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INCU (www.incu.org) is an association that provides the WCO and other organisations with a single point of contact with universities and research institutes that are active in the field of customs research, education and training.

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Editorial

On 22 February this year, the World Trade Organization (WTO) announced that its historic Trade Facilitation Agreement had entered into force following its ratification by two-thirds of the WTO's 164 members. In doing so, the WTO Director-General, HE Ambassador Roberto Azevêdo, declared that it is now time to begin the work of turning the potential benefits of the Agreement into reality.

The Director-General has previously publicly acknowledged the work of the International Network of Customs Universities (INCU) in developing and promoting the Agreement, including the development of the first version of the WTO Trade Facilitation Self-Assessment Guide in 2007. This guide was used by approximately 100 developing and least developed countries to assess their trade facilitation needs and priorities, which enabled them to participate more effectively in the WTO Trade Facilitation negotiations.

Recognising the importance of trade facilitation to global economic growth, the resolution of the INCU on the future direction of the organisation (Baku, 23 May 2014) determined that the organisation would support the work of the WTO Committee on Trade Facilitation through a range of initiatives, including empirical studies to help inform decision-making. I would therefore once again encourage both academic and practitioner contributors to submit articles for publication in future editions of the *World Customs Journal* that support implementation of the Agreement, including ways to maximise the benefits for developing and least developed countries. As noted by the Director-General, 'Now, working together, we have the responsibility to implement the Agreement and make those benefits a reality'.

The Editorial Board congratulates the WTO on this important achievement, and supports the Director-General's view that the Trade Facilitation Agreement represents the most significant reform of global trade this century.

David Widdowson
Editor-in-Chief

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Section 1

Academic Contributions

Iceberg 'melt' of African trade costs: Evidence and determinants of customs reform

Jeremy Streatfeild[1]

Abstract

This paper focuses on why customs-related transport costs change, particularly in developing countries, and whether this is through targeted technical assistance projects or through other exogenous factors. We then compare these findings to trade infrastructure changes—for ports and roads—to draw empirical conclusions about the prospects for attaining customs improvements. Furthermore, a deeper dive into the summary statistics reveals that many of the countries with the fastest improvements in trade infrastructure and institutions are in Africa. This finding motivates a large-N time series model to determine why customs service levels vary across time and space. Ultimately, we concur with data and theory that warn that such institutional changes, while valuable, are difficult to achieve.

1. Introduction

The Economist (2002) famously applied Paul Samuelson's depiction of bilateral trade costs as melting icebergs to an African context through the plight of a beer truck making its four-day delivery over just 500 kilometres. The attenuated Cameroonian journey described in *The Economist* was beset by a mix of poor infrastructure and corrupt government officials, and by the end of the journey only two-thirds of the cargo remained. To better address occurrences like this, customs reforms are often an integral part of development projects designed to improve trade flows through infrastructure projects—for example, The World Bank conducted 117 customs modernisation activities between 1982 and 2002 (deWulf & Soko, 2005, p. 129). However, the data and theory warn that such institutional changes, while valuable, are also difficult to achieve.

For context, the paper delves into determinants of customs reforms using trade-related infrastructure as a comparison. We focus on developing countries where conditions are poor, and demonstrate which regions have seen the most variation. We then compare these findings to trade infrastructure changes for ports and roads to draw empirical conclusions about the prospects for attaining customs improvements. A closer look into the summary statistics reveals that many of the countries that have shown the most rapid improvements in customs infrastructure and institutions are in Africa. In sum, we find that customs is frequently 'institutionalised' around a mean result that shows very little change over time, but a few countries in sub-Saharan Africa (SSA) are positive outliers, so institutional stagnation is not a foregone conclusion.

This last finding motivates a broader statistical analysis for determinants of customs service levels. A large-N time series attempts to determine why customs service levels vary across time and space and finds a complex response: while technical assistance appears to have no significant effect on customs performance, the political environment does. Stronger democracies have a small correlation with customs and this also applies to more stable countries. In summary, the data do not reveal a magical 'insulation' to thwart customs-related melt, the magnitude of the significant coefficients are small—fitting with the institutional change literature that generally predicts customs reform to be slow and

incremental. The paper sets out to show that there are fewer changes in African customs reform than there are improvements in ports and roads, but points to a few outliers, such as Rwanda and Kenya, that may offer interesting lessons.

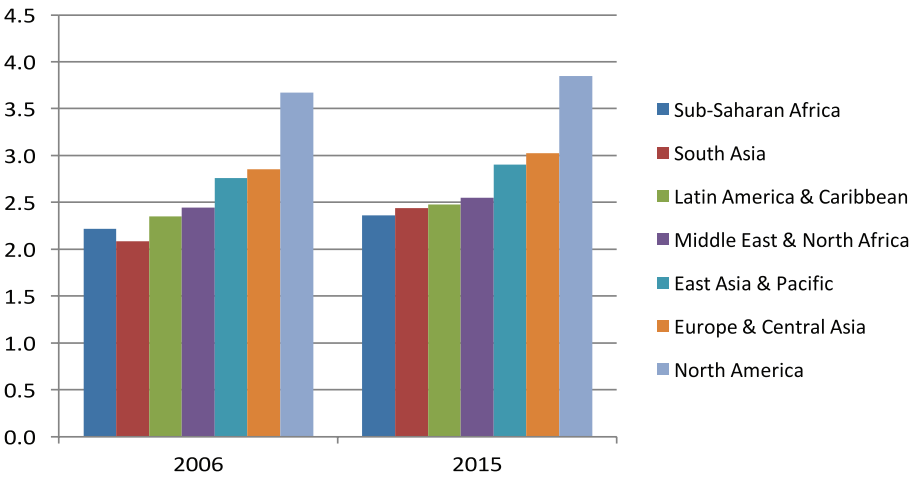
2. Data and hypotheses

In order to illustrate regional comparisons in trade facilitation performance over time, as well as isolating potential determinants of customs performance, this paper draws on a range of data, as outlined below.

Dependent variables

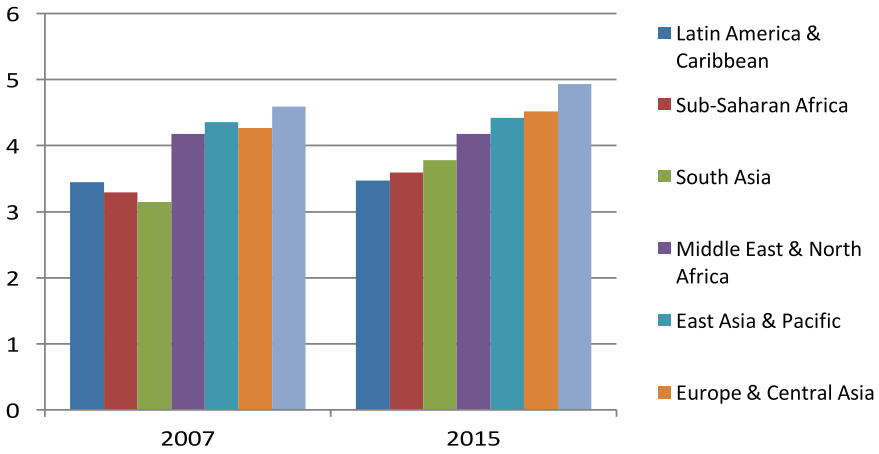
A series of papers associate customs reforms with higher trade flows. For example, Wilson, Mann and Otsuki (2003) make this claim, noting that customs reforms are important, if to a lesser extent than infrastructure improvements. Korinek and Sourdin (2011) elaborate on this finding to show that more efficient customs procedures can have a greater trade impact than distance or transport costs, and Velea, Cado and Wilson (2010) contend that privatising customs inspection processes facilitates imports by 2 to 10 per cent as these firms introduce better practices that accelerate cargo-processing and improve reliability. In addition, Martí, Puertas and García (2014) use gravity models to show that improving customs performance (as measured by World Bank's logistics performance index (LPI) data), would result in higher volumes of trade in SSA. Therefore, we have used the same customs variables from LPI, which range from 1 (lowest) to 5 (highest), to proxy the country's customs-clearance process in order to compare how developing regions fare, and to highlight why some countries perform poorly. For example, Figure 1 shows the average customs score, by region, in 2006 and in 2015. Note that over that time, SSA was overtaken by South Asia, dropping by one position to last place, and while both regions improved, South Asia had a greater level of improvement.

Figure 1: Regional average for LPIs customs data, 2006 and 2015



As a robustness check, we also ran the models with *Burden of customs procedure* as the dependent variable. This is similar to customs and measures business executives' perceptions of their country's efficiency of customs procedures. The variable ranges from 1 (lowest) to 7 (highest) and is compiled by the World Economic Forum for its annual Global Competitiveness Report. Similar to customs ratings (Figure 1), South Asia overtook SSA over the last decade but SSA also overtook Latin America and the Caribbean in the latter dataset (Figure 2).

Figure 2: Regional average for WEFs burden of customs data, 2007 and 2015



With respect to changes over time for these customs measures, the theoretical literature anticipates that this will be challenging. For instance, Mahoney and Thelen (2010, p. 1) describe institutional change as 'slow and piecemeal', while Greif and Laitin (2004) explain, from a game theory approach, that no actor has an incentive to deviate from their persistent behaviour. In other words, poor customs performance may be the result of a Nash equilibrium outcome so that no stakeholder has an incentive to reform the status quo. To do so would leave them worse off. Although it is difficult to compare percentage changes between customs and infrastructure data, we can tentatively test this theory by comparing changes in SSA with changes in other regions. It is in that context that we then look for incremental determinants of institutional change across customs regimes.

Independent variables

Donor effectiveness

Historically, governments have tried various means to remedy bureaucratic corruption, including improving government salaries (Becker & Sigler, 1974; Besley & McLaren, 1993; Mookherjee & Png, 1992; Polinksy & Shavell, 2001), and outsourcing work to private firms to operate customs. For example, the Ghanaian Parliament passed a bill to double police salaries in an effort to limit petty corruption within the force, but this had the opposite effect—officers responded by significantly increasing the bribes they collected from truck drivers (Foltz & Opoku-Agyemang, 2015). On the latter, research has found a positive impact on tariff collection, at 2.6 times the cost of the reform program. To test these impacts more broadly, we use technical cooperation as a percentage of GDP from the OECD statistics, which measures donor-funded projects aimed at improving skills and services in recipient countries. These projects, valued at more than $17 billion across all countries in 2014, accounted for 19 per cent of grant aid for that year. The data are not restricted to trade-related projects but customs reform is a key avenue to economic growth, so the data provide a general proxy for institutional reform programs to set up the first hypothesis that *current institutional reform projects (technical assistance) improve customs performance*.

Democracy

Kunicova (2006) argues that democracy is often thought to limit political corruption and Chang and Golden (2010) agree with this argument. The model accounts for this with a Polity variable from the Polity IV Project, which ranges from 10 (strongly democratic) to –10 (strongly autocratic,[2] which sets up the second hypothesis that *higher levels of democracy equate to improved customs performance*.

State capacity

In weak states, bureaucrats do not perform effectively (Oeschslin, 2010, p. 631), either when it comes to providing infrastructure investments or to conducting law enforcement (Buhaug & Rod, 2006; Berman, n.d., p. 1). Specifically, customs agencies of weaker states are frequently associated with revenue fraud and shipment delays (Yang, 2008). In turn, stronger states should have better institutions so we use levels of income taxes as 'exact indicators of government presence' (Organski & Kugler, 1980, p. 74). To explain why, as Levi (1988, p. 1) describes, '[t]he history of state revenue production is the history of the evolution of the state'. Thies (2009) continues that studying taxation provides leverage on the bureaucratisation process as well as the state's extractive capacity.

In addition to taxation, Fearon and Laitin (2003) and Collier & Hoeffler (1998) use income as a proxy for state capacity. Arbetman-Rabinowitz & Johnson (2007) explain that governments are constrained by their limited wealth when it comes to pursuing policy objectives. Even if they hold extractive power, there is only so much governments can do with a small economic base and an even smaller pool of economic resources. Consequently, we use *lag of tax per GDP*, which refers to 'compulsory transfers to the central government for public purposes' as well as *log of GDP,* both variables come from the WDI, to test the third hypothesis that *stronger states have better customs performance*.

Commercialism

Spruyt (1994, p. 217) notes that traders seek property rights from state-level rulers who enjoy the economies of scale to achieve this. At a bureaucrat level of analysis, Streatfeild (unpub.) draws on this commercialist theory to test how trade in goods shapes Ghana's customs officers' bribe collection rates. Consequently, we measure this with WDI data on merchandise trade as a share of GDP, for the fourth hypothesis that *increases in international trade volumes improve customs performance*.

Lag political stability

Bates' (2008) theory explains that when leaders' government decision-making is based on their low valuation of future returns in times of instability, leaders are less inclined to invest in the longer term. Oeschlin (2010) adds that political instability shortens the time horizon for the incumbent regime so that they are less inclined to finance growth-promoting institutions that would only politically benefit future regimes. For this, World Governance Indicators' (WGI) *Political Stability and Absence of Violence/ Terrorism* variable measures perceptions of the likelihood of political instability and/or politically-motivated violence, for the fifth hypothesis that *higher levels of stability result in improved customs performance*.

Rentierism

Reliance on revenue from natural resources may result in weak states (Mahdavy, 1970). Ross (1999) explains that higher income levels can improve democracy levels but this relationship can be mitigated by levels of oil wealth in the country. Arezki and Brückner (2009) confirm these findings, using fixed effects, to show that oil has a significant impact on corruption. We use the WDI *Natural Resource Rents per GDP* variable, which is the sum of oil, natural gas, coal (hard and soft), minerals and forest rents, as a share of GDP, to control for these effects in our analysis.

Tariff reliance

Mishra, Subramanian and Topalova (2008) find that tariff variations have a positive elasticity with evasion, and higher tariff revenue can afford customs officers an opportunity to negotiate a bribe as the alternative official tax is costly. To measure for this, we use the WDI *Taxes on International Trade, as % of GDP* variable, as an indication of a state's reliance on trade revenue in a given year.

Infrastructural change

Infrastructural change could have a similar effect to trade tax revenue. Shleifer and Vishny (1993) theorise that improved infrastructure lowers the buyer's trade costs, which can then provide a greater opportunity to collect customs bribes. This is measured by the LPI infrastructure variable. In other words, as infrastructure improves, this may offer a negotiating opportunity to extract more bribes.

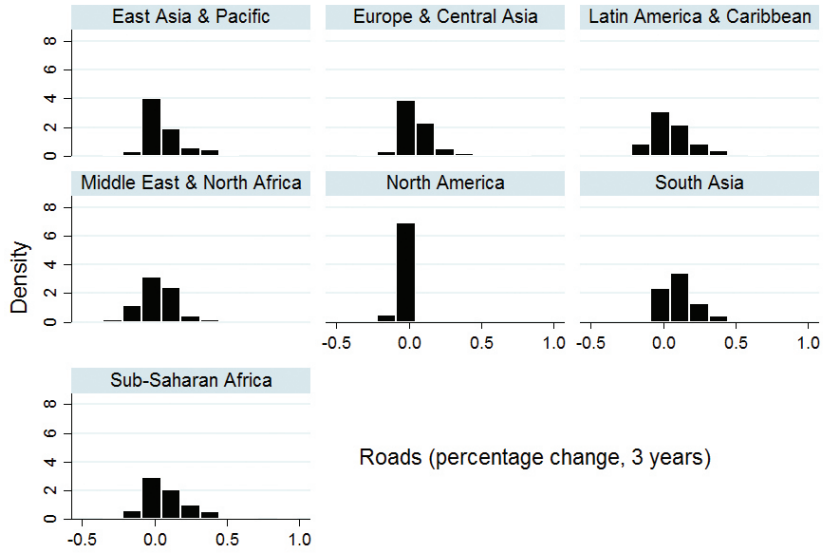
Investment in infrastructure

We include the WDI *Log of gross fixed capital formation* measure of government commitment to invest in trade related infrastructure. It offers an indication of whether state budgets prioritise building infrastructure or the institutional reforms that accompany them.

3. Descriptive statistics

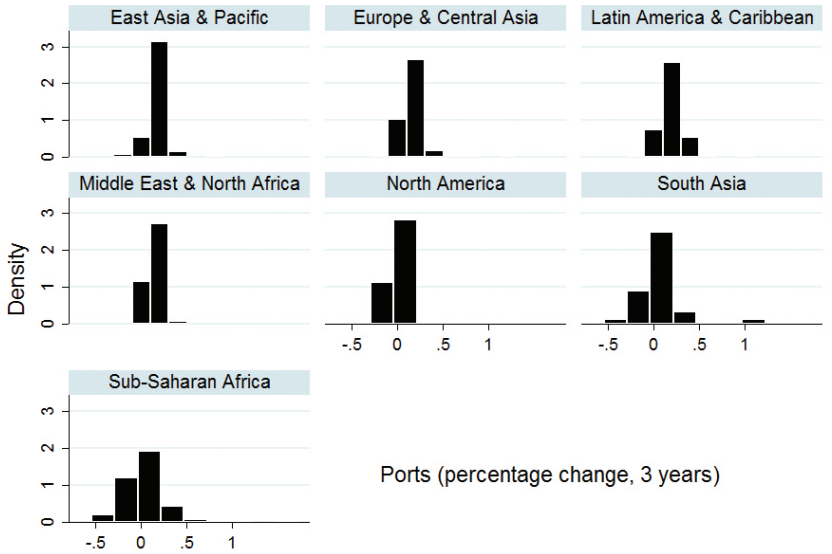
The LPI and WEF customs data help to illustrate the relative speed of reform with respect to trade infrastructure or institutions. Figures 3 and 4 show this through the distribution of road and port quality changes over a three-year period. In other words, each observation in the histograms below reflects the percentage change of an individual country-year, between 2007 and 2015, grouped by region. Notably, North American ports and roads have changed very little over time, with almost all observations clustered at or around the zero per cent change mark. This region also has the highest quality and most sustained infrastructure. South Asia's roads, by contrast, are more widely distributed than that with some county-observations approaching 50 per cent change for the previous three years. Further, SSA roads exhibit more of a normal distribution with a large number of its roads in decline, but also that region exhibits the only countries with more than 50 per cent growth as well. However, SSA ports have a flatter distribution than its roads and, like the histograms for other regions, these centre around zero per cent change, such that the median country had very little movement to its key trade infrastructure in any given region.

Figure 3: Three-year change to roads, by region



Source: Author's calculations from Logistics Performance Index, World Bank.

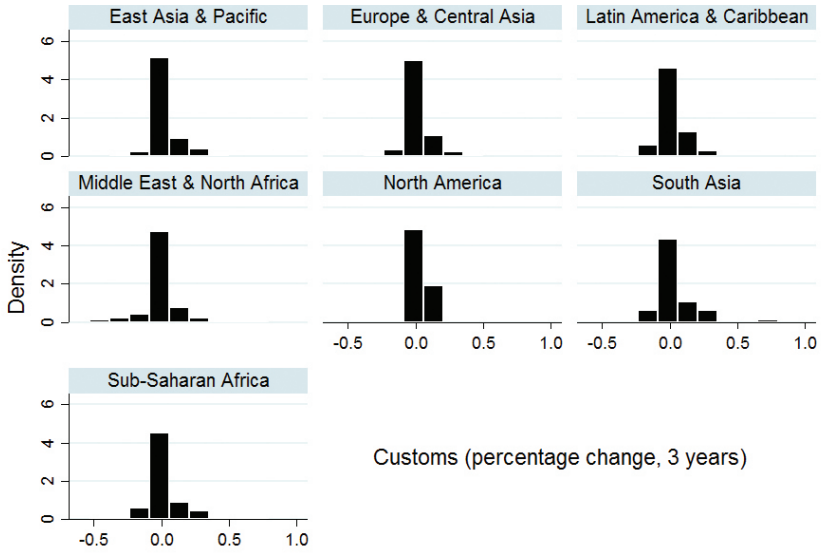
Figure 4: Three-year change to ports, by region



Source: Author's calculations from Logistics Performance Index, World Bank.

As anticipated by theories of institutional change, customs reform is slower than infrastructure reform as the density is higher and around zero per cent across most regions. Although developed regions like North America see more stable roads and ports conditions, in SSA, 61 per cent of the country-observations (positively or negatively) changed by less than 5 per cent over a three-year timeframe. This is almost double the share for SSA's roads (31 per cent) and ports (24 per cent). In other words, these data comport with the expectation that institutional change is more sluggish than infrastructure improvements in SSA, further motivating the interest in reaping the benefits from customs change.

Figure 5: Three-year change to customs, by region



Source: Author's calculations from Logistics Performance Index, World Bank.

To that end, digging deeper into the data shows that there are several positive outliers in SSA countries, which are also some of the fastest reformers in both trade infrastructure and customs. Table 1 reflects three-year growth in country observation years. Kenya in 2010 had the ninth-fastest three-year growth rate for infrastructure improvements. In the following year Kenya also reflected a continuation of that infrastructure growth, as it ranked tenth. In sum, 16 of the 20 fastest improving country-years for infrastructure were in SSA. Likewise, 15 of the 20 fastest customs reformers were also on that continent. Although many SSA countries are slow to change their trade infrastructure or their customs regimes, there are several that are global leaders in this, providing helpful variation for the ensuing comparative analysis. Consequently, the paper next considers some broad-brush indicators for what determines customs performance, over time.

Table 1: Three-year growth in infrastructure and customs (LPI Data)

Rank	Infrastructure	Year	Customs	Year
1	Congo, Rep	2010	Rwanda	2010
2	Afghanistan	2009	Algeria	2009
3	Namibia	2010	Afghanistan	2009
4	Rwanda	2010	Kenya	2012
5	Congo, Rep	2009	Qatar	2010
6	Eritrea	2010	Namibia	2010
7	Djibouti	2011	Kenya	2012
8	Rwanda	2009	Niger	2009
9	Kenya	2010	Benin	2009
10	Kenya	2011	Botswana	2009
11	Niger	2009	Solomon Islands	2009
12	Egypt	2009	Kenya	2010
13	Malawi	2009	Rwanda	2009
14	Congo, Rep	2011	Djibouti	2011
15	Botswana	2009	Egypt	2009
16	Burkina Faso	2010	Estonia	2011
17	Tanzania	2010	Uganda	2009
18	Jamaica	2009	Comoros	2010
19	Rwanda	2011	Djibouti	2009
20	Algeria	2009	Eritrea	2010

Source: Author's calculations from Logistics Performance Index, World Bank.

4. Method and results

The dataset is a strongly balanced panel so we use either fixed or random effects models to test the above hypotheses. With respect to model 1 of Table 2, the Hausman test is significant when customs is the dependent variable and the Africa dummy variable is not included, so that model uses fixed effects. In addition, to adjust for the modified Wald test, which is significant when using customs as the dependent variable, the model exhibits heteroskedasticity so we use robust standard errors, but these are not clustered as the timeframe is only seven years. The remaining models in Table 2 employ random effects models, either because they include time-invariant dummies (models 2 and 4) or because, in the case of model 3, the probability of F-statistic is above 0.05 for the fixed effects version. As far as the model with the best fit, the second regression has the highest R^2 and also has more observations included than the two Burden of Customs models.

Technical assistance does not have any significant effect in any of the models in Table 2. This suggests that it does not improve customs performance, despite the large amount of money spent by donors for that purpose. As a disclaimer, this variable captures more than just trade-related institutional reforms, although customs should be a large focus in many countries, given trade's importance as a driver of economic growth. This leads us to consider not accepting the first hypothesis, with that important caveat.

In the first two models, democracy has a strongly significant but almost negligible impact on customs performance, while in the second two models polity has no statistical significance, which leads us to reject the second hypothesis; democracy does not affect customs performance to any great extent.

State capacity has a more complex relationship with customs in these models. The traditional measure, taxation, has no statistical significance in any of the models, but log of GDP is significant and positive in the two models with customs as the dependent variable. That latter finding fits with the expectation that larger countries have better institutions, but the magnitude decreases to one-third when controlling for Africa. Consequently, we see this also as a nuanced relationship and one that requires deeper study in developing countries, such as in Africa. For the purpose of this large-N analysis, however, we only cautiously do not reject the third hypothesis that stronger state capacity results in better customs performance.

The commercialist hypothesis holds up weakly, as well. In the first two models, if merchandise trade increases by a full standard deviation then it would correspond to improved customs scores of a little more than one-tenth of a point. This lends some support for the fourth hypothesis that trade increases correspond to improved customs performance.

Political stability is significant in each of the models but with differing signs. This is, in part, due to the effect of African countries, at least for model 2, where the impact is positive overall, but with a negative interaction effect for Africa. Models 3 and 4 also show a positive and statistically significant relationship. In sum, it appears that political stability increases customs performance, although this is not clearly the case for Africa.

Finally, efforts to improve trade-related infrastructure appear to have statistically significant but minor impacts on customs performance, and the direction is inconclusive. The data show that a ten-percentage point improvement in the former (one standard deviation) relates to just a 0.047 increase in customs performance, suggesting that efforts to improve customs performance by investing in large roads or ports projects do not directly influence institutional reforms in the short term.

Table 2: Fixed and Random Effects Results: Determinants of Customs Performance

Variable	Customs: FE	Customs: RE	Burden of Customs: RE	Burden of Customs: RE
Lag (Technical Assistance per GDP)	17.356	2.376	6.627	6.925
Polity	0.003***	0.003**	0.002	0.002
Log (GDP)	0.746**	0.249***	0.057	0.061
Lag (Tax per GDP)	–1.114	–0.455	–0.370	–0.378
Lag (merchandise trade)	0.003**	0.004***	–0.001	–0.001
Lag (Political Stability)	–0.118**	0.090**	0.196***	0.211***
Lag (Natural Resource Rents per GDP)	–0.006	–0.012***	–0.006	–0.006
Infrastructure change	0.471***	0.459***	–0.343**	–0.338**
Log (GFCF)	–0.133	–0.044	0.022	0.023
International Trade Tax per GDP	–0.001	–0.009***	–0.014*	–0.014*
Africa		0.217**		0.062
Lag (Political Stability) * Africa		–0.176**		–0.120
Constant	–12.925*	–2.511***	2.410*	2.289*
N	410	410	376	376
n	86	86	76	76
T	7	7	7	7
p	0.001	0.000	0.000	0.000
R^2	0.150	0.6393	0.337	0.344
Notes: * p < 0.1; ** p < 0.05; *** p < 0.01				

5. Conclusions

Examples like the depleted beer truck in Cameroon are bound to continue for much of Africa's short to medium term. Progress to improve customs performance that minimises such trade 'melt' does not come quickly or easily. This is reflected in the regression models above in which few of the independent variables have a sizable impact on customs outcomes. For example, directly targeting agencies for institutional reform may not even have any impact on their performance while improving structural conditions, such as stability, are less direct and may not even improve conditions in the lowest performing areas, such as in SSA. This fits with the institutional reform literature.

Andrews (2013, p. 14) summarises that today's institutional reform investments by international donors are either ineffective or are difficult to implement in the developing world. As a result, developing countries are not measurably improving the 'rules of their public sector and trading games'. Specifically, the African Development Bank (2012, p. 19) comments that government effectiveness scores in Sub-Saharan Africa have actually fallen between 1998 and 2006, and this is despite the fact that the World Bank has incorporated institutional reform into 70 per cent of its projects (Andrews, 2013, p. 11). However, the data also reveal examples of strong performers in SSA, such as Rwanda and Kenya. Although, large-N analysis may not suitably reveal their path to success, a qualitative analysis could provide important lessons for the region.

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Notes

1 Jeremy Streatfeild is an International Trade Analyst at the United States International Trade Commission (USITC) and is grateful to Martha Lawless and Joann Peterson for extremely helpful comments and feedback. However, the views and opinions expressed in this article are those of the author and do not necessarily reflect the official policy or position of USITC or the individual Commissioners. All errors are my own.

2 The POLITY variable provides a convenient avenue for examining general regime effects in analyses but researchers should note that the middle of the implied POLITY 'spectrum' masks various combinations of DEMOC and AUTOC scores with the same POLITY score.

Jeremy Streatfeild

Jeremy Streatfeild is an international trade analyst at the US International Trade Commission where he focuses on logistics and transportation in Africa. Prior to this, he was a country economist for six years at the Millennium Challenge Corporation, working on the sustainability of trade infrastructure in Africa, evaluating ports, maintaining roads, and reforming Customs across the continent. He has also worked on developing hydropower investments in Nepal. Jeremy holds a PhD in political science from the George Washington University and a Bachelor of Arts from Bowdoin College, Maine.

Identifying illicit timber trade between Vietnam and China

Thi Thu Hien Phan

Abstract

Identifying illegal trade in timber between Vietnam and China is challenging for the governments and law enforcement agencies of these countries due to geography; laws and regulations that govern forests; complex supply networks; corruption; and a competitive wood products market. Seizures and arrests are evidence of the illegal activities, but do not explain the motivation behind such activities, or how they are being performed. This paper seeks to provide such an explanation through an analysis of 'mirror statistics' in the cross-border timber trade. Our findings show large discrepancies in the official timber trade statistics of Vietnam and China, which reflect illegal activities including smuggling, illicit trafficking and export tax evasion.

1. Introduction

Illegal trade in timber between Vietnam and its neighbouring countries, such as China, Laos and Cambodia, is increasing due to the high demand for raw materials for the burgeoning wood-processing industry, and because the export of natural timber from these countries is banned. Vietnam and China share an extensive border, with a variety of border gates, and both illegal and legal timber trade between the two countries has increased. Rather than focusing on the seizures and arrests associated with smuggling, this study analyses the 'mirror statistics' and discrepancies in timber trade data compiled by Vietnam and China Customs, and investigates the motivations and contributing factors of this illicit trade. The results highlight technical issues associated with cross-border trade management at the national and international levels of Vietnam and China.

This study is based on desk research and data from reports on timber trade between Vietnam and China. It is supported by input from natural environment experts and governmental agencies on issues of illicit trafficking in timber and on tax evasion, through interviews undertaken in Vietnam in February 2016.

After providing an overview of the timber trade between Vietnam and China, this paper will analyse mirror statistics and discrepancies in timber trade data from Vietnam and China from 2012 to 2014, before discussing the illegality of timber exports from Vietnam to China and then providing a summary and recommendations for Vietnam.

2. Overview of timber trade between Vietnam and China 2012–2014

Vietnam has become one of the largest exporters of timber and wood-based products in the world, while China is the largest in Asia. In 2015, Vietnam exported USD6.9 billion in wood products, which represents an increase of 10.7 per cent over 2014 figures, and 23.03 per cent over 2013 figures (Figure 1) (General Department of Vietnam Customs, 2015).

Figure 1: Timber and wood-based products export turnover of Vietnam in 2009–2015

Source: The General Department of Vietnam Customs, 2015.

China is one of Vietnam's largest export markets for timber and wooden products. This creates a significant trade surplus that is rarely displayed in the bilateral trade of Vietnam and China. Although there are differences in the Customs-compiled data of Vietnam and China, timber trade between the two countries is known to increase annually. The focus of this study is on Vietnam's main timber export commodities, which are in the form of raw materials or unprocessed or very low value-added products, such as wood chips, sawn wood, round wood and veneer (Table 1).

Table 1: Main timber commodities of Vietnam exported to China in 2012–2014

Commodity	Year	HS code	Exp. Tariff in VN	Turnover (million US dollars)			Quantity (million m^3)	
				Vietnam[1]	China[2]	Imp./Exp.[3]	Vietnam	China
Total	2012			710.5	835.30	**1.18**	7.08	7.19
	2013			960.4	1,144.50	**1.19**	8.57	10.15
	2014			845.1	1,439.10	**1.70**	8.40	10.09
Woodchips	2012	4401	5%	495.16	584.27	**1.18**	6.38	6.28
	2013		5%	600.54	757.04	**1.26**	7.60	8.34
	2014		5%	510.84	634.25	**1.24**	6.63	7.08
Sawn wood	2012	4407	10% or 20%	108.62	27.05	**0.25**	0.15	0.07
	2013		10% or 20%	168.33	70.75	**0.42**	0.29	0.21
	2014		10% or 20%	146.38	96.77	**0.66**	0.32	0.28

Commodity	Year	HS code	Exp. Tariff in VN	Turnover (million US dollars)			Quantity (million m^3)	
Round wood	2012	4403	5%	39.3	136.31	**3.47**	0.02	0.09
	2013		5%	63.83	123.47	**1.93**	0.03	0.05
	2014		5%	12.53	241.55	**19.28**	0.01	0.14
Veneer	2012	4408	10%	3.64	16.41	**4.51**	0.31	0.58
	2013		10%	5.96	36.54	**6.13**	0.22	1.25
	2014		10%	17.06	67.62	**3.96**	0.83	2.20

Notes:
1 Data of timber exports to China recorded by the General Department of Vietnam Customs
2 Data of timber imports from Vietnam recorded by the General Administration of Customs, People's Republic of China
3 Ratio of the imported value of China/the exported value of Vietnam

Source: The General Department of Vietnam Customs, 2015.

Data on Vietnamese timber exports, recorded by Vietnam and China Customs, reveals the following three points:

- The reported value of goods imported into China is generally higher than the value of the goods exported from Vietnam, except in the case of sawn wood. This can be explained by differing methods of recording trade statistics, whereby imports are recorded in cost, insurance and freight (CIF) prices, and exports are recorded in free on board (FOB) prices, or priced without carriage expenditure from the country of departure to the destination (UN, 1988).
- The ratio of the value of goods imported into China and the value of the goods exported by Vietnam are likely to indicate trade costs of transboundary movements, with the costs of exporting timber from Vietnam to China higher than the rate of 1:1 in terms of international trade. This was the case for round wood (3:47, 1:93 and 19:28 in 2012, 2013 and 2014 respectively) and veneer exports (4:51, 6:13 and 3:59 in 2012, 2013 and 2014 respectively). In contrast, it was extremely low for sawn wood exports, calculated at 0:25, 0:42 and 0:66 in 2012, 2013 and 2014.
- There are discrepancies between reports relating to quantity of timber exported from Vietnam to China, and the quantity that China imports from Vietnam. This applies to total exports as well as to all the main categories of exported timber. In particular, the quantities of timber imports recorded by China are often higher than the reported quantities Vietnam exports, except for sawn wood.

3. Mirror statistics and discrepancies in timber trade data between Vietnam and China

In general, as noted by Yeats (1995), Makhoul and Otterstrom (1998), Ferrantino and Wang (2008) and Eurostat (2009), discrepancies in mirror statistics of trade in physical goods can be attributed to CIF/FOB differences; misclassifications associated with commodities and the direction of trade made by customs offices (of either the exporting or importing country); time of data compilation; and exchange rates.

In particular, according to the International Tropical Timber Organization (ITTO), tropical timber trade data often shows discrepancies between what is reported as exported by a supply country and that reported as imported by the receiving country. This is caused by factors such as: the incorrect compilation of trade statistics; inadequate trade data collection systems; classification practices; product measures and conversion; illegal activity; and trans-shipments and triangular trade (Goetzl, 2005).

However, there are also factors that present difficulties when seeking to explain the discrepancies in mirror statistics.

First, time, distances and exchange rates in the compilation of trade statistics would not create large discrepancies in trade value and quantity. Most sales contracts of timber between Vietnamese and Chinese traders are calculated and paid in strong currencies, such as USD or Euros. Further, due to China and Vietnam's proximity, and the automated customs clearance procedures and technology used to gather statistics, the time that elapses between goods being cleared by Customs in Vietnam and then cleared when imported into China is not great.

Second, timber trade data is recorded at the Harmonised System (HS) 4-digit level by both Vietnam and China Customs, and the main export commodities are logs or simply processed timber so there should be no differences in commodity classifications. Most timber exported from Vietnam to China is natural timber or raw materials which are directly imported from countries in the region, such as Laos, Cambodia, Malaysia or Myanmar (Xuan Phuc, Ton Quyen, Van Hanh, Le Huy & Thi Cam, 2015). Further, this is governed by a ban on natural timber exports and a high demand for raw materials for the domestic wood-based industry. Consequently, changes in commodity classification and origin rarely occur when re-exporting natural timber, like sawn and round wood, to China. In the aspect of commodity origin, the origin of timber imported for re-exportation to China is shown as the source country in the case of sawn, round and veneer, while wood chips wholly obtained in Vietnam are reported legally and transparently as the produce of Vietnam.

Third, as China and Vietnam share a long border that stretches across seven Vietnamese provinces, timber is exported to China by both sea and road. There are seven international border gates and 29 bilateral border gates on the Vietnamese side, including official checkpoints and non-official points that control transactions transported through forests and fields, over rivers and lakes, through valleys and over mountains. However, the majority of timber exports into China occur at road border crossings. For instance, 185,054 m^3 of sawn and round wood was recorded as being transported by road in 2014, while around 71,878 m^3 was transported by sea. In other words, most timber exports from Vietnam to China are conducted without trans-shipments or being imported into a third country then re-exported to China, so misdeclarations in trade direction are unlikely.

Fourth, trade costs, or the CIF/FOB ratio of the imported value/exported value. Exports are mostly reported on an FOB–Incoterms basis, while imports are reported on a CIF–Incoterms basis. The International Monetary Fund (IMF) estimates that this ratio is normally around 1:1 or the CIF importing price is higher than the FOB exporting price by 10 per cent, including items such as the price of logistics services, freight and insurance. However, the CIF–FOB ratio becomes larger as the distance between trade partners increases and the weight of the traded goods becomes heavier (Pomfret & Sourdin, 2009). Similarly, research into CIF/FOB ratios of CEPII[1] covering more than 200 countries and 5,000 products between 1994 and 2007 reveals that there is a stable gap with the COMTRADE exports and imports database of 10 per cent in terms of value of trade for exports, and of 5 per cent for imports. This means that the CIF/FOB ratios range from 1:05 to 1:1 (Gaulier & Zignago, 2010).

Sea transport

Sea freight transporting timber in bulk from Haiphong port, Vietnam, to Huangpu port, China, was about USD15[2] per one MT of round wood values at USD474[3] FOB at Haiphong port in 2014, with the CIF/FOB difference being approximately 1:03—far from the usual rate of 10 per cent. In addition, low oil prices and a highly competitive global transport market are decreasing sea freight and trade costs in international trade transactions, thereby reducing the difference between CIF and FOB values.

Road transport

The majority of exported timber was transported by road, crossing the respective border and inland checkpoints, so distances would be unlikely to make the imported value/exported value much higher than 1:1 for most exports of timber from Vietnam to China. In fact, road transportation of timber exports with delivery places at the border gates between Vietnam and China are usually made in DAF (ICC, Incoterms 2000) and DAP/DAT (ICC, Incoterms 2010). This makes the ratio of the imported value of China/exported value of Vietnam approximately equal to 1:1.

In conclusion, trade costs or the ratio of the imported value and the exported value in terms of trade do not explain the unusual ratios displayed in timber exports from Vietnam to China. It was further below the ratio of 1:1 in the case of sawn exports from Vietnam to China as well as the total timber imports of Vietnam from China, that stood at 0:8; 0:95 and 0:82 in 2012, 2013 and 2014 respectively (Xuan Phuc, Lu Huy & Thi Cam, 2015).

Next, the paper discusses the illegality in timber exports from Vietnam to China which has caused differences between the timber trade data of the two countries.

4. Illegal trafficking in timber from Vietnam to China

Smuggling creates considerable discrepancies in the data on timber trade between Vietnam and China because there are quantities of timber that are not recorded in the customs statistics. For instance, smuggling and the concealment of timber consignments occurred in Vietnam which were not compiled in the customs statistics systems but officially recorded as imported value and volume from Vietnam by Chinese Customs. This leads to gaps in mirror statistics of the export value and volume of wood chips, round wood and veneer from Vietnam to China. In contrast, sawn wood exports, compiled as export statistics by Vietnamese Customs, did not appear in the China import statistics, resulting in unusual differences in mirror statistics in which the recorded imported value and volume were much lower than those exported.

Here, illegal trafficking includes smuggling and concealment in timber exports from Vietnam to China. In Vietnam, illegal trafficking in timber is mainly conducted by transnational networks from the source country to the destination of Vietnam and vice versa, namely smuggling and other illegalities in transport inbound and outbound to/from Vietnam. According to Vietnamese Customs, many shipments of timber arriving in Vietnam were inspected and found to be smuggled out of natural forests, from countries that have timber export bans. Local villagers, middlemen, timber traders, and transporters often work in complex networks to facilitate the illegal transport of timber across land or sea borders, often assisted by local authorities.

Illegal trafficking in timber crossing land borders is the most common method due to the high demand for the burgeoning processing manufacturing from Vietnam's neighbouring countries, such as Laos, Cambodia and Myanmar (EIA, 2011). Further, Vietnam is a main provider of raw material and logs to other wood-based producing hubs via common border gates and clandestine land routes. This demonstrates that illegal trafficking is a major causal factor in the differences in timber trade data between Vietnam and China, especially data on wood chips, round wood and veneer.

Fraudulent documentation and misdeclaration of smuggled and illegally harvested timber also lead to discrepancies in data on timber exports from Vietnam to China. Vietnam is not a producer of raw material and the government banned the exportation of natural tropical timber in the 1990s, so most timber exports were imported previously from the tropical forests in the regions, such as from Laos, Cambodia, Malaysia or Myanmar. In the timber sector, Lao PDR also continues to be the source of a large proportion of products at high risk of being illegally traded (predominantly sawn wood and logs) (Saunders, 2014).

According to studies of Forest Trend into the international trade in timber of Vietnam, most of the imported logs and sawn wood imported from Laos and Cambodia were well-documented before being re-exported in the form of raw material or minimally processed wood to countries like China and India (an estimated 5 per cent of the total import amount). Vietnam has become a laundering hub for illegally harvested logs and smuggled timber from Laos, which has been Vietnam's biggest provider of sawn wood (EIA, 2011). This possibly explains the situation of sawn exports from Vietnam to China, with timber being illegally certified as of Vietnamese origin before being exported to China, with approved customs clearance on the Vietnam Customs system, but rejected in the customs clearance for imports in China. Also in the case of sawn wood exports, the illegal declarants made customs declarations for timber exports to China with fraudulent dossiers and information but there was no shipment of the declared timber, which was probably replaced by other goods. The illegal exporters are taking advantage of the Vietnamese legislation on timber re-exports, especially for some high-value timber imported from Laos and Cambodia. As a result, Vietnam's timber export statistics are inherently higher than the import data of China in both value and volume, with timber declared for exports to China being traded and consumed domestically.

Illegal trade in timber between Vietnam and China has been supported by a wide range of socio-economic factors, such as booming mutual trade flows in various goods, their proximity, political conflicts, and corruption. Further, Vietnam and China have not engaged in any bilateral agreements on border control cooperation, which are aimed at preventing and combating illegal trade in timber. Vietnam is negotiating a forest law enforcement, governance and trade (FLEGT) voluntary partnership agreement (VPA)[4] with the European Union (EU), but China has not started this process and so the capacity of forestry law enforcement in these countries is insufficient to combat illegal trade in timber.

Timber export tax frauds

In 2012–2014, the main categories of timber exported to China incurred export duty, ranging from 2 per cent for wood chips to 20 per cent for sawn wood. The majority of the exported timber—round, sawn and veneer wood—incurred a tariff rate of 10 per cent. In all main export commodities, the higher the export tariff rate, the greater the discrepancy in timber trade data, and the greater the CIF/FOB ratios.

Timber in the form of raw materials, especially unprocessed or simply processed wood, are subject to considerably high export tariffs, while import rates of zero per cent are designed to protect and develop supply for the export-driven wood-processing industry of Vietnam. Vietnam's tax policy on timber exports has motivated illegal traders to evade tax by reducing customs values and exports tax obligations. Consequently, the exported value and volume compiled by Vietnamese Customs are lower than the imported data recorded by China, especially for some precious and high-priced timber exported to China, such as rosewood and 'trac' (Xuan Phuc, Le Huy & Thi Cam, 2015). Such discrepancies in mirror statistics of timber trade between Vietnam and China occur when the under-invoiced commodities are successfully declared as exports in Vietnam, but value-adjusted when being cleared for import into China.

In order to conduct these sales transactions, the Vietnamese timber exporter operates two accounting systems, with one used to obtain the exact amount paid by the Chinese buyer and the other opened for official accounting activities, customs declarations and tax obligations in Vietnam.

Misdeclarations in customs valuation and fraudulent documentation are common practices of Vietnamese timber exporters. In addition, Vietnam's export promotion strategy, the increasing trade facilitation and automated customs clearance procedures are creating loopholes and opportunities for tax evasion in timber exports from Vietnam to China. If the declarant receives a request from the customs administration to produce documentary evidence and/or undergo a physical inspection of the goods, they will cancel the declarations. They continue to make other declarations with information changes until the online customs clearance is obtained without documentary or physical inspections. This commonly occurs for categories of timber that are prohibited or have restricted quotas under the Forest Protection, Development Law of Vietnam 2005 and the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES).

5. Summary and recommendations

Illegal trade is a major cause of the discrepancies in data for timber exports from Vietnam to China. While it is impossible to quantify illegal trade in timber by transacted value and volume, applying a mirror statistics methodology and analysing the discrepancies in timber trade data between Vietnam and China can provide insights into such illicit trade. It is considered that, first, Vietnam is a transit hub of illegally harvested timber in the transnational smuggling network from source countries (like Laos, Cambodia and Myanmar) to China. This contravenes national bans on natural timber exports of Vietnam and other countries in the region. Second, high export tariffs are facilitating tax evasion by Vietnamese exporters. Misdeclaration in customs valuations, commodity descriptions and invoicing are often used to circumvent tax revenue. Third, transport and trade facilitation incentives and trade liberalisation further contribute to the increase in illegal trade in timber between Vietnam and China and other ASEAN countries.

Illegality in timber exports from Vietnam to China also creates a wide range of negative socio-economic impacts such as:

- increased risks and damage to the environment, ecosystem and biodiversity
- increased landslides, soil erosion, deforestation
- threats to animals and plants, especially endangered species
- damage to the livelihoods and living quality of the population who depend on the forest resources
- losses to the national wood industry, especially legitimate wood processing entrepreneurs
- encouragement to transnational organised crime to corrupt governmental authorities along the supply chain.

Discrepancies in timber trade data between Vietnam and China affect bilateral trade in general and trade in timber and wooden-based products in particular. This leads to incorrect data in the trade database and market information used for making socio-economic development policies.

Vietnam is in need of more strategic schemes and action plans to prevent and detect illicit trade in timber with China and other neighbouring countries. From the perspective of cross-border trade and customs management, Vietnam Customs must enhance its enforcement capacity, focusing on misdeclaration of origin, valuation, tariff classification and the like. Future studies could extend this research to Vietnam's other timber trade partners, such as Laos and Cambodia, and include different modes of international trade, such as imports and triangular trade.

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Notes

1 CEPII: Center d'Etudes Prospectives et d'informations Internationales.

2 Average sea freight of some carriers transporting timber from Vietnam to China and Hong Kong.

3 Exported price of round wood from Vietnam to China in 2014.

4 A Voluntary Partnership Agreement (VPA) is a binding agreement between the EU and a Partner Country by which the EU and the Partner Country undertake to work together to support the aims of the FLEGT (Forest Law Enforcement, Governance and Trade) Action Plan and to implement a timber licensing scheme.

Thi Thu Hien Phan

Dr Thi Thu Hien Phan is a lecturer in international trade transactions and customs administration at the Vietnam Foreign Trade University. She worked as a specialist in international business in the autoPhanmobile industry in Vietnam before her current career. In 2012, she successfully defended her PhD dissertation on the issue of establishing an efficient linkage between trade and industry policies for the industrialisation and global participation of Vietnam. She is recognised as an expert in international trade transactions and customs affairs at her University and in training and supervising Vietnam's business community and customs officers. Her research activities are focused on projects involving customs and cross-border trade in Vietnam including informal trade and customs in Vietnam; logistics costs of Vietnamese enterprises; and standardisation and harmonisation of customs procedures in Vietnam. Currently, she is a visiting postdoctoral researcher in HEC, University of Lausanne and the Cross-border Research Association in Switzerland, focusing on a study on the socio-economic negative impacts of trafficking and illicit trade.

Back to the future of Customs: A new AEO paradigm will transform the global supply chain for the better

Lars Karlsson

Abstract

This paper presents recent changes in the area of compliance management and identifies how the Authorised Economic Operator (AEO) instrument is about to transform into more mature and developed models. This will allow the AEO concept to become the future game changer it was originally intended to become, for both international trade and other stakeholders in the global supply chain.

Purpose

The purpose of this paper is to prepare governments and the private sector for the opportunities and mutual benefits that further developed AEO concepts can provide. These opportunities and benefits will arise through the design, development and implementation of more advanced compliance management models and applications that, in the near future, will cover the entire global supply chain and all border agencies.

Introduction

Today we know that world trade is one of the main drivers for global development and an efficient weapon to fight poverty. Globalisation has changed the world. Fifteen years ago, we only read about globalisation in books and articles. Today, we know what it means. During the last decade we have seen a number of domestic crises transform into global challenges through the butterfly effect. We had the security crisis post 9/11, the commodity price crisis in the years that followed, the global financial crisis, the Euro crisis and, lately, the refugee crisis that brought with it major migration challenges.

We now know that globalisation challenges cannot be met by local or regional solutions alone. Global problems need global solutions. So we have a driver for harmonisation and standardisation that will become more evident during the years to come.

In the early 2000s, the international customs community responded to the post 9/11 environment by creating the SAFE Framework of Standards. This international standard came into force in 2005 and has been adopted by 169 countries to date. It shapes the foundation for modern Customs practices. The second of the SAFE pillars regulates Customs-to-Business cooperation and AEO regimes.

In 2015, as a part of the coordinated border management concept, the SAFE Framework was amended to add a new third pillar describing cooperation between Customs and other government and inter-governmental agencies. The standard states, '… [it] should therefore be encouraged to develop co-operative arrangements with other government agencies' (WCO SAFE, 2005, p. 6). However, this development has not yet been fully realised as very few countries have expanded their AEO programs to include border agencies other than Customs.

In addition, the SAFE Authorized Supply Chain envisages a concept under which 'all participants in an

international trade transaction are approved by Customs as observing specified standards in the secure handling of goods and relevant information' (WCO SAFE, 2005, p. 17).

The World Customs Organization (WCO) AEO concept also includes an instrument of cooperation, the so-called Mutual Recognition Agreement principle. This means that two countries meeting the international standards sign a bilateral agreement to acknowledge the status of AEO companies and the controls already carried out by the other country in order to avoid duplication of inspections.

The AEO concept is one of the key building blocks of the World Trade Organization's (WTO) Trade Facilitation Agreement that was agreed in December 2013, the so-called Bali package. When ratified by member states, the Agreement will become international law, meaning that all WTO members have to implement an AEO program in line with international standards.

The theory of compliance management

By the mid-1990s, risk management had become a trend used by some of the most advanced customs administrations in the world. This approach proved to be more efficient than previous control strategies used by Customs. Risk management enhances the ability to prioritise actions and thus has the potential to bring a cost-efficient impact on the use of resources. The idea is to identify high risks in relation to the organisation's objectives and apply the most suitable action to mitigate the risk. This means that a risk can be handled through a customs control activity—for example, a targeted inspection or a post-clearance audit—or it can be transferred, avoided or accepted. The important thing is to identify and analyse the risk. A risk is most dangerous when it is unknown. Risk management means that all activities within a customs operation should be handled in priority order based on risk.

However, the early applications of risk management in Customs were often concentrated on risks related to goods or procedures. Risk management systems concentrated on transactions. As people commit fraud, not goods, it became evident that a third indicator needed to be introduced and prioritised, namely the operators. The *Border Management Modernization Handbook* from the World Bank states, 'Customs and other border management agencies cannot continue to use an exclusively transaction based approach to controlling the movement of physical goods across borders—one where each shipment received is assessed individually, with little regard for the customer's compliance history or for commercially available information that could ground admissibility checks and preclearance decisions' (McLinden, Fanta, Widdowson & Doyle, 2011, p. 12).

This early experience led to a number of conclusions. First, that it is not enough to base an international trade risk management system on goods and procedures alone, as the operator involved is the most critical factor. If the operator is safe and low risk, then the risks related to goods and procedures have less impact on the total risk evaluation.

Second, it was evident that it is difficult from a risk perspective to secure all transactions in cross-border trade, especially as global trade continues to grow. The solution is to study the systems involved from a wide range of perspectives to determine the likelihood of errors in transactions. This started the move from transaction controls to system-based controls.

The third landmark parameter was that if systems were to identify high-risk operators, then these systems would also identify low-risk operators.

The question was how to handle these low-risk operators and to give them an incentive to be compliant with legislation, policies and rules whilst controlling them with as little resources as possible. This meant that the resources in a risk management-based control strategy could then be used for high-risk operators, 'a risk management approach to border management is characterized by the early identification of potential risks, with resources being directed towards high risk areas and as little intervention as possible in similarly identified low risk areas' (Widdowson & Holloway, 2011, pp. 106–107).

This solution became the compliance management model for trusted traders that later became the international standard known as the AEO, 'Growing recognition that risk detection and facilitation of trusted traders were two sides of the same coin, inherently inter-dependent and reinforcing, spurred the development of AEO programs and clearance regimes aligned with customer segmentation based on measured compliance rates and process maturity' (Cohen, Baida & Kouwenhoven, 2013, p. 10).

The history of AEO and why its potential was not maximised

The original idea was to create a risk-based separation of trade flows through borders. The resultant new flow should be more compliant and secure and thus faster, more predictable and less resource-intensive for governments to manage. This was a revolutionary idea as legislation and policy in most democracies are written to guarantee neutral competition and equal treatment. However, the idea was not to introduce alternative legislation and policies for compliant traders and service providers in the global supply chain, but to develop an alternative way to ensure that the operators are compliant with legislation, policies, rules and regulations. If an operator invests in meeting the requirements and thus proves to have a low risk of errors, that operator can also be given a different control program to manage and monitor its low risk over time and to maintain its status as low risk.

In compliance management theory, this demands not only a modern, systems-based structured control approach, but incentives to attract companies to be compliant so that government agencies can concentrate their scarce resources on prioritised high risks, 'the best practice in compliance management in the border context, or any other regulatory context, requires (in the oft quoted metaphor) both carrots and sticks' (Widdowson & Holloway, 2011, p. 125).

An AEO is a control program that generates simplified processes. Previously, there had been a general opinion that enforcement and trade facilitation were two sides of a scale—more enforcement generated less trade facilitation and vice versa. This is fundamentally wrong. There is no contradiction between facilitation and security, since a simplified process is easier to secure and a safe process is easier to facilitate. It is when processes are complicated that it becomes difficult to determine risks and evaluate early warning signals.

In the 1980s, Sweden and some other countries started to develop the concept of compliance management partnership, so-called Trusted Trader Programs. AEO was called the future of Customs. The basic principles included elements such as:

- voluntary entrance based on specific criteria
- a partnership approach
- self-assessment by the company
- validation of systems
- risk mapping
- generous benefit programs
- certification.

By the year 2000, countries such as Sweden, the Netherlands and Canada had been using risk management control strategies, client management strategies and post-clearance audit techniques for decades. Import and export processes were already electronic and paperless, which created a new platform for efficient processing. When trade volumes increased, this made it possible to move into more sophisticated compliance management strategies and control models, including Trusted Trader programs. The countries mentioned above worked in close cooperation to develop the first compliance management applications in Customs and cross-border trade.

Sweden was a forerunner in adopting segmented clearance regimes aligned with compliance management through its two accreditation schemes: Stairway, which assesses supply chain quality; and StairSec, which assesses supply chain security. Both schemes established a clear relationship between the degree of risk that a trader poses and the degree of trade facilitation that this trader can enjoy. The Compliance Partnership Customs and Trade (COMPACT) model jointly developed by Swedish and Dutch Customs presents a framework for certification of traders as being reliable and was the basis for the European Union (EU) AEO scheme launched in 2008 (Cohen et al., 2013, p. 11).

Applications such as the Stairway concept of Sweden, the Client concept in the Netherlands, and the Partnership program in Canada, were inspired by—and have a number of similarities with—other existing compliance management and quality systems such as the International Organization for Standardization (ISO). These customs programs were successfully implemented and generated considerable interest from the private sector. In addition, once operationalised, they provided significant measurable improvements for both government and traders across all key performance indicators (KPI).

To identify low risk, the principle was to certify all compliant stakeholders in the global supply chain as trusted traders, from the producer, exporter, service provider and importer, through to the end consumer. The early programs were designed to cover all Customs risks; in fact this was one of the key intentions behind the concept.

There were a number of pioneer applications utilising this trusted trader platform, including the Gateway Sweden no-stop-shop on the border between Sweden and Norway, and the Green Corridor on the border between Finland and Russia. In addition, discussions on how to involve other border agencies were also initiated. The Trusted Trader instrument was considered to be the future of Customs.

Then globalisation entered the scene. On 9 September 2001, the terrorist attack in New York forever changed the world. We all know what it meant. This also had a huge impact on international trade. Governments felt a need to evaluate and perhaps re-consider their approach to the international movement of people and goods to make sure that it was safe and secure in the future. This dialogue was also initiated in the WCO and a specific task force was created to address the new global landscape.

In Sweden, the StairSec and Stairway models shaped the first operational AEO program in the world. Through bilateral work with the United States, the Customs-Trade Partnership Against Terrorism (C-TPAT) followed. In the WCO, the SAFE Framework of Standards was developed primarily to address the new situation. Based on the early examples of trusted trader programs built on the principles of the WCO Revised Kyoto Convention as described above, compliance management became an essential part of the international standard. The AEO concept was born. Through the Mutual Recognition Agreement (MRA) mechanism of the SAFE Framework, the WCO also presented a model for bilateral agreements to recognise a company's AEO status, its global supply chain benefits, and the rules for avoiding duplication of controls for trusted traders. Today, more than 70 countries have AEO programs and more are to follow.

So, is there a problem? When you listen to voices in the trade community you could easily get the impression that the AEO concept isn't as successful in reality as the numbers say. It is naturally hard to call a model that has been implemented in more than 70 countries representing a high percentage of global trade a failure, especially since today more 40,000 companies worldwide are AEO certified. However, there has been a feeling, especially in the private sector, that the programs do not fulfil the intended promises of delivering sufficient benefits. Maybe the original ideas of the founders were lost along the way. For a long time there has been a dialogue as to whether or not the potential of this standard model has been fully exploited and realised.

I will argue that there are several reasons as to why some AEO programs around the world are not considered to be as successful on the ground as they could have been.

The first reason was the early requirement to focus on security. This was a necessary development and a response to challenges arising from the terrible attack on 9/11. However, for a number of years this focus took all the attention in the development of the standard and the model. The world needed a new security platform for global trade, and AEO, as a part of SAFE, became that platform. Some other areas were not developed as intended and thus some of the potential benefits of the concept were never fully exploited. The development of the model itself focused on exports, where the benefits for governments were obvious, but where in some countries, there are not many benefits to give to the private sector. The value of an AEO program became less obvious as, generally speaking, countries were compliant in relation to exports whereas imports are often the most important part of the process. Having said that, it should not be forgotten that without the early security focus, the concept would not have the coverage that it has today, leading to the contradiction that while SAFE is one of the most successful instruments in the history of the WCO counting the number of countries having implemented the standard—there are still doubts as to whether this partnership model has provided benefits for all stakeholders or only for governments.

A second reason is that during the process of international harmonisation and standardisation, AEO lost some of its original innovation and creativity. An example is that when AEO was introduced in the EU, a common dominator level of harmonisation in relation to both requirements and benefits had to be found. In practice, this meant that a number of countries had to remove existing benefits and individual solutions as a result of the introduction of a common model throughout the Customs Union. This has had a clear negative impact on the available benefit packages, especially in regions and countries where trade facilitation has generally been prioritised and where, for example, the release of goods is already fast. It can also be argued that it is the price of harmonisation.

The lack of maturity of some AEO programs leading to less tangible benefits for business has also become a challenge in relation to the negotiation of MRAs. If an MRA is signed between two countries that only have security and export oriented AEO programs with insufficient benefits packages, it is challenging to negotiate an agreement that provides more benefits than already exist in the national programs.

A third reason is that the partnership and cooperation between governments and the private sector has not developed as fast as was expected a decade ago. Due to a number of differing international trends, such as the global financial crisis, both government agencies and companies have been forced to set different priorities, which has had a negative impact on the ability and willingness to develop new concepts or to further develop already existing concepts. The understanding, cooperation and partnership between Customs and the private sector through the establishment of a structured approach to dialogue is a prerequisite for an efficient compliance management model like AEO, 'The act of collaboration must start with dialogue. You cannot build relationships without having an understanding of your potential partners and you cannot achieve that understanding without a special form of communication that goes beyond ordinary conversation' (Yankelovich, 2007, p. 28).

Research on operational AEO programs around the world, such as the recent Centre for Customs and Excise Studies (CCES) study in Australia (Widdowson, Blegen, Bryce, Kashubsky & Grainger, 2014), show that operational AEO programs have not reached their full potential. While there are many good examples of functional and efficient AEO programs, and while many companies have received streamlined processes and considerable benefits, there is still a nagging feeling that the AEO concept could have delivered even more benefits for all stakeholders. As there is little doubt that the results for governments have been outstanding in enhancing the security of the supply chain and improving control results, it might be time to seek to accomplish the originally intended balance between both partners in relation to investments, benefits and results of the AEO concept in the future. The good news is that this is exactly what is happening right now.

A new AEO paradigm as a bridge to the future

During the years since its introduction, the international standards for AEO have been modified and further developed by the WCO. The compliance management model has been stabilised and tested in battle, and few companies have voluntarily left AEO programs. This is despite the often basic benefits programs that are offered and indicates that most companies are reasonably satisfied with their AEO status. Still, there is no doubt that more could have been done. Many companies testify that it is not the benefits offered by governments that create the demand for and justify the investment in AEO status, but rather industry quality standards and requirements from other stakeholders. This was always a part of the original idea, but it was not the intention that it should be the only driver for entering AEO programs. The intention of a contemporary compliance management approach is to offer powerful incentives for compliant operators to further improve and maintain compliance over time '… there will continue to be a shift away from more direct regulation to a catalogue of alternative strategies, and that these alternative strategies, as far as possible, will emphasize voluntary compliance and self-assessment and working with other border agencies and the private sector to achieve border regulation objectives—collaborative border management—while underpinning these strategies with robust enforcement mechanisms' (Widdowson & Holloway, 2011, p. 127).

The strategy to develop security and compliance programs as separate entities was not the right one to optimise the benefits for all stakeholders of the supply chain—which should have been the aim of all compliance management partnership programs—and it has also created challenges in relation to the negotiation of MRAs. Today we know that the most successful way to design, develop and implement the AEO concept is by introducing holistic models covering all aspects of customs requirements—and more. A trusted trader is a trusted trader and as long as the trader continues to increase the compliance and security of the entire company, then the status is maintained and serves the intended purpose for all stakeholders. In addition, the way to use regulatory compliance management, as a powerful complementary instrument, has matured since the theory was introduced:

> The focus on voluntary compliance (which favors a new set of tools and spawns numerous new programs) deemphasizes reliance on enforcement methods generally or considers them only as a last resort, to be used against recalcitrant or persistent offenders when all else has failed. Regulators are encouraged to pursue systematic solutions that do not involve enforcement, as these are perceived to produce a better bang for the regulatory buck and cause less trouble. Using alternatives to enforcement helps to minimize the use of state authority (although paradoxically it tends to increase governmental intrusion into the affairs of citizens and industry). As a result of these dominant pressures and prescriptions, most regulatory agencies now recognize, and to differing degrees embrace, a much broader range of compliance-producing tools, including education and outreach programs, partnership and mentoring programs, technical assistance, and economic incentives (Sparrow, 2000, p. 34).

This is now about to change. Fifteen years after the first models became operational, we are now seeing a new and more mature generation of programs emerging and being implemented. These programs are bringing the concept back to its original platform, while at the same time taking AEO into new dimensions and areas. These new programs can become the basis for dealing with a more complicated world. We are going back to the future—and the future is looking great again.

Common elements of the new AEO paradigm

A new AEO paradigm is emerging. The aftermath of the global financial crisis and the political dimension of the WTO Trade Facilitation Agreement are the drivers underpinning this development.

So, what is different now? There are a number of common trends and elements that can be seen in these new programs. Here are the ten most significant parameters:

- AEO becomes a holistic model for the entire operation of the organisation
- An AEO is a trusted trader and should always be treated as one
- AEO must provide a powerful benefits package for all stakeholders
- AEO is a management system
- AEO is a smarter control program with better but less intrusive controls that produces facilitated, faster and more predictable processes
- AEO programs must have an effective management, monitoring and evaluation process
- AEO programs must be measured and results transparently presented
- AEO must be developed to become a single government AEO status that includes all border agencies
- AEO needs to include all stakeholders in the supply chain
- AEO innovation is back!

The AEO Brazil, Trusted Trader Australia and UAE AEO are all examples of recently introduced AEO programs that include all of these elements.

What does the future look like?

When examining the elements of these new AEO programs, there are several interesting perspectives to highlight.

A. Re-emerging holistic programs

These new programs re-introduce the idea that validated, compliant and low-risk companies that have voluntarily applied for AEO status, once certified, should always be treated as trusted traders by the entire customs administration and other areas of government. If a company is an AEO it remains a Trusted Trader, as long as the company maintains or improves the agreed compliance levels over time. This process is managed and monitored by a sophisticated cost-efficient individual control program run cooperatively by the customs agency and the company.

B. Extensive benefit programs

A voluntary compliance management concept has to provide attractive benefits for all stakeholders involved in the program. AEO benefits can be divided into four different categories:

- speed
- greater predictability
- lower cost
- better service.

New benefits must constantly be developed in all these areas. For example, these new programs provide the facility for periodic declarations, deferred payments, pre-arrival release of goods, preferred treatment and fast tracks. There are also new benefits related to service level agreements for average release times and structured facilitated routines when the flow of goods is interrupted. Innovative new benefits related to multi-agency cooperation and coordinated border management is another emerging area.

Programs such as AEO Brazil and UAE AEO have extensive benefits for all companies joining the program, not only for government. In fact, UAE AEO has what is likely to be the most advanced benefit program to date, with 50 different benefits—and it is still undergoing development.

C. Single government AEO status

It was always initially intended that AEO should be wider than just Customs. There are some countries that have tested such cooperation on the ground with positive results. This is the ultimate benefit for traders, as we have known for many years that it is the total release time for goods and the entire treatment that is of value to operators. The WCO Time Release Study, that has been operational for many years, indicates bottlenecks caused by various agencies being involved at the border. Concepts such as Coordinated Border Management and Single Window are initiatives that can address these challenges. So is AEO.

When a company is applying for AEO status with Customs, it is reasonable that this status as Trusted Trader should also extend to all other border agencies. This would take the AEO instrument to a level of a Single Government AEO Status (SGAEOS).

To make this operational, the sub-processes of AEO—a) Application, b) Validation, c) Certification, and d) Management, Monitoring and Re-Validation (Evaluation)—must also reflect the criteria, requirements and risks of the other agencies.

This is exactly what is happening right now. The AEO chapter of the SAFE Framework—the international standard—has recently been amended to also cover cooperation between Customs and other government and inter-governmental agencies (SAFE, WCO, 2015).

Several countries, including Australia and Brazil, are designing, developing and implementing models like this. Platforms for Integrated AEO have been developed including other agencies in one single AEO program, often starting with the agencies most involved at the borders (for example, agriculture, food, health and immigration), but that are also fully operational in all phases of AEO.

An SGAEOS is also developed in parallel with a Single Window, there are unlimited possibilities to offer benefits of a new magnitude. This is the real game changer for the future and we are already seeing operational examples being implemented.

D. AEO for SMEs

There has been a misunderstanding for many years that the AEO instrument is only of benefit to big multinational companies. This is fundamentally wrong. In fact, it is much easier for small and medium-sized enterprises (SMEs) to go through a validation than it is for an international company with their often complicated structures and multi-country presence.

However, the AEO program must be designed to take into account the challenges facing SMEs. This relates both to the benefits, the resources required to apply and be validated and the potential to meet the AEO program requirements. SMEs are the basis for all trading nations and this is especially vital for emerging economies that sometimes rely on SMEs to a larger degree than more advanced economies.

Some countries are now developing interesting models where the existing AEO infrastructure is being applied and used to lower the initial investment cost for SMEs seeking to enter an AEO program. These types of initiatives are welcome and have the potential to revolutionise the entire compliance management concept.

E. AEO for transhipments, free zones and transit

There are today several blind spots within the global supply chain that have still not been addressed in the AEO platform. Typical examples are transhipment hubs and free zones, but also some elements of the transit procedure in general. To create new global secure trade lanes and trade corridors, this needs to change. In fact, these facilities play an increasingly important role within global trade due to changing

trade patterns, changing trends in the movement of goods and the development of global value chains. All parts of the supply chain should be included in future models to secure and facilitate the movement of goods. Some countries have now started projects to develop models for these elements, and this is the way of the future.

F. A new MRA platform

As MRAs are negotiated and signed between countries that have more holistic, modern and mature national AEO programs, there will be more advanced MRAs that include compliance and security as well as multi-agency environments, both in relation to status and benefits at both ends of the supply chain. Adding international trade hubs to these agreements will create another huge game changer for the AEO instrument and for international trade. Already, the first negotiations between countries with more mature AEO programs have started.

G. Measuring results is everything

The final major change to be mentioned in this paper is the development of new advanced AEO performance measurement models. Measurement is everything and it is essential to put in place new performance management models to measure the results and outcomes for all stakeholders of implemented AEO programs. Just because it is not easy to measure something does not mean that it should not be done. It is important to measure in order to manage and evaluate resource allocation, which is the basis for all risk and compliance management models, 'the first step is to measure whatever can be easily measured. This is OK as far as it goes. The second step is to disregard that which can't be easily measured or to give it an arbitrary quantitative value. This is artificial and misleading. The third step is to presume that what can't be measured easily really isn't important. This is blindness. The fourth step is to say that what can't be easily measured really doesn't exist. This is suicide' (Handy, 1995, p. 219).

Several countries are developing new performance measurement models in order to follow results on speed, predictability, release of goods, benefits, service, public perception and cost savings. These new measurement models will create a basic platform for more advanced management, monitoring and evaluation of AEO programs. The data from these measurement instruments should be publicly presented and, through these open sources, it will be possible to use research and development to learn more about what is working and what is not working in order to further improve the AEO concept in the future.

Conclusions

The AEO instrument is based on compliance management theory and was expected to become the new modern control strategy for Customs and other border agencies. It is a tool to improve control, safety and security whilst still offering fast and predictable processes for cross-border trade throughout the supply chain.

AEO can, if correctly designed, developed and implemented, be the model to balance the interests of both government and business in a time of globalisation and increasing trade volumes. The implementation of the AEO concept, looking at the number of national programs, has been a global success and, from an implementation perspective, is one of the most successful WCO models.

However, for many years harmonisation and the development of the necessary international standards, in combination with various international trends, made the further development of the AEO instrument and its application on the ground less dynamic than expected. This has been especially noted in relation to the benefits offered to compliant traders joining the AEO programs, a crucial element of a compliance management model. It is obviously important to ensure that the potential positive results and impact of any international standard are fully exploited.

At a time when the world is facing huge challenges from a globalisation perspective, seeing increased threats from terrorism and organised crime syndicates, and while world trade is considered a driver for development, we might have one of the solutions to face these challenges already at hand.

Taking the AEO instrument to a new level, a new paradigm (based on its original concept), with further innovative functions and applications related to Coordinated Border Management and Single Window, creates hope for a better world.

It would mean that AEO could become what it was intended to be: a model fostering increased compliance based on risk and a platform for Customs, or indeed government, reform and modernisation.

When the AEO instrument is extended to all parts of the supply chain, including transhipment of goods and free zones, when it is designed to promote SMEs and when it includes all government agencies involved in cross-border movement of goods in an SGAEOS, then there will be a new, safer global trade environment contributing tremendously to the development of our societies. These new innovative AEO and MRA programs, based on international standards and best practices, mark an evolution of the Customs area through compliance management and thus will also provide the necessary benefits for all stakeholders of the supply chain, including making it a sound and prudent business decision for the private sector to become AEO and foster security, safety and compliance. If the benefits are there, the AEO instrument will be used and developed further.

In addition, these new individual trends and innovations are all supporting the overall development of the AEO instrument, making it again the primary game changer for safer, faster and more predictable world trade.

Some countries have already developed this type of AEO program and other countries will upgrade their older models to the new paradigm in the years to come.

We are going back to the future and the future is better than before and better than today.

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Lars Karlsson

Lars Karlsson is President of KGH Border Services. A well-known Customs thought-leader, he has an extensive background in Customs and international trade policy. From 2006 to 2010 he was the first elected Director for Capacity Building of the World Customs Organization (WCO), having been appointed acting Deputy Director General of Swedish Customs in 2004.

Lars is the architect of the world's first AEO program, the Stairway concept, which outlined the principles for Authorised Traders and Authorised Economic Operator programs. It was used as a model for the design of the WCO AEO standard (SAFE), the US C-TPAT and the EU AEO program. He is also the initiator of the Swedish Customs Future Center for innovations, research and trend analysis.

In 2001, Lars received Her Royal Highness the Swedish Crown Princess' Gothia Prize for the best innovation of the year, and in 2003, he was nominated as Swedish Manager of the Year. He holds a Masters in International Customs Law from the University of Canberra and, in 2016, he was awarded a Doctorate of Education (Honoris Causa) by Charles Sturt University, Australia.

Customs Enforcement Network (CEN) database perspective: A case study

Wieslaw Czyżowicz and Magdalena Rybaczyk

Abstract

Although the first Regional Intelligence Liaison Office (RILO) was established in 1987 there is no reliable data on the effectiveness of the program. A similar situation exists in the case of the Customs Enforcement Network (CEN) database, even though it is the only central depository of Customs seizures worldwide. This paper focuses on the purpose and meaning of these initiatives from an enforcement perspective; these tools have been around for 30 years and so it is timely to consider whether a redefinition and new approach to these intelligence-related initiatives are needed. The paper presents the general background, the outcomes of a survey on the CEN database, and proposals for future improvement.

Introduction

The main goal of each customs administration is to control the international trade of goods and customs crimes, which, by their nature, are international. Various types of customs offences occur on all continents and at all customs borders. The task of customs services is to combat these crimes and reduce them. For this purpose, there are both legal instruments, such as international conventions (e.g. Johannesburg Convention, Nairobi Convention and Naples II Convention) and institutional instruments. The only international organisation that specialises in customs cooperation to effectively combat customs offences is the World Customs Organization (WCO; known as the Customs Co-operation Council until 1994). The WCO has created institutional instruments that take advantage of electronic and information and communication technologies (ICT) to improve customs cooperation. The most effective of these are the Customs Enforcement Network (CEN)—a system for the exchange of information using the internet—and the Regional Intelligence Liaison Offices (RILOs), although the effectiveness of these initiatives has not been studied scientifically. This article not only presents the principles of the RILOs in the information exchange process, but the conclusions of the first pilot study on the effectiveness of the functioning of these offices.

Definitions—legal perspective

Before presenting the empirical section of this article, it is important to identify and order the most essential definitions associated with customs crimes. This will serve to avoid any misunderstanding. This section is based on Czyżowicz (2015).

Each classification is based on defined criteria. The following terms appear in specialist dictionaries of law under the category of 'crime':

- 'Crime is an action or omission that constitutes an offense that may be prosecuted by the state and is punishable by law' (The Oxford Essential Dictionary of Legal Words, 2004, p. 63).

- 'Crime: 1. an act which is against the law and which is punishable by law; 2. illegal acts in general' (Collins Dictionary of Law, 2004, p. 78).
- 'Crime: 1. conduct that is prohibited and has a specific punishment (as incarceration or fine) prescribed by public law…; 2. an offense against public law usually excluding a petty violation...; 3. criminal activity' (Merriam Webster's Dictionary of Law, 1996, p. 114).
- 'Crime is a wrong that the government has determined is injurious to the public and that may therefore be prosecuted in a criminal proceeding. Crime includes felonies and misdemeanors' (Friedman, 1994, p. 137).
- 'Misdemeanor class of criminal offenses less serious than felonies and sanctioned by less severe penalties' (Friedman, 1994, p. 387).[1]

In some cases, the terms 'infringement' or 'offence' are used: 'Infringement – an act of breaking a law or a right', and 'Offence – an illegal act' (Collins Dictionary of Law, pp. 154, 206).[2]

In fact, there are many other definitions of 'crime', such as crime offence, criminal offence, legal offence: breaking a criminal law; an act punishable by law, usually considered an immoral act.

Applying the general definition of crime towards the international trade in goods we can use the category 'customs crime'. In this situation we may define 'customs crime', 'customs offence' or 'customs infringement', as 'any violation of Customs law or Customs regulations and may be subject to penalties or legal proceedings'.

From the literature on legal terminology, it can be seen that there is no category for customs crime, customs infringements or customs offences. In discussing the classification of customs offences, Ovchinnikov (2015, p. 221) wrote:

> The customs offenses on degree and character of the public harm are divided into the customs crimes and offenses (the administrative offenses in customs affairs, the violation of the customs rules). This differentiation is carried out in the national legislation and some acts of the Customs Unions.

According to Ovchinnikov (2015), it is possible to categorise the features of a customs offence as follows:

- material: these acts are connected with conveyance of goods across the customs border (e.g. smuggling)
- documentary: these represent a violation of customs legislation (e.g. falsifying customs documents)
- procedural: these offences relate to customs practice and procedure (e.g. customs procedures with economic effects).

He also notes that there are some sources for identification of customs crime in customs international law and regulations. He pays special attention to the Revised Kyoto Convention—the *International Convention on the Simplification and Harmonization of Customs Procedures*.

The definition of customs offences under international customs law

The International Convention on the Simplification and Harmonization of Customs Procedures (WCO, 1999a) defines a customs offence as any violation or attempted violation of customs legislation.

According to Standard Rule 2 of this document, the national legislation defines customs offences and sets the conditions under which they can be investigated, established and, if necessary, be an object of an administrative settlement.

A similar definition of customs offence is presented in the International Convention on Mutual Administrative Assistance in the Prevention, Investigation and Suppression of Customs Offenses (WCO, 1999b).

This includes customs offences, such as the deception of Customs and smuggling. The deception of Customs refers to a customs offence where a person deceives Customs and partially or completely deviates from the payment of import or export duties and taxes, or avoids bans or restrictions established by customs legislation, or receives other benefits by infringing customs legislation. Smuggling means the deception of Customs by conveying goods across a customs border in any hidden form, and is, therefore, considered to be a deception of Customs.

The commentaries of the WCO to the Nairobi Convention (WCO, 1999b), when defining smuggling, includes cases where goods are hidden to avoid customs control as well as cases where goods are not hidden, but are not properly declared. Smuggling covers all means of conveying goods, including via international mail (Ovchinnikov, 2015, p. 221).

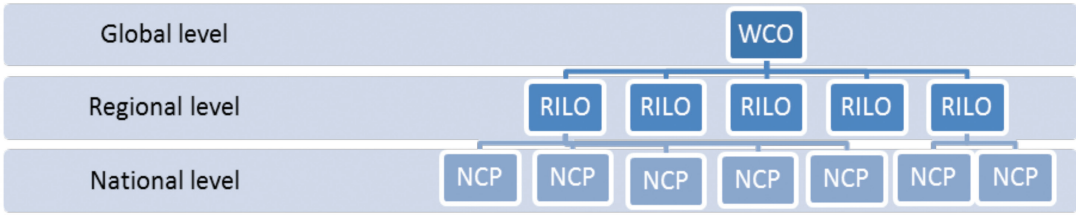
RILO Network as a unique mechanism of efficient enforcement

The concept of the RILO Network began with the creation of an office in the Asia Pacific region in 1987, with the intention to form a global intelligence network. The network currently covers six WCO regions and has 11 offices, which are located in the Asia Pacific, Caribbean, Central Africa, Commonwealth of Independent States, Eastern and Central Europe, Eastern and Southern Africa, Middle East, North Africa, South America, West Africa and Western Europe. The mission of the RILO is to 'ensure that the activities of their Members are in conformity with the rules of the WCO Global Information and Intelligence Strategy, the Recommendation of the Customs Co-operation Council on the operation of the Global Network of RILO (RILO Recommendation) and the guidelines'. The WCO Secretariat is the coordination point for the RILO Network.

The main activity of each office is to facilitate the exchange of information among different stakeholders representing customs services and other law enforcement agencies. The concept of the Global RILO Network might be considered on three levels: global, regional and national (see Figure 1), with every level having a unique body with particular responsibilities. According to recommendation No. 2 (WCO, 2004, p. 1),

> The exchange of intelligence at national, regional and international level must be improved in order to render enforcement action by Customs services more effective and to secure the optimum use of available resources. Therefore, RILOs were established to create a Global Intelligence Network. RILOs perform a variety of analytical tasks. They conduct regional risk assessments to identify new threats, new trends of smuggling, methods of concealment or modus operandi, and to disseminate the results to their members and to the WCO Secretariat.

Figure 1: The concept of a Global RILO Network



Source: Rybaczyk, 2016.

At the global level is the WCO Secretariat, whose main tasks are to maintain and continue to develop the Customs Enforcement Network (CEN) database. Moreover, as a central body the WCO Secretariat is responsible for monitoring the data entered into the CEN on a global level and publishing reports based on the information collected. The WCO Secretariat should also provide training and technical support to the RILO Network and to affiliated countries. The Secretariat is also in charge of cooperation with other international organisations at a strategic level (WCO, 2003b).

At the regional level there are 11 RILOs located in different parts of the world. The regional offices are responsible for arranging nominations of National Contact Points (NCPs) within the region, while their task related to the CEN is to validate the seizure information reported in the database. RILOs are also required to gather, evaluate and distribute information about offences and produce reports and analysis.

The national level includes NCPs, which refer to people, cells or units that are responsible for entering customs offences into the CEN database. The NCPs should also analyse patterns, smuggling trends and methods, and forward this information to the RILOs for regional circulation.

In order for the members of the WCO to fulfil their responsibilities and comply with Chapter 7 of the Revised Kyoto Convention (which speaks about application of information technologies with the intention of supporting customs operations [WCO, 2006]), the WCO Secretariat has established a special set of applications and electronic tools, such as the nCEN and CENcomm, which, along with the CEN database, make up the CEN Suite.[3] This issue will be discussed later in the article.

Both the CEN database and the RILOs have been classified under the WCO's Networks and Technology of the Compliance and Enforcement Package (WCO, 2015a, p. 11). This match demonstrates that the technical and networking aspects of exchange of information are interdependent. In fact, the RILO Network might be perceived as integral to the CEN database.

CEN database as a central depositary for enforcement-related information

It is important to discuss the key features of the CEN database in the context of reconsidering the purpose of this tool. The initial assumptions were closely connected to the statistical aspects of the database.

The CEN database was set up to create an information system for data exchange and to facilitate communication between customs services, focused on enforcement requirements. It became operational in July 2000 and was based on the RILO Customs Information System (CIS), using more modern technology that offers new opportunities to improve and increase the exchange of information between customs services. The CEN database was designed to assist with the creation of strategic and tactical analysis of customs offences and was set up in a cost-effective way (WCO, 2012b).

The new version of the CEN database was presented in 2011 and, today, more than 2,197 customs officers worldwide have access to the CEN database. There are analytical instruments available within the CEN database, with their main goal being to provide analysis on global trends, patterns and risk indicators. At this point the question that should be raised is how reliable are the analyses based on supportive data?

Another tool from the CEN suite is the national version of the CEN database. It allows the users to collect the seizure information at a domestic level. Finally, the CENcomm system was developed to allow the exchange of information among the closed user group of officers during joint customs operations or projects.

CEN database survey

Background of the survey

The survey was developed as 'one seizure, one report', which is still an unattainable model. This concept has been of interest to the public sector, particularly customs services worldwide, for many years. Improvements in the work of customs administrations in order to achieve more efficient and modern organisations may contribute to strengthening the fight against customs crime.

Most people have at least one login and password and those who work in the public sector, including customs administrations, have access to at least one database. Therefore, the question is not whether to use the database, but how to use it in the most efficient way. In order to determine that, we need a clear indication of the purpose of the database and the expected results from using the database. These indicators have a direct impact on the content of the database. As a database is only as good and as useful as the quality of the data input, the better the quality of the data, the better the analysis will be.

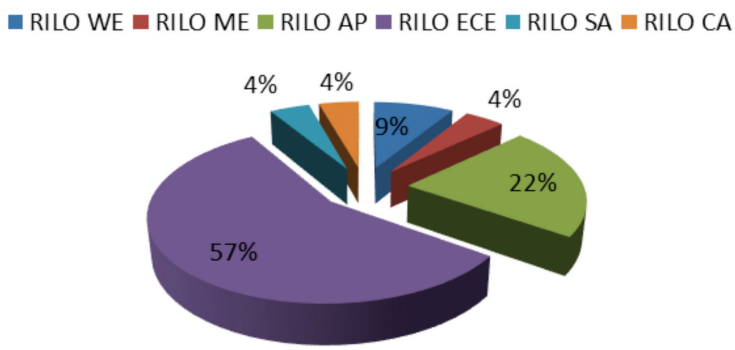
The importance of this topic has been stressed by Mr Kunio Mikuriya, the Secretary General of the WCO. On International Customs Day, he announced the WCO slogan 'Digital Customs: Progressive Engagement' (WCO, 2016), which was to be used during 2016. Moreover, the significance of ICT in Customs work was cited in a letter to Directors General in which the Secretary General referred to 'enhanced detection of irregularities and illicit consignments through effective collection and analysis of data' (WCO, 2015d). Again, the first and essential step is to gather the data and to use it in the most relevant way.

Methodology

The survey was sent out via email to the NCPs of every country affiliated with the RILO Network. The target group was selected according to their knowledge and level of familiarity with the WCO tools. Only the user of a respective database knows its requirements, and where the gaps are. In this case the widest knowledge in the tested area is held by NCPs representing the WCO member states.

The survey was divided in two thematic blocks: one referring to the Global RILO Network and the second to the CEN database. In total, 23 countries affiliated to the six different RILOs completed the questionnaire. It is important to mention that the survey was provided in English only and in some RILOs the members use different languages (e.g. in the RILO Commonwealth of Independent States the members speak Russian; in the RILO Middle East there are Arabic-speaking countries; in RILO South America there are Spanish-speaking representatives; and in some RILOs representing Africa the most common language is French). It is also worth mentioning that in some parts of the world the internet connection is not strong enough and the use of the CEN database is still under development. Furthermore, not all customs officers have sufficient knowledge about operating the database. The above-mentioned circumstances and barriers must be taken into account when analysing the results of the survey.

Figure 2: Percentage of affiliation of the responding countries, broken down by RILO region



Source: Rybaczyk, 2016.

Survey results

The questionnaire consisted of 15 questions, with the final question being open-ended. As mentioned previously, the questions were grouped into two equivalent blocks: Global RILO Network and CEN.

The first question was: What is the role/value/purpose of the information/intelligence information within the Global RILO Network (GRN)? Taking into consideration some specific features of the customs administration, the value of the information in decision-making processes has been confirmed by five respondents representing five different customs administrations. However, 15 of the 23 respondents believe that intelligence information in customs administration is useful for targeting and profiling, but is also beneficial in risk management units. This approach shows that the profile of respondents was customs-enforcement related.

The answer is especially interesting when considering the general definition of intelligence formulated by the Federal Bureau of Investigation (FBI). According to the FBI 'intelligence is information that has been analyzed and refined so that it is useful to policymakers in making decisions—specifically, decisions about potential threats to our national security' (FBI, n.d.). In addition to this simple definition there are three different meanings of the word 'intelligence':

1. Intelligence is a product that consists of information that has been refined to meet the needs of policymakers.
2. Intelligence is a process through which that information is identified, collected, and analysed.
3. Intelligence refers to both the individual organisations that shape raw data into a finished intelligence product for the benefit of decision makers and the larger community of these organisations.[4]

Based on the above definitions, it is clear that intelligence is a raw material that needs to be processed. Its main goal is to assist in the decision-making process.

Coming back to the outcomes of the survey, it is important to keep in mind that the answers were given by NCPs who are mostly responsible for the operational side of customs work, rather than management units. Presumably, their decisions are made on the basis of national databases which are much more relevant in this regard. At this point it is worth mentioning that some countries see only statistical aspects of possessing the information within the Global RILO Network. In this case, there are two different

explanations: the customs officers in poorly developed economies have insufficient knowledge to analyse the data and their awareness of intelligence products is relatively low, while in other countries with well-developed national databases, the officers are interested only in numbers. Those countries use the CEN database for statistical purposes only.

In discussing the purpose of the customs intelligence information it is hard not to mention the features required for the information. The second question in the survey was devoted to the most important features of intelligence information. Survey results indicate that the most challenging issue is that the data are too old, incomplete or inconsistent, and do not reflect the current global situation. For responding countries, useable information is their prime concern. However, respondents from 14 countries mentioned that the features related to the time constraints are most important, indicating that the information must be current as well as in real time. This last aspect is connected to the quality of the data, which should be accurate and comprehensive. It is clear that, in order to prepare a valuable intelligence product that will assist decision makers, there needs to be a high quality of data input.

The next question from the section of the survey devoted to the RILO Network was designed to find out what kind of information was most valuable for customs administrations, and how this information was perceived. The question was presented in a table with a list of priorities, such as: use of technical device, route, detection method, courier/offender, consignor/consignee, conveyance, concealment, declared goods and other.[5]

It is important to consider the world in the context of a global village as well as state borders. It is not surprising, then, that 'route' turned out to be a very important issue for most of the respondents, regardless of their region. On the scale of zero to five, where zero represents no importance and five represents high importance, 70 per cent of the respondents rated 'route' as a five.

Other information of great value for customs officers relates to 'courier'. This is particularly significant for administrations in which drugs are a high priority. The knowledge about the offender is essential. A similar conclusion might be drawn when considering the concealment method. This attribute is mostly connected to the countries where tobacco seizures are made on a regular basis, such as in the Balkans and Eastern European countries.

Among the countries which took part in the survey, the use of technical devices is viewed as non-essential, but the detection method, such as risk profiling, routine control, tip-off and intelligence investigation, is considered worth knowing.

For the majority of the countries, the information about the consignee and consignor is important. It is worth mentioning that the CEN database contains only non-nominal data; otherwise the results of the survey may have been even more beneficial on this issue.

The responding countries also perceived information on conveyance as important. This seems to be clear when considering the international movement of goods. However, although customs work is about traffic of goods not people, the data on declared goods was not the most important area in intelligence information. Moreover, a number of countries mentioned photographic material as another valuable sphere important in customs crime prevention. Regarding the content and its extension it is important to obtain as much detailed information as possible, as this is the only way to create suitable risk profiles and to make the input data useful in targeting offenders. Admittedly, the CEN database consists of non-nominal data, however the users of the application have repeatedly mentioned the need to obtain the personal data about the offender. This aspect of the database was revealed by the respondents, regardless of the country and RILO region.

Considering the Global RILO Network in the context of exchange of information between the affiliated countries, opportunities and risks were also raised in the questionnaire (Q5 and Q6 in a form of free text). According to the SWOT matrix, when debating the future existence of the entire RILO Network,

there were some opportunities and threats that must be identified. This identification might help in the further development of the network on the one hand, and in avoiding identified potential future risks on the other.

Among the identified opportunities were tasks that are directly linked to the RILO recommendations, such as the exchange of information among countries, as well as between the RILOs. The operative role of the intelligence offices was also mentioned in the context of future opportunities. Clearly, there is a need to enhance the information and experience-sharing mechanisms. In other words, only by improving the international cooperation and by facilitating the regional networking will the RILO Network become a vital platform to help the law enforcement units in combating customs crime. The rapid exchange of information would be beneficial for all customs administrations that are involved in the network, especially when taking into consideration the time needed to exchange the information by means of the Mutual Administrative Assistance in Customs Matters.[6]

With regard to the threats linked to the RILO Network the most significant one identified by respondents was related to employment problems: the lack of staff and, even more noteworthy, the lack of commitment of the employees of the RILO. The WCO, as a member-driven organisation, is bound to fail if staff are not engaged. As a consequence, this may lead to police forces taking over customs responsibilities, which would be detrimental in the long term.

The next questions were related to the section of the survey dedicated to the CEN database. In order to gather knowledge about the activity of respondents in a CEN environment, the seventh question was: 'How many times per week do you usually utilise the CEN database?'.

Among the respondents from different customs administrations, 65 per cent indicated that they log into the CEN database on a regular basis (i.e. at least once per week). The majority of the remaining respondents use the database every month, while three respondents indicated that they log into the CEN database less than once per month. This situation might arise due to the other responsibilities of the NCPs within their home administrations.

The next question was devoted to the main purpose of logging into the CEN database and the outcome seems to be very relevant in the context of redefinition of the existing database. Only three countries use the CEN database for analytical purposes. Fifty per cent of the countries use the database for entering seizure messages only, and they do not use it to make any kind of query or analysis. The remaining respondents indicated that, in their countries, they use the database for both purposes. This result gives a very clear impression that either the CEN users do not need the database to make queries, or the quality of the reported data is not good enough. Nowadays it is difficult to believe that with such well-developed risk analysis and targeting systems, there are customs administrations that do not see the need to create queries. It leads to a simple conclusion that the data are too poor and not sufficiently useful. So the question is, what should be done in order to improve the usefulness of the databases?

The topic which is closely connected to the best use of the database relates to the RILO tools and their influence on the number of seizures in the CEN database. It is a question of whether the CEN database and other RILOs tools (alerts, reports, operations, projects) influence the number of seizures in the respective countries. According to the results of the survey, it appears that the number of seizures increases rapidly every time a joint customs operation is conducted. Again, this shows how much the users of a CEN database value the statistical aspect of the application. Customs operations definitely have a big influence on the statistics. However, it is important to consider the causes of the increase in the number of seizures. Most likely the obligation of reporting the seizures explains the apparent increased number of cases. However, the number of cases do not, in fact, increase; it is only that the officers were encouraged to report the detections. In 48 per cent of the responding countries, the NCPs did not notice the influence of any instruments on the number of cases entered into the database. The conclusion which can be drawn is that it would be difficult to offer additional features in the database if they do not have

an impact on results. Among other responses, the alert message is seen as an efficient tool, raising a number of seizures in a particular country affiliated to the RILO Network. Moreover, in order to lead to successful cases, the NCPs prefer the analysis on current smuggling trends, *modus operandi*, new methods of smuggling or concealment, and new routes.

The next question asked about the ways of presenting the information within the RILO Network. The alert seems to be the most preferable instrument. This again is a confirmation that the users expect much more operative solutions from the managers of the CEN database. Definitely, the customs officers prefer the shorter forms of presenting the information.

Respondents emphasised that the increase in the number of publications is considered undesirable among the officers playing the role of NCPs to the RILO. Overall, the originators should be careful about generating the reports, and the number of publications should not increase as there are many other sources of information available. The respondents also mentioned other ways to present the information, with threat assessments, operational reports and monthly bulletins considered to be efficient tools. In turn, monitoring project reports is seen as of little use.

In the framework of the survey, cooperation between customs administrations worldwide was mentioned. The questions were: 'With which countries do you cooperate most frequently?' and 'How many times per week?'. Even though the world can be considered a global village, it appears that the strongest cooperation is between neighbouring customs administrations and with big global exporters and importers, such as the USA, Germany and China.

Regarding the channel through which the information is transmitted, two possibilities were provided: traditional versus electronic channels. Results indicate that respondents use both of these channels. Moreover, it was stressed that in urgent matters the telephone is still a preferable method of contact indicating that, in a world of ICT, the traditional channels have not been fully replaced by new technologies.

Finally, in order to form a complete picture of the exchange of information worldwide, it is necessary to touch upon the origin of information. The question was: 'What are the sources of information that help in carrying out your daily duties?'. The most common source of information for customs officers is other customs administrations, followed by alerts and analytical reports. Significantly, the respondents emphasised the value of keeping in contact with other government authorities within the country,[7] particularly cooperation with national police and, for a small number of respondents, relations with experts and the private sector. Of concern is that only four countries included consultations with academia. Certainly, one of the objectives of modern customs administrations should be to raise the awareness of customs officers of the benefits of such cooperation.

Conclusions

One of the aims of the survey was to encourage the users of the CEN database to rethink its purpose. NCPs all over the world take for granted the CEN database as a central depository for enforcement-related information. Giving legal status to the CEN system is considered to be one of the benefits of the Johannesburg Convention. There shows the potential value that might be assigned to the CEN database. But the question is how these potential opportunities may be utilised.

Based on the results of the survey the information flow chart may be delineated. There is no doubt that the exchange of information is a management process, as is the management of the information flow. Additionally, the information flow among customs administrations highlights the supranational nature of this movement, and it is important to note that the information exchange operates across national borders. The information contained in the national databases is commonly used in risk management units, while the information held within the CEN database and the RILO Network is usually used to

prepare reports. A proper management of the information flow and usage may contribute to a better utilisation of the CEN database and the RILO Network. It is also important to identify the weakest links and the requirements needed to enhance the process.

When considering customs administrations worldwide and the supranational nature of these institutions, it is important to mention the main requirement, which is cooperation: cooperation with other agencies within the country as well as international cooperation, especially with neighbouring countries and countries that are large importers and exporters, such as the USA, Germany and China. The Joint Customs Operations help the customs officers to identify their position in the international fora and to learn how to exchange information in an international environment, thereby demonstrating the added value of such exchange. The operational activities also raise the number of reported seizures, and alerts are efficient in this regard. In general, a shorter form of presentation of customs-related information is preferable.

The threat to the effectiveness of information management across borders is a lack of feedback. Since the information is useful mainly for profiling, targeting and risk management, willingness and a commitment to exchange data must be shown. Moreover, in the framework of the RILO Network, a high quality of the data reported by NCPs is essential, since without reliable data, the outcome will also be unreliable.

Finally, one of the main issues which plays a vital role is timeliness. The information exchange must be performed in a timely manner as dated information is of little use from an operational point of view.

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Notes

1 'Felony an old term for a serious crime', Collins Dictionary of Law, p. 121. More precisely: 'felony is a crime that has a greater punishment imposed by statute on misdemeanor; specif: a federal crime for which punishment may be death or imprisonment for more than a year', Merriam Webster's Dictionary of Law (p. 191), and a similar definition in the Oxford Essential Dictionary of Legal Words (p. 111).

2 Similar to 'offense' in The Oxford Essential Dictionary of Legal Words, p. 196.

3 The CEN Suite Brochure consists of three independently existing IT tools developed by the WCO Secretariat in order to fight against transnational crime (WCO, 2015b).

4 There are different meanings of the word 'intelligence'. For the purpose of the papers the definition of the word 'intelligence' was defined according to the FBI terminology and is commonly used by the U.S. Intelligence Community; https://www.fbi.gov/about/leadership-and-structure/intelligence-branch

5 The listed areas have been formulated based on a 'new seizure template' from the CEN database which is applicable regardless of the type of commodity.

6 A type of information related to the customs offences is widely described under Chapter IV of the Johannesburg Convention, http://www.wcoomd.org/en/topics/enforcement-and-compliance/instruments-and-tools/~/media/WCO/Public/Global/PDF/About%20us/Legal%20Instruments/Conventions%20and%20Agreements/Johannesburg/Internconvmutualadmineng2003.ashx

7 This is in line with the 3rd pillar of the SAFE Framework of Standards which has been enhanced by Customs and other governmental agencies and which entered into force in June 2015.

Wieslaw Czyżowicz

Professor Wieslaw 'Wes' Czyżowicz, PhD, is a professor of Customs Policy and Customs Law at the Business Law Department, Warsaw School of Economics (SGH). He is the former Director-General of the Polish Customs Service and visiting professor at many universities worldwide. Wes is an advisor and expert in Customs matters for governments and private business.

Magdalena Rybaczyk

Magdalena Rybaczyk graduated from the Warsaw University of Life Sciences, Poland. In 2008, she studied at the University of Bonn, Germany and in 2014, graduated with doctoral studies from the Warsaw School of Economics. Since 2010, Magdalena has been working at the Regional Intelligence Liaison Office for Eastern and Central Europe at the Ministry of Finance in Warsaw, Poland. She is involved in international operations and projects conducted by the WCO Secretariat, Interpol, Europol and other law enforcement agencies. Previously, Magdalena conducted training at the OSCE Border Management Staff College.

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Section 2

Practitioner Contributions

HS 2002–HS 2017: Notes of the tariff nomenclature and the additional notes of the EU revisited

Carsten Weerth

Abstract

The fundamental rules for the classification of goods in compliance with the Harmonized System (HS) for the description and coding of goods are, according to General Rule 1, solely the six general rules of classification, the terms of headings and notes (and according to General Rule 6, the terms of subheadings and subheading notes). The rules of the European Union (EU) tariff schedule are complex, and while the overall number of headings and subheadings is known, the notes of the HS nomenclature, the Combined Nomenclature (CN) and the Common Customs Tariff (CCT) of the EU have only been examined in a systematic way for the CN 2007. This paper reviews all notes (and subheading notes) which are in force worldwide by virtue of the HS 2017 (for sections and chapters), examines the previous versions of the HS (HS 2002, HS 2007, HS 2012) and also examines the sections and chapters in front of which the EU has placed further so called 'additional notes' in its CN which are only valid throughout the EU.

The HS 2017 contains 386 notes and 63 subheading notes, which are valid worldwide. The EU has added 109 additional notes within the CN and the CCT (as of December 2016) that influence the implementation of the CCT by the application of different and more rigid definitions of goods and methods of analysis. Sixty per cent of the additional notes relate to agricultural goods (Chapters 1–24). The 558 notes of the CN are legal rules that apply to the 1,222 HS headings, 5,387 HS subheadings and 9,528 CN subheadings. This clearly demonstrates the complexity of the rules of the CCT which contains more than 16,500 legal rules for the classification of goods.

A. Introduction

1. Fundamentals of tariff classification

Customs classification of goods into the tariff scheme of the Harmonized System (HS) nomenclature is complex and depends on numerous rules—General Rule 1 (GR 1) specifies that the rules are limited to the terms of headings and notes, while General Rule 6 (GR 6) provides that the rules include the terms of subheadings and subheading notes (Weerth, 2008a).

2. Legal basis

The requirements of the HS nomenclature are identical for the more than 200 countries and economic regions that base their tariff schemes and economic statistics on the HS nomenclature. This is because the HS members have agreed (in Article 3 para. 1 letter A HS), to apply the structure of the HS nomenclature and only to create further divisions within their tariffs (according to Article 3 para. 3 HS), when these divisions do not contradict the system and structure of the HS nomenclature. In the European Union (EU) the nomenclature is further divided by the combined nomenclature (CN),[1] which allows further subdivisions of the HS nomenclature in Article 1 para. 2 Reg-CN and the possibility of the creation of 'additional notes', which are only valid within the EU.

3. Scope of rules HS 2017/CN 2017

But how many rules need to be taken into consideration for the classification of goods into the CN and the Common Customs Tariff (CCT) of the EU? How have the rules of the CN changed between the versions of the HS 2002/CN 2002 and HS 2017/CN 2017? In an earlier paper (Weerth, 2008a) the notes of the HS 2007/CN 2007 have been examined. This paper widens the scope of the research and compares four major versions of the HS and CN.

The nomenclature of the HS 2017 comprises 21 sections, 96 chapters (Chapters 1–97; Chapter 77 is not in use), 1,222 HS headings (a further 37 headings are not in use) and 5,387 HS subheadings (Statistisches Bundesamt, 2016; Weerth, 2016).

The CN regulations incorporate the HS nomenclature and add 9,528 CN subheadings (Statistisches Bundesamt, 2016).

Within the HS nomenclature there are notes and subheading notes before sections and chapters. The EU applies these notes and subheading notes and, furthermore, adds 'additional notes'.

There are three types of notes within the CTT of the EU, two of which are valid worldwide (HS notes and HS subheading notes) while the third type, CN the additional notes, are only valid within the EU.

The notes of the HS nomenclature have not yet been the focus of systematic research, having only been examined in depth twice (Theis, 2003; Weerth, 2004). Both examinations tried to classify the notes in terms of aims, contents and usage. While the notes of the CN 2007 were systematically analysed in 2008 (Weerth, 2008b), this paper will investigate all notes of the EU Tariff from 2002 to 2017, with a focus on HS 2017/CN 2017.

B. Examination of the notes

1. Material and methods

This examination was conducted with the CN 2002 (OJ 2001, No. L 279/1), the CN 2007 (OJ 2006, No. L 302/1), the CN 2012 (OJ 2011, No. L 282/1) and the CN 2017 (OJ 2016, No. L 294/1 as amended by the Reg. EU 2016/1956, OJ 2016, No. L 301/5).

All notes are presented in four tables according to their placement (Tables 1–4; these tables are provided in the appendix). The notes of the four versions of the CN have been collated and are presented in Table 5.

2. Results

Table 5: Development of all notes, subheading notes and additional notes (CN 2002–CN 2017)

HS/CN	Notes	Subheading notes	Additional notes	All notes (cumulative)
2002	387	51	109	547
2007	380	56	98	534
2012	390	64	97	551
2017	386	63	109	558
Range	10 (380–390)	13 (51–64)	12 (97–109)	24 (534–558)

The counts of the four versions of the HS/CN differ significantly:

HS 2002/CN 2002

- 547 notes were identified: 387 notes, 51 subheading notes and 109 additional notes.
- No notes appear in front of sections V, VII–VIII, IX–X, XII– XIV, XVIII–XXI or Chapter 50.
- Subheading notes appear in front of Chapters 81 and 88 only (there are no notes or additional notes before these chapters).
- The largest number of notes and subheading notes can be observed in front of Chapter 48, with 19 notes.
- 75 out of 109 additional notes (69%) are concerned with Chapters 1–24 (agricultural goods); these notes are mostly concerned with the legal definition of certain meanings and the definition of special methods for the analysis of goods.

HS 2007/CN 2007

- 534 notes were identified: 380 notes, 56 subheading notes and 98 additional notes.
- No notes appear in front of sections III, VIII–X, XII–XIV, XVIII–XXI or Chapter 50.
- Subheading notes appear in front of Chapters 52, 81 and 88 only (there are no notes or additional notes in front of these chapters).
- Additional notes appear in front of Chapter 53 (but there are no notes or subheading notes in front of Chapter 53).
- The largest number of notes and subheading notes can be observed in front of Chapter 48, with 19 notes.
- 62 out of 98 additional notes (63%) are concerned with Chapters 1–24 (agricultural goods); these notes are mostly concerned with the legal definition of certain meanings and the definition of special methods for the analysis of goods.

HS 2012/CN 2012

- 551 notes were identified: 390 notes, 64 subheading notes and 97 additional notes.
- No notes appear in front of sections III, V, VIII–X, XII–XIV, XVIII–XXI or Chapter 50.
- Subheading notes appear in front of Chapters 81 and 88 only (there are no notes or additional notes in front of these chapters).

- Additional notes appear in front of Chapter 53 only (there are no notes or subheading notes before Chapter 53).
- The largest number of notes and subheading notes can be observed in front of section VI and Chapter 48 (with 19 notes).
- 58 out of 97 additional notes (60%) are concerned with Chapters 1–24 (agricultural goods); these notes are mostly concerned with the legal definition of certain meanings and the definition of special methods for the analysis of goods.

HS 2017/CN 2017

- 557 notes were identified: 385 notes, 63 subheading notes and 109 additional notes.
- No notes appear in front of sections III, V, VIII–X, XII–XIV, XVIII–XXI or Chapter 50.
- Subheading notes appear in front of Chapters 52, 81 and 88 (there are no notes and additional notes in front of these chapters).
- Additional notes are written in front of Chapter 53 only (there are no notes or subheading notes in front of Chapter 53).
- The largest number of notes (notes, subheading notes and additional notes) can be observed in front of Chapter 22, with 16 notes.
- The largest number of additional notes can be observed in front of Chapters 22 with 13.
- 70 out of 109 additional notes (64%) are concerned with chapters 1–24 (agricultural goods); these notes are mostly concerned with the legal definition of certain meanings and the definition of special methods for the analysis of goods.

3. Discussion

There is no correlation between the overall number of notes and their content or length. Some notes are very long but are counted as one note due to their further subdivision by letters (e.g. additional note 2 of Chapter 2, note 4 of section XI, note 1 of Chapter 72, and note 5 of Chapter 84).

The number of notes has changed in every mayor HS/CN iteration (2002, 2007, 2012, 2017). Table 5 shows the development of notes, subheading notes and additional notes in all four versions and it sums up the overall numbers and shows the range of all notes.

For the new HS 2017/CN 2017 versions, there are 558 notes, 1,222 headings and 9,528 CN subheadings, which underlines the complexity of the rules for customs classification of goods in the HS nomenclature, worldwide tariff schemes, and the combined nomenclature (and the Common Customs Tariff) of the EU.

From HS 2017, there are 386 notes that remain in force worldwide for the next five years, until the next HS revision is due (2022), which means that this number of notes is more or less constant (range: 10 notes). The same applies for the 63 subheading notes of HS 2017 (range: 13 subheading notes). Furthermore, as at December 2016 there were 109 additional notes of the CN, which are valid only within the EU. The number of these additional notes varies constantly as they can be introduced, changed or cancelled independently by the European Commission—which happens regularly during a year (see Figure 2 in Weerth, 2008a, p. 114). The four HS/CN versions that were analysed for this paper had varying numbers of additional notes: from 109 (CN 2002 and CN 2017) to only 97 and 98 (CN 2012, CN 2007 respectively). The range of additional notes falls within a range of 12.

The EU has the option, through the additional notes mechanism, to influence the definition of certain goods and methods of analysis, and therefore the classification of goods within the CN and the CCT. But the EU is not allowed to alter the meaning of HS headings or HS subheadings. The legal regulation of methods of analysis for certain goods and the definition of non-defined legal terms is helpful and understandable. However, these alterations should be affirmed by the World Customs Organization (WCO) as they apply

worldwide (within the HS nomenclature). The addition of notes that only apply to the EU (definitions and methods of analysis) may lead to further obstruction of world trade (non-tariff measures) and distortions in the application of the HS nomenclature (e.g., when there are different views about the use of certain terms in South America or Asia and the EU). The same applies for methods of analysis—these should be determined worldwide within the HS nomenclature.

Additional notes represent a subtle method of managing the trade policy of the EU, which is used for an EU-friendly application of the CCT (e.g., by using definitions of certain goods or terms or the definition of methods for analysing certain goods).

Between 60 and 64 per cent of the additional notes are concerned with sections I–IV and Chapters 1–24 (agricultural goods); apparently, the EU has a strong interest in this agricultural sector and applies the nomenclature and the CCT in a strict and rigid way. These observations are in line with results of the latest World Trade Organization (WTO) trade policy review of the EU, which notes that the highest measures of EU tariff protection are applied within the agricultural sector—the EU is still applying a high level of protectionism regarding agricultural products: the normal average tariff is 6.5 per cent *ad valorem* but the average agricultural tariff is 14.4 per cent *ad valorem* (which has fallen from 15.2 per cent in 2011 and 17.8 per cent in 2008) (WTO, 2015).

Examples of the continuous change of the notes are the notes of Chapter 27 (Table 6) and Chapter 85 (Table 7).

Table 6: Changes of all notes of Chapter 27 from the HS/CN 2002 to the HS/CN 2017

HS/CN	Notes	Subheading Notes	Additional Notes
HS/CN 2002	3	4	5
HS/CN 2007	3	4	6
HS/CN 2012	3	5	6
HS/CN 2017	3	5	2

Table 7: Changes of all notes of Chapter 85 from the HS/CN 2002 to the HS/CN 2017

HS/CN	Notes	Subheading Notes	Additional Notes
HS/CN 2002	7	2	2
HS/CN 2007	9	1	2
HS/CN 2012	9	1	2
HS/CN 2017	10	1	3

C. Conclusions

Notes are a fundamental requirement for the customs classification of goods into a tariff scheme—they are the only legal basis in addition to the terms of the headings and subheadings according to the General Rules 1 and 6. The examination of all notes of HS 2017 and CN 2017 (CCT) has identified 386 notes, 64 subheading notes and 109 additional notes.

Notes and subheading notes are in force worldwide (in countries in which the HS applies) for a period of about five (or six) years, whereas additional notes are valid only in the EU and may be changed on a more regular basis. An examination of these changes in the years 2003–2006 shows that ten regulations introduced changes through additional notes (Weerth, 2008a, Figure 2).

By using additional notes the EU has an opportunity to influence the classification of goods (by using additional notes to define certain products better or to define special methods for analysing certain goods) and thereby to influence the classification of imported goods in the CN and the CCT. Additional notes represent a subtle and not publicly understood instrument for the management of the trade policy of the EC, with between 60 and 64 per cent of the additional notes relating to the agricultural sector (Chapters 1–24). It is considered that such alterations should be affirmed by the WCO and used worldwide (within the HS-nomenclature).

All in all, 558 notes were identified for HS/CN 2017: 386 notes, 64 subheading notes and 109 additional notes for the combined nomenclature and the CCT of the EU. The 558 notes are in addition to the 1,222 HS headings, 5,387 HS subheadings and 9,528 CN subheadings, which is proof of the complexity of the rules of the CCT, which contains more than 16,500 legal rules for the classification of goods. The numerous notes are a significant obstacle to the uniform use of a tariff scheme for economic operators, customs officers and financial courts because of their placement in front of a section or chapter (without a direct link within the text of the heading or subheading) and, depending on one's interpretation, may lead to the possibility of non-uniform application of the CCT.

Appendix: Tables 1 to 4

Table 1: All notes, subheading-notes (HS 2002) and additional notes (CN 2002)

Section/ Chapter	Note	Subheading- Note	Additional Note
I	2	-	-
II	1	-	-
III	4	1	4
IV	1	-	-
V	-	-	-
VI	3	-	-
VII	-	-	-
VIII	-	-	-
IX	-	-	-
X	-	-	-
XI	13	2	-
XII	-	-	-
XIII	-	-	-
XIV	-	-	-
XV	8	-	-
XVI	5	-	3
XVII	5	-	2
XVIII	-	-	-
XIX	-	-	-
XX	-	-	-
XXI	-	-	-
01	3	-	-
02	1	-	7
03	2	-	-
04	4	2	2
05	4	-	-
06	2	-	-
07	4	-	1
08	3	-	3
09	2	-	1
10	2	1	2
11	3	-	2
12	5	1	-
13	1	-	-
14	4	-	-
15	4	1	4

16	2	2	2
17	1	1	7
18	2	-	2
19	4	-	3
20	6	3	8
21	3	-	6
22	3	1	11
23	1	1	5
24	1	-	-
25	4	-	-
26	3	2	-
27	3	4	5
28	8	-	1
29	8	-	1
30	4	-	1
31	6	-	-
32	6	-	-
33	4	-	-
34	5	-	-
35	2	-	1
36	2	-	-
37	2	-	2
38	6	-	1
39	11	-	2
40	9	-	-
41	3	-	-
42	3	-	1
43	5	-	-
44	6	1	2
45	1	-	-
46	3	-	-
47	1	-	-
48	12	7	-
49	6	-	-
50	-	-	-
51	1	-	-
52	1	-	-
53	1	-	-
54	2	-	-
55	1	-	-
56	4	-	-
57	2	-	1

58	7	-	-
59	7	-	-
60	3	-	-
61	10	-	3
62	9	-	2
63	3	-	-
64	4	1	2
65	2	-	-
66	2	-	-
67	3	-	-
68	2	-	-
69	2	-	-
70	5	1	-
71	11	3	-
72	3	2	1
73	2	-	-
74	1	1	-
75	1	2	-
76	1	2	-
78	1	1	-
79	1	1	-
80	1	1	-
81	-	1	-
82	3	-	-
83	3	-	-
84	8	2	2
85	7	2	2
86	3	-	-
87	4	-	-
88	-	1	-
89	1	-	3
90	7	-	1
91	4	-	-
92	2	-	-
93	2	-	-
94	4	-	-
95	4	-	-
96	4	-	-
97	5	-	-
All	387	51	109

Table 2: All notes, subheading-notes (HS 2007) and additional notes (CN 2007)

Section/ Chapter	Note	Subheading- Note	Additional Note
I	2	-	-
II	1	-	-
III	-	-	-
IV	1	-	-
V	-	-	-
VI	3	-	-
VII	2	-	-
VIII	-	-	-
IX	-	-	-
X	-	-	-
XI	13	2	-
XII	-	-	-
XIII	-	-	-
XIV	-	-	-
XV	8	-	-
XVI	5	-	3
XVII	5	-	2
XVIII	-	-	-
XIX	-	-	-
XX	-	-	-
XXI	-	-	-
01	1	-	-
02	1	-	7
03	2	-	-
04	4	2	1
05	4	-	-
06	2	-	-
07	4	-	1
08	3	-	3
09	2	-	1
10	2	1	2
11	3	-	2
12	5	1	-
13	1	-	-
14	3	-	-
15	4	1	4
16	2	2	2
17	1	1	7

18	2	-	2
19	4	-	2
20	6	3	8
21	3	-	4
22	3	1	11
23	1	1	5
24	1	-	-
25	4	-	-
26	3	2	-
27	3	4	6
28	8	-	-
29	8	2	-
30	4	-	1
31	6	-	-
32	6	-	-
33	4	-	-
34	5	-	-
35	2	-	1
36	2	-	-
37	2	-	2
38	6	2	-
39	11	2	1
40	9	-	1
41	3	-	-
42	3	-	1
43	5	-	-
44	6	1	2
45	1	-	-
46	3	-	-
47	1	-	-
48	12	7	-
49	6	-	-
50	-	-	-
51	1	-	-
52	-	1	-
53	-	-	2
54	2	-	-
55	1	-	-
56	4	-	-
57	2	-	-
58	7	-	-
59	7	-	-

60	3	-	-
61	10	-	3
62	9	-	2
63	3	-	-
64	4	1	-
65	2	-	-
66	2	-	-
67	3	-	-
68	2	-	-
69	2	-	-
70	5	1	-
71	11	3	-
72	3	2	1
73	2	-	-
74	1	1	-
75	1	2	-
76	1	2	-
78	1	1	-
79	1	1	-
80	1	1	-
81	-	1	-
82	3	-	-
83	2	-	-
84	9	2	2
85	9	1	2
86	3	-	-
87	4	-	-
88	-	1	-
89	1	-	3
90	7	-	1
91	4	-	-
92	2	-	-
93	2	-	-
94	4	-	-
95	5	-	-
96	4	-	-
97	5	-	-
All	**380**	**56**	**98**

Table 3: All notes, subheading-notes (HS 2012) and additional notes (CN 2012)

Section/ Chapter	Note	Subheading- Note	Additional Note
I	2	-	-
II	1	-	-
III	-	-	-
IV	1	-	-
V	-	-	-
VI	3	-	-
VII	2	-	-
VIII	-	-	-
IX	-	-	-
X	-	-	-
XI	12	7	-
XII	-	-	-
XIII	-	-	-
XIV	-	-	-
XV	15	-	-
XVI	5	-	3
XVII	5	-	2
XVIII	-	-	-
XIX	-	-	-
XX	-	-	-
XXI	-	-	-
01	1	-	-
02	1	-	7
03	2	-	-
04	4	2	1
05	4	-	-
06	2	-	-
07	4	-	-
08	3	-	3
09	2	-	1
10	2	1	2
11	2	-	-
12	5	1	-
13	1	-	-
14	3	-	-
15	4	1	2
16	2	2	2
17	1	2	7

18	2	-	2
19	4	-	3
20	6	3	8
21	3	-	4
22	3	1	11
23	1	1	5
24	1	1	-
25	4	-	-
26	3	2	-
27	3	5	6
28	8	1	1
29	8	1	-
30	4	-	1
31	6	-	-
32	6	-	-
33	4	-	-
34	5	-	-
35	2	-	1
36	2	-	-
37	2	-	2
38	7	2	-
39	11	2	1
40	9	-	1
41	3	-	-
42	4	-	1
43	5	-	-
44	6	2	2
45	1	-	-
46	3	-	-
47	1	-	-
48	12	7	-
49	6	-	-
50	-	-	-
51	1	-	-
52	1	-	-
53	-	-	1
54	2	-	-
55	1	-	-
56	4	-	-
57	2	-	1
58	7	-	-
59	7	-	-

60	3	-	-
61	10	-	3
62	9	-	2
63	3	-	-
64	4	1	2
65	2	-	-
66	2	-	-
67	3	-	-
68	2	-	-
69	2	-	-
70	5	1	-
71	11	3	-
72	3	2	1
73	2	-	-
74	1	1	-
75	1	1	-
76	1	2	-
78	1	1	-
79	1	1	-
80	1	1	-
81	-	1	-
82	3	-	-
83	2	-	-
84	9	2	2
85	9	1	2
86	3	-	-
87	4	-	-
88	-	1	-
89	1	-	3
90	7	-	1
91	4	-	-
92	2	-	-
93	2	-	-
94	4	-	-
95	5	1	-
96	4	-	-
97	5	-	-
All	**390**	**64**	**97**

Table 4: All notes, subheading-notes (HS 2017) and additional notes (CN 2017)

Section/ Chapter	Note	Subheading- Note	Additional Note
I	2	-	-
II	1	-	-
III	-	-	-
IV	1	-	-
V	-	-	-
VI	3	-	-
VII	2	-	-
VIII	-	-	-
IX	-	-	-
X	-	-	-
XI	14	2	-
XII	-	-	-
XIII	-	-	-
XIV	-	-	-
XV	8	-	-
XVI	5	-	3
XVII	5	-	2
XVIII	-	-	-
XIX	-	-	-
XX	-	-	-
XXI	-	-	-
01	1	-	-
02	1	-	7
03	2	-	2
04	4	2	4
05	4	-	-
06	2	-	-
07	4	-	-
08	3	-	3
09	2	-	1
10	2	1	2
11	2	-	-
12	5	1	-
13	1	-	1
14	3	-	-
15	4	1	4
16	2	2	2
17	1	2	8

18	2	-	2
19	4	-	3
20	6	3	9
21	3	-	4
22	3	1	13
23	1	1	5
24	1	1	-
25	4	-	-
26	3	2	-
27	3	5	2
28	8	1	1
29	8	2	-
30	4	2	1
31	6	-	-
32	6	-	-
33	4	-	-
34	5	-	-
35	2	-	1
36	2	-	-
37	2	-	2
38	7	4	-
39	11	2	1
40	9	-	1
41	3	-	-
42	4	-	1
43	5	-	-
44	6	1	2
45	1	-	-
46	3	-	-
47	1	-	-
48	12	1	-
49	6	-	-
50	-	-	-
51	1	-	-
52	-	1	-
53	-	-	1
54	2	-	-
55	1	-	-
56	4	-	-
57	2	-	1
58	7	-	-
59	7	-	-

60	3	1	-
61	10	-	3
62	9	-	2
63	3	1	-
64	4	1	2
65	2	-	-
66	2	-	-
67	3	-	-
68	2	-	-
69	2	-	-
70	5	1	-
71	11	3	-
72	3	2	1
73	2	-	-
74	1	1	-
75	1	2	-
76	1	2	-
78	1	1	-
79	1	1	-
80	1	1	-
81	-	1	-
82	3	-	-
83	2	-	-
84	9	4	2
85	10	1	3
86	3	-	-
87	4	-	-
88	-	1	-
89	1	-	3
90	7	-	1
91	4	-	-
92	2	-	-
93	2	-	-
94	4	-	1
95	5	1	-
96	4	-	1
97	5	-	1
All	**386**	**63**	**109**

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Note

1 Council regulation [EEC] No. 2658/87 as of 23 July, 1987 on the tariff and statistical-combined nomenclature and on the Common Customs Tariff, OJ EEC 1987 No. L 256/1, Reg-CN.

Carsten Weerth

Dr Carsten Weerth, BSc (Glasgow), LLM, MA, PhD, is a legal expert in European customs law and works with the German Customs and Excise Service in Bremen. He is a frequent contributor to the scientific journals AW-Prax (Zeitschrift für Außenwirtschaft in Recht und Praxis), ZfZ (Zeitschrift für Zölle und Verbrauchsteuern) and GTCJ (Global Trade and Customs Journal), author of more than ten books on European customs law, co-author of three legal commentaries on European customs law and EU law, and lecturer in Law and Management at the FOM University of Applied Sciences in Economics and Management.

Understanding Korea's advance customs valuation arrangement and refund claim regimes

Jeong Cheol Cho

Abstract

The Korea Customs Service (KCS) has introduced a unique customs system known as the Advance Customs Valuation Arrangement (ACVA). The ACVA refers to a system for an advance agreement on the method of determining the customs value of imported goods traded between related parties, such as an overseas parent company and its subsidiary in Korea. Such agreement is made between a taxpayer and the customs authorities at the request of the taxpayer. Under the ACVA, the customs authorities postpone or waive post-clearance audits of customs value of imported goods during the term of the agreement, and the taxpayer is obliged to report on a regular basis as to whether the terms and conditions of the ACVA have been fully complied with. The ACVA is analogous to an advance pricing arrangement (APA) under the Organisation for Economic Co-operation and Development's (OECD) guidelines for international tax.

In addition, the Korean Government amended the Customs Act and the Adjustment of International Taxes Act, which established and implemented the system that provides for a review of a tax assessment following an adjustment of the value of imported goods by one of the tax authorities, either the KCS or National Tax Service, relating to an international transaction between related parties.

1. Advance customs valuation arrangement

Article 37 of the Customs Act provides for the 'Advance Examination of Determining the Method of Customs Value', under which a taxpayer may request the head of a customs office to audit the method of determining customs value before declaring the value. Such a request may be made if the taxpayer has any questions about additions, deductions, factors associated with excluding the use of the transaction values, or method of determining the customs value for goods traded between the related parties. If a taxpayer declares the value based on the audit result, the head of the customs office has an obligation to accept the customs value. This 'Advance Examination of Determining the Method of Customs Value between Related Parties' is, in practice, called the 'Advance Customs Valuation Arrangement' (ACVA). In essence, the ACVA is a system to reach agreement in advance on the method of determining the customs value of imported goods traded between related parties, such as an overseas parent company and its subsidiary in Korea. This is achieved through mutual agreement between a taxpayer and the customs authorities upon the taxpayer's request therefor. Under the ACVA, Customs postpones or waives the post-clearance audits of the customs value of imported goods during the term of agreement, and the taxpayer is obliged to report on a periodic basis whether the terms and conditions of the ACVA have been complied with. In relation to national tax, the tax authorities accept the Advance Pricing Arrangement

(APA), under Organisation for Economic Co-operation and Development (OEDC) guidelines, and Article 6 of the Adjustment of International Taxes Act provides for the 'advance approval, for arm's length price computation method'. Therefore, it can be said that the ACVA for the duty is similar to the APA for domestic tax.

Although international organisations such as the World Customs Organization (WCO) and the OECD have discussed the method for harmonising the customs value and the transfer price for ten years or more, no significant progress has been made. In this context, the ACVA is of significance since the Korean Government has established a specific system for identifying acceptable methods of determining the customs value of transfers among affiliates of multinational companies.

If agreement is successfully reached between a taxpayer and the Commissioner of Korea Customs Service (KCS) (upon the taxpayer's request for the ACVA to the head of customs office), the head of the customs office will have a legal obligation to determine the customs value based on the agreed method of determination. As a result, Customs is able to assist companies to proactively declare the value through the ACVA, and to secure the associated tax revenue in a transparent manner without dispute, and the taxpayer may conduct their business with greater commercial predictability.

The specific advantages that taxpayers may obtain by using the ACVA are as follows. First, any customs audit may be postponed from the time they request the ACVA to the time the approval is obtained, and they may be exempted from customs audit of the customs value of approved items for a period of three years. Second, since they may use the provisional value declaration system from the time they request the ACVA, they may be exempted from any penalties, including part of any penalties relating to goods imported prior to the request for the ACVA. Third, as consumers and the taxation authorities can rely on the imported value of the goods, the company's social reliability may be enhanced, which helps the company achieve commercial stability.

The ACVA was introduced and implemented in 2008. Although there were not many requests in the early days, requests have been gradually on the rise since 2013. Meanwhile, since 2015, when taxpayers have sought an ACVA from the Commissioner of the KCS, they have also been able to concurrently request a Unilateral APA for domestic tax purposes. The ability to request an ACVA and Unilateral APA concurrently has increased the worth of the ACVA, as the customs value and the arm's length price for national tax purposes may be adjusted through discussion between the Commissioner of the KCS and the Commissioner of the National Tax Service (NTS). The Korean customs authorities aim to further develop and utilise the ACVA in the future.

2. Claim for rectification due to adjustment of customs value of imported goods

When the Korean Government amended the Customs Act and the Adjustment of International Taxes Act in December 2011, it established and implemented a system to allow a taxpayer, who is subject to taxation imposition from either Customs or the NTS related to an adjustment to the value of goods imported from related parties, to file a claim for rectification to their other taxation authority. In other words, if Customs impose additional duty by increasing the customs value of goods traded between the related parties, the taxpayer may file a claim for rectification of corporate tax to the domestic taxation authorities. Similarly, if the domestic taxation authorities impose corporate tax by reducing the value of goods traded between related parties, the taxpayer may file a claim for rectification of customs duty to the customs authorities.

The method and procedure of filing a claim for rectification are similar to those applying to general customs and corporate tax matters. If the KCS or the NTS does not accept the claim for rectification, the

taxpayer may file a request for an adjustment between the arm's length price of the national tax and the customs value to the Minister of Strategy and Finance (MOSF), which is a higher authority. If a taxpayer suffers due to a difference of opinion between the taxation authorities, the MOSF may become involved in determining an adjustment (see Figures 1 and 2).

Figure 1: Claim for rectification of corporate tax related to an increase in customs duty (Article 10-2 of the Adjustment of International Taxes Act)

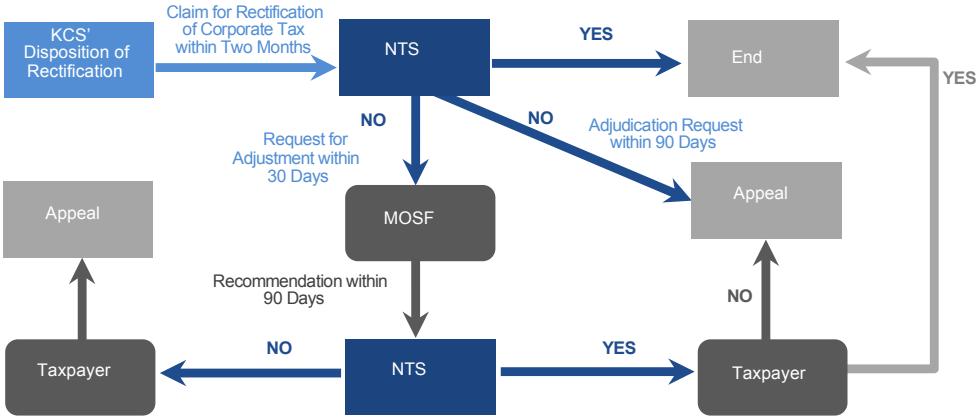
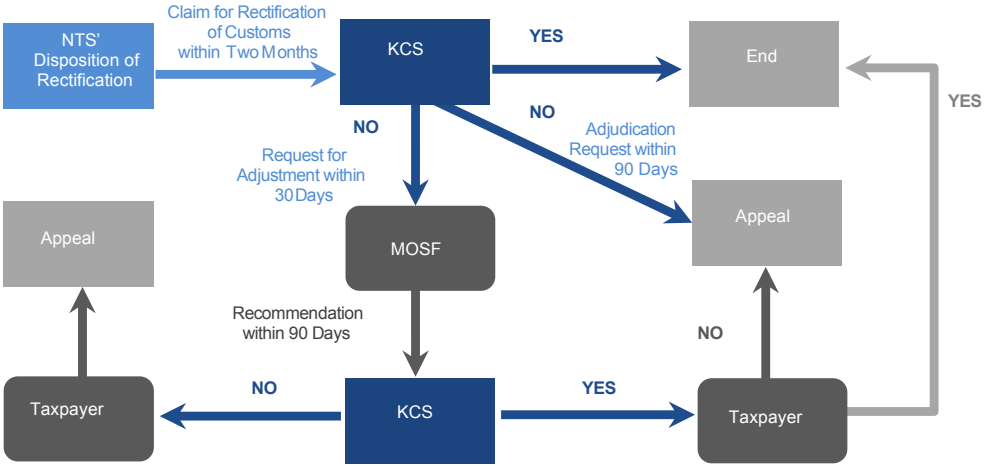


Figure 2: Claim for customs duties related to an increase in corporate tax (Article 38-4 of the Customs Act)



3. Other issues

If multinational companies that have entered the Korean market utilise the ACVA and claim for rectification arrangements, discussed above, they may effectively reduce the risk of 'denial of transaction value between the related parties'. There are other methods to reduce such a risk. These include the conduct of expert audits relating to customs valuation, and transfer pricing studies by TP experts. In the latter case, it would be advisable to include customs experts in the TP study to ensure that the study focuses on both domestic and customs risks.

Jeong Cheol Cho

Jeong Cheol Cho is a partner at Yulchon LLC, practising primarily in the litigation area. Before joining Yulchon, he served as a superintendent public prosecutor at Seoul Central District Prosecutor's Office, Suwon District Prosecutor's Office and Daejeon District Prosecutor's Office, and other offices. Mr Cho also has 19 years' experience as a public prosecutor and superintendent public prosecutor. He specialises in white-collar crime, and handles cases relating to concealing assets overseas, offshore tax evasion, and violation of the Customs Act and Foreign Exchange Transactions Act.

Customs criminalistics (forensic science): A new concept for customs control

Vladimir G Makarenko

Abstract

The system of Ongoing Forensic Support that provides expert assistance to customs authorities in the Russian Federation was analysed, and the interaction between the law enforcement departments of customs authorities and experts (specialists-on-duty) was studied. Based on the theory and practice of criminal trials and criminalistic equipment used to fight customs crimes, the author investigated the participation of experts in urgent investigations and examinations that are carried out by the law enforcement divisions of customs authorities. The author suggests that *customs criminalistics* (forensic science) should be routinely introduced into these situations.

1. Introduction

The customs authorities of the Russian Federation (RF) play an important role in the integration of customs activities in the Eurasian Economic Community (EEC), particularly in relation to forms and methods of customs control. The sophisticated measures applied by Customs provide a protective barrier against the criminal infringement of economic security. Such measures are often undertaken in collaboration with experts and research areas in the Federal Customs Service (FCS) of the RF. The customs processes used present insights for law enforcement agencies globally.

Customs experts (trained in forensic techniques) and customs officials have cooperated for more than 20 years in the task of examining the quality and safety of freight moved through national borders, and the veracity of the associated declarations. Customs experts often undertake the customs examination and register their conclusion, without which, in many cases, it would be impossible to verify compliance with the relevant customs legislation. This points to the need for improvements to the traditional process of customs examination (Metelkov, 2013).

Due to frequent changes in federal legislation, it isn't always feasible to achieve the objectives set by the state government. As the volume of trade between the states steadily increases, validating the nomenclature and other aspects of internationally traded goods also increases, and so having high-quality administration and customs regulation is crucial as the scientific expert component of customs affairs evolves (Makarenko, 2014).

2. Modern features of customs integration

In 2000, the states of Russia, Belarus, Kazakhstan, Tajikistan and Uzbekistan founded the EEC. This new organisation was required to address all activities associated with the formation of general external customs borders, and to develop uniform external economic policy, tariffs, prices and other components of a functioning common market. The goals were achieved by following a step-by-step process to ensure the readiness of the states and the necessary economic and legal requirements. In October 2007, the contract on creation of the uniform customs territory and formation of the Customs Union (CU) of the states of Russia, Belarus and Kazakhstan was signed, and the CU started functioning

from 1 January 2010 (Chernysh et al., 2013). The Institute of Customs Examination[1] became one of the most important innovations of the CU. Expert examinations of goods that moved through the various borders had previously been carried out, but there were a number of problems. As a result, forensic and criminalistic support of customs activities extended to customs control and law enforcement activities, which is considered in more detail below.

3. A key function of customs authorities

Malyshenko (2013) considers that customs control is the main function of customs administrations, and much attention is paid to evaluating its effectiveness. Indicators of effectiveness include the amount of fines collected, the number of administrative and criminal lawsuits instigated, and the quantity of drugs seized. Although these indicators are important, they are not comprehensive and are not a reflection of effectiveness. As Malyshenko indicates, a decrease in the amount of fines collected or quantity of drugs seized does not mean that the capability of the customs control system to identify customs law violations has deteriorated—it is quite possible that businesses have abided by the law more and violated the law less. We partially agree with this point of view, and consider that the measures of protection applied by customs authorities are no less important than its fiscal function.

4. Law enforcement activity

The law enforcement activities of customs authorities are similar to those of other state bodies in many ways. The first similarity is that legal measures of influence are regulated by laws. Among measures of legal influence, prevention of illegal actions is important and is allowed within set limits. The second is that the legal measures of influence applied during its implementation must correspond strictly to instructions of the law and other legal acts, and only the authorities can form the basis of application of a concrete measure of influence and accurately define its contents. The considered activity must be established by the law and observe certain procedures. Counteracting customs crimes is a function of not only customs authorities, but also other state departments that carry out inquiries, preliminary investigations and operational search activities associated with customs offences. Such law enforcement activities cannot be carried out without expert knowledge. Examples of criminal cases concerning the most serious customs crimes, and examples of criminalistics participation, are provided in this paper.[2]

5. Forensic and criminalistics activity is an ‘ambulance’ for Customs

For many years there was no opportunity for customs authorities to carry out independent and authentic expert search activities concerning goods that were the subject of an offence or a crime. Rather, the expert researchers for Customs were usually appointed from the Ministry of Internal Affairs, or the Expert Center of the Ministry of Justice. However, during 1990 the state customs committee for the system of customs laboratories was formed. Initially, the laboratories were located in regional customs offices, which was inconvenient and didn’t allow for uniform scientific, methodical and technical policies to be carried out. This, in turn, affected the quality of the searches carried out by the experts and the validity of their conclusions (reports). Inadequately skilled personnel in the developing system of expert divisions of customs authorities exacerbated the situation. As there was no program of expert certification, there was no full vocational training, mentoring or continuity of experts. Following the formation of the *Central Forensic Customs Laboratory* (CFCL) in April 2002, the situation changed fundamentally and the *Main Customs Laboratory* was transformed to CFCL.

Today CFCL is the specialised department for regional government and has an extensive network of branches.[3] All expert divisions from the regions are staffed by personnel from regional customs offices and are subordinated to the CFCL in the form of Expert and Criminalistic Services (ECS). Acting under regulations of the FCS of Russia, CFCL ensures that requirements of the customs authorities are implemented through customs control and law enforcement activities, including examining and searching goods, vehicles, documents and other objects moved through the customs border of the CU (now the EEC).

A new form of interdepartmental interaction on the activities of the customs authorities was created in 2011—the system of *Ongoing Forensic Support* (OFS system). However, it is remarkable that the continuous OFS system for customs authorities' activities is considered the responsibility of the duty expert who is on the staff in a regional location of CFCL's structural expert division. The expert must be on call at all times and be prepared to carry out different types of searches and examinations when needed. This situation is not suitable as it can be difficult to transport the expert to a venue of urgent investigative actions by the customs authority. Also, there are a number of problems connected with the quality of criminalistic activity and the processes used to identify customs offences. In our opinion the problem is a question of the competence of the customs control inspectors who apply criminalistic science to identify, investigate and prevent customs offences.

Box 1: Criminal case: *Drug smuggling*

On 19 September 2015, officers of the Moscow Domodedovo Airport, in the course of a customs examination of a Uzbekistan male passenger who was travelling from Uzbekistan to Russia, discovered 705 grams of heroin concealed in 169 swallowed containers. A customs criminalistics (forensic) expert took part at the scene.[4]

6. Global aspects of criminalistic science

Before further discussing the issue of criminalistic experts and customs control, it is necessary to discuss criminalistic techniques in general. Criminalistics developed as the science involved in increasing the efficiency of law enforcement agencies when establishing the truth in criminal legal proceedings. Therefore, criminalistics studies the work of the investigator, the prosecutor, the judge, the forensic expert, and the operative agent on disclosure, and investigates customs crimes and the judicial proceedings of criminal cases (Ishchenko & Toporkov, 2006).

At the beginning of the 20th century, as criminalistics was developing, two complementary directions emerged: (i) criminalistics for investigators, which was championed by Hans Gross, author of *Handbuch fur Untersuchungrichter*, and (ii) criminalistics for experts, promoted by Rudolf Archibald Reiss, author of *Manuel de Police Scientifique*.[5]

Criminalistics, as one of the sciences concerned with criminals and the legal cycle, studies and provides the scientific development of cognitive search activities in criminal trials. This activity is carried out: (a) within a so-called legal form of pre-judicial preparation of materials; (b) at a stage of preliminary check (a stage of initiation of legal proceedings); (c) during preliminary investigation; (d) in cases of a stay of preliminary investigation on criminal cases, when there is a need to search for missing goods, and to establish the identity of the accused; and (e) during judicial examination in criminal cases (Obraztsov, Adamova, Viktorova, & Viktorova, 1992).

7. Technical support of customs control

Firstly, it is important to note that the need for and possibility of applying technical solutions to the tasks assigned to customs authorities, directly or indirectly, follow from a number of articles of the customs code of the CU. The technical means applied by customs authorities can be broadly defined as *customs equipment*. This broadly includes technical devices that help customs control and customs registration combat customs offences, including smuggling.[6]

The provision of technical support of customs controls allows customs authorities to elicit facts about the illicit movement of goods and to counteract socially dangerous crimes. One such crime is smuggling of radioactive materials. It should be noted that the establishment of the fact of smuggling of similar substances is impossible without the application of technical means. One such crime was revealed by Sheremetyevo customs (see Box 2).

Box 2: Criminal case: Smuggling of radioactive materials

In the case of customs control of a passenger flight Moscow–Tehran, a stationary radiation control system 'Amber' was located in the departure hall of the Sheremetyevo Airport. An examination of the luggage of one of the passengers revealed 18 metal products of industrial production that were packed into individual steel cases. In was only by carrying out the technology-assisted examination that it was possible to confirm the suspicions of Customs.[7]

In our opinion, this type of control is of great importance. Modern customs authorities pay great attention to such technologies as a way to prevent smuggling of similar materials. Gubin (2011, p. 98) discusses 51 indicators of customs activity effectiveness and one of these is the average time needed to react to evidence of fissionable and radioactive materials crossing the customs border and to goods exhibiting increased levels of ionising radiation (three indicators each for airport, railway and automobile checkpoints).

The level of development of science and scientific equipment assumes the competent training of those persons who apply such means in the course of customs control. In this regard, we consider that the application of the specified technical means is impossible without knowledge in the field of modern criminalistics.

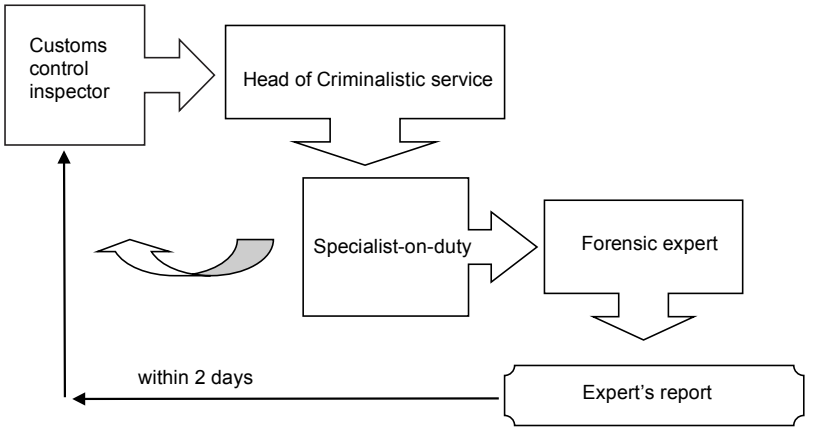
When technical means of customs control are applied, the inspector uses certain techniques which, as a rule, are developed within special scientific disciplines. Those involved in the identification of criminal encroachments should, in our opinion, be trained in criminalistic science. This is because criminalistic science includes knowledge and data from humanitarian and technical fields as well as information on the criminological characteristic of similar crimes. In other words, the methods of criminalistics apply experience of disclosure of similar or identical types of customs offences.

In order to achieve reliable results when implementing procedures of customs control, the methods of criminalistics described above may be applied by experts in this area, and for the expert to participate in customs control activities, the different divisions must interact and cooperate.

We suggest that the interaction of divisions of customs control and experts will be optimised if:

- the customs inspector requests criminalistic services when they are in a situation where specialist knowledge is required
- the head of the specified service sends the specialist-on-duty to the venue of customs control
- once the specialist has completed their investigation, they transfer their results to the forensic expert
- the forensic expert carries out an examination and prepares the expert report and transfers it to the division of customs control within two working days (see Figure 1).

Figure 1. Optimum inter-customs interaction



Source: Author, 2016.

We consider that this system of interaction will provide the full application of modern criminalistic means and methods in customs control, and increase the level of customs crime prevention.

An example follows of how an expert opinion is used in the investigation of crimes. As a result of law enforcement activity in 2015, the customs authority of the Central region of Russia identified that oil products were being smuggled. The expert executed searches at a stage prior to the initiation of legal proceedings. Further, the expert acted as the expert in the judicial proceedings. Fraud was identified using a special technique—the image of the signature (on behalf of the owner of goods of a large consignment of oil products) was subject to handwriting examination. Signatures were located in the transport and customs documents submitted to the Moscow Customs. The analysis included consideration of the degree of clarity of the signature, size, dispersal, rate of execution and pressure, among others.

Morris (2014) notes that determining the significance of features of writing can be difficult when examining original writing. When examining the original, virtually every characteristic, quality, and feature of the writing is visible and can be examined with the aid of magnification, different wavelengths of light, changes in the angle of illumination, etc. If a copy of the original document is examined, that examination is limited to the visible elements, such as toner and ink jet printing, on the copy that may or may not correspond to a counterpart characteristic, quality, or feature on the original (Morris, 2014).

However, it should be noted that there are some types of customs fiscal crimes for which the application of traditional criminalistic means is difficult. In these cases, the development of institutes of customs financial and accounting examinations is recommended.

8. Independence and economic efficiency of the expert's activity

It is our experience that there are often legal practice situations in which the judiciary or participants of foreign economic activity call into question the legitimacy of carrying out expert searches in customs laboratories. While this problem is now minimised in the Russian Federation, it is present in other countries of the CU, such as Kazakhstan. In Russia, extensive jurisprudence that can prove insolvency of these claims from courts (or respondents in court) was created. As a rule, participants of foreign economic activity, or their lawyers, argue this point to try to evade responsibility for an offence, or to reduce the size of customs payments. On the basis of the legislation, the expert is an independent

person because he/she bears personal criminal and administrative liability that he/she specifies in the *expert's report*. In other words, the expert can draw conclusions following the results of searches and does so only on the basis of their own actions, beliefs, experience, knowledge and qualifications. None of the heads of customs laboratories can influence their research activities, and if the expert displays personal or departmental interest, administrative and criminal responsibilities will also go through the court. It is necessary to understand that there is a possibility of carrying out *repeated* or *additional* examinations, which results can confirm or disprove the *primary* examination. It means that there is a lawful opportunity to check reliability of departmental customs examination and to be convinced about the expert's bias, or lack of bias, in the outcome of the case.

Customs laboratories require specialised equipment and qualified personnel.[8] CFCL in Moscow has modern chromatographs, video spectral comparators, program hardware complexes, electronic and digital microscopes, equipment for complex chemical analysis, and equipment for the solution of expert tasks that involve methods of nuclear magnetic resonance. On average, return on investment of customs laboratory equipment takes two to three years. But here it is necessary to consider that all this is possible only in the presence of authentic expert opinions (*expert's report*) that are subsequently accepted by Customs or the court. At the same time, separate regulations oblige customs authorities to take the results of the examination into account. However, in practice this does not always occur.

As for criminalistic activity, so-called preventative measures are also important. In other words, the customs criminalist work also applies to preventing prohibited and dangerous goods being imported, such as drugs, firearms, explosive and toxic agents, and counterfeit products. In this case, it is not necessary to consider the economic efficiency of such searches, as such work is important for national security.

9. International experience in the area of customs forensics

The provision of experts and criminalistics in customs regulation is a worldwide practice. For example, in the United States of America (USA) there is a criminalistic laboratory which is included in the structure of US Immigration and Customs Enforcement. The *HSI Forensic Laboratory* also solves many problems connected with forensics. Intelligence analysis and the forensic disciplines are utilised by the Law Enforcement Support Section staff to assist HSI and other law enforcement agency investigations of illicit activity in the USA and throughout the world as facilitated by document fraud. Examples of the types of criminal activities include: financial crime; narcotics smuggling; identity theft; human trafficking and smuggling; fraudulent identity document vending; and immigration benefit fraud. In addition to providing law enforcement support for current investigations, leads developed from the on-going analysis of transnational criminal organisations are forwarded to HSI field offices and attachés (US Immigration and Customs Enforcement, n.d.).

In Africa, the Nigeria Customs Service (NCS) includes a Forensic Investigation Unit equipped with a mini forensic laboratory established to give the officers a platform for practical exposure. NCS's Professor Gbenga Ibileye (2012), recommended that:

- In the long term, a Forensic laboratory fully fitted with adequate investigation and analysis equipment should be established by the NCS. This will entail adequate funds and requisite manpower and skill development to ensure maximum utilization.
- That the NCS take proactive steps to prevent and investigate breaches of computer security protocols and illegal access to NCS computer network
- NCS should establish a virtual boarder [*sic*] fully fitted with remote sensory facilities … this will enable the NCS to cope with the porous and extensive boarder [*sic*] network of the nation. Other security agencies of the country can also benefit from this (Slide 29)[9]

It should be noted that not all states have expert divisions in customs authorities. In some countries customs law enforcement divisions ask other departments for the help of experts or criminalists, such as from the law enforcement (internal affairs) bodies of the country. This author believes that the optimum structure is for the customs service to have its own expert division, equipped at the modern level, that will allow greater prevention of customs crimes and more effective collection of customs payments.

10. Theoretical and practical actuality and significance of customs criminalistics

In the EEC, effective interaction between customs authorities (that already exchange significant information and documents related to criminal activity in a timely manner), depends on cooperation between the law enforcement divisions of the customs authorities of member states of the EEC, and on the Customs Information System (CIS) to qualitatively investigate criminal customs cases. Problems of transnational organised crime and increased threats of international terrorism place great demands on law enforcement departments around the world. International criminal organisations are invariably involved in illegal foreign trade operations. In this regard the largest international organisations, such as the World Customs Organization, Council of the states of the Baltic Sea, Interpol and Europol, demand that national customs administrations find new effective law enforcement techniques, improve their interaction, and introduce mechanisms to obtain and share information on criminal foreign economic activity. Cooperation in the sphere of international criminal cases is carried out in accordance with articles 453 and 454 of the Criminal Procedure Code of the Russian Federation (Kozlov, 2015).

11. Conclusion

We believe that the introduction of the institute of customs examination was one of the most important innovations of the Customs code of the CU of 2010.

There is, however, a need for a scientific-theoretical definition of such a specific sphere of knowledge, the analysis of which may give grounds to believe that it is nothing more than the use of criminalistic equipment in the sphere of *customs control*. However, such usage represents only one specific aspect of criminalistics. Proceeding from the above, *Customs criminalistics* may be defined as all specific activities of customs authorities relating to investigation, identification and prevention of customs offences (Makarenko, 2014).

In the existing application of experts' activities in customs authorities of member states, the requirement for the EEC to develop normative legal documents including provisions which regulate activities for an assessment of the conclusions of customs experts when settling disputes in the field of customs regulation in the Court of the Eurasian Economic Union (EEU) seems to be necessary. The systematic and qualified introduction in practice of the results of the expert research of customs laboratories in the EEU directly impacts many aspects of customs regulation, such as classification of goods, determination of customs value, calculation of customs payments, and proving the facts of smuggling and false declaration of goods.

The OFS system for law enforcement activity (in other words, *customs criminalistics*) must become, and indeed has already become an important scientific support for Customs, and neither operational search activities, nor urgent investigative actions that are performed by customs authorities should be undertaken without it.

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Notes

1 Customs examination means the organisation of searches that are carried out by customs experts with the use of special and scientific knowledge for the solution of issues in the field of customs regulation (Chapter XX, Customs Code of the Customs Union).

2 The author presents descriptive parts of a crime without specification of data. Full texts of news presented by law enforcement agencies (including the Federal Customs Service) can be freely accessed on the official sites of state departments, and also on their pages on popular social networks (Facebook, Twitter, VK, etc.). Also, information from the following websites was used: www.gov.uk; www.wcoomd.org; www.ice.gov.

3 Central Forensic Customs Laboratory (CFCL) is one of the strongest scientific research centres equipped with modern analytical equipment and staffed by qualified personnel in the field of customs and forensic examination.

4 Source: http://eng.customs.ru/index.php?option=com_content&view=article&id=1931:law-enforcement-activities-of-the-federal-customs-service-in-2015&catid=32:news-cat&Itemid=1858&Itemid=1857/

5 Source: https://www.veko-online.de/92-archiv/ausgabe-1-16/643-kriminalgeschichte-hans-gross-begruender-der-modernen-kriminalwissenschaften.html

6 Such as technical means of *customs control*; *customs examination; criminalistic search; metrological support; IT support; communications; customs transport;* and other supportive technical means.

7 Source: http://www.tks.ru/crime/2011/12/16/05/

8 Creation of *criminalistic services* at each customs laboratory, which serve regions with large volumes of customs registrations seems necessary. The organisational and regular structure of such services for each customs laboratory varies, the main criteria for determining the number of staff being the area covered and the volume of goods crossing the customs border.

9 'Protecting Nigerian Land and Cyberspace Borders Through Digital Forensics', presentation by Professor Gbenga Ilibeye, Nigeria Customs Service (NCS) Federal Ministry of Finance, Federal Government of Nigeria on 1 December 2012.

Vladimir Makarenko

Vladimir Makarenko has more than 13 years' experience in the customs authority of Russia. As head of the expert department in a Central Forensic Customs Laboratory (CFCL), Vladimir developed and deployed 10 protected documentary forms relating to Federal Customs Service (FCS) activities. He also developed technical requirements for three types of customs identification, including a personal number press and customs registration stamps. At the beginning of his career, Vladimir conducted research on more than 5,000 prints of the various seals and stamps on customs documents, from which some 1,700 forgeries were detected. Vladimir has considerable experience in the field of criminalistic and forensic knowledge, applying his skills in the field of customs regulation. His current position as Customs Legal Counsel of the Russian company, *'ZENON'* Inc., involves practical activities related to arbitral procedures in customs legal relationships.

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Section 3

Special Report

Customs Revenue Benchmarking Database (CRBD)

Robert Lüssi and Jürg Marolf

Summary

The significance of customs receipts is declining, whereas that of the other taxes and duties levied by customs administrations is growing. A Swiss-led study group under the auspices of the World Customs Organization's (WCO) Working Group on Revenue Compliance and Fraud is currently looking at how a Customs Revenue Benchmarking Database (CRBD) regarding the taxes and duties levied by customs administrations could be built. This would promote common understanding. Moreover, this knowledge would enable customs administrations to support decision-makers in their countries with corresponding know-how. They would also be more transparent vis-à-vis the business community.

1. Introduction

The significance of customs receipts is declining in World Customs Organization (WCO) member states, partly as a result of the growing number of free trade agreements. Meanwhile, customs receipts are likely to account for only a small proportion of the administration's total receipts in many countries. In Switzerland, for example, the Customs Administration had receipts of over CHF 20 billion in 2015, representing around a third of the Confederation's total receipts. Import duties account for barely 5 per cent—approximately CHF 1 billion. Switzerland stopped levying export duties years ago. This trend is continuing. The total elimination of customs duties on industrial goods is even being considered.

The tasks of customs administrations have changed significantly in recent years. Aside from collecting customs duties, they already perform tasks for the economy (such as protecting or promoting the domestic economy) or for the benefit of public security and safety (such as people checks at the border). But what are new are tasks in favour of the environment (e.g. levying of incentive fees and consumption taxes) and other taxes and duties to compensate for the declining customs duties.

The CRBD focuses on the receipts of a customs administration irrespective of why or for whom they are collected. The database should allow for as quick and simple an overview as possible of the taxes and duties collected by the individual customs administrations. This would be a first step towards the sharing of experience among the administrations. The data should be available primarily to the member states, although some of it should also be available to the general public and/or the business community. Information should be provided not only on the systems used, but also on the resources deployed.

2. Progress made

A Swiss-led study group under the auspices of the WCO's Working Group on Revenue Compliance and Fraud, and with representatives from the customs administrations of New Zealand, Vietnam and Finland, is currently looking at how a database regarding the taxes and duties levied by customs administrations could be built. The work is supported by the Cross-Border Research Association (CBRA, http://www.cross-border.org).

The study group's first two meetings showed that the necessary data is already available to a large extent, meaning that the cost of creating a database can be kept down. For example, information on the taxes and duties collected by EU member states is publicly available at http://ec.europa.eu/taxation_customs/tedb/legacy/taxSearch.html. Searches can be restricted to the taxes and duties levied by customs administrations. However, such an overview is lacking at the international level and is not geared to the members' needs.

Topics in the area of taxes and duties are also increasingly being discussed within the WCO. However, the WCO is still oriented towards the collection of customs duties. The Tariff and Trade Affairs area is subdivided into Nomenclature, Valuation and Origin. An area responsible for the other taxes and duties collected at the border is missing. In principle, the WCO would be an ideal platform for the member states to exchange information on the collection of all taxes and duties at the border or generally by customs administrations.

In September 2016, the WCO organised a meeting on e-commerce that met with a resounding response. A key point for the big players in this area is the so-called *de minimis* approach, that is, an exemption limit for the importation of small consignments. Transparency concerning total costs was also called for so that clients can avoid surprises when purchasing. Unpleasant client experiences with import duties would currently hinder e-commerce. However, all duties and taxes that are collected at the border must be taken into consideration when dealing with these issues. What would the client gain by receiving a parcel duty-free but with various fees?

Harmonisation of the collection of duties and taxes, similar to the trend in recent decades for customs duties, seems utopian at present. The taxes and duties levied are too different, as are the reasons why a state collects a tax or duty. Nevertheless, an overview would promote common understanding. Moreover, this knowledge would enable customs administrations to support decision-makers with corresponding know-how in their countries.

3. Next steps

The study group had its third meeting in Brussels in mid-February 2017. Aside from a cost estimate, a preliminary proposal for the database structure was presented. Representatives from Australia, Canada, China and India announced their interest in the work of the study group.

All the findings have now been collected. A study report will be prepared and transmitted to the WCO's Working Group on Revenue Compliance and Fraud, which will discuss the follow-up.

Robert Lüssi

Robert Lüssi is Vice Director of the Federal Customs Administration (FCA) of Switzerland, and Head of the Main Revenue Division. The collection of tobacco duty and beer tax, value added tax, mineral oil tax, automobile duty, VOC and CO_2 tax, as well as the collection of the heavy vehicle charge and motorway tax (over CHF 20 billion in total) are under his control. Alcohol duties will be added in 2018.

Jürg Marolf

Jürg Marolf is a specialist in the Management Support Section of the Main Revenue Division of the Federal Customs Administration of Switzerland.

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Section 4

Reference Material

Guidelines for Contributors

The *World Customs Journal* invites authors to submit papers that relate to all aspects of customs activity, for example, law, policy, economics, administration, information and communications technologies. The Journal has a multi-dimensional focus on customs issues and the following broad categories should be used as a guide.

Research and theory

The suggested length for articles about research and theory is approximately 5,000 words per article. Longer items will be accepted, however, publication of items of 10,000 or more words may be spread over more than one issue of the Journal.

Original research and theoretical papers submitted will be reviewed using a 'double blind' or 'masked' process, that is, the identity of author/s and reviewer/s will not be made known to each other. This process may result in delays in publication, especially where modifications to papers are suggested to the author/s by the reviewer/s. Authors submitting original items that relate to research and theory are asked to include the following details separately from the body of the article:

- title of the paper
- names, positions, organisations, and contact details of each author
- bionotes (no more than 100 words for each author) together with a recent, high resolution, colour photograph for possible publication in the Journal
- an abstract of no more than 100 words for papers up to 5,000 words, or for longer papers, a summary of up to 600 words depending on the length and complexity of the paper.

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Where necessary and appropriate, and to ensure consistency in style, the editors will make any necessary changes in items submitted and accepted for publication, except where those items have been refereed and published elsewhere. Guidance on the editors' approach to style and referencing is available on the Journal's website.

Letters to the Editor

We invite Letters to the Editor that address items previously published in the Journal as well as topics related to all aspects of customs activity. Authors of letters are asked to include their name and address (or a pseudonym) for publication in the Journal. As well, authors are asked to provide full contact details so that, should the need arise, the Editor-in-Chief can contact them.

All items should be submitted in Microsoft Word or RTF, as email attachments, to the Editor-in-Chief: **editor@worldcustomsjournal.org**

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