Import value *de minimis* level in selected economies as cause of undervaluation of imported goods

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Abstract

Undervaluation of goods imported by any country is a phenomenon observed daily by those involved in international trade. However, the reasons that goods exported from certain countries are accompanied by invoices showing deliberately lowered values that do not reflect the true value of the goods are not yet fully understood. It has been suggested that a willingness to avoid duties and taxes by those involved in foreign trade may be the sole reason for this behaviour. Undervaluation practices may also be caused by a misfit of existing regulations of some national economies, especially levels of import value *de minimis* levels and other types of trade facilitation measures. Using three hypotheses, this paper investigates whether a link exists between the European Union (EU) import duty and VAT *de minimis* levels and deliberate undervaluation below that threshold. Although the research was unable to prove a direct correlation between certain taxes and undervaluation, it indicates the need for greater understanding and cooperation between business and Customs to better ensure compliance with changing international trade regulations.

Background

Undervaluation of goods imported by any country is a phenomenon observed daily by those involved in international trade. However, the reasons that goods exported from certain countries are accompanied by invoices showing deliberately lowered values that do not reflect the true value of the goods are not yet fully understood. Obviously, there might exist various explanations of that behaviour, one of them being a sole willingness to avoid duties and taxes by those involved in foreign trade. Nonetheless, the undervaluation practices might also be caused by a misfit of existing regulations of given national economies (especially levels of import value *de minimis* levels and other types of trade facilitating measures) with the developing global economy. Therefore, this paper investigates whether there exists a link between the European Union (EU) import duty and VAT *de minimis* level and deliberate undervaluation below the *de minimis* threshold. Using samples derived from DHL Express operating systems, the paper focuses on known undervalued shipments coming into the EU from the Asia Pacific region with the aim of assessing whether EU import value *de minimis* level influences decisions of foreign traders to undervalue goods shipped to the EU.

The results of the research do not confirm the link's existence. They show that there exists a general trend to undervalue every commodity shipped to the EU, no matter what its country of destination, recipient or transaction value. The extent of undervaluation (degree of undervaluation) shows no correlation with the value to be declared to Customs. The analysis of the data gathered for this paper leads to the observation that no link exists between the duty and import tax *de minimis* level for the EU and the undervaluation

practices executed by foreign traders. Another conclusion from this research is that there is evidence of insufficient awareness by selling and buying parties in relation to international trade regulations. Consequently, this paper demonstrates the need for greater understanding of the motivation behind traders supplying undervalued invoices as well as the reasoning behind their methodology.

Introduction

The DP DHL group is the largest logistics company in the world, and we often observe certain manifestations of the informal economy in long-distance international trade. In our business these manifestations often take the form of lowering the declared value of goods on import with the potential consequence of avoiding duties and taxes – typical behaviour exhibited by those operating in the informal economy aimed at tax evasion.

Documentation (whether commercial, customs or pro forma invoices) accompanying or applicable to a consignment and being officially presented to Customs in the country of import for the purpose of customs clearance often show lowered values that do not reflect the true value of the goods. Although the practice of forging documents is illegal, it is often done in common agreement between the seller and the buyer with a shared benefit: the seller gains a sale of their goods and the buyer benefits by avoiding additional customs duties and taxes due on import.

We believe that, from an economic perspective, the above is one of the traits of the informal economy as a consequence of access being afforded to local entrepreneurs by the development of international transport. Such entrepreneurs have adapted their behaviour to exploit the opportunities of access to the global market offered by international transport and operating informally to capture a greater share of the market place. At the same time, such informal economic activity might be indirectly pointing towards revealing a correlation between certain important regulatory traits of the formal economy such as levels of import value for the *de minimis*. The aim of this paper is to contribute to the knowledge of the informal economy by dispelling some of the existing assumptions and to better define its concept. We investigate whether the above-mentioned practice (undervaluation of goods exported from certain countries to the EU) is the sole demonstration of a willingness to avoid duties and taxes (or to limit their amount) or whether there are other factors which drive such behaviour that is not yet fully understood.

It is not in our intention to discuss all possible facets of the informal economy, rather to point out some of its characteristics. As the paper focuses on the undervaluation of imported goods and a possible link to import value *de minimis* levels, it is important to place this subject in a broader context to show that undervaluation of imported goods is one of the manifestations of the informal economy and as such is a global problem existing in every country in the world to a greater or lesser extent.

The informal economy in an international trade context

The informal economy can be analysed from a legal perspective to establish where a borderline of formally designated legality runs. However, the needs of public administrations should also be taken into consideration as there exists a need for an accurate record of economic performance in the country or region. Without such data, governments cannot forecast and budget for revenue collection and subsequent expenditure. The informal economy² is not only difficult to analyse but even more difficult to evaluate as it is bringing both negative and positive effects to society and the economy.³ Furthermore, by its very nature, the activity is either completely hidden or heavily disguised. Looking at it only from an economic perspective and assessing its constraining influence on growth, the informal economy:⁴

- absorbs resources needed for production
- lowers efficiency of economic entities

- gives an untrue picture of the size of the national or regional economy
- lowers prestige of the state
- makes international benchmarking unreliable
- flaws the governing of social security systems in countries and regions
- · lowers budget revenue
- makes it difficult if not impossible to quantify actual levels of employment
- is closely linked to general illegal and criminal activity dragging otherwise law abiding citizens into a situation from which it is difficult to escape
- can lower tax morality if not tackled.

The list does not cover all the characteristics of the informal economy; however that economy can in certain circumstances offer some benefits.⁵ It:

- contributes to actual economic progress
- provides high return on investment that can be further used within formal economy boundaries
- · can contribute to capital accumulation forcing actors from the informal into the formal economy
- assists globalisation by weakening the impact of radical transformation processes
- · eases the effects of crises
- opens possibilities for creation of employment
- weakens isolation and alienation of people faced with officially structured and conventional organisations, especially of state administrations.

Although it is impossible to put a common scale on evaluating the pros and cons of the informal economy, one aspect can be clearly pointed out: the informal economy cannot exist on its own: it is always connected with its opposite – the formal economy. In this perspective, it is a persistent phenomenon with various situational manifestations. This is how we consider the informal economy in international trade:

- as a manifestation of institutional adaptation of society to challenges following development of the formal economy
- as an indirect but firmly and practically applied exploitation of the formal economy.

From an economic perspective, the informal economy is a significant area of economic activity which is not taxed. As such it is an area of potential revenue for the state and local budgets, so there exists the aspiration to tax illicit revenues gained by economic actors; the theoretical 'tax take'.

In this light, one can assume that developments in the formal economy, leading to an increase in duties and taxes placed on an individual's actions could cause them to adapt their behaviour to limit their exposure to taxes. The informal economy, being an expression of criticism of the formal economy, leads also to an exposure of such features of the official economy which points towards its maladjustment. In this way, the informal economy is induced by a misfit of aims of the economic system of a given country/ area and its instruments (observed as an extension of the regulated market as well as an extension of the presence of the state), extracting it from the economy *tout court*.⁶

When translated into the sphere of international trade, the first aspect can be connected to local markets opening for world influence, with diffusion of consumptionist patterns of living, generally – with globalisation. These manifestations of globalisation lead to much easier access to information and larger (and faster) availability of various goods from countries worldwide. As the possibility in sourcing goods wherever in the world becomes easier and usually cheaper, the duties and taxes imposed by the country of import (as well as any possible limitations in exports in the country of production) on these goods start to be perceived as way too high, especially by private individuals sourcing consumption goods. Thus the informal economy in international trade can be observed as the result of a misfit of such trade facilitation measures as *de minimis* levels with the needs and expectations of the world community.

De minimis level, according to the United Nations Economic Commission for Europe's (UNECE) Trade Facilitation Implementation Guide is 'a valuation ceiling of goods, including documents and trade samples, below which no duty or tax is charged and clearance procedures, including data requirements, are minimal'. This is based on the Latin expression 'de minimis non curat lex' meaning 'the law does not bother (concern) itself with trifles'. In the European Union (EU), where – apart from obligatory customs duty to be paid on imports on most of the goods – the tax on importation is VAT, the de minimis threshold:

- for customs duty was established at ECU10¹⁰ by regulation 918/83 (OJ L 305); increased to ECU22 by regulation 3357/91 (OJ L 318); increased to EUR150 by regulation 274/2008 (OJ L 85)
- for VAT was implemented by Directive 83/181/EEC (OJ L 105) which allowed Member States to
 individually exempt imports of goods of negligible value not exceeding ECU22; EU-wide obligatory
 exemption at EUR10 was imposed by Directive 2009/132/EC (OJ L 292), which also made it possible
 to increase this threshold up to EUR22 by individual Member States.

From the above it results that, in fact, in the EU an obligatory exemption from VAT applies only for goods of value not exceeding EUR10. Having in mind that most of the EU Member States however used the right to increase this threshold to EUR22, as of November 1991 we can speak (for the purpose of this paper) of exemption from duties and import VAT of goods which value does not exceed EUR22 (that is, only then are both the customs regime and the VAT regime allowed to set *de minimis* at EUR22).

Both aspects that have been discussed in this paper: globalisation with easy access to information, and large (and fast) availability of various goods from countries worldwide and the established duty and import tax *de minimis* levels, might thus be causing the appearance of specific behaviour of traders – they aim to lower the duty and tax burden imposed on their goods in the country of destination by undervaluing their declared value at import. Such practices are observed worldwide, causing problems for both customs authorities as well as for business and individuals in that they hamper legitimate trade by focusing customs authorities' attention on – sometimes – trivial cases while larger crimes may go undetected.

In this light it is also problematic for a company like DHL Express, operating a worldwide network in more than 220 countries and territories with more than 500 airports globally, providing courier and express services to business and private customers, where our overall top priority is to act in full compliance with customs and other international legislation. The task of being absolutely and completely compliant with customs regulations (correct valuation for customs purposes being one of its crucial features) means that there is a strong focus on potential cases of undervaluation.

For DHL Express, as for any other express operator, acting usually as a customs representative on behalf of both sides of an international commercial transaction, declaring undervalued goods to Customs can lead to potentially negative consequences (we assume there is no need here to discuss them in any detail). Therefore, preventing such cases from occurring is one of the challenges for not only DHL but for all types of freight forwarders and customs brokers worldwide.

For that reason, both reporting tools and preventative measures are being consistently applied and constantly updated to meet the demand of a fast-moving environment and respond to changing trends.

Research questions

The application of various sophisticated tools allows us to identify some cases of undervaluation before the goods are declared to Customs. Usually, this is done by establishing contact with the consignee (receiver of the goods, who in most cases is also the purchaser) to check whether the price of goods listed on the invoice accompanying the shipment of a given commodity is in fact in line with the payment

for this commodity effected by the consignee (or their representative) to the consignor (in most cases the seller from abroad). By doing this we can build up a record of consignors executing undervaluation practices as well as – sometimes – gather evidence of the actual process of establishing the declared (by parties of the transaction) and invoiced price of the goods, that is, the price which is then supposed to be the declared value for these goods at import into the destination country/region.

Consistent work in this field, applied worldwide, allows us to analyse this data in view of the following research questions:

Why is the declared value of goods (invoiced value) different from the actual value (payable), and in particular, is there a link between de minimis level and deliberate undervaluing below the de minimis threshold of EUR22?

This analysis would allow us to assume that trade facilitation, such as the *de minimis* threshold, being one of the traits of the formal economy, is causing the emergence of informal practices manifesting themselves through deliberate undervaluation of goods by traders from third countries (with or without active cooperation with the receivers of goods in the country/region of import). In this way it should allow us to say whether the import value *de minimis* level directly influences the decision to undervalue imported goods.

To assess the existence of such a link, the following hypotheses are put forward:

- (H1) If the transaction value of any commodity differs from its declared value at any level of the transaction value (even if sometimes arriving below the *de minimis* threshold), the link does not exist.
- (H2) If the transaction value of any commodity differs from the declared value in such a way that –
 different to the actual transaction value the declared value is always below the *de minimis* level,
 the link exists.
- (H3) If the transaction value of commodities sent by a single supplier to various recipients in the EU, where this value is identical (leading to the assumption that the commodities the subject of transaction are also identical), differs from the declared value to the same extent and, especially, is always below the *de minimis* level, the link exists.

These hypotheses are further extended by evaluating existing documentary evidence gathered during the process of establishing the correct value of imported goods from parties involved in transactions. This source of knowledge, apart from supporting or negating the outcome of previous hypotheses, could also shed some light on the question of why the practice of undervaluation is taking place from the perspective of transaction parties. This becomes even more important if the verification of the hypotheses proves to be inconclusive.

Data description

Data on which this paper is based (DHL Express record of cases where the declared value was confirmed to be different to the price actually paid/payable for the goods [true transaction value]), covers the period from the beginning of August 2012 until mid-April 2013 (week 31 to week 15, that is, eight and a half months).

This data shows 22,328 cases of shipments destined for EU Member States with confirmed undervaluation, however this number is negligible taking into consideration the high volume of shipments that were transferred by DHL Express during this period. This record shows the following spread:

- 22,100 cases of confirmed undervaluation with average degree of undervaluation at 74.67%;¹¹
- 72 cases of confirmed overvaluation with average degree of overvaluation at 1,089.19% (the highest difference amounting to 6,618.82%, where declared value was EUR12,270.58 and transaction value EUR185.39);

• 156 cases of confirmed under- or overvaluation with the difference between paid/payable value and declared value being below EUR1 (and thus insignificant for the purposes of this paper).

As the aim of this paper is to evaluate the existence of a possible link between the *de minimis* value (established at EUR22 for the purposes of the research) and the actual value of transactions, the cases of overvaluation are not analysed further. However, their existence should be taken into consideration as they are also believed to provide some important insight into the whole subject.

The cases where the difference between declared value and paid/payable value is lower than EUR1 were analysed to the extent of checking whether any of them follow the scenario whereby the paid/payable value is above EUR22 while the declared value is below EUR22. No such cases were discovered, therefore it is justified to treat these occurrences as potentially minor errors and exclude them from further analysis.

H1 verification

The first hypothesis (H1) assumes that if the transaction value of any commodity differs from its transaction value at any level of the transaction value (even if sometimes arriving below the de minimis threshold), the link between the de minimis level and deliberate undervaluation does not exist.

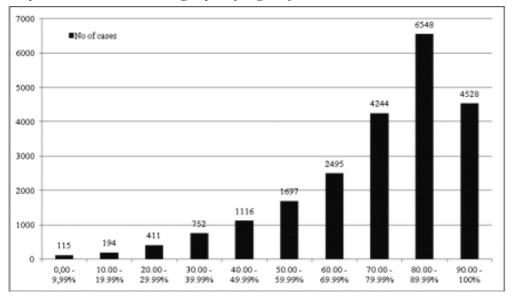
Focusing on 22,100 cases of confirmed undervaluation shows that undervaluation cases span from as little as EUR1.02 (0.05% of the paid/payable value) to as much as EUR1,191,616.19, that is, 99.96% of the paid/payable value). Table 1 and Graph 1 provide visual representation of these findings.

Table 1: Undervaluation cases grouped by degree of undervaluation

115	194	411	752	1,116	1,697	2,495	4,244	6,548	4,528
9.99%	19.99%	29.99%	39.99%	49.99%	59.99%	69.99%	79.99%	89.99%	100%
0.00 -	10.00 -	20.00 -	30.00 -	40.00 -	50.00 -	60.00 -	70.00 -	80.00 -	90.00 -

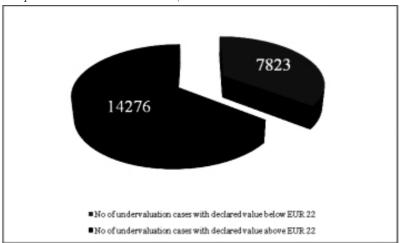
Source: Authors' calculations.

Graph 1: Undervaluation cases grouped by degree of undervaluation



Source: Authors' calculations.

Taking into consideration that this paper focuses on a possible link between the *de minimis* value (assumed to be at EUR22) and the undervaluation practices, the threshold of EUR22 of declared value was used to spread the data sample of the 22,100 cases into two sub-samples, covering (a) cases where the declared value was below EUR22 and (b) where the declared value was equal to or above EUR22. It resulted in 7,823 cases where the declared value was below EUR22 and 14,276 cases where the declared value was above EUR22. Graph 2 presents these cases in general (to visualise significant differences in the number of cases where the declared value was below EUR22 and above EUR22), while the spread of undervaluation cases in each of the sub-samples is shown in Table 2 and on Graph 3.



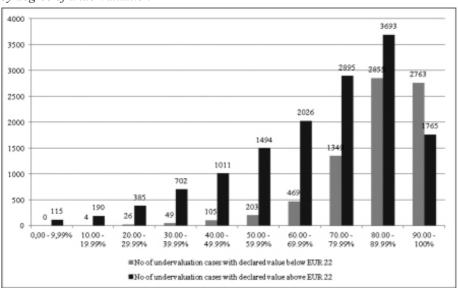
Graph 2: Undervaluation cases (declared value below and above EUR22 shown separately)

Source: Authors' calculations.

Table 2: Undervaluation cases (declared value below and above EUR22 shown separately) grouped by degree of undervaluation

	Declared value		
	< EUR22	> EUR22	
0.00 - 9.99%	0	115	
10.00 - 19.99%	4	190	
20.00 - 29.99%	26	385	
30.00 - 39.99%	49	702	
40.00 - 49.99%	105	1,011	
50.00 - 59.99%	203	1,494	
60.00 - 69.99%	469	2,026	
70.00 - 79.99%	1,349	2,895	
80.00 - 89.99%	2,855	3,693	
90.00 - 100.00%	2,763	1,765	

Source: Authors' calculations.



Graph 3: Undervaluation cases (declared value below and above EUR22 shown separately) grouped by degree of undervaluation

Source: Authors' calculations.

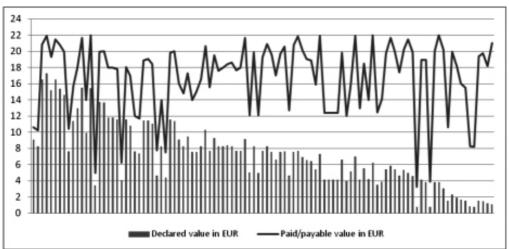
One can observe from the graphs that cases where the declared value was indicated by the traders to be below EUR22 are in the minority, representing only 35.40% of all undervaluation cases recorded between August 2012 and mid-April 2013 in the DHL Express network EU-wide.

An interesting outcome shows the analysis of the cases of declared value set by the traders below the *de minimis* threshold (below EUR22). Out of 7,823 recorded cases, 105 represent shipments where the paid/payable value was already below EUR22. Such shipments would in any case be admitted to the territory of the EU without duties and taxes on import. Nevertheless, they are still undervalued, with the degree of undervaluation spanning from 14.17% to 94.68%, being much lower on average (56.88%) than the degree applied to other shipments in the scope of the whole analysis (74.67%), which can be attributed to generally lower value of these shipments (making it hard to undervalue them more). Table 3 and Graph 4 provide some visualisation of that situation.

Table 3: Degree of undervaluation of shipments with declared value below EUR22 (paid/payable value below and above EUR22 shown separately)

	Paid/payable value		
	< EUR22	> EUR22	
0.00 - 9.99%	0	0	
10.00 - 19.99%	2	2	
20.00 - 29.99%	12	14	
30.00 - 39.99%	13	36	
40.00 - 49.99%	11	94	
50.00 - 59.99%	14	189	
60.00 - 69.99%	23	446	
70.00 - 79.99%	14	1,335	
80.00 - 89.99%	9	2,846	
90.00 - 100.00%	7	2,756	

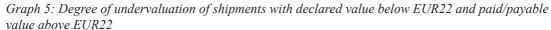
Source: Authors' calculations.

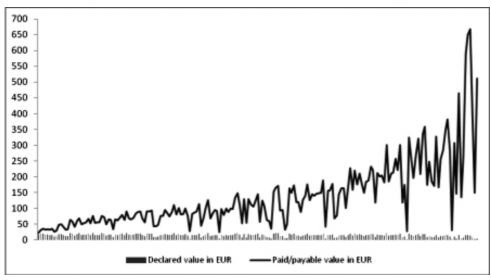


Graph 4: Degree of undervaluation of shipments with declared value below EUR22 and paid/payable value below EUR22

Source: Authors' calculations.

Similarly interesting is the outcome of analysis of the cases where the declared value was set by the traders to be below the *de minimis* threshold of EUR22, while the paid/payable value for the goods was above EUR22. For the bulk of them (7,572 cases out of 7,718, that is, 98%) the paid/payable value was decreased more than 50%. For the sake of visibility, Graph 5 shows every 40th case (approximately 2.5%) of the recorded cases as a comparison of values declared (columns) and paid/payable (line); only values below EUR1,000 are depicted.





Source: Authors' calculations.

Graph 6 shows the same approach applied to shipments with declared value above EUR22 and a paid/payable value also above EUR22. As the number of such occurrences is 14,277 in the available sample, only 0.9% of cases (every 100th case) was taken into consideration in drafting this graph; for the sake of clarity and visibility, only values below EUR3,000 are depicted.

3000 | 2900 | 2800 | 2700 | 2600 | 2500 | 2200 | 2100 | 2200 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 21

Graph 6: Degree of undervaluation of shipments with declared value above EUR22 and paid/payable value below EUR22

Source: Authors' calculations.

A simple comparison of Graphs 4, 5 and 6 shows a very similar approach taken by the traders in respect of the degree of undervaluation. In all recorded cases the same pattern seems to be followed, that is, the general trend is to undervalue every shipment, no matter what its paid/payable value. The extent of that undervaluation (degree of undervaluation) shows no correlation with the value actually declared.

This would lead one to the conclusion that the first hypothesis (H1) was verified positively, that is, it has been confirmed that the transaction value of any commodity differs from its declared value at any level of the transaction value (sometimes arriving below the *de minimis* threshold). Consequently, it was not possible to confirm existence of a clear link between the *de minimis* level and deliberate undervaluation.

Although the data analysis provided within the scope of verification of the first hypothesis is, in the opinion of the authors, already conclusive and supports the analysis that there is no link existing between the duty and import tax *de minimis* level for the EU and the undervaluation practices executed by foreign traders, further testing and analysis of the data was carried out to verify the remaining two hypotheses.

H2 verification

The second hypothesis (H2) is that if the transaction value of any commodity differs from the declared value in such a way that – indifferent to the actual transaction value – the declared value is always below the de minimis level, the link between the de minimis level and deliberate undervaluation exists. The aim is to check empirically whether the de minimis threshold, set at EUR22, is triggering a specific behaviour in traders to deliberately decrease the transaction value to benefit from duty and import tax relief. It has not been proved.

The available data show occurrences of the cases where the paid/payable value was in fact decreased below the EUR22 level (7,823 out of 22,100 cases covered by the analysis) but it also shows that the lowering of the transaction value takes place (to some extent) within the whole sample, no matter what the paid/payable value or the resulting declared value. Insight into that statement is provided in Table 4, showing samples of recorded cases with proven undervaluation for each of the categories of undervaluation degree (exemplary cases for each of the undervaluation degree levels were chosen randomly). As can be observed there is no link between the transaction value and declared value which would demonstrate a clear intention to lower the transaction value to any specific level, especially below the *de minimis* threshold.

Table 4: Exemplary data on undervaluation in each of the categories of undervaluation degree

	Declared value in EUR	Transaction value in EUR	Difference between declared and transaction value (in EUR)	Degree of undervaluation (in %)
	17.29	21.90	4.61	21.07%
Cases where	9.91	14.00	4.09	29.22%
declared value	11.43	18.87	7.43	39.39%
and transaction	10.32	20.67	10.35	50.09%
value are both	7.58	19.70	12.12	61.52%
lower than	5.55	18.49	12.94	70.01%
EUR22	3.03	20.19	17.16	84.98%
	1.48	19.77	18.30	92.54%
	21.93	26.48	4.55	17.18%
	19.22	69.20	49.99	72.23%
Cases where	14.88	69.42	54.55	78.57%
declared value is	11.55	69.63	58.08	83.42%
below EUR22 and	7.62	57.93	50.31	86.84%
transaction value is above EUR22	20.36	198.12	177.76	89.72%
is above EUR22	15.48	198.60	183.12	92.21%
	13.47	279.90	266.43	95.19%
	8,819.98	8,835.90	15.92	0.18%
	16,147.64	25,378.70	9,231.06	36.37%
	96.10	184.98	88.88	48.05%
	75.81	169.47	93.66	55.27%
	41.70	109.92	68.22	62.07%
	23.86	72.99	49.13	67.30%
Cases where	22.87	74.89	52.02	69.47%
declared value	46.19	168.59	122.40	72.60%
and transaction value are both	31.25	128.74	97.48	75.72%
above EUR22	26.45	120.89	94.45	78.12%
above EUR22	22.45	117.04	94.59	80.82%
	516.43	3,220.33	2,703.90	83.96%
	22.13	155.98	133.85	85.81%
	246.06	2,203.00	1,956.94	88.83%
	22.17	300.00	277.83	92.61%
	446.28	31,200.00	30,753.72	98.57%

Source: Authors' calculations.

In this respect, no qualitative difference between lowering the paid/payable value of traded goods below EUR22 as below any other level was established. Therefore the second hypothesis (H2) was verified negatively.

H3 verification

To test the third hypothesis (H3) which reads: *if the transaction value of a commodity sent by a single supplier to various recipients in the EU, where this value is identical (leading to the assumption that the commodity is also identical), differs from the declared value to the same extent and, especially, is always below the de minimis level, the link between the de minimis level and deliberate undervaluation exists.* Of the 22,100 identified undervaluation cases, the condition: 'same supplier, same paid/payable value, same period of year (week +/- 1)' was met by 571 pairs and in 114 cases in triples or more of shipments (the overall number of shipments fulfilling the criteria was 1,803). The degree of undervaluation was from 15.36% to 99.68% (76.38% on average), that is, not significantly different from within the whole sample as discussed under the first hypothesis verification above with the average degree of undervaluation arriving at:

- 81.49% in the case of 1,161 shipments (64.40%) where the declared value was below EUR22 and the transaction value above EUR22 (undervalued below the *de minimis* threshold),
- 67.05% in the case of 638 shipments (35.39%) where the declared value and transaction value were both above EUR22 and
- 66.67% in the case of only 4 shipments (0.23%) where the declared value and transaction value were both under EUR22. Table 5 shows this spread.

Table 5: Degree of undervaluation among cases fulfilling condition: 'same supplier, same paid/payable value, same period of year'

	Cases with declared value and paid/payable value below EUR22	Cases with declared value below EUR22 and paid/ payable value above EUR22	Cases with declared value and paid/payable value above EUR22
No. of shipments	4	1,161	638
Average degree of undervaluation	66.67%	81.49%	67.05%

Source: Authors' calculations.

Of the 1,803 shipments, 1,310 were identified as having (in pairs or triples or more occurrences) exactly the same degree of undervaluation and being supplied by the same suppliers to various recipients in several EU countries. In turn, the rest, that is, 493 shipments, were showing a significantly different degree of undervaluation (usually in pairs or triples) although they were supplied in the same time (week +/- 1), by the same supplier and their transaction value was identical. The random selection of these 493 cases is shown in Table 6.

Table 6: Cases where declared value of shipments differed although their transaction value was identical (same supplier in each case)

Origin Country	Destination Country	WK	Declared value in EUR	Paid/ payable value in EUR
HK	BG	31	16.53	37.19
HK	AT	31	12.40	37.19
CN	DE	46	23.07	39.00
CN	LU	45	15.38	39.00
HK	IE	6	29.51	66.40
HK	DE	6	22.13	66.40
HK	PL	12	34.30	72.41
HK	DE	13	16.77	72.41
HK	IE	42	22.85	75.59
HK	DE	43	17.03	75.59
HK	DE	45	46.14	76.89
HK	HU	45	34.60	76.89
HK	LU	45	23.07	76.89
HK	DE	45	15.38	76.89
HK	DE	49	32.33	89.99
HK	DE	49	31.56	89.99
HK	DE	49	30.02	89.99
HK	DE	50	30.79	89.99
HK	DE	50	29.25	89.99
HK	AT	4	47.00	90.97
HK	DE	5	37.91	90.97
HK	DE	4	22.74	90.97
HK	GB	5	81.12	110.35
HK	GB	5	58.38	110.35
HK	AT	9	25.82	121.72
HK	DE	9	14.76	121.72
HK	IE	50	23.09	124.00
HK	DE	50	15.40	124.00

Origin Country	Destination Country	WK	Declared value in EUR	Paid/ payable value in EUR
HK	SI	52	34.64	169.36
HK	DE	52	7.70	169.36
HK	LV	43	116.10	175.70
HK	DE	43	97.52	175.70
HK	DE	44	69.66	181.89
HK	DE	45	12.30	181.89
HK	DE	9	81.14	204.98
HK	AT	9	66.39	204.98
HK	IE	38	66.12	231.40
HK	DE	37	16.53	231.40
HK	DE	47	117.49	232.00
HK	PT	46	99.19	232.00
HK	DE	9	143.86	250.84
HK	SI	9	36.89	250.84
HK	LV	49	46.19	269.44
HK	FR	49	3.46	269.44
HK	HU	11	198.19	472.60
HK	PL	11	76.23	472.60
HK	SI	34	82.64	482.64
HK	PL	34	49.59	482.64
HK	DE	11	228.68	514.52
HK	SI	11	45.74	514.52
HK	SI	42	61.92	542.57
HK	PL	42	38.70	542.57
HK	PL	48	384.47	858.90
HK	SI	48	253.75	858.90

Source: Authors' calculations.

The data and analysis above clearly prove that the third hypothesis (H3) is also verified negatively, especially given the following:

- the transaction value of (assumed) identical commodities supplied in the same time and by the same supplier to various recipients in EU countries has not been decreased by the same degree in all cases; in fact, the declared and paid/payable values were not always different to the same extent even if the equally priced commodity was supplied by the same trader
- only in 64.40% of cases did the undervaluation arrive at declared value being below the *de minimis* threshold of EUR22 with the average degree of undervaluation being not significantly different from the degree of undervaluation applied to any other commodity.

Further documentary evidence

During the process of establishing the correct value of imported goods, a process that involves directly contacting both parties in a transaction, we face numerous examples of why the Chinese and Hong Kong traders undervalue shipments directed to EU recipients. A noteworthy example is quoted from an email between a Hong Kong supplier of clothes (dresses, mostly) and its Finnish customer: '... As for the custom's invoice issue, as is known to all, it is very common to be charged a customs import duty tax while shopping overseas. Therefore, we usually put a nominal price that is much lower than the real one to help bring down the risk. Hope you can understand ...'.

Such an example brings forward at least the following assumptions:

- the foreign suppliers know that customs duty and tax is being charged in the importing country, however the expression 'it is very common (that the duty is due)' suggests that they do not really know why the duty is charged and while being aware that sometimes, in fact, it is not charged they do not associate it with certain features of EU customs law (exemptions from duty, in particular, like the *de minimis*)
- the foreign suppliers tend to assume that undervaluing their supplies makes the recipient less prone to some kind of risk (we assume that by this they mean 'risk of paying high duty and tax').

In many cases, the practices executed by the foreign traders in the scope of producing customs invoices which show different values of traded goods to the values actually charged, are in fact hampering proper and fast clearance, necessitating the need for post-clearance modification processes, unnecessary administrative burdens and additional costs to all businesses, private individuals and customs administrations

Conclusions

Contrary to what was, at the time of engaging in this research, assumed by the authors, analysis of the data leads to the conclusion that no link exists between the duty and import tax *de minimis* level for the EU and the undervaluation practices executed by foreign traders. At least, the data available to the authors do not confirm the existence of such a link. Consequently, the results of this research indicate that the informal economy, other than that based on cultural customary behaviour, is embedded in the structural setup of certain international businesses. It is to be seen as a 'commercial reflex' by trading parties to harness the complexity of international trade rules and the disconnect between national and global regulation. In this context, they believe they have a better than average chance of benefiting from consequent inadequate controls of their trade by regulators. As we witness an increasing focus on tax compliance and consequent enforcement of tax legislation, at least in the EU, this should be seen as one of the main contributors to a mitigation of or even a solution to the problem. A recommendation would be to instigate a communication strategy between trading blocs worldwide. This communication could publicise the fact that the issue of undervaluation is well known and is being focused on by regulators, enforcement authorities and carriers.

Although this research is not primarily aimed at the international regulation of commercial transactions but rather focuses on the impact of value declaration, it is considered relevant to refer to the Vienna Convention, better known as the CISG,¹² on the contracts for the international sale of goods. This treaty sets out specific rules for contracting and other parties relevant in the context of an international sale. Because the value of the goods is an integral subject of the treaty, there could exist an opportunity to perform research as to its application by buyers who could theoretically hold that the price of the goods mentioned on the commercial invoice does not match the actual amount that is claimed by the seller.

As is usually the case with international law, the treaty is subject to ratification by signatories and also holds the right for reservations upon ratifying. It is ratified by 79 countries.¹³

One conclusion from this research is that based on the figures and comments analysed, there is evidence of a lack of understanding by selling and buying parties of international trade regulations. Indicators for this are the fact that undervaluation, with an aim to avoid import duties, is often irrelevant as an increasing number of commodities are not subject to import duties when importing into the EU; a trend which has been ongoing for years. Customs duties, although a primary source of revenue for most countries, have been continuously reduced or even abandoned through growing global trade and the efforts of institutions such as the World Trade Organization (WTO). This makes customs duties in general a marginal tax compared to say, VAT in the EU.

It is apparent that where there is a link to avoiding taxes on import, the main reason for the practice of undervaluation is to avoid these higher taxes, such as VAT. In contrast to customs duties, this type of indirect tax sees an increasing trend in rates, and a focus on compliance and enforcement, triggering reflexes by sellers and buyers for tax avoidance.

This paper, while not proving a direct correlation between certain taxes and undervaluation, has demonstrated the need for greater understanding of the motivation behind traders supplying undervalued invoices as well as the reasoning behind their methodology.

If policymakers are to increase their influence on compliance, there needs to be further research in this field to ensure that any regulatory solution is targeted in a way that reflects the change in international trade, particularly in the Business-2-Customs (B2C) arena, thereby maximising its effectiveness in changing behaviour.

Notes

- 1 K Hart 2013, *Informality, international trade and customs* (Call for papers), International Conference, World Customs Organisation-World Bank, Brussels, 3-4 June.
- 2 We use this definition although many others are possible and used; see, for example, PM Gutmann 1985, 'The subterranean economy', Financial Analysts Journal, vol. 33, November–December, or A Sauvy 1984, Le travail noir et l'economie de demain, Calmann-Lévy, Paris, for available terms.
- 3 Further, as it maintains its presence for such a long time, in so many various circumstances, many forms and so commonly, it must fulfil certain deep and important functions; this makes it all the more interesting.
- 4 P Kozłowski 2004, Gospodarka nieformalna w Polsce. Dynamika i funkcje instytucji, Instytut Nauk Ekonomicznych PAN, Ziggurat, Warsaw, pp. 7-11.
- 5 See Note 4.
- 6 K Hart 1973, 'Informal income opportunities and urban employment in Ghana', *Journal of Modern African Studies*, vol. 11, no. 1, pp. 61-89.
- 7 N Dannhaeuser 1898, 'Marketing in developing urban areas', in S Plattner (ed.), Economic anthropology, Stanford, pp. 222-53.
- 8 See fig.unece.org/contents/de minimis.htm.
- 9 Edward G Hinkelmann 2008, Dictionary of international trade, 8th edn, World Trade Press.
- 10 European Currency Unit. In the period from 13 March 1979 to the end of 1998, the ECU was a basket currency made up of the sum of fixed amounts of 12 out of the then 15 currencies of the EU Member States. The value of the ECU was calculated as a weighted average of the value of its component currencies. The ECU was replaced by the euro on a one-for-one basis on 1 January 1999. See: www.ecb.europa.eu.
- 11 Degree of undervaluation is calculated as follows: 'undervaluation amount' (that is, 'transaction value' minus 'declared value') divided by 'transaction value' multiplied by 100%.
- 12 United Nations Convention on Contracts for the International Sale of Goods, Vienna, 11 April 1980.
- 13 Status as per 6 March 2013; note that Hong Kong, along with the United Kingdom is one of the major absentees.

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