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RELIABILITY OF UNDERINVOICING REVEALING METHODS: CASE STUDY UKRAINE

Abstract. *Goods mispricing in international trade is regarded as customs fraud according to the WCO typology and reveals itself as a great challenge for customs and tax bodies all over the world. Revenue losses, tax avoidance, mispricing and other types of fraud create significant obstacles in the development of the social sphere, especially in the government programs implementing, which in the long run has a very negative impact on the investment climate and the development of national economies in general. Empirical data are examined to estimate accuracy and reliability of certain methods of statistical analysis in the context of targeted control enhancing. The benefits of multistage approach are shown, which can be used to reveal possible violations of customs law and prevent significant under-invoicing of imported goods.*

The objective of this research is to study the basic features of the most widely applied methods of abnormal pricing estimation and to examine a possibility to combine two mainly applied approaches to enhance robustness of the obtained data and credibility of the analysis results. An attempt is made to define basic efficient tool which could be used by customs authorities for further development of customs value control strategy.

To accomplish the research task, general scientific methods are applied, such as inductive logic, comparative and statistical analysis as well as generalisation.

The main points of widely applied mirror data analysis and price filter method are examined focusing special attention on the shortcomings and ways to diminish possible mistakes. Crucial role of appropriate statistical data and other available information using is shown to reveal potential underinvoicing, tax avoidance and other fraudulent trade activities. Possibilities of the two-staged statistical analysis of customs value indices as risks-oriented mechanism in national customs valuation database are investigated. The calculated figures show noticeable discrepancies in customs values declared at export and import. The paper identifies advantages of multistage analysis of available trade statistics data to facilitate the customs valuation control targeting and further process automation.

Keywords: *customs value, abnormal price, price filter method, mirror trade statistics.*

Introduction

The most negative effects of this phenomenon are a significant reduction in budget revenues, corruption and shadowing of the economy at the macroeconomic

and national levels, noticeable complications for legal business because of the implementing of additional burdensome control measures and distortion of the competitive market environment. In a broader sense, this creates significant obstacles in the development of the social sphere, especially in the government programs implementing, which in the long run has a very negative impact on the investment climate and the development of national economies in general.

Literature review

The problem of misinvoicing was considered from different points of view by many researchers among them: Carton, C. & Slim, S. (2018); Hien, T. (2017); Lemi, A. (2019) both in the context of studying best ways to assess trade data discrepancies, as well as the causes and conditions of this phenomenon. Much of research has been conducted in the framework of the fight against Illicit Financial Flows (hereinafter – IFF). Despite some concerns about a uniform definition of the IFF, the scope of the term covers the core concept of cross-border movement of capital associated with illegal activities. M. Forstater denotes narrow definition of illicit financial flows as "a range of activities including hiding the proceeds of crime, drug trafficking, and embezzlement; channeling funds towards criminal destinations, such as bribery or terrorism; misreporting transactions in order to evade tariffs or taxes; and capital flight in disobedience with currency controls" (Volpato & Rajan, 2019).

Despite a number of shortcomings, which will be discussed below, many researchers use mirror statistics data of different levels of disaggregation (Hiding in Plain Sight, 2014). In order to avoid possible misunderstanding or wrong conclusions when using mirror analysis and enhance robustness, the price filter method is widely used recently. Most empirical research, therefore, focuses on finding the optimal means to determine asymmetry in the trade balance and discrepancies in trade statistics, as well as ways to estimate the amount of lost income.

Such studies have been conducted in the last two decades, using data from various countries in Europe, Asia and Africa, as well as the United States, mainly to study the problem of capital illicit outflow from developing countries and illegal money laundering by over-and under-estimating the value of goods. In-depth analysis of trade data discrepancies and lost income estimates, based on trade statistics of Hungary, Montenegro, Ghana, ASEAN countries, Switzerland revealed not only gaps in reported information which need to be further explained but also a lot of features of this method applying, such as different approaches to main results interpretation Cobham, A. & Janský, P. (2020).

Metods

The most large-scale researches in this area were conducted by experts from Global Financial Integrity (hereinafter - GFI), an international non-governmental organization focused on combating IFF, corruption, illicit trade and money laundering. The information presented in the GFI reports refers to generalized and detailed indicators of foreign bilateral trade between and among 135 developing countries and 36 advanced economies showing IFFs estimates, mismatches in trade data (Bilateral Trade Asymmetries, 2018).

Results

GFI experts examine data submitted by governments each year to the United Nations COMTRADE database using a partner-country analysis to compare and contrast the differences between any set of two countries in order to help identify the countries "most likely at risk for trade misinvoicing (and therefore, significant government revenue losses), and to recommend policy measures to combat trade misinvoicing to customs authorities in-country and those of their major trading partners" (The magnitude of trade misinvoicing in Ghana and Hungary, 2021). According to GFI's definition, "trade misinvoicing is the act of the deliberate manipulation of the value of a trade transaction by falsifying, among others, the price, quantity, quality, and/or country of origin of a good or service by at least one party to the transaction" (Mirror Analysis Summary Report, 2015).

In GFI study by Kar, D. & Spanjers, J. (2014) the following figures calculated for the period 2002-2011 according to the GFI methodology applying mirror analysis of trade statistics were announced (Table 1).

**Table 1. Illicit Financial Flows from Developing Countries:
Current (2013) and Previous (2012) Estimates,** (billions of US dollars)*

Research year	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
2013	270,3	301,5	384,5	498,9	511,4	594,0	789,5	770,3	832,4	946,7
2012	299,8	359,0	490,0	615,1	588,7	669,9	871,3	776,0	858,8	

as defined by GFI (Mirror Analysis Summary Report, 2015)

The sum of the value gaps identified in trade between 135 developing countries and 36 advanced economies over the ten-year period 2002-2011 was estimated at $5.9 trillion. The sum of the value gaps identified in trade between 135 developing countries and 36 advanced economies over the next period 2008-2017 heightened to $8.7 trillion. The following findings were shown in the GFI Report published in 2020 (Table 2).

Table 2. Illicit Financial Flows from Developing Countries: 2018 Estimates,
(billions of US dollars)*

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Sum of All Value Gaps	841.4	643.6	824.7	994.1	944.4	1040.9	973	804.8	850.3	817.6

as defined by GFI (Mirror Analysis Summary Report, 2015)

The key indicators of the GFI study, on the one hand, draw the necessary attention to the problem of illegal cross-border capital movements as one of the most destructive economic problems, but on the other hand, raise some doubts about the approaches used. Well-known economists (Nitsch, 2010; Nitsch, 2017; Forstater, 2018; Cobham & Janský, 2020), analyzing these data, made a number of critical remarks about the reliability of certain indicators and the reliability of the use of this

technique which are crucial to get down to the core and optimize the idea to use the approach for customs valuation control targeting (Hien & Hung, 2020; Tandon & Rao, 2017; Musliu et. al., 2015).

Pointing out the shortcomings of the methodology used by GFI experts (Nitsch, 2010; Nitsch, 2017) notes that any analysis of generalized trade data gives insufficiently reliable results and there is a danger of arbitrary implicit assumptions that negatively affect the objectivity of the study and also can lead to confusing conclusions (Cathey, et. al., 2017; Grondona, 2018). The implicit assertion that inaccurate declaring or even deliberate misinvoicing occurs in only one of the partner countries and that the submission of data by the other one is always correct lets the defined value gap to be attributed to illicit activities or even violations. But this assumption is not correct, because there are many objective reasons for discrepancies in the trade balance, such as trading systems, the coverage of goods by general statistics (for example, military goods, supplies, small in volume or weight, re-export, return of goods after repair, etc.), time of entering data into the statistical database, application of rules of origin of goods, unknown country of final destination, etc.

The choice of trading partner countries to compare figures of trade only between advanced economies and developing countries also arouses a great deal of critical comments. The approach to attribute trade data discrepancies or even calculated value gaps directly to the most common way of capital outflow can't be regarded to be robust enough to draw appropriate conclusions.

That's why many researches (Cobham & Janský, 2020; Forstater, 2018; Nitsch, 2017) argue that such facts actually require a thorough analysis in each case. Actual estimates of real trade mispricing should be detected only at transaction level

Cobham define trade mispricing as process which "occurs when transactions between both related and unrelated parties are mispriced to avoid tariffs, taxes or achieve similar, illicit or other, objectives (in contrast to a more narrowly defined transfer mispricing that describes only transactions between related parties within a multinational corporation)" (Cobham & Janský, 2020). Cobham and Jansky summarize that trade mispricing enables shifting income or profits out of countries mainly either through import over-invoicing or export under-invoicing, although there are some plausible motivations for import under-invoicing or import over-invoicing" (Cobham & Janský, 2020). Regarding the problem of misinvoicing in Ukraine the attention should be drawn to the fact, that fraudulent invoices submitted for customs clearance mostly demonstrate prices of goods less than the prices actually paid. It is mainly aimed to reduce tax base as well as evade customs duties in certain cases (Volpato & Rajan, 2019).

So, as it is stated above, actual amount of misinvoicing cases can be detected only by comparing export and import data at the most detailed transaction level.

Framing good points of proper criticism of mirror data analysis many recent studies have shown that the direct use of mirror data is possible only under appropriate conditions, such as additional analysis of conditions and means of transport, time intervals and delivery conditions, mandatory comparison of applicable customs regimes and trade system types, national features of collection and

dissemination of statistical data, different data sources, than the database of customs declarations.

At the same time, econometric analysis, mathematical modelling and forecasting require numerical data. The possibilities to use national customs declaration databases for comparison are usually limited for researches. Therefore, generalized statistics presented in open on the web databases resources of the International Monetary Fund (Directorate of Trade Statistics) and the United Nations (COMTRADE) is used for analysis.

The use of open resources in this sense has its strengths and weaknesses. The creation and maintenance of statistical databases by the World Bank, the UN and the International Monetary Fund allows conducting analysis of various types, taking into account differences in data collection methodology, sources and frequency of information collection and dissemination, etc. At the same time constant monitoring of information relevance is required to ensure the necessary robustness and reliable results. The list of is caveats is significant, so the use of statistical information for objective conclusions is optimal mainly within the framework of a risk-oriented approach. The best way to ensure the appropriate use of certain trade data indicators is to develop and implement the national valuation database in accordance with the risk assessment and management procedures set out in the WCO Risk Management System Guidelines and Revenue Package measures.

Control over the appropriate customs value declaring is an integral part of measures aimed to ensure the financial security of the state. The most difficulties in this area in Ukraine are currently associated with difficulties in obtaining and automated application of price information. The control optimization strategy must include the use of all available data analysis methods for forecasting, comprehensive analysis of risk factors, creation of regional trade models, etc. The use of generally accepted analysis technics will help to maintain the most effective methods of customs control provided that radical changes are made in approaches to customs risks profiling and post-audit control (Zhuchkov, 2021).

Deliberately inappropriate (or even fraudulent) declaring of customs value of goods is possible in international trade both between unrelated trade partners (misinvoicing) and between related partners, such as branches of multinational corporations (transfer mispricing), for example by setting a contract price for tax evasion or its minimization). This makes it very difficult to detect truly fraudulent schemes, so the analysis of bilateral trade statistics should be conducted at several levels, in their logical sequence, providing the maximum possible detail of the object of study: comparative analysis of statistics, study of relevant price information, analysis of individual foreign trade transactions.

In a broad sense, the method allows to determine the normality or abnormality of individual prices in accordance with the arm's length principle, general trends in world trade, as well as transparent market prices. The central idea of this approach is applying the most detailed statistical information, which offers data regarding trade volumes and prices for individual categories of goods and enables establishing a range of normal (fair) prices for each category. Most studies typically use the interquartile range of values as a kind of benchmark to determine whether a price is

normal or not, defining values outside of this range as abnormal (Zhuchkov, 2020; Patnaik, et.al. 2010). Establishing a range of acceptable values is a common practice in benchmarking analysis.

It should be mentioned that this approach complies with the understanding of the main concept of arm length' principle in the sense of transfer pricing but how it is applied practically may vary from country to country. Narrowing the range with statistical tools, such as, for example, the interquartile range is common practice as well (Hong, et.al., 2014). The interquartile range is defined as the middle part of the data range, i.e. the data points found between the first and third quartiles. The use of statistical methods is mentioned in the OECD Transfer Pricing Guidelines 2017 pointing out that statistical tools that take account of central tendency to narrow the range (e.g. the interquartile range or other percentiles) might help to enhance the reliability of the analysis, if the range includes a sizeable number of observations (Musselli & Bürgi Bonanomi, 2018). Thus, in the data set, containing prices per unit of the product, the average 50% of all observed prices are considered normal. So, in corresponding studies the interquartile range of an array of customs values of goods at import/export obtained from monthly statistics were used for comparison as the free market price wasn't available.

The next step to provide more transparent criteria to compare the customs value of goods was the study performed by Hong, et.al., 2014. They examined fresh banana customs values obtained from the US Department of Commerce's import database and compared with the free market price determined and published monthly by the UN Statistics Division (Misinvoicing Analysis in ASEAN-China Free Trade Aggrement, 2018). In 2018 Musselli & Bürgi Bonanomi, 2018 as well as used the price filter method to detect abnormal prices for goods imported into Switzerland. The price ranges were defined for certain categories of commodities disaggregated at HS subheading level based and then compared with their current price on the free market, such as stock prices (London Metals Exchange, London Bullion Market Association) and information from international non-governmental organizations (The International Cocoa Organization, International Coffee Organization).

Actual free market price of commodity is more preferable as a benchmark for arm's length price than values relying on interquartile range, which is known to be problematic.

Such approach is quite close to applying the so-called "sixth method" of transfer pricing analysis, introduced in Latin America, which differs from the CUP method used to compare the price charged for property or services transferred in a comparable uncontrolled transaction in comparable circumstances. The sixth method allows comparisons with market (exchange) quotations, instead of comparisons with agreements and prices agreed between unrelated parties (The magnitude of trade misinvoicing in Ghana and Hungary, 2021).

It should be noted that the price filter method has also been criticized a lot, mainly because this approach reflects the hypothetical assumption that unit values for a particular category of commodities should change only in a relatively narrow range, while there are no objective criteria for determining normality of price. Significant discrepancies in trade data may be partly explained by objective assumptions or facts,

but this does not explain the scale of the problem. This research is an attempt to apply both trade data mirror analysis and price filter method to identify possible abnormal values, f.i. a data set comprising prices per unit. Indicators can be used as one of the criteria for a risk management system.

This study is aimed to examine the level of customs value for certain groups of cut flowers at export from top exporting countries and at import into Ukraine also comparing with appropriate mirror data submitted by some other countries during 2016-2019. The statistical information presented on the UN COMTRADE website was used to calculate customs values at export for each subgroup of goods on the monthly basis, and accordingly, the mirror import by partner countries.

The maximum possible level of goods disaggregation was selected for this study. For a more accurate comparison the commodity was subdivided according to their tariff classification and destination. The following HS subheadings are chosen for research: 060311 - "roses", 060312 - "carnations", 060313 - "orchids", 060314 - "chrysanthemums", 060315 - "lilies", 060319 - "other flowers".

In terms of flower exports in 2016, the Netherlands ranked first, covering more than 50% of the world market (total export value - $ 4.08 billion). The next three places in the ranking were occupied by Colombia ($ 1.31 billion or 16.2%), Ecuador ($ 797 million or 9.8%) and Kenya ($ 537 million or 6.6%). During the period chosen for the research, the figures did not change significantly: the total value of flower exports from the Netherlands in 2019 amounted to $ 4.08 billion (45.7% of the market), from Colombia - $ 1.47 billion (16.5%), from Ecuador – $ 881 million (9.8%), from Kenya - $ 616 million (6.9%) (Mirror Analysis Summary Report, 2015).

Besides Ukraine, Belarus, Great Britain, and Germany were selected to provide a thorough comparative analysis and parallel trade statistics mirror data. Differences in the requirements of national legislation, the cost of transportation, national trade policy and the peculiarities of the functioning of the flower market provide the necessary level of evidence to make an assumption concerning the "normality" or "abnormality" of prices declared at import.

The data set contains average values per 1 kg of fresh cut flowers (in USD), calculated of trade value and net weight indices submitted by exporting countries on monthly basis (Netherlands, Colombia, Ecuador, Kenya) as well as mirror import data of Ukraine, Belarus, Great Britain and Germany for the period from January 2016 to December 2019. Customs values at export and import were compared taking into account transport costs on the terms FOB export and CIF import.

It should be mentioned that values were compared only if data from both partners were submitted. In case of misclassification i.e. if information from only one party was available, such data were not taken into account.

The average customs values of certain flowers falling in HS subheadings 060311, 060312, 060314 and 060319 exported from the Netherlands, Columbia, Ecuador and Kenya depending on their destination of import are shown in Table 3.

Table 3. Exported from the Netherlands, Columbia, Ecuador and Kenya

HS code	UKRAINE		GREAT BRITAIN		BELARUS		GERMANY	
	Customs Value, $/kg import cif	Customs Value, $/kg export fob	Customs Value, $/kg import cif	Customs Value, $/kg export fob	Customs Value, $/kg import cif	Customs Value, $/kg export fob	Customs Value, $/kg import cif	Customs Value, $/kg export fob
COLUMBIA								
060311	1,24	5,64	9,68	6,47	8,69	5,62	7,95	6,26
060312	1,59	4,70	6,98	5,50	6,66	8,24	6,81	5,61
060314	1,91	10,05	3,74	2,90	5,82	8,31	10,21	3,97
060315	n/a	n/a	4,70	9,60	6,44	2,38	n/a	n/a
060319	2,24	2,99	6,11	4,60	5,88	6,49	6,84	4,40
ECUADOR								
060311	1,07	4,93	8,23	5,81	7,11	5,27	8,91	5,50
060312	1,43	4,19	9,91	4,93	6,36	4,23	6,68	4,52
060314	1,25	4,24	9,83	6,75	5,73	1,98	6,38	5,61
060315	n/a	n/a	n/a	n/a	n/a	n/a	7,95	9,10
060319	1,33	5,46	9,32	5,50	5,75	5,82	8,54	5,66
KENYA								
060311	1,95	5,06	5,92	4,86	7,60	4,34	5,27	4,63
060312	2,87	5,62	5,85	3,42	n/a	n/a	7,16	4,92
060314	n/a	n/a	7,34	3,71	5,46	3,33	7,66	3,76
060315	n/a	n/a	7,71	5,32	n/a	n/a	4,85	4,79
060319	3,87	4,58	8,47	4,06	6,02	3,82	7,32	4,03
NETHERLANDS								
060311	1,22	5,97	8,46	7,66	13,40	8,95	7,32	6,49
060312	1,54	8,71	5,31	6,00	9,86	10,16	6,46	8,03
060313	1,51	11,64	4,36	18,01	19,18	21,19	20,13	21,76
060314	0,79	3,40	7,52	5,23	7,85	5,63	6,54	6,57
060315	1,43	10,64	8,83	12,26	8,17	17,08	8,28	8,98
060319	1,47	6,47	6,45	6,65	9,90	7,41	6,72	8,23

Levels of customs value (reported on FOB basis) at export from the above countries into Ukraine and some other countries are comparable and the average figures are approximately in the same range. Trade value at import is reported on CIF basis. To attain the CIF value, freight and insurance costs between the ports of loading and destination are added to FOB price. The estimation of transport costs depends on many economic factors, and according to different methodologies, it is in a quite broad range. It is not the question of this study, but there is no doubt, that CIF value cannot be lower than FOB, under normal circumstances of trade, excepting specific cases. For example, average customs value at import to Great Britain is 12.1 % more, than customs value declared at export/customs value at import to Belarus is 11.9% more and for Germany it makes 19%. But it is not the case for Ukraine. Customs value at import to Ukraine from the same exporting countries in the same period differs significantly. The average customs value at import is 3.6 times or 72.5% less than the corresponding FOB value at export (Table 4).

Table 4. Customs value at import to Ukraine

Exporting partner countries	Average customs value per 1 kg at import to Ukraine (CIF)	Average customs value per 1 kg at export (FOB)
Average 2016	1,60	5,04
Colombia	1,50	4,57
Ecuador	1,45	4,52
Kenya	2,28	n/a*
Netherlands	1,31	5,58
Average 2017	1,38	4,98
Colombia	1,39	4,04
Ecuador	1,25	4,68
Kenya	1,97	4,54
Netherlands	1,03	5,81
Average 2018	1,48	7,28
Colombia	1,56	6,20
Ecuador	0,98	4,15
Kenya	2,58	4,93
Netherlands	1,12	9,94
Average 2019	2,63	7,56
Colombia	2,77	5,58
Ecuador	1,96	5,37
Kenya	4,14	5,98
Netherlands	2,12	9,89
Average 2016-2019	1,67	6,19

Export to Ukraine was not reported by Kenya

The next stage of analysis is completed to study customs value at export from the exporting countries in question to trade partners all over the world (Table 5). Set of observations contain empirical data submitted by Columbia, Ecuador, Kenya or Netherlands on monthly basis.

Table 5. Customs value at export from the exporting countries in question to trade partners all over the world

Descriptive statistics				
	2016	2017	2018	2019
Mean	7,88	7,93	6,61	8,53
Median	6,28	6,19	5,72	6,1
Range	155,57	72,99	66,1	230,34
Confidence interval	7,72-8,05	7,77-8,09	6,53-6,70	8,34 - 8,72
count	4146	4507	5801	8460

The distribution of observations is normal distribution with significant right-hand asymmetry (shift towards larger numbers) characterized by the following points of descriptive statistics set up in Table 5 (for 95 % confidence). The confidence intervals for the mean give us a range of values around the mean where we expect the "true" (population) mean is located with a given level of certainty.

Customs values of each type of flowers classified in HS subheadings 0603 11 – 0603 19 are calculated using trade value and net weight volumes reported to UN COMTRADE by all the trade partners, on monthly basis (Table 6).

Table 6. Value and net weight volumes reported to UN COMTRADE

	2016	2017	2018	2019
Colombia				
060311	6,68	7,40	8,38	8,17
060312	6,06	6,28	6,39	6,27
060314	5,75	5,10	5,76	5,67
060319	5,07	4,88	4,89	4,88
Ecuador				
060311	6,13	6,12	5,77	6,01
060312	4,27	4,32	4,48	4,23
060314	4,23	3,89	4,58	10,05
060319	6,19	6,44	6,67	7,62
Kenya				
060311	n/a	n/a	4,60	4,93
060312	n/a	n/a	4,58	4,78
060314	n/a	n/a	2,63	2,46
060319	n/a	n/a	4,46	4,58
Netherlands				
060311	12,07	14,65	12,43	12,09
060312	9,23	9,52	10,39	10,50
060314	5,96	6,57	6,87	6,72
060319	14,25	15,36	16,95	18,47

The appropriate export price range was calculated using price filter method. The obtained data confirm that previously shown values completely meet the criteria of actual price range. The same tendency can be observed during the examined period (Table 7).

Table 7. Price filter method *

Exporting country	IQR of all values (CV per kg, in USD)			
	2019	2018	2017	2016
Colombia	4,36 - 6,41	4,36 - 6,38	4,35 - 5,86	4,35 - 6,04
Ecuador	4,6 - 6,82	4,02 - 5,99	4,34 - 6,09	4,36 - 6,21
Kenya	3,61 - 5,69	3,59 - 5,27	n/a	n/a
Netherlands	6,65 - 11,88	6,46 - 10,43	6,06 - 11,16	5,88 - 11,01

for consignments of 500 kg or more

Discussion

The role of the information component in the modern world is difficult to overestimate, because it is crucial for the formation of strategy. Any analytical work depends to the greatest extent on the quality of the data used. When analyzing global processes such as foreign trade, it is very important to check and control the objectivity of information obtained from open databases.

As a result of the study, it was found that the data of international trade statistics can be used for preliminary analysis of price information, as well as to identify significant discrepancies of exports and imports indices. The gradual application of the mirror analysis and price filter method make it possible to increase the reliability of results, obtain actual data, using benchmarking as an auxiliary tool for targeting customs value control measures.

It was found that in the researched period, the customs value of all types of flowers imported into Ukraine (on CIF basis, i.e. including transportation costs and insurance),was 72.5% less than the value declared at export (on FOB basis). When exporting from Colombia, the customs value of flowers at import to Ukraine was 50-75% less than the export value on FOB basis, when exporting from Ecuador - 63-76% less, from Kenya –30-50% less (excluding 2016 data) The largest difference was registered for the Netherlands - the customs value of flowers at import into Ukraine was 77-89% less than their value at export. At the same time the determined customs values were comparable and mainly within the interquartile range of the set comprising customs values at export from the above mentioned countries defined separately for each of the partner countries during the period 2016-2019. The set of observations can be described as a right skewed normal distribution, shifted right, that means towards higher values of customs value explained by objective pricing factors under normal trade conditions.

Conclusions

The obtained results confirm the point that mirror analysis or price filter method itself is insufficient to make undoubtable conclusions about the causes of such discrepancies. However, at the same time, the benefits of two-staged analysis within the framework of a risk - oriented approach are demonstrated. It should be established at the next stage, if certain transactions should be considered as fraud or tax evasion or, in opposite, they have resulted from favourable trade factors which had led to a significant reduction in price. A thorough verification, including in-depth analysis of documents should be done at the level of individual transactions. The purpose of the study was achieved; the shortcomings and capabilities of each of the methods are identified and their optimal combination is demonstrated as a helpful tool for price information analysis and control over the declaration of customs valuation.

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