and reliability of dispatch (predictability) are fundamental in enabling vendor conveyance as a logistic option.**

On average, according to the information we received from interviews with stakeholders, a lorry load would contain between 1,150 and 1,650 parcels.²⁰¹ These are large figures: at an average sales price of €69 for cross-border purchases of physical goods, a vendor would have to have sales turnover of about €17.4m a year to dispatch one lorry load of parcels a day,²⁰² and of about €3.5m a year for weekly dispatches to a cross-border destination.

Table 4.8 compares the average annual turnover needed for daily and weekly dispatches assuming different average sales prices, to the annual average turnover from cross-border distance sales for enterprises of different sizes. For example, with an average sales price of €20, the required turnover for weekly dispatches would be around €1m: this would make the option available to medium and large distance

²⁰⁰ This point was raised during all our conversation with stakeholders engaged in distance selling.

²⁰¹ Average lorry capacity ranges between 70 and 100 cubic meter, and average parcel volume is 0.06m³ – these figures were quoted from our discussions with the IPC.

²⁰² There are 240 working days in a year. We have assumed a lorry load capacity of 1,050, obtained by taking midpoint capacity of 1,400 and applying a minus 25% adjustment factor to allow for large sizes and shapes.

sellers, but not to small ones. At any price larger than €20, only large distance sellers would have the required scale²⁰³ to adopt vendor conveyance as a business model.

Table 4.8 Turnover required for lorry dispatching²⁰⁴

Average sales price (€)	Annual turnover (€mn) required to send one lorry:		Average annual enterprise turnover from cross-border distance sales (€mn)		
	Daily	Weekly	Small	Medium	Large
20	5.04	1.01	0.16	1.07	8.30
40	10.08	2.02	0.16	1.07	8.30
69	17.39	3.48	0.16	1.07	8.30
100	25.20	5.04	0.16	1.07	8.30

Source: FTI calculations, EC DG ENTR (2010), Eurobarometer surveys (2011), Eurostat's European Business database (2009), Australian Customs and Border Protection Service (2011)²⁰⁵

Given its scale requirements, vendor conveyance tends to be concentrated in those countries where total e-commerce flows are the largest.

The advantages to distance sellers of using vendor conveyance are:

- lower cross-border delivery costs. Apart from bypassing the cross-border postal pipeline, large vendors can take advantage of competition in the domestic delivery market, where this exists and where the scale of their parcel flows in that market allows them to negotiate optimal delivery prices with more than one operator;
- shorter transit times for a given delivery cost. Vendor conveyance means bypassing the traditional postal cross-border pipeline, which contains more steps, and is therefore longer, than domestic pipelines;²⁰⁶ and,
- quality control. Reliability and traceability improve when a single postal operator is involved in the delivery operations.

²⁰³ Note that even if we allow for an average price of €20 per cross-border distant sale, the required turnover would be €5m for daily cross-border dispatches and €1.1m for weekly ones.

²⁰⁴ The average annual enterprise turnover from cross-border distance sales numbers come from row 15 in Table 4.5.

²⁰⁵ See footnotes 82, 83, 84 and 191.

²⁰⁶ This is of course not applicable to integrated pipelines whose cost is, however, much higher.

However, not all distance sellers are able to take advantage of this delivery model; only large ones are (although SMEs may benefit from vendor conveyance when using platforms such as those made available by Amazon – see Figure 4.6). This lowers the competitiveness of the average small and medium cross-border distance sellers, which are either not able to apply the same delivery rates to their customers or have to internalise their higher delivery costs.

Lower delivery prices to consumers and better quality of service mean lower barriers to cross-border purchases for consumers, and represent a positive development for the growth of cross-border e-commerce. This will increase volumes for domestic parcel operators that provide delivery services in the destination countries, whether they are national postal operators or competitors.

An example of vendor conveyance is presented in Figure 4.6. The Amazon example shows how, for large vendors, the distinction between domestic and cross-border flows is blurred, since they have a logistic network that covers the largest markets, which are those in Western Europe.

Figure 4.6 Market experiences of vendor conveyance: Amazon

The largest e-commerce player in the EU, Amazon, sells domestically (with websites in Germany, the UK, France, Italy and Spain) and cross-border. The company has fulfilment centres in the UK, Germany and France and a major sorting centre (with very little inventory) in Grimbergen, Belgium.²⁰⁷ This sorting centre acts as a hub for items that come in at night, are sorted, labelled and packaged overnight, and are then sent out the next morning. Lorries depart daily from Grimbergen directly to the destination countries. Scale is important, because once there is enough volume, prices drop ‘substantially’. It is scale that allows daily dispatches to destination countries, and cross-border deliveries which are economical (or free altogether) but timely and reliable.

For those countries where scale allows it, Amazon offers its customers free cross-border delivery on eligible purchases for orders that are above £25 or €25. This is available for shipments to Belgium, Denmark, Luxembourg, the Netherlands, Finland, Greece, Iceland, the Republic of Ireland, Italy, Poland, Portugal, Spain, and Sweden. Free delivery takes up to six days, while for a small fee delivery will take between three and five days. Those consumers wishing for faster delivery will pay more, since Amazon will use integrators to achieve faster speed from its fulfilment centre to the country of destination. For countries where the volume of shipments is less (the remaining EU-27 countries not listed above), Amazon charge a delivery fee, as well as a fee based on the number of items (and in some cases the weight) sent.²⁰⁸ For these countries, Amazon sub-contracts the delivery process.

²⁰⁷ Belgium, Germany and the Netherlands are the key markets for specialty logistics in the EU (Source: Austrian Post Annual Report 2010, page 63).

²⁰⁸ <http://www.amazon.co.uk/gp/help/customer/display.html?nodeId=11072981> – Amazon website.

Customers do not know where the package is coming from. A German customer ordering cross-border from the UK site will receive a package that has been transported by road from Belgium and has been injected into the German domestic pipeline – where Amazon have contracts with four different suppliers of postal services. Another German customer ordering domestically may receive a package coming from Amazon’s fulfilment centre in Germany and travelling through the domestic pipeline or, if the product is not in stock in Germany, the parcel will come the same way as a product which was ordered from the UK website. No delivery charge is applied and what matters to the customer is that the delivery promise is kept.

An important characteristic of Amazon’s logistic network is that it can benefit small and medium e-commerce enterprises that use Amazon as a platform to sell their products. These businesses are able to use the “Fulfilled by Amazon” service, which allows them to offer their customers the same treatment reserved to Amazon’s own products (for example, free cross-border shipments for eligible items). The prices that SMEs pay for the “Fulfilled by Amazon” service are lower than those available with other delivery options.

The blurring of domestic and cross-border flows for large vendors is confirmed by the example we were given of a French vendor who has established a domestic Portuguese website. To Portuguese consumers, this is domestic e-commerce. However, all the merchandise comes from France from where it is transported weekly by lorry (about four lorries a week). Once they reach the sorting centre in Portugal, the parcels are injected into the domestic pipeline of two operators, both present in the sorting centre: the national postal operator and a competitor.²⁰⁹

4.5.2 Traditional cross-border pipelines

The traditional cross-border pipeline is a link between two national postal operators. These are the former postal monopolists and, with a single exception (Deutsche Post), designated universal service providers.

Within this context, the delivery of international mail is an obligation of each UPU member.²¹⁰ In addition, Article 3 of the Postal Directive places on each Member State the obligation to deliver any cross-border parcel weighing up to 20 kilograms and coming from another Member State (however, for domestic parcels this weight limit may be only 10 kg).

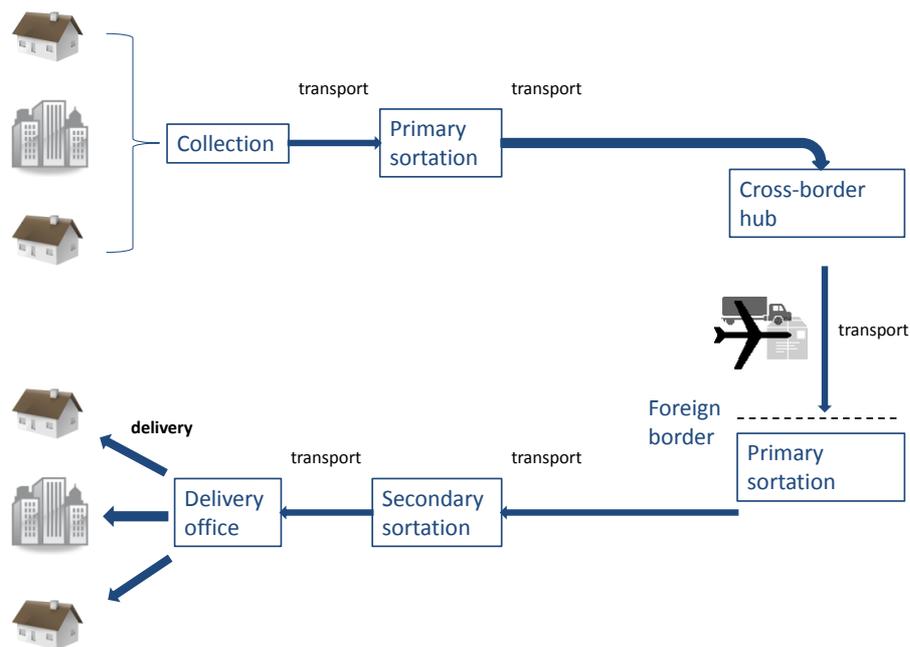
²⁰⁹ This example was provided to us by EMOTA.

²¹⁰ The second oldest international organisation in the world, the UPU, was created in 1874 with the purpose of setting out criteria for the reciprocal interchange of letters (and then parcels) among the various member countries.

Within the traditional postal pipeline, when the two postal operators interconnect, the national postal operator of the originating country is typically charged a fee by the operator in the country of destination for receipt and delivery of a parcel to the final customer. This fee is the result of contractual agreements between the operators, either bilateral or multilateral, or of international agreements. We describe these agreements, and how their provisions may affect prices and quality of service, later in the chapter.

Figure 4.7 shows the high-level operations of the traditional postal pipeline, which uses the networks of the two national postal operators involved in the cross-border delivery.

Figure 4.7 Diagram of postal costs



Source: FTI

After collection and primary sortation in the originating country, cross-border parcels are transported to a cross-border hub, where they are sorted again according to their country or place of destination. From here, they are shipped to foreign countries either by air or by land. Once in the destination country, the parcels are “collected” and sorted, then transported to the appropriate area of the country where they undergo a secondary sortation. From this secondary sorting point, they are

transported to the relevant delivery office and from there, they are delivered to recipients.

Although the conveyance steps are the same, packets, parcels and international express products supplied by interconnecting national postal operators do not necessarily share the same infrastructure, whilst the pipeline structure remains similar.²¹¹

Where a postal operator has separate operations for letters and parcels,²¹² express products and parcels are handled together from beginning to end, while packets, which are part of letter mail, are handled separately in the letter pipeline. Parcels and express products are also delivered separately from packets. National postal operators that have separate operations for parcels and letter mail include Royal Mail, La Poste, TNT, and Deutsche Post. The UK, France and Germany alone represent 57.4% of the CEP market (see Figure 4.3): therefore the proportion of EU CEP flows that are processed through dedicated operations is large.

Where a national postal operator does not have separate product operations, products are collected together, but sorted separately. Priority products will then follow the priority pipeline. Parcels and express products are again generally delivered separately from packets.

The speed of delivery of the traditional cross-border postal pipeline is dependent upon the type of product being sent. All postal operators offer basic parcel products with few added features and long (up to 30 days) delivery times. For some countries (especially the large ones), these are the only products offered within the universal service. The vast majority of postal operators also offer products with added features such as track-and-trace, and much shorter delivery times, which are considered part of the competitive, CEP market. For a business or a consumer engaging in cross-border B2C or C2C, parcels with long delivery times are not of interest.

²¹¹ Express products tend not to have two sortation steps, and instead will have one central sorting hub.

²¹² For example, in the Netherlands, the UK, France and Italy.

A cross-border parcel is the responsibility of the national operator in the originating country up to the point of insertion into the foreign operator's network.²¹³ The fee charged to the originating operator covers the foreign operator's services following receipt at the border up to final delivery to the customer. These termination rates apply to all types of parcels, although they vary according to the delivery characteristics.

The mechanism for establishing the fees charged by one operator to another is not transparent: neither the contractual agreements nor the fees charged are ever in the public domain, since they are considered sensitive commercial information. A number of agreements exist, which we discuss below. We understand that the different agreements, which regulate fees paid and conditions of service, include:

- inward land rates ("ILRs"), as set out by the UPU;
- rates set within the Enhanced Parcel Group ("EPG");
- rates set out within the Express Mail Services ("EMS") cooperative;²¹⁴ and,
- bilateral agreements between delivery operators.

In countries with high traffic flows, national postal operators may use their own foreign subsidiaries, or enter into agreements with private companies in the destination country, which act as partners or subcontractors, thereby bypassing the network of the destination national postal operator and effectively dispensing with traditional postal pipelines.

For example, TNT Post²¹⁵ uses different partner companies even within a single destination country depending on the nature of the recipient (whether it is a business or an individual consumer). These independent companies offer service features such as track-and-trace for all items, whereas sometimes national postal operators do not offer these features. TNT has its own system, Netlink, to seamlessly connect its

²¹³ In practical terms, packages are injected into the network of the destination operator either at the office of exchange or at the airport (only rarely to road and other transport methods).

²¹⁴ This only applies to designated USPs within the meaning of the UPU, and only if they join the cooperative.

²¹⁵ These points arose during our discussion with TNT.

own track-and-trace systems to those of its partners: this saves costs and improves quality standards, making the option of using private operators profit enhancing.

The scope for using partners and subcontractors for parcel deliveries depends on the scale of the cross-border operations in the destination country as well as on its market structure and geography: large urban areas like Paris are likely to have more available options than Provençal France, for example. In peripheral countries with low parcel flows and/or low population density there may be no delivery alternative to interconnecting with the national postal operator.

Assuming that it is possible for the national postal operator of the originating country to use private delivery partners in the destination country, whether to do so and to what extent depends on a number of factors, including the type and quantity of parcels to be delivered, where and how fast they need to be delivered, the underlying cost structure, and the scope for revenue sharing between the operators involved.

For example, a national postal operator may use another national postal operator to deliver basic parcels (with possibly longer delivery times and no value added features) and a private CEP operator in the destination country to deliver parcels with delivery windows of 3-5 days. Or, if the scale permits, it may tender out more than one delivery contract, avoiding lock-in and obtaining lower prices.

Although the contractual conditions between operators are not known, one would expect, from basic economic theory, that if parcel flows between two countries are symmetric, and competitive conditions in the delivery market are similar, then the national operators in the two countries have similar bargaining power when negotiating termination rates with each other.²¹⁶

However, if markets are asymmetric, this would no longer be the case. The higher the level of competition in the destination market, the higher the scope for the originating national postal operator to obtain discounts by tendering out deliveries. In such a case, the distribution of profits will be unequal, with the originating operator obtaining a higher share.

²¹⁶ The analysis of how reciprocal parcel flows translate into termination rates, albeit interesting, is not currently feasible given the almost complete lack of information on termination contracts and rates.

The degree to which these profits are passed on to the postal operator's customers (for example, distance sellers) through lower prices varies depending on the customer's characteristics.

Postal operators publish prices for their cross-border services. Published prices represent, within broad limits, a tariff to send a single parcel of a particular weight anywhere within another EU country or group of countries. There is an array of products available to senders: from parcels that may take up to 30 days to deliver, and without any added features, to fully traceable priority parcels that are delivered in three to five days.

Published tariffs are complemented by discounted prices for those who send multiple parcels²¹⁷ or negotiated prices for customers who have a defined contract profile. Negotiated prices depend on volumes sent, frequency and predictability of dispatch, the degree of work-sharing, and on market competition.

Frequency and predictability of dispatch, and known shipping profiles (volumes, shape and size) are important elements in obtaining rebates as they reduce risk, and hence costs, for the postal operator. Moreover, the higher the market competition for senders' custom, the lower the prices they pay.

These characteristics do not facilitate end consumers, micro and those small enterprises that are infrequent, low-volume shippers with little or no ability to work-share. These are also the customer groups for which there has traditionally been less competition and that have traditionally relied on the postal pipeline although, as we shall see below, consolidators and online brokers are changing this in the larger countries of the EU-27.

Given their characteristics, small and individual parcel senders, as well as medium ones, cannot obtain the same prices as larger ones. However, they may be able to

²¹⁷ We note that in some countries discounts start from very small volumes. For example, discounts on stamp booklets or stamps, or for online orders by registered end consumers (La Poste's Colipost is one of the operators with such discounts). In general, these discounts are small and they are the same for domestic and cross-border products. TNT post's Parcel Plus allows discounts on international parcels (including intra-EU) if the sender sends more than 100 parcels a year to a destination (<http://www.postnl.nl/zakelijk/klantenservice/english/parcels/internationalparcelplus/>).

negotiate discounts off published cross-border tariffs if they can leverage any discount that they have achieved on parcel deliveries in their domestic market.

It is interesting however, that many small senders in the largest markets (in Western Europe, for example) do not take advantage of this, and use different providers for the domestic and cross-border shipments, such as integrators and the national postal operator (see Figure 4.8).

Figure 4.8 Market experiences for different types of users: eBay

eBay has three types of users: end consumers, micro and small businesses, and larger businesses.²¹⁸ They all value track-and-trace services, which are widely used, and the quality of delivery is very important to them.

There is a substantial difference in how these different sellers send their products domestically and cross-border, and the reason why they do so. Western markets are the largest, but there is sizeable cross-border demand from countries where there is a smaller supply for certain products, or no supply at all – Eastern Europe and smaller countries such as Cyprus and Malta.

eBay sellers who are end consumers, (the least frequent sellers) use the national postal operator, and pay published tariffs, both domestically and cross-border. They are mostly unaware of alternatives to national postal operator, other than the integrators, so they do not even try to shop around. For these sellers, the biggest hurdle in shipping cross-border is knowledge: they do not know how to do it, and are worried about poor quality of service, because a late arrival, or a lost item, may have a detrimental effect on their eBay feedback.

For eBay's small business sellers the main challenge is their low domestic volumes, which prevent them from obtaining discounts. They use a mix of national postal operator and integrators to send domestically, but they prevalently use the national postal operator to ship cross-border. This pattern is confirmed, for the UK, by a recent survey of retail mail users.²¹⁹ For packets and parcels, the survey finds that very small and small mail customers²²⁰ are three times more likely to use Royal Mail than its nearest rivals (TNT Express and DHL). The main reason for this is that the sender volumes are not large enough to obtain discounts from either Royal Mail or its rivals, but Royal Mail/Parcelforce is their national postal operator, and is the most well known choice for sending postal items. The Survey shows a very low degree of awareness among small and very small senders of mail providers other than Royal Mail/Parcelforce and the integrators, and an even a lower degree of usage.

Finally, eBay's regular business sellers do price research and negotiate discounts and tend to use integrators, both domestically and cross-border

eBay has only recently started working on how to obtain discounts for their customers' domestic shipments: because their business model involves a 'many-to-many' approach, it is difficult to obtain volume discounts.

²¹⁸ This categorisation is based on eBay sales turnover and selling behaviour, and not on the size of businesses in terms of employees. Some large enterprises may be infrequent sellers, for example.

²¹⁹ Postcomm Retail Market Survey 2010, Ipsos Mori.

²²⁰ Very small mailers are those who spend less than £5,000 per annum (about €6,000), while small mailers spend between £5,000 and £50,000 per annum (about €6,000 to €60,000).

Thus, traditional cross-border postal pipelines are evolving, especially in those countries where most parcel traffic concentrates. However, not all stakeholders benefit equally. Small, infrequent senders, such as individual consumers, micro enterprises, and small enterprises do not have the same access to discounts and pay higher prices.

Choices, and hence competitive pressures on prices, are also more limited in countries with low population density and/or low parcel flows, where the scale necessary to achieve the economies of scale required for large price reductions is absent and therefore competitive entry is reduced and traditional postal pipelines face less competitive pressure.

The traditional cross-border postal pipeline, with operators interconnecting with each other is being put increasingly under pressure by the increase in competition, especially in Western Europe, where cross-border flows are larger and where all the largest senders reside. On the one hand, consolidators operate in the largest countries, taking advantage of rebate opportunities. On the other hand, national postal operators themselves are entering each other's markets by way of subsidiaries that specialise in CEP products, thereby increasing competition for large senders even further.

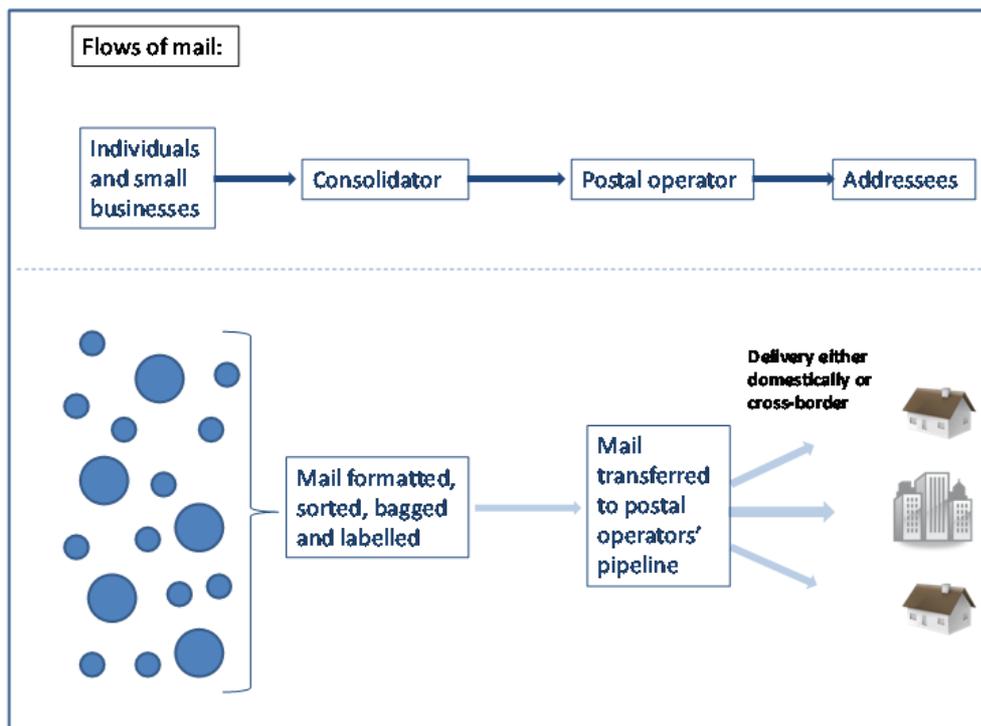
4.5.3 Mail consolidators

As explained above, there are large differences between the prices paid by large B2B or B2C customers and those paid by end consumers, micro-enterprises and small senders, who have a reduced ability to obtain discounted or negotiated prices with (national and other) postal operators. Moreover, there are larger senders that prefer to have their parcel shipments prepared by a third party.

This leaves room for mail consolidators, companies that collect CEP products (and other types of mail) from customers, prepare them correctly for sending (through, for example, address formatting, sorting and labelling), and then inject the pre-sorted parcels into the postal pipeline for cross-border delivery (Figure 4.9). Consolidators do not transport parcels outside their country for injection in the foreign pipeline. Rather, they have wholesale agreements with operators in the country from where the parcels originate. Often, consolidators have agreements with multiple operators in a single country, and choose the most appropriate provider to suit a customer's individual requirements.

Parcel consolidators are present in Belgium, France, Germany, Greece, Ireland, Italy, the Netherlands, Portugal, Spain, Sweden and the UK, while in the Czech Republic, Slovenia, Slovakia, Malta and Luxembourg they are not.²²¹ No information is available specifically for parcel consolidators in other countries.

Figure 4.9 What consolidators do



Source: FTI

Consolidators obtain work-sharing and volume rebates from postal operators: they use the combined volumes sent by their clients to obtain discounts unattainable by individual customers. Consolidators' clients see some of the savings passed onto them through lower prices.

Mail consolidators often have sophisticated data processing, mail fulfilment and sorting capabilities which clients, even large businesses, may find hard to achieve. They also have established supplier relationships (often with several operatives worldwide).

²²¹ We obtained 12 responses about consolidators from national postal operators.

Most mail consolidators deliver a range of products including direct mail, transactional mail, packets and parcels. They also offer a selection of delivery options and prices.

At the beginning of 2011, The UK Mail Consolidators Association (MCA) commissioned a survey of 21 UK mail consolidators²²² and found that price is the main reason why senders use consolidators, but it is not the only one. Independent supplier advice, knowledge of international export procedures, and reducing the workload for customers are all highly valued by customers.

The MCA's UK members include: Air Business; Belgian Post International; B&H Worldwide Ltd; BTB Mailflight Ltd; City Link; DHL Global Mail Ltd; Direct Link; Global Mailing; IMX Limited; La Poste; Lewis Direct Mail Marketing Ltd; Mailings Direct; Mail Africa; Mail Handling International MHI; Mail International Ltd; Mail Options Ltd; Mail Resource; Royal Mail Group Ltd; Sky Postal; Swiss Post; The Mail House Ltd.²²³

Consolidators only operate in countries with large mail traffic. ABC Mail Group ("AMG"), for example, operates in the UK, the Netherlands, Belgium, France, Germany, Spain, Portugal, and Italy.

On its website AMG states that: "*the basic assumption is that postal operators have the most suitable delivery network for home delivery due to their national coverage and the safety net of post offices in the event that the consumer is not home. However, for some countries there are good and sometimes even better alternative networks available - and we also offer those distribution options*".²²⁴

Examples of alternative domestic providers include Hermes and TNT Post Deutschland in Germany; and DHL, Royal Mail's Parcelforce, ParcelNet and HDN (Home Delivery Network) in the UK. Interestingly, these alternative providers include subsidiaries of national postal operators, as well as private companies that provide express parcel services. All these providers operate in the CEP market: consolidators tend not to deliver basic cross-border parcels, i.e. parcels with very long transit times which tend to be universal service products.

²²² *International Export Mail Consolidator Research*, The Strategy Works, 2001.
<http://themca.org.uk/images/uploads/Precis of Int Mail Consolidator Research May 2011.pdf>, accessed 16 July 2010.

²²³ Note that some of the MCA members are national postal operators.

²²⁴ <http://www.abcmailgroup.com/european-home-delivery.html> - ABC Mail Group website.

The existence of mail consolidators benefits small and medium enterprises, which pay lower prices for the same speed of delivery than those charged by national postal operators.

National postal operators operating the traditional postal pipeline represent the main suppliers of cross-border parcel services for small businesses. When consolidators are present, national postal operators lose revenues, since consolidators, by buying wholesale, pay lower unit (per parcel) prices than each of their clients would pay if consolidators were absent.

The lower revenue stream has to be weighed against lower unit costs achieved by the national postal operator through savings in collection and sortation costs and through the more predictable traffic profiles of consolidators' shipments.

The balance of these two effects for national postal operators depends on whether and to what extent lower prices stimulate higher demand from those businesses that use consolidators for their parcel shipments. We saw in Chapter 3 that delivery costs are one of the main barriers to e-commerce, especially for small businesses: the presence of consolidators and their dampening effect on price should be expected to have a positive effect on e-commerce growth.

However, there is considerable customer inertia, as a recent UK survey of retail mail users²²⁵ shows: customers are reluctant to take advantage of delivery options other than those offered by the national postal operator. Lack of information and trust, and the existence of switching costs, are behind this behaviour: small customers do not know what options are available to them (in many countries, the national postal operator still has a strong brand image), and if they do, they do not trust them because, for example, they may be afraid of fraud or poor service. It will therefore take some time before consolidators achieve market penetration, but it appears that the market is moving in this direction.

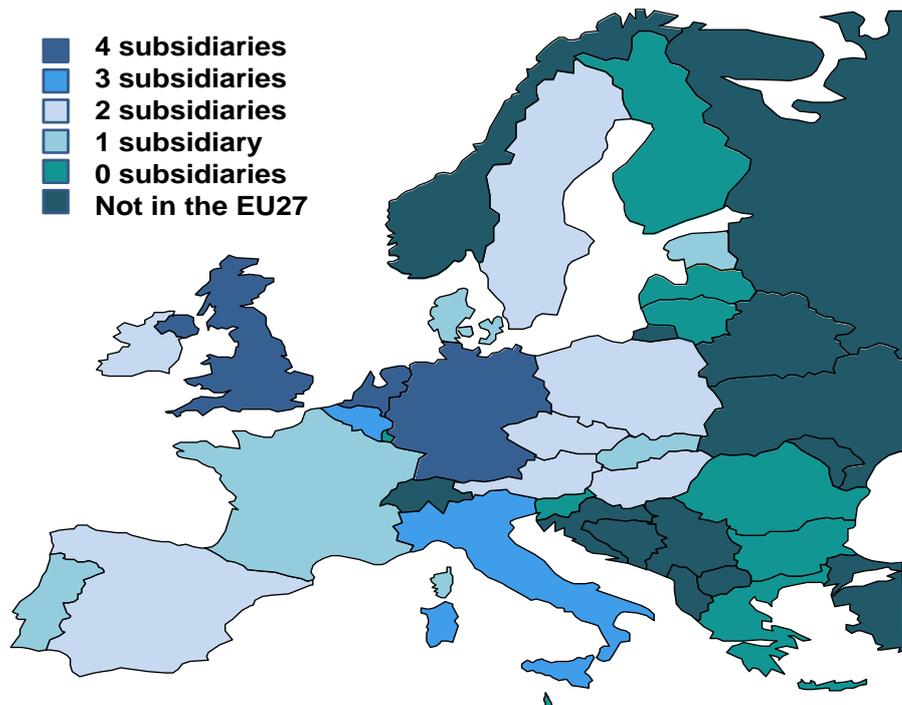
²²⁵ *Postcomm Retail Market Survey 2010*, Ipsos Mori.

4.5.4 Cross-border subsidiaries of national postal operators

There are a number of national postal operators that have entered cross-border markets in the EU through cross-border subsidiaries operating delivery services originating from countries other than their own.

The main target of these subsidiaries is the B2B market: there are more countries where they offer B2B than countries where they offer B2C and, less frequently, C2C services. This is shown in Figure 4.10, which shows the European subsidiaries' network of Royal Mail, La Poste, TNT and DHL offering services to non-account customers.

Figure 4.10 Cross-border network of national postal operators' subsidiaries



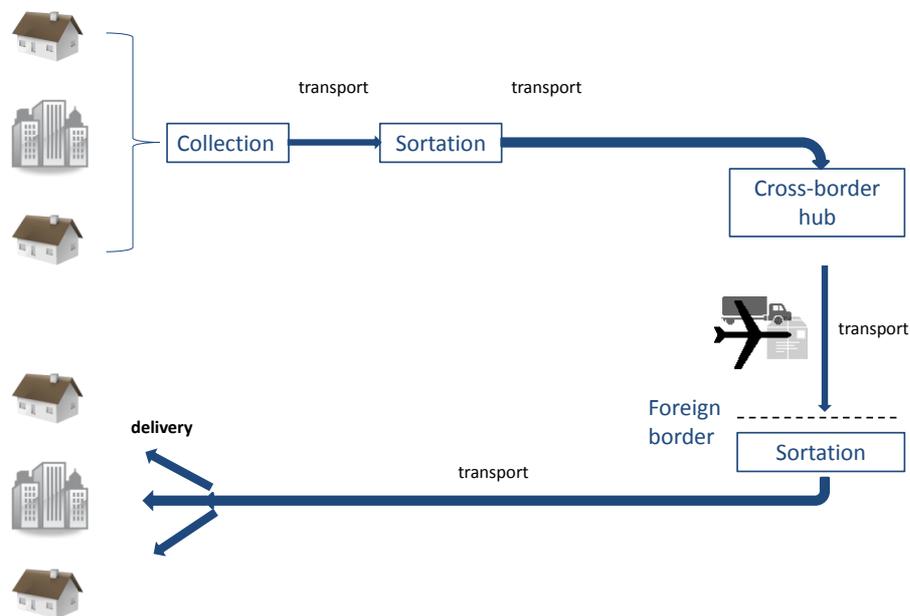
Source: FTI, websites of GLS, TNT, DHL, DPD

National postal operators' subsidiaries offer CEP²²⁶ products which can be sent within the country where they are located (for example, Italy to Italy) and/or cross-border from there (for example from Italy to Austria). They have their own network, integrated

²²⁶ Generally the time of delivery is within one week.

with those of their partners, usually private companies. These networks have shorter pipelines than the interconnected pipelines of the national postal operators: they are more akin to integrators' pipelines, as shown in Figure 4.11 for non-account customers.²²⁷

Figure 4.11 National postal operators' subsidiaries: non-account customer pipeline



Source: FTI

For example, General Logistics Systems (GLS), Royal Mail's European parcels business, is present with its own subsidiaries in 18 Member States, and has partner companies in Bulgaria, Estonia, Latvia, Lithuania, Greece, Malta, Sweden, and the UK (Parcelforce Worldwide). GLS offers CEP services, domestic and cross-border, and has a seven percent market share in the B2C CEP market (Table 4.3).

²²⁷ The pipeline for account customers is likely to be more direct, depending on the size of the shipment to each destination. For example, a lorry could pick up parcels from a customer's warehouse, and drive directly to the delivery point in a foreign country.

GLS's core operations are centred on business customers with accounts, from whom it collects. However, it offers the option of a Parcel Shop service for small, infrequent senders (focusing more on concentrated urban areas). Parcel Shops are available in 11 countries (Austria, Belgium, Czech Republic, Denmark, Germany, Hungary, Ireland, Italy, the Netherlands, Portugal and Poland), but their density is low.

Another example is DPD: headquartered in Germany, DPD belongs to GeoPost, (La Poste's CEP service), which has an 18% share of the European B2C market (Table 4.3). GeoPost has a network of subsidiaries operating across Europe, which includes:

- ChronoPost in France and Portugal;
- DPD in Germany, Belgium, Ireland, Switzerland, Poland, Croatia, Czech Republic, Hungary, Bosnia, Serbia, Slovenia, Ukraine, Russia, as well as Luxembourg, the Netherlands, the United Kingdom, the Baltic and Balkan States.²²⁸ DPD handles about 730bm parcels a year and has 300,000 customers, with more than 800 depots and branches spread on its network;
- Seur in Spain;
- Interattica in Greece;
- Pegasus in Romania; and,
- Interlink in the UK.

GeoPost has an extensive network of parcel shops in Western and Eastern Europe, although retail options are not available in some countries, for example Romania and Bulgaria. In the countries with large traffic, such as Germany, online retail options are also available.

Although it concentrates on express parcel deliveries, DPD also offers a Classic service, which has transit times of two to six days to European destinations (and eight days to the Greek islands). These are similar to those of cross-border priority parcel services offered by national postal operators. The service is door-to-door.

²²⁸ In Italy, DPD's business partner is Bartolini.

GLS and DPD offer a parcel service which has a better price-quality ratio as compared to the cross-border services of the national postal operators. They have dedicated cross-border networks and therefore shorter pipelines than the traditional cross-border pipelines with interconnected national postal operators. This allows them to compete cross-border with integrators for express deliveries, and with other parcel operators for the longer delivery windows, which companies like GLS and DPD can shorten to two to five days for deliveries to all the larger countries.

By setting up subsidiaries abroad, national postal operators are able to enter foreign markets and bypass termination rates by delivering through their own subsidiaries or through private partners. Moreover, these subsidiaries also offer services which compete with those of integrators, thereby increasing their share of the EU CEP market and the profits of their parent companies. The resulting increased competition puts a downward pressure on prices, including prices for customers that send small, infrequent volumes and tend to use the traditional national postal operator pipelines.

In fact, although GLS and DPD favour B2B or large B2C senders, they have been entering retail markets for infrequent shippers through networks of retail shops, usually concentrated in urban area but presently extending outside big cities. In countries and areas where these retail opportunities exist, competition increases also for the “small and infrequent sender” group of customers.

However, as we discussed in Section 4.5.3, there is considerable customer inertia: it will take time before these retail networks achieve market penetration, although it is clear that the market is moving in this direction.

4.5.5 Integrators and other CEP operators

Integrators are the main players in the express segment of the CEP market. They concentrate on B2B deliveries, domestic and cross-border, and have very sophisticated, fully integrated, efficient delivery pipelines.

As shown in Figure 4.2, the EU (CEP) B2B market is almost three times as large as the B2C one (€28bn versus €10bn). UPS has a ten percent share of the B2B market (€2.8bn), but only a two percent share (€200m) of the B2C market. FedEx has very small market shares in the EU (about two percent), again with sales almost entirely in the B2B segment. TNT's B2B sales and market shares in the B2B market (according to Figure 4.2, about €3.8bn and 14%) are much larger than those achieved in the B2C market (€500m or five percent). The only integrator with a large market share of the

B2C market is DHL (23%), which handles the CEP operations of Deutsche Post, to which it belongs.

The express segment of the CEP market, where parcels are delivered in the fastest possible way, is shared, cross-border, between integrators, subsidiaries of national postal operators, national postal operators that offer express services through the EMS co-operative, and some private operators with coverage in a subset of countries (such as Hermes). All these companies offer express services as well as parcel deliveries with longer delivery windows (usually within one week). In this section, we concentrate on the express segment.

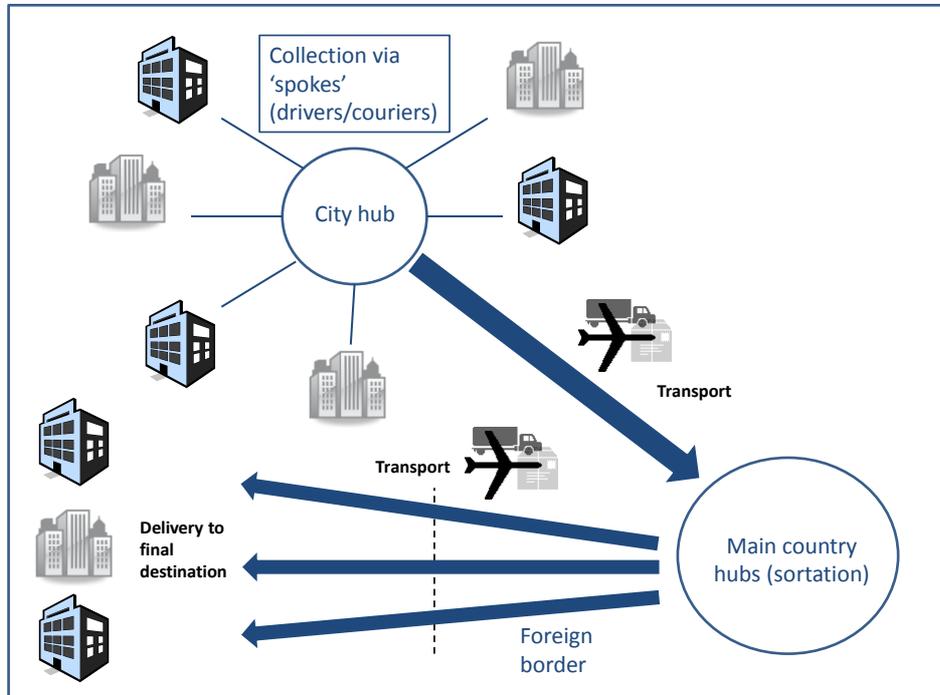
There is a difference between cross-border express services offered by national postal operators interconnecting with each other, those offered by their subsidiaries and those offered by integrators and the other players identified above.

An integrator uses its own network for the conveyance of an item from initial customer contact to final delivery. The pipeline is much shorter, and integrated. It is more similar to the pipelines (for account customers) of national postal operators' subsidiaries, such as GLS or GeoPost. The latter, however, do not have EU-wide integrated networks, as there are Member States where they operate through a partner (subcontractor) rather than directly.

The pipeline for integrators is shown in Figure 4.12. Integrators typically operate in a hub and spoke system, with drivers or couriers (the spokes) collecting parcels from customers' premises before returning to the area hub each night. Here, parcels are labelled, and prepared for transporting: they are consolidated in lorries or aircraft containers, depending on the destination.²²⁹ Consolidated parcels may then be transported (either by plane or lorry) to the country sorting hub, where they are unloaded and sorted according to destination. Sorting hubs are highly automated with high-tech solutions to increase sorting speed and accuracy: parcels are sorted and then loaded back into containers and on the destination lorry/plane, to be transported cross-border to their final destination.

²²⁹ Planes and lorries either originate in a city or may be shared with other cities. Typically, operations are carried out at night but many companies have daylight sorting and transporting activities.

Figure 4.12 Integrator pipeline



Source: FTI

While integrators are able to cover the same delivery windows as other parcel operators, the reverse is not true; parcel operators do not deliver time-certain items cross-border (for example, by 12am next day): they simply do not have the logistic capabilities to operate within such narrow delivery windows.

Most national postal operator offer cross-border express services through the EMS cooperative (which we discuss in section 4.8.4), but there are qualitative differences between these products and the express products offered by integrators, which reduce the degree to which they are substitutable.

In principle, there is no difference between national postal operators' express services and express services offered by integrators and parcel companies: they all aim to be as fast as possible; and they are all tracked and accessible via the internet. However,

in practice there are differences among these services, such as in latest collection times or earliest delivery times according to postcode (before 8:00, or 10:00 etc.).²³⁰

On the one hand, the cross-border delivery networks of interconnecting national postal operators are much less flexible than those of the integrators and can only offer time-certain delivery services through a dedicated delivery operation, if they have one (as in France, Italy, the UK). This, however, is at the request of the originating postal operator, who will have to pay for it.

On the other hand, only national postal operators are obliged to have full national coverage, which they must provide as part of their universal service obligation. Other CEP operators (including integrators) may choose to offer full territorial coverage themselves; however this is often cost inefficient: they achieve full coverage either using sub-contractors, or handing parcels for remote areas to the national postal operator. Surcharges are applied in this case and in general, integrators and other private operators charge geographically differentiated prices within individual destination countries, while national postal operators have to charge a single price for all destinations within another Member State.

There are also qualitative differences between the cross-border express services of national postal operators and those of integrators, the latter being qualitatively better. This is due to a variety of reasons, including inconsistencies in the quality standards of the interconnecting national postal operators; the fact that they must accept all parcels that are brought to them, which results in poor address standards; and, for some EU postal operators, the fact that they do not have their own air cargo fleet and/or adequate data handling capacity for tracking the parcels.

Integrators concentrate on business customers and some of them, overwhelmingly on B2B. Their pipeline involves collection from and delivery to the premises of the sender and receiver: small, infrequent senders such as end consumers and micro and small enterprises are very costly for integrators to serve, because unpredictable traffic has a large impact on collection costs. For these reasons, these customers would have to pay published tariffs, which are very high.

²³⁰ We have learned this in discussions with stakeholders.

The service is expensive, comparatively speaking, also for large B2C businesses – especially when the required delivery window is very short. Amazon, for example, offers express delivery services to its domestic and cross-border customers, but it is the customer who will have to pay for them (consumers do not pay only if they choose Amazon’s free Super Saver delivery).

Integrators are the only operators that are able to offer time and date certain express delivery services cross-border. There are, in the EU B2C market, national CEP companies that are expanding cross-border, either directly or through partnership with larger operators, usually the subsidiaries of national postal operators. These operators offer a service with delivery times from a minimum of two days, for bordering countries, for which road transport is usually used.

Among these CEP operators, Hermes is by far the largest, with a 19% market share of the EU B2C market (Table 4.3). Hermes has operations in the UK, Germany, Austria and Italy, and offers its customers cross-border parcel delivery services to the countries it covers and to up to 20 European countries, including France, Belgium, the Netherlands, Luxembourg, and Poland.²³¹

In Austria and Germany, Hermes has an extensive retail network of Parcel Shops (1,400 in Austria alone), which makes it one of the most successful cross-border provider to C2C customers. In the UK, Hermes has been offering a domestic parcel service to infrequent senders since 2009, while in Italy the company only serves large business customers.

The main advantage to using integrators is that their pipelines are flexible, and very quick. Moreover, they span the whole of Europe and parcels entrusted to them stay in their possession until delivered – unless they are addressed to remote areas, which are reached through subcontractors. These characteristics increase service quality, but also cost.

Large customers can use express services by integrators if speed and security are a priority, although they have to pay a premium for this. For smaller customers, this premium may be prohibitively expensive.

²³¹ The service is door-to-door, with 3-5 days transit time and full tracking. The German and Austrian operations trade under the name Hermes Logistik Gruppe (HLG).

The logistics of the integrator delivery model are such that pan-European entry in the “time certain” segment is very difficult, due to high sunk costs. However, entry in the two/three to five day delivery window is taking place, as explained above. Conversations with stakeholders have informed us that this increasing competition is causing prices for large distance senders to fall.

Recipients who live in remote areas are disadvantaged because integrators lack complete guaranteed coverage – they may just not offer a service to a particularly remote area, or offer a reduced quality service (e.g. two day delivery), or charge a surcharge. To other recipients, this does not represent a barrier although e-commerce customers wanting to have time-certain deliveries have to pay much larger prices, on average, than for 3-5 days deliveries.

4.5.6 Online parcel brokers

In the large EU countries, there are web brokerage services that offer discounted rates to deliver parcels cross-border, available to individual shippers. These companies operate in the CEP market.

Individuals or businesses wishing to send a parcel (domestically or cross-border) visit the broker’s website and provide details of the parcel(s) they want to send (weight, dimensions and countries of origin and destination). The broker will then provide a quote for the delivery, by service (e.g. one to three day delivery; three or more days delivery) and provider (e.g. DHL, TNT, Parcelforce). After the customer has chosen the product he wants to purchase, he will be asked for information on collection and delivery addresses and will proceed to the payment step (payment is made to the broker). The chosen provider will then collect and deliver the parcel.

Brokers do not do any logistics or delivery themselves. They simply buy capacity in bulk, generally from integrators, CEP companies, national operators and/or their subsidiaries. Buying in bulk affords brokers discounts; brokers may also receive affiliate fees from providers for the deliveries they procure.

Brokers are different from consolidators. Consolidators are logistic companies that prepare and collect parcels, and then inject them in the parcel pipeline. With brokers, it is the actual parcel operator(s) or integrator that handles the parcels, from collection to delivery.

For those customers that ship low cross-border volumes infrequently, such as individual consumers, micro and many small distance sales enterprises, online brokers provide heavily discounted CEP products from integrators and other parcel operators. Research carried out by Money Saving expert shows that up to 60% savings can be achieved by shopping online for sending a *single* 10kg parcel door-to-door from the UK to Germany.²³²

Services such as Parcel2go.com, Interparcel.com, parcelbroker.co.uk (which has a Facebook page), Parcelsplease.co.uk in the UK, myShip.it in Italy, versandbroker.de in Germany, or envoimonscher.com in France all allow infrequent senders to obtain large savings on CEP products.

Apart from cost savings, online brokers add transparency to the market and provide information for customers, since they also provide price comparisons, albeit comparisons of discounted prices.

The advantage of this business model is that it allows parcel operators and integrators to sell their spare capacity, thereby increasing profitability, while at the same time allowing small distance sellers (with low volumes and infrequent traffic), micro enterprises and individual consumers to achieve substantial price savings.

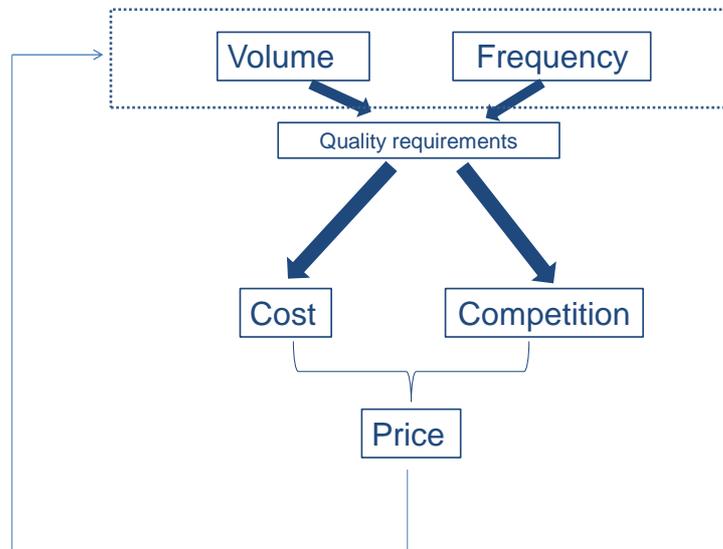
4.6 Implications of industry structure for stakeholders

The EU B2C parcel industry is characterised by three sets of stakeholders: consumers, distance sellers and delivery operators.

Consumers shop online, domestically or cross-border; distance sellers dispatch the merchandise to consumers; and delivery operators deliver the merchandise. The price that is paid for delivery and how it is shared between consumers and vendors depend on a number of factors, shown in Figure 4.13, which highlights the key forces interacting in parcel markets.

²³² <http://www.moneysavingexpert.com/shopping/cheap-parcel-delivery#bestbuysuk> , accessed 16 July 2011.

Figure 4.13 Market forces in the postal market



Source: FTI

In any market, observed prices depend on the interaction of demand and supply. On the supply side, costs are a fundamental determinant; they are driven by quantitative and qualitative features of the products offered (the parcel industry “output”): volumes and frequency of dispatch, as well as quality requirements. As industry output increases, entry becomes viable and competition develops: prices fall, eroding profits and increasing demand and the incentive for cost efficiency. This virtuous circle can be interrupted by the presence of demand or supply barriers – for example, information asymmetries or high fixed costs.

We discuss below whether these interactions of market forces result in the same outcomes for all stakeholders, for example small and large businesses, consumers and businesses in all countries and areas within countries, or whether the market is segmented into sub-markets with different price outcomes.

4.6.1 Effect of volume and frequency on cost

The volume of postal items sent, and the frequency with which these volumes are sent (subject to quality requirements) impact on operators’ costs. For example it is much

cheaper (per unit) for an operator to regularly dispatch a lorry filled with parcels compared to delivering a single parcel once a week.

The business models of dedicated CEP companies are characterised by large fixed costs (purchasing vehicles, sorting facilities, tracking systems etc), which imply large economies of scale: unit costs decrease with volumes.

The qualitative characteristics of the volumes that have to be collected, sorted, transported and delivered are also an important driver of costs. Parcels that respond to certain standards in terms of packaging, addressing and shape are easier to handle, take less time to process and can be optimally stored for transportation. All this reduces operators' costs. Finally, the closer operators are to operating at optimal scale, the lower their overall costs: frequency and predictability of flows are important in optimising delivery operations.

Given these characteristics, customers that dispatch high volumes frequently, whose traffic profile is predictable, and whose traffic adheres to the required standards in terms of shape and format are less costly to serve than customers who do not have these characteristics. Large senders' volumes are fundamental in reducing the incidence of fixed costs. They are associated with lower unit costs and can therefore be charged lower delivery prices.

Distance selling enterprises that have large parcel volumes may be able to consolidate and prepare their parcels for cross-border shipment by themselves. This ability to work-share with operators will afford large senders further discounts.

Moreover, if they achieve sufficient cross-border scale, large senders may decide to set up their own logistics (or transport contracts) and use lorries to drive parcels to the destination country for injection into the domestic pipeline, further reducing costs and achieving optimal prices and delivery speeds.

Senders with small parcel volumes that are dispatched infrequently are more costly to serve, even more so if their parcels do not adhere to the required packaging or addressing standards (perhaps because the sender does not have the necessary knowledge). The prices they pay reflect these higher costs.

Independently of market competition, customers' characteristics have an impact on costs: distance sellers that send large volumes frequently are less

costly to service and therefore can pay lower prices than small, infrequent senders.

4.6.2 Effect of volume and frequency on competition

When the demand for sending large, frequent volumes of parcels cross-border increases, competition increases, as there is a larger, more reliable market to service – which is why there are notably more competitors (both in terms of the number of distinct delivery options – e.g. consolidators, subsidiaries of national postal operators, and in terms of the absolute number of competitors within each option) for larger senders and in larger markets.

Large enterprises engaged in cross-border B2C distance sales have an array of delivery offers to choose from. Traditionally, two of the business models described in Section 4.5 used to dominate the cross-border industry: interconnected national postal operators (the traditional postal pipeline) and global integrators.

The demand for parcel deliveries generated by e-commerce has increased the need for timely delivery and raised the incentives for entering B2C delivery markets. National postal operators have extended the activities of their cross-border CEP subsidiaries to include B2C. This has allowed them to bypass the traditional postal pipeline and save both in terms of delivery times and delivery costs: subsidiaries and contracting with private national CEP speeds operations and avoid the payment of traditional termination rates between two national operators. Larger markets have also created the opportunity for intermediaries to enter, in the form of consolidators and online brokers. Albeit different, these business models take advantage of scale economies: either by creating scale through consolidation or by purchasing spare capacity, consolidators and brokers can profit while at the same time offering lower prices to their customers.

As a result of competition, the traditional postal pipeline is losing importance while differences between the logistics and the products of integrators and subsidiaries of national postal operators are being blurred. Options that were available for B2B deliveries are now extended to B2C and C2C parcel deliveries, and there is increasing availability of delivery options for small senders who send infrequent parcel volumes.

However, the link between volumes and costs has implications for the feasibility of competitive entry: economies of scale in collection and delivery imply that, where

volume flows are not high, entry is less viable. Competitive entry for smaller senders is therefore concentrated in high density areas; large population density accompanied by large parcel flows make these areas cheaper to service and reduces the unit cost of entry:

- the retail networks of the subsidiaries of national postal operators are concentrated in the urban areas of the largest countries;
- consolidators operate in more countries, but not in all of them they service small customers; and,
- online parcel brokers only operate in a handful of large Member States.

Moreover, demand-side barriers, such as the lack of knowledge of viable alternatives by small senders, their lack of trust and the strong national postal operator brand recognition among this customer group lower the likelihood of successful competitive entry in this market segment.

Therefore, while competition for large customers is well developed across the EU, the options available to small customers and to those residing in peripheral countries and/or low density areas are more limited. An important barrier to the development of competition for small customers is their lack of information and trust of available alternatives.

4.6.3 Effect of cost and competition on price

We have seen how high volumes reduce costs and increase the scope for competition. With lower underlying costs, and competition discouraging operators from setting prices too high above costs, one would expect prices to fall.

Moreover, competition has an impact on operators' behaviour: as more delivery options and providers compete with each other, prices fall. Operators need to increase their cost efficiency in order to maintain profitability in a competitive environment. The move away from the traditional postal pipeline, with its long time windows, duplicate operations, and termination rates is testimony to this need. As costs decrease, benefits should accrue to all customers, large and small.

The degree to which cost savings are passed on to customers through lower prices depends on the elasticity of demand,²³³ which is a function of the number with available alternatives: the fewer alternatives, the lower the elasticity and the higher the ability of an operator to maintain high prices. Importantly, informational and trust barriers may contribute to high prices: if buyers perceive no alternative to the national postal operator, their elasticity will be low, irrespective of whether these alternatives are cheaper.

The combined effect of these factors on customers would mean that:

- large customers in high density areas and the largest countries pay the lowest prices;
- small, infrequent senders in the largest countries, and especially within cities in these countries, could benefit from lower prices. However, they often do not take advantage of these opportunities; and,
- small, infrequent senders in peripheral countries and outside urban areas pay the highest prices.

There is a two tier market for cross-border parcels. On the one hand, large businesses with a predictable traffic profile enjoy the full benefits of competitive CEP markets, with prices that decrease with volume size, especially in countries/areas where aggregate parcel flows are the largest.

On the other hand, individual consumers and those business senders that send low parcel volumes infrequently have (or perceive to have) fewer alternatives and pay higher prices, especially in countries/areas where aggregate parcel flows are low.

4.6.4 Effect of price on volume and frequency

Lower prices increase demand, contributing to a virtuous circle of increasing cross-border parcel volumes, further decreasing costs and increasing competition, resulting in increased efficiency and lower prices.

²³³ Economic theory suggests that in markets with differentiated products, such as the CEP market, the prices that customers pay are linked to the elasticity of demand. Parcels are differentiated in terms of delivery windows and qualitative characteristics such as track and trace, for example.

Two main barriers act to slow down the circle, and therefore the fall in prices. Both barriers disproportionately affect small, infrequent senders:

- a demand side barrier composed of information deficiencies, lack of trust and possible switching costs (for example, the costs to travel to parcel retail outlets that are not national post offices); and,
- a supply side barrier, whereby entry incentives are insufficient to develop competition; this is especially the case in non-urban areas and in countries where aggregate cross-border parcel flows are smaller.

The majority of small senders use national postal operators for their cross-border parcels, paying higher prices than their larger competitors. According to our estimate, they represent about 20% of the market. This is not an insignificant proportion, even more so if we consider that small senders (micro and small and medium size enterprises) represent an important part of the retail sector, and therefore potential customers and drivers of e-commerce.

The existence of these two sets of barriers, and the higher delivery prices that they cause will have consequences on competitiveness in the distance sales market: **smaller businesses that pay higher cross-border delivery prices have a limited ability to pass them on to their customers, because e-commerce markets are competitive. This lowers participation by smaller business and has a negative impact on the growth of cross-border e-commerce.**

4.7 The regulatory environment

In this section we review the regulatory environment within the framework of the Postal Directive,²³⁴ and the interconnection agreements between national postal operators. The Postal Directive refers to the regulation of the cross-border part of the market under the scope of the USO, which varies among the Member States. As we explain below, which cross-border parcel product is part of the USO is sometimes unclear, whilst the CEP market is deemed to be competitive and is unregulated.

²³⁴ Directive 2008/06/EC of 20 February 2008

Article three of the Postal Directive states that “*Member States shall ensure that postal parcels received from other Member States and weighing up to 20 kilograms are delivered within their territory*” and that “*The minimum and maximum dimensions for the postal items in question shall be those as laid down in the relevant provisions adopted by the Universal Postal Union.*”

Paragraph 4, Article 3 of the Postal Directive requires that “*the clearance, sorting and distribution of postal parcels up to 10 kilograms*” should be covered, in each Member State, by the universal service, and Paragraph 5 allows the national regulatory authority (NRA) of each Member State to increase the weight limit to up to 20 kilograms and to “*lay down special arrangements for the door-to-door delivery of such parcels.*”

The Postal Directive thus clearly specifies the size dimensions, by referring to relevant provisions adopted by the UPU, that identify a *parcel*, thereby making a clear distinction between *packets* (which are part of letter mail) and parcels, which are not. The Directive places an obligation on the Member States to deliver cross-border parcels, and to include parcels in the universal service.

Regarding *express products*, the First Postal Directive, at Recital 18, determines that express services are essentially distinct from universal services as value added services:

“Whereas, in view of the fact that the essential difference between express mail and universal postal services lies in the value added (whatever form it takes) provided by express services and perceived by customers, the most effective way of determining the extra value perceived is to consider the extra price that customers are prepared to pay, without prejudice, however, to the price limit of the reserved area which must be respected”

This has been confirmed during the approval process of the Postal Directive:

“The Commission confirms that in accordance with Recital 18 of Directive 97/67/EC and the consistent case law of the European Court of Justice (e.g. Case C-320/91 [Corbeau]), express and courier services constitute specific services that are characterised by being essentially different from universal postal services.”²³⁵

²³⁵ Communication from the Commission to the European Parliament, COM (2007) 695 Final, 9 November 2007, Annex: Commission Statement Re Recital 27.

While the distinction between packets and parcels is one based on weight and size, the Commission has defined an express product as:

“a service featuring, in addition to greater speed and reliability in the collection, distribution, and delivery of items, all or some of the following supplementary facilities: guarantee of delivery by a fixed date; collection from point of origin; personal delivery to addressee; possibility of changing the destination and address in transit; confirmation to sender of receipt of the item dispatched; monitoring and tracking of items dispatched; personalised service for customers and provision of an à la carte service, as and when required. Customers are in principle prepared to pay a higher price for this service.”²³⁶

Therefore, express parcels are different from parcels that are within the scope of the USO because:

- they are faster and more reliable; and,
- they contain value added features (e.g. track-and-trace; time certain delivery); and,
- customers are willing to pay extra for them.

Express products, including those supplied by national postal operators interconnecting with each other (through, for example, the EMS co-operative) are not regulated because they are essentially distinct from parcel and letter products.

The operational definition of the market (CEP), which is adopted by operators in that market, puts together parcels *and* express products, but the websites of postal operators (both national postal operators and subsidiaries thereof) make ample use of the word “express” in defining their parcel products. At the retail level, some of these products are remarkably similar to those that are offered by other national postal operators as part of the USO.

While NRAs and USPs in individual countries agree that “basic” parcel post is covered by the USO,²³⁷ what is meant by a “basic” (domestic and cross-border) parcel differs among the Member States, both in terms of delivery windows and value added services such as track-and-trace. As a result, there are cases where a parcel is

²³⁶ Notice from the Commission on the application of the competition rules to the postal sector and on the assessment of certain State measures relating to postal services. Official Journal C 039 , 06/02/1998 P. 0002 – 0018.

²³⁷ Wik Consult, *The Role of Regulation in a More Competitive Postal Market*, 2009, Table 2.4, page 22.

described as a USO parcel in one country, but a parcel with the same or very similar characteristics is defined as an express product by the operator of another country.

For example, the cross-border USO parcel in Belgium (*Kilopost International*) has track-and-trace and a delivery window (J+2) comparable to the UK and Italian non-USO products, *Parcelforce Global Priority* and *Paccocelere Internazionale*, which are described by Royal Mail and Poste Italiane as express products.

As the market evolves, a higher degree of clarity in the Member States is necessary as to which cross-border retail products are genuine express services and which are not, and to what extent these products are offered under competitive conditions. Currently, this lack of transparency makes the task of NRAs more difficult since in order to absolve their regulatory duties they need to develop a clear definition of the scope of the universal service.

We now review the regulatory framework in the Member States, termination agreements and quality of service monitoring.

4.7.1 Regulatory framework

Member States typically have a postal institutional structure comprising:

- a ministry responsible for postal policy (the ‘postal ministry’) – the names of these ministries differ across Member States, but their function remains similar: to develop public policy towards postal services;
- a national postal operator, the former state monopoly, or a universal service provider (the USP), which, in most Member States, has been designated under Article 4 of the Postal Directive as the national USP, for the entire national territory. Table 4.9 shows the national USPs, and the extent of State ownership, in the EU;
- a national regulatory authority with jurisdiction over *ex ante* regulation of the postal sector,²³⁸ which is legally separate from and operationally independent of the

²³⁸ In some Member States ex-post regulation is included among the NRA’s tasks.

postal operator (Article 22, Postal Directive). NRAs' budgets and staff levels are quite different, as are their competencies,²³⁹ and,

- a national competition authority ('NCA'), tasked with the role to enforce the competition rules in the postal sector (*ex post* supervision). The role of the NCA and its cooperation with the NRA at national level varies from Member State to Member State, as shown in Table 4.10.

Table 4.9 National USPs

Country	National universal service provider	Legal status	State ownership (%)
Austria	Austria Post	Public Limited Company	53
Belgium	La Poste/DePost	Public Limited Company	50% + 1 share
Bulgaria	Bulgarian Posts	Corporation	100
Cyprus	Cyprus Post	Part of Ministry of Communication and Works	100
Czech Republic	Czech Post, S. E.	State Owned Enterprise	100
Germany		Public Limited Company	30.5 (KfW Bankengruppe)
Denmark	Post Denmark A/S	Public Limited Liability Company	75
Estonia	Estonian Post Ltd	Public Limited Company	100
Greece	Hellenic Post (ELTA)	Limited Liability Company	90
Spain	Sociedad Estatal Correos y Telégrafos, S.A.	Public Limited Company	100
Finland	Itella	Public Limited Company	100
France	La Poste	Limited Company	100
Hungary	Hungarian Post Company Limited	Limited Company	100
Ireland	An Post	Public Limited Company	100
Italy	Poste Italiane S.p.A.	Public Limited Company	65
Lithuania	Lithuanian Post	Stock Company	100
Luxembourg	Entreprise des Postes et Télécommunications Luxembourg (EPT)	Public Limited Company	100
Latvia	Latvijas Pasts	Joint Stock Company	100
Malta	Maltapost p.l.c.	Public Limited Company	0
The Netherlands	TNT Post BV	Public Limited Company	0
Poland	Polish Post	Joint Stock Company	100
Portugal	Correios de Portugal, S.A. (CTT)	Public Limited Company	100
Romania	Romanian Post S.A.	State ownership	100
Sweden	Posten AB	Public Limited Company	100
Slovenia	Pošta Slovenije d.o.o.	Limited Liability Company	100
Slovakia	Slovenská pošta, a. s.	Joint Stock Company	100
United Kingdom	Royal Mail Group Ltd.	Limited Company	100

Source: *Copenhagen Economics (2010)*²⁴⁰

²³⁹ Copenhagen Economics (2010), *Main developments in the postal sector (2008 – 2010)*, pages 63-64.

Table 4.10 Competition enforcement²⁴¹

Country	Primary enforcer of competition rules	NRA obliged to share information with NCA?
Austria	NCA	No
Belgium	NCA	Yes
Bulgaria	NCA	Yes
Cyprus	NCA	Yes
Czech Republic	NCA	No
Germany	General competition law: NCA Sector specific competition law: NRA	Yes
Denmark	NCA	No
Estonia	Both NCA and NRA	Yes
Greece	NRA	Yes
Spain	NCA	-
Finland	NCA	No
France	NCA	Yes
Hungary	NCA	Yes
Ireland	NCA	Yes
Italy	NCA	No
Lithuania	NCA ex post, NRA ex ante	Yes
Luxembourg	NRA	No
Latvia	NCA	Yes
Malta	The Director of Office of Fair Competition	Yes
The Netherlands	NCA	Yes
Poland	NRA	Yes
Portugal	NCA	Yes
Romania	NCA	Yes
Sweden	NCA	No
Slovenia	NCA	Yes
Slovakia	Both NCA and NRA	Yes
United Kingdom	NCA	No*

*However the NRA has undertaken to share information and consult with the NCA in relation to breaches of competition law. NRA also shares information to facilitate criminal investigation or proceedings by the NCA in the UK or outside. Source: Copenhagen Economics (2010)²⁴²

Regarding the duties of the NRA, Paragraph 2, Article 22 of the Postal Directive requires that:

²⁴⁰ Copenhagen Economics (2010), *Main developments in the postal sector (2008 – 2010)*, page 32.

²⁴¹ Copenhagen Economics (2010), *Main developments in the postal sector (2008 – 2010)*, Country Fiches.

²⁴² Copenhagen Economics (2010), *Main developments in the postal sector (2008 – 2010)*, Country Fiches, indicator x.4.5: Enforcement of competition rules by NRA and cooperation with NCA.

“The national regulatory authorities shall have as a particular task ensuring compliance with the obligations arising from this Directive, in particular by establishing monitoring and regulatory procedures to ensure the provision of the universal service. They may also be charged with ensuring compliance with competition rules in the postal sector. The national regulatory authorities shall work in close collaboration and shall provide mutual assistance in order to facilitate the application of this Directive within the appropriate existing bodies.”

Ensuring the provision of the universal service also requires appropriate quality monitoring and pricing of USO products. In all the Member States that have a USP (apart from Latvia), the NRA is tasked with monitoring and publishing the quality of service standards achieved by the USP for the products which are designated US products.²⁴³

Pricing criteria for US products are set out in Article 12 of the Postal Directive, which requires the price for *each* of the US products to be: affordable;²⁴⁴ transparent and non discriminatory; and, cost oriented.²⁴⁵ Setting prices with these characteristics requires that costs incurred for the provision of USO products be clearly identifiable. Article 14 of the Postal Directive therefore provides the accounting principles that must underpin cost allocation between USO and non-USO services; NRAs are tasked with approving the cost allocation system of the USP, and with reviewing the cost allocation to non-USO products.²⁴⁶

The NRAs need a considerable amount of information from USPs in order to absolve their duties and to set prices that comply with the criteria set out in Article 12. This information includes data on volumes, costs and quality of service. The Postal Directive contains a provision (Article 22a) specifying that:

“Member States shall ensure that postal service providers provide all the information, in particular to the national regulatory authorities, including financial information and information concerning the provision of the universal service, namely for the following purposes: (a) for national regulatory authorities to ensure conformity with the provision of, or decisions made in accordance with this Directive; (b) for clearly defined statistical purposes.”

²⁴³ Copenhagen Economics (2010), Main developments in the postal sector (2008 – 2010), Country Fiches.

²⁴⁴ *“Tariffs shall be affordable and such that must be such that all users, independent of geographical location, and, in the light of specific national conditions, have access to the services provided.”*

²⁴⁵ *“Prices shall be cost-oriented and give incentives for an efficient universal service provision.”*

²⁴⁶ Denmark represents an exception. See Copenhagen Economics (2010), Main developments in the postal sector (2008 – 2010), Country Fiches.

Member States are in the process of transposing this provision into their national legislation,²⁴⁷ and giving the NRA power to require data from both the USP and the non-USPs.²⁴⁸

The Postal Directive (Article 22a, paragraph 2) requires that the information requested by the NRA must be “*proportionate to the performance of its tasks;*” and “*Postal service providers shall provide such information on request and in confidence, within the timescale and to the level of detail required by the national regulatory authority.*”

Within the context of cross-border parcel flows, which is the focus of this study, the delivery of cross-border parcels is an obligation of the USP (Article 3). USPs charge each other termination rates for processing and delivering inbound parcels originating from other Member States. As USO tariffs, these termination rates must abide to the same pricing principles as those set out in Article 12 for US products; Article 13 of the Postal Directive states:

“In order to ensure the cross-border provision of the universal service, Member States shall encourage their universal service providers to arrange that in their agreements on terminal dues for intra-Community cross-border mail, the following principles are respected:

- terminal dues²⁴⁹ shall be fixed in relation to the costs of processing and delivering incoming cross-border mail,*
- levels of remuneration shall be related to the quality of service achieved,*
- terminal dues shall be transparent and non-discriminatory.”*

If terminal rates for parcels do not abide to these criteria, the prices charged by USPs for outbound cross-border US parcels cannot be cost reflective, transparent and non-discriminatory. The regulation of outbound cross-border parcel prices is a complex exercise, and it requires co-operation not only between each national USP and NRA,

²⁴⁷ Article 22a is a new provision of the Third Postal Directive, and as such, 11 Member States may still need to implement this provision (if not existing under the current national law).

²⁴⁸ Notable exceptions are the Czech Republic, where the data is required by the Ministry of Industry and Trade; Finland, Ireland and Luxembourg, where their NRAs do not require data from the non-USPs; the Netherlands, where the NRA only requires data from the USP and the non-USPs concerning legal requirements and; the UK, where the NRA only requires data from the non-USPs if they are licensed operators or if the data is needed for specific purposes specified under the Postal Services Act.

²⁴⁹ The term ‘terminal dues’ is typically applied in relation to letter mail. We use the more generic ‘termination rates’ to apply to parcel delivery.

but also among NRAs. This is because the NRA in each country, in regulating the country's USP, A, shall ensure that:

- all the termination rates charged by A (for cross-border USO products) to the USPs of the other Member States are cost reflective and linked to quality of service achieved; and,
- the prices charged by A for USO cross-border parcels are cost reflective and efficient. This is only possible if the termination rates that A pays to the other USPs are also cost reflective and linked to quality of service.

Such a task cannot be achieved without co-operation amongst the NRAs. The duty of cooperation amongst the NRAs is laid out in Article 22 of the Postal directive.

“The national regulatory authorities shall work in close collaboration and shall provide mutual assistance in order to facilitate the application of this Directive within the appropriate existing bodies.”

Almost 15 years have passed since the approval of the First Postal Directive, but cross-border aspects of postal regulation are still hardly addressed by regulatory bodies in most Member States:²⁵⁰ this could be due to the NRAs not having adequate information to perform their duties, and to co-operation amongst them being still in its infancy.

In particular, NRAs need to have detailed information on termination rates, volumes by product and allocated costs by pipeline activity for USO products to assess whether termination rates and cross-border USO parcel prices are cost oriented. Data on quality of service are also needed, since efficient costs and prices must reflect pre-determined quality standards, and since Article 13 requires termination rates to be linked to quality of service achievements. Not all the NRA, however, may have sufficiently detailed information to perform their regulatory tasks.

²⁵⁰ Wik Consult, *The role of regulation in a more competitive postal market*, 2009, page 356.

Co-operation within NRAs has been strengthened with the establishment of the European Regulators Group for Postal Services (ERGP)²⁵¹ on 10 August 2010. The ERGP held its first meeting on 1 December 2010.²⁵² Composed of the heads of the NRAs, the ERGP has a secretariat made available by the EC. It is the role of the ERGP to facilitate consultation, cooperation and coordination among NRAs; to develop best regulatory practice; and to act as expert advisor to the EC. The ERGP work programme for 2011-2012 contains a commitment by the NRAs to work on cross-border products,²⁵³ and we consider this to be a positive signal that cooperation among NRAs in this context will be strengthened.

We review termination agreements for cross-border parcels, which are a fundamental component of cross-border costs, and quality of service standards, below.

4.8 Termination agreements

To absolve their cross-border delivery obligation, postal operators charge each other termination rates to handle parcels from the interconnection point (the point of injection into the domestic pipeline of the destination operator) to the delivery address. These charges are built into the price that the sender pays.

In the context of intra-EU parcel flows, termination rates charged by USPs should be cost reflective, linked to quality of service, transparent and non-discriminatory (Article 13 of the Postal Directive). However, they are not known: it is impossible to know whether the criteria required by Article 13 for termination rates related to USO products are respected or not.

There are several cross-border bilateral and multilateral agreements for international deliveries. These govern the rules on the interconnection of operators' networks: bilateral agreements are administered by the signatories; multilateral agreements also see the involvement of supra-national bodies such as the UPU (for the ILRs) and the IPC (through the EPG).

²⁵¹ European Commission Decision 2010/C217/07.

²⁵² The ERGP has its own website.. Update information on its activities can be found at www.ec.europa.eu/internal_market/ergp/.

²⁵³ [http://www.arcep.fr/index.php?id=8571&L=1&tx_gsactualite_pi1\[uid\]=1337&tx_gsactualite_pi1\[annee\]=&tx_gsactualite_pi1\[theme\]=&tx_gsactualite_pi1\[motscle\]=&tx_gsactualite_pi1\[backID\]=26&cHash=d6e642218a](http://www.arcep.fr/index.php?id=8571&L=1&tx_gsactualite_pi1[uid]=1337&tx_gsactualite_pi1[annee]=&tx_gsactualite_pi1[theme]=&tx_gsactualite_pi1[motscle]=&tx_gsactualite_pi1[backID]=26&cHash=d6e642218a).

We asked the EU national postal operators to tell us which termination agreements they had with the national postal operator of each of the Member States, and to give us some details about the agreement.²⁵⁴ Twelve operators provided us with some information, and they did so under strict confidentiality. Of these, eleven operators mentioned that at least some of their cross-border (intra EU-27) interconnection agreements were ILRs. In general, it is the smaller countries in Southern and Eastern Europe that tend to use the ILRs. When the information was provided, it showed that the operator had one type of agreement with each country: for example ILR or EPG. We take this to mean that all the cross-border parcel flows that the operator sends to a certain country (USO and non-USO) may be covered by the same agreement.

We review these agreements below. There is not enough information to assess the effect that these agreements have on the market, especially on prices, since the majority of the national postal operators did not provide sufficient information on their termination agreements.

4.8.1 ILRs

ILRs, administered by the UPU, are rates payables for the delivery of cross-border parcels by the designated operators within the meaning of UPU rules²⁵⁵. The national postal operator of the sending country accepts payment from customers in that country, and delivers the parcel to the border (to an office of international exchange or an airport) of the receiving country (usually based on a separate agreement with the transport provider). The national postal operator of the receiving country then undertakes to deliver the parcel to the addressee, using its own network, and is paid a charge by the national postal operator of the sending country. The ILRs are delivery agreements, and as such do not carry traffic commitments; they are also not based on a traffic profile (they are not market tested).

The charge is composed of a UPU base rate, which comprises a flat charge for any parcel delivered, and a varying charge which increases based on the weight of the parcel delivered. This weight-based charge is determined by each national postal operator and is paid regardless of the quality of service. In addition, additional

²⁵⁴ This was part of the questionnaire we sent to postal operators (Questions 8a and 8b). See Appendix 1.

²⁵⁵ <http://www.upu.int/en/the-upu/acts/distribution-of-roles-in-accordance-with-the-convention.html> - list of designated operators within UPU.

compensation (bonus payments) is available, depending on the quality of the delivery service provided.

Before a national postal operator can be considered for bonus payments, it needs to demonstrate that it can offer the necessary prerequisites, which comprise:

- acceptance of liability;
- application of barcode conform to UPU standard S10; and
- data published in the PPCO (Parcel Post Compendium Online) or have been notified to the IB (International Bureau) by the required date.

Table 4.11 highlights the bonus payments available to a national postal operator: national postal operators in the destination country can receive up to 40% more by offering value added services.

Table 4.11 ILR bonus system

Bonus system applicable to 2011 ILRs		Bonus payment
Service features with bonus payments attached		
	Use of track-and-trace system	10% - 25%
	Home delivery	5%
	Delivery standards	5%
	Use of the common Internet-based Inquiry System	5%

Source: UPU website – Parcels inward land rates (ILRs) for 2011. The bonus payment for Track-and-trace starts with the ‘basic’ track-and-trace which gives a 10% bonus payment. There are three subsequent 5% bonus payments available for increased levels of tracking.

The ILRs are not compulsory and national postal operators can ignore them and have different types of agreement among each other. As a result, the ILRs are widely not applied by EU postal operators.²⁵⁶ This may be because EPGs or bilateral agreements are more flexible than the ILRs, for example in terms of volume discounts.

²⁵⁶ Source: IPC Presentation: Cross-Border Parcel Study_FTI_20110126.pptx.

It may also be an issue of bargaining power: a Member State who provides significant postal volumes to another Member State (and therefore potentially pays a large amount of termination rates) may not want to pay the high ILRs, and may be willing and able to negotiate a bilateral agreement which is more beneficial in terms of cheaper access fees.

From the point of view of national postal operators charging the ILRs, the advantage with the ILR system is that the high rates provide them with revenues, provided they deliver more parcels than they send for delivery abroad.²⁵⁷

ILRs are not volume dependent, which results in higher charges (as no volume discounts are available) and therefore in higher cross-border prices. This is a disadvantage, as is the fact that ILRs are unilaterally set by the delivering operator at levels that appear to be too high to be cost reflective, which means that at least some of the ILRs may not be compliant Article 13 of the Postal Directive.²⁵⁸

4.8.2 EPG

The Enhanced Parcel Group was created in 1996 as a group of nine postal operators from northern Europe who wished to have a two-day B2B parcel service for their customers. The service, which used a European road network, was to be competitively priced, provide tracking based on barcodes, and have defined targets for responsiveness to customer service enquiries. In 2000, the Group became the E-Parcel Group (EPG), and sought to expand geographically and to increase its traffic volumes.

Today, 27 postal parcel operators (not exclusively from Europe) deliver their cross-border priority parcel products through this integrated transport network. EPG members are shown in Table 4.12 overleaf: they include the national postal operators of 21 Member States.

Although the EPG began as a B2B service, the proportion of the volume consisting of parcels to consumers has been increasing steadily. In order to provide a high quality

²⁵⁷ It should be noted that the only price information we have is based on published prices, and so we can only speculate as to how ILRs compare to these prices, and not to prices charged to/negotiated by account customers.

²⁵⁸ We have received the basic ILRs for all EU countries from the national postal operators. These were given to us in strict confidentiality and we shall discuss them further in Chapter 5.

of service to customers, the EPG uses a track-and-trace system and an automated customer service system which links each national postal operator's call centres. This means that customers can track their item from posting to final delivery.

Table 4.12 EU members of the EPG

Organization	Country	Organization	Country
DHL	Austria	Lithuania Post	Lithuania
Bpost	Belgium	P&T Luxembourg	Luxembourg
Czech Post	Czech Republic	TNT Post	Netherlands
Post Danmark	Denmark	Norway Post	Norway
Eesti Post	Estonia	Poczta Polska	Poland
Itella	Finland	CTT Expresso	Portugal
Chronopost	France	Slovak Post	Slovakia
ColiPoste	France	Posta Slovenije	Slovenia
Deutsche Post	Germany	Correos	Spain
ELTA	Greece	Posten Logistic	Sweden
Magyar Posta	Hungary	Swiss Post	Switzerland
An Post	Ireland	Royal Mail	UK
Iceland Post	Iceland	USPS	US
Poste Italiane	Italy		

Source: IPC website²⁵⁹

The IPC is the umbrella organization in charge of project management for the EPG. Among other services, it provides a monitoring service so that items passing through the network meet defined quality of service targets. The EPG are delivery agreements which are market tested, that is, based on traffic profile. The EPG payments are conditional on defined delivery and data performance standards.²⁶⁰

Although the IPC monitors quality of service, its data are strictly confidential and only accessible to its members. The same is true for any details about the charges that the operators apply to each other. Of the twelve national postal operators who provided answers on their interconnection agreements, almost all gave no details either on prices paid or on pricing formulas.

²⁵⁹ <http://www.ipc.be/en/Services/EPG/Operators.aspx> - IPC website.

²⁶⁰ <http://www.ipc.be/en/Services/EPG.aspx> - IPC website.

The advantage of the EPG system is that quality of service standards are maintained due to the penalty system affecting operators who do not provide an adequate service. The system is based on volume profiles, which means that the EPG approach is more cost reflective than the ILRs. However, EPG rates are not based on volume commitments, and this is a disadvantage; since optimal network design cannot be achieved when volumes are not predictable, the EPG would result in sub-optimal termination rates and higher prices for cross-border parcels.²⁶¹

4.8.3 Bilateral agreements

No information is publicly available on bilateral agreements, although national postal operators in the larger Western countries increasingly use them. These agreements are tendered commercial contracts based on defined traffic profiles (market tested) and with revenue sharing rules. The general rule is that the sending operator keeps profits and the contracts are administered by the signatories themselves.²⁶²

The most likely advantage of this type of agreements is that they would minimise cross-border termination rates, especially for postal operators that send high volume cross-border and can tender out delivery contracts: these operators would achieve lower termination rates than the ILRs or the EPG system. In theory, this should result in lower prices for senders. The extent to which these lower prices are then passed on to small senders or users of USO parcel products remains to be seen, with the potential for not passing these savings on to customers representing a disadvantage. We discuss this further in Chapter 5.

4.8.4 EMS

The EMS is a cooperative of the UPU providing an express delivery service, which takes priority over other postal services. With 169 members,²⁶³ the coverage of the EMS network is significant, and EMS can be sent from post office counters as an integral part of their normal postal services. All the Member States are members of the EMS cooperative, but Austria, Denmark, France, Germany, the Netherlands, and Slovenia have arrangements for an EMS inward delivery service only.

²⁶¹ Source: IPC, Cross-Border Parcel Study_FTI_20110126.pptx.

²⁶² Source: IPC Presentation: Cross-Border Parcel Study_FTI_20110126.pptx.

²⁶³ The full list of members can be found here: <http://www.ems.coop/members-ems-cooperative>.

Within the EMS, the EMS Task Force, led by the IPC and working closely with the EPG and EMS Cooperative, provides item monitoring and performance analysis, with members receiving EMS delivery performance for their inbound and outbound traffic.²⁶⁴ This information is deemed confidential and is not made public. EMS offers the following main characteristics:

- acceptance at any post office or pick-up from customer's premises;
- priority handling from acceptance to delivery;
- end-to-end tracking;
- signature on delivery; and,
- delivery at addressee's premises.

The existence of the EMS co-operative allows individual senders to send express parcels (which are outside the USO) cross-border using the post office. However, the lack of information on the structure of the EMS agreements prevents any assessment of their advantages and disadvantages.

4.9 Quality of service monitoring

For letter mail, there are clearly defined performance goals for cross-border letter mail, and performance data is well documented and publicly available. This is not the case for cross-border parcels, for which no comparable data on quality of service is publicly available, although the IPC actually measures performance on behalf of the EPG. Its measure, the Parcel Performance Reporting (PPR), is not accessible on the IPC website.²⁶⁵ We contacted the IPC directly, which confirmed that the data are confidential.

NRAs may also not be well informed on the quality of service achieved for cross-border USO parcels, since the delivery operations involve two national postal operators. If this was the case, it would be difficult for NRAs to assess whether termination rates are related to quality of service (Article 13), and to set

²⁶⁴ IPC website - <http://www.ipc.be/en/Services/EMS.aspx>.

²⁶⁵ <http://www.ipc.be/en/Services/Parcels.aspx> - IPC website, under the IPC Parcel Performance Reporting section, there is no mention or link to a publicly available set of data.

prices for USO parcel products that provide USPs with the appropriate efficiency incentives,²⁶⁶ as required by Article 12 of the Postal Directive.

Lack of public information on quality of service standards is a serious barrier for cross-border C2C and micro and small B2C sales. For example, eBay's customers worry about bad feedback, and that sending cross-border may lead to delays to items sent which will impact on the feedback they receive from the buyer, and on their eBay rating. The lack of information on the quality performance of parcel operators therefore represents a strong barrier to the growth of cross-border C2C.

This is an important issue: there is a huge opportunity for cross-border sales. The market develops when there are mismatches between supply and demand: the bigger markets (in Western Europe) have the largest supply, and there is demand for these goods from buyers in other countries, who cannot find the goods domestically (either for the same total price, which includes shipping, or at all). We understand that these buyers would be prepared to pay higher shipping prices²⁶⁷ but the market will not grow if the (potential) sellers shy away from cross-border sales. The negative impact on sellers from ignorance of quality of service achieved for cross-border delivery is thus a barrier for C2C and B2C conducted by small and micro enterprises.

We discussed in Chapter 3 how delivery related barriers, including the fear of delayed delivery or loss, were cited by almost half of consumers as a reason not to engage in cross-border e-commerce. The lack of public information on delivery standards and quality performance clearly does not help the situation. And yet the little evidence that exists shows that consumer experience with cross-border deliveries is no worse than with domestic ones.

The evidence comes from a recent Eurobarometer survey,²⁶⁸ which contains information on consumers' experience with deliveries of goods purchased from distance sellers, both domestically and cross-border. Two questions were asked:

²⁶⁶ Efficiency is defined as a (minimum) level of cost for a certain level of quality. Quality monitoring is therefore necessary to ensure that the USP does not reduce costs by lowering quality of service standards.

²⁶⁷ This point was mentioned to us during our discussions with eBay.

²⁶⁸ Eurobarometer, Consumer attitudes towards cross-border trade and consumer protection, Analytical Report, *Flash Eurobarometer 299*, March 2011. Tables 6a and 7a.

whether the consumer had experienced a delay in delivery, and whether he/she had not received any delivery at all.

On average, 18.2% of those who had made a distance purchase experienced delays in domestic deliveries, and 16.2% of those who had bought cross-border experienced delays: the quality of service of cross-border deliveries appears to be better.²⁶⁹ For loss of items, the percentages of those who experienced losses are practically the same.

Table 4.13 shows the data, in aggregate and by country. There are 12 countries where customers experienced fewer delays from cross-border deliveries than from domestic ones: these are Belgium, Bulgaria, the Czech Republic, Denmark, Germany, France, Lithuania, the Netherlands, Poland, Slovenia, Slovakia, and Sweden.

²⁶⁹ A 'delay' was not defined in the survey as a specific length of time – we believe that the term 'delay' was open to interpretation by the respondent, and that generally, an item would be seen as 'delayed' if it meant that the consumer was forced to wait for an additional period of time above the delivery time which was promised by the seller, and/or they had to wait for an additional period of time above the delivery time which they expected. Therefore, this result does not necessarily mean that cross-border items arrive sooner than domestic items, it means that relative to expectations (whether these are based on promised delivery times or expectations in general), less of the surveyed respondents experienced delays when ordering cross-border items.

Table 4.13 Percentage of consumers experiencing delivery delays and losses, 2010

Country	% delayed - domestic	% delayed - cross-border	% not delivered - domestic	% not delivered - cross-border
EU27	18.2%	16.2%	5.5%	5.4%
Austria	14.2%	15.6%	3.5%	4.0%
Belgium	16.4%	13.3%	6.5%	9.2%
Bulgaria	16.6%	13.1%	5.1%	1.8%
Cyprus	9.5%	22.1%	1.4%	5.5%
Czech Republic	13.9%	13.1%	7.6%	9.3%
Denmark	14.3%	9.6%	3.8%	2.6%
Estonia	16.5%	17.0%	5.5%	4.0%
Finland	16.2%	17.0%	3.2%	4.3%
France	21.6%	20.9%	5.8%	3.9%
Germany	19.5%	4.9%	5.9%	4.2%
Greece	15.1%	23.9%	2.3%	6.3%
Hungary	10.6%	22.6%	5.3%	17.2%
Ireland	13.6%	24.8%	5.9%	7.0%
Italy	18.5%	19.0%	4.8%	4.9%
Latvia	8.1%	14.8%	2.9%	6.6%
Lithuania	7.0%	6.2%	2.1%	4.7%
Luxembourg	13.5%	15.6%	4.1%	8.1%
Malta	9.6%	24.0%	1.0%	7.8%
Netherlands	22.9%	19.3%	7.5%	3.0%
Poland	16.9%	11.1%	2.9%	7.2%
Portugal	12.8%	27.3%	2.6%	11.9%
Romania	15.3%	18.5%	5.4%	2.0%
Slovakia	14.9%	13.5%	8.8%	6.5%
Slovenia	11.3%	7.3%	4.7%	1.8%
Spain	14.1%	19.1%	4.4%	1.3%
Sweden	18.7%	13.8%	5.0%	5.6%
UK	18.2%	19.2%	6.8%	9.3%

Source: Flash Eurobarometer 299 (2011)270

Although we do not know whether the delivery channels used for domestic and cross-border delivery are comparable, the fact remains that **these data show that in the majority of Member States (with Cyprus, Greece, Hungary, Ireland, Latvia, Malta and Portugal being the exceptions), cross-border senders should not be unduly worried about items being more likely to be delayed or not delivered when sent cross-border as opposed to domestically. The problem is that they are unaware of it and this lack of information acts as a barrier to cross-border sending.**

²⁷⁰ Eurobarometer, *Consumers Attitudes Towards Cross-border Trade and Consumer Protection*, Analytical Report, Flash Eurobarometer 299, March 2011. Tables 6a/7a, Q3_A-B/C-D 'During the past 12 months have any of the following situations happened to you when purchasing at a distance in (our country) or elsewhere?'. % of happened shown, Base: those who have made at least one purchase via internet or phone or post domestically/from a seller located in another EU country. Variables: A delay in the delivery of something purchased from a seller located domestically/from a seller provider located in another EU country. You purchased something from a seller located domestically/in another EU country and it was not delivered at all.

In case things do go wrong, and a parcel is lost or damaged, Article 19 of the Postal Directive states that:

“Member States shall ensure that transparent, simple and inexpensive procedures are drawn up for dealing with users’ complaints, particularly in cases involving loss, theft, damage or non-compliance with service quality standards. Member States shall adopt measures to ensure that those procedures enable disputes to be settled fairly and promptly with provision, where warranted, for a system of reimbursement and/or compensation. Without prejudice to other possibilities of appeal under national and Community legislation, Member States shall ensure that users, acting individually or, where permitted by national law, jointly with organisations representing the interests of users and/or consumers, may bring before the competent national authority cases where users’ complaints to the universal service provider have not been satisfactory resolved.”

The provisions of Article 19 have been transposed into national laws, and Table 4.14 shows the provisions that are in place in each country for user protection. In most cases there are procedures in place to deal with complaints under postal or consumer protection law²⁷¹ and remedies are available (with the exception of Austria, Ireland and Romania). In most countries, these procedures also apply to postal operators, other than the USP, offering products in the USO area, and to non-USO services. Finally, either the USP or the NRA, or both, are also required to issue an annual report on these issues.

²⁷¹ With the exception of Luxembourg.

Table 4.14 Regulation of user protection procedures and remedies

Country	User protection procedures in postal or consumer law?	Enforcement by NRA or national consumer protection authority (NCPA)?	Applies to non-USP(s) in USO area?	Applies to non-USO services	Remedies by competent national authority? (maximum fee)	USP(s) required to issue annual report?	NRA issues annual report?
Austria	Postal law	NRA	Yes	Yes	No	Yes	Yes
Belgium	Postal law	NRA	Yes	Yes	5% turnover	No	Yes
Bulgaria	Both	Both	Yes	Yes	€5,114 (NRA) €1,533 (NCPA)	Yes (on USP's handling of complaints)	Yes
Cyprus	Both	Both	Yes	Yes	Yes (N/A)	Yes	Yes
Czech Republic	Postal law	NRA	Yes	Yes	€ 77,000	Yes	Yes
Germany	Postal law	Civil courts	Yes, partly	Yes	-	No	Yes
Denmark	Both	NRA	No	No	0	Yes	No
Estonia	Both	Both	Yes	Yes	-	Yes	No
Greece	Both	Both	Yes	Yes	-	Yes	Yes
Spain	Both	NRA	Yes	Yes	-	-	-
Finland	Both	NCPA	Yes	Yes	-	Yes	No
France	Both	Both	Yes	Yes	-	Yes	Yes
Hungary	Both	Both	Yes	Yes	0.5% of net revenue or 10mn HUF in the absence of data	Yes	Yes
Ireland	Both	Both	Yes	Yes	None	Yes	Yes
Italy	Both	Both	Yes	No	Both	Yes	No
Lithuania	Postal law	NRA	Yes	Yes	Yes	Yes	Yes
Luxembourg	Neither	Neither	-	Yes	-	Yes	No
Latvia	Postal law	NRA	Yes	Yes	Yes	Yes	Yes
Malta	Both	Both	Yes	Yes	-	Yes	Yes
The Netherlands	Requirement of complaints procedure in postal law	NRA for complaints procedure	Yes for complaints	Yes for complaints	Administrative measures and fines	Yes	Yes
Poland	Postal law	NRA	-	Yes	-	Yes	Yes
Portugal	Both	Both	Yes	Yes	-	Yes	Yes
Romania	Postal law	NRA, partially	Yes	Yes	No	Yes	Yes
Sweden	Both	Both	Yes	Yes	-	Yes	No
Slovenia	Both	Both	Yes	Yes	Yes, €100,000 - €400,000	Yes	Yes
Slovakia	Both	NRA	Yes	Yes	Yes	Yes	Yes
United Kingdom	Both	Both	Yes	Yes	-	Yes	No

Source: Copenhagen Economics (2010)²⁷²

Although national procedures are in place, these are not well suited for complaints related to cross-border deliveries. First of all, it is difficult to apportion responsibility for loss or damage if operators from two different countries are involved in the delivery process. For example if a parcel without track-and-trace is delayed, it is very difficult for a consumer to prove where the delay took place, and therefore which operator to

²⁷² Copenhagen Economics (2010), *Main developments in the postal sector (2008 – 2010)*, Country Fiches, indicator x.4.6: Regulation of user protection procedures and remedies.

complain to. With tracking services there should be records at sorting offices of when a parcel reached it, however obtaining this information requires an effort on behalf of the consumer. In the case of damaged items, proving which operator was responsible is likely to be even harder given that there will not be any checks of the integrity of the parcel contents throughout the delivery process, and therefore neither operator will want to accept responsibility. Second, these complaints need to be made in one Member States by a customer who lives in another, which can be complicated and/or daunting, especially if different languages are involved. The ECC Network helps consumers to tackle and solve these types of problems.

As we discussed in Chapter 3, end consumers making cross-border distance sales do not know whether there are effective mechanisms to deal with cross-border fraud and delivery issues, or whether they can find assistance in case of problems. These mechanisms do exist at the EU level; they have been put in place, and are being improved upon, to improve the fragmentation that exists among the Member States.

There is now an accelerated European procedure²⁷³ to enforce cross-border claims, which comprises the Consumer Protection Cooperation (CPC) Network and the European Consumer Centres (ECC) Network. The CPC is a network of national authorities that provides support to detect, investigate and stop cross-border infringements. The ECC Network provides information and advice to consumers on cross-border shopping, complaints and claims, including complaints related to deliveries. It allows consumers to handle cross-border claims in their own language, helping to remove an important barrier to the growth of cross-border e-commerce demand.

Both networks collect data and monitor progress in cross-border information and enforcement. **Consumers, however, appear to have low levels of awareness of these Networks and procedures.**

4.10 Other regulatory issues

The existence of different VAT regimes for postal services, differing data protection regulation among the Member States, non-optimal transport networks and competition

²⁷³ Regulation (EC) No 861/2007, OJ L 199, 31.7.2007, page 1.

issues may also be creating delivery-related barriers to the development of cross-border e-commerce. We discuss these below.

4.10.1 VAT regimes

VAT is an indirect tax charged on the additional value of each transaction. A business pays VAT on its purchases and charges VAT on its sales, settling with the tax authorities for the difference between the two. By its nature, the cost of the tax is borne by the end consumer.

Article 13 of the Sixth VAT Directive of the EC²⁷⁴ included national postal services among the goods which Member States were required to exempt from VAT. Article 132 of the 2006 EC VAT Directive (consolidation directive),²⁷⁵ approved in November 2006, states that “*the supply by the national postal services of services other than passenger transport and telecommunications services, and the supply of goods incidental thereto*”, which are public interest activities, should be VAT exempt. The VAT exemption did not extend to postal services provided by other operators, including competitors of the national postal operators operating in liberalised markets, and integrators.

Different Member States took a different view of which postal services were public interest activities: all the services supplied by the national postal operator (the UK), most of them (for example, Germany), the USO products, or none (Sweden).

In July 2007 the EC proposed taking infringement proceedings against the UK, Germany, and Sweden:

“[The Commission] is aware that these three Member States are not the only ones where similar problems exist and regards these as test cases which show in stark relief the devastating effects non-harmonised application of VAT rules has for the internal market ... Perhaps the single most important obstacle to achieve effective competition in this sector is the VAT exemption as applied in several Member States. In transposing article 132 of the VAT Directive ... those Member States have exempted from VAT all (the UK) or most (Germany) postal services provided by their former postal monopolies. Other postal operators are required to charge VAT on their services.”

²⁷⁴ Directive 77/388/EEC, 1977.

²⁷⁵ Directive (2006/112/EC).

Paradoxically, some of the operators (former monopolies) who benefit from this tax advantage at home are now expanding across Europe and facing and complaining about unequal tax treatment in these new markets.

The Commission is arguing that in the context of competitive postal markets, different tax liabilities are bound to distort competition and can only be justified as regards the strict discharge of the universal service obligation. Where for commercial reasons – namely to fend off competition from other operators – former monopolies offer to some high volume clients pricing and quality conditions which are not available to the general public, their supplies should be subject to the same tax liability as their competitors ...

Contrary to the United Kingdom and Germany, Sweden does not exempt postal services. All operators including the one entrusted with the provision of the universal service - Posten AB - must charge VAT for all services. While in so doing Sweden has ensured that VAT does not distort competition, it has nevertheless failed to apply an exemption which remains in Community legislation and must be applied in a harmonised manner across the Community.²⁷⁶

In addition, TNT made a request for judicial review of the way the UK had applied the scope of this VAT exemption, arguing that certain services Royal Mail provided could not be regarded as ‘public postal services’, and should be liable to VAT. These were the bulk mail services included in the UK’s USO.

In April 2009 the European Court of Justice confirmed that the EU-wide VAT exemption only applied to USO products as provided by designated USPs. However, it did not extend to USO products for which terms had been individually negotiated, as TNT had argued.²⁷⁷ This includes negotiated contracts with large senders that cover bulk mail USO products, if these are outside the USO (for example, bulk packets and parcels).

As a result of these decisions individual, not negotiated packets and parcels (below ten kilograms in weight) that are USO products are VAT exempt, whereas VAT has to be paid on all other postal products, regardless of who supplies them.

However, the scope of the universal service is different between different countries, as well as for cross-border parcel products, as we have seen above. Similar products may be subject to different VAT regimes. For example, although all Member States have an obligation to safeguard USO, a product that is defined as a USO product in one country may be defined as non-USO in another country. As a result, differing

²⁷⁶ European Commission press notice IP/07/1164, 24 July 2007.

²⁷⁷ TNT Post UK Ltd v HMRC, C-357/07, 23 April 2009.

VAT treatments may apply to the delivery of equal parcels containing the same good (for example, a dress) originating from different Member States and delivered at the same address. The resulting difference in delivery costs may create distortions in the competitiveness of traders in different Member States although we hasten to say that this provision applies to USO products, which are only bought by small, infrequent senders.

Moreover, as of 1 January 2010²⁷⁸ most services sold to business customers have to be treated as if they are supplied in the country where the buyer is established, and the business customer will account for VAT under the reverse charge mechanism. However, services provided to non-business customers will still generally be liable to VAT in the country of the seller. Member States are in the process of transposing these provisions into their national legislation.

For example, an Italian customer buying widgets online from a French company's website will have to pay French VAT if he is an end consumer, and Italian VAT if he is a business customer.

These new provisions result in differing VAT treatment of inbound parcel flows. The termination rates that postal operators pay to each other will be affected, with the potential of creating market distortions: there may be incentives for delocation and remailing of cross-border parcels, whereby postal operators in some Member States would be bypassed in order to avoid VAT payments while cross-border subsidiaries of national postal operators may be advantaged. It is however too early to assess whether these phenomena are taking place. Moreover, currently the lack of information (especially volume data) is such that no assessment is possible.

4.10.2 Data and consumer protection

Differences between the levels of data protection in Member States can impact on the levels of cross-border e-commerce (and thus on the amount of postal flows). Data protection concerns arise with the use of internet based booking and purchasing of postal services. This not only affects business customers, that have online accounts with national postal operators, integrators or consolidators, but it increasingly affects end users who use parcel brokers.

²⁷⁸ Directive 2008/8/EC, VAT Package 2010.

Users of postal services want to know that any information about them that is collected is used purely to perform or improve the services that the user is buying. They want to know that none of the information they disclose is passed on or sold for commercial purposes to third parties, or used by the supplier itself in ways that were not authorised by them. Moreover, they want to have control of any information that is held on them and want to be informed if any breaches occur.

The EU Data Protection Directive²⁷⁹ addresses these issues by regulating how personal data are processed: personal data should be processed only if certain conditions are met: transparency, legitimate purpose and proportionality. In particular, the transparency requirement ensures that personal data can only be processed under these conditions: when the individual has given explicit consent; when processing is needed to enact a contract or to comply with legal obligations; when processing is needed to protect the vital interests of the data subject, or for reasons of public interest. The Directive, approved in 1995 and transposed into the legislation of all the Member States, dealt with electronic and non-electronic data.

The EC is preparing reforms to the Data Protection Directive, which are expected to be presented in January 2012. The reforms are aimed at giving more control to individuals over the information that is held on them, and the new Directive is expected to require that consumers give explicit consent before any data held on them be used.²⁸⁰

We believe that data protection issues are less important for delivery activities that they are for other aspects of e-commerce transactions (payment details or the storage and use of personal data for marketing purposes). However, the development of stricter pan-EU data protection provisions will have a positive impact in the delivery market if it brings about an increase in trust and subsequently an increase in cross-border e-commerce.

The same is true for the enactment of stricter consumer protection laws. On 11 October 2011 the EU Council of Ministers approved the Consumer Rights Directive,²⁸¹

²⁷⁹ Directive 95/46/EC.

²⁸⁰ http://www.theregister.co.uk/2011/11/08/eu_new_data_protection_proposals/.

²⁸¹ See Press Release, Memo/11/ 675, Brussels 10 October 2011. Available at: <http://europa.eu/rapid/pressReleasesAction.do?reference=MEMO/11/675&type=HTML>.

which includes regulations improving consumer protection. Of particular importance to the delivery markets are the provisions about withdrawal rights and the requirement that vendors make available to consumers a “model withdrawal form”, contact details and an address for returning unwanted purchases. We have discussed in sections 3.6.2 and 3.6.3 how there is widespread ignorance about consumer rights, both by consumers and vendors (especially small ones). This Directive, once implemented, has the potential to increase consumer confidence and cross-border distance sales: knowing that one can withdraw from a distance purchase, and knowing the process for returning goods are important when deciding whether or not to shop online.

The provisions contained in the Consumer Right Directive are capable to increase not only cross-border e-commerce (and related parcel delivery flows), but also cross-border parcel returns. In so far as individual customers returning the goods may have to pay for the returns,²⁸² price and quality of service of cross-border consumer parcel products (i.e. parcels sold to small, infrequent senders, which could or could not be part of the USO) may become an even more important barrier to cross-border e-commerce: high prices and ignorance about the quality of service for cross-border returns may in fact prevent consumers from buying cross-border in the first place. We discuss cross-border prices for individual customers in Chapter 5.

4.10.3 Transport policy

In the broadest context, European transport policy needs to cover almost 500 million citizens.²⁸³ The policy has to bring together 27 Member States that may have national railway monopolies with different technical standard, as well as individual standards for road, sea and air. These differences are costly to overcome, and represent a barrier to cross-border parcel delivery, which relies on large volumes of items being sent between Member States.

The lack of a single, efficient logistical transport system across the EU-27 has hindered the expansion of cross-border deliveries, as stated in the Monti Report:²⁸⁴

²⁸² The Directive does not require vendors to do so.

²⁸³ European Commission Staff Working Document Accompanying the White Paper: *Roadmap to a Single European Transport Area – Towards a competitive and resource efficient transport system* (2011), p. 7.

²⁸⁴ Mario Monti: *A New Strategy for the Single Market: At the Service of Europe's Economy and Society: Report to the President of the European Commission: Jose Manuel Barroso* (9 May 2010).

“Reaping the full benefits of a single market for goods depends on the existence of a seamless, flexible and efficient logistics and transport system. Yet, EU transport policy took off late compared to its initial recognition in the Treaty and has developed unevenly across transport modes. The resulting fragmentation is increasingly perceived as an obstacle to free movement. Administrative and technical barriers results in “bottlenecks” to mobility within Europe. There is simply no single market for maritime transport, as customs formalities for ships travelling between two European ports remain subject to custom formalities identical to the ones foreseen for international maritime transport. In the rail sector, track gauges, energy supply and signalling systems differ from one Member State to another as an inheritance from the times in which railways were still national monopolies. This hinders cross-border circulation of trains and increases the cost of rolling stock used in international operations, which has to be equipped with multiple systems.

Furthermore, the market for rail freight services is still not yet functioning due to incorrect or incomplete transposition of Community law by Member States. In road transport, national markets have only recently opened to “cabotage”.

Europe needs a step change towards multi-modal transport, but legal, administrative and technical barriers are multiplied. There is no single transport document, but different modes of transport require different documentation. Liability rules also differ. A single transport document (hopefully electronic) and a single liability system would increase legal certainty and decrease significantly costs for businesses and citizens. The creation of a modern single market requires tackling the lack of interoperability and the infrastructure gaps that reduce the efficiency and weaken the global competitiveness of the EU logistics industry.”

These ‘bottlenecks’ to mobility and the lack of transport inter-modality have a negative impact on the quality of postal services and on the costs of postal operators, express carriers and logistic companies. The recent White Paper published by the European Commission on the topic contains a number of initiatives (and related timing) aimed at removing these barriers to a single EU transport market.²⁸⁵

Road transport is the mode of choice for the delivery of most cross-border postal items.²⁸⁶ Road transport relies heavily on high carbon-footprint fossil fuels, whose prices are likely to increase significantly in the near future as oil stocks fall. However, as fuel prices rise, alternatives to cross-border road transport may still be unattractive because investment in rail and sea networks has not been sufficient to address the bottlenecks in multimodal transport.²⁸⁷

²⁸⁵ EC White Paper: *Roadmap to a Single European Transport Area – Towards a competitive and resource efficient transport system*, 28 March 2011, COM(2011) 144 final.

²⁸⁶ This is clearly shown by responses to our national postal operator questionnaires.

²⁸⁷ EC Staff Working Document Accompanying the White Paper: *Roadmap to a Single European Transport Area – Towards a competitive and resource efficient transport system* (2011).

Moreover, legislation passed in 2007 to open up the rail freight transport market has been implemented slowly and incompletely in most Member States, with inadequate enforcement: lack of competition is still hindering service efficiency and quality.²⁸⁸

Parcel and postal operators thus have the choice between increasing costs for road transport, or inefficiencies in alternative modes, resulting in higher prices for end-consumers than there would be if the EU-wide transport system was more efficient.

It has to be acknowledged that merely liberalizing markets to increase competition would not remove all barriers: statistics from the European Commission Mobility and Transport division show that there are currently a large number of different standards involved in intra-EU transport, which can hinder delivery of parcels through inefficiencies. Research from the European Railway Agency finds that *“Each EU country has its own safety certifications for train rolling stock that represent a major barrier to expanding international passenger and freight services. Estimated cost of each national recertification is between €1-4 million, and can take up to two years.”*²⁸⁹

For example, the Thalys high-speed train running through France, Belgium, Germany and the Netherlands, *“has to adapt to seven different signalling systems. The EU currently uses seven gauge sizes and seven types of electric currents (with different voltages and frequencies, and alternating or direct current, etc).”*²⁹⁰

Clearly this number of requirements makes cross-border rail transport significantly more expensive and slower than it would be under a harmonised transport system, and is likely to discourage cross-border parcel operators, not least because of the negative impact on delivery speed.

Until a seamless transport system is in place, road transport will remain the mode of choice for parcel deliveries due to cost and efficiency considerations. Intra-EU road transport is however also plagued by excessive administrative costs arising from lack of harmonisation: *“international hauliers need in their vehicle the Eurovignette, 5*

²⁸⁸ EC Staff Working Document Accompanying the White Paper: *Roadmap to a Single European Transport Area – Towards a competitive and resource efficient transport system* (2011), page 10.

²⁸⁹ European Railway Agency, mentioned on European Commission Mobility & Transport website - http://ec.europa.eu/transport/strategies/facts-and-figures/all-themes/index_en.htm.

²⁹⁰ ERTMS and Gauges and Currents: Energy and Transport in Europe; Statistical Pocketbook 2010, http://ec.europa.eu/transport/strategies/facts-and-figures/all-themes/index_en.htm.

*different national vignettes and 8 different tags and tolling contracts if they wish to drive on all European tolled roads without stopping at tollbooths.*²⁹¹

The first step toward an harmonised EU transport systems has to be to remove the regulatory and administrative barriers that characterise the EU unimodal transport systems. For example, EU legislation is being developed to unify standards in rail freight.²⁹²

However, to be fully efficient, the EU transport system must be integrated, that is multimodal. An integrated multimodal system would allow deliveries (including parcel deliveries) to be carried out in the most cost-effective way for any given quality standard; it would also provide users with a wider choice of suppliers, increasing competition and lowering transport costs.²⁹³ Unfortunately,

*“The achievement of a fully integrated transport system is delayed today by a number of remaining regulatory and market failures. Regulatory barriers to market entry, technical incompatibilities between modes, burdensome administrative procedures or indeed imperfect and outdated legislation are the biggest problems.”*²⁹⁴

Whilst technical incompatibilities will be slower to address since they require consistent financial investments, administrative barriers are easier to remove - in particular those related to information requirements:

*“Currently, different modes of transport use different transport documents (CMR for road, Bill of Lading for maritime, etc...), a situation which creates administrative costs for multimodal transport and puts it in an unfavourable position in comparison to single mode transport.”*²⁹⁵

Among other initiatives contained in the EC White Paper, the creation of a single transport document²⁹⁶ (preferably electronic) will help removing these barriers,

²⁹¹ See http://ec.europa.eu/transport/strategies/facts-and-figures/all-themes/index_en.htm.

²⁹² Draft EC Decision D011193/02 <http://register.consilium.europa.eu/pdf/en/11/st05/st05156.en11.pdf>.

²⁹³ EC Staff Working Document Accompanying the White Paper: *Roadmap to a Single European Transport Area – Towards a competitive and resource efficient transport system* (2011), p. 29.

²⁹⁴ EC Staff Working Document Accompanying the White Paper: *Roadmap to a Single European Transport Area – Towards a competitive and resource efficient transport system* (2011), p. 36.

²⁹⁵ EC Staff Working Document Accompanying the White Paper: *Roadmap to a Single European Transport Area – Towards a competitive and resource efficient transport system* (2011), p. 50.

²⁹⁶ We note that the EU is a *custom union*. The customs administrations of the 27 Member States implement a community customs code, applying a common set of customs rules at the *external* borders of the EU. There are *no internal borders and no customs declarations* have to be filled for intra-EU deliveries. However, spot checks are carried out at borders for illicit or restricted goods.

while supply chain efficiency could be increased with the deployment of an intermodal, pan-EU track and trace system.²⁹⁷

The advantages of taking these steps for postal and parcel operators would be to decrease delivery costs and improve efficiency (by reducing the cost of providing higher quality standard). These cost savings could be passed onto consumers, including smaller customers, through lower prices, therefore reducing price barriers to the development of cross-border e-commerce.

4.10.4 Competition issues in cross-border delivery markets

While opening postal markets to competition, the EU Postal Directive provides a common definition of the postal USO which comprises a minimum range of services of specified quality that must be provided at affordable prices to all users in all the Member States. The scope of the USO, in terms of range of services and their specified quality, varies across the Member States depending on their individual needs. However, it covers the delivery of parcels originating from other Member States and, in most countries, it covers the provision of a basic cross-border parcel product, as discussed in Section 4.7.1.

The funding of USO services, necessary to ensure the provision of high quality, efficient postal services which are affordable to all, must be compatible with EU State Aid rules, aimed at ensuring fair competition in those sectors of the postal market that are commercially viable, such as for example the cross-border CEP market, one of the most profitable postal markets:²⁹⁸ state support for the USO cannot be used to help national postal operators sustain a dominant positions in commercially viable markets.

For example, in 2008 the EC authorised aid for infrastructure at Leipzig/Halle Airport, but prohibited a state guarantee worth €500m for DHL in case Leipzig Airport could not meet the conditions of a Framework Agreement for the establishment of DHL's European hub at the airport.²⁹⁹

²⁹⁷ See EC Staff Working Document Accompanying the White Paper: *Roadmap to a Single European Transport Area – Towards a competitive and resource efficient transport system* (2011), p.51.

²⁹⁸ EC Speech 10/193. Joaquin Almunia, *Postal Services: State Aid Aspects*, Second High Level Conference on Postal Services, Valencia, 29-30 April 2010.

²⁹⁹ EC Press Release IP/08/1191, 23 July 2008.

National postal operators can engage in anticompetitive conduct and abuse their market power by engaging in discriminatory pricing and offering different types of discounts or conditions to different customers: for example, large senders as opposed to access customers (for example, consolidators) that are at the same time customers and competitors. Most of the existing cases involve letter mail,³⁰⁰ including the most recent case which took place in Belgium involving bpost (the national postal operator of Belgium).³⁰¹

Although the market shares of national postal operators in the cross-border CEP market are not large, there is the possibility of breaches of EU competition law when a national postal operator uses cross-subsidies to engage in predation and prevent entry, a conduct which would, in the long run, lead to higher prices and fewer choices for customers. This constitutes an abuse of dominant position: the first formal Commission decision on this topic, as applied to postal markets, concerned the business parcels market and the behaviour of Deutsche Post AG (DPAG). It resulted in a fine of €24m plus remedies:

“..the German postal operator has abused its dominant position by granting fidelity rebates and engaging in predatory pricing in the market for business parcel services. As a result of the investigation, DPAG will create a separate legal entity for business parcel services. The system of transparent and market-based pricing between DPAG and the new entity for products and services they might provide to one another is a suitable safeguard for DPAG's competitors in business parcel deliveries that revenues from the monopoly in the letter market will not be used to finance such services. Furthermore, in light of the foreclosure that resulted from a long-standing scheme of fidelity rebates granted by DPAG to all major customers in the mail-order business.”³⁰²

This is the only instance of an EU competition investigation in the parcels market. There have been no investigations in relation to abuse of dominance or discrimination cases in cross-border parcels markets. In this market, there is an additional potential anti-competitive behaviour with respect to termination rates, which could be operating as collective agreements in breach of the prohibitions of Article 101 of the TFEU. For letter mail, terminal dues were based on a collective agreement, REIMS. From 1999

³⁰⁰ See, for example, EC, DGIV cases include BdKEP/Deutsche Post AG + Bundesrepublik Deutschland (case COMP/38.745); the Article 86(1) in conjunction with Article 82, decision requiring France to monitor the way La Poste provides access to its network to firms specialising in the printing and preparation of mail (Decision 2002/344/EC).

³⁰¹ ‘Decision du conseil de l’IBPT du 20 Juillet 2011 concernant les tarifs conventionnels de bpost pour l’année 2010’, Institut Belge des Services Postaux et des Telecommunications (2011).

³⁰² EC Press Release IP /01/419, 20 March 2001: case COMP/35/141.

to 2006 first REIMS and then REIMSII were given an antitrust exemption by the Commission to allow operators to migrate towards a more cost-based terminal dues system.³⁰³ It is worth mentioning that with the modernisation of competition rules (Regulation 1/2003 of 16 December 2002) there is no more individual exemption decision, which means that parties to the agreement need to ensure compliance with applicable competition rules.

Recent competition investigations in the postal sector have dealt with the letter mail market, and usually with national markets or State Aid issues. The cross-border CEP market, as our review of delivery options and industry structure in sections 4.5 and 4.6, is a competitive market for what concerns large customers that operate on accounts. Competition is lower in the market for individual parcels, but until now there has been no suspicion of breaches of competition law in this market.

4.11 Conclusions

Our review of EU cross-border B2C e-commerce revealed that there is untapped potential in the market, but a number of barriers are preventing further development. These barriers disproportionately affect individual consumers and small enterprises. In this chapter, we have reviewed and assessed cross-border delivery markets. Starting from the estimation of market size in terms of volume and turnover by enterprise size, we have considered delivery options, the implications of industry structure for stakeholders, and the regulatory framework.

There is very little information on EU B2C parcel volumes, and there is no information at all on the share that small, medium and large enterprises have in this market. The EU CEP market is geographically concentrated, with over 80% of turnover originating from the largest five countries (Germany, the UK, France, Italy and Spain). Cross-border B2C CEP turnover, which exclude packets, is estimated to be €9.8bn, of which about 10%, or €1bn is cross-border.

Using data from the EC, we have been able to estimate the number of parcels (all types, including packets) that are generated by B2C distance sales, both domestically and cross-border, by enterprise size, in the EU. Ours represents the first attempt to produce publicly available volume estimates. We estimate the number of cross-border

³⁰³ EC Press Release IP /03/1438, 10 October 2003. Case COMP/38/170.

parcels to range between 181 million and 453 million a year, based on an average value of €40 - €100 per item.

Our estimates show that small enterprises send on average between around 500 and 1,200 parcels a year; medium enterprises, between 3,000 and 8,000; and large enterprises, between 25,000 and 62,000. **We estimate that small firms, excluding micro enterprises, account for 22% of the total volume of cross-border items sent: this is not insignificant, especially in view of the fact that small senders tend to coincide with micro and small enterprises, which represent an important proportion of the retail sector and are therefore an important driver of growth for B2C e-commerce.**

The portion of cross-border turnover, and of the implied physical postal flows, that goes to large, medium and small enterprises is important, because it is the traffic profile of a buyer of parcel services – its volumes, frequency, and reliability of dispatch – that determines the delivery options it has and the price it pays.

Another important determinant is knowledge of the cross-border market: of what is available; of prices and quality of service; of procedures for sending a parcel cross-border (documentation, labelling, address format). Lack of information translates into high search costs and fewer feasible delivery options, and lower e-commerce participation.

Large buyers have traffic profiles enabling them to obtain large rebates on their domestic and cross-border shipments, or even to bypass the postal pipelines altogether, using vendor conveyance instead. They face operators competing for their business and an array of delivery options. These customers enjoy the benefits of operating in competitive markets.

In the largest countries, competition for small, infrequent senders is increasing: online brokers, especially in the UK but also in Germany, France and Italy are able to offer highly discounted rates on single shipments by integrators, subsidiaries of national postal operators and sometimes national postal operators themselves. At the same time, parcel consolidators in an increasing number of countries are offering discounted deals: they also help small and individual customers with documentation and labelling issues.

And yet, there is evidence that small customers are reluctant to take advantage of these deals: they prefer to use their local post offices and national postal operator. Information and trust are important reasons for why this is the case: smaller customers do not know what options are available to them, and if they do, they do not trust them.

These information and trust barriers prevent the market from growing, and competition to take hold through viable commercial entry. This is a problem that needs to be addressed as a matter of priority.

Outside the largest countries and in non-urban areas (even in the largest countries), small customers that send parcels infrequently, including many small and micro enterprises, only have the option of using the national postal operator or global integrators.³⁰⁴

There is, in our view, a two-tier market. On the one hand, small and infrequent senders – especially those located in areas and countries where population density is low, having less choice (real or perceived), and often having no alternative other than the services of national postal operators, and paying higher prices than large senders, and higher published cross-border prices as compared to domestic ones. On the other hand, large senders enjoy the benefits that come from competitive delivery markets.

Two policy issues are important in this context: for small senders operating in markets or areas where competition has yet to fully develop, good regulation and an appropriate USO system are paramount. For those who operate in the largest markets and living in densely populated areas, efforts should be made to remove information asymmetries, in addition to offering sound regulation.

Small customers have the possibility of using cross-border USO products, which give consumers and businesses residing in even the remotest part of a country the opportunity to send and receive a parcel to and from any address in the EU.

³⁰⁴ However, global integrators have logistic networks designed to cater for large business customers.

However, the regulation of cross-border parcel products has yet to take hold. It has been hampered by three sets of problems, which make the application of the Postal Directive difficult and represent important regulatory challenges:

- **a lack of clarity and transparency as what cross-border products are in the USO and what are not:** although there appears to be an agreement that ‘basic’ parcels are to be included in the USO, the meaning of ‘basic’ varies widely among countries and with it, the applicability of VAT, from which USO products are exempt. This creates confusion in cross-border markets;
- **a potential lack of adequate data on volumes, quality of service, costs and termination rates.** NRAs may be unable to absolve their regulatory duties and set USO cross-border parcel prices that are cost oriented, as set out in the Postal Directive, if they do not have the necessary information. A new provision of the Postal Directive, Article 22a, allows NRA to obtain these data; efforts should be made to enforce this provision; and,
- **little cooperation among NRAs in the regulation of USO cross-border parcels.** This requires each NRA to determine two sets of prices for USO products: termination rates for the delivery of inbound cross-border parcels (Article 13), and prices of outbound cross-border parcels (Article 12). Each NRA, therefore, needs to assess whether termination rates charged by national postal operators in other Member States are cost oriented, which requires strict cooperation among NRAs, in the letter of Article 22 of the Postal Directive.

5 Price differentials and their causes

5.1 Introduction

Our review of the EU parcel market shows that market conditions are very different for large and small senders. Large senders are those who ship large volumes of parcels at high frequency, and have a largely predictable traffic profile. They have many delivery options which, together with their size, gives them considerable bargaining power vis-a-vis suppliers. The prices they pay are negotiated and are not in the public domain due to their commercial sensitivity in a highly competitive market.

Small senders, a category which includes end consumers, micro enterprises and small enterprises involved in C2C or B2C e-commerce, lack both the traffic profile and the knowledge to navigate the market efficiently. Our estimates show that **small enterprises represent 22% of total cross-border e-commerce in the EU.**³⁰⁵ To them, the price of sending parcels abroad is a concern, since it is higher than the domestic price. In the larger countries, these senders do have alternatives to using the national postal operator (which are discussed in Chapter 4), but not many take advantage of them. This is either because they are not informed of the existence of these alternatives, or because they do not trust them.

We have sought to understand the size, and sources of, the differences between the cross-border price and the domestic price paid by small, infrequent senders when they use the national postal operator to send parcels. In particular, we have addressed the following questions:

- whether published domestic and cross-border prices for packets, parcels and national postal operators' express products ("express products") of the same weight are substantially different;
- what are the causes for the differential between published cross-border and domestic prices; and
- how competitive conditions, scale and other relevant factors affect these price differentials.

³⁰⁵ Cross-border e-commerce which involves physical goods is equal to €18bn in the EU, of which €4bn, or 22% is represented by small firms (See row 9, Table 4.5).

Our analysis is based on publicly available prices, which are those published on the websites of the national postal operators. These are the prices paid by customers who do not have an account with the national postal operator. Non-account customers are those who send small parcel volumes infrequently.

To understand the overlap between this category of customers and end consumers, micro and small enterprises, we asked the NRAs what percentages of packets, parcels and postal express volumes non-account customers accounted for, and those who responded replied with 11%-20% (Sweden and Germany), 21%-30% (France) and 41%-50% (Hungary and Ireland).³⁰⁶ With only five responses, it is difficult to draw a concrete conclusion; however it appears that non-account customers account for about of 20% of postal volumes.³⁰⁷ This fits with our estimate of postal volumes which finds that small firms account for 21% of the total volume of cross-border items sent.

A robust approach that can bring understanding to the issues identified above needs to account for the potential lack of comparability between products and for the fact that price differentials between domestic and equivalent cross-border services may be a reflection of the cost of providing these services and may be influenced by other factors, including market characteristics. It must also be capable of looking across all Member States so that we can develop an accurate picture of the whole market.

We have developed an approach that takes these requirements into account: our analysis covers the whole of the EU and is based on an estimated differential that accounts for structural differences in pipelines and published prices between the sender and receiver country. By using econometrics, we account for the impact of different product and market characteristics on the observed differential between published cross-border prices and domestic benchmark prices.

This chapter starts with a description of our product selection procedure and follows with a review of published domestic and cross-border prices for the selected products.

³⁰⁶ Source: NRA questionnaire responses for non-account customers' share of volumes.. Sweden: domestic and international packets, international parcels 11-20%. Domestic parcels less than 10%. Germany – everything 11-20%. France – domestic and international parcels 21-30%, no other information. Hungary – 41-50% for everything. Ireland – 41-50% for international parcels, no other information.

³⁰⁷ A simple average of these five responses gives a value of approximately 30%, however with non-account customers in the larger countries of Germany and France providing less total volumes, the average should be adjusted downwards.

We then discuss how we constructed the price differentials between cross-border and domestic prices. The chapter continues with a discussion of the factors affecting price differentials and reviews the model we developed to quantify the effects of such factors, and its results.

5.2 Products and prices

The product offer available from postal operators is quite varied, both across Member States and within individual countries. Because we are analysing price *differences* and not price levels, in selecting the products to be used in our analysis we were guided by the following criteria:

- within each country, the domestic and cross-border products have to be similar in terms of delivery times, qualitative characteristics and VAT treatment;
- they have to share characteristics that are comparable to those sought by e-commerce senders; and,
- as far as possible, they must have similar characteristics across countries, in terms of delivery time, VAT treatment and traceability, otherwise constructing price differentials and then comparing products across countries will be meaningless: it would be like comparing apples with pears.

These requirements led to the exclusion of products that have very different delivery times domestically and cross-border, and of products that have long transit times, since these are not the type of products that C2C or small B2C senders would want to buy. Since the scope of this study is to understand the link between postal delivery markets and the slow growth in e-commerce, our analysis needs to focus on the products that are most suitable for this purpose.

5.2.1 Product and price selection

We carried out desk research, visiting the websites of all the EU national postal operators, and identified comparable packet, parcel and express products available domestically and cross-border. We then asked national postal operators for confirmation of our understanding of these services, their published prices and qualitative characteristics, through our written questionnaire. The names and complete descriptions of the selected products can be found in Appendix 3 and Appendix 4.

There are a variety of packet and parcel products available to non-account customers, but we found no information on postal operators' websites on which of these products were part of the USO, if any. In some cases, it was very difficult to find information on the postal operator's website for a cross-border product we *knew* to be the USO product.

We asked the NRAs to tell us whether there was a domestic and cross-border USO parcel and what it was called. We received fifteen responses³⁰⁸ and in ten cases they named the product we had selected as the USO product. Sweden does not extend the USO to cross-border parcels, while in the cases of Malta, the UK and Slovenia the response was incomplete. From conversations with the national postal operators, we learned that the French, Italian and British parcel products we selected are considered by the operator as "express".

The **packet products** that we have selected are mostly priority letter mail products. Their published cross-border price includes the terminal due that the originating national postal operator pays to the operator that delivers the packet in the destination country; this is a terminal due for letter mail.³⁰⁹ With the exception of Sweden, they are VAT exempt in all countries.³¹⁰ Value-added services such as insurance against theft or damage, proof of posting, track-and-trace, proof of delivery and return to sender if the addressee is not found at home are mostly excluded from packet prices, as these services typically do not come as standard with packet products, and our approach aims to look at as consistent a set of products as possible.

The **parcel products** we have selected are those with the shortest transit time among the available parcel products.³¹¹ Their published cross-border prices include the termination rate that the originating national postal operator pays to the operator that delivers the parcel in the destination country.³¹²

³⁰⁸ From Belgium, Bulgaria, the Czech Republic, Cyprus, France, Germany, Greece, Hungary, Ireland, Latvia, Malta, Portugal, Slovenia, Sweden and the UK.

³⁰⁹ These fees are either part of the REIMS termination dues system, or are established with bilateral commercial contracts between the operators.

³¹⁰ Although Slovenia charges VAT on its cross-border packet product.

³¹¹ The number of products available varies across national postal operators, as does the information available on transit times.

³¹² These fees can be part of the ILR, the EPG, or are established with bilateral commercial contracts between the operators.

The VAT regime for parcels varies across countries (see below), although if a national postal operator charges VAT on the selected product, it does so both domestically and cross-border. As we discussed in Chapter 4, non-USO postal products should have VAT applied to them while USO products should be VAT exempt. However, not all countries have transposed these provisions in their legislation, and we cannot establish whether a product is USO or not by looking at its VAT treatment. Moreover, in some cases it was difficult to establish from the website whether VAT was applied or not. As a result, some of the prices we use include VAT and some do not. As a general rule, the vast majority of packet products do not include VAT whereas the vast majority of express products include VAT. For parcel products, there was more of a mix of VAT exempt and VAT inclusive products;³¹³ we have accounted for any differences in VAT regimes in our econometric model.

The domestic and cross-border parcel products we selected for Finland, France, Italy, Latvia, Spain and Sweden were subject to VAT at the time the data were collected (January to March 2011). VAT has since been introduced for the selected UK products. In Germany, VAT was only charged for the cross-border product.

Parcel prices tend to include some accessory services such as insurance against theft or damage, proof of posting, track-and-trace, proof of delivery and return to sender if the addressee is not found at home. None of the products selected include pick-up from the customer premises: the sender has to go to the post office to send the parcel.

Finally, the **national postal operators' express products** are for the most part subject to VAT and their prices include the accessory services described above. Their transit times are shorter than for parcels. The express products offered by the national postal operators are part of the EMS system, with the exception of those offered by Austria, Denmark, France, Germany, the Netherlands, and Slovenia, which

³¹³ Additional detail on the VAT regime for products can be found in Appendix 4.

have arrangements for an EMS inward delivery service only, while using other arrangements for outbound cross-border express products.³¹⁴

Packets, parcels and express products come in different weights and sizes, and are usually priced according to their weight category, within certain maximum dimensions. The products that we analyse are priced by weight class, with classes broadly similar across postal operators.

Packets cannot be over two kilograms in weight, while parcels and express products can reach 30 kilograms. However, limits on parcels' maximum weight differ by country (see Appendix 4). The UPU requires its Members to deliver inbound international parcels of up to 20 kilograms in weight, and only about half of the Member States deliver heavier parcels. For national operators' express products the figure is two thirds. We have selected the most common weight thresholds for each of the three types of products. These are;

- for packets: 500 grams, one kilogram and two kilograms;
- for parcels: one, two, five, ten, 15, 20, 25, and 30 kilograms; and
- for express products: one, two, five, ten, 15, 20, 25, and 30 kilograms.

For each weight and product category, we collected published domestic and cross-border prices,³¹⁵ and qualitative characteristics, for each pair of Member States, thereby compiling a comprehensive EU dataset of products suitable for non-account customers.

³¹⁴ For example, Deutsche Post uses its DHL subsidiary to carry its express products, and TNT uses TNT express. However, the products we have chosen are available from post offices, and therefore from the national postal operator. They are different from the express products that integrators DHL and TNT Express offer, because they have a single price for each country destination, and a single domestic price. This is not the case for the express products sold by integrators, whose prices vary with distance and with the type of area to which they are addressed. The fact that they have no single price makes it impossible to compare integrator prices to the prices charged by national postal operators. The only thing that can be said is that, on average, capital city to capital city integrators charge much higher prices, but as we discussed in chapter 4, the product quality is different.

³¹⁵ Prices are found on national postal operators' websites, in different forms including downloadable tariff lists, online tables, or price calculators.

5.2.2 Domestic and cross-border prices

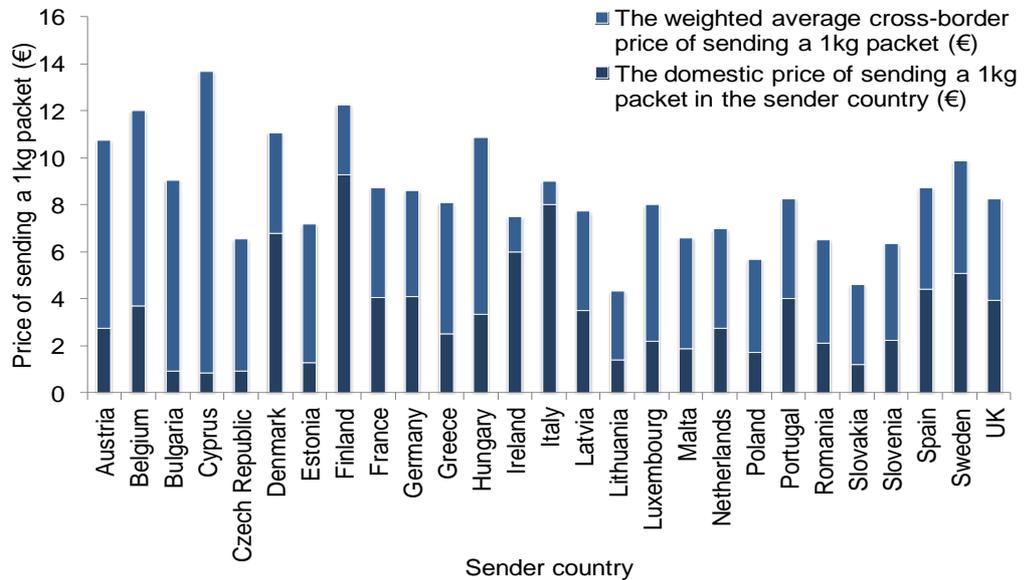
We show published domestic and weighted³¹⁶ cross-border prices for one kilo packets, parcels, and express products below. Most national postal operators either publish a single cross-border price for all EU destinations, or have more than one price, usually according to distance. We have therefore calculated a weighted average cross-border price for each sender country to all EU destinations.

Figure 5.1 to 5.3 show published domestic and cross-border prices for one kilo packets, parcels and express products in the Member States. The price differences are quite large for most countries. Italy is an exception: it has a very high domestic price, almost as high as the cross-border one and by far the highest among the Member States. At the opposite end there is Cyprus, where the difference between the cross-border and domestic price is nearly €13.

Comparisons between domestic and cross-border prices are shown in Figure 5.1 (one kilo packets), Figure 5.2 (one kilo parcels) and Figure 5.3 (one kilo express products): **published cross-border prices for packets, parcels and express products are significantly higher than domestic prices in the vast majority of countries, which indicates that there is a 'border effect'. Price differences are largest for express products, followed by parcels and finally packets.** We investigate below the extent to which these higher cross-border prices reflect higher pipeline costs.

³¹⁶ The weighted average cross-border price for each sender country to all EU destinations is calculated as one where the price to each destination country is weighted according to the share that the country has in the sender's EU's exports. We used trade data from the IMF statistics database since volume data on packets, parcels and express is unavailable for most of the countries in our sample, and for all of the countries for the year to which our prices refer. (Prices were collected as of 15 March 2011). Volume data are highly confidential and publicly unavailable.

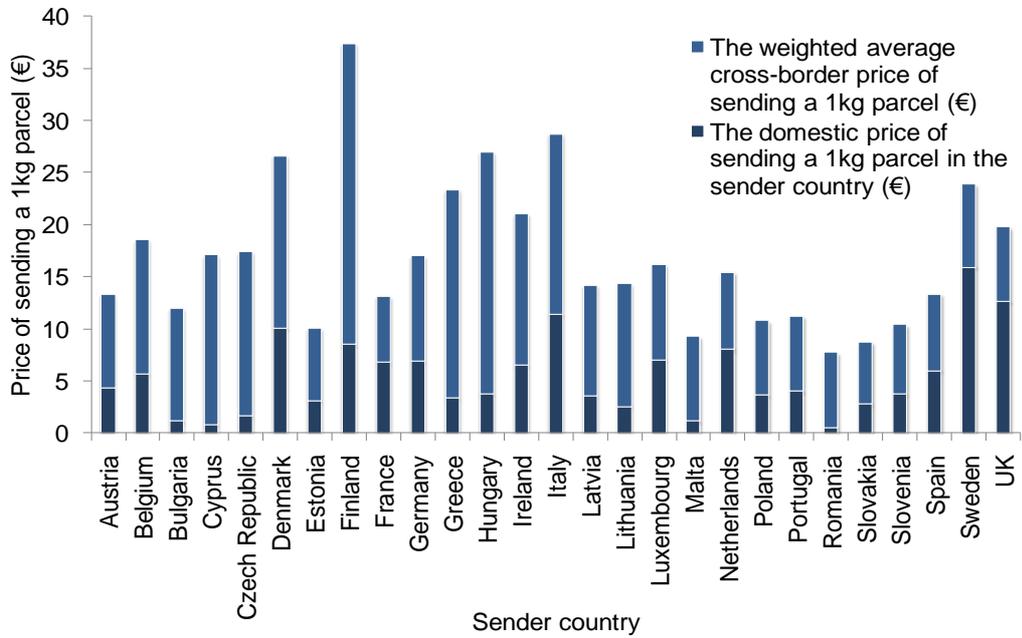
Figure 5.1 Domestic and weighted average cross-border prices for 1kg packets (€)



Source: FTI calculations, national postal operators' websites, IMF

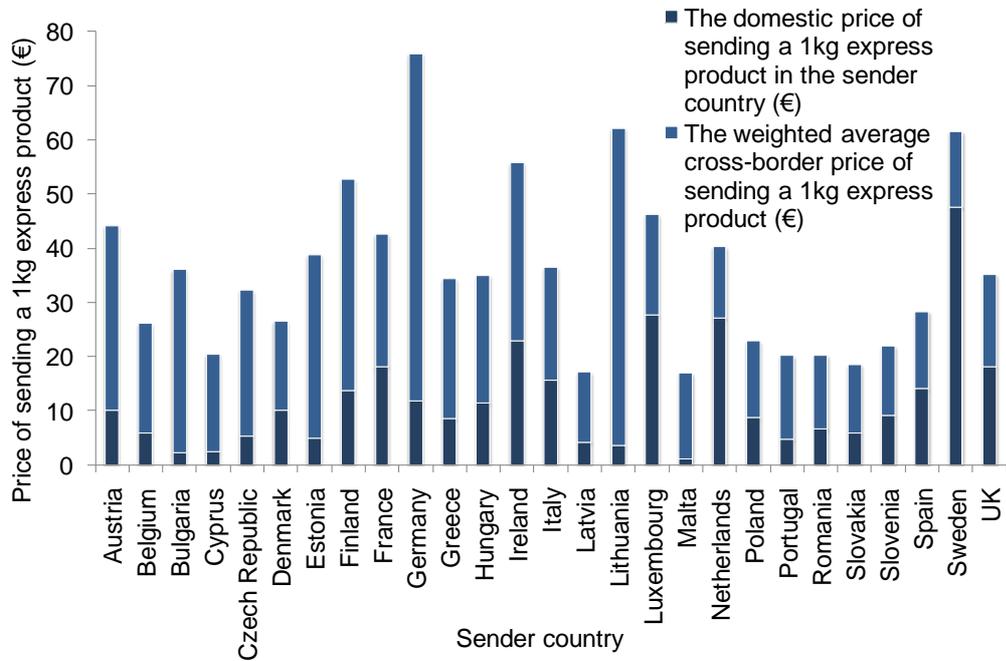
With respect to absolute prices, parcel prices are much higher than packet prices both domestically and cross-border; express prices are higher still. This is due, at least partly, to the different nature of the three products, with parcels potentially being awkwardly shaped, the different pipelines – especially in the collection and delivery phases; the different delivery times for express products; and the different qualitative features that are included in the price.

Figure 5.2 Domestic and weighted average cross-border prices for 1kg parcels (€)



Source: FTI calculations, national postal operators' websites, IMF

Figure 5.3 Domestic and weighted average cross-border prices for 1kg express products (€)



Source: FTI calculations, national postal operators' websites, IMF

The figures above clearly show that published prices of packets, parcels and express products vary widely across the Member States, and so do the differences between what is charged for a domestic product and what is charged for a cross-border one. To see whether there are differences in cross-border prices by area of destination, we have calculated average cross-border prices for different geographic blocks, for example cross-border prices for products travelling between Member States in Eastern Europe; travelling between an Eastern EU country and a Western EU country, and so on.

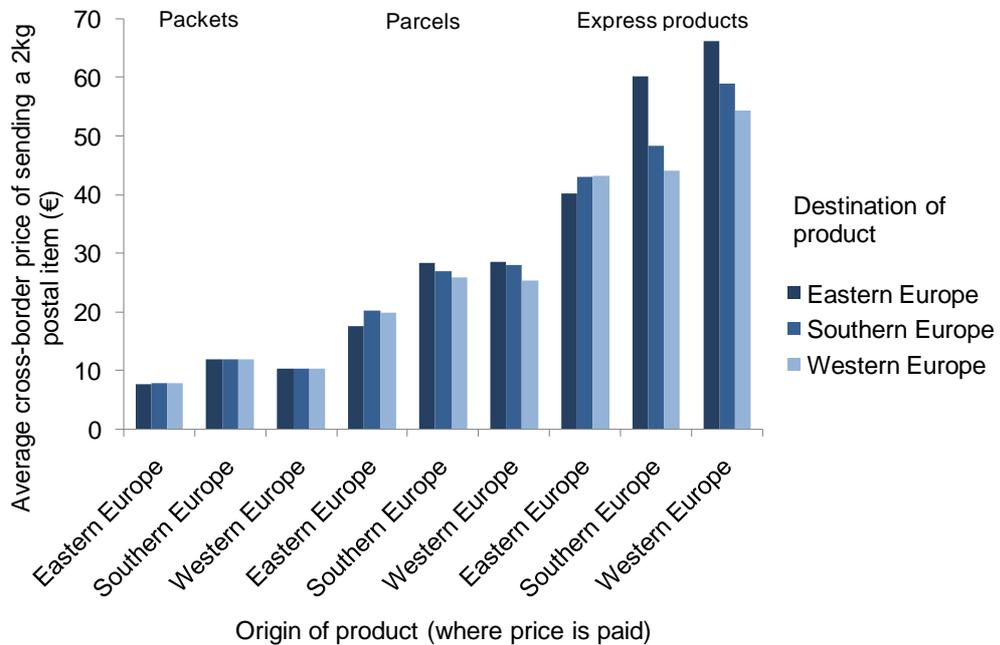
The average cross-border prices for two kilogram packets, parcels and express products are shown in Figure 5.4 and reported, by country, in Appendix 5.

For packets, published cross-border prices from each area are the same, regardless of the destination, and therefore regardless of the underlying differences in costs. Cross-border packet prices are higher in the Southern member States than in other areas. **Published parcel and express product prices are lower for flows between Western European countries, which represent more than 81% of total turnover in the CEP market;**³¹⁷ moreover, non-account senders in Southern EU countries pay less to send a parcel to a Western EU country than to another Southern country, on average.

The differences, however, do not appear to be large, and this implies that the observed cross-border parcel prices do not fully reflect distance-related costs. Cross-border price differences by area are more marked for the express products of national postal operators; in particular, express products going to Eastern Member States are considerably more expensive.

³¹⁷ See Figure 4.4.

Figure 5.4 Average cross-border price of sending 2kg postal items between different areas of Europe (€)



Source: FTI calculations³¹⁸, national postal operators' websites

There are five (major) sets of reasons why domestic and cross-border prices charged by national postal operators may differ, even for products that have to travel longer domestically (for example, from Sicily to Milan) than cross-border (e.g. from Milan to Vienna):

- first, the cross-border postal pipeline (discussed in section 4.5.2) contains more steps than the domestic pipeline;
- second, domestic products are handled end-to-end by a single national postal operator, while cross-border products are handled by two operators: differences in cost structure and cost efficiency between the two operators have an impact on the cross-border price. The termination rates that operators pay for delivery in another Member State are meant to reflect such cost differences, although there is no information to test whether they do or do not; and,

³¹⁸ We took prices from the websites of national postal operators, and then calculated a simple arithmetic average of the cross-border prices between the countries of each of the three groupings.

- third, there may be qualitative differences between domestic and cross-border products, such as for example track-and-trace, and other factors that affect prices, including scale effects (markets of different sizes);
- fourth, there may be further administrative requirements for cross-border products, such as border checks, transport documentation, or costs to administer termination agreements; and,
- fifth, there may be differing degrees of market power in the home and cross-border markets which may result in a “border” effect for outbound parcels from higher market power in cross-border markets.

All these reasons need to be accounted for if one wants to gain an understanding of what causes cross-border prices to be so much higher than domestic prices. Simply looking at the difference between the published domestic and cross-border price that a sender in a certain country has to pay is not correct.

The correct procedure is to first construct a proper price differential between published cross-border and domestic products based on a benchmark price that reflects the facts that the cross-border pipeline is longer and there are two national postal operators involved. Second, one should look at whether qualitative differences and other factors affect these price differentials systematically, and what is their impact.

In the next section, we construct the price differential. Further below, we develop an econometric model to quantify the impact of qualitative differences, competition and scale factors on price differentials.

5.3 Price differentials

As is clear from the above discussion, when looking for the source of price differences between published domestic and cross-border services the required approach is more challenging than a simple comparison of cross-border versus domestic prices in individual countries.

The appropriate price differential for a cross-border parcel travelling from country A to country B cannot be based only on A’s domestic price. It has to be based on a benchmark price which reflects the facts that the parcel:

- goes through two pipelines (those of country A and B);

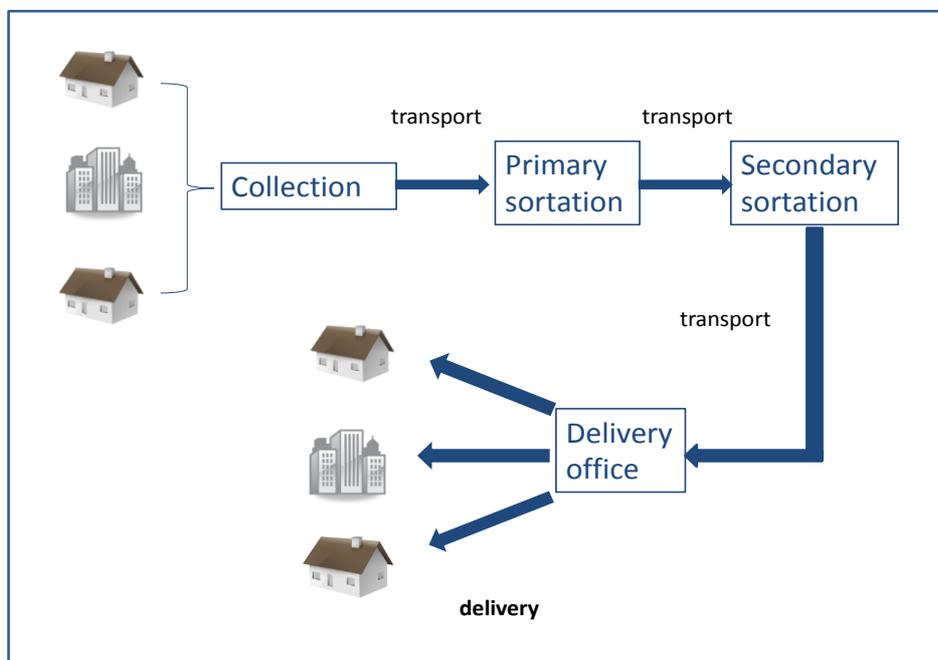
- travels the distance between the two countries, which may contain a third country, or more; and,
- requires additional administrative expenses with respect to a domestic parcel, to handle termination procedures and other administrative requirements.

The benchmark price has therefore to be constructed based on the published domestic prices in both A and B, and account for additional transport and administrative costs.

5.3.1 The domestic and cross-border pipelines

Typically, a domestic mail item is inserted into the mail network at one of many collection points (such as post boxes or post offices), from which it is collected and transported to a primary sorting centre. Here, the item is sorted according to the area of destination and then transported to a secondary sorting centre where it is sorted again and then transported to the appropriate delivery office, from which it is delivered to the receiver. This process is illustrated in Figure 5.5.

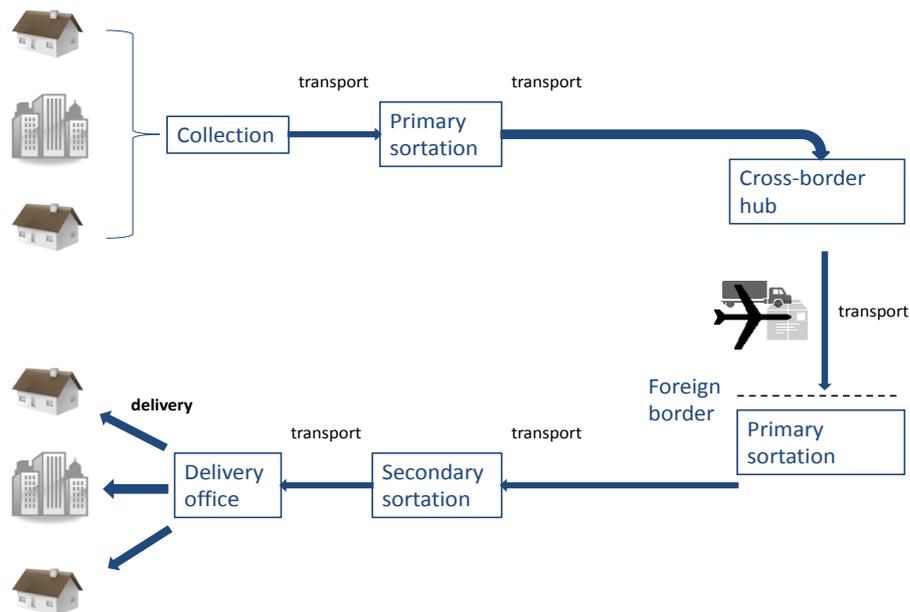
Figure 5.5 Domestic postal pipeline



Source: FTI

For international mail items, the pipeline is typically longer. The traditional cross-border postal pipeline is described in section 4.5.2 and shown in Figure 5.6.

Figure 5.6 Cross-border postal pipeline



Source: FTI

A visual comparison between Figure 5.5 and Figure 5.6 shows that **the international pipeline has more sortation and transport steps than the domestic pipeline**. The distance travelled in the individual countries depends on the size of the country as well as on the number of international hubs.

The characteristics of the international pipeline, and the involvement of two postal operators mean that:

- the cost of processing and delivering a cross-border parcel is higher than the corresponding domestic cost: the cross-border price of a parcel going from country A to country B has to be higher than the domestic price in country A;
- the process involves two national postal operators, with different underlying cost structures and therefore different domestic prices: the price of cross-border parcels from country A to B, and from country B to A cannot be the same; and

- in building an appropriate benchmark price to which the cross-border price can be meaningfully compared, consideration needs to be given to postal operators' prices in both the sending and destination country.

Figure 5.7 shows cross-border prices to and from the six largest countries in the EU in terms of mail flows. Prices are not symmetric, and the differences can be quite high.³¹⁹ For example,

- the price for a two kilo packet from Spain to Germany is €12.25, while the price from Germany to Spain is €8.60;
- the price for a two kilo parcel from Italy to France is €34, while the price from France to Italy is €14.50; and,
- the price for a two kilo express product from the UK to the Netherlands is €64.16, while the price from the Netherlands to the UK is €76.10.

³¹⁹ Having different prices in mail flows between two countries, depending on which of the two countries is the sender and which the receiver, is not wrong per se: in fact, it has to be expected given that the operators have different sets of costs and given that the proportions of the costs incurred in sending and delivering activities are different.

Figure 5.7 Cross-border prices for selected countries (€)

2kg Packets						
Sender:	Receiving country:					
	France	Germany	Italy	Netherlands	Spain	UK
France		8.75	8.75	8.75	8.75	8.75
Germany	8.60		8.60	8.60	8.60	8.60
Italy	9.00	9.00		9.00	9.00	9.00
Netherlands	8.69	8.69	8.69		8.69	8.69
Spain	12.25	12.25	12.25	12.25		12.25
UK	7.73	7.73	7.73	7.73	7.73	

2kg Parcels						
Sender:	Receiving country:					
	France	Germany	Italy	Netherlands	Spain	UK
France		12.00	14.50	12.00	14.50	14.50
Germany	17.00		17.00	17.00	17.00	17.00
Italy	34.00	34.00		34.00	34.00	34.00
Netherlands	14.30	14.30	14.30		14.30	14.30
Spain	30.26	30.26	30.26	30.26		30.26
UK	46.85	46.85	49.98	42.28	49.98	

2kg Express products						
Sender:	Receiving country:					
	France	Germany	Italy	Netherlands	Spain	UK
France		46.00	50.50	46.00	50.50	50.50
Germany	75.90		75.90	75.90	75.90	75.90
Italy	40.00	40.00		40.00	45.00	40.00
Netherlands	67.31	61.62	82.06		82.06	76.10
Spain	46.93	46.93	46.93	46.93		46.93
UK	57.38	57.38	61.59	64.16	61.59	

Source: National postal operators' websites

5.3.2 Three methods to construct a benchmark price

We now discuss the three methods that we have adopted to build benchmark prices (BP) to use in calculating cross-border price differentials.³²⁰

The first method is very conservative; it estimates the benchmark price as the sum of the published domestic price in the originating country and the published domestic price in the destination country. This is a conservative method because each domestic price reflects delivery and collection, which are double counted when the two

³²⁰ By cross-border price differential we mean the differential between a published cross-border price and the comparable domestic price.

prices are summed. The double counting is somewhat alleviated by the fact that summing domestic prices does not account for transport between the borders of the two countries, or for the administrative cost of interconnection. We call this estimate BP1.

The second method estimates the benchmark price using a proportion of the originating country's published domestic price and a proportion of the destination country's published domestic price, plus an estimate for the cross-border transport cost and an allowance for administrative costs. We call this BP2.

The third approach, which can only be used for parcels, is the same as that used to construct BP2, but uses the UPU termination fees (the ILRs) instead of the destination country's public domestic price; it also does not contain an estimate of administrative costs, which are included in the ILR. We call this benchmark price estimate BP3.

BP1

To estimate BP1 for each country pair A-B, we simply take the sum of the two domestic prices:

$$BP1_{AB} = \text{Published domestic Price in A} + \text{Published domestic price in B}$$

Where $BP1_{AB}$ is the benchmark price that is comparable to the published cross-border price from A to B. This is the price that will be used to build the price differential, DIFF1.

BP2

To estimate BP2 for each country pair A-B, we apply the following formula:

$$BP2_{AB} = [(\text{Percentage of A's cost that corresponds to the pipeline operations undertaken in country A})^{321} \times (\text{A's published domestic price})] + \text{Cross-border transport cost} + [(\text{Percentage of B's cost that that corresponds to the pipeline operations undertaken in country B})^{321} \times (\text{B's published domestic price})]$$

³²¹ These operations are (collection + transport to primary sorting centre + primary sorting + transport to secondary sorting centre + secondary sorting).

operations undertaken in country B)³²² x (B's published domestic price)] + allowance for administrative costs.

BP2_{AB} is the benchmark price that is comparable to the cross-border price from country A to country B. This is the price that will be used to build the price differential, DIFF2.

BP2 is a weighted price obtained using cost-share weights. For the originating operators, the weights are given by the share of total costs accounted by collection, internal transport and sorting. For the destination operators, the weights are given by the share of total costs accounted by sorting, internal transport and delivery. Allowances are also made for the impact on price of cross-border transport costs and the administrative cost of moving the package across-borders.

The cost shares were obtained by applying information from responses to our postal operator questionnaire³²³ on the percentage breakdown of pipeline costs. For example, if operator A told us that 60% of its cost came from collecting, transporting and sorting a parcel, we would use this 60% as the weight applied to A's published domestic price in constructing BP2_{AB}.

We also wanted to take into account any charges associated with cross-border administration costs. To estimate this, we asked the national postal operators what percentage of their total costs of delivering an inbound cross-border parcel were attributed to overheads directly related to cross-border operations, and then applied this percentage to the cross-border price they charge.³²⁴

To account for transport costs between countries, we used information from the questionnaire responses of the national postal operators, who were asked the percentage break down of the means they use to transport cross- border mail to the

³²² These operations are (primary sorting + transport to secondary sorting centre + secondary sorting + delivery).

³²³ For those operators that did not respond, we used the average breakdown from those who replied to the questionnaire as an estimate of their costs break down. We stress that we obtained responses from operators from large as well as small countries.

³²⁴ For those who did not reply, we used the sample average.

other Member States. We then applied published rates for air and road freight³²⁵ to the percentages provided by the operators.³²⁶

The sum of the four segments mentioned above gives BP2, which we calculated for every transfer possible. This means that we have a benchmark price (BP2) for each weight of each of the three product categories, for every flow between the EU-27 Member States, except for cases where data was missing, and no reasonable estimate could be made.

BP3

To estimate BP3 for each country pair A-B, we apply the following formula:

$$BP3_{AB} = [(Percentage\ of\ A's\ cost\ that\ corresponds\ to\ the\ pipeline\ operations\ undertaken\ within\ its\ borders^{327}) \times (A's\ published\ domestic\ price)] + Cross-border\ transport\ cost + ILR^{328}\ charged\ by\ B.$$

Where $BP3_{AB}$ is the benchmark price that is comparable to the published cross-border price from country A to country B. This is the price that will be used to build the price differential, DIFF3.

The calculation of BP3 differs from that of BP2 because in calculating the benchmark price for a postal item sent from A to B, it uses the basic ILR due to B instead of its weighted domestic price plus administrative cost. The basic ILRs exclude any bonus

³²⁵ Road freight rates from Motor Transport Magazine's tables of operating costs. We assumed the cost structure of a 26 tonne rigid truck, using their estimates for road freight costs. Air freight rates were calculated from Lufthansa Cargo, Singapore Airlines Cargo and Cargolux annual reports, where they stated their expense per available tonne-kilometre. We added a small profit premium to this to move from a freight company cost estimate to a reasonable price estimate.

³²⁶ Where a national postal operator did not respond to the questions on cost breakdowns, we applied the average of the costs from those who did respond.

³²⁷ These operations are (collection + transport to primary sorting centre + primary sorting + transport to secondary sorting centre + secondary sorting).

³²⁸ The UPU inward land rates are specified in Special Drawing Rights (SDRs). This is the IMF's unit of account and is a currency which is derived from a basket of other currencies including the USD, the GBP and the EUR. We have converted SDRs into Euros by taking the average of the IMF published daily exchange rates for the 6 months ending 30th June 2010. This point was chosen given that the International Bureau communicated the complete list of inward land rates applicable for 2011 by 30 September 2010, and any modifications will be applicable from 1 July 2011. In order to make our estimate as conservative as possible, we have assumed that no bonus payments are applicable to the ILRs we apply.

payments (e.g. for track-and-trace services) and are therefore a conservative estimate of the actual ILRs, since bonus payments can increase the basic rate by up to 40%.³²⁹

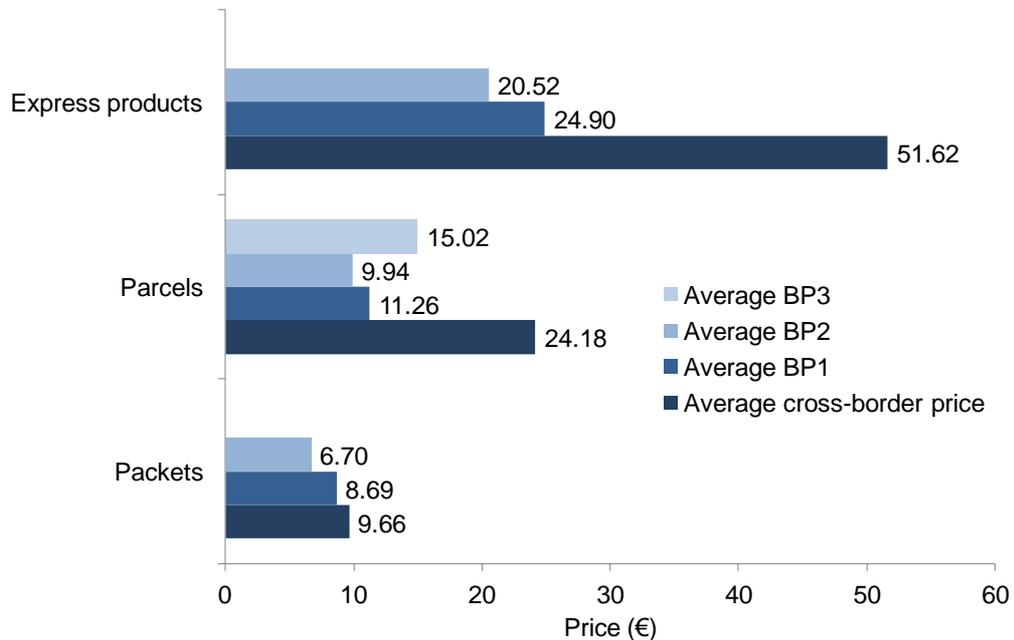
The only element of the formula that is different between BP2 and BP3 is the ILR. We have obtained all the ILRs from our questionnaire responses. However, as discussed in Chapter 4, we received information that most postal operators do not use the ILRs. No operator has been forthcoming with data on any other agreements, and we have therefore been unable to build estimates of benchmark prices based on any rates other than ILR.

The sum of the three segments mentioned above gives us our BP3, and we calculated it for every transfer possible. This means for each weight of each of the three product categories, for every flow between the EU-27 Member States we have a BP3, except for cases where data was missing, and no reasonable estimate could be made.

We show average published cross-border prices and estimated benchmark prices in Figure 5.8: for packets and express products, we have two benchmark prices; for parcels, we have a third benchmark price based on the ILRs (BP3). We stress that the benchmark prices BP2 and BP3 are based on confidential information provided by national postal operators, and can therefore only be shown in aggregate.

³²⁹ For delivery to address, a 5% bonus payment is assigned if the destination country offers this service. If track-and-trace is available, the additional bonus can be anywhere from 10% to 25%, depending on the technology. Further, certain delivery standards or the use of IBIS, are worth a 5% bonus each.

Figure 5.8 Cross-border and benchmark prices. Averages, for 2kg products (€)



Source: FTI calculations, national postal operators' websites

The bars in Figure 5.8 show that, cross-border prices are on average higher than the sum of the two domestic prices (BP1). The differences are more marked for express products than for parcels and, even more so, packets.

On average, the published price to send a two kilogram cross-border parcel from one Member State to another is approximately €24, while the average sum of the published domestic prices (BP1) in the same two Member States is €11.3, the benchmark price based on weighted average prices (BP2) is approximately €10, and that based on ILRs is €15. These differences are very high.

The ILRs charged by destination countries to deliver parcels within their territory are higher than domestic prices in all countries, and in some cases substantially so. They are so high, that when we compare *just* the ILRs to the *whole* benchmark price based on weighted average prices (BP2), the ILRs are actually higher than BP2 in 37% of cases. This is also without accounting for applicable bonus payments, which we have excluded from the calculations to provide a more conservative estimate.

The difference between BP2 and BP3 indicates an average net transfer to the originating national postal operator from the destination one, who receives the

termination charge. **Any savings on ILRs that national postal operators make by using EPG or contractual commercial agreements** (which we understand to be lower than ILRs) **translate in higher profits for the originating national postal operator, given the current average level of published cross-border prices. This net transfer is above and beyond any profit that originating operators may earn from charging cross-border prices that are much higher, on average, than any benchmark price, however calculated.**

5.3.3 Cross-border price differentials

The percentage differences between the cross-border price and the benchmark prices BP1, BP2 or BP3 represent our estimates of the percentage price differential between cross-border and domestic prices (the “cross-border price differential”).

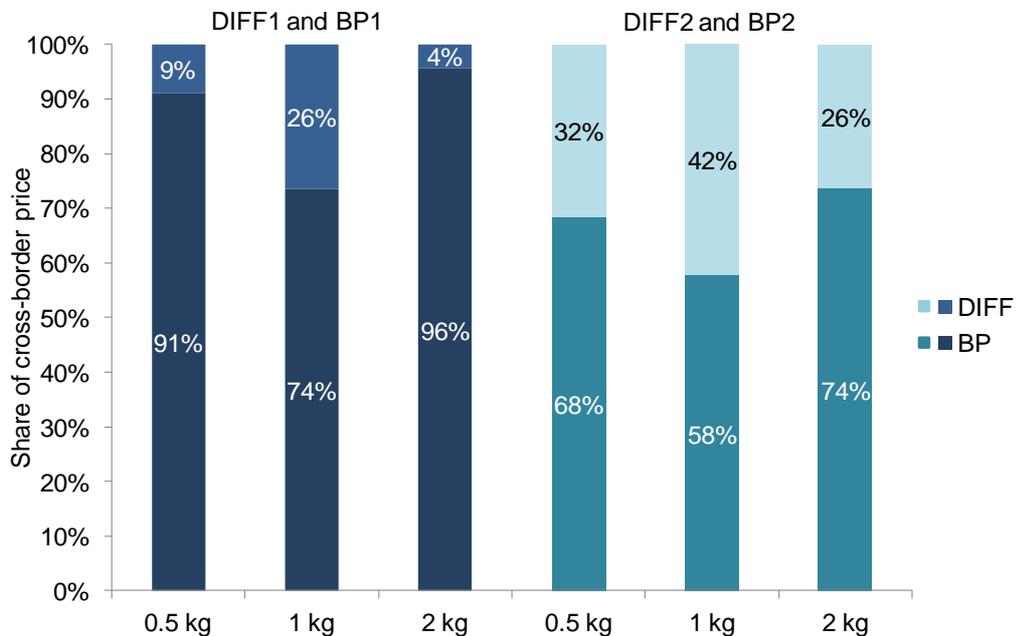
We call these estimates DIFF1, DIFF2 and DIFF3 respectively. DIFF3, based on ILRs, is available for parcels only, since ILRs do not apply to packets or express products. For example, for any two countries A and B:

$$\mathbf{DIFF2} = (((\text{Published cross-border price from A to B}) - \text{BP2}_{AB}) / \text{BP2}_{AB}) \times 100$$

The differentials based on sums of domestic prices are for illustration only, since the underlying benchmark prices are biased: they are inflated by the double counting of the collection and delivery parts of the domestic pipelines, and do not account for cross-border transport or administrative costs. DIFF2 and DIFF3 are based on confidential information provided by the national postal operators who responded to our questionnaire; for this reason, they are only shown in aggregate form.

The estimated percentage cross-border price differentials for packets (DIFF1, and DIFF2) are shown in Figure 5.9. For a half kilogram packet, the benchmark price based on weighted average published domestic prices (BP2) represents 68% of the published cross-border price: with the remaining 32% of the published cross-border price being the differential. In other words, **published cross-border prices for half kilogram packets are on average 50% higher than domestic benchmark prices (BP2).** The cross-border price differential is higher for 1 kilo packets, but lower for 2 kilos.

Figure 5.9 Price differentials for packets



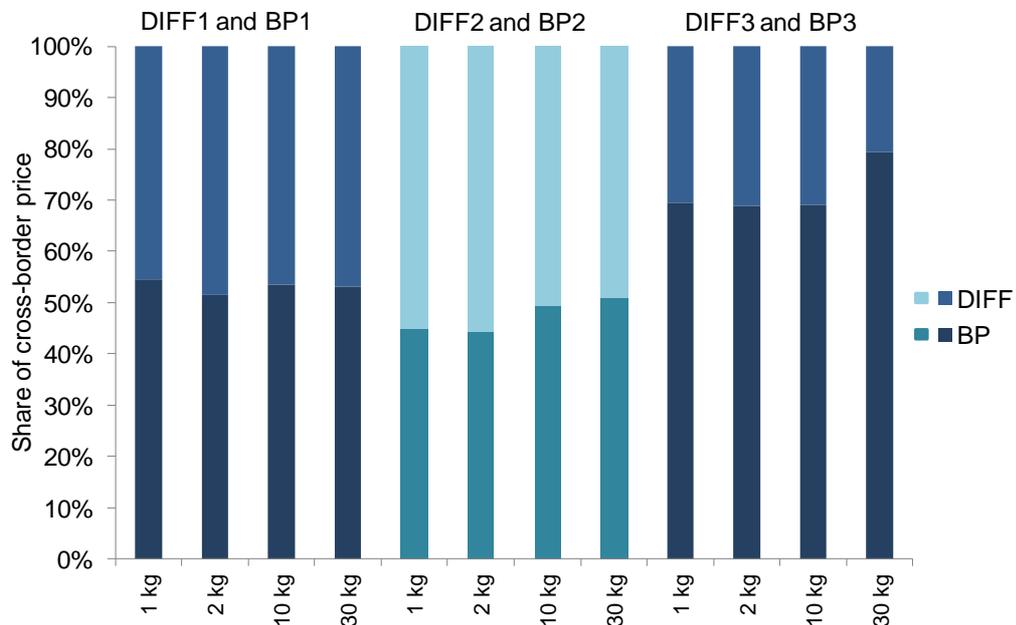
Source: FTI calculations

The estimated percentage cross-border price differentials for parcels for different weight categories (DIFF1, DIFF2, and DIFF3) are shown in Figure 5.10. As expected, cross-border price differentials based on ILRs (DIFF3) are lower, given that the underlying benchmark prices are higher than those based on weighted published domestic prices (DIFF2).

Looking at DIFF2, we see that **the cross-border price differentials for parcels are slightly lower for higher weights, and that they are higher for parcels than for packets: they are above 50% for most weight categories.**³³⁰

³³⁰ We caution against drawing any inferences on price differentials for higher weights, since not all national postal operators offer weights above 20kgs, which makes the figures for 10kgs and 30kgs not strictly comparable.

Figure 5.10 Price differentials for parcels



Source: FTI calculations

The cross-border price differential based on the ILRs (DIFF3) is lower than that based on weighted average domestic prices (DIFF2), but it is still almost 30% for most weight categories. We understand that the ILRs are the highest termination rates existing in the EU parcels markets and national postal operators tend to use other platforms such as the EPG or bilateral agreements which result in lower charges.

If these lower termination rates were reflected in lower published cross-border parcel prices, we would expect, on average, cross-border prices that are lower than the benchmark prices based on the ILRs, and a negative differential (DIFF3). The opposite is true: published cross-border parcel prices are higher than the benchmark price that incorporates the ILRs and the differential is positive and about 30% (DIFF3).

It does not seem to matter which termination agreement is in place, published cross-border prices are still significantly higher than benchmark prices: **on average, national postal operators published prices for cross-border parcels are at least 30% higher than a benchmark price based on the highest termination rates they may pay to each other, the ILRs. Such high published cross-border prices are likely to depress demand and to lower the ability of micro and small enterprises,**

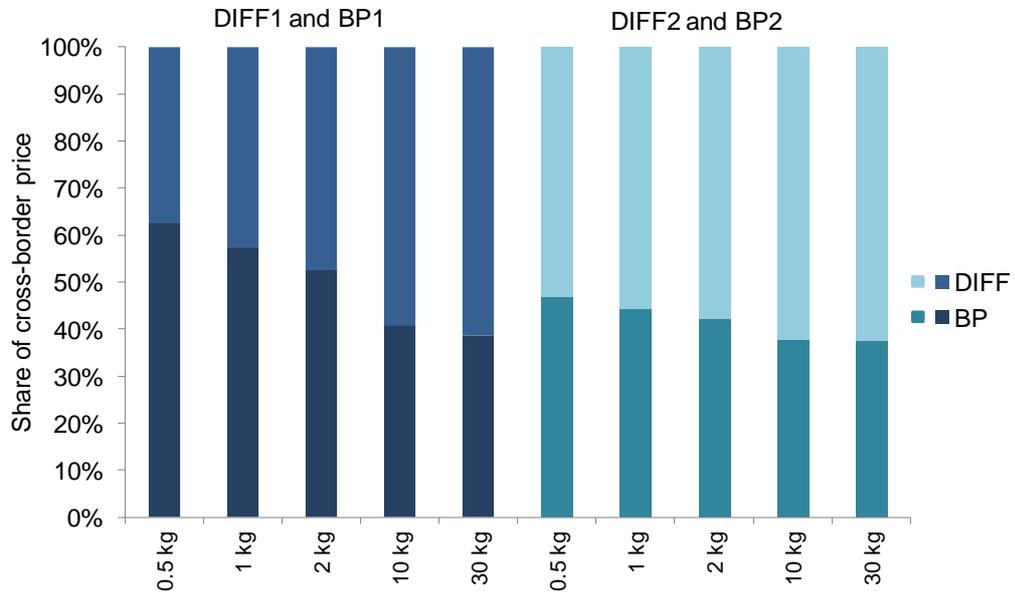
which may have to pay these prices, to compete with larger ones, with a negative effect on the size of the cross-border e-commerce market.

Comparing the two cross-border price differentials, DIFF2 and DIFF3 is instructive in understanding how the surplus between the cross-border price and the benchmark price could be split between the two operators. If termination rates were negotiated between the sending (A) and receiving (B) operator, and set equal to B's published domestic price (pro-rated to account for the delivery operations only), then the relevant differential between A's published cross-border and domestic prices would be DIFF2. In this case, the *whole* cross-border surplus (more than 50% on average, the average value of DIFF2) goes to the sending operator, A. The closer the actual termination charge is to the ILR, the larger the share of the surplus that goes to B. If the termination charge is the ILR, then the average sending operator receives a share of the surplus that is equal to DIFF3, about 30%.³³¹ In both cases, the published cross-border parcel price is the same, and it is much higher than the benchmark, with the market effect discussed above.

The estimated cross-border price differentials for express products for different weight categories (DIFF1, and DIFF2) are shown in Figure 5.11. Looking at DIFF2, we note the difference between published cross-border prices and benchmark prices is even higher for express products than for parcels, and it increases markedly with weight, passing from 53% for a half kilo express product to 63% for 30 kilos.

³³¹ We note that whether this cross-border surplus actually results in actual profits depends on whether the operator is charging higher cross-border prices in order to cross-subsidise other business areas (in the USO or outside of it). This is of course a serious issue, but we have no information to either assess it or comment on it.

Figure 5.11 Price differentials for express products



Source: FTI calculations

Thus as we move from packets, to parcels to express products, cross-border products become increasingly more expensive than their domestic benchmarks, in absolute and relative terms. The intensity of regulation for these products decreases from packets, regulated as part of letter mail, to parcels to express products, which are unregulated. Some of the parcel products in our sample are outside of the scope of the USO, both domestically and cross-border, and therefore not regulated; the others, however, are part of the USO and as such their prices must be set in a cost reflective and efficient manner. **Looking at the extent of the price differentials there appears to be *prima facie* evidence that cross-border parcel prices are considerably higher than any underlying price benchmark, and therefore than any underlying measure of cost, which raises doubts about their cost**

orientation.³³² We do not, however, have the information on underlying costs that is needed to test whether these cross-border prices are cost reflective.

A summary of the average price differentials for bilateral flows across the Member States, by weight and product, is shown in Table 5.1. The values refer to the price differential calculated as the percentage difference between the cross-border price and the benchmark price based on weighted domestic prices (DIFF2). This is, in our opinion, the most appropriate measure: it avoids double counting, and it does not rely on ILRs, which we understand to be very high and widely ignored by national postal operators when dealing with each other.

Table 5.1 Differential2 variable by product and weight

Differential2 (DIFF2) variable (the % difference between the charged cross-border price and BP2)									
	0.5kg	1kg	2kg	5kg	10kg	15kg	20kg	25kg	30kg
Packets	31.5%	42.3%	26.3%						
Parcels		55.3%	55.9%	56.2%	50.8%	55.0%	52.9%	48.8%	49.2%
Express	53.3%	55.7%	57.8%	60.4%	62.2%	61.8%	62.2%	63.7%	62.6%

Source: FTI calculations

5.4 Causes of price differentials

In building our estimates of price differentials between cross-border and domestic prices, we have accounted for the impact of structural differences between the domestic and cross-border pipelines of national postal operators.

The benchmark price that we have constructed accounts for differences in cost structure between domestic and cross-border products; for transport costs between the two countries; and for the administrative costs of cross-border deliveries. We have found that published cross-border parcel prices are considerably higher than the highest price benchmark estimate, based on equivalent domestic prices and the highest termination rates.

We turn now to analysing the reasons why these price differentials may exist, as prescribed by economic theory. A number of factors may influence the extent of a

³³² We note that, although our parcel products include USO and non-USO parcels, the products we have selected have similar characteristics across countries and between cross-border and domestic products.

price differential; they must be taken into account to avoid developing biased views of the market. These factors, which will be discussed in detail below, are:

- qualitative differences between the cross-border product and the domestic products offered by one of, or both, the originator and destination postal operator;
- scale;
- competition; and
- geographic and demographic factors.

5.4.1 Qualitative differences

A cross-border product may have some different qualitative characteristics from the benchmark domestic products whose published prices we used to construct the price differentials. Costs, and prices, will be affected by this and therefore price differentials.

Qualitative differences include the VAT regimes and VAT rates, the availability of insurance, track-and-trace, and return to sender services included in the price. They also include delivery times (speed), but actual delivery times cover a somewhat large and overlapping interval (for example, three to seven days), which makes accounting for them a difficult exercise. Also, cross-border products all take longer to deliver than domestic ones, which is due to the longer pipeline and different transport times and timetables.

Table 5.2 shows, for each originating and destination country, the number of countries with which there is a difference in attributes between the originator cross-border and corresponding domestic packet products.

It is interesting to note that only three originating countries register discrepancies between their cross-border and domestic packet products. There are more differences between the domestic services available in the destination country and the cross-border packet products going to that country, especially for what concerns return to sender (if addressee not found) services.

Table 5.2 Qualitative differences between cross-border and domestic packets

2kg packets	Discrepancies between the sender country's domestic service and its cross-border service				Discrepancies between the sender country's cross-border service and the receiver country's domestic service			
	VAT rates	Insurance	Track and trace	Return to sender (if address not found)	VAT rates	Insurance	Track and trace	Return to sender (if address not found)
Austria	0	0	0	0	2	1	1	0
Belgium	0	0	27	0	2	1	1	3
Bulgaria	0	0	0	0	2	1	1	11
Cyprus	0	0	0	0	0	1	1	0
Czech Republic	0	0	0	0	2	1	1	3
Denmark	0	0	0	0	2	1	1	0
Estonia	0	0	0	0	2	1	1	11
Finland	0	0	0	0	2	1	1	3
France	0	0	0	0	2	1	1	0
Germany	0	0	0	0	2	1	1	3
Greece	0	0	0	0	2	1	1	3
Hungary	0	0	0	0	2	1	1	3
Ireland	0	0	0	0	2	1	1	3
Italy	0	0	0	0	2	1	1	3
Latvia	0	0	0	0	23	1	1	0
Lithuania	0	0	0	0	2	1	1	11
Luxembourg	0	0	0	0	2	1	1	3
Malta	0	0	0	0	0	1	1	0
Netherlands	0	0	0	0	2	1	1	0
Poland	0	0	27	0	2	1	26	0
Portugal	0	0	0	0	2	0	1	0
Romania	0	0	0	0	2	1	1	0
Slovakia	0	0	0	0	2	0	1	3
Slovenia	27	0	0	0	23	1	1	3
Spain	0	0	0	0	2	1	1	0
Sweden	0	0	0	0	23	1	1	0
UK	0	0	0	0	2	24	1	0

For example, in Slovenia VAT is applied to cross-border packets, but not to domestic ones; In Belgium, domestic packets include track-and-trace, but cross-border packets do not. The UK's packet products (domestic and cross-border) have insurance, but no EU cross-border packet delivered in the UK has this feature.

Table 5.3 shows qualitative discrepancies for parcels. These are more than for packet products. Their presence reduces product comparability, and a full list of product characteristics by country can be found in Appendix 4 - we give some examples here.

There are more qualitative discrepancies for parcels, especially for what concerns VAT treatment and track-and-trace, as shown in Table 5.3. For example, the German cross-border product is not VAT exempt while its domestic product is;³³³ and the Irish domestic product is VAT exempt, but parcels that are delivered in Ireland and were sent from Germany (the cross-border products) had VAT included in the price.

³³³ For weights below 10 kilos.

More differences exist for the track-and-trace feature between cross-border and domestic products for sending countries (in Denmark, Malta, Romania, and Spain) as well as for receiving countries. For example a cross-border parcel sent from France has the track-and-trace feature,³³⁴ while Bulgarian domestic and cross-border parcels do not offer this service, so a parcel delivered in Bulgaria, but sent from France, would have a price premium arising from the track-and-trace feature. This is because the French sender would be able to track the parcel once it enters Bulgaria, whereas a Bulgarian sender would not have the option to locate their parcel in France.

Table 5.3 Qualitative differences between cross-border and domestic parcels

2kg parcels	Discrepancies between the sender country's domestic service and its cross-border service				Discrepancies between the sender country's cross-border service and the receiver country's domestic service			
	VAT rates	Insurance	Track and trace	Return to sender (if address not found)	VAT rates	Insurance	Track and trace	Return to sender (if address not found)
Austria	0	0	0	0	6	14	0	0
Belgium	0	0	0	0	6	12	7	7
Bulgaria	0	0	0	0	6	12	15	0
Cyprus	0	0	0	0	0	12	7	0
Czech Republic	0	0	27	27	6	12	7	7
Denmark	0	0	16	0	6	12	7	9
Estonia	0	0	0	0	6	12	0	0
Finland	0	0	0	0	18	12	7	0
France	0	0	0	0	18	12	7	7
Germany	27	0	0	0	18	14	0	0
Greece	0	0	0	0	6	14	7	0
Hungary	0	0	0	27	6	14	0	9
Ireland	0	0	0	0	6	12	15	7
Italy	0	0	0	0	18	14	7	7
Latvia	0	0	0	0	18	12	15	0
Lithuania	0	0	0	0	6	12	0	0
Luxembourg	0	0	0	0	6	14	7	7
Malta	0	0	27	0	0	12	7	0
Netherlands	0	0	0	0	0	14	7	7
Poland	0	0	0	0	6	12	0	0
Portugal	0	0	0	0	6	14	0	9
Romania	0	0	27	0	6	12	7	0
Slovakia	0	0	0	0	6	0	7	7
Slovenia	0	0	0	0	6	14	7	9
Spain	0	0	27	0	18	14	15	0
Sweden	0	0	0	0	18	14	0	7
UK	0	0	0	0	6	14	7	0

Finally, Table 5.4 shows discrepancies for express products. It is interesting to note that there are also discrepancies in track-and-trace for these services. The case of Malta is particular, however, because it is a small island nation and it is to be expected that domestic and cross-border services may be different. For Denmark, track-and-

³³⁴ This information was verified by the NPO through our questionnaire.

trace services on cross-border parcels and express products are only available to 16 destination countries, while they are always available domestically.

Table 5.4 Qualitative differences between cross-border and domestic express products

2kg express products	Discrepancies between the sender country's domestic service and its cross-border service				Discrepancies between the sender country's cross-border service and the receiver country's domestic service			
	VAT rates	Insurance	Track and trace	Return to sender (if address not found)	VAT rates	Insurance	Track and trace	Return to sender (if address not found)
Austria	0	0	0	0	3	0	1	0
Belgium	0	0	0	0	0	7	1	5
Bulgaria	0	0	0	0	3	0	0	0
Cyprus	0	0	0	0	0	16	1	0
Czech Republic	0	0	0	0	3	7	1	5
Denmark	0	0	16	0	20	16	13	11
Estonia	0	0	0	27	20	7	1	5
Finland	0	0	0	0	3	16	1	0
France	0	0	0	27	3	7	1	11
Germany	0	0	0	0	3	7	1	0
Greece	0	0	0	0	3	7	1	5
Hungary	0	0	0	0	3	7	1	5
Ireland	0	0	0	0	3	7	1	5
Italy	0	0	0	0	3	7	1	5
Latvia	0	0	0	0	3	0	1	0
Lithuania	0	0	0	0	3	16	1	0
Luxembourg	0	0	0	0	3	7	1	5
Malta	0	0	27	0	0	16	1	0
Netherlands	0	0	0	0	3	16	1	0
Poland	0	0	0	27	20	16	1	5
Portugal	0	0	0	0	3	7	1	5
Romania	0	0	0	0	0	0	1	0
Slovakia	0	0	0	0	3	7	1	0
Slovenia	0	0	0	0	3	7	1	11
Spain	0	0	0	0	3	7	1	0
Sweden	0	0	0	0	3	7	1	5
UK	0	0	0	0	3	7	1	11

5.4.2 Scale

It is well known that postal costs are very sensitive to scale. All else being equal, unit costs are lower if there are higher volumes being sorted, transported and delivered. Lower unit costs should be reflected into lower prices, everything else being equal.

Therefore for any country A, the larger the proportion of its cross-border postal flows that is sent to country B, the lower the unit cost of processing those flows: this should be reflected in a lower cross-border price and hence a lower price differential.

The scale of postal flows from A to B is also a source of bargaining power when setting termination rates based on traffic profiles, which are the most common types of agreements between Member States: the larger the importance of A vis-a-vis B, the lower B's unit costs, and the lower the negotiated termination rates can be expected to be:

- If A passes all or part of these lower termination rates on to its cross-border prices, the cross-border price differential (DIFF2) will be reduced; but,
- If A keeps the savings from the lower termination rates to itself, then the price differential will be unaffected; or,
- If, despite B's lower unit costs, termination rates stay high, then B keeps the savings originating from higher volumes and the price differential will be unaffected.

Price differentials should therefore be affected by scale and it is necessary to account for this effect as it may be an important source of variation in price differentials.

However, although some information is available on international mail volumes (including parcel and express products), this is patchy and only available in aggregate. There is no publicly available information on bilateral flows, a fact which we were aware of from the start, as explained in the Introduction (Chapter 2).

There is a high correspondence between bilateral trade flows and postal flows between countries: Table 5.5 shows the trade flows within the three areas of the EU: Western, Southern and Eastern: the flows within Western Europe account for 72% of the total, which is a very similar figure to that of the percentage postal turnover that goes to this area (81% - Figure 4.4)

Table 5.5 Trade flows and price differentials by EU area

Average DIFF2 when sending a parcel:			
To:	Eastern Europe	Southern Europe	Western Europe
From:			
Eastern Europe	62%	59%	51%
Southern Europe	67%	63%	55%
Western Europe	60%	51%	42%
Share of intra-EU27 exports going:			
To:	Eastern Europe	Southern Europe	Western Europe
From:			
Eastern Europe	24%	14%	62%
Southern Europe	11%	23%	66%
Western Europe	11%	18%	72%

Source: FTI calculations, IMF, national postal operators' websites

This is why we use bilateral trade flows as a proxy for postal flows. Like postal flows, trade flows are concentrated within Western Europe. It is clear from Table 5.5 that price differentials are lower where trade is higher: for example, the Western Member States account for 72% of intra-EU-27 exports, and price differentials for flows between these countries are lower than those registered in the other two areas.

5.4.3 Competition

Competition is an important driver of price differentials. There are three ways in which a competitive market environment can affect the cross-border price differential between country A to country B:

- everything else equal, higher domestic competition in A leads to a lower published domestic price in A, a lower benchmark price, and a higher cross-border price differential;
- everything else equal, higher domestic competition in B leads to a lower published domestic price in B, a lower benchmark price, and a higher cross-border price differentials; and,
- everything else equal, higher competition in the A to B cross-border market leads to a lower published cross-border price and therefore a lower price differential.

Our review of the parcel market (Chapter 4) has shown that in the larger countries of the EU, and in Western Europe in general, there are more choices available to small and end consumers, in the form of subsidiaries of national postal operators operating cross-border, consolidators and online parcel brokers. Table 5.5 shows how price differentials for shipments within the Western countries are lower than within other regions.

It is in the largest six countries in terms of mail flows³³⁵ that competition is highest for cross-border parcel products purchased by small, infrequent senders that are the focus of this analysis. Countries yet to achieve full liberalisation, i.e. those countries whose postal markets will be fully liberalised in 2013³³⁶ have lower competition levels. In the largest six countries scale is also the highest: to separate the effect of scale on

³³⁵ France, Germany, Italy, the Netherlands, Spain and the UK.

³³⁶ The countries whose postal markets are to be liberalised in 2013 are: Cyprus; Czech Republic; Greece; Hungary; Latvia; Lithuania; Luxembourg; Malta; Poland; Romania and Slovakia.

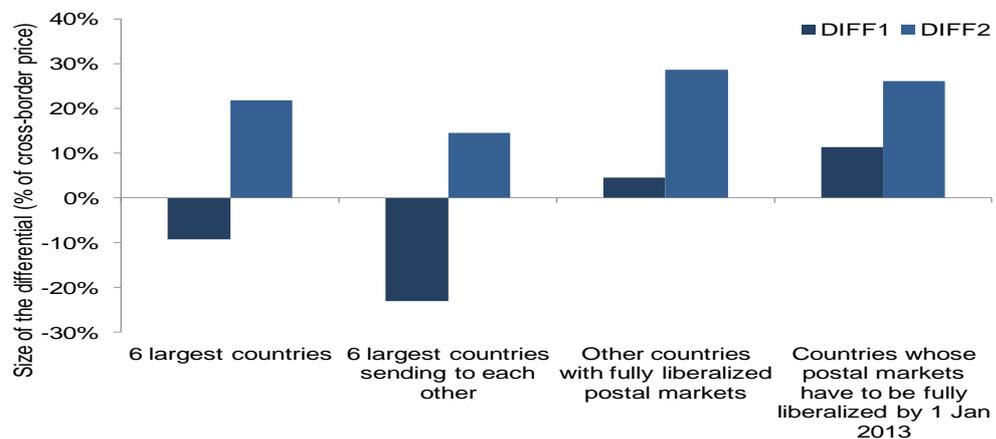
the cross-border price differential from that of competition, it is necessary to use regression analysis, which is done below.

For illustrative purposes, we have aggregated price differentials for four groups of flows:

- those from the six largest countries to other Member States;
- those amongst the six largest Member States;
- those from Member States whose postal markets were liberalised as of January 2011.³³⁷ This group includes all other Western European countries that are not part of the six largest Member States group, with the sole exception of Luxembourg; and
- those from countries that will be liberalised in 2013.

Figure 5.12 to 5.14 show cross-border price differentials for two kilo packets, parcels and express products, expressed as percentage of the average published cross border price.

Figure 5.12 Price differentials by area: 2kg packets



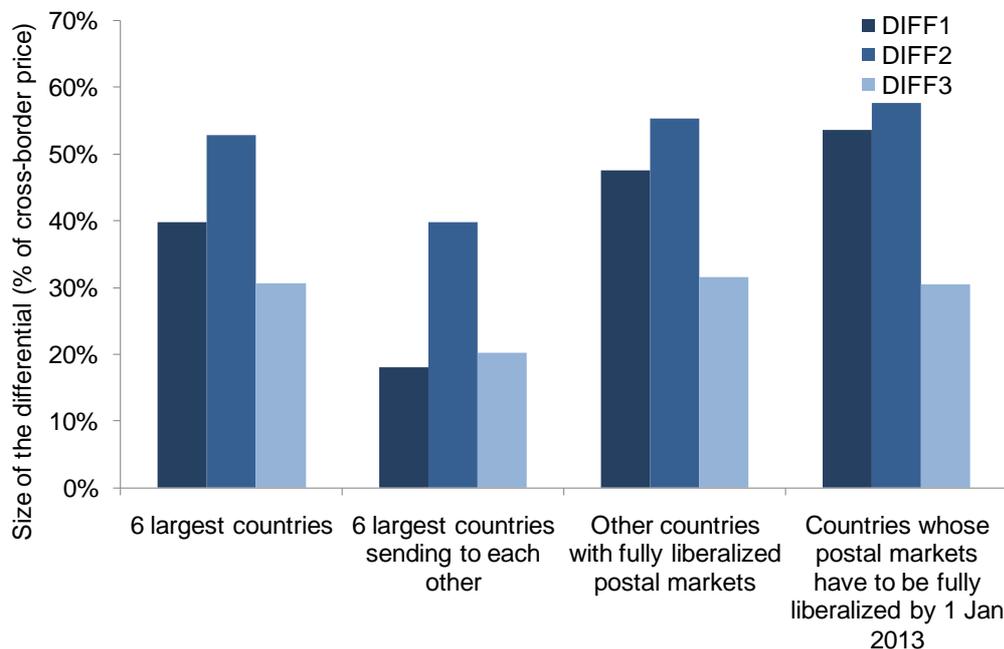
Source: FTI calculations

³³⁷ The countries whose postal markets were liberalised as of January 2011 are: Austria; Belgium; Bulgaria; Denmark; Estonia; Finland; Ireland; Portugal; Slovenia and Sweden, Italy, and Spain. In this chapter, when we talk about the countries liberalised as of 2011, we exclude Italy and Spain from this group, as they are already a part of the 'largest six Member States' category.

Figure 5.12 shows price differentials for packets. The dark blue bars refer to DIFF1 and the light blue bars to DIFF2. For the six largest countries, DIFF1 is negative, which means that the sum of published domestic prices is on average larger than the published cross-border price. Even if packets are regulated products within the remit of the USO, in these markets competitive conditions and regulation have lowered cross-border prices in comparison to domestic prices. Other countries with fully liberalised markets have low DIFF1 too.

Countries with a more competitive environment have lower cross-border differentials with respect to weighted average benchmark prices (DIFF2), but this differential is still about 10%, even for packets (letter mail). This either means that competition for cross-border packet products is weaker than internal competition, or that regulation for cross-border prices is less effective than it should be, and it results in published cross-border prices that are higher than they could be.

Figure 5.13 Price differentials by area: 2kg parcels



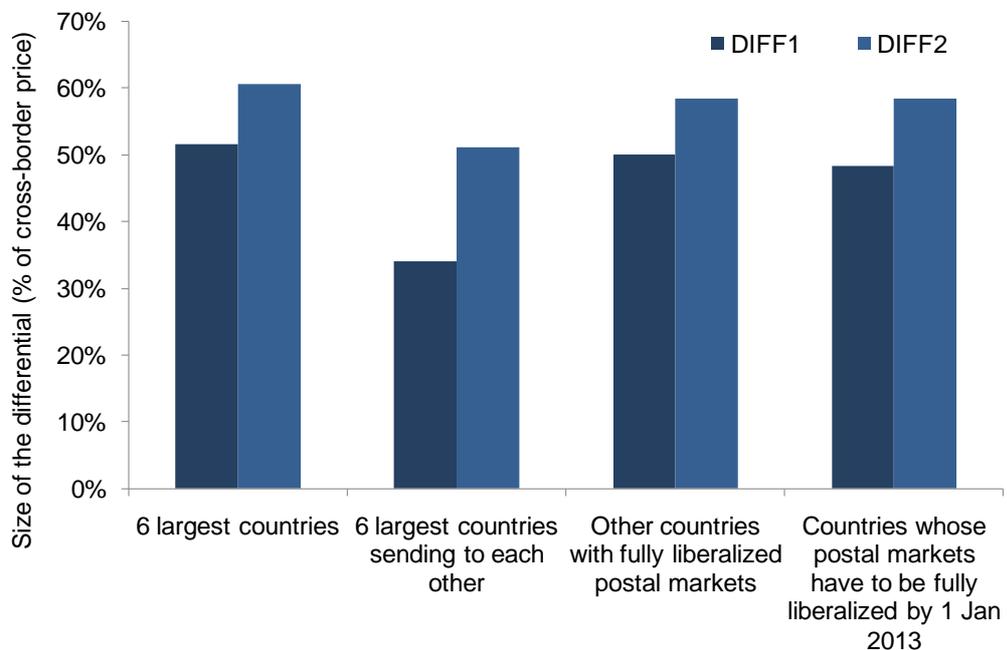
Source: FTI calculations

Figure 5.13 shows the three price differentials for parcels. As expected, the lowest differentials are those corresponding to ILR rates. The DIFF2 bars are high: they are never lower than 40%.

The higher differentials outside of the six largest countries are due to a combination of low volumes (smaller scale) and less competition for these volumes. Since EPG and other bilateral termination rates are based on traffic profiles, operators from these countries may have to pay either higher termination rates, or ILRs. At the same time, fewer alternatives for customers mean that their demand elasticity is lower, and that the national postal operator can charge them a large premium. This would result in a large cross-border price differential (i.e. a higher DIFF2), very high published prices for those who want to send parcels, and a transfer of surplus from the domestic operator to the operator in the receiving country, who will be paid termination rates that are, in most cases, higher than its own published domestic price.

Finally, Figure 5.14 shows the price differentials for express products, which are estimated to be between 50 and 60 percent (for DIFF2), and again lower – but not by much, for the six largest countries. Again, this is due to a host of reasons, among which there are, most likely, high termination rates that national postal operators within EMS charge to each other (with the exceptions mentioned in section 4.8.4).

Figure 5.14 Price differentials by area: 2kg express products



Source: FTI calculations

Competition and volumes interact with each other in affecting price differentials, and the relationships are made more complex by the fact that competition for domestic

and cross-border markets may be different within each country and have opposite effects on the price differentials. We will discuss how these effects can be disentangled and measured below.

5.4.4 Geographic and demographic factors

In building our domestic benchmark price for cross-border products, we have already accounted for the impact of geographic distance between any two countries by adding transport costs to the benchmark price BP2, which we use to estimate DIFF2.

We have also accounted for the impact of population density, by using the (weighted average) published domestic price in the two countries. Insofar as they reflect costs, using domestic prices to construct BP2 (and hence DIFF2) should account for the impact on cross-border price differentials of different population densities in the two countries.

Finally, for countries sharing a border, published cross-border prices, and hence cross-border price differentials, may be lower. However, since postal operators tend to publish either a single averaged price or very few averaged prices for shipments sent to the other Member States, the price differential may actually be higher for bordering countries, rather than lower. This is because, everything else being the same, the transport cost component of the benchmark price formula will be much lower, resulting in a higher estimated differential (DIFF2). This is the “border effect” that is often alluded to when discussing differences between cross-border and domestic prices.

5.5 Econometric modelling of price differentials

As was discussed in section 5.3, price differentials between cross-border and domestic products need to account for different structural pipelines; for the fact that a cross-border price needs to be compared to the underlying domestic prices of the sender and receiver country; for cross-border transport costs; and for administrative costs. We have done this, and constructed an appropriate price differential, which we called DIFF2.

We have then reviewed the cross-border price differentials for packets, parcels and express products and found them to be large, and to vary across countries. In the last section, we have reviewed the factors that cause this variability: qualitative differences, competition, scale, geographic and demographic factors. We have also

seen how these factors can have similar or opposing effects on cross-border price differentials which are difficult to disentangle: for example, lower differentials may be caused by a large scale and higher cross-border competition, lower differentials could be caused by higher domestic competition in the domestic sending or receiving countries, or both.

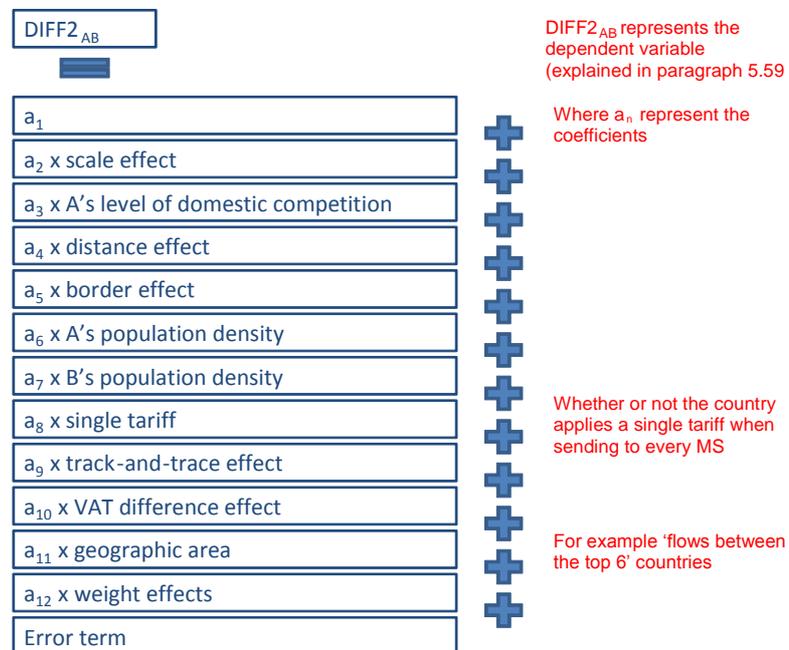
When we observe a high differential, we can measure the extent to which each driving factor contributes to it using regression analysis. Regression analysis is a statistical technique that allows isolating and measuring the impact of individual drivers on a variable of interest, thereby disentangling the effect of each driver.

In the model, the cross-border price differential between any two countries and for each product is “explained” by scale, competition, qualitative factors, and geographic and demographic variables. The coefficient on each of the factor variables (“explanatory” variables) measures the effect on the differential of changing that factor and that factor only. We describe the data and then the models for packets, parcels and express products in turn below.

5.5.1 Model specification

A representation of the model that we have estimated is shown in Figure 5.15, with each part of the model explained in greater detail below in the remainder of this section:

Figure 5.15 Model specification



Source: FTI

In a regression analysis the error term captures errors of measurement, unforeseeable events and erratic non-measurable factors. The coefficients of the model (the "a's") measure the impact of each explanatory variable on the cross-border price differential. So, for example, if two parcel flows AB and AC were identical but for the fact that AB's scale was one unit larger than AC's scale, DIFF2_{AB} would be (a₂ x 1) larger than DIFF2_{AC}. Each coefficient measures the estimated impact of a unit change in the variable to which it is attached on DIFF2, while all other variable are unchanged. If two variables change at the same time, while everything else stays constant, their combined estimated effect on DIFF2 is given by the sum of their coefficients.

We now discuss the variables that we used in the model, one by one.

DIFF2. For any pair of countries A and B, DIFF2 is the differential between the published cross-border A-to-B price and the weighted domestic benchmark price. This is the dependent variable, whose calculation we have described in section 5.3.3. The values of this variable are "explained" by the other variables in the model.

Scale effects. The scale of the cross-border volume flows between two countries A and B³³⁸ affects their unit costs and bargaining power vis-a-vis each other. The volume effect for the national operator in A and the importance of B in its cross-border operations are measured as the percentage of A's EU exports (by value) that flows to B.³³⁹ We call this “**scale effect (export methodology)**”. The volume effect for the national operator in B and the importance of A in its cross-border operations are measured as the percentage of B's EU imports (by value) that come from A.³⁴⁰ We call this “**scale effect (import methodology)**”.

Each of the two scale coefficients measures the percentage point increase in the price differential that is caused by a one percentage point increase in the scale variable to which they relate:

- the larger the scale of A's cross-border volumes that goes to B, the lower is the cost to A from sorting and transporting these volumes, everything else being the same. If lower unit costs are passed on to prices, this should result in a lower cross-border price, and a lower cross-border price differential. Therefore, we expect the coefficient of the scale effect (export methodology) to be negative.
- the larger the proportion of B's cross-border volumes that comes from A, (i) the lower B's unit cost of delivery and (ii) the higher the importance of A's volumes to B, and the higher A's bargaining power. These two effects should result in lower (non-ILR) termination rates paid by A to B. If A passes on these lower charges, then the cross-border price differential is lower and the coefficient of the scale effect (import methodology) will be negative. If A does not pass on these lower charges, then the coefficient of the scale effect (import methodology) will not be statistically different from zero. Finally, if termination rates remain high in the face of lower unit costs, then the coefficient of the scale effect (import methodology) will not be statistically different from zero.

³³⁸ Note that the scale arises from the total size of the cross-border flows, including all senders. The larger these flows, the lower the underlying costs, since economies of scale relate to the whole operation.

³³⁹ Source for the data is the IMF Direction of Trade Statistics database.

³⁴⁰ Source for the data is the IMF Direction of Trade Statistics database.

Domestic competition. Domestic competition in the sending and receiving country, A and B. We measure competition as “low”, “medium” or “high”.³⁴¹ This allows us to test whether increasing competition intensities have a higher effect on cross-border price differentials without knowing the actual number of competitors in all countries.

To construct the variable, we have used responses to the questionnaire we sent to the NRAs³⁴² and, where these were not available, we have used desk research on consolidators, subsidiaries of national postal operators, and other market players by segment as well as information from previous EC studies.³⁴³ The information reported in some of the sources was the intensity of competition rather than the actual number of competitors.

For each flow from A to B, we have three competition variables (low, medium and high competition) for A and three for B. Each of these variables is a dummy, that is a variable that is equal to either zero or one and “switches on”, i.e. changes from zero to one, where the particular characteristic which it measures is present. So, for example, the variable “medium competition (sender)” is equal to one if competition in A is medium, and is zero otherwise. Its coefficient measures the average percentage point difference in DIFF2 from A having medium competition instead of low competition. Everything else being the same, we expect the coefficients of the domestic competition variables to be positive: the higher the level of domestic competition, the lower the published domestic price that is used to compute the benchmark price, and the higher the cross-border price differential (DIFF2).

Cross-border competitive environment. This is a set of three zero-one variables, accounting for cross-border price differentials within three groups of countries to be different, on average, than other cross-border price differentials. The three groups of countries are: the six largest Member States, the other Member States fully liberalised as of today (2011)³⁴⁴, and those that will be fully liberalised in 2013. By introducing

³⁴¹ Low competition means two or fewer firms in the market, medium competition between three and five firms, and high competition more than five firms.

³⁴² The NRAs which responded were those from Belgium, Cyprus, the Czech Republic, France, Germany Greece, Hungary, Ireland, Latvia, Malta, Portugal, Slovenia, Sweden and the UK.

³⁴³ Copenhagen Economics (2010), Main developments in the postal sector (2008 – 2010), Part B: Country Fiche Appendix. Analysing survey responses to questions in the ‘Market Structure and Competition section (x.5).

³⁴⁴ Excluding Italy and Spain, which we have put in the ‘six largest Member States’ group.

these variables we are testing whether cross-border price differentials within these three groups are systematically different (higher or lower) than price differentials for cross-border shipments by Member States in one group to Member States in the other groups.

Cross-border flows within the six largest Member States are the largest, and subject to the most intense competition, and we expect this to have an impact on the prices paid by all users of postal services, including small, infrequent users. We expect cross-border price differentials to be lower within this group of countries due to the effect of higher cross-border competition and larger cross-border markets: without size, there will be no incentive for domestic competitors to enter the cross-border market for smaller users. For this reason, we expect cross-border price differentials to be the lowest, on average, for the largest six Member States, followed by the fully liberalised Member States and those that will be fully liberalised in 2013.

The coefficient on the variable for flows between the top six countries measures the average percentage point difference between the cross-border price differentials among the six largest Member States and that in the base group. Where the base group is composed by differentials between Member States belonging to different groups (e.g. between a Member State in the “six largest” and one in the “liberalised in 2011” group).

Distance effect. This variable measures the straight line distance, in hundreds of kilometres, between the capital cities of the sending and receiving countries, A and B.³⁴⁵ Distance has an impact on transport costs and should therefore impact price differentials. However, we have already accounted for transport costs in constructing the benchmark price and the cross-border price differential, since we added the cost of cross-border transport and since we have used the two domestic prices, which should account for internal transport costs in A and B. We have added this variable to our regression model to test for the soundness of our DIFF2 estimates: if we have accounted for transport costs correctly, the coefficient on the distance variable should be close to zero.

³⁴⁵ http://www.europedirectory.net/europe_capitals_distances/ - Europe Travel Directory website.

Border effect. This variable is equal to one if countries A and B share a border, and zero otherwise. Its coefficient therefore measures the average percentage point difference in the price differential from sharing a border. We expect the coefficient of this variable to be negative. However, the coefficient may be positive or very small since published cross-border prices tend to be averaged out across a large number of destinations, so that they are comparatively higher for closer countries and this would make DIFF2 larger, rather than smaller, for border countries.

Population density. Sender and receiver countries' population densities (hundreds of inhabitants per square kilometre) are added to the model.³⁴⁶ Countries with high population densities afford lower published domestic prices, which may result in higher cross-border differentials for these countries. If, however, published cross-border prices are adjusted to account for higher densities (either because of effective regulation or through competitive pressure), then one may observe that as population density increases, DIFF2 decreases. We therefore have no a-priori expectation on whether the coefficients on these variables will be positive or negative. The coefficient on this variable measure the percentage point change in DIFF2 as population density increases by one hundred inhabitants.

Single tariff. This variable is equal to one if the sender Member State has a single price for its cross-border product, regardless of where in the EU it will be delivered. The coefficient of this variable therefore measures the average percentage point difference in the cross-border price differential from the sender. There is no a-priori expectation on whether this variable has a positive or negative effect on the cross-border price differential, and therefore no expectation on the sign of its coefficient.

Track-and-trace effect. Track-and-trace is an important characteristic for e-commerce senders, including C2C. If one or both of the domestic products used to calculate the benchmark price (BP2) do not include track-and-trace, DIFF2 would be higher since the underlying cost of providing this service is not captured by the benchmark price. We include two variables to account for this effect. The “track-and-trace effect (receiver)” measures the differential effect of having a different track-and-trace offering in country B for its domestic product: that is, A has track-and-trace on a parcel going from A to B, but B does not offer track-and-trace to buyers of its domestic

³⁴⁶ Source: CIA: World Factbook.

product. The “track-and-trace effect (sender)” measures the differential effect of having a different track-and-trace offering in country A for its domestic product: that is, A has track-and-trace on a parcel going from A to B, but it does not offer track-and-trace to buyers of its domestic product. These are again zero-one variables, and each one of their coefficients measures the average percentages point difference in DIFF2 from the track-and-trace disparity. We expect the coefficients of these variables to be positive.

VAT effect. This measures the effect of having a different VAT treatment in the receiver Member State as opposed to that applied to the cross-border product in the sender country (which is generally identical to the VAT treatment for its domestic product). The variable is equal to one in two cases: country A has cross-border VAT but B does not; and country A does not have cross-border VAT but B does. In the first case, the price differential DIFF2 should be larger, because the published cross-border price has VAT, but one of the two published domestic prices used to estimate the benchmark does not. In the second case, the cross-border price differential DIFF2 should be smaller, because the published cross-border price does not have VAT, but one of the two published domestic prices used to estimate the benchmark does. The overall VAT effect depends on the balance of these two effects, and cannot be inferred a-priori. The VAT effect is a zero-one variable, and its coefficient measures the percentage point difference in the cross-border price differential from the VAT disparity.

Weight effects. We estimate our model for all weights, but for each weight category available for the product, we use zero-one variables to account for the differential effect of having that weight with respect to the base weight, which is two kilos for packets, and 30 kilos for parcels and express products.³⁴⁷

Appendix 6 contains summary statistics for the variables described above.

5.5.2 Methodology

The unit of observation for our models are the individual cross-border price differentials DIFF2. As explained above, we gathered published prices and product

³⁴⁷ As a consistency check, we also estimated one model for each weight category. The results did not change in any significant way.

characteristics for one domestic and one cross-border packet, parcel and express retail product sold by the national postal operator in each of the 27 Member States.

We constructed the benchmark price (BP2) and cross-border price differential (DIFF2) for each cross-border flow, for a total of 702 per individual product/weight category. Since we have three weight categories for packets, eight for parcels and nine for express products, the maximum possible number of observations would be 2,106 for packets, 5,616 for parcels and 6,318 for express products³⁴⁸. However, there are a number of flows where prices are not available, primarily at the higher weight categories, and more so for parcels than express products and packets. This leads us to have a total number of observations for the price differential (DIFF2) of 2,054 for packets, 4,306 for parcels and 5,413 for express products.

We then constructed the variables to include in the model. Scale, competition, demographic and geographic variables were collected for each Member State as specified in the previous section. However, to construct the track-and-trace effect and the VAT effect we used the information that is publicly available on the national postal operators' website and that which was supplied by the national postal operators that responded to the questionnaire.

We estimated³⁴⁹ the regression models using, ordinary least squares.³⁵⁰ For all three products, we followed a standard procedure to arrive at the final specification, for which we present the results here:

- we started out with a general model which included all the variables described in the section above;
- we eliminated those variables for which we had statistical evidence that their impact on the cross-border differential was not significant,³⁵¹ one by one;

³⁴⁸ Each of the 27 Member States can potentially send cross-border items to each of the 26 other Member States. So for each weight category there are 702 potential observations (27 * 26). Depending on the number of weight categories this 702 number is scaled up to give the aforementioned maximum number of observations.

³⁴⁹ All the models were estimated using the software package Stata, version 11.

³⁵⁰ None of the explanatory variables in the model can be suspected of being influenced by the price differential, DIFF2. The price differential for a single cross-border product cannot cause any of the explanatory variables. There is therefore no risk of endogeneity in our model and the ordinary least squares model is the correct approach. See, for example, William Greene, "Econometric Analysis", 7th Edition, 2011, Pearson Education for a detailed discussion of the topic.

- each time we eliminated a variable we re-estimated the model, until we arrived at the final specification.

We tested each model using standard statistical procedures, to ensure that the results are robust.

5.6 Model results

We discuss our results below, for each product separately.

5.6.1 Packets

Model results for packets are shown in Table 5.6. The regression model was estimated on 2,054 unique bilateral differentials between Member States for three weight categories: half a kilo, one kilo, and two kilos.³⁵²

The first column of the table shows the explanatory variables of the model, the second column of the table shows the model coefficients: these are the a's in the model specification (Figure 5.15). The third column shows whether we can trust that coefficient to be statistically significant (see footnote 351).

³⁵¹ A regression model uses a sample of data to estimate relations that we believe to exist in the population from which that sample has been drawn. Each of the coefficients in the model is estimated with a margin of error, because it is one of the many possible estimates of the true coefficient, which we cannot observe, since we have a sample of data and not data on the whole population (for example, all parcel products). We need to make sure that the population coefficient is not zero, i.e. that the variable for which we are estimating that coefficient actually affects the differential. So we need a test that the number we are getting from the model (the coefficient) is not different from zero by chance. We do this with a t-test. Roughly speaking, this is used to test whether there is a 90% (or 95% or 99%) probability that the true value of the coefficient we want to estimate is not zero. If the coefficient passes the test, then it is said to be "significant."

³⁵² We also estimated separate models for each weight category, but the model parameters did not change: the relationships between the explanatory variables and the price differential are the same across the weight categories.

Table 5.6 Price differential model results: packets

Packets - differentials regression analysis		
	Coefficient	Is the coefficient statistically significant?
Scale effect (export methodology)	-0.807	Yes
Scale effect (import methodology)	-0.031	
Medium competition (sender)	-0.108	
High competition (sender)	0.144	Yes
Distance effect	-0.003	Yes
Border effect	0.099	Yes
Population density (sender)	0.027	Yes
Population density (receiver)	0.007	Yes
A single tariff zone applied	-0.046	
Track-and-trace effect (receiver)	0.083	
Flows between top 6	-0.085	Yes
Flows between 2013 liberalised countries	0.252	Yes
Flows between 2011 liberalised countries	-0.109	Yes
0.5kg weight category	0.043	
1kg weight category	0.154	Yes
Constant	0.284	Yes
Number of observations	2054	
F-test statistics	F(38, 2015) = 27.48	
R-Squared value	0.3924	

Source: FTI

The model coefficients show the following:

- the scale effect (export methodology) is the most important driver of cross-border price differentials: **a 10 percentage point increase in the share of the sender cross-border flows that goes to the receiving country reduces the cross-border price differential by 8 percentage points on average.** The larger the proportion of A's total cross-border volumes that goes to B, the lower their unit cost and, consequently, the lower the cross-border price and price differential. **If other barriers to e-commerce are eased in any sender country and its cross-border postal flows increase, this may have a direct impact on cross-border price differentials, increasing cross-border postal flows and e-commerce further, in a virtuous circle;**

- there is no statistical evidence that the scale effect (import methodology) has an effect on the price differential: **a change in the share of B's cross-border inflows that comes from A has no impact on DIFF2**. In theory, the larger the proportion of B's total cross-border volumes that comes from A, (i) the lower their unit cost, (ii) the higher A's bargaining power when setting termination rates based on traffic profiles (which we understand to be the most common types of agreements between), and (iii) the lower the termination charge that A should pay B. The fact that we find no effect on the price differential for this scale effect variable strongly suggests that **either the published cross-border price set by the sending postal operator does not reflect savings from lower termination rates, or the receiving operator's termination charge remains at the same level independently of changes in unit costs. As a consequence, the cross-border price differential is unaffected**. The results suggest that consumers and small businesses do not see lower price differentials when the costs of the receiving operator fall due to scale effects. However, without information on termination rates it is not possible to establish whether this evidence of market power is attributable to high termination rates, or to the sending operator's ability to keep the savings from lower termination rates.
- Senders' high domestic competition levels are also very significant: **in comparison to low competition, senders with high domestic competition have a cross-border price differential that is just under 25 percentage points higher on average, everything else being the same**. This is because their published domestic price is much lower, which makes the cross-border price differential higher for any level of the published cross-border price. Interestingly, there is no effect for high domestic competition.
- **The distance effect and population effect are close to zero**. These variables are both measured in hundreds (of kilometers and of inhabitants per square kilometers).³⁵³

³⁵³ These variables are both measured in hundreds (of kilometres and of inhabitants per square kilometres), and have very low values. An increase in sender population density by 100 (which is a 60% increase) would only increase the cross-border differential by 2.7 percentage points. It was suggested that we could adjust the variable to 1,000s, which would multiply the current coefficients by 10. This would not make the distance effect large; it is very small, although statistically significant. The effect of population density would become large, but this finding would be artificial because it would measure the impact on price differentials from increasing population density by 1000 persons per square km, which is

- There is a positive border effect: on average **the cross-border price differential between two countries that share a border is 9.9 percentage points higher**. This is because senders set published cross-border prices that are the same for many receiving Member States. However, the transport costs component of the benchmark price is much lower for neighboring countries, thereby creating a positive border effect.
- **Having a single tariff** (a single cross-border price to all destinations) **does not have a significant impact on the cross-border price differential**. There are only three countries that apply a single tariff: Bulgaria, Estonia, and Slovakia, and may help explaining why the effect is not significant on average.
- **A discrepancy in track-and-trace between the cross-border product of the sender and the domestic product of the receiver does not impact the cross-border price differential**: there are not enough cases for which the discrepancy exists.
- **Compared to all other cross-border price differentials: cross-border price differentials among the six largest countries are about 8.5 percentage points lower; those among countries liberalized in 2011 are about 11 percentage points lower; and those between countries still to be liberalized are 25 percentage points higher**. This shows how cross-border competition and high volume flows in both sender and receiver countries (population sizes, broadband penetration, internet usage, e-commerce usage) lead to substantially different conditions for the users of these postal products. The sizeable gap between published cross-border and benchmark prices, which decreases with the increase of cross-border competition, indicates that **even after accounting for large cross-border volumes, published packet prices may not be reflecting true underlying costs and may be higher than what they should be**.
- Finally, **in comparison to two-kilo packets, one kilo packets have a differential that is 15 percentage points higher and the differential for half a kilo packets is 4.3 percentage points higher**.³⁵⁴ This could be an indication of

impossibility in the EU. The highest population density is Malta, at 1,287, followed by Netherlands at 404. The same is true for the distance variable: the maximum distance is 3,760, while the average distance between capitals is 1,460.

³⁵⁴ This coefficient is significant at the 10% level, not t at the a5%.

higher competition from cross-border parcel products in the two-kilo category, which pushes cross-border prices down. It could also be an indication of higher market power from operators in the domestic markets for two-kilo packets (which would increase domestic prices, and hence the benchmark and result in a lower DIFF2).

The model explains about 39% of the variability in the DIFF2 variable, as shown by the R-squared statistic. This is a good performance considering that we have not accounted for systematic difference in differentials by individual countries, and have instead grouped the countries into three groups according to the liberalisation date and geographic characteristics.

We used confidential information to construct cross-border price differentials, and we cannot show individual country estimates (such as the differential in country X is, on average x% higher than in Y). By adding individual country variables rather than the three groups, the R-squared of the model increases to about 90%, but the estimates are less precise due to too high correlation between these country dummies and other one-zero variables.

5.6.2 Parcels

Model results for parcels are shown in Table 5.7. The regression model was estimated on 3,209 unique bilateral differentials between Member States for eight weight categories: one, two, five, ten, 15, 20, 25 and 30 kilos.³⁵⁵

³⁵⁵ We also estimated separate models for each weight category, but the model parameters did not change: the relationships between the explanatory variables and the price differential are the same across the weight categories.

Table 5.7 Price differential model results: parcels

Parcels - differentials regression analysis		
	Coefficient	Is the coefficient statistically significant?
Scale effect (export methodology)	-0.375	Yes
Scale effect (import methodology)	-0.064	
Medium competition (sender)	0.183	Yes
High competition (sender)	0.208	Yes
Distance effect	-0.002	Yes
Border effect	-0.034	Yes
Population density (sender)	0.004	
Population density (receiver)	0.014	Yes
A single tariff zone applied	0.092	Yes
Track-and-trace effect (sender)	0.020	
Track-and-trace effect (receiver)	0.036	Yes
VAT regime effect (receiver)	-0.042	Yes
Flows between top 6	-0.082	Yes
Flows between 2013 liberalised countries	0.057	Yes
Flows between 2011 liberalised countries	0.009	
1kg weight category	0.019	
2kg weight category	0.025	
5kg weight category	0.023	
10kg weight category	-0.040	Yes
15kg weight category	0.027	
20kg weight category	0.006	
25kg weight category	-0.003	
Constant	0.450	Yes
Number of observations	3209	
F-test statistics	F(39, 3169) = 34.63	
R-Squared value	0.284	

Source: FTI

The model coefficients show a very similar pattern (if weaker in magnitude for some of the variables) to those found in the packet market. We will not repeat the analysis of results unless they are significantly different from those found for packets. We however interpret the coefficient values below:

- the scale effect (sender) is the most important driver of cross-border price differentials: **a 10 percentage point increase in the share of the sender cross-**

border flows that goes to the receiving country reduces the cross-border price differential by 3.8 percentage points on average.

- a change in the share of the receiver cross-border inflows that comes from the sender has no impact on DIFF2.
- Senders' domestic competition levels are very significant: **in comparison to low competition, senders with medium domestic competition have a cross-border price differential that is 18 percentage points higher on average, and senders with high competition have a differential that is 21 percentage points higher.** This result differs from the packets one, where medium domestic competition has no effect on the differential. **For parcels, the sending operators is able to keep the published cross-border parcel price high while its public domestic price falls due to domestic competitive pressure, when domestic competition is at medium and high levels. This indicates that the beneficial effects of domestic competition do not extend to the cross-border market.**
- **The distance effect and population effects are near zero.**
- There is a negative border effect: on average **the cross-border differential between two countries that share a border is 3.4 percentage points lower.** There are some operators who set lower published parcel prices for neighboring countries, and there are more country-price groups than in the regulated packets market. This results in published cross-border prices that better reflect transport costs, and hence in lower cross-border price differentials.
- **Having a single tariff** (a single cross-border price to all destinations) **increases the cross-border differential by about 9 percentage points.** There are five countries that apply a single tariff: Cyprus, Germany, Poland, Slovenia and Sweden. Since there is no a priori-expectation as to whether the coefficient should be negative or positive, we are not able to assess this result.
- **A discrepancy in track-and-trace between the cross-border product of the sender and the domestic product of the receiver yields a 3.6 percentage points higher cross-border differential.** This is because the cost of providing the service is not accounted for in constructing the benchmark price, when national postal operators do not provide it with their domestic product.
- **Discrepancies in VAT treatment between the cross-border parcel product and the domestic product of the receiver yield a 4 percentage point lower cross-border price differential on average.** This result means that the negative

impact on the cross-border price differential from higher published domestic prices when the domestic operator has to charge VAT more than outweighs the positive impact of having VAT on the published cross-border price but not on the published domestic receiver price. This result suggests that operators do not fully pass on the VAT to small, infrequent senders through higher prices.

- **Compared to all other cross-border price differentials, cross-border differentials among the six largest countries are about 8.2 percentage points lower on average; those among countries liberalized in 2011 are about the same; and those between countries still to be liberalized are 6 percentage points higher, everything else being the same.** For the six largest countries, the results for packets and parcels are similar. However, cross-border price differentials among other country groups show lower differentials. This does *not* mean that they are lower in absolute terms: rather, it means that they are not as different from one another as they are for packets.
- Finally, **cross-border price differentials for different weights are not statistically different from each other.** The exception is the ten kilo category, whose significance is borderline.

The model explains about 28% of the variability in the DIFF2 variable. By adding individual country variables rather than the three groups, the R-squared of the model increases to above 80%, but the estimates are less precise due to too high correlation between these country dummies and other one-zero variables.

5.6.3 Express products

Model results for express products are shown in Table 5.8. The regression model was estimated on 4,189 unique bilateral differentials between Member States for nine weight categories: half a kilo, one kilo, two, five, ten, 15, 20, 25 and 30 kilos.³⁵⁶

³⁵⁶ We also estimated separate models for each weight category, but the model parameters did not change: the relationships between the explanatory variables and the price differential are the same across the weight categories.

Table 5.8 Price differential model results: express products

Express products - differentials regression analysis		
	Coefficient	Is the coefficient statistically significant?
Scale effect (export methodology)	-0.418	Yes
Scale effect (import methodology)	0.027	
Medium competition (sender)	0.055	Yes
Distance effect	0.000	
Border effect	-0.001	
Population density (sender)	0.017	Yes
Population density (receiver)	0.002	Yes
A single tariff zone applied	-0.177	Yes
VAT regime effect (receiver)	0.046	Yes
Flows between top 6	-0.043	Yes
Flows between 2013 liberalised countries	0.072	Yes
Flows between 2011 liberalised countries	-0.029	Yes
0.5kg weight category	-0.129	Yes
1kg weight category	-0.104	Yes
2kg weight category	-0.082	Yes
5kg weight category	-0.055	Yes
10kg weight category	-0.034	Yes
15kg weight category	-0.027	Yes
20kg weight category	-0.020	Yes
25kg weight category	-0.001	
Constant	0.654	Yes
Number of observations	4189	
F-test statistics	F(40, 4148) = 53.66	
R-Squared value	0.348	

Source: FTI

The model coefficients show a very similar pattern to those found in the packet and parcel markets. As with parcels, we will not repeat the analysis of results unless they are significantly different from those found for packets or parcels. We however interpret the coefficient values below:

- the scale effect (sender) is the most important driver of cross-border price differentials: **a 10 percentage points increase in the share of the sender cross-border flows that goes to the receiving country reduces the cross-border price differential by 4.2 percentage points on average.**

- **a change in the share of the receiver cross-border inflows that comes from the sender has no impact on DIFF2.**
- Senders' domestic competition levels are significant: **in comparison to low competition, senders with medium domestic competition have a differential that is only 5 percentage points higher on average.** The high sender competition variable may not be significant because the published cross-border price and the sender's published domestic price fall with high competition. This indicates that the beneficial effects of domestic competition do extend to the cross-border express market.
- **The distance effect and population effects are near zero.**
- There is a no border effect: on average **the border variable is insignificant.** National postal operators appear to be able to set prices that are more in proportion with the distance travelled by the express product, which is captured by our benchmark variable, than they do for packets (the border effect for parcels is located in between these two situations). This result may also indicate that there is a more efficient part of the market.
- **Having a single tariff** (a single cross-border price to all destinations) **decreases the cross-border price differential by about 18 percentage points.**
- **Discrepancies in VAT treatment between the cross-border parcel product and the domestic product of the receiver yield a 4.6 percentage points lower cross-border price differential on average, very close to the parcel result.**
- **Compared to all other cross-border price differentials: cross-border differentials among the six largest countries are about 4.3 percentage points lower on average; those among countries liberalized in 2011 are about 7.2 percentage points lower; and those between countries still to be liberalized are 9 percentage points higher.** Although with different numbers, these are the same results as for packets.
- Finally, **cross-border price differentials for different weights are statistically different from each other, and they are higher, the higher the weight.** For example, the coefficient on the half kilo weight variable shows that, with respect to the 30 kilo category, express products in this weight category have a cross-border price differential that is 13 percentage points lower on average. The exception is the 25 kilo category, whose coefficient is not significant.

The model explains about 35% of the variability in the DIFF2 variable. By adding individual country variables rather than the three groups, the R-squared of the model increases to above 80%, but the estimates are less precise due to too high correlation between these country dummies and other one-zero variables.

5.6.4 Results summary for packets, parcels and express

The results for packets, parcels and express products are remarkably similar in showing that, after having taken into account qualitative discrepancies and pricing policies, the **cross-border price differentials** that we estimated early in the chapter, which are of the order of 20-30% for packets, 50% for parcels and 60% for express products, **are largely caused by scale effect and competition. This equates to published cross-border prices which are roughly 40%, 100% and 150% higher (for packets, parcels and express products respectively) than domestic benchmark prices.**

In particular:

- for all the products considered here, a 10 percentage point increase in the share of the sender cross-border flows that goes to the receiving country causes a significant reduction in the cross-border price differential, of the order of 4% for parcels and express, and 8% for packets. Increasing cross-border flows reduces unit costs and is fundamental for cross-border price differentials to decrease: **initiatives that reduce barriers to cross-border e-commerce and result in increased flows will yield lower published prices for non-account customers and, in a virtuous circle, facilitate their participation to cross-border e-commerce;**
- for parcels and packets, the cross-border price differential is higher, the higher the degree of competition in the sender's market. Cross-border price differentials are higher when domestic competition in the sender's market is higher. This is an indication that published cross-border prices are sheltered from the effects of competition: national postal operators enjoy market power for parcels that go cross-border and are sent by small, infrequent customers. If higher published cross-border parcel prices do not reflect underlying costs but low competition and therefore market power, efforts should be made to ensure that they fall relative to the domestic benchmark prices; and,

- for all products, cross-border price differentials are lower for product flows that take place within the six largest countries, and higher for those that take place within countries that will be liberalized in 2013. For packets, which are regulated as part of letter mail, this may well be a reflection of different intensity of regulation. However, the fact that the result is the same for packets, parcels and express indicates that customers in the larger six countries have more choices available to them than customers in other Member States, especially the more peripheral ones (which largely correspond to the Member States yet to be fully liberalized). This result shows that, **for most Member States, there is little competition in the market for individual retail customers, who pay published cross-border prices that are too high in comparison to domestic ones.**

5.6.5 Model developments

Our econometric model relies on publicly available variables and qualitative information from national postal operators and regulators to estimate the extent to which competition, scale and other factors affect price differentials between published domestic and cross-border prices:

- we have used data on cross-border trade as a proxy for parcel volumes. As a proxy variable for the total number of parcels travelling cross-border this is, we believe, a good variable. However, the total number of parcels does not distinguish between B2C and B2B items, nor it distinguishes among different parcel delivery logistics (for example, vendor conveyance or subsidiaries of national operators) or by size of sender. This has consequences for the precision of the estimated scale effect, which could be measured more accurately using data on national postal operator volumes for the products considered in the analysis;
- to measure competition, we have used an underlying categorical competition variable that takes the values of one, two, or three in correspondence of “low”, “medium”, and “high” competition. This variable is a qualitative variable because a value of two (“medium”) is not equal to twice a value of one (“low”). Low, medium and high are qualitative categories, and to use them correctly one needs to disaggregate them into three separate variables, each corresponding to a

status of “high”, “medium” or “low” market competition.³⁵⁷ Having a better measure of competition, for example number and type of competitors in both domestic and cross-border markets would not only allow for a more precise estimate of the effect of competition on price differentials; it would also allow for the effects to be measured in both the sending and receiving country;³⁵⁸ and,

- we have analysed differentials between published cross-border and domestic equivalent prices, and used published domestic prices as a proxy for the pipeline costs incurred by the national postal operators. Published domestic prices are geographically averaged, i.e. there is a single price to all domestic destinations. If the delivery patterns of cross-border and domestic parcel is different (for example if the proportion of cross-border parcels delivered in high density population areas is larger), then the cross-border price differential will be less reflective of underlying costs.

All the issues identified above are caused by lack of data. Data availability would not only improve the precision of the econometric model; it would also transform it into a model assessing the causes of cross border price-cost margins, rather than cross-border price differentials.

In particular, data on volumes and pipeline costs (including termination rates) would allow the identification of the sources of market power, i.e. whether cross-border differentials are caused by termination rates that are too high, or whether they are caused by the sending operators’ ability to charge higher prices. This type of analysis would provide invaluable help in determining appropriate regulatory measures for those products, such as packets and many parcel products, which are part of the USO.

5.7 Conclusions

Our review of the EU markets for parcels shows that market conditions are very different for large and small senders. Large senders operate in a competitive

³⁵⁷ This problem is technically known as collinearity.

³⁵⁸ The variables that identify the competitive environment, are all highly correlated. Including both sender and receiver competition in the model causes the model to “break down”, with many variables highly insignificant and coefficients that make little practical sense.

environment, and have much choice and bargaining power vis-a-vis suppliers. The prices they pay are negotiated.

By contrast, many small senders tend to use the services of national postal operators, even in cases where they do have alternatives. As a result, they pay higher cross-border prices, as compared to domestic ones. These higher prices could be due to higher cross-border unit costs linked to the smaller scale of cross-border operations; and/or to insufficient competitive pressure, i.e. to the existence of market power.

In this chapter we have explored the size and sources of the differences between the published cross-border and domestic prices paid by small senders when they use the national postal operator to send packages. In particular, we have addressed the following issues:

- whether published domestic and cross-border price for packets, parcels and national postal operators' express products are substantially different;
- what are the causes for the differential between published cross-border and domestic prices; and,
- how competitive conditions, scale and other relevant factors affect these price differentials.

We have found that published cross-border prices are much higher than comparable domestic prices and subsequently too high. For parcels, published cross-border prices are on average *twice* as high as domestic benchmark prices. Since published tariffs are those paid by non-account customers, they represent prices charged to many small enterprises, micro enterprises and individuals. We estimate parcels sent by these groups to account for around 20% of total cross-border parcel³⁵⁹ volumes.

Our econometric analysis of cross-border price differentials shows that:

- cross-border price differentials decrease with scale: as unit costs decrease with increased volumes, sending national postal operators pass a part of these cost savings on to their customers;

³⁵⁹ Here, total parcel volumes include packets and express products by national postal operators.

- an increase in scale in the delivery country does not impact the cross-border price differential: as unit costs of delivery decrease, either the delivery operator keeps the savings by not reducing termination rates, or it lowers the charges and the sending operator keeps the savings without passing them on to customers; this indicates that there is market power, but it needs to be established which operator profits from it;
- a more competitive domestic environment in the sending country does not translate to lower published cross-border prices: the national postal operator is able to insulate cross-border products from the effect of competition; this indicates that there is market power in this market; and,
- higher cross-border competition has a strong impact on cross-border price differentials: for cross-border flows between the six largest countries, differentials are significantly lower, although they are still quite high.

Our results therefore show that there is evidence of market power in the cross-border market for small, infrequent senders. This market power has two sources, which act to reinforce each other in a vicious circle of low demand, low competitive entry and high prices.

On the demand side, the elasticity of demand is low: either customers do not have alternative choices to the national postal operators, or if they do, they do not use them because of one or more reasons, mainly linked to information and trust issues, which need to be addressed by appropriate policy interventions:

- lack of knowledge of the postal market and of alternatives to using the national postal operator;
- lack of trust in the quality of cross-border delivery services;
- high switching costs: there may be material costs for some customers from shifting away from the national postal operator, for example the nearest parcel shop may be more distant than the local post office; and/or,
- customer inertia: the brand of the national postal operator may be very strong for some customers, who associate sending postal items with the national postal operator and who would be very reluctant to change provider.

On the supply side, the ability to maintain high published prices stems from a lack of competition, which enables the sending and/or receiving national postal operator to not pass cost savings on to customers, and/or to keep high termination rates.

The packet and (many of the) parcel products we have considered in our analysis are part of the USO, and Articles 12 and 13 of the Postal Directive set out the criteria that should underpin USO pricing. Prices for USO products should be cost-reflective and based on efficient service provision. Our results show that there is a strong indication that they are not so and that regulation of cross-border USO products, which has been hampered by lack of information on cross-border costs (including termination rates) should become more effective.

6 Conclusions and Recommendations

6.1 Conclusions

Our estimates show that **retailers in the EU earn a mere 1% of their turnover from cross-border e-commerce. Small retailers have a 22% share of the cross-border e-commerce market. There is an untapped potential for growth that is being hindered by a number of barriers.**

We have reviewed and assessed delivery and non-delivery barriers to cross border e-commerce and have then focussed our attention on the EU cross-border parcel delivery market, which includes packets, parcels and express and where we estimate that small enterprises have a volume share of about 20%. We have reviewed the delivery options available and assessed the implications of industry structure for retailers of different sizes and for consumers and the regulatory environment in which the market operates. Finally, we have looked at price differential between cross-border and domestic packet, parcel and (national postal operators') express products that small, infrequent senders such as small and micro-enterprises are most likely to purchase, especially in non-urban areas and more peripheral countries: these are the only prices that are published by national postal operators.

The main findings of our study are as follows:

- **delivery barriers to cross-border e-commerce originate are related to three factors: prices; concerns about quality of services; and lack of information on the quality of delivery, complaint procedures and returns. Lack of information and concerns about quality of service mine consumer confidence and lower demand. The same factors impact the supply of e-commerce, with small retailers being disproportionately affected;**
- **non-delivery barriers**³⁶⁰ include the fear of being unable to use the goods purchased, and the fragmentation of consumer right legislation and laws regulating transactions with consumers. These barriers **are also related to lack**

³⁶⁰ Language and cultural issues are barriers that are difficult to remove, and cannot be removed with policy initiatives. The same is true for fear of fraud, which is an important barrier to cross-border e-commerce.

of information and to the high costs of acquiring it, and disproportionately affect consumers and small retailers;

- in practice, **much has been and is being, done at EU level** on consumers' rights, sales legislation, and complaints procedures. However, **consumers and many retailers are not aware of this**. Diffusing this information should be a priority;
- with respect to quality of service barriers, we find that there is evidence that delivery times, damaged items and losses are, in the majority of Member States, not worse cross-border than domestically. However, **quality of service data are not available for parcels, and this means that consumers and many retailers (again, in particular small ones) remain dubious and opt not to buy or sell cross-border**. This lack of transparent information should be removed to allow participation to cross-border e-commerce to increase;
- our analysis of market logistics provides useful information as to how delivery prices affect different retailers. **Delivery costs, and therefore prices, vary with parcel volumes and with frequency of dispatch. Higher market volumes also attract entry and large e-commerce vendors**, especially in high volume markets (the largest postal markets) **enjoy the full benefits of competitive delivery prices**;
- a two-tier delivery market exists in cross-border parcels delivery: **in comparison to large senders, small senders and those residing in peripheral countries or non-urban areas pay higher prices and generally use the services of national postal operators**. In particular, **small senders in the largest markets do have alternative delivery options, but they do not use them**. A combination of lack of information and lack of trust in the quality of the alternatives are responsible for this situation;
- **small retailers, however, account for a non-trivial 22% of cross-border volumes. They are an important proportion of total retailers and therefore an important driver of e-commerce growth, but may not be able to pass on high cross-border prices to their customers, because e-commerce markets are competitive. This lowers their market participation, and has a negative impact on the growth of cross-border e-commerce**;
- non-account customers are those that are most likely to use over-the counter, individual parcels, which include USO products;

- **the regulation of USO cross-border parcels is weak.** NRAs may not have the necessary information to absolve their regulatory duties, prescribed by the Postal Directive. In particular, they may not have adequate data on volumes, costs, quality of service or termination rates. **Weak regulation is a serious problem, and it is most likely to result in high cross-border prices in comparison to similar domestic services;**
- **our analysis of published cross-border prices confirms this:** even after accounting for structural differences and transport and administrative costs, cross-border prices are considerably higher than domestic benchmark prices. **For parcels, the average cross-border price differential is about 50%,** and it falls to 30% when UPU termination rates are used in the calculations. **This equates to cross-border prices which are roughly twice as high as domestic benchmark prices;**
- **our econometric models of cross-border price differentials** shows that although differentials are lower in the largest countries, national postal operators are able to shield high cross-border prices from the effect of domestic competition. Moreover, while higher cross-border volumes in the sending countries result in lower price differentials, the same is not true for high volumes in the delivering countries: as the share of total delivered cross-border volumes that comes from a single country (A) increases, the price differential in A does not decrease. **This suggests that there is market power:** either the operator in A obtains discounts in the termination rates and does not pass it on to its customers; or the termination rate does not change when costs decrease; and,
- **The results of our empirical analysis therefore show that USO products prices are unlikely to be cost oriented, as required by the Postal Directive, and that market power allows national postal operators to keep cross-border prices high.**

We believe that removing the barriers we have identified should be a priority: it will increase cross-border e-commerce volumes and reduce prices. Given the importance of volumes in setting delivery prices, any policy that would result in increased e-commerce volumes for small enterprises through the removal of non-price barriers would result in lower delivery prices and further volume growth.

In this chapter, we lay out our recommendations for moving forward in removing those barriers to cross-border e-commerce that are related to delivery and hinder the growth of both e-commerce and delivery markets.

6.2 Removal of information barriers

1. **In view of high level consumer protection (e.g. possibility of redress; remedies available) it is imperative that Member States implement the recently adopted Consumer Rights Directive as soon as possible and in line with its objectives and ensure, through information campaigns, that consumers are aware of their rights.**

The Consumer Rights Directive contains a number of important provisions aimed at harmonising and strengthening consumer rights across the EU. It increases the right to withdraw from a sales contract to 14 calendar days from the previous 7. The Directive also introduces a EU-wide model form for withdrawing from a sales contract, which retailers has to provide to its customers, as well as requirements for clearly specified contact details.

The existence of uniform conditions across the Member States lowers uncertainty for retailers and the cost of gathering information, which are important barriers for small retailers. The strengthening of consumer rights and the requirement for vendors to publish relevant information reduce demand-side barriers.

A speedy implementation of the Directive by the Member States will remove some fundamental barriers to e-commerce, and have a positive impact on consumers and retailers, especially small retailers, alike. The ensuing growth in e-commerce will lead to growth in parcel deliveries, with larger volumes and better prices.

2. **The EC should furthermore encourage Member States to develop information campaigns on cross-border consumer rights using appropriate channels.**

Because consumers and many retailers are not informed about consumers' rights, and this is reported by many retailers as a barrier to engaging in cross-border e-commerce, it is important that the Member States accompany the implementation of the Consumer Rights Directive with information campaigns on cross-border consumer rights.

Disseminating information is fundamental: the mere existence of consumer rights will not increase demand, and their harmonisation will not increase supply, unless buyers and sellers know that these rights exist. This lack of information is a market imperfection that must be removed in order to achieve growth in the cross-border e-commerce and delivery markets.

- 3. All vendors should provide a link to national ECC-Network contact points. They should clearly indicate that consumers have the right to return products and be reimbursed, and the procedure for doing so.**

Concerns about complaint procedures for loss of items, and other problems related to cross-border e-commerce purchases constitute important barriers: consumers, who do not know what to do and are concerned about having to use a foreign language. However, when these events occur, consumers can use the national website of the ECC Network³⁶¹ operating in each country, from which they can obtain help and advice in their own language. Unfortunately, only 31% of consumers know that this advice is available and where to get it.³⁶²

Consumers should be made aware of this initiative: as information spreads, demand will increase because of the removal of an important barrier to cross-border e-commerce, which is the fear of not being able to redress a problem, whether that is linked to delivery or to other aspects of the transaction.

By providing a link to the ECNN network (which has a single address for the whole EU) on their website, e-commerce retailers would remove this market imperfection at a small cost. They would also send a signal to their customers that they are trustworthy, which would have a positive impact on their sales and therefore on the e-commerce and delivery markets.

- 4. When the CEN addressing standard is published in February 2012, the EPG and its members should work closely with CEN to ensure effective implementation.**

³⁶¹ http://ec.europa.eu/consumers/ecc/index_en.htm.

³⁶² Eurobarometer, Consumer attitudes towards cross-border trade and consumer protection, Analytical Report, *Flash Eurobarometer 299*, March 2011. Table 11a.

The existence of different addressing standards across the Member States is a problem, especially for small and individual senders. Access to the new addressing standard should be made as easy as possible and its implementation monitored.

The single addressing standard will reduce parcel labelling costs for all retailers; it will however be especially beneficial for small retailers, which have less knowledge of cross-border markets and higher search costs: not being able to label a parcel properly increases postage costs (because it reduces the ability to work share).

Removing this barrier would therefore increase the competitiveness of smaller firms and their participation to e-commerce and would increase the size of the cross-border e-commerce and delivery markets.

- 5. The Member States should promote awareness campaigns to inform SMEs of alternative cross-border delivery options (mail consolidators, online parcel brokers, retail networks of subsidiaries of other national postal operators). The information could be distributed through Chambers of Commerce and trade associations.**

Effective competition cannot take place if market entry is not followed by buyer switching. In all the largest countries there are alternatives to national postal operators, but small retailers appear not to use them: they do not know that these alternatives exist, or they do not trust them. As a consequence, national postal operators are able to retain these customers, keep a higher share of the market segment, and maintain high published cross-border prices.

For this reasons, Member States should make an effort to ensure that potential buyers are aware of the existence of alternatives to national postal operators. The right bodies to distribute the information are not, however, NRAs, which are themselves not well known. Rather, the information should be available through the venues that are most frequented by business people: trade associations and Chambers of Commerce.

6.3 Removal of quality of service barriers

- 6. NRAs should encourage transparency on quality of service. Information should be published on NPO's and NRA's sites.**

Long delivery times and item damages or losses are a particular concern for consumers engaging in cross-border shopping, but there is little information in the

public domain about the quality performance of cross-border parcel deliveries. This situation helps supporting a perception among consumers that the quality of service of cross-border parcel services is worse than that of domestic ones, a perception that is shared by many retailers and that lowers consumers' propensity to purchase cross-border and retailer participation.

For USO products, quality standards should be set, monitored and published by NRAs and USPs and easily accessible. NRAs are tasked with the duty of monitoring quality of service by the Postal Directive, and should perform it by obtaining the relevant data from the USPs, which have a duty to comply with the request (Article 22a).

7. Corresponding to Unex measures for letter mail, the IPC could consider the publication of quality of service measures for parcels.

We have found evidence showing that in the majority of Member States, consumers' experience with the quality of cross-border and domestic deliveries is similar, suggesting that concerns about cross-border deliveries are exaggerated. And yet, these concerns contribute to lower cross-border e-commerce flows and consequently the size of the cross-border delivery market. For this reason quality information should be publicly available; this would remove a considerable barrier to e-commerce growth and, consequently, increase the size of the cross-border parcel market.

For CEP products in general, it is in the interest of operators to remove this information barrier, given the positive impact it would have on their B2C flows – we believe that the IPC would be the appropriate forum for publishing this information.

6.4 Removal of price barriers

8. NRA should consider how to ensure that the Postal Directive is correctly implemented:

Our study has found that there is a two-tier delivery market for cross-border deliveries, with about one fifth of parcel volumes originating from small, infrequent senders that do not have an account with national postal operators and that overwhelmingly use the traditional cross-border postal pipeline to send parcels.

One of the main advantages of e-commerce is that it does not depend on location, allowing retailers residing in more peripheral areas and countries to participate in a larger market. These retailers, however, are the most expensive for parcel operators

to service: they use the national postal operators. If they are charged cross-border delivery prices that are too high, they may decide not to participate in the cross-border market. Clearly, prices that are much higher than underlying delivery costs suggest that national postal operators have market power vis-a-vis these customers and that, for those parcel products that are within the scope of the USO, the NRAs are not regulating prices effectively:

- **the scope of the USO should be clear.**

We have found that there is little information regarding cross-border parcel flows and at times confusion as to which products are part of the USO. This is, in itself, an indication that the market is essentially unregulated. As a first step, NRAs should therefore clarify which cross-border parcel product is USO, bearing in mind users' needs and market developments;

- **article 13 requires termination charges for cross-border USO products to be cost oriented: the NRAs must enforce this. To this effect, appropriate cost allocation mechanisms must be developed within the letter of Article 14 and assessed by NRAs with data provided by the NPO (Article 22a). Volumes, pipeline costs and termination charges are part of this requirement: if they do not have these data, NRAs should obtain them.**

In order to set cost oriented prices for cross-border parcels, NRAs must obtain the necessary information from USPs. Knowledge of pipeline product costs is fundamental, and not only to separate USO from non-USO costs: since NRAs must ensure that termination rates charged by the national postal operator to deliver parcels as part of its USO obligations are cost oriented, they need to know the cost breakdown by product and pipeline activity. Cost allocation methodologies (when not yet available) must be developed and assessed by NRAs.

Price setting requires considerable information on volumes, costs and quality of service. Although the collection of this information is a burden for USPs, they must comply with requests by the NRA (Article 22a). NRAs should develop a model data request form to be used for price setting, reducing the costs of gathering information.

- **NRA must use this information to assess that cross-border parcel prices, and termination charges (paid to the NPO to discharge its delivery duties**

within the scope of the USO) are cost oriented or whether there is evidence of market power being abused.

We found that differentials between published cross-border prices and domestic equivalent benchmarks are too high and unlikely to be cost oriented. There is a clear suggestion that for small customers, markets are not competitive. The removal of market distortions – lowering prices and increasing awareness of competitive delivery options, where they exist – must be a priority. Given the relationships between parcel volumes, costs and prices, unless small retailers are able to increase their volumes, they will continue paying high cross-border prices, send low volumes and participate less in cross-border e-commerce. This is not to say that we expect small and large retailers to pay the same prices: if prices reflect costs, they will always be higher for small retailers than for large ones. However, they must not be unduly so. The removal of the price and non-price barriers to e-commerce will increase volumes and participation of small retailers to cross-border e-commerce.

- **NRA should consider appropriate ways to share among themselves information necessary to discharge their duties in cross-border markets (Article 22).**

When regulating cross-border products, efforts and regulatory costs would be minimised by effective cooperation among NRAs. This should be co-ordinate by the ERGP, which has already set cross-border regulatory issues at the core of its agenda for 2011-2012.

Appendix 1 Example survey – National postal operator



Introduction

We are conducting a study on intra-EU cross-border deliveries of packets, parcels and express packets/parcels on behalf of the European Commission. As part of our study, we would like to better understand:

- (i) the basic product offering available to residential customers and non-account business customers (small and medium enterprises) wanting to utilise these mail products to send goods cross-border and domestically;
- (ii) the main recipients of cross-border flows originating from your country;
- (iii) the delivery process structure and the operational activities in providing cross-border delivery services; and
- (iv) the type of agreements that your organisation has in place to deliver cross-border mail originating from other Member States.

We would really appreciate your help on these issues, and to this end we have prepared this short questionnaire that we ask you to fill in. We can assure you that we will not divulge any information that may be considered confidential, and that we will only publish aggregate results, i.e. results that cannot be traced back to any individual operator. If you require us to sign a confidentiality agreement, we would be happy to do so.

Instructions for completion

The questionnaire is composed of 12 pages (worksheets). To complete the questionnaire, please answer the questions on each page following the instructions given on the page.

Thank you for your co-operation and your help, which are greatly appreciated.

Could you please return the completed questionnaire to me by email (meloria.meschi@fticonsulting.com) by March 31st.

Definitions

Please note that throughout this questionnaire we draw a distinction between a packet, a parcel, and an express packet/parcel. These mail categories are described as below, consistent with the definitions set out by the Universal Postal Union ("UPU").

	Physical characteristics	Speed of delivery
Packets (letter post items)	Maximum of 2kg	Priority and non-priority
Parcels	Maximum of 20kg with optional higher weight accepted	Priority and non-priority
Express parcels/packets	Documents or goods	Forwarded and delivered in most rapid way

A small business is defined as a business which does not make payments on account. That is, a business which pays for services as and when it uses those services, rather than paying an invoice at the end of a payment period.

Question 1a

We would like to perform our analysis on the most basic priority postal, parcel and packet service. That is, a service with a D+1, or D+2 delivery speed but with minimal additional features such as insurance, tracking, receipt on delivery.

Please confirm that the following services describe your basic packet, parcel or express services for domestic and international mail. If the answer is 'yes', please indicate this with a 'Y' next to the service name. If the answer is 'no', please indicate this with an 'N' and provide the name of the service that best fits the description provided.

Domestic packet service	Y/N
Cross-border packet service	Y/N
Domestic parcel service	Y/N
Cross-border parcel service	Y/N
Domestic express service	Y/N
Cross-border express service	Y/N

For the following questions, please indicate if the service name is your basic xx service product. If it is not, please overwrite the name of the service in cell Bxx.

Question 1b

If there are any additional products that we have not yet identified which you feel would be important for our analysis, please list them here and identify if the service is a domestic or international service, and if it is a packet, parcel, or express service

If you have filled in additional services below, please complete worksheets labelled 'Q2 bis', 'Q3 bis', and 'Q4 bis' at the end of the questionnaire.

Name of service	Domestic	Cross-border	Packet	Parcel	Express

Please indicate with an 'X', whether the service is domestic or cross-border.

Please indicate with an 'X', whether the service is a packet, parcel, or express service.

Question 2

We would like to understand the prices charged to *residential* customers for posting items of different weights using the services listed in Question 1.

In the tables below we have identified the prices for the products listed in Question 1. Please confirm if these prices are the correct prices offered by your organisation for the products identified in Question 1. Please remember that in this question we would like to understand the prices charged to *residential* customers.

Where a price is correct, please do not adjust the value or format of the cell. Where a price is incorrect, please overwrite the incorrect value with the correct price and colour the text of the cell in **RED**.

For example, if we have listed the 2kg packet price as 10 and in fact the price is 12, please delete the value of 10 in the 2kg packet price cell and replace it with '**12**'.

Country of origin		Austria	...	other EU27 Member States	...	UK
Country of destination	Weight (kg)					
Packet:	0.5					
	1					
	2					
Parcel:	1					
	2					
	5					
	10					
	15					
	20					
	25					
	30					
Express:	0.5					
	1					
	2					
	5					
	10					
	15					
	20					
	25*					
30*						

Question 3

We would like to understand if small businesses are charged a different price to the prices charged to residential customers.

In the tables below please identify any discounts, either as a % or as an absolute value, from the prices listed in Question 2 that are available to small business customers. That is, business customers that *do not* make payments on account to your organisation for the postal services they use.

Product	Destination	Weight (if applicable)	Discount rate	Time period necessary to obtain the discount (if any)	Mail volume necessary to obtain the discount (if any)	Value of purchases necessary to obtain the discount (if any)
Packet						
	Domestic					
	International					
Parcel						
	Domestic					
	International					
EMS						
	Domestic					
	International					

Question 4

To increase the accuracy of our analysis we would like to understand the specifications of the products we are analysing.

In the table below we have identified the specifications of the products listed in Question 1, at the prices listed in Question 2. That is, we believe the features identified below represent the services the sender receives at *no additional cost* to the prices set out in Question 2.

Where a product feature is correctly identified, please indicate this with a 'Y' next to the specification. Where a product feature is incorrectly identified, or is missing, please input the correct answer into the 'Confirm/Amend' column, i.e. columns D and F.

For example, if we have written that the domestic parcels product has a maximum weight of 30kg, but this is incorrect and the product has a maximum weight of 40kg, please write '40kg' in cell D55.

Packets				
Description	Domestic		Cross-border	
	FTI	Confirm/Amend	FTI	Confirm/Amend
Name of the service				
Maximum dimensions of the product				
Minimum weight of product (kg)				
Maximum weight of the product (kg)				
VAT applicable or not				
VAT rate				
Is VAT already included in reported prices?				
Are the following service features included within the fixed price set out in Question 2? (Yes/No)				
Pick up from address (as opposed to postal office)				
Delivery to address (as opposed to postal office)				
Insurance against theft or damage				
Value of insurance provided				
Proof of posting or registration				
Track and trace				
Proof of delivery*				
Return to sender if addressee not found				
Return by sender				
Domestic logistics				
Delivery time (range for all EU 27 countries)				
Cross-border logistics				
How many tariff zones cover all the EU 27 countries?				

Parcels				
Description	Domestic		Cross-border	
	FTI	Confirm/Amend	FTI	Confirm/Amend
Name of the service				
Maximum dimensions of the product				
Minimum weight of product (kg)				
Maximum weight of the product (kg)				
VAT applicable or not				
VAT rate				
Is VAT already included in reported prices?				
Are the following service features included within the fixed price set out in Question 2? (Yes/No)				
Pick up from address (as opposed to postal office)				
Delivery to address (as opposed to postal office)				
Insurance against theft or damage				
Value of insurance provided				
Proof of posting or registration				
Track and trace				
Proof of delivery*				
Return to sender if addressee not found				
Return by sender				
Domestic logistics				
Delivery time (range for all EU 27 countries)				
Cross-border logistics				
How many tariff zones cover all the EU 27 countries?				

EMS				
Description	Domestic		Cross-border	
	FTI	Confirm/Amend	FTI	Confirm/Amend
Name of the service				
Maximum dimensions of the product				
Minimum weight of product (kg)				
Maximum weight of the product (kg)				
VAT applicable or not				
VAT rate				
Is VAT already included in reported prices?				
Are the following service features included within the fixed price set out in Question 2? (Yes/No)				
Pick up from address (as opposed to postal office)				
Delivery to address (as opposed to postal office)				
Insurance against theft or damage				
Value of insurance provided				
Proof of posting or registration				
Track and trace				
Proof of delivery*				
Return to sender if addressee not found				
Return by sender				
Domestic logistics				
Delivery time (range for all EU 27 countries)				
Cross-border logistics				
How many tariff zones cover all the EU 27 countries?				

*Note proof of delivery includes: a physical card sent back to the sender; an email/SMS notification sent to sender; a signature gained from the addressee

Question 5a

We would like to understand which other EU Member States are receiving the main volumes of cross border packets, parcels and express packet/parcel items from your own country.

In the table below, please set out the proportion of cross border packets, parcels and express packet/parcel items that cumulatively represent 80% of cross border packets, parcels and express packet/parcel traffic (note we do not require every box to be filled). Since we want to concentrate on the main cross-border flows, and to avoid you having to fill in very small percentages next to each country, we ask you to consider 80% rather than 100% of items.

For example, if Germany is the destination of 60% of outbound cross border packets, parcels and express packet/parcel traffic mail items, France is the destination of 10% of cross border outbound items and Italy is the destination of 10% of these items, then please write '60' next to Germany, '10' next to France and '10' next to Italy, and the boxes next to the other member states would be left blank.

Proportion of outbound cross border parcel, packet and express packet/parcel volume	
Austria	
Belgium	
Bulgaria	
Cyprus	
Czech Republic	
Denmark	
Estonia	
Finland	
France	
Germany	
Great Britain	
Greece	
Hungary	
Ireland	
Italy	
Latvia	
Lithuania	
Luxemburg	
Malta	
Netherlands	
Poland	
Portugal	
Romania	
Slovakia	
Slovenia	
Spain	
Sweden	
Total volumes of packets, parcels and express packets/parcels	0

This number should add to '80' when this question has been answered.



Question 5b

For the countries that you have identified and provided information for in Question 5a, please set out how the packets, parcels and express packet/parcels are transported from your country to the border of the destination country. Mail can be transported across borders by road, rail, sea or air. Please specify the proportion of outbound cross border packet, parcel and express packet/parcels sent by each mode of transport in the table below.

For example, if 60% of outbound cross border packets, parcels and express packet/parcel traffic mail items are sent by road, please place a '60' in cell O29.

	Road	Rail	Sea	Air	Total
Austria					0
Belgium					0
Bulgaria					0
Cyprus					0
Czech Republic					0
Denmark					0
Estonia					0
Finland					0
France					0
Germany					0
Great Britain					0
Greece					0
Hungary					0
Ireland					0
Italy					0
Latvia					0
Lithuania					0
Luxemburg					0
Malta					0
Netherlands					0
Poland					0
Portugal					0
Romania					0
Slovakia					0
Slovenia					0
Spain					0
Sweden					0

These rows should add up to 100 when this answer is complete.

Question 6

We would like to understand the operational arrangements for cross border mail delivery and in particular how and by whom different elements of the cross-border delivery services are provided.

For inbound cross border mail (mail from another Member state) and outbound cross border mail (mail to another Member state), please mark with an 'X' the parts of the postal pipeline that you are responsible for and the parts that the foreign postal operator is responsible for.

Inbound cross border mail	Your responsibility	Foreign operator's responsibility
Transport to your border		
Primary sortation		
Transport to second sorting office		
Second sort		
Transport to delivery office		
Delivery		

Mark an 'X' if this activity is the responsibility of the foreign postal operator

Outbound cross border mail	Your responsibility	Foreign operator's responsibility
Collection of items		
Transport		
Primary sortation		
Transport		
Secondary sortation		
Transport to cross border hub		
Transport to foreign border		

Mark an 'X' if this activity is the responsibility of the foreign postal operator

Question 7a

We would like to gain an understanding of the costs associated with the different elements of the postal pipeline. For domestic mail items and separately for parcels, packets and express packets/parcels, could you please provide an estimate of the share of total cost (the incremental cost plus an appropriate share of overhead or common costs) in the table below.

In addition:

- could you please give us your best estimate of what proportion of the cost of delivering an **inbound** cross border parcel is represented by overheads directly related to cross-border operations
- what would this be in EUR (or local currency)?

Domestic mail pipeline	% share of total costs of all mail represented by each pipeline activity	% share of total costs of <u>packet</u> mail represented by each pipeline activity
Collection of items		
Transport		
Primary sortation		
Transport		
Secondary sortation		
Transport to delivery office		
Delivery		
Total	0	0

This row should add up to 100%

Domestic mail pipeline	% share of total costs of <u>parcel</u> mail represented by each pipeline activity	% share of total costs of <u>express packets and parcels</u> represented by each pipeline activity
Collection of items		
Transport		
Primary sortation		
Transport		
Secondary sortation		
Transport to delivery office		
Delivery		
Total	0	0

This row should add up to 100%

International mail	
inbound cross border parcel that is	
cross-border operations of delivering	

Please insert a percentage in this cell

Please insert a value here, in terms of EUR (or local currency) per item

Question 7b

We would like to understand if the variation in costs within your organisation are caused by the size of an item, or the weight of an item. Could you please fill out the tables below by marking with an 'X' the box that best describes the cost variation within your organisation.

Costs vary more by the <i>weight</i> of items	
<input type="checkbox"/>	<input type="checkbox"/>
Costs vary more by the <i>size</i> of items	
<input type="checkbox"/>	<input type="checkbox"/>
If the <i>weight</i> of an item doubles, the delivery cost would:	
Less than double	<input type="checkbox"/>
More or less double	<input type="checkbox"/>
More than double	<input type="checkbox"/>

If the <i>size</i> of an item doubles, the delivery cost would:	
Less than double	<input type="checkbox"/>
More or less double	<input type="checkbox"/>
More than double	<input type="checkbox"/>

Question 7c

We would like to understand how the gross profit margin for domestic mail varies with product type. Could you please give us your best estimate of your organisation's gross profit margin for the products indicated in the table below? If you cannot produce an exact figure, could you estimate a range from the following, and put it in the table below.

- | | |
|------------------------|------------------------|
| a) up to 10% | f) between 51% and 60% |
| b) between 11% and 20% | g) between 61% and 70% |
| c) between 21% and 30% | h) between 71% and 80% |
| d) between 31% and 40% | g) between 81% and 90% |
| e) between 41% and 50% | h) above 90% |

Domestic mail products	Gross profit margin (%)
All mail	<input type="text"/>
Packets	<input type="text"/>
Parcels	<input type="text"/>
Express packets and parcels	<input type="text"/>

Question 8a

We understand that agreements may exist between Member States that set out the charge to a postal operator in another Member State for the delivery of inbound packet or parcels in your country. These agreements may be based on Inward Land Rate arrangements as set out by the UPU, they may be bilateral agreements or multilateral agreements (such as the EPG)

Please specify which kind of agreement exists by marking an 'X' in the UPU column below, or by writing the name of the agreement (e.g. "bilateral", "EPG" etc.) in the second column below

	UPU based Inward Land Rate agreement	Other charging mechanism for delivery of inbound mail into <i>your</i> country, please specify
Austria		
Belgium		
Bulgaria		
Cyprus		
Czech Republic		
Denmark		
Estonia		
Finland		
France		
Germany		
Great Britain		
Greece		
Hungary		
Ireland		
Italy		
Latvia		
Lithuania		
Luxemburg		
Malta		
Netherlands		
Poland		
Portugal		
Romania		
Slovakia		
Slovenia		
Spain		
Sweden		

Question 8b

For UPU Inward Land Rates, the pricing formula depends on the 2004 Parcel Inward Land Rate. Where you have an agreement with a country that is based on Inward Land Rates, please provide the 2004 Inward Land Rate in the table below.

2004 Inward Land Rate	
Austria	
Belgium	
Bulgaria	
Cyprus	
Czech Republic	
Denmark	
Estonia	
Finland	
France	
Germany	
Great Britain	
Greece	
Hungary	
Ireland	
Italy	
Latvia	
Lithuania	
Luxemburg	
Malta	
Netherlands	
Poland	
Portugal	
Romania	
Slovakia	
Slovenia	
Spain	
Sweden	

Question 8b

For agreements with Member States that are *not* based on UPU Inward Land Rates, could you please provide the elements that are included in the pricing formula with these Member States (e.g. weight, or size etc.) in the first column of the table below?

It would be extremely helpful if you could also provide the pricing formula in the second column, under strict confidentiality: we undertake not to disclose this information to our client or to publish it in any form.

	Elements of pricing formula	Pricing formula
Austria		
Belgium		
Bulgaria		
Cyprus		
Czech Republic		
Denmark		
Estonia		
Finland		
France		
Germany		
Great Britain		
Greece		
Hungary		
Ireland		
Italy		
Latvia		
Lithuania		
Luxemburg		
Malta		
Netherlands		
Poland		
Portugal		
Romania		
Slovakia		
Slovenia		
Spain		
Sweden		



Question 9a

We are interested in understanding if downstream access agreements exist for packets, parcels and express packets/parcels in your Member State. That is, can other postal operators access your delivery network for delivery of domestic mail? If so, please mark with 'Y' in cell E16 in the table below. If such agreements do not exist, please mark the table below with a 'N'.

Do downstream access agreements exist for packets in your Member State	
Do downstream access agreements exist for parcels in your Member State	
Do downstream access agreements exist forexpress packet/parcels in your Member State	

Question 9b

Do consolidators exist for international outbound packets and parcels in your country?

If consolidators exist, put a 'Y' in the appropriate box, so if consolidators exist in the packets market, a 'Y' would be put in cell J17. Equally, if consolidators do not exist in the parcels market, an 'N' would be put in cell K17.

If a 'Y' is put in row 17, please write the number of consolidators in the appropriate box in row 18 to indicate how many consolidators there are.

For estimating the market share of these consolidators, a cross ('X') should be placed in the cell which corresponds to the market share and the relevant product. So if you estimated the volume market share of the consolidators in the express market to be 60%, you should write an 'X' in cell L24.

	Packets	Parcels	Express
Do consolidators exist for packets, parcels and express packet/parcels?			
And how many are they?			
Would you estimate the market share of these consolidators to be:			
Less than 10% of volume			
Between 10% and 25% of volume			
Between 25% and 40% of volume			
About 50% of volume			
Between 50% and 75% of volume			
More than 75% of volume			

Please mark with 'Y' for yes, and a 'N' for no for each product cell

Please write the number for each product cell

Please put an 'X' in the appropriate cell for each product

Question 2 bis

We would like to understand the prices charged to *residential* customers for posting items of different weights using the any additional services listed in Question 1b.

In the table below could you please identify the domestic and cross-border prices for any additional products you think may be useful for our analysis. Please remember that in this question we would like to understand the prices charged to *residential* customers.

Please specify the currency which the prices are in.

Country of origin		Austria	... other EU27 member states	... UK
Country of destination	Weight (kg)			
Packet:	0.5			
	1			
	2			
Parcel:	1			
	2			
	5			
	10			
	15			
	20			
	25			
Express:	30			
	0.5			
	1			
	2			
	5			
	10			
	15			
20				
25				
30				
Enter the name of the additional service mentioned in Question 1b in this column				

Question 3 bis

We would like to understand if small businesses are charged a different price to the prices charged to residential customers.

In the tables below please identify any discounts, either as a % or as an absolute value, from the prices listed in Question 2 bis that are available to small business customers. That is, business customers that *do not* make payments on account to your organisation for the postal services they use.

Product	Destination	Weight (if applicable)	Discount rate	Time period necessary to obtain the discount (if any)	Mail volume necessary to obtain the discount (if any)	Value of purchases necessary to obtain the discount (if any)
Packet						
	Domestic					
	International					
Parcel						
	Domestic					
	International					
EMS						
	Domestic					
	International					

Please specify in this column the name of the service described, as mentioned in Question 1b

Question 4 bis

To increase the accuracy of our analysis we would like to understand the specifications of the products we are analysing.

In the table below, please could you specify which product you are providing information for, next to the 'name of the service' row, as it was described in Question 1b.

Then please provide information on the other categories listed in column B.

Insert the name of the service as mentioned in Question 1b

Packets		
Description	Domestic	Cross-border
Name of the service		
Maximum dimensions of the product		
Minimum weight of product (kg)		
Maximum weight of the product (kg)		
VAT applicable or not		
VAT rate		
Is VAT already included in reported prices?		
Are the following service features included within the fixed price set out in Question 2 bis? (Yes/No)		
Pick up from address (as opposed to postal office)		
Delivery to address (as opposed to postal office)		
Insurance against theft or damage		
Value of insurance provided		
Proof of posting or registration		
Track and trace		
Proof of delivery*		
Return to sender if addressee not found		
Return by sender		
Domestic logistics		
Delivery time (range for all EU 27 countries)		
Cross-border logistics		
How many tariff zones cover all the EU 27 countries?		



Insert the name of the service as mentioned in Question 1b

Parcels		
Description	Domestic	Cross-border
Name of the service		
Maximum dimensions of the product		
Minimum weight of product (kg)		
Maximum weight of the product (kg)		
VAT applicable or not		
VAT rate		
Is VAT already included in reported prices?		
Are the following service features included within the fixed price set out in Question 2 bis? (Yes/No)		
Pick up from address (as opposed to postal office)		
Delivery to address (as opposed to postal office)		
Insurance against theft or damage		
Value of insurance provided		
Proof of posting or registration		
Track and trace		
Proof of delivery*		
Return to sender if addressee not found		
Return by sender		
Domestic logistics		
Delivery time (range for all EU 27 countries)		
Cross-border logistics		
How many tariff zones cover all the EU 27 countries?		



Insert the name of the service as mentioned in Question 1b

EMS		
Description	Domestic	Cross-border
Name of the service		
Maximum dimensions of the product		
Minimum weight of product (kg)		
Maximum weight of the product (kg)		
VAT applicable or not		
VAT rate		
Is VAT already included in reported prices?		
Are the following service features included within the fixed price set out in Question 2 bis? (Yes/No)		
Pick up from address (as opposed to postal office)		
Delivery to address (as opposed to postal office)		
Insurance against theft or damage		
Value of insurance provided		
Proof of posting or registration		
Track and trace		
Proof of delivery*		
Return to sender if addressee not found		
Return by sender		
Domestic logistics		
Delivery time (range for all EU 27 countries)		
Cross-border logistics		
How many tariff zones cover all the EU 27 countries?		

*Note proof of delivery includes: a physical card sent back to the sender; an email/SMS notification sent to sender; a signature gained from the addressee

Appendix 2 Example survey – National Regulatory Authority



Introduction

We are conducting a study on intra-EU cross-border deliveries of packets, parcels and express packets/parcels on behalf of the European Commission. As part of our study, we would like to better understand:

- (i) the range and names of the products offered by the designated universal service provider which are covered by the Universal Service Obligation (USO);
- (ii) the levels of competition in the collection and delivery stages of national and international postal item operations ; and
- (iii) the significance of non-account customers in terms of the volume of items sent and the values of revenues received by the designated universal service provider

We would really appreciate your help on these issues, and to this end we have prepared this short questionnaire that we ask you to fill in. We can assure you that we will not divulge any information that may be considered confidential, and that we will only publish aggregate results, i.e. results that cannot be traced back to any individual company. If you require us to sign a confidentiality agreement, we would be happy to do so.

Instructions for completion

The questionnaire is composed of 5 pages (worksheets). To complete the questionnaire, please answer the questions on each page following the instructions given on the page.

Thank you for your co-operation and your help, which are greatly appreciated.

Could you please return the completed questionnaire to me by email (meloria.meschi@fticonsulting.com) by the 8th of April

Definitions

Please note that throughout this questionnaire we draw a distinction between a packet, a parcel, and an express packet/parcel. These mail categories are described below, consistent with the definitions set out by the Universal Postal Union (“UPU”).

We also classify what we mean by an account customer and a non-account customer, a small business, and what countries we refer to when we mention international or cross border.

Term	Definition	
	Physical characteristics	Speed of delivery
Packets (letter post items)	Maximum of 2kg	Priority and non-priority
Parcels	Maximum of 20kg with optional higher weight accepted. The USO parcel obligation usually refers to items up to 10kg, with a possibility of extending the weight threshold up to 20kg	Priority and non-priority
Express parcels/packets	Documents or goods	Forwarded and delivered in most rapid way
	Definition	
Account customer	A customer who holds an account with the firm it is purchasing products from	
Non-account customer	A residential or private customer that doesn't have an account with the company it is purchasing from. Non-account customers may also include businesses (typically small and medium sized enterprises).	
Small business	A business which does not make payments on account. That is, a business which pays for services as and when it uses those services, rather than paying an invoice at the end of a payment period.	
International/Cross-border	Refers to EU27 countries only	

Question 1

We would like to understand the types of products offered to non-account customers by the designated universal service provider which are covered by the USO.

Please indicate in the table below which services the designated universal service provider provides which are covered by the USO, and what their names are. For example:

- a) if the USO covers packet items sent nationally, then enter Yes in cell C22 and the name of the service in cell D22;
- b) if the USO covers packet items sent to a EU country, then enter Yes in cell C29 and the name of the service in cell D29; and,
- c) if the USO covers packet items sent from other EU countries, then enter Yes in cell F29 and the name of the service in cell G29.

Are the services covered by the USO? (Yes/No)				
National	Yes/No	If 'Yes', what is the name of the service(s)?	If 'Yes', up to what weight (in kg) does the USO apply?	Any additional information?
Packet				
Parcel				
Express				

Are the services covered by the USO? (Yes/No)							
Cross-border	Outbound: to countries of the EU	If 'Yes', what is the name of the service(s)?	If 'Yes', up to what weight (in kg) does the USO apply?	Any additional information?	Inbound: from countries of the EU	If 'Yes', up to what weight (in kg) does the USO apply?	Any additional information?
Packet							
Parcel							
Express							

Question 2a

We would like to understand the levels of competition in the collection and delivery stages of national and international postal item operations, both for the whole customer base and for non-account customers.

Please complete the following matrix below by specifying the level of competition in the:

- a) Domestic collection market (fill cell D28)
- b) Domestic delivery market (fill cell D29)
- c) Cross-border collection market (fill cell E28)
- d) Cross-border delivery market (fill cell E29)

The level of competition in each segment should be entered as either 'Low', 'Medium' or 'High', defined:

- a) 'Low' levels of competition - 2 or fewer firms
- b) 'Medium' levels of competition - between 3 and 5 firms
- c) 'High' levels of competition - more than 5 firms

What are the competition levels in the following segments of the postal market (Low/Medium/High)?		
	Domestic	Cross-border
Collection - packets		
Delivery - packets		
Collection - parcels		
Delivery - parcels		
Collection - express		
Delivery - express		

What are the competition levels for non-account customers? (Low/Medium/High)?		
	Domestic	Cross-border
Collection - packets		
Delivery - packets		
Collection - parcels		
Delivery - parcels		
Collection - express		
Delivery - express		

Question 2b

We would like to understand the market shares of competitors within different segments of the postal market. By market share, we mean market share in terms of value, i.e. the percentage of total postal market revenues which are accounted for by the competitors to the designated universal service provider.

It would be extremely helpful to our study if we had this information. We would ask you, **even if you are unable to provide an exact percentage**, to please provide your best estimate, and indicate this with an "(e)" after the percentage.

For example, if the designated universal service provider accounted for 60% of the total revenues in the domestic express delivery segment, then the competition would account for 40%, so "40%" would be entered in cell I30.

What are the total market shares in terms of value of these competitors in the following segments of the postal market?

	Domestic	Cross-border
Collection - packets		
Delivery - packets		
Collection - parcels		
Delivery - parcels		
Collection - express		
Delivery - express		

What are the total market shares in terms of value of these competitors for non-account customers?

	Domestic	Cross-border
Collection - packets		
Delivery - packets		
Collection - parcels		
Delivery - parcels		
Collection - express		
Delivery - express		

Question 3

We are interested in seeing what share of the designated universal service provider's customer base is represented by occasional/non-account customers, in terms of volume and value.

In the table below, please enter the name of the service mentioned in column B, in the adjacent cell in column C. So if the domestic express service was called "National Express 24", then enter that in cell C27.

Please then specify the percentage of items sent (and revenue received) by the product specified in column C which is attributed to occasional/non-account customers. **If you are unable to provide an exact percentage**, please provide your best estimate, by entering an 'X' in the relevant cell. So if you didn't have an exact percentage, but thought non-account customers accounted for roughly 1.5% of the international parcel services revenues, you would enter an 'X' in cell F36.

If you are unable to provide an exact percentage, please leave column D blank, and enter an 'X' in the cell which provides the best estimate of non-account customers' share of the product's sent items

Service	Name of service	% of items sent by non-account customers	% of items sent by non-account customers (estimate)									
			Less than 10%	11%-20%	21%-30%	31%-40%	41%-50%	51%-60%	61%-70%	71%-80%	81%-90%	More than 90%
Packet - domestic												
Packet - international												
Parcel - domestic												
Parcel - international												
Express - domestic												
Express - international												

If you are unable to provide an exact percentage, please leave column D blank, and enter an 'X' in the cell which provides the best estimate of non-account customers' share of the product's revenues

Service	Name of service	% of revenue from non-account customers	% of revenue from non-account customers (estimate)									
			Less than 10%	11%-20%	21%-30%	31%-40%	41%-50%	51%-60%	61%-70%	71%-80%	81%-90%	More than 90%
Packet - domestic												
Packet - international												
Parcel - domestic												
Parcel - international												
Express - domestic												
Express - international												

Appendix 3 Product names

Figure A3.1 Names of postal products

Domestic product name			
Country	Packets	Parcels	Express
Austria	Letter Mail (Brief)	Osterreich Pakete Ins Inland	EMS Austria
Belgium	Taxipost 24h Mini	Taxipost LLS	Taxipost 24h
Bulgaria	Malki paketi s predimstvo	Kolenti pratki bez obyavena stoinost II Zona	BulPost vutreshni kurierski pratki mezhdu raznichni naseleni mesta
Cyprus	Inland letter mail	Parcel Post	Parcel Post (plus express charge)
Czech Republic	Obyčejné psaní (Ordinary letter)	Obyčejný balík (Ordinary Parcel)	EMS
Denmark	Maxibreve indland prioritaire (Domestic priority (1st class) maxi letter)	Postpakke (Postal parcels)**	Postpakke (Postal parcels)**
Estonia	Riigisisesed maksikirjad (domestic maxi letters)	Riigisisesed standardpakid (domestic standard parcels)	ELS Pluss
Finland	Maksikirje 1/2 luokka (Maxi letter 1st/2nd class)	Postipaketit (Postal Parcel)	Ovelle-paketit (Parcel to the Doorstep)
France	Lettre Prioritaire	Colissimo Expert F - Affranchissement en ligne	Chronopost 13
Germany	DHL Packchen	DHL Paket	DHL Express Brief/Paket
Greece	Letter mail-Category "Akanonista" (E)	Domestic parcels (basic charges)	EMS Tachimetafores (counter-to-counter)
Hungary	Level Elsöbbségi	Belföldi postacsomag	Belföldi EMS gyorsposta szolgáltatás
Ireland	Standard Post (Ireland, packet)	Standard Post (Ireland, parcel)	Courier Post (Ireland)
Italy	Posta Prioritaria (Domestic Priority Mail)	Paccocelere 3	Paccocelere 1 Plus
Latvia	Sīpkakas (B Class)	Pakas (B class)	Express x1 Ekonomisks
Lithuania	Paprastoji pašto korespondencijos siunta (pirmenybines-priority)	Paprastasis pašto siuntinys	Vidaus greitojo pašto paslaugos - Pasiuntiniu Pastas
Luxembourg	Domestic mail - maxi lettre	Quality Pack	TNT Express
Malta	Local priority mail	Local priority parcels	Local priority parcels
Netherlands	Domestic letters - Brief	Domestic registered package	Domestic TNT express
Poland	Przesyłka listowa nierejestrowana Gabaryt B, Priorytetowa i Ekonomiczna	Paczki pocztowe (plus) Gabaryt B, Priorytetowa i Ekonomiczna	Przesyłka Pocztex Standard
Portugal	Correio Azul (Priority) / Correio Normal	Encomendas (Ordinary parcels)	Domestic 18h EMS
Romania	Corespondenta interna prioritară	Colete postale interne neprioritare	Interne Express - Ultrapost
Slovakia	List Slovensko (1 trieda)	Balík Slovensko (1 trieda)	Expres Kurier
Slovenia	Navadno pismo	Paket	Hitra posta po Sloveniji
Spain	Carta Ordinaria Nacional (Domestic Ordinary Letters)	Paquete Azul (Blue Package)	Postal Expres Nacional (Domestic EMS)
Sweden	Inrikes 1:a klass brev	PostPaket (Domestic parcel service)	ExpressPacket (Domestic express service)
UK	Domestic First Class Packets	Parcelforce Express 48	Domestic Parcelforce 24

International product name			
Country	Packets	Parcels	Express
Austria	International Letter Mail (Brief International Priority)	International Pakete Ins Ausland	International EMS
Belgium	Kilopost standard	Kilopost International	Taxipost EMS International
Bulgaria	Mezhdunarodni pratki s predimstvo	Mezhdunarodni pratki bez obyavena stoinost po zemen i vazdushen put	Mezhdunarodni kurierski pratki EMS
Cyprus	Surface letter mail/Air letter mail	Surface parcels/Air parcels	EMS/Datapost
Czech Republic	Obyčejná zásilka do zahraničí (International Ordinary Mail)	Standardní balík do zahraničí (International Standard Parcel)	EMS do zahraničí (International EMS)
Denmark	Maxibrevre udland prioritaire (International priority (1st class) maxi letter)	Postpakke udland (international postal parcels)**	Postpakke udland (international postal parcels)**
Estonia	Rahvusvahelised maksikirjad (international maxi letters)	Rahvusvahelised standardpakid (international standard parcels)	International EMS
Finland	Priority/Economy Maksikirje Eurooppa (Europe Maxi letters Priority/Economy)	Paketit priority (Priority parcel)	International EMS
France	Lettre Prioritaire Internationale	Colissimo Expert I - Affranchissement en ligne	Chrono Express/Chrono Classic
Germany	DHL Packchen International (Standard)	DHL Paket International (Standard)	DHL Express International
Greece	International letter mail-Category "Akanonista" (E)	International parcels/EPG ('A' Priority)	International EMS Tachimetafores
Hungary	Levélpostai küldemény EURÓPAI ORSZÁGOKBA Elsőbbségi	Nemzetközi postacsomag	Nemzetközi EMS
Ireland	Standard Post (GB/Europe, packet)	Standard Post (GB/Europe, parcel)	Courier Post (GB/Europe)
Italy	Posta Prioritaria Internazionale (International Priority Mail)	Quick Pack Europe or Paccocelere Internazionale	Express Courier International (Paccocelere Internazionale)
Latvia	Sikpakas - cross-border (A class)	Pakas - cross-border (A class)	Express Mail Service
Lithuania	Tarptautinė paprastoji pašto korespondencijos (pirmenybinės - priority)	Siuntinių siuntimo oro paštu	Tarptautinio greitojo pašto (EMS) paslaugos
Luxembourg	International mail - maxi lettre	Quality Pack	TNT Express
Malta	International mail (air)	Parcel Post	EMS International Courier
Netherlands	Europe letters - Brief	International registered package	International TNT express
Poland	Przesyłka listowa, Priorytetowa i Ekonomiczna	Paczki pocztowe Priorytetowe i Ekonomiczne	EMS Pocztex Pozostałe Przesyłki
Portugal	Correio Azul Internacionais - Correio Normal Internacionais	Encomendas (International parcels)	EMS International
Romania	Corespondenta internationala prioritara	Colete postale internationale prioritare	Internationale Express - EMS
Slovakia	List svet (1 trieda)	Balík svet (1 trieda)	Expres Mail Servis (EMS)
Slovenia	Navadno pismo prednostno	Paket - države EU prednostno	Hitra pošta v tujino UPS Express Saver Cona 1
Spain	Carta Ordinaria Internacional (International Ordinary Letters)	Paquete Internacional Prioritario (International Priority Parcel)	Postal Expres Internacional (International EMS)
Sweden	Utrikes brev	PostPaket Utrikes (international parcel post service)	EMS International Express (Zone 1)
UK	Airmail small packets	Parcelforce Global Priority	Parcelforce Global Express

Source: National postal operators' websites, questionnaire responses

Appendix 4 Product description

Domestic packets									
Description	Austria	Belgium	Bulgaria	Cyprus	Czech Republic	Denmark	Estonia	Finland	France
Name of the service	Letter Mail (Brief)	Taxipost 24h Mini	Malki paketi s predimstvo	Inland letter mail	Obyčejné psaní (Ordinary letter)	Maxibrevé indland prioritaire (Domestic priority (1st class) maxi letter)	Riigisisesed maksikirjad (domestic maxi letters)	Maksikirje 1/2 luokka (Maxi letter 1st/2nd class)	Lettre Prioritaire
Maximum dimensions of the product	L+W+H = max. 900mm Largest extension: max. 500 mm	215 X 297 X 24 mm		L+W+H=max 900mm; max dimension of any is 600mm	35.3x25x2cm	L and W of max 60cm; H<=90cm; L+W+H<=90cm	W+H+L=900mm	L+W+H<=900mm; L<=600mm	Maxi service: up to 2cm thick and 1 kg of weight
Minimum weight of product (kg)	0	0	0	0	0	0	0	0	0
Maximum weight of the product (kg)	2	1	2	2	2	2	2	2	2 kg (USO) - 3 Kg (Non-USO)
VAT applicable or not	No	No	No		No	No	No	No	No
VAT rate	N/A	N/A	N/A		N/A	N/A	N/A	N/A	N/A
Is VAT already included in reported prices?	No	No	No		No	No	No	No	No
Are the following service features included within the fixed price set out in Question 2? (Yes/No)									
Pick up from address (as opposed to postal office)		No	No	No	No	Yes in rural areas (if pre-stamped can be handed to the postman)	No	No	No
Delivery to address (as opposed to postal office)	No	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes
Insurance against theft or damage	No	No	No	No	No	No	No	No	No
Value of insurance provided	N/A	NA	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Proof of posting or registration	No	Yes	No	No	No	No	No	No	No
Track and trace	No	Yes	No	No	No	No	No	No	No
Proof of delivery*	No	No	No	No	No	No	No	No	No
Return to sender if addressee not found		Yes			Yes		No		
Return by sender		No			Yes		No		
Domestic logistics									
Delivery time (range for all EU 27 countries)	2 working days	1 working Day (domestic)			D+1 (mostly)	Next working day	Next working day	1 working day (1st class), 3 working days (2nd class)	Next working day
Cross-border logistics									
How many tariff zones cover all the EU 27 countries?	N/A	NA	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Domestic packets									
	Germany	UK	Greece	Hungary	Ireland	Italy	Latvia	Lithuania	Luxembourg
Description									
Name of the service	DHL Packchen	Domestic First Class Packets	Letter mail-Category "Akanonista" (E)	Level Elsöbbségi	Standard Post (Ireland, packet)	Posta Prioritaria (Domestic Priority Mail)	Sikpakas (B Class)	Paprastoji pašto korespondencijos siunta (pirmenybines-priority)	Domestic mail - maxi lettre
Maximum dimensions of the product	500g: L <= 35.3cm, W <= 25cm, H <= 2cm; 1kg: same with H <= 5cm; 2kg: L <= 60, W <= 30, and H <= 15cm	61x46x46 cm	Sum (length+width+bulk)=900mm & maximum dimension < 600mm	L+W+H<+ 900 mm, L<=600 mm	H+L+W <= 900mm. L <= 600mm	W=250, L=353, H=50mm	L + H + W <=90 cm, L<= 60 cm.		L + H + W ≤ 900mm and L ≤ 600 mm
Minimum weight of product (kg)		0	0	0	0	0	0	0	0
Maximum weight of the product (kg)		2	2	2	2	2	2	2	2
VAT applicable or not	No	No	No	No	No	No	Yes	No	No - VAT exemption on universal services at public (i.e. non-discounted) rates
VAT rate	N/A	N/A	N/A	N/A	N/A	N/A	0.22	N/A	N/A
Is VAT already included in reported prices?	No	No	No	No	No	No	Yes	No	No
Are the following service features included within the fixed price set out in Question 2? (Yes/No)									
Pick up from address (as opposed to postal office)	No	No	No	No	No	No	No	No	No
Delivery to address (as opposed to postal office)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Insurance against theft or damage	No	Yes	No	No	No	No	No	No	No
Value of insurance provided	N/A	Where evidence of posting and evidence of value can be provided, compensation is provided as the lower of either the market value of the item or 100 x 1st Class stamps. Postage refund (a minimum payment of 6 x 1st Class letter stamps at the first weight step) shall be payable where only basic evidence is provided or the item is of no intrinsic value.	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Proof of posting or registration	No	Yes	No	No	Yes	No	Yes	No	No
Track and trace	No	No	No	No	No	No	No	No	No
Proof of delivery*	No	No	No	No	No	No	Yes	No	No
Return to sender if addressee not found	Yes		Yes	Yes	Yes	Yes		No	Yes
Return by sender			No	No	No			No	Yes
Domestic logistics									
Delivery time (range for all EU 27 countries)	Next working day	1-2 days		1 day	Within 1 day (85% of items)		Within 3 working days	1 day	J+1 >95%, and J+3>99%, as per national law
Cross-border logistics									
How many tariff zones cover all the EU 27 countries?	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1

Domestic packets									
	Malta	Netherlands	Poland	Portugal	Romania	Slovakia	Slovenia	Spain	Sweden
Description									
Name of the service	Local priority mail	Domestic letters - Brief	Przesyłka listowa nierejestrowana Gabaryt B, Priorytetowa i Ekonomiczna	Correio Azul (Priority) / Correio Normal	Correspondenta interna prioritara	List Slovenko (1 trieda)	Navadno pismo	Carta Ordinaria Nacional (Domestic Ordinary Letters)	Inrikes 1:a klass brev
Maximum dimensions of the product		38 x 26.5 x 3.2 cm	L + H + W <=900 mm, L <= 600 mm	Sum of length, width and thickness: 90 cm; Larger dimension: 50 cm.	W + H + L <+ 900 mm, L <= 600 mm	L + H + W <=90 cm, L <= 60 cm	L+W+H<=900mm; L<=600mm	L + H + W <= 90 cm, L<= 60 cm.	W + H + L <= 90cm, L <= 60cm
Minimum weight of product (kg)	0	0	0	0	0	0	0	0	0
Maximum weight of the product (kg)	2	2	2	2	2	2	2	2	2
VAT applicable or not		No	No	No	No	No	No	No	Yes
VAT rate		N/A		N/A	N/A	N/A	N/A	N/A	N/A
Is VAT already included in reported prices?		No		No	No	No	No	No	Yes
Are the following service features included within the fixed price set out in Question 2? (Yes/No)									
Pick up from address (as opposed to postal office)		No	No	No	No	No	No	No	No
Delivery to address (as opposed to postal office)		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Insurance against theft or damage	No	No	No		No		No	No	No
Value of insurance provided	N/A	N/A						N/A	N/A
Proof of posting or registration	No	No	No	No	No	No	No	No	No
Track and trace	No	No	No	No	No	No	No	No	No
Proof of delivery*	No	No	No	No	No	No	No	No	No
Return to sender if addressee not found		Yes	No			Yes	Yes		
Return by sender			No				Yes		
Domestic logistics									
Delivery time (range for all EU 27 countries)	Next day delivery	Next working day	Next working day (priority), within 3 working days (economic)	Within 1 day (priority), within 3 days (regular)	1 day	1 day	1 day	3 days	Next working day (1st class)
Cross-border logistics									
How many tariff zones cover all the EU 27 countries?	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Cross-border packets									
Description	Austria	Belgium	Bulgaria	Cyprus	Czech Republic	Denmark	Estonia	Finland	France
Name of the service	International Letter Mail (Brief International Priority)	Kilopost standard	Mezhdunarodni pratki s predimstvo	Surface letter mail/Air letter mail	Obyčejná zásilka do zahraničí (International Ordinary Mail)	Maxibrevé udland prioritaire (International priority (1st class) maxi letter)	Rahvusvahelised maksikirjad (international maxi letters)	Priority/Economy Maksikirje Eurooppa (Europe Maxi letters Priority/Economy)	Lettre Prioritaire Internationale
Maximum dimensions of the product	L+W+H = max. 900mm Largest extension: max. 500 mm	L + W + H < 90 cm The largest dimension of L; W & H is 90cm		L+W+H=max 900mm; max dimension of any is 600mm for land; for air - 110 X 220 mm with tolerance of 2mm	L<=60cm, the maximum sum of L, W and H may not exceed 90cm.	L and W of max 60cm; H<=90cm; L+W+H<=90cm	W+H+L=900mm	L+W+H<=900mm; L<=600mm	
Minimum weight of product (kg)									
Maximum weight of the product (kg)	2	2	2	5	2	2	2	2	2 kg (USO)
VAT applicable or not	No	No	No	No	No	No	No	No	No
VAT rate	N/A	N/A	N/A		N/A	N/A	N/A	N/A	N/A
Is VAT already included in reported prices?	No	No	No		No	No	No	No	No
Are the following service features included within the fixed price set out in Question 2? (Yes/No)									
Pick up from address (as opposed to postal office)		No	No	No	No	Yes in rural areas (if pre-stamped can be handed to the postman)	No	No	No
Delivery to address (as opposed to postal office)	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes
Insurance against theft or damage		No	No	No	No	No	No	No	No
Value of insurance provided		NA	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Proof of posting or registration	No	No	No	No	No	No	No	No	No
Track and trace	No	No	No	No	No	No	No	No	No
Proof of delivery*	No	No	No	No	No	No	No	No	No
Return to sender if addressee not found		Yes	No		Yes		No	Yes	
Return by sender		No	No		Yes		No		
Domestic logistics									
Delivery time (range for all EU 27 countries)	2-4 working days	Between 4 and 10 working days			D+3 (mostly)	2-4 working days	3-5 days	2-6 days (priority), 7-16 days (economy)	
Cross-border logistics									
How many tariff zones cover all the EU 27 countries?	1		2	2	1	1	1	2	1

Cross-border packets									
	Germany	UK	Greece	Hungary	Ireland	Italy	Latvia	Lithuania	Luxembourg
Description									
Name of the service	DHL Packchen International (Standard)	Airmail small packets	International letter mail- Category "Akanonista" (E)	Levélpostai küldemény EURÓPAI ORSZÁGOKB A Elsőbbségi	Standard Post (GB/Europe, packet)	Posta Prioritaria Internazionale (International Priority Mail)	Sīkpakas - cross-border (A class)	Tarptautinė paprastoji pašto korespondencijos (pirmyenybinės - priority)	International mail - maxi lettre
Maximum dimensions of the product	60x30x15cm	L + H + W <= 900mm, L <= 600mm	Sum (length+width+bulk)=900mm & maximum dimension < 600mm	L+W+H<+ 900 mm, L<=600 mm	H+L+W <= 900mm, L <= 600mm	L + H + W <= 900mm, L <= 600mm	L + H + W <=90 cm, L<= 60 cm.		L + H + P ≤ 900mm and L ≤ 600 mm
Minimum weight of product (kg)							0.003		
Maximum weight of the product (kg)		2	2	2	2	2	2	2	2
VAT applicable or not	No	No	No	No	No	No	Yes	No	No - VAT exemption on universal services at public (i.e. non-discounted) rates
VAT rate	N/A	N/A	N/A	N/A	N/A	N/A	0.22	N/A	N/A
Is VAT already included in reported prices?	No	No	No	No	No	No	Yes	No	No
Are the following service features included within the fixed price set out in Question 2? (Yes/No)									
Pick up from address (as opposed to postal office)	No	No	No	No	No	No	No	No	No
Delivery to address (as opposed to postal office)	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Insurance against theft or damage	No	Yes	No	No	No	No	No	No	No
Value of insurance provided	N/A	Actual loss up to 100 x 1st Class letter stamps at the first weight step or the market value, whichever is the lower. No Consequential Loss available. Certificate of posting required. Apply within 6 months from posting.	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Proof of posting or registration	No	No	No	No	Yes	No	Yes	No	No
Track and trace	No	No	No	No	No	No	No	No	No
Proof of delivery*	No	No	No	No	No	No	Yes	No	No
Return to sender if addressee not found	Yes		Yes	Yes	Yes	Yes		No	Yes
Return by sender			No	No	No			No	Yes
Domestic logistics									
Delivery time (range for all EU 27 countries)	2-9 working days	3-5 working days	J+3	D+3-5 days	2-5 working days			3 days	J+3 >85%, and J+5 >97% as per postal directive and national law
Cross-border logistics									
How many tariff zones cover all the EU 27 countries?	1		1	1	1	1	1	1	1

Cross-border packets									
	Malta	Netherlands	Poland	Portugal	Romania	Slovakia	Slovenia	Spain	Sweden
Description									
Name of the service	International mail (air)	Europe letters - Brief	Przesyłka listowa, Priorytetowa i Ekonomiczna	Correio Azul Internacionalis Correio Normal Internacionais	Corespondenta internationala prioritara	List svet (1 trieda)	Navadno pismo prednostno	Carta Ordinaria Internacional (International Ordinary Letters)	Utrikes brev
Maximum dimensions of the product		38 x 26.5 x 3.2 cm	L + H + W <=900 mm, L <= 600 mm	Sum of length, width and thickness: 90 cm; Larger dimension: 50 cm.	W + H + L <+ 900 mm, L <= 600 mm	L + H + W <=90 cm, L <= 60 cm	L+W+H<=900mm; L<=600mm	L + H + W <= 90 cm, L<= 60 cm.	W + H + L <= 90cm, L <= 60cm
Minimum weight of product (kg)									
Maximum weight of the product (kg)	2	2	2	2	2	2	2	2	2
VAT applicable or not	No	No	No	No	No	No	Yes	No	Yes
VAT rate	N/A	N/A		N/A	N/A	N/A		0.2	N/A
Is VAT already included in reported prices?	No	No		No	No	No	Yes	No	Yes
Are the following service features included within the fixed price set out in Question 2? (Yes/No)									
Pick up from address (as opposed to postal office)	No	No	No	No	No	No	No	No	No
Delivery to address (as opposed to postal office)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Insurance against theft or damage	No	No	No		No		No	No	No
Value of insurance provided		N/A						N/A	No
Proof of posting or registration	No	No	No	No	No	No	No	No	No
Track and trace	No	No	Yes	No	No	No	No	No	No
Proof of delivery*	No	No	No	No	No	No	No	No	No
Return to sender if addressee not found	Yes					Yes	Yes		
Return by sender	Yes						Yes		
Domestic logistics									
Delivery time (range for all EU 27 countries)	Forwarded to destination country the next day.	2-7 working days within the EU	For priority, within 3 working days (85% of items), within 5 working days (97% of items), economic takes longer	Up to 3 working days for Europe (priority), within 5 working days (regular)	3 days	3-5 days	3 days	2-4 days	2-6 working days
Cross-border logistics									
How many tariff zones cover all the EU 27 countries?	1			1	1	2	1		

Domestic parcels									
Description	Austria	Belgium	Bulgaria	Cyprus	Czech Republic	Denmark	Estonia	Finland	France
Name of the service	Osterreich Pakete Ins Inland	Taxipost LLS	Kolenti pratki bez obyavena stoinost II Zona	Parcel Post	Obyčejný balík (Ordinary Parcel)	Postpakke (Postal parcels)**	Riigisisesed standardpakid (domestic standard parcels)	Postipaketti (Postal Parcel)	Colissimo Expert F - Affranchissement en ligne
Maximum dimensions of the product	up to 100 cm in length, 60 cm in width and 60 cm in height	(1 x L) + (2 x W) + (2 x H) <3 m. the largest dimension <1.5 m	Between 10cm and 60cm for each dimension		L<= 240cm. H+L+W<=300cm	Length 150 cm and length + circumference = 300 cm	Longest side 1.5m; total of length and circumference 3m	120cm x 80cm x 60cm.	L (L) + largeur (l) + hauteur (h) = 150 cm avec L = 100 cm.
Minimum weight of product (kg)	0	0	0	0	0	0	0	0	0
Maximum weight of the product (kg)	31.5	30kg	20	30	20	20	20	30	30
VAT applicable or not	Yes only for above 10kg	No	No		No	No	Parcels up to 20kg are exempt	Yes	Yes
VAT rate	0.2	NA	N/A		N.A	N/A	N/A	0.23	0.196
Is VAT already included in reported prices?	Yes	No	No		No	No	No	Yes	yes
Are the following service features included within the fixed price set out in Question 2? (Yes/No)									
Pick up from address (as opposed to postal office)	No	No	No	No	No	No	No	No	No
Delivery to address (as opposed to postal office)	No	Yes	No	No	Yes	Yes	No	No	Yes
Insurance against theft or damage	Yes	No	No	No	No	No	No	No	No
Value of insurance provided	Free up to 510 EUR	NA	N/A	N/A	N/A	N/A	N/A	N/A	No
Proof of posting or registration	Yes	No	Yes	No	No	Yes	Yes	Yes	Yes
Track and trace	Yes	Yes	No	Yes	No	Yes	No	Yes	Yes
Proof of delivery*	No	No	No	No	No	Yes	No	Yes	No
Return to sender if addressee not found		Yes			No		No	No	Yes
Return by sender		No			No		No		
Domestic logistics									
Delivery time (range for all EU 27 countries)	2 working days	2 working day (domestic product)			1-2 days	Next working day, or up to 2 days for parcels to Bornholm and to and from the very small islands	2 working days	Next working day	2 days
Cross-border logistics									
How many tariff zones cover all the EU 27 countries?	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Domestic parcels									
Description	Germany	UK	Greece	Hungary	Ireland	Italy	Latvia	Lithuania	Luxembourg
Name of the service	DHL Paket	Parcelforce Express 48	Domestic parcels (basic charges)	Belföldi postacsomag	Standard Post (Ireland, parcel)	Paccocelere 3	Pakas (B class)	Paprastasis pašto siuntinys	Quality Pack
Maximum dimensions of the product	120x60x60cm	610x460x460mm	MAXIMUM LENGTH 150 cm AND THE SUM OF THE LENGTH PLUS THE BIGGEST CIRCUMFERANCE (in a direction different than the length's direction) <=300 cm	L <= 2000mm, (length + width + height) can not exceed 3000 mm.	Length 1.5 metres Length + Girth 3 metres	Total size: 150 cm Side Max: 100 cm	L <=105 cm and circumference <= 200 cm.	L <=1.05 m, and sum of L and the greatest circumference measured in a direction other than the length <= 2m	L <= 1,5 m, L+2P+2H = 3 m
Minimum weight of product (kg)	0	0	0	0	0	0	0	0	0
Maximum weight of the product (kg)	31.5	30	20	20	20	30	30	20	31.5 30 kg
VAT applicable or not	Yes, for Paket above 10kg	No	No	No	No	Yes	Yes	Yes for over 10kg	Yes for over 10kg, VAT exemption on universal services at public (i.e. non-discounted) rates, i.e. under 10kg
VAT rate	0.19	N/A	N/A	N/A	N/A	0.2	0.22	0.21	0.15
Is VAT already included in reported prices?	Yes	No	No	No	No	Yes	Yes	Yes	Yes
Are the following service features included within the fixed price set out in Question 2? (Yes/No)									
Pick up from address (as opposed to postal office)	No	No	No	No	No	No	No	Yes	No
Delivery to address (as opposed to postal office)	Yes	Yes	No	Yes	Yes	Yes	Yes	No	Yes
Insurance against theft or damage	Yes	Yes	Yes	Yes	No	Yes	No	No	Yes
Value of insurance provided	Up to 500 EUR	Up to £50	up to 235 EUR for loss or damage up to 36 EUR for spoiled content or damage caused due to the parcel being delayed on ELTA's responsibility	N/A	N/A	37.50 EUR		N/A	Up to 530 EUR
Proof of posting or registration	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
Track and trace	Yes	Yes	Yes	No	No	Yes	No	No	Yes
Proof of delivery*	Yes	Yes	Yes	Yes	No	No	Yes		Yes
Return to sender if addressee not found		No	Yes	Yes	Yes	Yes			Yes
Return by sender			Yes	No	No				Yes
Domestic logistics									
Delivery time (range for all EU 27 countries)	Next working day	2-3 working days		1-3 days	1-2 days	3 days	Within 3 days	Within 6 days	Next working day, but no legal delivery target
Cross-border logistics									
How many tariff zones cover all the EU 27 countries?	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1

Domestic parcels									
Description	Malta	Netherlands	Poland	Portugal	Romania	Slovakia	Slovenia	Spain	Sweden
Name of the service	Local priority parcels	Domestic registered package	Paczki pocztowe (plus) Gabaryt B, Priorytetowa i Ekonomiczna	Encomendas (Ordinary parcels)	Colete postale interne neprioritare	Balik Slovensko (1 trieda)	Paket	Paquete Azul (Blue Package)	PostPaket (Domestic parcel service)
Maximum dimensions of the product		100 x 50 x 50 cm	L + the largest circumference measured in a different direction than length <= 3000 mm , L <=1500 mm	Length: 1.5 m Length + girth of the largest perpendicular to the contour length: 3.0 m.	L <= 2 m, L and amount of the largest area taken in another sense than that of length <= 3m	L <=200 cm, L + the biggest circumference measured in another direction than length <= 300cm	L <= 1,500 mm, L + circumference measured at the widest point across <=3000 mm	L + W + H <= 200 cm., L<= 100 cm.	L <= 1.5m. L + circumference <= 2m
Minimum weight of product (kg)	0	0	0	0	0	0	0	0	0
Maximum weight of the product (kg)	10	30	20	20	20	15	30	20	20
VAT applicable or not	No		No	No	Yes for over 10kg	No	Yes for over 10kg	Yes	Yes
VAT rate	N/A		N/A	N/A	0.24	N/A	0.2	0.18	0.25
Is VAT already included in reported prices?	No		No	No	Yes	No	Yes	Yes	Yes
Are the following service features included within the fixed price set out in Question 2? (Yes/No)									
Pick up from address (as opposed to postal office)	No	No	No	No	No	No	No		No
Delivery to address (as opposed to postal office)	Yes	Yes	Yes	No	Yes		Yes	Yes	No
Insurance against theft or damage	No	Yes	No	Yes	No		Yes	Yes	Yes
Value of insurance provided	N/A	Up to 500 EUR		11.68 EUR per kg, up to 350 EUR maximum	N/A	500 EUR	up to declared value if it is on a parcel or 15x postage, if there is no value on a parcel	24 Euro	Up to 50,000 SEK
Proof of posting or registration	No	Yes		Yes	No	Yes	Yes	Yes	Yes
Track and trace	No	Yes	No	No	No	Yes	Yes	Yes	Yes
Proof of delivery*	No	Yes	No	No	No	Yes	Yes	No	No
Return to sender if addressee not found	Yes		No	No		Yes	No		Yes
Return by sender	Yes						No		No
Domestic logistics									
Delivery time (range for all EU 27 countries)	Next working day	Next working day	Next working day (priority), within 3 working days (economic)	Up to 3 days (Mainland)	5 days	2 days	1 day	3-5 days	Next working day
Cross-border logistics									
How many tariff zones cover all the EU 27 countries?	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Cross-border parcels									
Description	Austria	Belgium	Bulgaria	Cyprus	Czech Republic	Denmark	Estonia	Finland	France
Name of the service	International Pakete Ins Ausland	Kilopost International	Mezhdunarodni pratki bez obyavana stoinost po zemen i vazdushen put	Surface parcels/Air parcels	Standardni balik do zahranici (International Standard Parcel)	Postpakke udland (international postal parcels)**	Rahvusvahelised standardpakid (international standard parcels)	Paketti priority (Priority parcel)	Colissimo Expert 1 - Affranchissement en ligne
Maximum dimensions of the product		(1 x L) + (2 x W) + (2 x H) <3 m. the largest dimension <1.5 m	(1 x L) + (2 x W) + (2 x H) <3 m. the largest dimension <1.5 m		L<= 200cm, H+L+W<=360cm (depends on country of destination)	Length 150 cm and length + circumference = 300 cm	Longest side 1.5m; total of length and circumference 3m	L<=150cm (country- specific restrictions apply). L + girth 300cm (country-specific restrictions apply).	Longueur (L) + largeur (l) + hauteur (h) = 150 cm avec L = 100 cm.
Minimum weight of product (kg)									
Maximum weight of the product (kg)	31.5	30	31.5 (depends on destination)	30	20	20	20	30	30
VAT applicable or not	All prices for EU above 10kg Yes	No	No		No	No	Parcels up to 20kg are exempt	Yes	Yes
VAT rate	0.2	N/A	N/A		N/A	N/A	N/A	0.23	0.196
Is VAT already included in reported prices?	Yes	No	No		No	No	No	Yes	yes
Are the following service features included within the fixed price set out in Question 2? (Yes/No)									
Pick up from address (as opposed to postal office)		No	No	No	No	No	No	No	No
Delivery to address (as opposed to postal office)	Yes	Yes	No	No	Yes	Yes	No	Depends on country	Yes
Insurance against theft or damage	Yes	Yes	No	No	Yes	Yes	No	No	Yes
Value of insurance provided	Free up to 510 EUR	Up to 40DTS + 4,5DTS/kg + postage cost	N/A	N/A	Up to CZK 1,160 plus an extra CZK 131 for each kg of weight		N/A	N/A	option up to 1500€
Proof of posting or registration	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes
Track and trace	Yes	Yes	No	Yes	Yes	Yes (for Austria, Belgium, Finland, France, Germany, Ireland, Luxembourg, Netherlands, Sweden, UK)	No	Yes	Yes
Proof of delivery*	No	No	No	No	No	Yes	No	Yes	No
Return to sender if addressee not found		Yes			Yes	No			Yes
Return by sender		No							
Domestic logistics									
Delivery time (range for all EU 27 countries)	3-9 working days	3 working days			4-6 days	2-3 days	Priority in the country of destination: such parcels are delivered by plane every day. Non-priority: such parcels are forwarded by motor transport 2 – 3 times a week by land or sea or combined air and land transport (SAL).	2-7 days	4-8 days
Cross-border logistics									
How many tariff zones cover all the EU 27 countries?	2	2	3 for Land, 2 for Air	1	7		2 Separate price for each country	2	5

Cross-border parcels									
Description	Germany	UK	Greece	Hungary	Ireland	Italy	Latvia	Lithuania	Luxembourg
Name of the service	DHL Paket International (Standard)	Parcelforce Global Priority	International parcels/EPG (A Priority)	Nemzetközi postacsomag	Standard Post (GB/Europe, parcel)	Quick Pack Europe or Paccocelere Internazionale	Pakas - cross-border (A class)	Siuntinių siuntimo oro paštu	Quality Pack
Maximum dimensions of the product	120x60x60	L <= 1.5m and length/girth combined <= 3m	L+W+H=1.5m Or 3m in total if we add the length and the biggest circumference (in a direction different than the length's direction)	L <= 2000mm, (length + width + height) can not exceed 3000 mm.	Length 1.5 metres Length + Girth 3 metres		L <=105 cm and circumference <= 200 cm.	L <=1.05 m, and sum of L and the greatest circumference measured in a direction other than	L <= 1,5 m, L+2P+2H = 3 m
Minimum weight of product (kg)									
Maximum weight of the product (kg)		31.5	30	20 (for EPG 30kg)	20	20	30	20	31.5
VAT applicable or not	Yes	No	No	No	No	Yes	Yes	Yes for over 10kg	Yes for over 10kg, VAT exemption on universal services at public (i.e. non-discounted) rates, i.e. under 10kg
VAT rate		0.19	N/A	N/A	N/A		0.2	0.22	0.21
Is VAT already included in reported prices?	Yes	No	No	No	No	Yes	Yes	Yes	Yes
Are the following service features included within the fixed price set out in Question 2? (Yes/No)									
Pick up from address (as opposed to postal office)	No	No	No	No	No	No	No	Yes	No
Delivery to address (as opposed to postal office)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
Insurance against theft or damage	Yes	Yes	Yes	No	No	Yes	No	No	Yes
Value of insurance provided	Up to 500 EUR	Up to £100	up to 40 SDR fixed per item +4,5 SDR/kg (the paid postal fees are also returned) - (for EPG up to 450 SDR)		N/A	Up to 450 DTS		N/A	Up to 530 EUR for EPG countries in zones 1-6, up to 155 EUR for UPU countries in zones 7-10, 11.90 EUR per kg for inland transport/24.80 EUR per kg for airlift transport for TNT countries in zone 7-10
Proof of posting or registration	Yes	Yes	Yes	No	Yes	Yes	Yes	No	Yes
Track and trace	Yes	Yes	Yes	Depends on country	No	Yes	No	No	Yes
Proof of delivery*	No	Yes	Yes	No	Yes	No	Yes		Yes
Return to sender if addressee not found			No (for EPG parcels it is included in the price)	No	Yes	Yes			Yes
Return by sender			No	No	No				Yes
Domestic logistics									
Delivery time (range for all EU 27 countries)	2-9 working days	3-6 days	J+3 only for EPG parcels	depends on country	2-6 days	3 days		3-5 days	2-6 days
Cross-border logistics									
How many tariff zones cover all the EU 27 countries?		1	5 price zones	2	2	2	Quick Pack Europe: 2 Paccocelere Internazionale 11	26	26

Cross-border parcels									
Description	Malta	Netherlands	Poland	Portugal	Romania	Slovakia	Slovenia	Spain	Sweden
Name of the service	Parcel Post	International registered package	Paczki pocztowe Priorytetowe i Ekonomiczne	Encomendas (International parcels)	Colete postale internationale prioritare	Balik svet (1 trieda)	Paket - drzave EU prednostno	Paquete Internacional Prioritario (International Priority Parcel)	PostPaket Ultrikes (international parcel post service)
Maximum dimensions of the product		100 x 50 x 50 cm	L + the largest circumference measured in a different direction than length <= 3000 mm , L <=1500 mm	Length: 1.5 m Length + girth of the largest perpendicular to the contour length: 3.0 m.	L <= 2 m, L and amount of the largest area taken in another sense than that of length <= 3m		Depends on country of destination	L + W + H <= 200 cm., L<= 105 cm.	L <= 1.5m. L + circumference <= 3m
Minimum weight of product (kg)									
Maximum weight of the product (kg)	20 / 30 (depending on receiving country)	30	20	20	30	31.5 (depends on destination)	15	30 (depends on destination)	20
VAT applicable or not	No		No	Yes between 20kg and 30kg	Yes for over 10kg	No	Yes for priority parcel	Yes	Yes
VAT rate	N/A		N/A	0.23	0.24	N/A	0.2	0.18	0.25
Is VAT already included in reported prices?	No		No	No between 20kg and 30kg	Yes	No	Yes	Yes	Yes
Are the following service features included within the fixed price set out in Question 2? (Yes/No)									
Pick up from address (as opposed to postal office)	No	No	No	No	No	No	No		No
Delivery to address (as opposed to postal office)	Yes	Yes	Yes	Depends on country	Yes		Yes	Yes	Yes, but in some cases a notification may be delivered asking the recipient to collect the parcel from a local post office/collection point
Insurance against theft or damage	No	Yes	No	Yes	No			Yes	Yes
Value of insurance provided	N/A	Up to 500 EUR		4,5 SDR per kg, up to 40 SDR maximum	N/A	1 000 EUR (depends on destination)	up to declared value if it is on a parcel or 40 DTS per parcel plus 4,50 DTS per kg, if there is no value on a parcel		Up to 25,000 SEK
Proof of posting or registration	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Track and trace	Yes	Yes	No	Depends on country	Yes	Yes	Yes	No	Partly (EPG)
Proof of delivery*	Yes	Yes	No	No	Yes	Yes	Yes	No	No
Return to sender if addressee not found	Yes	Yes		No		Yes	No		Yes
Return by sender	Yes						No		No
Domestic logistics									
Delivery time (range for all EU 27 countries)	10-20 days	2-7 working days within the EU	For priority, within 3 working days (85% of items), within 5 working days (97% of items), economic takes longer	Up to 5 days	5 days	4-7 days	Up to 10 days for some countries, less for most others	4-7 days	Yes
Cross-border logistics									
How many tariff zones cover all the EU 27 countries?	Tariffs are country specific	4 zones (one of which is BeNeLux and the last one is only Slovenia)	1	1	2	26	2	1	2

Domestic express products									
Description	Austria	Belgium	Bulgaria	Cyprus	Czech Republic	Denmark	Estonia	Finland	France
Name of the service	EMS Austria	Taxipost 24h	BulPost vutreshni kurierski pratki mezhdu raznichni naseleni mesta	Parcel Post (plus express charge)	EMS	Postpakke (Postal parcels)**	ELS Pluss	Ovelle-paketti (Parcel to the Doorstep)	Chronopost 13
Maximum dimensions of the product	L<= 200cm, max girth is 360cm	(1 x length) + (2 x width) + (2 x height) <3 m. the largest dimension <1.5 m	Do not exceed height (cm) X length (cm) X width (cm) = 6000		L<=1.2m, H+W+L<=2m	Length 150 cm and length + circumference = 300 cm	Circumference of the height + bottom totaling up to 3m, L<= to 1.5m	120cm x 80cm x 60cm.	Maximum dimensions: L +2 h +2 l <3m and L <1.5 m
Minimum weight of product (kg)	0	0	0	0	0	0	0	0	0
Maximum weight of the product (kg)	31.5	30	25	30	20	20	30	30	30
VAT applicable or not	Yes		Yes		Yes	No	No	Yes	Yes
VAT rate	0.2		0.2		0.2	N/A	N/A	0.23	0.196
Is VAT already included in reported prices?	Yes		Yes		Yes	No	No	Yes	Yes
Are the following service features included within the fixed price set out in Question 2? (Yes/No)									
Pick up from address (as opposed to postal office)		No	No	No	No	No	Yes	No	No
Delivery to address (as opposed to postal office)	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes
Insurance against theft or damage		Yes		No	Yes	No	Yes	No	Yes
Value of insurance provided		Up to 12.50 EUR per kg		N/A	Declared value up to CZK 30,000	N/A	Up to 5,000 EEK	N/A	Up to 250 EUR
Proof of posting or registration	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes
Track and trace	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Proof of delivery*	Yes	Yes	Yes	No	Yes	Yes	No	Yes	Yes
Return to sender if addressee not found					Yes		No	No	Yes
Return by sender					Yes				Yes
Domestic logistics									
Delivery time (range for all EU 27 countries)	Next working day	1 working day	1 working days		Delivery by 2pm next day	Next working day, or up to 2 days for parcels to Bornholm and to and from the very small islands	Next working day	Delivered next working day by 2pm	Delivery next day by 1pm
Cross-border logistics									
How many tariff zones cover all the EU 27 countries?	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Domestic express products									
Description	Germany	UK	Greece	Hungary	Ireland	Italy	Latvia	Lithuania	Luxembourg
Name of the service	DHL Express Brief/Paket	Domestic Parcelforce 24	EMS Tachimetafores (counter-to-counter)	Belföldi EMS gyorsposta szolgáltatás	Courier Post (Ireland)	Paccocelere 1 Plus	Express x1 Ekonomisks	Vidaus greitojo pašto paslaugos - Pasiuntinių Pastas	TNT Express
Maximum dimensions of the product	120 x 60 x 60 cm	L <= 1.5m and length/girth combined <= 3m		W+H+L <= 3000mm	Length 1.5 metres Length + Girth 3 metres	Total size> 80cm to 150 cm, max side 100cm		L <=1.5 m and the L and girth combined shall not exceed a maximum of 3 m	L<=1.5m and the sum of the length, width and height may not be more than 3m
Minimum weight of product (kg)	0	0	0	0	0	0	0	0	0
Maximum weight of the product (kg)	Up to 20 for overnight delivery, and 31.5 for online franking	30	35	20	20	30	700	31.5	30
VAT applicable or not	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
VAT rate	0.19	0.2	0.23	0.25	0.21	0.2	0.22	0.21	0.15
Is VAT already included in reported prices?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Are the following service features included within the fixed price set out in Question 2? (Yes/No)									
Pick up from address (as opposed to postal office)	No	No	Yes	Yes	No	No	No	No	No
Delivery to address (as opposed to postal office)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Insurance against theft or damage	Yes	Yes	Yes	Yes	Yes	Yes		No	Yes
Value of insurance provided	Up to 500 EUR	Up to 150 GBP	Up to 50 EUR (documents), up to 200 EUR (merchandise)		Up to 350 EUR	Up to 46.50 EUR		N/A	Up to 11,90 EUR per kg
Proof of posting or registration	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Track and trace	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Proof of delivery*	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes
Return to sender if addressee not found			Yes	Yes	Yes	Yes	No		Yes
Return by sender			Yes	No	No		No		Yes
Domestic logistics									
Delivery time (range for all EU 27 countries)	Next day	Next day	1-2 days	Same day/D+1	Next working day for major urban centers	1 day	Delivery within 20 hours or next working day	1 day	Next working day, but no legal delivery target
Cross-border logistics									
How many tariff zones cover all the EU 27 countries?	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Domestic express products									
Description	Malta	Netherlands	Poland	Portugal	Romania	Slovakia	Slovenia	Spain	Sweden
Name of the service	Local priority parcels	Domestic TNT express	Przesyłka Pocztex Standard	Domestic 18h EMS	Interne Express - Ultrapost	Expres Kurier	Hitra posta po Sloveniji	Postal Expres Nacional (Domestic EMS)	ExpressPacket (Domestic express service)
Maximum dimensions of the product		240x120x180cm	L + the largest circumference measured in a different direction than length <= 3000 mm , L <=1500 mm	Length: 1.5 m Length + girth of the largest perpendicular to the contour length: 3.0 m.	L <= 1.5 m, L and amount of the largest area taken in another sense than that of length <= 3m	L <=200 cm, L + the biggest circumference measured in another direction than length <= 300cm	L <= 150cm, scare <= 300cm	L + H + W <= 200 cm, L <=100 cm.	L <= 1m, W <= 0.5m, H <= 0.5m
Minimum weight of product (kg)	0	0	0	0	0	0	0	0	0
Maximum weight of the product (kg)	10	30	20	30	31.5	50	50	20	30kg if picking up or dropping off at a Posten Business Centre. At the Postal service point, the maximum weight is 20kg
VAT applicable or not	No	Yes	No	Yes		Yes	Yes	Yes	Yes
VAT rate	N/A	0.19	N/A	0.23		0.2	0.2	0.18	0.25
Is VAT already included in reported prices?	No	Yes	No	No		Yes	Yes	Yes	Yes
Are the following service features included within the fixed price set out in Question 2? (Yes/No)									
Pick up from address (as opposed to postal office)	Yes	No	Yes	No	Yes	Yes	Yes	No	No
Delivery to address (as opposed to postal office)	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes
Insurance against theft or damage	No	No	No	Yes		Yes	Yes	Yes	Yes
Value of insurance provided	N/A	N/A		10 EUR per kg		850 EUR	up to declared value if it is on an item - max 4200 EUR, or max 420 EUR if there is no value on a parcel	Fare paid plus 52.98 EUR	Up to 50,000 SEK
Proof of posting or registration	No	Yes		Yes	Yes	Yes	Yes		Yes
Track and trace	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Proof of delivery*	No	Yes	No	Yes	Yes	Yes	Yes	No	Yes
Return to sender if addressee not found	Yes		No	Yes		Yes	No	Yes	Yes
Return by sender	Yes						No		No
Domestic logistics									
Delivery time (range for all EU 27 countries)	Same day - next working day	Next day	1 day	1 day	1 day	1 day	Same day	2 days	Next working day
Cross-border logistics									
How many tariff zones cover all the EU 27 countries?	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Cross-border express products									
Description	Austria	Belgium	Bulgaria	Cyprus	Czech Republic	Denmark	Estonia	Finland	France
Name of the service	International EMS	Taxipost EMS International	Mezhdunarodni kurierski pratki EMS	EMS/Datapost	EMS do zahraničí (International EMS)	Postpakke udland (international postal parcels)**	International EMS	International EMS	Chrono Express/Chrono Classic
Maximum dimensions of the product	L<= 200cm, max girth is 360cm	(1 x length) + (2 x width) + (2 x height) <3 m. the largest dimension <1.5 m	(1 x L) + (2 x W) + (2 x H) <3 m. the largest dimension <1.5 m	Max 1.5 m at length and circumference up to 3 meters	L<=1.2m, H+W+L<=3m	Length 150 cm and length + circumference = 300 cm	Based on the requirements of the destination country: L<=1.5m; L + circumference 3m	L<=150cm (country-specific restrictions apply). L + girth 300cm (country-specific restrictions apply).	Maximum dimensions: L +2 h +2 l <3m and L <1.5 m
Minimum weight of product (kg)									
Maximum weight of the product (kg)	31.5	30	25 (depends on destination)	30	20	20	30	30	30
VAT applicable or not	Yes	No	Yes		Yes	No	Yes	Yes	Yes
VAT rate	0.2	N/A	0.2		0.2	N/A	0.2	0.23	0.196
Is VAT already included in reported prices?	Yes	No	Yes		Yes	No	Yes	Yes	Yes
Are the following service features included within the fixed price set out in Question 2? (Yes/No)									
Pick up from address (as opposed to postal office)		No	No	No	No	No	No	No	No
Delivery to address (as opposed to postal office)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Insurance against theft or damage		Yes			Yes		Yes	Yes	Yes
Value of insurance provided		Up to 17DTS/kg if transport only by air Up to 8,33DTS/kg if transport includes another transport than air (road, truck, train, boat)			Up to CZK 3,769 in the case of goods, up to CZK 870 in the case of documents		Up to 30 SDR (documents), up to 130 SDR (goods)	Up to 1,680 EUR	For Chrono Classic: Maximum refunding: € 23 per Kilogram, with a maximum of € 690 per parcel
Proof of posting or registration	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes
Track and trace	Yes	Yes	Yes	Yes	Yes	Yes (for Austria, Belgium, Finland, France, Germany, Ireland, Luxembourg, Netherlands, Sweden, UK)	Yes	Yes	Yes
Proof of delivery*	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Return to sender if addressee not found	Yes	Yes			Yes	No	Yes		No
Return by sender		No			Yes		Yes		No
Domestic logistics									
Delivery time (range for all EU 27 countries)	1-3 working days	1 for surrounding countries, and 1-4 days within Europe	2-5 working days	Within 24 hours	Depends on country	2-3 days	1-3 working days	1-3 days within Europe	1-3 days for Chrono Express, 2-4 days for Chrono Classic
Cross-border logistics									
How many tariff zones cover all the EU 27 countries?	2	3	3	8	1	3	2	4	2

Cross-border express products									
Description	Germany	UK	Greece	Hungary	Ireland	Italy	Latvia	Lithuania	Luxembourg
Name of the service	DHL Express International	Parcelforce Global Express	International EMS Tachimetafores	Nemzetközi EMS	Courier Post (GB/Europe)	Express Courier International (Paccocelere Internazionale)	Express Mail Service	Tarptautinio greitojo pašto (EMS) paslaugos	TNT Express
Maximum dimensions of the product	L<=150 cm, combined length and girth max. 300 cm	L <= 1.5m and length/girth combined <= 3m		W+H+L <= 3000mm, L <= 1500mm	Length 1.5 metres Length + Girth 3 metres	L <= 150 cm, length + width + depth total of 225 cm	L <= 1.5 meters, the sum of item's one side and diameter shouldn't exceed 3 meters		L<=1.5m and the sum of the length, width and height may not be more than 3m
Minimum weight of product (kg)									
Maximum weight of the product (kg)		20	30	30	30	20	30	31.5	30
VAT applicable or not	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
VAT rate	0.19		0.2	0.23	0.25	0.21	0.2	0.22	0.21
Is VAT already included in reported prices?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Are the following service features included within the fixed price set out in Question 2? (Yes/No)									
Pick up from address (as opposed to postal office)	No	No	Yes	Yes	No	No	No		No
Delivery to address (as opposed to postal office)	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes
Insurance against theft or damage	Yes	Yes	Yes	Yes	Yes	Yes		No	Yes
Value of insurance provided	Up to 500 EUR	Up to 200 GBP	Up to 40 EUR(documents) , up to 150 EUR(merchandise) + postal fees	Up to 20,000 HUF for documents, up to 50,000 for other items	Up to 350 EUR			N/A	Up to 24,80 EUR per kg for airlift transport
Proof of posting or registration	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Track and trace	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Proof of delivery*	Yes	Yes	Yes	No	Yes	No	Yes	Yes	Yes
Return to sender if addressee not found		No	Yes	Yes	Yes	Yes			Yes
Return by sender		No	Yes	No	No				Yes
Domestic logistics									
Delivery time (range for all EU 27 countries)	Delivery throughout EU next working day	1-3 days	2-3 days for major destinations	Depends on country - not listed	1-2 days for major EU cities, up to 5 days for the rest	2 days	2-4 days	2-5 days	Varies from one destination to another
Cross-border logistics									
How many tariff zones cover all the EU 27 countries?		1 5 price zones		2	2	2	5	2	26 3 Zones, of which one is BeNeLux

Cross-border express products										
Description	Malta	Netherlands	Poland	Portugal	Romania	Slovakia	Slovenia	Spain	Sweden	
Name of the service	EMS International Courier	International TNT express	EMS Pocztex Pozostale Przesylki	EMS International	Internationale Express - EMS	Expres Mail Servis (EMS)	Hitra pošta v tujino UPS Express Saver Cona 1	Postal Expres Internacional (Internacional EMS)	EMS International Express (Zone 1)	
Maximum dimensions of the product	L <= 2m or 3 metres for the sum of the L and the greatest circumference measured in a direction other than	240x120x150cm	L + the largest circumference measured in a different direction than length <= 3000 mm , L <=1500 mm	Length: 1.5 m Length + girth of the largest perpendicular to the contour length: 3.0 m.	L <= 1.5 m, L and amount of the largest area taken in another sense than that of length <= 3m		L <= 2.7 m, and total length and the maximum amount that can not be measured in length shall not exceed 4.19 m	L + H + W <= 200 cm, L <=105 cm.	L <= 1.5m, L + circumference <= 3m	
Minimum weight of product (kg)										
Maximum weight of the product (kg)		20	30	20	30	31.5 (depends on destination)	30 (depends on destination)	25 (depends on destination)	30kg	30kg for customers with agreements, 20kg for customers paying by cash and posting at Posten Business Service Centres
VAT applicable or not	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
VAT rate	N/A		0.19	N/A	0.23	0.24	0.2	0.2	0.18	0.25
Is VAT already included in reported prices?	No	Yes	No	No	Yes	Yes	Yes	Yes	Yes	Yes
Are the following service features included within the fixed price set out in Question 2? (Yes/No)										
Pick up from address (as opposed to postal office)	Yes	No	Yes	No	No	Yes	Yes	No	No	No
Delivery to address (as opposed to postal office)	Yes	Yes	Yes	Yes	Yes		Yes	Yes		
Insurance against theft or damage	Yes	No	Yes	Yes	Yes		Yes	Yes	Yes	Yes
Value of insurance provided	Up to 3,500 EUR	N/A			10 EUR per kg		goods: up to actual damage - max 4200 EUR	Fare paid plus 52.98 EUR	Up to 17 SDRs per kilo	
Proof of posting or registration	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Track and trace	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Proof of delivery*	Yes	Yes	No	Yes	Yes	Yes	Yes	No	Yes	Yes
Return to sender if addressee not found	Yes		Yes	Yes			No		Yes	Yes
Return by sender	Yes						No			
Domestic logistics										
Delivery time (range for all EU 27 countries)	Until further notice, "GUARANTEED Delivery Times" for EMS International Courier are being suspended for international security purposes.	1-3 days	1-3 days	2-3 days		2-3 days	1 day	3-5 days	w	
Cross-border logistics										
How many tariff zones cover all the EU 27 countries?	All EU in same zone; no service to Bulgaria	6 zones		2		6	3	1	4	1

Appendix 5 Average published prices

In this Appendix we summarise some of the price data which we collected. For each Member State, we show the domestic price of sending a 2kg packet, parcel and express product. We also show the weighted average³⁶³ cross-border price of sending a 2kg packet³⁶⁴, parcel and express product. So for example the price of sending a 2kg parcel from Austria to Germany, will have much more of an impact on Austria's weighted average cross-border price than the price of sending a 2kg parcel from Austria to Malta.

We also present graphs showing the domestic and weighted average cross-border prices. With the exception of Finland, (where on average it is more expensive to send a 2kg packet domestically than it is cross-border), the weighted average cross-border price is always higher than the domestic price.³⁶⁵

³⁶³ The weighted average cross-border price for each sender country to all EU destinations is calculated as one where the price to each destination country is weighted according to the share that the country has in the sender's EU's exports. We used trade data from the IMF statistics database since volume data on packets, parcels and express is unavailable for most of the countries in our sample, and for all of the countries for the year to which our prices refer (prices were collected as of 15 March 2011). Volume data are highly confidential and publicly unavailable.

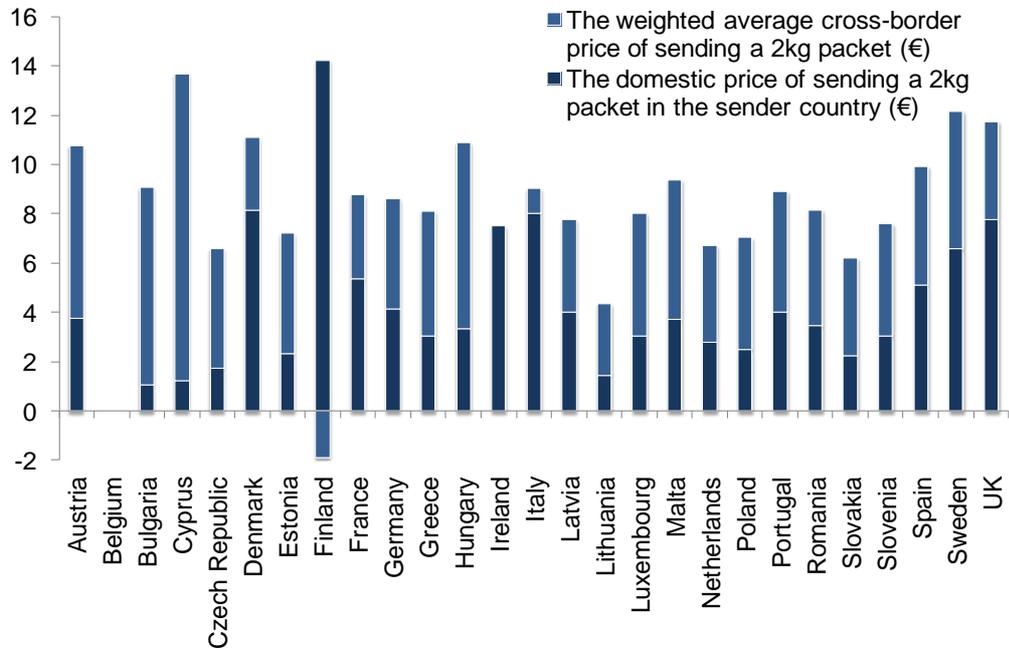
³⁶⁴ Note that there is no domestic price information available for 2kg packets in Belgium.

³⁶⁵ The charts are stacked columns, so for example for sending a 2kg parcel from Denmark costs just under €30 domestically, and on average just under €50 (not €20) cross-border.

Table A5.1 Domestic and weighted average cross-border prices of sending 2kg postal items

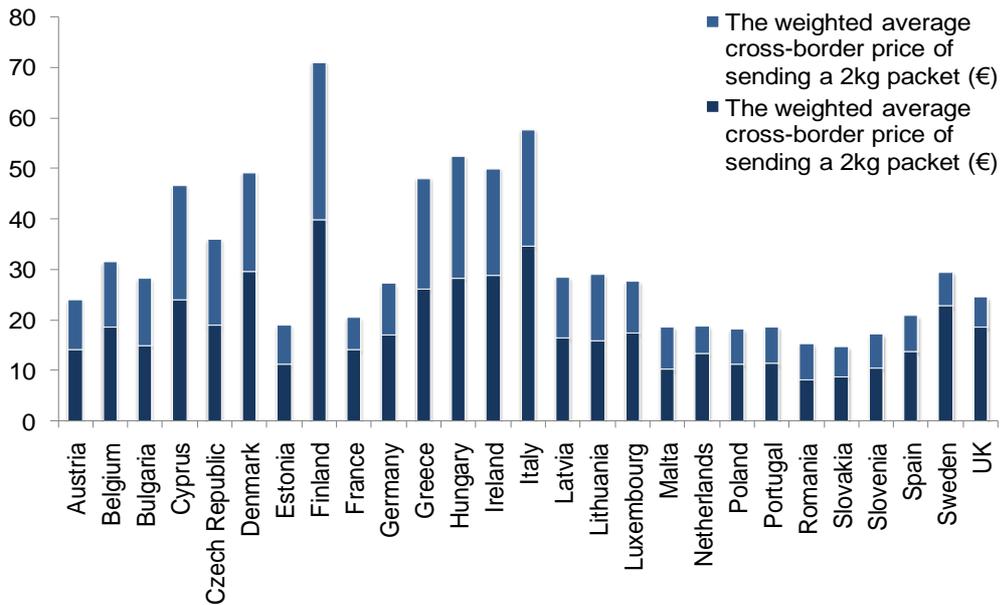
	Member State domestic prices and weighted average cross-border prices - 2kg postal items					
	The domestic price of sending a 2kg packet in the sender country (EUR)	The weighted average cross-border price of sending a 2kg packet (EUR)	The domestic price of sending a 2kg parcel in the sender country (EUR)	The weighted average cross-border price of sending a 2kg parcel (EUR)	The domestic price of sending a 2kg express product in the sender country (EUR)	The weighted average cross-border price of sending a 2kg express product (EUR)
Austria	3.75	10.75	4.30	14.15	10.22	48.36
Belgium	**	12.00	5.70	18.53	5.90	27.37
Bulgaria	1.02	9.07	1.64	14.90	2.66	44.62
Cyprus	1.20	13.67	1.28	23.92	2.99	25.34
Czech Republic	1.71	6.56	1.71	18.81	5.73	35.30
Denmark	8.12	11.09	10.07	29.55	10.07	29.55
Estonia	2.30	7.19	3.26	11.10	5.52	46.09
Finland	14.20	12.30	8.50	39.66	13.80	57.34
France	5.35	8.75	7.51	14.00	18.20	53.11
Germany	4.10	8.60	6.90	17.00	13.90	75.90
Greece	3.00	8.10	4.00	25.97	8.52	43.68
Hungary	3.33	10.87	3.81	28.07	11.47	40.25
Ireland	7.50	7.50	7.50	28.68	25.00	67.56
Italy	8.00	9.00	11.40	34.48	15.60	41.84
Latvia	3.98	7.74	4.29	16.34	5.08	19.13
Lithuania	1.42	4.34	2.69	15.81	3.68	63.31
Luxembourg	3.00	8.00	7.00	17.31	28.30	50.89
Malta	3.68	9.29	1.77	10.15	2.33	19.05
Netherlands	2.76	6.63	8.05	13.37	27.74	36.22
Poland	2.49	6.96	4.27	11.22	10.05	24.44
Portugal	4.00	8.87	4.05	11.29	4.80	20.76
Romania	3.43	8.08	0.85	8.05	7.08	21.04
Slovakia	2.20	6.15	2.80	8.73	6.15	19.19
Slovenia	3.02	7.53	3.73	10.41	9.79	23.14
Spain	5.10	9.88	6.60	13.69	15.51	29.37
Sweden	6.55	12.12	15.93	22.65	47.54	58.64
UK	7.73	11.68	12.63	18.51	18.25	34.08

Figure A5.1 Domestic and weighted average cross-border prices of 2kg packets (€)



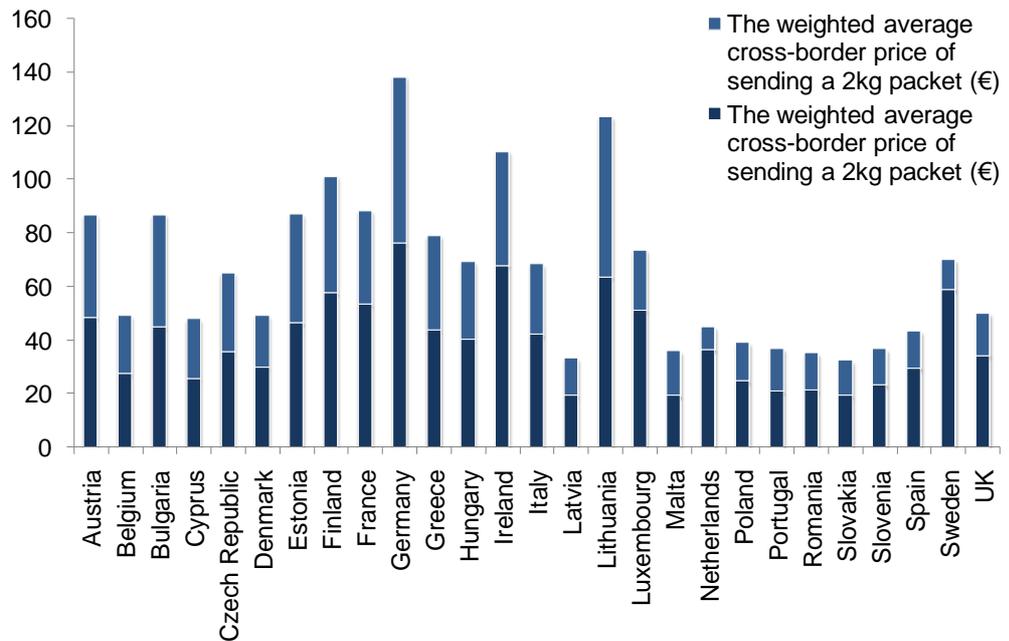
Source: FTI calculations, national postal operators' websites, IMF

Figure A5.2 Domestic and weighted average cross-border prices of 2kg parcels (€)



Source: FTI calculations, national postal operators' websites, IMF

Figure A5.3 Domestic and weighted average cross-border prices of 2kg express products (€)



Source: FTI calculations, national postal operators' websites, IMF

Appendix 6 Regression analysis – Descriptive statistics

In this Appendix, we present some descriptive statistics of some of the variables which go into the regression model.

For each variable which is tested in the regression model, we show the number of observations, the mean, the standard deviation, the minimum value and the maximum value.

When we state the 'number of observations', this refers to the number of observations where a variable is present (so for example the population density variable is present in 5,832 observations for parcels i.e. every combination), and the mean, standard deviation etc are taken from all these observations. This doesn't mean that all these observations are taken into account in the regression analysis, because there may be other factors which stop an observation being used. For example even though there may be a population density variable for every observation, if there is no cross-border price at some of the higher weights (for example sending a 30kg parcel from Cyprus to Slovenia), then there can be no price differential, and therefore that observation can't be tested.

The only variable which is affected by weight is the DIFF2 variable, and so for this we show descriptive statistics for every weight. As we can't show results for this variable for individual countries (due to confidentiality agreements), we grouped the statistics into the three categories we have used throughout the report: flows between top 6 countries, flows between 2011 liberalised countries and flows between 2013 liberalised countries. We feel this can be more informative than just looking at the results in aggregate.

Every other variable is unaffected by weight (for example the distance effect variable, which is based on the straight line distance between the capitals of the sender and receiver country, does not change if the postal item being sent is 1kg or 30kg). So for these variables we show the descriptive statistics for the weight which has the most observations, although all weights would yield the same results.

We show descriptive statistics for the three aforementioned categories, as well as for all flows (i.e. flows between every Member State) at a certain weight, and all flows. These last two categories should be identical apart from the number of observations,

because weight has no impact on the variables (with the exception of the DIFF2 variable).

Table A6.1 Descriptive statistics for input variables to regression model - packets

DIFF2 variable						
The gap between the charged cross-border price and the domestic equivalent price (%)	Weight	Number of observations	Mean	Standard deviation	Minimum value	Maximum value
Flows between top 6 countries	0.5kg	30	0.22	0.28	-0.71	0.49
	1kg	30	0.28	0.17	-0.13	0.58
	2kg	30	0.14	0.21	-0.35	0.55
Flows between 2011 liberalised countries	0.5kg	90	0.34	0.27	-0.66	0.70
	1kg	90	0.40	0.23	-0.41	0.72
	2kg	72	0.19	0.34	-1.02	0.64
Flows between 2013 liberalised countries	0.5kg	110	0.43	0.35	-1.43	0.86
	1kg	110	0.55	0.17	-0.10	0.88
	2kg	110	0.43	0.18	-0.14	0.79

Scale effect (export methodology) variable						
Share of sender country's total EU27 exports to receiver country (%)	Weight	Number of observations	Mean	Standard deviation	Minimum value	Maximum value
Flows between top 6 countries	2kg (although all weights yield the same results)	30	0.13	0.07	0.04	0.33
Flows between 2011 liberalised countries	2kg (although all weights yield the same results)	90	0.03	0.05	0.00	0.28
Flows between 2013 liberalised countries	2kg (although all weights yield the same results)	110	0.02	0.05	0.00	0.44
All flows	2kg (although all weights yield the same results)	702	0.04	0.06	0.00	0.44
All flows	All weights	2,106	0.04	0.06	0.00	0.44

Scale effect (import methodology) variable						
Share of receiver country's total EU27 imports from sender country (%)	Weight	Number of observations	Mean	Standard deviation	Minimum value	Maximum value
Flows between top 6 countries	2kg (although all weights yield the same results)	30	0.13	0.08	0.03	0.34
Flows between 2011 liberalised countries	2kg (although all weights yield the same results)	90	0.02	0.04	0.00	0.23
Flows between 2013 liberalised countries	2kg (although all weights yield the same results)	110	0.02	0.05	0.00	0.28
All flows	2kg (although all weights yield the same results)	702	0.04	0.07	0.00	0.58
All flows	All weights	2,106	0.04	0.07	0.00	0.58

Medium/high competition (sender) variable						
Level of sender country competition in the packets market (1=Low, 2=Medium, 3=High)	Weight	Number of observations	Mean	Standard deviation	Minimum value	Maximum value
Flows between top 6 countries	2kg (although all weights yield the same results)	36	1.17	0.38	1.00	2.00
Flows between 2011 liberalised countries	2kg (although all weights yield the same results)	100	1.30	0.64	1.00	3.00
Flows between 2013 liberalised countries	2kg (although all weights yield the same results)	121	1.00	0.00	1.00	1.00
All flows	2kg (although all weights yield the same results)	729	1.15	0.45	1.00	3.00
All flows	All weights	2,187	1.15	0.45	1.00	3.00

Distance effect variable						
Straight line distance between the capitals of the sender and receiver countries	Weight	Number of observations	Mean	Standard deviation	Minimum value	Maximum value
Flows between top 6 countries	2kg (although all weights yield the same results)	30	1,039	445	343	1,871
Flows between 2011 liberalised countries	2kg (although all weights yield the same results)	90	1,514	764	89	3,362
Flows between 2013 liberalised countries	2kg (although all weights yield the same results)	110	1,272	630	163	2,725
All flows	2kg (although all weights yield the same results)	702	1,426	745	57	3,760
All flows	All weights	2,106	1,426	745	57	3,760

Border effect variable						
Is there a shared border between sender and receiver countries? (1=Yes, 0=No)	Weight	Number of observations	Mean	Standard deviation	Minimum value	Maximum value
Flows between top 6 countries	2kg (although all weights yield the same results)	30	0.30	0.47	0.00	1.00
Flows between 2011 liberalised countries	2kg (although all weights yield the same results)	90	0.07	0.25	0.00	1.00
Flows between 2013 liberalised countries	2kg (although all weights yield the same results)	110	0.10	0.30	0.00	1.00
All flows	2kg (although all weights yield the same results)	702	0.10	0.30	0.00	1.00
All flows	All weights	2,106	0.10	0.30	0.00	1.00

Population density (sender/receiver) variable						
Population density (people per square km)	Weight	Number of observations	Mean	Standard deviation	Minimum value	Maximum value
Flows between top 6 countries	2kg (although all weights yield the same results)	36	212	107	92	404
Flows between 2011 liberalised countries	2kg (although all weights yield the same results)	100	98	90	16	341
Flows between 2013 liberalised countries	2kg (although all weights yield the same results)	121	212	344	34	1,287
All flows	2kg (although all weights yield the same results)	729	170	237	16	1,287
All flows	All weights	2,187	170	237	16	1,287

Single tariff zone variable						
Does the sender country apply 1 tariff for each of the other 26 EU Member States? (1=Yes, 0=No)	Weight	Number of observations	Mean	Standard deviation	Minimum value	Maximum value
Flows between top 6 countries	2kg (although all weights yield the same results)	36	1.00	0.00	1.00	1.00
Flows between 2011 liberalised countries	2kg (although all weights yield the same results)	100	0.80	0.40	0.00	1.00
Flows between 2013 liberalised countries	2kg (although all weights yield the same results)	121	0.91	0.29	0.00	1.00
All flows	2kg (although all weights yield the same results)	729	0.89	0.31	0.00	1.00
All flows	All weights	2,187	0.89	0.31	0.00	1.00

Track-and-trace effect (receiver) variable						
Do the sender country's cross-border product and the receiver country's domestic product have a discrepancy in terms of offering track-and-trace? (1=Yes, 0=No)	Weight	Number of observations	Mean	Standard deviation	Minimum value	Maximum value
Flows between top 6 countries	2kg (although all weights yield the same results)	36	0.00	0.00	0.00	0.00
Flows between 2011 liberalised countries	2kg (although all weights yield the same results)	100	0.10	0.30	0.00	1.00
Flows between 2013 liberalised countries	2kg (although all weights yield the same results)	121	0.00	0.00	0.00	0.00
All flows	2kg (although all weights yield the same results)	729	0.04	0.19	0.00	1.00
All flows	All weights	2,187	0.04	0.19	0.00	1.00

Source: FTI

Table A6.2 Descriptive statistics for input variables to regression model - parcels

DIFF2 variable						
The gap between the charged cross-border price and the domestic equivalent price (%)						
	Weight	Number of observations	Mean	Standard deviation	Minimum value	Maximum value
Flows between top 6 countries	1kg	30	0.39	0.19	0.05	0.65
	2kg	30	0.40	0.20	0.05	0.65
	5kg	30	0.41	0.20	0.01	0.66
	10kg	30	0.44	0.20	-0.05	0.65
	15kg	30	0.42	0.21	-0.10	0.64
	20kg	30	0.39	0.23	-0.16	0.65
	25kg	20	0.36	0.25	-0.29	0.67
	30kg	20	0.36	0.25	-0.25	0.68
Flows between 2011 liberalised countries	1kg	90	0.54	0.18	-0.06	0.83
	2kg	90	0.55	0.17	-0.02	0.82
	5kg	90	0.54	0.17	-0.05	0.82
	10kg	90	0.53	0.18	-0.08	0.85
	15kg	90	0.52	0.18	-0.14	0.85
	20kg	90	0.52	0.17	-0.04	0.86
	25kg	12	0.57	0.14	0.29	0.78
	30kg	12	0.58	0.14	0.33	0.80
Flows between 2013 liberalised countries	1kg	110	0.66	0.12	0.23	0.86
	2kg	110	0.65	0.11	0.25	0.89
	5kg	110	0.65	0.10	0.34	0.88
	10kg	110	0.65	0.09	0.39	0.88
	15kg	90	0.64	0.10	0.21	0.90
	20kg	72	0.61	0.10	0.08	0.81
	25kg	6	0.61	0.05	0.53	0.67
	30kg	6	0.61	0.05	0.54	0.67

Scale effect (export methodology) variable						
Share of sender country's total EU27 exports to receiver country (%)	Weight	Number of observations	Mean	Standard deviation	Minimum value	Maximum value
Flows between top 6 countries	2kg (although all weights yield the same results)	30	0.13	0.07	0.04	0.33
Flows between 2011 liberalised countries	2kg (although all weights yield the same results)	90	0.03	0.05	0.00	0.28
Flows between 2013 liberalised countries	2kg (although all weights yield the same results)	110	0.02	0.05	0.00	0.44
All flows	2kg (although all weights yield the same results)	702	0.04	0.06	0.00	0.44
All flows	All weights	5,616	0.04	0.06	0.00	0.44

Scale effect (import methodology) variable						
Share of receiver country's total EU27 imports from sender country (%)	Weight	Number of observations	Mean	Standard deviation	Minimum value	Maximum value
Flows between top 6 countries	2kg (although all weights yield the same results)	30	0.13	0.08	0.03	0.34
Flows between 2011 liberalised countries	2kg (although all weights yield the same results)	90	0.02	0.04	0.00	0.23
Flows between 2013 liberalised countries	2kg (although all weights yield the same results)	110	0.02	0.05	0.00	0.28
All flows	2kg (although all weights yield the same results)	702	0.04	0.07	0.00	0.58
All flows	All weights	5,616	0.04	0.07	0.00	0.58

Medium/high competition (sender) variable						
Level of sender country competition in the packets market (1=Low, 2=Medium, 3=High)	Weight	Number of observations	Mean	Standard deviation	Minimum value	Maximum value
Flows between top 6 countries	2kg (although all weights yield the same results)	36	2.50	0.51	2.00	3.00
Flows between 2011 liberalised countries	2kg (although all weights yield the same results)	100	2.10	0.83	1.00	3.00
Flows between 2013 liberalised countries	2kg (although all weights yield the same results)	121	1.64	0.77	1.00	3.00
All flows	2kg (although all weights yield the same results)	729	2.00	0.82	1.00	3.00
All flows	All weights	5,832	2.00	0.82	1.00	3.00

Distance effect variable						
Straight line distance between the capitals of the sender and receiver countries	Weight	Number of observations	Mean	Standard deviation	Minimum value	Maximum value
Flows between top 6 countries	2kg (although all weights yield the same results)	30	1,039	445	343	1,871
Flows between 2011 liberalised countries	2kg (although all weights yield the same results)	90	1,514	764	89	3,362
Flows between 2013 liberalised countries	2kg (although all weights yield the same results)	110	1,272	630	163	2,725
All flows	2kg (although all weights yield the same results)	702	1,426	745	57	3,760
All flows	All weights	5,616	1,426	744	57	3,760

Border effect variable						
Is there a shared border between sender and receiver countries? (1=Yes, 0=No)	Weight	Number of observations	Mean	Standard deviation	Minimum value	Maximum value
Flows between top 6 countries	2kg (although all weights yield the same results)	30	0.30	0.47	0.00	1.00
Flows between 2011 liberalised countries	2kg (although all weights yield the same results)	90	0.07	0.25	0.00	1.00
Flows between 2013 liberalised countries	2kg (although all weights yield the same results)	110	0.10	0.30	0.00	1.00
All flows	2kg (although all weights yield the same results)	702	0.10	0.30	0.00	1.00
All flows	All weights	5,616	0.10	0.30	0.00	1.00

Population density (sender/receiver) variable						
Population density (people per square km)	Weight	Number of observations	Mean	Standard deviation	Minimum value	Maximum value
Flows between top 6 countries	2kg (although all weights yield the same results)	36	212	107	92	404
Flows between 2011 liberalised countries	2kg (although all weights yield the same results)	100	98	90	16	341
Flows between 2013 liberalised countries	2kg (although all weights yield the same results)	121	212	344	34	1,287
All flows	2kg (although all weights yield the same results)	729	170	237	16	1,287
All flows	All weights	5,832	170	237	16	1,287

Single tariff zone variable						
Does the sender country apply 1 tariff for each of the other 26 EU Member States? (1=Yes, 0=No)	Weight	Number of observations	Mean	Standard deviation	Minimum value	Maximum value
Flows between top 6 countries	2kg (although all weights yield the same results)	36	0.17	0.38	0.00	1.00
Flows between 2011 liberalised countries	2kg (although all weights yield the same results)	100	0.20	0.40	0.00	1.00
Flows between 2013 liberalised countries	2kg (although all weights yield the same results)	121	0.18	0.39	0.00	1.00
All flows	2kg (although all weights yield the same results)	729	0.19	0.39	0.00	1.00
All flows	All weights	5,832	0.19	0.39	0.00	1.00

Track-and-trace effect (sender) variable						
Do the sender country's cross-border product and the sender country's domestic product have a discrepancy in terms of offering track-and-trace? (1=Yes, 0=No)	Weight	Number of observations	Mean	Standard deviation	Minimum value	Maximum value
Flows between top 6 countries	2kg (although all weights yield the same results)	36	1.00	0.00	1.00	1.00
Flows between 2011 liberalised countries	2kg (although all weights yield the same results)	100	0.60	0.49	0.00	1.00
Flows between 2013 liberalised countries	2kg (although all weights yield the same results)	121	0.36	0.48	0.00	1.00
All flows	2kg (although all weights yield the same results)	729	0.59	0.49	0.00	1.00
All flows	All weights	5,832	0.59	0.49	0.00	1.00

Track-and-trace effect (receiver) variable						
Do the sender country's cross-border product and the receiver country's domestic product have a discrepancy in terms of offering track-and-trace? (1=Yes, 0=No)	Weight	Number of observations	Mean	Standard deviation	Minimum value	Maximum value
Flows between top 6 countries	2kg (although all weights yield the same results)	36	1.00	0.00	1.00	1.00
Flows between 2011 liberalised countries	2kg (although all weights yield the same results)	100	0.60	0.49	0.00	1.00
Flows between 2013 liberalised countries	2kg (although all weights yield the same results)	121	0.36	0.48	0.00	1.00
All flows	2kg (although all weights yield the same results)	729	0.59	0.49	0.00	1.00
All flows	All weights	5,832	0.59	0.49	0.00	1.00

VAT regime effect (receiver) variable						
Do the sender country's cross-border product and the receiver country's domestic product have a discrepancy in whether they apply VAT or not? (1=Yes, 0=No)	Weight	Number of observations	Mean	Standard deviation	Minimum value	Maximum value
Flows between top 6 countries	2kg (although all weights yield the same results)	30	0.60	0.50	0.00	1.00
Flows between 2011 liberalised countries	2kg (although all weights yield the same results)	100	0.20	0.40	0.00	1.00
Flows between 2013 liberalised countries	2kg (although all weights yield the same results)	110	0.10	0.30	0.00	1.00
All flows	2kg (although all weights yield the same results)	675	0.24	0.43	0.00	1.00
All flows	All weights	5,400	0.36	0.48	0.00	1.00

Source: FTI

Table A6.3 Descriptive statistics for input variables to regression model – express products

DIFF2 variable						
The gap between the charged cross-border price and the domestic equivalent price (%)	Weight	Number of observations	Mean	Standard deviation	Minimum value	Maximum value
Flows between top 6 countries	0.5kg	30	0.42	0.13	0.06	0.60
	1kg	30	0.47	0.13	0.14	0.67
	2kg	30	0.51	0.09	0.27	0.65
	5kg	30	0.55	0.08	0.34	0.69
	10kg	30	0.60	0.07	0.43	0.72
	15kg	30	0.62	0.08	0.40	0.74
	20kg	30	0.62	0.07	0.40	0.72
	25kg	12	0.62	0.08	0.47	0.73
	30kg	12	0.63	0.07	0.51	0.74
Flows between 2011 liberalised countries	0.5kg	90	0.52	0.25	-0.34	0.89
	1kg	90	0.54	0.23	-0.34	0.89
	2kg	90	0.57	0.21	-0.24	0.90
	5kg	90	0.62	0.16	-0.02	0.90
	10kg	90	0.65	0.14	0.07	0.93
	15kg	90	0.66	0.14	0.05	0.93
	20kg	90	0.66	0.13	0.10	0.93
	25kg	56	0.69	0.11	0.36	0.93
	30kg	36	0.68	0.12	0.33	0.93
Flows between 2013 liberalised countries	0.5kg	109	0.60	0.18	-0.23	0.92
	1kg	109	0.61	0.16	0.02	0.92
	2kg	109	0.63	0.15	0.14	0.92
	5kg	109	0.62	0.15	0.22	0.92
	10kg	109	0.62	0.15	0.20	0.93
	15kg	89	0.59	0.16	0.07	0.93
	20kg	89	0.59	0.17	-0.06	0.94
	25kg	41	0.60	0.18	-0.02	0.95
	30kg	41	0.59	0.19	-0.10	0.95

Scale effect (export methodology) variable						
Share of sender country's total EU27 exports to receiver country (%)	Weight	Number of observations	Mean	Standard deviation	Minimum value	Maximum value
Flows between top 6 countries	2kg (although all weights yield the same results)	30	0.13	0.07	0.04	0.33
Flows between 2011 liberalised countries	2kg (although all weights yield the same results)	90	0.03	0.05	0.00	0.28
Flows between 2013 liberalised countries	2kg (although all weights yield the same results)	110	0.02	0.05	0.00	0.44
All flows	2kg (although all weights yield the same results)	702	0.04	0.06	0.00	0.44
All flows	All weights	6,318	0.04	0.06	0.00	0.44

Scale effect (import methodology) variable						
Share of receiver country's total EU27 imports from sender country (%)	Weight	Number of observations	Mean	Standard deviation	Minimum value	Maximum value
Flows between top 6 countries	2kg (although all weights yield the same results)	30	0.13	0.08	0.03	0.34
Flows between 2011 liberalised countries	2kg (although all weights yield the same results)	90	0.02	0.04	0.00	0.23
Flows between 2013 liberalised countries	2kg (although all weights yield the same results)	110	0.02	0.05	0.00	0.28
All flows	2kg (although all weights yield the same results)	702	0.04	0.07	0.00	0.58
All flows	All weights	6,318	0.04	0.07	0.00	0.58

Medium/high competition (sender) variable						
Level of sender country competition in the packets market (1=Low, 2=Medium, 3=High)	Weight	Number of observations	Mean	Standard deviation	Minimum value	Maximum value
Flows between top 6 countries	2kg (although all weights yield the same results)	36	2.67	0.48	2.00	3.00
Flows between 2011 liberalised countries	2kg (although all weights yield the same results)	100	2.60	0.67	1.00	3.00
Flows between 2013 liberalised countries	2kg (although all weights yield the same results)	121	2.82	0.39	2.00	3.00
All flows	2kg (although all weights yield the same results)	729	2.70	0.53	1.00	3.00
All flows	All weights	6,561	2.70	0.53	1.00	3.00

Distance effect variable						
Straight line distance between the capitals of the sender and receiver countries	Weight	Number of observations	Mean	Standard deviation	Minimum value	Maximum value
Flows between top 6 countries	2kg (although all weights yield the same results)	30	1,039	445	343	1,871
Flows between 2011 liberalised countries	2kg (although all weights yield the same results)	90	1,514	764	89	3,362
Flows between 2013 liberalised countries	2kg (although all weights yield the same results)	110	1,272	630	163	2,725
All flows	2kg (although all weights yield the same results)	702	1,426	745	57	3,760
All flows	All weights	6,318	1,426	744	57	3,760

Border effect variable						
Is there a shared border between sender and receiver countries? (1=Yes, 0=No)	Weight	Number of observations	Mean	Standard deviation	Minimum value	Maximum value
Flows between top 6 countries	2kg (although all weights yield the same results)	30	0.30	0.47	0.00	1.00
Flows between 2011 liberalised countries	2kg (although all weights yield the same results)	90	0.07	0.25	0.00	1.00
Flows between 2013 liberalised countries	2kg (although all weights yield the same results)	110	0.10	0.30	0.00	1.00
All flows	2kg (although all weights yield the same results)	702	0.10	0.30	0.00	1.00
All flows	All weights	6,318	0.10	0.30	0.00	1.00

Population density (sender/receiver) variable						
Population density (people per square km)	Weight	Number of observations	Mean	Standard deviation	Minimum value	Maximum value
Flows between top 6 countries	2kg (although all weights yield the same results)	36	212	107	92	404
Flows between 2011 liberalised countries	2kg (although all weights yield the same results)	100	98	90	16	341
Flows between 2013 liberalised countries	2kg (although all weights yield the same results)	121	212	344	34	1,287
All flows	2kg (although all weights yield the same results)	729	170	237	16	1,287
All flows	All weights	6,561	170	237	16	1,287

Single tariff zone variable						
Does the sender country apply 1 tariff for each of the other 26 EU Member States? (1=Yes, 0=No)	Weight	Number of observations	Mean	Standard deviation	Minimum value	Maximum value
Flows between top 6 countries	2kg (although all weights yield the same results)	36	0.17	0.38	0.00	1.00
Flows between 2011 liberalised countries	2kg (although all weights yield the same results)	100	0.20	0.40	0.00	1.00
Flows between 2013 liberalised countries	2kg (although all weights yield the same results)	121	0.18	0.39	0.00	1.00
All flows	2kg (although all weights yield the same results)	729	0.19	0.39	0.00	1.00
All flows	All weights	6,561	0.19	0.39	0.00	1.00

VAT regime effect (receiver) variable						
Do the sender country's cross-border product and the receiver country's domestic product have a discrepancy in whether they apply VAT or not? (1=Yes, 0=No)	Weight	Number of observations	Mean	Standard deviation	Minimum value	Maximum value
Flows between top 6 countries	2kg (although all weights yield the same results)	36	1.00	0.00	1.00	1.00
Flows between 2011 liberalised countries	2kg (although all weights yield the same results)	90	0.78	0.42	0.00	1.00
Flows between 2013 liberalised countries	2kg (although all weights yield the same results)	99	0.78	0.42	0.00	1.00
All flows	2kg (although all weights yield the same results)	648	0.83	0.37	0.00	1.00
All flows	All weights	5,832	0.83	0.37	0.00	1.00

Source: FTI

Appendix 7 Regression analysis – Supplementary results

In this Appendix we present regression results (similar to those shown in Table 5.6, Table 5.7 and Table 5.8) from the same regression model, but which exclude the scale effect variable that is constructed based on the relative importance of the share of the receiver country's total inbound postal flows which come from the sender country. The proxy measure used for this is the share of the receiver country's total EU-27 imports from the sender country (%).

We find this variable to be insignificant anyway, and so the regression results shown below are very similar to the results shown in the main report, however we present them here for completeness.

The results below contain only a scale effect which is constructed based on the relative importance of the sender country's total outbound postal flows which go to the receiver country. The proxy measure used for this is the share of the sender country's total EU-27 exports to the receiver country (%).

Table A7.1 Price differential model (excluding scale effect (import methodology)) results: packets

Packets - differentials regression analysis		
	Coefficient	Is the coefficient statistically significant?
Scale effect (export methodology)	-0.807	Yes
Medium competition (sender)	-0.108	
High competition (sender)	0.144	Yes
Distance effect	-0.003	Yes
Border effect	0.099	Yes
Population density (sender)	0.027	Yes
Population density (receiver)	0.007	Yes
A single tariff zone applied	-0.217	Yes
Track-and-trace effect (receiver)	0.083	
Flows between top 6	-0.085	Yes
Flows between 2013 liberalised countries	0.252	Yes
Flows between 2011 liberalised countries	-0.109	Yes
0.5kg weight category	0.043	
1kg weight category	0.154	Yes
Constant	0.455	Yes
Number of observations	2054	
F-test statistics	$F(38, 2015) = 27.48$	
R-Squared value	0.3924	

Source: FTI

Table A7.2 Price differential model (excluding scale effect (import methodology)) results: parcels

Parcels - differentials regression analysis		
	Coefficient	Is the coefficient statistically significant?
Scale effect (export methodology)	-0.374	Yes
Medium competition (sender)	0.120	Yes
High competition (sender)	0.204	Yes
Distance effect	-0.001	Yes
Border effect	-0.039	Yes
Population density (sender)	0.004	
Population density (receiver)	0.014	Yes
A single tariff zone applied	-0.234	Yes
Track-and-trace effect (sender)	0.020	
Track-and-trace effect (receiver)	0.036	Yes
VAT regime effect (receiver)	-0.042	Yes
Flows between top 6	-0.082	Yes
Flows between 2013 liberalised countries	0.057	Yes
Flows between 2011 liberalised countries	0.009	
1kg weight category	0.016	
2kg weight category	0.022	
5kg weight category	0.021	
10kg weight category	-0.042	Yes
15kg weight category	0.025	
20kg weight category	0.005	
25kg weight category	-0.008	
Constant	0.452	Yes
Number of observations	3209	
F-test statistics	F(38, 3170) = 35.24	
R-Squared value	0.2838	

Source: FTI

Table A7.3 Price differential model (excluding scale effect (import methodology)) results: express products

Express products - differentials regression analysis		
	Coefficient	Is the coefficient statistically significant?
Scale effect (export methodology)	-0.417	Yes
Medium competition (sender)	0.055	Yes
Distance effect	-0.001	
Border effect	0.001	
Population density (sender)	0.017	Yes
Population density (receiver)	0.002	Yes
A single tariff zone applied	-0.178	Yes
VAT regime effect (receiver)	0.046	Yes
Flows between top 6	-0.043	Yes
Flows between 2013 liberalised countries	0.072	Yes
Flows between 2011 liberalised countries	-0.029	Yes
0.5kg weight category	-0.129	Yes
1kg weight category	-0.103	Yes
2kg weight category	-0.082	Yes
5kg weight category	-0.055	Yes
10kg weight category	-0.034	Yes
15kg weight category	-0.027	Yes
20kg weight category	-0.020	Yes
25kg weight category	-0.001	
Constant	0.656	Yes
Number of observations	4189	
F-test statistics	F(39, 4149) = 55.06	
R-Squared value	0.348	

Source: FTI