



# **VAT Aspects of cross-border e-commerce - Options for modernisation**

Final report – Lot 1

Economic analysis of VAT aspects of e-Commerce.

October 2015

**Deloitte.**

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## List of abbreviations

B2B	Business to business
B2C	Business to consumer
C2C	Consumer to consumer
CAGR	Compounded annual growth rate
CGE	Computable general equilibrium
DSM	Digital Single Market
EC	European Commission
EU	European Union
FTE	Full time equivalent
GDP	Gross domestic product
IO	Information Obligation
MOSS	Mini one stop shop
MS(s)	Member state(s)
SAD	Single administrative document for customs declarations
SCM	Standard cost model
SME	Small and medium-sized enterprises
TOR	Terms of reference
VAT	Value added tax





# Executive Summary

Over the last five years, e-Commerce in Europe has grown by between 17% and 20% per year<sup>1</sup> to become a key part of the digital economy and an important driver of economic growth. From 2009 to 2014, the contribution of e-Commerce to GDP has almost doubled<sup>2</sup>. Recognising the importance of e-Commerce, the European Commission is committed to ensuring the free movement of goods and services and to ensuring that “individuals and businesses can seamlessly access and exercise online activities under conditions of fair competition”<sup>3</sup> as set out in their Digital Single Market strategy. However concerns have been expressed by the Commission and other organisations, including business groups, that fragmentation and barriers continue to exist online, not least due to the burden associated with VAT compliance. The evidence presented in this report indicates that these concerns are justified, since the fixed costs associated with VAT compliance appear to represent a significant burden on firms, limiting the growth of cross-border e-Commerce in the EU. Moreover, non-compliance and VAT fraud continues to present a challenge to tax authorities across the EU.

## Background to this report

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In 2011 the European Commission issued a Communication on the Future of VAT<sup>4</sup>. This states as its goal the delivery a simple, efficient, neutral and robust VAT system which is fit for the single market. In January 2015, new legislation was introduced affirming the destination principle for telecommunications, broadcasting and electronic services, accompanied with the implementation of a Mini One Stop Shop (MOSS)<sup>5</sup>. The MOSS allows businesses supplying these digital services to consumers in the EU to register for VAT once with their home tax authorities, rather than registering for VAT in every EU Member State to which the business supplies.

The implementation of the MOSS is seen as a major milestone by the European Commission and by many EU Member States, since it enables them to collect tax on each other’s behalf; the MOSS system has already led to the collection of EUR 3 billion of revenues. Given the support expressed for the scheme, including by businesses, the European Commission is considering options for the wider implementation of this concept, with the objective of reducing the administrative burden associated with the VAT treatment of cross-border e-commerce.

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<sup>1</sup> E-Commerce Europe, European B2C E-commerce Report 2014

<sup>2</sup> E-Commerce Europe, <https://www.about-payments.com/newsroom/news/30517/double-digit-growth-for-european-e-commerce-sales>

<sup>3</sup> “A Digital Single Market Strategy for Europe,” European Commission Communication, May 2015

<sup>4</sup> [http://ec.europa.eu/taxation\\_customs/resources/documents/taxation/vat/key\\_documents/communications/com\\_2011\\_851\\_en.pdf](http://ec.europa.eu/taxation_customs/resources/documents/taxation/vat/key_documents/communications/com_2011_851_en.pdf)

<sup>5</sup> Council Implementing Regulation No 1042/2013 of 7 October 2013 amending Implementing Regulation No 282/2011, see [http://ec.europa.eu/taxation\\_customs/resources/documents/taxation/vat/how\\_vat\\_works/telecom/explanatory\\_notes\\_2015\\_en.pdf](http://ec.europa.eu/taxation_customs/resources/documents/taxation/vat/how_vat_works/telecom/explanatory_notes_2015_en.pdf) for further details.

This report represents the first stage in a wider study intended to assess the need for modernisation of the VAT system and the potential impacts of a number of different policy proposals. The objective of this report is to understand the current state of B2C e-commerce - and in particular cross-border e-commerce – within the EU and the barriers faced by businesses. The analysis presented here therefore focuses on the following areas:

- The current state of e-commerce within the EU, including intra-EU trade flows and online trade with the rest of the world;
- The impact of the current VAT regime, including the costs to businesses and the potential barriers to trade that it creates;
- The level of compliance under the current VAT regime and the implications for government;
- The potential for the growth of e-commerce from reforming the present system.

This study uses a range of methodologies and data sources to address these issues, including existing data sources such as Eurostat, a survey of 25,000 consumers across 25 Member States, in-depth interviews with businesses in eight Member States, and interviews and questionnaires issued to tax authorities and postal operators. However it should be noted that there are some areas in which the collection of information has presented a significant challenge, given that at present data on e-commerce and cross-border online trade is not systematically collected by authorities across the EU. There are therefore a number of areas of this study that rely on information collected from surveys and interviews. While such data provide a valuable insight into the state of e-commerce and businesses' views on the challenges faced, they are also subject to some inherent uncertainty due to reporting biases, and in the case of the business interviews, the difficulty of identifying a representative sample. These potential issues have been addressed by reviewing the findings against existing studies and expert assessments. Wherever possible, additional sensitivity analysis is included.

The main findings of the study are summarised below.

## **Current status of B2C e-commerce in the EU**

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The first part of the study draws on evidence from a consumer survey conducted across 25 Member States, supplemented by tax receipts from MOSS supplied by the Member States, in order to understand the current status of e-commerce in the EU. The key findings from this survey are as follows:

- Total online expenditure on goods and services was valued at EUR 540 billion across the EU-28;
- Cross-border e-commerce accounts for about 18% of this figure, or EUR 96.8 billion. The majority of this spending comes from within the EU, with non-EU spending accounting for 28% of cross-border e-commerce;
- Within the EU, cross-border purchases originating from businesses in Germany, the United Kingdom and France account for the greatest shares of cross-border trade;
- 26% of cross-border spending relates to holiday and travel.

## **B2C commerce in the EU: Insights from businesses**

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The second part of the study focuses on the business perspective. Almost 15% of EU businesses are estimated to engage in cross-border e-commerce, with this figure rising to about 35% of large firms

(those with over 250 employees). However while larger firms are more likely to engage in e-commerce, the majority of firms selling online across borders are small enterprises and there are concerns that the administrative costs associated with the current VAT treatment of e-commerce may represent a greater burden to these firms.

In order to assess the implications of the current VAT system for firms, interviews were conducted with businesses of varying sizes across eight Member States. The following issues were identified as concerns by businesses:

- Dealing with complex legislation and administrative procedures in different countries;
- Monitoring distance sales thresholds;
- Differences in distance sales thresholds across Member States; and
- Distortion of competition.

The businesses interviewed also raised a number of other issues that could potentially hamper the development of e-commerce. These include: legal barriers (e.g. dispute resolution and data protection), uncertainty regarding VAT treatment (e.g. for electronic services), Intellectual Property Rights (IPRs), logistics and payment systems, language and cultural barriers, and exports procedures towards third countries.

Based on the information obtained from these interviews, the study aimed at quantifying the administrative burden faced by firms engaging in cross-border e-commerce. This analysis involved the use of a Standard Cost Model in order to quantify the costs associated with each of the Information Obligations (IOs) facing firms.

Based on this approach, the overall costs facing businesses that engage in B2C cross-border transactions are estimated to amount to almost **EUR 6 billion**. For individual firms, this **amounts to about EUR 8 000 per Member State in which a business is registered for VAT**, with the average company assumed to be registered in three Member States. In order to provide some context for these figures, a 2009 study<sup>6</sup> estimated the total administrative costs associated with EU VAT systems at EUR 80 billion, while a study<sup>7</sup> conducted in 2013 found a total administrative cost for the preparation and submission of periodic VAT returns in the EU 27 of about EUR 40 billion.

Two of the information obligations associated with VAT emerged as key areas of concern for businesses:

- VAT registration; and
- VAT declarations/returns;

VAT registration is perceived as particularly burdensome by businesses, as they have to deal with large differences in the procedures and timings necessary for registration depending on Member States, and often find it difficult to identify the national requirements and relevant institutions. This issue may be further complicated by language barriers and many businesses therefore relied on local support in each of the markets in which they were registered. In addition to the burden associated with obtaining the required information, businesses also highlight the time needed to produce and

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<sup>6</sup> European Commission, (2009), EU project on Baseline Measurement and Reduction of Administrative Costs, prepared by CapGemini, Deloitte and Ramboll

<sup>7</sup> European Commission, (2013), Study on the feasibility and impact of a common EU standard VAT return, prepared by PwC

submit the necessary documentation and to follow up with the authorities. On average, businesses reported that 2.7 days were allocated to VAT registration in each market; while outsourcing reduces the time required to register, the overall costs increase significantly.

In addition to the one-off costs incurred for VAT registration, businesses also pointed to the ongoing filing requirements as a significant burden; this is estimated to represent more than 80% of the total compliance costs. Data gathered point out that, if carried out in-house, VAT returns require about 1.7 days FTE per business per return. The majority of this time is allocated to gathering information, preparing the VAT return and reconciling data from different accounting systems. A number of businesses reported relying to external support for these recurring obligations in order to address the different reporting requirements and frequencies across Member States.

The administrative burden facing the SMEs interviewed was somewhat lower, at about EUR 4,000 per Member State in which they were registered. For the firms in the sample, this difference is largely driven by less time spent on filing and declarations and by the fact that in many countries SMEs can file less frequently. However, for firms that have exceeded the VAT registration threshold the costs associated with VAT are generally fixed costs, meaning that relative to turnover the administrative burden tends to be greater for SMEs.

### **Compliance with the current VAT regime: Insights from government**

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The study also aimed to understand whether the current treatment of VAT on cross-border e-commerce affects VAT compliance. Interviews and questionnaires issued to tax authorities were used to assess current levels of compliance, potential reasons for non-compliance and the steps taken to improve compliance. A series of real and mock purchases was also conducted to better understand compliance in practice.

The assessment of compliance on B2C cross-border supplies of goods confirmed that non-compliance is considered by tax authorities as a significant issue on both intra-EU distance sales and on B2C import of goods with a value of up to EUR 150. However, tax authorities find it challenging to measure the level of compliance. This study tested compliance through a series of mock purchases; this analysis confirmed that suppliers often did not supply VAT information on cross-border supplies. This makes it difficult for tax authorities to accurately monitor non-compliance; however, the results of this study suggest a significant level of non-compliance. Among the eight authorities interviewed, only two were able to provide quantitative estimates for the value of VAT lost due to non-compliance, representing about EUR 60-70 million in each case. These figures, and data on the general VAT gap, were used to estimate the EU-wide VAT loss associated with non-compliance on cross-border online transactions. This was estimated to be between EUR 2.6 billion and EUR 3.8 billion, with Italy and Germany estimated to experience the greatest loss.

Tax authorities have identified many types of non-compliance (such as under-valuation and mis-labelling on imports and ignoring distance sales thresholds on intra-EU sales), as well as the use of avoidance schemes.

The main compliance measures applied by tax authorities to B2C cross-border supplies are the general measures used also for other supplies, such as preventive measures, general auditing and control procedures, sampling and risk profiling. More recently, tax authorities have started to use technological tools, such as web trawling and data analytics, and the collection of additional information from other businesses (e.g. account holders, financial institutions or postal operators).

However, tax authorities admit that the use of compliance measures is not sufficiently effective and there is room for improvement, such as better use of administrative cooperation between EU Member States and with non-EU countries and further development and use of technological tools.

## **The growth potential of e-commerce in the EU**

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The evidence obtained from businesses and tax authorities suggests that the current administrative burden associated with VAT on cross-border online transactions may represent a barrier to the growth of e-commerce in the EU. Cross-border e-commerce is particularly affected, since the administrative burden may either increase prices or deter businesses from selling cross-border altogether. This may in turn have ramifications for productivity and competitiveness in the EU.

In order to assess the magnitude of this effect, a general equilibrium model was used to estimate the impact of the removal of the administrative burden on prices, e-commerce volumes and the wider economy. This analysis indicates that the removal of the administrative burden has the potential to increase the value of e-commerce in the EU by up to 0.5%. The majority of this impact will come through the effect on cross-border e-commerce, in particular intra-EU cross border e-commerce. However the reduction in the prices caused by the reduction of the administrative burden will also put downward pressure on domestic e-commerce prices and increase demand, suggesting that the removal of the administrative burden will not disadvantage domestic firms. Meanwhile the wider retail sector and the economy as a whole have the potential to benefit from improvements in labour productivity.

The key findings emerging from this analysis are as follows:

- The reduction of the administrative burden on cross-border e-commerce has the potential to increase the value of B2C e-commerce in the EU by between 0.3% and 0.7%; under the medium growth scenario, this represents an increase in the value of B2C e-commerce of between EUR 3.1 billion and EUR 5.2 billion annually.
- The value of cross-border B2C e-commerce may potentially increase by 1.2% - 2.6% with the elimination of the administrative burden; under the medium growth scenario, this represents an increase in the value of e-commerce of between EUR 2.5 billion and EUR 4.2 billion annually.
- This increase in the overall value of B2C e-Commerce is driven by an increase in the volume of transaction, since prices are estimated to fall with a reduction in the administrative burden. The total volume of e-Commerce transactions is expected to increase by between 0.9% and 1.5%, with the volume of cross-border B2C transactions increasing by between 4.0% and 6.8%.
- A reduced administrative burden and greater competition may reduce prices across the e-commerce sector by up to 1.0%; cross-border e-commerce prices faced by consumers may fall by up to 4.5%.
- The reduction of the administrative burden may increase labour productivity in the retail sector by up to 0.7% as workers are able to allocate more time to more productive tasks;
- The improvement in labour productivity and the expected relative reduction in prices suggest that reduction in the administrative burden should increase the competitiveness of EU firms.

Taken together, the results of this study suggest that the current obligations associated with VAT compliance create a significant administrative burden for firms, which in turn limits the growth of cross-border e-Commerce in the EU, with implications for the wider economy. By taking steps to

modernise and streamline the VAT treatment of e-commerce the European Commission can decrease the administrative burden associated with cross-border e-commerce and support growth in this sector. Such reforms would create further benefits if they are associated with an increase in VAT compliance and a concomitant increase in revenues.

# 1 Introduction

## 1.1 Introduction

### 1.1.1 Background

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The European Commission considers that e-commerce is a large and growing business, a key part of the digital economy and an important economic driver. In order for the EU to realise its full potential, a number of issues need to be addressed, including the obstacles that the current VAT and customs systems present to cross-border sales of both physical and digital e-commerce products.

In 2011 the European Commission issued a Communication on the Future of VAT<sup>8</sup>. This states as its goal the delivery of a simple, efficient, neutral and robust VAT system which is fit for the single market. In January 2015, new legislation pertaining to telecommunications, broadcasting and electronic services (sometimes referred to under the umbrella term 'TBE services') provided to final consumers (B2C) within the EU entered into force. The legislation introduced the destination principle accompanied with the implementation of a Mini One Stop Shop (MOSS).

According to the destination principle, VAT on TBE-services will be paid in the consumer's country, not the supplier's country. It will be charged at the rate that applies in the consumer's country. The MOSS, introduced in parallel with this new legislation, allows businesses supplying digital services to consumers in the EU to register for VAT once with their home tax authorities, rather than registering for VAT in every EU Member State to which the business supplies<sup>9</sup>.

According to the European Commission, the implementation of the MOSS is seen as a major milestone by many EU Member States, as well as businesses. It believes that its smooth functioning should pave the way for a more general use of this concept. Moreover, a 2014 report by the Commission Expert Group on Taxation of the Digital Economy<sup>10</sup> proposed that the EU should pursue the destination principle for all supplies of goods and services.

It is therefore important to conduct a comprehensive economic analysis of the VAT aspects of e-commerce and a thorough examination of the functioning of the MOSS. This will enable the European Commission to identify possible needs for modernising the VAT system and to draw lessons for future policy orientations.

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<sup>8</sup> [http://ec.europa.eu/taxation\\_customs/resources/documents/taxation/vat/key\\_documents/communications/com\\_2011\\_851\\_en.pdf](http://ec.europa.eu/taxation_customs/resources/documents/taxation/vat/key_documents/communications/com_2011_851_en.pdf)

<sup>9</sup> It should be noted that this scheme has been available to suppliers registered outside the EU since 2003; the recent legislation extended the scheme to EU suppliers.

<sup>10</sup> [http://ec.europa.eu/taxation\\_customs/resources/documents/taxation/gen\\_info/good\\_governance\\_matters/digital/report\\_digital\\_economy.pdf](http://ec.europa.eu/taxation_customs/resources/documents/taxation/gen_info/good_governance_matters/digital/report_digital_economy.pdf)

### 1.1.2 Objective of this study

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With this in mind, the European Commission has appointed Deloitte to undertake an in-depth economic analysis of VAT aspects of e-commerce. The study considers the widening of the MOSS to other areas of B2C e-commerce, the elimination of the VAT exemption for the importation of small consignments, and the elimination of current registration thresholds for intra-EU B2C supplies of goods. The objective is to reduce the administrative burden on trade and remove distortion of competition.

The study consists of three lots. This report represents the final report for Lot 1. It focuses on the economic analysis of the VAT aspects of e-commerce. It concentrates on:

- ✔ Mapping current B2C e-commerce trade flows intra EU and between EU Member States and the rest of the world;
- ✔ The cost of doing business, barriers to trade and distortive effects of current rules;
- ✔ Compliance under the current rules; and
- ✔ Growth potential for business from simplified arrangements.

Lot 2 will assess the impact of the options under consideration for the modernisation of VAT aspects of cross-border e-commerce. Furthermore, Lot 3 will focus on the evaluation of the implementation of the destination principle and the Mini One Stop Shop which came into effect in January 2015. Separate reports will be published in due course on the findings of these studies.

### 1.1.3 Structure of this report

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This report is structured as follows:

- ✔ Section 1.2 outlines the various methodological tools used to inform this report;
- ✔ Section 2 provides an overview of the current state of B2C e-commerce in Europe;
- ✔ Section 3 presents insights from interviews with business engaged in B2C e-commerce and assesses the administrative cost to businesses associated with current VAT rules;
- ✔ Section 4 discusses issues around compliance with current VAT rules;
- ✔ Section 5 examines the impact of the administrative cost to businesses associated with current VAT rules on competition and growth;
- ✔ The annexes provide a list of references (annex 1) and present in depth the various methodological tools used to collect and analyse data, including:
  - Annex 2: the consumer survey;
  - Annex 3: the standard cost model (SCM);
  - Annex 4: mock purchases;
  - Annex 5: growth scenarios and the computable general equilibrium (CGE) model.



## 1.2 Methodology

This study aims to undertake an in-depth economic analysis of VAT aspects of e-commerce. The study's remit is wide, and it aims to consider both the business and government perspective regarding VAT aspects of e-commerce. In addition to gaining an up to date overview of B2C e-commerce in Europe, the study aims to quantify the cost of doing business under current VAT rules; identify barriers to trade; analyse compliance under the current rules; estimate the growth potential for business from simplified arrangements.

To cover these aspects requires the collection of both quantitative and qualitative information and the application of a range of methodological tools. Data collection and analysis relied on a number of sources of evidence, including

- ✘ A consumer survey in 25 Member States;
- ✘ Fieldwork in eight Member States, including interviews with national tax authorities, statistics offices, postal operators, and businesses;
- ✘ Questionnaires sent to European government revenue authorities across 20 Member States;
- ✘ Interviews with a selection of major e-commerce providers;
- ✘ Interviews with a selection of trade associations;
- ✘ The application of the standard cost model and the computable general equilibrium model;
- ✘ Mock purchases in order to assess compliance.

Each source of evidence is explained in brief below. Where necessary, more in depth explanations are given in the annexes.

### 1.2.1 Consumer survey

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While there are a number of studies on the topic<sup>11</sup> of B2C e-commerce in both the EU and in Europe more generally, the most recent of these studies presents data from 2013. Moreover, many of these studies do not provide a sufficiently detailed breakdown of e-Commerce by retail category, or by country of origin and destination. This is important as different VAT rates apply to different categories of goods and services. In order to assess the current state of B2C e-commerce in Europe and collect sufficiently detailed data on cross-border trade, Deloitte and Ipsos conducted a consumer survey in 25 countries of the EU<sup>12</sup>. Data was gathered on:

- ✘ Value of distance sales of goods and services;
- ✘ Value and volume of transactions of cross-border B2C distance supplies by Member State of origin/destination;
- ✘ Value and volume of transactions of non-EU cross-border B2C distance sales of goods and services<sup>13</sup>;
- ✘ Categorisation of value of cross-border B2C distance sales of goods and of services into retail categories;

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<sup>11</sup> See, for example, DIWecon (2010), PayPal (2014), JRC (2013), Eurobarometer (2013), OECD (2014), and Ystats Global Cross-Border B2C e-commerce (2014).

<sup>12</sup> Cyprus, Luxembourg and Malta were excluded because their small population sizes mean that reliable panels from which to draw responses are not available.

<sup>13</sup> A full list of the products covered is found in Chapter 2, with a detailed methodology in Annex 2. Examples of distance sales of services include travel (for example flights and accommodation) and digital services.

- Value of B2C cross-border non-distance sales of goods and services.

In addition to informing this report, data gathered through this survey will act as inputs for the CGE model in Lot 2 and will also form part of the analysis of the model's outputs. The consumer survey data will also be used in Lot 3 to evaluate the implementation of the MOSS.

Efforts were made to validate the findings of the consumer survey, including comparisons with figures from existing studies and qualitative assessments through subject experts. Details of the methodology are given in annex 2.

### 1.2.2 Interviews and Questionnaires

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In order to gain insights from business engaged in B2C e-commerce and assess the administrative cost to businesses associated with current VAT rules, it was necessary to gather additional quantitative and qualitative information. Thus, in addition to the consumer survey, Deloitte undertook a data gathering exercise, involving:

- Interviews with national tax authorities, statistics offices, postal operators, and businesses in eight Member States;
- Questionnaires sent to national tax authorities in 20 Member States;
- Interviews with major e-commerce providers;
- Interviews with trade associations.

35 interviews were conducted in eight Member States selected in consultation with the European Commission in order to provide a representative sample. These countries were Austria, Belgium, Denmark, Hungary, Ireland, Italy, Sweden and the UK. In each of these countries the following organisations were interviewed:

- National tax authorities;
- Postal operators;
- Up to four private businesses, including large businesses, SMEs and micro businesses.

Questionnaires were also sent to national tax authorities in the 20 Member States not selected for fieldwork.

### 1.2.3 Standard Cost Model

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One of the objectives of the study is to identify and quantify the costs of doing business in other Member States for businesses making B2C supplies in e-commerce transactions. In order to do this, and in accordance with the ToR, we applied the Standard Cost Model (SCM) methodology, which is a widely used tool to estimate the administrative burden for enterprises and citizens in order to comply with legal requirements translated into Information Obligations (IOs).

In order to do this, we have identified the key IOs businesses engaged in cross-border B2C e-commerce have to comply with on the basis of the current legislation, and collected data on the time and costs real businesses incur.

Our objective was to identify and quantify the costs a 'typical' EU business engaged in cross-border B2C e-commerce transactions has to face to comply with the current VAT-related requirements. The 'typical' EU business results from the characteristics of a number of real businesses engaged in cross-border B2C e-commerce in EU Member States. The results per country were averaged to calculate the time needed by the 'typical' EU business to comply with VAT-related requirements.

23 businesses from the eight Member States visited were able to provide information on time and costs spent on several IOs. The following countries and enterprises were included:

- ✔ Austria: 1 business;
- ✔ Belgium: 3 businesses;
- ✔ Denmark: 5 businesses;
- ✔ Hungary: 2 businesses;
- ✔ Ireland: 2 businesses;
- ✔ Italy: 4 businesses;
- ✔ Sweden: 2 businesses;
- ✔ United Kingdom: 4 businesses.

The sample included micro (4), small (2), medium (4) and large (13) businesses, active in seven business sectors (with clothing and accessories being the most frequent).

A key input for the model is the hourly earnings/wage rates. We used the hourly earnings elaborated by the Eurostat<sup>14</sup>. We used the average hourly rates for the category ISCO 2, as management accountants are the category of personnel responsible for VAT-related procedures in businesses. Management accountants are classified under the code 2411 in the International Standard Classification of Occupations elaborated by the ILO.

Other key parameters for the analysis were the number of businesses engaged in cross-border B2C e-commerce (obtained as part of the study), and the number of Member States a 'typical' EU business is registered to (estimated via expert judgement).

Results obtained have been cross-referenced with available literature (to the extent results can be compared).

#### 1.2.4 Mock purchases

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In order to assess compliance with the rules for intra-EU B2C supplies of goods through distance selling and for B2C supplies of goods by non-EU suppliers, Deloitte conducted real and mock online purchases from EU and non-EU e-commerce traders.

For the purchases from EU suppliers, 100 companies were identified, which have their headquarters in the EU and supply their goods outside their domestic market to at least two of the Member States included in the sample: Austria, Belgium, Denmark, Hungary, Ireland, Italy, Sweden and the United Kingdom.

For the purchases from non-EU suppliers, 50 companies were identified, which have their headquarters outside the EU and supply their goods to at least three of the Member States included in the sample. Three companies were subsequently excluded from the sample because they have warehouses or distribution centres in the EU.

A detailed description and analysis of the purchases are included in Annex 4 to this report, while the main findings from the exercise are summarised in Section 4.

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<sup>14</sup> See: [http://ec.europa.eu/eurostat/web/products-datasets/-/earn\\_ses\\_hourly](http://ec.europa.eu/eurostat/web/products-datasets/-/earn_ses_hourly). The most recent figures date back to 2010, but given the economic crisis, figures are considered still quite accurate by the Commission's services consulted on the topic. Updated hourly earnings should be elaborated by Eurostat by the end of 2015.

### 1.2.5 Computable General Equilibrium (CGE) model

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The administrative burden created by the current structure of VAT legislation on cross-border flows is seen as a barrier to trade that not only constrains the growth of e-commerce, but may also affect the competitiveness of the wider European retail sector. In order to assess the magnitude of these effects arising from the administrative burden, a Computable General Equilibrium (CGE) model has been developed. Such models have the advantage of being able to estimate the aggregate impact of a change in policy on the economy, encompassing both direct and indirect impacts and interactions between different segments of the economy.

The CGE model is a dynamic single-region, multi-sector representation of the EU economy. Through a series of equations it describes the behaviour of key agents in the economy – households, firms, the government and the foreign sector – and how their interactions shape the markets for factors of production, goods and services, and savings and investment. Within the retail sector, the model distinguishes between online and offline trade and between domestic, intra-EU and non-EU e-commerce.

For the purpose of lot 1 of the study a CGE model was used in order to estimate the impact of the administrative burden by calculating the response of the economy to the removal of this burden, drawing on the outputs of the Standard Cost Model and the consumer survey. These impacts are estimated under a number of different scenarios for the growth of e-commerce.

# 2 Current state of B2C e-commerce in the EU

## 2.1 Introduction

In order to assess the cost of doing business under current VAT rules, analyse compliance under the current rules, identify barriers to trade, and estimate the growth potential for business from simplified arrangements, it is first necessary to understand the current state of B2C e-commerce in Europe. Mapping the current e-commerce flows both between EU Member States and between the EU and third countries, will enable the assessment of the EU28s e-commerce potential.

There are a number of existing reports on B2C e-commerce, as described below. These reports provide some data on overall e-commerce sales and cross-border e-commerce by origin and destination countries for some countries. However, this data is generally dated. Given the high growth rates observed in the e-commerce market over the years<sup>15</sup>, it is necessary to update these figures. Moreover, the existing literature does not consider B2C e-commerce at a disaggregated level, for example by retail category.

Reports that were reviewed as part of this analysis include:

- Civic Consulting (2011) “Consumer market study on the functioning of e-commerce”<sup>16</sup>: This provides estimates for the value of cross-border e-commerce for the EU27 (Croatia is excluded as it was not a member at the time). However this data only covers goods and does not extend to services. There has also been considerable evolution in the market since this report was commissioned;
- European Commission Joint Research Centre (JRC), “The Drivers and Impediments for Cross-border e-commerce in the EU”<sup>17</sup>. This paper uses the Civic Consulting online trade data to construct a bilateral trade matrix for e-commerce in the EU. However, as noted, this data does not include services and cannot account for recent growth in the market;
- Ecommerce Europe (2014) “European B2C e-commerce report”<sup>18</sup>. Ecommerce Europe’s report contains figures for 2013 and forecasts for 2014 for the online sale of goods and

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<sup>15</sup> For example, Ecommerce Europe observe that B2C e-commerce sales have been growing between approximately 17% and 20% per annum since 2010.

<sup>16</sup> Executive Agency for Health and Consumers (2011), ‘Consumer market study on the functioning of e-commerce and Internet marketing and selling techniques in the retail of goods’, prepared by Civic Consulting, accessed at [http://ec.europa.eu/consumers/archive/consumer\\_research/market\\_studies/docs/study\\_ecommerce\\_goods\\_en.pdf](http://ec.europa.eu/consumers/archive/consumer_research/market_studies/docs/study_ecommerce_goods_en.pdf) on January 28th 2015

<sup>17</sup> Gomez-Herrera E., Martens B, and Turlea G. (2013), European Commission Joint Research Centre (JRC), “The Drivers and Impediments for Cross-border e-commerce in the EU”, Institute for Perspective Technological Studies (JRC-IPTS), Digital Economy Working Paper 2013/02

<sup>18</sup> Ecommerce Europe, (2014), “European B2C E-Commerce Report 2014”, accessed at <https://www.ecommerce-europe.eu/facts-figures/free-light-reports> on January 28th 2015.

services, broken down by retail category. However it does not provide separate figures on cross-border trade;

- DIW Econ (2010) “A single Market for an Information Society – Economic Analysis”<sup>19</sup>. This provides estimates on the size of the B2C e-commerce market in a number of European countries, but the data is not up to date and does not distinguish cross-border transactions.

Other country-specific reports were also consulted (these are described in Annex 2). To address the limitations with the existing data on cross-border e-commerce, it was necessary to conduct a consumer survey. Deloitte and Ipsos conducted a survey in 25 EU Member States. Figures for Cyprus, Luxembourg and Malta were estimated using third-party data<sup>20</sup>.

Consumers were asked:

- How much they spend online;
- How much they spend on purchases from abroad in general and from each EU Member State in particular;
- How much they spend in different retail categories;
- How much they spend on other types of B2C cross-border supplies which are not distance sales.

Before considering the consumer survey output, it should be noted that consumer surveys are subject to some limitations. In particular, respondents cannot always recall reliably their spending patterns. Consumers will not always know when their purchases come from abroad. In some cases, they will buy from a domestic website and not know that the goods are shipped from abroad; in other cases they may shop from an international website and not know that the company has a domestic warehouse from where it ships.

Where available, the consumer survey was supplemented with data from tax authorities. In particular, the European Commission was able to provide data on digital services collected by tax authorities through MOSS. As this data represents actual VAT receipts, it is considered more reliable. Therefore, data on cross-border B2C spend on digital services was replaced by these figures. Comparisons between the consumer survey and MOSS figures can be found in annex 2.

Issues regarding the consumer survey and mitigation strategies are also discussed in depth in annex 2, where the results are also compared to those in the reports listed above. In addition, details of the consumer survey methodology, including the questionnaire design and method used to gross up figures are described in annex 2.

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<sup>19</sup>DIW Econ (2010) “A Single Market for an Information Society – Economic Analysis”, Report for the Directorate General Information Society and Media, accessed at <http://ec.europa.eu/digital-agenda/en/news/economic-analysis-single-market-information-society-smart-20070030> on February 3rd 2015.

<sup>20</sup> The consumer survey could not be conducted for Cyprus, Luxembourg and Malta because their small population sizes mean that reliable panels from which to draw responses are not available.

## 2.2 Total and cross-border online shopping

Table 1 shows the value of overall and cross-border B2C distance sales of goods and services in millions of Euros. Calculations behind these figures are detailed in annex 2. The table is ordered by total online spend. The EU28 is estimated to spend a total of EUR 540 billion on B2C goods and services bought online.

Table 1 - Value of overall and cross-border B2C distance sales of goods and services in € millions

Destination country	Total online spend	Total cross-border online spend	% of cross-border in total online spend	GDP (2014)
<b>EU28</b>	<b>539,686</b>	<b>96,840</b>	<b>18%</b>	<b>13,920,541</b>
<b>United Kingdom</b>	145,149	17,175	12%	2,222,361
<b>Germany</b>	136,302	14,592	11%	2,903,790
<b>France</b>	76,722	14,291	19%	2,132,449
<b>Italy</b>	29,411	7,032	24%	1,616,254
<b>Spain</b>	22,756	6,971	31%	1,058,469
<b>Netherlands</b>	19,203	3,494	18%	655,375
<b>Poland</b>	18,070	1,525	8%	413,134
<b>Sweden</b>	15,312	4,000	26%	430,258
<b>Austria</b>	10,888	5,072	47%	328,886
<b>Belgium</b>	10,788	4,565	42%	402,027
<b>Denmark</b>	9,595	2,907	30%	257,444
<b>Finland</b>	6,148	2,365	38%	204,015
<b>Czech Republic</b>	6,102	817	13%	154,930
<b>Ireland</b>	5,771	2,213	38%	185,412
<b>Greece</b>	5,697	2,674	47%	179,081
<b>Portugal</b>	3,778	1,048	28%	173,044
<b>Slovakia</b>	3,294	782	24%	75,215
<b>Romania</b>	3,127	390	12%	150,019
<b>Hungary</b>	2,471	509	21%	103,217
<b>Bulgaria</b>	1,986	900	45%	42,011
<b>Slovenia</b>	1,228	421	34%	37,246
<b>Cyprus</b>	1,194	993	83%	17,506
<b>Croatia</b>	1,089	397	36%	43,085
<b>Lithuania</b>	1,076	302	28%	36,309
<b>Latvia</b>	798	295	37%	24,060
<b>Luxembourg</b>	720	555	77%	45,288
<b>Estonia</b>	687	258	37%	19,526
<b>Malta</b>	323	299	92%	7,962

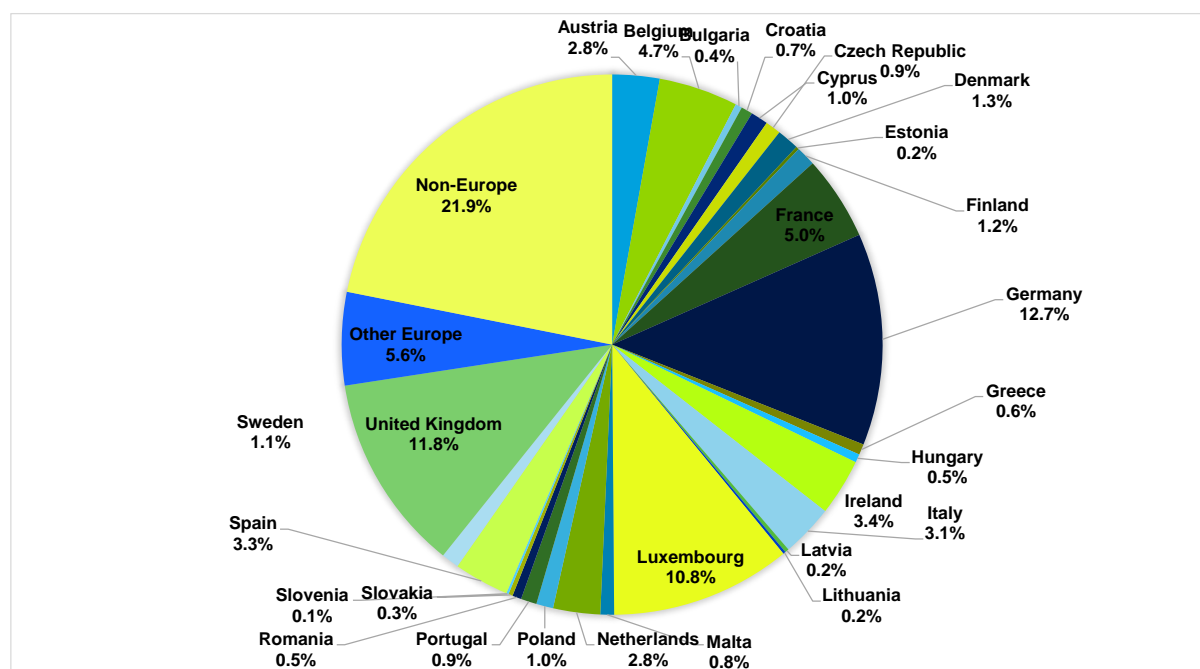
Source: Deloitte/Ipsos consumer survey, 2015

The countries with the highest levels of spending are the UK, Germany, France, Italy and Spain, while Lithuania, Latvia, Luxembourg, Estonia and Malta spend the least. This is likely to be driven by population size and internet penetration rates and size of the economy (see last column).

18% of EU28 online spend is cross-border. This includes goods and services bought from other EU countries as well as from outside the EU. The countries with the highest proportion of cross-border spend are all countries which are relatively small in terms of total spend, e.g. Malta, Cyprus, and Luxembourg; this is likely to reflect the fact that these countries have smaller domestic markets and therefore consumers are more inclined to purchase from other markets. Countries with high total spending, such as the UK, Germany, and France, all spend relatively small proportions on cross-border purchases, perhaps because of their larger domestic markets. This makes sense when one considers that these are also the countries from which the EU28 tend to buy most frequently: 12.7% of cross-border spend is on goods and services from German suppliers, 11.8% on UK suppliers and 5% on French suppliers (see Figure 1). These are also the countries that make the greatest contribution to EU GDP.

Figure 1 shows from which countries citizens of the EU are buying. Over 70% of the EU28s cross-border spend is assigned to goods and services originating from other EU Member States. Just under 28% of cross-border spend is assigned to imports originating from outside of the EU28, including European countries that are not members of the EU (just under 6%), as well as the rest of the world (22%).

Figure 1 - Proportion of cross-border spend by origin



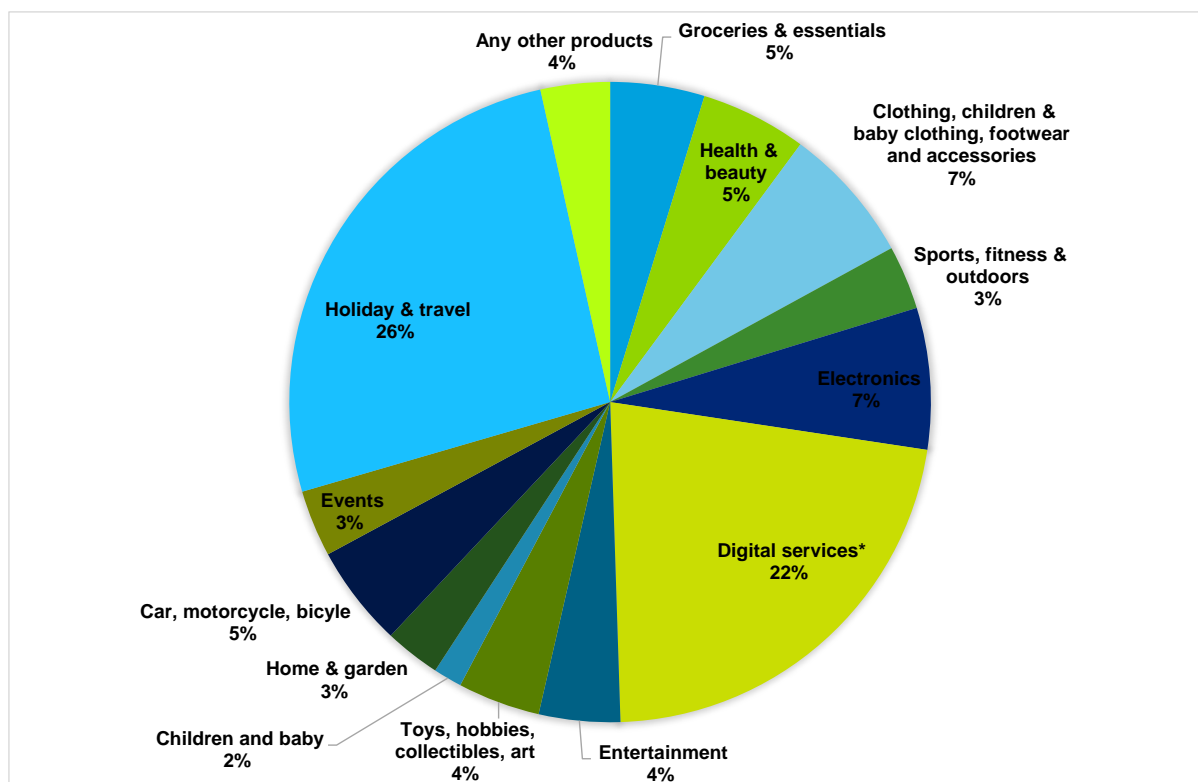
Source: Deloitte/Ipsos consumer survey, 2015



## 2.3 Cross-border shopping by retail category

Figure 2 shows the proportion of total EU28 cross-border spending by each retail category<sup>21</sup>. The largest proportion, over 26% of cross-border spending relates to holiday and travel. This is likely because holiday and travel are by nature frequently cross-border activities. This also means that unlike with other retail categories, it should be clear to the consumer when these purchases are cross-border. With the incorporation of the online spending on digital services implied by the MOSS receipts, digital services also makes up a large proportion of cross-border spend at 22%. Other retail categories that capture higher shares of cross-border spend include electronics (7%), and clothing (7%). In contrast, cross-border spending on home and garden (3%), sports, fitness and outdoors (3%), and children and baby products (2%) is low.

Figure 2 - Proportion of EU28 spending by retail category



Source: Deloitte/Ipsos consumer survey, 2015

\*inclusive of online spending implied by MOSS receipts

<sup>21</sup> The proportion of total cross-border spending by each retail category for each individual country is given in annex 2.

## 2.4 Other types of B2C cross-border supplies which are not distance sales

Other types of B2C cross-border supplies which are not distance sales cover services purchased over the internet, but carried out within the consumers home, e.g. hairdressing, plumbing, cleaning, removals, etc. Table 2 shows value and volume of these supplies in millions of Euros. Calculations behind these figures are detailed in annex 2. The table is ordered by total online spend. The EU28 is estimated to spend a total of EUR 3.7 billion.

Table 2 - Value and volume of B2C cross-border supplies of services that are not distance sales in EUR millions

Country	Value	Volume
<b>Total (EU28)</b>	<b>3,661.30</b>	<b>80.80</b>
United Kingdom	837.54	20.65
Germany	755.90	9.83
Spain	410.92	7.13
Italy	241.84	5.50
Netherlands	199.39	3.42
Belgium	184.46	3.55
France	170.18	7.97
Finland	161.39	1.57
Ireland	119.39	2.20
Greece	89.21	3.45
Austria	85.56	1.79
Poland	54.63	2.19
Slovakia	51.00	0.93
Latvia	35.71	1.13
Portugal	34.54	1.26
Romania	33.37	0.76
Czech Republic	30.61	0.49
Bulgaria	27.27	0.60
Denmark	24.84	1.39
Lithuania	19.09	0.77
Croatia	18.66	0.87
Hungary	17.19	1.14
Slovenia	16.79	0.46
Estonia	14.92	0.43
Sweden	11.62	1.05
Cyprus	8.22	0.07
Luxembourg	4.90	0.13
Malta	2.16	0.06

Source: Deloitte/Ipsos consumer survey, 2015

## 2.5 Key findings

This section mapped the current e-commerce flows both between EU Member States and between the EU and third countries and will enable the assessment of the EU28's e-commerce potential. It presented data from the Deloitte/Ipsos consumer survey conducted in 25 Member States on:

- ✔ total online spend;
- ✔ total cross-border online spend;
- ✔ the proportion of cross-border spend in total spend; and
- ✔ cross-border spend by retail category;
- ✔ spend on other types of B2C cross-border supplies which are not distance sales.

The EU28 spent EUR 540 billion on B2C goods and services bought online in 2015. 18% of this was spent on purchases from other countries. Over 70% of the EU28's cross-border spend originates from other EU Member States; 6% originates from European countries not in the EU and 22% from the rest of the world.

# 3 B2C e-commerce in the EU – insights from businesses

## 3.1 Introduction

This section considers businesses engaged in B2C e-commerce. It describes quantitative and qualitative insights gained from interviews with businesses, including the cost of various administrative tasks and problems faced when complying with current VAT rules. It considers large businesses, SMEs and micro businesses.

The chapter is structured as follows: section 3.2 provides data of the number of EU businesses engaged in cross-border e-commerce, broken down by size class. Section 3.3 reviews the key issues and barriers for those businesses, both on VAT-related matters and more in general on cross-border and electronic transactions. Section 3.4.1 provides an overview of the businesses' costs of complying with the current VAT regulations, while section 3.4.2 describes the costs for non-EU businesses and couriers in applying VAT small consignments and customs exemptions. Detailed explanations of the methodology and approach adopted, including the standard cost model, are explained in annex 3.

## 3.2 Data on the businesses

This section presents data on the number of EU businesses engaged in cross-border e-commerce by size class. The size classes are defined as follows:

Table 3 – classifications of businesses by size

Category	Employees	Turnover	Balance sheet total
<b>Micro</b>	<10	< € 2 million	< € 2 million
<b>Small</b>	<50	< € 10 million	< € 10 million
<b>Medium</b>	<250	< € 50 million	< € 43 million
<b>Large</b>	>250	> € 50 million	> € 43 million

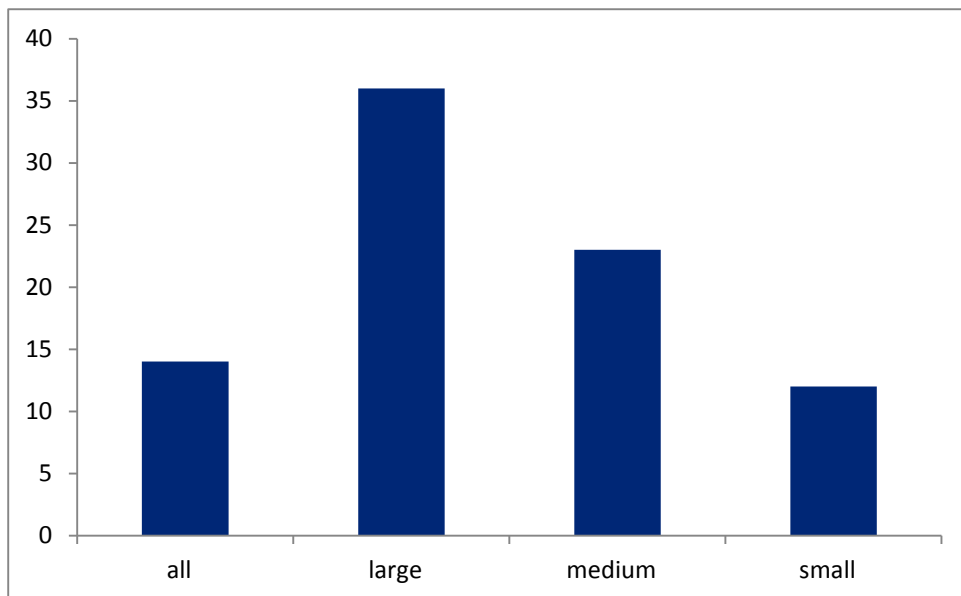
Source: *Enterprise and Industry, European Commission*

These categories may not align exactly; for example, some companies defined as “micro” based on the number of employees may nonetheless have a turnover of over EUR 2 million. For consistency, therefore, our results are based on the number of employees. This is in accordance with the data provided by Eurostat, which is based only on the number of employees and does not classify firms by turnover.

Figure 3 and Figure 4 show the proportion of businesses in each size class engaged in cross-border trade within the EU and with the rest of the world, respectively. Note that this proportion covers both

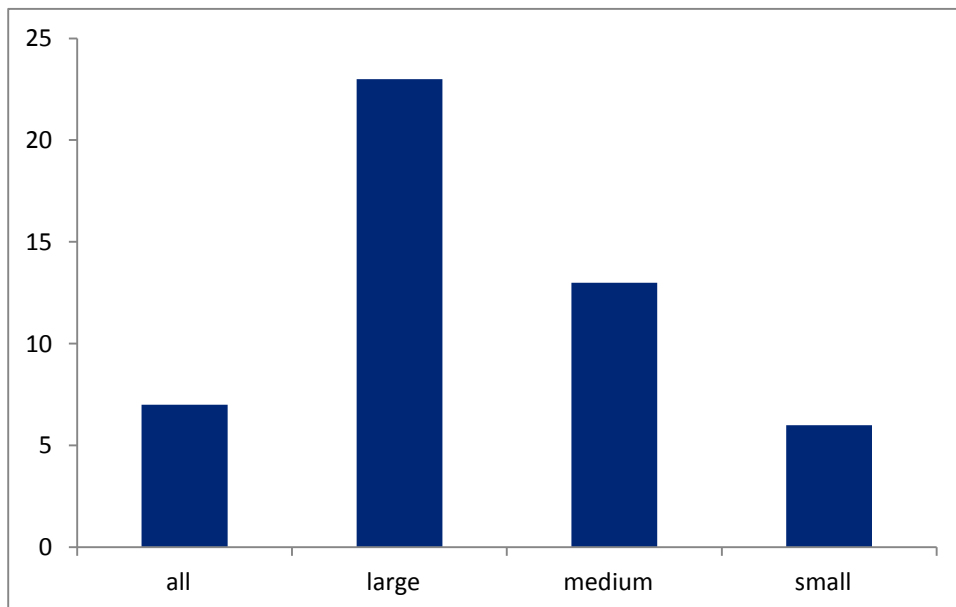
B2C and B2B supplies. Eurostat provides data on the proportion of enterprises engaged in B2C e-commerce<sup>22</sup>, as well as the proportion of businesses engaged in B2B e-commerce<sup>23</sup>. However, these figures cover both domestic and cross-border e-commerce. The activities of micro-businesses are also excluded from this figure, since data on this size class is sparse. As micro-businesses' sales are more likely to fall below the distance selling thresholds they are less likely to register for VAT outside their home country, and therefore the administrative burden on these businesses under current rules is low.

Figure 3 – Proportion of businesses engaged in cross-border e-commerce with other EU countries in 2012



Source: Eurostat and the Enterprise and Industry 2013 SBA Fact Sheets.

Figure 4 - Proportion of businesses engaged in cross-border e-commerce with the rest of the world in 2012



<sup>22</sup> Proxied by the proportion of enterprises having received orders via a website.

<sup>23</sup> Proxied by the proportion of enterprises having received orders placed via EDI-type messages.

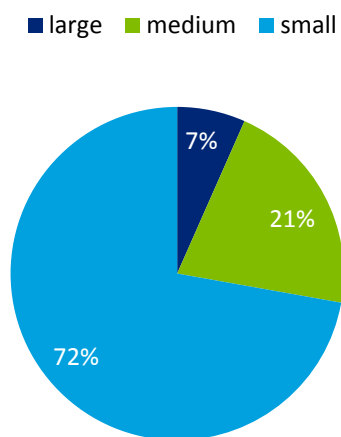
Source: Eurostat and the Enterprise and Industry 2013 SBA Fact Sheets.

Based on this information regarding the proportion of businesses engaging in cross-border e-commerce and estimates of the total number of businesses operating in the EU, the number of businesses engaged in cross-border e-commerce can be estimated. However, as noted above, data on the activities of micro-businesses (those with fewer than 10 employees) is not consistently available.

Figure 5 shows the estimated percentage of businesses with 10 or more employees engaged in cross-border e-commerce within the EU. In 2012 there were an estimated 248,581 EU businesses engaged in cross-border e-commerce within the EU. Of these, 16,464 were large, 52,642 were medium, and 179,476 were small. Germany, the United Kingdom, France, Italy and Austria have the largest numbers of businesses engaged in intra EU e-commerce. As noted above, these figures cover both B2C and B2B supplies.

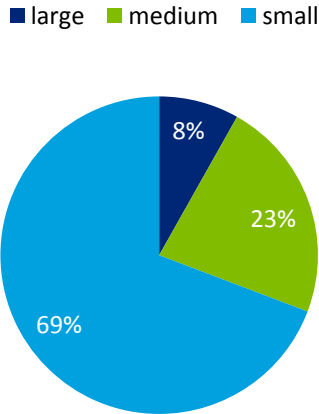
Figure 6 shows the number of businesses with 10 or more employees engaged in cross-border e-commerce with the rest of the world. In 2012 there were 127,103 EU businesses engaged in cross-border e-commerce with the rest of the world. 10,378 were large, 28,736 were medium, and 87,989 were small. Germany, the UK, France, Italy, the Czech Republic and Poland have the most businesses supplying e-commerce to the rest of the world. As noted above, these figures cover both B2C and B2B supplies.

Figure 5 – Proportion of businesses engaged in cross-border e-commerce within the EU



Source: Eurostat and the Enterprise and Industry 2013 SBA Fact Sheets and is for 2012.

Figure 6 – Proportion of businesses engaged in cross-border e-commerce with the rest of the world



Source: Eurostat and the Enterprise and Industry 2013 SBA Fact Sheets

As discussed above, these figures exclude the smallest businesses, those with fewer than 10 employees. Data on their activities is only available for a limited set of countries – Spain, Portugal and Slovenia. On the basis of the limited information available, the smallest businesses are less likely to engage in cross-border e-commerce than larger enterprises: on average 6% of micro-enterprises in these countries engage in cross-border e-commerce, compared to 15% of all firms and 34% of large businesses. Nonetheless, given the large number of micro-enterprises the inclusion of these firms would increase the number of firms engaging in cross-border e-commerce in these countries by a factor of five to ten.

Applying this assumption across the EU as a whole, the total number of businesses of all sizes that trade cross-border is estimated at between 1,250,000 and 2,500,000. While this represents a substantial increase in the number of businesses trading cross-border these businesses are unlikely to reach the VAT registration threshold; these micro-businesses have therefore been excluded from the calculation of the administrative burden.

Another limitation of the numbers presented above is the fact that the data does not distinguish between B2C and B2B cross-border e-commerce. Evidence from Eurostat on the proportions of firms receiving orders via their website and via Electronic Data Interchange (EDI) can potentially be used as a proxy for this information. On this basis, at least 68% of firms that engage in e-commerce conduct B2C e-commerce (this is presented as a lower bound, since the data reported does not account for the possibility that businesses may engage in both B2C and B2B trade). Applying the same share to cross-border e-commerce, this would suggest a lower bound of about 170,000 businesses with more than 10 employees engaged in cross-border B2C e-commerce.

### 3.3 Business perspectives on cross-border trade and barriers

The European Commission has placed the internationalisation of EU businesses and progression towards the Single Market as high priorities on the policy agenda. The removal of barriers to cross-border trade has been identified as a crucial step towards these goals, with the European Commission's Digital Single Market Strategy for Europe estimating that the removal of barriers could provide an additional EUR 415 billion to the EU's GDP<sup>24</sup>.

The analysis in this section focuses on the identification of the issues related to VAT that EU businesses face when deciding whether to expand their market to other countries. The business interviews and an examination of existing literature form the tools of this analysis.

#### 3.3.1 Key VAT-related barriers to cross-border trade

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Deloitte conducted interviews with 25 businesses across eight Member States. This included 15 large businesses and a mixture of 10 SMEs and micro enterprises.<sup>25</sup> The interviews focused on cross-border VAT-related issues but also gave businesses the opportunity to raise any other burdens or barriers to trade they faced.

A key component of the interviews was to ask businesses to rank, by order of importance, four VAT-related barriers to cross-border trade identified by Deloitte and the European Commission.<sup>26</sup>

- Distance sales thresholds vary from country to country<sup>27</sup>;
- Monitoring distance sales thresholds;
- Distortion of competition, i.e. the price disadvantages that companies sometimes face due to different VAT rates in different EU countries;
- Dealing with different tax legislation and procedures in different countries, i.e. VAT registration, invoicing rules, etc.

The results of this exercise are summarised in Figure 7, aggregated across all businesses, and separately for large & medium, and small & micro enterprises.

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<sup>24</sup> COM (2015) 192 final, page 3.

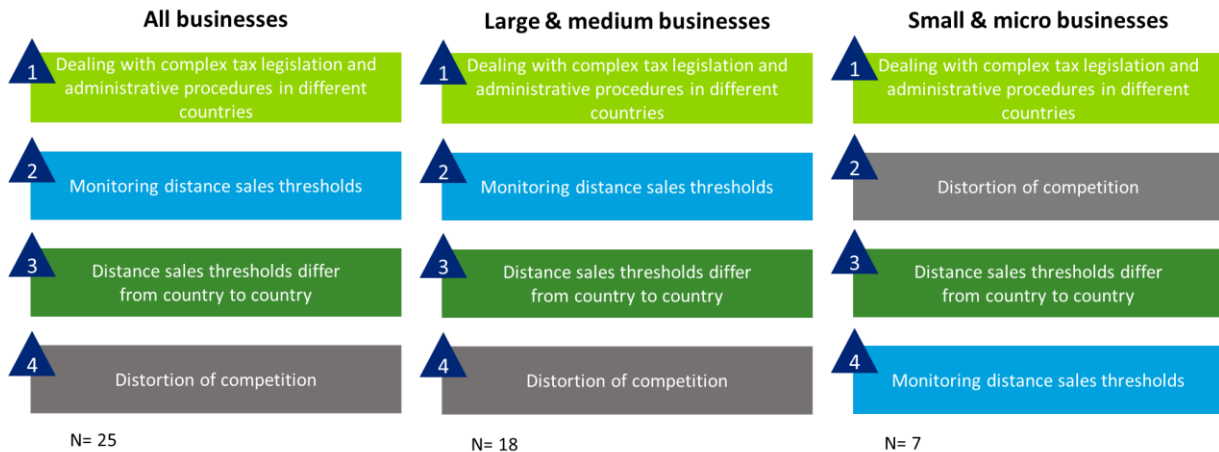
<sup>25</sup> Although micro enterprises are likely to trade below the distance sales thresholds, they are aware of the potential problems. Their views have therefore been included in this analysis.

<sup>26</sup> These problems were identified through consultations with stakeholders.

<sup>27</sup> Note that crossing the thresholds necessitates VAT registration, invoicing, and returns to a new country. It also sometimes requires changes in IT and accounting systems.



Figure 7 - Key VAT-related barriers for cross-border sales



Source: Deloitte Analysis

Figure 7 shows that businesses of all sizes (that exceeded the distance selling threshold in one or more Member States) ranked **the need to deal with complex legislation and administrative procedures in different countries** as the most important VAT-related barrier to cross-border trade. In addition to the different VAT-related legal and administrative provisions of each Member State, businesses often indicated that the practical issues of dealing with these provisions, such as language, presented further difficulties when engaging in cross-border trade. In particular, businesses highlighted the need to employ external consultants/support to deal with national authorities as an additional cost incurred. The compliance burden for businesses is therefore high, and the more Member States in which a business exceeds the distance selling threshold, the more complex the situation becomes.

**Monitoring distance sales thresholds** was identified as more important for medium-sized businesses in the sample than for those in other size classes. Large businesses have greater resources available to apply for VAT in the Member State of consumption and often have sales volumes that will far exceed the threshold, and so monitoring these thresholds becomes unnecessary. Small and micro businesses are likely to be far enough below the distance sales thresholds to not have to monitor this.

While the thresholds were generally less of an issue for smaller businesses, the results of the interviews highlighted that when small businesses do exceed distance sales thresholds, the administrative burden of cross-border trade becomes particularly onerous. Consequently, small businesses noted in the interviews that they give active consideration to the thresholds when expanding into new markets. On the other hand, some businesses mentioned that they do not consistently monitor the distance selling thresholds in all Member States in which they are active. It has occurred that a business was unaware of the fact that it had exceeded the distance selling threshold in a Member State until it was alerted about this by the tax authority of that Member State. Another way in which businesses may be alerted about this is when they receive questions from their customers on the applied VAT rate.

Linked to the previous issue, the **variation of distance sales thresholds across Member States** was rated as the third most important issue by all businesses in the sample. Several businesses commented that these differences add further complexity to the system, as they can be very large across countries.

The **distortion of competition arising from different VAT rates for the same goods or services across countries** was rated as more important for smaller businesses than for larger businesses.

This can be explained in part by the fact that smaller companies tend to trade in goods and services that are more price sensitive – i.e. consumers shift a large amount of their demand towards firms selling at marginally lower prices. Therefore, differences in VAT rates of a few percentage points can often force firms to cut back on profit margins to maintain their price competitiveness. The problem of distortion of competition was mentioned more often by businesses established in countries with VAT rates higher than their neighbours (such as in Denmark and Hungary). This seems to confirm that the distortive effect of different VAT rates across countries is particularly relevant for trade across neighbouring countries. Anecdotal evidence of the influence of different VAT rates on businesses' activities was reported in many of the countries covered by the analysis.

In addition to the four barriers presented by the study team, the interviewees identified one other VAT-related barrier to cross-border trade, namely the **uncertainty on VAT treatment**. This is a key issue especially for electronically supplied services, as different VAT rules apply to electronically supplied services compared to goods and other services. Directive 2006/112/EC does not provide an exhaustive list while Member States sometimes treat the same transaction differently. This causes problems for businesses having to comply with divergent VAT rules across the EU. The example of the taxation of vouchers (which could lead to double taxation or non-taxation) has been mentioned repeatedly<sup>28</sup>.

### 3.3.2 Other barriers to cross-border trade

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The interviews identified additional problems and barriers to cross-border trade that are generally consistent with the findings of other analyses and literature. The most recurrent barriers mentioned by the businesses include:

➤ **Legal barriers** (e.g. dispute resolution and data protection).

This involves a range of issues, from dispute resolution to differences in standards and requirements for data protection. Higher costs from the risk of fraud or non-payment are often mentioned as potential issues arising from cross-border trade. However, available literature<sup>29</sup> reveals that the actual knowledge and usage of simpler instruments for dispute settlement is low. For instance, the Alternative Dispute Resolution (ADR) system is used by a minority of companies<sup>30</sup>, and it is not always efficient<sup>31</sup>. Differences in data protection requirements across Member States have also been mentioned during the interviews. This was reported as the main reason for exiting some national markets. The lack of a common approach and standard in areas such as electronic payment, e-invoicing, e-identify and e-contracts has been identified as one of the causes of the fragmented European market<sup>32</sup>.

➤ **Intellectual Property Rights (IPRs)**<sup>33</sup>.

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<sup>28</sup> The Commission's proposal on the treatment of vouchers is still pending.

<sup>29</sup> See European Commission (2013), "Retailers' attitude towards cross-border trade and consumer protection", Flash Eurobarometer 359, [http://ec.europa.eu/public\\_opinion/flash/fl\\_359\\_en.pdf](http://ec.europa.eu/public_opinion/flash/fl_359_en.pdf).

<sup>30</sup> Just over half of European retailers know an ADR body, and 11% are members of one; while of those who know ADR bodies, only 12% has actually used ADR bodies to solve a dispute. See European Commission (2013), "Retailers' attitude towards cross-border trade and consumer protection", p. 127-130.

<sup>31</sup> See European Commission (2013), "Retailers' attitude towards cross-border trade and consumer protection", p. 127-130.

<sup>32</sup> See European Policy Centre, (2010), 'The economic impact of a European digital single market', [http://www.epc.eu/dsm/2/Study\\_by\\_Copenhagen.pdf](http://www.epc.eu/dsm/2/Study_by_Copenhagen.pdf), p. 19-24.

<sup>33</sup> Content and copyright issues are also mentioned as extremely relevant by a study by the European Policy Centre. See European Policy Centre. (2010), 'The economic impact of a European digital single market', p. 30.

These are especially relevant for electronically supplied services. Catalogues and user accounts are organised per country, thus limiting the potential for consumers to access content and for businesses to expand their markets<sup>34</sup>.

➤ **Logistics and payment systems.**

Logistics costs have been mentioned by some of the businesses interviewed as an important barrier to their cross-border activities. These include both the actual expenditures for logistics (both B2B and B2C) and the sometimes poor performances of postal operators, which make some countries more expensive to reach in terms of tariffs and waiting times for customers. Problems with payment systems include the VAT treatment of credit card transactions as well as differences in procedures and standards across countries in adopting and applying the SEPA Regulation<sup>35</sup>. In the case of credit cards transactions, the general rule applies whereby the taxable amount is the total amount actually charged to the customer by the supplier; that is, amounts withheld by the credit card companies from their settlements with the traders concerned form part of the taxable amount. However, there are examples of cases where court rulings have been necessary to clarify the VAT treatment of charges made by businesses to customers for handling credit card payments<sup>36</sup>. Concerning the SEPA Regulation, delays and problems with its application in Spain were reported during the interviews.

➤ **Language and cultural barriers.**

These barriers go beyond the practical issues of handling national rules and administrations. Consumers across the EU differ in behaviour and attitudes. The consumer survey's trade matrix shows that e-commerce flows are not uniform across the EU and a Commission study found that only 41% of consumers are willing to purchase goods and services using another EU language<sup>37</sup>. This leads to higher costs for companies in targeting marketing and promotional campaigns to address the needs of (potential) consumers.

➤ **Exports to non-EU countries.**

Expanding to markets outside of Europe presents a number of issues for firms. Delivering goods and services to countries, such as the USA, Brazil and China, has been reported to be particularly complex, with large investments needed to comply with national requirements on data protection, consumers' protection, reporting and accounting. Larger companies often establish a domestic presence with legal representation in these countries in order to cope with these requirements.

### 3.3.3 Key findings

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This section aimed to identify the key issues and barriers that EU businesses have to face when deciding to expand their markets cross-border.

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<sup>34</sup> See also European Parliament (2012), 'Simplifying and Modernising VAT in the Digital Single Market', [http://www.europarl.europa.eu/RegData/etudes/etudes/join/2012/492432/IPOL-IMCO\\_ET\(2012\)492432\\_EN.pdf](http://www.europarl.europa.eu/RegData/etudes/etudes/etudes/join/2012/492432/IPOL-IMCO_ET(2012)492432_EN.pdf).

<sup>35</sup> EC 260/2012 amended by COM(2013) 937 final, which introduced a a transition period of six months – until 1 August 2014 – to ensure minimal disruption for consumers and businesses

<sup>36</sup> See for instance the Bookit and SEC cases at: <http://www.hmrc.gov.uk/manuals/vatfinmanual/vatfin2320.htm>

<sup>37</sup> See European Commission (2013), 'Consumer attitudes towards cross-border trade and consumer protection', Flash Eurobarometer 359, [http://ec.europa.eu/public\\_opinion/flash/fl\\_359\\_en.pdf](http://ec.europa.eu/public_opinion/flash/fl_359_en.pdf), p. 37.

Four **VAT-related issues** were identified as critical (in descending order from the most important):

- ❑ Dealing with complex legislation and administrative procedures in different countries;
- ❑ Monitoring distance sales thresholds;
- ❑ Differences in distance sales thresholds across Member States;
- ❑ Distortion of competition.

The businesses interviewed also listed legal barriers (e.g. dispute resolution and data protection), Uncertainty on VAT treatment (e.g. for electronic services), Intellectual Property Rights (IPRs); logistics and payment systems, language and cultural barriers, and exports procedures towards third countries as problems hampering the full development of cross-border B2C e-commerce.

The development of the detailed problem assessment and the structuring of the problems identified in a 'problem tree' are part of the activities of Lot 2 of this study, and will therefore be presented in the Final Report of Lot 2.

## 3.4 Quantification of the administrative burden

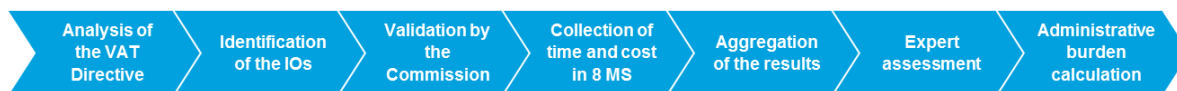
This section concentrates on the identification and quantification of the administrative burden placed on businesses engaged in B2C e-commerce by VAT compliance. The first subsection, section 3.4.1, sets out the methodology used and any assumptions made and reviews previous studies in this area. The aggregate results are reported in section 3.4.2, which focuses on the costs of doing business for EU businesses supplying B2C goods and services to other Member States. Section 3.4.3 then focuses specifically on the administrative burdens facing SMEs; while data in this area is more limited, the interviews are used to draw some inferences for the differential burden facing these businesses. The last subsection, section 3.4.4, focuses on the administrative burden experienced by non-EU businesses and couriers.

### 3.4.1 Methodology

#### *Summary of the SCM approach*

Section 3.3 outlined the problems businesses engaged in cross-border B2C distance sales face when complying with VAT rules. In this section, these problems are quantified using the Standard Cost Model (SCM). The SCM first identifies the Information Obligations (IOs) resulting from the EU VAT legislation a ‘typical’ EU business (defined by the European Commission as ideal type and normally efficient<sup>38</sup>) engaged in cross-border e-commerce has to comply with. It then estimates the costs related to these IOs. Figure 8 below outlines the steps in the analysis.

Figure 8: Process for measuring the administrative burden



- The VAT Directive (2006/112/EC Directive) was consulted to identify the IOs businesses engaged in cross-border B2C e-commerce must comply with. A list was compiled and validated by the European Commission. The list is presented in detail in the following section.
- Interviews were conducted with businesses across eight Member States. A total of 23 businesses were interviewed, including large, medium and small, as well as micro businesses, engaged in cross-border B2C e-commerce across a variety of retail sectors. Businesses were asked how much time they spend on each IOs and whether there were additional costs incurred (for example outsourcing costs). Details are given in annex 3.
- The results from the interviews were aggregated to represent a “typical” EU company.
- Results were critically assessed by Deloitte VAT experts who have worked across multiple EU markets. These experts reviewed the information provided and the extent to which the businesses sampled could be regarded as representative. These experts also provided input into the assumptions used in the calculations, including the frequency of VAT obligations (based on the requirements across Member States), the number of states in which firms are registered and the typical costs associated with outsourcing these obligations.
- The burden of a ‘typical’ business engaged in cross-border B2C e-commerce was estimated.

<sup>38</sup> See the European Commission’s SCM guidelines at [http://ec.europa.eu/smart-regulation/guidelines/tool\\_53\\_en.htm](http://ec.europa.eu/smart-regulation/guidelines/tool_53_en.htm)

## List of IOs

In the first step of the analysis, a list of IOs businesses engaged in cross-border B2C e-commerce must comply with was compiled and verified. Table 4 describes these IOs. Further details are given in annex 3.

Table 4 - IOs used in SCM

IO #	Type of obligation	Description
IO1	VAT registration	The one-off registration for VAT purposes in other Member States other than the businesses home country. This includes all tasks necessary to complete the registration such as communication with the relevant authorities and the provision of evidence of taxable activities.
IO2	Identification of consumer status	The identification for each transaction of the status of the customer, <i>i.e.</i> whether the customer is a business or a consumer.
IO3	Identification of Member State of consumption	The identification for each transaction of the Member State of consumption.
IO4	Identification of correct VAT rate	The identification for each transaction of the correct VAT rate that applies to the transaction.
IO5	Invoicing (including charging VAT)	The invoicing for each transaction in accordance with the rules of the Member State of consumption.
IO6a	VAT declaration/returns: Domestic VAT return	The periodical submission of the domestic VAT return. It also includes the submission of VAT returns to the other Member States a business is registered in.
IO6b	VAT declaration/returns: MOSS return	The quarterly submission of the MOSS VAT return in the business's Member State of identification
IO7	Import declaration (including VAT)	The import of goods. It consists of the submission for each transaction of the import declaration.
IO8a	VAT payment regarding domestic returns	The periodic (generally monthly) payment of the VAT related to the business' domestic VAT return. It also includes the payment of VAT return to the other Member States in which a business is registered.
IO8b	VAT payment regarding MOSS	The quarterly payment of the VAT related to the business's MOSS VAT return
IO8c	VAT payment regarding import	The periodic payment of the VAT related to the business's imports of goods
IO9:	Storage of invoices/ storage of records	The storage of invoices in accordance with the obligation to store invoices for 10 years <sup>39</sup> .
IO10	Storage of import declarations	The storage of import declarations in accordance with the obligation to store them for 10 years <sup>40</sup> . It also includes the cooperation with audits and inspection by the relevant public authorities.
IO11	Changes or cancelling of	The one-off cancellation or change of registration for VAT

<sup>39</sup> Based on art. 247 of the VAT Directive, Member States are allowed to set their own invoice storage periods, which indeed differ across countries, ranging from 5 to 10 years. However, the storage period is harmonised and set to 10 years across countries under the MOSS rules for transactions records (Art. 369 and 369k). We then decided to use the 10 years term to obtain results for the storage costs comparable to the analysis of the MOSS-related costs (under Lot 3). This will enable having evidence on the (possible) additional costs of this storage period and contributing to debate on possible modifications of the rules.

<sup>40</sup> The reasons for adopting a 10 years term for the analysis are the same explained above for IO9 (Storage of invoices).

IO #	Type of obligation	Description
	VAT registration	purposes in another Member State than the Member State where the business is established. This includes all tasks necessary to complete the cancellation or change such as communication with the relevant authorities. By contrast, the waiting time is not included in the calculation.

Source: Deloitte analysis based on VAT Directive 2006/112/EC

### Calculation of the administrative burden

Figure 9 represents a simplified diagram of how inputs into the SCM are used to calculate total administrative costs. Information on price per action is obtained from the business interviews, while information on total number of actions comes from third-party sources and expert assessments. Similar calculations are performed for each IO and the results are aggregated together.

Figure 9 - Basic SCM calculation



The frequency with which IOs must be met varies by IO. The following assumptions were made:

- For recurrent/periodic IOs with variable frequency (e.g. IO6a and IO8a), the most common frequency across Member States, weighted by the relative importance of the Member States (in terms of size of B2C e-commerce flows) was assumed. For example more weight was given to frequency the UK, where these IOs must be met either a monthly or quarterly basis;
- For one-off or less frequent IOs (e.g. IO1 and IO11), a frequency of one procedure every ten years was assumed. These assumptions were based on inputs from interviews, as well as on expert judgement<sup>41</sup>.

Data on the number of companies engaged in cross-border B2C e-commerce in Europe was obtained from Eurostat and the Enterprise and Industry 2013 SBA Fact Sheets, and is described in section 3.2. The number is estimated at 248 581<sup>42</sup>. This figure includes large companies and SMEs, but does not include micro-businesses. This is due to a lack of data on the activities of micro- and non-businesses: data on the number of micro-businesses conducting cross-border distance sales is only available for three European countries. It should be noted that the distance-selling thresholds mean that these firms are unlikely to be required to register for VAT; however, even those countries that supply data on the incidence of micro-businesses selling cross-border do not have data on the share of turnover coming from cross-border sales, so the probability of these businesses being registered cannot be identified.

A number of additional information points and assumptions were also required for the model.

- The number of Member States in which businesses are registered was estimated using a combination of the outputs from the interviews and expert assessments, described in detail in annex 3. For the purposes of this analysis, it is assumed that the average firm trading cross-border trades in three Member States.

<sup>41</sup> More detailed explanations on these assumptions are in annex 3.

<sup>42</sup> For more details on the number of businesses engaged in e-commerce in Europe, please see section 3.2.



- For those IOs that incur outsourcing costs (such as IO1, IO6a and IO11), it was assumed that half of the businesses use advisors, while the remaining half complies with the requirements in-house. This assumption was made based on results from our business interviews and expert assessment<sup>43</sup>.
- For IO11, it was assumed also that only half of the businesses engaged in cross-border B2C e-commerce undergo a change or cancellation of VAT number. These assumptions were based on inputs from interviews, as well as on expert judgement<sup>44</sup>.
- Finally, for MOSS-related obligations (i.e. IO6b and IO8b), the available figure for the number of businesses currently registered with the system was used<sup>45</sup>.

As mentioned above, and consistently with the SCM methodology, we used expert judgement to support our analysis and inform the assumptions necessary to apply the SCM when data from primary sources and literature were insufficient or not applicable. We involved VAT experts, e-Commerce experts and IT experts in order to validate the assumptions of our analysis, based on the competencies needed to address the different points.

### ***Review of existing studies***

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In order to provide context for the estimates obtained from the SCM, the outputs, presented in the next section, are compared with findings from other studies that use the SCM to analyse VAT issues. In particular, three studies were identified as relevant:

- A 2013 European Commission study on the feasibility and impact of a common EU standard VAT return<sup>46</sup>;
- A 2011 European Commission study on retrospective evaluation of elements of the EU VAT system<sup>47</sup>; and
- A 2009 European Commission study on measurement and reduction of administrative costs<sup>48</sup>.

It should be noted that the above studies do not focus on cross-border B2C e-commerce. Therefore comparisons should be made with caution.

The most recent study is the 2013 European Commission's study on the feasibility and impact of a common EU standard VAT return<sup>49</sup>. It focuses on the IOs for preparation, submission and payment of VAT returns, thus covering only a subset of the IOs included in the present study. In addition, it does not focus on cross-border activities or distance sales, nor does it analyse directly the issue of VAT registrations in other Member States. However, it provides the analysis and quantification of the IOs

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<sup>43</sup> More detailed explanations on these assumptions are in annex 3.

<sup>44</sup> More detailed explanations on these assumptions are in annex 3.

<sup>45</sup> It should be noted that the costs related to MOSS are the focus of Lot 3 of the study, and therefore will be analysed with greater detail as part of Lot 3 activities. The results presented here are very preliminary indications, deriving from the fact that a small number of the businesses in our sample trade both in goods and TBE services, and have started using the MOSS already.

<sup>46</sup> European Commission (2013), Study on the feasibility and impact of a common EU standard VAT return, prepared by PwC, available at: [http://ec.europa.eu/taxation\\_customs/common/publications/studies/index\\_en.htm](http://ec.europa.eu/taxation_customs/common/publications/studies/index_en.htm).

<sup>47</sup> European Commission (2011), Compliance costs and dissimilarity of VAT regimes across the EU: A retrospective evaluation of elements of the EU VAT system, prepared by Kox, Henk L. M, [http://ec.europa.eu/taxation\\_customs/resources/documents/common/publications/studies/report\\_evaluation\\_vat.pdf](http://ec.europa.eu/taxation_customs/resources/documents/common/publications/studies/report_evaluation_vat.pdf).

<sup>48</sup> European Commission (2009), EU project on Baseline Measurement and Reduction of Administrative Costs, prepared by CapGemini, Deloitte and Ramboll, [http://ec.europa.eu/smart-regulation/refit/admin\\_burden/docs/enterprise/documents/files/abs\\_development\\_reduction\\_recommendations\\_en.pdf](http://ec.europa.eu/smart-regulation/refit/admin_burden/docs/enterprise/documents/files/abs_development_reduction_recommendations_en.pdf).

<sup>49</sup> European Commission (2013), Study on the feasibility and impact of a common EU standard VAT return, prepared by PwC, available at: [http://ec.europa.eu/taxation\\_customs/common/publications/studies/index\\_en.htm](http://ec.europa.eu/taxation_customs/common/publications/studies/index_en.htm).



for preparation, submission and payment of VAT returns in 28 Member States, and makes use of the distinction between in-house and outsourcing costs for some IOs. It estimates the total administrative cost for the preparation and submission of periodic VAT returns in the EU27 to be approximately EUR 40 billion.

The 2011 study on a retrospective evaluation of elements of the EU VAT system<sup>50</sup> provides a comprehensive review of the different studies and contributions on the topic. However, none of the contributions included in the review focuses on cross-border or distance sales issues.

Finally, the 2009 study on measurement and reduction of administrative costs<sup>51</sup>, while less recent, provides a detailed overview of VAT-related IOs and quantification of related costs for businesses, including outsourcing and IT costs. It estimates the administrative costs imposed on EU businesses by the EU VAT systems at EUR 80 billion.

Furthermore, the literature agrees that costs vary greatly across countries, though there is no consensus on the size of these differences. Cross-country studies show that compliance costs vary substantially, with them being particularly high in new EU Member States<sup>52</sup>. Furthermore, studies tend to show that compliance (including for VAT) tends to be less time-consuming (and presumably less costly) in countries where:

- VAT is administered by the same authority that administers the corporate income tax;
- Online filing and payment systems are in place;
- VAT returns and payment are less frequent and require less information and accompanying documentation;
- Rule changes are less frequent.

The additional costs due to complexities and lack of harmonisation across the EU have been estimated to be responsible for 87% of the EUR 80 billion of compliance costs, or EUR 69 billion<sup>53</sup>. Further studies estimate that on average, a firm trading in two EU15 Member States would have to deal with 11 differences in VAT-related administrative procedures<sup>54</sup>.

### 3.4.2 Results: administrative burden facing EU firms

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Table 5 below provides the overview of the results from the SCM by IO. According to our estimates, the overall costs that business face when engaging in cross-border B2C e-commerce amount to

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<sup>50</sup> European Commission (2011), Compliance costs and dissimilarity of VAT regimes across the EU: A retrospective evaluation of elements of the EU VAT system, prepared by Kox, Henk L. M, [http://ec.europa.eu/taxation\\_customs/resources/documents/common/publications/studies/report\\_evaluation\\_vat.pdf](http://ec.europa.eu/taxation_customs/resources/documents/common/publications/studies/report_evaluation_vat.pdf).

<sup>51</sup> European Commission (2009), EU project on Baseline Measurement and Reduction of Administrative Costs, prepared by CapGemini, Deloitte and Ramboll, [http://ec.europa.eu/smart-regulation/refit/admin\\_burden/docs/enterprise/documents/files/abs\\_development\\_reduction\\_recommendations\\_en.pdf](http://ec.europa.eu/smart-regulation/refit/admin_burden/docs/enterprise/documents/files/abs_development_reduction_recommendations_en.pdf).

<sup>52</sup> European Commission. (2011), Compliance costs and dissimilarity of VAT regimes across the EU: A retrospective evaluation of elements of the EU VAT system, prepared by Kox, Henk L. M, [http://ec.europa.eu/taxation\\_customs/resources/documents/common/publications/studies/report\\_evaluation\\_vat.pdf](http://ec.europa.eu/taxation_customs/resources/documents/common/publications/studies/report_evaluation_vat.pdf).

<sup>53</sup> European Commission (2009), EU project on Baseline Measurement and Reduction of Administrative Costs, prepared by CapGemini, Deloitte and Ramboll, [http://ec.europa.eu/smart-regulation/refit/admin\\_burden/docs/enterprise/documents/files/abs\\_development\\_reduction\\_recommendations\\_en.pdf](http://ec.europa.eu/smart-regulation/refit/admin_burden/docs/enterprise/documents/files/abs_development_reduction_recommendations_en.pdf) and European Parliament (2012), 'Simplifying and Modernising VAT in the Digital Single Market', [http://www.europarl.europa.eu/RegData/etudes/etudes/join/2012/492432/IPOL-IMCO\\_ET\(2012\)492432\\_EN.pdf](http://www.europarl.europa.eu/RegData/etudes/etudes/join/2012/492432/IPOL-IMCO_ET(2012)492432_EN.pdf), p. 47.

<sup>54</sup> European Commission. (2011), Compliance costs and dissimilarity of VAT regimes across the EU: A retrospective evaluation of elements of the EU VAT system, prepared by Kox, Henk L. M, [http://ec.europa.eu/taxation\\_customs/resources/documents/common/publications/studies/report\\_evaluation\\_vat.pdf](http://ec.europa.eu/taxation_customs/resources/documents/common/publications/studies/report_evaluation_vat.pdf), p. 22.

almost **EUR 6 billion** (EUR 5 865 277 734,26 ), or about **EUR 24 000 per company per year**<sup>55</sup>, or about (on average) **EUR 8 000** for each Member State in which a company is VAT-registered.

Table 3 shows the breakdown of these costs across the difference IOs, represented either in terms of full time employee (FTE) days or as a fixed cost of outsourcing. The table shows both the costs associated with each IO on a one-off basis and a total annualised cost, calculated based on the required frequency of the IO. Given the variation in the administrative burden faced, a more detailed breakdown of the costs reported by firms in connection to each IO is reported in Annex 3.

These costs are discussed in more detail below, with separate figures for the burden facing SMEs reported in section 3.4.3.

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<sup>55</sup> This is calculated by dividing by the number of companies engaged in cross-border e-commerce; see section 3.2.

Table 5 - Overview of the SCM for a 'typical' EU business making B2C supplies in other Member States

IO#	Administrative tasks		No. companies	Frequency (per country)	Time per IO (Full time employee days)	Days per country per year	Annual in-house cost per firm per country (€)	External Fees (€)	Total annual cost per firm per country (€)	Annual cost per firm (3 member states) (€)	TOTAL
1	VAT registration (incl for MOSS)	In house	124,290	once in 10 years	2.7	0.3	61		61	184	22,813,720
		Outsourced	124,290	once in 10 years	0.8	0.1	17	2,000	217	652	81,082,444
		Average							<b>139</b>	<b>418</b>	<b>103,896,164</b>
2	Identification of customer status – B2B or B2C	N/A									
3	Identification of Member State of consumption	N/A									
4	Identification of correct VAT rate	N/A									
5	Invoicing (incl. charging VAT)	N/A									
6a	VAT declaration/returns - Domestic VAT return	In house	124,290	8 times per year	1.7	13.8	3,091		3,091	9,272	1,152,430,736
		Outsourced	124,290	8 times per year	2.1	17.1	3,836	800	10,236	30,708	3,816,689,578
		Average							<b>6,663</b>	<b>19990</b>	<b>4,969,120,314</b>
6b	VAT declaration/returns - MOSS return		10,000	4 times per year	0.1	0.5	112		112	112	1,123,500
7	Import declaration (incl VAT)	N/A									
8a	VAT payment - Re domestic return		248,581	8 times per year	0.1	0.6	128		128	385	95,753,289
8b	VAT payment - Re MOSS		10,000	4 times per year	0.0	0.1	21		21	21	214,000
8c	VAT payment - Re import	N/A									
9	Storage of invoices		248,581	monthly	0.3	4.0	897		897	2,692	669,076,110
10	Storage of import declarations	N/A									
11	Changes or cancelling of VAT registration	In house	62,145	once in 10 years	1.7	0.2	38		38	115	7,151,574
		Outsourced	62,145	once in 10 years	0.1	0.0	2	1,000	102	305	18,942,782
		Average							<b>70</b>	<b>210</b>	
	<b>Total</b>								<b>7,865</b>	<b>23,595</b>	<b>5,865,277,734</b>

Source: Deloitte analysis based on interviews with businesses in eight Member States

These estimates can be placed into context through reference to the studies cited above. Previous studies are not fully comparable as they focus on different aspects of VAT regulations, and have a larger scope (hence the bigger figures they report). The result of our analysis falls in a similar order of magnitude to the previous studies mentioned above. The smaller number (EUR 6 billion compared with EUR 80 billion of the 2013 study<sup>56</sup> and EUR 40 billion of the 2009<sup>57</sup> study respectively) depends on the different scope of our study.

- The analysis in this report focuses on cross-border e-Commerce, therefore encompasses only a fraction of the IOs covered by the 2009 study, and only a small share of the businesses covered by both previous studies.
- This report focuses on B2C sales, while all the previous studies mentioned do not distinguish between B2B and B2C trade.

In addition to these studies cited above, another point of comparison comes from internal research carried out by the European Commission, which provided estimates of the outsourcing costs associated with cross-border VAT obligations for a number of large retailers. This data indicates initial cross-border VAT registration costs of EUR 1,000-1,170 and ongoing annual compliance costs of around EUR 4,000 (for the majority of Member States considered; these costs were significantly lower for States in which VAT declarations are less frequent). These figures are somewhat lower than those estimated by the SCM, but it is not clear whether they took into account the full range of Information Obligations or allowed for potential audit and enquiry costs. It should also be noted that these figures do not reflect the additional costs that businesses incur internally in providing the requisite information and resources to third parties.

As mentioned previously, the results presented here depend on a number of key parameters and assumptions used for the analysis<sup>58</sup>, including:

- The frequency of obligations: The frequency of obligations (for non-MOSS obligations) varies across Member States, depending on domestic legislation and size of the businesses, as well as on assumptions on the frequency of one-off obligations (such as VAT registration). There is also variation with firm size, with smaller companies permitted to file less frequently; this is explored further in section 3.4.3;
- The number of Member States in which a 'typical' EU business is registered for VAT purposes: This was estimated using a combination of the outputs from the interviews and expert assessments. Given that this figure may vary considerably across firms, table 5 also shows the results per Member State of registration;
- The share of firms that outsource their obligations: the total cost facing firms will also depend on whether they carry out these obligations in-house or outsource them. Based on the interviews and expert assessment, this figure has been set at 50%, with the probability of outsourcing being somewhat higher for the smaller firms in the sample;

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<sup>56</sup> European Commission (2013), Study on the feasibility and impact of a common EU standard VAT return, prepared by PwC, available at: [http://ec.europa.eu/taxation\\_customs/common/publications/studies/index\\_en.htm](http://ec.europa.eu/taxation_customs/common/publications/studies/index_en.htm)

<sup>57</sup> European Commission (2009), EU project on Baseline Measurement and Reduction of Administrative Costs, prepared by CapGemini, Deloitte and Ramboll, [http://ec.europa.eu/smart-regulation/refit/admin\\_burden/docs/enterprise/documents/files/abs\\_development\\_reduction\\_recommendations\\_en.pdf](http://ec.europa.eu/smart-regulation/refit/admin_burden/docs/enterprise/documents/files/abs_development_reduction_recommendations_en.pdf).

<sup>58</sup> A detailed description of the assumptions made is presented in annex 3.

- There are a number of other factors that may also affect administrative costs, including the specific markets in which firms operate and, potentially, their sector. However due to the limited size of the sample it was not possible to reliably estimate costs by sector.

Based on the results of the interviews, the Information Obligations can be grouped into four categories.

- Most burdensome IOs;
- Non-burdensome IOs;
- Non-applicable IOs;
- Other relevant IOs.

The results are discussed in detail below. Burdens particularly relevant to SMEs are discussed in section 3.4.3.

### Most burdensome IOs

Two IOs emerge as critical for EU businesses engaged in cross-border B2C e-commerce, namely:

- IO1 VAT registration; and
- IO6a: VAT declarations/returns;

Together these IOs represent about 85% of the compliance costs for businesses.

**VAT registration** is required by Member States when companies exceed the distance selling threshold in that market (thresholds of EUR 35 000 or EUR 100 000). This obligation is perceived as particularly burdensome by businesses, as they have to deal with large differences in the procedures and timing necessary for registration across Member States. It is often difficult to identify the national requirements and the relevant institutions in each market. In addition, language often presents a barrier, resulting in businesses turning to local advisors to handle the procedures on their behalf.

If carried out in-house, VAT requires substantial efforts on behalf of the businesses in order to understand the information requirements of the Member States, produce and submit the related documentation, and follow-up with the authorities. The average time required is approximately 2.5 days FTE. If companies use external advisors, the amount of internal resources is reduced to less than one day FTE, but the overall costs increase significantly, even considering advisory fees at the lower market end. Very often companies believe they have no choice but to rely on external advisors as they lack the internal experience to deal with the variety of national legislations and procedures or to address language barriers.

According to the businesses interviewed, common problems include:

- The different media through which to communicate with national authorities: online communication is not always possible, and if available may have different requirements, such as certified emails and electronic signatures;
- Wide differences in the documentation required: very often documents need to be translated, and sworn translations can be necessary;
- Pre-requisites that differ from the standards set by the VAT Directive: for example, in some countries, national ID numbers and/or national bank accounts are requested before starting the VAT registration procedure. In addition, waiting times range from a few days to several months.

- Finally, procedures are often opaque, so that it may be difficult to understand which authority/department is dealing with the procedure or to track its status.

All these reasons make the use of external advisors de facto necessary for businesses, especially for businesses trading in many Member States<sup>59</sup>.

Other studies also identify VAT registration as a burdensome and expensive requirement. The 2009 study quantified the costs for obtaining the company VAT number to be around EUR 94 million for EU businesses<sup>60</sup>. Moreover, this figure refers to domestic registrations and so does not take into account the additional challenges of working in international markets.

**VAT declaration and return (IO6a)** represents by far the most burdensome and expensive requirement of those listed, as it represents more than 80% of the total compliance costs. As with VAT registrations, companies often choose (or feel compelled) to outsource at least part of the related activities, as a way to cope with the different requirements and frequencies across Member States.

The business interviews reveal that, if carried out in-house, VAT returns require about 1.7 days FTE per company per return. Firms that partially outsource activities reported somewhat higher numbers for their internal costs (2.1 FTE), probably because larger firms or firms with more complex issues were more likely to consider outsourcing. The majority of the time is allocated to gathering information, preparing the VAT return and reconciling data from different accounts. The frequency with which this obligation must be met (monthly/bi-monthly/quarterly) affects the related costs, as does the amount of the information requested and the accompanying documentation. Eligibility requirements for less frequent returns vary across countries, and in general depend on threshold levels. Often the targets are set in a way that companies engaged in cross-border e-commerce fall into the category of large enterprises. This translates into businesses having to submit monthly returns in almost all EU Member States (apart from Ireland, where there is a bi-monthly obligation, and the UK, where obligations may be either monthly or quarterly).

Companies (especially larger ones) have to comply with large differences across Member States in the process of preparation and submission of VAT returns, such as differences in formats, language, methods for correction and submission, as well as with differences in the timing for submission (even with similar frequencies). These differences make the management of the VAT returns-related procedures quite complex. Investments in IT systems capable of storing and retrieving quickly the necessary information and to elaborate them for the submission of VAT returns have been essential for larger companies. Changes in national requirements for invoicing and VAT returns can thus prove

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<sup>59</sup> The calculation of the fee for those advisory services is an important element for the SCM and overall for the results of the analysis. We based our calculations on the answers we received during the business interviews, available literature and expert judgement. Data from countries show once again wide variations of those fees across Member States, which depend on elements such as the complexity of legislations and procedures, on the number of Member States services are provided for, on direct negotiations, etc. The amount of advisory fees was assumed to be EUR 2 000 per registration per company. This amount is in the lower bound of the data collected via interviews, and is slightly higher than the average fee for VAT registration for seven countries we received confidentially by service providers (this average being about EUR 1 100 per company per registration). Such difference depends on the number of additional services included in the advisory fee (the lower fees do not include additional costs which would arise such as audit or enquiry costs, Intrastat queries etc), as well as on the fact that they do not include elements such as the internal costs of dealing with queries, cost for providing information to the outsourced provider etc.

<sup>60</sup> European Commission (2009), EU project on Baseline Measurement and Reduction of Administrative Costs, prepared by CapGemini, Deloitte and Ramboll, [http://ec.europa.eu/smart-regulation/refit/admin\\_burden/docs/enterprise/documents/files/abs\\_development\\_reduction\\_recommendations\\_en.pdf](http://ec.europa.eu/smart-regulation/refit/admin_burden/docs/enterprise/documents/files/abs_development_reduction_recommendations_en.pdf).

burdensome for businesses, as the adaptation of the IT systems can become very expensive, according to the businesses interviewed.

In addition, Member States have different requirements for invoicing, which lead to additional burdens not required under EU legislation. A frequent example mentioned by our sample of businesses is that of several Member States request also the issuance of invoices for cross-border B2C supplies of TBE-services.

## Non-burdensome IOs

Four IOs were identified as less burdensome, based on the fact that they are automated and therefore incur no measurable costs. They were

- IO2 – identification of customer status;
- IO3 – identification of the Member States of consumption;
- IO4 – identification of the correct VAT rate;
- IO5 – invoicing.

Almost all of the companies interviewed (including small and micro enterprises) have IT systems that allow them to comply with these IOs automatically. Manual operations are therefore reduced to the extent that the related costs have been unanimously defined as ‘minimal’.

It should be noted that even when automated, compliance with these IOs incur one-off costs when setting up the systems, as well as annual costs covering licences and maintenance. However, none of the businesses interviewed were able to estimate this cost<sup>61</sup>. The 2013 European Commission study<sup>62</sup> estimates these costs at EUR 79 809 on average (one-off costs). However, it is not possible to assess what proportion of these costs applies directly on the VAT requirements for cross-border B2C e-commerce.

## Non-applicable IOs

Three of the IOs identified were not applicable to the businesses interviewed. They were

- IO7 – import declarations;
- IO8c – VAT payments regarding imports;
- IO10 – storage of import declarations.

These three IOs apply to imports. However, businesses do not import goods as B2C transactions, but rather as B2B transactions, to which a different VAT treatment applies. In other words, businesses will import the goods for themselves, *i.e.* act as consignees on the import declarations. Moreover, at the time of the import, it is not yet known to whom the goods will be sold, so the goods are stored. As discussed<sup>63</sup>, even a number of non-EU companies will ensure their supplies are close to their customers for quick deliveries, low logistics costs and quick processing. As such, we have not included these IOs in those used to measure the administrative burden.

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<sup>61</sup> See sub-section on “IT costs”

<sup>62</sup> European Commission (2013), Study on the feasibility and impact of a common EU standard VAT return, prepared by PwC, available at: [http://ec.europa.eu/taxation\\_customs/common/publications/studies/index\\_en.htm](http://ec.europa.eu/taxation_customs/common/publications/studies/index_en.htm).

<sup>63</sup> See also section 3.4.2

## MOSS-related IOs

Two IOs relate directly to the application of the Place of Supply rules to TBE services, and the related MOSS obligations:

- IO6b – MOSS returns;
- IO8b VAT payments regarding MOSS;

A limited number of the businesses in our sample provide TBE services cross-border and have started using the MOSS. This allowed us to obtain very preliminary indications on the functioning of the MOSS and the first perceptions of businesses<sup>64</sup>.

Results show that the costs for **submitting VAT returns** and **paying VAT via the MOSS** (IO6b and IO8b respectively) are much lower than the costs for the corresponding obligations under non-MOSS systems (even if our sample was quite limited).

In particular, IO6b (VAT returns via the MOSS) requires notably less time (about 50 minutes on average instead of 750 to 900 minutes for non-MOSS returns), and entails much simpler obligations in terms of accompanying documentation. Furthermore, it does not require the use of external advisors

Similarly, IO8b (VAT payment via the MOSS) takes approximately 10 minutes according to the businesses interviewed, against an average of 30 minutes (which includes non-automatic payments in some countries, as well as possible issues with payments in other currencies – see below).

In addition, both IOs benefit from standardisation of submission and payment at lower frequency with respect to the corresponding non-MOSS obligations. MOSS VAT returns have to be submitted quarterly while non-MOSS VAT returns (and corresponding payments) have to be submitted with different frequencies depending on Member States' legislation and on the size of the businesses.

Companies using the MOSS in our sample consider the system as a viable simplification tool and expect the related costs to lower over time.

## Other relevant IOs

The remaining VAT obligations have a limited impact on businesses' compliance costs.

- IO8a – VAT payment regarding domestic returns;
- IO9 – storage of invoices and transactional records;
- IO11 – change or cancellation of VAT registration.

**Payment of domestic VAT** (IO8a) accounts for about 1.6% of total compliance costs, and amount to about 30 minutes per payment per entity. This is one of the IOs with the greatest variance across our sample and across Member States. In those countries where electronic payments are possible via the business's home country bank account, the time required for payment is minimal (in general, companies in the sample estimated it at 5 to 10 minutes). However, businesses interviewed reported

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<sup>64</sup> The analysis of the functioning of the MOSS is the focus of another part of the study.



how this is not possible in every country so that in a minority of cases manual payments have to be carried out. In addition, different rules apply in case payments have to be conducted in foreign currencies. Often the business has to have a bank account in the country, and thus has to carry out money transfers among different national bank accounts before finalising the payment. These requirements have been estimated at about 0.5 day FTE per company per payment, not including waiting times for money transfers to be finalised.

**Storage of invoices and transactional records** (IO9) is in almost all cases done electronically. Even in the few cases where paper invoices are still requested, or where additional requirements apply to electronic storage (such as electronic encrypted signature), the businesses did not identify distinct costs associated with these requirements.

**Change or cancellation of VAT registration** (IO11) was a rare event in the sample of businesses interviewed. Most were never required to do this, and commented that given the time and costs encountered for registering they would avoid cancellation, to the extent possible. In general, however, costs are estimated to be lower than those sustained for VAT registration.

## Other types of costs

### IT costs

To comply with some of the IOs included in our analysis businesses rely on IT systems. This is particularly important for the following IOs:

- ✘ IO2: Identification of customer status – B2B or B2C;
- ✘ IO3: Identification of Member State of consumption;
- ✘ IO4: Identification of correct VAT rate;
- ✘ IO5: Invoicing, incl. charging VAT.

In particular, IOs 2 and 3 are embedded in the businesses' website structure: users' IP addresses and postal addresses for delivery are used to identify the Member State of consumption, while the general Terms and Conditions of the website specify that only B2C sales are possible.

During interviews, businesses identified the IT costs related to such obligations as 'business as usual', being unable to point out the specific characteristics of the IT systems (and the related costs) that they have had to adopt to comply specifically with VAT-related obligations from B2C distance sales regulations. This is also the case for IOs 4 and 5.

The expert judgement we received from IT experts working on the accounting and related IT systems for companies – using and customising software from SAP and other providers - does not differ substantially from the businesses' replies. They confirmed that it is very difficult to point out to the share of IT costs directly linked to cross-border VAT obligations. This could be achieved with detailed IT Costing models but these are rarely implemented at this detailed level. In fact, the parameters relevant for establishing the costs are company specific and are dependent on the product lifecycle/financial processes and their related systems. The number of countries and the number of products will also have an impact on administrative workload of the creation and maintenance of products in the respective system whose VAT regulations have to be included in the system.

Furthermore, while large businesses tend to have large IT systems, specifically designed and customised on their needs, smaller businesses tend to have less advanced IT systems, which might not include a specific software for VAT compliance (even at domestic level).

Below we report the IT costs identified for large businesses by the European Commission study on the feasibility and impact of a common EU standard VAT return<sup>65</sup>. These figures do not relate entirely to the scope of our study, as they provide indications on the IT set-up and maintenance costs for large businesses only, and refer to VAT obligations for VAT returns in general, with no distinction between domestic and cross-border regulations (apart from the item 'cost to adjust software to be able to complete VAT return in an additional EU Member State'<sup>66</sup>). Nevertheless, they provide an indication of the extreme variance of such costs across companies.

The expert judgement we received substantially agreed with the cost ranges presented below, but they commented that it is not possible to isolate the share of such costs directly attributable to cross-border obligations.

Table 6 – Overview of IT costs for VAT-related obligations

IT cost type	Average	Min	Max	Median	Periodicity	Notes /comments
<b>Purchase price/development cost of software for VAT compliance</b>	€ 945500	€ 10000	€ 2000000	€ 850000	One-off	
<b>Cost to adjust software to specific VAT needs</b>	€ 494875	€ 2000	€ 2000000	€113000	One-off	
<b>Cost to adjust software to be able to complete VAT return in an additional EU Member States</b>	€ 81660	€ 0	€ 500000	€ 4500	One-off	Related to IO5 and IO6
<b>Cost of initial software training per new employee</b>	€ 1950	€ 0	€ 15000	€ 750	One-off	
<b>Recurring annual software costs (e.g. license and maintenance fee)</b>	€ 78809	€ 0	€ 450000	€ 2500	Annual	Total cost, not per Member States

Source: European Commission (2013)

<sup>65</sup> European Commission (2013), Study on the feasibility and impact of a common EU standard VAT return, prepared by PwC, available at: [http://ec.europa.eu/taxation\\_customs/common/publications/studies/index\\_en.htm](http://ec.europa.eu/taxation_customs/common/publications/studies/index_en.htm), p. 96.

<sup>66</sup> Ibid.

### Information collection costs

Turning to the case of information collection costs, information from business interviews indicates that the collection of information on VAT-related obligations for cross-border distance sales is perceived as a burden. However, usually businesses cannot identify the time and/or costs directly linked to collection of information.

Businesses interviewed commented often on how complex and time-consuming it is to collect information about the different VAT-regimes (including registration rules and procedures, VAT rates, invoicing and VAT returns, etc.) for other Member States. Some of the businesses interviewed have a full-time employee whose tasks include the collection of such information and the periodic monitoring of those rules and procedures. However, they could not identify the share of their time directly linked to information collection. Other businesses decide to use external advisory services directly.

One of the businesses interviewed was informed by the Member State's administration that they were above the distance sales threshold in such country, and received instructions on what to do to register for VAT purposes and comply with other VAT-related obligations, therefor not incurring any costs for collecting information.

### Training costs

The application of different VAT rules and procedures for cross-border distance sales means that people working in a centralised VAT department or shared service centre have to be educated and trained to become experts in preparing and submitting periodic VAT returns for one specific Member State.

Businesses incur costs to train their staff on VAT-related national and cross-border obligations, and to keep them up-to-date with changes in VAT rules over time, as well as with the use of related software (for those businesses that use specific VAT-compliance software).

Below we report the training costs identified for EU businesses by the European Commission study on the feasibility and impact of a common EU standard VAT return<sup>67</sup>. These figures do not relate entirely to the scope of our study, as they provide indications of wider VAT-related obligations rather than those linked to cross-border sales; nor can they be directly linked to any specific IO in our analysis. Nevertheless, they provide an indication of the variance of such costs across companies.

Table 7 – Overview of training costs for VAT-related obligations

Cost type	Average	Min	Max	Median	Periodicity	Notes /comments
<b>Cost of initial VAT training per new employee</b>	€ 5 691	€ 0	€ 30 000	€ 2 000	One-off	Related to VAT I general, not to cross-border obligations
<b>Cost of initial software training per new employee</b>	€ 1 950	€ 0	€ 15 000	€ 750	One-off	Related to VAT I general, not to cross-border obligations
<b>Recurring annual training</b>	€ 30 219	€ 0	€ 175 000	€ 13 500	Annual	Related to VAT in general, not to cross-

<sup>67</sup> European Commission (2013), Study on the feasibility and impact of a common EU standard VAT return, prepared by PwC, available at: [http://ec.europa.eu/taxation\\_customs/common/publications/studies/index\\_en.htm](http://ec.europa.eu/taxation_customs/common/publications/studies/index_en.htm), p. 97 and 131.

Cost type	Average	Min	Max	Median	Periodicity	Notes /comments
costs						border obligations

Source: European Commission (2013)

Out of the 11 IOs included in our analysis, almost all apply to businesses both domestically and in the case of cross-border activities, even below the distance sales thresholds. Specifically, costs related to IOs 2 (Identification of consumer status), 3 (Identification of Member State of consumption), 4(Identification of correct VAT rate) and 5 (Invoicing (including charging VAT) relate to activities that businesses have to carry out under all circumstances, as businesses need to ensure the status of the consumer and the Member State of consumption to apply the correct VAT rate (and monitor the thresholds) and to issue invoices correctly. Such costs than can be considered as fixed costs, as they do not depend on the volume of trade or on the number of Member States businesses are registered in.

Costs related to storage of invoices and transactional data (IO9) are perceived as fixed by businesses, as they all store invoices in electronic format. Therefore the additional costs due to storage of invoices related to other Member States proved to be difficult to estimate separately, but were understood to be negligible.

Costs related to VAT submitting and paying VAT declarations and returns (IO6a and IO8a), on the contrary, depend directly on the number of VAT registrations each business has, as the rules, type and amount of information and frequency of the obligations are directly related to the rules of each Member State. However, while these costs are variable based on the number of Member States in which firms are required to register, they are not applied on a per transaction basis, and therefore are considered as a fixed cost for modelling purposes.

### 3.4.3 Administrative burden facing SMEs

Micro-enterprises and SMEs account for more than 99% of businesses in the EU<sup>68</sup>, and are also engaged in B2C e-Commerce. Small and medium-sized enterprises are already active in cross-border B2C e-Commerce, and are increasingly interested in this channel to expand their activities.

At present, however, data on SMEs' activities in relation to cross-border trade remains very limited. While Eurostat provides some data on the incidence of SMEs selling online cross-border, for most countries this data does not include the smallest businesses (those with fewer than 10 employees). Moreover, the data available only covers the incidence of cross-border e-selling; no data is available on the value of sales in each country or the number of firms reaching the VAT registration threshold in each market.

Given these challenges regarding data availability, it is difficult to separately quantify the administrative burden facing SMEs in connection to VAT on cross-border e-commerce. This section draws on the interviews conducted and the analysis of the SCM model to estimate the differential administrative burden facing smaller businesses.

<sup>68</sup> Definitions from [http://ec.europa.eu/growth/smes/business-friendly-environment/sme-definition/index\\_en.htm](http://ec.europa.eu/growth/smes/business-friendly-environment/sme-definition/index_en.htm)

## Summary of the approach used and key assumptions

The approach and methodology followed for this analysis is consistent with those described in sections 3.4.1 and Annex 3. The following assumptions are used in this analysis:

- The number of small and medium-sized enterprises engaged in cross-border B2C e-commerce in Europe is estimated at 232 118<sup>69</sup>, i.e. 93% of the overall number of businesses engaged in cross-border B2C e-Commerce;
- The smaller businesses interviewed were generally registered in fewer Member States than the larger firms. Based on these interviews and indications from experts, the average number of registrations has been set at two;
- For recurrent/periodic IOs with variable frequency (e.g. IO6a and IO8a), the most common frequency across Member States, weighted by the relative importance of the Member States (in terms of size of B2C e-commerce flows) was assumed. As in many Member States such obligations are less frequent for SMEs than for large enterprises, the overall frequency is lower than that used in Table 5;
- For IO11, it was assumed that half of the businesses engaged in cross-border B2C e-commerce undergo a change or cancellation of VAT number. These assumptions were based on inputs from interviews, as well as on expert judgement<sup>70</sup>;
- The other assumptions underpinning the analysis (including the fraction of businesses outsourcing) are the same as those made for the sample as a whole.

It should be noted here that the sample of small and medium-sized enterprises engaged in cross-border e-Commerce used for this analysis was quite small (only a sub-set of 10 out of the overall 23 businesses included in the more general analysis of the administrative burden). This implies some limitations in the analysis, and therefore the results presented here are indicative, and may in practice vary considerably.

## Specific burden for SMEs

Table 8 below provides the overview of the results from the SCM by IO for small and medium-sized enterprises. According to our estimates, the overall costs that SMEs face when engaging in cross-border B2C e-commerce amount to almost **EUR 1.9 billion** (EUR 1 912 186 240), or about **EUR 4 100 per company per year**<sup>71</sup>. This is a lower figure than that estimated for the “average” EU business, reflecting a number of differences between the burdens reported by SMEs and by larger firms:

- The key difference lies in the annual cost of filing VAT declarations and returns, where the costs facing the SMEs interviewed were less than half those facing larger firms. This is based on both less frequent reporting requirements and less time associated with each declaration;
- The SMEs interviewed reported somewhat higher costs associated with initial VAT registration, especially in connection to outsourcing. This may reflect the fact that firms facing

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<sup>69</sup> See section 3.2.

<sup>70</sup> More detailed explanations on these assumptions are in annex 3.

<sup>71</sup> This is calculated by dividing by the number of companies engaged in cross-border e-commerce; see section 3.2.

particularly complex VAT processes are more likely to outsource or the fact that smaller firms may have less experience in this area and therefore need to devote more internal resources to supporting their advisors;

- ✔ The SMEs in the sample also appeared to benefit from slightly lower costs associated with the storage of invoices and with changes to VAT registration than the sample average.

The full details of the costs reported by the SMEs in the sample are shown in the table below.

Table 8 - Overview of the SCM for a 'typical' SME EU business making B2C supplies in other Member States

IO#	Administrative tasks		No. companies	Frequency (per country)	Time per IO (Full time employee days)	Days per country per year	Annual in-house cost per firm per country (€)	External Fees (€)	Total annual cost per firm per country (€)	Annual cost per firm (2 member states) (€)	TOTAL
1	VAT registration (incl for MOSS)	In house	116,059	once in 10 years	0.1	0.0	3.2		3	6	745,099
		Outsourced	116,059		2.3	0.2	52.6	2,000	253	505	58,643,220
		Average			0.0				<b>128</b>	256	<b>59,388,319</b>
2	Identification of customer status – B2B or B2C	N/A									
3	Identification of Member States of consumption	N/A									
4	Identification of correct VAT rate	N/A									
5	Invoicing (incl. charging VAT)	N/A									
6a	VAT declaration/returns - Domestic VAT return	In house	116,059	6 times per year	0.4	2.2	504.0		504	1008	116,980,508
		Outsourced	116,059		0.6	3.8	860.3	800	5,660	11321	1,313,852,873
		Average							<b>3,082</b>	6164	<b>1,430,833,382</b>
6b	VAT declaration/returns - MOSS return		10,000	4 times per year	0.1	0.4	79.2		79	158	1,583,600
7	Import declaration (incl VAT)	N/A									
8a	VAT payment - Re domestic return		232,118	6 times per year	0.1	0.4	96.3		96	193	44,705,927
8b	VAT payment - Re MOSS		10,000	4 times per year	0.0	0.1	21.4		21	43	428,000
8c	VAT payment - Re import	N/A									
9	Storage of invoices		232,118	monthly	0.3	3.5	782.6		783	1565	363,310,165
10	Storage of import declarations	N/A									
11	Changes or cancelling of VAT registration	In house	58,030	once in 10 years	0.1	0.0	1.2		1	2	144,673
		Outsourced	58,030		0.1	0.0	1.6	1,000	102	203	11,792,175
		Average							<b>51</b>	103	
	<b>Total</b>								<b>4,116</b>	<b>12,357</b>	<b>1,912,186,240</b>

Source: Deloitte analysis based on interviews with businesses in eight Member States

Similarly to the more general analysis presented earlier, IOs can be divided into five subcategories:

- ✔ Most burdensome IOs;
- ✔ Non-burdensome IOs;
- ✔ Non-applicable IOs;
- ✔ MOSS-related IOs;
- ✔ Other relevant IOs.

### **Most burdensome IOs**

The same IOs emerge as critical for EU SMEs engaged in cross-border B2C e-commerce, namely:

- ✔ IO1 VAT registration; and
- ✔ IO6a: VAT declarations/returns;

Together these IOs represent about 78% of the compliance costs for businesses, a figure that is comparable with the aggregated analysis (where they represented 85% total compliance costs).

As discussed above, **VAT registration (IO1)** is perceived as particularly burdensome by businesses, as they have to deal with large differences in the procedures and timing necessary for registration across Member States. It is often difficult to identify the national requirements and competent institutions in Member States. In addition, language often presents a barrier, resulting in businesses recurring to local advisors to handle the procedures on their behalf.

Relative to the aggregated analysis, only a small number of the businesses in the sample carry out this obligation in-house, with only internal resources. These businesses declared that they use a very limited amount of resources for this IO. The majority of the SMEs interviewed required the support of external advisors to comply with this IO. If companies use external advisors, the amount of internal resources amounts to about 2.3 days FTE, but the overall costs increase significantly (even considering advisory fees at the lower market end). Very often companies believe they have no choice but to rely on external advisors as they lack the internal experience to deal with the variety of national legislations and procedures.

For the SMEs in the sample, as for the larger firms, **VAT declaration and return (IO6a)** represents by far the most burdensome and expensive requirement of those listed, accounting for more than 70% of the total compliance costs. As with VAT registrations, companies often choose (or feel compelled) to outsource at least part of the related activities, as a way to cope with the different requirements and frequencies across Member States.

The business interviews reveal that, if carried out in-house, VAT returns require about 0.4 days FTE per company per return. Firms that partially outsource activities reported somewhat higher numbers for their internal costs (0.6 FTE), probably because larger firms or firms with more complex issues were more likely to consider outsourcing. The majority of the time is allocated to gathering information, preparing the VAT return and reconciling data from different accounts. In the case of SMEs, the frequency of such obligations is on average lower than in the case of larger businesses.

### **Non-burdensome IOs**

Four IOs were identified as non-burdensome, i.e. they incur no measurable costs. They were

- ✔ IO2 – identification of customer status;
- ✔ IO3 – identification of the Member States of consumption;
- ✔ IO4 – identification of the correct VAT rate;



- ☒ IO5 – invoicing.

Similarly to the larger firms, the SMEs interviewed have IT systems that allow them to comply with these IOs automatically.

### **Non-applicable IOs**

Three of the IOs identified were not applicable to the businesses interviewed. They were

- ☒ IO7 – import declarations;
- ☒ IO8c – VAT payments regarding imports;
- ☒ IO10 – storage of import declarations.

These three IOs apply to imports. However, businesses do not import goods as B2C transactions, but rather as B2B transactions, to which a different VAT treatment applies. In other words, businesses will import the goods for themselves, *i.e.* act as consignees on the import declarations.

### **MOSS-related IOs**

Two IOs relate directly to the application of the Place of Supply rules to TBE services, and the related MOSS obligations:

- ☒ IO6b – MOSS returns;
- ☒ IO8b VAT payments regarding MOSS;

A very limited number of the businesses in our sample provided TBE services cross-border and have started using the MOSS. This allowed us to obtain very preliminary indications on the functioning of the MOSS and the first perceptions of businesses<sup>72</sup>. The findings for SMEs are similar to those reported in the aggregated analysis: SMEs using the MOSS in our sample consider the system as a viable simplification tool and expect the related costs to lower over time.

### **Other relevant IOs**

The remaining VAT obligations have a limited impact on businesses compliance costs, with SMEs facing a similar burden to larger firms.

- ☒ IO8a – VAT payment regarding domestic returns;
- ☒ IO9 – storage of invoices;
- ☒ IO11 – change or cancellation of VAT registration.

**Payment of domestic VAT** (IO8a) accounts for less than 2% of total compliance costs, and amounts to about 30 minutes per payment per entity. As reported in the aggregated analysis, in those countries where electronic payments are possible via the business's home country bank account, the time required for payment is minimal (in general, companies in the sample estimated it at 5 to 10 minutes). However, this may vary if the payment has to be made manually or in the foreign currency,

**Storage of invoices** (IO9) is in almost all cases done electronically. Even in the few cases where paper invoices are still requested, or where additional requirements apply to electronic storage (such as electronic encrypted signature), the costs related are limited. Furthermore, the additional costs due to the storage of invoicing for trade in other Member States are considered 'marginal'.

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<sup>72</sup> The analysis of the functioning of the MOSS is the focus of another part of the study.

**Change or cancellation of VAT registration** (IO11) was an extremely rare event in the sample of businesses interviewed. Most were never required to do this, and commented that given the time and costs encountered for registering, they would, if possible, avoid cancellations. In general, however, costs are estimated to be lower than those sustained for VAT registration.

While the estimated costs per Member State in which they register appear to be lower for SMEs than for larger firms, these costs may nonetheless represent a significant burden and a substantial barrier to trade. For example, for some firms whose sales bring them just above the EUR 35,000 registration threshold the costs associated with VAT compliance may represent almost 12% of the value of their sales in this market.

Small and micro-businesses interviewed pointed out on several occasions how complex and time-consuming the current system is for them. Micro and small sized businesses have less financial and human resources to deal internally with the VAT obligations related to cross-border trade (when above the distance sales thresholds), and have problems affording the fees of external advisors (also because they have less negotiating power). While none of the businesses interviewed affirmed that distance sales thresholds had prevented them from entering a promising new cross-border market, many of them admitted they monitor the thresholds closely, as the related VAT obligations would influence their management decisions (as part of the resources available will have to be used to adapt to an additional VAT legislation).

Other studies have indicated that the burden represented by the wide variations of national requirements for VAT-related administrative procedures may present an obstacle to the development of cross-border trade. Businesses consider these variations a key barrier to entry to the EU market, and SMEs are disproportionately affected. A recent study<sup>73</sup> identifies differences amongst taxation systems, VAT and/or customs among the top-three obstacles to cross-border e-Commerce in Europe, together with legal issues and logistic and/or distribution problems.

A 2006 investigation of administrative burden in the UK<sup>74</sup>, found that smaller businesses typically bear a disproportionately large share of the total burden of tax and legal obligations in the UK (quantified at £5.1 billion, of which £1 billion is VAT-related).

The 2013 European Commission study<sup>75</sup> also quantified the overall costs to comply with VAT returns obligations somewhat lower for SMEs than for larger companies in absolute number. However, it also found that SMEs have more difficulties in complying with such obligations.

Findings from the literature essentially agree that SMEs are disproportionately affected by compliance costs, as they highlight that<sup>76</sup>:

- Compliance costs are high and significant for individual businesses (even though quantifications vary);
- Compliance costs are regressive, in the sense that small businesses are more than proportionally burdened by compliance requirements; and

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<sup>73</sup> E-Commerce Europe (June 2015), Analysis of the survey "Barriers to Growth", available at <http://www.ecommerce-europe.eu/home>, p. 12.

<sup>74</sup> Administrative Burdens – HMRC Measurement project (2006), prepared by KPMG

<sup>75</sup> European Commission (2013), Study on the feasibility and impact of a common EU standard VAT return, prepared by PwC, available at: [http://ec.europa.eu/taxation\\_customs/common/publications/studies/index\\_en.htm](http://ec.europa.eu/taxation_customs/common/publications/studies/index_en.htm), p. 136.

<sup>76</sup> Evans, Chris (2008): "Taxation compliance and administrative costs: an overview," in Michael Lang, C. Obermair, J. Schuch, C. Staringer and P. Weninger, eds., Tax compliance costs for companies in an enlarged European Community (Linde Verlag, Vienna and Kluwer Law International: London), pp. 447-68.

- ☒ Compliance costs are not falling over time in the absence of policy action.

### 3.4.4 Administrative burden related to importation of small consignments

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This section of the study focuses on the analysis of the burden for a sample of non-EU businesses and international couriers and national postal operators in applying the VAT exemption for small consignments and in accounting for VAT on transactions below the EUR 150 customs exemption.

As part of our analysis, we have collected direct information from a number of large non-EU companies engaged in B2C e-commerce trade with the EU. We have also collected information from international couriers and national postal operators through interviews and two workshops in order to understand the burden in applying the VAT exemption for small consignments and in accounting for VAT on transactions below the customs exemption. Additional information was compiled from existing studies and reports.

We first focus on the non-EU businesses, and then describe the key issues for postal operators and couriers.

#### ***Non-EU businesses***

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The administrative burden resulting from the VAT and customs regimes for non-EU businesses exporting to the EU is low. Many do not need to register for or collect VAT and do not incur any other compliance burden (exceptions being those firms that have other flows to the EU and so are already registered and those that act as a consignee for imports). In addition, they benefit from the VAT exemption for goods below the threshold of 10 – 22 EUR. Moreover, as further described in Chapter 4, under-valuation and mislabelling of goods frequently occur, as a result of which the benefit of the threshold is extended to goods with a real value above the threshold.<sup>77</sup>

The above does not apply to non-EU businesses that have chosen to establish themselves in the EU. Feedback from non-EU businesses indicated that a number of large e-commerce B2C suppliers are established in one or more EU Member States and have warehouses from which they serve European clients. Their imports are therefore B2B transactions, and are not affected by the VAT and customs duties regime applicable to small consignments, and thus outside the scope of the current section. The reasons for serving EU B2C clients via local warehouses are primarily commercial and logistic: for example, clients prefer to have local counterparts, lower shipping time and costs. The choice of the location of the EU establishments and warehouses depend on commercial and logistical reasons. Additional factors considered are corporate tax regimes in different EU countries, income tax and labour laws, while VAT reasons are less relevant.

Despite these factors, other non-EU businesses may continue to maintain facilities outside the EU so as to take advantage of the small consignment exemption. This may apply in particular to companies making a large volume of small-value transactions.

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<sup>77</sup> See e.g.: “Cel Cybersquad spoorde al 858 frauderende webshops op”, article in De Standaard of 27 July 2015, available at: [http://www.standaard.be/cnt/dmf20150727\\_01793127](http://www.standaard.be/cnt/dmf20150727_01793127) – According to the Belgian Customs, goods purchased via certain non-EU websites are systematically declared as goods with a value below 22 EUR, while the consumer actually paid more.

## ***International couriers and national postal operators***

International couriers and national postal operators are at the centre of the system for applying the VAT small consignment exemptions and accounting for VAT on transactions below the customs duties exemption. They in practice undertake the entire compliance in customs.

A first issue for those operators is to distinguish between B2B and B2C transactions (e.g. C2C, mail, etc.). As the accompanying documents do not include such information, their systems do not account for the different streams of trade. However, international couriers are reported to have recently started monitoring their B2C volumes using proxy indicators. Based on residential charts (i.e. maps of the areas served, which classify territories as 'residential' or 'industrial' based on the economic activities most prominent), they estimate that about 25% of their deliveries go to private clients (i.e. are in areas classified as 'residential'). A steady increase in those deliveries has been registered in the last 5-10 years, but no exact figures are available.

The large and steady increase in deliveries to private individuals has generated a change in the offer of international couriers (and many postal operators) for deliveries to private customers, who often need more flexibility than business clients for their deliveries (especially for B2C transactions). Operators have set up 'pick-up centres', i.e. shops or centre across cities and residential areas where drivers can leave the packages and customers can pick them up at the most suitable timing for them.

The administrative requirements and procedures for small consignments and consignments under the Customs thresholds of EUR 150 are summarised below. We also report the average costs for processing imports provided by courier firms as recently shown by a European Commission study<sup>78</sup>.

**Table 9 – Overview of customs and VAT clearance procedures in practice and related costs**

Value	Import duties	Customs declarations		Average costs for processing an import (couriers)
		National postal operators	Courier operators	
Below EUR 10-22	No VAT No Customs duties	CN 22	Declaration by any other act, oral declaration, paper-based or electronic manifest, simplified SAD <sup>79</sup>	EUR 2.34
Between EUR 10-22 and EUR 150	VAT payable No Customs duties	CN 22	Simplified electronic declaration or SAD	EUR 8.96
Above EUR 150	VAT payable Customs duties payable	CN 22/23 (depending on the value)	Full or simplified SAD	EUR 9.21

<sup>78</sup> European Commission (2015), Assessment of the application and impact of the VAT exemption for importation of small consignments, prepared by EY, [http://ec.europa.eu/taxation\\_customs/resources/documents/common/publications/studies/lvcr-study.pdf](http://ec.europa.eu/taxation_customs/resources/documents/common/publications/studies/lvcr-study.pdf).

<sup>79</sup> Single administrative document for customs declarations

*Source: Study team elaboration from Commission's study, Assessment of the application and impact of the VAT exemption for importation of small consignments<sup>80</sup>*

Similarly to VAT-related procedures for cross-border sales, there are differences in requirements and procedures across Member States in regard to the importation of small consignments.

Overall, national postal operators (operating under the Universal Postal Union regulations) generally use the CN 22/23 form for Customs clearance. On the CN 22/23 form the identification for exemption purposes is performed on both the basis of the goods description and the value declared. Courier operators generally use the paper-based or electronic SAD.

Both postal operators and couriers are required to maintain and submit (upon request) various documents to Customs authorities to provide evidence that the consignments meet the criteria for the application of the Customs and potentially VAT relief. These documents include invoices, manifests, airway bills and any other documentation that contains the information that is relevant to identify whether the relief applies.

All the operators interviewed make use of bulk declarations; additional simplification measures vary country by country.

Import VAT is generally not included in the price agreed upon at the time of purchase from sellers located outside the EU. When import VAT is due, postal operators pre-pay VAT duties on behalf of the consignee and then recover the corresponding amount at the time of delivery. Couriers tend to pre-calculate the VAT duties (and Customs duties, if any) and to inform the consignee of the amount before the Customs clearance. If the consignee agrees, they will Customs-clear the goods, prepay VAT duties and recover them from the consignee at the time of delivery.

Collection of import VAT from consignees is the most time- and resource-consuming part of the process, especially when the consignee is a private individual (as in the case of e-commerce B2C transactions). Activities include paperwork before collection, money transfer to the operators' bank account (to pay for import VAT), difficulties in reaching the consignee (hence one of the reasons for more flexible delivery solutions) and returns, if the consignee does not accept the delivery (as pre-communication of due amount is not always possible).

While none of the postal operators and couriers interviewed could provide figures, they all agreed that returns of goods, which increasingly occur, can be time and resource-consuming. Returns follow a specific Customs procedure. In order to be able to recover VAT duties, Customs agents need to check and verify that the goods returned are exactly the same that were imported earlier, such that controls have to be done on each parcel in person (for instance, checking serial numbers of goods). This requires ad-hoc personnel from the couriers as well from Customs authorities, and can be highly expensive as these processes cannot be automatized. These procedures are reflected in the costs as shown in table 4 above.

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<sup>80</sup> European Commission (2015), Assessment of the application and impact of the VAT exemption for importation of small consignments, prepared by EY, [http://ec.europa.eu/taxation\\_customs/resources/documents/common/publications/studies/lvcr-study.pdf](http://ec.europa.eu/taxation_customs/resources/documents/common/publications/studies/lvcr-study.pdf).

## Key findings

This chapter concentrates on the identification and quantification of the administrative burden for EU businesses engaged in B2C e-commerce, and also considers the implications for non-EU businesses and for postal operators. The analysis draws on the SCM methodology, interviews with businesses and postal operators and a review of existing studies.

According to our estimates, the overall costs that business face when engaging in cross-border B2C e-commerce amount to almost **EUR 6 billion** (EUR 5 865 277 734), or about **EUR 24 000 per company per year**<sup>81</sup>, or about (on average) **EUR 8 000** per each Member State a company is VAT-registered.

The costs associated with the key IOs are shown in the table below, reported on an annual basis.

Table 8 – Administrative burden associated with VAT compliance on cross-border online trade

IO#	Administrative tasks		Frequency (per country)	Time (Full time employee days)	External Fees	Total annual cost per firm per country	Cost per firm (three member states)	TOTAL
1	VAT registration (incl for MOSS)	In house	once in 10 years	2.7		61	184	22,813,720
		Outsourced		0.8	2,000	218	652	81,082,444
		Average				<b>139</b>	<b>418</b>	<b>103,896,164</b>
6a	VAT declaration/returns - Domestic VAT return	In house	8 times per year	1.7		3,091	9272	1,152,430,736
		Outsourced		2.1	800	10,236	30708	3,816,689,578
		Average				<b>6,663</b>	<b>19990</b>	<b>4,969,120,314</b>
6b	MOSS return		4 times per year	0.1		112	112	1,123,500
8a	VAT payment - domestic return		8 times per year	0.1		128	385	95,753,289
8b	VAT payment - MOSS		4 times per year	0.0		21	21	214,000
9	Storage of invoices		monthly	0.3		897	2692	669,076,110
11	Changes or cancelling of VAT registration	In house	once in 10 years	1.7		38	115	7,151,574
		Outsourced		0.1	1,000	102	305	18,942,782
		Average				<b>70</b>	<b>210</b>	<b>26,094,356</b>
	<b>Total</b>					<b>7,865</b>	<b>23,595</b>	<b>5,865,277,734</b>

Source: Deloitte analysis based on interviews with businesses in eight Member States

Eleven Information Obligations (IOs) were identified as relevant for businesses engaged in B2C cross-border e-commerce. Of these, two emerged from the analysis as particularly burdensome:

- IO1 - VAT registration: IO1 was perceived as particularly burdensome by businesses, as they have to deal with large differences in the procedures and timing necessary for registration, and often find it difficult to identify the national requirements and relevant institutions in each Member State.

VAT requires a large amount of time to understand the information requirement of the Member States the company has to register to, produce and submit the related

<sup>81</sup> This is calculated by dividing by the number of companies engaged in cross-border e-commerce; see section 3.2.

documentation and follow-up with the authorities. The average time is of about 2.7 days FTE. If companies use external advisors, the amount of internal resources falls to less than one day FTE, but the overall costs increase significantly;

- IO6a - VAT declarations/returns: VAT declaration and return (IO6a) represents by far the most burdensome and expensive requirement of those listed, as it represents more than 80% of the total compliance costs. Even in this case, companies can decide (or feel compelled) to outsource these activities as a way to cope with the different requirements and frequencies across Member States.

Data gathered point out that, if carried out in-house, VAT returns require about 1.7 days FTE per company per return. Firms that partially outsourced their VAT obligations reported somewhat higher numbers for their internal costs (2.1 FTE), probably because larger firms or firms with more complex issues were more likely to consider outsourcing. The majority of the time is requested to gather information, prepare the VAT return and reconcile data from different accounting;

- Finally, costs for **submitting VAT returns** and **paying VAT via the MOSS** (IO6b and IO8b respectively) are much lower than the costs for the corresponding obligations under non-MOSS systems (even if our sample was quite limited). Companies using the MOSS consider the system as a viable simplification tool and expect the related costs to lower over time.

Other entities are also affected by the current VAT system. Some large non-EU businesses operate from European establishments and warehouses in general, so that they face the same VAT-related issues as other EU businesses engaged in B2C e-commerce transactions. Others, however, choose to maintain their supply chains outside the EU so as to benefit from the small consignment exemption.

Postal operators and international couriers are at the centre of the system for applying the VAT small consignment exemptions and accounting for VAT on transactions below the Customs exemption. They in practice undertake the entire compliance in customs. Customs and VAT-related procedures, as well as simplified procedures differ across countries. When import VAT is due, postal operators and couriers pre-pay VAT duties on behalf of the consignee and then recover the corresponding amount at the time of delivery. Collection of import VAT from consignees is the most time and resource-consuming part of the process, especially when the consignee is a private individual (as in the case of e-commerce B2C transactions).

# 4 Compliance - the government perspective

## 4.1 Introduction

This section focuses on the assessment of compliance with the current VAT rules on intra-EU B2C distance sales of goods and B2C imports from non-EU suppliers. This compliance assessment does not cover intra-EU B2C services, as the application of 2015 changes, impacting significant part of these supplies, is assessed separately at a later stage of the study.

The objectives of the compliance assessment were to analyse the following aspects of compliance:

- ✘ The level of non-compliance on relevant B2C supplies and related VAT loss (including testing compliance through mock purchases);
- ✘ The main reasons for non-compliance and evidence of non-compliance (such as avoidance schemes); and
- ✘ The main compliance measures applied by tax authorities and their effectiveness.

In order to assess the current level of compliance on B2C cross-border trade, information was collected from EU tax authorities through a FISCALIS working group meeting on compliance, interviews were carried out with eight selected tax authorities and additional information was obtained from questionnaires given to the remaining EU tax authorities. In addition, primary research was conducted based on real purchases and mock purchases, in order to assess the level of non-compliance with the rules for B2C cross-border trade within the EU and into the EU.

### 4.1.1 The nature of non-compliance

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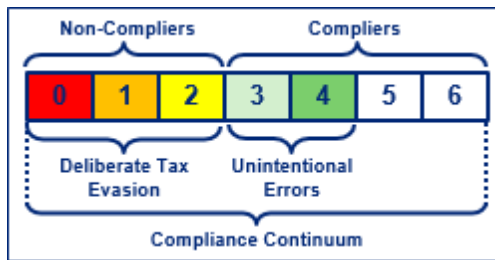
There are several types of non-compliance with different reasons, such as involuntary errors caused by the complexity of VAT rules, use of artificial supply chains in order to obtain beneficial VAT treatment or outright tax fraud. The compliance continuum illustrated in the figure below is often used by the tax authorities to segment taxpayers according to the degree of committed error and evasion<sup>82</sup>.

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<sup>82</sup> Compliance Risk Management Guide for Tax Administrations, European Commission, 2010



Figure 10 - Compliance Continuum



Source: European Commission (2010)

Different types of non-compliance require different control measures and compliance strategies as illustrated in the compliance model shown in Figure 11<sup>83</sup>.

Figure 11 - Compliance strategy model



Source: European Commission, DG TAXUD (2009)

However, if non-compliance is caused by the complexity of rules (hard to comply as well as to control) or distortionary rules (incentivising artificial supply chains or business models), then a well-considered change of such rules may have a significant positive effect on compliance.

#### 4.1.2 Measuring compliance

Measuring compliance is an extremely complex issue that becomes even more so when the focus is on a specific subsector of trade and related compliance, as in the case of this study.

The VAT gap is an important concept in the measurement of compliance. It is the difference between the amount of VAT due and the amount actually collected. The gap encompasses VAT non-compliance such as tax avoidance, evasion and fraud, as well as VAT not collected due to other reasons, such as bad debt relief, company insolvencies, unintentional errors (genuine mistakes) and the performance of tax administrations. Several studies that have quantified the VAT gap in the EU Member States have been identified<sup>84,85</sup>. In addition to the EU level VAT gap analyses, some EU

<sup>83</sup> Monitoring Taxpayers' Compliance: A practical guide based on revenue body experience, OECD Forum on Tax Administration, 2008

<sup>84</sup> European Commission, DG TAXUD, P (2009), *Study to quantify and analyse the VAT gap in the EU-25 Member States*, report by Reckon LL, accessed at [http://ec.europa.eu/taxation\\_customs/resources/documents/taxation/tax\\_cooperation/combating\\_tax\\_fraud/reckon\\_report\\_sep2009.pdf](http://ec.europa.eu/taxation_customs/resources/documents/taxation/tax_cooperation/combating_tax_fraud/reckon_report_sep2009.pdf)

countries carry out their own measurements of the VAT gap (e.g. the UK<sup>86</sup> and Sweden<sup>87</sup>). However, a comprehensive national VAT gap analysis is more of an exception than a rule.

Non-compliance on B2C cross-border supplies of goods is likely to be included in the estimated VAT gap of EU Member States. However, the VAT gap calculations do not allow for a detailed breakdown of information or data specifically related to these supplies, as was also confirmed by the tax authorities during the interviews.

## 4.2 Intra-EU B2C supplies of goods

Regarding intra-EU B2C cross-border supplies of goods, the main regime for businesses to comply with is the distance selling regime, based on the national distance sales thresholds between EUR 35 000 and EUR 100 000. The supplier needs to monitor B2C cross-border sales to every Member State of destination and when the sales exceed the threshold set by a Member State of destination, the supplier is obliged to register for VAT and declare and pay VAT (at the rate applied in that country and by applying the national rules for invoicing etc.) on further sales to customers in that country. Sales below the threshold will be taxed (including the application of appropriate VAT rate) according to the rules in the country where the goods are dispatched from (usually the country where the supplier is established). As there are no regular customs border controls for goods within the EU, the distance sales regime is mainly administered via self-declaration by the suppliers.

### 4.2.1 Level of compliance

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The general level of compliance on B2C cross-border sales was discussed with tax authorities at the meeting of the FISCALIS working group on compliance in e-commerce. The general conclusions of the workshop were that compliance is recognised by tax authorities as a significant issue both on import of small consignments and on distance selling.

Measuring compliance on B2C cross-border sales was considered very challenging, especially on distance sales where the cross-border movement of goods is not tracked. The main interest of tax authorities is to measure the compliance on inbound distance sales, but these sales are carried out by non-resident suppliers to local non-taxable persons, which makes the compliance control extremely difficult.

The level of non-compliance and quantification of related VAT loss on B2C distance sales was further considered through tax authority questionnaires and discussed at the interviews with selected Member States. Only two tax authorities out of eight provided very rough estimates on the minimum VAT loss on B2C cross-border sales of goods. This amounted in both cases to EUR 60-70m in 2014 inclusive of intra-EU and non-EU imports. Most tax authorities reported that they are not currently collecting any evidence on the level of non-compliance. Despite the lack of quantifying evidence, most

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<sup>85</sup> CASE et al. (2013), *Study to quantify and analyse the VAT Gap in the EU-27 Member States*; (2014) *Update report* and (2015) *Study to quantify and analyse the VAT Gap in the EU Member States*

<sup>86</sup> <https://www.gov.uk/government/statistics/vat-gap-estimates>

<sup>87</sup> <http://www.skatteverket.se/download/18.15532c7b1442f256baeae28/1395223863657/The+development+of+the+tax+gap+in+Sweden+2007-12.pdf>

tax authorities considered the level of non-compliance to be significant. One potential indicator is for example a generally low number of distance sales registrations by non-resident suppliers.

The biggest reason for such lack of evidence and information was thought to be the current VAT system applicable to such supplies, which is complex and does not enable tax authorities to verify the data provided by suppliers. It was also considered that the application of distance sales thresholds may reduce the motivation for administrative cooperation between tax authorities, as the main result of non-compliance on distance sales is that VAT on supplies is paid in the Member State of the supplier.

In order to collect further evidence on the level of compliance on distance sales, intra-EU real and mock purchases were conducted to assess the application of the correct VAT rate<sup>88</sup>. The purchases showed that the customer is usually not provided with sufficient information on the taxes applied at the time of purchase (70% of companies did not display VAT rate), while in the cases where the VAT rate is marked out; it was usually the rate of the Member State of the supplier, which may both indicate non-compliance. The exact level of non-compliance in this case is however ambiguous as it is possible that some of the tested suppliers have sales that are low enough to avoid the registration and application of the destination country's VAT rate. Therefore, the results of this exercise provide evidence that there are difficulties in assessing compliance even from the consumer side.

## 4.2.2 Monitoring compliance

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### *Types of non-compliance*

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Tax authorities apply a range of measures for monitoring and controlling compliance. These include monitoring and anecdotal evidence from for example media or individual complaints from impacted businesses.

As mentioned above, not all non-compliance is intentional or fraud related, tax authorities recognise that there is still a considerable lack of knowledge and understanding of the tax rules, especially amongst the smaller businesses. This was confirmed also by the interviews with smallest businesses, where in several instances they were not aware of their potential obligation to register for VAT in another Member State and did not therefore monitor their sales to specific countries.

Another reason for non-compliance, impacting again mainly small companies, is limited technological system capabilities, especially the capability to issue correct distance sales invoices which need to comply with the rules in specific Member States of destination (i.e. up to 28 different sets of rules). The complexity of invoicing was brought up also by larger companies, as monitoring national changes and making regular adjustments to the system was considered to be a disproportionate compliance cost.

However, there is also some evidence of intentional non-compliance such as avoidance and VAT fraud. Below are several types of non-compliance and avoidance schemes identified by tax authorities:

- Non-application of the distance sales threshold in the Member State of destination;

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<sup>88</sup> The results of mock purchases are provided in further detail in Annex 4 of the report

- ✔ Split supply chain – arranging transport separately through a controlled service provider;
- ✔ ‘Parcel motel’ scheme – delivering first to an address in the same Member State, then conducting a subsequent cross-border delivery to the customer;
- ✔ ‘Rate shopping’ – selling goods from a Member State with a lower VAT rate.

Some tax authorities mentioned that they are aware of large scale organised avoidance schemes applied on distance sales, and that these are a source of concern. Such schemes were discussed at the VAT Committee meeting on 4-5 June 2015. It was discussed whether there is a need to widen the interpretation of the distance sales condition of ‘goods dispatched or transported by or on behalf of the supplier’, to limit the split supply chain type avoidance. The VAT Committee will continue to discuss the issue at further meetings. The Member States have raised similar non-compliance related issues at the VAT Committee also before, which confirms that they are concerned.

### ***Compliance measures***

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Based on the information provided by tax authorities, they apply different compliance measures to distance sales, but are often faced with practical issues, such as limited resources or limited technological capabilities.

The main compliance measures currently used on distance sales are:

- ✔ Preventive measures, such as provision of taxpayer guidance;
- ✔ General auditing and control procedures;
- ✔ Sampling and risk profiling (but extremely difficult on distance sales).

More recently, the tax authorities have started to use more technologically advanced compliance measures, such as web trawling (use of web robots), data mapping, use of traffic registers and tracking social media. At least one tax authority considered that these measures have given promising results. Many tax authorities mentioned that they have just started with the application of new measures and hope to soon have a better overview and better control over compliance on distance sales.

Several tax authorities suggested that the information on businesses active in distance sales could be collected from financial institutions, payment providers or large account managers. There is confidence that these institutions have the necessary information, however, the main obstacle here are data protection rules, which do not allow businesses to share such data with tax authorities. In addition, one tax authority interviewed raised the concern that such methods for the collection of distance sales data could place too high a burden on the account holders and other relevant businesses, especially if foreign tax authorities approached them directly without the proper use of administrative cooperation measures. For example, a large payment provider or account holder may receive up to 27 separate requests from foreign tax authorities for the provision of data.

Tax authorities indicated that they have not made significant use of the available administrative cooperation measures, such as submitting information requests on specific businesses, for control on distance sales. However, it remained unclear whether the main reason for this is that current administrative cooperation measures are not fit for purpose or whether compliance on distance sales is not seen as a high priority.

## ***Effectiveness of compliance measures***

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There is a general agreement amongst the tax authorities we questioned, that the general compliance measures have a limited effectiveness in the case of monitoring compliance on distance sales. They considered that the main reason is the system itself, mainly the complexity of the combination of place of supply rules due to distance sales thresholds. It was mentioned that most of the compliance measures focus on VAT-registered businesses with no control over those non-registered, which is the main problem in the current system.

Some tax authorities mentioned that the removal of distance sales thresholds may help to improve compliance, as simpler rules may help to increase voluntary compliance as well as simplify tax authorities' ability to control compliance.

The FISCALIS working group on compliance in e-commerce has started discussing how to improve the control on cross-border B2C sales of goods and although the main focus seems to be imports from non-EU country, they will also discuss control measures on distance sales.

As mentioned, tax authorities have started to use new data analytics and other technologically advanced tools for compliance control and the initial results are promising.

More generally, it was mentioned that more effective awareness building at an EU level would help significantly in increasing voluntary compliance on distance sales. Further development of the EU VAT portal, providing free access to information on national VAT rules to all businesses, would be a key part of this.

There is also more room for administrative cooperation between tax authorities in different Member States. Effective administrative cooperation was considered important also for managing administrative burdens on businesses by avoiding disproportionate levels of requests from foreign tax authorities.

### **4.3 Import of goods with value up to 150 EUR**

Regarding B2C imports of goods from non-EU country up to the value of 150 EUR, there are two main sets of VAT rules depending on the value of the goods. First is the small value consignment relief system for goods<sup>89</sup> with a value below the small consignment threshold of EUR10-22 (no VAT or customs duty, thresholds set by the Member State of import). To be noted that in certain situations (e.g. all mail order goods imported in France, mail order goods imported in UK from Channel Islands, etc.) the small value consignment relief is not available. The purpose of this exemption was simplification for customs purposes, as the collection fees (including the time spent) at the time of adoption of these provisions were higher than the tax potentially collected. In addition, the economic conditions when the VAT rules were adopted were significantly different, as the Internet and the on-line sales did not exist, and transport and logistics operations were less developed.

All B2C imports of goods with a value above the EUR 10-22 and up to EUR 150 are subject to VAT (VAT charged at a rate of the Member State of import), but not to customs duties.

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<sup>89</sup> Except alcoholic products, perfumes, toilet waters and tobacco or tobacco products

The goods imported into an EU Member State will go through customs control and are declared according to customs procedures. In general, VAT obligations are fulfilled by the postal or courier operator and as is increasingly the case, on behalf of the final consumer.

### 4.3.1 Level of compliance

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Discussions with tax authorities at the FISCALIS working group meeting and during interviews confirmed that a significant concern was the compliance level on the import of small value consignments. There is a recognition that the level of non-compliance is very high. Some tax authorities said that almost every parcel checked in customs was in breach of the rules. However, as in the case of distance sales, going beyond anecdotal evidence and conducting research into the quantification of non-compliance on B2C imports did not provide many results. Nearly all tax authorities questioned indicated that they don't collect such data and have not carried out such calculations. As mentioned above, just two tax authorities out of eight provided rough estimates on the minimum VAT loss on B2C cross-border sales of goods, in both cases EUR 60-70m in 2014, which is inclusive of both intra-EU and non-EU imports.

Most tax authorities have some macroeconomic data on general VAT foregone due to the application of the small consignment relief, but they admitted that there is no reliable data on additional VAT lost due to non-compliance. Such non-compliance would form part of general VAT gap studies, but it is not considered possible to separate out the non-compliance component. There is a general recognition that the national macroeconomic data on small consignments are also less reliable due to the reliance on customs declarations, which contain high levels of non-compliance (such as undervaluation or mislabelling). An earlier EU Commission study<sup>90</sup> estimated that the EU total VAT foregone as a consequence of fraud and mis-declaration related to the application of small consignment exemption was EUR189.55m in 2013; however it is likely to be an underestimation.

The main reason for the lack of information on non-compliance on small value imports was mentioned to be the lack of resources focusing on VAT aspects of imports. However, it was also recognised that in order to have full information on the level of compliance, customs authorities would need to drastically increase the physical inspection of parcels which is imported and declared to be under the value of EUR150 or non-commercial (gift, documents). However, this would be considered a disproportionate administrative cost and would have a detrimental effect on logistics operations.

In order to complement the collected evidence on compliance with VAT rules on B2C imports, real and mock purchases from non-EU countries were conducted<sup>91</sup>. The main evidence collected was that:

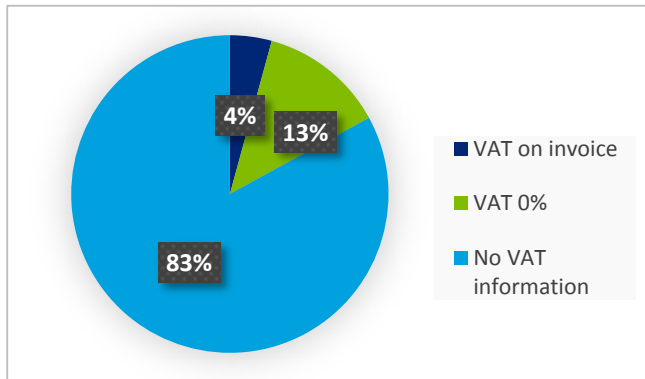
- Most sellers from the sample, 39 out of 47 companies, did not show VAT information in their order confirmation at all or showed VAT and customs duties as one value. Many of these companies use disclaimers on their webpages, saying that their prices do not include VAT and customs duties and that it is the responsibility of a customer to pay any extra charges (such as VAT or customs duties) due on import;
- Six companies showed VAT as 0%, although the value of the purchase exceeded the threshold;
- Just two companies showed the VAT amount on the order confirmation.

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<sup>90</sup> EU Commission (2015), Ibid. Page 44

<sup>91</sup> The results of mock purchases are provided in further detail in Annex 4 of the report

Figure 12 – Information provided by sellers from non-EU countries



Source: Deloitte analysis based on mock purchase exercise

### 4.3.2 Monitoring compliance

#### *Types of non-compliance*

In general, tax authorities reported that monitoring compliance on imports is slightly easier than on distance sales. Tax authorities mentioned that the main types of non-compliance identified on the import of small value consignments are:

- Under-valuation of parcels, often showing value under the small consignment threshold (EUR10-22) in order for the import to benefit from VAT exemption;
- Miss-labelling of parcels, showing commercial B2C import as a 'gift' (C2C import) or 'documents'.

In addition to the under-valuation and mislabelling widely used by non-EU sellers (according to some tax authorities mostly from China and the USA), tax authorities have identified also specific avoidance schemes applied to benefit from small consignment relief. These schemes are organised and tax authorities regard them as a wide scale abuse of VAT rules. In many such cases EU businesses have adjusted their supply chains by using neighbouring third country warehouses for their small value sales to final consumers in EU Member States.

As an example, such practices were widely used for delivering small value parcels to the UK customers via Channel Islands. As much as 75% of all international parcel posts to the UK from outside the EU were estimated to originate in the Channel Islands<sup>92</sup>. Such practices were stopped in 2012 by the removal of the small consignment exemption on B2C imports originating from Channel Islands to the UK.

A recent EU Commission study on the application of the small consignment exemption<sup>93</sup> contains information on the imports from Channel islands as well as other unusual trends in B2C imports which may indicate business schemes set up to benefit from small consignment relief, such as magazines (and CDs, DVDs) imported from the Åland Islands to Denmark and Finland, and the use of Switzerland for imports to Germany and Denmark and Gibraltar for imports to the UK and Germany.

<sup>92</sup> House of Commons Standard Note SN4155 'VAT on postal packages', 11 September 2013

<sup>93</sup> EU Commission (2015), *Ibid.*



The study also reports anecdotal examples of Chinese firms fulfilling online orders of goods from UK-based warehouses, using payment processors outside the EU. Such practices have been for example reported by local disadvantaged businesses<sup>94</sup>. Additionally, the study notes that B2C transactions are sometimes incorrectly transformed in C2C transactions, as the non-EU business makes a domestic delivery to the EU customer typically in a warehouse of a consolidator which onwards ships the goods to the individual in EU.

Similar practices – for instance, non-EU suppliers (e.g. from China or USA) using UK warehouses and selling through large EU selling platforms without registering for VAT in the EU - have also been reported by local disadvantaged businesses<sup>95</sup>.

### ***Compliance measures***

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Based on the information provided by tax authorities, they apply different compliance measures to imports, but are often faced with practical issues, such as the lack of resources for sufficient levels of sampling or the fact that other customs control objectives (i.e. drug trafficking, terrorism, and counterfeit) are considered higher priorities than VAT.

The main compliance measures currently used on small consignment imports are:

- General customs sampling;
- General customs risk profiling.

One of the interviewed tax authorities uses systematic actions (risk based controls) for targeting under-valuation; they direct all small consignments to a specific import hub where controls are carried out. Another tax authority is planning to hire new people to their specific action units focusing on imports of specific goods.

### ***Effectiveness of compliance measures***

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There is a general consensus among the questioned tax and customs authorities that there is a higher level of effort placed on compliance controls of imports in comparison to distance sales. However, this consensus extends to the belief that the existing measures are not sufficiently effective and that extra resources directed towards identifying non-compliance would have a limited effect on reducing or preventing non-compliance where sellers are from non-EU countries (e.g. China, Hong Kong, Thailand and the USA).

Several tax authorities mentioned that they aim to improve cooperation with postal operators and couriers to use their data to improve compliance control.

Many tax and customs authorities mentioned that they have started to use administrative cooperation with third country customs authorities to improve compliance controls. For example, in the case of imports from China, the parcels are often under-valued due to Chinese export duties, therefore there is an interest on both sides to improve controls. The OECD Convention on Mutual Administrative Assistance on Tax Matters<sup>96</sup>, was mentioned as hopefully improving the situation in the future.

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<sup>94</sup> <https://petition.parliament.uk/petitions/105270>

<sup>95</sup> <https://petition.parliament.uk/petitions/105270>

<sup>96</sup> Many countries do not apply the convention to VAT and other consumption taxes, <http://www.oecd.org/tax/exchange-of-tax-information/conventiononmutualadministrativeassistanceintaxmatters.htm>



Our discussions with tax and customs authorities covered also a future more advanced use of technological tools on import procedures (e.g. speeding up and simplifying the controls), which should help to improve voluntary compliance.

#### 4.4 Estimated VAT loss due to non-compliance on B2C cross-border trade

As explained above, just two out of eight tax authorities interviewed for the study provided estimates on the VAT lost due to non-compliance on B2C cross-border trade (including intra-EU trade and import from non-EU countries), indicating a possible VAT loss of EUR 60m and EUR 60-70m respectively. Questionnaire results from the remaining 20 tax authorities provided no additional data on the level of non-compliance or an estimated VAT loss.

Despite the lack of comprehensive data, we have attempted to estimate the potential VAT loss due to non-compliance in order to provide an indication to Member States of their potential VAT at stake.

As a first baseline scenario (VAT loss 1), we used the Member States' values of total B2C cross-border online spend (see Section 2 of the report), standard VAT rate of the Member State and the 2013 general VAT gap of the individual Member State<sup>9798</sup>.

For the second scenario (VAT loss 2), we applied the weighted average 2013 EU VAT gap of 15.2%<sup>99</sup> to the total B2C cross-border online spend (applying the EU average standard VAT rate of 21.5%), to find the total EU VAT loss due to non-compliance<sup>100</sup>.

For the third baseline scenario (VAT loss 3), we used the VAT loss amounts received from two tax authorities and calculated the compliance gap percentage by using their respective standard VAT rates and total B2C cross-border online spend. We then compared the compliance gap with their general VAT gap to find the difference and applied the average difference (43%) to the other Member States.

The calculations of the estimated VAT loss resulted with total EU VAT loss ranging from EUR 2.6 billion (VAT loss 1) to EUR 3.8 billion (VAT loss 3) the total EU VAT loss of scenario 2 (VAT loss 2) being EUR 3.1 billion. The estimated VAT losses for individual Member States range from EUR 4 million (Luxembourg and Slovenia, VAT loss 1) to EUR 741 million (Italy, VAT loss 3).

It is considered that the results of the third scenario (VAT loss 3) provide the most relevant estimate of the VAT loss due to non-compliance on B2C cross border sales (considering the limitations of the data available), as we have taken the general VAT gap as a starting point, qualifying it further by the use of specific B2C cross border sales related data from two Member States. It is important to recognise that these estimates of the compliance gap may not necessarily be completely related to non-taxation. Given the identified compliance challenges for Member States arising from the intra-EU

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<sup>97</sup> CASE et al. (2015), *Study to quantify and analyse the VAT Gap in the EU-27 Member States*, page 17

<sup>98</sup> The results are not available for Cyprus and Croatia as the European Commission has not included these countries in the VAT gap reports to date.

<sup>99</sup> Total EU26 VAT collected as a percentage from EU26 VAT Total Tax Liability (VTTL), CASE et al. (2015), *Ibid*, page 17

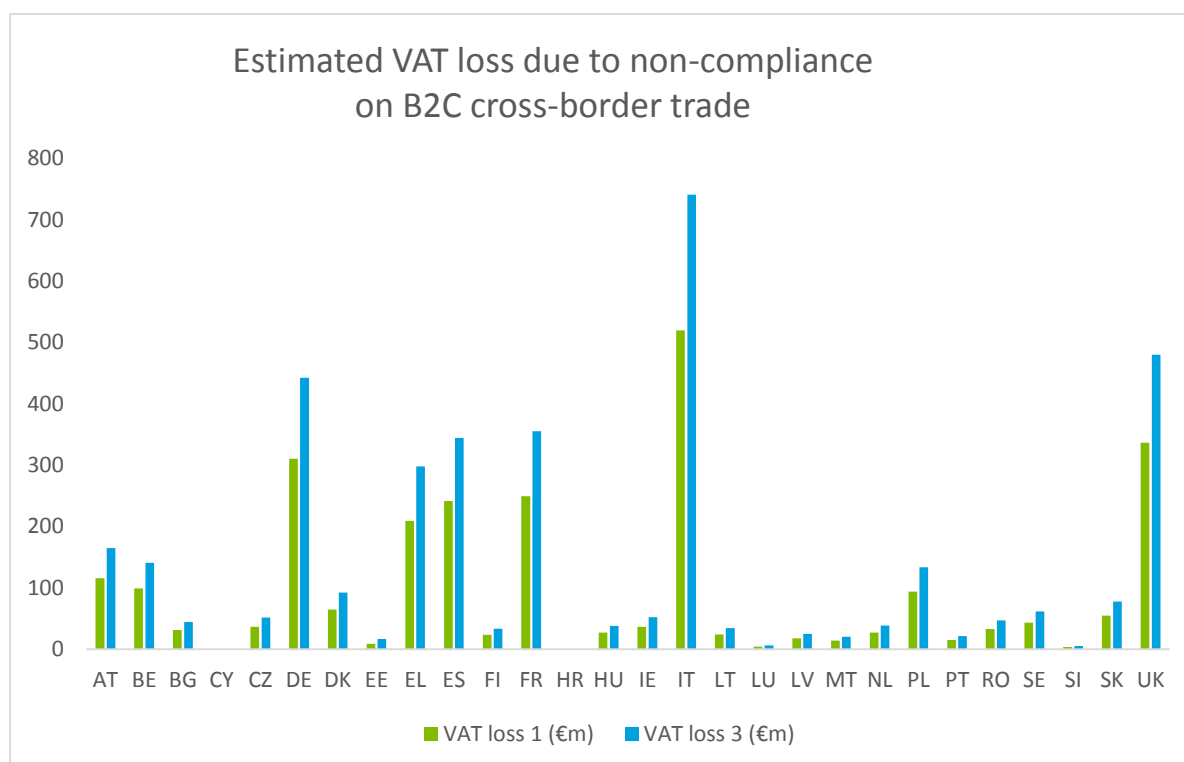
<sup>100</sup> The second scenario (VAT loss 2) provides only the total estimate of the respective EU VAT loss, without data on Member State level.

distance sales thresholds for B2C supplies of goods, it could be the case that VAT is incorrectly paid in another Member State rather than no tax being remitted at all.

The results of the VAT loss calculation (scenarios 1 and 3) for every Member State are shown in the diagram below.

As described, the calculations are based on the general VAT gap of 2013 (which contains other elements in addition to non-compliance), estimated B2C cross-border online spend and the rough estimation of the respective VAT loss from two Member States, therefore the actual VAT loss in a Member State related to the B2C cross-border online sales will differ, depending on the relevant VAT gap and actual B2C sales.

Figure 13 – Estimated VAT loss due to non-compliance on B2C cross-border trade



Source: Deloitte analysis based on data provided by two member states, Ipsos Consumer Survey and CASE et al (2014)

## 4.5 Conclusions

As a result of the assessment of compliance on B2C cross border supplies of goods, the following conclusions were drawn:

- Non-compliance is considered by tax authorities a significant issue on both intra EU distance sales and on B2C import of goods with a value of up to EUR150, proven by active EU level discussions and increasing attempts to collect more information on B2C cross border sales and improve controls;
- Tax authorities find it challenging to measure the level of compliance, given the administrative costs involved;
- Testing the compliance by mock purchases further confirmed the lack of VAT information provided by suppliers on cross-border B2C supplies, which made it difficult to check the

actual compliance. However, the results seem to indicate a considerable level of non-compliance.

Tax authorities have identified many types of non-compliance (including avoidance schemes), such as:

- ✔ under-valuation and mis-labelling on imports and
- ✔ ignoring distance sales thresholds, use of 'split supplies', 'parcel motel' and rate shopping on distance sales.

The main compliance measures applied by tax authorities to B2C cross-border supplies are the general measures used also for other supplies:

- ✔ preventive measures;
- ✔ general auditing and control procedures;
- ✔ sampling and risk profiling.

More recently, tax authorities have started to use technological tools, such as web trawling and data analytics, and the collection of additional information from other businesses (e.g. account holders, financial institutions or postal operators).

Tax authorities admit that the use of compliance measures is not sufficiently effective and there is room for improvement, mainly by:

- ✔ better use of administrative cooperation between EU Member States and with non-EU countries; and
- ✔ further development and use of technological tools.

The estimated VAT loss due to non-compliance on B2C cross-border sales, based on B2C total cross-border online spend (as estimated in the study), general VAT gap and data provided by two Member States, ranges from EUR 2.6 billion to EUR 3.8 billion, whilst the actual respective EU VAT loss is likely to be closer to the upper end of the estimated range.

# 5 Impact of current administrative burdens on competition and growth in the European Union

## 5.1 Introduction

As discussed and quantified in sections 3 and 4, the VAT related administrative costs faced by businesses involved in cross-border B2C e-commerce represent a significant burden in supplying goods and services to consumers in the EU. There is a concern that these costs are adversely affecting e-commerce trade and growth and hence the general competitiveness of the EU. The European Commission is seeking to quantify the extent of these impacts by considering the effects of reducing the administrative burden; specifically, this section of the report analyses the impact of eliminating those administrative costs associated with VAT obligations on cross-border e-commerce.

The following impacts are considered.

- The potential for e-commerce growth;
- The impact on cross-border e-commerce flows;
- The impact on retail prices; and
- Implications for EU competitiveness.

The analysis is primarily based on examining the counterfactual of reducing the administrative costs that businesses face and observing hypothetical growth paths based on forecasts in the literature. It is recognised that the e-commerce sector is an area characterised by rapid changes in technology and the potential for the emergence of disruptive products and business models. Such changes are inherently difficult to forecast and therefore the model does not taken into account the impact that the removal of the administrative burden may have on the probability of such dramatic and disruptive changes. In this respect, the estimates may be viewed as conservative.

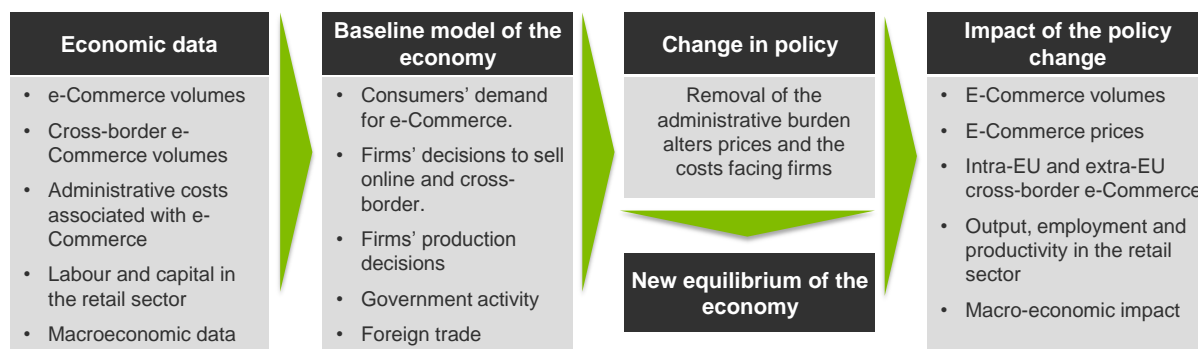
## 5.2 Methodology and scenarios

The findings of this section are centred on a baseline and scenario analysis that draws from the quantified administrative costs derived from the SCM, the aggregate EU-level e-commerce spend produced by the consumer survey, and the outputs of the dynamic computable general equilibrium (CGE) model of the EU.

The CGE model is a macroeconomic model of the EU economy, which represents the decisions and behaviours of key actors, including firms, households, the government, investors and the foreign sector. The behaviour of these actors is described through a series of equations, which have their foundation in microeconomics. E-commerce is represented in these equations through consumers' choice whether to buy goods and services online or offline, and whether to buy from domestic, within-

EU or non-EU producers. The equilibrium of the EU economy can be estimated by solving this system of equations simultaneously.

Figure 14 - Overview of the CGE model



Source: Deloitte analysis

To measure the impacts of the administrative burden, both a baseline and several scenario equilibria are estimated from the CGE model. In the baseline, the CGE model is calibrated to the current behaviour of the EU economy, inclusive of the administrative costs and aggregate EU-level e-commerce spend. The model is run forward five years under different growth rates applied to e-commerce to determine its growth trajectory and the EU economy as a whole.

The impact of the removal of the administrative burden associated with VAT on cross-border e-commerce is analysed by considering the burden through two channels:

- Fixed cost administrative burden: this reflects the fixed costs incurred by firms for VAT registration, data storage and VAT filing. This is calculated based on the outputs of the Standard Cost Model and is represented as the fraction of firms' labour costs that are allocated to these tasks (and therefore cannot be used in production). To estimate the impact of the removal of this burden, it is assumed that these costs are completely eliminated and therefore all labour can be used in productive activities;
- Variable cost administrative burden: this reflects the costs of verifying and processing the VAT treatment of individual cross-border consignments. This cost is generally incurred by couriers and postal operators, and is assumed to be passed through to firms either as an explicit charge or as part of a shipping fee. This cost creates a wedge between the price paid by consumers for online products and the effective price received by firms (net of these administrative costs). The impact of the administrative burden is estimated by assuming that these costs are eliminated.

The model estimates the impact of reducing the administrative burden by assuming that these administrative costs associated with VAT on cross-border e-commerce are eliminated and then re-solving the model to derive a new equilibrium. The impact is then calculated based on the difference between these estimates and the counterfactual in which the administrative burden facing firms is unchanged.

The different scenarios included in the model are set out in more detail below.

### 5.2.1 Growth scenarios

Each growth scenario differs by the rate of growth applied, with the rate formulated based on existing literature and predictions of the growth of e-commerce. Forecasts indicate that e-commerce in the EU

is expected to grow at a rate of about 12% per year up to 2018<sup>101</sup>. However, this growth will depend upon a number of factors, including:

- ✔ EU-wide economic growth, which will drive aggregate consumption spending;
- ✔ Expansion of internet access, especially in emerging markets;
- ✔ Consumers' preferences, in particular the extent to which firms and policy-makers are able to overcome concerns expressed by consumers in connection to payment security, the ease of returns and their rights as consumers<sup>102</sup>;
- ✔ The role of the European Commission's Digital Single Market strategy, which has the potential to increase growth in this market by removing barriers to cross-border online trade.

Given the uncertainty surrounding these forecast growth estimates, a range of scenarios for growth are considered:

- ✔ Low growth scenario: CAGR of 6%;
- ✔ Medium growth scenario: CAGR of 12%;
- ✔ High growth scenario: CAGR of 18%.

While the average rate of e-commerce growth in Europe up to 2018 is estimated to be at 12% per year, growth rates in the short term are expected to be somewhat higher, at about 18% over 2015<sup>103</sup>. This corresponds to recent trends: e-Commerce Europe estimates that over the last five years growth rates have ranged from 17% per year to 20.2%<sup>104</sup>. A high growth scenario is therefore considered in which these higher rates of growth are sustained over the next five years, with emerging e-commerce markets matching the pace of growth that has historically been seen in the leading markets. For example, markets such as Bulgaria, Romania and Estonia are estimated to have experienced average growth rates of over 25% over the last three years, with even more developed markets such as Germany estimated to have experienced growth rates of 23% over this period<sup>105</sup>.

The analysis also considers a low-growth scenario in which e-commerce growth rates fall to an average of 6% per year over the next five years. This lower figure is in line with growth rates recently observed in mature e-commerce markets such as Finland and the Netherlands, with average growth rates from 2012-2014 of 4.7% and 8.8% respectively<sup>106</sup>.

These scenarios for the growth of e-commerce are modelled via an exogenous change in consumer preferences, with online purchases becoming relatively more attractive to consumers. In addition to this exogenous impact, consumers will also respond to endogenous changes in the relative price of online and offline goods.

The Figure 15 shows each of these baseline growth trajectories, under the assumption that the administrative burden remains unchanged.

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<sup>101</sup> <http://ecommercenews.eu/online-sales-in-europe-will-grow-to-e233-9bn-by-2018/>  
[http://blogs.forrester.com/martin\\_gill/13-03-13-european\\_online\\_retail\\_forecast\\_2012\\_to\\_2017\\_online\\_growth\\_will\\_begin\\_to\\_polarize\\_across\\_europe](http://blogs.forrester.com/martin_gill/13-03-13-european_online_retail_forecast_2012_to_2017_online_growth_will_begin_to_polarize_across_europe)

<sup>102</sup> Executive Agency for Health and Consumers (2011), 'Consumer market study on the functioning of e-commerce and Internet marketing and selling techniques in the retail of goods', prepared by Civic Consulting

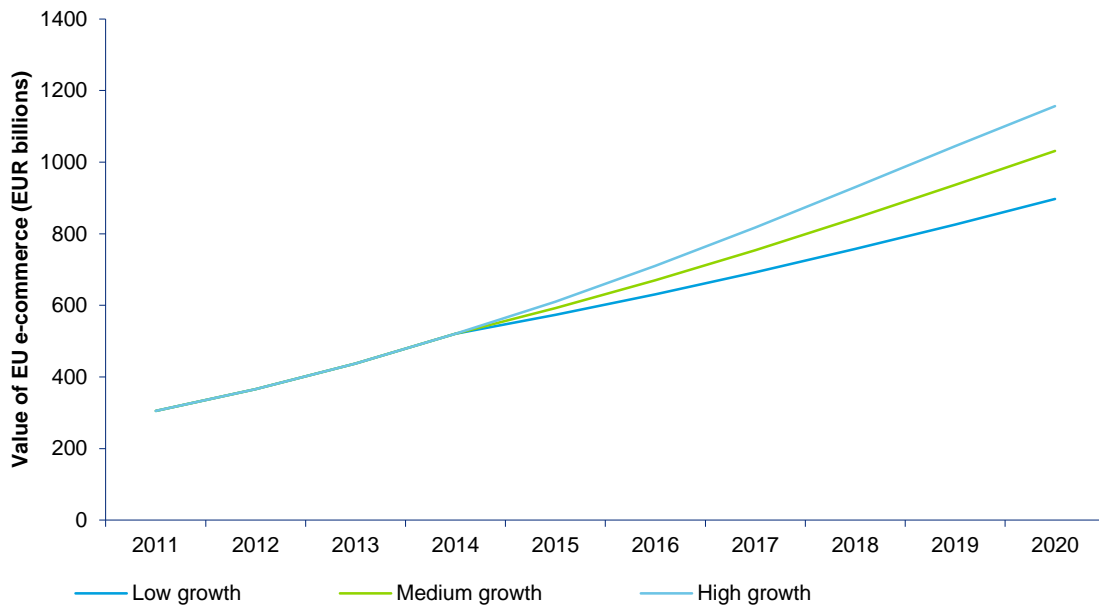
<sup>103</sup> [http://www.digitalstrategyconsulting.com/intelligence/2015/01/global\\_ecommerce\\_trends\\_2015\\_uk\\_leads\\_the\\_way\\_in\\_europe\\_and\\_north\\_america.php](http://www.digitalstrategyconsulting.com/intelligence/2015/01/global_ecommerce_trends_2015_uk_leads_the_way_in_europe_and_north_america.php)

<sup>104</sup> E-Commerce Europe; "European B2C e-commerce Report 2014."

<sup>105</sup> Ibid.

<sup>106</sup> Ibid.

Figure 15 - Scenarios for the growth in the value of EU e-commerce



Source: Deloitte analysis based on Ipsos/Deloitte consumer survey

These growth scenarios imply that by 2020 the B2C e-Commerce market in Europe could be worth up to EUR 1.1 trillion under the high growth scenario, or up to EUR 900 billion under the low growth scenario; this is compared to a current value of EUR 540 billion. Relative to total retail expenditure, this would represent an increase in e-Commerce's share of spending from the current level of about 7% to between 10.5% and 13.5% of spending EU-wide.

### 5.2.2 Administrative costs

The administrative burden connected with VAT on cross-border e-commerce is represented in two ways in the model: as a fixed cost and as a variable cost. The fixed cost covers obligations such as VAT registration, filing, payment and the storage of data. The costs of these obligations have been quantified using the Standard Cost Model, based on information supplied by firms in eight Member States, as set out in Section 3. The administrative burden associated with VAT obligations in connection to cross-border e-commerce is estimated at EUR 5.87 billion, presenting about 1% of labour costs in the retail sector. It should be noted that the figures coming out of this model generally represent fixed costs, with most firms automating processes such as identification of the customer's location. The variable costs associated with monitoring compliance on each consignment are generally borne by courier firms and postal operators, and passed on to firms in the form of shipping and handling costs.

As discussed above, the estimation of the administrative burden of the VAT treatment of e-commerce presents a number of challenges. These administrative costs vary significantly depending on the countries with which firms trade and the type of product sold. Interviews with firms also suggest significant heterogeneity in the way firms approach administrative costs; for example, processes may or may not be automated, and may be handled in-house or outsourced. Estimates of the administrative costs provided by certain firms, particularly larger firms, may therefore not be representative of the costs facing the market as a whole. In order to account for these challenges, additional sensitivity analysis has been conducted by using a range of estimates for the administrative

costs facing firms in order to present a range of estimates for the impact of the administrative burden. Based on advice from the European Commission, this is done by considering a “low burden” scenario in which the administrative costs are 75% of those estimated by the SCM model and a “high burden” scenario in which the costs are 125% of the estimated costs.

Estimates of the variable administrative costs associated with VAT obligations on cross-border e-commerce have been obtained from a previous study conducted for the European Commission<sup>107</sup>. As with the fixed costs, sensitivity analysis has been conducted by considering scenarios in which the variable costs are 75%, 100% and 125% of those reported in the study.

Table 10 - Cost scenarios

Cost baseline	Fixed administrative costs (SCM/European Commission)	Variable administrative costs
High cost	Assumed to be 125% of the figure estimated by the SCM, €7.34 billion	Assumed to be 125% of the costs estimated in the study, representing 6.93% of the transaction value, on average
Baseline	Based on the SCM; estimated to be €5.87 billion	Based on a previous study for the Commission; the variable costs are estimated to amount to 5.54% of transaction value, on average.
Low cost	Assumed to be 75% of the figure estimated using the SCM, €4.40 billion	Assumed to be 75% of the costs estimated in the study, or 4.16% of transaction value.

Source: Deloitte analysis based on the SCM and European Commission (2015)

### 5.3 The estimated impact of the administrative burden

The analysis suggests that the reduction in the administrative burden has the potential to increase the value of e-commerce in the EU by between 0.3% and 0.7%, relative to the counterfactual scenario in which the administrative burden remains unchanged. The majority of this impact comes through the effect on intra-EU cross-border e-commerce, where the impact of the administrative burden is estimated to be worth between 1.2% and 2.6% of the value of this market. Under the medium growth scenario, this represents between EUR 2.5 billion and EUR 4.2 billion in trade in 2020. While it is intra-EU cross-border e-commerce that most directly benefits from the reduction in the e-commerce burden, the reduction in firms’ overhead costs and the increase in competitive pressure mean that domestic e-commerce prices are also expected to fall. Demand for domestic e-commerce is also expected to increase slightly, indicating that the increase in cross-border e-commerce may not come at the expense of domestic firms.

<sup>107</sup> European Commission (2015), Assessment of the application and impact of the VAT exemption for importation of small consignments, prepared by EY, [http://ec.europa.eu/taxation\\_customs/resources/documents/common/publications/studies/lvcr-study.pdf](http://ec.europa.eu/taxation_customs/resources/documents/common/publications/studies/lvcr-study.pdf).



The table below summarises the estimated impact of the administrative burden on the current value of e-commerce, both in absolute terms and as a percentage change from the counterfactual under each growth rate (that is, the case in which the administrative burden is unchanged). In order to account for the potential uncertainty about the true value of the administrative burden, a range is presented based on the cost scenarios outlined above.

Table 11 - Impact of the removal of the administrative burden on the value of e-commerce, 2020

	Low growth scenario	Medium growth scenario	High growth scenario
Impact on total e-commerce	€1.9bn - €3.2bn 0.3% - 0.4%	€3.1bn - €5.2bn 0.3% - 0.5%	€5.7bn - €9.4bn 0.4% - 0.7%
Impact on cross-border e-commerce	€1.7bn - €2.9bn 1.2% - 2.1%	€2.5bn - €4.2bn 1.3% - 2.2%	€3.7bn - €6.3bn 1.5% - 2.6%
Impact on within-EU cross-border e-commerce	€1.5bn - €2.6bn 1.5% - 2.5%	€2.1bn - €3.7bn 1.5% - 2.6%	€3.1bn - €5.2bn 1.7% - 2.8%
Impact on non-EU cross-border e-commerce	€0.2bn - €0.3bn 0.4% - 0.7%	€0.3bn - €0.6bn 0.6% - 1.1%	€0.6bn - €1.0bn 1.1% - 1.8%

Source: Deloitte Analysis

These figures may be compared to a previous study that estimated that a 10% reduction in differences in VAT procedures (here represented by an index measuring the difference between VAT regimes across markets) could boost intra-EU trade by up to 3.7%. However, this study was based on both B2C and B2B e-commerce, with some estimates indicating that B2B e-Commerce may make up as much as 90% of the global e-commerce market<sup>108</sup>. It should also be noted that this study used a very different methodology, with the authors acknowledging that their estimates may overstate the impact, since they cannot account for reverse causality<sup>109</sup>.

In addition to considering the effects in a single year, as shown above, the model also estimates how the impact may affect the growth of e-commerce over time and the cumulative effect. In particular, it might take time for the full impact of the reduction of the administrative burden to be seen in the market. This is because it is expected to take time for firms to fully adjust to the removal of the burden and to reallocate their labour force and adjust their prices. This is reflected in the economic model

<sup>108</sup> AT Kearney, "The Internet Economy in the United Kingdom"

<sup>109</sup> The estimates are based on an econometric model of the relationship between trade and the similarity of VAT regimes (measured via an index). Based on the coefficients estimated in this model, a 10% reduction in the burden would be associated with a 3.7% increase in trade. However, this specification does not account for reverse causation, namely the fact that country pairs that trade extensively may make efforts to align their VAT processes; moreover, it cannot account for the fact that countries with strong ties (for example through shared history, language or cultural) would be expected to see high volumes of trade and share similar institutions and legal/tax frameworks. The authors acknowledge that their estimates may therefore be overestimates.

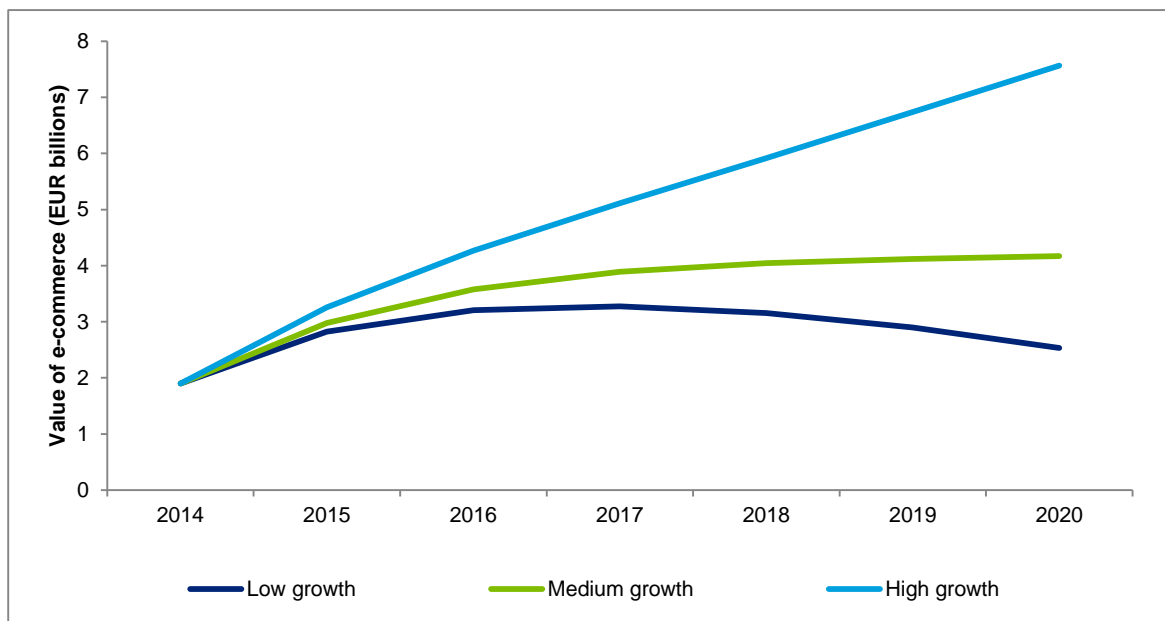
through “price-stickiness,” meaning that the prices facing consumers take time to adjust to the change in costs facing firms.

Figures 16 and 17 show the estimated impact on the value of total e-commerce and cross-border e-commerce up to 2020; in both cases this is shown relative to the baseline for the low, medium and high growth scenarios (based on the core estimates for the magnitude of the administrative burden).

The total value of e-Commerce clearly depends on both the price of online goods and services and the volume of consumer demand for these services. The reduction of the administrative burden will have both a direct effect on businesses’ costs, enabling them to reduce prices (or delay price increases, resulting in lower prices relative to the counterfactual scenario), and can also promote competition by reducing barriers to entry, with a further effect on prices. The aggregate effect on the value of the market will then depend on consumers’ demand response.

As can be seen in the figures, in all cases the reduction in prices relative to the counterfactual is expected to stimulate demand sufficiently to increase the total size of the market. In the high growth scenario, the shift in consumer preferences towards online shopping means that demand will continue to strengthen, leading to ongoing growth in the market. However in the low growth scenario consumers are more reluctant to make purchases online, and while purchase volumes are estimated to continue to grow the fall in prices mean that the aggregate impact on the total value of e-Commerce is estimated to be lower.

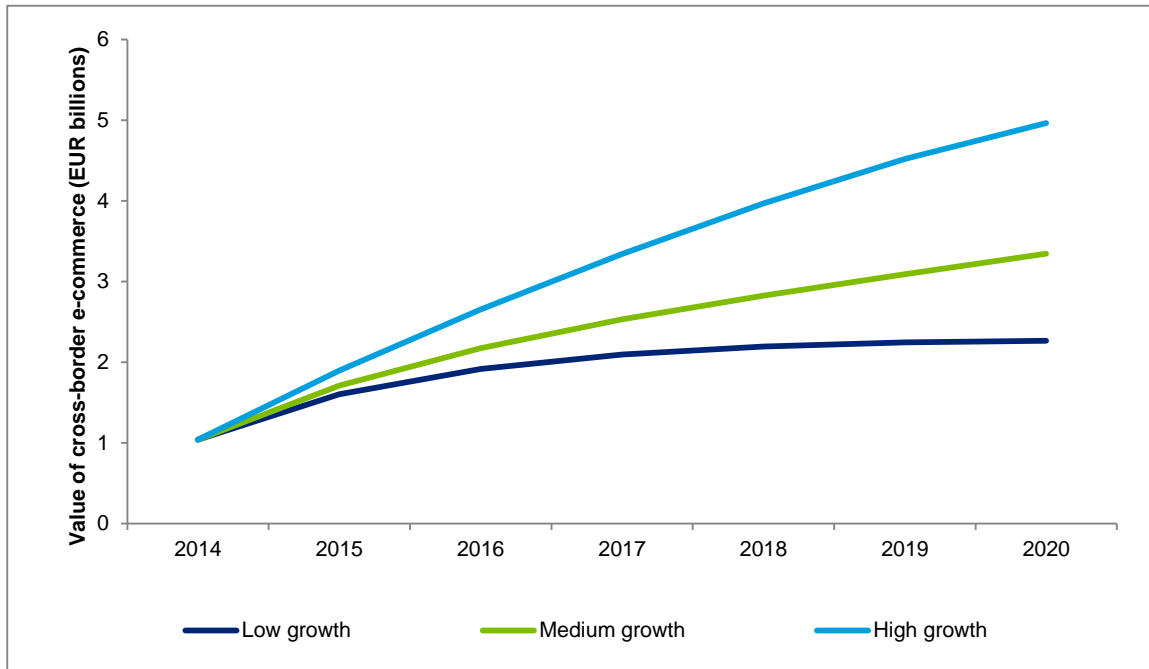
Figure 16 - Change in the value of e-Commerce, relative to baseline growth



Source: Deloitte Analysis

A similar effect is seen in the market for cross-border e-Commerce, with the reduction in the administrative burden expected to lead to sustained growth under the high-growth scenario. In contrast, in the low growth scenario the benefits may taper off over time as the decrease in prices in the market does not stimulate consumer demand to the same extent.

Figure 17 - Change in the value of cross-border e-Commerce, relative to baseline growth



Source: Deloitte Analysis

As suggested by these figures, the removal of the administrative burden may have a moderate impact on the growth rate of e-commerce relative to baseline trends. In particular, under the high growth scenario – in which consumers are assumed to be more willing to substitute towards online purchases if such purchases become relatively cheaper – the removal of the administrative burden may stimulate growth. Specifically, the average growth rate of intra-EU cross-border e-commerce may increase by between 0.2 and 0.5 percentage points, while the average growth rate of total e-commerce over the period may increase by up to 0.1 percentage points.

Given the potential impact that the administrative burden may have on the growth of e-commerce, the analysis also considers the cumulative impact that the removal of this burden may have on e-commerce values over the period 2014-2020. These cumulative effects are shown in the table below (expressed in billions of Euros). As noted above, the impact is greatest for intra-EU cross-border trade, with the additional growth potential for intra-EU cross-border e-commerce potentially reaching 24 billion Euros cumulatively from 2014 to 2020.

Table 12 – Cumulative impacts of the removal of administrative burden, 2014-2020, €b.

	Low growth scenario	Medium growth scenario	High growth scenario
Total e-commerce	€14.8bn - €24.7bn	€18.5bn - €30.8bn	€26.2bn - €43.3bn
Cross-border e-commerce	€9.9bn - €16.9bn	€12.4bn - €21.1bn	€16.6bn - €28.2bn
Intra-EU cross-border e-commerce	€8.5bn - €14.6bn	€10.6bn - €18.0bn	€13.9bn - €23.6bn
Non-EU cross-border	€1.4bn - €2.3bn	€1.8bn - €3.1bn	€2.7bn - €4.6bn

e-commerce			
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Source: Deloitte Analysis

The table below provides a more detailed breakdown of the impact of the removal of the administrative burden on both the prices of online goods and on the volume of transactions. In terms of prices, the removal of the administrative burden leads to a relative reduction for all components of e-commerce. At present, the additional mark-up on intra-EU cross-border transactions associated with the administrative burden is estimated to represent between 4% and 7% of the transaction value (largely represented through shipping and handling fees). The reduction in administrative costs is estimated to reduce prices (relative to the counterfactual) by between 2.7% and 5.0%, eliminating the majority of this mark-up. This suggests that the reduction in the costs facing firms is largely passed on to consumers, with the decrease in intra-EU cross-border prices also putting some downward pressure on the prices of domestic e-commerce sellers. With cross-border goods becoming less expensive consumers will switch some of their consumption of online goods and services to these suppliers.

Table 13 - Impact of removal of administrative burden on prices and volumes of e-commerce

	Impact on prices relative to counterfactual	Impact on volumes (number of transactions)
Total e-commerce	-1.04% to -0.6%	270m to 454m 0.92% to 1.54%
Total cross-border e-commerce	-4.46% to -2.67%	231m to 395m 3.95% to 6.76%
Intra-EU cross-border e-commerce	-4.97% to -2.97%	172m to 295m 4.65% to 7.98%
Non-EU cross-border e-commerce	-3.44% to -2.06%	59m to 100m 2.76% to 4.65%

Source: Deloitte Analysis

Taken together, the increases in volumes and values and decreases in the prices facing consumers suggest that the removal of the administrative burden may improve the competitiveness of EU firms relative to non-EU firms by creating a more level playing field. Reducing the administrative costs allows EU firms to reduce their prices, which leads to a shift in demand away from non-EU supplies towards EU supplies. In addition, the increases in volumes imply that there could be an increase in not only the supply of existing firms but the number of new firms entering the B2C e-commerce cross-border market.

The model also estimates the impact of the removal of the administrative burden on a number of key indicators:

- The elimination of administrative costs can enable an increase in average labour productivity in both the EU economy as a whole and the retail sector. The effect is higher in the retail

sector, with the average productivity of labour estimated to increase by between 0.4% and 0.7%. Conceptually, this is due to the fact that removing the administrative burden faced by firms frees up labour resources that can be used for more productive tasks;

- In addition, employment in the retail sector increases slightly relative to the baseline, implying that a portion of the labour freed up by eliminating the administrative tasks has gone directly into the retail sector as opposed to being reallocated solely to other parts of the economy;
- Across the economy as a whole, labour productivity is estimated to increase by between 0.02% and 0.04%. In this respect, EU competitiveness may be improved by the reduction of the administrative burden.

## 5.4 Key findings

The removal of the administrative burden has the potential to increase the value of e-commerce in the EU by up to 0.7%. The majority of this impact will come through the effect on cross-border e-commerce, in particular intra-EU cross border e-commerce. However the reduction in the prices caused by the reduction of the administrative burden will also put downward pressure on domestic e-commerce prices and increase demand, suggesting that the removal of the administrative burden will not disadvantage domestic firms. Meanwhile the wider retail sector and the economy as a whole have the potential to benefit from improvements in labour productivity.

The key findings emerging from this analysis are as follows:

- The reduction of the administrative burden on cross-border e-commerce has the potential to increase the value of e-commerce in the EU by between 0.3% and 0.7%; under the medium growth scenario, this represents an increase in the value of e-commerce of between EUR 3.1 billion and EUR 5.2 billion annually;
- The value of cross-border e-commerce may potentially increase by 1.2% - 2.6% with the elimination of the administrative burden; under the medium growth scenario, this represents an increase in the value of e-commerce of between EUR 2.5 billion and EUR 4.2 billion annually;
- A reduced administrative burden may reduce prices across the e-commerce sector by up to 1.0%; cross-border e-commerce prices faced by consumers may fall by up to 4.5%;
- The reduction of the administrative burden may increase labour productivity in the retail sector by up to 0.7% as workers are able to allocate more time to more productive tasks;
- The improvement in labour productivity and the reduction in prices suggest that a reduction in the administrative burden may increase the competitiveness of EU firms.

# 6 Conclusion

The objective of this study is to provide an assessment of the current state of e-commerce in the EU and of the potential barriers to the growth of cross-border e-commerce created by the administrative burden associated with VAT. This report forms the first part of a wider study into the options for modernising the VAT treatment of cross-border e-commerce, with the objective of supporting the European Commission's strategy for the Digital Single Market.

A survey of European consumers indicates that the total value of online trade of goods and services in the EU has reached EUR 540 billion. The majority of this trade, however, remains within-country with cross-border e-commerce currently accounting for 18% of this total. Of this EUR 96.8 billion spending on cross-border e-commerce, 70% is intra-EU with the United Kingdom, Germany and France being the leading markets. On the business side, a minority of firms (14%) are currently engaged in cross-border e-commerce.

In order to understand the potential barriers to the further expansion of cross-border e-commerce in the EU, a series of interviews were conducted with businesses. The following issues were identified as concerns by businesses.

- ✘ Dealing with complex legislation and administrative procedures in different countries;
- ✘ Monitoring distance sales thresholds;
- ✘ Differences in distance sales thresholds across Member States;
- ✘ Distortion of competition.

The businesses interviewed also raised a number of other issues that could potentially hamper the development of e-commerce. These include: legal barriers (e.g. dispute resolution and data protection), uncertainty regarding VAT treatment (e.g. for electronic services), Intellectual Property Rights (IPRs), logistics and payment systems, language and cultural barriers, and exports procedures towards third countries.

Based on the information obtained from these interviews, the study aimed to quantify the administrative burden faced by firms engaging in cross-border e-commerce by using a Standard Cost Model to quantify the costs associated with the various information obligations surrounding VAT. This analysis indicates that the overall costs facing businesses that engage in B2C cross-border transactions amount to almost **EUR 6 billion**, or almost **EUR 8 000 per company per Member State in which they are registered**.

The table below shows the breakdown of the administrative burden in more detail, across the most relevant IOs.

Table 14 – Summary of the administrative burden facing firms trading cross-border

IO#	Administrative tasks		Frequency (per country)	Time (Full time employee days)	External Fees	Total annual cost per firm per country	Cost per firm (three member states)	TOTAL
1	VAT registration (incl. for MOSS)	In house	once in 10 years	2.7		61	184	22,813,720
		Outsourced		0.8	2,000	218	652	81,082,444
		Average				<b>139</b>	<b>418</b>	<b>103,896,164</b>
6a	VAT declaration/returns - Domestic VAT return	In house	8 times per year	1.7		3,091	9272	1,152,430,736
		Outsourced		2.1	800	10,236	30708	3,816,689,578
		Average				<b>6,663</b>	<b>19990</b>	<b>4,969,120,314</b>
6b	MOSS return		4 times per year	0.1		112	112	1,123,500
8a	VAT payment - domestic return		8 times per year	0.1		128	385	95,753,289
8b	VAT payment - MOSS		4 times per year	0.0		21	21	214,000
9	Storage of invoices		monthly	0.3		897	2692	669,076,110
11	Changes or cancelling of VAT registration	In house	once in 10 years	1.7		38	115	7,151,574
		Outsourced		0.1	1,000	102	305	18,942,782
		Average				<b>70</b>	<b>210</b>	<b>26,094,356</b>
	<b>Total</b>					<b>7,865</b>	<b>23,595</b>	<b>5,865,277,734</b>

Source: Deloitte analysis based on interviews with businesses in eight Member States

Two of the information obligations associated with VAT emerged as key areas of concern for businesses:

- ❑ VAT registration; and
- ❑ VAT declarations/returns.

VAT registration is perceived as particularly burdensome by businesses, as they have to deal with large differences in the procedures and timing necessary for registration depending on Member States, and often find difficult to identify the national requirements and relevant institutions. This issue may be further complicated by language barriers and therefore many businesses rely on local support in each of the markets in which they are required to register. In addition to the burden associated with obtaining the required information, businesses also highlight the time required to produce and submit the required documentation and to follow up with the authorities.

In addition to the one-off costs incurred for VAT registration, businesses also pointed to the ongoing filing requirements as a significant burden; this is estimated to represent more than 80% of the total compliance costs. The majority of this time is allocated to gathering information, preparing the VAT return and reconciling data from different accounting systems. A number of businesses reported relying on external support for these recurring obligations in order to address the different reporting requirements and frequencies across Member States.

There are also concerns that this burden on businesses may affect compliance. In order to assess this, a series of interviews and questionnaires were conducted with tax authorities. These interviews indicate that non-compliance is considered by tax authorities as a significant issue on both intra-EU distance sales and on B2C imports of goods from outside the EU. However, tax authorities find it challenging to measure the level of compliance. Testing compliance through a series of mock purchases confirmed the lack of VAT information provided by suppliers on cross-border B2C supplies, making it difficult to monitor levels of compliance.

Only two of the authorities interviewed had sought to quantify the VAT loss due to non-compliance.; these estimates and existing data on the general VAT gap by country were used to estimate the EU-wide VAT loss. The estimated VAT loss due to non-compliance on B2C cross-border sales ranges from EUR 2.8 billion to EUR 4.2 billion, whilst the actual respective EU VAT loss is likely to be closer to the upper end of the estimated range.

Tax authorities have identified many types of non-compliance (such as under-valuation and mis-labelling on imports and ignoring distance sales thresholds on intra-EU sales), as well as the use of avoidance schemes.

The main compliance measures applied by tax authorities to B2C cross-border supplies are the general measures used also for other supplies, such as preventive measures, general auditing and control procedures, sampling and risk profiling. More recently, tax authorities have started to use technological tools, such as web trawling and data analytics, and the collection of additional information from other businesses (e.g. account holders, financial institutions or postal operators).

However, tax authorities admit that the use of compliance measures is not sufficiently effective and there is room for improvement, such as better use of administrative cooperation between EU Member States and with non-EU countries and further development and use of technological tools

The evidence obtained from businesses and tax authorities suggests that the current administrative burden associated with VAT on cross-border online transactions may represent a barrier to the growth of e-commerce in the EU. Cross-border e-commerce is particularly affected, since the administrative burden may either increase prices or deter businesses from selling cross-border altogether. This may in turn have ramifications for productivity and competitiveness in the EU.

In order to assess the magnitude of this effect, a general equilibrium model was used to estimate the impact of the removal of the administrative burden on prices, e-commerce volumes and the wider economy. This analysis indicates that the removal of the administrative burden has the potential to increase the value of e-commerce in the EU by up to 0.5%. The majority of this impact will come through the effect on cross-border e-commerce, in particular intra-EU cross border e-commerce. However the reduction in the prices caused by the reduction of the administrative burden will also put downward pressure on domestic e-commerce prices and increase demand, suggesting that the removal of the administrative burden will not disadvantage domestic firms. Meanwhile the wider retail sector and the economy as a whole have the potential to benefit from improvements in labour productivity.

The key findings emerging from this analysis are as follows:

- The reduction of the administrative burden on cross-border e-commerce has the potential to increase the value of e-commerce in the EU by between 0.3% and 0.7%; under the medium growth scenario, this represents an increase in the value of e-commerce of between EUR 3.1 billion and EUR 5.2 billion annually;
- The value of cross-border e-commerce may potentially increase by 1.2% - 2.6% with the elimination of the administrative burden; under the medium growth scenario, this represents an increase in the value of e-commerce of between EUR 2.5 billion and EUR 4.2 billion annually;
- A reduced administrative burden may reduce prices across the e-commerce sector by up to 1.0%; cross-border e-commerce prices faced by consumers may fall by up to 4.5%;



- The reduction of the administrative burden may increase labour productivity in the retail sector by up to 0.7% as workers are able to allocate more time to more productive tasks;
- The improvement in labour productivity and the relative reduction in prices suggest that a reduction in the administrative burden may increase the competitiveness of EU firms.

Taken together, the results of this study suggest that steps taken to modernise and streamline the VAT treatment of e-commerce could decrease the current administrative burden associated with cross-border e-commerce and support growth in this sector. Such reforms could create further benefits if they are associated with an increase in VAT compliance and a concomitant increase in revenues.

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## Datasets

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# Annex 2: Consumer survey

## Introduction

In order to map e-commerce flows both between EU MS and between the EU and third countries, Deloitte and Ipsos conducted a consumer survey in 25 EU-countries<sup>110</sup>. The consumer survey could not be conducted for Cyprus, Luxembourg and Malta because their small population sizes mean that reliable panels from which to draw responses are not available. EU28 totals have been obtained using proxies for these three MSs derived from third party data.

This consumer survey is a core data gathering method of the study. Key survey outputs act as inputs for the CGE model and also form part of the analysis of the model's outputs. The consumer survey data will also be used in Lot 3 to evaluate MOSS. Its purpose is to gather information on the volume and value of cross-border B2C e-commerce trade. The data points to be gathered are set out in the ToR and include:

- ✔ Value and volume of total B2C e-commerce distance sales of goods and services;
- ✔ Value and volume of cross-border B2C e-commerce distance sales of goods and services;
- ✔ Value and volume split between goods and services of cross-border B2C e-commerce distance sales;
- ✔ Breakdown of value and volume of cross-border B2C distance sales by retail category;
- ✔ Breakdown of value and volume of B2C distance sales by country of origin/destination (trade volume and value matrices);
- ✔ Value and volume of non-EU B2C e-commerce distance sales;
- ✔ Value and volume of B2C cross-border supplies of services that are not distance.

As part of the impact assessment analysis of the administrative burden in lot 1, the CGE model makes use of the consumer survey's total, cross-border and non-EU value of distances sales of goods and services at the EU aggregate level. These data points feed in as inputs into the model. For lot 2, in addition to these data points, the consumer survey's trade matrix and retail category breakdown are used in the analysis of the CGE model's outputs to obtain more granular findings, i.e. country-level impacts.

This annex is structured as follows:

- ✔ Final output for each element of the TOR is presented. This final output has been supplemented with MOSS receipts, and represent the output that feeds into the CGE model;
- ✔ The methodology for the consumer survey is described in detail, covering the design of the questionnaire, a discussion on selected summary statistics of the consumer survey, the calculations applied to aggregate raw output, and the calculation of the benchmarks used to validate the consumer survey output;

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<sup>110</sup> Excluding Cyprus, Luxembourg and Malta.

- ✔ The consumer survey output, i.e. the output that has not been supplemented with MOSS receipts is compared with third party benchmarks in order to validate the results.

## **Final output of consumer survey updated with MOSS receipts**

This section presents the final output for each element of the ToR. As discussed above, where available, the consumer survey was supplemented with data from tax authorities. In particular, the European Commission was able to provide data on digital services collected by tax authorities through MOSS. As this data represents actual VAT receipts, this data is considered more reliable. Therefore, data on cross-border B2C spend on digital services was replaced by these figures. The table and figures below cover the following:

- ✔ Value and volume of total B2C e-commerce distance sales of goods and services;
- ✔ Value and volume of cross-border B2C e-commerce distance sales of goods and services;
- ✔ Value and volume split between goods and services of cross-border B2C e-commerce distance sales;
- ✔ Breakdown of value and volume of cross-border B2C distance sales by retail category;
- ✔ Breakdown of value and volume of B2C distance sales by country of origin/destination (trade volume and value matrices);
- ✔ Value and volume of non-EU B2C e-commerce distance sales;
- ✔ Value and volume of B2C cross-border supplies of services that are not distance.

Table 15 - Value and volume of overall B2C e-commerce distance sales of goods and services

Destination country	Total online spend, in € m.	Total number of transactions, in m.
Austria	10,888	258
Belgium	10,788	234
Bulgaria	1,986	103
Croatia	1,089	61
Cyprus	1,194	14
Czech Republic	6,102	223
Denmark	9,595	230
Estonia	687	33
Finland	6,148	126
France	76,722	1,652
Germany	136,302	3,612
Greece	5,697	274
Hungary	2,471	210
Ireland	5,771	230
Italy	29,411	955
Latvia	798	47
Lithuania	1,076	49
Luxembourg	720	24
Malta	323	12
Netherlands	19,203	446
Poland	18,070	803
Portugal	3,778	113
Romania	3,127	147
Slovakia	3,294	152
Slovenia	1,228	38
Spain	22,756	950
Sweden	15,312	277
United Kingdom	145,149	3,798
<b>EU28</b>	<b>539,686</b>	<b>15,070</b>

Source: Deloitte/Ipsos consumer survey, 2015; Deloitte analysis on European Commission (2015)



Table 16 - Value and volume of cross-border B2C distance sales of goods and services

Destination country	Total online spend, in € m.	Total number of transactions, in m.
Austria	5,072	123
Belgium	4,565	121
Bulgaria	900	25
Croatia	397	22
Cyprus	993	8
Czech Republic	817	27
Denmark	2,907	78
Estonia	258	12
Finland	2,365	55
France	14,291	322
Germany	14,592	468
Greece	2,674	182
Hungary	509	24
Ireland	2,213	90
Italy	7,032	329
Latvia	295	17
Lithuania	302	18
Luxembourg	555	13
Malta	299	6
Netherlands	3,494	81
Poland	1,525	68
Portugal	1,048	38
Romania	390	10
Slovakia	782	33
Slovenia	421	13
Spain	6,971	421
Sweden	4,000	66
United Kingdom	17,175	421
<b>EU28</b>	<b>96,840</b>	<b>3,090</b>

Source: Deloitte/Ipsos consumer survey, 2015; Deloitte analysis on European Commission (2015)

Table 17 - Goods and services split in value of cross-border B2C e-commerce spending, in € m.

Country	Total cross-border online spend on goods,	Total cross-border online spend services,	% of cross-border spend on goods in total cross-border spend	% of cross-border spend on services in total cross-border spend
Austria	2,823	2,249	56%	44%
Belgium	2,159	2,406	47%	53%
Bulgaria	732	168	81%	19%
Croatia	254	143	64%	36%
Cyprus	602	390	61%	39%
Czech Republic	419	398	51%	49%
Denmark	1,309	1,598	45%	55%
Estonia	175	83	68%	32%
Finland	1,279	1,086	54%	46%
France	6,373	7,917	45%	55%
Germany	5,911	8,681	41%	59%
Greece	1,927	747	72%	28%
Hungary	260	249	51%	49%
Ireland	1,250	963	56%	44%
Italy	3,992	3,040	57%	43%
Latvia	231	63	78%	22%
Lithuania	186	116	62%	38%
Luxembourg	329	226	59%	41%
Malta	175	124	59%	41%
Netherlands	1,293	2,202	37%	63%
Poland	861	664	56%	44%
Portugal	591	457	56%	44%
Romania	255	135	65%	35%
Slovakia	522	260	67%	33%
Slovenia	278	143	66%	34%
Spain	4,628	2,343	66%	34%
Sweden	1,494	2,506	37%	63%
United Kingdom	6,669	10,507	39%	61%
<b>EU28</b>	<b>46,976</b>	<b>49,865</b>	<b>49%</b>	<b>51%</b>

Source: Deloitte/Ipsos consumer survey, 2015; Deloitte analysis on European Commission (2015)

Table 18 – Goods and services split of the volume of cross-border B2C distance transactions

Country	Total cross-border online transactions of goods, in m.	Total cross-border online transactions of services, in m.	% of cross-border transactions of goods in total cross-border transactions	% of cross-border transactions of services in total cross-border transactions
Austria	94	29	76%	24%
Belgium	97	24	80%	20%
Bulgaria	20	5	80%	20%
Croatia	18	4	81%	19%
Cyprus	6	2	75%	25%
Czech Republic	22	4	84%	16%
Denmark	58	19	75%	25%
Estonia	9	2	80%	20%
Finland	43	12	78%	22%
France	260	62	81%	19%
Germany	371	98	79%	21%
Greece	147	35	81%	19%
Hungary	20	4	83%	17%
Ireland	70	20	78%	22%
Italy	266	64	81%	19%
Latvia	14	3	83%	17%
Lithuania	15	3	82%	18%
Luxembourg	10	3	75%	25%
Malta	5	2	75%	25%
Netherlands	63	17	78%	22%
Poland	57	12	83%	17%
Portugal	31	7	82%	18%
Romania	8	2	84%	16%
Slovakia	28	5	84%	16%
Slovenia	10	3	78%	22%
Spain	343	78	82%	18%
Sweden	50	16	76%	24%
UK	349	72	83%	17%
<b>EU28</b>	<b>2,484</b>	<b>606</b>	<b>80%</b>	<b>20%</b>

Source: Deloitte/Ipsos consumer survey, 2015

Table 19 - Breakdown of cross-border distance sales of goods and services by retail category

	Groceries & essentials	Health & beauty	Clothing, etc. <sup>111</sup>	Sports, etc. <sup>112</sup>	Electronics	Digital services	Entertainment	Toys, etc. <sup>113</sup>	Children & baby	Home & garden	Car, etc. <sup>114</sup>	Events	Holiday & travel	Any other
<b>Austria</b>	3.4%	5.7%	8.3%	4.2%	8.6%	11.5%	5.1%	3.7%	1.8%	3.6%	7.1%	4.6%	28.3%	4.3%
<b>Belgium</b>	5.1%	4.7%	8.1%	2.4%	6.8%	12.9%	5.2%	4.7%	0.9%	2.2%	3.2%	3.4%	36.3%	4.1%
<b>Bulgaria</b>	3.2%	5.0%	9.4%	3.8%	9.5%	4.0%	1.7%	3.2%	1.5%	2.8%	39.0%	4.3%	10.4%	2.4%
<b>Croatia</b>	4.0%	5.7%	12.1%	7.2%	11.2%	7.9%	3.8%	4.8%	1.7%	3.1%	6.5%	3.6%	24.5%	3.8%
<b>Cyprus</b>	11.8%	4.7%	9.1%	3.2%	8.9%	2.7%	4.3%	3.4%	1.4%	3.7%	6.1%	5.5%	31.1%	4.2%
<b>CZ</b>	3.7%	8.2%	9.2%	4.6%	8.3%	29.9%	2.4%	3.9%	1.6%	1.8%	4.8%	2.7%	16.1%	2.8%
<b>Denmark</b>	5.4%	4.8%	6.7%	4.0%	5.9%	22.1%	3.4%	2.7%	0.7%	2.1%	6.1%	3.9%	29.0%	3.3%
<b>Estonia</b>	4.0%	5.9%	15.1%	7.2%	11.8%	9.1%	3.9%	4.3%	1.3%	2.7%	6.0%	3.6%	19.6%	5.6%
<b>Finland</b>	3.2%	5.2%	6.7%	3.0%	6.0%	12.0%	4.9%	2.9%	1.1%	1.7%	15.9%	2.2%	31.7%	3.5%
<b>France</b>	3.8%	2.8%	7.1%	1.1%	7.1%	21.7%	3.7%	5.3%	0.3%	2.6%	6.8%	1.5%	32.2%	4.0%
<b>Germany</b>	5.9%	5.8%	4.4%	2.9%	5.6%	33.8%	3.2%	3.1%	1.7%	2.8%	2.4%	3.3%	22.4%	2.7%
<b>Greece</b>	3.4%	7.9%	13.0%	6.7%	18.1%	4.6%	3.8%	4.8%	2.4%	3.6%	5.0%	3.9%	19.4%	3.5%
<b>Hungary</b>	2.7%	4.3%	7.2%	3.2%	11.9%	32.5%	2.4%	4.4%	1.7%	3.2%	6.7%	1.3%	15.2%	3.4%

<sup>111</sup> Clothing, children and baby clothing, footwear, accessories

<sup>112</sup> Sports, fitness, and outdoors

<sup>113</sup> Toys, hobbies and collectibles

<sup>114</sup> Car, motorcycle and bicycle

<b>Ireland</b>	4.5%	5.5%	8.5%	4.2%	7.6%	13.1%	5.0%	4.9%	2.5%	2.7%	8.0%	5.2%	25.2%	3.2%
<b>Italy</b>	4.6%	7.9%	7.5%	4.4%	9.5%	19.7%	3.3%	4.0%	2.9%	3.6%	4.5%	4.9%	18.6%	4.5%
<b>Latvia</b>	9.5%	8.3%	14.9%	6.0%	12.3%	8.3%	3.2%	4.6%	2.0%	4.7%	8.6%	3.4%	9.8%	4.4%
<b>LT</b>	4.4%	6.6%	9.3%	4.2%	9.6%	9.3%	2.9%	3.9%	1.8%	4.5%	10.9%	4.3%	24.8%	3.5%
<b>LX</b>	11.5%	4.6%	8.9%	3.1%	8.7%	4.8%	4.2%	3.3%	1.3%	3.7%	5.9%	5.4%	30.4%	4.1%
<b>Malta</b>	11.4%	4.5%	8.8%	3.0%	8.6%	6.0%	4.2%	3.3%	1.3%	3.6%	5.9%	5.3%	30.1%	4.0%
<b>NL</b>	1.7%	3.5%	9.0%	2.3%	6.0%	28.5%	4.5%	4.0%	0.4%	1.3%	2.0%	2.4%	32.2%	2.2%
<b>Poland</b>	4.6%	5.2%	5.0%	5.4%	9.7%	21.7%	2.7%	4.7%	2.2%	6.9%	6.2%	3.0%	18.9%	4.0%
<b>PT</b>	2.8%	5.1%	10.3%	4.4%	13.2%	14.3%	3.2%	3.4%	1.5%	2.7%	5.1%	2.1%	27.3%	4.6%
<b>RO</b>	3.9%	5.2%	8.4%	4.5%	8.4%	22.5%	4.1%	2.4%	4.1%	3.0%	16.9%	2.3%	9.8%	4.5%
<b>SK</b>	6.7%	7.5%	13.6%	6.0%	9.5%	12.8%	2.0%	4.2%	1.5%	6.1%	6.5%	2.7%	17.7%	3.4%
<b>SL</b>	3.4%	5.1%	9.2%	7.5%	9.4%	5.2%	2.3%	4.5%	2.6%	4.5%	12.5%	2.9%	25.9%	5.0%
<b>Spain</b>	8.9%	10.2%	7.3%	5.9%	9.1%	12.7%	5.6%	4.5%	2.2%	4.0%	3.9%	4.4%	16.6%	4.8%
<b>Sweden</b>	3.7%	4.6%	6.2%	3.7%	4.6%	22.1%	2.7%	2.9%	0.8%	1.7%	4.4%	3.5%	37.1%	2.0%
<b>UK</b>	4.0%	4.2%	5.1%	2.2%	4.2%	31.4%	5.1%	4.7%	1.4%	2.2%	2.8%	3.5%	26.3%	2.9%
<b>EU28</b>	<b>4.8%</b>	<b>5.4%</b>	<b>6.9%</b>	<b>3.2%</b>	<b>7.1%</b>	<b>22.1%</b>	<b>4.1%</b>	<b>4.2%</b>	<b>1.4%</b>	<b>2.8%</b>	<b>5.1%</b>	<b>3.4%</b>	<b>26.0%</b>	<b>3.5%</b>

Source: Deloitte/Ipsos consumer survey, 2015; Deloitte analysis on European Commission (2015)

Figure 18 - B2C e-commerce bilateral trade value share matrix – proportions of destination country spending by origin country

Origin \ Destination		AT	BE	BG	CR	CY	CZ	DK	EE	FI	FR	DE	EL	HU	IE	IT	LV	LT	LX	MT	NL	PL	PT	RO	SK	SI	ES	SE	UK	Other Europe	Non-Europe	% of EU28 total
AT		53.42%	0.13%	0.13%	0.67%	0.04%	0.42%	0.04%	0.02%	0.07%	0.21%	31.83%	0.14%	0.13%	0.45%	2.60%	0.00%	0.00%	1.60%	0.03%	0.64%	0.07%	0.03%	0.03%	0.14%	0.13%	0.14%	0.17%	1.58%	2.89%	2.25%	2.02%
BE		0.64%	57.67%	0.04%	0.02%	0.03%	0.09%	0.04%	0.00%	0.04%	11.14%	3.69%	0.51%	0.28%	1.05%	0.53%	0.01%	0.00%	2.17%	0.01%	8.06%	0.14%	0.19%	0.06%	0.04%	0.01%	0.90%	0.04%	2.98%	2.19%	7.37%	2.00%
BG		0.99%	0.16%	54.65%	0.04%	0.61%	0.14%	0.03%	0.00%	0.03%	1.04%	3.66%	1.20%	0.12%	0.43%	17.98%	0.00%	0.00%	0.53%	0.38%	0.10%	0.21%	0.01%	1.15%	0.07%	0.07%	0.23%	0.11%	6.76%	0.81%	8.45%	0.37%
CR		2.34%	0.06%	0.03%	63.17%	0.09%	0.89%	0.07%	0.02%	0.05%	0.62%	4.04%	0.17%	0.52%	0.80%	1.88%	0.00%	0.01%	0.50%	0.07%	0.14%	0.46%	0.03%	0.04%	0.17%	1.71%	0.23%	0.08%	5.10%	1.35%	15.35%	0.20%
CY		0.00%	0.73%	0.07%	0.00%	16.89%	0.00%	0.08%	0.00%	0.11%	4.65%	4.37%	5.77%	0.00%	0.44%	1.41%	0.00%	0.34%	0.00%	0.12%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.43%	0.23%	31.67%	0.11%	32.57%	0.22%
CZ		1.79%	0.05%	0.13%	0.83%	0.36%	86.59%	0.00%	0.00%	0.00%	0.22%	1.01%	0.13%	0.08%	0.43%	0.32%	0.00%	0.00%	2.18%	0.00%	0.24%	0.27%	0.01%	0.01%	0.41%	0.02%	0.23%	0.05%	0.58%	0.27%	3.78%	1.13%
DK		1.02%	0.13%	0.21%	0.18%	0.07%	0.22%	69.68%	0.04%	0.04%	1.36%	5.71%	0.17%	0.01%	1.21%	0.23%	0.01%	0.00%	2.44%	0.12%	0.80%	0.16%	0.20%	0.00%	0.01%	0.00%	1.35%	2.66%	6.15%	0.96%	4.86%	1.78%
EE		0.24%	1.05%	0.16%	0.40%	1.95%	0.35%	0.16%	62.54%	1.82%	0.42%	4.91%	0.14%	0.26%	0.30%	0.59%	1.42%	1.09%	0.70%	0.00%	0.53%	0.89%	0.08%	0.00%	0.07%	0.03%	0.10%	0.65%	6.68%	1.26%	11.17%	0.13%
FI		0.84%	0.13%	0.16%	0.37%	0.76%	1.32%	0.32%	1.81%	61.54%	0.70%	7.27%	0.36%	0.09%	0.76%	0.42%	0.13%	0.65%	1.42%	0.13%	0.42%	0.23%	0.49%	0.00%	0.03%	0.04%	1.09%	4.36%	5.62%	1.09%	7.85%	1.14%
FR		0.01%	4.85%	0.00%	0.00%	0.47%	0.65%	0.68%	0.00%	0.00%	61.37%	1.66%	0.04%	0.00%	0.64%	0.36%	0.00%	0.02%	1.79%	0.25%	0.31%	0.13%	0.38%	0.00%	0.00%	0.00%	0.55%	0.16%	1.77%	0.51%	3.76%	14.22%
DE		1.04%	0.16%	0.06%	0.08%	0.06%	0.06%	0.12%	0.00%	0.73%	0.35%	89.29%	0.06%	0.02%	0.48%	0.40%	0.01%	0.00%	1.77%	0.21%	0.50%	0.12%	0.02%	0.01%	0.04%	0.04%	0.30%	0.04%	1.73%	1.00%	1.28%	25.26%
EL		1.02%	0.22%	0.87%	0.05%	1.55%	0.03%	0.28%	0.02%	0.01%	1.45%	3.94%	53.06%	0.00%	0.00%	2.53%	0.00%	0.15%	0.15%	0.03%	0.49%	0.08%	0.30%	0.19%	0.05%	0.00%	0.48%	0.08%	11.85%	3.73%	17.31%	1.06%
HU		2.26%	0.06%	0.07%	0.86%	0.22%	0.33%	0.16%	0.00%	0.00%	0.44%	2.07%	0.06%	79.27%	0.59%	0.42%	0.00%	0.14%	4.02%	0.13%	0.13%	0.11%	0.00%	0.37%	0.62%	0.03%	0.03%	0.07%	2.40%	0.72%	4.36%	0.46%
IE		0.09%	0.22%	0.08%	0.08%	1.23%	0.11%	0.24%	0.05%	0.53%	0.93%	1.95%	0.28%	0.08%	61.00%	0.54%	0.15%	0.53%	1.78%	0.24%	0.92%	2.19%	0.28%	0.06%	0.11%	0.02%	0.63%	0.26%	18.79%	1.06%	5.60%	1.07%
IT		1.37%	0.23%	0.19%	0.45%	0.29%	0.29%	0.20%	0.01%	0.03%	2.42%	4.91%	0.14%	0.11%	1.01%	76.08%	0.08%	0.03%	1.69%	0.13%	0.75%	0.08%	0.07%	0.22%	0.15%	0.05%	1.07%	0.03%	3.46%	0.99%	3.49%	5.45%
LV		0.13%	0.08%	0.03%	0.08%	0.06%	0.14%	0.86%	0.62%	0.27%	0.19%	4.33%	0.17%	0.11%	0.41%	63.09%	2.10%	0.92%	0.03%	0.42%	1.98%	0.03%	0.00%	0.01%	0.11%	0.99%	4.31%	6.11%	1.40%	10.57%	0.15%	
LT		0.12%	0.10%	0.10%	0.21%	0.16%	0.07%	0.10%	0.13%	0.04%	0.78%	4.16%	0.14%	0.03%	0.40%	0.40%	0.57%	71.85%	0.50%	0.23%	0.42%	0.75%	0.06%	0.02%	0.05%	0.18%	0.27%	0.28%	6.79%	1.79%	9.22%	0.23%
LX		1.55%	6.65%	0.04%	0.00%	0.00%	0.05%	0.64%	0.00%	0.02%	17.64%	33.62%	0.02%	0.00%	1.13%	1.46%	0.03%	0.00%	22.92%	0.03%	1.12%	0.18%	0.37%	0.00%	0.00%	0.06%	0.37%	0.15%	6.32%	5.62%	0.00%	0.13%
MT		0.29%	0.19%	0.09%	0.00%	0.11%	0.00%	0.02%	0.00%	0.00%	1.09%	3.16%	0.01%	0.00%	1.40%	3.32%	0.00%	0.00%	0.76%	7.54%	0.47%	0.04%	0.00%	0.00%	0.00%	0.00%	0.08%	0.06%	50.62%	0.00%	30.72%	0.66%
NL		0.44%	0.88%	0.00%	0.00%	0.04%	0.01%	0.12%	0.01%	0.00%	0.74%	3.19%	0.12%	0.01%	0.72%	0.25%	0.01%	0.00%	2.94%	0.02%	61.72%	0.15%	0.04%	0.00%	0.00%	0.00%	0.26%	0.06%	1.70%	0.55%	6.02%	3.58%
PL		0.16%	0.04%	0.05%	0.23%	0.55%	0.60%	0.28%	0.01%	0.01%	0.24%	1.95%	0.17%	0.01%	0.25%	0.18%	0.09%	0.08%	0.53%	0.23%	0.37%	91.56%	0.11%	0.07%	0.08%	0.01%	0.48%	0.46%	0.69%	0.33%	0.99%	3.35%
PT		0.12%	0.43%	0.01%	0.02%	0.03%	0.02%	0.08%	0.01%	0.00%	2.78%	2.36%	0.23%	0.02%	0.48%	0.53%	0.00%	0.02%	1.04%	0.03%	0.24%	0.14%	71.91%	0.00%	0.00%	0.00%	5.49%	0.02%	4.98%	1.17%	7.90%	0.70%
RO		0.42%	0.08%	0.29%	0.12%	0.17%	0.01%	0.17%	0.00%	0.00%	1.08%	1.45%	0.18%	0.65%	0.45%	0.74%	0.00%	0.03%	0.76%	0.11%	0.58%	0.05%	0.01%	87.44%	0.00%	0.46%	0.02%	1.20%	0.37%	3.12%	0.58%	
SK		1.60%	0.06%	0.10%	0.34%	0.09%	6.32%	0.00%	0.00%	0.02%	0.28%	1.36%	0.04%	0.81%	0.24%	0.32%	0.00%	0.00%	1.78%	0.00%	0.11%	0.94%	0.01%	0.00%	76.28%	0.03%	0.10%	0.08%	2.89%	1.55%	4.69%	0.61%
SI		6.92%	0.16%	0.05%	2.16%	0.06%	0.18%	0.09%	0.00%	0.14%	0.34%	6.54%	0.12%	0.21%	0.30%	1.29%	0.04%	0.01%	0.42%	0.05%	0.25%	0.26%	0.10%	0.01%	0.04%	65.33%	0.32%	0.29%	4.35%	0.97%	8.98%	0.23%
ES		0.04%	0.74%	0.12%	0.14%	0.03%	0.02%	0.34%	0.12%	0.02%	2.79%	3.41%	0.30%	0.04%	0.86%	1.57%	0.00%	0.02%	1.08%	0.04%	0.67%	0.13%	0.28%	1.24%	0.00%	0.01%	69.37%	0.18%	5.24%	1.48%	9.72%	4.22%
SE		0.58%	0.04%	0.46%	0.44%	0.54%	0.13%	0.67%	0.04%	0.24%	0.57%	2.89%	0.33%	0.08%	1.14%	0.46%	0.85%	0.01%	2.14%	0.16%	0.34%	0.10%	0.42%	0.55%	0.00%	0.08%	0.88%	73.87%	3.05%	1.25%	7.70%	2.84%
UK		0.02%	0.04%	0.00%	0.03%	0.02%	0.10%	0.03%	0.00%	0.02%	0.59%	0.96%	0.04%	0.19%	0.61%	0.42%	0.00%	0.02%	2.55%	0.10%	0.09%	0.23%	0.22%	0.01%	0.04%	0.00%	0.78%	0.04%	88.17%	0.97%	3.73%	26.50%
<b>Total (EU28)</b>		1.58%	2.08%	0.27%	0.25%	0.22%	1.15%	1.48%	0.11%	0.91%	12.47%	24.03%	0.68%	0.45%	1.27%	4.71%	0.13%	0.17%	1.97%	0.15%	3.41%	3.25%	0.68%	0.60%	0.51%	0.17%	3.52%	2.29%	25.83%	1.00%	3.92%	100.00%

Key  
 Proportions greater than 5%  
 Proportions between 2% and 5%

Source: Deloitte/Ipsos consumer survey, 2015; Deloitte analysis on European Commission (2015)

Figure 19 - B2C e-commerce bilateral trade volume share matrix - proportion of destination country transactions by origin country

		Origin v																													% of EU28 total		
Destination >		AT	BE	BG	CR	CY	CZ	DK	EE	FI	FR	DE	EL	HU	IE	IT	LV	LT	LX	MT	NL	PL	PT	RO	SK	SI	ES	SE	UK	Other Europe		Non-Europe	
AT		52.52%	0.19%	0.35%	0.36%	0.01%	0.44%	0.05%	0.02%	0.16%	0.29%	34.81%	0.04%	0.18%	0.08%	1.18%	0.02%	0.03%	0.36%	0.11%	0.68%	0.10%	0.02%	0.03%	0.25%	0.13%	0.18%	0.20%	2.53%	1.62%	3.04%	1.71%	
BE		0.53%	48.24%	0.35%	0.37%	0.24%	0.05%	0.19%	0.00%	0.07%	15.41%	5.71%	0.18%	0.27%	0.31%	0.90%	0.03%	0.00%	0.68%	0.08%	12.70%	0.23%	0.04%	0.06%	0.14%	0.00%	0.82%	0.05%	4.34%	1.44%	6.59%	1.55%	
BG		0.40%	0.06%	75.53%	0.04%	0.21%	0.08%	0.03%	0.02%	0.08%	0.66%	2.37%	0.75%	0.18%	0.15%	0.77%	0.06%	0.06%	0.04%	0.09%	0.08%	0.30%	0.00%	0.91%	0.09%	0.08%	0.44%	0.15%	6.47%	0.88%	9.00%	0.68%	
CR		1.41%	0.07%	0.02%	64.10%	0.01%	0.20%	0.07%	0.04%	0.03%	0.38%	4.02%	0.03%	0.34%	0.13%	0.92%	0.00%	0.00%	0.01%	0.00%	0.14%	0.26%	0.02%	0.08%	0.09%	1.43%	0.18%	0.06%	5.48%	0.84%	18.67%	0.41%	
CY		0.00%	0.49%	0.04%	0.00%	44.81%	0.00%	0.06%	0.00%	0.07%	3.09%	2.90%	3.83%	0.00%	0.29%	0.94%	0.00%	0.23%	0.00%	0.08%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.29%	0.16%	21.03%	0.07%	21.63%	0.09%	
CZ		0.38%	0.04%	0.04%	0.17%	0.04%	88.14%	0.03%	0.00%	0.00%	0.06%	0.79%	0.02%	0.13%	0.02%	0.18%	0.00%	0.00%	0.00%	0.00%	0.00%	0.46%	0.01%	0.01%	0.54%	0.00%	0.19%	0.02%	0.83%	0.09%	7.74%	1.48%	
DK		1.00%	0.38%	0.14%	0.08%	0.05%	0.18%	66.37%	0.18%	0.23%	0.72%	4.94%	0.05%	0.16%	0.25%	0.23%	0.56%	0.01%	0.24%	0.41%	0.71%	0.39%	0.02%	0.15%	0.08%	0.03%	0.47%	3.39%	8.42%	1.12%	9.11%	1.53%	
EE		0.12%	0.35%	0.47%	0.10%	0.19%	0.15%	64.68%	1.13%	0.37%	3.48%	0.08%	0.08%	0.13%	0.36%	0.81%	0.46%	0.11%	0.01%	0.36%	0.92%	0.10%	0.00%	0.04%	0.06%	0.20%	0.57%	7.17%	1.20%	15.95%	0.22%		
FI		1.15%	0.57%	0.35%	1.05%	0.16%	0.79%	0.17%	2.63%	56.45%	0.48%	7.00%	0.05%	0.30%	0.49%	0.39%	0.12%	0.05%	0.13%	0.10%	0.76%	0.39%	0.44%	0.01%	0.00%	0.03%	0.60%	4.92%	6.59%	1.32%	12.53%	0.83%	
FR		0.00%	1.95%	0.00%	0.00%	0.32%	0.03%	0.24%	0.00%	0.00%	80.51%	4.05%	0.03%	0.01%	0.12%	0.46%	0.00%	0.06%	0.18%	0.25%	0.47%	0.31%	0.13%	0.00%	0.00%	0.00%	0.75%	0.06%	4.10%	0.66%	5.30%	10.96%	
DE		1.89%	0.23%	0.06%	0.23%	0.01%	0.12%	0.66%	0.03%	0.25%	8.83%	87.03%	0.05%	0.14%	0.18%	0.61%	0.02%	0.00%	0.31%	0.02%	0.00%	0.74%	0.14%	0.02%	0.00%	0.11%	0.10%	0.07%	0.00%	1.72%	2.65%	23.97%	
EL		0.96%	0.46%	1.70%	0.09%	1.48%	0.04%	0.10%	0.04%	0.02%	1.39%	5.06%	33.45%	0.02%	0.11%	2.22%	0.03%	0.14%	0.36%	0.01%	0.75%	0.10%	0.27%	0.45%	0.02%	0.00%	0.64%	0.09%	16.74%	3.61%	29.65%	1.82%	
HU		0.93%	0.01%	0.01%	0.21%	0.01%	0.14%	0.09%	0.00%	0.00%	0.13%	1.11%	0.02%	88.56%	0.05%	0.13%	0.00%	0.00%	0.05%	0.00%	0.09%	0.11%	0.00%	0.25%	0.41%	0.01%	0.03%	0.02%	1.75%	0.26%	5.60%	1.39%	
IE		0.32%	0.37%	0.16%	0.19%	0.15%	0.14%	0.11%	0.27%	0.07%	0.64%	2.20%	0.19%	0.08%	60.82%	0.57%	0.17%	0.23%	0.10%	0.11%	0.59%	1.54%	0.15%	0.06%	0.23%	0.01%	0.41%	0.24%	20.73%	1.38%	7.80%	1.53%	
IT		1.30%	0.46%	0.38%	0.41%	0.16%	0.45%	0.16%	0.03%	0.18%	2.93%	7.16%	0.22%	0.26%	0.84%	65.53%	0.18%	0.16%	0.39%	0.27%	0.40%	0.29%	0.23%	0.44%	0.10%	0.24%	2.07%	0.02%	7.24%	1.26%	6.21%	6.34%	
LV		0.25%	0.06%	0.00%	0.15%	0.10%	0.04%	0.40%	1.00%	0.31%	0.16%	3.16%	0.10%	0.01%	0.37%	0.37%	62.96%	2.12%	0.00%	0.00%	0.20%	1.89%	0.11%	0.01%	0.00%	0.22%	0.07%	7.11%	1.68%	16.57%	0.31%		
LT		0.29%	0.43%	0.37%	0.06%	0.14%	0.06%	0.10%	0.19%	0.04%	0.87%	3.10%	0.23%	0.01%	0.21%	0.63%	0.73%	62.62%	0.03%	0.05%	0.25%	1.62%	0.04%	0.13%	0.01%	0.15%	0.18%	0.13%	8.37%	1.52%	17.45%	0.32%	
LX		1.09%	4.70%	0.02%	0.00%	0.00%	0.04%	0.45%	0.00%	0.01%	12.38%	23.61%	0.02%	0.00%	0.55%	1.03%	0.02%	0.00%	45.56%	0.00%	0.80%	0.13%	0.26%	0.00%	0.00%	0.04%	0.26%	0.07%	4.30%	3.66%	0.00%	0.16%	
MT		0.17%	0.11%	0.04%	0.00%	0.06%	0.00%	0.01%	0.00%	0.00%	0.61%	1.84%	0.01%	0.00%	0.53%	2.04%	0.00%	0.00%	0.00%	45.13%	0.24%	0.02%	0.00%	0.00%	0.00%	0.03%	0.00%	30.93%	0.00%	18.24%	0.08%		
NL		0.75%	1.78%	0.00%	0.00%	0.00%	0.03%	0.24%	0.00%	0.00%	0.72%	4.03%	0.02%	0.07%	0.27%	0.05%	0.03%	0.02%	0.04%	81.68%	0.10%	0.05%	0.00%	0.00%	0.00%	0.34%	0.08%	2.98%	0.58%	6.54%	2.96%		
PL		0.29%	0.02%	0.19%	0.28%	0.15%	0.61%	0.10%	0.13%	0.01%	0.40%	1.60%	0.19%	0.01%	0.01%	0.15%	0.23%	0.18%	0.04%	0.03%	0.09%	0.36%	91.48%	0.14%	0.09%	0.19%	0.02%	0.30%	0.20%	1.01%	0.22%	1.43%	5.33%
PT		0.20%	0.56%	0.01%	0.07%	0.00%	0.03%	0.09%	0.01%	0.00%	2.03%	2.79%	0.11%	0.00%	0.10%	0.52%	0.01%	0.04%	0.04%	0.01%	0.28%	0.34%	66.50%	0.00%	0.00%	0.00%	5.42%	0.00%	6.08%	1.37%	13.40%	0.75%	
RO		0.25%	0.12%	0.22%	0.02%	0.06%	0.01%	0.11%	0.00%	0.05%	0.50%	0.82%	0.04%	0.32%	0.00%	0.40%	0.00%	0.02%	0.05%	0.00%	0.25%	0.06%	0.01%	93.20%	0.05%	0.01%	0.34%	0.01%	0.98%	0.25%	1.85%	0.97%	
SK		1.06%	0.04%	0.02%	0.07%	0.01%	5.79%	0.00%	0.00%	0.14%	0.15%	1.11%	0.06%	0.62%	0.02%	0.07%	0.00%	0.00%	0.00%	0.01%	0.10%	0.60%	0.01%	0.00%	0.00%	78.12%	0.02%	0.09%	0.13%	2.23%	0.36%	9.20%	1.01%
SI		3.04%	0.15%	0.06%	1.22%	0.11%	0.16%	0.14%	0.01%	0.09%	0.31%	5.66%	0.03%	0.15%	0.23%	1.12%	0.06%	0.01%	0.03%	0.01%	0.25%	0.23%	0.04%	0.03%	0.09%	65.07%	0.44%	0.34%	5.28%	0.68%	14.75%	0.25%	
ES		0.10%	1.10%	0.11%	0.27%	0.17%	0.04%	0.30%	0.19%	0.12%	3.84%	4.68%	0.29%	0.04%	0.43%	1.75%	0.00%	0.01%	0.31%	0.01%	0.61%	0.03%	0.70%	0.25%	0.00%	0.09%	55.66%	0.23%	7.84%	2.17%	18.67%	6.30%	
SE		0.35%	0.15%	0.06%	0.38%	0.09%	0.20%	1.38%	0.11%	0.42%	0.47%	3.27%	0.14%	0.08%	0.33%	0.43%	0.22%	0.01%	0.06%	0.18%	0.31%	0.04%	0.05%	0.43%	0.00%	0.01%	0.27%	76.37%	4.33%	1.23%	8.65%	1.84%	
UK		0.21%	0.29%	0.15%	0.00%	0.15%	0.25%	0.17%	0.16%	0.15%	0.40%	0.90%	0.05%	0.11%	0.25%	0.18%	0.00%	0.10%	0.34%	0.01%	0.21%	0.28%	0.20%	0.01%	0.15%	0.00%	0.21%	0.05%	88.92%	1.50%	4.59%	25.20%	
Total (EU28)		1.65%	1.31%	0.66%	0.42%	0.19%	1.55%	1.32%	0.24%	0.61%	9.96%	23.68%	0.70%	1.35%	1.16%	4.66%	0.24%	0.27%	0.33%	0.11%	3.05%	5.11%	0.65%	0.99%	0.89%	0.22%	3.93%	1.58%	25.62%	1.34%	6.19%	100.00%	

Key  
 Proportions greater than 5%  
 Proportions between 2% and 5%

Source: Deloitte/Ipsos consumer survey, 2015; Deloitte analysis on European Commission (2015)

Table 20 - Value of B2C e-commerce distance supplies from non-EU countries, in € m.

Country	Other Europe	Non-European	Total non-EU
Austria	315	245	560
Belgium	236	796	1,032
Bulgaria	16	168	184
Croatia	15	167	182
Cyprus	1	389	390
Czech Republic	16	231	247
Denmark	92	467	559
Estonia	9	77	85
Finland	67	483	550
France	390	2,883	3,274
Germany	1,361	1,745	3,105
Greece	212	986	1,198
Hungary	18	108	126
Ireland	61	323	384
Italy	292	1,026	1,318
Latvia	11	84	96
Lithuania	19	99	118
Luxembourg	40	-	40
Malta	-	99	99
Netherlands	106	1,155	1,261
Poland	59	179	238
Portugal	44	298	343
Romania	12	97	109
Slovakia	51	155	206
Slovenia	12	110	122
Spain	336	2,212	2,548
Sweden	191	1,180	1,370
United Kingdom	1,408	5,410	6,818
Total (EU28)	5,390	21,173	26,562

Source: Deloitte/Ipsos consumer survey, 2015; Deloitte analysis on European Commission (2015)



Table 21 - Volume of B2C e-commerce distance transactions from non-EU countries, in m.

Country	Other Europe	Non-European	Total non-EU
Austria	315	245	560
Belgium	236	796	1,032
Bulgaria	16	168	184
Croatia	15	167	182
Cyprus	1	389	390
Czech Republic	16	231	247
Denmark	92	467	559
Estonia	9	77	85
Finland	67	483	550
France	390	2,883	3,274
Germany	1,361	1,745	3,105
Greece	212	986	1,198
Hungary	18	108	126
Ireland	61	323	384
Italy	292	1,026	1,318
Latvia	11	84	96
Lithuania	19	99	118
Luxembourg	40	-	40
Malta	-	99	99
Netherlands	106	1,155	1,261
Poland	59	179	238
Portugal	44	298	343
Romania	12	97	109
Slovakia	51	155	206
Slovenia	12	110	122
Spain	336	2,212	2,548
Sweden	191	1,180	1,370
United Kingdom	1,408	5,410	6,818
Total (EU28)	5,390	21,173	26,562

Source: Deloitte/Ipsos consumer survey, 2015

Table 22 – Value and volume of B2C cross-border supplies of services that are not distance sales

Country	Value of non-distance sales, in € m.	Volume of non-distance sales, in m.
Austria	85.56	1.79
Belgium	184.46	3.55
Bulgaria	27.27	0.60
Croatia	18.66	0.87
Cyprus	8.22	0.07
Czech Republic	30.61	0.49
Denmark	24.84	1.39
Estonia	14.92	0.43
Finland	161.39	1.57
France	170.18	7.97
Germany	755.90	9.83
Greece	89.21	3.45
Hungary	17.19	1.14
Ireland	119.39	2.20
Italy	241.84	5.50
Latvia	35.71	1.13
Lithuania	19.09	0.77
Luxembourg	4.90	0.13
Malta	2.16	0.06
Netherlands	199.39	3.42
Poland	54.63	2.19
Portugal	34.54	1.26
Romania	33.37	0.76
Slovakia	51.00	0.93
Slovenia	16.79	0.46
Spain	410.92	7.13
Sweden	11.62	1.05
United Kingdom	837.54	20.65
<b>EU28</b>	<b>3,661.30</b>	<b>80.80</b>

Source: Deloitte/Ipsos consumer survey, 2015

## Methodology

This section describes the methodology used to calculate the consumer survey outputs. It also describes the benchmarks used and any manipulations made to make them more comparable to the consumer survey outputs.

### About the sample

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#### *Ipsos Access panel*

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The consumer survey was conducted by Ipsos. It was carried out online, using respondents from Ipsos Access panels across 25 EU countries. Ipsos' panels are actively managed Access Panels: comprised of individuals who have volunteered to take part in market research surveys; created and managed for long-term use and access; extensively profiled to target respondents. Ipsos follow procedures to ensure the validity of their panel, for example by continuously refreshing panels using a variety of sources and methods; utilizing a wide range of sample sources; and running quality checks on panellists before they are added. Further details can be found in their responses to "ESOMAR 28 questions" (<https://www.ipsos-mori.com/Assets/Docs/Techniques/ESOMAR-28-Questions.pdf>.)

#### *Sample size*

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Ipsos' panels range from 30,000-300,000 panellists per country. Surveys are sent out to thousands of panellists in order to obtain 1,000 valid responses per country, the so-called "achieved sample".

#### *Representativeness of the sample*

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To achieve a nationally representative sample, Ipsos set hard quotas in field on age, gender and region to achieve a sample that matches with the demographic profile of the whole population, not just the online population. This prevents over achieving in any age groups, regions or genders and also addresses the other inherent bias in online samples, working status. In addition, the data is weighted<sup>115</sup> to a more complex version of this nationally representative profile, again derived from population statistics for the whole population (not just online) but with interlocking targets on age, region & working status set within gender. In addition, Ipsos set a target panel of **1,000 online shoppers** in each of the Member States surveyed.

### About the questionnaire

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#### *Scripting*

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The questionnaire was scripted and hosted by Ipsos Interactive Services. The English Language script was checked and signed off by the Ipsos' project management team. In addition, the script was

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<sup>115</sup> Weighting the sample to be representative of the general population is likely to produce conservative estimates of online spend and volume.

reviewed by Deloitte. To ensure that the consumer survey was accessible to the consumers, the questionnaire was tested on an internal sample of 40 people.

### ***Translation***

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The Ipsos project team checked the translated versions of the script for questionnaire routing, while translators from their international telephone centre checked the accuracy of the language.

### ***Rationale behind questions***

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The questionnaire is designed to guide the respondent through the questions in a way that will elicit the most accurate response possible.

Respondents were first asked how frequently they buy items, and could respond with

- ✔ More than once a month;
- ✔ About once a month;
- ✔ About once every three months;
- ✔ About once every six months.
- ✔ About once a year;
- ✔ Less than once a year;
- ✔ Never;
- ✔ Don't know.

Depending on how they answered, the follow up questions about value and volume referred to a “typical month”, “typical six month period”, or a “typical year”. Responses were pooled by multiplying the typical month answers by 12, the typical six month answers by two and adding these to the typical year answers. While there are different ways in which one might ask respondents to recall past time periods, Ipsos argue that this formulation elicits the most accurate answers. This process minimised the so-called problem of “availability bias”. Moreover, “typical” time periods were asked about in order to avoid the effects of seasonality. This was particularly important as the survey was launched three months after Christmas.

Respondents were asked two questions regarding total spend: firstly about overall total spend, secondly about spend by retail category. After aggregation, the first question yielded a much lower figure than the second question. This is likely to be because confronting consumers with retail categories acts as a memory prompt, inciting respondents to recall things they did not initially. Thus, the responses to the second question should be more reliable. Ipsos have confirmed this view.

The table below maps out how each element raised in the ToR is addressed in the consumer survey questionnaire. It should be noted that the numbering of the questions reflects the numbering in the questionnaire.

Table 23 – Questions included in the consumer survey

Output as specified in the ToR	Consumer survey questions	Notes on question	Alternative source
Estimate the value of distance sales of goods and services (task 1).	Q1, Q2, Q4, Q5, Q6	Respondents are initially asked a primer question to get them in the right frame of mind: they are asked how frequently (Q1) and how much they spend online (Q2). They are then asked how frequently they purchase products from a list of retail categories (Q4). This question determines what time period respondents are asked to consider in the following two questions. It also determines which retail categories they are asked about in later questions. Finally, respondent are asked two questions to ascertain volume and value of e-commerce by retail category (Q5-6). Total volume and value is grossed up from retail categories. Total value is calculated by adding up numbers across retail categories.	Ecommerce Europe (2014) report; Civic Consulting (2011) report.
Ascertain value and volume of transactions of cross-border distance B2C supplies per MS of origin / destination (task 1).	Q7, Q7A, Q8A-C, Q11	Respondents are asked if they have purchased goods from a list of countries (Q7). This question determines which countries respondents are confronted with in the following questions. They will be asked <i>how frequently</i> they purchase products from these countries (Q7A) and how much they spend (Q8A-C).  Respondents are asked to list the websites they shop on most frequently (Q11), allowing for further analysis on where consumers are purchasing from.	Ecommerce Europe (2014) report; Civic Consulting (2011) report.
Categorise cross-border e-commerce sales of goods and services into retail categories (task 1).	Q8, Q9A-C, Q10A-C	Respondents are asked how often they spend on products from the list of retail categories determined in Q4. This question determines what time period respondents are asked to consider in Q9 and Q10. They are asked two questions to ascertain value and volume that is cross-border (Q9A-C, Q10A-C). Total value and volume is calculated by adding up numbers across retail categories.	Ecommerce Europe (2014) report; Civic Consulting (2011) report.
Estimate the value of non-EU B2C sales of	Q7, Q7A, Q8A, Q8,	The list of countries respondents are confronted with in Q7 includes the options “other Europe” and “other non-European”.	Ecommerce Europe (2014) report; Civic Consulting

goods and services (task 1).	Q9, Q10, Q11		(2011) report.
Estimate the value of other types of B2C cross-border supplies of goods / services which are not distance sales (task 1).	Q16, Q16A, Q16B	Finally, respondents are asked specifically about volume and value of non-distance sales.	
Categorise cross-border e-commerce sales of goods and services into the types of business i.e. large enterprises, micro-enterprises etc. (task 2).	Q11	Respondents are asked to list the websites they shop on most frequently (Q11). Amongst other things, the size of the underlying business can be obtained from the Mint Global Database.	Information from the consumer survey is complimented from information from Eurostat: Business demography by size; Mint Global database; interviews with postal operators
Categorise non-EU B2C sales into the types of business i.e. large enterprises, micro-enterprises etc. (task 2).	Q11	Respondents are asked to list the websites they shop on most frequently (Q11). From this list websites located outside of the EU can be identified and the size of the underlying business obtained from the Mint Global Database.	Information from the consumer survey is complimented from information from Eurostat: Business demography by size; Mint Global database; interviews with postal operators.

## Summary statistics

A selection of summary statistics by retail category were calculated for the questions on total and cross-border e-commerce spend to provide a broader understanding of the results. These summary statistics include the number of responses, mode, median, maximum, minimum, and standard deviation.

Some general observations can be made regarding these statistics:

- The mode and median are lower than the mean. This implies that the data is positively skewed, with spend concentrated around low values and a long right tail comprising high spend individuals. This is unsurprising as it is consistent with general distributions of population income and consumption spending in online shopping;
- Minimum values tend to be close to zero, ranging from EUR 0.01 to just over EUR 1 depending on the retail category and country. These values may be capturing some measurement error. However, because these small values will not have a significant impact on totals they are not a cause for concern. In addition, across retail categories, responses of less than EUR 1 make up less than 5% of the sample;
- Some maximum values are strikingly high and may be regarded as outliers. As part of the review process these potential outliers have been examined in detail.

As an additional layer of verification, the following table was constructed to provide an understanding of the magnitude of individual transaction values implied by respondents' answers. It reports the minimum and maximum spend per transaction<sup>116</sup> across countries by retail category as well as the spend per transaction for the EU25 as a whole. The table shows spend per transactions that are reasonable and plausible given the nature of the goods or services within the retail categories. For example, "Holiday & Travel" consistently exhibits a high spend per transaction which takes into account the larger costs of travel.

Table 24: Online spend per transaction by retail category, in €

	Country minimum spend per transaction	Country maximum spend per transaction	EU25
<b>Groceries &amp; essentials</b>	11.87	64.99	43.77
<b>Health &amp; beauty</b>	11.10	28.89	18.83
<b>Clothing, children &amp; baby clothing, footwear and accessories</b>	10.15	38.82	28.36
<b>Sports, fitness &amp; outdoors</b>	10.33	38.57	26.03
<b>Electronics</b>	26.17	94.60	55.85
<b>Digital services</b>	2.17	11.48	7.38
<b>Entertainment</b>	5.27	24.44	13.14
<b>Toys, hobbies,</b>	5.58	40.25	18.91

<sup>116</sup> Spend per transaction was calculated by dividing total spend by the total volume of transactions in each retail category.

<b>collectibles, art</b>			
<b>Children and baby</b>	7.48	26.43	16.21
<b>Home &amp; garden</b>	12.46	77.23	34.63
<b>Car, motorcycle, bicycle</b>	23.49	304.48	101.69
<b>Events</b>	8.12	37.43	26.01
<b>Holiday &amp; travel</b>	52.17	316.93	228.79
<b>Any other products</b>	8.85	32.04	20.58

Source: Deloitte/Ipsos consumer survey, 2015

## Outliers

As with any data collection process there is a risk that the presence of outliers may lead to erroneous conclusions. This has been addressed in a number of ways.

During the survey process itself Ipsos use an automated program to identify invalid responses by, for example, checking for patterns in the answers provided (111, 222, 333, etc.). Where these were identified, the recipient was excluded from the study and an additional person was asked to complete the survey. This was to minimise the impact of invalid answers on the sample size.

Further checks were conducted following completion of the survey. These included (but were not limited to):

- 'Eyeballing' the raw data to check for obvious outliers that may have been missed by Ipsos' automated process.
- A review of unusually high answers. These were identified by analysing the highest values for key questions in the survey (e.g. the highest two responses for retail spend in the UK). Where these were inconsistent with prior expectations, the record was flagged to Ipsos.

In respect of this last point, Ipsos has detailed background information on each of their panel respondents (i.e. income, age, household size, education, past survey history, etc.). Ipsos are also able to compare survey answers for a respondent with answers provided in previous surveys. They used this information to systematically review all answers by that individual and made a recommendation on whether to exclude them from the data set. For example, if a respondent answered with unusually high spends across retail categories, Ipsos would examine the respondent's income and previous reported expenditure to determine if the spending patterns were plausible.

Across the whole survey, Ipsos recommended the removal of 55 respondents with a maximum of 6 removed in one individual country sample. Consequently, the total number of online shoppers in each country sample can sometimes be slightly less than 1,000.



## Calculation of key outputs from the consumer survey

### Value of distance sales of goods and services

Total online distance spend by the online population is calculated by

- ☑ Extracting total online distance spend by the sample from the raw data using question 6<sup>117</sup>;
- ☑ Calculating the total spend per online shopper in the sample;
- ☑ Multiplying this by the total number of online shoppers in the population reported by Eurostat.

This is illustrated by the following worked example from Austria.<sup>118</sup> Dividing the total sample spend by the number of online shoppers in the sample (this is 1,000 in the Austria survey sample).

*Total spend per online shopper, in €:*

$$\frac{2,358,406}{997} = 2,366$$

Aggregating up to total online distance spend by the population by multiplying the total spend per online shopper in the sample by Eurostat's total number of online shoppers in the population for 2014.

*Value of online spend by the online shopping population, in €:*

$$2,366 \times 4,508,651 = 10,665,227,848$$

Table 25 - Sample spend, spend per online shopper and total spend for Austria, in €

Retail category	Sample spend,	Spend per online shopper (997 online shoppers in the sample) <sup>119</sup>	Implied total spend (4,508,651 online shoppers in population)
<b>Groceries &amp; essentials</b>	82,750	83	374,214,653
<b>Health &amp; beauty</b>	126,160	127	570,522,763
<b>Clothing, children &amp; baby clothing, footwear and accessories</b>	233,692	234	1,056,805,171
<b>Sports, fitness &amp; outdoors</b>	99,634	100	450,565,225
<b>Electronics</b>	203,150	204	918,687,243
<b>Digital services</b>	79,111	79	357,758,255
<b>Entertainment</b>	115,145	115	520,709,767
<b>Toys, hobbies, collectibles, art</b>	92,743	93	419,402,651
<b>Children and baby</b>	34,896	35	157,805,703
<b>Home &amp; garden</b>	90,529	91	409,392,729

<sup>117</sup> "In a typical month/6 month period/year, how much do you spend on each of the following products or services online?" Total online spend by the sample is calculated by adding up the figures for each retail category.

<sup>118</sup> All following worked examples are related to the Austrian survey sample.

<sup>119</sup> This average includes people who report zero spend.

<b>Car, motorcycle, bicycle</b>	160,662	161	726,547,403
<b>Events</b>	138,038	138	624,236,915
<b>Holiday &amp; travel</b>	786,697	789	3,557,617,119
<b>Any other products</b>	115,201	116	520,962,252
<b>Total</b>	2,358,406	2,366	10,665,227,848

Source: Deloitte/Ipsos survey, 2015

### **Volume of distance sales of goods and services**

The total number of online transactions made by the online shopping population is calculated by:

- ☒ Extracting total number of transactions by the sample from the raw data using question 5<sup>120</sup>;
- ☒ Dividing the number of online transactions in the sample by the number of online shoppers in the sample.

*Number of online transactions per online shopper:*

$$\frac{57090}{997} = 57$$

- ☒ Aggregating up to total number of transactions by the online shopping population by multiplying the number of transactions per online shopper in the sample by Eurostat's total number of online shoppers in the population.

*Number of online transactions made by population:*

$$57 \times 4,508,651 = 258,176,492$$

Table 26 - Sample volume, number of transactions per online shopper and total volume for Austria

<b>Retail category</b>	<b>Sample volume</b>	<b>Number of transactions per online shopper (997 online shoppers in the sample)<sup>121</sup></b>	<b>Implied total volume (4,508,651 online shoppers)</b>
<b>Groceries &amp; essentials</b>	3344	3	15,120,194
<b>Health &amp; beauty</b>	4357	4	19,701,960
<b>Clothing, children &amp; baby clothing, footwear and accessories</b>	6603	7	29,859,135
<b>Sports, fitness &amp; outdoors</b>	2688	3	12,153,526

<sup>120</sup> "In a typical month/6 months period/year, approximately how many times do you personally purchase the following products or services?" Total number of transactions by the sample is calculated by adding up the figures for each retail category.

<sup>121</sup> This average includes people who report zero transactions.

<b>Electronics</b>	3511	4	15,875,370
<b>Digital services</b>	8655	9	39,142,014
<b>Entertainment</b>	7602	8	34,379,098
<b>Toys, hobbies, collectibles, art</b>	3828	4	17,311,669
<b>Children and baby</b>	1722	2	7,785,254
<b>Home &amp; garden</b>	1947	2	8,806,214
<b>Car, motorcycle, bicycle</b>	1484	1	6,710,101
<b>Events</b>	4783	5	21,630,064
<b>Holiday &amp; travel</b>	2737	3	12,375,717
<b>Any other products</b>	3831	4	17,326,177
<b>Total</b>	57091	57	258,176,492

Source: Deloitte/Ipsos survey, 2015

### ***Value and volume of transactions of cross-border B2C distance supplies***

Total cross-border spend on distance sales by the online population is calculated by

- Extracting total cross-border online spend by the sample from the raw data using question10<sup>122</sup>;
- Dividing total cross-border sample spend by the number of cross-border online shoppers in the sample.

*Cross – border spend per cross – border online shopper, in €:*

$$\frac{1,001,583}{748} = 1,339$$

- Aggregating up to total cross-border online spend by the population by multiplying cross-border spend per cross-border shopper in the sample by Eurostat's total number of cross-border online shoppers in the population.

*Value of cross – border online spend by population, in €:*

$$1,339 \times 3,487,824 = 4,670,694,856$$

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<sup>122</sup> "In a typical month/6 months period/year, approx. how much do you spend online on each of the following products or services from another country?" Total cross-border by the sample is calculated by adding up the figures for each retail category.

Table 27 - Sample cross-border spend, cross-border spend per cross-border online shopper, and total cross-border spend for Austria, in €

Retail category	Sample cross-border spend	Cross-border spend per cross-border online shopper (748 cross-border online shoppers in the sample)	Implied total cross-border spend (3,487,824 cross-border online shoppers)
Groceries & essentials	37,233	50	173,628,785
Health & beauty	61,554	82	287,044,908
Clothing, children & baby clothing, footwear and accessories	90,240	121	420,815,198
Sports, fitness & outdoors	45,387	61	211,652,153
Electronics	93,290	125	435,039,485
Digital services	38,510	51	179,583,858
Entertainment	54,938	73	256,191,609
Toys, hobbies, collectibles, art	40,306	54	187,960,951
Children and baby	19,828	27	92,462,448
Home & garden	38,952	52	181,647,387
Car, motorcycle, bicycle	76,756	103	357,935,100
Events	49,551	66	231,073,011
Holiday & travel	308,189	412	1,437,180,198
Any other products	46,851	63	218,479,766
<b>Total</b>	<b>1,001,583</b>	<b>1,339</b>	<b>4,670,694,856</b>

Source: Deloitte/Ipsos survey, 2015

Note that cross-border spend on distance sales by the online population in each retail category is calculated following the same procedure, except that the total spends from question 10 are extracted by retail category and not summed up to an aggregate figure. Below is a calculation of the population's total cross-border spend on goods from the "Groceries & Essentials" retail category.

- Dividing cross-border sample spend in the "Groceries & Essentials" retail category by the number of cross-border online shoppers in the sample;

*Cross – border spend per cross – border online shopper on "Groceries & Essentials", in €:*

$$\frac{37,233}{748} = 50$$

- Aggregating up to cross-border online spend by the population on “Groceries & Essentials” by multiplying cross-border spend per cross-border online shopper on the category in the sample by Eurostat’s total number of cross-border online shoppers in the population.

*Value of cross – border online spend on "Groceries & Essentials" by the population, in €:*

$$50 \times 3,487,824 = 173,628,785$$

The total number of cross-border online transactions by the online population is calculated by:

- Extracting total number of cross-border online transactions by the sample from the raw data using question 9<sup>123</sup>;
- Dividing the total number of cross-border online transactions by the number of cross-border online shoppers in the sample.

*Number of cross – border online transactions per cross – border online shopper:*

$$\frac{26,281}{748} = 35$$

- Aggregating up to total number of transactions by the population by multiplying the number of cross-border transactions per cross-border online shopper by Eurostat’s total number of cross-border online shoppers in the population.

*Number of cross – border online transactions made by the population:*

$$35 \times 3,487,824 = 122,584,326$$

Table 28 - Sample cross-border volume, number of cross-border transactions per cross-border online shopper, total cross-border volume for Austria

Retail category	Sample cross-border volume	Number of cross-border transactions per cross-border online shopper (748 cross-border online shoppers in sample)	Implied total cross-border volume, (3,487,824 cross-border online shoppers)
Groceries & essentials	1,750	2	8,163,022
Health & beauty	2,477	3	11,548,961
Clothing, children & baby clothing, footwear and accessories	2,425	3	11,306,501
Sports, fitness & outdoors	1,386	2	6,461,949
Electronics	2,029	3	9,459,717

<sup>123</sup> “In a typical month/6 month period/12 month period, approximately how many times do you personally purchase the following products or services online, from another country?”

<b>Digital services</b>	3,178	4	14,818,802
<b>Entertainment</b>	3,239	4	15,103,262
<b>Toys, hobbies, collectibles, art</b>	1,528	2	7,125,966
<b>Children and baby</b>	1,068	1	4,980,976
<b>Home &amp; garden</b>	1,079	1	5,032,370
<b>Car, motorcycle, bicycle</b>	989	1	4,610,550
<b>Events</b>	1,703	2	7,940,891
<b>Holiday &amp; travel</b>	1,341	2	6,252,413
<b>Any other products</b>	2,097	3	9,778,947
<b>Total</b>	26,287	35	122,584,326

Source: Deloitte/Ipsos survey, 2015

### ***Breakdown of volume and value by country of destination/origin***

The following describes how the bilateral trade matrices are constructed. The online bilateral trade matrix is a 28x30 matrix representing the intra-EU spend between each of the 28 MSs and the amounts spent by each MS on goods and services delivered from two other regions: 'other Europe' and 'non-Europe'. The columns of the matrix represent origin countries, while the rows represent destination countries. For example, reading across and up the matrix will tell us how much a row country has spent online on goods and services delivered from a column country. In mathematical notation, each cell is represented by:

$$x_{i,j}$$

where  $i$  = destination country and  $j$  = origin country

The values in the trade matrix are primarily based on the destination country aggregates calculated from total online distance spend and cross-border distance spend by retail category. The consumer survey contains a question (8A) that asks each respondent to detail how much they spend on goods and services delivered from other countries (excluding their own country). For consistency with the calculations for total online distance spend and total cross-border distance spend, only the proportions obtained from this question are used.

The main diagonal cells,  $x_{i,i}$  (where destination country = origin country), in the matrix represent domestic online distance spend for each country. These cells are calculated by:

- Subtracting the total cross-border distance spend from total online distance spend for each country. Calculations for these two figures are based on the retail category questions (6 and 10) and are detailed above in 1.6 and 1.7.

The off-diagonal cells,  $x_{i,j}$  (where destination country  $\neq$  origin country), in the matrix represent cross-border online spend. These cells are calculated by:

- Extracting the amount of online cross-border distance spend spent by each destination country on goods and services delivered from each origin country from the raw data using question 8A<sup>124</sup>;
  - E.g. The **amount** spent by Austria (destination country) on goods and services delivered from Germany, the United Kingdom, etc. (origin countries);
- Calculating the proportion of online cross-border distance spend that each destination country spends on goods and services from each origin country using the figures produced in the previous step;
  - E.g. the **proportion** of cross-border spend that Austria (destination country) spends on goods and services delivered from Germany (origin country);
- Using the total cross-border distance spend by each destination country extracted from Q10<sup>125</sup> and disaggregating this figure by origin country through multiplying the respective proportions calculated in the previous step. This produces cross-border distance spend by origin country for each destination country based on the aggregate cross-border spend by retail category;
  - E.g. total cross-border distance spend by Austria (destination country) multiplied by the proportion of cross-border distance spend spent by Austrians on goods and services delivered from Germany (origin country) is equal to the value of cross-border distance spend by Austria on goods and services delivered from Germany.

The trade volume matrix is calculated in the same way except by using the questions related to transactions.

#### ***Value and volume of transactions of non-EU B2C cross-border distance supplies***

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The value and volume of transactions of non-EU B2C cross-border distance supplies is extracted from the trade matrices.

The other-Europe and non-Europe columns of the trade value and volume matrices constitute the value and volume of transactions that each destination country spends on goods and services delivered from non-EU countries.

#### ***Value and volume of other cross-border B2C supplies that are not distance sales***

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Total value of cross-border B2C supplies that are not distance sales are calculated by:

- Extracting total cross-border online non-distance spend by the sample from the raw data using question 16B<sup>126</sup>;
- Calculating average cross-border online spend by dividing sample spend by the number of cross-border online shoppers in the sample;
- Aggregating up to total cross-border online spend by the population by multiplying average online spend by Eurostat's total number of cross-border online shoppers in the population.

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<sup>124</sup> "In a typical month/6 months period/year, approx. how much do you personally spend when purchasing products or services online from each of the following countries?"

<sup>125</sup> "In a typical month/6 months period/year, approx. how much do you spend online on each of the following products or services from another country?"

<sup>126</sup> "In the past 12 months, approximately how much have you personally spent purchasing services carried out within your home, from another country?"

Total volume of cross-border other cross-border B2C supplies that are not distance sales are calculated by in a similar manner using question 16A<sup>127</sup>.

## Calculation of third party benchmarks

Primary consumer data was collected for this study because existing research is not sufficiently granular to accurately test the regulatory implications of changing VAT regulations. In addition to this, most published research is somewhat old and/or without a transparent methodology making it hard to evaluate the robustness of the findings.

Nevertheless, existing research is still useful to consider as a reference point when considering the robustness of the survey conducted by Deloitte/Ipsos.

### Value of distance sales of goods and services

The primary third party data sources chosen for the benchmark comparisons are from Civic Consulting's (2011) "Consumer market study on the functioning of e-commerce" and Ecommerce Europe's (2014) "European B2C e-commerce report". They were selected on the basis of being the most comprehensive third party data sources available. The following is a detailed description of the methodology and assumptions used to construct the benchmarks.

#### Civic Consulting

Civic Consulting provides 2010/11 average total and cross-border online spend on distance sales of goods for the EU27 countries.<sup>128</sup> Table 29 shows the total online spend per online shopper reported by Civic Consulting for the 25 MS in the consumer survey. Note that Civic Consulting average spend figures exclude services and are for goods only.

Table 29 - Comparison of total online spend per online shopper from Deloitte consumer survey and Civic Consulting, in €

Country	Civic Consulting, 2010/11
Austria	1,305
Belgium	921
Bulgaria	508
Croatia	-
Czech Republic	916
Denmark	1,594
Estonia	578
Finland	991

<sup>127</sup> "In the past 12 months, approximately how many times do have you personally used the internet to purchase services carried out within your home, from another country?"

<sup>128</sup> Data from Civic Consulting does not include Croatia as the country only became a member of the EU in 2013.



France	1,136
Germany	1,295
Greece	1,326
Hungary	573
Ireland	1,256
Italy	1,397
Latvia	658
Lithuania	934
Netherlands	1,197
Poland	742
Portugal	851
Romania	629
Slovakia	729
Slovenia	722
Spain	1,482
Sweden	917
United Kingdom	1,283

Source: Civic Consulting (2011)

In order to compare total, rather than average figures, two adjustments are made to the data reported to ensure the benchmark is as comparable to the consumer survey as possible. These adjustments are explained below.

To compensate for the growth in the (total and cross-border) online shopping population from 2010/11 to 2014:

- Figures are projected forwards to 2014 by multiplying the average by the respective numbers of total and cross-border online shoppers in 2014, available from Eurostat;
- This assumes:
  - The average spend on online shopping is the same in 2011 as in 2014. It should be noted that this is a **conservative assumption** as it could underestimate e-commerce spend for high growth countries.

To ensure that that the coverage of the data is inclusive of both goods and services:

- Figures are scaled up to include services using the percentage breakdown between goods and services in total B2C e-commerce spend available from Ecommerce Europe's report. These breakdowns are based on 5 regional averages (i.e. Western, Southern, Eastern, Central and Northern Europe – see Table 30);
- This assumes:

- The overall pattern of online spending on goods and services is the same for total B2C e-commerce spend and total and cross-border distance spend;
- The regional averages are representative of the individual country averages.

Comparisons between the consumer survey and Civic Consulting once the final adjustments for services have been made are reported in the next section on outputs and are not replicated here.

Table 30: Goods and services split by region

Region	EU Countries	Percentage of goods in B2C e-commerce turnover	Percentage of services in B2C e-commerce turnover
<b>Western Europe</b>	United Kingdom France Ireland Belgium Luxembourg Netherlands	56.5%	43.5%
<b>Southern Europe</b>	Spain Italy Greece Portugal Malta Croatia Cyprus	42.5%	57.5%
<b>Eastern Europe</b>	Romania Bulgaria	75%	25%
<b>Northern Europe</b>	Sweden Denmark Finland <sup>129</sup> Lithuania Latvia Estonia	51%	49%
<b>Central Europe</b>	Germany Austria Poland Hungary Slovenia Slovakia Czech Republic	58.7%	41.3%

Source: Ecommerce Europe

## Ecommerce Europe

Ecommerce Europe provides estimated figures on total B2C e-commerce turnover for each of the EU28 countries. Figures are 2014 forecasts. No adjustments were made to the data.

## JRC Trade Matrix

The JRC provide a bilateral e-commerce trade matrix for the EU27 and the amount they spend on non-EU countries. The underlying data is based on Civic Consulting and covers only distance sales of goods.

<sup>129</sup> Ecommerce Europe reports Finland's split at 58% services, 42% goods

The matrix's non-EU regions include Norway, Iceland, Switzerland, the USA, China and the Rest of the World. To make the matrix comparable to the matrix produced from the consumer survey, the former three are merged together to form the other Europe region while the latter three are merged to form non-Europe. In addition, the matrix is transformed into a share trade matrix (i.e. representing the share of a destination country's total spend on goods and services from an origin country) to be used as a benchmark for the trade patterns observed from the consumer survey trade value matrix.

No scaling to include both goods and services was conducted on the JRC trade matrix as no data was available on the breakdown of destination country B2C ecommerce spending on goods and services by origin country. Without scaling, the implicit assumption for comparability to the consumer survey trade matrix is that online trade patterns for services follow the same trade patterns as for goods.

## Other

For Spain, three additional benchmarks were collected. The first comes from **bpost International**. bpost International provides the percentage of e-commerce in GDP for 2013. This percentage is applied to Spain's GDP in 2013 to calculate the absolute value of B2C e-commerce spend. The second benchmark comes from **eMarket Services** (2013) "E-commerce in Spain" report. The report provides data on total e-commerce turnover in 2011, as well as the year on year % change from 2010 to 2011. This growth figure is used to project the 2011 figure forward to 2015. Doing so assumes that growth is constant over the four years. The third benchmark is derived from the **DIW Econ** (2010) "A single Market for an Information Society – Economic Analysis" report. The report provides the 2008 consumer e-commerce market size in a select number of countries, inclusive of Spain, and the compounded annual growth rate (CAGR) of the market size from 2002 to 2008. The CAGR was used to extrapolate the 2008 market size figure to 2014 for Spain. This essentially assumes that the average annual growth rate from 2002 to 2008 is the same as for 2008 to 2014.

For the other countries, where relevant, the same extrapolation for Spain was made for the countries in which **DIW Econ** reported on. The **EKOS Global** (2014) benchmark was converted to Euros from US Dollars, and where relevant projected forward to 2014 by taking the implied 2011 average spend per online shopper and multiplying it by Eurostat's 2014 online shopper population. The assumption here is that the average spend per online shopper is the same for both 2011 and 2014.

## Value of cross-border B2C distance supplies

### Civic Consulting

Civic Consulting provides 2010/11 figures on average cross-border spend on distance sales of goods per cross-border shopper.

- Figures are projected forwards to 2014 by multiplying the average by the total number of cross-border shoppers in 2014, available from Eurostat. Similar to the calculations on the value of overall distances sales of goods and services, this may underestimate e-commerce growth for some countries, as it assumes that average spend remains constant;
- Figures are scaled up to include services using the percentage breakdown between goods and services in total B2C e-commerce spend available from Ecommerce Europe's report. This assumes:

- The overall pattern of online spending on goods and services is the same for total B2C e-commerce spend and total cross-border distance spend;
- The regional averages are representative of the individual country averages.

## Other

**FTI consulting** (2011) provide an estimate for the value of cross-border B2C e-commerce for the EU27 for 2011. To extrapolate to 2014:

- ☑ The average spend per cross-border shopper in 2011 is calculated by dividing the total cross-border figure by the EU27 Eurostat cross-border shopper population;
- ☑ The average spend per cross-border shopper is multiplied by the 2014 Eurostat cross-border shopper population;
- ☑ This assumes that the implied EU27 average spend per cross-border shopper in 2011 is the same as for 2014.

## Calculation of proxy data points for Cyprus, Luxembourg and Malta

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Due to the quality limitations of IPSOS survey panels in Cyprus, Luxembourg and Malta, these three MSs were not surveyed. Instead, proxy data points have been calculated based on appropriate third party benchmarks and extrapolations.

### ***Value of distance sales of goods and services; value of cross-border B2C e-commerce distance supplies***

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A proxy for the total value of distance sales of goods and services for Cyprus, Luxembourg and Malta was obtained using Civic Consulting data. Civic Consulting provides the 2010/11 average online spend on distance sales of goods per online shopper for Cyprus, Luxembourg and Malta. The same third party benchmark calculations detailed earlier in this annex are used to project the average to 2014 population totals and to scale the figure to include services.

Civic Consulting also provides the 2010/11 average cross-border spend on distance sales of goods per cross-border shopper for the three Member States. Similarly, the same calculations employed earlier in this annex are used to obtain a proxy for the value of cross-border B2C distance supplies.

### ***Volume of transactions of B2C e-commerce distance sales of goods and services; Volume of transactions of cross-border B2C e-commerce distance supplies***

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A proxy for the volume of transactions of B2C e-commerce distance sales of goods and services was calculated using Eurostat data on the online shopper population and the EU25 average volume of transactions per online shopper derived from the consumer survey.

- ☑ The volume of transactions was calculated by multiplying the EU25 average volume of transactions per online shopper by each of the three MSs' 2014 online shopper population, as reported by Eurostat.

A proxy for the volume of cross-border distance transactions was calculated in a similar way.

- ☑ The volume of cross-border transactions of distance supplies was calculated by multiplying the EU25 average volume of cross-border transactions per cross-border shopper by each of the three MSs' 2014 online cross-border shopper population.

The implicit assumption made here is that the EU25 average volume of overall and cross-border transactions are representative of Cyprus, Luxembourg and Malta.

### ***Breakdown of the value and volume of cross-border B2C distance supplies by retail category***

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Estimating the breakdown by retail category for these three MSs is done by disaggregating the proxies for total cross-border value and volume. The spending and purchasing patterns of the EU25, derived from the consumer survey, is used in the disaggregation.

To calculate proxies for the breakdown of cross-border **value** by retail category:

- Total spending by retail category from the consumer survey is aggregated to the EU25 level;
- EU25 spending for each retail category is divided by the total EU25 spend to obtain spending shares by retail category;
- Spending shares by retail category are multiplied by the total cross-border values for each of the three countries to obtain total cross-border spending by retail category.

Proxies for the breakdown of cross-border **volume** by retail category are calculated in a similar way, except that EU25 volume shares by retail category, derived from the consumer survey, are used to disaggregate the total cross-border volumes.

The implicit assumption made here is that the EU25 total online spending and purchasing shares are representative of these three MSs.

### ***Breakdown of value and volume of B2C distance supplies by country of origin/destination (trade volume and value matrices)***

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Estimating the value and volume of B2C distance supplies by country of origin for each of the three MSs involves disaggregating the proxies for total value and volume of B2C distance supplies using the trade shares from the JRC trade matrix.

To calculate the proxies for **value** of B2C distance supplies by country of origin:

- Total cross-border spending implied by the JRC trade matrix is calculated for each of the three MSs;
- For each of the three MSs, spending in each origin country is calculated as a shares of total cross-border spending implied by the JRC trade matrix;
- The cross-border spending shares are used to disaggregate the proxy total cross-border spending by origin country.

The proxy for the **volume** of B2C distance supplies by country of origin is calculated in a similar way except that the cross-border spending shares are applied to the proxy total cross-border volume of transactions.

The implicit assumptions made are that the trade patterns exhibited in the JRC trade matrix are representative of the current trade patterns for each of the three MSs, and that trade volumes follow the same trade patterns as trade values.<sup>130</sup>

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<sup>130</sup> One noticeable drawback of these assumptions are that because the JRC trade matrix excludes Croatia as an origin country, the calculated proxies for these three MSs will not display any online spending on goods and services delivered from Croatia.

## ***Value and volume of transactions of non-EU B2C distance supplies***

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The proxy values and volumes for other Europe and non-Europe regions, calculated in the breakdown of value and volume of B2C distance supplies by country of origin, are summed to arrive at non-EU B2C distance supplies.

## ***Value and volume of cross-border B2C e-commerce non-distance transactions***

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Estimates of the value and volume of cross-border B2C e-commerce non-distance transactions are calculated using the consumer survey outputs for the EU25.

To calculate proxies for the value of cross-border B2C e-commerce non-distance transactions:

- Cross-border B2C e-commerce non-distance spending is aggregated to the EU25 level and expressed as a percentage of total B2C e-commerce distance spending;
- The percentage is applied to the total B2C e-commerce distance spending in each of the three MSs.

The proxy for volume of cross-border B2C e-commerce non-distance transactions is calculated in the same way except that the percentage calculated is for EU non-distance volumes.

The implicit assumption made is that the percentage of EU25 non-distance spend/volume in total B2C e-commerce spend/volume is the same as for the percentage in each of the three MSs<sup>131</sup>.

## **Output of consumer survey**

### **Some general comments on consumer surveys**

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In order to check the results of the consumer survey, the outputs are compared with the third party benchmarks derived from other studies.

The bulk of the analysis focuses on using Civic Consulting and Ecommerce Europe's studies as benchmarks. As mentioned in the methodology of this annex, Civic Consulting contains figures from 2010/11 and for goods only. Civic Consulting figures are projected forward to 2014 and scaled up to include services. Civic Consulting's benchmark does not include Croatia as it was not an EU MS at the time of data collection. Ecommerce Europe's report contains figures for 2013 and forecasts for 2014. The benchmarks presented here are the forecasts for 2014.

It should be noted that different studies may use slightly different definitions of variables on which to base their calculations. For example, Civic Consulting presents figures for distance sales, whereas Ecommerce Europe presents a total figure that does not necessarily distinguish between distance sales and other types of B2C cross-border supplies of goods and services that are not distance sales. Moreover, Ecommerce Europe excludes cars and other motor vehicles from online purchases, whereas the Deloitte consumer survey includes these. Where possible, adjustments have been made to the figures to make them comparable. However, it is not always possible to perfectly align them.

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<sup>131</sup> One might assume that for Cyprus and Malta, due to their geographical location as islands, cross-border sales that are not distance may be close to zero. However, in the absence of benchmarks or other evidence, this assumption is not used and so the proxies defer to the EU average.

Finally, data collection on e-commerce relies largely on consumer surveys and reporting by businesses, both of which may be to varying degrees unreliable. For example, the consumer survey may be limited by the fact that respondents cannot always recall reliably their spending patterns. In particular, consumers will not always know when their purchases come from abroad. In some cases, they will buy from a domestic website and not know that the goods are shipped from abroad; in other cases they may shop from an international website and not know that the company has a domestic warehouse from where it ships. Because in the former case, the consumer would undervalue the amount of cross-border shopping, whereas in the latter case, he/she overestimates it, one might argue that on average, consumers estimate cross-border shopping correctly. Nevertheless, results should be interpreted with some caution. While the questionnaire was drafted and tested to mitigate the problem as far as possible, it remains an inherent problem with consumer surveys – both in the current Deloitte work and previous studies on the topic.

The above discussion implies that data on e-commerce is subject to some volatility, and a degree of variation across studies is to be expected. For example, for the UK, Civic Consulting estimates total online spend at € 127bn, whereas Ecommerce Europe estimates it as €115bn, a difference of €12bn. Differences amongst benchmarks, as well as between the consumer survey and the benchmarks should be understood in this context.

Nevertheless, given that the consumer survey represents the most current and most disaggregated data source, ceteris paribus one might accredit this as the most reliable source given the ultimate use of the data as an input into the CGE model.

### Value and volume of B2C distance sales of goods and services

Table 31 presents the output from the consumer survey for overall value of B2C e-commerce. Table 31 also presents the benchmarks for these figures and the percentage difference between the consumer survey and the benchmarks. Finally, Table 31 also shows the total number of transactions made by the online population in the last year.

**Error! Reference source not found.** is a graphical representation of Table 31, providing a visual comparison of the consumer survey values and the benchmarks for each MS.

Table 31 - Value and volume of B2C distance sales of goods and services and comparison with benchmarks

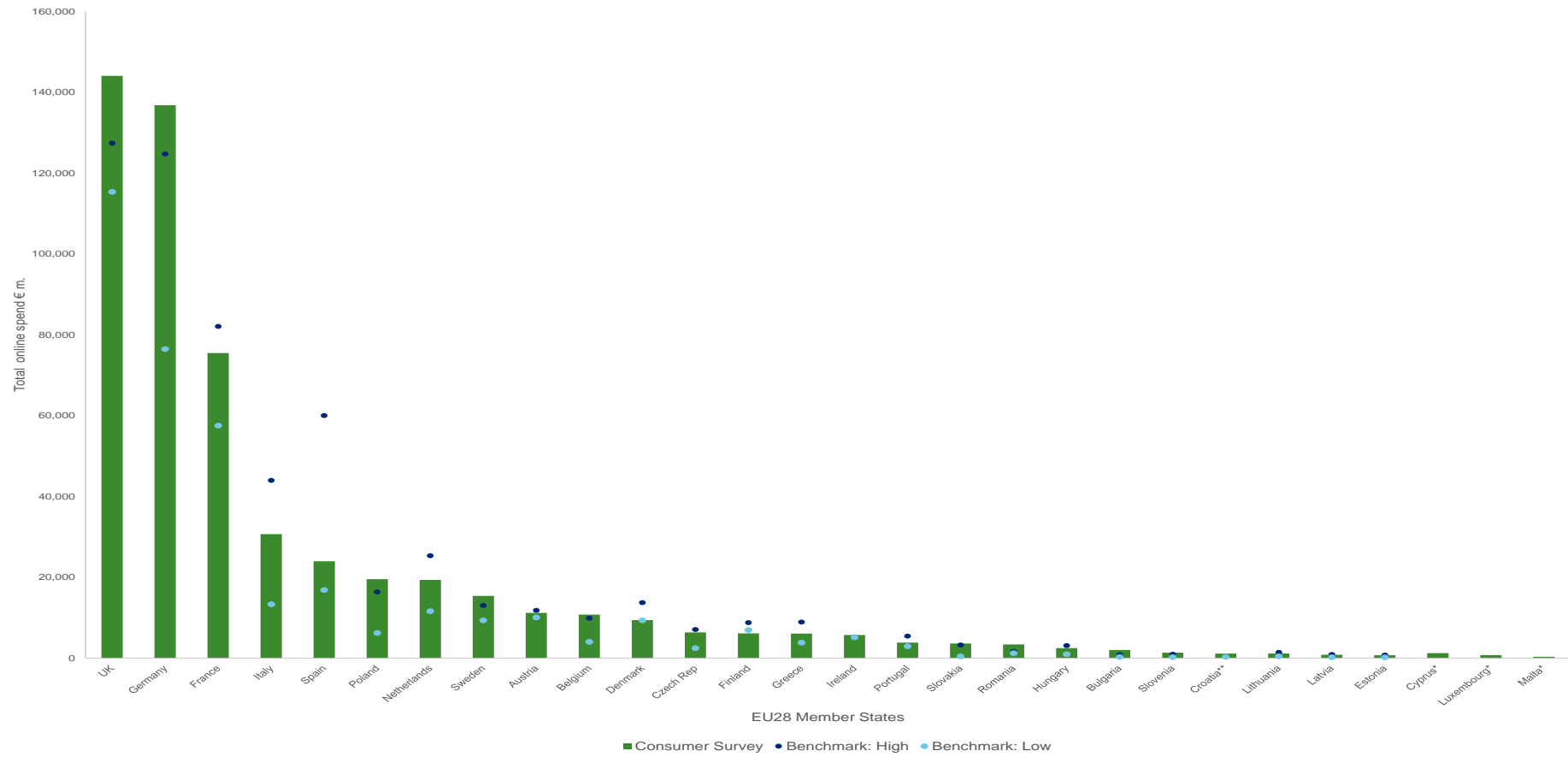
Country	Total online spend, in € m.	Benchmark: Civic Consulting, in € m.	% difference with benchmark	Benchmark: Ecommerce Europe, in € m.	% difference with benchmark	Total number of transactions, in m.
<b>EU28</b>	<b>532,119</b>	<b>564,648</b>	<b>-6%</b>	<b>369,719</b>	<b>+44%</b>	<b>15,070</b>
United Kingdom	143,504	115,364	+24%	127,400	+13%	3,798
Germany	134,601	124,729	+8%	76,460	+76%	3,612
France	75,296	82,070	-8%	57,500	+31%	1,652
Italy	28,944	43,955	-34%	13,300	+118%	955
Spain	22,756	60,011	-62%	16,834	+35%	950

Netherlands	18,615	25,315	-26%	11,588	+61%	446
Poland	18,070	16,339	+11%	6,220	+191%	803
Sweden	14,805	13,006	+14%	9,300	+59%	277
Austria	10,665	10,023	+6%	11,800	-10%	258
Belgium	10,503	9,862	+7%	4,000	+163%	234
Denmark	9,254	13,719	-33%	9,300	0%	230
Czech Republic	6,048	7,054	-14%	2,450	+147%	223
Finland	6,045	8,746	-31%	6,900	-12%	126
Greece	5,697	8,917	-36%	3,800	+50%	274
Ireland	5,697	5,119	+11%	5,200	+10%	230
Portugal	3,711	5,429	-32%	2,900	+28%	113
Slovakia	3,294	3,229	+2%	395	+734%	152
Romania	3,127	1,673	+87%	1,200	+161%	147
Hungary	2,402	3,085	-22%	950	+153%	210
Bulgaria	1,986	834	+138%	250	+694%	103
Slovenia	1,228	938	+31%	210	+485%	38
Croatia	1,089	N/A	N/A	280	+289%	61
Lithuania	1,076	1,402	-23%	410	+163%	49
Latvia	798	878	-9%	200	+299%	47
Estonia	687	731	-6%	150	+358%	33
Cyprus	N/A	1,194	N/A	165	N/A	14
LX	N/A	713	N/A	529	N/A	24
Malta	N/A	314	N/A	28	N/A	12

Source: Deloitte analysis on Deloitte/Ipsos consumer survey, 2015



Figure 20 - Total online spending - consumer survey outputs in comparison with Civic Consulting and Ecommerce Europe benchmarks for the EU28



\*Cyprus, Luxembourg, Malta are proxies calculated using Civic Consulting data; \*\*Civic Consulting does not provide data for Croatia

Generally, the consumer survey figures appear to fall between the two benchmarks. For the EU28, the consumer survey estimate is 6% lower than Civic Consulting’s benchmark. For the United Kingdom, Ireland, Poland, and Sweden the consumer survey exceeds the benchmark by 10-25%. For the Czech Republic, Denmark, Estonia, Finland, France, Greece, Hungary, Italy, Latvia, Lithuania, the Netherlands, Slovenia and Portugal, the consumer survey is lower than the Civic Consulting benchmark by 6-36%. The countries highlighted in the darker shade indicate countries where the difference to the benchmark is quite substantial, i.e. more than 40%. In Table 31, the countries highlighted in the paler shade indicate countries where the difference to the benchmark is more than 30% but less than 40%. Note that for Cyprus, Luxembourg and Malta we only report the benchmarks, as the proxies for these three MSs are based on Civic Consulting data.

Differences are to be expected as the assumptions made in constructing this benchmark cannot perfectly align the benchmark with the survey. For example, the conservative assumption of constant spend per online shopper between 2011 to 2014 may be more applicable for mature e-commerce markets than for emerging or less mature markets (e.g. Romania, Bulgaria and Slovenia), who may face more variation in average e-commerce spend over time.

In comparison to Ecommerce Europe, the EU28 aggregate estimated by the consumer survey exceeds Ecommerce Europe’s benchmark by 44%. It is also higher for all countries presented here exempting Austria and Finland, for which it is 10% and 12% lower, respectively.

The primary reason for this is likely to be retail category coverage. For example, Ecommerce Europe does not include cars and other motor vehicles while the consumer survey does. The “Cars, motorcycles and bicycles” category makes up over EUR 32 billion of total e-commerce spend and if removed, brings the consumer survey total EU28 spend down to just under EUR 500 billion. In comparison to this figure, the total spend reported by Ecommerce Europe is within 35% of the consumer survey. Table 32 below summarises this.

Table 32: Comparison with Ecommerce Europe benchmark

Consumer survey coverage	Total EU28 online spend, in € m.	% difference with Ecommerce Europe benchmark
<b>With Cars, motorcycles, bicycles</b>	532,119	+44%
<b>Without Cars, motorcycles, bicycles</b>	499,836	+35%

Source: Deloitte/Ipsos survey; Ecommerce Europe

Given the lack of detail provided by Ecommerce Europe in terms of their methodology and how they collect their data, it is difficult to determine other reasons that might explain the differences between the consumer survey and their figures. Nevertheless, the benchmark provides a useful indication of the order of magnitude in which e-commerce turnover in the EU currently operates at.

Generally, the consumer survey figures appear to align more closely with Civic Consulting’s benchmark. For the UK, France and Austria, consumer survey figures fall within a range of both benchmarks, whereas for countries such as Spain, Italy and Poland the figures are further away.

Generally, one would expect bigger, more mature markets to produce more reliable data, whereas for smaller, emerging e-commerce markets data may be expected to be more volatile. This may be

related to the heterogeneity in the population: in less mature e-commerce markets there is likely to be more diversity across the population regarding online shopping behaviour, with some people shopping online frequently and others not shopping at all. As e-commerce markets mature and more people shop more regularly online, the population becomes more uniform in its behaviour. The fact that for the bigger countries the figures fall within a reasonable range of the benchmarks is encouraging.

In comparison to the Civic Consulting benchmark, the most obvious potential anomaly amongst the higher value e-commerce markets is Spain, where the Deloitte consumer survey finds a significantly lower estimate of online spend. To investigate, additional benchmarks have been collated for this country. Table 33 summarises these figures.

Table 33 Value of B2C distance sales of goods and services in millions for Spain and comparison with benchmarks

Deloitte Consumer survey, in € m.	Civic Consulting, % difference	Ecommerce Europe, % difference	DIW Econ (2014), % difference	Bpost International (2012/13), % difference	eMarket Services (2014), % difference	eMarket Services (2015), % difference
22,756	-62%	+35%	-11%	+ 81%	+25%	-1%

Source: Deloitte/Ipsos consumer survey, 2015; Deloitte analysis on Civic Consulting (2011), Ecommerce Europe (2015), DIW Econ (2010), bpost International (2014), eMarket Services (2011)

The bpost International figure is for 2012/2013. The report does not provide any data that could be used to project this figure forward to 2014. The 81% difference between the consumer survey figure and the bpost International figure should be considered in this context.

This comparison demonstrates that there are large differences between existing figures for Spain. Civic Consulting's benchmark is 62% lower, while Ecommerce Europe and bpost International's figures are 35% and 81% higher, respectively. The DIWecon estimate is within an 11% difference, while the eMarket Services figure is within 1% for 2015. The fact that the consumer survey figure for Spain falls within the range and is relatively close to these existing figures suggests that this figure is plausible.

Other countries that show up large differences between the consumer survey and Civic Consulting's benchmark are Bulgaria, Croatia and Romania. This is perhaps less surprising than the Spanish result, as these are all small countries with less developed e-commerce markets. In addition, Denmark, Finland, Greece, Italy, Slovenia and Portugal exhibit differences of 30-36%. Given that these countries are bigger and have more developed e-commerce markets, these differences, albeit smaller, warrant further investigation. Additional benchmarks were collected where possible and are presented in table 3. The additional benchmarks were sourced from Ekos Global and DIWecon. As with other benchmarks used, it must be noted that these figures may be based on varying definitions of what constitute B2C e-commerce and different calculations. These additional benchmarks should however be treated with caution since in some cases no methodology is provided and there are some apparent anomalies in the estimates.

Table 34: Value of B2C distance sales of goods and services in millions for selected countries and comparison with benchmarks

Country	Consumer survey	Civic Consulting, % difference	Ecommerce Europe, % difference	Ekos Global, % difference	DIW Econ, % difference
Bulgaria	1,986	+138%	+694%	N/A	N/A
Croatia	1,089	N/A	+289%	N/A	N/A
Romania	3,127	+87%	+178%	+591%	N/A
Slovenia	1,228	+31%	+485%	N/A	N/A
Denmark	9,254	-33%	+0%	+26%	+58%
Finland	6,045	-31%	-12%	+83%	+2%
Greece	5,697	-36%	+50%	N/A	-34%
Italy	28,944	-34%	+118%	+94%	-14%
Portugal	3,711	-32%	+28%	+180%	-49%

Source: Deloitte/Ipsos consumer survey, 2015; Deloitte analysis on Civic Consulting (2011), Ecommerce Europe (2015), Ekos Global (2014), DIW Econ (2010).

With the exception of Romania, the consumer survey outputs for the countries in Table 34 fall within a range of estimates produced by the additional benchmarks. No additional benchmarks could be found for Croatia, Bulgaria or Slovenia.

Taken together, our view of these findings is that the survey generates reasonable results on value of B2C distance sales that are broadly consistent with existing evidence. There are anomalies that fall far outside the range of benchmarks, but this is to be expected and must be seen in the context of the volatility in responses inherent in survey work. In addition, since these anomalies are primarily for smaller e-commerce markets they will be of small consequence, in terms of absolute values, to the EU28 aggregates that feed in as an inputs for the CGE modelling in Lot 2.

## Value and volume of cross-border B2C distance supplies

Table 35 presents the output from the consumer survey for the value of B2C cross-border e-commerce. In particular, it shows total cross-border spend, as well as cross-border spend as a percentage of total spend both for the consumer survey output and the benchmark figures.

The benchmark figures are taken from Civic Consulting's (2011) study. Ecommerce Europe does not provide figures on cross-border spend, and no other comprehensive alternative benchmarks are available for individual countries. However, it was possible to identify an additional benchmark for the EU27/8 total. These are presented in Table 35.

As Table 35 indicates, the survey finds a cross-border spend as a proportion of total online spend, in line with most of the markets examined. The findings are also consistent with the qualitative information gathered from interviews with e-commerce providers. For example, we have asked a number of large e-commerce providers which European countries represent their biggest markets. Countries frequently cited include the UK, France, Germany, Spain, Italy, Austria, Belgium and the

Scandinavian countries. This corresponds closely to the countries with the largest cross-border spending in the consumer survey.

Table 35: Value and volume of cross-border distance sales of goods and services in millions and comparison with benchmarks

Country	% of cross-border online spend in total online spend	Benchmark: Civic Consulting	Total cross-border online spend, in m. €	Benchmark: civic Consulting	% difference with benchmark
<b>EU28</b>	<b>15%</b>	<b>20%</b>	<b>78,145</b>	<b>115,423</b>	<b>-32%</b>
UK	8%	17%	12,162	19,650	-38%
France	15%	16%	11,516	12,836	-10%
Germany	7%	11%	9,970	13,759	-28%
Spain	28%	31%	6,409	18,793	-66%
Italy	20%	31%	5,905	13,758	-57%
Austria	44%	39%	4,671	3,951	+18%
Belgium	39%	39%	4,090	3,855	+6%
Sweden	22%	21%	3,219	2,759	+17%
Greece	47%	25%	2,669	2,260	+18%
NL	14%	22%	2,587	5,584	-54%
Denmark	25%	26%	2,344	3,615	-35%
Finland	35%	27%	2,145	2,384	-10%
Ireland	35%	34%	2,022	1,758	+15%
Poland	7%	10%	1,231	1,565	-21%
Portugal	25%	39%	935	2,143	-56%
Bulgaria	44%	43%	877	359	+144%
Slovakia	21%	28%	699	901	-22%
Czech Republic	10%	11%	592	748	-21%
Slovenia	34%	43%	413	400	+3%
Croatia	35%	N/A	381	N/A	N/A
Hungary	15%	21%	355	660	-46%
Romania	10%	9%	317	157	+101%
Lithuania	27%	54%	287	764	-62%

Latvia	35%	52%	280	460	-39%
Estonia	36%	66%	246	479	-49%
Cyprus	N/A	83%	N/A	993	N/A
LX	N/A	76%	N/A	543	N/A
Malta	N/A	92%	N/A	289	N/A

Source: Deloitte/Ipsos consumer survey, 2015 ; Deloitte analysis on Civic Consulting (2011)

Somewhat larger differences are however identified when comparing the absolute amount of online cross-border spend. The differences are to be expected as the extrapolations made to the Civic Consulting survey results may not be perfectly aligned with our consumer survey. For example, in the absence of data, the scaling to include services in the benchmark cross-border spend assumes that the split between goods and services is the same for total online distance spend and total cross-border spend. In addition, the volatility inherent within survey work is likely to be more apparent here as consumers in effect need to estimate both their total spend and the share of this that is cross-border.

However while the estimates of absolute spend vary for individual countries, they are consistent with benchmarks identified for overall spend, as shown in the following table. Note that FTI Consulting's estimates are not shown above as they are not published on an individual country basis.

Table 36 - Value of cross-border distance sales of goods and services in millions for the EU28 and comparison with benchmarks

Deloitte consumer survey, in € m.	Civic Consulting, In € m.	FTI consulting In € m.	% difference with Civic Consulting	% difference with FTI Consulting
78,145	115,423	87,966	-32%	-13%

Source: Deloitte/Ipsos consumer survey, 2015 ; Deloitte analysis on Civic Consulting (2011), FTI Consulting (2011)

Table 37 presents the split between goods and services in cross-border B2C e-commerce spend across the EU28. This is an aggregation of the retail categories into either goods or services.

In general, larger or more mature e-commerce countries (i.e. the UK, Austria, Germany, France, the Netherlands) appear relatively close to the benchmark goods and services splits while smaller or emerging e-commerce markets (i.e. Spain, Estonia, Poland, Italy, Latvia) deviate by more. Differences with this benchmark are to be expected as they relate to overall, rather than just cross-border B2C e-commerce spend. In addition, they are based on regional averages reported by Ecommerce Europe for Western, Central, Northern, Southern and Eastern Europe and thus assume that countries within each region have similar splits between goods and services.<sup>132</sup>

<sup>132</sup> Ecommerce Europe places each EU country into regional groups. For full groupings see methodology section in this annex.

Table 37 - Goods and services breakdown of cross-border B2C e-commerce spend

Country	Total cross-border online spend on goods, in € m.	Total cross-border online spend on services, in € m.	% of cross-border spend on goods in total cross-border spend	Benchmark: Ecommerce Europe % of total online spend on goods in total online spend	% of cross-border spend on services in total cross-border spend	Benchmark: Ecommerce Europe % of total online spend on services in total online spend
EU28	46,976	31,170	60%	54%	40%	46%
UK	6,669	5,494	55%	57%	45%	44%
France	6,373	5,143	55%	57%	45%	44%
Germany	5,911	4,059	59%	59%	41%	41%
Spain	4,628	1,782	72%	43%	28%	58%
Italy	3,992	1,913	68%	43%	32%	58%
Austria	2,823	1,848	60%	59%	40%	41%
Belgium	2,159	1,931	53%	57%	47%	44%
Sweden	1,494	1,725	46%	51%	54%	49%
Greece	1,927	742	72%	43%	28%	58%
Netherlands	1,293	1,294	50%	57%	50%	44%
Denmark	1,309	1,035	56%	51%	44%	49%
Finland	1,279	866	60%	42%	40%	58%
Ireland	1,250	772	62%	57%	38%	44%
Poland	861	370	70%	59%	30%	41%
Cyprus	602	390	61%	43%	39%	58%
Portugal	591	344	63%	43%	37%	58%
Bulgaria	732	145	84%	75%	16%	25%
Slovakia	522	177	75%	59%	25%	41%
CZ	419	173	71%	59%	29%	41%
Luxembourg	329	214	61%	57%	39%	44%
Slovenia	278	135	67%	59%	33%	41%

Croatia	254	128	67%	43%	33%	58%
Hungary	260	95	73%	59%	27%	41%
Romania	255	62	80%	75%	20%	25%
Malta	175	114	61%	43%	39%	58%
Lithuania	186	101	65%	51%	35%	49%
Latvia	231	49	83%	51%	17%	49%
Estonia	175	71	71%	51%	29%	49%

Source: Deloitte/Ipsos consumer survey, 2015 ; Ecommerce Europe (2015)



## Breakdown of value and volume of B2C distance supplies by country of destination/origin

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Trade flows between origination and destination country pairs are represented in the bilateral trade matrices. Figure 21 and Figure 22 present information on value, while Figure 23 presents the volume share trade matrix from the consume survey. The columns represent origin countries, while the rows represent destination countries. For example, in Figure 21, the row showing Austria as the destination country tells us how much Austrians purchase online from each country in the EU28 and the rest of the world; the column showing Austria as an origin country tells us how much each country in the EU28 buys from Austria. Note that the cells on the diagonal represent domestic spend. In mathematical notation, each cell is represented by:

$$x_{i,j}$$

where  $i$  = destination country and  $j$  = origin country

Figure 21 shows the trade value matrix expressed in shares, i.e. the proportion of total online distance spend that each destination country spends on goods and services from each origin country. This is illustrative of the online trade patterns of each EU country. Cells highlighted in green represent proportions that are greater than 5%, while cells highlighted in blue represent proportions between 2% and 5%.

Three key findings emerge from Figure 21 and Figure 23:

- with the exceptions of Cyprus, Luxembourg and Malta, all EU MSs spend more than 50% of their online spend domestically;
- in terms of cross-border spend, the UK, Germany and non-European countries form the largest origin countries;
- the pattern of trade is similar in terms of volumes and values.

In order to check the findings of the consumer survey, they are compared with existing figures published in the JRC (2013) report.<sup>133</sup> It is important to note that these figures are based on data from 2010/11 and include only the value of distance sales of goods. Third party data on the breakdown of spend on goods and services by trade pair was not available to use for extrapolation. Consequently, by using the JRC trade matrix proportions as a benchmark, the implicit assumption for comparability is that online trade patterns are the same for both goods and services and have not changed since 2010/11. Given these differences, some deviation from the benchmark is to be expected.<sup>134</sup>

Figure 22 shows the percentage point difference between the proportions based on the consumer survey (from Figure 21) and the proportions calculated from the JRC (2013) trade value matrix. For example, cell  $x_{AUSTRIA,AUSTRIA}$  shows that the share of total online spend spent by Austria domestically is 6.93 percentage points less in the consumer survey trade value matrix than in the benchmark matrix. Cells highlighted in orange are deviations from the benchmark of more (less) than + (-) 5 percentage points.

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<sup>133</sup> Gomez-Herrera, E, Bertin Martens, B, Turlea, G (2014), "The drivers and impediments for cross-border e-commerce in the EU", *Information Economics and Policy*, **28**, 83-96.

<sup>134</sup> In addition, the raw benchmark trade value matrix does not include Croatia, as it was not an EU MS at the time of data collection, and 'other Europe' comprises of Switzerland, Norway and Iceland, while 'non-European' consists of the USA, China and Rest of World.

Overall, it appears that trade patterns have not shifted dramatically in comparison to the benchmark – as indicated by the lack of orange cells. However, a common trend is that the benchmark deviates from the consumer survey output primarily in the domestic spend shares. Table 38 below summarises this for the larger (in terms of total spend) B2C e-commerce countries. The absolute deviations for these countries vary at most by 9.91 percentage points.

Table 38 - Domestic spend share of selected e-commerce countries and percentage point deviation from the benchmark

Country	Share of total online distance spend spent domestically	Percentage point deviation with benchmark
UK	91.52%	+6.13
Germany	92.59%	+9.91
Netherlands	86.10%	+3.71
France	84.71%	-0.58
Italy	79.60%	+9.89
Spain	71.84%	-2.17
Austria	56.21%	-6.93

Source: Deloitte analysis on Deloitte/Ipsos consumer survey, 2015

### Regional trade matrix

Given that certain origin countries in the trade value matrix show proportions that are close to 0% across the majority of destination countries, Figure 24 has been constructed to allow for a regional level of trade value flows.

The regional trade matrix is based on the United Nations Statistics Division's classification of European countries<sup>135</sup>. The table below summarises this classification for the relevant EU countries. Note that the UK, Germany, other Europe and non-Europe are not included in the regions as they are treated as separate places of origin/destination in the following regional trade matrix.

Table 39 - Groupings for regional trade matrix

Region	EU Countries
Western Europe	Austria, Belgium, France, Luxembourg, Netherlands
Northern Europe	Denmark, Estonia, Finland, Ireland, Lithuania, Latvia, Sweden
Eastern Europe	Bulgaria, Czech Republic, Hungary, Poland, Romania, Slovakia
Southern Europe	Spain, Croatia, Italy, Malta, Cyprus, Slovenia, Greece

Source: Deloitte analysis on United Nations Statistics Division, 2015

<sup>135</sup> See <http://unstats.un.org/unsd/methods/m49/m49regin.htm>

In addition to the key findings from the previous trade matrices, a visual inspection of the regional trade matrix shows that Western Europe is the biggest origin region for online goods and services, after the United Kingdom and Germany, while Northern Europe is the smallest origin region in the EU.

In practice, different regional aggregations can be used depending on which cross-border flows the European Commission believes is most important to capture in the lot 2 policy options analysis.

### Trade matrices

Figure 21 - B2C e-commerce bilateral trade value matrix – proportions of destination country spending by origin country

Origin \ Destination		Origin v																											Other Europe	Non-Europe	% of EU28 total
		AT	BE	BG	CR	CY	CZ	DK	EE	FI	FR	DE	EL	HU	IE	IT	LV	LT	LX	MT	NL	PL	PT	RO	SK	SI	ES	SE			
AT	56.21%	0.13%	0.13%	0.68%	0.00%	0.42%	0.03%	0.02%	0.08%	0.08%	31.71%	0.14%	0.14%	0.07%	2.68%	0.00%	0.00%	0.13%	0.00%	0.58%	0.07%	0.03%	0.03%	0.14%	0.13%	0.14%	0.16%	1.34%	2.66%	2.07%	2.00%
BE	0.65%	61.06%	0.04%	0.02%	0.06%	0.09%	0.04%	0.00%	0.04%	11.00%	3.51%	0.52%	0.28%	0.29%	0.56%	0.01%	0.00%	0.32%	0.00%	8.12%	0.14%	0.19%	0.06%	0.04%	0.01%	0.92%	0.02%	2.73%	2.12%	7.15%	1.97%
BG	0.99%	0.15%	55.85%	0.04%	0.59%	0.14%	0.03%	0.00%	0.03%	0.98%	3.59%	1.20%	0.12%	0.22%	17.98%	0.00%	0.00%	0.07%	0.38%	0.08%	0.21%	0.01%	1.15%	0.08%	0.07%	0.23%	0.10%	6.71%	0.78%	8.20%	0.37%
CR	2.31%	0.06%	0.02%	64.97%	0.00%	0.88%	0.07%	0.02%	0.05%	0.52%	3.93%	0.17%	0.51%	0.39%	1.88%	0.00%	0.01%	0.02%	0.00%	0.12%	0.46%	0.03%	0.04%	0.17%	1.71%	0.23%	0.06%	4.98%	1.33%	15.06%	0.20%
CY	0.00%	0.73%	0.07%	0.00%	16.89%	0.00%	0.08%	0.00%	0.11%	4.65%	4.37%	5.77%	0.00%	0.44%	1.41%	0.00%	0.34%	0.00%	0.12%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.43%	0.23%	31.67%	0.11%	32.57%	0.22%
CZ	1.73%	0.04%	0.13%	0.84%	0.16%	90.22%	0.00%	0.00%	0.00%	0.13%	0.77%	0.13%	0.08%	0.07%	0.33%	0.00%	0.00%	0.00%	0.00%	0.16%	0.26%	0.01%	0.01%	0.39%	0.02%	0.24%	0.02%	0.50%	0.25%	3.53%	1.14%
DK	1.05%	0.13%	0.22%	0.18%	0.03%	0.23%	74.67%	0.03%	0.04%	1.09%	5.73%	0.18%	0.01%	0.23%	0.24%	0.01%	0.00%	0.08%	0.10%	0.74%	0.16%	0.21%	0.00%	0.00%	0.00%	1.39%	2.16%	5.72%	0.88%	4.46%	1.74%
EE	0.24%	1.04%	0.18%	0.40%	1.89%	0.35%	0.17%	64.21%	1.81%	0.36%	4.84%	0.14%	0.26%	0.06%	0.59%	1.42%	1.09%	0.07%	0.00%	0.50%	0.89%	0.08%	0.00%	0.07%	0.03%	0.10%	0.57%	6.62%	1.22%	10.81%	0.19%
FI	0.83%	0.13%	0.16%	0.38%	0.72%	1.54%	0.31%	1.83%	64.52%	0.55%	7.06%	0.37%	0.09%	0.22%	0.43%	0.13%	0.05%	0.05%	0.11%	0.36%	0.23%	0.50%	0.00%	0.03%	0.04%	1.10%	4.16%	5.32%	1.07%	7.71%	1.14%
FR	0.00%	4.90%	0.00%	0.00%	0.45%	0.05%	0.88%	0.00%	0.00%	84.71%	1.49%	0.04%	0.00%	0.07%	0.37%	0.00%	0.02%	0.14%	0.20%	0.25%	0.13%	0.39%	0.00%	0.00%	0.00%	0.54%	0.18%	1.49%	0.44%	3.27%	14.15%
DE	0.99%	0.16%	0.06%	0.08%	0.00%	0.06%	0.12%	0.00%	0.74%	0.23%	92.59%	0.06%	0.02%	0.18%	0.40%	0.01%	0.00%	0.09%	0.00%	0.47%	0.12%	0.02%	0.00%	0.04%	0.04%	0.31%	0.03%	1.46%	0.75%	0.96%	25.30%
EL	1.02%	0.22%	0.87%	0.05%	1.55%	0.03%	0.28%	0.02%	0.01%	1.44%	3.93%	53.15%	0.01%	0.03%	2.55%	0.00%	0.15%	0.13%	0.03%	0.49%	0.08%	0.30%	0.19%	0.05%	0.00%	0.48%	0.08%	11.85%	3.73%	17.29%	1.07%
HU	2.28%	0.04%	0.07%	0.89%	0.01%	0.34%	0.16%	0.00%	0.00%	0.27%	1.70%	0.09%	85.23%	0.09%	0.43%	0.00%	0.15%	0.09%	0.00%	0.07%	0.11%	0.00%	0.38%	0.03%	0.02%	0.02%	0.02%	2.25%	0.66%	4.01%	0.45%
IE	0.09%	0.22%	0.08%	0.08%	1.22%	0.10%	0.24%	0.05%	0.53%	0.89%	1.84%	0.25%	0.08%	64.50%	0.55%	0.15%	0.53%	0.07%	0.17%	0.24%	2.21%	0.28%	0.06%	0.11%	0.02%	0.64%	0.25%	18.37%	0.98%	5.18%	1.07%
IT	1.37%	0.22%	0.20%	0.46%	0.24%	0.29%	0.20%	0.01%	0.03%	2.27%	4.80%	0.14%	0.11%	0.54%	79.60%	0.08%	0.03%	0.24%	0.12%	0.16%	0.08%	0.05%	0.22%	0.15%	0.05%	1.09%	0.02%	3.31%	0.87%	3.05%	5.44%
LV	0.13%	0.07%	0.03%	0.08%	0.04%	0.13%	0.85%	0.61%	0.27%	0.12%	4.27%	0.17%	0.11%	0.20%	0.44%	64.95%	2.16%	0.00%	0.03%	0.40%	1.98%	0.03%	0.00%	0.01%	0.11%	0.99%	4.26%	6.03%	1.36%	10.25%	0.15%
LT	0.12%	0.10%	0.10%	0.21%	0.09%	0.07%	0.10%	0.13%	0.04%	0.74%	4.10%	0.14%	0.03%	0.21%	0.40%	0.57%	73.30%	0.00%	0.23%	0.41%	0.75%	0.05%	0.02%	0.05%	0.18%	0.27%	0.24%	6.73%	1.73%	8.90%	0.20%
LX	1.58%	6.70%	0.03%	0.00%	0.00%	0.05%	0.65%	0.00%	0.02%	17.65%	33.67%	0.02%	0.00%	0.78%	1.47%	0.03%	0.00%	23.80%	0.00%	1.14%	0.18%	0.37%	0.00%	0.00%	0.05%	0.37%	0.09%	6.13%	5.22%	0.00%	0.13%
MT	0.29%	0.19%	0.07%	0.00%	0.10%	0.00%	0.01%	0.00%	0.00%	1.02%	3.09%	0.01%	0.00%	0.89%	3.42%	0.00%	0.00%	0.00%	7.99%	0.40%	0.03%	0.00%	0.00%	0.00%	0.04%	0.00%	51.86%	0.00%	30.59%	0.06%	0.68%
NL	0.44%	0.89%	0.00%	0.00%	0.00%	0.01%	0.12%	0.01%	0.00%	0.54%	3.03%	0.12%	0.01%	0.08%	0.26%	0.01%	0.00%	0.02%	0.01%	86.10%	0.15%	0.05%	0.00%	0.00%	0.27%	0.03%	1.40%	0.54%	5.92%	3.50%	3.50%
PL	0.15%	0.04%	0.05%	0.23%	0.21%	0.59%	0.28%	0.01%	0.01%	0.21%	1.21%	0.17%	0.01%	0.02%	0.18%	0.09%	0.08%	0.02%	0.05%	0.33%	93.19%	0.11%	0.07%	0.05%	0.01%	0.48%	0.45%	0.61%	0.27%	0.81%	3.40%
PT	0.12%	0.43%	0.00%	0.02%	0.00%	0.02%	0.08%	0.01%	0.00%	2.66%	2.20%	0.24%	0.02%	0.04%	0.54%	0.00%	0.02%	0.02%	0.01%	0.19%	0.14%	74.81%	0.00%	0.00%	0.00%	5.48%	0.00%	4.29%	1.12%	7.56%	0.70%
RO	0.42%	0.07%	0.28%	0.12%	0.06%	0.00%	0.17%	0.00%	0.00%	0.96%	1.22%	0.18%	0.62%	0.01%	0.74%	0.00%	0.03%	0.04%	0.09%	0.47%	0.04%	0.01%	89.86%	0.03%	0.00%	0.46%	0.00%	1.11%	0.31%	2.69%	0.59%
SK	1.59%	0.05%	0.09%	0.34%	0.00%	6.25%	0.00%	0.00%	0.02%	0.23%	1.22%	0.04%	0.81%	0.07%	0.32%	0.00%	0.00%	0.00%	0.00%	0.09%	0.93%	0.01%	0.00%	78.77%	0.03%	0.09%	0.06%	2.84%	1.52%	4.62%	0.62%
SI	6.90%	0.16%	0.05%	2.18%	0.03%	0.18%	0.09%	0.00%	0.14%	0.30%	6.47%	0.12%	0.13%	1.29%	0.04%	0.01%	0.10%	0.05%	0.23%	0.26%	0.10%	0.01%	0.03%	66.36%	0.32%	0.27%	4.28%	0.95%	8.75%	0.23%	0.23%
ES	0.04%	0.74%	0.12%	0.14%	0.00%	0.02%	0.34%	0.12%	0.02%	2.63%	3.25%	0.30%	0.04%	0.45%	1.57%	0.00%	0.02%	0.17%	0.03%	0.62%	0.12%	0.28%	1.24%	0.00%	0.01%	71.84%	0.17%	5.00%	1.41%	9.31%	4.28%
SE	0.60%	0.04%	0.48%	0.45%	0.50%	0.13%	0.63%	0.03%	0.25%	0.30%	2.80%	0.34%	0.08%	0.41%	0.48%	0.88%	0.01%	0.02%	0.15%	0.30%	0.10%	0.04%	0.57%	0.00%	0.08%	0.90%	79.25%	2.68%	1.19%	7.33%	2.78%
UK	0.02%	0.04%	0.00%	0.03%	0.00%	0.10%	0.03%	0.00%	0.02%	0.54%	0.92%	0.04%	0.20%	0.19%	0.42%	0.00%	0.02%	0.28%	0.10%	0.08%	0.23%	0.22%	0.01%	0.04%	0.00%	0.79%	0.04%	91.52%	0.86%	3.29%	26.57%
<b>Total (EU28)</b>	1.62%	2.08%	0.28%	0.26%	0.18%	1.19%	1.53%	0.12%	0.95%	12.80%	25.61%	0.69%	0.48%	0.88%	4.90%	0.14%	0.18%	0.16%	0.08%	3.45%	3.35%	0.69%	0.62%	0.53%	0.18%	3.67%	2.35%	26.62%	0.87%	3.95%	100.00%

Key:   
 Proportions greater than 5%   
 Proportions between 2% and 5%

Source: Deloitte analysis on Deloitte/Ipsos consumer survey, 2015

Figure 22 – B2C e-commerce bilateral trade value matrix - proportions of destination country spending by origin country, comparison with third party benchmark

		Origin v																															
Destination >		AT	BE	BG	CR**	CY	CZ	DK	EE	FI	FR	DE	EL	HU	IE	IT	LV	LT	LX	MT	NL	PL	PT	RO	SK	SI	ES	SE	UK	Other Europe	Non-Europe	% of EU28 total	
AT		-6.93%	-0.37%	0.05%		-0.01%	0.22%	0.01%	0.01%	0.04%	-1.02%	6.75%	0.02%	-0.22%	-0.08%	1.80%	0.00%	0.00%	-0.49%	-0.04%	-0.46%	-0.33%	0.03%	-0.10%	0.10%	0.09%	-0.17%	0.06%	-1.55%	2.43%	-0.52%	0.42%	
BE		0.40%	-7.04%	0.00%		-0.46%	-0.30%	-0.01%	0.00%	0.02%	1.79%	-1.02%	0.49%	0.25%	0.10%	-0.19%	-0.03%	0.00%	-0.18%	-0.03%	0.30%	0.07%	0.17%	-0.13%	-0.06%	0.01%	0.66%	-0.24%	-0.61%	2.02%	4.01%	0.38%	
BG		0.44%	-0.11%	-15.28%		0.58%	-0.08%	-0.30%	-0.08%	-0.23%	-2.21%	-4.75%	0.73%	0.05%	0.12%	16.93%	-0.05%	0.00%	-0.41%	0.18%	-0.56%	0.18%	-0.48%	1.05%	0.06%	0.06%	-0.23%	-0.03%	-2.54%	0.75%	6.23%	0.29%	
CR**																																	
CY		0.00%	-0.01%	0.00%		1.19%	0.00%	0.00%	0.00%	0.00%	-0.07%	-0.06%	-0.08%	0.00%	-0.01%	-0.02%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	-0.01%	0.00%	-0.45%	0.00%	-0.47%	0.14%
CZ		1.17%	-0.01%	0.13%		0.16%	1.27%	-0.01%	0.00%	-0.02%	-0.67%	-1.28%	0.06%	0.00%	0.00%	-0.05%	0.00%	0.00%	0.00%	-0.01%	0.03%	-1.28%	0.01%	0.01%	-1.86%	0.02%	0.16%	0.00%	-1.22%	0.22%	2.35%	0.46%	
DK		0.63%	-0.02%	0.22%		0.03%	0.23%	-3.21%	0.02%	-0.12%	0.44%	1.29%	0.15%	0.01%	-0.04%	-0.06%	0.00%	-0.10%	-0.02%	0.10%	-0.26%	0.03%	0.19%	0.00%	0.00%	0.00%	1.01%	-1.62%	-1.36%	0.53%	1.77%	0.13%	
EE		-0.23%	0.86%	0.18%		1.78%	0.21%	-0.67%	-10.49%	-0.50%	-0.40%	-1.10%	0.01%	0.12%	-0.48%	0.39%	0.39%	-0.33%	-0.26%	0.00%	-0.08%	0.21%	0.02%	-0.06%	0.07%	0.03%	0.01%	-0.22%	1.02%	0.96%	8.18%	0.07%	
FI		0.55%	-0.03%	0.15%		0.72%	1.44%	-0.28%	1.18%	-8.60%	-0.21%	0.70%	0.35%	0.01%	0.04%	0.27%	0.12%	0.03%	0.03%	0.03%	-0.18%	0.12%	0.48%	-0.02%	0.03%	0.04%	0.80%	0.89%	-1.87%	0.78%	2.06%	0.10%	
FR		-0.10%	2.96%	-0.20%		0.39%	-0.04%	0.69%	-0.03%	-0.10%	-0.58%	-3.17%	-0.01%	-0.01%	-0.04%	-0.11%	-0.02%	0.02%	-0.26%	0.20%	0.08%	-0.05%	0.15%	-0.02%	-0.02%	-0.01%	-0.05%	0.08%	-1.16%	0.40%	1.00%	0.93%	
DE		-3.75%	-0.39%	-0.17%		-0.10%	-0.60%	-0.52%	-0.42%	0.42%	-1.52%	9.91%	-0.28%	-0.28%	0.03%	0.03%	-0.01%	-0.03%	-0.79%	-0.03%	-0.41%	-0.52%	0.00%	-0.19%	-0.03%	-0.10%	-0.14%	-0.22%	-0.17%	0.54%	-0.37%	1.44%	
EL		0.31%	-0.41%	0.63%		0.69%	-0.21%	0.27%	0.02%	-0.11%	-0.71%	-1.54%	-17.48%	-0.10%	-0.49%	0.74%	-0.07%	0.15%	0.04%	0.01%	0.23%	-0.07%	0.12%	0.19%	0.05%	-0.01%	-0.10%	-0.16%	1.93%	3.63%	12.35%	0.26%	
HU		1.01%	0.01%	0.07%		0.01%	-0.36%	0.16%	0.00%	-0.04%	0.07%	-1.22%	0.09%	-4.55%	0.05%	0.09%	0.39%	0.00%	0.15%	0.09%	0.00%	0.00%	0.09%	0.00%	0.37%	-0.57%	0.02%	-0.08%	-0.02%	-0.63%	0.65%	3.38%	-0.06%
IE		-0.25%	-0.16%	-0.08%		1.18%	-0.09%	0.04%	-0.21%	0.34%	-1.05%	-2.08%	0.05%	-0.46%	6.95%	-0.15%	0.00%	-0.16%	-0.01%	-0.03%	-0.48%	0.90%	0.18%	-0.22%	-0.01%	-0.05%	-0.35%	-0.05%	-1.97%	0.90%	-2.77%	0.76%	
IT		0.27%	-0.01%	0.15%		0.20%	-0.21%	-0.11%	-0.32%	-0.14%	-5.01%	-2.68%	-0.79%	0.01%	0.14%	9.89%	0.03%	-0.19%	-0.12%	-0.20%	-0.41%	-0.07%	-0.08%	0.17%	0.11%	-0.05%	-0.46%	-0.15%	-0.90%	0.71%	0.78%	-12.76%	
LV		-0.33%	-0.16%	-0.01%		0.02%	0.13%	0.46%	-0.10%	-0.28%	-0.51%	-0.58%	0.17%	0.11%	-0.07%	-0.41%	-5.21%	-0.32%	0.00%	0.01%	0.28%	1.08%	-0.12%	0.00%	-0.02%	-0.01%	-0.73%	3.77%	-2.21%	0.94%	4.00%	-0.08%	
LT		-0.62%	-0.36%	0.03%		0.03%	-0.68%	-0.03%	-0.73%	-0.06%	-0.40%	-0.47%	0.00%	0.03%	-1.34%	0.26%	-0.69%	2.55%	0.00%	0.22%	0.26%	-1.11%	-0.62%	0.02%	0.05%	0.18%	-0.43%	0.19%	-3.42%	1.71%	5.24%	0.07%	
LX		0.05%	0.22%	0.00%		0.00%	0.00%	0.02%	0.00%	0.00%	0.58%	1.11%	0.00%	0.00%	0.03%	0.05%	0.00%	0.00%	-2.52%	0.00%	0.04%	0.01%	0.01%	0.00%	0.00%	0.00%	0.01%	0.00%	0.20%	0.17%	0.00%	0.10%	
MT		0.00%	0.00%	0.00%		0.00%	0.00%	0.00%	0.00%	0.00%	-0.01%	-0.04%	0.00%	0.00%	-0.01%	-0.05%	0.00%	0.00%	0.00%	1.22%	-0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	-0.69%	0.00%	-0.41%	0.02%	
NL		-0.62%	-1.80%	-0.08%		-0.13%	-0.31%	-0.55%	-0.03%	-0.62%	-0.48%	-1.59%	-0.03%	-0.07%	-0.17%	-0.37%	-0.06%	-0.22%	-0.25%	-0.24%	3.71%	0.05%	-0.24%	-0.11%	0.00%	-0.03%	0.01%	-0.17%	-0.30%	0.52%	4.19%	-0.59%	
PL		-0.12%	-0.32%	-0.07%		0.21%	0.39%	0.05%	0.01%	0.01%	-0.77%	-2.75%	-0.02%	0.01%	-0.32%	0.04%	0.08%	0.04%	-0.09%	0.02%	-0.03%	5.55%	0.11%	0.07%	-0.63%	0.01%	0.14%	0.99%	-1.65%	0.26%	-0.65%	0.23%	
PT		0.08%	-0.03%	-0.02%		0.00%	-0.63%	-0.18%	0.01%	-0.02%	-1.29%	-2.08%	-0.06%	0.02%	-0.63%	-0.60%	-0.20%	0.02%	-0.68%	-0.03%	-0.56%	0.05%	8.62%	0.00%	0.00%	0.00%	-1.13%	-0.11%	-3.07%	1.04%	1.64%	0.18%	
RO		-0.08%	-0.11%	-1.16%		0.01%	-0.05%	0.17%	0.00%	-0.10%	-0.68%	-2.12%	-0.35%	-1.26%	-0.08%	-1.15%	0.00%	0.03%	0.04%	0.09%	0.33%	-0.14%	-0.07%	6.05%	0.01%	0.00%	0.01%	0.00%	0.31%	1.64%	0.32%		
SK		0.45%	-0.04%	0.09%		0.00%	-5.07%	-0.07%	-0.01%	0.02%	-0.68%	-1.08%	0.00%	0.11%	-0.08%	0.03%	0.00%	0.00%	-0.02%	0.00%	0.00%	-0.12%	-0.02%	0.00%	1.29%	0.01%	0.09%	0.03%	0.27%	1.52%	2.68%	0.17%	
SI		4.42%	-0.11%	0.05%		0.03%	0.14%	0.09%	-0.01%	0.10%	-0.37%	-1.68%	0.08%	0.17%	0.00%	0.25%	0.01%	0.01%	-0.01%	-0.08%	-0.07%	-0.21%	0.07%	0.01%	-0.07%	-8.88%	-0.05%	0.19%	-3.42%	0.83%	4.30%	0.05%	
ES		-0.65%	-0.68%	0.01%		-0.33%	-0.28%	-0.20%	0.09%	-0.55%	-2.00%	-1.90%	0.18%	-0.07%	-0.04%	-0.06%	0.00%	-0.02%	-0.12%	-0.11%	0.35%	0.12%	-0.83%	1.16%	-0.02%	-0.04%	-2.17%	0.08%	0.96%	1.40%	5.55%	-0.65%	
SE		0.04%	-0.15%	0.43%		0.44%	-0.01%	-1.73%	0.02%	-0.11%	-0.72%	-1.98%	0.32%	-0.09%	0.37%	0.14%	0.70%	0.02%	0.08%	0.02%	-0.19%	-0.01%	0.55%	-0.03%	0.06%	0.21%	-1.52%	-2.32%	1.04%	3.94%	0.41%		
UK		-0.28%	-0.38%	-0.21%		-0.18%	-0.04%	-0.24%	-0.13%	-0.26%	-1.65%	-1.50%	-0.13%	0.06%	-0.82%	-0.59%	-0.15%	-0.06%	0.04%	-0.09%	-0.39%	-0.21%	0.04%	-0.02%	0.01%	-0.01%	-0.50%	-0.14%	6.52%	0.83%	0.44%	7.20%	
Total (EU28)		-0.93%	0.05%	0.07%		0.06%	0.19%	-0.14%	-0.13%	-0.06%	-1.24%	1.95%	-0.20%	-0.13%	0.31%	-8.34%	-0.08%	0.00%	-0.26%	-0.05%	-0.56%	0.23%	0.17%	0.32%	0.11%	-0.01%	-0.95%	0.20%	7.22%	0.78%	1.20%		

\*Values in cells represent percentage point differences

\*\*Croatia is not included in the benchmark trade matrix due to the country being outside the EU at the time of data collection

Key   Cells greater than +5% or less than -5%

Source: Deloitte analysis on Deloitte/Ipsos consumer survey, 2015

Figure 23 - B2C e-commerce bilateral trade volume matrix - proportions of destination country transactions by origin country

		Origin v																														
Destination >		AT	BE	BG	CR	CY	CZ	DK	EE	FI	FR	DE	EL	HU	IE	IT	LV	LT	LX	MT	NL	PL	PT	RO	SK	SI	ES	SE	UK	Other Europe	Non-Europe	% of EU28 total
AT		52.52%	0.19%	0.35%	0.36%	0.01%	0.44%	0.05%	0.02%	0.16%	0.23%	34.81%	0.04%	0.18%	0.08%	1.18%	0.02%	0.03%	0.36%	0.11%	0.68%	0.10%	0.02%	0.03%	0.25%	0.13%	0.18%	0.22%	2.53%	1.62%	3.04%	1.71%
BE		0.53%	48.24%	0.35%	0.37%	0.24%	0.24%	0.19%	0.00%	0.07%	15.41%	5.71%	0.16%	0.27%	0.31%	0.90%	0.03%	0.00%	0.68%	0.06%	12.70%	0.23%	0.04%	0.00%	0.14%	0.00%	0.82%	0.05%	4.34%	1.44%	6.58%	1.55%
BG		0.40%	0.06%	75.53%	0.04%	0.21%	0.09%	0.03%	0.02%	0.08%	0.66%	2.37%	0.75%	0.18%	0.15%	0.77%	0.06%	0.05%	0.04%	0.09%	0.08%	0.30%	0.00%	0.91%	0.09%	0.08%	0.44%	0.15%	6.47%	0.88%	9.00%	0.68%
CR		1.41%	0.07%	0.02%	64.10%	0.01%	0.20%	0.07%	0.04%	0.03%	0.39%	4.02%	0.03%	0.34%	0.13%	0.92%	0.00%	0.00%	0.01%	0.00%	0.14%	0.26%	0.02%	0.08%	0.09%	1.43%	0.18%	0.05%	5.48%	0.84%	19.67%	0.41%
CY		0.00%	0.49%	0.04%	0.00%	44.81%	0.00%	0.06%	0.00%	0.07%	3.09%	2.90%	3.83%	0.00%	0.29%	0.94%	0.00%	0.23%	0.00%	0.08%	0.00%	0.00%	0.00%	0.29%	0.16%	0.00%	0.00%	21.03%	0.07%	21.63%	0.09%	
CZ		0.38%	0.04%	0.04%	0.17%	0.04%	88.14%	0.03%	0.00%	0.00%	0.06%	0.79%	0.02%	0.13%	0.02%	0.18%	0.00%	0.00%	0.00%	0.00%	0.07%	0.46%	0.01%	0.01%	0.54%	0.00%	0.19%	0.02%	0.83%	0.09%	7.74%	1.46%
DK		1.00%	0.36%	0.14%	0.08%	0.05%	0.18%	66.37%	0.18%	0.20%	0.72%	4.94%	0.05%	0.16%	0.25%	0.23%	0.56%	0.01%	0.24%	0.41%	0.71%	0.39%	0.02%	0.15%	0.06%	0.03%	0.47%	3.39%	8.42%	1.12%	9.11%	1.53%
EE		0.12%	0.35%	0.47%	0.10%	0.19%	0.15%	0.15%	64.88%	1.13%	0.37%	3.48%	0.08%	0.08%	0.13%	0.36%	0.81%	0.46%	0.11%	0.01%	0.36%	0.92%	0.10%	0.00%	0.04%	0.06%	0.20%	0.57%	7.17%	1.20%	15.95%	0.22%
FI		1.15%	0.57%	0.35%	1.05%	0.16%	0.79%	0.17%	2.63%	56.45%	0.48%	7.00%	0.05%	0.30%	0.48%	0.39%	0.12%	0.05%	0.13%	0.10%	0.76%	0.39%	0.44%	0.01%	0.00%	0.03%	0.60%	4.92%	6.59%	1.32%	12.53%	0.83%
FR		0.00%	1.95%	0.00%	0.00%	0.32%	0.03%	0.24%	0.00%	0.00%	80.51%	4.05%	0.03%	0.01%	0.12%	0.46%	0.00%	0.06%	0.18%	0.25%	0.47%	0.31%	0.13%	0.00%	0.00%	0.75%	0.06%	4.10%	0.66%	5.30%	10.96%	1.96%
DE		1.89%	0.33%	0.06%	0.23%	0.01%	0.12%	0.66%	0.03%	0.25%	0.83%	87.03%	0.05%	0.14%	0.16%	0.61%	0.02%	0.00%	0.31%	0.02%	0.74%	0.14%	0.02%	0.00%	0.11%	0.10%	0.11%	0.07%	1.59%	1.72%	2.65%	23.97%
EL		0.96%	0.46%	1.70%	0.09%	1.48%	0.04%	0.10%	0.04%	0.02%	1.39%	5.06%	33.45%	0.02%	0.11%	2.22%	0.03%	0.14%	0.36%	0.01%	0.75%	0.10%	0.27%	0.45%	0.00%	0.00%	0.64%	0.09%	16.74%	3.61%	28.65%	1.82%
HU		0.93%	0.01%	0.01%	0.21%	0.01%	0.14%	0.09%	0.00%	0.00%	0.13%	1.11%	0.02%	88.56%	0.05%	0.13%	0.00%	0.00%	0.05%	0.00%	0.09%	0.11%	0.00%	0.25%	0.41%	0.01%	0.03%	0.02%	1.75%	0.26%	5.60%	1.39%
IE		0.32%	0.37%	0.16%	0.19%	0.15%	0.14%	0.11%	0.27%	0.07%	0.64%	2.20%	0.19%	0.08%	60.82%	0.57%	0.17%	0.23%	0.10%	0.11%	0.59%	1.54%	0.15%	0.06%	0.23%	0.01%	0.41%	0.24%	20.73%	1.38%	7.80%	1.53%
IT		1.30%	0.46%	0.38%	0.41%	0.18%	0.45%	0.16%	0.03%	0.18%	2.93%	7.16%	0.22%	0.26%	8.44%	65.53%	0.18%	0.16%	0.39%	0.27%	0.40%	0.29%	0.23%	0.44%	0.10%	0.24%	2.07%	0.02%	7.24%	1.26%	6.21%	6.34%
LV		0.25%	0.05%	0.00%	0.15%	0.10%	0.04%	0.40%	1.00%	0.31%	0.16%	3.16%	0.10%	0.01%	0.37%	0.37%	62.96%	2.12%	0.00%	0.00%	0.20%	1.89%	0.11%	0.01%	0.02%	0.07%	0.22%	0.57%	7.11%	1.68%	16.57%	0.31%
LT		0.29%	0.43%	0.37%	0.06%	0.14%	0.06%	0.10%	0.19%	0.04%	0.87%	3.10%	0.23%	0.01%	0.21%	0.63%	0.73%	62.62%	0.03%	0.06%	0.25%	1.62%	0.04%	0.13%	0.01%	0.15%	0.18%	0.13%	8.37%	1.52%	17.45%	0.32%
LX		1.09%	4.70%	0.02%	0.00%	0.00%	0.04%	0.45%	0.00%	0.01%	12.38%	23.61%	0.02%	0.00%	0.55%	1.03%	0.02%	0.00%	46.56%	0.00%	0.80%	0.13%	0.26%	0.00%	0.00%	0.04%	0.26%	0.07%	4.30%	3.66%	0.00%	0.16%
MT		0.17%	0.11%	0.04%	0.00%	0.06%	0.00%	0.01%	0.00%	0.00%	0.61%	1.84%	0.01%	0.00%	0.53%	2.04%	0.00%	0.00%	0.00%	45.13%	0.24%	0.02%	0.00%	0.00%	0.00%	0.03%	0.00%	0.00%	30.93%	0.00%	18.24%	0.06%
NL		0.75%	1.76%	0.00%	0.00%	0.00%	0.03%	0.24%	0.00%	0.00%	0.72%	4.03%	0.02%	0.02%	0.07%	0.27%	0.05%	0.03%	0.02%	0.04%	81.88%	0.10%	0.05%	0.00%	0.00%	0.34%	0.08%	2.36%	0.58%	6.54%	2.96%	1.96%
PL		0.29%	0.02%	0.19%	0.28%	0.15%	0.61%	0.10%	0.13%	0.01%	0.40%	1.60%	0.19%	0.01%	0.01%	0.23%	0.18%	0.04%	0.03%	0.09%	0.36%	91.48%	0.14%	0.09%	0.19%	0.02%	0.30%	0.20%	1.01%	0.22%	1.43%	5.33%
PT		0.20%	0.56%	0.01%	0.07%	0.00%	0.03%	0.09%	0.01%	0.00%	2.03%	2.79%	0.11%	0.00%	0.10%	0.52%	0.01%	0.04%	0.04%	0.01%	0.28%	0.34%	66.50%	0.00%	0.00%	0.00%	5.42%	0.00%	6.08%	1.37%	13.40%	0.75%
RO		0.25%	0.12%	0.22%	0.02%	0.06%	0.01%	0.11%	0.00%	0.05%	0.50%	0.82%	0.04%	0.32%	0.00%	0.40%	0.00%	0.02%	0.05%	0.00%	0.25%	0.06%	0.01%	93.20%	0.05%	0.01%	0.34%	0.01%	0.98%	0.25%	1.85%	0.97%
SK		1.08%	0.04%	0.02%	0.07%	0.01%	5.79%	0.00%	0.00%	0.14%	0.15%	1.11%	0.06%	0.62%	0.02%	0.07%	0.00%	0.00%	0.00%	0.01%	0.10%	0.60%	0.01%	0.00%	78.12%	0.02%	0.09%	0.13%	2.23%	0.36%	9.20%	1.01%
SI		3.04%	0.15%	0.06%	1.22%	0.11%	0.16%	0.14%	0.01%	0.09%	0.31%	5.86%	0.03%	0.15%	0.23%	1.12%	0.06%	0.01%	0.03%	0.01%	0.25%	0.23%	0.04%	0.03%	0.09%	65.07%	0.44%	5.28%	0.68%	14.75%	0.25%	1.96%
ES		0.10%	1.10%	0.11%	0.27%	0.17%	0.04%	0.30%	0.19%	0.12%	3.84%	4.68%	0.29%	0.04%	0.43%	1.75%	0.00%	0.01%	0.31%	0.01%	0.61%	0.03%	0.70%	0.25%	0.00%	0.09%	55.66%	0.29%	7.84%	2.17%	18.67%	6.30%
SE		0.35%	0.15%	0.06%	0.38%	0.09%	0.20%	1.38%	0.11%	0.42%	0.47%	3.27%	0.14%	0.08%	0.33%	0.43%	0.22%	0.01%	0.06%	0.18%	0.31%	0.04%	0.05%	0.43%	0.00%	0.01%	0.27%	76.37%	4.33%	8.65%	1.84%	
UK		0.21%	0.29%	0.15%	0.00%	0.15%	0.25%	0.17%	0.16%	0.15%	0.40%	0.90%	0.05%	0.11%	0.25%	0.18%	0.00%	0.10%	0.34%	0.01%	0.21%	0.28%	0.20%	0.01%	0.15%	0.00%	0.21%	0.05%	88.92%	1.50%	4.58%	25.20%
Total (EU28)		1.65%	1.31%	0.66%	0.42%	0.19%	1.55%	1.32%	0.24%	0.61%	9.96%	23.68%	0.70%	1.35%	1.16%	4.68%	0.24%	0.27%	0.33%	0.11%	3.05%	5.11%	0.65%	0.99%	0.89%	0.22%	3.93%	1.58%	25.62%	1.34%	6.18%	100.00%

Key  
 Proportions greater than 5%  
 Proportions between 2% and 5%

Source: Deloitte analysis on Deloitte/Ipsos consumer survey, 2015

Figure 24 - B2C e-commerce regional trade value matrix - proportions of destination country spending by origin region/country

Destination >	Origin v									EU28
	United Kingdom	Germany	Western Europe	Northern Europe	Eastern Europe	Southern Europe	Other Europe	Non-Europe		
United Kingdom	91.52%	0.92%	0.94%	0.29%	0.58%	1.60%	0.86%	3.29%		26.97%
Germany	1.46%	92.59%	1.95%	1.08%	0.30%	0.91%	0.75%	0.96%		25.30%
Western Europe	1.60%	4.90%	85.60%	0.87%	0.29%	1.97%	0.84%	3.91%		21.76%
Northern Europe	6.41%	4.14%	1.85%	75.59%	1.48%	2.89%	1.08%	6.55%		7.21%
Eastern Europe	1.31%	1.31%	1.42%	0.59%	89.95%	2.54%	0.44%	2.44%		6.56%
Southern Europe	5.51%	4.03%	4.16%	0.90%	1.18%	75.16%	1.31%	7.74%		12.20%
<b>EU28</b>	26.62%	25.61%	20.11%	6.14%	6.45%	10.64%	0.87%	3.56%		100.00%

**Key**

- Proportions greater than 5%
- Proportions between 2% and 5%

Source: Deloitte analysis on Deloitte/Ipsos consumer survey, 2015





# Annex 3: Standard Cost Model

The quantification of the burden for European and non-European businesses (as well as for national postal operators and couriers) is an important component of the study. In keeping with the European Commission's Guidelines and Terms of Reference, this study uses the Standard Costs Model (SCM) methodology.

The SCM was developed by the Dutch ministry of Finance and is used to measure the administrative burden imposed on businesses and/or citizens through the need to comply with regulation. The SCM identifies Information Obligations (IOs), or tasks associated with regulation which require the delivery of information to public authorities or third parties. The IOs can be further subdivided into Data Requirements (DRs). The SCM provides a simplified and consistent method to measure the impact of regulation. It is used across several Member States and is part of the EU's tool kit for assessing administrative costs imposed by EU legislation<sup>136</sup>.

## **Standard Cost Model:**

**Administrative burden = Time\*Price\*Quantity (amount x frequency)**

*Time:* The time spent by the citizen or the employee in the enterprises to comply with an IO

*Price:* The standard cost to apply to the time spent according to the level of the employee who performs the IO (Information Obligation).

*Quantity:* The number of IOs to perform per year and their frequency (e.g. monthly, yearly)

## **Objectives, scope and sources for the exercise**

A key objective of this study is to identify and quantify the costs of doing business for companies supplying B2C e-commerce goods and services to other Member States. In order to do this, the key IOs these companies have to comply with on the basis of the current legislation have been identified, and data on the time and costs they incur was collected through interviews.

Information from these interviews was merged to create a 'typical' EU business engaged in cross-border B2C e-commerce. This was done by averaging the costs of each IO across businesses interviewed in each Member State, and then averaging these figures across Member States. The formula below denotes this process mathematically:

$$Average\ cost = \frac{1}{N} \sum_N (Time_N * Wage_N)$$

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<sup>136</sup> See Impact Assessment Guidelines, annex 10: Assessing administrative costs imposed by EU legislation, p.46

where N is the number of businesses in the sample per each Member State (and then the number of Member States ).

## Data and assumptions

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Data for the exercise came from a variety of sources:

- Real data from business interviews;
- Commission's official guidelines and standardised data (for hourly costs);
- Expert assessments;
- Third party sources.

## IOs

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Data on IOs came from interviews with real businesses engaged in cross-border B2C e-commerce in eight Member States. These Member States were selected among the members of the Fiscalis group on compliance that agreed to participate. Businesses were identified and contacted using a variety of channels, such as the Deloitte network, business representative organisations (both at EU and national level), and chambers of commerce. The following countries and enterprises were included:

- Austria: 1 business;
- Belgium: 3 businesses;
- Denmark: 5 businesses;
- Hungary: 2 businesses;
- Ireland: 2 businesses;
- Italy: 4 businesses;
- Sweden: 2 businesses;
- United Kingdom: 4 businesses.

The sample included micro (4), small (2), medium (4) and large (13) businesses, active in 7 business sectors (with clothing and accessories being the most frequent).

It should be noted that the sample cannot be considered statistically representative of the variety of businesses engaged in B2C cross-border e-commerce, nor statistical representativeness is requested by the SCM methodology.

## Other

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Data on hourly earnings is provided by Eurostat<sup>137</sup>. Specifically, hourly rates for the category ISCO 2, i.e. for management accounts, were used, as they make up the personnel responsible for VAT-related procedures in businesses. Management accountants are classified under the code 2411 in the International Standard Classification of Occupations elaborated by the ILO.

Data on the number of businesses engaged in cross-border B2C e-commerce was obtained from Eurostat and Enterprise and Industry 2013 SBA Fact Sheets.

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<sup>137</sup> See: [http://ec.europa.eu/eurostat/web/products-datasets/-/earn\\_ses\\_hourly](http://ec.europa.eu/eurostat/web/products-datasets/-/earn_ses_hourly) . The most recent figures date back to 2010, but given the economic crisis, figures are considered still quite accurate by the Commission's services consulted on the topic. Updated hourly earnings should be elaborated by Eurostat by the end of 2015,

The number of Member States in which a ‘typical’ EU business is registered was estimated using a combination of information from the business interviews and expert assessments. Information from the business interviews proved quite heterogeneous: the average of 6 registrations per businesses seemed excessively high. This was likely a consequence of the sample not being representative and skewed towards large enterprises. As secondary data was not available<sup>138</sup>, these numbers were cross-checked using expert assessments. Input was given by Deloitte tax experts based on their direct experience on supporting businesses with VAT registrations in other Member States and other VAT obligations, as well as chambers of commerce and the businesses associations, based on the experiences reported by their members. The experts agreed that the largest companies are often registered in all 28 Member States. However, the majority of businesses tend to focus trade on neighbouring countries and thus have a limited number of registrations in other Member States - three on average. As large businesses form only a minor of businesses engaged in cross-border e-commerce, and the purpose of this study is to reflect the cost of a ‘typical’ EU business, the number of Member States in which businesses register was set at three.

Data on standard wage rates were obtained from a combination of information from business interviews and the European Commission.

The results from the SCM were cross-checked using expert judgement findings from existing literature, including recent studies carried out for the European Commission, DG TAXUD, on VAT-related topics<sup>139</sup>. It should be noted, however, that figures from existing studies are not necessarily directly comparable, as other studies may be measuring different things and using different approaches.

## Information Obligations (IOs) used for the analysis

The table below provides the overview of the IOs used in the SCM. The relevant IOs were identified through the current literature and interviews with Deloitte’s tax practitioners. In addition, the list of IOs was checked by both national tax and customs authorities and the businesses interviewed.

Table 40- Information Obligations used in the Standard Cost Model

IO #	Type of obligation	Description	Comments/notes
IO1	VAT registration	IO1 consists of the one-off registration for VAT purposes in another Member State than the Member State where the business is established. This includes all tasks necessary to complete the registration such as communication with the relevant authorities and the provision of evidence of taxable activities. By contrast, the waiting time is not included in the calculation.	
IO2	Identification of customer status – B2B	IO2 consists of the identification for each transaction of the status of the customer, <i>i.e.</i> whether the customer is a business or a	Part of the ‘business as usual’ operations – no

<sup>138</sup> During our fieldwork and interviews, we asked all interlocutors about information on this issue. Apparently, no organisations collect data on this.

<sup>139</sup> The full list of references used is provided in Annex A

IO #	Type of obligation	Description	Comments/notes
	or B2C	consumer.	specific costs attached
IO3	Identification of Member State of consumption	IO3 consists of the identification for each transaction of the Member State of consumption.	Part of the 'business as usual' operations – no specific costs attached
IO4	Identification of correct VAT rate	IO4 consists of the identification for each transaction of the correct VAT rate that applies to the transaction.	Part of the 'business as usual' operations – no specific costs attached
IO5	Invoicing (incl. charging VAT)	IO5 consists of the invoicing for each transaction in accordance with either the business' home country rules or the rules of the Member State of consumption.	Part of the 'business as usual' operations – no specific costs attached
IO6a	VAT declaration /returns Re domestic VAT	IO6a consists of the periodical submission of the domestic VAT return.	
IO6b	VAT declaration /returns Re MOSS	IO6b consists of the quarterly submission of the MOSS VAT return in the business' Member State of identification.	
IO7	Import declaration (incl. VAT)	IO7 applies to the import of goods. It consists of the submission for each transaction of the import declaration.	Does not apply to businesses in our exercise - dropped
IO8a	VAT payment Re domestic return	IO8a consists of the periodic (generally monthly) payment of the VAT related to the business' domestic VAT return.	
IO8b	VAT payment Re MOSS	IO8b consists of the quarterly payment of the VAT related to the business' MOSS VAT return.	
IO8c	VAT payment Re import	IO8a consists of the periodic payment of the VAT related to the business' imports of goods	Does not apply to businesses in our exercise – dropped
IO9	Storage of invoices	IO9 consists of the storage of invoices in accordance with the obligation to store invoices for 10 years. It also includes the cooperation with audits and inspection by the relevant public authorities.	
IO10	Storage of import declarations	IO10 consists of the storage of import declarations in accordance with the obligation to store them for 10 years. It also includes the	Does not apply to businesses in our exercise – dropped

IO #	Type of obligation	Description	Comments/notes
		cooperation with audits and inspection by the relevant public authorities.	
IO11	Changes or cancelling of VAT registration	IO11 consists of the one-off cancellation or change of registration for VAT purposes in another Member State than the Member State where the business is established. This includes all tasks necessary to complete the cancellation or change such as communication with the relevant authorities. By contrast, the waiting time is not included in the calculation.	

Source: Deloitte analysis based on VAT Directive 2006/112/EC

The interviews with businesses highlighted that IO1, IO6a and IO8a are responsible for the large part of the costs businesses incur to comply with VAT-related requirements.

## Detailed results per IO

The following sections provide a more detailed overview of the results obtained per each relevant IO.

### IO1 – VAT registration

Data from business interviews regarding this IO show that in many cases businesses recur to advisors and tax consultants to help them comply with the requirements. Time needed to comply with the IO and related costs differ depending on whether businesses decide to use advisors or not. Therefore, the analysis of this IO was split into two parts, analysing the costs for in-house processing and for use of advisors<sup>140</sup>.

#### In-house time

Average time (minutes)	Standard deviation	Median	Min	Max
1 143.63	1812.72	62.50	125.00	4 320.00

#### Outsourcing time

Average time (minutes)	Standard deviation	Median	Min	Max
326.25	379.31	105.00	60.00	960.00

In the case of businesses with advisory costs, the formula presented earlier was modified as follows:

$$\text{Average cost} = \frac{1}{N} \sum_N (\text{Time}_N * \text{Wage}_N + \text{Consultancy})$$

The analysis of IO1 required additional assumptions regarding

<sup>140</sup> The same approach was adopted by the PwC study "Study on the feasibility and impact of a common EU standard VAT return", available at: [http://ec.europa.eu/taxation\\_customs/common/publications/studies/index\\_en.htm](http://ec.europa.eu/taxation_customs/common/publications/studies/index_en.htm)

- ✔ The share of businesses that use external advisors;
- ✔ The amount of advisory fees; and
- ✔ The frequency with which businesses apply for VAT registration in other Member States.

The share of businesses that use external advisors was assumed to be 50%. This figure is based on insights from the business interviews, as well as expert’s assessments by Deloitte tax practitioners and business associations.

The amount off advisory fees was assumed to be EUR 2 000 per registration per company was used; this figure is at the lower end of the spectrum identified. This figure was estimated on the basis of the inputs provided by the businesses interviewed and by experts consulted, and cross-checked with existing literature.

Finally, the frequency with which businesses apply for VAT registration in other Member States was assumed to be 10 years on average. This figure is at the lower end of the observed spectrum. It is based on the observation that generally companies register for VAT in a Member State only once, and this action therefore represents a one-off cost. The figure represents the average lifespan of a company. It was verified by the experts consulted.

### IO6a – VAT declaration /returns Re domestic VAT

As for IO1, data for IO6a show that businesses may decide to use advisory services to comply with the requirements. Therefore, the time and related costs were analysed separately, using the corresponding formulas presented earlier.

#### In-house time

Average time (minutes)	Standard deviation	Median	Min	Max
747.13	521.60	920.00	90.00	1 440.00

#### Outsourcing time

Average time (minutes)	Standard deviation	Median	Min	Max
896.25	1558.16	1 185.00	30.00	4 800.00

For IO6a, the same equal partition between businesses using and not using advisory services was adopted. The calculation of the average consultancy fee for the ‘typical’ EU business engaged in B2C e-commerce followed the same procedure as for IO1, and the estimation was of EUR 800. As far as the frequency of IO6a is concerned, considering that the domestic declarations/returns are most often per month but still as for some large countries it is on quarterly basis, we have calculated an average frequency of 8 times per year.

### IO6b – VAT declaration /returns Re MOSS

As MOSS was introduced in January 1<sup>st</sup>, 2015, this IO represents a new task for businesses.

Average time (minutes)	Standard deviation	Median	Min	Max
52.50	59.53	63.20	25.00	180.00

The costs reported are lower than those for ‘normal’ VAT returns (IO6a), and no advisory costs are reported. While quite partial, this data can be a first indication of the actual simplification brought by the MOSS system, and of the potential simplification that a similar measure for goods could help achieving.

The most recent estimation about the number of businesses registered in MOSS is 10 000.

### IO8a – VAT payment Re domestic return

For IO8a, the same frequency as the submission of domestic VAT declarations/returns was assumed.

Average time (minutes)	Standard deviation	Median	Min	Max
139.75	240.35	10.00	2.50	722.50

Following expert judgement, it appears that the average time calculated is much too high if we consider typical business equipped with common IT system. 30 minutes per payment is more realistic.

### IO8b – VAT payment Re MOSS

This IO is quite new for businesses, which have started to submit VAT return using the MOSS only recently.

Average time (minutes)	Standard deviation	Median	Min	Max
34.63	78.97	10.00	2.50	240.00

As for the previous IO, experts have considered that the average time is too high. For payment via MOSS, 10 minutes is more appropriate.

As for the IO6b, the number of businesses registered is 10 000.

### IO9 – Storage of invoices

Data from businesses interviewed show that this IO requires a very limited number of actions (and thus of costs) from businesses. Businesses usually reported the related time costs on an annual or monthly basis. We report the annual total costs (annual frequency).

Average time (minutes)	Standard deviation	Median	Min	Max
139.75	266.36	97.75	30.00	800.00

### IO11 – Changes or cancelling of VAT registration

Data from business interviews show that this IO is quite rare in the life of businesses. Within our sample, none of the businesses reported to have ever cancelled a VAT registration, and only 2 have modified their VAT registration.

#### In-house time

Average time (minutes)	Standard deviation	Median	Min	Max
717.00	1381.10	6.00	12.00	4 224.00

#### Outsourcing time

Only one business reported to have outsourced the activities for changing its VAT registration. Costs were incurred only for the advisory fee, while no internal costs were reported.

Similar considerations concerning frequency were adopted as for IO1 (i.e. a 10 year frequency). The estimation of the average fee followed the same procedure. It was quantified as EUR 1 000 per registration/cancellation per entity, as there is a general consensus that the costs are lower than for a VAT registration. In order to account for the lower frequency of this procedure in the life of a business,

we also assumed (in accordance with experts) that 50% of EU businesses engaged in cross-border B2C e-commerce will change or cancel their VAT registration.



# Annex 4: Technical Note on mock purchases and assessing of compliance

The purpose of the mock purchases exercise is to assess compliance with the rules for intra-EU B2C supplies of goods through distance selling and for B2C supplies of goods by non-EU suppliers<sup>141</sup>.

## VAT rules – Compliance criteria

The table below presents the relevant rules for these types of supplies, and the corresponding compliance criteria to be tested.

Transaction	Relevant rules	Compliance criteria
<b>Intra-EU B2C supplies of goods through distance selling</b>	VAT is charged at the appropriate rate of the MS of destination, assuming that the total value, exclusive of VAT, of the supplies of goods, which fall under distance selling rule <sup>142</sup> , exceeds the distance selling threshold set by the MS of destination (35 000 – 100 000 EUR).	Is VAT applied at the appropriate rate in the MS of destination, assuming that the distance selling threshold has been exceeded?
<b>B2C supplies of goods by non-EU suppliers</b>	The small consignment exemption is applied for VAT purposes on the import of goods with a value below the threshold set by the MS of importation (10-22 EUR). Postal imports may be excluded from the exemption.	Are the goods correctly valued (below or above the threshold) in application of the small consignments exemption?

<sup>141</sup> While the Terms of Reference also mention the supplies of *services* by non-EU B2C suppliers, the compliance criteria to be assessed against cover only *goods* (the exemption for small consignments and the customs threshold of 150 EUR). We therefore assume that compliance will need to be only assessed for the supplies of goods.

<sup>142</sup> Supplier sells goods to a non-taxable person or a taxable person/non-taxable legal person whose intra-EU acquisitions are not subject to VAT; the goods are dispatched or transported to another MS by or on behalf of the supplier, and the supply does not concern goods subject to excise duty, new means of transport, goods supplied after assembly or installation, second hand goods, works of art and collectors' items or antiques.

Transaction	Relevant rules	Compliance criteria
	VAT is charged on the import of goods with a value between the small consignment exemption threshold set by the MS of importation and the customs threshold of 150 EUR at the appropriate rate of the MS of importation.	Is VAT charged at the appropriate rate on transactions up to the customs threshold of 150 EUR?

Source: Deloitte analysis

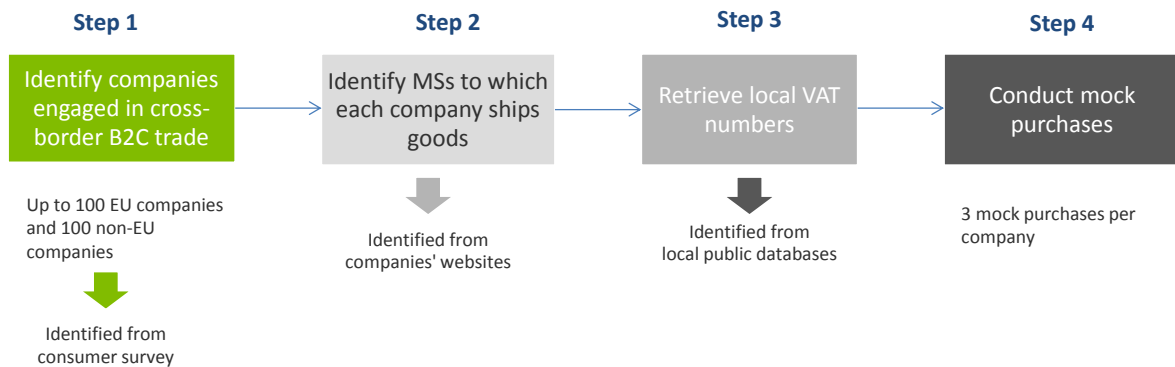
In the compliance assessment we will aim to provide:

- An overview of the key compliance risks on cross-border B2C supplies of goods, both intra-EU and non-EU;
- An overview of the measures currently applied by tax and customs authorities in selected EU MS to assess and improve compliance;
- A synthesis of any research carried out by EU MS into relevant compliance issues;
- A quantitative assessment of compliance based on a sample of mock purchases alongside any existing estimates from MS.

This note focuses on the methodological issues associated with the mock purchases.

### Methodology for the quantitative assessment of compliance – Mock purchases

The key methodological steps are set out in the diagram below and in the text that follows.



The proposed methodology is mainly based on mock online purchases from 200 selected e-Commerce traders for both intra-EU B2C and non-EU supplies (see next subsection for the selection of businesses). In particular, we will conduct research by going through the entire order process, but without going to the payment and delivery phase.

For the first 30 purchases however we will go through the payment and delivery phase. This will enable the thorough analysis of the VAT and customs treatment of the purchases, such as the applicable VAT rate, since for these sales the customer should receive a VAT invoice (often required by VAT law or consumer protection legislation). For this limited initial sample of real purchases, we

will test the below described methodology and, if necessary, and after discussion with the Commission, fine tune the methodology according to our findings on the basis of this sample.

The mock purchases will focus on new goods. No mock purchases will be performed for used goods (e.g. through eBay, leboncoin.fr etc.). Used goods sales seem to be of very small importance compared to the total e-Commerce market size. In addition, mock purchases on used goods may not capture the complexity of the applicable VAT legislation for both sales performed by consumers (*i.e.* C2C) and sales performed by businesses<sup>143</sup>.

### Selection of e-Commerce traders

It is straightforward to identify market places involved in cross-border trade such as Amazon, eBay and major companies involved in such trade like Argos or Zalando. The expectation though is that compliance issues will be more prevalent in smaller companies, particularly where they do not specialise in cross-border goods/services.

Therefore, the intention is to identify 100 EU and 100 non-EU small companies and perform 3 mock purchases for each company.

The selection of companies will be by using the (EU and non EU) companies identified in the consumer survey. In case less than 100 EU companies are identified from the consumer survey, publicly available company directories will be used to complete the sample in the sample of eight Members State.

For non-EU companies in particular, we will seek companies which are mainly established in China and the United States of America. We intend to address Hong Kong as a separate category included in the mock purchases. Additionally, we will assess companies established in Switzerland, the Middle East (e.g. Egypt) and the Channel Islands.

Finally, for all businesses the country of establishment will be the country where the known headquarters are located. This is to minimize the impact of complex supply chains are often hidden behind a website, e.g. purchasing from a US company, but the goods being shipped from a warehouse in the EU.

The result of the selection of the e-Commerce traders will be displayed in a table (below is a dummy table).

EU e-Commerce companies		
#	Name	Country of establishment
1	Argos	UK

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<sup>143</sup> More specifically, for sales performed by consumers, this is hampered by the VAT margin scheme on the one hand and the fact that these sellers are not required to issue an invoice for these sales on the other hand. For sales performed by businesses, the VAT margin scheme could also be applicable.

2	Zalando	DE
3	Vente privée	FR
4	Amazon	LU
...	...	...
Non-EU e-commerce companies		
#	Name	Country of establishment
1	Amazon	USA
2	eBay	USA
3	Alibaba	China
4	...	...
...		

### Assessing compliance of companies and carrying out mock purchases

The VAT and customs rules applicable are fundamentally different between EU and non-EU supplies, thus the assessment of compliance is following the split between the two.

### Intra-EU B2C supplies of goods through distance selling

Compliance with the rules for intra-EU B2C supplies of goods through distance sales is difficult to determine as it depends on:

- Whether the total value of the sales of the supplier into the Member State of destination exceeds the relevant threshold in that Member State; and
- In case the threshold is not exceeded, on whether the supplier has opted to identify for VAT in that Member State.

Given this, the mock purchases will be preceded by a preliminary phase. In the first instance, the selected enterprises' will be checked with respect to the requirement to obtain VAT numbers in the relevant countries (assuming they exceeded the thresholds for distance selling). Subsequently, we will carry out mock purchases. The details of the two separate phases are set out below.

#### ***Preliminary Phase: Assessing compliance of companies through identifying in which EU Member States they are identified (if possible)***

In the first instance, to determine the Member States in which the businesses should have registered for VAT purposes, publicly available information, e.g. the business' website, will be used to assess the Member States the enterprises primarily direct their sales of goods.

Subsequently, the businesses' local VAT numbers in those markets (if any). This can be done through local public databases in the relevant EU Member States. Where this may prove challenging because of no such public databases, e.g. UK, Germany, access to private databases will provide the necessary data. For the same reason (amongst others), we would strongly suggest that Belgium would be included in the sample of eight EU Member States for Lot 1 to analyse it as a destination country.

In addition, the selection of the traders and Member States of destination will:

- (i) Aim to target SME companies, rather than micro-companies who may easily trade below distance selling thresholds;
- (ii) Select the Member States of destination surrounding (or not far from) the Member State of the establishment of the company to increase the probability that the sales to that Member State exceed the distance selling threshold. Languages shared between EU Member States could also induce presence on the markets of other EU Member States (e.g. UK companies active in Ireland).

The above will reduce the risk that the correct application of VAT at a rate of the Member State of dispatch (since the EU non-established trader trades below the threshold in the selected Member States of destination) would be unduly considered as non-compliance.

### ***Carrying out the mock purchases***

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After having determined the companies' compliance with their obligations to register for VAT purposes (if possible), in a second phase, we will examine whether the enterprises effectively use the correct VAT numbers and apply the VAT of the correct country of destination of the goods.

Conversely, we can verify what VAT rules are these companies applying in EU Member States where they are not registered for VAT purposes e.g. are they applying VAT of the EU Member State where they are established when they are shipping to countries where they are not established?

This compliance test will be conducted by performing the aforementioned three mock purchases for each of the 200 selected businesses.

More specifically, different countries of destination will be tested to examine whether the VAT rate applied is appropriately adjusted: the purchase of the same goods shipped to a different address in the EU should receive different VAT treatment (assuming the distance sales thresholds are exceeded). A shipment of goods to the UK at the standard rate should be subject to 20% VAT. The same shipment of goods to Denmark should be subject to 25% VAT.

### **B2C supplies of goods by non-EU suppliers**

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The mock purchases with regards to the non-EU supplies follows a similar process. That is:

- In the first instance identify the Member State in which the businesses should have registered for VAT purposes using publicly available information from their websites about the destination country of supplies
- Subsequently, retrieve their local VAT numbers in those markets (if any).
- Carry out the mock purchases in order to test the compliance with import VAT rules (small consignments). Different countries of destination will be selected to examine whether the VAT rate applied is appropriately adjusted and also purchases with different values to test the application of the small consignment exemption. For example, the mock purchases would

include standard rated goods from China with values of 10 EUR, 40 EUR and 160 EUR to be shipped to Belgium and Germany.

One important difference for non-EU suppliers compared to the EU B2C distance sales is that the private customer can be liable for the import formalities. More specifically, if all goods are customs cleared in the name of the customer, e.g. by a courier, then the seller is discharged of any obligation in this regard. The same holds for import VAT, which is due by the consignee.

For the purposes of this analysis, the assumption is that the non-EU seller takes care of any customs formalities or duties which are due<sup>144</sup>. Interviews with the postal operators and national tax authorities will be used to inform the validity of the assumption.

An additional challenge to testing the compliance on B2C supplies from non-EU businesses comes when the goods are imported in one Member State, followed by distance sales to the MS of destination. This may not be apparent when using mock purchases. The quality of the compliance assessment will be improved by aiming to select, as far as possible, traders and purchases where the country of dispatch is mentioned as a non-EU country, and therefore more likely to involve direct import.

Finally, the non-EU B2C imports may be more prone to mislabelling (*i.e.* labelling of a product as a product, which is not excluded from the small consignments regime) and overestimating of transport costs after import (*i.e.* since these are not included in the customs value and thus inflating them will decrease the customs value). The report will flag such issues.

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<sup>144</sup> When the seller indicates specific wording on the liability for import VAT and duties in his terms and conditions, we will also flag this in the report

# Annex 5: Results of the mock purchase exercise

In order to assess compliance with the rules for intra-EU B2C supplies of goods through distance selling and for B2C supplies of goods by non-EU suppliers, the study team has conducted real and mock online purchases from EU and non-EU e-commerce traders.

The first section of this Annex discusses intra-EU B2C supplies of goods. The second section discusses B2C supplies of goods by non-EU suppliers. Each section is divided into three sub-sections that describe how the e-commerce traders were selected, the results of the real purchases and the results of the mock purchases.

## Intra-EU B2C supplies of goods

### Selection of e-commerce traders

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The selection of e-commerce traders was carried out on the basis of the results of the consumer survey. 100 companies were selected, having their headquarters in the EU and supplying their goods outside their domestic market to at least two of the following countries: Austria, Belgium, Denmark, Hungary, Ireland, Italy, Sweden and the United Kingdom.

The table below shows the geographical distribution of the selected companies on the basis of their headquarters.

Table 41 - Geographical distribution of selected EU e-commerce traders

Location headquarters	Number of companies	Location headquarters	Number of companies
Belgium	2	Spain	3
Denmark	7	Luxembourg	1
France	5	Sweden	5
Germany	21	The Netherlands	15
Ireland	9	United Kingdom	30
Italy	1	Switzerland	1 <sup>145</sup>

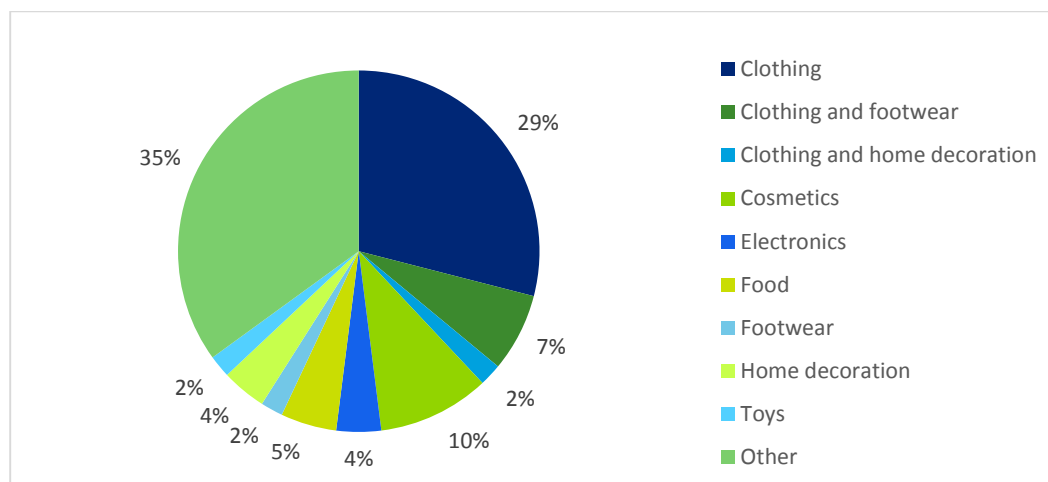
Source: Deloitte analysis

As shown in the figure below, 38% of the selected companies are active in the clothing sector, sometimes combined with footwear and home decoration. We also selected companies from sectors such as cosmetics, electronics, food and toys. The category “other” encompasses a variety of products ranging from baby accessories to garden equipment.

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<sup>145</sup> Included as an EU company since goods are shipped to consumers from warehouses in the EU.

Figure 25 – Sectorial distribution of selected EU e-commerce traders



Source: Deloitte analysis

## Real purchases

We conducted real purchases, going through the payment and delivery phase, for the first 25 purchases from 17 different companies. All purchases were carried out by Belgian consumers and delivered to an address in Belgium. The table below presents the data collected on the basis of these purchases.

The Belgian VAT numbers of the companies were retrieved through the Belgian Crossroads Bank for Enterprises<sup>146</sup>. Twelve companies are registered in Belgium for VAT purposes, while five companies are not.

Of the companies that are registered in Belgium for VAT purposes, eleven companies applied the Belgian VAT rate, while one company applied the VAT rate of the country of dispatch. The five companies that are not registered in Belgium for VAT purposes all applied the VAT rate of the country of dispatch.

If it is assumed that all selected companies are trading above the Belgian distance selling threshold, the six companies (35%) that apply the VAT rate of the Member State of dispatch would have to be considered as non-compliant. However, while these companies are not micro-companies and are all established in countries close to Belgium, the possibility cannot be excluded that they are selling below the threshold and consequently correctly apply the VAT rate of the Member State of dispatch.

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Table 42 -Real purchases (intra-EU)

Identifier <sup>147</sup>	Country of establishment	Country from which the goods are shipped	EU Member State of destination	VAT number in Member State of destination	Value of shipment	Value of transport costs	VAT applied (rate)	VAT applied (dispatch or destination)
1a	DE	DE	BE	Yes	€ 15,66	€ 0,00	21%	Destination
1b	DE	DE	BE	Yes	€ 28,88	€ 0,00	21%	Destination
1c	DE	DE	BE	Yes	€ 21,45	€ 0,00	21%	Destination
1d	DE	DE	BE	Yes	€ 21,45	€ 0,00	21%	Destination
1e	DE	DE	BE	Yes	€ 53,85	€ 0,00	21%	Destination
1f	DE	DE	BE	Yes	€ 57,81	€ 0,00	21%	Destination
2a	NL	NL	BE	Yes	€ 28,92	€ 0,00	21%	Destination
2b	NL	NL	BE	Yes	€ 20,65	€ 0,00	21%	Destination
3	CH	UK, DE, NL, NO	BE	Yes	€ 34,78	€ 3,90	6%	Destination
4	NL	Unclear	BE	Yes	€ 39,50	€ 0,00	21%	Destination
5a	LU	UK	BE	Yes	£ 11,54	£ 0,98	21%	Destination
5b	LU	UK	BE	Yes	£ 6,00	£ 0,98	21%	Destination
5c	LU	UK	BE	Yes	£ 12,00	£ 0,98	21%	Destination
6	NL	NL	BE	Yes	€ 117,21	€ 0,00	21%	Destination
7	FR	Unclear	BE	Yes	€ 27,61	€ 2,89	21%	Destination
8	NL	NL	BE	Yes	€ 33,00	€ 3,95	21%	Destination
9	IE	Unclear	BE	Yes	€ 37,19	€ 0,00	21%	Destination
10	NL	Unclear	BE	Yes	€ 17,95	€ 0,00	19%	Dispatch
11	NL	Unclear	BE	No	€ 60,74	€ 0,00	21%	Dispatch

<sup>147</sup> Each purchase is given an identifier which consists of a number referring to the company and a letter referring to the purchase. E.g. purchase 1a and 1b refer to two different purchases from the same company.

12	NL	Unclear	BE	No	€ 57,00	€ 6,80	21%	Dispatch
13	NL	Unclear	BE	No	€ 61,86	€ 0,00	21%	Dispatch
14	NL	Unclear	BE	No	€ 24,63	€ 0,00	21%	Dispatch
15	DE	Unclear	BE	Yes	€ 90,07	€ 0,00	21%	Destination
16	NL	NL	BE	No	€ 57,01	€ 4,09	21%	Dispatch
17	NL	Unclear	BE	Yes	€ 1 249,21	€ 7,99	21%	Destination

Source: Deloitte analysis based on real purchases conducted across EU Member States

## Mock purchases

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In addition to the real purchases from 17 companies, mock purchases were conducted for 83 companies.

In a first step, one mock purchase per company was carried out by going through the order process until the payment phase. This allowed us to identify which information is communicated to the consumer prior to the payment. **For 58 of the 83 companies from the sample (70%) it was not possible to determine which VAT rate was applied.** These companies only displayed prices including VAT throughout the order process, without separately displaying the VAT rate or the VAT amount.

Only 25 of the 83 companies from the sample (30%) displayed the VAT rate or the VAT amount separately. For these companies, two additional mock purchases were carried out, delivering the same item to addresses in different EU countries. The countries of destination were chosen each time from among the following eight Member States: Austria, Belgium, Denmark, Hungary, Ireland, Italy, Sweden and the United Kingdom.<sup>148</sup> The table on the next page presents the data collected on the basis of these purchases.

The VAT numbers of the companies in the countries of destination were retrieved on the basis of information found on the companies' websites and, in the case of Belgium, public databases.<sup>149</sup> On the basis of these information sources, at least 9 out of the 25 companies are registered for VAT purposes in at least one of their countries of destination.

**The VAT rate of the country of destination was applied in 20 of the 73 mock purchases carried out (27%).** The companies' VAT numbers in the countries of destination could be retrieved for 11 of these 20 mock purchases. For 9 of these 20 mock purchases, the VAT number in the country of destination could not be retrieved. **The VAT rate of the country of dispatch was applied in 52 of the 73 mock purchases carried out (71%).** For one mock purchase, the VAT rates of the country of destination and dispatch are the same and it is not clear whether the company is registered for VAT purposes in the country of destination.

**The majority of the companies either always apply the VAT rate of the country of dispatch (16 out of 25 companies) or always apply the VAT rate of the country of destination (6 out of 25 companies).** Only 3 companies apply the VAT rate of the country of dispatch for sales to one country and the VAT rate of the country of destination for sales to another country.

If it is assumed that all companies are trading above the distance selling thresholds in their countries of destination, the companies that apply the VAT rate of the Member State of dispatch would have to be considered as non-compliant. However, the possibility cannot be excluded that

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<sup>148</sup> For this reason, only 2 mock purchases were carried out for two of the companies from the sample (company 4 and company 10), as these companies are active in only 2 of the 8 countries.

<sup>149</sup> Access to the Belgian Crossroads Bank for Enterprises (<http://kbopub.economie.fgov.be/kbopub/zoeknummerform.html>) is free of charge. This is not the case for the relevant databases in the other countries (AT: Republik Österreich Firmenbuch (<http://www.firmenbuch.at>), DK: Central Business Register (<http://datacvr.virk.dk/data/>), HU: Company Information Service ([www.e-cegjegyzek.hu](http://www.e-cegjegyzek.hu)), IE: Companies Registration Office (<https://www.cro.ie/en-ie>), UK: Companies House (<http://wck2.companieshouse.gov.uk>), SE: Companies Registration Office (<https://snr4.bolagsverket.se/snr4gate/startIn.do>), IT: Registro Imprese (<http://www.registroimprese.it>)).

they are selling below the threshold and consequently correctly apply the VAT rate of the Member State of dispatch.

Table 43 - Mock purchases (intra-EU)

Identifier <sup>150</sup>	Country of establishment	Country from which the goods are shipped	EU Member State of destination	VAT number in Member State of destination	Value of shipment	Value of transport costs	VAT applied (rate)	VAT applied (dispatch or destination)	Price variable according to destination?
1a	DE	DE	BE	Yes	€ 7,88	€ 3,95	19%	Dispatch	No
1b	DE	DE	AT	Unclear	€ 7,88	€ 3,95	19%	Dispatch	No
1c	DE	DE	DK	Unclear	€ 7,88	€ 3,95	19%	Dispatch	No
2a	DE	DE	BE	Yes	€ 53,72	€ 0,00	21%	Destination	Yes
2b	DE	DE	UK	Yes	£ 46,67	£ 0,00	20%	Destination	Yes
2c	DE	DE	AT	Unclear	€ 54,17	€ 0,00	20%	Destination	Yes
3a	DE	DE	BE	No	€ 12,15	€ 14,00	19%	Dispatch	No
3b	DE	DE	DK	Unclear	€ 12,15	€ 14,00	19%	Dispatch	No
3c	DE	DE	AT	Unclear	€ 12,10	€ 14,00	20%	Dispatch	No
4a	DE	Unclear	BE	No	€ 3,32	€ 11,95	19%	Dispatch	No
4b	DE	Unclear	AT	Unclear	€ 3,32	€ 11,95	19%	Dispatch	No
5a	SE	SE	BE	Yes	€ 32,23	€ 0,00	21%	Destination	Yes
5b	SE	SE	IE	Unclear	€ 31,71	€ 0,00	23%	Destination	Yes
5c	SE	SE	UK	Unclear	£ 58,33	€ 0,00	20%	Destination	Yes
6a	DE	DE	SE	Unclear	€ 69,99	€ 4,95	19%	Dispatch	No
6b	DE	DE	IT	Unclear	€ 69,99	€ 4,95	19%	Dispatch	No
6c	DE	DE	HU	Unclear	€ 69,99	€ 4,95	19%	Dispatch	No
7a	DE	Unclear	BE	No	€ 7,16	€ 8,00	19%	Dispatch	No
7b	DE	Unclear	IE	Unclear	€ 7,16	€ 8,00	19%	Dispatch	No
7c	DE	Unclear	SE	Unclear	€ 7,16	€ 8,00	19%	Dispatch	No

<sup>150</sup> Each mock purchase is given an identifier which consists of a number referring to the company and a letter referring to the purchase. E.g. purchase 1a and 1b refer to two different purchases from the same company.

Identifier <sup>150</sup>	Country of establishment	Country from which the goods are shipped	EU Member State of destination	VAT number in Member State of destination	Value of shipment	Value of transport costs	VAT applied (rate)	VAT applied (dispatch or destination)	Price variable according to destination?
8a	NL	Unclear	UK	Unclear	€ 19,74	€ 2,95	21%	Dispatch	No
8b	NL	Unclear	AT	Unclear	€ 19,74	€ 2,95	21%	Dispatch	No
8c	NL	Unclear	BE	Yes	€ 19,74	€ 2,95	21%	Destination	No
9a	DK	DK	BE	No	€ 95,79	€ 6,00	19%	Dispatch	No
9b	DK	DK	SE	Unclear	855,4 SEK	0,00 SEK	25%	Destination	No
9c	DK	DK	AT	Unclear	€ 95,79	€ 6,00	19%	Dispatch	No
10a	UK	Unclear	BE	No	£ 25	£ 0,00	20%	Dispatch	No
10b	UK	Unclear	IE	Unclear	£ 25	£ 0,00	20%	Dispatch	No
11a	DK	Unclear	BE	No	27,96 DKK	69,00 DKK	25%	Dispatch	No
11b	DK	Unclear	SE	Unclear	27,96 DKK	69,00 DKK	25%	Dispatch	No
11c	DK	Unclear	IE	Unclear	27,96 DKK	49,00 DKK	25%	Dispatch	No
12a	DK	Unclear	BE	No	79,96 DKK	150 DKK	25%	Dispatch	No
12b	DK	Unclear	SE	Unclear	79,96 DKK	150 DKK	25%	Dispatch	No
12c	DK	Unclear	UK	Unclear	79,96 DKK	150 DKK	25%	Dispatch	No
13a	DK	Unclear	AT	No	€ 17,84	€ 0,00	25%	Dispatch	No
13b	DK	Unclear	IT	No	€ 17,84	€ 0,00	25%	Dispatch	No
13c	DK	Unclear	SE	Yes	152,8 SEK	0,00 SEK	25%	Destination	No
14a	DE	DE	UK	Unclear	£37,49	£5,99	20%	Destination	Yes
14b	DE	DE	BE	Yes	€ 33,05	€ 5,99	21%	Destination	Yes
14c	DE	DE	AT	Unclear	€ 33,32	€ 5,99	20%	Destination	Yes
15a	DK	Unclear	BE	No	€ 150,40	€ 24,00	25%	Dispatch	No
15b	DK	Unclear	SE	Unclear	€ 150,40	€ 10,00	25%	Dispatch	No
15c	DK	Unclear	UK	Unclear	€ 150,40	€ 24,00	25%	Dispatch	No
16a	UK	UK	BE	Yes	€ 363,64	€ 15,00	21%	Destination	Yes
16b	UK	UK	DK	Unclear	€ 352,00	€ 15,00	25%	Destination	Yes
16c	UK	UK	HU	Unclear	€ 346,46	€ 15,00	27%	Destination	Yes

Identifier <sup>150</sup>	Country of establishment	Country from which the goods are shipped	EU Member State of destination	VAT number in Member State of destination	Value of shipment	Value of transport costs	VAT applied (rate)	VAT applied (dispatch or destination)	Price variable according to destination?
17a	DE	Unclear	BE	No	€ 35,33	€ 15,00	7%	Dispatch	No
17b	DE	Unclear	AT	Unclear	€ 35,33	€ 6,90	7%	Dispatch	No
17c	DE	Unclear	DK	Unclear	€ 35,33	€ 35,00	7%	Dispatch	No
18a	SE	Unclear	BE	Yes	€ 20,04	€ 4,95	21%	Destination	Yes
18b	SE	Unclear	DK	Unclear	151,2 DKK	39 DKK	25%	Same rates	Yes
18c	SE	Unclear	IT	Unclear	€ 20,86	€ 4,95	22%	Destination	Yes
19a	DE	DE	BE	No	€ 84,03	€ 17,00	19%	Dispatch	No
19b	DE	DE	AT	Unclear	€ 84,03	€ 10,00	19%	Dispatch	No
19c	DE	DE	DK	Unclear	€ 84,03	€ 17,00	19%	Dispatch	No
20a	IE	IE	BE	No	€ 32,48	€ 0,00	23%	Dispatch	No
20b	IE	IE	UK	Unclear	€ 32,48	€ 0,00	23%	Dispatch	No
20c	IE	IE	AT	Unclear	€ 32,48	€ 0,00	23%	Dispatch	No
21a	UK	UK	BE	No	€ 20,00	€ 0,00	0%	Dispatch	No
21b	UK	UK	IT	Unclear	€ 20,00	€ 0,00	0%	Dispatch	No
21c	UK	UK	SE	Unclear	€ 20,00	€ 0,00	0%	Dispatch	No
22a	UK	UK	BE	No	€ 4,88	€ 0,00	20%	Dispatch	No
22b	UK	UK	AT	Unclear	€ 4,88	€ 0,00	20%	Dispatch	No
22c	UK	UK	IT	Unclear	€ 4,88	€ 0,00	20%	Dispatch	No
23a	UK	UK	BE	No	£31,67	£9,95	20%	Dispatch	No
23b	UK	UK	IE	Unclear	£31,67	£9,95	20%	Dispatch	No
23c	UK	UK	IT	Unclear	£31,67	£9,95	20%	Dispatch	No
24a	IE	IE	BE	No	€ 36,59	€ 10,00	23%	Dispatch	No
24b	IE	IE	UK	Unclear	€ 36,59	€ 5,00	23%	Dispatch	No
24c	IE	IE	AT	Unclear	€ 36,59	€ 10,00	23%	Dispatch	No
25a	DE	Unclear	AT	Yes	€ 133,25	€ 0,00	20%	Destination	Yes
25b	DE	Unclear	BE	Yes	€ 107,36	€ 0,00	21%	Destination	Yes

Identifier <sup>150</sup>	Country of establishment	Country from which the goods are shipped	EU Member State of destination	VAT number in Member State of destination	Value of shipment	Value of transport costs	VAT applied (rate)	VAT applied (dispatch or destination)	Price variable according to destination?
25c	DE	Unclear	UK	Yes	€ 133,25	€ 0,00	20%	Destination	Yes

Source: Deloitte analysis based on the mock purchase exercise



## B2C supplies of goods by non-EU suppliers

### Selection of e-commerce traders

The selection of non-EU e-commerce traders was carried out on the basis of the results of the consumer survey. 50 companies were identified, having their headquarters outside the EU and supplying their goods to at least three of the following countries: Austria, Belgium, Denmark, Hungary, Ireland, Italy, Sweden and the United Kingdom. Three companies were subsequently excluded from the sample because they have warehouses or distribution centres in the EU.

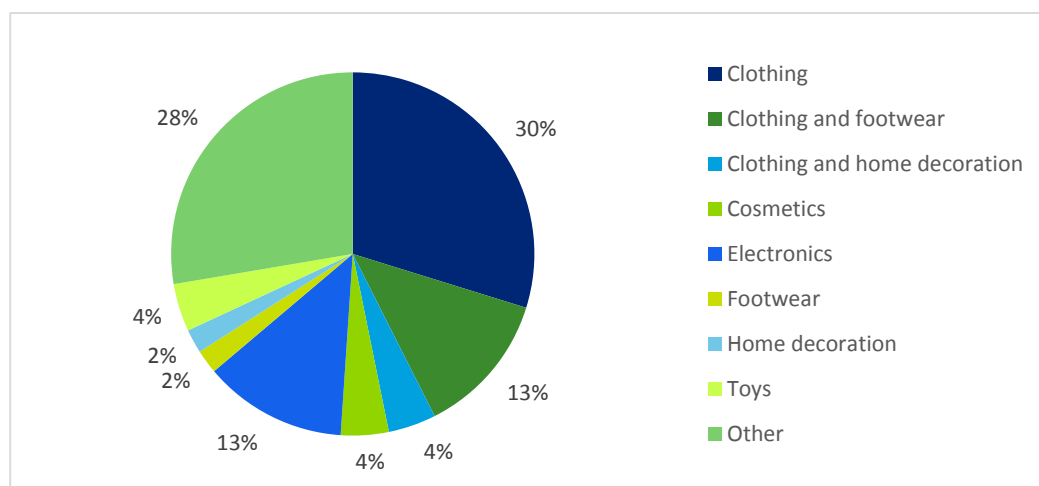
The table below shows the geographical distribution of the selected companies on the basis of their headquarters.

Table 44 – Geographical distribution of selected non-EU e-commerce traders

Location headquarters	Number of companies
Australia	1
China	7
Hong Kong	5
Japan	1
Switzerland	1
United States	32

As shown in the figure below, 47% of the selected companies are active in the clothing sector, sometimes combined with footwear and home decoration. We also selected companies from sectors such as cosmetics, electronics and toys. The category “other” encompasses a variety of products ranging from cycling equipment to jewellery.

Figure 26 – Sectorial distribution of selected non-EU e-commerce traders



Source: Deloitte analysis

## Real purchases

We went through the payment and delivery phase for two purchases from the same company. The purchases were carried out by Belgian consumers and delivered to an address in Belgium. The table below presents the data collected on the basis of these purchases.

Table 45 - Real purchases (import)

Identifier <sup>151</sup>	Country of establishment	Country from which the goods are shipped	EU Member State of destination	VAT no. In Member State of destination?	Value of the shipment	Value of transport costs	Customs duties due (Yes/No)	Customs duties applied (Yes/No)	Consignee indicated on the import declaration	VAT due (rate)	VAT applied (rate)
1a	Hong Kong	Hong Kong	BE	No	\$257	\$20	Yes	Yes	Yes	21%	21%
1b	Hong Kong	Hong Kong	BE	No	\$86	\$20	No	No	Yes	21%	21%

Source: Deloitte analysis

The value of the first purchase exceeded both the VAT threshold and the customs threshold. VAT and customs duties were correctly applied. The value of the second purchase exceeded the VAT threshold but was below the customs threshold. The correct VAT rate was applied.

## Mock purchases

Mock purchases were conducted for 46 companies.

In a first step, three mock purchases from the same destination country were conducted for each company: one item with a value below the VAT threshold, one item with a value between the VAT threshold and the customs threshold, and one item with a value above the customs threshold.

During this exercise it became clear that **the majority of the companies do not show the amount of VAT and customs duties at all (57%), or combine both into one value (28%)** as a result of which it is not possible to determine which VAT rate is applied. **Only seven companies (15%) displayed the VAT amount or VAT rate separately.** Six of these seven companies applied a VAT rate of 0%, even though the value of the goods exceeded the VAT threshold. Only one company charged VAT and displayed the VAT amount separately.

In a second step, three additional mock purchases were conducted for the company that charged VAT and displayed the VAT amount separately, in order to test whether the VAT rate is appropriately adjusted when items are shipped to a different destination country. The results of these purchases are shown in the table below.

<sup>151</sup> Each mock purchase is given an identifier which consists of a number referring to the company and a letter referring to the purchase. E.g. purchase 1a and 1b refer to two different purchases from the same company.

Table 46 – Mock purchases (import)

Identifier <sup>152</sup>	Country of establishment	Country from which the goods are shipped	EU Member State of destination	VAT no. in Member State of destination	Value of the shipment	Value of the transport costs	Customs duties due (Yes/No)	Customs duties applied (Yes/No)	VAT due (rate)	VAT applied (amount)	VAT applied (rate)	Price variable according to destination
1a	US	US	BE	Yes	€ 7,37	€ 23,14	No	No	0%	€ 0,00	0%	No
1b	US	US	BE	Yes	€ 64,58	€ 38,39	No	No	21%	€ 14,52	Unclear	No
1c	US	US	BE	Yes	€ 166,09	€ 193,76	Yes	Yes	21%	€ 38,71	Unclear	No
1d	US	US	AT	Yes	€ 7,37	€ 23,61	No	No	0%	€ 0,00	0%	No
1e	US	US	AT	Yes	€ 64,58	€ 37,50	No	No	20%	€ 13,83	Unclear	No
1f	US	US	AT	Yes	€ 166,09	€ 178,92	Yes	Yes	20%	€ 36,86	Unclear	No

Source: Deloitte analysis based on mock purchase exercise

While the price of the goods is the same for Belgium and Austria, the VAT amount is different. This indicates that the company adjusts the VAT rate depending on the country the goods are shipped to. However, it is not clear which VAT rate is applied by the company. The items concerned are subject to 21% VAT in Belgium and 20% VAT in Austria, but it seems that the company has not applied these VAT rates.

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<sup>152</sup> Each mock purchase is given an identifier which consists of a number referring to the company and a letter referring to the purchase. E.g. purchase 1a and 1b refer to two different purchases from the same company.

The main conclusion that can be drawn from the mock purchases is that transparency regarding the total amount of VAT and customs duties due is lacking for EU consumers purchasing goods from non-EU suppliers. The following paragraphs therefore look at this issue in closer detail.

As mentioned above, six companies displayed the VAT rate as 0%, while the value of the goods exceeded the VAT threshold. Only one of these companies clearly mentions during the order process that “duties and/or taxes are the responsibility of the customer and are not collected by [the company], nor are they included in the order total”. The other companies do not provide such information during the order process.

In addition, 39 companies did not show the amount of VAT and customs duties, or combined both into one value as a result of which it was not possible to determine which VAT rate was applied. Only some of them informed the consumer in a clearly visible way during the order process about the taxes and customs duties due. We noted the following disclaimers:

- ✘ “The prices do not include import tax and duties, should your package become examined and deemed taxable by your local customs”;
- ✘ “In some cases, there will be VAT (Value Added Tax), other taxes, customs duties and/or fees levied by your destination country. These additional charges for taxes or customs clearance charges are the responsibility of the recipient”;
- ✘ “Any local sales tax or import duty will be calculated when your goods enter your country”;
- ✘ As the recipient, you are liable for all import duties, customs and local sales taxes levied by the country you are shipping to; payment of these is necessary to release your order from customs on arrival”;
- ✘ “You may need to pay some taxes on your local side when you receive the goods”;
- ✘ “We'll try our best to help our clients avoiding custom taxes, but because of the complexity of different countries' Custom tax policy, we are not sure if your package can pass custom without tax”;
- ✘ “Please note that all import taxes/ duties are the buyer's responsibility”;
- ✘ “Any tax and duty information presented in checkout are estimates for informational purposes only. Actual tax and duty is presented during delivery”;
- ✘ “Duties, taxes and/or Customs fees will be an additional amount that will be collected upon delivery of your order”;
- ✘ “[The company] cannot be held responsible for any laws or regulations that result in Customs applying additional cost to your order, whether tax or duties”;
- ✘ “We ship all international orders DDU (delivered duty unpaid), and we do not collect VAT (value added taxes). All taxes, duties, and customs fees are the responsibility of the recipient of the package”.

# Annex 6: Questionnaires to the Member States' tax authorities

This Annex presents the results of the questionnaires sent to the tax authorities of the 20 non-fieldwork Member States and the interviews with tax authorities in the 8 fieldwork Member States, with respect to the ranking of the problems related to the VAT aspects of e-commerce.

## Response rate

Face-to-face interviews with national tax authorities were carried out during fieldwork in eight Member States: Austria, Belgium, Denmark, Hungary, Ireland, Italy, Sweden and the United Kingdom.

In addition, a questionnaire was sent to the tax authorities of the remaining twenty Member States on 12 May 2015. The table below shows which Member States have replied to the questionnaire.

Table 47 – Response rate questionnaire non-fieldwork Member States

Member State	Responded
Bulgaria	
Croatia	
Cyprus	
Czech Republic	√
Estonia	√
Finland	√
France	
Germany	
Greece	
Latvia	√
Lithuania	√
Luxembourg	√
Malta	√
Netherlands	

Poland	√
Portugal	√
Romania	
Slovakia	√
Slovenia	√
Spain	√
<b>Total</b>	<b>12</b>

Most of the questions from the questionnaire were answered in an incomplete way by the respondents, as a result of which it is not possible to draw general conclusions on statistics, administrative requirements or compliance from this exercise. By contrast, it is possible to draw conclusions regarding the Member States' views on the importance of the problems related to the VAT aspects of e-commerce.

## Results

With regard to **intra-EU B2C e-commerce**, the Member States were asked to rank five problems in order of importance. Nine non-fieldwork Member States and four fieldwork Member States replied to this question. The list below shows the problems in order of importance as indicated by the respondents:

1. Monitoring the distance sales thresholds constitutes a challenge for tax authorities and businesses;
2. Businesses conducting cross-border e-business have to comply with the complex tax legislation and administrative procedures in all the countries in which they have clients and need to communicate – often in another language – with foreign tax administrations;
3. The current rules may lead to a distortion of competition where traders established in a country with a low VAT rate can apply the VAT rate of that country up until the threshold set in the EU Member State of destination. Sellers established in an EU Member State with a high VAT rate are therefore disadvantaged;
4. Due to distance selling threshold, part of the VAT is collected by the Member State of establishment rather than Member State of consumption (lack of application of destination principle);
5. The distance sales thresholds can be freely set by any EU Member State, which means different thresholds can be set per EU Member State.

The Member States were also asked to rank six problems related to VAT on **non-EU to EU B2C e-commerce** transactions. Nine non-fieldwork Member States and three fieldwork Member States replied to this question. The list below shows the problems in order of importance as indicated by the respondents:

1. The administrative burden for customs administrations (including cost of monitoring fraud and ensuring compliance) and economic operators when dealing with the customs clearance procedures is high;
2. VAT small consignment exemptions apply to import from third countries but not for intra-EU sales, so that EU businesses are negatively impacted;

3. Member States may lose revenue due to the application of the small consignment exemption and the related non-compliance (mislabelling, incorrect valuation);
4. The thresholds of 10 EUR up to 22 EUR do not equally apply in all Member States and as such the import conditions are not equal in all Member States, causing distortion;
5. Member States may lose revenue because goods are customs cleared for free circulation on behalf of the final consumer, the latter being a private individual who does not have to fulfil any VAT formalities when those goods are transferred to other Member States;
6. Often goods are customs cleared on behalf of the final customer upon arrival of the goods in the Member State of importation. Import VAT (for those goods who do not benefit from the threshold exemption) is often paid in the country of customs clearance rather than in the Member State where the final customer is established.

# Annex 7: Measuring the impact of the administrative burden

## The Computable General Equilibrium (CGE) model

The CGE model is the primary tool for assessing the impact of the VAT-related administrative burden facing firms involved in B2C cross-border e-commerce. In lot 1, it is used to accomplish the following objectives:

- To estimate the impact of administrative barriers to trade on retail prices, e-commerce volumes and cross-border sales volumes. This analysis will also be used to identify the implications for European competitiveness;
- To develop scenarios for the growth of cross-border e-commerce within the EU.

This annex sets out:

- The scope and outputs of the CGE model;
- The methodology; and
- The data strategy used.

## Scope of the CGE model

The CGE model is used to assess the impacts on e-commerce, cross-border trade and the wider economy of the current administrative barriers to e-commerce. This model is used in tandem with the Standard Cost Model and is designed to assess the impact of VAT policy on the costs facing firms. It also draws from the consumer survey's EU-level total, cross-border and non-EU spend figures to quantify the online retail sector. Based on the estimated administrative costs and the costs of cross-border e-commerce, the CGE model estimates the resulting impact on e-commerce volumes and trade and the further implications for the single market.

This section of the annex sets out in more detail the scenarios that are incorporated into the CGE model and the outputs that are calculated as part of the model.

## Scenario analysis

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The CGE model is used to evaluate the impact of a range of scenarios for the growth of e-commerce and the removal of the administrative burden. The scenarios to be analysed in the model fall into two categories:

- **Growth scenarios:** this analysis focuses on the implications for the single market of different rates of growth of e-commerce;
- **Cost scenarios:** this analysis focuses on the removal of all administrative burdens to assess their impact on e-commerce and the wider EU economy. It also provides a sensitivity analysis by varying the estimated administrative costs to be removed.



Further details of these scenarios are provided below.

### **Growth scenarios**

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One of the objectives of the CGE model under Lot 1 is the development of a number of scenarios for the growth of e-commerce. Growth in e-commerce will reflect a number of factors, including consumers' propensity to shop online across countries, internet access and use across countries and average consumption expenditure.

Three scenarios have been developed based on the existing literature and predictions of the growth of e-commerce. Forecasts indicate that e-commerce in the EU is expected to grow 12% annually up to 2018. Given the uncertainty surrounding these estimates, a range of scenarios for growth are used in the model:

- ✔ Low growth scenario: CAGR of 6%;
- ✔ Medium growth scenario: CAGR of 12%;
- ✔ High growth scenario: CAGR of 18%.

These scenarios are modelled via an exogenous change in consumer preferences with online purchases becoming relatively more attractive to consumers. In addition to this exogenous impact, consumers will also respond to endogenous changes in the relative prices of online and offline goods.

For each of these growth scenarios, the CGE model will analyse the implications for the total value of e-commerce and the value of cross-border e-commerce. These scenarios are also used in conjunction with the cost scenarios to assess the extent to which the administrative burden of VAT may constrain growth.

### **Cost scenarios**

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The estimation of the administrative burden of the VAT treatment of e-commerce presents a number of challenges. These administrative costs vary significantly depending on the countries with which firms trade and the type of product sold. Interviews with firms also suggest significant heterogeneity in the way in which firms approach administrative costs; for example, processes may or may not be automated, and may be handled in-house or outsourced. Estimates of the administrative costs provided by certain firms, particularly larger firms, may therefore not be representative of the costs facing the market as a whole. In order to account for these challenges, additional sensitivity analysis has been conducted by using two estimates for the administrative costs facing firms in order to present a range of estimates for the impact of the administrative burden.

For the **fixed administrative costs**, two metrics are used: those calculated from the SCM and those obtained from an internal study by the European Commission. In comparison to the administrative costs presented in this report, the European Commission's estimates are much lower at €4,500 per firm, for a total administrative burden of €1.13 billion. The difference in magnitudes is to be expected due to differences in coverage<sup>153</sup>.

Estimates of the **variable administrative costs** associated with cross-border e-commerce have been obtained from a previous study conducted for the European Commission. In order to reflect the

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<sup>153</sup> The European Commission's estimate does not include audit or enquiry costs.

potential uncertainty surrounding these figures sensitivity analysis is conducted by considering an alternative case in which the cost is half that reported by this study. Based on advice from the European Commission, scenarios are considered in which the administrative burden is 25% lower or 25% than that estimated.

Table 48 - Cost scenarios

Cost baseline	Fixed administrative costs (SCM/European Commission)	Variable administrative costs
High cost	Assumed to be 125% of the figure estimated by the SCM, €7.34 billion	Assumed to be 125% of the costs estimated in the study, representing 6.93% of the transaction value, on average
Baseline	Based on the SCM; estimated to be €5.87 billion	Based on a previous study for the Commission; the variable costs are estimated to amount to 5.54% of transaction value, on average.
Low cost	Assumed to be 75% of the figure estimated using the SCM, €4.40 billion	Assumed to be 75% of the costs estimated in the study, or 4.16% of transaction value.

Source: Deloitte analysis based on the SCE, European Commission (2015)

## Outputs of the CGE model

There are a number of macroeconomic and e-commerce specific outputs that will come directly from the model. The EU-wide outputs that the model will calculate directly include the following:

- ✔ Total value of e-commerce;
- ✔ Value of intra-EU cross-border e-commerce;
- ✔ Value of non-EU cross-border e-commerce;
- ✔ GDP by sector;
- ✔ Output by sector;
- ✔ Employment by sector;
- ✔ Productivity by sector;
- ✔ Wages by sector;
- ✔ Prices;
- ✔ Household consumption and incomes;
- ✔ Government revenues.

Due to the complexity surrounding the development of a multi-region CGE model and constraints on data availability, a number of simplifying assumptions are made in the CGE model. The model therefore calculates more aggregated outputs, which will subsequently be used to obtain more granular estimates. These assumptions, their impact and the steps taken to mitigate the effects are described below.

✘ **Geographic scope:** For tractability, the model treats the EU as a single region based on macroeconomic data aggregated from across the EU-27<sup>154</sup>. The direct outputs from the model will therefore be at the EU-level.

✘ **Treatment of e-commerce:** The model distinguishes between two sales channels, online and offline. It is assumed that consumers' choice of whether to buy online or offline depends on the relative price of online and offline goods and services and their own innate preferences<sup>155</sup>. For firms, it is assumed that the cost of producing goods and services does not depend on whether they are sold online or offline, but firms may face differential administrative and/or VAT costs by selling through different channels.

Within the online retail sector, the model distinguishes between goods and services that are purchased from domestic (same-country) suppliers, cross-border e-commerce within the EU, and online imports from non-EU states. The administrative costs associated with each of these categories may change differentially and this will be captured within the model, for example through a change in the relative costs of intra-EU and non-EU online purchases.

✘ **Sectors:** The outputs of the model reflect two sectors: the retail sector (within which goods and services may be sold either online and offline) and a single aggregate non-retail sector (in which there is no B2C e-commerce). The impact on output, employment, wages, prices and demand for capital goods is calculated for each of these sectors.

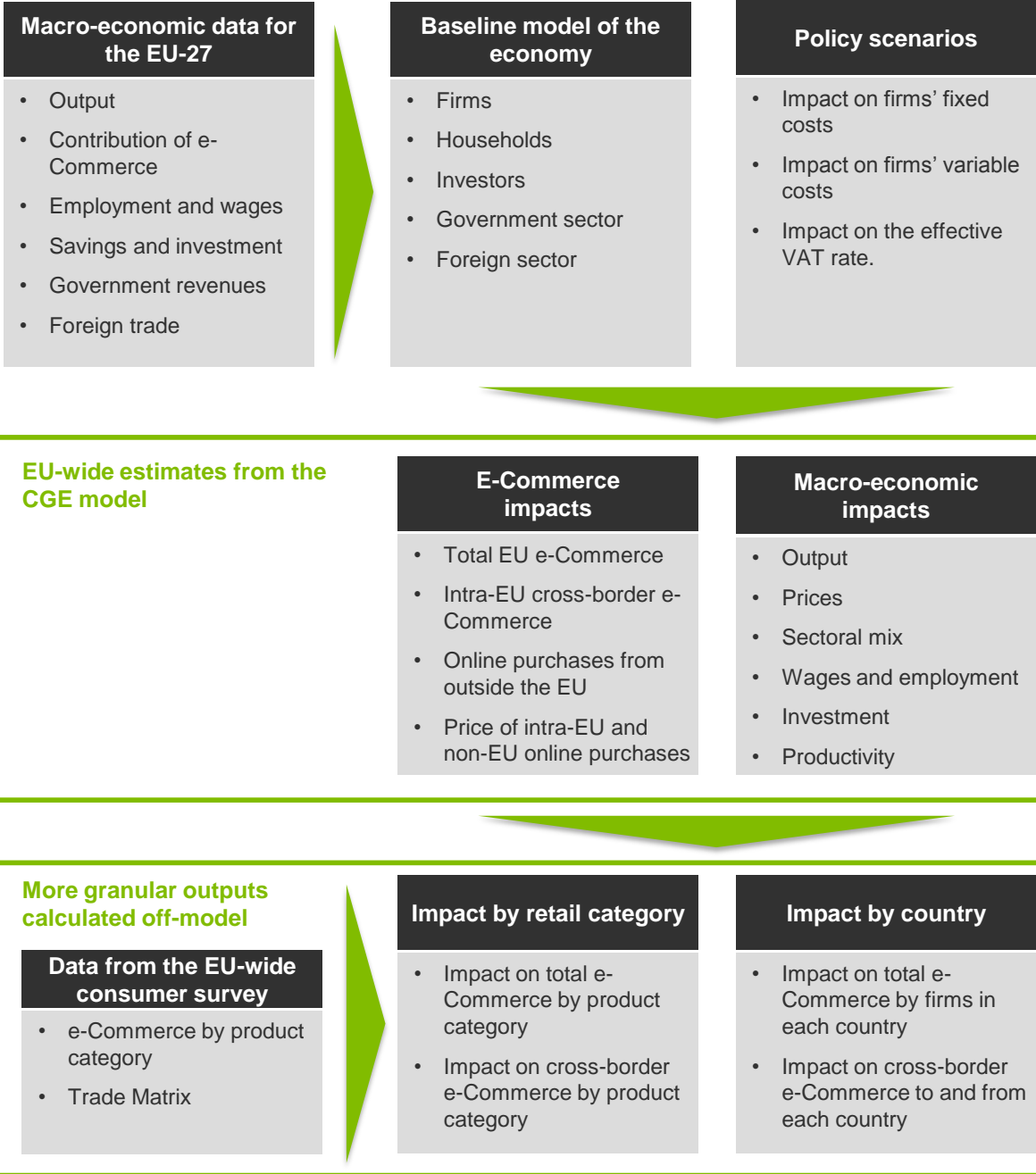
The diagram below provides an overview of the scope and outputs of the CGE model and the additional outputs that will be calculated.

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<sup>154</sup> Data on Croatia is not currently included in Supply and Use tables for the EU; the impacts calculated for the EU-27 will therefore be scaled up to take account of this.

<sup>155</sup> Consumer's preferences for shopping online versus offline will determine how readily they switch between different channels based on changes in relative prices. This willingness to switch could reflect a number of factors including: the availability of products online vs offline, the convenience of online vs offline shopping or a preference for choosing goods in person.

Figure 27- Outputs of the CGE Model



Source: Deloitte analysis

## Data strategy

The CGE model draws on three main sources of data:

- **Macro-economic data for the EU-27:** The majority of the data required for the baseline CGE model can be found in a social accounting matrix (SAM); this is a square matrix that represents the various transactions made between commodities, factors and institutions taking place in an economy. The matrix is constructed using supply and use tables and national accounts data from Eurostat<sup>156</sup>;
- **E-commerce data:** In addition to this macroeconomic data, the baseline CGE model also requires data on the split of online and offline trade and on domestic, intra-EU and non-EU e-commerce. This data is obtained from Eurostat and from the consumer survey conducted as part of Lot 1;
- **Data on the administrative burden:** The information required for the scenario analysis comes primarily from the outputs of the Standard Cost Model. This data includes the administrative burden associated with the current VAT compliance regime.

In addition to this data, the model requires some assumptions to be made about consumer preferences over domestic purchases and imports and over online and offline purchases. These assumptions are based on a review of the academic literature and on consultation with experts. Further sensitivity analysis is conducted to check the robustness of the results of the model to changes in these assumptions; where necessary, a range of estimates is reported so as to provide an upper and lower bound on the estimated impacts.

### Macro-economic data

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The primary source of data used for the development of the core CGE model is found in a Social Accounting Matrix for the EU. This matrix accounts for flows of income expenditure between different actors in the economy – firms, households, the government and the foreign sector – and is based on the principle that one agent's income must be another's expenditure. The Social Accounting Matrix therefore contains the following information:

- Production activity by sector;
- Demand for intermediate inputs by sector (the Input-Output table);
- Payments to capital and labour by sector;
- Final consumption expenditure by sector;
- Capital formation and inventory investment by sector;
- Imports and outputs by sector;
- Taxes and subsidies by sector and by revenue base;
- Direct taxation and transfers by domestic actors;
- Payments made/received by domestic actors to/from the rest of the world;
- Domestic actors' net savings and the net savings from the rest of the world;

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<sup>156</sup> Supply and Use data is not available for Croatia; the estimates will therefore be adjusted upwards based on Croatia's estimated contribution to EU GDP and its contribution to e-commerce (from the consumer survey).

## Construction of the EU Social Accounting Matrix

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At present, a Social Accounting Matrix for the EU is not available and so its construction is a key task for the development of the CGE model. The information required to construct the matrix can be found in Supply and Use tables for the EU-27 and in National Accounts data for each of the Member States. Both have been made publicly available by Eurostat, albeit with the Supply and Use tables only being updated to 2011<sup>157</sup>.

An important characteristic of the Social Accounting Matrix is that it is 'balanced' – i.e. for every actor, institution and activity, total income received must equal to total expenditure made (inclusive of savings). This requires a certain level of consistency and completeness in the data sources that is not always possible due to a lack of sufficient detail, measurement accuracy, or differences in data collection/collation methodology. The following is a general data reconciliation strategy to ensure consistency of the data sources used to complete the Social Accounting Matrix:

- Where possible, data points from the Supply and Use tables are used without further assumptions or reconciliation<sup>158</sup>;
- Where the Supply and Use tables have gaps in data points required, National Accounts data is used;
- Where National Accounts data is lacking in sufficient granularity, suitable assumptions are made to estimate the data points required<sup>159</sup>;
- Where for the same data point the Supply and Use tables are significantly different from National Accounts data, suitable assumptions are made using information from both sources to estimate a single data point<sup>160</sup>. If the differences are small, Supply and Use table data is used;
- As a last resort, if the Social Accounting Matrix is complete but does not balance, an estimation procedure involving re-weighting of the data in the matrix will be conducted.

The figure below illustrates the basic structure of the Social Accounting Matrix as well as the sources for each data point required<sup>161</sup>. Columns represent expenditures/outlays made, while rows represent incomes received. For example, reading down from the Households column and across to the Commodities row represents household final consumption expenditure on goods and services. Table 1 describes the primary data inconsistencies encountered and the specific data reconciliation strategy used to correct for these inconsistencies.

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<sup>157</sup> Due to the latest Supply and Use tables being updated only to 2011, Croatia is not included in the tables and so only an EU-27 aggregate can be calculated.

<sup>158</sup> The tables have been constructed by Eurostat with a high level of consistency (i.e. total supply of a good or service is equal to total use/demand) and in most cases a significant level of granularity.

<sup>159</sup> National Accounts data tables in Eurostat often do not provide data points in sufficiently granular detail.

<sup>160</sup> Due to differences in definitions or data collection methodologies, the Supply and Use tables and National Accounts data do not always report the same value for the same data point.

<sup>161</sup> Implied data points are calculated residually after filling the SAM with all other data points.

Figure 28 -Basic structure of the Social Accounting Matrix

Social Accounting Matrix	Activities	Commodities	Labour factor	Capital factor	Net taxes on production	Net indirect taxes	Households	Government	Rest of the World	Savings-investment
Activities		Output								
Commodities	Intermediate consumption (Derived from Input Output table)						Household final consumption expenditure	Government final consumption expenditure	Exports	Gross Capital Formation
Labour factor	Payments to capital									
Capital factor	Payments to labour									
Net taxes on production	Net taxes on production									
Net indirect taxes		Net Indirect taxes on products (i.e. VAT receipts and other taxes)								
Households			Total payments to capital	Total payments to labour				Payments from government to households (i.e. Social Benefits and other transfers)	Net payments from ROW to households	
Government					Net taxes on production	Taxes less subsidies on products (i.e. VAT receipts and other taxes on products)	Total direct taxes paid by households			
Rest of the World		Imports						Net payments from government to ROW		Net foreign savings
Savings-investment							Net Household Savings	Net Government Savings		

**National Accounts data**  
 **Supply and Use tables**  
 **Mix of National accounts data and Supply and Use tables**  
 **Implied data points**

Table 49 - Data reconciliation

Data point	Data inconsistency/challenge	Data reconciliation strategy
<p>Direct taxation and transfers by households, government and Rest of World</p>	<p><b>National Accounts data:</b></p> <p>Data points reported:</p> <ul style="list-style-type: none"> <li>✘ Total tax on income and wealth;</li> <li>✘ Current transfers;</li> <li>✘ Social contributions;</li> <li>✘ Social benefits;</li> <li>✘ Property income;</li> <li>✘ Primary income.</li> </ul> <p>For each data point reported, the database provides total <i>payments</i> made by households, government and Rest of World. The database also provides total <i>receipts</i> by households, government, and Rest of World</p> <p>Provides no data on which actor is receiving in case of payments.</p> <p>Provides no data on which actor is paying in case of receipts.</p> <p><b>Supply and Use tables:</b></p> <p>Provides no data on direct taxation and transfers</p>	<p>National Accounts data used together with assumptions on which actor is receiving/paying.</p> <ul style="list-style-type: none"> <li>✘ E.g. for direct taxes, assumed that all payments by actors are made direct to government.</li> <li>✘ Social benefits are all assumed to be paid directly to households.</li> </ul>
<p>Indirect taxes: VAT by sector</p>	<p><b>National Accounts data:</b></p> <p>Reports total VAT but not by sector or by actor.</p> <p><b>Supply and Use tables:</b></p> <p>Reports taxes less subsidies on products paid in final consumption by households, government, gross capital formation and exports. However, does not report by sector</p>	<p>VAT receipts in National Accounts data used as total VAT in SAM.</p> <p>Total VAT figure assumed to be contained completely within taxes less subsidies on products in final consumption reported in Supply and Use Tables.</p> <p>After netting out VAT from taxes less subsidies, assumed that remainder is other net taxes on products.</p> <p>VAT and other net taxes disaggregated by sector according to final consumption shares.</p>
<p>Payments to capital:</p>	<p><b>National Accounts data:</b></p> <p>Provides both gross operating surplus and</p>	<p>Total mixed income estimated as the difference between the total gross</p>



<p>Gross operating surplus, mixed income</p>	<p>mixed income but not by sector.</p> <p><b>Supply and Use tables:</b></p> <p>Provides gross operating surplus by sector but records no mixed income.</p>	<p>operating surplus reported in Supply and Use tables and the gross operating surplus and mixed income reported in National Accounts data.</p> <p>The estimated mixed income is treated as additional payments to capital from activities and disaggregated by sector based on output shares.</p>
<p>Final consumption expenditure at market prices by households, government and gross capital formation</p>	<p><b>National Accounts data relative to Supply and Use tables:</b></p> <p>Reports slightly higher final consumption expenditure for households and government.</p> <p>Reports even higher gross capital formation</p> <p>Reports slightly higher total final consumption expenditure.</p>	<p>Supply and Use tables data used in conjunction with a sector/actor disaggregation of mixed income based on final consumption expenditure shares to compensate for the differences.</p>

## Data on e-commerce

In order to account for the specific impacts on e-commerce, data is required on the following:

- The share of consumer expenditure in the retail sector that is online versus offline;
- The share of online expenditure that is spent on domestic goods and services, on intra-EU goods and services and on non-EU goods and services;
- The allocation of e-commerce spending by product category; and
- The value of e-commerce spending by country of origin and country of destination (the trade matrix).

The majority of this data is obtained from the consumer survey conducted across 25 EU Member States as part of the Lot 1 analysis.

The estimates of the total value of EU e-commerce trade are compared against data from the EU Supply and Use tables on consumer expenditure on the retail sector in order to estimate the share of expenditure that is online. Within online trade, the survey provides estimates of the split between domestic, intra-EU and non-EU trade.

## Data on administrative costs and VAT payments

The other key input to the CGE model is data on the administrative costs associated with the VAT treatment of e-commerce. For outputs required in lot 1, this covers two areas:

- Fixed administrative costs associated with VAT compliance in regard to cross-border e-commerce;

- Variable administrative costs associated with VAT compliance in regard to cross-border e-commerce;

As discussed in the scope of the model, the first item is based on the outputs of the Standard Cost Model. This is used to estimate the total fixed administrative costs incurred by EU firms in connection to cross-border e-commerce. In addition to this, a second estimate is calculated from prior research by the European Commission as a part of the sensitivity analysis.

The second item is estimated based on a previous European Commission study on the variable costs incurred on each transaction. These costs are compared to the total costs of production (from the EU Supply and Use tables) in order to estimate the burden that these costs represent for firms.

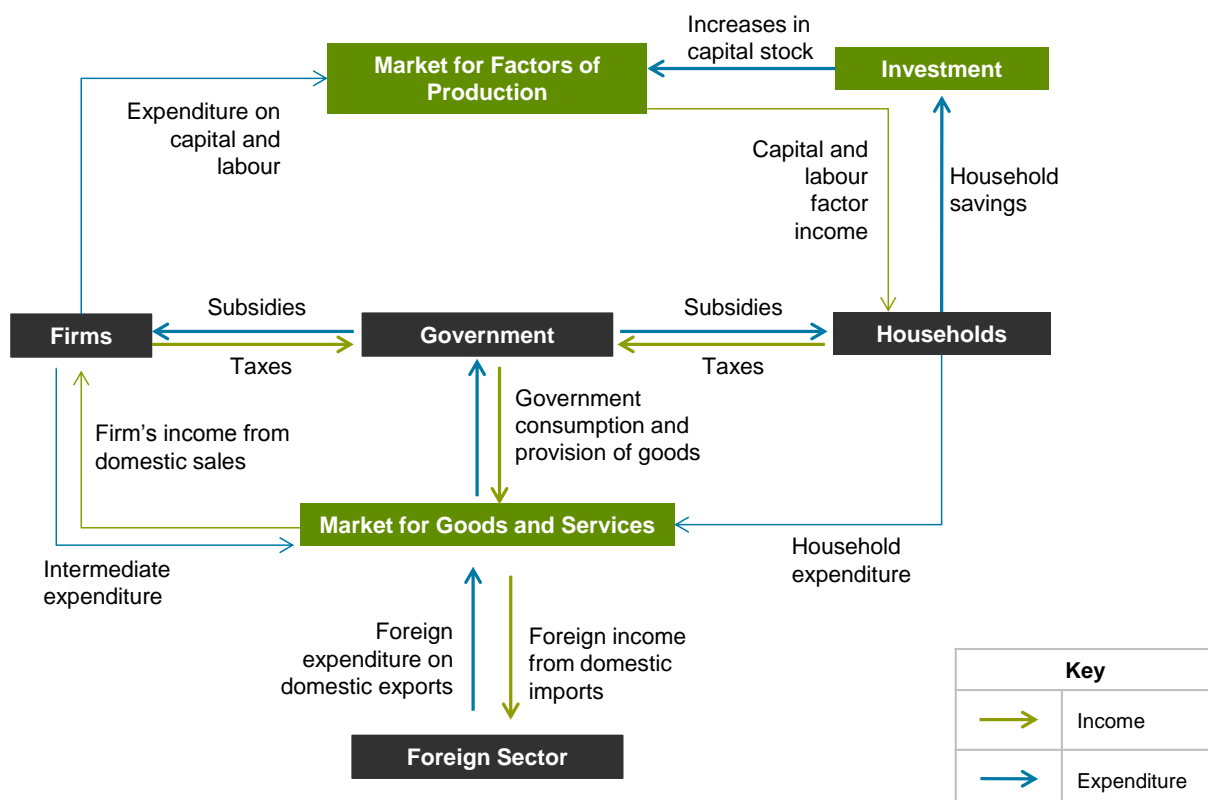
## Modelling approach

### Overview of the CGE model

The CGE model is a multi-sector model based on a set of equations describing the behaviour of the key actors in the economy of the EU – households, firms, the government and the foreign sector – and how their interactions affect the markets for factors of production, goods and services, and savings and investment. By considering the reaction of these actors simultaneously, the model evaluates the aggregate impacts – direct and indirect – of a change in policy.

The CGE model is based on the circular flow of income, which describes the various inter-linkages in the economy and how they determine the equilibrium in key markets. This is shown below.

Figure 29 - Circular Flow of Income



Source: Deloitte analysis

The interactions between households, firms, the government and the foreign sector determine equilibrium demand, supply and prices in each sector. This equilibrium is based on the principle that one agent's expenditure is another agent's income and therefore all spending throughout the economy is accounted for. Prices are determined by the fact that the markets for goods and services and for factors of production (labour and capital) must clear.

The behaviour of each segment of the economy and how it is modelled is described in more detail below.

## Households

Households own the factors of production - skilled labour, unskilled labour, and capital - which they supply to firms for their use in the production process. Income from these factors, net of any taxes paid or social benefits received, may either be spent on goods and services or saved. It is assumed that households save a constant fraction of their net income, determined by their marginal propensity to save. The remainder is allocated to consumption, with consumption across sectors based on fixed shares.

Within the retail sectors (i.e., those sectors in which there is some B2C e-commerce activity), households are assumed to have preferences over buying online versus offline and over buying domestic, EU and non-EU goods. These preferences are modelled in the form of a nested CES consumption function, which takes the form:

$$Q_i = \left( \sum_j \delta_j D_j^{\frac{\sigma-1}{\sigma}} \right)^{\frac{\sigma}{\sigma-1}}$$

where  $\delta_j$  represents the initial allocation of spending across the different types of products  $D_j$  (where  $\sum \delta_j = 1$ , and the product types may be online/offline goods or domestic/EU/non-EU goods) and  $\sigma$  represents consumers' willingness to substitute between different types of goods or channels of purchase. Assuming that consumers optimise their consumption given the prices they face, the demand for domestic, EU and non-EU goods, online and offline, can then be expressed as a function of relative prices and aggregate household incomes.

## Firms

As discussed above, the economy is split into a single "non e-commerce sector" that includes those sectors that do not contribute to B2C e-commerce and a number of retail sectors that may engage in B2C e-commerce.

Within each sector, firm production is assumed to be a Cobb-Douglas function of the factors of production: labour and capital. The Cobb-Douglas coefficients are calculated based on data from Eurostat supply and use tables, which detail payments to capital and labour. It is assumed that firms face a competitive market and therefore that demand for labour and capital in each sector is such that their price is equal to their marginal productivity. Intermediate inputs do not directly enter into the production function; instead demand for intermediate goods is determined based on Input-Output coefficients.

In the non-retail sector, goods produced may either be exported or sold domestically accordingly to a constant elasticity of transformation (CET) function that defines firms' preferences based on the differential between domestic price and the world export price.

In the retail sector, firms are able to sell either online or offline, as well as selling either domestically or internationally. It is assumed that this does not alter the cost of production, but that there may be different administrative costs or VAT payments associated with different distributional channels. The modelling of these costs is discussed in more detail below.

## Government

The government receives tax revenues from households and firms which it uses to provide public goods for the use of households and firms and purchase goods and services for government consumption. Data on government spending will be aggregated from National Accounts data in Eurostat. Aggregate data on government revenues by source, i.e. indirect tax payments can also be used to estimate an effective VAT rate for the retail sector. Alternatively, and as a way of corroborating these estimates, an effective VAT rate for the retail sector is calculated based on VAT rates in each country, weighted by each country's share of total EU retail trade.

## Foreign Sector

The model treats the EU as a single economy and represents the interactions between the EU and the rest of the world through a number of channels:

- Consumers may purchase EU goods (whether domestic or intra-EU) or non-EU imports. These imports may be purchased either online or offline;
- Firms may consume EU and non-EU intermediate inputs;
- Firms can either produce goods for EU or non-EU consumption.

The world price of imports and exports is treated as an exogenous numeraire in the model and it is assumed that the proposed policy changes do not have an impact on world prices faced by firms.

Modelling the behaviour and production functions of non-EU firms is beyond the scope of the model. Rather, it is assumed that imports to the EU through different channels (i.e., online vs offline) may incur differential tariffs and administrative costs. This does not affect world trade prices, but may affect the final price faced by EU consumers and the volume of e-commerce purchases from non-EU suppliers.

## Equilibrium of the model

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The interactions between these agents determine equilibrium output, factor demands, consumption and prices in each sector. This equilibrium is based on the principle that one agent's expenditure is another agent's income and therefore all spending throughout the economy is accounted for. Prices are determined by the fact that markets must clear:

- **Market for goods and services:** demand from the government and domestic and foreign consumers and firms must equal supply from firms and imports in each sector. As noted above, world import and export prices are assumed to be exogenous and are therefore fixed in the model; however, domestic prices may adjust relative to their initial numeraire value of 1;
- **Market for factors of production:** In equilibrium, total demand for labour and capital must equal supply. It is assumed that prices for labour and capital are determined competitively, and therefore the costs of labour and capital depend on the marginal productivity of these factors.

In the baseline model, the supply of capital in each sector is given by the capital accumulation equation, whereby capital in each period is the sum of the previous period's capital net of

depreciation and new investment in capital goods. To simplify the analysis, unemployment will not be modelled; it will therefore be assumed that the total demand for labour across sectors must equal labour demand. This approach will still be able to account for movement of labour between sectors;

- ✘ **Savings and Investment:** The level of domestic investment in the EU must equal the level of savings, net of any savings that are invested internationally. Within the EU, the total value of investment is allocated across sectors based on exogenous parameterised shares. This parameter determines investment in capital by sector of destination; purchases of capital goods by sector of origin are given by a capital coefficients matrix based on I-O tables.

The behaviour of firms, households, the government and the foreign sector is fully specified by the system of equations that make up the CGE model, along with a set of closure rules that ensure that markets clear. Solving this system of equations simultaneously yields an equilibrium for the economy of the EU.

The parameters of these equations are calibrated so as to ensure that the baseline solution to this system of equations matches the current data on the economy. These parameters are either calculated directly based on EU national accounts and supply and use data or are based on academic estimates.

## Dynamics of the CGE Model

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The CGE model is used to estimate the behaviour of the economy over an eleven-year period. In the baseline case, in which there is no change in policy, the dynamics enter into the model in two ways:

- ✘ **Exogenous growth:** the model incorporates exogenous increases in productivity over time, represented through an increase in the level of output generated by a fixed amount of inputs (labour, capital and intermediate goods). These productivity improvements lead to increased output in each sector and increased earnings from labour and capital, driving further growth in the economy;
- ✘ **Capital accumulation:** in addition to these exogenous productivity gains, the economy of the EU will also grow as a result of capital accumulation as investment increases the capital stock available for use in the economy. Within each sector, the capital stock in period  $t+1$  is assumed to be the capital stock in period  $t$  minus depreciation plus purchases of capital goods.

The model also separately accounts for trends in e-commerce in the EU and a potential shift towards a greater share of trade occurring online. These dynamics are captured through a change in consumer preferences over online versus online purchases of goods and services, which in turn affects the parameters  $\bar{\delta}$  and  $\sigma$  described above. An increase in  $\bar{\delta}$  represents a shift in consumers' innate preferences towards e-commerce; an increase in  $\sigma$  represents an increase in the extent to which consumers will switch between online and offline.

Three growth scenarios are constructed (as outlined in the scenario analysis):

- ✘ High growth scenario;
- ✘ Medium growth scenario;
- ✘ Low growth scenario.

As well as capturing baseline economic growth and changes in preferences, the model is also used to estimate the dynamic response of consumer behaviour and the wider economy to a change in policy

governing cross-border e-commerce. In order to estimate the dynamic impacts resulting from a change in policy, the model reflects the fact that some variables take longer to adjust to a policy change than others. For example, demand for labour is widely recognised to adjust more quickly than demand for capital. This is incorporated in the model via an adjustment cost related to the capital stock. It is assumed that new investment is subject to an adjustment cost of capital additional to the initial cost of investment; this enters into the capital adjustment equation and can be interpreted as installation costs or learning and training costs.

## Modelling of the impact of the administrative burden

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As discussed in section 5, there are two channels through which the administrative burden may affect the model:

- Fixed administrative costs; and
- Variable administrative costs.

**Fixed administrative costs:** The fixed cost channel assumes that within the retail sector a fixed amount of labour  $LO$  is required for administrative tasks, over and above the labour used in productive activities.  $LO$  enters the model through the following production function equation:

$$X_i = a_i^d K_i^\alpha (L - LO)_i^{1-\alpha}$$

Where  $X$  is output,  $a$  is the level of exogenous technological progress,  $K$  is the capital stock and  $L$  is the labour force, with the subscript  $i$  indicating the sector.

The production function determines how each sector allocates capital and labour to be used to produce output  $X$ . A reduction in fixed administrative costs is assumed to reduce the number of man-hours spent on unproductive administrative tasks, thereby reducing overhead labour  $LO$ . This will in turn increase the average productivity of labour in the economy and increase the value-added for firms, generating increases in output and cross-border e-commerce. On the other hand, the fact that less labour is required for administrative tasks may put downward pressure on wages and employment in the short term.

**Variable administrative costs:** A change in variable administrative costs, that is, any administrative costs incurred on a per-transaction or per-consignment basis enters the model through a change in the price received by EU firms from the sale of goods and services online and across borders. This is represented in the equation below through the parameter  $c^n$  that represents the costs per unit of selling online within the EU. This administrative cost will create a wedge between the price  $P_i^{EU_n}$  paid by consumers (for online imports within the EU) and the price  $P_i^{EU_x}$  received by firms (a weighted average of the online and offline prices):

$$P_i^{EU_x} = \frac{(1 - c^n)P_i^{EU_n} \cdot N_i + P_i^{EU_f} \cdot F_i}{EU_i}$$

A similar representation is used to capture how changes in policy affect the costs of trade for non-EU suppliers. The production function and pricing decisions of non-EU firms will not be modelled. Instead, it is assumed that non-EU firms sell their product at a world price, which may be subject to a mark-up within the EU as a result of customs tariffs or administrative costs that are passed on to the consumer. The Standard Cost Model is used estimate the impact of the proposed policy changes on the administrative costs for non-EU sellers,  $c^{mn}$ , which will affect the price of online non-EU imports as shown in the equation below:

$$P_i^{mn} = pw_i^m(1 + t_i^m)(1 + c^{mn})R$$

$P_i^{mn}$  is the price of online imports from outside the EU,  $pw_i^m$  is the world import price (treated as a numeraire),  $R$  is the world interest rate and  $t_i^m$  and  $c^{mn}$  are respectively the effective tariff rate on online imports and the additional costs associated with online imports relative to offline.

# Annex 8: Workshop minutes

This Annex presents the minutes of the workshops held on 30 March and 17 April 2015.

## Workshop 30 March 2015

### Present:

David O’Sullivan (EC), Ana-Maria Caraman (EC), Kristina.Vitkauskaite (EC), Jenia Peteva (EC), Razvan Antemir (Emota), Mauro Giffoni (Clecat), Nils Beckmann (EuroEcommerce), Alfred Koebe (Postal Users Group), Massimo De Gregorio (Confiad), William Lasher (eBay), Catherine O’Neill (Amazon), Ingrid Deswert (Bpost), Walter Van der Meiren (Euroexpress), Iwona Mertin (Eurochambres), Karl-Heinz Haydl (Business Europe), Dominique Willems (Clecat), Marlène Ten Ham (Ecommerce Europe), Carlo Sauve (PostEurop), Axel Klein (Tiaca), Jon Crowther (eBay), Steven Pope (DHL), Eddy Verschueren (EuroExpress), Godfried Smit (EVO NL), Carlos Grau Tanner (Global Express).

Johan Van Der Paal, Julien Pauwels, Benoît Vandresse, Aili Nurk, Daan De Vlieger, Thomas Vanhee, Valentina Cilli, Charlotte Dekempeneer, Ancy Mechelmans

### Agenda

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- 10.00 - 10.10 Welcome by Deloitte – Tour de table
- 10.10 – 10.15 Introduction to the study and presentation of the stakeholders meeting objectives and structure
- 10.15 – 10.30 Presentation of the existing systems in place and the related issues
- 10.30 – 11.30 Discussion on the issues of the existing systems in break-out sessions
- 11.30 – 12.00 Reporting on the issues and enrichment in plenary session
- 12.00 – 13.00 Lunch
- 13.00 – 13.20 Presentation of the envisaged policy options
- 13.20 – 15.20 Discussion on the policy options in break-out sessions
- 15.20 – 15.50 Reporting on the policy options and enrichment in plenary session
- 15.50 – 16.00 Conclusions of the meeting

### Break-out session: discussion on the issues

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Participants were divided in two groups in order to discuss the current problems concerning the VAT aspects of e-commerce. At the start of the session, participants were asked to write their thoughts about the current problems on post-its. The post-its were then placed on a flip-chart representing the problem tree with external factors, drivers of problems, problems and effects), and discussed in the group.



## Group 1

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**Facilitators:** Benoît Vandresse and Aili Nurk

**Rapporteur:** Charlotte Dekempeneer

**Participants:** Emota - Razvan Antemir  
Clecat - Mauro Giffoni  
EuroEcommerce - Nils Beckmann  
Postal Users Group - Alfred Koebe  
Confiad - Massimo De Gregorio  
Ebay - William Lasher  
Amazon - Catherine O'Neill  
Bpost - Ingrid Deswert  
Euroexpress - Walter Van der Meiren  
Eurochambres - Iwona Mertin

### Brainstorm session (post-its)

#### Bpost

- *Intra-EU: different compliance rules => invoice rules*
- *Intra-EU: quid other legislation e.g. consumer protection law*
- *Import: imbalance between cost of VAT collection and VAT income*
- *Import: difficulty in getting VAT reclaimed (returns and undelivered items)*
- *Import: differentiate B2B from B2C: non-EU e-tailers do not ask their customers to identify themselves as a business*
- *Import: quid C2C €45 threshold? High sensitivity from consumers and addressees having to pay VAT on gifts.*
- *Import: DDU sales are widely used in B2C => consumers are very sensitive on having to pay additional VAT on their purchase, triggers customer complaints.*

#### EMOTA

- *28 VAT regimes to cope with in different languages*
- *High cost of compliance*
- *Lack of IT driven solutions for VAT cross-border*
- *Different VAT rates for similar products across the 28 Member States*

#### PUG

- *Language of bills by sending goods to a foreign country (e.g. NL to Greece) especially problematic for SMEs*
- *No control mechanism on intra EU "small value" business*
- *Not only VAT rates different in EU Member States, also different VAT rates for different products/assortments*
- *Sellers have to know all the time all of the 28 VAT rates (and changes of it). Problematic for SMEs.*

### *Eurochambres*

- *The impact of destination principle on small TBE suppliers*
- *Pricing strategy (some Member States don't allow for VAT excl. prices being quoted)*
- *What about SMEs-TBE who didn't register in MOSS before 31/12/14?*
- *Admin burden related to destination principle for TBE SMEs*
- *Liability of an SME for the customer location identification (data to be kept for 10 years)*
- *What about the efficiency of MOSS? How well does it work?*

### *Other*

- *If the current distance selling regime is changed, will countries see a net decrease in VAT revenue?*
- *Is the current system causing buyers to behave differently because of VAT? Is distortion real?*
- *Is there distortion today between the digital goods where there is no threshold and tangible goods that are entitled to the threshold?*
- *Do other countries impose import tax on small value packages? Will this change cause them to start?*

### *Other*

- *Combined effect of VAT and customs*
- *Who is the declarant when various options for VAT are adopted?*

### *Other*

- *EU VAT mechanism is not harmonised. Being registered in all Member States means to be compliant everywhere. How should business customise its accounting system to fulfil this?*

## **Discussion about issues related to import**

- One of the issues put forward in the discussion paper is that VAT small consignment exemptions apply to import from third countries but not to intra-EU sales, so that EU businesses are negatively impacted.
  - The question was raised whether there is any evidence of buyer behaviour where buyers use tax as a differentiating factor (and buy cheaper imports instead of goods from a shop in the EU). It was also noted that the price of the goods is not the only reason why consumers may prefer to buy goods online from a non-EU supplier (e.g. they may be mainly driven by the convenience of ordering online and having the goods delivered to their home).
  - The Commission replied that distortion of competition are a reality and that this is increasing, giving the example of goods imported into the UK from the Channel Islands, where the tax treatment has by now been changed due to high level of distortion.
  - It was also noted that it is not so much the buyers who decide where they buy from (they are often not aware of the origin of the goods they are buying), but the sellers who decide where to sell from. The buyer simply chooses to buy the cheapest product.
- One of the participants explained that it may seem unfair that imports benefit from exemptions, while intra-EU trade does not, but that it is important to see the other side as well. Currently EU businesses can export to countries outside the EU (e.g. US) at low rates. If the thresholds are removed, this may change as well, should the US consequently reconsider their import tariffs.
- The question was raised whether the distortions are caused by the fact that there is a threshold, or by the fact that the threshold is not correctly set. Perhaps the threshold should be defined on

the basis of the turnover of the seller or the combined value of all goods imported by that seller, instead of on the basis of the value of the individual parcel.

- The process to get import VAT refunded on package returns or undelivered items is cumbersome (remark by Bpost).
- The combined effect of customs and VAT makes the system complex. The cost of customs clearance and VAT collection in customs is too high, especially as customs processes differ between Member States.
- DDU sales are widely used. Consumers are often not aware of VAT and customs duties due on goods they purchased (⇔ DDP sales where this info is provided to them). When consumers realise they need to declare/pay VAT in customs, they just don't pick up their parcel or complain with the postal operator. Bpost receives many complaints about this. There is a need to educate consumers about this to make sure they do not lose confidence in online sales.

### **Discussion about issues related to distance sales**

- All participants agreed that the current distance sales regime imposes a high compliance burden on sellers:
  - They need to monitor whether they exceed the distance selling threshold;
  - If they exceed the threshold, they need to comply with the VAT rules of the Member State of consumption.
- Sellers will only sell to other countries if the revenue they get from their sales outweighs the compliance burden.
- The current distance selling threshold allows small businesses to engage in cross-border trade without having to comply with different VAT regimes, as long as they are selling under the distance selling thresholds. Participants agreed that removing this threshold without introducing simplifications would kill small businesses.
- The current system is so complicated that it does not cause issues only for small businesses: even multinationals are having problems figuring out how to cope with 28 different VAT systems. Some businesses believe they are doing the right thing, but are actually not compliant.
  - Sellers have to know 28 VAT rates (and the exact scope of these rates), work in different languages and are subject to different exemptions in different countries. Access to information is a big issue. Companies need resources in order to collect the information and act upon it.
  - The compliance cost is too high.
- With respect to monitoring compliance, it was noted that the Member State of destination does not have sufficient information to monitor which businesses have passed the threshold. Participants agreed that only the Member State where the seller is established does have access to this information. However, participants did not agree on the extent to which exchange of information between the different tax authorities is already happening, and how much improvement can realistically be expected.

- It was mentioned that there can be distortions of competition when businesses established in a low VAT rate Member State are selling to higher VAT rate Member States under the distance selling threshold.
- Regarding VAT registration burden on businesses, it was mentioned that on MOSS implementation, some Member States (e.g. the UK) intended to impose full VAT registration obligations on businesses who were under domestic VAT registration threshold, but had some MOSS supplies. However, the UK has changed their rules, so now businesses can register for VAT only regarding their TBE supplies under MOSS while continuing to benefit from the VAT registration threshold regarding their domestic sales.
- For TBE services, the destination principle has had a negative impact on small TBE suppliers (e.g. need to store information about their customers). MOSS is still too complicated and has not mitigated this negative impact. Some have stopped supplying cross-border because of the introduction of the destination principle.

### Discussion about issues related to both regimes

- There must be a balance between the cost of VAT collection (for sellers and for the tax authorities) and what is actually collected (VAT revenue for Governments).
- There is a lack of efficient IT systems and exchange of information between tax authorities. As a result, the burden falls on sellers to collect the relevant information and inform the authorities.
- Different rules apply to B2C and B2B sales.

### External factors

- Simplifications introduced under the VAT regime may not have the desired effect because of the interplay with other legislation (e.g. consumer protection law may require issuing of invoice and provide more detailed information while VAT rules do not).

### Group 2

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**Facilitators:** Valentina Cilli and Thomas Vanhee

**Rapporteur:** Ancy Mechelmans

**Participants:** EC - David O'Sullivan  
 EC - Kristina Vitkauskaite  
 Business Europe - Karl-Heinz Haydl  
 Clecat - Dominique Willems  
 Ecommerce Europe - Marlène Ten Ham  
 PostEurop - Carlo Sauve  
 Tiaca - Axel Klein  
 Ebay - Jon Crowther

DHL - Steven Pope

Euroexpress - Eddy Verschueren

EVO NL - Godfried Smit

Global Express - Carlos Grau Tanner

## External factors

- During the post-it brainstorm session, participants mentioned several external factors to be taken into account:
  - Globalisation;
  - Technological developments (such as 3D printing) → “the world is one click away”;
  - Huge increase of cross-border commerce in a B2C relation;
  - The whole digital economy turns the old economy upside down;
  - Consumer attitude changes;
  - Security of payment process has increased;
  - Protectionism ;
  - VAT decisions are political decisions;
  - With more free trade, duties are less a problem – by contrast, the VAT issue remains.
- During the group discussion, participants agreed on the following main external factors:
  - Technical developments (internet penetration, improvement payment systems) and new developments such as 3D printing and the ‘internet of things’ will influence deeply the market for services in the future;
  - Increase e-Commerce.

## Drivers of Problems

- Participants discussed the following drivers of the problems:
  - There are different fiscal regimes in all Member States because there is no common EU approach and no harmonisation;
  - Lowering the *de minimis* thresholds will be seen as protectionism by the EU’s trade partners. We cannot end up in a trade war. EU companies’ revenue comes from export as well, not only from intra-EU trade. This is a global issue and discussions in the OECD are ongoing. The EU can take the lead in these discussions, but cannot decide unilaterally. The OECD is the right forum, but at the same time EU cannot wait every time, because then nothing will happen.
  - Decisions concerning VAT are always political decisions (the VAT Directive is more policed than customs regulation);
  - Base erosion and profit shifting.

## Problems

- The participants discussed the following problems:
  - Legislation is complicated and customs interpretation is difficult
  - There is a lack of harmonisation (regulation rather than directive for customs, different legislations for clearance procedures). De minimis recently published. The cheapest procedure is based on a list. It is a practical solution worked out with the customs administration. The most expensive procedure is dealt with separately, it is a formal

declaration. The importer has to get a power of attorney from the exporter. Customs have to get this authorised. Can take up to a week.

- Costs of collection VAT are often higher than revenue. This questions the cost effectiveness of the system. Remark: electronic systems do not always simplify procedures (as they are often more bureaucratic).
  - The procedures related to VAT and customs are very different. The Commission's Units working on these issues are not always aligned. For future solutions, they should be aligned to avoid different thresholds and different procedures.
  - There is sometimes a discussion on the value of consignments with the customs administration.
  - Calculation of price is practically impossible. Buyers don't know which price will apply as they don't know the VAT rate. Work with "average prices" causes legal uncertainty.
  - E-commerce traders have a 'far away' customer base but at the same time they are required to collect more and more info from their customers. They need to know where he/she is applied in order to determine the VAT rate. This is burdensome, especially for SME's. They need to start collecting more information about their customers than before. This is definitely the case for services (less for goods). Plus, one can ask himself whether this is in line with data protection legislation.
  - Fiscal representation is expensive because of the fee of consultants and price deposits.
  - Small businesses are being undercut by non-EU suppliers.
  - Non-EU shipments are expensive.
- The participants then agreed that the following are the main problems:
    - As a result of different fiscal regimes and different administrative requirements, compliance is difficult, especially for SME's
    - It is difficult to determine the place of supply.
    - Traders have to collect more and more info about their customers.
    - The VAT revenue is sometimes lower than the cost of VAT collection.
    - Fiscal representation is expensive
    - The VAT and customs systems are not sufficiently aligned.

## Effects

- The participants discussed the following effects created by the problems:
  - The lack of transparency causes problems for merchants as it is difficult to calculate the tax beforehand.
  - The problems reduce the number of sellers active in e-commerce.
  - Concerning *de minimis*:
    - The *de minimis* should be raised in order to be cost effective. However, regulators think this is a bad idea.
    - Despite the existing *de minimis*, there is a lot of healthy e-Commerce intra-EU, a lot of customers never buy from outside the EU. Sometimes consumers don't know they're buying from outside the EU.
    - There might be a level playing field between EU businesses and non-EU businesses in the tax field, but not from the economic point of view: if a consumer orders from the US, (s)he will have to pay transport costs. Because of these additional costs for non-EU suppliers, the *de minimis* does not cause a distortion of competition in the EU.
    - *De minimis* rules can limit customer choice. E.g. Amazon does not deliver a number of goods in Switzerland.

- Consumers do not always understand everything. They compare prices, but do not know what's behind it. A good idea from New-Zealand is the creation of portal where you can calculate customs & VAT.
  - Whatever changes are made, companies will have to adjust. They need consistency.
  - Duties are not so much the problem, the complex process is.
- The participants also touched upon a number of wider issues:
    - On the 2015 changes of the place of supply rules, it was mentioned that there is always room for improvement, but that conceptually, the change makes sense. This will need some time as there is always a period of uncertainty, with initial issues, always a learning curve.
    - On the switch to the principle of taxation in the Member State of destination, it was mentioned that this is an OECD principle, and therefore not open for discussion. The principle also follows the logic that taxation is linked to the place where consumption takes place. The fact that the EU started from origin principle still has its consequences (e.g. no uniform VAT rate).

## Plenary session

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During the plenary session, a rapporteur from each group presented the main conclusions from the discussions from the break-out sessions.

## Break-out session: discussion on the policy options

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Prior to the workshop, all participants received a discussion paper describing the different policy options considered by the European Commission. During the workshop, the policy options were explained to the participants. The participants were then divided into two groups in order to discuss the different policy options.

### Group 1

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#### Status quo

- Many participants argued that the proposed policy options may be going too far. They explained that the system kind of works, even if it has some issues. They suggested that with some small adjustments, the status quo may be preferable to the other proposed options. They suggested to:
  - start by adjusting the thresholds and making sure that they are applied in the same way in every Member States; and
  - ensuring that efficient IT systems are in place.
- The Commission noted that this does not solve the problem that it is difficult to monitor whether the distance selling threshold has been exceeded. The participants replied that distance selling rules are in theory easy to audit, provided that the Member States cooperate and trust each other:
  - If there is a suspicion that a company is selling above the threshold, the Member State of destination can ask the Member State where the seller is established. The participants did not agree on the extent to which exchange of information between the different tax authorities is already happening, and how much improvement can realistically be expected.
  - The home tax authority is the only one who can check whether the threshold has been exceeded. But there is no incentive for these tax authorities to check if a company has exceeded the threshold, because that means the tax will go to another Member State.

- The participants argued that if this is the actual issue, then eliminating the thresholds and increasing burdens on businesses is not an appropriate solution. The problem should be solved at the level of the tax authorities.
- The participants noted that an option should be considered to retain the thresholds, but simplify the system. Several suggestions were made:
  - Alignment of the rules for threshold for imports (currently judged on parcel basis) and the thresholds for distance sales (currently judged on overall sales to a Member State annually)
  - Another option: no registration, but supply based payment of VAT by self-declaration (in case of small scale cross-border supplies), and development of an IT system to support this
    - The participant who suggested this option argued that this could be a way of giving businesses the possibility to engage in cross-border trade, without being obliged to register for VAT as from their first cross-border transaction.
    - The Commission answered that this system would function like a 'stamp duty', and that it would also be burdensome.
    - As a counterargument, the participant explained that companies could opt for the 'stamp duty' system until they have reached a volume when it really becomes burdensome, and that would be the point where registration becomes the better option.
  - More radical idea: if companies sell in another Member State, they still apply the VAT rate of their home country but the VAT goes into a shared fund which is then redistributed among Member States.

### **Option 2: Removal of low value consignment relief and distance selling thresholds (No simplification)**

- All participants agreed that this is not a realistic option.
- Bpost explained that only removing thresholds without simplification measures would be a disaster for postal operators.
- Intra-EU trade and import to EU would decrease as a result of this option
  - Removing thresholds without simplification would cause distortions in the other direction (imports would become more expensive and burdensome than intra-EU sales). This would not level the playing field. Removal of low value consignment relief would make trade more complex, increase costs for carriers, and increase costs for governments.
  - Removing thresholds without simplifications would also distort intra-EU trade.
- This option would be very painful for SMEs in particular
- Export from EU to the rest of the world would suffer from it as well – similar measures would be taken by other parts of the world.

### **Option 3: Option 2 plus One-Stop-Shop applying 1) intra-EU to goods and services and 2) to the import of all goods under the customs threshold of € 150 with alternatives for customs simplifications**

- The participants were asked to think about how an OSS would work for imports
  - The participants explained that the combination of customs and VAT upon import makes the system complex. A solution could be to split customs and tax elements: getting rid of VAT



collection formalities when importing goods and collecting VAT in a different way. This ‘different way’ could be to allow non-EU suppliers to choose 1 Member State for OSS registration, after which they can import their goods in any EU Member State.

- It was discussed whether OSS would be a simplification if it was limited to small value consignments (up to 150 EUR) only (meaning that it would not apply for parcels with higher value). The participants thought this would not be workable. They explained that OSS should either apply to all imports or to none.
  - The issue was raised that there is also VAT due on customs duties (VAT is calculated on the value which includes customs duties). As a result, it is not entirely possible to totally disconnect VAT and customs, which was the reason for limiting the application of OSS to imports below customs duty threshold. The solution was suggested to “assume” the value of the customs duty for VAT purposes, and then apply periodic corrections.
- Bpost raised the issue that even if OSS would simplify things for B2C imports, there would still be different processes for C2C and B2B imports.
    - Most sellers assume that they are selling B2C. If OSS came into existence, the sellers would sell their goods, charge B2C VAT and pay it through OSS. If the customer is a business and asks for an invoice, this would become a problem, because B2C has to be transformed into B2B.
    - When Bpost notices that a sale is a B2B sale they declare it as B2B. However, mistakes are sometimes made because they rely on the address they find on the parcel (e.g. private consumer orders goods but has them delivered to his workplace).
  - The possibility of third party collection was discussed. Bpost strongly opposed to this possibility, arguing that this would lead to more complexity for postal operators as they would need to deal with 3 different processes for B2C imports (vendor registered, third party collection and current procedure). The Commission suggested that postal operators could offer third party collection as a service. Bpost and Amazon disagreed, they do not see how they could offer this as a service. They noted that VAT collection is not their core business, and that they are concerned about the liability issues that would come with third party collection.
  - The participants agreed that Option 3 is definitely better than Option 2. They agreed that OSS can decrease costs, as it would enable companies to register only once, but the question is whether it will decrease them enough.
  - To conclude the discussion, participants were asked to discuss which simplifications would be needed in case thresholds are removed.
    - They agreed that there should definitely be a unified approach (as few different processes as possible and maximum alignment between the Member States);
    - The system should take into account the return of goods.

#### **Option 4: Option 3 plus a EU nano-business threshold applying to goods and services (e.g. 5000 EUR, 10 000 EUR)**

- The participants emphasised that the simpler the system is, the less there is a need to treat nano-businesses differently.
- It was argued that OSS in itself is not enough for small businesses, and that a special system (or at least a transitional system) should be put in place for them.

- The participants acknowledged that having a threshold in itself can be a burden too (you need to monitor whether the threshold has been exceeded), but argued that this would still be easier than having to register for VAT.
- The participants were asked to discuss on the basis of which criteria the threshold must be set
  - If the threshold depends on the value of a business' cross-border sales to a Member State or overall, it does not really link to the size of business.
  - A combination of a cross-border sales threshold and a global turnover threshold was suggested.
    - When talking about imports, it is difficult to find out the size of the seller: control by the tax authorities would become more difficult. But a similar system should be envisaged for imports as for distance sales.
  - It was also suggested that in theory, the threshold must reflect the cost of registration. But in practice this would be difficult because the cost of registration is business dependent.

**Option 5 (Option 4 plus improvement of One-Stop-Shop with home country legislation and home country control, subject to applying rate/exemptions of the Member State of Consumption) and Option 6 (Option 4 plus common EU rules for One-Stop-Shop, subject to applying the rates/exemption of the Member State of Consumption)**

- The participants agreed that the more harmonised OSS can be made, the better. The participants' preference is to impose common EU rules insofar as possible, and home country rules as fallback option (e.g. invoicing rules). All of this should be supported by a solid IT platform.
- It was noted that if businesses are asked to choose between Option 5 and 6, their choice will depend on what their home country is and how burdensome the rules in that country are.
- For tax authorities, option 5 would mean that they would have to trust the systems of 27 other Member States. Tax authorities would go for option 6, although also difficult to agree on.
- The issue was raised which auditing rules would apply and who would do the audit. The different auditing rules are an issue today, as well as the right for every Member State of destination to audit the supplier under MOSS. The MOSS auditing rules may be feasible as the number of services covered is small. Under OSS this would be significantly more burdensome for businesses.
- The participants raised the concern that other legislation may not follow the simplification introduced by OSS (e.g. archiving rules). These are external factors limiting the impact of these options. The moment the destination principle applies, other pieces of legislation kick in. OSS cannot harmonise all rules.
- OSS will only apply to a part of businesses' operations. There will always be different rules to apply for remaining supplies. It was suggested that perhaps in time the rules governing other operations will evolve towards the rules of the OSS system. This was not a realistic expectation in the eyes of most participants.

### **General comments:**

- Small businesses selling goods and small businesses selling services should be treated equally.
- All options seem to make the system more complex rather than simpler, comparing to status quo. The more options there are, the more difficult it gets.
- Amazon: Estimated compliance cost for a business per year is approx. 5000-6000 EUR per country (400 per month plus 1000 for registration). Small businesses cannot afford this.

### **Group 2**

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#### **Option 2: Removal of low value consignment relief and distance selling thresholds (No simplification)**

- Participants discussed that this option could have the following negative consequences:
  - For express operators the option would have a big impact due to double customs entries. It would lead to high costs, also for low value goods, resulting in a higher cost to recover from the end consumer;
  - Customs would not have the means to monitor all parcels that are imported;
  - Not all EU Member States apply simplifications. Even if simplifications exist, goods still have to be declared. The administrative burden would therefore increase a lot. The option would not solve the existing problems;
  - The option would create barriers;
  - The option may even create more discrepancies between the Member States;
  - Many operators would not even ship to the EU anymore. Looking at intra-EU trade, many suppliers would not want to register in all countries (unless they are big enough);
  - The impact would be difficult to predict. E.g. 200 to 300 companies shut down in the UK after the introduction of the MOSS because they were panicking. A discussion started on whether this figure is correct, as the number seems lower in reality. It was concluded that in any case, change brings uncertainty and this is an important factor to take into account;
  - The removal of the distance selling threshold does make things per se simpler (even though companies don't have to monitor the thresholds anymore).
- Participants were asked whether it would be possible to separate the threshold for customs and VAT purposes. No clear answer was given.
- Some positive consequences of this option were mentioned as well:
  - With respect to imports, it would lead to more efficient transport (as there would no longer be a need for an artificial split of parcels), less issues with valuation and less issues with labelling; Nevertheless, the option would be too expensive still according to the participants;
  - There would be no distortion of competition under this option.

### **Option 3: Option 2 plus One-Stop-Shop applying 1) intra-EU to goods and services and 2) to the import of all goods under the customs threshold of € 150 with alternatives for customs simplifications**

#### **Intra-EU**

- Participants discussed the following advantages and disadvantages of this option:
  - The option will only work if Member States make it work, they will need some pressure;
  - The OSS would have to for output VAT as well (also in B2C). Businesses act as a tax collector. The question then arises: would input and output VAT be treated the same? Input VAT cannot be deducted in the MOSS, however, the costs incurred probably aren't high, thus it's not that problematic;
  - There would be two returns: one for MOSS, one for local registration;
  - Refunds would have to be looked at through the MOSS (but this is only relevant for B2B);
  - The option would be a simplification for businesses, but not for smaller businesses;
    - OSS would be simpler than VAT return in every country, but it would still remain difficult due to the different VAT rates;
    - Transparency would be enhanced;
  - The option would not necessarily make things easier for the customer? The customer would know if there was a big difference in rates, but not if there was no big difference;
  - The option could have an impact on prices as well.
    - It is necessary to look at total pricing: VAT on one side and the cost of administration on the other side. If one side is going up and the other side is going down, the option could still be interesting;
    - It is not clear whether the option would result in an increase or decrease of the administrative burden. This is one of the aspects the study will look at;
  - Businesses would have to be able to locate their customer in order to know which rules apply and which VAT rate applies. This is difficult:
    - For distance sales, the business should look where the goods are shipped to, rather than the Member State of destination of the customer. If the business is in charge of shipment, they would be able to know, but it can remain difficult because of complex supply chains.
  - Liability could also be problem, definitely for small consignments as the quality of information is not the best. In case of an audit, it is extremely difficult to get money back from people that did not give highly qualitative information (definitely in case of B2C sales). For B2C, businesses will first ask for the payment, and only deliver afterwards. However, prepayment can solve problems in the short term, but not in the longer term. For all periods, businesses should have reservations on their account;
  - Participants were asked whether it would be a good idea to transpose the concept of third party providers from the customs environment to the VAT environment. The third party would receive prepayment from the vendor and would then either pay on behalf of the vendor or ask the vendor to pay the amount of tax. Participants mentioned that systems of fiscal representation are quite expensive and would result in high liability for transport companies. However, for SMEs this would help them to engage in cross border trade.

#### **Imports**

- Participants subsequently discusses the impact of this option in the field of imports:
  - If a non-EU business going through a logistic provider/postal operator would collect tax before shipment, this would resolve problem with incoterms;
  - Under the option, the vendor would register in the system and ensure payment against authorities. The express operator would need to distinguish shipments that come under the

OSS system and other systems. This would make it more complex. It is a big challenge adding complexity and liability for express operators.

- Participants were asked if the OSS would be equally good for customs and VAT.
  - There is no reason for customs to check if businesses accounted for the VAT. As long as audits cover checks and VAT taxable persons take care of the balances themselves too (some self-audit), then the customs administration is not involved and shall not control (in other words: if checks and balances are okay, the customs administration should only check safety and security). Problem: current UCC introduces additional burdens for safety/security;
  - A solution could be to put it in a periodic return, making goods “pre-VAT-cleared”. Some sort of notification could be inserted;
  - Participants emphasised that it is important for customs to be aligned with VAT (otherwise, even if simplified forms exist for customs for goods with a value below 150 EUR, businesses would still have to do the whole procedure for VAT);
  - The European Commission replied that it is a risk to rework the customs framework. Very hard work has gone into this framework and it will probably stay like this over next 10-15 years;
  - So the problem remains: we cannot separate VAT and customs, but if simplifications exist only for VAT, but not for customs, then they are no longer simplifications;
  - Finally, it was noted that we should not only look at how businesses can be compliant, but also focus on cases of non-compliance. The exchange of information should be reinforced. Some Member States do not use this (there is a fiscalis group on this). Working together is very important.

#### **Option 4: Option 3 plus a EU nano-business threshold applying to goods and services (e.g. 5000 EUR, 10 000 EUR)**

- Participants were asked how nano-businesses should be defined.
  - Different options were discussed:
    - Definition based on number of transactions or predicted transactions;
    - Definition based on turnover. Again, different possibilities exist such as total turnover, turnover from OSS transactions and cross-border EU turnover;
  - It was also discussed whether the threshold should be the same in all Member States. Participants agreed that it should be, even though 5000 EUR may not mean the same in the UK as in Bulgaria.
- Participants mentioned that adding exceptions adds complexity. They raised the question whether an exception for nano-businesses would still be needed once there is a well-working MOSS system in place.
  - It was mentioned that there are some countries which are too bureaucratic, making it impossible for starters. The question is then what is more complex: complying with all the rules in all Member States in which the business is selling goods, or verifying whether the business can benefit from an exception.
  - The issue was raised that the MOSS at this point is not simple enough for small businesses. The IT is different within different Member States, which makes it more difficult. The website should be simple enough, should not be a burden for small businesses going cross-border.
- Overall, participants seemed to agree that this option would not simplify things. The questions around the option (e.g. how should the threshold be set) are so complicated that one could question whether this is the right instrument. At first sight you are simplifying things for nano-businesses, but as soon as they no longer meet the requirements for benefiting from the

threshold they would have to change their business model again. The ideal would be to have one VAT system without exceptions that is simple enough for all businesses, large or small.

### **Option 5: Option 4 plus improvement of One-Stop-Shop with home country legislation and home country control, subject to applying rate/exemptions of the Member State of Consumption**

- Participants first discussed whether it would be realistic to expect Member States to give up their control rights as Member State of destination. Experience with MOSS shows that this is a sensitive issue.
- Participants then discussed the main advantages of the option:
  - It is better for businesses to deal with only one set of rules and one controlling authority, so they don't have to look at the invoicing rules, accounting rules, record keeping rules of all the Member States in which they are active;
  - If businesses can just apply the rules they are familiar with, this would be better for them.
- The following disadvantages were mentioned:
  - If a country is very strict, companies might not want to register there;
  - Maybe 'peer pressure' towards harmonisation might help;
  - Non-EU businesses would go to least strict country.

### **Option 6: (Option 4 plus common EU rules for One-Stop-Shop, subject to applying the rates/exemption of the Member State of Consumption)**

- Participants only briefly discussed this option, and concluded that this option is challenging, as it would not be easy to agree upon a common set of EU rules.
- The participants then concluded with some general remarks about the options:
  - Participants questioned whether it makes sense to still have different VAT rates and exemptions. Businesses have to know all the rates and exemptions. This makes it very difficult for them. Rules should be clear and everyone should know which rules apply;
  - Participants also suggested some other simplifications (cf. pg. 14 of the paper we sent them before the workshop) such as an overall code for customs and VAT.

## **Plenary session**

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During the plenary session, a rapporteur from each group presented the main conclusions from the discussions from the break-out sessions.

## Workshop 17 April 2015

### Attendees

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<b>Organization</b>	<b>Name</b>
EVO NL	Godfried Smit
EuroCommerce	Ron Nikken
European Express Association	Eddy Verschueren
AmCham EU	Walter Van der Meiren
EMOTA	Razvan Antemir
DHL	Steven Pope
Amazon	Catherine O'Neill
Post Austria	Barbara Neuhold
Clecat	Dominique Willems
Clecat	Mauro Giffoni
Clecat	Mattias Hermansson
PostEurop	Annelie Rietveld
Ecommerce Europe	Luca Cassetti
PostEurop	Carlo Sauve
European Commission	David o'Sullivan
European Commission	Ana-Maria Caraman
European Commission	Kristina Vitkauskaite
Revenue Commissioners	Finn De Bri
Revenue Commissioners	Pauline Doherty
Revenue Commissioners	Dermot Donegan
Deloitte	Julien Pauwels
Deloitte	Thomas Vanhee
Deloitte	Valentina Cilli

Deloitte	Daan De Vlieger
Deloitte	Ancy Mechelmans (PM)
Deloitte	Charlotte De Jaegher (PM)

## Agenda

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The purpose of the workshop of 17 April is to follow up on the workshop of 30 March, focusing on import VAT and customs duties. The agenda of the workshop is presented below.

10.00 - 10.05	Welcome by Deloitte
10.05 – 10.30	Presentation of the current problems as identified during previous workshop
10.30 – 10.45	Overview of the methods suggested for supplies from non-EU countries
10.45– 11.00	Coffee break
11.30 – 12.00	Presentation of the MOSS by the Irish Revenue and Q&A
12.00 – 13.00	Lunch
13.00 – 13.30	Detailed presentation of the simplification measures proposed
13.30 – 13.45	Introduction of questions for discussion
13.45 – 14.45	Discussion on the questions proposed in break-out sessions
14.45 – 15.30	Reporting on the discussions and enrichment in plenary session
15.30 – 16.00	Wrap-up and conclusions

These minutes cover the afternoon part of the workshop.

## Detailed presentation of the simplification measures proposed

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In the first session of the afternoon, the study team presented the simplification measures proposed as part of the different policy options.

## Questions to be discussed during parallel sessions

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### *Questions on VAT compliance:*

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- What systems already developed by postal/courier operators and customs agents can be used?
- What could be the biggest challenges for practical application that have to be taken into account?
- What type of simplifications for VAT compliance are necessary in respect of:
  - o Registration for methods 1, 2 (e.g. EU VAT number for vendors and 3rd parties);
  - o Declaration for methods 1, 2 (e.g. frequency, information required such as individual vendor information for 3rd parties?);
  - o Payment for methods 1, 2, 3 (frequency, liability issues etc)
- Is there a need for further simplifications for VAT payment in method 3 (if methods 1,2 are not opted for)? (such as bulk importation and payment);



### **Questions on customs compliance:**

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- What systems already developed by postal/courier operators and customs agents can be used?
- What information do you offer now to customs (e.g. access to own records) - how could it be used to simplify the clearance?
- Which of the existing specific country simplifications should be considered for use in all Member States?
- What type of simplifications for customs compliance are necessary in respect of:
  - o declaration (such as barcode, Radio Frequency Identification (RFID), statement 'VAT prepaid');
  - o fast track (practical implications, etc.);
  - o other (what further simplifications could be envisaged?).

### **Break-out session: group 1**

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### **Questions on VAT compliance:**

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#### **What systems already developed by postal/courier operators and customs agents can be used?**

- Participants discussed the example of Belgium:
  - o Deferral of import VAT to the monthly return (=simplification), but this is not applicable in all Member States (e.g. no simplifications in Germany at all);
  - o In Belgium, there are simplifications for postal shipments (BPOST). Goods below 22 EUR formally are released on oral declaration. Even then, a list must be provided to the customs authorities with all goods on it. For goods between 22 and 150 EUR, a simplified procedure in place as well (list with all packages on it can be released at once). Here, import VAT has to be paid. This is in principle done on a monthly base. Monthly SAD (for all shipments, not individually). VAT is paid by customer in final stage, but paid to customs authorities on monthly base. A similar system exists in the Netherlands;
  - o For couriers, the system is different: they have to make individual SAD per package (full declaration and everything to calculate VAT) so the system is much more complex than for postal operators. For goods below 22 EUR, the process is the same as for postal operators.
- Various treatments for small consignments exist in the different Member States. Belgium and the UK are quite advanced. Some countries need POA for each package (Greece) & private customer needs to go to notary etc.

#### **What could be the biggest challenges for practical application that have to be taken into account?**

- Participants agreed that there is a need for a clear vision on legal obligations and where they come from. Sometimes customs rules are also applied for VAT purposes. We need source of legislation to see if we can have simplified procedures.
- Participants suggested that rather than amending customs legislation, you could take out customs completely from VAT. But politically, this would not be that easy.
- It was noted that for a number of countries where simplified procedures exist, the declarant becomes liable (UK). Under the Belgian system, you are only liable if you are liable to pay.
- Deloitte clarified that in order to benefit from the threshold, each package has to be individually packed. You have to declare on behalf of final customer, otherwise you cannot benefit from threshold.
- Participants discussed the importance of aligning VAT and customs rules:

- From a business process point of view, you have to start with a discussion whether it is useful to have one system that is transactional based and one system based on another system. Would it be useful to have two systems in place? Businesses need a clear picture, we should discuss what the other partner (customs) is going to do, we cannot just look from VAT perspective.
- Participants expressed their preference for a clear legislative vat code, separate from customs (although security & safety considerations must be taken into account). Some countries such as Sweden have already decoupled VAT from customs. The political will to decouple should be a given, it's not a question.
- The European Commission agreed that people from customs will want to be working on safety & security (ENS). If checks are done by customs, then these can be used for VAT. Go to structured data. So the customs might know if there is a regular declaration by means of the declarations mode (e.g. OSS might be visible on customs declaration, so they know VAT has been paid).
- Participants discussed the fact that the impacts of the policy options would not be the same for couriers as for postal operators.
  - If the importer/vendor submits the VAT return, couriers have all the documents related to the shipments. But this is not possible for postal operators. If a postal operator registers for the OSS, he would have to give instructions to the sender e.g. instruct them to place barcode.
- Participants were asked how it could be ensured that packages where VAT is paid get through fast.
  - For European postal operators, it is difficult. They don't know the sender.
  - Some participants were not in favour of a barcode, because you can copy it. One thing that could be done, is to mention the vendor's VAT number on the package. If there is an OSS system, you can build it as a risk parameter: the VAT number will go with the package if you want it to go right through.
  - It was noted that a VAT nr, can be hijacked, but not counterfeited as a barcode. Participants raised the question what would happen if Chinese vendors put Amazon's VAT numbers on it? Would we have to stop all these packages from Amazon? It would not be possible to ask foreign postal services to check this.
- The couriers were asked whether they would be able to tell whether VAT on a package has already paid or not. They replied that they don't need it, because they have a lot of information.
- Participants agreed that there must be an alternative for a barcode to distinguish paid from non-paid shipments.
  - It was suggested that customs could do this. Customs is doing safety & security checks. If they think a package is suspicious, they can do it. It might not be necessary to do it for every package. Based on risk, you check them then.
  - Now for CN22 there is the possibility for 0-150. So parallel bulk shipments. But postal operators have their own system. BPost supplies data that is sufficient (a list of all the packages).
  - About simplified bulk in Belgium: how does it work? Monthly SAD & make payments. But they collect from end consumer.
  - If it could be mentioned on invoice that VAT has been paid upfront?
- Couriers noted that they already act like a kind of "OSS". Auditors can come to them for all questions from a vendor. They give list for shipments – if they don't match VAT returns, then they can give all the information (what/where/when/customer/...). But the couriers have to collect VAT, and currently have huge costs on bad debt; customers refusing to pay (amount so low, they just write it off). For small shipments, if they have to collect from 0 EUR, then they might need simplification measures: the collection cost would be huge and the costs would outweigh the benefits. (Reference was made to the following report: (<http://www.euroexpress.org/uploads/ELibrary/CDS-Report-Jan2015-publishing-final-2.pdf>))
- Participants discussed what is going on outside the EU on this topic:
  - There are active discussions on this with the OECD;

- There is a good agreement with the US on the current MOSS. The US is supportive of the Task force Digital Economy (action within OECD). To optimise this idea, we need cooperation of US/China/Australia/... The US wants this to work.
- Participants stressed that simplifications are necessary (in particular for postal operators) for the system to work. Packages from some countries (e.g. Fiji) will still need to go through the normal process. But if a package does not come from a risk country, it should go through the 'green lane'. If it comes from a risk country, it should be checked (e.g. black/white list on the base of origin).
- Amazon explained that for non-EU countries, they collect VAT from the customer, VAT is declared by the freight forwarder (bulk imports). They work together with UPS on this. They are pre-collecting, but they are not the importer (but goods are declared on behalf of the customer, so no liability for Amazon). So, an OSS would be great, but it depends on the implementation of the system. Also, they only do it for their own sales, not for 3<sup>rd</sup> party sales. eBay has something similar in place (facilitate shipment, don't take ownership.. pre-payment collection).
- The point of view of the Member States was also discussed:
  - Overall: Member States are satisfied with MOSS (although the initial response from the UK was negative).
  - The question was raised whether they would be in favour of audit by MSI.

**What type of simplifications for VAT compliance are necessary in respect of:**

- **Registration for methods 1, 2 (e.g. EU VAT number for vendors and 3rd parties);**
- **Declaration for methods 1, 2 (e.g. frequency, information required such as individual vendor information for 3rd parties?);**
- **payment for methods 1, 2, 3 (frequency, liability issues etc).**

**Is there a need for further simplifications for VAT payment in method 3 (if methods 1,2 are not opted for) (such as bulk importation and payment)?**

- In some Member States, customs have access to the system of FedEx. In the Netherlands: remote scanning. FedEx sends data upfront to customs.
- Participants discussed whether there could be any simplifications for method 3 (standard method), such as a simplified procedure for good with a value between 22-150 EUR?
  - It was suggested to make it possible for couriers to bulk clear and choose where they could bulk clear with a limited data set (no CN code) – i.e. centralised clearing. In that case, you would always apply the standard rate/highest rate. To benefit from a reduced rate, the usual declaration would still be necessary. But this would only apply if methods 1 or 2 are not applied.
  - Some Member States have *de minimis* based on the amount of VAT. If there would still be a *de minimis* (e.g. for 2 EUR) that might not have distortive effect.
  - In option 3, VAT has to be paid to the VAT authority of the importing country and then has to be paid to the final country. So there still is 1<sup>st</sup> and 2<sup>nd</sup> VAT supply, it is not different from how it is now.

**Break-out session: group 2**

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- Participants discussed whether an OSS would be a good system for goods:
  - In Italy, the MOSS is too complicated, there is a learning curve for companies to pick it up.
  - Suppliers of TBE services need to identify their final customer. MOSS is a simplification, but suppliers still need to locate their customer.
  - Overall, MOSS is considered to be a modernisation.

- Participants discussed the impact of the options on who is liable for VAT;
  - Before the new rules came into force, the person nearest to the customer was responsible for VAT. In the implementing Regulation, if small companies sell through platforms, the platform is liable for VAT (in the case of B2C supplies). E.g. iTunes: Apple is liable for the VAT on the content sold on iTunes (which is developed by various small software developers).
  - It was noted that there is a parallel with goods: E.g. Ebay could refuse to handle VAT so it may be more logical to let a third party handle this (e.g. the transporter of the goods or the logistics provider), since they are already paying import VAT and have all the data.
    - Not all participants agreed with this statement. Sometimes the logistics party does not have direct contact with the seller, only with another logistics partner: they do not have any information about the goods.
    - One of the postal operators doubted whether they can provide such a third party service.
  - On the liability for customs duties, couriers noted that the middle party is not able to check whether a parcel indeed has a value below 150 EUR. They cannot be liable, either the shipper or the consumer should be liable.
  
- The specificities of the postal operators were then discussed:
  - They could offer a service to foreign postal operators which consists of the payment of VAT. But the difficulty is: how should they exchange information with these foreign postal operators?
  - This is not an issue for couriers: they have all the information in their network.
  
- Participants discussed whether it would be feasible to put one single check for VAT and customs into place.
  - It is difficult because customs carries out systematic controls and audit based controls, their controls are not transaction based.
  
- The suggestion was made that PayPal could offer the modality to pay VAT for the customer. Participants agreed that this would be ideal. It would reduce the compliance-related and administrative burden. The simpler the compliance is, the more resources there are for increasing the volume.
  
- The difference between postal operators and couriers were again discussed. Couriers have more contact with the retailers (although they sometimes also receive packages indirectly). The remark was made that at some point, the postal operators will need to collect more data (the letter market is shrinking, the e-commerce market is growing).
  
- Participants then discussed how the exchange of information between postal operators could be improved:
  - It was suggested that third country postal operators could post registers on the OSS. However, there is an important difference between Member States and third countries. The foreign postal operators are not familiar with the EU rule so the EU postal operators may be better placed. Then the foreign postal operators would have to pay VAT to the EU postal operators.
  
- Participants were asked what they currently see as the biggest challenge:

- For customs, the biggest challenge is liability. A solution is needed to ensure that declarants cannot be held responsible for declaring what they can't check.
- In MOSS, there is no third party liability.
  
- Participants were asked how they would see MOSS VAT registration:
  - The best would be to have a record of all vendors and only one return, one declaration, one number.
  
- Participants were asked how fraud can be avoided:
  - VAT barcode can be messed with, the administration cannot know for sure that VAT is paid. The barcode would be put on the good when it is shipped. On the basis of the barcode it should be possible to check if the good comes under the OSS or not.
  - Electronic signature
  - Deny a vendor the right to continue using the OSS once fraud has been detected
  - If the OSS business model is cheaper: couriers can offer lower prices to OSS partners than to non-OSS partners.
  - PayPal could generate a barcode (if they have enough data, which is not sure).

