The import VAT and duty de-minimis in the European Union – Where should they be and what will be the impact?

Final report

14 October 2014

Cross-border Research Association, Lausanne, Switzerland – in co-operation with HEC University of Lausanne and University of Bamberg

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Executive Summary

The purpose of this study is to explore economic consequences, consumer behaviour and other potential implications of various VAT and duty de-minimis levels relating to the import of small, low value consignments into the European Union. De-minimis for the purpose of this study is defined as *"a valuation ceiling for goods, including documents and trade samples, below which no duty or tax is charged and clearance procedures, including data requirements, are minimal"*. Three **specific research questions** to be answered by this study are as follows:

1. What are the **economically optimal VAT and duty de-minimis levels for imports into the EU**, considering the cost of tax collection for public administrations and the cost of import processes and procedures for the private sector?
2. If VAT and/or duty de-minimis levels were to increase in the future, **how would consumer behaviour change** in terms of e-commerce imports from 3rd countries versus e-commerce and retail purchases within the EU?
3. Which **other political and economic implications** could follow from potential decisions in the future to increase VAT and/or duty de-minimis levels in the EU?

The **overall research approach** for this study covers both quantitative and qualitative methods for data collection and analysis, including: (i) a broad literature review on cross-border trade, e-commerce, logistics, customs and tax; (ii) collection of relevant governmental and industry data, through workshops, questionnaires and data system queries; (iii) development of a de-minimis economic model and web-based optimization tool; (iv) calculation of optimum de-minimis values; (v) performing a consumer behaviour conjoint and survey study; and (vi) carrying out multiple expert interviews. Building on such a multi-disciplinary approach, the study conclusions are finally drawn, results discussed, and recommendations made.

The five main outcomes and conclusions of the study are:

- **VAT de-minimis should be raised to 80 EUR** from the current 22 EUR – this is due to the fact that the total cost of collection faced by Customs administrations and the private sector currently exceeds the revenues collected.
- While increasing de-minimis levels might affect the **buying behaviour of consumers, such changes are not likely to be significant** – for example, quality and dealer-reputation are more important to consumers in their purchase decisions.
- Raising the VAT de-minimis would enable **Customs administrations across the European Union to reallocate resources towards higher priorities** such as: the collection of higher revenues; anti-fraud activities; addressing product safety and intellectual property violations; and supply chain security.
- Development of **an improved understanding of the costs faced by EU Customs administrations** is crucial to the future enhancement of EU-level and national policy and regulatory decision-making in the future – as, today, significant shortcomings are apparent e.g. among the captured labour and technology costs.
- Investments in **further harmonization and lean government programs across the EU** are needed - as today there are significant and costly variations across Member States, for example in VAT-levels and rules, as well as in the practical implementation of customs procedures.

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1 Introduction

1.1 Purpose and scope of the study

The purpose of this study is to explore economic consequences, consumer behaviour and other potential implications of various VAT and duty de-minimis levels relating to the import into European Union of goods with a value less than 1000 EUR. Three **specific research questions** for this study are as follows:

1. What are the **economically optimal VAT and duty de-minimis levels for imports into the EU**, considering the cost of tax collection for public administrations and the cost of import processes and procedures for the private sector?
2. If VAT and/or duty de-minimis levels were to increase in the future, **how would consumer behaviour change** in terms of e-commerce imports from 3rd countries versus e-commerce and retail purchases within the EU?
3. Which **other political and economic implications** could follow from potential decisions in the future to increase VAT or duty de-minimis levels in the EU?

The scope of the study covers the de-minimis levels of VAT and duty of import shipments within the European Union. Some references are made to other countries for benchmarking purposes. Furthermore, the scope also covers the potential implications of changes to the de-minimis levels as described above. At the outset, the following **three key decisions** were made regarding presumptions for the study:

- This study is effectively a multi-stakeholder one, considering the pros and cons of all identifiable stakeholders in the context of changing the de-minimis levels; at the same time, however, importers are considered to be the focal point of the whole importation process, as they typically pay the import processing and tax collection costs, one way or another.
- This study focuses on the total cost of import tax collection for public administrations and import process costs for the private sector; this is preferred to simply looking at one of the two cost components as part of the overall de-minimis optimization exercise.
- In calculating the optimum de-minimis values, any savings will be calculated net of the tax revenue foregone due to an increased de-minimis threshold. In case of VAT, only that paid by consumers is taken into account, since VAT paid by companies is deductible.

The study is carried out by **Cross-border Research Association (CBRA),** a Swiss-based trade facilitation and supply chain security research institute. The research team consisted of five CBRA staff members and of four university professors from the fields of consumer behaviour, international trade, macroeconomics and supply chain management[1]. The project started on 15 March 2013 and was finalized by 14 October 2014. The mandate for the CBRA to undertake the study was provided by the European Express Association (EEA).

1.2 Universe of small consignments

1.2.1 Markets, products, sellers, buyers and logistics

This study looks specifically at small international consignments. While there is no distinct definition for "small consignments", we refer to value rather than size or weight in our definition. Hence, we have

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[1] Please see ANNEX I. for additional information on Cross-border Research Association (CBRA) and short bios for the whole research team

chosen 1000 EUR as the upper limit of consignment value, which corresponds to the EUROSTAT threshold for trade-reporting requirements. Also, under this limit, we argue that in most cases the small size, low weight and low value go hand in hand. Despite the somewhat arbitrary nature of its definition, the small consignments can be seen to form a distinct segment within the market. This distinction is driven by a complex combination of products, buyers, sellers and transport modalities.

The universe of small consignments is a playing field of both firms and consumers. Traditionally, the majority of recipients are businesses with a logistical need for fast and reliable import of goods in small quantities. However, the number of consumers has increased sharply in the past decade, following the rise of cross-border e-commerce.

Typical products within the universe of small consignments include spare parts, professional equipment, samples and consumer goods. Examples of highly traded consumer goods crossing international borders include books, electronic appliances (such as cameras and chargers), clothing and shoes, and sports equipment.[2] The buyers in the universe of small consignments include large firms, SMEs and private consumers, and the market thus deals with both business-to-business (B2B) and business-to-consumer (B2C) trade. The sellers are in most cases multinational firms and, particularly in B2C, typically large e-commerce companies located for example in the USA, Europe and China. Small consignments are typically carried by express operators and mail operators, due, for example to the type and quantity of products shipped, and the logistics requirements of customers (e.g. urgency for spare parts).

The main driver in the growth of the universe of small consignments is e-commerce, which is a globally burgeoning industry that has led to a dramatic increase in B2C online sales. In 2012, global e-commerce B2C sales shot up to 1 trillion USD (Jones Lang LaSalle, 2013, p.4). Recent years have witnessed a substantial growth in cross-border e-commerce as both internet-only and multi-channel retailers turn to overseas markets for new sources of revenue. The rapid growth of e-commerce has significantly changed the transportation patterns and lead to a high growth of small consignments being shipped globally.

In the EU, the share of citizens / consumers buying goods or services over the Internet has more than doubled, from 15% in 2004 to 35% in 2012. However, there are significant variations between the member countries: in the Nordic countries and in the UK the share exceeded 60% in 2012, while in Eastern Europe the levels remained between 10% and 20%. Similarly, the average spending varies between 100 EUR in Romania and Slovakia and 2100 EUR in the UK.[3]

From the Customs perspective the universe of small consignments is highly relevant, since it involves an increasingly large number of shipments, representing a significant workload and yet for a limited amount of duty and VAT revenues collected. This issue has been mediated, mainly for customs duties, by the stipulations of international agreements and conventions such as the WCO Revised Kyoto Convention, WCO Immediate Release Guidelines, and WTO Bali Agreement; these will be discussed in the next sub-chapter.

1.2.2 The role of duties, VAT, and de-minimis threshold

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[2] In contrast, bulk import would typically exceed the 1000 EUR threshold and thus be excluded from this study.
[3] This data was derived from EUROSTAT 2012 statistics,
http://epp.eurostat.ec.europa.eu/portal/page/portal/eurostat/home/

The cross-border consignments, whether they emanate from e-commerce or traditional business transactions, are subject to VAT and import duties, unless specifically exempted. The level of import duties is related to the commodity category, the country of origin and, in general, to the value of the goods. Value Added Tax (VAT) is directly related to the value of the goods and commodity category. Average tariff rates for import duties for consignments originating outside of the EU Customs Union are 2-13%. VAT is charged on some goods and services imported from countries outside the EU and when brought into one EU country from another. There are three rates of VAT in the EU: standard, reduced and zero; the standard VAT rates vary between 15% and 27% among the Member States[4].

In order to reach an ideal balance between the overall costs of assessing and collecting customs duties and VAT, *de-minimis* thresholds for tax-free shipments have been set. The International Chamber of Commerce (ICC) Customs Guideline #11 defines de-minimis as "*a valuation ceiling for goods, including documents and trade samples, below which no duty or tax is charged and clearance procedures, including data requirements, are minimal* (UNECE, 2012)". The Revised Kyoto Convention (RKC), by the World Customs Organization (WCO), calls for Customs administrations to set de-minimis thresholds below which duties and taxes are waived. Shipments falling into this category enjoy expedited release with minimum documentary requirements. The WTO Bali agreement of 2013 supports the future development of trade facilitation, including setting relevant de-minimis levels across the globe.

Collection of VAT and import duties generates additional cost not only for Customs and tax authorities, but also for the logistics operators, importers and consumers. Furthermore, it causes time delays with quantifiable value. Hence, the application of de-minimis levels is likely to reduce the cost for all parties involved, while improving the fast flow of goods.[5]

1.2.3 De-minimis thresholds across the world[6]

In the EU, goods with a total intrinsic value equal to or less than 150 EUR are exempt from import duties, and goods having a total value equal to or less than EUR 10 should be exempt from VAT on importation. Member States may also grant an exemption on VAT for imported goods which have a minimum total value between EUR 10 and EUR 22 (Council Directive 2009/132/EC of 19 October 2009).[7] Thus, unlike import duties, the VAT de-minimis threshold is not harmonized and can significantly vary across the EU but within this given range. However, the upper limit of 22 EUR is typically applied by most Member States[8].

In the EU, the recent report on the taxation of the so-called 'digital economy' (European Commission, 2014c) aims to address current flaws in European taxation as regards the emergence of the digital economy. The Group behind this report considers de-minimis rules to represent a distortion of competition. The Group recommends that "the small consignments exemption is abolished and that this should be pursued as a priority in tandem with the development of the broader One Stop Shop (OSS), in order to create a level playing field between EU and non-EU suppliers" (European Commission, 2014c) . The

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[4] ANNEX II. VAT-levels at EU Member States (standard and reduced) as well as de-minimis levels.
[5] Specific aspects of excise taxes have been purposefully left out-of-scope for this study.
[6] All national currencies have been converted on 16 July 2014, using moneyconverter.com (http://moneyconverter.com/) with the following exchange rates: 1 EUR = 1.36 USD 1 EUR = 1.45 AUD; 1 EUR = 1.55 NZD; 1 EUR = 46.73 RUB; 1 EUR = 81.83 INR; 1 EUR = 138.28 JPY; 1 EUR = 8.44 CNY
[7] See http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32009L0132 (accessed 14 September 2014).
[8] See ANNEX II for details.

Group also notes that the consignments falling between 22 EUR and 150 EUR in value create "an unnecessary burden" for "both customs administrations and parcel operators/couriers". The Group recommends "that the One Stop Shop should not just apply to the currently exempted small consignments but to other small consignments for which no customs duties are due. Such supplies could then benefit from a specific fast-track customs clearance" (European Commission, 2014c).

Elsewhere in the world, the established de-minimis levels vary significantly from country to country. The Global Express Association (GEA) compiled an exhaustive list of the country-level de-minimis regimes across the world (GEA, 2013). For the purposes of our discussion, we have highlighted in Figure 1 those economies which are known to have engaged in public debate concerning existing de-minimis levels. On a regional level, the countries of Asia have been selected owing to the size of their economies whereas, in Africa and South America the countries mentioned are the only ones where data on de-minimis levels was available (GEA, 2013).
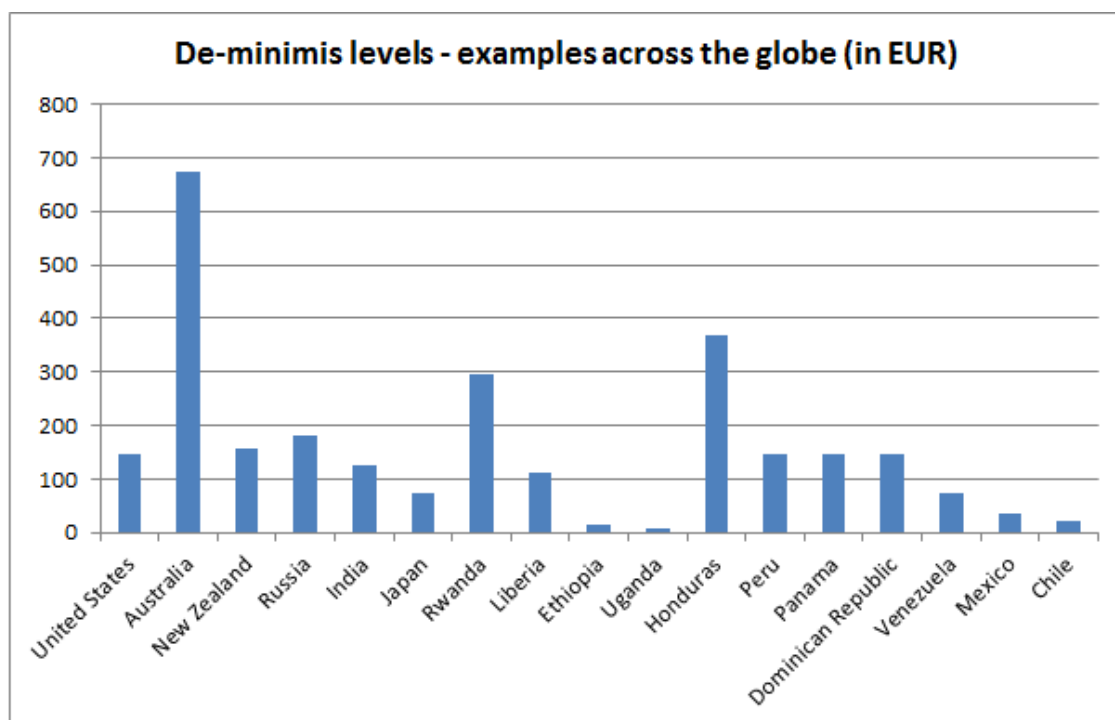
Figure 1: Examples of duty de-minimis levels outside EU

Currently the United States sets its duty de-minimis level at 200 USD (147 EUR) but the Low Value Shipment Regulatory Modernization Act of 2013, sought to raise it to 800 USD (588 EUR). This initiative has been strongly backed by the express and e-commerce industries. The legislation was officially endorsed by the US Chamber of Commerce (Chamber of Commerce, 2013), arguing that "such an increase would facilitate legitimate trade, reduce transaction costs, and improve security at U.S. ports of entry". They also state that the current de-minimis value "fails to reflect the modern reality of online commerce". Importantly, they also call for the importance of reciprocity: "This bill would also clear the path for U.S. negotiators working on future free trade agreements to begin to push for commercially meaningful de-minimis levels from our trading partners, which is essential to promoting market access and efficient supply chains." Kulisch (2013) noted that detailed discussions are underway, setting the reform process in motion and offering good prospects of success. However, by July 2014, the Act had not yet progressed and its chances of success are

unknown – this issue may be related to the on-going EU-US negotiations over the Transatlantic Trade and Investment Partnership (TTIP).

Australia maintains a current de-minimis value of 1000 AUD (689 EUR) (GEA, 2013). In New Zealand no duties or taxes are collected on imports if the total amount payable is less than 60 NZD (39 EUR), and which translates to a value of approximately 400 NZD (259 EUR) for most goods (Ewart, 2013). The domestic retail industries in both countries have voiced concerns on the impacts of the national de-minimis regimes on their business sectors (Hufbauer and Wong, 2011a, p.7 & New Zealand Retailers Association, 2011). Despite their disgruntlement, no changes in re-adjusting de-minimis levels have taken place. In 2011, the New Zealand government announced that the status quo of 60 NZD would be retained (Williamson, 2011), stating that given the current capabilities of Customs' cargo reporting and revenue collection systems, a higher de-minimis would decrease the amount of revenue collected by the Crown, there would be negative impacts on wider risk management (for example illicit drugs) if the present cargo reporting system for low value imports was extended for a higher level de-minimis; a lower de-minimis would, it was argued, increase compliance costs to importers and not produce a worthwhile increase in Crown revenue (Williamson, 2011).

Large differences in the current de-minimis thresholds are observed between some of the largest Asian economies, such as China, Japan and India. India maintains a relatively high de-minimis level of 10,000 INR (122 EUR), followed by Japan at 10,000 JPY (72 EUR). In China the threshold is defined as duty and VAT liability of less than 50 RMB (6 EUR). One notices similar divergences across the African, Central and South American economies.

1.2.4   The concept of de-minimis optimization for this study

As discussed above, the policy makers and legislators are faced with the task of identifying an ideal balance between the overall costs of assessing and collecting customs duties and VAT versus the total revenue raised, in order to set the de-minimis thresholds. Furthermore, they will also need to consider the costs generated for importers and logistics operators and, going yet further, the effects on cross-border trade.

Selected cost consequences for the import process are illustrated in the matrix presented in Figure 2 below. This matrix identifies different costs, for governmental agencies and supply chain operators, associated with importing goods. The matrix is based on the fact that the higher de-minimis level will lead to simplified declaration procedures. Therefore the higher de-minimis level will result in cost savings across the board. At the same time, costs e.g. for safety and security inspections are not impacted by changes in de-minimis levels.

Figure 2: Examples of typical import related costs which may / may not be impacted by changes in de-minimis levels

The cost savings achieved in the simplified import procedures may be partly offset by the loss of duty and VAT revenues. In the calculation of the optimum de-minimis value, the tax revenue foregone should include all Customs duties and the VAT (net effect). The calculation of the optimum results in the graphical representation depicting an inverted u-shape curve, where the optimal value will be found on the top of the curve, representing the maximum net gain for the whole economy.

1.2.5 Key terms and definitions

It is important for the study that a set of key terms is well defined, and used consistently across the report. Table 1 below presents such key terms and their definitions.

Table 1: Key terms and definitions for this report

Term	Definition
Small consignment	By small consignment we mean any imported shipment which has the value of 1000 EUR or less. This borderline is derived from the Eurostat import reporting requirements, where imports under this threshold do not require reporting in the Eurostat system. Also, having 1000 EUR as the threshold ensures that no-where in the world would a „non-small consignment", i.e. consignment above 1000 EUR, be considered as „below de-minimis".
Import duty	Import duty is an indirect border tax, paid on goods imported into a country. In the EU, import duties are levied only in the case of extra-EU trade. Within the EU, goods can freely circulate without being subject to duties. Import duty rates are usually related to the type of goods, their value and the country of origin (European Commission, 2014a).
Value added tax	VAT is an indirect consumption tax made on the purchase price of a good. It is

(VAT)	charged on a product whenever value is added at any stage of production and at final sale. The seller of the goods is the taxable person, but it is the buyer who actually pays the taxable amount to the seller as part of the price (European Commission, 2014b). In the EU, import VAT is charged on some goods and services imported from 3rd countries and when brought into one EU country from another. Elsewhere in the world, some countries use the acronym GST (goods and services tax/general sales tax) instead of VAT. Businesses – unlike consumers – can deduct the VAT they pay on their purchases on the VAT collected on their sales.
De-minimis threshold	De-minimis threshold refers to „a valuation ceiling for goods, including documents and trade samples, below which no duty or tax is charged and clearance procedures, including data requirements, are minimal" (UNECE, 2012). In the EU goods falling below the de-minimis thresholds are subject to simplified clearance procedures at import.
Low value (LV) import	These import shipments have intrinsic value less than VAT de-minimis (e.g. 22 EUR in several EU Member States); this means that import declarations can be done on manifest basis – a.k.a. informal import entries.
Medium value (MV) import	Really specific to this study, this value range sits in between LV and HV imports, i.e. imports of higher value than VAT de-minimis (22 EUR in multiple EU Member States), and lower value than duty de-minimis (150 EUR in EU)
High value (HV) import	These import shipments have intrinsic value higher than VAT and duty de-minimis (latter fixed for 150 EUR across EU); this means that import declarations must be done in SAD-format a.k.a formal import entries.
Formal import entry	Formal import entry, a.k.a. SAD– Single Administrative Documents –, must be done for all imports above VAT de-minimis level.
Informal import entry	Informal import entry, can be done for most low value (LV) shipments; exceptions exist e.g. with excise goods.
Import process cost	By import process cost we mean all costs incurred internally by public administrations – Customs and tax in particular -; as well as by logistics service providers, freight forwarders and Customs brokers. The intention of „optimum de-minimis levels" is to minimize such administrative costs, for the benefit of the whole supply chain.
Import service fee	Logically linked to the import process costs above – while still independently defined and agreed between various parties – the import service fees are passed typically from the freight forwarding actors to the importers.

1.3 Study process, data sources and the structure of the report

Following from the research questions explained in Chapter. 1.1, the process of this study centres around an econometric model, drawing from governmental and industry data – specifically on a large sample of shipment data from the four major express carriers, and a consumer behaviour study.

This study benefited from and analysed a multitude of data and information sources: Academic and practitioner literature and regulatory documents were reviewed; publicly available statistical and other databases were examined and data drawn for analysis; expert knowledge was collected in workshops and interviews, and study questionnaires were used to collect information from various countries and bodies. Finally, data records from information systems provided a source of crucial proprietary data. Research methods included economic modelling and analysis as well as conjoint analysis.

The report provides a condensed presentation of the key findings and results of the study. In order to keep the body of the core report within manageable size limits, the majority of detailed research and technical information is made available in ten annexes.[9] The study process, expressed as report chapters and the

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[9] Editorial note: ANNEX I to ANNEX X – in this report references to the annexes are normally presented as footnotes.

flow between them, as well as the main information and data sources behind various chapters, are visualized in Figure 3 below.
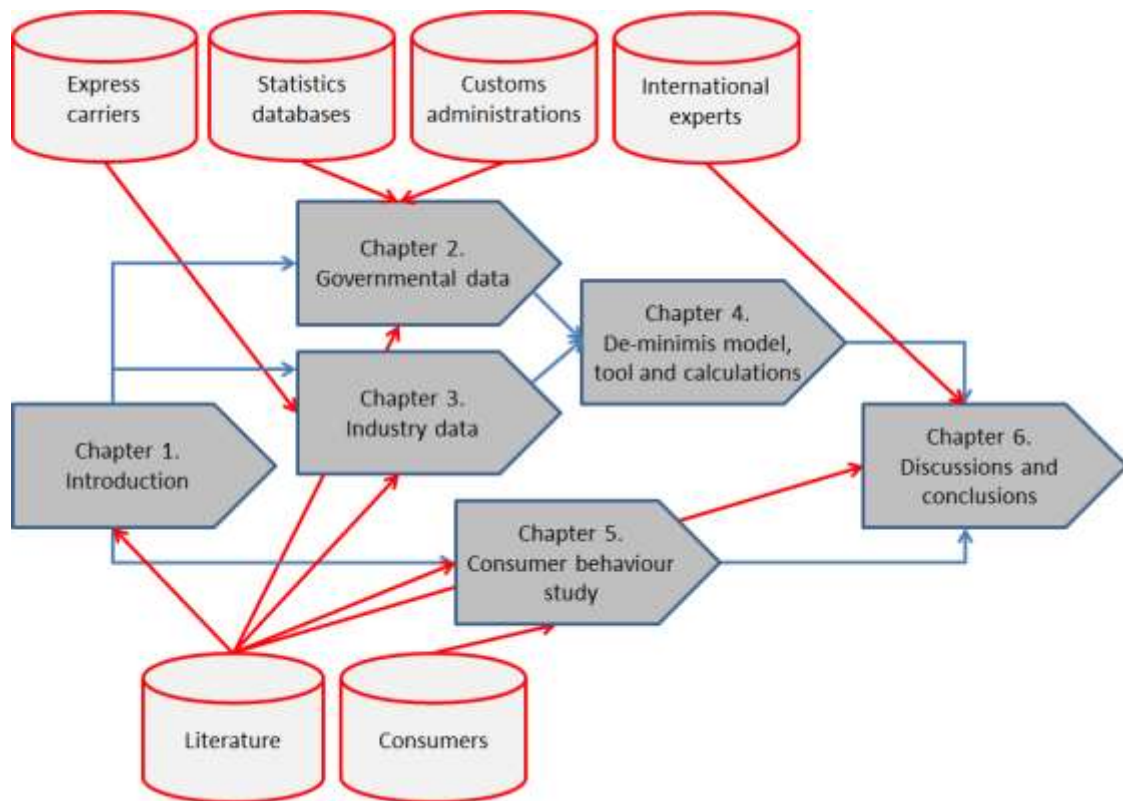
Figure 3: Structure of the report reflecting the flow of the research process and main information and data sources

The purpose and content of each chapter in the report can be summarized as follows:

- **Chapter 1** provides a brief introduction to the topic and to the report, including main research questions, overview on indirect border taxes, key terms and definitions and the structure of the report.
- **Chapter 2** starts with a brief literature review on cost of tax collection for governments, followed by the reasoning, process, outcomes and limitations of governmental data collection, executed in two rounds by the research team.
- **Chapter 3** starts with a brief literature review on cost of customs compliance for industry and importers, followed by the reasoning, process, outcomes and limitations of express carrier data collection, executed on two levels by the research team.
- **Chapter 4** presents the de-minimis optimization tool, calculation steps and optimization outcomes for VAT and duty de-minimis levels, across the European Union.
- **Chapter 5** presents the consumer behaviour study, which examines the relevance of different criteria for consumers' purchase decision - including sales channel, product price, shipping fees, charges for duty and VAT, and delivery time - providing understanding of the importance of different criteria in reaching a purchase decision.
- **Chapter 6** presents the key conclusions for the study – in the form of answering the three research questions from Chapter 1 – followed by sub-chapters on further discussions and final recommendations.

2   Collection and analysis of governmental information and data

2.1   Overview

The purpose of this chapter is to explain the process and results of governmental information and data collection. It focuses primarily on cost of revenue collection at Customs and tax administrations both inside the EU – data to be used in our de-minimis economic model – and outside the EU – data to be used for benchmarking purposes. We start with a brief literature review on the cost of tax collection for these governmental agencies (Chap. 2.2.). We then continue by explaining the process, target audience, questionnaires and main outcomes of the two rounds of "governmental letter campaigns" carried out by the research team (Chap. 2.3.1): Round 1 high-level questionnaire for national audit offices, Customs administrations and ministries of finance during spring 2013 (Chap. 2.3.2), and Round 2 detailed questionnaire for Customs administrations only during winter 2014 (Chap. 2.3.3).

2.2   Key findings from literature on cost of tax collection for governments

Published literature on the cost of VAT and duty collection is rather limited. A rule of thumb suggests that the 25% share that EU Member States receive on the duties they each collect, provides one benchmark for how much it costs for Customs authorities to collect duties (European Commission, 2013). It should also be noted that this rule of thumb only applies to duties and not to VAT and there is no clear rationale as to its level. Furthermore, there are significant differences across the Member States on the roles the various authorities play in duty and VAT collection (Sowinski & Taelman, 2014). Overall, while the 25% rule of thumb may give an idea of the magnitude of the cost, some more sophisticated analysis has been conducted in the Member States and elsewhere.

The French Customs annual performance plan can be used as one benchmark on how to measure the cost of collection. According to this plan, the reduction target for the average cost for collecting 100 EUR in taxes and duties for the French Customs is 0,51 EUR - across all shipment values, not limited to small consignments (French Customs, 2011). It is indeed important to note that shipments vary significantly in terms of their value and other parameters, and therefore average cost figures are hard to interpret, particularly if they are not stated in relation to shipment values. In addition, these costs can include standard customs declarations for regular importers, for example: those with deferment accounts. Consequently the cost for such an importation may well be lower than for an ad-hoc e-commerce entry, for example.

At a global level, cost estimates for customs clearance processes for government administrations have been made for the APEC-6 economies – Canada, Indonesia, Japan, Malaysia, the Philippines and Thailand (Holloway and Rae, 2012, p. 51). The costs incurred per consignment depend on the transport modalities. For air and mail deliveries, the Canadian and the Japanese Customs administrations spend 28.51 EUR (38.74 USD) and 26.94 EUR (36.61 USD) respectively. The accrued expenses to the remaining four countries range from 10.41 EUR (14.14 USD) to 2.46 EUR (3.34 USD). By sea cargo, cost estimates are a bit higher, with

Canada and Japan spending 35.47 EUR (48.19 USD) and 33.51 EUR (45.53 USD) respectively. The other four Customs administrations spend between 12.94 EUR (17.58 USD), and 3.08 EUR (4.19 USD). [10]

An Australian study also collected processing fees in six countries (Canada, South Korea, New Zealand, Singapore, the United Kingdom and the United States) and found them to vary between 0.59 and 14.07 EUR (0.86 and 20.41 AUD) (Australian Parliament, 2012, pp. 45-46). In the same report, the GST (Goods and Services Tax) revenue collection costs have been forecast for the period between 2014 and 2018 for alternative de-minimis thresholds ranging from 0 to 500 AUD (approx. 350 EUR). The collection costs steadily decline over this time period. Furthermore, Figure 4 below shows the relation of collection costs and GST for different de-minimis thresholds as estimated in the report. The report identifies an optimum ratio of 33% to be achieved with the de-minimis threshold of 500 AUD (350 EUR), meaning that the collection costs account for one third of the GST revenue collected. The report explains that; "this shows that the proportion of costs to revenues is higher at high threshold levels due to the small volumes of goods on which revenue is assessed, declines as the volumes increase, then rises again as both costs associated with visual inspection apply and the value of the goods, and hence the potential GST revenue per item, falls" (The Low Value Parcel Processing Taskforce Final Report, 2012, pp. 194).
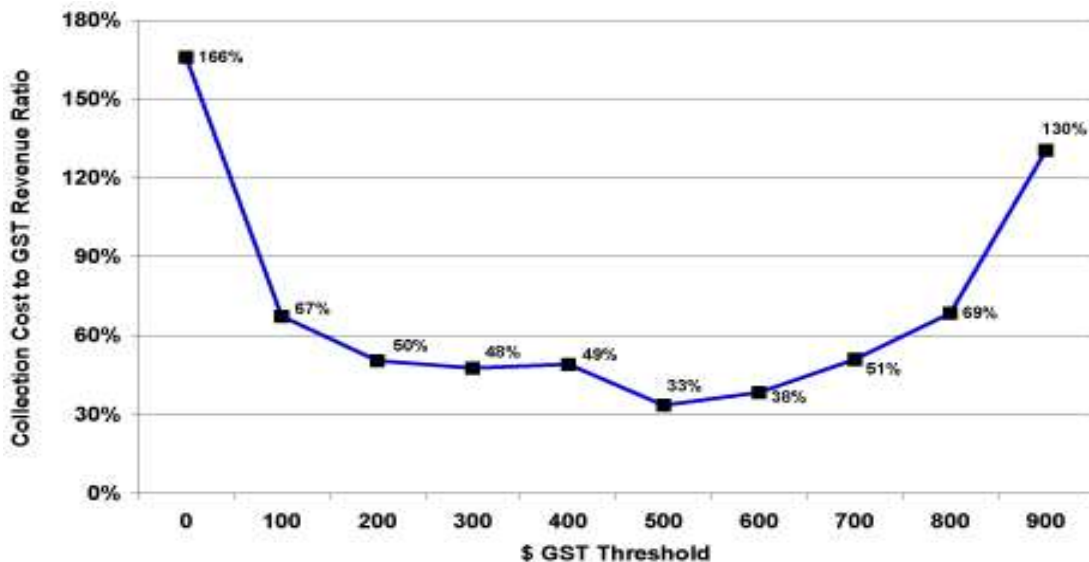
Figure 4: Adjusted collection costs to GST revenue ratio – international mail environment[11]

There are also other approaches and techniques to assess the cost of tax collection, such as World Bank process steps. Most cost estimates for revenue collection and border process modelling use volumetric (parametric) techniques. These are based on calculating unit costs then multiplying by volumes for the attribution of total variable costs. Costs and benefits are separated insofar as they relate to VAT collection costs and other risk based border processes (Wulf, 2005, p.25).

Ultimately, getting a unified view on the cost of tax and duty collection is not a straight-forward task. Two key complexities prevail. First, the collection processes differ between countries and so do the tasks and

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[10] Currency conversions from US dollars and Australian dollars to EUR were made on 7 July 2014 using moneyconverter.com (http://themoneyconverter.com). The applied exchange rates are: EUR/AUD = 0.68918 and EUR/USD = 0.73546.

[11] Source: The Low Value Parcel Processing Taskforce Final Report, 2012, p. 195.

overheads included in the cost estimates, thus clouding the comparability. Secondly, the processes are organized under different authorities, thus creating organizational boundaries, which constrain the transparency of process cost (see for example Sowinski & Taelman, 2014).

2.3 Governmental data collection and analysis

2.3.1 Overview

The research team carried out two rounds of information and data collection from governmental parties across the European Union. This was to gain deeper insights into the cost management and operational activities as well as the national rules related to customs clearance processes across the EU27 Customs administrations.[12]

Government Round 1 questionnaire: The objective of our first set of questions was to acquire baseline data and information on the governmental costs of administering the collection of duties and VAT on imports, in relation to small consignments. To accomplish this task, we conducted an extensive campaign across 27 EU Member States between the 5 April and 11 May, 2013. In total, 81 registered letters were sent to the Ministries of Finance, Customs Administrations and Government Audit offices of the 27 EU Member States, typically targeting top management in each of the institutes. English was the language of correspondence for Ireland, the UK, Sweden, Finland, Denmark, Cyprus, Malta, Slovak Republic, Slovenia, Estonia, Latvia and Lithuania. For the remaining countries we opted for translated versions of the letter into their respective local languages. In total, we received 34 replies to Round1 questionnaire, as indicated in Table 2 below.

Government Round 2 questionnaire: The purpose of our second questionnaire was to build upon the Round 1 questionnaire and obtain more detailed information with numerical data, where available, on Customs annual budgets, Customs personnel, customs declarations, customs clearance processes and so forth. In mid-February 2014, the questionnaire was sent electronically to those contact persons in the Customs administration recommended to us by the respondents to the Round 1 questionnaire. For countries that had indicated no contact person, we targeted the top management of those Customs administrations. English was our sole language of correspondence for this round of communication. In order to maximize the rate of response, the questionnaire was resent both electronically and by registered mail, followed up by phone call reminders. This multiple approach was largely successful resulting in 15 responses, as shown in Table 2 below.

The centre column in Table 2 below, titled "Gov.round1", indicates for each country which of the three institutes – National Audit office, Customs Administration and Finance Ministry – replied to the Round 1 questionnaire; and the column to the left of that, titled "Gov.round2" indicates whether Customs administration, as sole recipient of the Round 2 questionnaire, replied to us or not. The right-most column, titled "Relevance", provides then a qualitative view on how relevant the replies were that we received from each country – the three colour codes used are explained at the bottom of the table.[13]

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[12] The study scope covers 27 EU Member States, due to fact that import data records were available for the research team from years 2011-12 (when Croatia was not yet a member of the EU).
[13] Editorial note: Letters (R) for Red, (Y) for Yellow and (G) for Green are listed in the Relevance column, to support readers of black & white printed report.

Country name	Round1 language	Gov.round1 replies			Gov.round2	Relevance
		Audit	Customs	Finance	Customs	Country id
Austria	German	x				AU (R)
Belgium	Dutch & French	x		x	x	BE (G)
Bulgaria	Bulgarian		x		x	BL (Y)
Cyprus	English					CY (R)
Czech Republic	Czech	x	x		x	CZ (G)
Denmark	English	x				DK (R)
Estonia	English	x		x	x	EE (G)
Finland	English		x		x	FI (G)
France	French	x				FR (R)
Germany	German	x		x		DE (R)
Greece	Greek				x	GR (Y)
Hungary	Hungarian	x				HU (R)
Ireland	English			x	x	IE (G)
Italy	Italian					IT (R)
Latvia	English	x		x	x	LV (G)
Lithuania	English	x	x	x	x	LT (G)
Luxembourg	French					LU (R)
Malta	English			x	x	MT (G)
Netherlands	Dutch	x		x		NL (R)
Poland	Polish		x		x	PL (G)
Portugal	Portuguese	x				PT (R)
Romania	Romanian					RO (R)
Slovak Republic	English		x	x	x	SL (G)
Slovenia	English			x	x	SI (G)
Spain	Spanish	x		x	x	ES (Y)
Sweden	English	x	x		x	SE (G)
United Kingdom	English				x	UK (R)

Color coding

(Red)	No relevance or no reply at all
(Yellow)	Some relevance
(Green)	Relevant reply

2.3.2 Government letter campaign – Round 1[14]

We presented five broad questions on the costs of collection, administrative processes of tax and duty collection, impact on revenue yields, costs of customs declarations and any Customs performance assessments being made at the national level. We requested the respondents to supply us with appropriate data or direct us to any publicly available resources or experts who could shed light on the aforementioned topics. Finally we asked them to recommend to us the most suitable contact person in their country to address our detailed follow-up questionnaire on the costs of collection, and also to suggest other

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[14] All details can be found at: ANNEX III. Government letter campaign, Round 1

organizations, individual experts or web-resources that would help us obtain relevant information for our study.

We received 34 responses in total, including a few negative ones either pointing out they have no data to support our study or just declining to participate. Some positive responses led us to publicly available financial reports not of direct relevance to our study or referred to publications in their national languages. However, the statistical bulletin of a Customs administration contained some data on revenue and expenditure, the number of personnel employed in the organization and so forth. Also, one of the Finance ministries was able to share with us a useful analysis regarding the cost of tax collection in a graphical format. Beyond the national level, some references have been made to relevant studies on small consignments and the administrative efficiency of the Member States in customs duty collection, including studies by the European Parliament (EP), the Organization for Economic Cooperation and Development (OECD) and the World Customs Organization (WCO).[15]

With respect to governmental activities in the evaluation of tax collection processes, none of the offices claimed to have made any such initiatives specifically in the context of consignments of negligible value. Assessments of the collection costs of import duties and taxes and the administrative processes in contrast to the revenue yields are not made in most of the Customs administrations. The cost incurred per customs declaration is not calculated since it is not used as an internal performance indicator, as indicated in one reply. Nevertheless, one Customs administration appears to be active in analyzing cost efficiency and has made cost assessments of customs declarations. The few countries that conduct annual reviews on the administrative efficiency of duties and tax collection processes do not make separate estimates of the costs of collecting revenue for small consignments. The need for simplification of customs clearance procedures has been clearly recognized by some offices. Only one country refers to ongoing internal discussions on this subject in the context of express carrier shipments.

2.3.3   Government letter campaign – Round 2[16]

The purpose of our second questionnaire was to add to the information obtained from the Round 1 questionnaire. The second questionnaire sought, therefore, to obtain more detailed information with numeric data, where available, on Customs annual budgets, Customs personnel, customs declarations, customs clearance processes and so forth. The responses are summarized below for each topic area, referring to more detailed information in annexes.

i.   Data to calculate the "marginal cost per declaration" based on annual salary, annual working hours, overhead multiplier, and working time spent per import.

> The 14 responses reflect that the average annual working hours per customs employee varies across countries, ranging between 1421 and 2080 hours. 13 countries have responded to the question on annual cost per employee. While one respondent does not make such cost assessments, the others have been able to give exact figures. These range between 10,000 – 35,000 EUR. With the exception of 2 countries, estimates of the "overhead multiplier costs" per employee such as electricity, building maintenance, IT costs etc., do not figure in these calculations. An accurate estimate on "overhead multiplier costs" is given by only one country where 17% is added to the annual cost per customs employee to give the full real cost per employee.

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[15] See Bibliography for the details.
[16] All details can be found at: ANNEX IV. Government letter campaign, Round 2

The other respondents do not answer this question or indicate they have no data and do not include these costs in their estimates.

With respect to working times in processing import declarations, 7 countries have provided some data. When both VAT and duty are due, the processing time in different countries ranges between 7 seconds and 30 minutes. No differences in processing times exist for several countries that apply the same procedures for different cases (i.e. whether both duty and VAT are due, if only one of the two is due, or if neither of the two are due). A couple of countries, however, indicated some differences for the different scenarios. The processing of VAT payments takes about the same time as the processing of import declarations, although slight differences exist for a few countries.

ii. Data on the cost for customs on establishing a new VAT/EORI record for each importer (in those countries where it is mandatory even for "once per year importers")-

14 countries have responded. While the possession of a VAT/EORI number is mandatory in some countries, in others it is not. From the 3 respondents who have given the exact time taken to generate this, it is seen that this plays a limited role in terms of working time for customs administrations, on the basis that it takes only a few seconds to a maximum of 3- 5 minutes.[17]

iii. Data on the "budget share of import declarations department" (even if such an organizational unit does not exist per se).

We have 11 respondents but not all have been able to answer all the detailed sub-questions. Most of them have been able to share data on the customs annual budget and the number of full-time employees in the organization. Around half of these have customs and tax as one integrated office, where the customs division appears to be of smaller size: 16-33% of the total staff are employed in the customs departments; and around one third of the total annual budget is allocated for customs. Whether or not the offices are separate or combined, not many administrations have been able to provide data on the number of employees engaged in the processing of import declarations. From the limited data we received, one sees large differences in the number of people employed in the customs departments. The smallest number provided is 370 and the largest is 5371. The other administrations fall within this band.

iv. Data to calculate from annual customs budget and total number of declarations a rough average cost per declaration.

All the 11 respondents have shared detailed data on national customs budget. The maximum budget allocated appears to be about 178 million EUR. 12 respondents have provided us the exact number of customs declarations made in their countries, ranging between 46,600 and 18,185,575.

v. Data to include the VAT transfer cost between customs and tax into the "total cost per declaration".

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[17] Note by the research team: However, this is likely to cover the generation of EORI only, and the complete process of registration is likely to take longer since it sometimes requires physical presence of applicant in the Customs office.

> Only 2 countries have responded to this question. The cost associated with the transfer of import VAT to tax administrations is inconsequential as they have established prudent systems, such as commonly operated banking arrangements.

vi.   Data on "which % of customs declarations requires partial or full manual intervention by customs".

> 12 countries have responded. Most of these countries have fully operating electronic systems in place, for managing at least 90 percent of the import declarations, with two countries actually reaching 100%. A big share of these import declarations requires no manual intervention. A couple of countries appear to be lagging behind (7% and 55%). One Member State has no electronic system in place - all import declarations are still manually processed.

vii.   Data on the direct estimate by customs on the cost per declaration.

> The average annual cost per declaration is not being calculated by most countries. The 2 respondents to this question cite it to be about 0.06 EUR and 9.60 EUR respectively, excluding data management costs.

viii.   Data on the IT-system and data communication costs to the "average cost per import declaration for customs".

> National administrations do not have an overview of data management and communication costs (IT, EDI etc.), with the exception of a few. A rough estimate of 1.31 EUR per declaration for data management costs has been given by 1 respondent. The second country estimates it at 0.06 EUR per declaration, excluding infrastructure (IT-support, EDI-connection etc.). The third respondent declares the overall cost for IT systems/ ICS/AIS to be 119,177 EUR, which translates to 0.22 EUR per import declaration. With respect to data communication cost per declaration, the cost declared by the 2 Member States are also minimal, i.e. approximately 0. 17 EUR per import declaration.

ix.   Data on mandatory fee(s) per declaration for the industry or for the importer.

> We received 7 replies in total. Some of these countries do not impose any mandatory fees. Others claim not to have any data available. One customs administration levies charges under special circumstances, e.g. when operating beyond office hours or imposing special fees for veterinary and plant border controls etc.

x.   Data to feed into calculation of "how many % of the revenue collected is gone as collection costs".

> All 15 respondents have covered this question. One of them has given data only on the excise revenue collected. From all the replies, the maximum amount of import duties, import VAT and import excise duties collected is 6.3 billion EUR, 8.8 billion EUR and 14.5 billion EUR, respectively. Not many answers cover data on

customs collected VAT from importers not in possession of an EORI number. From the few replies we received, the maximum amount collected is approximately 453 million EUR. The percentage shares of the estimates are small, ranging between 0.017% and 1.86% of the total amount of VAT collected by the customs administrations.

xi. Data on clearance / release times (which in certain cases could be converted to "industry costs per declaration").

From the 12 responses received, one country claims not to be making such assessments on customs clearance and release times. The other data collected reflects strong disparities across the EU. While over half of the import declarations are processed within 5 minutes in several Member States, there are countries where the average clearance times run up to 1-2 hours.

xii. Data to improve our express import data analysis in countries where "VAT deferred accounts are in common use".

We have 12 responses for this question from which a few claim not to have any data available; but it appears that the possibility of VAT deferred accounts exists in most of the countries, which gave us data and many importers avail of this option. The percentage shares of import declarations following this procedure range between 0.5% and 85%. In fact, it is a standard practice in one Member State.

xiii. Data on "total imports of value under 1000 euros per EU member state", including all logistics sectors.

11 countries have covered this question on the share of the 4 express carriers' (TNT+ Fedex +DHL+UPS) import declarations out of the total number of import declarations below shipment value of 1000 EUR. Most of the respondents claim not to have any data at hand, while 4 have provided us with estimates that vary between 12% and 47%.

xiv. Data to improve our estimates on "B2C% share of import declarations" (as this has an important impact on the optimal de-minimis values per country).

Here we received 11 replies but only 5 of them have been able to give proper estimates on the share of "private person" import declarations from the total number of import declarations below the shipment value of 1000 EUR, as most countries do not measure this. The percentage shares range between 3.6% and 43.5%.

2.3.4 Discussions on the governmental data collection and analysis

As explained above, the research team made a major effort to collect cost related information and data from Customs administrations across the 27 EU Member States: this information and data would feed into the de-minimis economic model. Numerous attempts have been made by the researchers to analyse the data in order to produce quantified estimates on "how much it costs for Customs administrations to process import declarations in the context of small consignments". However, the awareness of costs specific to import declarations turned out to be quite moderate – this can be partially due to the multitude of roles and responsibilities with the Customs administrations across EU as well as complicated processes behind the execution of their tasks. In addition, when considering the high variation in cost figures provided by some of the administrations, a decision was made to use harmonized, conservative values for Customs costs in further de-minimis calculations. Using harmonized costs across the EU27 can be – to some extent – justified with the observation that high income (GDP per capita) countries have typically high degree of automation in place; while low income countries have typically a lower degree of automation in place. In other words: high automation yields less (Customs officer) working time spent per import clearance in high salary countries, whilst low automation yields more (Customs officer) working time spent per import clearance in low salary countries. Finally, when looking at the literature provided at the beginning of this chapter, the research team is confident that the cost numbers used in further de-minimis calculations are conservative.

3 Collection and analysis of industry information and data

3.1 Overview

The purpose of this chapter is to explain the process and main outcomes of industry information and data collection and analysis, as a crucial part in the overall development of the de-minimis economic model. We start with a brief literature review (Chapter 3.2) primarily for benchmarking purposes on the cost of Customs compliance for economic operators – in particular for importers and logistics companies (Chapter 3.2.1). This is followed by a snapshot of import and export related fees and charges in postal supply chains - publicly available data collected by our research team - again for benchmarking purposes (Chapter 3.2.2). The collection and analysis of express carrier import data records is explained next (Chapter 3.3) which includes: the key steps in the data collection itself (Chapter 3.3.1); the key steps in data record verification and corrections (Chapter 3.3.2); and some graphs to visualize the import record profiles (Chapter 3.3.3). The last sub-chapter summarizes other information and data collected from the express carriers (Chapter 3.4), feeding later into the de-minimis economic model.

3.2 Key findings from literature on cost of customs compliance and postal benchmarking

3.2.1 Cost of Customs compliance

Customs compliance costs have been defined as "*all costs borne by Customs payers in order to comply with the Customs regulations and the Customs administration requirements. Customs compliance costs can be divided into labor costs (of persons engaged in Customs compliance), non-labor costs (such as the costs of Customs forms and declarations, workshops and technical literature) and psychological costs of Customs payers*" (Bronic, 2005, p.1).

In 2010, a report made assessments of the economic implications of direct electronic data exchange between small and medium sized enterprises (SMEs) and Swiss Customs, and the simplification of customs clearance processes (Granqvist *et al.*, 2010, pp. 34-40). Figure 5 below presents the distribution of average cost per customs declaration depending on the number of declarations (with average cost on the y-axis and number of declarations on the x-axis, complemented with a straight line based on the data). The graph shows a large variation in the average cost per declaration, and by analyzing the slope of the straight line fitted to the data, it can be concluded that the average cost per declaration decreases with increasing numbers of declarations, from approximately 100 CHF (82 EUR) down to 20 CHF (16 EUR) per declaration – the high end cost being typically covered by SMEs. (Granqvist *et al.*, 2010, pp.35-36).[18]
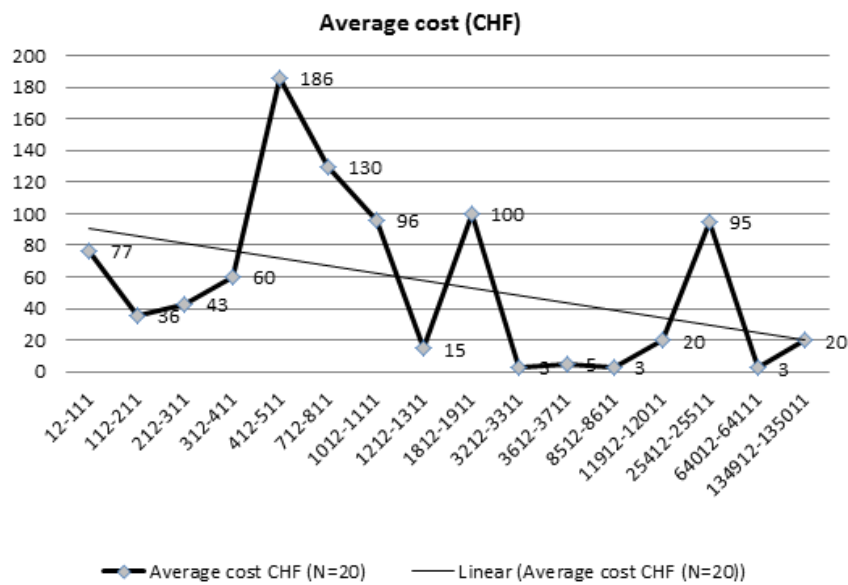
Figure 5: The distribution of average cost per declaration depending on number of declarations[19]

KPMG conducted a study on the VAT compliance costs to UK businesses – though not specific to Customs collected VAT. The cost of processing a VAT invoice has been estimated at 0.29-0.55 GBP (0.37- 0.69 EUR) when automated and 1.29-2.35 GBP (1.62- 2.96 EUR) when manually processed, depending on the size of the company (KPMG, 2006, p.42). Holloway and Rae (2012) have made cost estimates for business compliance in the APEC-6 economies (Canada, Indonesia, Japan, Malaysia, the Philippines and Thailand). These costs vary between 14.46 USD (10. 64 EUR) to 3.13 USD (2.30 EUR) per consignment (p. 53).

It has been observed that the compliance requirements and related activities generate a significant cost for citizens and business entities. In a case study on Croatia, the VAT compliance costs have been estimated to represent 0.8% of GDP, while the Customs compliance costs for importers (small businesses and legal entities) accounted for slightly less than 0.6% of GDP, in the period 2001-2002 (Bronic, 2005, pp. 1-2; it should be noted that these results reflect the levels before Croatia's accession to the EU). SMEs generally

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[18] Currency conversions from Swiss Francs, British Pounds and US dollars to EUR were made on 8 July 2014 using moneyconverter.com (http://themoney.converter.com). The applied exchange rates are: 1 CHF = 0.82 EUR , 1 GBP = 1.26 EUR and 1 USD = 0.74 EUR.
[19] Source: Granqvist et al., 2010, pp.35-36.

face a disproportionate burden of compliance costs associated with customs formalities. According to the findings of an EU study, businesses with fewer than 250 employees shoulder 30-45 percent higher transaction costs per consignment than larger firms (Walkenhorst and Yasui, 2003, quoted in Holloway and Rae, 2012, p.40). This is largely due to the inability of smaller firms to profit from simplified customs processes (Holloway and Rae, 2012, p.40).

Previous research efforts have quantified compliance costs for businesses. One such example is a study on the total cost benefits of Customs reforms in the clearance processes for low-value consignments entering the United States. The annual cost savings to express carriers and USPS (United States Postal Service) by raising the de-minimis threshold to 800 USD (from the current 200 USD), is estimated at 56 million USD or 43 million EUR (Hufbauer and Wong, 2011b, pp. 10-11).

Compliance cost estimates also exist for Australia and the Russian Federation (Australian Parliament, 2012 & Gubin, 2011, p.101). According to the Australian Productivity Commission, businesses, consumers and the government would bear a collective cost of approximately 1.4 billion EUR (2 billion AUD) in exchange for 400 million EUR (578 million AUD) revenue generation, if the current low-value threshold of 1000 AUD (692 EUR) was dismantled[20] (Holloway and Rae, 2012, p. 44).

These studies point out the relevance of optimum de-minimis thresholds and the simplification of Customs processes as central issues for removing logistics barriers and facilitating cross-border trade and logistics, particularly in the context of small consignments. As these previous studies are very limited in EU coverage, this study at hand is important in providing an assessment of the situation in the EU.

3.2.2   Postal sector import fees and charges

Postal operators in the EU Member States and in neighbouring countries charge various import process service fees. The fee structures, criteria and levels present significant variation between countries. Charge structures are based on different dimensions, such as importer (Hungary), shipper (Hungary), product imported (Switzerland), shipment value (Austria), duty amount (Germany), tasks performed by Customs (Norway), and transportation service (the UK). With such a variety of structures, a meaningful comparison of charges and fees is difficult to perform, but certain differences are evident. Within the EU, Sweden and UK charge higher fees (10.99 EUR and 16.95 EUR respectively), while in many other countries the fees remain below 10 EUR. On the other hand, in Norway the fees are significantly higher. Customs clearance and import processing fees show significant variation, from the low of 6.6 EUR in Czech Republic to 33 EUR in neighbouring Hungary. While such differences in fees and charges are more likely to reflect administrative heritage rather than real market and cost variation, examination of the structures and fee levels provides an important benchmark into the further analysis of optimal de-minimis levels.

3.3   Information and data collection from the express carriers

3.3.1   Import data record collection process

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[20] Currency conversions from Australian and US dollars to EUR were made on 8 July 2014 using moneyconverter.com (http://themoney.converter.com). The applied exchange rate is: 1 AUD = 0.69 EUR & 1 USD = 0.74 EUR

Import data records from the four express carriers form a crucial component of the whole de-minimis study and the economic model. The data record collection process started in April 2013 and was finalized in December 2013. Four selection criteria were identified: large import volumes; data quality and accessibility; inclusion of some smaller countries; and a minimum of eight countries. Regarding the time-period, a request was made to receive data for each carrier-country combination for a 24 month period from January 2011 to December 2012. Table 3 below lists the data elements we asked each carrier to provide.

Table 3: Data elements requested from the four express carriers

Dataset 1. Import flow statistics from outside EU into EU	
Notes: This dataset is in the core of the whole study, as it provides us with baseline numbers e.g. on number of shipments per value, crucial for the overall de-minimis economic model. We would like to get this data as minimum over 1 year period, preferably over 2 years (2011-2012, if possible), meaning eventually millions of records. The requested data elements with short comments are listed below.	
HS code	*Preferably to 8 digits, if possible*
HS description	*Free text describing the product*
Shipment weight	*Numeric value*
Weight unit of measure	*Coded, including kg, lb etc.*
Shipment origin country	*ISO3*
Shipment destination country	*ISO3*
Declared value	*Intrinsic value*
Declared value currency	*Standard currency code*
Duty amount paid	*Numeric value*
Duty amount currency	*Standard currency code*
VAT amount paid	*Numeric value*
VAT amount currency	*Standard currency code*
Import date	*Format: dd/mm/yyyy , if possible*
VAT registration-number	*Numeric, if exists; if no VAT number, then 0*
Unique shipment identifier	*Airwaybill number*

In general terms, the criteria explained above were fulfilled well. Import data on a total of 32.2 million shipments was received, covering five EU Member States with all four carriers, and another ten states with three, two or one carrier. Consolidation of multiple items into a single shipment was performed by finding a good criterion. A basic approach to the items-shipment consolidation was developed and tested with the data from several express carriers with similar data formats.

Next, to achieve high data quality for analytical purposes, a number of data validation, verification and correction procedures were applied. First, the data included 6.4 million shipments with zero value (arguably document shipments), which were removed, **leaving the original sample at 25.8 million shipments**. In this sample, Germany represents 33%, the UK 24% and Italy 11%, while the eight smallest countries account for only 4% of all shipments.

Regarding further corrections, in the case of one carrier, we had to extrapolate duty and VAT per value range, as no actual duty or VAT data were available in these records. In some carrier-country combinations data contained records for less than 24 months: in such cases we simply added data records to cover the missing months, by using the "import profile" derived directly from the existing data. For example in the Netherlands there is a high portion (up to 90%, according to an expert estimate) of VAT deferred payment, meaning that the records collected from the four express carriers contain zero values for VAT paid (5.3 million shipments in total). Similarly, 5.8 million shipments had a value over 150 EUR, with zero duty. In

contrast, 1.7 million shipments showed a value below 150 EUR and duty greater than zero. There were also 7.0 million records with shipment values under 22 EUR and VAT values greater than 0 EUR, which should be rare, except in such countries where VAT de-minimis is less than 22 EUR, or perhaps with some products / HS codes where de-minimis rules do not apply.

Lastly, we identified 184,000 abnormal records and 24 outlier values. Such records have been either corrected or removed. As indicated before, the total number of removed records is 6.4 million so **the final master database after corrections has 27.8 million records,** including 2.0 million records that were added to complement those countries with less than 24 months of data.[21]

Finally, for analytical purposes, the shipment data were then divided into 99 intervals – or, value ranges - depending on the shipment value. For example interval 20-30 holds shipments with values between 20 and 30 EUR inclusively; interval 30-40 holds shipments with values between 30 and 40 EUR inclusively, and so on up to interval 990-1000.[22] In the next sub-chapter four graphs are presented to visualize the import data characteristics; each graph having the value ranges along the x-axis.

3.3.2   Import data profiles

The industry data from the four express carriers over the two year time period can be summarized with the help of six graphs, presented in Figures 6 to 11 below.

Figure 6, Figure 7 and Figure 8 depict the number of shipments per value range: the first one presents the full value range 20-1000 EUR, and the two latter ones separate shipments below and above 100 EUR into two different graphs, for the sake of enhanced readability. We can observe that the majority of shipments have very low values: 80% of shipments are less than 250 EUR, as indicated by the red 80% -line in the first graph.

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[21] More details can be found at: ANNEX V. Import data record verification and correction –procedure
[22] The last interval (nr. 99) aggregates those shipments in the database with values over 1000 EUR and up to maximum – these do not have any impacts on the further calculations.
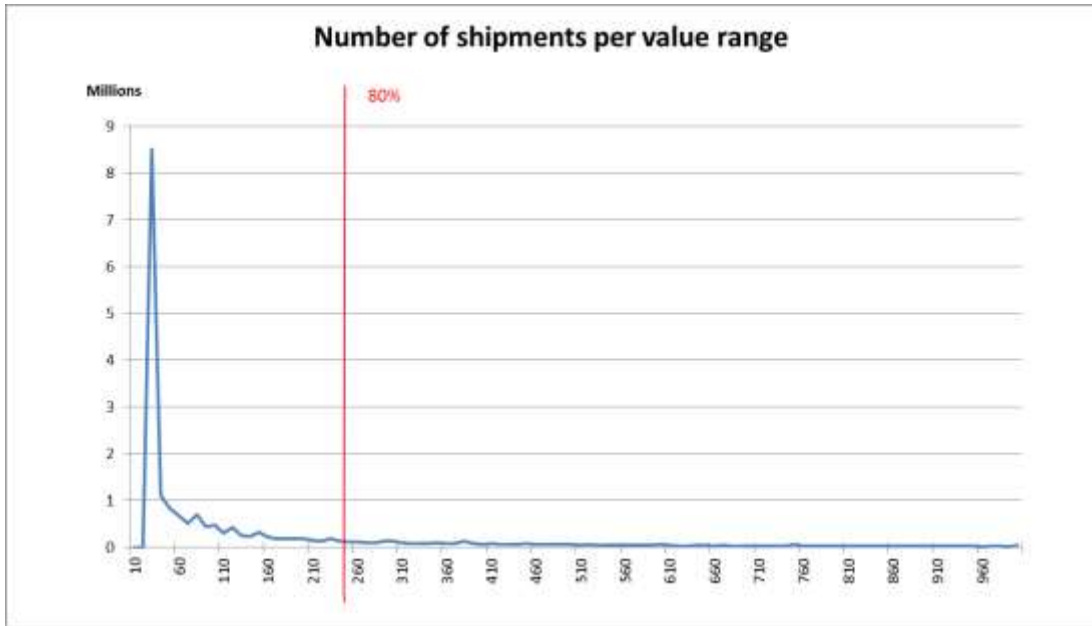
Figure 6: Number of shipments per value range (over two years)

As mentioned before, the two graphs below split the full graph into two more readable parts: The first presents the value range from 0 to 100 EUR, where one can easily note the high peak with the lower end of the spectrum.
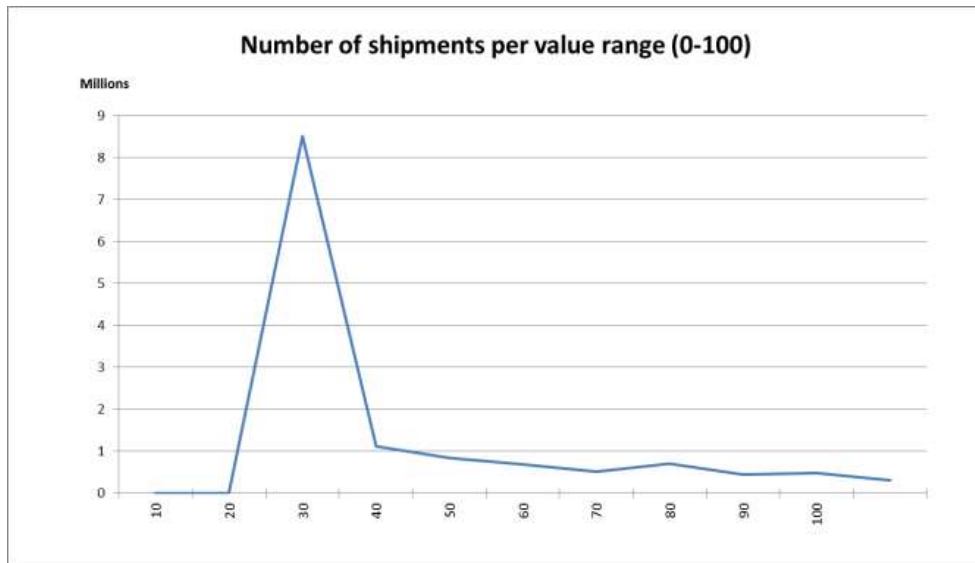
Figure 7: Number of shipments per value range (0-100 EUR shipments; over two years)

Secondly, a graph is presented on the value range from 100 to 1000 EUR, starting slightly under 0.5 million records (for value range 100-110 EUR), and descending towards some 20,000 records (for value range 990-1000 EUR).
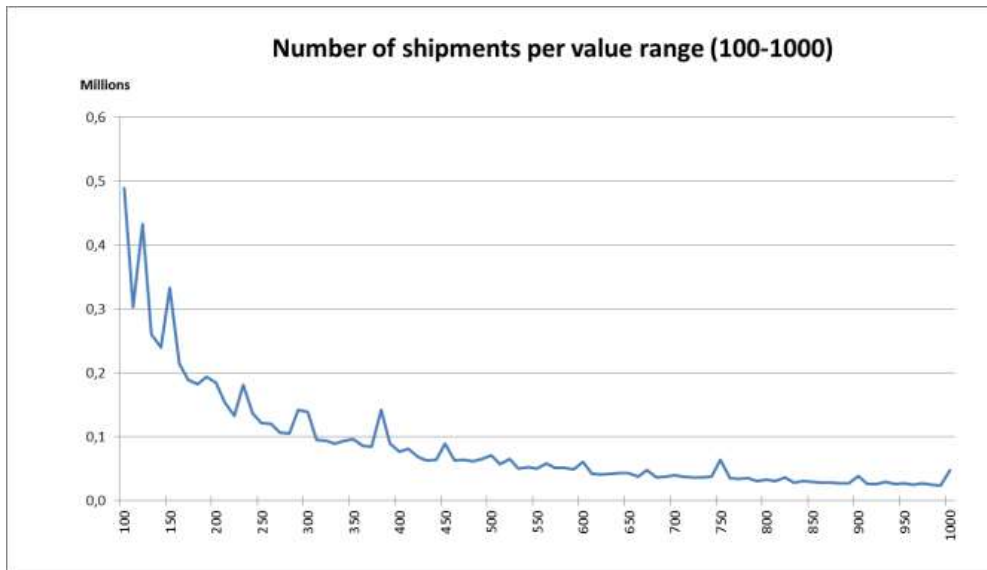
Figure 8: Number of shipments per value range (100-1000 EUR shipments; over two years)

Figure 9 below illustrates the cumulative number of shipments over the full value range – the red line indicates (again) that 80% of shipments are less than 250 EUR in value.
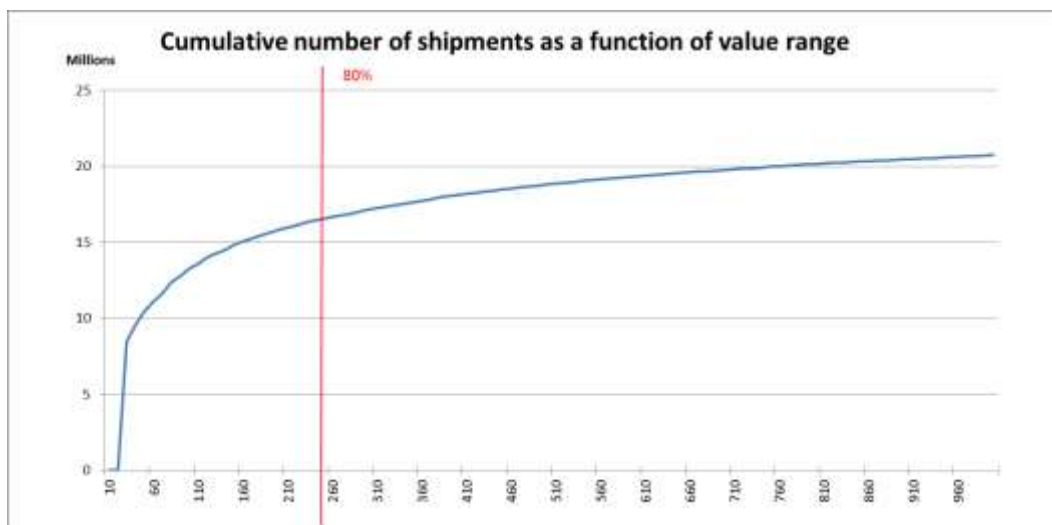
Figure 9: Cumulative number of shipments as a function of value range (over two years)

Figure 10 shows the cumulative value of shipments as a function of value range. First, it can be noted that the above mentioned 80 % of shipments only represent one third of the total value of all shipments included in the analysis. The second observation is the quasi-linearity of the cumulative value of shipments as a function of value range, due to the fact that multiplying separately each value range (e.g. using 455 EUR for range 450-460 EUR) by the number of shipments falling in this range yields virtually the same result, independent of the value range.
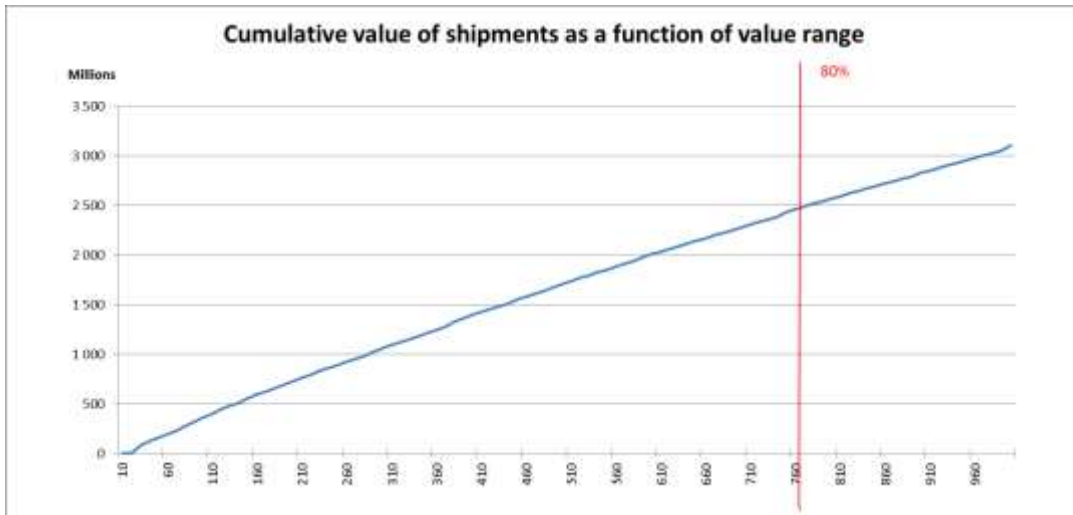
Figure 10: Cumulative value of shipments as a function of value range (over two years)

Finally, Figure 11 below shows the indirect border taxes collected within this set of import data records. The graphs depict the two collection streams: total VAT collected and duties collected. With VAT, the total collection is around 710 million EUR, while with duties, the total collection remains around 120 million EUR.
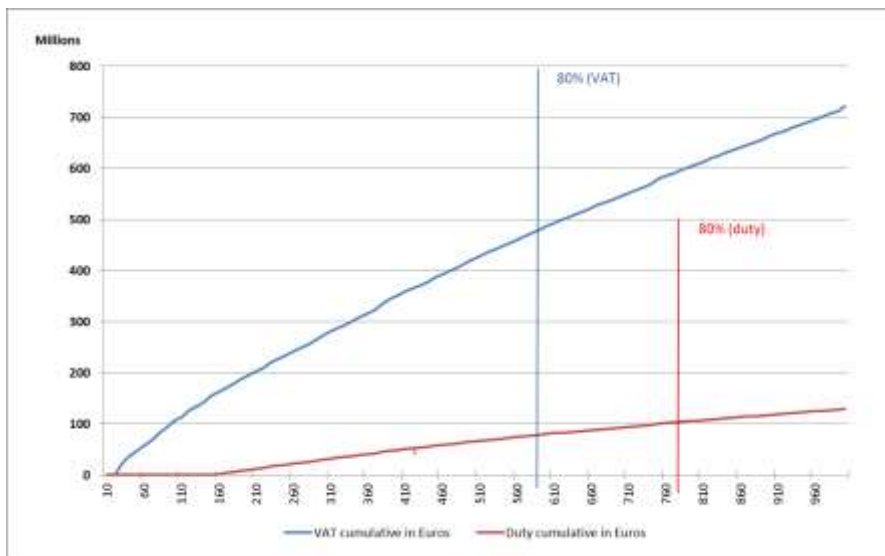
Figure 11: Cumulative duties and VAT in EUR as a function of the value range (over two years)

3.3.3   Other information and data collected from the express carriers

Besides the import data records described in the previous sub-chapter, several other types of information and data were requested from the four express carriers, summarized per geographical cluster in Table 4 below.[23]

Table 4: Other information and data requested from the four carriers

| Geography	Information and data requested
All EU27	• Total import volumes per country for years 2011 and 2012
Ten Member States (pre-fixed per carrier)	• Internal cost of formal (high value) Customs clearance for the carriers
One Member State (each carrier to choose one)	• Average annual working hours per FTE • Average annual salary (with side costs) as in Eurostat • Multiplying factor to average salary considering express carrier overheads, management, night shifts, IT costs, buildings etc. • Average seconds spent per import shipment, with low value goods (under 20 EUR), with B2B • Average seconds spent per import shipment, with low value goods (under 20 EUR), with B2C • Average seconds spent per import shipment, with medium value goods (between 20-150 EUR), with B2B • Average seconds spent per import shipment, with medium value goods (between 20-150 EUR), with B2C • Average seconds spent per import shipment, with high value goods (over 150 EUR), with B2B • Average seconds spent per import shipment, with high value goods (over 150 EUR), with B2C

3.3.4 Discussions on express carrier data collection and analysis

The research team is very satisfied with the quality and quantity of import data records collected from the four express carriers: There is a high degree of confidence that this data-set provides a robust basis for further de-minimis calculations, including database extrapolations, total costs of processing import declarations and border tax revenues foregone -calculations. When looking at the literature on the cost of compliance for industries and importers (Chapter 3.2), the cost parameters and values collected by the research from the four express carriers appear to be logical. All in all, the research team has a high level of confidence regarding the express sector import data and cost values being used in de-minimis calculations and optimization, in the next chapter of this report.

4 De-minimis economic model and optimization outcomes

4.1 Overview

The objective of this chapter is to present the logic and the results of the de-minimis optimization process. The research team developed a web-based economic model and calculation tool which is used for optimization purposes.[24] The outcomes of the governmental and industry data collection – as explained in

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[23] Editorial note: Due to commercial sensitivity issues, we cannot report further the numeric results of this data collection. However, the data is used for calculation purposes, in the following chapter.

[24] Screen prints of the web-based de-minimis optimization tool are presented in ANNEX VI.

two previous chapters – are summarized first (Chapter 4.2), adding also a sub-chapter on B2C %-share of total shipments. This is followed by the expansion of the import record database to cover all EU27 Member States (Chapter 4.3). Then follows the de-minimis optimization results (Chapter 4.4), covering optimization principles, optimal VAT de-minimis, and explanation on optimal duty de-minimis calculations. Lastly, a short discussion of the whole optimization process is included, including notes on a few limitations (Chapter 4.5). This content and flow is also visualized in Figure 12 below.
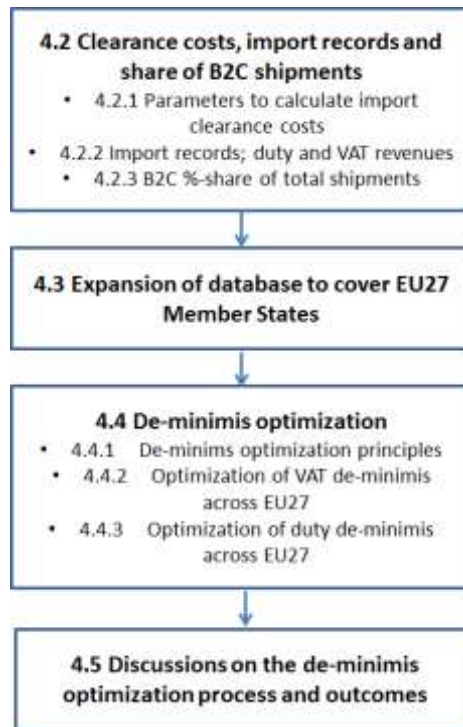
Figure 12: Chapter 4 and the de-minimis optimization process

4.2 Clearance costs, import records and share of B2C shipments

4.2.1 Parameters to calculate import clearance costs

The key cost parameters are described in the following list, both for express carriers and for Customs administrations:

- For express carrier import clearance costs, we are using fixed values on country level (as B2C HV); these values are derived from cost data provided by the express carriers, ultimately using average numbers among the four carriers.
- Data on seconds spent per LV/MV/HV[25] shipment, both B2B and B2C[26], provided by the express carriers, is used to calculate the cost differences from the highest cost shipments (B2C HV) to the other five types of shipments (B2C MV; B2C LV; B2B HV; B2B MV; B2B LV)
- For Customs administrations, we are using the same, conservative low cost values for all EU Member States; this is primarily due to the lack of cost awareness at most Customs administrations.

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[25] LV = Low value; MV = Medium value; HV = High value.
[26] B2B = Business-to-Business; B2C = Business-to-Consumer

- Limited data on seconds spent per LV/MV/HV shipment, both B2B and B2C, provided by some Customs administrations, is used to calculate the cost differences from the highest cost shipments (B2C HV) to the other five types of shipments

4.2.2 Import records; duty and VAT revenues

As explained in Chapter 3, we collected data covering a total of 25.8 million shipments over a 2 year period, over five EU Member States, with all four carriers, and another ten states with three, two or one carrier. We calculated the duties and VAT collected per 10 EUR value range, and visualized the import record profiles with various graphs (Chapter 3). This unique dataset is first used as a robust basis for the database extrapolation, followed by de-minimis optimization, as explained in the coming sub-chapters of this report.

4.2.3 B2C %-share of total shipments

The numeric values for the %-share of B2C shipments from all shipments is based on data collected from the express carriers - in particular on VAT/EORI numbers (available versus not available in data records) and residential versus non-residential addresses - and from the EU Customs administrations. Based on the data collection outcomes, we have used a range of best estimations, starting with higher estimate of B2C shipments at the low end (20-30 EUR), and finishing with a lower estimate share of at the high end (990-1000 EUR). The share is assumed to descend linearly between these two extremes across the total value range. This forms an important parameter for the calculations, as only B2C import VAT is to be considered as "lost VAT revenue" in the case that de-minimis levels for VAT would be increased.

4.3 Expansion of database to cover EU27 Member States

As we were able to collect import data records from all four express carriers in five EU Member States, this became our first database. Next to that, we have partial data – with one to three carriers – from ten more Member States, and no data from twelve Member States.[27] This calls for extrapolation techniques in order to produce our second database titled "DB-EU27". The extrapolation process is described briefly as follows:

- DB-EU27-A is built on the basis of the number of people using e-commerce buying from outside the EU. In this procedure the total number of shipments per country where the data from one or more of the four express carriers were missing, is complemented as follows:
    - On the first step an average index is calculated with the five countries where full data is available.
    - Then the number of shipments per country is calculated as a multiplication of the index and the number of people using e-commerce buying from third countries.
    - Then an extrapolation multiplier is produced as a ratio of the number of shipments per country and the total number of shipments from import records with non-zero value. This multiplier is used for extrapolation of shipment values, duty and VAT revenues from the global data profile per shipment value range.

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[27] The reason for not having all import records from all carries and all Member States is that this data collection was constrained due to (i) limited technical access to old data records; (ii) tight project schedule; and (iii) relatively high cost of data collection.

- Next, the DB-EU27-B database is built on the basis of total import values per country, following the same procedure as DB-EU27-A; the only difference being to swap the "number of people per country using e-commerce buying from outside EU" with "total import value per country".[28]
- Finally, average values of DB-EU27-A and DB-EU27-B are produced as a simple average of the two, this becoming our DB-EU27 database used in further de-minimis calculations.

This process produced the main database – DB-EU27 - used for the de-minimis optimization, as explained in the next sub-chapter.

4.4 De-minimis optimization

4.4.1 De-minims optimization principles

In this sub-chapter we provide a simplified description of the de-minimis economic model, in the format of a nine-step calculation description.[29]

i. Express carrier and Customs working time spent in one year for small consignments are calculated for LV, MV and HV.
ii. Full-time equivalent (FTE) salary costs of express carriers and Customs are calculated per shipment value range.
iii. Government balance with duty only is calculated per shipment value range as a difference between the salary cost of Customs and duty revenue.
iv. Government balance with the net effect on VAT only is calculated per shipment value range as a difference between the salary cost of Customs and VAT revenue. The percentage of VAT effect is calculated as a B2C% share from the total VAT.
v. Government balance with duty and the net effect on VAT is calculated per shipment value range as a difference between the salary costs of Customs and the sum of duty revenue and final B2C VAT revenue.
vi. Government and express carriers' balance with duty only is calculated per shipment value range as the sum of (v) and the salary costs of express carriers from (ii).
vii. Government and express carriers' balance with the net effect on VAT only is calculated per shipment value interval as a sum of (iv) and the salary costs of express carriers from (ii).
viii. Government and express carriers' balance with duty and the net effect on VAT is calculated per shipment value interval as the sum of (v) and salary cost of express carriers from (ii) plus the fixed cost per shipment both from express carriers and Customs.
ix. Cumulative government and express carriers' balance with duty and the net effect on VAT is calculated.

Lastly, the optimum de-minimis is determined as a maximum of cumulative government and express carriers' balance with duty and the net effect on VAT, which is in the form of an inverted u-shape curve, where the optimal value will be found at the top of the curve.

4.4.2 Optimization of VAT de-minimis across EU27

The results of the de-minimis optimization are shown in the box below:

> Following all the previous calculation steps, the optimum de-minimis value for VAT across the EU is calculated to be: **80 EUR**
>
> Such an increase in the VAT de-minimis would – in the context of the express sector imports only - produce a total economic saving of: **32 Million EUR per year**

Figure 13 below shows how the relationship between VAT revenues collected and total cost of collection works per one year. One can observe that for example on 30 EUR de-minimis level approximately 29 million EUR is spent to collect around 11 million EUR in VAT, yielding a loss of 18 million EUR. With de-minimis level of 60 EUR, the cumulative loss is 7 million EUR. And with de-minimis level of 120 EUR, the cumulative gain is 23 million EUR. The break-even point is with the de-minimis value of 80 EUR.
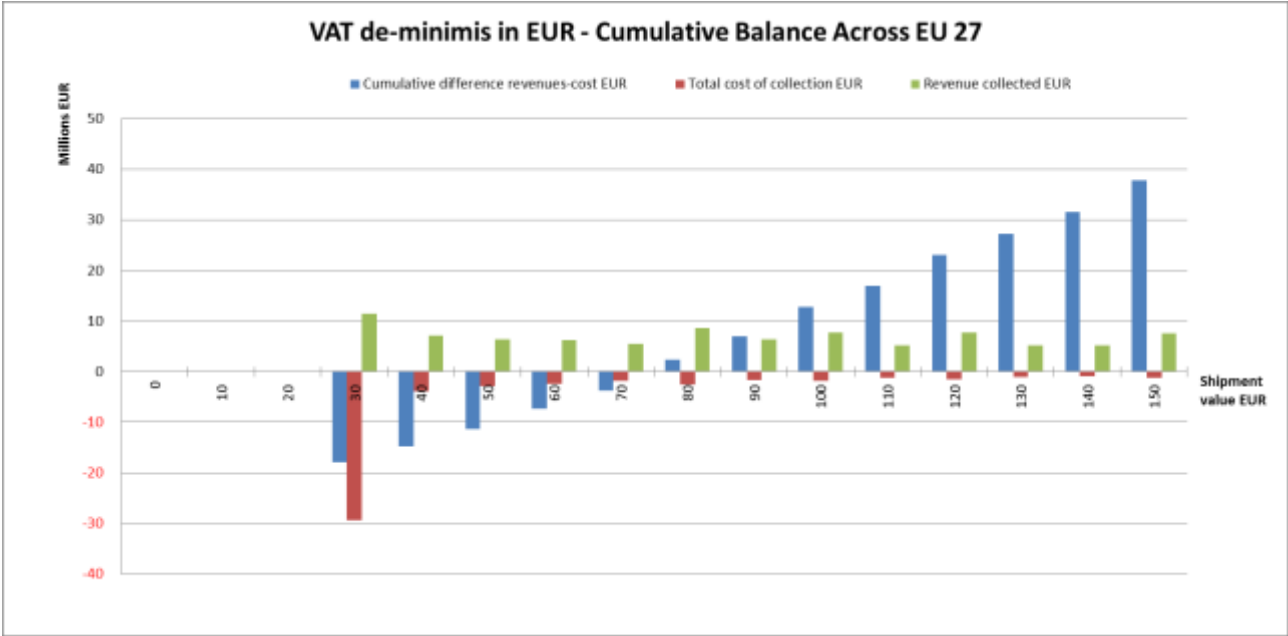

Figure 13: Relationship between VAT revenues collected and total cost of collection (in EUR, per annum)

4.4.3 Variation in de-minimis optimum values between the EU Member States

The Figure 14 below illustrates the optimum de-minimis differences per EU Member State. One can easily observe huge variation, for example, by comparing UK and Greek values, representing the two extremes.
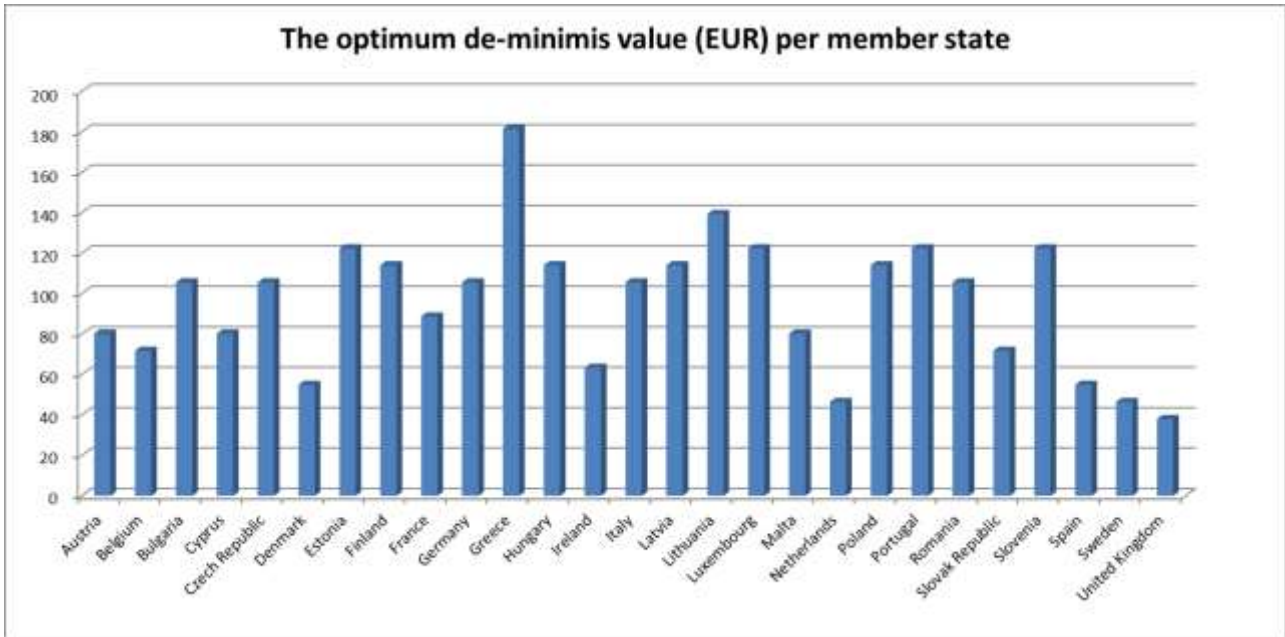
Figure 14: The optimum de-minimis value per EU Member State (in EUR)

4.4.4 Optimization of duty de-minimis across EU27

As the last step in the de-minimis optimization process, the research team calculated a scenario where the VAT de-minimis would stay as it is today, and instead only the duty de-minimis would be raised. In this process, we also double checked the duty %-rates collected from the express carrier databases earlier in the project, against World Trade Organization (WTO) databases. It was found that due to the minor import process cost difference at both Customs administrations and at the express sector between MV (Medium Value = above 22 EUR and below 150 EUR) and HV (High Value = above 150 EUR), there is no economic justification to increase the duty de-minimis above today´s 150 EUR.

4.4.5 Discussions on the de-minimis optimization process and the outcomes

This chapter is the culmination of the economic calculations in this study, effectively using the data collected and analyzed in the two previous chapters. Whenever there has been some uncertainty or unavailability of data required for the calculations, the intention of the research team has been to take "a conservative approach" when considering the optimization results – conservative meaning, in practice, "in uncertain situations, the selection of those datasets / numeric values which produce at the end rather lower than higher de-minimis levels". Several rounds of sensitivity analysis have also been run in the background by the researchers in order to gain a deeper insight as to "which parameters the total economic model is more rather than less sensitive". Considering all this, the research team feels comfortable with the presented numeric outcomes; while naturally not claiming them to be any kind of "absolute truth". One last thing which has "raised the eyebrows" within the research team is why there are such huge differences in the de-minimis optimum between the 27 EU Member States? Is it something to do with variation in Customs cultures, priorities, processes, automations and so forth? Whatever the reasons are, our report in hand cannot provide an answer, but this remains a topic for future research.

5 Consumer behaviour study

5.1 Overview

When consumers make purchase decisions, they rely on a broad set of factors. These factors are product characteristics, such as brand, quality, and price, but also product related factors, such as delivery time, charges for duty and tax, or dealer reputation. The purpose of this chapter is to examine the relevance of different purchase criteria for consumers' purchase decisions. Specifically, this chapter aims at analyzing utility values of relevant purchase criteria in international transactions of consumer goods, and in particular, what would be the impact of changes in de-minimis levels of duty and VAT. To achieve this goal, the research team conducted a study among a sample of *young consumers prone to use e-commerce*. The study consisted of two parts: a conjoint study as a traditional research approach in utility value studies and a questionnaire-based consumer survey. First, we explain the empirical study (Chapter 5.2), followed then by the results (Chapter 5.3).

5.2 Empirical study[30]

The conjoint study aims to determine what combination of product characteristics is most influential on respondents' decision making. In this part of the study, two product categories were selected based on three relevant criteria: (1) perceived risk, (2) product familiarity, and (3) product involvement. Consumers' purchasing decisions build upon a variety of factors. Three prominent factors involve perceived risk, that is, the probability of making a wrong purchase decision because the product will not work properly and will cause "hidden" costs; product familiarity, that is, the extent to which a consumer has prior experience with and knowledge about a product; and product involvement, that is, the extent to which a specific product has importance for a consumer. The criteria can serve as dimensions of a property space in which product categories may be placed. To substantiate the external validity of this part of the study, two product categories were selected: chargers and digital cameras. These product categories are not the most traded goods online, but they differ by the three criteria and thus form a broader empirical basis for valid, reliable results.

For both products, lists of attributes and attribute levels were developed based on two scenarios: an increase of the de-minimis level to 40 EUR in the mobile charger category and an increase of the de-minimis level to 200 EUR in the digital camera category. The values are tied to the product price. In both scenarios, and from a consumer perspective, the major implication would be the withdrawal of charges for duty and tax for corresponding products, when ordering from non-EU online shops. Hence, the conjoint analysis addressed two main research questions:

(1) Do charges for duty and tax have an influence on consumers' purchase decisions in general?
(2) How important are charges for duty and tax relative to other purchase decision criteria?

The second part of the study included an online survey. The primary objective of the survey is to capture respondents' views on global consumption, their consumption behaviour as well as their primary experiences with the aforementioned product categories. Thus, the online survey provides a more detailed understanding of consumers' purchasing behaviours.

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[30] See ANNEX VIII for Screenshots for the consumer study (conjoint and survey)

European consumers vary significantly by their e-commerce experiences. To obtain relevant and reliable results, it was decided to focus on so-called Generation Y consumers, that is, a consumer segment, born between 1977 and 1994. This consumer segment has significant spending power and can be characterized as particularly media and technology savvy (Noble *et al.*, 2009). The sample in this study involved students from a major German university. Students can be viewed as typical examples of Generation Y consumers. Although students' income is usually low, they are likely to spend money on such purchases. Therefore such a sample is likely to provide useful results with the given research question in mind, even if the sample demographics do not fully correspond with the full variety of European consumers.

Respondents received an email inviting them to participate in a web-based study. In addition, the email informed respondents that there are no correct or wrong answers and that all data were collected anonymously. In sum 375 respondents participated in the conjoint study ($N_{charger}$ = 199; $N_{digital\ camera}$ = 176). Of these, 305 completed the subsequent online survey ($N_{charger}$ = 151; $N_{digital\ camera}$ = 154). Of the respondents, approximately 41% were female. The average age was 24.2 years (standard deviation (SD) = 2.72). Approximately 48% of the respondents had an A-level, 46% hold a Bachelor degree, and 6.2% hold either a Master degree or a Diploma. Regarding income, 41% of the respondents have a monthly income of less than 500 EUR, 56% have a monthly income between 500 and 1,500 EUR, and 3% have a monthly income of more than 1,500 EUR.

5.3 Results

In the conjoint study we asked respondents for their preferred alternatives for different combinations of offerings that reflect consumer purchase decisions. Using these preferences, utility values were calculated for each respondent, attribute and level individually, and then aggregated across the sample. Figure 15 and Figure 16 below illustrate the results from these analyses.
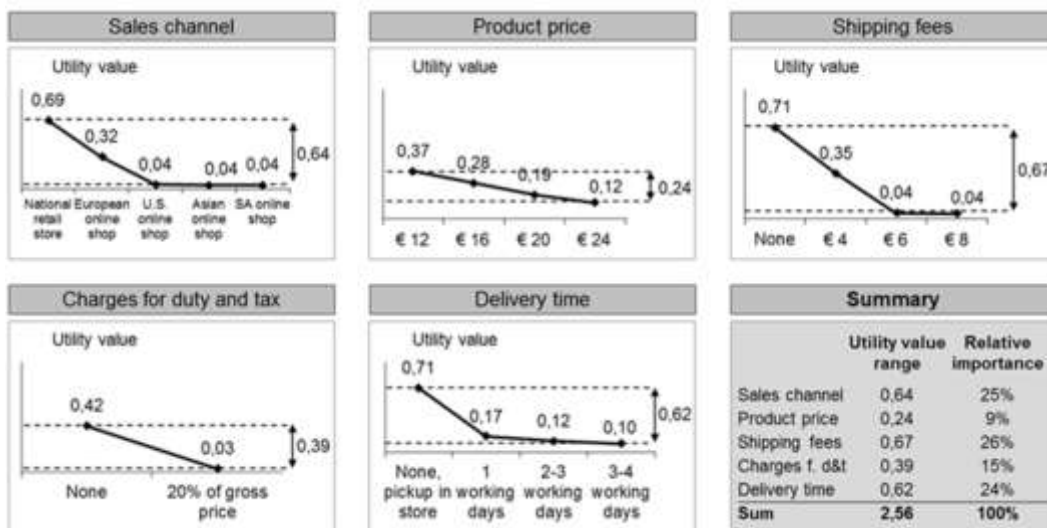

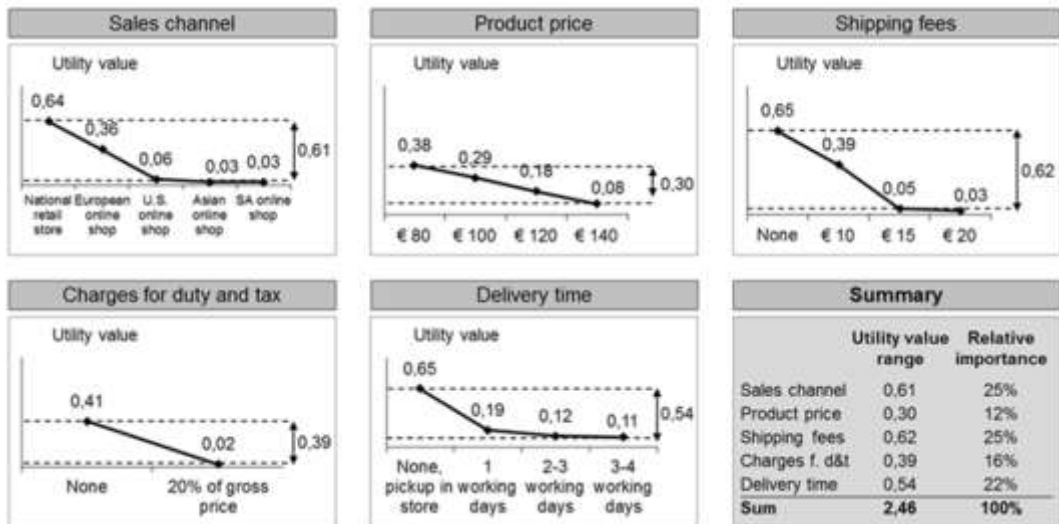*Figure 15: Conjoint analysis for the product category mobile charger*

Figure 16: Conjoint analysis for the product category digital camera

The range in the attribute's utility value can be characterized as the relative importance of each attribute, as shown in the summary sections of Figures 15 and 16. In both categories, shipping fees, sales channel and delivery time are the major factors. Results also indicate that charges for duty and tax, incurring only in the case of non-European online shops, are among purchase decision drivers for both product categories.

Due to the calculation procedure, conjoint analysis does not allow comparing utility levels from one attribute with levels from another attribute. However, it is possible to compare relative differences between two levels of one attribute versus two levels of another attribute. Results show that sales channel, shipping fees and delivery time appear to be more important than the monetary value of surcharges for duty and tax. However, this study is in line with previous studies, which have found that price sensitivity for changes in surcharges may be higher than for product prices in case of shipping fees (Smith and Brynjolfsson, 2001). Since other factors remain more important, this seems to confirm that a withdrawal of charges for duty and tax - resulting from higher de-minimis levels - could influence consumer purchase decisions, but not significantly.

The follow-up survey captured key aspects of Generation Y consumers' purchase orientations and behaviours. Regarding the importance of purchase criteria, product quality was rated as the most important criterion with a mean score of 6.4 (on a seven-point scale). The results showed that charges for duty and tax rank in the middle among the criteria, receiving a mean score of 5.6. In respect of de-minimis levels, this finding is particularly interesting, as it shows that other criteria, such as quality and dealer reputation are more important to consumers (Figure 17).
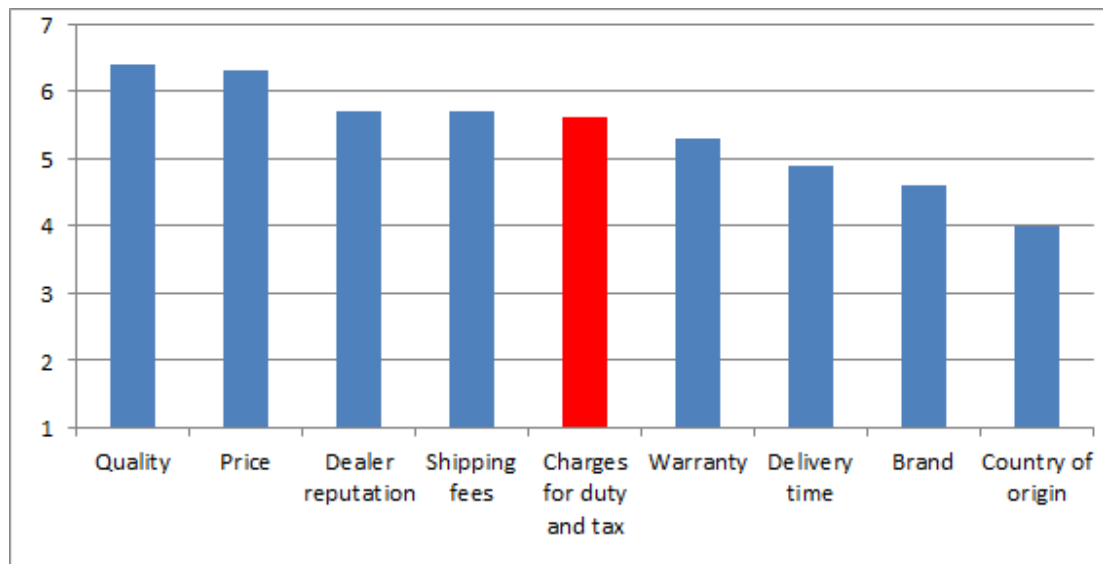
Figure 17: Relevance of purchase criteria

In order to get a deeper understanding of consumers' purchasing behaviours, a cluster analysis determined segments of Generation Y consumers based on their general predisposition toward global consumption (i.e., consumer cosmopolitanism, ethnocentrism, global consumption orientation, and local consumption orientation; see Alden, Steenkamp and Batra (2006) and Guo (2013)). The analysis revealed four consumer segments, which all show a medium level of cosmopolitanism, with differences regarding ethnocentrism and their global and local consumption orientation. While the levels identified in this part of the study are likely to be driven by sample characteristics, the relevance of this finding lies in the assumption that such differences may impact how consumers evaluate purchase criteria, and the subsequent analysis in fact supports this assumption. The four segments have significant differences in six of the nine purchase criteria examined. Specifically, the results indicate differences in relevance for the criteria brand, shipping fees, quality, price, country of origin, and charges for duty and tax, as shown in Table 5. With regard to charges for duty and tax, the findings show differences in relevance between the four groups that are significant at a 10%-level (only).

Table 5: Consumer segments

Purchase Criteria	Clusters				F-value	Significance
	1	2	3	4		
Brand	4.01	4.58	4.72	4.97	5.78	***
Shipping fees	6.04	5.78	5.28	5.64	5.44	***
Quality	6.61	6.38	6.18	6.54	4.96	***
Price	6.35	6.41	5.95	6.39	4.52	***
Country of origin	3.89	3.58	4.49	3.84	4.15	***
Charges for duty and tax	5.69	5.27	5.47	5.78	2.13	*
Warranty	5.28	5.55	5.08	5.39	1.42	n.s.
Dealer reputation	5.72	5.72	5.58	5.83	0.71	n.s.
Delivery time	4.94	4.88	4.80	4.98	0.24	n.s.
Notes: *** $p < 0.01$; ** $p < 0.05$; * $p < 0.1$; n.s. = not significant.						

Overall, the findings of our study show that the media and technology savvy Generation Y consumers consider a broad set of factors while shopping online. The conjoint analysis confirms that costs in terms of shipping fees and charges for duty and tax play a strong role, and the subsequent survey further supports

these results. We found four Generation Y consumer segments that differ with regard to their general attitude to shop globally. These profiles affect how consumers judge purchase criteria. Of the several criteria examined, shipping fees and charges for duty and tax were affected by the four cluster profiles.

Thus, this study shows that while changes of de-minimis levels might affect the buying behaviour of Generation Y consumers, such changes are not likely to be significant. Even though the sample demographics are not fully representative of European consumers and prior research has revealed certain inter-cultural differences in online shopping behaviour, we are confident that this first study is not fundamentally biased. Rather, it indicates the relevance of such criteria in online purchase decisions. Hence, we see it as solid evidence for an underlying trend that we expect to be confirmed in subsequent research.

6 Conclusions, discussions and recommendations

6.1 Key conclusions

The establishment of de-minimis thresholds for duties and tax has its roots in the basic understanding that it is counter-productive to have a tax or duty that is more expensive to collect than the value of the tax or duty itself. Equally, however, tax and duty rates will have significant impacts on trade, the costs of trade and competitiveness.

In an era where e-commerce is rapidly expanding and the number of small consignments is increasing exponentially, the spotlight on de-minimis thresholds for tax and duties has become ever more focused. Since there are currently large differences in the de-minimis thresholds between the largest economies, it is important to understand whether and how the thresholds should change and what would be the consequences of such change.

This study was initiated to provide such understanding in the European context. In order to do so, three research questions were set for this study and this report has provided answers to each one of them. These questions and answers are summarized below.

Question 1: What are the economically optimal VAT and duty de-minimis levels for imports into the EU, considering the cost of tax collection for public administrations and the cost of import processes and procedures for the private sector?

Performing an extensive literature review and an analysis of a large set of empirical data has confirmed that the costs of import processes are high both for the Customs authorities and for the importers, freight forwarders and their supply chains. Simultaneously, the relevance of Customs collected border taxes remains low in EU Member State budgets.[31] As a conclusion we recommend the following:

- VAT de-minimis should be raised to 80 EUR from the current 22 EUR.
- Duty de-minimis threshold should remain at the current level of 150 EUR.

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[31] Regarding VAT revenues, the data from our governmental survey round 2 indicates that in some EU Member States Customs collect only 0.017% to 1.86% of total VAT revenues.

The recommended de-minimis optimal thresholds were calculated using the de-minimis economic model developed in this study. This model incorporates governmental and industry data. The governmental data were based on a literature review on the cost of tax collection for these governmental agencies, as well as on publicly available statistics and databases. Furthermore, the research team carried out two rounds of information and data collection from governmental parties across the European Union, in order to gain a deep understanding of the cost of tax collection across EU27 Customs administrations.

The industry data involves an extensive database of shipment data provided by the express carriers. This database extends over a two year time period (2011-12), containing original data from the majority of EU Member States.

Question 2: If VAT and/or duty de-minimis levels were to increase in the future, how would consumer behaviour change in terms of e-commerce imports from 3rd countries versus e-commerce and retail purchases within the EU?

Our conclusion regarding the consumer buying behaviour builds on an on-line conjoint study and a survey performed among a sample of Generation Y consumers, known to be technology and media savvy. The findings from the study generally support the notion that such consumers consider a broad set of factors while shopping online. Results show that charges for duty and tax are among relevant purchase decision drivers, but they are one of the less important factors. In respect of de-minimis levels, this finding is particularly interesting, as it shows that other criteria, such as quality and dealer reputation are more important to consumers. Thus, this study shows that while changes of de-minimis levels might affect the buying behaviour of consumers, such changes are not likely to be significant.

Question 3: Which other political and economic implications could follow from potential decisions in the future to increase VAT and/or duty de-minimis levels in the EU?

The results cover a broad variety of de-minimis related policy areas and other themes, and hence allow us to contemplate on the potential consequences of changing de-minimis levels.

While further discussions and considerations, including extracts from several expert interviews, are shared in the next sub-chapter, we can summarize the potential implications of increased duty and VAT de-minimis thresholds in the following way:

- European consumers and small enterprises as well as e-commerce companies supplying EU consumers will benefit most.
- The logistics sector currently carries an unnecessary burden, which would be lifted.
- Customs administrations are swamped under the massive e-commerce workload, which would be relieved.
- Competition effects of a de-minimis regime are debatable.

6.2 Further discussions and considerations on political and economic implications

Within this study we have explored the de-minimis topic also in a broader commercial and political context, primarily in a qualitative manner, thus complementing the quantitative approaches applied to answer the

first two research questions. Below we present an analysis supported by a number of interviews and other quotes.[32]

European consumers and small and medium sized enterprises, as well as e-commerce companies supplying EU consumers, will benefit most.

Private consumers and small and medium sized enterprises (SMEs) as importers are foreseen as the main beneficiaries if de-minimis levels were increased in the EU. This is primarily due to (i) the lower purchase price and landed cost, and (ii) lower import processing costs, both for the freight forwarder or Customs broker, and for the importer himself. For SMEs, reduction of de-minimis levels would be helpful, since "simplification is critical to supply chain efficiency", as one of the interviewed experts mentioned.[33] Another interviewee points out that "I see specific importance of higher de-minimis levels in the context of global value chains where intermediate products cross borders multiple times, on their conversion to become 'final products'. Here each border crossing introduces an additional cost for the value chain – and some of these costs could be avoided". Furthermore, SMEs seem to suffer more than other firms, as explained by a third expert: "SMEs have a 'negative double-dip' with low de-minimis levels: first, trade and customs compliance costs are known to be relatively higher for SMEs than for bigger companies due to lack of economies of scale, and secondly, SMEs have a tendency to order and consume relatively more small consignments than bigger companies".[34]

E-commerce companies that directly supply EU customers are seen as the second category of beneficiaries regarding increased de-minimis levels. Simplified customs procedures and decreased prices would be likely to attract more demand from European consumers. This in turn would play in favour of the e-commerce companies, but also of consumers and SMEs, making buying easier and creating cost savings. Reciprocity of de-minimis levels can be considered of high importance here, in order to provide equal opportunities for EU-based e-commerce companies regarding their sales and exports into 3rd countries and regions, as one respondent notes: "Nor can small companies hope to penetrate the global markets without access to fast, efficient transport".[35]

The EU could also show an example of sensible administration as one interviewee explains: "If customs and trade together spend more money on collection of duties and taxes versus the revenue collected, it does not make economic sense. Duties should not be collected below certain thresholds - that is clear. Also in less developed countries where duties can form a big part of government total revenues it does not make sense to collect duties of insignificant value; collecting low duty amounts can also become really counterproductive, as the administrative hurdles may drive traders towards the 'informal sector'".

The logistics sector currently carries an unnecessary burden

The logistics sector as a whole, and express carriers and postal operators in particular, are foreseen as the next group to benefit if the de-minimis levels were increased in the EU. The report on the taxation of the digital economy points out that the consignments falling between 22 and 150 EUR in value create "an unnecessary burden" for "both Customs administrations and parcel operators/couriers" (European Commission, 2014c). Furthermore, anticipated increases in international trade and freight volumes,

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[32] Please visit ANNEX IX for comprehensive Expert interview –transcripts.
[33] The three expert quotes on this paragraph are coded as: ERRR17, 71 and 31.
[34] Note: This aspect is also strongly supported by the literature review carried out in Chapter 2 of this report.
[35] This and next paragraph contain quotes from ERRR17 and 12.

together with lower operational costs (and potentially lower fees to their customers) will facilitate the development and market expansion of the whole sector.

However, the sector would not be impacted in a uniform way: "De-minimis needs to be understood as a specific issue in the context of global trade and focused on with regard to the different needs and purpose of the modality. The rules pertaining to containerized maritime transport are different from the rules pertaining to road transport".[36] Regarding "traditional freight forwarding business" for air, sea and land transport, new opportunities may open, for example, in the form of consolidated shipments in the context of e-commerce imports from 3rd countries and regions into the EU. Lastly, those logistics operators who are today making profits on import service charges to their customers – such as "traditional customs brokers" - may have some concerns on lower revenues and profits in the future. As one of the interviewed experts mentioned: "Customs broker service is an additional cost for traders, especially in the countries where it is mandatory and higher de-minimis levels would certainly reduce that cost".

Customs administrations are swamped under the massive e-commerce workload

Regarding Customs administrations and tax authorities, "resources are not well deployed when they focus on low value shipments" – as one of the interviewed experts mentioned.[37] They are considered to create an unnecessary burden (European Commission, 2014c). Customs authorities are indeed swamped under the massive workload created by the burgeoning e-commerce. Hence, raising the de-minimis levels would enable Customs to reallocate resources towards higher priorities such as:

- the collection of higher revenues;
- anti-fraud activities;
- addressing product safety and intellectual property violations; and
- supply chain security.

One should also highlight that higher de-minimis levels are not a threat to security, as all consignments are subject to the same advance data provision requirements, independently whether they are above or under de-minimis levels.

In many EU Member States, for example Estonia, Finland, and the Netherlands, calls have been made for lean government as a national policy target. Simplifying customs procedures and eliminating unnecessary duty and VAT collection would serve this purpose well. Moreover, harmonization of the VAT threshold across the EU would appear to have significant cost saving potential through simplified procedures (Sowinski & Taelman, 2014). It appears that most of the Member States require formal declarations to clear and release shipments valued above the VAT threshold but below the customs duty threshold; this situation may be attributed to the varying VAT rates that the imported goods are subject to, according to Sowinski & Taelman (2014). In addition, only 7% of EU Member States apply a single VAT rate for this type of consignment, according to the authors. One potential solution to this problem could be harmonization of the VAT rate for all consignments below the 150 EUR value threshold of duty de-minimis, and for any increased de-minimis - in each country, as this would eliminate the need for formal declarations, because a single VAT rate could be applied to all consignments below the duty de-minimis.

Competition effects of a de-minimis regime are debatable

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[36] The citations on this paragraph are from experts ERRR39 and 89.
[37] Expert quote by ERRR77.

The traditional retail sector – "bricks and mortar" - with physical store locations across EU Member States, has some concerns related to the tax equality of the de-minimis schemes in general. At the same time, an increasing number of such companies are either already expanding or considering to expand towards multi-channel sales and distribution systems, potentially enabling them also to benefit from the proposed higher de-minimis level for imports into the EU. It is an acknowledged trend that "digital technologies are transforming physical businesses rather than annihilating them" as Rigby (2014) states in his recent Harvard Business Review (HBR) Blog post entitled "E-Commerce Is Not Eating Retail". However, calls have been made to abolish the entire de-minimis regime due to competition issues. The recent report on the taxation of the digital economy (European Commission, 2014c) recommends that "the small consignments exemption is to be abolished… in order to create a level playing field between EU and non EU suppliers".

Views with other stakeholders

On a national governmental level, Ministries of Finance are normally in a key position to benefit from increased de-minimis levels: Customs and tax resources are no longer spent on collecting taxes of negligible value where the collection cost exceeds the tax amounts collected. While we estimate that revenues foregone would be small in relation to total collected amounts, it is possible that in some Member States the potential loss of negligible governmental revenues is considered to be a problem per se, independent of the "economic (non-)rationale". However, the overall impact would be positive: "Globally it would be beneficial, as trade flows would increase and administrative hurdles would go down – not only on trade and logistics, but also on Customs administrations", explains one of the experts.[38] Furthermore, much of the EU is still recovering from the consequences of the financial crisis, and facilitating trade would provide new business opportunities, thus providing new tax revenue. Regarding other Ministries such as Transport, Environment, Interior and Justice, the implications of higher de-minimis levels appear to be somewhat insignificant.

At the European Commission, the main de-minimis stakeholders are DG TAXUD and DG TRADE, both of whom appear to hold the view, at the time of the interviews (spring 2014), that the de-minimis should be maintained at current levels. This may of course change in the future, subject to the "overall political climate" within the European Institutions.

International organizations linked to global trade, trade facilitation, Customs administrations and related topics – including the OECD, UNECE, ICC and WEF[39] - appear to be strongly in favour of de-minimis levels where the total cost of tax collection and trade compliance does not exceed the revenues collected.[40]

6.3 Final recommendations

Based on all of the findings and conclusions presented above, **the main recommendations** of this study are as follows:

- **VAT de-minimis should be raised to 80 EUR from the current 22 EUR.**
- **Duty de-minimis threshold should remain at the current level of 150 EUR.**

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[38] Expert ERRR33

[39] Abbreviations stand for: Organization for Economic Co-operation and Development, United Nations Economic Commission for Europe, International Chamber of Commerce and World Economic Forum.

[40] For a brief summary on other possible impacts linked to changing de-minimis levels, please visit ANNEX X.

The approximate cost savings of the recommended increase of the VAT de-minimis threshold for EU economies – in the context of express carrier imports only – is estimated to be **32 Million EUR**, while the net effect on the total VAT revenue collected across the EU appears to remain insignificant**.** This change would have a number of other side benefits on economic activity, lean-government initiatives, and Customs authorities' improved focus on high priority tasks, among other side benefits described above.

In addition, based on the findings of this study, we recommend three specific future research actions related to the de-minimis regime.

1. **Develop an improved understanding of the costs faced by EU Customs administrations, to enhance policy and regulatory decision making in the future**

Determining the cost of VAT and duty collection across the EU Customs administrations has proven to be a challenging task. While the CBRA research team is grateful to those, approximately 15, administrations who replied to our in-depth questionnaire seeking to identify cost figures, significant shortcomings appear e.g. among the captured labour and technology costs. Our recommendation for the future is to develop further cost management approaches and techniques across EU Customs administrations as well as to increase their transparency. Regarding future research projects, we strongly recommend to investigate this important topic more thoroughly.

2. **Include the import volume and cost aspects of all logistics operators and transport modalities, to be able to calculate total cost savings driven by increased de-minimis levels in the future**

Regarding logistics and transport modalities, the core industry data for the study in terms of import records and processing costs were provided exclusively by the express sector. This means that – purposefully so – the import volumes and import process costs particularly of the postal sector, but also, to a lesser extent, freight forwarding linked to "non-express and non-postal" air, maritime, truck and rail imports, were not taken into account in this study. From a cost saving potential perspective, higher import volumes would naturally yield higher cost savings if de-minimis levels were increased. The actual de-minimis optimum level would on the other hand be impacted by the import processing cost and B2C% -differences between the various logistics sectors. Thus, we recommend seeking wider collaboration in the future across modalities to generate a more complete view on the volumes, values and the related costs.

3. **Investigate a variety of options for broader border-reform in the future**

Finally, considering a 5-10 year time horizon, the authors of this report recommend a study be undertaken of the various options for broad border-reform, going beyond the question of de-minimis levels and also following the recommendations from the recent report on the taxation of the digital economy (European Commission, 2014c). An example of such a study can be found in Australia (Australian Parliament, 2012). Such a study could explore entirely new avenues, as a comment from one of the interviewed experts well illustrates: "What about this broader border-reform idea: One could focus on cumulative imports during a calendar year - for example if an individual or a company stays under 2000 EUR, there would be no indirect taxes collected, independent of number of shipments".[41]

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[41] Expert ERRR19.

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