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WORLD CUSTOMS ORGANIZATION



*World
Customs
Journal*

March 2013
Volume 7, Number 1

ISSN: 1834-6707 (Print)
1834-6715 (Online)

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World Customs Journal

Published by the University of Canberra, Australia and the University of Münster, Germany in association with the International Network of Customs Universities (INCU) and the World Customs Organization (WCO).

The *World Customs Journal* is a peer-reviewed journal which provides a forum for customs professionals, academics, industry researchers, and research students to contribute items of interest and share research and experiences to enhance its readers' understanding of all aspects of the roles and responsibilities of Customs. The Journal is published electronically and in print twice a year. The website is at: www.worldcustomsjournal.org.

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Correspondence and all items submitted for publication should be sent in Microsoft Word or RTF, as email attachments, to the Editor-in-Chief: editor@worldcustomsjournal.org.

ISSN: 1834-6707 (Print)
1834-6715 (Online)

Volume 7, Number 1

Published March 2013

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Editorial



An interesting development during the past 12 months has been the increasing importance placed by governments on international comparative reports, such as the World Bank's Logistics Performance Index (LPI). The LPI analyses the performance of over 150 countries in six key areas, one of which is the efficiency of customs and border management clearance, which examines the speed, simplicity, and predictability of formalities by border control agencies.

A number of Directors-General of Customs have told me that they have been summoned to meetings with their parliamentary masters, only to find themselves being praised or chastised, depending on the findings of such reports. As a result, stakeholders are seeking assurances about the validity and reliability of the reports, and I am pleased to note that the article by Motohiro Fujimitsu in this edition of the *World Customs Journal* comments on the relevance of comparative reports in the context of aid for trade facilitation. Hopefully further research will be forthcoming in this area of academic interest, with its potential to influence government decision making.

In other academic contributions, Chang-Ryung Han and Robert Ireland examine customs enforcement of informal funds transfer systems, Yuri V Malysenko analyses key aspects of customs control, Rob Preece provides a review of literature on the impact of excise taxation on government revenues and social objectives, and Parthasarathi Shome examines the role of Customs in international relations. Practitioner contributions to this edition include a noteworthy article by Lars Karlsson on the importance of leadership development in achieving successful capacity building outcomes, and Libing Wei's perspective on the impact of trade friction on customs performance.

The next edition of the Journal will focus on integrity and anti-corruption strategies relevant to the customs operating environment. This has always been an area of critical importance, and is again emerging as a topic of concern. The WCO's Revised Integrity Development Guide was discussed at the meeting of the Integrity Sub-Committee in January this year, and will be considered for adoption by the Policy Commission and Council in June. The Editorial Board would welcome contributions on this and other topics from both Customs and the international trading community.

Finally, I would like to welcome Professor Aydin Aliyev onto the Editorial Board. The Journal and its readership will benefit significantly from Professor Aliyev's impressive achievements in both public office and academia, and his high standing in the international customs community.

A handwritten signature in blue ink, which appears to read 'D. Widdowson'.

David Widdowson
Editor-in-Chief



Section 1

Academic Contributions

Informal Funds Transfer systems as a target of customs enforcement¹

Chang-Ryung Han and Robert Ireland²

Abstract

Informal Funds Transfer (IFT) systems entail the movement of money without using formal financial institutions. People use IFT systems for several reasons, such as migrants remitting their income to relatives in home countries. While IFT can have legitimate purposes, it can also be exploited for criminal activities. In addition to being swifter, less expensive, and more convenient than some formal banking systems, IFT has some criminogenic advantages, including increased anonymity, weak recordkeeping, and non-transparent settlements. IFT systems are frequently used by informal traders and smugglers and, consequently, can help to evade compliance with customs regulations. This paper offers a preliminary examination of the implications for Customs of IFT systems and advocates that customs administrations increase their knowledge and enforcement activities with respect to IFT.

1. Introduction

In open economies, people, goods, services, money, and information flow freely over borders. Customs administrations are responsible for facilitating the legitimate flow of ‘goods’ and ‘people’³ and for controlling illegitimate ones. Even though they collect ‘money’ as a form of custom duties and taxes from goods, the ‘flow’ of money between countries has not been a major issue for many customs administrations as long as the flow of money runs separately to the flow of goods. That is because while goods and people cross borders, in most cases money does not physically move from one country to another (El Qorchi, Maimbo & Wilson 2003), even if the value of money is transferred abroad.

As international trade volumes increase and regional trade agreements add further complexities, Customs faces challenges in effectively discovering illegal activities in international trade because of the current enforcement approach of concentrating on the flow of goods. This is especially the case because, as more customs administrations have adopted risk management as their core philosophy, they need better information and intelligence to tackle risks to the global trade environment, compensating for the discard of 100% verification. In this respect, greater awareness about the flow of money can benefit customs administrations.

Money crosses borders in several ways. Some people use formal financial institutions to transfer money electronically to other countries. Some carry cash with them when crossing borders. Some conceal cash in parcels or cargo in order to transport money across borders. Others, however, transfer money to other countries without relying on these well-known methods. They ask someone to remit money to another country then the agent transfers the value of the money to the destination country without using the formal banking system. In the literature, this approach has several names, including *informal money transfer systems* (Buencamino & Gorbunov 2002), *informal fund transfer systems* (El-Qorchi 2002), and *alternative remittance systems* (FATF 2003; McCusker 2005). This paper uses the term Informal Funds Transfer (IFT) systems.

IFT systems have longer historical backgrounds than conventional banking systems and, recently, they have been examined in the light of financial regulations to prevent unregulated banking systems from being abused for criminal purposes, such as money laundering. After the 9/11 attacks, however, law enforcement agencies as well as financial authorities have taken heightened interest in IFT systems because of concerns⁴ that IFT systems are being used for illegal and terrorist activities (El-Qorchi 2002; United States General Accounting Office [USGAO] 2003; Rees 2010; United States Department of State [USDS] 2012).

Some analysts contend that many IFT systems have a self-regulating mechanism based on trust between operators and users, and thus are not likely to be involved in financing illegal and terrorist activities (Buencamino & Gorbunov 2002). Compared to conventional financial systems that have established safeguards against money laundering, IFT systems have a heightened vulnerability to exploitation by criminal syndicates (*The Economist* 2001). Many law enforcement and financial authorities are devising regulations to control IFT systems. Most customs administrations,⁵ however, believe that IFT systems are not a domain of Customs, and have not sought methods to investigate their use in violating customs laws. The reasoning is that because IFT systems are primarily used by migrant workers to transfer their remittances to their families in home countries (Buencamino & Gorbunov 2002), they are considered *capital trades*, not *commodity trades*. IFT systems, however, are not only used by traders for trade payments in order to avoid trails but also for under- or over-invoicing or smuggling gold and bulk cash to settle balances between IFT brokers. This paper advocates that Customs should take an increased interest in the use of IFT systems for non-compliance with customs laws and describes mechanisms for doing so.

2. Informal Funds Transfer systems

To analyse the implications of applying customs controls to IFT systems, it is necessary to understand their basic characteristics. This paper illustrates how IFT systems work from the Customs' point of view, taking into account the rich body of existing research on IFT's historical background and mechanisms.

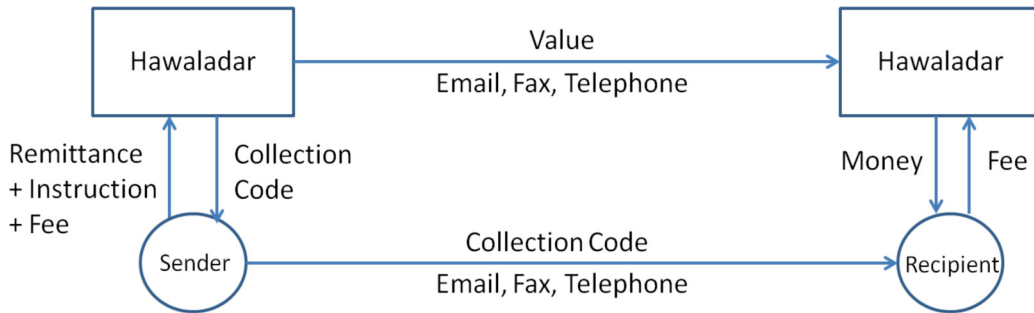
2.1 Types of IFT systems

IFT systems have several variants with different terms (Hernandez-Coss 2005), but they can be categorised into three general types: hawala⁶ in South Asia, Fei qian in China, and Black Market Peso Exchange (BMPE) in North and Central America.

Several hundred years ago, hawala was created to support trade financing in South Asia. In particular, hawala was attractive to traders who wanted to avoid the dangers of travelling with gold and other forms of payment on routes beset with highwaymen. At present, the primary users of the system are migrant workers in Europe, the Persian Gulf region, and North America who send remittances to relatives, especially in South Asia, the Middle East, and the Sub-Saharan Africa region (El-Qorchi 2002; Hernandez-Coss 2005; Hernandez-Coss & Bun 2007; Passas 1999; Rees 2010).

Hawala is based on trust between hawaladars (brokers) and users within the same ethnic group. In a sending country, a client hands over a sum of money to a hawaladar and requests that the equivalent amount (usually in the local currency of a receiving country) be sent to a designated recipient in a destination country. The sending hawaladar relays all the necessary information concerning the transaction to a counterpart hawaladar in the destination country either by telephone, facsimile or email. The client receives from the hawaladar of the sending country a 'collection code' that is agreed in advance between the two hawaladars. The client informs the recipient of the code that is necessary to present to the hawaladar of the destination country in order to collect the money (Buencamino & Gorbunov 2002).

Figure 1: Informal Funds Transfer system



Source: Developed by Han & Ireland.

Under hawala, each transaction does not involve the physical movement of money. A hawaladar in a sending country owes their counterpart the equivalent of the amount given to a designated recipient because the hawaladar in the destination country gives money to the recipient out of their own cash reserves. The debt of the sending hawaladar is cleared in several ways (El Qorchi, Maimbo & Wilson 2003). Some financial experts contend that there are many bilateral transactions (that is, hawala and reverse hawala) between two hawaladars and the reciprocal debts between them are cleared from their books (Buencamino & Gorbunov 2002). However, there are other ways of clearing the debts between them: this is the link to Customs which will be explained later in this paper.

The Chinese devised a system known as Fei qian, or flying money, more than a thousand years ago. It was a way for southern Chinese provinces to pay tax to the imperial capital without the risk of travelling and being robbed on the way (*The Economist* 2011). The basic mechanism of Fei qian is similar to that of hawala. The difference between the two systems is that a Fei qian broker gives their client a token necessary to collect the money requested for transfer. The client travels with the token and receives the money transferred through presentation of the token to a designated broker in another place.

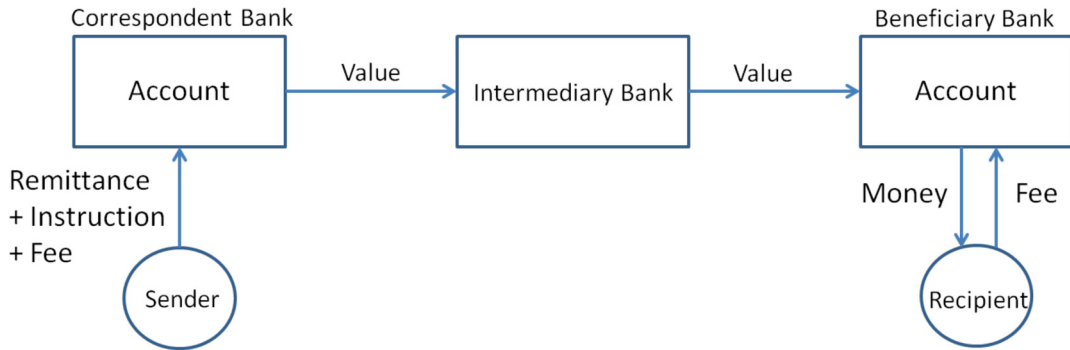
Unlike the other two systems with long historical backgrounds, the Colombian BMPE was developed in the 1970s as a vehicle for the movement of money across borders, especially to serve the needs of Colombian importers. Government exchange controls during the period made it difficult for Colombian importers to obtain the hard currencies (for example, United States dollars [US dollars]) needed to pay for their trades. The importers were willing to purchase US dollars at a premium over the official rate. The importers' demand for the hard currency was met by Colombian drug cartels which earned a number of US dollars in their drug sales in the US but needed to convert their criminal proceeds into Colombian pesos without relying on formal financial institutions. As a result, the Colombian BMPE began to be used as a vehicle to launder drug money and other illegally acquired wealth (Buencamino & Gorbunov 2002).

2.2 Advantages of IFT systems

Relying on IFT systems is a rational choice for the transfer of money because they have the same function as the formal banking sector; in addition, they are less expensive, swifter, and more convenient than the formal financial sector (El-Qorchi 2002). Due to their mainly minimal overhead expenses, IFT systems charge lower fees (for example, 0.25 to 1.25 per cent of the amount transferred) for their money transfer service than the formal banking sector with high minimum surcharges. IFT systems provide better exchange rates for their clients than conventional bank institutions. Recipients can collect money from IFT brokers in destination countries two or three hours after correspondents ask IFT brokers to transfer remittances to recipients, whereas it takes two or three days for the formal banking sector to send remittances. In cases of sending money to developing countries where financial institutions are barely

stationed at each town and governments strictly control the supply and demand of foreign exchanges, it takes more than a week to receive money through the formal banking sector. In addition, whereas the formal banking sector checks senders' identifications and requires recipients to have appropriate bank accounts, IFT systems do not (Buencamino & Gorbunov 2002; Hernandez-Coss 2005; USDS 2012).

Figure 2: Transferring money through the formal banking sector



Source: Developed by Han & Ireland.

2.3 Concerns with IFT systems

The merits of IFT are attributed to the absence of bureaucracy; the advantages, on the other hand, play a role in drawing and supporting illegal activities. The formal banking sector is obliged to screen their clients and transactions according to the due diligence process (USGAO 2003). If they detect suspicious transactions, they are generally required to report their findings to the government. However, IFT systems do not face similar regulatory requirements. The characteristics of IFT systems, such as anonymous transactions, weak recordkeeping, non-transparent settlement systems, and the absence of regulatory oversight,⁷ are of great use in laundering criminal proceeds by covertly moving and integrating criminal proceeds (for example, drug money) into legitimate business earnings.⁸ This makes IFT an attractive vehicle for illicit activities (IMF 2005; McGusker 2005; Passas 2003; Rees 2010; USDS 2012).

Policymakers have addressed the problem from a financial perspective in that IFT systems are a kind of unregulated financial system. International organisations and finance experts contend the improvement in the quality of service in the formal banking sector (for example, lowering official exchange rates and transaction fees) is needed in order to divert the clients of IFT systems to formal financial institutions. Another option that has been implemented in some countries is to legalise⁹ IFT systems by getting them registered or licensed (Rees 2010). As in the formal banking sector, financial regulation alone, however, has not controlled illegal movement of funds through IFT systems (El Qorchi, Maimbo & Wilson 2003).

3. IFT systems and Customs

3.1 Relevance of Customs to IFT systems

Transferring money of migrant workers to their families in home countries through IFT is not an issue for customs administrations. If traders settle their payments through IFT systems, however, this is a different story: IFT systems would thus enter into the domain of customs law. Even though customs tariff rates have decreased in recent decades, traders in many countries still need to pay considerable amounts of customs duties and taxes for importing or exporting goods. To evade customs duties and

taxes, some importers and exporters collude to manipulate their invoices. Some traders conduct their illegal businesses in a more sophisticated fashion: they settle their payment through IFT systems rather than formal financial institutions in order to evade customs regulatory requirements¹⁰ (Passas 2003; Rees 2010).

Table 1: Trade payment and IFT systems

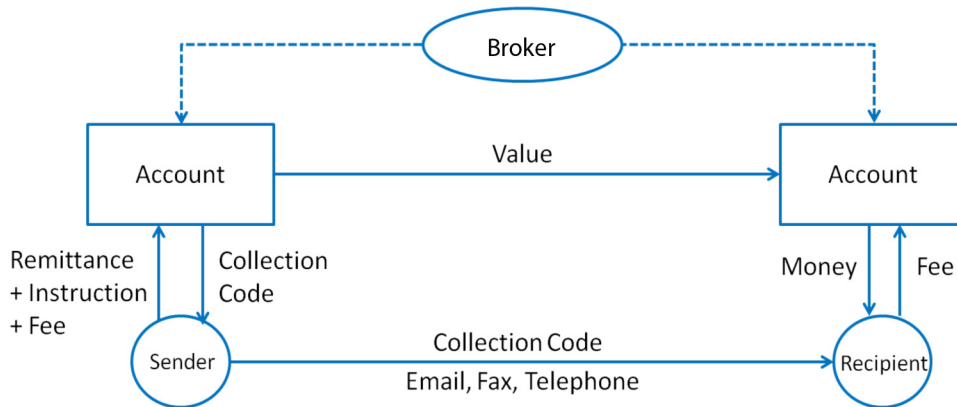
Player	Balance	Possible Offence	Role of IFT systems
Importer	Value declared < Value paid	Customs duty evasion, Capital flight	Transferring part of payment to the exporter
	Invoiced price > Actual price	Bogus trade, Tax evasion	Retrieving over-payment from the exporter
Exporter	Invoiced price < Actual price	Tax evasion	Receiving part of debt from the importer

Some traders exploit IFT systems to siphon their taxable or tax-evaded funds¹¹ overseas as well. They devise a motive to remit their funds with bogus trade and flee their funds (UNDP 2011) through IFT systems. In other words, the importers place orders for worthless goods, such as books or CDs, colluding with exporters for over-invoicing and send payment based on over-valued invoices. They covertly retrieve the over-payment from the exporter via IFT systems (Passas 2003). Of course, tax evasion through IFT systems and the transfer of tax-evaded funds *per se* are not the business of Customs. Customs administrations, however, need to have a heightened interest in bogus trade in the sense that that trade can be exploited as a channel for money laundering. The exporter also employs IFT systems to evade a tax on their sales. The exporter pays a corporate income tax in proportion to their profit which is closely related to their sales. To hide their sales, the exporter issues under-valued invoices, colluding with the importer, and receives invoiced payment via formal banks and retrieves the difference between the invoiced price and actual price via IFT systems.

IFT systems should be of interest to customs administrations because they may be related to informal cross-border trade (Pohit & Taneja 2003; Taneja 2004). Informal cross-border traders¹² have difficulty in collecting their debts through formal financial institutions. The traders do not want to take risks coming back with huge quantities of cash. Thus, the informal traders (exporters) either ask importers to send the money that they should collect from them through IFT systems or collect their debt in person in an importing country and transfer the money to themselves through IFT systems. Thus, when it comes to controlling informal cross-border trade, it is efficient to start locating IFT systems rather than tracing individual informal traders.

Conventional wisdom holds that IFT systems are completely separated from the formal banking sector and that their role is to satisfy the needs of the poor who have difficulty in using bureaucratic and high-end services of formal financial institutions. However, as IFT systems are gradually employing information technology for their services,¹³ they are becoming connected to the formal banking sector. This makes IFT systems more attractive to traders who need both the formal banking sector's high-end service and the IFT systems' anonymity.¹⁴ In other words, an IFT client does not need to hand over their money to an IFT broker in person in order to transfer their remittance to a recipient; the client wire transfers their money to the broker's bank account. Because the broker has many bank accounts in several countries, they do not need to contact a counterpart broker (Passas 2003). After making sure how much money a client deposited in their bank account, the broker merely transfers the same amount of money that they were asked to transfer to the recipient's bank account. The broker does not move their money from a bank account to another bank account. What they do is to take money (for example, Korean Won) into a bank account and take the same amount of money (for example, Chinese Yuan Renminbi) out of another bank account in order to give the money to a recipient.

Figure 3: A variant model of IFT systems



Source: Developed by Han & Ireland.

The evolution of IFT systems is thus not just influenced by development of an online banking system but also facilitated by a liberalised policy of the formal banking sector. Many countries allow foreigners to easily open bank accounts (for example, non-resident accounts) as far as they meet some criteria (for example, identification and residential address).

Customs administrations’ attention to IFT systems should not be confined to payment through IFT systems. IFT systems draw the attention of Customs to the process of settling each IFT broker’s debts. Even though both IFT brokers bilaterally reiterate their money transferring transactions, if the amounts of money transacted are not exactly the same between two brokers, the process of restoring a balance between the two parties is necessary (El Qorchi, Maimbo & Wilson 2003; Passas 2003). A wire transfer through the formal banking sector is the simplest and easiest way. Some brokers settle their debts through smuggling gold and bulk cash (Passas 2003). Smuggling gold and bulk cash itself is illegitimate but this can lead customs officers to IFT systems that are spawning more illegal activities. Manipulation of invoices is also employed to clear debts between IFT brokers (McCusker 2005). If the two brokers have been involved in regular trade as well, they can restore their balances through manipulation of export and import invoices. Given that customs duty rates for some commodities are zero, over-invoicing can be used as a way of restoring balance (Passas 2003). Over-shipment (actually under-invoicing) is also employed to settle debt, which means that IFT brokers owed by other brokers receive goods for their credits instead of money.

3.2 Customs’ approach to IFT systems

IFT systems generally have not been a consideration of customs enforcement. Thus, many customs officers may not have expertise on how to access and detect IFT. However, although in many countries IFT systems are not *per se* targets of customs enforcement, customs administrations should increase their interest in what occurs in IFT systems because illegal international trade activities supported by IFT should be controlled by those administrations.

Many customs administrations do not have authority to examine IFT systems directly. Thus, customs administrations need to develop methods to consider IFT systems. One of the methods is to trace the ‘flow’ of money paid to import goods rather than to discover the static value of imported goods in terms of valuation. When customs officers conduct post-clearance audits on importers, they need to examine what kinds of methods are used for their payments (for example, Letter of Credit or Telegraphic Transfer¹⁵) and whether there are discrepancies between the invoiced amount and the actual payment. When analysing the relationships between recipients and importers, customs officers can identify that several

importers' funds converge on a certain 'domestic' bank account which does not have normal business relationships with importers, even though transactions for the payment are related to 'international' trade.¹⁶ The domestic bank accounts are likely to be IFT brokers' bank accounts.

Clues leading to IFT systems can be obtained at ports as well. Many customs administrations pay attention to the detection of undeclared cash smuggling but are not interested in discovering the motives for the importation of bulk cash, or the origin and destination of cash. Customs are supposed to tackle money laundering in which cash couriers are involved. Paradoxically, Customs are likely to legitimise suspicious money if customs administrations simply accept the declaration of import of cash. When customs officers take declarations of large amounts of cash,¹⁷ they should suspect several possibilities. For instance, the declared money may be imported to clear debts between IFT brokers and those brokers may be involved in the settlement of illicit trade. In addition, when customs officers detect bulk cash smuggling, they may tend to close the case after imposing fines on smugglers. Deeper investigation, however, may identify IFT brokers to whom the smugglers are supposed to deliver the money.

4. Conclusions

Although IFT systems can be used for legitimate purposes, they also have characteristics applicable to conducting illicit trade. Moreover, it is apparent that IFT systems have under some circumstances been used to avoid compliance with customs laws. Because most IFT systems operate in the black market, they have been largely beyond the reach of customs enforcement. Thus, it will take time for customs administrations to build up expertise on enforcement against non-compliance where IFT systems are used. Cooperation with tax agencies and financial supervisory authorities that have experience and intelligence regarding IFT systems will enable better understanding by Customs and strengthen the ability to investigate.

The primary objective of customs enforcement of IFT systems should not be to crack down on IFT systems *per se* but to investigate how they buttress illegitimate trade and non-compliance with customs regulations. That is because targeting criminogenic opportunities where illegitimate trade can spawn and thrive can have a wider impact than controlling individual illegitimate traders.

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Notes

- 1 This article should not be reported as representing the views of the World Customs Organization (WCO). The views expressed in this article are those of the authors and do not necessarily represent those of the WCO or WCO policy.
- 2 The authors are grateful to Thomas Cantens, Mariya Polner, Norbert Steilen, and Tadashi Yasui of the WCO, Michael Weeding of HM Revenue and Customs, and Youngho Joo of the Korea Customs Service for their input.
- 3 Most customs administrations regulate people only with respect to the goods and money they carry across borders. A small but growing number of customs administrations regulate people as a matter of immigration and security.
- 4 While Al-Qaeda transferred funds to the 9/11 operatives using the formal banking sector, for other plots it funnelled funds through IFT systems (*The Economist*, 22 November 2001).
- 5 The UK's HM Customs and Excise is a notable exception. The UK government requires money service businesses to register with UK Customs and provide UK Customs with authority to audit such businesses (IMF 2005).
- 6 The term 'hawala' originated in India; IFT systems are called 'hundi' in Pakistan.
- 7 In return for taking risk, some hawaladars charge higher transaction fees for seemingly criminal proceeds (El Qorchi, Maimbo & Wilson 2003; Rees 2010).

- 8 Money laundering is an operation that converts criminal proceeds into assets to evade the attention of law enforcement authorities. It generally involves the three sequential elements of placement, layering, and integration, in order to conceal the source and existence of criminal proceeds (Reuter & Truman 2004).
- 9 The Financial Action Task Force on Money Laundering (FATF) recommends every country penalise IFT and IFT systems as long as IFT systems are not registered or licensed (FAFT 2003).
- 10 Some importers pay only the invoiced price to exporters through the formal banking sector; then they use IFT systems to remit the difference between the actual price and the invoiced amount to exporters (El Qorchi, Maimbo & Wilson 2003).
- 11 When someone transfers their funds to a third party (for example, to their family members), they need to pay transfer tax or gift tax. Some traders evade gift tax on their funds transfer by exploiting bogus trade and IFT systems.
- 12 The connotation of informal trade includes not only illegal trading (for example, the smuggling of goods) to circumvent tariff and non-tariff barriers but also extra-legal trading (for example, trading by unregistered or unlicensed traders) that is tolerated in practice even if it is technically illegal (Pohit & Taneja 2003).
- 13 Many hawaladars operating in Korea and China use online banking services of the formal banking sector to deposit money and remit it to either China or Korea.
- 14 Even though transaction trails between hawaladars and traders (importers or remitters) may be left, monetary relations between importers and exporters are not observable.
- 15 Telegraphic Transfer is easier than Letter of Credit to employ IFT systems for customs duty evasion in the sense that the importer can decide the number and extent of payments without the interference of formal banks, compared to Letter of Credit where formal banks assure invoices and send the payments which the invoices indicate. However, if invoices are manipulated, the Letter of Credit method is also involved in customs duty evasion with IFT systems.
- 16 In order to identify IFT systems' bank accounts, customs administrations need to conduct regular post-clearance audits on traders and establish a database that contains information of remitters and recipients.
- 17 Customs' role in anti-money laundering has been confined to controlling cash couriers according to the FATF Recommendations, which are international standards on combating money laundering.

Chang-Ryung Han



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Completeness, correctness and reliability of customs control

Yuri V Malysenko

Abstract

This paper considers the possibility of applying indicators used in technical diagnosis and reliability theory in order to evaluate the effective functioning of customs control, taking into account the error factor. Such notions as completeness, correctness and reliability of customs control are introduced. The purpose of customs control, as we understand it, is to identify customs law violations, and the choice of the object for that control process is made with the help of risk assessment.

1. Introduction

In accordance with the Revised Kyoto Convention (WCO 1999), customs control means ‘the measures applied by Customs to ensure compliance with customs law’.¹ Similar definitions of customs control can be found in the customs legislation of many countries. Following these definitions, we can assume that the main objective of customs control is to identify customs law violations.

Customs control is, in fact, the main function of customs administrations and much attention is paid to evaluation of its effectiveness. Nowadays, that effectiveness is evaluated by such indicators as the amount of fines, the number of administrative and criminal lawsuits started, the quantity of seized drugs, etc. Though these indicators are important, they are not systematic and indirectly characterise the main objective of customs control. A decrease in fines and the quantity of seized drugs does not mean that the capability of the customs control system to identify customs law violations has deteriorated. It is quite possible that business people abide by the law more and violate the law less.

There are scientific directions in the technical systems area (such as reliability or technical diagnosis) in which the effectiveness of the control is assessed by some formal indicators characterising the precise detection and localisation of violation² in the object under control as well as the reliability of the customs control system (CCS) (Malysenko, Sharshunov & Chipulis 1986). Within these theories, it was proved that the more reliable the control system and the more precise the detection and localisation, the greater benefits the control system provides.

As far as the formulation is concerned, the objectives of technical object control and customs control are alike, therefore it is logical to try and use the elements of technical diagnosis and reliability theory to evaluate effectiveness of the CCS.

In this article, the author attempts to show the possibility of applying certain ideas and concepts used in technical diagnosis and reliability theory in order to evaluate the effective functioning of customs control, as well as to consider the impact of various errors on customs control results.

Though the objectives of customs control and technical object control are alike, they are absolutely different from the organisational point of view. The customs control system is a set of regulations, techniques, technologies and control equipment. Conducting customs control involves, among other activities, applying risk management, checking documentation, and carrying out examinations, as well as using various hardware and software. All this makes it difficult to apply the methods and quality

assessment indicators used in technical diagnosis and reliability theory. It is necessary to adapt them to the purposes and peculiarities of customs control.

When the technical objects control system is created, the most important indicators of effectiveness are considered to be the completeness and correctness as well as the reliability of its functioning.

Let's define the notions of completeness, correctness and reliability of the CCS.

2. Completeness of customs control

Customs control completeness is indicated by the percentage of possible customs law violations detected when applying a particular CCS.

As a simple but illustrative method of the CCS numerical assessment, we can propose to assess the percentage of probable customs violations detected by the system.

Completeness of customs control can be determined by the formula:

$$C = (G_i/G) \times 100\%.$$

G is the number of violations which are possible in the object under control; G_i is the number of violations which may be detected by this particular CCS.

Suppose 100 various cases of false declarations are possible, and the applied CCS detects only 70 of them. Then the completeness of control is:

$$C = (70/100) \times 100\% = 70\%.$$

How can we calculate the factual indicator? There are two possible mathematical/methodological approaches: computer or physical modelling. In the first case, we should create computer models of violations and the CCS, and then implement CCS modelling whenever a violation occurs. The data received are used to determine the violations which the given CCS detects and the completeness of customs control is assessed.

In physical modelling, violations are committed in real objects, and the factual control is carried out to see if those violations are detected. For instance, false information is entered into documents or some foreign objects are placed into goods, and they are supposed to be detected during goods examinations or documentation checks.

One can assert that the number of possible violations is great and some of them are difficult to foresee. However, we can refer to the practice of creating the technical diagnostics system. Firstly, it proved possible to formulate some rules to identify a limited number of probable violations that are more frequent.

Secondly, new techniques designed to detect types of violations were developed. For example, discrepancy between the actual weight and that stated in the declaration or between goods codes might be a sign of unauthentic declaration of numerous goods bearing different codes of the Harmonized Commodity Description and Coding System (the HS) (WCO 1999).

It is obvious that control completeness can serve as an objective criterion for comparing various CCSs and technologies, and for choosing the best available. The low value of C may lead to additional refinement of a CCS and its constituents (for example, risk profiles).

There are four possible scenarios of CCS solutions during customs control.

1. There are violations of legislation and the system detects them.
2. There are no violations of legislation and the system confirms it.

3. There are violations of legislation but the system does not detect them.
4. There are no violations of legislation but the system shows a possible violation.

The above variants form a complete group of events, that is,

$$P_1 + P_2 + P_3 + P_4 = 1,$$

where P_i is the possibility of i variant (event).

The first two scenarios correspond to the error-free CCS work. However, in reality, customs control does not detect all violations; in many cases, assigned customs control does not find any violations whatsoever. There may be cases when goods are prohibited from release but upon the declarant's appeal, they are released. That is why scenarios 3 and 4 may be considered as errors in CCS functioning, which should be taken into account in evaluating customs control effectiveness.

Generally, these errors are probable, that is why we will try to consider them by applying relativity theory.

We will use the following variations in our discussion:

- The code, the country of origin and other characteristics of goods under control are random.
- The arrival of goods with customs law violations is random.
- The customs control consists of the following:
 - the information is submitted to a Risk Management System (RMS) which assigns a certain type of customs control if the risk is detected
 - this control is carried out and violations may or may not be detected
 - if risks are not detected, the goods are released.

It is also important to specify what we mean by 'CCS error' (error model). The error is regarded as either an incorrect decision after carrying out the customs control assigned by the RMS or undetected risks when customs violations are present.

It is assumed in scenario 3 that legislation violations are committed. There are then two variations:

- RMS does not detect the risk and the goods are released
- RMS detects the risk and sends the goods for further customs control, but violations are not detected and the goods are released.

The probability of the error in scenario 3 may then be shown by the formula:

$$P_3 = p_b (p_1 + p_2 p_3)$$

Where p_b stands for the probability of legislation violations in declaring goods; p_1 is the probability that when this violation occurs, the RMS does not detect it and the cargo is released; p_2 is the probability that when the violation occurs, the RMS sends the cargo for further control; p_3 is the probability that the follow-up customs control does not detect any violations and the cargo is released. Taking into account that $p_2 = 1 - p_1$, we may write:

$$P_3 = p_b (p_1 + (1 + p_1) p_3).$$

We can consider the constituents of p_3 probability in greater detail. If the control is conducted using X-ray systems, there might be several reasons for the error such as low qualification and tiredness/incompetence of an image operator, sophisticated concealment of undeclared goods, bribery of customs inspectors, and so on.

The probability of error in scenario 4 can be expressed as:

$$P_4 = (1 - p_b) p_4 p_5,$$

where $(1 - p_b)$ stands for the probability of the absence of violation of legislation; p_j means the probability of the RMS sending the cargo for further control by mistake; p_3 shows the probability that further control results in the decision to delay releasing the cargo.

It is easy to notice that formula P_3 contains a certain constant constituent p_j . But formula P_4 lacks such a constituent. It reflects the fact that in scenario 4 (formula P_4) the erroneous RMS solution (further control even though there is no violation) does not mean that an error was in the CCS. The customs control will result in a decision made only after conducting the actual (physical) control assigned by the RMS. However, scenario 3 type errors always lead to errors in the CCS as a whole.

The probability of violation detection is an important indicator of the quality of the customs control.

When an i -shipment undergoes customs control, $d_i = p_{bi} p_{2i} p_{6i}$ shows the probability of violation detection, where p_{bi} is the probability of violation in declaring the i -shipment; p_{2i} is the probability of this shipment being sent by the RMS for customs control when the violation is detected; p_{6i} is the probability of a decision to detain the i -shipment if subsequent customs control revealed violations.

The d_i probability is a localised estimation. However, based on this estimation, more general estimations can be made. For instance, it is possible to calculate the average number of shipments containing violations in declarations which are detected during customs control within a certain period of time: $M_x = \sum d_i$ where $i = 1, 2, \dots, n$; n is the number of shipments within a certain period. M_x may have various values from 0 (no violations) to n (all shipments contain violations).

To check the effectiveness of customs control some customs administrations examine all shipments arriving at customs on a particular day. As a result of such an exercise, the data concerning RMS decisions and shipments containing violations in declarations may be used to calculate factual probabilities p_b, p_j, p_2, p_3, M_x .

As errors are possible during customs control, CCS solutions are not always credible. The level of credibility can be determined with the help of such characteristics as 'correctness'.

3. Correctness of customs control

Correctness of customs control is the objective ratio of customs control results to the real state of the object under control.

The correctness of decisions made during customs control can be calculated by the formula:

$$D = 1 - P_{er}$$

where $P_{er} = (P_3 + P_4)$.

Actually, D shows the probability that customs control will result in making the right decision on an object under control (whether there are violations or not). In other words, D shows how much you can trust the results of customs control.

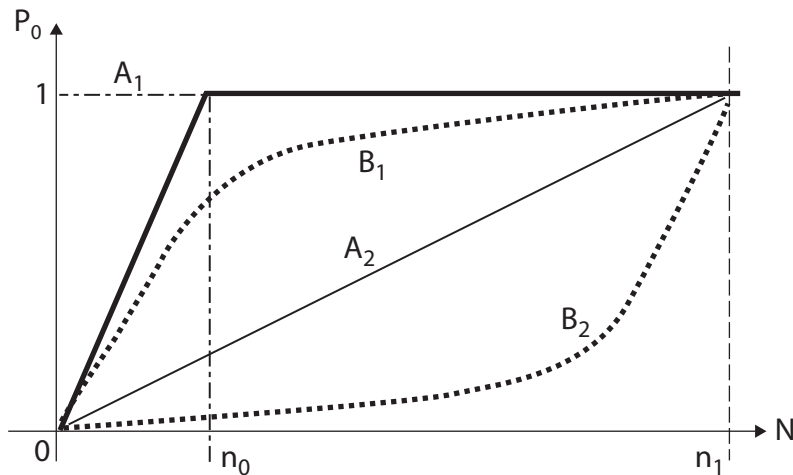
An RMS is a very important part of CCS. The purpose of an RMS is to choose goods for further customs control. Figure 1 shows graphs illustrating the change of probability in detecting violations (P_0) when the number of shipments (N)³ sent for further customs control increases.

Suppose the RMS exactly defines the state of the object (that is, determines precisely if there is violation or not), and the number of shipments containing violations is n_0 . This case corresponds to A_1 in Figure 1. When more than n_0 shipments are chosen for control then $P_0 = 1$. In Figure 1, A_2 reflects the case when the goods for control are selected by the RMS at random according to the principle of uniformity. The probability P_0 grows linearly with the increase in the number of shipments, directed by the RMS to the control and reaches 1, when all shipments are subject to the control (n_1 is the total number of shipments).

In Figure 1, B_1 and B_2 illustrate the situation when the RMS chooses shipments for further control more ‘correctly’ (B_1) or ‘not as correctly’ (B_2) as with a random choice.

Figure 1 shows how important it is to improve and perfect the RMS and how the quality of RMS work influences the validity of customs control. In order to reduce the time of goods release it is necessary to reduce the number of shipments directed to physical examination which is, in fact, the purpose of the RMS. To avoid lowering the value of P_0 , it is vital that the percentage of the ‘correct’ choice of shipments directed for further control be increased, that is, to achieve P_0 which indicates an effective CCS, B_1 type selections are preferable.

Figure 1: Probability of violation detection depending on the number of shipments being examined and CCS effectiveness



4. Reliability of customs control

One of the most important requirements for any system is reliability. Let's define the concept of reliability for a CCS.

The reliability of the system of customs control is a feature of the system that enables it to keep within specified values and all the parameters which characterise its ability to perform the required functions within the preset modes, conditions of use and service.

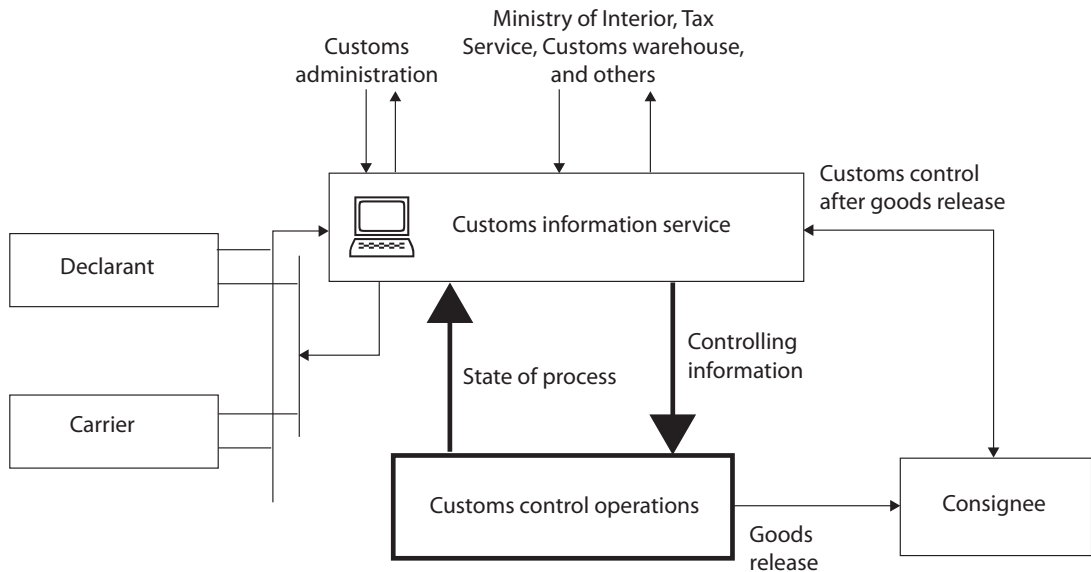
It follows from the definition that, for example, the more frequently the customs control software or hardware fails, the lower the CCS reliability; and if the effectiveness of the RMS lowers over time, that leads to a decrease in CCS reliability.

Reliability is determined not only by the properties of the separate components of the system but also by the structure of the system, which also applies to the CCS. Figure 2 shows (with some simplifications) the information flows in the process of conducting customs control.

In Figure 2, you can see some of the contours of the feedback. The declarant and the carrier submit certain information into the customs information system and, in turn, the customs authority may ask them for additional information. A customs inspector may send an inquiry to the temporary storage warehouse (TSW) and the TSW supplies Customs with the information about the goods movement at that warehouse. After release of the goods, the customs authority may validate the correct use of the released goods, which is also shown in Figure 2.

The presence of feedback contours in the information exchange increases reliability. If, for example, goods with ‘violation’ are released, there is still the possibility of discovering that violation by means of customs control after the release of the goods. Thus, the implementation of the basic function of customs control which, as we said earlier, is to detect violations of customs legislation even if there are ‘failures’ in the work of the CCS at the previous stages of control, is ensured. Such a system is properly called ‘failover’⁴ or ‘survivability’ and is one of the properties of reliability.

Figure 2: Information flows during customs control



The reliability of the CCS is estimated by some ‘indicators of reliability’ (RI).⁵ The standards allow the use of names, indicators and definitions, taking into account the specifics of the object and/or the specifics of its application.

Consider some of the RI which can be used to assess the reliability of the CCS.

Readiness coefficient is determined by the formula:

$$K_r = T / (T + T_f),$$

where T is mean operating time prior to failure (the average working time of the system prior to failure), T_f is the average time to restore the system.

In fact, K_r determines the portion of working time, when the control system is operational. This indicator is often used in the evaluation and selection of technical means. It is considered that a good computer network server must have K_r not less than 0.9999. During round-the-clock work, this means that the server will not be operational for a total of about 1.5 hours a year.

K_r may well be used to assess the reliability of an individual CCS component such as x-ray systems for inspection, data processing servers, software tools used to perform customs operations in the electronic declaration, etc. Moreover, the exploitation system that exists in customs administrations involves fixing a point of failure and recovery of such components. It is obvious that this RI would be useful in comprehensive evaluation of the CCS, both at the customs office and at customs posts. However, it is necessary to study this concept in relation to such cases.

It follows from the definition of reliability, that the RI assess the work of the system in terms of time, while many events CCS deals with are of a random character. In such cases they usually calculate the average probability of events.

The following characteristics can be regarded as valid:

- **Probability of failure-free operation** is the probability that no failure of the control system occurs within the operating time⁶ t
- **Probability of failure** is the probability of CCS failure at least once within operating time, though it was in good operating condition at the start of operating time
- **Mean error-free operating time** is the ratio of the total running time of the CCS to the mathematical expectation of the number of failures within operating time (statistical estimation of mean error-free operating time is determined by the formula $T = t / r(t)$, where $r(t)$ is the number of failures which occurred within the total running time t).

A CCS is a set of legal principles, methods, technologies and means of control. If we define the notion of 'failure' for this set, it is possible to apply the above-mentioned indicators as RI, not only for the individual components of the CCS but also for the CCS at the customs posts or within the customs administration itself. Thus it is necessary to take into account that the failure of one of the elements of a CCS, for example, an x-ray inspection system, does not lead to terminating the work of the CCS in general. It usually increases the control time, and probably reduces the likelihood of detecting violations and the reliability of the controls. Indirectly, such a situation can be characterised by traditionally used evaluation of the customs administration's operation such as the average declaration check time and the average number of declarations checked within a certain timeframe: an hour, a shift, a day, a month, etc.

5. Conclusions

This paper considers the possibility of using, in the customs environment, concepts of completeness and correctness of control, as well as some other indicators, characterising the a CCS's ability to detect violations of customs legislation and to function reliably. Much of the detail remains outside the scope of this paper and will no doubt require further analysis.

To assess the efficiency of the customs service, a set of parameters describing the different spheres of its activity is used. However, despite a large number of indicators, it is difficult to identify the actual effectiveness. Therefore, it is important to have integrated indicators which should not be numerous but should make the overall assessment of effective performance.

The proposed definitions of completeness, correctness and reliability of customs control are integral indicators for evaluating CCS effectiveness. Obviously, the higher these indicators are, the higher other indicators will be which are traditionally used for the evaluation of customs administrations performance.

The proposed ratings are fundamental in the sense that they fully reflect the nature and purpose of a CCS. The majority of criteria used today to evaluate CCS effectiveness are specific and do not possess such qualities. For example, in many countries the most important indicators of evaluation of customs administration performance are the number of administrative hearings or criminal prosecutions or penalties resulting from customs control. However, the decrease in these indicators does not mean that the CCS lowered its effectiveness. Perhaps the private sector in this region violates the law less frequently. At the same time, the values of the completeness and reliability in this case do not change. The correctness may change, which is quite understandable and is interrelated with the variation in the probability of customs law violations.

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Notes

- 1 World Customs Organization 2011, p. 8, citing the Revised Kyoto Convention, General Annex, Chapters 2 and 6.
- 2 ‘Violations’ are called failures in these theories.
- 3 It is assumed that the control guarantees violation detection if there is any, and that violations occur occasionally according to the principle of uniformity.
- 4 ‘Failover is a backup operational mode ... Used to make systems more fault-tolerant, failover is typically an integral part of mission-critical systems that must be constantly available’ (<http://searchstorage.techtarget.com/definition/failover>).
- 5 Indicators of reliability are quantitative characteristics of one or a few properties that constitute the reliability of an object (GOST 1990).
- 6 ‘Operating time’ is the period or volume of CCS operation. ‘Error-free operating time’ is CCS operating time from the start to the first failure.

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The effective contribution of excise taxation on non-alcoholic beverages to government revenues and social objectives: a review of the literature

Rob Preece

Abstract

The effectiveness of a discriminatory tax, such as excise, on various food and beverage products deemed ‘luxuries’ or even ‘harmful to health’ has been debated regularly in recent years. The concept of ‘effective’ needs to be discussed in the context of what the tax is trying to achieve in terms of government policy but, in the context of non-alcoholic beverages, it can be expected that objectives of a discriminatory tax on these products would be to raise revenue or externalise perceived harm from consumption, or both. Using these expected objectives, this paper reviews the literature available and believes that excise-type taxes on non-alcoholic beverages have little or no effect in terms of revenue raising, and indeed often result in a negative economic benefit. In terms of health benefits, the literature shows that discriminatory taxes on soft drinks will reduce consumption of any targeted category but these policies seemingly miss the issue of consumers responding to the tax by substituting those types of beverages with other forms of calories.

1. Introduction

The use of discriminatory taxation, such as excise, on non-alcoholic beverages, particularly on sweetened drinks, has been subject of much debate in recent years. Taxes on such products have been levied, removed and in several countries, are being considered. This review of the literature looks at excise-type taxes in terms of their effectiveness against a range of measures relating to government revenue raising and to health-related objectives. As a discriminatory tax, an excise levied on sweetened soft drinks may raise tax revenues from this single category of product, and may also operate to change consumption of the product through the consequential rise in its price. In this review, the author attempts to determine the ‘value’ of that revenue in the context of its impact on the economy, and to determine the likely consumer responses to such tax-related price increases. The question of the effectiveness of such a tax has added interest as the Danish Government recently announced the abolition of both its so-called ‘fat tax’ after twelve months operation and of the planned implementation of a so-called ‘sugar tax’ to avoid a range of unintended consequences.¹

To begin the literature review, it is important to look at a number of scoping issues. This paper relates only to the use of discriminatory taxes, such as excise, on non-alcoholic beverages and not to other more general or broader taxes such as customs duties or value added taxes (VAT), although a VAT with a rate differential for say, sweetened soft drinks, or a special VAT on those drinks, would come into the scope of this review. The paper does not look at direct taxation such as income taxes or taxes based on profits. In terms of the revenue issue analysis, there will be some reference made to these other taxes, as the effect of excise and its impact on pricing will flow through to them.

2. What is meant by ‘excise’ taxation?

For the purposes of this paper, the term ‘excise’ relates to a form of taxation which is applied to a narrow base of goods (and services) which primarily are seen to have a level of harm associated with their consumption, typically tobacco, alcohol, fuel, motor vehicles, and gambling.

Excise taxes are classified by the Organisation for Economic Co-operation and Development (OECD) as being those taxes which are:

levied on particular products, or on a limited range of products ... imposed at any stage of production or distribution and are usually assessed by reference to the weight or strength or quantity of the product, but sometimes by reference to the value.²

Excise is not a VAT or sales tax, which the OECD differentiates by reference to the application of such taxes (and tax credits for business inputs) at each stage or tier within the supply chain, as well as a generally broader tax base.³ Excise is not usually levied instead of such taxes but rather, levied in addition to such taxes.

This paper recognises that in many countries the term ‘excise’ is not used but we see similar commodity and service-based taxes which meet this OECD classification for excise being known by their local titles, for example ‘Consumption Tax’,⁴ or ‘Special Consumption Tax’.⁵ In some cases, these taxes may have a very limited base or be specific to a single type of commodity such as a ‘Fuel Tax’⁶ or a ‘Tobacco Tax’.⁷ As such, the term ‘excise’ as used in this paper should be seen as including each of the countries’ taxes that are classified as an ‘excise’ by the OECD.

Excise can also be levied on imported goods, in which case they are often referred to as ‘like goods’ or goods which are like those domestically manufactured goods subject to excise. Excise duties in this context are generally collected by the local customs agency at the time the goods are declared at importation, along with any customs duties and VAT. Under the OECD classification of taxes, where an excise duty is to be collected from imported goods, it is not considered to be a ‘customs’ duty but is considered to be an excise tax.⁸

Traditionally, excise has been used to raise revenue with the tax levied on high volume, relatively price inelastic goods for which there are few substitutes. Today, excise policy is largely driven by the correction of negative externalities and as such, the most common forms of goods subject to excise are tobacco, alcohol, motor vehicles, and fuels, where excise tax is used to capture those negative externalities in the price paid by the consumer. Excise taxes are now moving away from *ad valorem* or value-based taxes that have been designed to solely raise revenue, and towards specific-rate taxes with the tax base relating directly to the cause of harm, such as the alcohol content, weight of tobacco, quantity of fuel or level of CO₂ emissions from a vehicle, such as a litre of alcohol, kilogram of tobacco, stick of cigarette or per tonne of CO₂.

3. When is excise taxation best utilised?

A key principle in tax policy is that the objective of an indirect tax should be neutrality, or the principle that the tax rate, tax base and tax structure should not impact markedly on investment, production or consumption. Tax policy can however, in certain limited circumstances, include the need to levy ‘special’ taxes or discriminatory taxes such as an excise tax, in response to the externalities (or harm) associated with the consumption of certain goods and services. These products, as mentioned above, are usually alcohol, tobacco, fuels, motor vehicles, and gambling (Cnossen 2005, pp. 3-5). Therefore, a key question that often arises in the literature reviewed is ‘do we need to have a discriminatory tax on non-alcoholic beverages?’ Or, what are the externalities behind the consumption of such beverages which need addressing through a discriminatory tax such as a non-alcohol beverage excise?

If the policy intent is not in response to identified externalities but is simply to raise revenue, then we need to return to our first key principle of neutrality in tax policy, where taxes such as VAT are likely to

conform. This paper looks further at the effectiveness of excise as a revenue raising tool in the context of an overall tax system and tax policy, where that effectiveness is actually questionable. However, if raising revenue is not the prime objective of the tax, then we need to assess those externalities and consumption issues. The effectiveness of an excise on non-alcohol beverages in addressing their perceived harm is also reviewed and again, the effectiveness of such a levy is questionable.

4. Analysis of excise taxation on non-alcoholic beverages

4.1 Excise and its impact on economic activity

It would appear from the literature that non-alcoholic beverages are not an ideal commodity for an excise-style tax. Excise taxes are taxes on manufacture or production of certain goods and they have the effect of increasing the price of the good being taxed as the manufacturer is looking to recover this additional tax burden when they sell their product. In some cases, the market may not allow for this full cost to be passed on and the result is a fall in the manufacturer's profit margins. This has been seen in the soft drink market by Bonnet and Réquillert who refer to 'passive pricing' in which all of the tax can be passed through, however, they note that manufacturers take a more 'strategic look' at pricing rather than a simple pass through of the tax liability they incur (Bonnet & Réquillert 2012, pp. 21-3).

With any price rise for the consumer resulting from the excise tax being built into the price, because carbonated soft drinks generally are price elastic (that is, as prices rise, consumption decreases by more than the level of the price rise), we can also expect to see a reduction in consumption of that product as consumers respond to the additional cost they must incur to consume the good in question. In short, excise taxes have the effect of reducing demand and consumption of any good subject to the tax and will place pressure on the manufacturer's margins as they attempt to maintain sales and market shares in this environment of reduced demand.

This relationship between excise taxation and economic activity is perhaps best illustrated in the 2005 tax reforms in Egypt. In that year, Egypt included a cut in the sales tax levied on bottled soft drinks from 65% of retail price to 25%, where it remains today.⁹ It should be noted that the sales tax cut did form part of a broader reform package that applied the same cuts to some other targeted products as well as reducing income tax rates and would therefore generate some economic stimulus. However, the soft drinks industry of Egypt was identified as a 'stand out' success from the reforms, particularly the effective 60% cut in the sales tax rate which helped spur an immediate 'double digit growth in sales'.¹⁰ From this growth, the overall tax paid by the soft drinks industry in Egypt reportedly grew by 13%, and combined with the associated economic activity surrounding that growth, such as employment and profitability in value-add industries, the actual 'full tax impact' has been estimated at a 20% tax revenue increase (Oxford Economics and International Tax & Investment Center 2009 [unpub.]). This issue is expanded below when we consider excise as a revenue raising source.

It is clear that there are some industries in which the government would want to dampen demand through pricing, and these are in products in which there is a clear cost to the community when consumed, and for which the government is seeking to reduce harmful levels of consumption and have the consumer make choices about consumption with the cost of harm part of the price. As such, we see modernisation of excise systems resulting in a move away from taxing a wide range of consumer goods with an excise levy (having them absorbed into VAT and sales taxes) and focusing on products such tobacco, alcohol, fuels, motor vehicles and pollutants (Cnossen 2005, pp. 1-2).

Thus, excise tax policy needs to carefully consider the negative economic impact of the retention or implementation of such a tax on a product and within this context, excise taxation is best utilised when applied to addressing products which have a clear cost to society in their consumption and it is necessary to address the cost of this harm through consumption decisions based on pricing.

4.2 Excise tax and revenue generation

Where an excise tax is levied on a particular industry there is a clear economic impact and in the context of seeking tax revenues, the literature suggests that the effect of excise taxation on these industries is to drive down revenue receipts from VAT and sales taxes, as well as reduce the taxes which apply to profitability, such as income taxes or company taxes from taxpayers in these industries. Examples from the literature are illustrated in case studies below.

In terms of excise-type taxes being levied on non-alcoholic beverages, an excise tax is still in place in several countries, primarily in developing countries within Africa, the Middle East and Asia. In those countries such products are included in a range of goods seen as ‘luxury goods’ and the same excise systems extend into other commodities such as perfumes, jewellery, carpets, crystal glassware, etc., with the aim of establishing a progressive tax on the spending of the wealthy. These types of excise taxes are distinguished by their *ad valorem* nature, rather than being targeted at some element of perceived harm through a specific tax rate approach, and as such are designed simply to raise revenue.¹¹

It is important to note at this point that in terms of using excise taxes on ‘luxury’ or ‘consumer’ goods in developing countries, the motivation also comes from the ineffectiveness of tax administrations in those countries to ensure collections from income taxes, profit-based taxes, or broad-based consumption taxes. In developing economies with limited tax administration capacity, excise taxes are attractive in this context as they are applied to a limited range of goods (and services), provided by a limited range of manufacturers who can be more readily controlled via means such as excise officers being stationed in the manufacturers’ premises.

With regard to soft drinks, as a percentage of excise collected, beverages in these categories are relatively small, with reported ranges of less than 0.1% in Tanzania,¹² 0.3% Turkey,¹³ and up to 3.6% of total excise collections in Thailand, although this figure could be higher than normal with the significant reduction in the diesel excise tax rate.¹⁴

Thus excise taxes on a product like non-alcoholic beverages, when used, appear to be only a relatively small source of tax revenue in their own right, with the more likely effect of operating to reduce tax revenue from other sources of tax such as VAT and profit-based taxes and, as such, are often a somewhat questionable levy to retain or implement.

4.3 Excise tax and administration

Having just reviewed the small scale of revenue generated by excise taxes on non-alcoholic beverages, and the negative impact of these taxes in terms of suppressing other potential revenue sources, there is the question of whether existing excise taxes are cost effective. At the lower end of these ranges (that is, 0.1% and 0.3% of excise collected), it becomes questionable as to whether the cost of administration and compliance efforts is even covered by the revenue generated by the tax.

Administration and compliance costs can be looked at in two ways: administration by the relevant government agency and administration by the producer taxpayers. In terms of agency administration, this will include costs of licensing and monitoring production and payments, and confirming compliance through means such as a permanent presence in factories or the conduct of an audit program, the latter two representing significant manpower resource costs. For industry, compliance costs include classification of products, particularly where policy discriminates against one category of beverage, or has a range of rates for a range of product categories, and the calculation of excise tax liabilities.

Where a government has decided to apply excise to just one, or just a few categories of non-alcoholic beverages, compliance costs rise considerably as producer taxpayers properly assess and revenue agencies confirm the correct classification and tax rates of each product. Discriminatory taxation within

an industry will cause considerable tax administration issues as manufacturers will try and reformulate or adjust products to gain a more favourable tax classification or tax exemption. Discriminatory taxation within an industry also causes ‘product substitution’ issues where consumers switch their consumption to non-taxed products that are readily substitutable, with an associated revenue loss – the issue of substitution is revisited below in the context of the review of excise and health objectives.

The other administrative matter highlighted is that of the tax base and whether it has been applied as an *ad valorem* or value-based tax or as a specific rate per measure of volume. Where excise is levied as a specific rate, administration and compliance becomes increasingly easier to administer as the excise is determined by a simple count of volume passing the taxing point. *Ad valorem* taxes, however, are far more complex to administer, and often disputes arise between taxpayers and revenue agencies as to what cost component should and should not be included in an excisable value. Further, in an *ad valorem* tax base, taxpayers look to strategies to reduce excise tax liabilities by transferring certain costs past the taxing point and therefore outside of the excisable value used to calculate the excise.

Thus, where excises remain in place on non-alcoholic beverages, it would appear that to reduce the costs of administration and compliance for both revenue agencies and industry, the excise needs to apply broadly to all beverages that can act as substitutes, and be levied on a specific rate basis.

4.4 Case study

Perhaps one way to look at the effectiveness and current thinking about the use of excise taxation on soft drinks is to focus on a case study example from a jurisdiction in which a ‘soft drink excise’ has been in place. The case study in Box 1 should be read with the discussions of the issues outlined in 4.1 to 4.3 above. Here we look at Ireland, where excise taxes on soft drinks were reduced and/or removed and from which certain other economic benefits were realised resulting in increased collections from both VAT and income taxes.

Box 1: Case study: Ireland: removal of soft drink special excise and revenue

Special Excise Levy:

1975-79: IR£0.10 per gallon

1980-90: IR£0.37 per gallon

1990-92: IR£0.29 per gallon

November 1992: Abolished

The increase of nearly 400% in 1980 was due to the need to obtain additional revenues. By 1984, revenues from this special excise levy began ‘eroding’ and with pressure to begin harmonising tax systems of the European Union, the rate was dropped by around 20%.

In 1992, the remaining excise was removed but actual revenue loss was largely offset. Whilst excise revenue in the order of IR£16 million was lost, the tax cut fed through to a price cut which stimulated demand, resulting in an additional IR£3.4 million in VAT. Better margins for the producers, additional production created by the new demand which in turn stimulated activity in all of the value-add industries and created new employment, then contributed an additional IR£1.5 million in income taxes.

The authors then argue that the actual revenue loss, now at IR£11.0 million, is further offset by savings in administration costs by the government which administered the tax.

Of note is that accompanying the removal of the special excise levy in 1992 was a cut in the VAT rate from 23% to 21% – had the rate stayed at 23% the actual loss of overall revenue would likely have been further reduced.

Source: Adapted from Bahl, Bird & Walker 2003.

4.5 Recent trends and considerations in excise policy for non-alcoholic beverages

Where economies which are transitioning, have transitioned or are reviewing excise systems, it seems the trend is for ‘consumer’ items to be reduced or removed from the excise tax system. See, for example, Thailand which has recently removed chandelier lights, air conditioners and spa treatments from the excise tariffs, and Croatia which is reducing a range of excise taxes including and of interest for this review, a reduction in excise on coffee and soft drinks from 1 January 2013.¹⁵

On the other hand, the French government introduced a ‘soda tax’ from 1 January 2012 on sugary beverages, set at an equivalent of 2 Euro cents per can.¹⁶ However, this review notes some confusion as to the objective of this soft drink tax as, despite a ‘health angle’ in the announcement, this new soda tax was seemingly introduced as part of a greater austerity program to help the finances of the country, and would appear to be more of a ‘nuisance tax’ than delivering either a clear revenue or health outcome.

The question of health-based outcomes and excise is important in the context of this review and the next section will concentrate on this issue. What is critical to note at this point is that perhaps one of the most recently introduced ‘health-based’ excises, notably the Danish tax on saturated fats in foodstuffs, has been abandoned after just twelve months in operation and the proposed ‘sugar tax’ has been shelved. In terms of revenue, some 200 million Euros¹⁷ were targeted from the ‘fat tax’ as well as a change in the Danish diet, but in line with the issues outlined above in terms of negative broad economic impacts, questionable revenue generation, ease of substitutability, and of complexity and costs in administration and compliance, these health-related taxes failed.

Thus, the literature and case study seem to suggest that discriminatory taxes like excise are not appropriate when the objective is to raise revenue. Rather they act to stifle and hinder the growth and activity that generate revenues through broad-based consumption taxes like a VAT, and from profit-based taxes like company tax. In an industry like non-alcoholic beverages that is a large employer and has many associated value-add industries, this hindrance of economic activity has a broader negative impact. This type of fiscal outcome would seem far from desirable, targeting a single industry for what generally are small revenue streams at the likely expense of greater revenues if that industry was not subject to discriminatory taxation.

Excise taxation today is therefore more appropriate where the product subject to excise very clearly has externalities to consider in relation to the consumption of the product, and the discriminatory nature of excise taxes allows policymakers to include the cost in the product for consumers to consider.

When looking at new taxes to raise revenue, this review considers some of the guiding principles espoused in the 2009 review of the future of Australia’s taxation system which can be summarised as follows:

Efficiency – that the tax will not hinder economic activity, nor alter the consumption, production and investment decisions made by households and business, and that the tax will raise the revenue needed at the lowest possible cost to the taxpayer.

Equity – in that the tax will be applied fairly.

Neutrality – in that the tax will treat all those in similar circumstances in the same way.

Simplicity – so that the tax is transparent, easy to comply with, easy to administer and cost effective to levy.

Certainty – where rates are clearly set and will not be subject to sudden fluctuation enabling business to plan with full knowledge of their expected tax liabilities (Commonwealth of Australia 2010, pp. 15-17).

This review agrees with these principles and would recommend that they be central to any new tax policy development. In terms of introducing an excise style tax on a product like a non-alcoholic beverage, this review finds little support for use of excise taxation as a revenue raising measure, particularly if using the tax design principles mentioned above. Instead, this review holds that excise taxation has a role in setting a 'cost of harm' in those areas for which the government might seek to address the harm in consuming that product, given that such a product can be clearly identified as being harmful. In that context, it is worth reviewing the debate surrounding the perceived harm of consuming soft drinks.

5. The use of excise tax in addressing negative externalities

The review found the use of excise tax to address negative externalities to be 'polarising' in terms of the published papers and articles on the topic. It is difficult to argue with the research that links calorie intake to health, particularly the intake of excess fats and carbohydrates (including sugars), to a range of diseases such as obesity, hypertension, cardiovascular disease and diabetes. Whilst it is clear that carbonated soft drinks, energy drinks, juices, ready-to-drink teas and coffees, and other sweetened beverages are a source of dietary intake of calories and sugar, they are certainly not the only source of either in many consumers' diets, and their intake from other food sources must be considered (Howard & Wylie-Rosett 2002).

When looking at applying a discriminatory tax like excise, policymakers need to look carefully at what product, products or components are being targeted in the tax measure. As the review progressed, it became apparent that government policies aimed at reducing weight gain and obesity (and their related illnesses) are being targeted largely at a single category of non-alcoholic beverage – sugar-sweetened carbonated soft drinks. Excise and health policies are not addressing the growing body of research which suggests that weight and obesity issues are not limited to sugar-sweetened beverages or sugar intake, and that this area of health concern needs a more holistic view which includes the principles that:

- sugar consumption is not the sole origin of weight and obesity issues and, in fact, some studies suggest that some countries have seen a reduction in sugar consumption per head in recent years, yet levels of weight and obesity have been maintained or increased in some cases¹⁸
- sugar-sweetened carbonated beverages account for only between 1.4%¹⁹ and 7%²⁰ of a consumer's total daily energy intake
- targeted excise taxes levied on a health or social basis to influence consumption are only effective where there are no readily available substitutes, and ineffective where say, a tax on a sugar-sweetened carbonated soft drink is substituted with a sugar-sweetened tax free juice drink
- rather than a focus on sugar, consideration must be on total caloric intake from foods and beverages as a measure for combating unhealthy weight gain and obesity with some studies showing that in Thailand for example, 33% to 41% of all calories come from rice, and when looking at rice and all cereals this rises to 53% to 63% of daily intake (Rojroongwasinkul 2008, pp. 3-10). Calories come from all food sources and the issue should be around the amount of calories consumed and balance in diets, rather than selecting a single food item for fiscal measures.
- caloric intake should not be the sole focus; unhealthy weight gain and obesity are also linked to changes in lifestyle in which physical activity has been greatly reduced and sedentary activity has been greatly increased.

It is important to now look at these points in more detail in the context of the objectives of this paper, that is, in terms of the effectiveness of excise taxes on non-alcoholic beverages.

Put simply, assuming an excise tax is passed on to consumers, it operates to increase the price of a product which has been viewed as having a negative externality through its consumption, with the desired outcome to be a reduction in demand for that product. In terms of an excise tax on

sugar-sweetened carbonated soft drinks, the theory is quite simple in that such a price increase will reduce the consumption of the product and therefore, in turn, reduce the consumption of calories.

However, the review found this theory to be an over-simplistic representation, particularly if looking at the full diet of consumers, the range of foodstuffs which contribute to caloric intake and the range of readily available substitutes for sweetened carbonated soft drinks. The OECD in its 2012 *Obesity Update* for example, is even concerned that taxes on products like soft drinks which raise their price, sometimes result in unintended consequences such as consumers:

- cutting back on nutritious foods to ensure they have sufficient spending power to keep purchasing the same quantities of taxed foods
- using substitute food and beverages which are not taxed but contain an identical and sometimes higher amount of calories, for example, substituting a sweetened fruit juice, and energy drink or a flavoured milk for a soda drink
- absorbing the additional financial burden of the tax and maintaining existing diets
- changing their mix of food and beverage intakes to one which may actually contain a higher amount of calories; and/or
- gaining a mindset from the tax that any cutback in sweetened carbonated soft drinks allows them to increase consumption of other foods which may have more calories, for example, ‘not buying a soda means I can buy a cake’ (Klick & Helland 2011, p. 20) where the cake is higher in calories (OECD 2012).

Thus, the OECD calls for a more comprehensive approach to dietary choices and policies which are more than just tax-based in nature. Where taxes are used, they need to take account of consumer behaviour in response to price changes and the range of possible food and beverage substitutes available.

The extent to which the consumption falls relative to price increases can be measured and is known as ‘own price elasticity’, and generally price elasticities for non-alcoholic beverages seem, in the literature, to vary product to product and market by market. (See Box 2 for explanations of ‘price elasticities’.) In relation to the soft drink market itself, a range of product categories are available which make up the total market, and this is found to be an important aspect of this review for several reasons.

Firstly, some excise tax systems or proposals seem to discriminate against specific product categories using sugar content as a basis for the tax system, for example, ‘sweetened beverage tax’ or ‘soda tax’, leaving a range of other products, which in some cases are considered substitutes, untaxed or exempt from tax. The risk in such discriminatory approaches is to send consumers of a sugar/syrup-based soda to a fruit juice drink with added sugar, or to a flavoured and sweetened milk product on the basis that the tax system has signalled through price that the ‘soda’ is less desirable than the sweetened fruit juice drink or the sweetened milk.

Moreover, discriminatory taxes such as those on sweetened carbonated beverages also risk sending a signal to the consumer that such beverages are the only dietary source of excess calories or sugar which may contribute to health issues the government wishes to address. Other sources of calories in excess of energy needs are equally important: fat or carbohydrate (including sugars) in numerous other food categories, or calories from beverage alcohol (beer, wine and spirits).

The review quickly formed the view that levying an excise on just one category of non-alcoholic beverage as a ‘health-related measure’ would not meet such health objectives, due to the likelihood that consumers will simply switch to other beverages of the same or higher calorific value, and could form an opinion that other beverages or indeed other foodstuffs will not affect weight gain as they are not taxed. The review also looked at the literature in relation to price elasticities, or the effect of increasing the price of soft drinks (say through an excise tax), substitution effects, and income elasticities or the relationship between increased spending power and soft drink sales.

Box 2: Price elasticities: an explanation

'Own price elasticity' is the measure of a percentage change in a quantity demanded by consumers as a result of a percentage change in price. It is expressed as a negative number relative to the fall in consumption, thus an own price elasticity of minus 0.8 would suggest that a 10% increase in price would result in an 8% fall in consumption. An own price elasticity of minus 1.5 would suggest that a 10% increase in price would result in a 15% fall in consumption. Goods with own price elasticities at or below minus 1.0 are considered price inelastic whereas those above minus 1.0 are considered price elastic or very sensitive to price increases.

'Cross-price elasticity' is the measure of a percentage change in demand of one good's changes as a result of a percentage price change of another good's changes (provided all other factors are constant). If cross-price elasticity is negative, then those goods are 'complements' or consumed together. If cross-price elasticity is positive, then those goods are 'substitutes' and one is chosen over the other.

'Income elasticity' is the measure of a percentage change in a quantity demanded of a good when the income of a consumer changes (provided all other factors are constant). If income elasticity for a good is positive and between 0 and 1, this is income inelastic and generally refers to the basics of life such as food and clothing. Income elasticities higher than 1 are income elastic and generally refer to luxury goods. Income elasticities that are negative imply the goods are of inferior quality and being replaced by more premium equivalents.

In the literature, quite divergent results are found as to the own price elasticities relating to soft drink consumption and, as well, there is a divergent range of opinions as to the effectiveness of 'price-based' policies to reduce calorie intake via the excise tax system. Table 1 provides a summary of recent elasticity studies over the non-alcohol beverage market and highlights how difficult it has been to gauge consumers' sensitivity to price changes to soft drinks, and how soft drinks are perceived by consumers in terms of an everyday or 'luxury' purchase.²¹

When looking at the impact of an excise tax on soft drinks, Table 1 suggests that the price sensitivity of consumers is very different in different markets and within the full range of 'soft drink' in the non-alcoholic beverage market – different beverage types have different price sensitivities. Looking at carbonated soft drinks like sodas, which are often singled out for discriminatory taxation, for a 10% increase in price the estimated or projected reduction in consumption ranges between 1.5% and 19%. From this, it is critical for tax policy to properly understand the products available, the pricing of products and the consumer's response to price changes in the market before considering any form of excise-type tax.

It is also interesting to note that the same studies in Table 1 also include findings in relation to income elasticities: all indicate positive results meaning that where additional spending power becomes available, the consumer will purchase more of the beverages. Water and milk have low positive results across the studies reflecting the view that these products are 'necessities' of life, whereas sugar-sweetened beverages such as sodas, juice drinks and energy drinks are viewed more as 'luxuries', which helps to confirm why these same products are more price sensitive as they are not viewed as 'essential'.

However, will that reduction in consumption of a targeted soft drink product reduce calorie consumption in the population? Will it reverse obesity and health-related issues, or will there be little change to calorie intake and health impacts? Here the answer lies in 'cross-price elasticity' or substitution effects. What is missing in the review to date is the link between caloric intake and related health issues. There seems to be almost an 'assumption' that sugar is the main source of calories in a consumer's diet and that is of concern as it has the potential to misdirect consumers to different calories on the misunderstanding that because they are not taxed, they will not impact on weight. Cross-price elasticity studies can help policymakers understand the impact of any tax on a particular beverage.

Interestingly, there has not been much published on the cross-price elasticity effects but what has been published suggests that the closest substitutes for carbonated soft drinks are 'juice products' and 'whole cream milk'.²² Here, with the benefit of only a limited number of 'studies', some interesting policy

questions begin to emerge. Firstly, what if the caloric content of juice substitutes is the same as or higher than for the carbonated soft drink that has not been consumed and as such the caloric intake has not decreased? Secondly, what if the caloric content of the milk (or caloric content of the flavoured milk), is greater than the carbonated soft drink that has not been consumed? Finally, what if the substitute for the soft drink is beer, such as has been suggested in a recent ‘field study’ in Utica, New York.²³ Do these types of outcomes work against the intentions of introducing a discriminatory excise tax on carbonated soft drink products? Certainly more research is needed by health economists in this area.

Table 1: Recent international studies: income and price elasticities by non-alcoholic beverage category

INCOME AND OWN PRICE ELASTICITIES OF NON-ALCOHOL BEVERAGES BASED ON INTERNATIONAL STUDIES			
Studies	Product	Income elasticity	Compensated own price elasticity
Dharmasena & Capps (2009)	Regular soft drinks	1.506	-1.903
	Diet soft drinks	1.276	-0.957
	Bottled water	0.364	-0.070
	Fruit drinks	1.259	-0.082
	Fruit juices	0.649	-0.822
	Isotonics (energy drinks)	2.604	-5.937
	Coffee	0.628	-0.464
	Tea	0.752	-0.509
	High-fat milk	0.798	-0.733
	Low-fat milk	1.059	-0.761
Zheng & Kaiser (2008a)	Soft drinks	0.997	-0.151
	Milk	0.614	-0.154
	Juice	0.656	-0.172
	Bottled water	0.029	-0.498
	Coffee/tea	3.144	-0.083
Zheng & Kaiser (2008b)	Soft drinks	0.381	-0.164
	Milk	0.243	-0.102
	Juice	2.891	-0.458
	Bottled water	0.062	0.044
	Coffee/tea	3.049	-0.260
Kinnucan, Miao, Xiao & Kaiser (2001)	Soft drinks	1.238	-0.137
	Milk	0.406	-0.169
	Juice	0.698	-0.361
	Coffee/tea	1.876	-0.249
Yen, Lin, Smallwood & Andrews (2004)	Soft drinks	1.010	-0.520
	Milk	0.800	-0.590
	Juice	0.900	-0.350
	Coffee/tea	1.130	-0.470

Source: Dharmasena & Capps 2009; Zhen & Kaiser 2008a; Zheng & Kaiser 2008b; Kinnucan et al. 2001; Yen et al. 2004 cited in ‘Modelling the impacts of Thailand’s soft drinks market to excise reforms’, Allens Consulting Group 2011 (unpub.).

This need for further study is confirmed somewhat by the World Health Organization (WHO) which itself has reviewed many studies on this topic, including looking at non-beverage calories such as those consumed in fatty foods, dividing its studies on the relationships between consumption and body weight.²⁴

When reviewing the selected studies, those that related directly to soft drink taxes did, as expected, link an increase in the price of sugar-sweetened soft drinks with a projected fall in consumption of that product, and this is consistent with the price elasticity data highlighted above which suggests such products are price sensitive. However, when looking at those jurisdictions where soft drinks are taxed and the effectiveness of this tax in regard to health-related objectives, there are a number of ‘gaps’ in associated studies. These ‘gaps’ include:

- The currency of the introduction of these taxes to be measured meaningfully against improvements in levels of obesity and in cases of obesity-related illnesses. In fact the OECD work indicates that obesity levels are still on the increase in the US even in the states and localities where a soft drinks tax has been in place for several years.
- The limiting of such studies to attempting only to measure the impact of a tax on a single food (that is, a soft drinks tax) when the tax is only targeting a small percentage of caloric intake. For example, whilst soft drink consumption has grown significantly in the US over the past decades, it represents only 7% of sugar intake.²⁵
- The perception that a soft drinks excise tax can work like a tobacco or alcohol tax in reducing consumption of consumables believed to be ‘unhealthy’ without considering:
 - tobacco and alcohol have no clear substitutes whereas calories are found in a wide variety of food and beverages
 - tobacco and alcohol are not essential to life with tobacco in particular providing no positive health benefits, whereas food and beverages contain categories which are essential to life, and that sugar and fat are required in a diet (albeit not to the levels being consumed in many countries today).
- The fact that studies have seemingly been conducted only in high income countries and no literature exists to indicate the effectiveness of such taxes in limiting unhealthy impacts in developing economies.
- An observation that the ‘quality of the evidence is quite low’ in terms of that being analysed for the studies concerned.

It is worth looking at some of these issues more closely. Several studies on the effectiveness of existing soft drinks taxes in the US question their effectiveness in regard to reduction in incidents of weight loss and obesity levels. One study suggests that in those US states with a soft drinks tax, the taxes ‘have little influence on Body Mass Index (BMI), overweight or obesity in children and adolescents’ (Fletcher, Frisvold & Tefft 2010b, p. 973) for whom it is most important that the policy has an impact. That study adds that the prime factor for this lack of positive impact is likely to move to other and often higher caloric beverages as a response to the price increases caused by the tax.

Another study of the same US states with a soft drinks tax suggests that when considering BMI as a measure of effectiveness of such taxes, there was a very minor, indeed insignificant impact, with a 1% increase in the tax rate resulting in a 0.003 percentage point drop in BMI, leading to the conclusion that there is ‘little dynamic effect of soft drink taxes on weight’ (Fletcher, Frisvold & Tefft 2010a). Interestingly, this same study looked at BMI reduction by differing (possibly target) population groups who were found to respond differently to price changes. For example, for every 1% increase in the tax rate, BMI reductions ranged from 0.02 for Hispanics down to a negligible 0.001 for African Americans. By income grouping, BMI reductions were greatest in the lowest income groups at 0.0153, however, for those classified as overweight or obese in this income category the BMI reductions were only 0.001 and 0.0008 respectively, which may suggest that the tax is ineffective when looking at the targeted populations.

The ineffectiveness of soft drinks excise-type taxes to reduce weight and BMI (as representative measures of effectiveness) seems to be related to the effect of substitution and the availability of other food and beverages to replace, and in some cases to actually increase, any calories not consumed via taxed soft drinks. Thus, an excise tax whilst effective for goods like tobacco where no substitutes are available cannot seemingly be replicated in a product like soft drinks. This issue was best seen addressed in the following extract from Fletcher (2012) (see Box 3) when discussing this ‘gap’ between expectations from a soft drink tax, and the actual results in terms of weight and obesity outcomes.

Box 3: Soda taxes and substitution effects: will obesity be affected?

‘The answer to this apparent discrepancy between intuition and empirical evidence may be quite simple – substitution effects. This becomes more apparent when we consider the important differences between the consumption of tobacco and soda. In a sense, the different results between tobacco and soda taxation are a matter of the definition of policy goals and in considering precisely what desire is being satisfied for individuals who consume tobacco or soda. For tobacco, we might think that the demand the product satisfies is somewhat narrow, mainly nicotine, and the policy of tobacco taxation was aimed at reducing consumption. For soda, the demand for the product seems broader, including its sweetness/sugar and its calories. This basic difference suggests a smaller ability for soda taxation to reduce the quantity of sugar/calories because of the many opportunities for substitution to other products. In contrast, it is more straightforward to tax the larger class of products containing nicotine and potentially reduce its consumption.’

Extract from Fletcher 2012, p. 2.

At this point the review is increasingly concerned that the use of a targeted tax, like an excise, in the same manner as it is used on products like tobacco and alcohol, is largely ineffective as a measure to tackle health-related objectives in the area of growing obesity problems. This ineffectiveness is due largely to the fact that:

- a wide range of food and beverages can be consumed as substitute sources of sugar
- calorie intake comes from more than sugar and that it is equally important to consider the caloric content of all other foods
- studies show that in Australia, the US and in the United Kingdom, sugar consumption is actually falling whilst obesity rates continue to climb, placing some doubt of the selective targeting of sugar alone (Barclay & Brand-Miller 2011, pp. 499-500)
- certain ‘target’ groups within the population are likely to shift some spending away from more nutritious foods to pay for the increased price of soft drinks
- obesity is also the result of a greater sedentary life-style in which important physical activity like exercise and sports are declining
- strategies to tackle obesity clearly need to be multifaceted and include education, encouragement, and healthy choice options rather than a focus on the price of a few selected products.

In concluding this analysis of the effectiveness of an excise tax on soft drinks – in terms of both a revenue raising measure and/or as a health-related measure – the review looked at a case study from Finland which has had an excise tax on soft drinks since the 1940s (Juanto 2003). The objective of the excise tax has always been to raise revenue on what was perceived as a ‘luxury good’, although the review notes some interesting adaptations to Finnish excise law in 2011 to ‘dress up’ the tax as a health measure by increasing its rate by 66% and having it now sitting in the same tariff category as ‘sweets’ and ‘ice-cream’, although pastry, biscuits and other items are still exempt.²⁶

Despite a longstanding soft drinks excise, obesity levels in Finland continue to rise. The rates of increase are slower than in many developed countries, and this might be attributable to some government intervention programs which commenced in the 1970s and 1980s and included:

- media campaigns
- school-based policies which removed certain food and drinks from sale at schools and introduced one 'free' nutritious meal for children per day (a subsidised meal for university students)
- nutrition education drives through schools, government and NGOs
- legislation such as labelling of caloric content, and subsidies for low fat milk and canola oil production (North East Public Health Observatory 2005).

Interestingly, the Finnish campaign outlined in the study did not make reference to the longstanding soft drink excise as a specific tool in combating obesity. In terms of the Finnish campaign however, whilst obesity rates remained below those of other developed countries and in some cases improved, particularly in children, the obesity rate has grown by 0.18% between 1980 and 1998. The study suggests that diet alone is insufficient to tackle the problem, and believes that the rise in obesity is connected to a decline in physical activity over the same time.

This was a significant statement for the review in that there were concerns about the lack of consideration given in soft drinks excise policy to the effects of substitution, and that resulted in ineffective health-related outcomes, but this Finnish study raises the issue that it is not just the intake of calories but lifestyle which is contributing to current weight and obesity issues. In this context, a reliance on a fiscal measure such as an excise tax on a single product or single category of product may not be helpful, but rather that weight and obesity are perhaps health and social issues best addressed with a broad range of strategies.

Thus this review is unconvinced as to the effectiveness of an excise tax on selected categories of non-alcoholic beverages as a response to weight, obesity and associated health issues.

6. Recent excise tax developments

Discriminatory taxes, like excise, and their use in the context of reducing sugar consumption, are being widely discussed and have in fact been introduced in several countries in recent times including in Algeria, Finland, Hungary and Denmark (OECD 2012). Included in the taxation arrangements proposed here are excise-type taxes on saturated fats and in the case of Hungary, also on salt and caffeine. As mentioned, France also introduced a tax on sugar-sweetened beverages from 1 January 2012.

Where the review focused next was on the literature in relation to the effectiveness of the 'health-based' approach to taxation, which was the most recent development in this area, and which is of great significance in the largely publicised scrapping of the range of health taxes in Denmark. As mentioned earlier, after only twelve months in operation the Danish government, through its Treasury Ministry, formally announced the abolition of the 'fat tax' and an abandonment of the proposal to implement a 'sugar tax' (Treasury Ministry of Denmark 2012). Interestingly, the Danish government's announcement was in the context of a tax cut to help business and consumers, and also included an excise tax reduction on heating oil. The key points from the press release are outlined in Box 4.

Are there any messages from the Danish case study? The repealing of both Danish taxes supports many of the findings of the literature review, particularly in relation to economic impacts and consumer behaviours in response to the price increases of selected foods.

6.1 Tax and economics

The Danish 'fat tax' had an immediate economic impact. Consistent with this review's findings and case studies, a discriminatory tax like an excise levy moves quickly to dampen economic activity in that industry – reducing its revenues and putting employment levels under threat. Where a discriminatory tax is used in this context, there are added compliance and administration costs as industry needs to classify products as taxable or non-taxable and then calculate the taxes payable on those taxable commodities.

The cost of the economic slowdown in the relevant industry sectors created by this new tax is likely to have outweighed the anticipated 200 million Euros expected in ‘fat tax’ receipts, as other revenues from sales and profits fell, and the multiplier effects of job losses and associated losses of income taxes and spending from these retrenched staff fed through the system. However, it is too early for this data to be published.

Box 4: What happened to fat and sugar taxes in Denmark?

From 1 October 2011, the Danish government introduced a ‘fat tax’ comprising an excise-type levy of 16 Kroner (or about USD2.90) per kilogram of saturated fats in a product which exceeds 2.3% in saturated fats. This equated to 2.2 Kroner (or about USD0.36) to a 250 gram block of butter.

The same tax reform package also included an extension to an existing tax on confectionary by expanding the scope of that tax onto all manufactured goods which contain sugar such as soft drinks, jams, sauces, yoghurt, pickles, etc. – although the specific details were not published.²⁷

On 10 November 2012, the Treasury Ministry announced both the cessation of the ‘fat tax’ and the abandonment of the proposed ‘sugar tax’, with the main reasons cited as being:

- heavy criticism of the impact on consumer prices, particularly on lower income families and as such, providing for a ‘better social profile’
- corporate administrative costs
- loss of Danish jobs
- consumers moving to purchase targeted foods across neighbouring borders contributing to revenue losses to the budget and to Danish food manufacturing.²⁸

The review noted the industry responses to both the tax itself and its withdrawal and accepts that the requirement of the tax to identify fat content within foods would have been highly complex and an expensive compliance exercise for both industry to administer and authorities to confirm. The review also accepts that the price rises and cross-border shopping were putting 1,500 to 2,400 Danish food manufacturing jobs at risk in the short term, with 700 to 1,000 more job losses should the ‘sugar tax’ have commenced.²⁹

6.2 Tax and consumption

Consumers responded immediately to the ‘fat tax’ by reducing purchases of Danish made foods that exceeded the established levels of saturated fats and so faced higher taxes (price elasticity effect). One response to the price increases was for Danish consumers to take advantage of the option of continuing to purchase the same foodstuffs ‘tax free’ from neighbouring Germany.³⁰ Thus, whilst it is too early for a study of the twelve-month ‘fat tax’ in relation to obesity levels, it appears that there was little change in consumption and as a result the financial impact on households was quite regressive and seemingly socially unacceptable to the Danish government.

6.3 Tax and health

When there are readily available substitutes, discriminatory taxes like an excise levy are less effective than when there are limited substitutes, as is true for alcohol, tobacco and fuels. Where health objectives are a driver, taxation becomes complex and has the potential for a range of unintended consequences and impacts that go beyond the intended outcomes. These consequences clearly included a negative economic impact for Danish industry and its employees, but the literature also suggests that there are risks of health objectives being undermined, dependent upon the reaction of the consumer. Some of the literature suggests that health objectives could be better served through broader strategies such as education on diet and caloric intake, encouragement to undertake greater physical activity and in support of healthier lifestyles that include information on healthy weight and food nutrition.

7. Conclusions

The review of the literature strongly suggests that, as a revenue raising measure, an excise or similar type tax levied on non-alcoholic beverages first needs a comprehensive study of the broader impact on the industry as it is likely that any additional revenues raised from the excise will be offset by losses in terms of VAT or sales taxes; company and profit-based taxes; and of personal income taxes as the industry contracts with the associated loss of sales resulting from the excise tax. Introducing an excise tax for revenue raising purposes, or maintaining an excise tax in a properly functioning tax system for revenue generation, cannot be recommended or supported as good tax policy.

Levying an excise tax on the basis of health-related externalities also requires careful consideration, and clearly risks a range of unintended consequences, notably in some cases perpetuating or exacerbating the relevant health issues. In summary, policymakers have quickly assumed a link between the calories in (and sugar content of) some non-alcoholic beverages and contemporary weight- and obesity-related health concerns.

This policy approach has seemingly neglected the more important links between total caloric intake and the weight and obesity problem, and has largely ignored a number of important factors including that daily intake of calories comes from many sources, not just from sugar, and not just from certain beverages. The approach has also largely ignored the links between lifestyle changes such as reduced physical activity with weight gain and obesity problems.

This has become a critical finding of the review. For an excise tax to be successful in curbing consumption, there has to be no readily available substitute to deliver the same (or greater) effects, or the tax needs to be levied across all products which can cause the same effect. In this context, it would appear to be questionable policy to place an excise tax on just a single source of calories such as sweetened carbonated beverage, when the motivating or underlying health issue is an overly high caloric intake in a diet for a given level of physical activity.

The review contends that a discriminatory tax targeting a single beverage such as sweetened carbonated drinks runs a real risk of:

- consumers substituting their sweetened carbonated drink with a beverage of equal or greater caloric content, and/or a beverage high in fat
- sending a signal to consumers through price that non-taxed food and beverages are ‘non-caloric’ and are appropriate substitutes
- not addressing the questions of caloric intake across a whole diet, nor the issue of an increasingly sedentary lifestyle and limited physical activity.

Whilst the review of the literature found many passionate advocates supporting an excise tax on sweetened carbonated soft drinks as a means to reduce caloric intake, studies of those jurisdictions where such taxes have been in place are not yielding sufficient positive data to demonstrate success in reducing obesity rates. The author believes that whilst ‘soda taxes’ can slow sales in such places, not enough research is available at this point to demonstrate exactly what consumers are doing in response to the price increases of these drinks, and that in a view shared by the WHO, consumers are simply moving to different sources of calories.

These types of issues need to be examined and discussed by policymakers looking at future uses of sugar- and/or fat-based excise taxes to reduce caloric intake, and the findings from Denmark support this statement and highlight the issues that are present. The Danes attempted to address obesity concerns with a tax on foods which exceeded an amount of saturated fat, but succeeded only in jeopardising the economic viability of the local food industry, and led to a quick scrapping of both the ‘fat tax’ itself and a proposed similar ‘sugar tax’.

Excise taxes in this context are best applied to products for which there are readily available substitutes and the externalities are clear, such as alcohol, tobacco and fuels. These principles are very difficult to apply to caloric intake from food and beverages.

Based on the literature reviewed, and the findings of the studies contained therein, the review cannot support the use of discriminatory excise taxation applied to selected non-alcoholic beverages to effectively achieve certain 'health-related' policy outcomes.

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Notes

- 1 Treasury Ministry of Denmark, 10 November 2012.
- 2 OECD 2004, Classification of taxes and interpretative guide, paragraph 61, classification sub-heading 5121.
- 3 OECD 2004, Classification of taxes and interpretative guide, paragraphs 53-58, classification heading 5100, sub-headings 5110-5113.
- 4 In addition to a broad-based Value Added Tax, China has a Consumption Tax applicable to refined oil, motor vehicles, motor cycles, tyres, skin care products, certain wood products, watches, golf products, tobacco, and liquors.
- 5 In addition to a broad-based Value Added Tax, Viet Nam has a Special Consumption Tax on liquor, tobacco, motor vehicles, refined oil, beverages, air conditioners, playing cards, gambling, golf memberships, massage and karaoke.
- 6 Australia has a Fuel Tax in addition to a Goods and Services Tax, whilst Chile has a Fuel Tax in addition to its Value Added Tax.
- 7 Chile has a Tobacco Tax in addition to the Value Added Tax.
- 8 OECD 2004, Classification of taxes and interpretative guide, paragraph 62, classification 5123.
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- 20 Block (2004) cited in Fletcher, Frisvold & Tefft 2010b, p. 968.
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- 22 See Pofahl, Capps & Clauson A (2005) and Schroeter, Lusk & Tyner (2008) in Jeffords 2010.
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- 24 Bulletin of the World Health Organization 2010, viewed 1 December 2012, www.who.int/bulletin/volumes/88/8/BLT-09-070987-table-T1.html, divides a range of studies into 'peer reviewed' and 'grey literature'.
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- 30 Cross-border shopping by individuals or private consumers does not attract border taxes within the European Union.

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Quantifying the effect that aid for trade facilitation has on customs clearance in Sub-Saharan Africa in terms of time and cost

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Abstract

There is an international trend emerging for governments of donor countries to publicly account for the implementation and effectiveness of their Official Development Assistance. This also applies to the assistance provided by donors to customs administrations in developing countries. This study aims to quantify the effect of the much needed assistance provided to customs administrations in Sub-Saharan Africa, using recent panel data. It finds that aid for trade facilitation reduces the time needed for customs clearance and also that the costs of customs clearance (as derived from the World Bank's *Doing Business* series) do not provide an appropriate indicator of the capacity of customs administrations.

1. Introduction

High transaction costs represent a major hindrance to the development of trade in Sub-Saharan Africa (SSA). This has been identified by many studies, such as Limao and Venables (2001, pp. 20-5) and Portugal-Perez and Wilson (2009, pp. 382-3; 400-12). In its *Doing Business* series, the World Bank examined the time and costs entailed in preparing a 20-foot container for export at an exporters' premises in the largest business city, transporting the container and finally loading it onto a ship at the likely port of departure (World Bank 2011a). In 2009, the average time and costs entailed by customs clearance ('clearance time and costs') were USD1,915.58 and 33.6 days in SSA, and USD959.60 and 25.1 days in developing countries in the East Asian and Pacific region (EAP). The share of SSA and the EAP in world export was 3.5 per cent and 3.3 per cent in 1979 and 2.0 per cent and 14.0 per cent in 2009 respectively (World Bank 2011b). These figures indicate that high trade costs have prevented SSA from expanding its exports despite the fact that tariff rates have fallen steadily throughout the world due to international efforts. This is supported by the findings of Portugal-Perez and Wilson (2009, pp. 400-12) with respect to Africa.

Aid for trade (Aft), was officially launched in December 2005 at the World Trade Organization's (WTO) Sixth Ministerial Conference. It aims to enable developing countries to improve the trade-related skills and infrastructure needed to implement WTO agreements with the aim of expanding trade, increasing income, and reducing poverty (WTO 2011). Nowadays, most donors such as the World Bank have identified SSA as a priority recipient of Aft (OECD/WTO 2009, p. 14; Hoekman & Wilson 2010, p. 5).

For decades now, many customs administrations in developed countries and international organisations such as the World Customs Organization (WCO) have assisted customs administrations in developing countries to improve their capacity (Policy Research Institute, Ministry of Finance, Japan 1998, pp. 12-13; World Bank 2004, p. 97). Examples of assistance include training in customs clearance and tariff classification of imported goods, workshops for customs modernisation and integrity awareness

as well as diagnostics and recommendations to the customs administrations of developing countries (Matsumoto 2009, p. 28; WCO 2011a, pp. 4-7). The motivation for such efforts may reflect the role of Customs in international trade: after all, Customs plays a critical role in trade facilitation by administering and supervising trade-related procedures (Grainger 2008, p. 18). Improving the performance of customs administrations is therefore an effective way of ensuring trade facilitation. On the whole, the assistance provided to customs administrations in developing countries ('customs aid') has increased their capacity. This, in turn, serves to promote trade facilitation by reducing the time for customs clearance (Eland 2008, p. 6; Commonwealth Secretariat 2011).

In spite of this, customs aid is not exempt from the emerging trend for the governments of donor countries to publicly account for the implementation and effectiveness of their Official Development Assistance (ODA) which is funded by the taxpayer (OECD 2005,² 2008a³). In response, the WCO has studied indicators of the effects of aid (WCO 2010, pp. 8-10). In particular, expressing the effect of customs aid in figures directly related to customs performance (for example, reduction in clearance time and costs), could improve accountability to the taxpayers of donor countries. Moreover, this could also help donor customs administrations and international organisations measure the effects of past projects and identify areas of improvement.

This study aims to quantify the effect of the much needed customs aid in SSA, with reference to existing data and studies.

Section 2 reviews the available literature in order to identify appropriate data and methodology, which are presented in Section 3. The next section presents and discusses the regression results. Finally, Section 5 draws attention to the limitations of this study and makes policy recommendations.

2. Literature review

In order to develop a method of ascertaining how customs aid benefits trade in developing countries, the time and costs entailed by trade must directly relate to the capacity of customs administrations ('customs capacity'). In this respect, it would appear that clearance time and costs are the most appropriate indicators. However, there are no datasets covering such criteria at the global level, although some customs administrations have performed time release studies (TRS) that measure the time needed for clearance and published the results. As an alternative, this literature review focuses on studies whose dependent variables are the time for and/or cost of trade as derived from the World Bank's *Doing Business* series in relation to exporting and importing 20-foot containers. In the case of export, time and cost are measured as follows: the preparation of documents and procedures involved in exporting a 20-foot container at an exporter's premises in the largest business city in a country; transporting the container from the exporter's premises to the likely port of departure; the procedures administered by customs and other administrations; and finally, loading the container onto a ship (Djankov, Freund & Pham 2006, p. 2; World Bank 2011a). Literature reviews by Suwa-Eisenmann and Verdier (2007), Vijil, Huchet-Bourdon & Le Mouël (2010) and Hoekman and Wilson (2010) reveal that studies by Cali and te Velde (2011) and Busse, Hoekstra and Königer (2011) utilise the time and cost for exporting or importing a 20-foot container derived from the *Doing Business* series as dependent variables.

In addition, both studies use the OECD's Creditor Reporting System (CRS) for their aid data. The CRS provides stratified and grouped data on aid contributed by all member countries of the Development Assistance Committee (DAC) as well as some international organisations including the World Bank (OECD 2011). When Aft was launched in December 2005, a WTO taskforce recommended monitoring the six categories of Aft, including aid for trade policies and regulations ('ATP') and aid for trade-related infrastructure (WTO 2006, p. 2), as shown in Appendix 5. Accordingly, the OECD and WTO identified

grouped data in the CRS dataset (corresponding to the six categories of Aft). Both Cali and te Velde (2011) and Busse, Hoekstra and Königer (2011) utilise such grouped data in the CRS as independent variables.

Cali and te Velde (2011) conduct an empirical analysis into the effects that aid for trade facilitation (ATF) and ATP (both components of Aft) have on the costs of exporting and importing and the time needed to import. In order to create a model to estimate the effects of ATF and aid for trade-related infrastructure, they first develop a formula to determine trade costs using one developed by Bouet, Mishra & Roy (2008) as a basis. The latter can be summarised as follows: the cost of transportation is positively related to geographic distance and import tariffs between trading countries and negatively related to the standard of infrastructure in both countries. Based on this, Cali and te Velde (2011) develop a formula to determine the cost of trade, to which they add a negative correlation between aid and trade cost. Then, using a fixed effect model based on their formula, they reveal that the coefficient of ATF is statistically significant for all dependent variables. For example, they demonstrate that a 100 per cent increase in ATF would reduce the cost of importing by 5 per cent. This is equivalent to reducing the costs of unloading a 20-foot container from a vessel and transporting it to the importer's premises by USD82. They argue that ATF would have a significant effect, pointing to a study by the United Nations Conference on Trade and Development (UNCTAD) (UNCTAD 2003, p. 113) which estimated that approximately 7.3 million 20-foot containers were loaded or unloaded in Africa in the year 2000.

Busse, Hoekstra and Königer (2011) also analyse the effect of Aft, ATP and ATF on trade time and costs using a fixed effects model. They construct their model based on the understanding that ATF aims to reduce transaction costs by simplifying and harmonising trade-related procedures. Accordingly, ATF may well represent an independent variable that affects the dependent variables of the time and costs incurred by trade. They find that all tested aid variables lower trade costs to a degree that is economically meaningful. For example, increasing ATF by USD2.89 million would reduce the cost of importing a 20-foot container to developing countries by an average of USD21.13. They imply that this reduction would also be valid for the 68 million twenty-foot equivalent units (TEUs) imported to developing countries in 2008 (UNCTAD 2009).⁴ On the other hand, their regression results show a less robust effect on trade time.

Both models are similar although Cali and te Velde (2011) adopt a log-log model and Busse, Hoekstra and Königer (2011) a level-level model. Hence, the model of this study can be a hybrid of both. With regard to trade cost and time, both studies measure these variables from the exporter's premises to lading (export) and vice versa (import). However, the *Doing Business* series also estimates the time and costs relating to customs clearance and technical control that accurately indicate the time and cost entailed by customs processes (apparently there are no studies on these variables). Hence, the first hypothesis (that is, taking the cost and time for customs clearance and technical control recorded in the *Doing Business* series as indicators of the cost of and time needed for customs clearance) is that:

H1: Aid for trade facilitation reduces time and/or cost for customs clearance in SSA.

Trade costs are measured in current US dollars in the *Doing Business* series, and by Cali and te Velde (2011) in their dependent variables, whereas Busse, Hoekstra and Königer (2011) use constant US dollars. Since the cost of trade is influenced by inflation rates in each reporting country, the study adjusts the costs entailed by customs clearance and technical control recorded in the *Doing Business* series to take account of the inflation rates of each country. Hence, the second hypothesis is that:

H2: Aid for trade facilitation reduces the cost of customs clearance in SSA as adjusted for local inflation.

3. Methodology and data

3.1 Data for dependent variables

As explained in the previous section, the time and costs entailed by clearance and technical controls derived from the *Doing Business* series represent dependent variables of this study. Since the *Doing Business* series online dataset does not offer any time series data for clearance time and costs in relation to exports and imports, it is necessary to collect data from each country's yearly report on the World Bank's website (with the exception of 2010). This means that the analysis in this study is based on a short panel dataset: ranging from three to four years (that is, 2007 to 2010).

As explained in the previous section, the study reflects the fact that trade costs have been influenced by inflation rates in each reporting country by adjusting the cost reported in the *Doing Business* series to account for the inflation rates of each country. For this purpose, the *Doing Business* series cost data reported in current US dollars is converted into the local currency of each reporting country on an annual basis using the applicable exchange rates. Costs in the local currency are then adjusted by the inflation rate of reporting countries and finally, the adjusted values are converted into US dollars to make international comparison possible. Appendix 1 summarises the dependent variables.

3.2 Data for the main independent variables

Aid variables are the main independent variables in the model adopted by this study. Appendix 1 also summarises the independent variables including data sources.

Like Cali and te Velde (2011) and Busse, Hoekstra and Königer (2011), this study derives aid data from the OECD's CRS. Appendix 5 shows the structure of aid categories in the CRS that make up Aft. As shown in Appendix 5, Aft consists of six categories including ATF. This consists of five sub-categories, one of which is ATF. This is the first aid variable adopted by the study's model. It aims to simplify and harmonise international import and export procedures and to support customs administrations and tariff reform (OECD 2008b, p. 6), which would directly reduce clearance time and costs. The second dependent variable is *ATP*, derived by subtracting *ATF* from *ATP*. Since it includes sub-categories that are not as closely related to clearance time and costs as those of *ATF*, it is unlikely to be as effective in reducing these variables.

In 2009, Aft amounted to 65,157.95 current US million dollars. Of this, *ATF* accounted for USD132.66 (that is, 0.2 per cent) and *ATP* for USD855.24 (that is, 1.3 per cent) of Aft. This indicates that *ATF* and *ATP* are not dominant categories in Aft which means there are many developing countries that do not receive *ATF* and/or *ATP*. Accordingly, zeroes are left in the dataset of this study in order to avoid possible sample selection bias.

3.3 Other control variables

In addition to aid variables, Cali and te Velde (2011) adopt data on GDP per capita and population as other control variables. Busse, Hoekstra and Königer (2011) adopt data on GDP per capita, trade volume, the regulatory quality indicator derived from the World Bank's Governance Indicators (WGI) project (World Bank 2011c) and fuel price, which are primary candidates for other control variables in the model of this study. Wilson, Mann & Otsuki (2003) use a gravity model and estimate the effect of the following four trade facilitation indicators on trade volume in the Asia-Pacific Economic Cooperation (APEC) members: 'Port efficiency' (indexes capturing efficiency of trade), 'Customs environment' (indexes capturing the degree of corruption), 'Regulatory environment' (indexes capturing obedience of

environmental protective measures), and 'E-business' (the percentage of companies that use the internet for e-commerce). These indicators are also considered to be possible other control variables in the model adopted by this study.

The criteria for selecting other control variables are as follows: first and foremost, variables have to be relevant to the objective of this study. Clearance time and costs serve as dependent variables of this study; hence, factors unrelated to customs clearance are excluded (for example, fuel price). Second, the availability of data is another important criterion. Wilson, Mann & Otsuki (2003) mainly use data derived from the World Economic Forum (WEF) Global Competitiveness Report, which covers 139 economies in its 2010-11 edition. This number includes 80 per cent of APEC members but only 60 per cent of SSA countries (WEF 2010). Therefore, the data utilised by this study is basically collected from datasets prepared by the World Bank, which cover a broader range of countries.

Taking these criteria into account, the model incorporates the following five dependent variables that affect control factors that influence clearance time and costs. Appendix 1 summarises other control variables.

Real GDP per capita (*GDPpc*) displays a negative correlation to clearance time and costs. This may be because the higher the GDP per capita, the higher the level of developments in customs technique. However, as Busse, Hoekstra and Königer (2011, p. 8) point out, trade processing costs might increase in line with GDP per capita. Hence, it is expected that GDP per capita will be more effective in reducing time than costs.

Next, trade volume (*Trade*), consisting of both import and export, is added to the model. An increase in trade will drive the expansion of trade facilities and provoke calls to expedite trade-related processes, leading to reductions in clearance time and costs. Paradoxically, increased trade is also a cause of greater congestion which is likely to increase time and costs. As Busse, Hoekstra and Königer predict (2011, p. 8), the effects of trade volume would therefore be ambiguous.

Third, the model also considers the quality of regulations (*RegQuality*) as derived from the WGI project (World Bank 2011c) and tested in the study by Busse, Hoekstra and Königer (2011). *RegQuality* expresses perceptions of the government's ability to formulate and implement effective policies and regulations including export and import regulations (World Bank 2011c). Therefore, *RegQuality* is considered an indicator for the degree of administrative burden involved in customs clearance. Accordingly, an improvement in *RegQuality* would reduce clearance time and costs.

Fourth, control of corruption (*ConCorrupt*) – derived from the WGI – is added to the model to ascertain how corruption affects clearance time. The temptation to accept bribes causes unnecessary interventions by trade-related bodies (including Customs), which causes delays. Therefore, this variable would positively relate to increased clearance times. One thing to note is that the cost captured in the World Bank's *Doing Business* series does not cover unofficial payments (World Bank 2011a), which means that the influence of corruption is only partially recorded in the costs recorded in that series.

Lastly, the number of net users (*NetUser*) is also added to the model as an indicator for the prevalence of IT, which can reduce clearance time and costs. For example, a computerised customs clearance system called ASYCUDA (Automated SYstem for CUstoms DAta) enabled Bolivian Customs to randomly select cargo for inspection and to limit physical inspection to 20 per cent of the cargo (World Bank 2004, p. 2). However, there does not appear to be any global data on the introduction of computerised customs clearance systems by customs administrations. In order to ensure such systems are fully exploited, traders should be allowed to access them. Accordingly, the model adopted by this study includes the number of net users per 100 people derived from the World Bank World Development Indicators (WDI).

3.4 Methodology

As explained in the previous section, this study adopts a fixed effect model for four years of panel data. It is a hybrid of the models adopted by Cali and te Velde (2011) and Busse, Hoekstra and Königer (2011) and is expressed as follows:

$$TimeExp_{it} (TimeImp_{it}) \text{ or } CostExp_{it} (CostImp_{it}) = B_i + B_1 ATF_{it-1} + B_2 ATP_{it-1} + B_3 GDPpc_{it-1} + B_4 Trade_{it-1} + B_5 RegQuality_{it-1} + B_6 ConCorrupt_{it-1} + B_7 NetUser_{it-1} + B_8 YEAR_t + u_{it}$$

where:

- it indicates country i and year t ,
- B_i represents the country fixed effect,
- $YEAR_t$ represents year dummies, and
- u_{it} represents error term.

As with studies by Cali and te Velde (2011) and Busse, Hoekstra and Königer (2011), all variables except the time dummy feature a time-lag of one year. This reflects the delay that exists between an acceptance of aid and its effect and features in all aid variables. Furthermore, lagged explanatory variables may reduce the likelihood of a reverse causality problem occurring.

4. Results and discussion

4.1 The effects on clearance time

Appendix 2 presents the results of the investigation into how ATF, ATP and other control variables affect clearance time. The Hausman test rejects the equality of the fixed and random effect models, suggesting that the former provides a preferable estimate.

As can be seen in Appendix 1, the coefficient of *ATF* is statistically significant at 5 per cent in the case of export and 1 per cent in the case of import. It suggests that increasing *ATF* by one million US dollars would reduce the time needed to clear a 20-foot container by 0.22 days for export and 1.17 days for import. Considering the mean time for clearance is 3.94 days for export and 5.63 days for import, these estimates are equivalent to reductions of 5.7 per cent for export and 20.8 per cent for import. Thus, this result offers support for *H1* (that is, *aid for trade facilitation reduces (cost and/or) time for customs clearance in SSA*). The different results for export and import may be due to two reasons: first, import procedures offer more scope for improvement than export procedures because the former are more numerous (for example, payment of tariff); alternatively, more *ATF* may be devoted to import than export – a fact that CRS data fails to detect.

According to reports of the Informa Cargo Information (2010) and World Bank (2009), at least 12.6 million 20-foot equivalent units (TEUs) passed through SSA ports in 2009 (see Appendix 3). Therefore, increasing *ATF* by one million US dollars would have a significant effect.

ATP is not statistically significant for either export or import. Arguably, this is because (as predicted), *ATP* includes sub-categories that are not as closely related to clearance time as *ATF*. Therefore, *ATP* is likely to be less effective in reducing clearance time.

Trade is not statistically significant, which corresponds to its ambiguous effect (as predicted).

NetUser is not statistically significant, although the signs of the co-efficients are negative. This corresponds to the prediction prior to regression analysis.

GDPpc, *RegQuality*, and *ConCorrupt* are not statistically significant; in addition, the signs of their co-efficients do not correspond to expectations prior to regression analysis.

4.2 Effects on clearance costs

The Hausman test does not reject the equality of the fixed effect and random effect models and so the results of both are shown in Appendix 4. As both aid variables are statistically insignificant, the results do not offer any support for either *H1* or *H2* (that is, *aid for trade facilitation reduces the cost of customs clearance in SSA as adjusted for local inflation*). That said, none of the other control variables are statistically significant either.

These results seem reasonable because the *Doing Business* series records only official costs (World Bank 2011a), such as those for lodging import declaration forms. Such costs are not directly related to the capacity of customs administrations but rather reflect fiscal policies. It therefore does not seem appropriate to measure the performance of customs administrations using the official costs recorded in the *Doing Business* series.

5. Conclusions

The objective of this study is to quantify the effect of much needed customs aid in SSA. Using *ATF* and *ATP* as indicators of customs aid, the study reveals that increasing *ATF* by one million US dollars would reduce the time needed to clear a 20-foot container by 0.22 days (5.7 per cent) for export and 1.17 days (20.8 per cent) for import. Considering that SSA ports handle at least 12.6 million TEUs each year, increasing *ATF* would have a significant impact. These results explain the effectiveness and significance of customs aid in SSA.

This study also reveals that the costs of clearance and technical control recorded in the *Doing Business* series cannot serve as an indicator of customs capacity or the effectiveness of customs aid. Opportunity costs linked to customs clearance appear to be a more appropriate measurement of customs capacity. However, it is very difficult to adequately assess the opportunity costs of each traded article. Clearance time therefore appears a more appropriate indicator for measuring customs capacity. The problem here is that the *Doing Business* series offers the only global dataset that captures time for customs clearance. Moreover, it collects the data from a questionnaire submitted to several well-qualified trade bodies in each country (World Bank 2011a). Ideally, more reliable data on clearance time is needed.

The WCO TRS Guide (WCO 2011b) was recently updated with a view to addressing trade links to landlocked countries (Mikuriya 2011). Considering that 34 per cent of SSA countries are landlocked, this appears especially well-suited to SSA. The TRS provides a uniform method of measuring the time for clearance and other processes. It does so by actually measuring the time needed for goods to pass through processes (including customs clearance) over a period of at least seven consecutive working days in a statistically reliable way (for example, random sampling if a customs administration cannot handle all goods). The TRS Guide recommends SSA countries to periodically conduct TRS in order to identify potential bottlenecks in the supply chain – which is one of the primary objectives of the TRS (WCO 2011c) – as well as to construct an essential dataset for quantifying how customs aid affects customs modernisation (as performed by this study). This would meet the increasing demand for accountability regarding the effectiveness of public sector aid projects.

The CRS does not cover aid provided by non-DAC members such as China and this limitation should be kept in mind when interpreting the results of this study. More comprehensive datasets on aid would improve the accuracy of future studies on this subject. That said, collecting data on the aid provided by all donors in all areas appears daunting to say the least and so it might be more expedient to do so using the WCO's network. The WCO could improve empirical studies and the coordination of efforts to support customs administrations in developing countries. Since the WCO is the only international organisation with a substantial international membership which is specialised in customs matters, it appears the most appropriate body to collect and exploit information on customs aid. Were the WCO to undertake this task, it would enhance its standing as a policymaker in relation to the assistance provided to customs administrations in developing countries and help its efforts to provide its members with a better service.

Appendices

Appendix 1: Summary of statistics for the variables

Variable	Obs	Mean	Std. Dev.	Min.	Max.	Source
<i>TimeExp</i> (days per container)	174	3.94	1.91	1.00	10.00	World Bank <i>Doing Business</i> (DB)
<i>CostExp</i> (USD per container, which is adjusted by the method in Note 3)	171	177.55	138.56	9.26	754.64	World Bank DB
<i>TimeImp</i> (days per container)	174	5.63	3.32	1.00	15.00	World Bank DB
<i>CostImp</i> (USD per container, adjusted by the method in Note 3)	171	197.81	152.23	12.75	779.11	World Bank DB
<i>ATFt-1</i> (disbursed ODA in million constant USD, deflated by US inflation rate [base year is 2004])	174	0.21	0.71	0.00	6.97	OECD CRS
<i>ATRt-1</i> (disbursed ODA in million constant USD, deflated by US inflation rate [base year is 2004])	174	2.31	4.60	0.00	33.67	OECD CRS
<i>GDPpct-1</i> (constant USD, deflated by US inflation rate [base year is 2004])	174	3,226.63	5,344.46	262.78	29,984.66	World Bank World Development Indicators (WDI)
<i>Tradet-1</i> (Sum of merchandise imports and exports, billion constant USD, deflated by US inflation rate [base year is 2004])	174	9.60	24.24	0.07	159.12	World Bank WDI
<i>RegQualityt-1</i> (ranging from -2.5 to 2.5, with higher values corresponding to better governance outcomes)	174	-0.69	0.60	-2.30	0.85	World Bank WGI
<i>ConCorruptt-1</i> (ranging from -2.5 to 2.5, with higher values corresponding to better governance outcomes)	174	-0.59	0.59	-1.63	0.97	World Bank WGI
<i>NetUsert-1</i> (the number of users per 100)	172	6.57	10.98	0.23	72.35	World Bank WDI

Notes:

1. Due to the limitation of data on time and cost for customs clearance, 45 countries are covered in the dataset (although according to the World Bank's definition there are 47 countries in SSA). The 45 countries covered are Botswana, Burkina Faso, Burundi, Cameroon, Cape Verde, Central African Republic, Chad, Comoros, Congo Dem. Rep., Congo Rep., Cote d'Ivoire, Djibouti, Equatorial Guinea, Eritrea, Ethiopia*, Gabon, Gambia, Ghana, Guinea, Guinea-Bissau, Kenya, Lesotho, Liberia**, Madagascar, Malawi, Mali, Mauritania, Mauritius*, Mozambique, Namibia, Niger, Nigeria, Rwanda*, Sao Tome and Principe, Senegal, Seychelles, Sierra Leone, South Africa, Sudan, Swaziland, Tanzania, Togo, Uganda*, Zambia*, and Zimbabwe*. (* and ** indicate countries that have only three or two years' datasets respectively due to lack of data.)
2. Zimbabwe has to be excluded from the analyses on costs owing to the lack of adequate inflation data.
3. Convert current USD (that is, the reporting currency), into local currencies by official exchange rate, deflate them by local inflation rate (base year 2004), and then convert them into USD.
4. Inflation data obtained mainly from World Bank World Development Indicators and complemented by the IMF World Economic Outlook Database.

Appendix 2: The effect of ATF, ATP, and other control variables on time for customs clearance, 2007-2010

	(1)	(2)
Variables	TimeExp	TimeImp
ATF _{t-1}	-0.217**	-1.168***
	(-2.204)	(-6.210)
ATP _{t-1}	-0.0125	-0.000769
	(-1.042)	(-0.0334)
GDPpc _{t-1}	-1.21e-05	0.000210
	(-0.113)	(1.022)
Trade _{t-1}	-0.00787	-0.0317
	(-0.596)	(-1.253)
RegQuality _{t-1}	0.532	-0.446
	(0.773)	(-0.338)
ConCorrupt _{t-1}	0.269	0.441
	(0.483)	(0.413)
NetUser _{t-1}	-0.0107	-0.0135
	(-0.488)	(-0.321)
Year ₂₀₀₈	0.130	-0.575**
	(1.019)	(-2.354)
Year ₂₀₀₉	0.000768	-0.764***
	(0.00562)	(-2.924)
Year ₂₀₁₀	-0.0960	-0.807***
	(-0.693)	(-3.045)
Constant	4.688***	6.114***
	(8.089)	(5.512)
Observations	172	172
R-squared	0.099	0.379
Number of countries	45	45

Notes: t-statistics in parentheses.

*** p<0.01, ** p<0.05, * p<0.1

Appendix 3: Volume of containers in Sub-Saharan Africa

Country (Listed from West to East)	Port*	TEU	Year	World Ranking in 2009 by source (a)	Source
Mauritania	Nouakchott	62,269	2009	346	(a)
Mauritania	Nouadhibou	N.A.			
Senegal	Dakar	331,076	2009	184	(a)
Gambia	Banjul	100,000	2005		(b)
Guinea Bissau	Bissau	N.A.			
Guinea	Conakry	753,287	2006		(b)
Sierra Leone	Freetown	31,718	2006		(c)
Liberia	Monrovia	50,000	2007		(b)
Côte d'Ivoire	Abidjan	610,185	2009	134	(a)
Côte d'Ivoire	San Pedro	66,844	2009	339	(a)
Ghana	Tema	555,009	2008		(a)
Ghana	Takoradi	50,000	2005		(b)
Togo	Lome	460,000	2006		(b)
Benin	Cotonou	300,000	2008		(a)
Nigeria	Lagos	1,276,000	2008		(e)
Nigeria	Onne	87,000	2009	317	(a)
Nigeria	Port Harcourt	10,000	2005		(b)
Nigeria	Warri	N.A.			
Nigeria	Calabar	N.A.			
Cameroon	Douala	270,000	2008		(a)
Gabon	Owendo	57,778	2009	350	(a)
Gabon	Port Gentil	N.A.			
Congo (Republic)	Pointe Noire	321,000	2008		(a)
Congo (Democratic Republic)	Matadi	200,000	N.A.		(f)
Angola	Luanda	377,208	2006		(b)
Angola	Lobito	346,000	2005		(b)
Namibia	Walvis Bay	265,663	2009	207	(a)
South Africa	Cape Town	766,127	2009	115	(a)
South Africa	Port Elizabeth	314,723	2009	190	(a)
South Africa	Ngqura	70,208	2009	333	(a)
South Africa	East London	41,845	2009	365	(a)
South Africa	Durban	2,523,105	2009	41	(a)
South Africa	Richards Bay	10,305	2008		(a)
Mozambique	Maputo	92,284	2008		(a)
Mozambique	Beira	85,716	2008		(a)
Mozambique	Nacala	49,770	2008		(a)
Madagascar	Toamasina	132,278	2009	278	(a)
Mauritius	Port Louis	406,862	2009	161	(a)
Tanzania	Dar es Salaam	327,000	2009	185	(a)
Tanzania	Tanga	12,278	2008		(a)
Tanzania	Matwara	6,445	2008		(a)
Kenya	Mombasa	618,816	2009	132	(a)
Djibouti	Djibouti	195,000	2005		(b)
Eritrea	ASSAB	N.A.			
Sudan	Port Sudan	406,862	2009	157	(a)
Total		12,640,661			

Note: * the selection of ports is based on source (a) which covers almost all container ports.

Sources:

- (a) Informa Cargo Information 2010, *Containerisation International Yearbook 2011*, Informa UK Ltd., London.
- (b) World Bank 2009, *Africa infrastructure country diagnostic, background paper 8: beyond the bottlenecks: ports in Africa*, World Bank, Washington, DC.
- (c) Sierra Leone Investment & Export Promotion Agency 2009, *Invest in Sierra Leone*, SLIEPA, Freetown.
- (d) Swedish Maritime Administration 2010, *Shipping and the Port Sector in Sub-Sahara Africa*, Swedish Maritime Administration, Norrköping.
- (e) USAID 2010, *Lagos-Kano-Jibiya transport corridor performance analysis*, USAID, Washington, DC.
- (f) World Bank 2010, *The Republic of Congo's infrastructure: a continental perspective*, World Bank, Washington, DC.

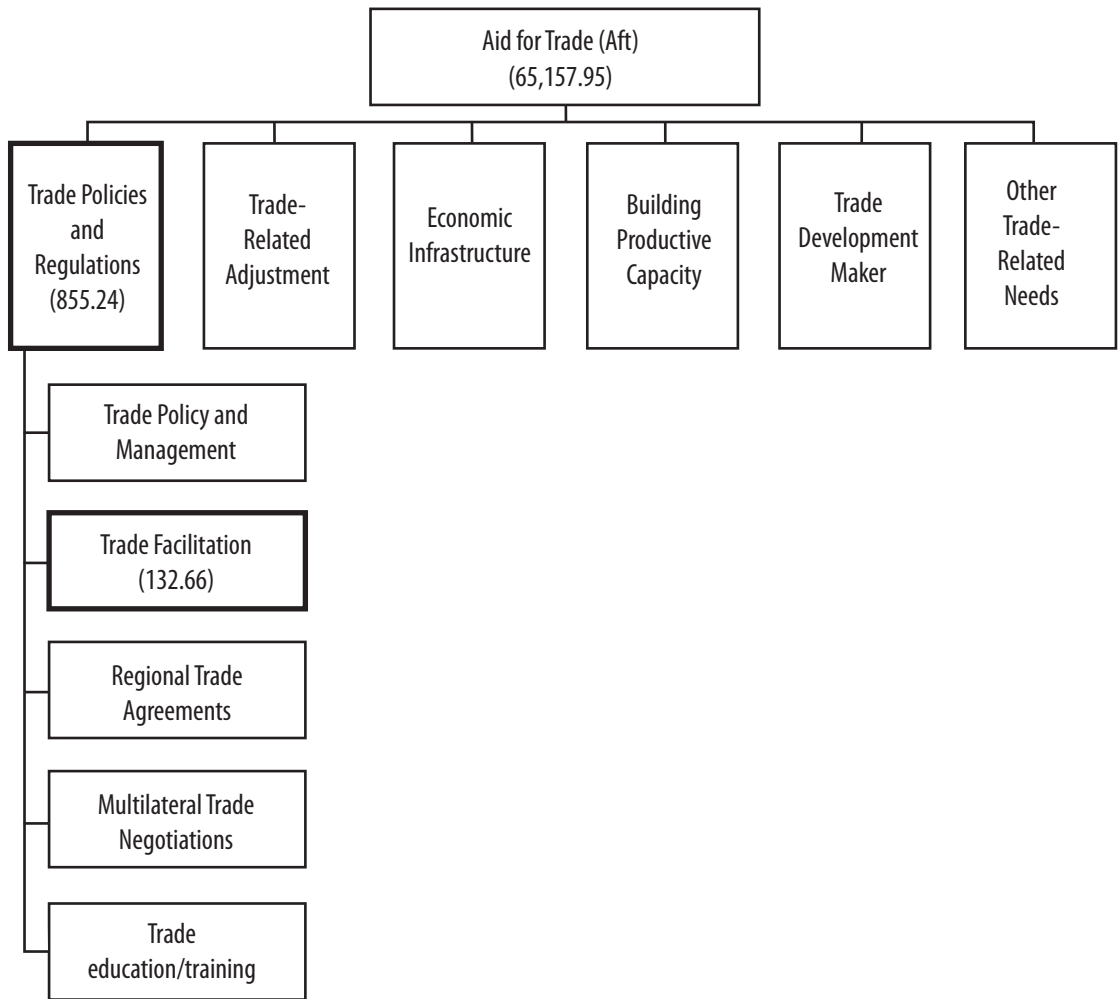
Appendix 4: The effect of ATF, ATP, and other control variables on time for customs clearance, 2007-2010

Variables	(1)	(2)	(3)	(4)
	CostExp		CostImp	
	FE	RE	FE	RE
ATF _{t-1}	5.172	6.081	2.981	4.954
	(0.479)	(0.606)	(0.243)	(0.435)
ATP _{t-1}	0.248	0.183	-0.109	-0.00455
	(0.187)	(0.144)	(-0.0723)	(-0.00315)
GDPpc _{t-1}	0.0155	0.00426	0.0176	0.00167
	(1.315)	(1.163)	(1.313)	(0.412)
Trade _{t-1}	0.183	-0.275	0.0913	-0.311
	(0.126)	(-0.370)	(0.0553)	(-0.377)
RegQuality _{t-1}	-41.60	-41.83	-49.64	-47.75
	(-0.675)	(-1.131)	(-0.709)	(-1.156)
ConCorrupt _{t-1}	-0.532	0.0946	-0.783	0.0569
	(-0.220)	(0.0676)	(-0.285)	(0.0365)
NetUser _{t-1}	-16.31	-13.61	-7.367	-4.854
	(-1.162)	(-1.022)	(-0.462)	(-0.320)
Year ₂₀₀₈	-14.83	-11.91	-8.574	-5.471
	(-0.985)	(-0.886)	(-0.501)	(-0.358)
Year ₂₀₀₉	-26.60*	-26.49*	-27.41	-27.15*
	(-1.740)	(-1.930)	(-1.577)	(-1.740)
Year ₂₀₁₀	86.61	127.6***	120.9*	156.1***
	(1.381)	(3.602)	(1.695)	(3.972)
Constant	86.61	127.6***	120.9*	156.1***
	(1.381)	(3.602)	(1.695)	(3.972)
Observations	169	169	169	169
R-squared	0.062		0.056	
Number of countries	44	44	44	44

Notes: t-statistics in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Appendix 5: The structure of Aft in the OECD CRS



Note: Trade-Related Adjustment is a category of Aft. However, it is not separately categorised in CRS and up to 2008 it was considered under Trade Policies and Regulations (OECD 2008b). In 2009 this category amounted to USD36.07 million, which accounts for only 4 per cent of the Trade Policies and Regulations category. Therefore, the study does not consider the existence of Trade-Related Adjustment category in its regression analyses. This approach is also adopted by Busse, Hoekstra and Königer (2011).

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Notes

- 1 This paper is the author's personal research and all views represented are his own. This study does not represent views of the organisation the author works for.
- 2 The Paris Declaration on Aid Effectiveness was adopted by international agreement endorsed at the second High Level Forum on Joint Progress toward Enhanced Aid Effectiveness organised by the OECD in 2005. Article 3(iii) of the Declaration states as follows:

Enhancing donors' and partner countries' respective accountability to their citizens and parliaments for their development policies, strategies and performance.

- 3 The Accra Agenda for Action adopted by international agreement at the third High Level Forum on Joint Progress toward Enhanced Aid Effectiveness organised by the OECD in 2008 Article 10 states as follows:

Achieving development results – and openly accounting for them – must be at the heart of all we do. More than ever, citizens and taxpayers of all countries expect to see the tangible results of development efforts. We will demonstrate that our actions translate into positive impacts on people's lives. We will be accountable to each other and to our respective parliaments and governing bodies for these outcomes.

- 4 Busse, Hoekstra and Königer adopt the following method to calculate '68 million TEUs' (Busse, Hoekstra & Königer 2011, p. 12):

According to UNCTAD (2009b, p. 24), the world total of containerised trade in 2008 was estimated at 137 million TEUs. 4,063.9 million tonnes of seaborne trade were unloaded in developing countries in 2008 (UNCTAD 2009b, p. 185), whereas the total seaborne trade unloaded in 2008 was 8,180.7 million tonnes. This means that developing economies received 49.7 per cent of global seaborne imports. The authors used the following calculation: 137 million TEUs multiplied by 49.7 equals 68 million TEUs. They draw attention to the fact that this calculation should only be considered a rough estimate (Busse, Hoekstra & Königer 2011, p. 12).

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Customs in international relations: the Indian context¹

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Abstract

This paper, adapted from the first BN Banerji Memorial Lecture, uses the Indian context to discuss the role of Customs in international relations, and provides a wide-ranging overview of the impact of customs duties imposed on imports and exports on cross-country relations. Examples are provided of specific instances of, for example, the application of anti-dumping taxes, and the roles of the World Customs Organization (WCO) and the World Trade Organization (WTO) in lowering customs duty rates internationally as well as in monitoring unfair competition. The paper concludes that the role of Customs in international economic relations is all-pervasive and growing, and that the growing role includes addressing the many challenges that are present in a globalised world, such as an increased need to monitor contraband, channels of money laundering, and international terrorism buttressed by modern developments in information and communication technology (ICT), highly trained staff with increasingly common international principles, and broadened cooperation with other related departments.

1. Introduction

The role of Customs in international relations, by its very concept, deals with two inter-related functions inasmuch as Customs is required to ensure compliance with international policies and maintain national border controls. This poses special issues and challenges that policymakers and officials encounter when designing customs tariffs and implementing the customs code.

In this paper, section 2 addresses conceptual issues together with the rationale and objectives of a customs regime. Section 3 deals with revenue generation through customs tariffs in emerging countries. Section 4 focuses on India by, first, recalling the role of the World Trade Organization (WTO) in the reform of the structure of customs tariffs and, second, by examining the progressively reduced customs tariffs in the industrial sector and pointing to the diminishing role of Customs as a revenue generator. Section 5 illustrates the expanding role of computerisation in customs processes. Section 6 brings up another administrative instrument, that of Large Taxpayer Units (LTUs) and the inclusion of Customs in its activities. Section 7 provides examples of how Customs should function to provide a seamless service rather than becoming an impediment to international economic relations through bureaucratic approaches. The examples selected are from a wide variety of cases, including the impact of customs duty structure, customs administration and exports, interpretation of licence requirements, the effects of international treaties, anti-dumping duty on imports, and containing money laundering. Section 8 touches specifically on the role of international organisations such as the World Customs Organization (WCO), the WTO and the European Customs Union (ECU) to emphasise the crucial role that Customs has played and continues to play in international economic relations. Section 9 draws conclusions from the views expressed.

It is true that, as globalisation spreads and tariff barriers to trade diminish, so too will revenue diminish from customs tariffs. While this role is not expected to disappear from emerging economy concerns, increasingly the typical customs department is taking on an expanded international role to combat challenges that include an increased need to monitor contraband, channels of money laundering, and international terrorism buttressed by modern developments in information and communication technology (ICT), highly trained staff with increasingly common international principles, and broadened cooperation with other related departments.

2. Concept, rationale and objectives of Customs

Let me begin with the concept of customs duty. The rationale for imposing customs duty is couched in the need to protect domestic industry – typically infant industries – so that it is sheltered from aggressive foreign competition that may occur even before domestic units have had adequate time to catch up with that competition. Once the economy develops, the argument for continuation of high customs tariffs cannot be easily maintained. Indeed, over the years, they have been inexorably scaled back in India, for example. The WTO has played a significant role in making economies more competitive through scaling back customs tariffs. Subramanian and Wei provide evidence that ‘the WTO has had a strong positive impact on trade, amounting to about 120 per cent of additional world trade or USD8 trillion in 2000 alone’ (Subramanian & Wei 2007, p. 151) compared to the counterfactual of a world without the WTO. Bolhöfer (2008) has looked at the role of WTO law in trade facilitation and how the latter is negotiated.

The operations of a customs department straddle a wide variety of objectives. First, it collects customs duty. Second, it collects some domestic taxes such as the value added tax (VAT) or the goods and services tax (GST) on imports. These are taxes on domestic consumption. The consumption items can be from domestic or international sources and the tax should be the same irrespective of its source. Thus VAT or GST is collected at the customs point on incoming goods. In India this is termed countervailing duty (CVD) in the sense that it countervails – or equalises – domestic with foreign sourced consumption items of the population. Note the conceptual difference between customs tariffs and countervailing duty. The implication is that while the tariff structure is scaled back to reflect international agreements and arrangements, the countervailing duty reflects the domestic consumption tax rate.

In India, so far, state-level VAT is not collected on imports at the customs point, though conceptually, it should be. Otherwise, domestic producers and sellers are being put at a disadvantage. This lacuna reflects simply the absence of a mechanism for state-level taxes to be collected by the Centre. Once an overarching GST – covering both the Centre and the states – is introduced as planned, then both CGST (central) and SGST (state) on imported items should certainly be collected by Customs which is a central level department.

Another point worth mentioning is that the customs duty on a product, in itself, does not reflect the extent of protection. If there is a customs duty on inputs and raw materials, then the ‘effective’ protection rate is the customs duty on the final good minus the customs duty on all imports. This is because the domestic producer of the final good has to pay customs duty on the inputs and raw materials and, to that extent, the protection of the final good actually diminishes. Corden (1966) introduces this concept, explaining why the nominal rates of tariff by themselves cannot indicate the level of protection.

A second operational objective of Customs is to minimise smuggling of demerit goods such as cigarettes and alcoholic beverages across borders since these items are usually highly taxed and their tax rates may also vary significantly across borders. Sometimes the same bill of lading may be used by vehicles to transport several loads of the items across borders and customs checks play an important role in keeping such practices to a minimum. Shome (2012a) deals in some detail with modern tax administrations such as the United Kingdom (UK) that have sharpened their instruments of detection of risk through

intelligence that continually identifies and contains smuggling and fraud. A well-known instance is what has been called 'carousel fraud' where sellers collect and do not pass to the Exchequer the tax collected from buyers and the illicit gain is shared between the sellers through collusion. It was originally detected by Customs in the export-import circle; hence the term.

Over the last two decades, anti-money laundering and drugs trafficking responsibilities have also been assigned to customs organisations over and above border patrols belonging to security departments. In particular, curbing money laundering is a deeply challenging added task for Customs. Buchanan, for example, describes money laundering as 'a global phenomenon and international challenge, money laundering is a financial crime that often involves a complex series of transactions and numerous financial institutions across foreign jurisdictions' (Buchanan 2004, p. 115). It is the cross-border aspect where the role of customs departments emerges. To meet these objectives, cooperation among customs departments across the globe has intensified over the years. Vaithilingam and Nair (2009) explored the key factors that accompany high or low incidence of money laundering such as internet penetration rates, brain drain, efficiency of legal system, and effective tax and financial systems in 88 countries. They found that pacesetters have high internet penetration, low brain drain, sound legal, tax and financial systems, and low incidence money laundering. Money laundering is a complex charge that has fallen on the laps of customs departments, albeit shared with other related departments and organisations worldwide.

A third operational objective is the collection of statistics. For future policymaking, it is important for any economy to keep account of the flow of goods and services to and from the economy in its international trade relations. Increasingly, trade classification has been finessed over the years into more and more digits. Svendsen (2004) explains in some detail how this is carried out by the WCO (and initially, by its forerunner, the Customs Cooperation Council) whose objective is the attainment of the highest possible degree of harmony and uniformity. Weerth describes the 2007 Harmonized System for the Description and Coding of Goods (HS) which is based on rules that have been developed for classification, headings and subheadings. Thus 'the HS 2007 contains 380 notes and 56 subheading notes which are valid worldwide, and the EC [European Community] has added 98 additional notes within the CN [combined nomenclature] and the CCT [Common Customs Tariff] ... The 534 notes that accompany the 1,221 HS-headings, 5,052 HS-subheadings and 9,720 CN-subheadings are proof of the complexity of the rules of the CCT which contains more than 16,500 legal rules for the classification of goods' (Weerth 2008, p. 111). This micro information has to be meticulously noted and entered, a task that is often assigned to the customs department.

The more complex a customs tariff structure is – as is the case in India – or the higher the tariff rates – as was the case in India though, progressively, the rates have been scaled back – the greater is the challenge on customs officers to impose and collect the right tariff on the imported good. Mishra, Subramanian and Topalova, using the variation in tariff rates across time and products, identify 'a robust positive elasticity of evasion with respect to tariffs' (Mishra, Subramanian & Topalove 2008, p. 1907). In other words, evasion increases proportionately faster than the rise in tariff rates. It is here that moral hazard can pose a problem if a section of the customs officers becomes unscrupulous. Leadership in the customs department is crucial in keeping this problem at bay. To combat this problem, many countries have simplified their tariff structure, the most extreme simplification being the case of Chile which has only a single tariff. Thus, if more revenue is needed, that rate is increased and, when revenue needs are less, the rate is scaled back. To avoid tracking the import and export of goods and towards the objective of making the customs department exclusively an operational department, in some countries this function has been passed to the official statistics department.

The next section deals with selected issues of a policy, operational and administrative nature that are of relevance to the role of Customs in international economic relations.

3. Revenue generation through customs duty in emerging developing economies

Emerging developing economies, in their nascent period, depend quite heavily on customs duty not only to protect infant industry but also for a robust source of revenue. In an early paper, Shome (1988) points out the likely structure of a tax system in developing countries, reflecting the low elasticity of certain taxes given their truncated bases. Mahdavi (2008) reiterates that the foreign trade sector of the economy has been traditionally a base that is easier to tax. This reflects the fact that ‘administrative costs of monitoring, assessing, and collecting taxes on goods that go through a limited number of ports of entry are relatively low. Accordingly, many governments in developing countries heavily rely upon trade taxes (especially customs duties on imports) to generate revenues’ (Mahdavi 2008, p. 610).

Baunsgaard and Keen penetrate related aspects more deeply. They show that, ‘In the early stages of liberalisation, the revenue consequences of reform may be relatively minor. Indeed the first steps – often involving reducing prohibitively high tariffs, ...eliminating exemptions, and raising low tariff rates in moving towards a more uniform tariff structure – may plausibly lead to an increase in trade tax revenues ... There must come a point, however, at which further movement towards free trade reduces trade tax revenues’ (Baunsgaard & Keen 2010, p. 563). Thus, in the final analysis, revenue growth has reflected the duty structure. Invariably, as duty rates decline, revenue growth tends to be arrested. Of course, as a slight caveat, it might be noted that the lower customs tariff structure’s negative effect on customs revenue gets countered somewhat as international trade expands as a result of lower duty rates.

It is worthwhile reviewing some of the constraints for revenue generation through customs duties in developing economies that were pointed out by Shome (1988). First, revenue growth from customs tariffs reflects a country’s industrial strategy. For example, as the economy increases its share of manufacturing in gross domestic product (GDP), capital goods, intermediate goods and raw materials may need to be taxed at lower rates than final goods. This is because such goods are directly needed in the process of production. And there is no provision – because there is no rationale – for customs duty on intermediate goods to be setoff or receive input tax credit. Thus customs tariffs on such goods are lower. Further, as the share of manufacturing in GDP increases, the share of imports of intermediate goods vis a vis the imports of finished products tends to increase. This would especially be the case if the growing manufacturing sector is significantly dependent on imported capital and intermediate goods. Thus if the share of lower-rated to higher-rated imports goes up, that would reduce the growth rate of revenues from customs duties.

Second, if the manufacturing – private or public – sector expands while enjoying exemptions from import duties, as is likely to be the case under tax incentive provisions, the share of exempt imports in total imports also grows. The role of tax incentives in efficiency costs as well as revenue expenditure – a term used for the loss or sacrifice of revenue caused by tax incentives – has been described in some detail by Shome (2012b). As industrialisation progresses, the automatic growth in customs duty revenue tends to decline. Also, as countries promote export orientated growth, more of the commodity taxes – both domestic and on imports – have to be refunded to export orientated firms because all attempts are made to enable exports to enter international markets competitively, or without any embedded taxes in their value or price.

Third, though it has been pointed out by Zee, Stotsky and Ley that ‘duty drawback schemes – tariffs are first payable upon importation of all inputs, but are then refunded on that portion of imported inputs embedded in goods that are actually exported; refunds are typically provided on the basis of some input-output relationships of the exported goods in question’ (Zee, Stotsky & Ley 2002, p. 1506), field level experience reveals that, in fact, revenue erosion may deepen as duty drawback systems tend to be based not on actual duty paid but on somewhat magnified sector-wide formulae for duty drawbacks that are typically used for administrative convenience.

Fourth, discretionary measures also tend to affect the import tax base. Sometimes, customs duty structures shift from ad valorem towards specific rates, in pursuit of greater administrative simplicity. Specific rates of customs duty tend to apply in a very limited number of goods, with only a few countries having taken this route. Also, as industries mature, the rates of nominal protection are frequently reduced over time as was mentioned above.

Fifth, it is not uncommon to use artificial exchange rates for import duty valuation purposes which further reduce potential revenue. There are, therefore, several factors that stand in the way of a naturally growing revenue base from imports.

It is seen in any cross-country comparison that, with economic development, the role of customs duty in revenue generation declines while other roles that have been mentioned earlier move forward even as domestic consumption taxes and income taxes become the revenue drivers. Using a panel of 80 developing and industrial countries over the period 1970 to 1998, Khattry and Rao confirm 'the inverse relationship between the level of development and dependence on trade taxes as a source of revenue [while] as countries become more developed their tax revenue/GDP ratio rises' (Khattry & Rao 2002, p. 1436).

4. Changes in customs duty structure: the Indian experience

In light of the above discussion, in this section, we review the experience of tariff structure changes in India.

4.1 The context of the WTO

The WTO has made concerted efforts to facilitate trade through reduction/elimination of tariffs as well as by removal of non-tariff barriers. Baldwin (2009) has reviewed the negotiation process in the post Second World War era, pointing to how future negotiations can be made more successful. Reflecting the low level of reforms in agricultural tariffs, the focus below is on trade in non-agricultural products. In the first GATT rounds, tariffs were cut on a selective product-by-product basis through requests and offers made between participants. However, subsequently, countries decided to use formulae to cut tariffs across the board. For example, during the Kennedy Round (linear cut formula) and in the Tokyo Round (Swiss formula³), developed countries applied formulae, but with several exceptions. In the Uruguay Round, developing and developed participants negotiated their tariff cuts using a variety of methods to reach a reduction average target comparable to that of the Tokyo Round (one-third cut). In the Doha declarations, the ministers agreed to launch tariff cutting negotiations on all non-agricultural products. The aim was 'to reduce or, as appropriate, eliminate tariffs, including the reduction or elimination of tariff peaks, high tariffs, and tariff escalation, as well as non-tariff barriers, in particular on products of export interest to developing countries'.

The chastened reality is that these negotiations are still going on in the absence of consensus. The negotiations on reductions in tariff on non-agricultural products are referred to as non-agricultural market access (NAMA) negotiations. NAMA refers to all products not covered by the Agreement on Agriculture. In practice, it includes manufacturing products, fuels and mining products, fish and fish products, and forestry products. Over the years, NAMA products have accounted for almost 90% of the world's merchandise exports.

The Uruguay Round produced significant improvements in market access for NAMA products in developed country markets, as tariff averages were reduced from 6.3% to 3.8%. In the case of developing countries, the most important contribution was made in the form of new tariff bindings. Binding coverage

for NAMA products in developing countries increased from 21% to 73%, which has considerably increased the predictability of trade.⁴

4.2 Tariff reforms in industrial goods

In the mid-1980s, the tariff rates in India were very high and the structure complex. The Indian government's 1985-86 Long-Term Fiscal Policy (LTFP) emphasised the need to reduce tariffs, apply fewer and more uniform rates, and reduce and eventually eliminate quantitative restrictions on imports. This was applied selectively by rationalising the rates for specific industries such as capital goods, drug intermediates, and electronic goods. However, contrary to the LTFP recommendations, tariffs continued to be raised for revenue reasons, the weighted average rate increasing from 38% in 1980-81 to 87% in 1989-90. By 1990-91, the tariff structure ranged from 0% to 400%. More than 10% of imports were subject to tariffs of 120% or more. Reflecting the influence of various special interest groups regarding tax policy, wide-ranging exemptions were granted outside the budgetary process, further complicating the system and rendering it ad hoc.

The reform of import duties in earnest began in 1991-92 when all duties on non-agricultural goods above 150% were reduced to this level. This 'peak' rate was lowered over the next four years to 50%, and then to 40% in 1997-98, 30% in 2002-03, 25% in 2003-04, 20% in 2004-05 (January 2004), 15% in 2005-06, 12.5% in 2006-07 and finally, to 10% in 2007-08. It is important to note that these reductions were not mandated by any WTO requirements as India's applied rates are considerably below the bound rates – and the duty reductions were made even for unbound items.

Table 1 gives a broad view as to where we stand in terms of tariffs. India's Trade Weighted Average (TWA) for agriculture is highest at 44.2%. However, since agriculture's weight is low, India's TWA for agriculture plus industry is 6.9%, lower than Argentina's 12.2%, Brazil's 10%, and Pakistan's 9.8%, but higher than Indonesia's 2.4%, Malaysia's 5.1%, and the Philippines' 5.1%. Also, India's binding coverage continues to be lower than the sample countries other than the Philippines.

Table 1: Cross-country tariff rates (not including countervailing duty [CVD])⁵

Country	Average (Agr)	Average (Indy)	Average (All)	TWA (Agr)	TWA (Indy)	TWA (All)	Binding coverage
India	31.8	10.1	13	44.2	5.1	6.9	73.8
Argentina	10.3	12.9	12.6	9.8	12.3	12.2	100
Australia	1.3	3.0	2.8	2.7	4.0	3.9	97.1
Brazil	10.3	14.2	13.7	11	9.9	10	100
Canada	11.3	2.6	3.7	11.2	2.7	3.4	99.7
Indonesia	8.4	6.6	6.8	3.4	2.2	2.4	95.8
Malaysia	10.9	7.6	8.0	14.4	4.3	5.1	84.3
Pakistan	17	13.4	13.9	9.1	9.9	9.8	98.7
Philippines	9.8	5.7	6.3	15.7	3.7	5.1	67
Singapore	0.2	0		1.2	0		100
United States	4.9	3.3	3.5	4.3	2.0	2.1	

Notes:

- Average tariff is the simple average of all applied tariff rates at 6-digit level.
- 'Agr' – Agricultural products
- 'Indy' – Non-agricultural products
- 'TWA' – Trade weighted average or simply the collection rate which is obtained by dividing the total revenue by the total value of imports. Revenue from basic customs duties alone has been taken into account.

Source: WTO World Tariff Profile 2011. (All figures are in %)

Collection rate is the ratio of revenue collected (all duties collected at Customs including basic duty and CVD) to value of all imports (including exempted imports). Figures available in the Economic Survey include all revenue collected at Customs (including CVD) which explains the difference in the effective tariff rates in Tables 1 and 2. The collection rate at Customs has declined from 47% in 1990-91 to 31% in 1996-97, 27% in 1997-98 and 23% in 1998-99. The rapid and continuing decline in later years is depicted in Table 2, which shows the ratio declining to 10% in 2005-06, and 8% in 2010-11. Before we end the observations over collection rate, it must be acknowledged that the decline is not just due to lower tariff rates but also to a plethora of exemptions that continue to prevail and are even newly introduced.

Table 2: India: change in collection rate at Customs (including countervailing duty [CVD])

S no.	Commodity group	1990-91	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11
1.	Food products	47	32	23	19	4	3	3
2.	POL	34	6	5	6	3	2	6
3.	Chemicals	92	20	22	22	16	14	17
4.	Man-made fibre	83	34	28	30	17	22	30
5.	Paper and newsprint	24	9	10	10	8	8	8
6.	Natural fibres	20	13	12	13	6	4	5
7.	Metals	95	25	24	24	17	17	22
8.	Capital goods	60	13	14	16	13	11	13
9.	Others	20	5	6	6	4	4	4
10.	Non POL	51	12	12	13	9	8	9
11.	Total	47	10	10	10	7	6	8

Source: Economic Survey 2011-12.

5. Benefits of computerisation in customs processes as international practice

The use of information technology (IT) is imperative for customs processes. Lewis defines ICT and identifies the importance of its use in customs environments. He provides reasons why ICT solutions should be adopted, concluding that 'Prudent management of ICT is a means to reap benefits that impact positively on the effectiveness of all customs operations, and hence the improvement of national finances' (Lewis 2009, p. 3). Focusing on customs and excise in India, two systems integrators were designed to achieve connectivity of all offices across the country, thereby sharpening tax administration and improving taxpayer services. In 2006, Shome elaborated on the actual processes that were planned. Now the Indian Customs electronic data interchange (EDI) system (the e-commerce gateway [ICE]) enables easier online filing and assessment of import and export documents. It also enables remote control between the customs department and the customs agent, so that the customs agent does not have to be physically present in the customs department. Facilitation should also have occurred between the customs department and the Reserve Bank of India, other banks and custodians like the Port Trust, and so on. This has functional status in 35 locations and covers about 85% of India's international trade.

ICE has been functioning since 2004 and has enabled e-filing of import or export goods declarations, filing of manifests by airlines and shipping agents, and exchange of data between Customs and agencies such as the Director General of Foreign Trade (DGFT). So, again, all declarations and filing are going through an electronic channel.

An extremely important advancement in management and practice, is that clearance of customs drawbacks and refunds has been sped up through a risk management system so that the total time for clearance is diminished to a fraction of what it was a few years ago, with risk management techniques helping to identify suspect cargo. Today, in a world that requires enhanced security, there may be a need

to revisit this kind of system reflecting exogenous factors, though it is hoped that the customs authorities will be able to carry out and adhere to the risk management system and reduce processing time even more in the future.

Enhanced computerisation is leading to the production of more meaningful statistics and data management so that on the customs and excise side, the type of data that have been generated can be much better utilised for policymaking and for administrative improvements. For example, excise and service tax, apart from Customs, depend on a system for excise and revenue monitoring. This enables a buildup of profiles of assessees and an information database of returns of units that are paying Rupees 1 crore or more in tax. During the period being referred to, about 5,000 units tended to file electronically; hence it provides a good data set to carry out analysis. At the present time, that number should certainly have gone up considerably.

Electronic registration of assessees has also been enhanced. A digital certifying authority enables electronic transactions using digital signatures. ISAT functioned through five registration authorities in Bangalore, Chennai, Delhi, Kolkata and Mumbai within the customs house premises.

Looking ahead, the future of the customs, central excise and service tax departments in India lies in further deepening computerisation following international norms. The best way to convince those officers who still have doubt is not to force it on them but to have intensive workshops to train them and to visualise for them the benefits of IT. There must also be a concerted effort in reducing moral hazard through minimising the interface between officers and customs agents. The benefits of a robust and healthy customs service through rapidly increasing the use of IT has to be convincingly conveyed to officers in growing numbers. This remains the greatest challenge for department heads.

The national data centre is almost completed. It comprises an electronic hardware storage database and facilities management, and is linked through a wide area network (WAN) and local area networks (LAN) in offices across the country.

It may be pertinent to revisit one international example of the benefits that was mentioned earlier. It comes from the role of Customs as a monitoring instrument in international trade and flows. In the international arena, Customs plays an important monitoring role in checking the borders for contraband, smuggling and such other non-tax criminal activities. But they may also be tax-related. The previously mentioned 'carousel fraud' problem in the UK was detected through electronic monitoring. It pertained to the VAT that is applicable in the European Union (EU) at different country-specific rates. In essence, it is the practice of errant taxpayers who collect VAT from those to whom they sell but, instead of passing the net (tax debit – tax credit) amount to the authorities, they just pocket it.

In fact, it was discovered that the practice was carried out in connivance between the two parties, or in full knowledge of the buyer who was supposed to have paid VAT to the seller. It was essentially discovered at the customs point as a practice of collusion between an importer (buyer) and exporter (seller) – hence the name 'carousel' that was observed by continuing examination of their declared accounts. But essentially it can occur between a domestic buyer and domestic seller as the two colluding parties. The revenue that is not passed on to government can then be shared by the two tax evaders. This is the kind of role that customs officers increasingly take on in developed countries even as their role in collecting revenue from customs tariffs may have diminished as customs tariffs themselves are very low today.

6. Large Taxpayer Units (LTUs)

The quality of tax administration can improve significantly if information on taxes that businesses pay could be considered under one umbrella. Baer (2002) and McCarten (2004) describe the advantages of and challenges posed by Large Taxpayer Units (LTUs) in developing countries. To quote McCarten, 'The classic LTU monitors large taxpayers exclusively through auditing, registration, tax accounting,

collections, and taxpayer service provision covering more than one type of tax' (McCarten 2004, p. 2). Baer (2002) looked at 40 countries and concludes that, to assess their effectiveness, 'tax administrations must identify and compile performance indicators, which are the basis of effective management reporting'. She emphasises that 'The LTU needs continuous reform and modernisation like the rest of the tax administration ...' (Baer 2002, p. 2). Shome (2012a) elaborates how a developed country tax administration such as that of the UK has structured its entire tax administration by categorising Large Business Services (LBS) into different economic sectors, which are supported by functional departments. This structural setup is described in more detail below. There remains little doubt that LTUs are playing a significant role in modern methods in tax administration across the globe.

Macedo takes the argument forward by proposing 'the creation and development of Large Traders' Customs Units (LTCU). The proposal considers the successful experience of tax administrations in implementing ... LTUs' (Macedo 2011, p. 63). It must be pointed out, however, that the concept of LTU embraces the concept of facilitating the management of and payment for all taxes under the same unit with the objective of taxpayer facilitation as well as to obtain the synergy of cross-information on all taxes being paid by a taxpayer that becomes available to the tax administration, thereby improving administrative efficiency through enhanced verification as well as taxpayer compliance. Businesses pay corporate income tax, excise, VAT/GST and customs duty. Tax authorities should be able to sit across a large business with full information. That crucial element in an LTU has to remain its central objective. In India, in a pilot experiment in one state, it has been found that some businesses declare different turnover for different taxes. If that is the case, then even at a most rudimentary level, it may be concluded that these taxes should be considered under the same roof, so to speak. From a taxpayer's point of view, it is needless to assert their compliance costs should also decline if they are able to clear all taxes at one point. The challenge for LTUs in developing countries is to provide this service in an effective way, going beyond just locating all tax units in one location as is prone to occur if strict vigilance is not maintained on the manner of their functioning.

It is with this motivation that 50 countries globally and 20 in Asia have opted for LTUs that require large taxpayers to file all taxes at the same window. In India, the concept was initiated in four metropolitan cities, Bengaluru, Chennai, Delhi and Mumbai. Income tax administration on one side and indirect taxes on the other were linked in one unit. One lacuna in the Indian design was to make LTUs optional for large businesses to sign on to, the concern being that large taxpayers should not feel that they were being coerced into joining this mechanism of tax payment at least in the initial stage; it was also to be observed whether the administration could stand up to the special challenges that LTU operations were expected to pose.

A specified number of large taxpayers opting to participate in the LTU was the criterion for establishing an LTU in a city. Though there was some apprehension initially that both departments had different concerns and objectives, and that functioning under the same roof would not help to any significant extent, nevertheless the process of induction began successfully at Bengaluru on 3 October 2006. Chennai soon followed with a well-functioning LTU, and Delhi and Mumbai did not remain behind. LTUs were expected to bring the two departments together in terms of operations, exchange of information through computerisation, and provision of similar taxpayer facilities. In each city for all large taxpayers as defined, the LTU would enable them to take advantage of a single window facility to pay all taxes in a customer friendly environment. However, among the LTUs' objectives, while large taxpayer facilitation has been successful, the synergy that was anticipated in terms of exchange of information between the two departments has not yet fully taken hold.

As mentioned earlier, in the UK, the tax administration is organised as LBS, divided by sector. They are oil and gas, banking, insurance, telephone and telegraph, autonomous agencies (for example, municipal corporations and universities), and others. Each department is located in a city and houses specialists in both corporate income tax and VAT in the same department. There is also a trade specialist who is

recruited usually from the private sector for a finite period but who can also be laterally absorbed into the department later. They are topped by a customer relations manager (CRM) who has the overview of the sector with an overall taxation perspective. Together they have regular consultation meetings with a large business in their sector in a continuous dialogue regarding economic trends, sectoral developments and revenue potential. There is no one-to-one interface in this model.

If we can imagine the sectoral departments as one horizontal line, then supporting the line is the stem that comprises functional departments including legal, debt, banking, risk and intelligence, knowledge and analysis, and so on. Sectoral departments have to ‘buy’ staff time from the functional departments for the various functions performed. This is how resources get allocated across departments. This T-shaped organisation of Her Majesty’s Revenue and Customs (HMRC) was the result of a committee that produced a report entitled, *A Review of the Revenue Department* (2004) that resulted in the amalgamation of the two departments in 2006 with the type of synergies that were mentioned earlier. Interestingly, therefore, the UK moved away decidedly from the organisation they helped establish in different parts of the globe to one that has a sector and function orientation and has turned out to be more open, transparent and consultation-based.⁶

7. Customs’ balancing role in international economic relations: selected Indian cases

Almost all the functions of Customs have international ramifications since, by their very nature, customs departments deal with imports and exports. In turn, these could have political ramifications. Smoother relations in customs formalities and reasonable restrictions in the clearance of goods and persons foster good political relations. Unduly tight control or delay in clearance of goods at the point of import or export leads to strains in international relations, both economic and political, apart from the usually discussed rise in business costs. All international commercial transactions are enforced at the border by Customs. The commerce department designs the policies on licensing, quantitative restrictions, and subsidy to import or export, but such policies are put into effect by Customs at the point of import and export. Thus trade facilitation by a customs administration is a significant consideration in promoting good economic and political relations between two countries, and its absence may prove to be a significant impediment in those relations.

7.1 Customs duty structure

A high or low customs duty structure not only has an impact on revenue as argued earlier, it is also an issue in fostering comfortable or tense international economic relations. By raising the customs duty structure very high, import from any country can be effectively blocked. Sometimes it is directed against cheap imports of selected goods from some country against which the indigenous industry cannot compete, which may go well beyond the infant industry argument. Duty on cars in India, for example, has been high to protect the car industry (Kathuria 1987). In particular, secondhand cars are protected with high duty in addition to receiving protection through licence requirements. Another example is the high duty on agricultural goods in India that makes agricultural imports unprofitable. And the limit imposed by the WTO in this respect is high enough that it has enabled India to keep its duty rates within that limit. At one stage, high customs duty on shoes imported by the United States (US) made export by other countries to the US impracticable. Thus, countries sometimes create tariff barriers to protect domestic industry.

7.2 Customs administration and exports

If duties on exports and their inputs are high, the post-tax cost of goods is high and exports become uncompetitive. Duty drawback assumes great importance in such cases. These are usually designed by the commerce department in consonance with the customs department and implemented by the latter.

Achieving appropriate design and implementation is a major task in ensuring export competitiveness by removing embedded taxes from exports. Reflecting the complexity of duty drawback, some developing country environments have not been fully cognisant of the need to provide duty drawback or offset for VAT against exports.

A recent visit to Myanmar by this author at the invitation of its government, heading the first international tax reform mission there⁷ as the country opens up to international norms and practices reveals that exports do not receive input tax credit or setoff. Though customs duty on import components of exports is theoretically given drawback, unless the manufacturing unit is fully export orientated, it is difficult for the business to receive drawback for the portion that is exported, reflecting the lack of a formula based on which partial drawback could be given. This is giving rise to tensions among the domestic business community and their international competitors who are being invited to operate in new Special Economic Zones (SEZs) with the full facility of customs duty drawback and input tax credit/offset of commercial taxes paid.⁸ Thus administrative practices at Customs can have an adverse impact on international economic relations.

7.3 Proper interpretation of licence requirements by Customs

The role of promoting good international relations can be understood more from what adverse impact customs activities could have on international relations. An account is given by an ex-customs officer of how the relations between India and Bangladesh came under severe stress some years back due to the action of Customs at the border. It was a religious occasion in Bangladesh when the consumption of onion goes up significantly. Last minute supply of many truckloads of onions from India was held up by Customs at the India-Bangladesh border due to non-compliance with some customs formalities by onion exporters at the Indian end. It created almost a crisis situation across the border and led to frantic telephone calls by the diplomatic staff from the Embassy of Bangladesh. Last minute intervention by the most senior customs officer in Kolkata prevented the crisis and saved the day from precipitating an economic and political situation between the two neighbours.

Unduly harsh customs interpretation of licence requirements or regulations also upset jute trade with Bangladesh. There was an instance when, for an apparently insignificant violation of a licence given for the purpose of importing raw jute, whole shiploads of raw jute consignments were held up by Customs. It was only after timely intervention by the higher authorities that such consignments were released. Thus overtly strict positions by Customs on smaller matters should be considered from a realistic perspective otherwise international economic relations would certainly suffer. Customs has to rise to this responsibility over and above attending to its routine tasks and calls.

7.4 Customs and international treaties

The interplay between Customs and an international treaty can be seen both as a theoretical premise and in practice. In theory, it is important because at the stage of negotiation of the treaty, the role of Customs is to help arrive at desirable rates of duty in relation to existing rates in terms of the impact of the proposed rates on the economy. At the execution stage, the role of Customs is perhaps even greater because it has to ensure that the intention of the treaty is achieved in implementation. In the case of treaties with Nepal, for example, it is incumbent on Customs to ensure that the goods intended for Nepal do not flow back to India. Nepal, being a land-locked country, has the right to import via India and there are treaties to enforce this right. However, often it is noticed that Nepal's imports are of a kind that are not needed in Nepal. For example, enormous amounts of zip fasteners and machinery are imported which cannot be absorbed there in practical terms. It is the duty of Customs to maintain a balance between needed measures to check the apparent attempts to import goods into Nepal for clandestinely exporting them back to India and the need to maintain friendly relations with an important neighbour in both geo-political and socio-political terms. No excessive measure can be taken that might tilt the balance in an

unwarranted direction. Thus the nuanced role expected of Customs in enforcing international treaties in a fine quantitative and qualitative balance cannot be exaggerated.

7.5 Anti-dumping duty on imports

Anti-dumping duty is imposed by countries to protect their industries from unjustified competition that does not reflect market forces. It is leviable under Section 9A of India's *Customs Tariff Act, 1975* read with the Rules which are framed under Section 9A(6). It is imposed and collected by Customs. The customs department has to make the initial enquiry about valuation of the imported goods. It has to be satisfied that the under-valuation, if so found, is a pure case of declaring less value in comparison with the same or similar products, or that it is a case of dumping. Dumping needs to be proved by demonstrating that the price declared is less than the cost of manufacturing in the country of origin. The role of Customs is in assisting the commerce ministry, through investigation and detection, come to a conclusion as to whether any dumping has taken place and, if it has, how much of it is really to be compensated through anti-dumping duty. This has to be determined by investigations carried out by Customs and the commerce ministry. At the implementation stage, it is the role of Customs which is paramount not only in charging the duty but also in enforcing other related laws.

Thus, if the customs department uses the anti-dumping instrument within appropriate limits, the international economic and political relations are not disturbed. If there are too many anti-dumping cases where they should not be imposed, or if there are cases of under-valuation of imports where, instead, allegations of dumping are made, then clearly international economic relations between the concerned countries suffer. It erodes the benefits of globalised trade. Such examples are not rare with countries pointing towards unfair use of anti-dumping duty by trading partners, for example, by both India and the US, and certainly they are not the only ones.

Taking one example, Indian steel has always found it difficult to export to the US due to anti-dumping duty on some varieties of steel. Even Europe felt the barrier and seemed determined to take counter measures against the US anti-dumping duty on steel. The WTO viewed the Byrd Amendment, the US law that allowed cash receipts from foreign exporters (to the US) to be distributed to affected domestic industry as protectionist and declared it illegal.

Subsequently, the law was repealed by the US Congress but the repeal took effect from October 2007. In the meantime, the law was used by the US to collect cash from foreign exporters, for example, of shrimps. This action by the US on the anti-dumping front had been to prevent the import of shrimps from China, Thailand, India, Brazil, Ecuador and Vietnam. The attempt to protect the domestic producer of shrimps from foreign competition did not even succeed after imposing 5% to 10% anti-dumping duty because exports from these countries nevertheless remained profitable for them. Not satisfied with this, the Southern Shrimp Alliance representing US shrimpers and processors, wanted an upward review of the duty. Though looking into the books of accounts of hundreds of small exporters was not feasible, they were asked to comply. And, if they did not reply or cooperate, they would have to pay nearly 50% anti-dumping duty. To avoid such a reprisal, the foreign exporters agreed to pay up to 2% of the value of the goods which could be legally collected as settlement money and distributed to the Southern Shipping Alliance.

Another recent example is the case of the high anti-dumping duty levied by the current US administration against the import of Chinese tyres which were feared to be dumped in the country. That led to an angry reaction from China and it had to be settled by diplomatic efforts at the highest level. It must be said that the EU also uses barriers that may not always be so apparent but through non-tariff avenues such as environmental or labour conditions that tend to have similar adverse ramifications for exports from emerging developing economies.

Use of the instrument of anti-dumping duty has become as widespread as globalisation itself. The attempt by the WTO to thwart protectionist tendencies could succeed only if greater power were to be given to it in order to make its findings immediately effective and not after two years or so, as in the case of the Byrd Amendment. The US's use of anti-dumping duty or occasional reaping of returns from protectionism cannot be said to enhance the tenets of globalisation.

While anti-dumping duty is counter-positioned to globalisation, its absence may again allow the domestic industry to suffer. So, it is a matter of balance that has to be struck by Customs and commerce departments when using the anti-dumping duty instrument.

7.6 Containing money laundering and terrorism

There is a clear role of Customs at the borders with neighbouring countries. For India, the borders with Pakistan, Bangladesh, Nepal and Myanmar are important not only in respect of the military but also in respect of cross-border smuggling. The work of collecting customs duty and checking for contraband are important international aspects that customs officers have to perform.

These days, customs offences have superseded those related to mere customs duty evasion, having transcended to money laundering, narcotics, terrorism, and narco-terrorism. Hence, Customs have to be in close touch with Interpol which is the international nodal agency for coordination and execution of anti-terrorism activities. Simply put, a rationally structured and effective customs organisation is needed to contain the occurrence of international terrorism.

8. International customs organisations

The establishment and functioning of multilateral customs organisations have had a restraining and smoothening effect on the stresses and strains that can and do erupt in international trade relations. An examination of the role is, therefore, pertinent.

8.1 World Customs Organization (WCO)

The WCO is an independent intergovernmental body whose mission is to enhance the effectiveness and efficiency of member customs administrations. The WCO was originally established as the Customs Cooperation Council (CCC) in 1952. The CCC adopted the name 'World Customs Organization' in 1994 in order to reflect its transition to a truly global intergovernmental institution. It has two wings, valuation and classification. It is headquartered in Brussels. With its worldwide membership, the WCO is recognised as the voice of the global customs community. It is particularly noted for its work in areas covering the development of international conventions, instruments, and tools on topics such as commodity classification, valuation, rules of origin, collection of customs revenue, international trade facilitation, customs enforcement activities, combating counterfeiting in support of Intellectual Property Rights (IPR), and so on.

The WCO maintains the international HS which is a nomenclature for goods, and administers the technical aspects of the WTO Agreements on Customs Valuation and Rules of Origin. The same nomenclature for goods and the same system of valuation of goods are followed all over the world as almost all countries have joined the WCO. Trade has thus become very smooth since the meaning of the goods is clear once a particular nomenclature is used. For example, if a good is described as 5402 20 10 in the invoice of the manufacturing country, wherever it is sold in the world, it will be taken as synthetic filament yarn of terylene dacron. There will be no need to test the goods chemically unless the customs administration has any specific information to the effect that the goods have been misdeclared. This has made customs clearance, maintenance of statistics and all other related activities transparent and seamless.

8.2 World Trade Organization (WTO)

The WTO is responsible for a large part of work pertaining to Customs. This organisation keeps a check on the activity of Customs in individual countries in case they go beyond international interests. In this capacity, it does not allow countries to impose very high protective customs duty or anti-dumping duty when there is no justification for them. It prevents trade wars arising from customs duty or quantitative restrictions on imports or exports.

8.3 European Customs Union (ECU)

The ECU, as a part of the EU, performs the job of consistent customs regulations within the EU. That the EU has a separate organisation within its fold exclusively for the purpose of customs activities, underlines the importance that Customs plays in international trade and economic relations within the EU in particular, and with the global economic community in general.

9. Summary

To sum up, the role of Customs in international economic relations is all-pervasive and growing. Over the years, internationally, customs duty structures have been scaled back and narrowed so that their application has become far easier. At the same time, other means such as anti-dumping duty have been used, sometimes resulting in unfair competition. Multilateral organisations, such as the WCO and WTO, have played an important role in lowering customs duty rates internationally as well as in monitoring unfair competition. The responsibilities of customs administrations have moved forward from monitoring only whether the right customs duty is applied to more sophisticated responsibilities and challenges that cover matters of international money laundering and terrorism. The use of IT in both traditional and newly emerging functions cannot be over-emphasised. Indian Customs faces increasingly complex demands as various case examples discussed above reveal. An ever vigilant customs administration should be able to deliver on those international objectives and assist in furthering international economic relations.

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Notes

- 1 Adapted from the First BN Banerji Memorial Lecture, 4 June 2012. Mr Banerji was the first Chairman of India's Central Board of Excise and Customs, 1964-67. The address was delivered when the author was Director and Chief Executive, Indian Council for Research on International Economic Relations (ICRIER), New Delhi.
- 2 The author acknowledges the contribution of Sukumar Mukhopadhyay, Member, Board of Excise and Customs (retired) and Gautam Ray, Chief Commissioner, Excise and Customs (retired) on Indian customs duty structure and selected case studies. All opinions expressed are, however, those of the author.
- 3 $t(\text{new}) = (a \times t(\text{old})) / (a + t(\text{old}))$, where t is the tariff rate and a is the coefficient to be negotiated. See Baldwin 2009, p. 518.
- 4 The NAMA negotiations are also attempting to address the issue of non-tariff barriers to trade, though forward movement on this front has been limited.
- 5 Note that CVD is the domestic consumption tax CENVAT applicable on imports. Though Indian nomenclature includes this under customs duty, any cross-country comparison should exclude it.
- 6 Can India contemplate deep and meaningful changes in a comparable direction? See Shome 2012a.
- 7 Organised by the International Tax and Investment Center (ITIC) in Washington, DC.
- 8 Myanmar does not yet have a VAT but has a commercial tax against which offset is given for goods tax though not for tax on services.

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Section 2

Practitioner Contributions

Leadership development: the road to successful capacity building

Lars Karlsson

Abstract

This paper elucidates the increasing need to focus customs capacity building on sustainability, to reconsider our present knowledge and practices regarding the sequencing of reform and modernisation efforts, and to shift our emphasis towards a model that offers an ability to adopt, utilise, optimise and further develop the outcomes and results of development projects. Some parameters are central to the development process, particularly strengthening the ability of key individuals to lead, drive, manage, monitor and follow up the efforts to reform and modernise. Leadership is the crown jewel in this respect, since without strong leadership, there will be no development, and without development, no reform, no modernisation and no capacity will be built.

Purpose

This paper proposes a stronger focus on evolving so-called *soft capacity* to manage the more common capacity building bricks related to organisational development, business process re-engineering, technical assistance and the development of technology. By introducing a systematic approach to leadership development as a fundamental element of institutional building, the customs community can become a world leader in managing reform and modernisation.

Introduction

The concept of leadership is part of our history. We are now busy writing new chapters as we find ourselves living in the age of globalisation, an era of evolution. During the past decade we have seen more changes in the world than ever before in the history of our planet. Fifteen years ago we talked about the theory of globalisation, but we didn't realise what it actually meant. Now we know. Globalisation has been described as an enemy of the poor, which is simply not true; in fact, it is quite the opposite as has been stated by former Secretary-General of the United Nations, Kofi Annan: '... the main losers in today's very unequal world are not those who are too much exposed to globalisation. They are those who have been left out' (UNCTAD 2000, p. 2).¹

Today the world has become interconnected in more ways than have yet dawned on us and the transformation is more rapid than anybody could anticipate. A number of global crises have emerged and have contributed to the increase in the pace of change. The decade of crises started with international security following the 9/11 terrorist attack, followed by an international commodity price crisis, a global financial depression and more recently, a political crisis in the Eurozone. These crises have two things in common. They all started at the domestic or regional level and expanded to the international level, which is the essential consequence of globalisation. Secondly, they have all had an impact on the integration of the world economy, making the world more complicated and 'whichever way we choose to make a proper description of the core drivers of global change, we end up in the same overall consequence, complexity' (Lindgren 2012, pp. 51-2). This is a trend that will continue, as stated by Theodore Modis,

the US business analyst and physicist, ‘if the exponential growth of complexity were to continue, one week in 2025 would be as rich in milestone events as the entire 20th century’.²

What have we learned from these years? We can no longer solve our challenges at the domestic level, nor even at a regional level – we need global solutions. Global solutions require greater harmonisation and a need for international standards. However, international standards are only meaningful if and when they are properly implemented. At the end of the day, successful implementation can only be evaluated according to how it works at the ground level.

Capacity building, the key to customs strategies

One area where the changes driven by globalisation have the greatest impact is the global trade arena. We know from history that there is no progress without the development of trade, and that ‘trade is the only way for poor countries to become rich’ (Norberg 2001, pp. 125-58). The international trade system and supply chain is where Customs *per definitionem* works. That is its domicile and the consequences of globalisation exert powerful influences on its environment. As organisations, there is a need for customs administrations to build their capacity to meet these new challenges, both for today and for tomorrow.

Capacity building is about building an internal capacity to manage change over time, it is about having the institutional ability to continuously reform and modernise the state, its institutions and their respective functions.

For many years aid to developing countries has focused heavily on technical assistance and technology development, that is, it has had a technocratic emphasis. We built roads and houses, we drilled for water and created border facilities, all of it based on preconceived models and plans. We did not, however, necessarily hand over a locally independent sustainable capacity to enable the ongoing management of these facilities. When the projects were finished, the project team left. Capacity building moved to new projects, to new places.

In the course of the last ten years, however, there has been a paradigm shift towards real capacity building, looking at the needs of the recipient country, advocating ownership, building systematic processes, sequencing projects properly, developing infrastructure for capacity building, coordinating donor platforms, initiating implementation support and introducing measurement models for change management and development. Today we know how to conduct successful capacity building projects. We know what works and what does not. We build for the future.

The challenge we still face (the missing piece of the puzzle)

So why are not all capacity building projects successful? There is still one piece missing in the puzzle of how to increase the number of successful projects. The challenge we still face is to enhance the institutional ability to effectively utilise the outcomes and excellent results produced in development projects all around the world. We need to become better at building sustainable solutions that maximise the impact at the ground level. The problem can be boiled down to the moment when good projects are to be implemented and if, in fact, they are implemented, which unfortunately is not always the case, to at least preserve the good results in order to achieve short, medium and long term results.

We need to strengthen the ability to manage development projects, to manage the chance of success and the risk of failure. All reform and modernisation initiatives include an element of risk, but it is fraught with danger to do nothing. The trick is to manage and take calculated risks, but in many countries there is no culture of managing such expectations. Trial and error and pilot projects are unknown concepts which often means that it is better to not take any risks than to take a calculated risk, and without risk taking or true decision making there can be no reform or modernisation. What is critical here is the *human* aspect of leadership.

The concept of building so-called ‘soft capacity’

Even though we have travelled a long way in the world of development during the past few years there remains, even in the customs world, a maintained focus on the development of models and systems. We have moved away from stand-alone training and technical assistance, and technology is today acknowledged as an enabling element rather than the solution to all problems. Having said as much, the ‘top ten list’ of capacity building requests this year is targeted towards systems and models. This is understandable and there is nothing wrong with starting an Authorised Economic Operator (AEO) program, developing a risk management system or implementing a single window solution. In fact, these models are necessary key components of a modern customs administration. It is however equally important to evolve the human component alongside the system developments. We could call this parameter ‘building *soft capacity*’, meaning building capacity to manage and handle the outcome of new models, hardware and infrastructure. The soft capacity component includes areas such as recruitment of staff based on updated profiles, increasing the professionalisation of customs work, creating a career development program, education through lifelong learning strategies and leadership development.

The whiff of success

It is common knowledge from the significant number of diagnostic studies, implementation activities, monitoring actions, projects and follow-up missions that the most important factors upon which successful capacity building depends are ‘political will’ and ‘leadership’. There simply must be political will for change, and if/when this is the case, true leadership to drive reform and modernisation at the ground level is needed. We need to build and foster these requirements for change. A solution for the first parameter is to offer support upon the condition that political will for change exists. This is the way in which most multilateral organisations have been approaching capacity building for decades, which leaves us to address the topic of leadership development. In far too many customs administrations around the world, leadership development is underestimated, badly structured and organised or even non-existent. This, in fact, is not something that only applies to developing countries as many customs administrations in the developed world also face the same challenges. Having said that, the consequences for emerging economies in this respect are often more severe. This is of course not good enough when facing a world in transformation through globalisation.

We have for a long time been conscious of the fact that both the support from top management and commitment at the mid-managerial level are vital factors for successful day-to-day operations, as well as for change and development processes. Efficiency and integrity start at the top. Good leadership holds the key to the results of an organisation. A world of increasing demands, often combined with diminishing resources, will force all managers to acquire appropriate competencies, skills and education. This calls for a modern systematic and holistic approach to leadership development, specifically tailored for customs management purposes. While some leadership abilities, skills and knowledge are generic, there are other elements of leadership that are and have to be, organisationally specific. In this regard, several parameters set the customs service apart. Being a public sector agency with close links to business is one matter; the crucial role it plays in world trade and international logistics flows is another.

How to find the way forward?

We need to prioritise support for holistic leadership development early in the capacity building process. We need specific standardised models to recruit, foster and support staff at the management level, to enable officers to become customs leaders ready to face the challenges of a globalised world. There is a need for elements of leadership development to be included in all customs capacity building projects. We also need to sequence our development projects differently. While HR-related activities, together

with education and training, are usually planned for the later stages of capacity building projects, we need to introduce systematic leadership and management training at the beginning of major reform and modernisation projects, to enable organisations to gradually merge new initiatives and project results into their day-to-day operations and utilise the new options in an optimal way. This could, as suggested, be called building *soft capacity* to manage the more traditional parts of a modernisation process which are still necessary to obtain the holistic overall results of organisational development. It is time to bring about this shift now; it is time to introduce the new paradigm for capacity building, focusing more purposefully on the human factor.

How do we systematically develop customs leadership?

Some multilateral organisations, for example the World Customs Organization (WCO), have recently introduced leadership development programs. The WCO has, together with academia, developed a leadership module based on the PICARD professional standards.³ This leadership module is used in the WCO Fellowship program and also as a stand-alone capacity building module offered for customs administrations. Several WCO projects in Africa use this initiative, supported by donors like the World Bank, SIDA and the Finnish Government. Other organisations are considering introducing and sponsoring leadership development as a component of customs capacity building, but there is still a long way to go. We have started to see some important initiatives, but it is not enough. Not in a million years. It should be recognised that leadership development is more than just education. To be successful over time, there needs to be a more systematic approach, including a lifelong learning cycle of leadership development.

The leadership stairway

An organisation is only as good as the people running it. Leadership is about coaching people to act like a team, believing in and striving to achieve a common goal. Leaders are role models, and it is very true that people follow the example of what we *do*, rather than what we *say*. According to Stephen Covey, ‘most people think of leadership as a position and therefore don’t see themselves as leaders. Making personal leadership a choice is like aspiring to the freedom to play the piano. It is a freedom that has to be acquired – only when an individual realises this leadership can become a choice’ (Covey 2007, p. 28).

The customs community, and others involved in customs capacity building, need to focus on and prioritise building a leadership culture that can manage the new environment that we are already facing in world trade today. We need a systematic approach to leadership development and we need it badly. I have, during the last year, interviewed some of the most successful leaders and acknowledged academics of the customs world and they all bear witness to the need for a systematic approach to leadership development.

There are many options and different ways to move forward in this respect, but any model in this context needs to include a systematic step-by-step approach with a number of key components shaping a leadership stairway to successful management. The following six steps should (at least) be included:

Step One: Recruitment of talent

The recruitment process is essential to finding the talents necessary to manage a complicated and challenging business, namely the customs service of today and tomorrow. We need to identify, constantly develop and review our competence profiles, the necessary requirements and skills to attract and select talent in global competition.

Step Two: Career planning for managers

We not only have to find ways to attract the best talent for management but also need to retain them and offer development, long-term learning and career opportunities. We must introduce career planning, fast-track development programs and different ways to offer project management work and international opportunities.

Step Three: Leadership education

As a leader and manager you need the necessary education to be ready to face the challenges of decision making. Professional standards and best-practice models based on academic research and experience are available for all customs administrations to employ. The fact is that every customs administration in the world stands in need of developing a strategy on how to introduce lifelong learning in their organisational DNA.

Step Four: Trial and error, the practice of decision making

Many people say that we are born leaders, and if we are not – then we can never become any good as a leader. I do not adhere to that view. I believe that leadership and management are about talent, education *and* practice. We don't expect a boy that can run fast to break the 100 metres world record in track and field without training and practice, but we do expect people to lead and manage organisations without experience and practice. Malcolm Gladwell, the British-Canadian author, in his book *Outliers*, has presented research about what makes people successful (regardless of profession or office) demonstrating that it is a combination of talent and practice. Gladwell writes that the common dominator among successful people in business, sports, culture, or in any arena, is the ability 'to practice the skills more than 10,000 hours to become great' (Gladwell 2008, p. 41). This also applies to leadership and management. We need to practise to become proficient, as the old saying 'practice makes perfect' tells us. We need to practise more to become better; we need to practise more than anybody else to become great. For managers, practice means making decisions. So it is essential for managers to be in positions where they make decisions, evaluate the outcomes, and learn from the results. The decision making needs to be exercised in an environment of sound leadership culture. Working as an operational manager improves the skills of decision making and enables the individual to gain the experience necessary to move to higher positions in a day-by-day learning-by-doing manner.

Step Five: Mentors – having one, being one

Mentoring, meaning supporting and fostering another individual in a personal development relationship, has become more popular in recent years and it is an important part of leadership development. A more experienced and skilled person helping a person with less experience and knowledge, and giving guidance using his/her own experiences, is a typical capacity building exercise. Mentoring is more than just answering occasional questions or providing help as the need arises. It must be a structured, continuous relationship of learning, dialogue, and challenge. It is very valuable both having a mentor and being one.

Step Six: Taking the executive leadership challenge

W.G. Bennis quipped that 'Managers are people who do things right and leaders are people who do the right thing' (Bennis 2003, p. 20). During a management career, the leadership of an individual is tested many times. After practising management on different levels of an organisation, step-by-step, learning through everyday decision making, it is time to take the last leap to executive responsibility for an organisation, small or large. The important thing is to have courage, to search for leadership challenges and to strive for executive leadership by exercising the experience from the management career, continuing to develop, climbing the leadership stairway towards a platform where it is incumbent on leaders to make a difference, aiming at creating a better world.

For each of these six steps there are a number of known practices and models that are successful and that can be used as tools and instruments to build capacity and foster leadership in Customs.⁴

Conclusions

To sum up, it is time to start promoting the leadership development element of capacity building as a requirement for successful reform and modernisation. If we are serious about building sustainable capacity for the customs community, we need to become better at supporting leadership development. International institutions need to follow the existing examples in acknowledging the importance of the leadership parameter and they need to step up their efforts by developing systematic, holistic models and standards in this field. Donors must be encouraged to support organisations like the WCO in their efforts to build what I have termed *soft capacity* and the donor community should demand inclusion of leadership development in development project proposals, by funding leadership development as a vital part of all customs reform and modernisation projects. We all need to realise that leadership development is not simply education, just as capacity building is not merely a matter of training and technical assistance. Neither is leadership a given talent that you have or don't have. Customs leadership is a profession in itself, consisting of talent, generic skills, office-specific knowledge, education and on-the-job practice, to take decisions and learn from the experience.

It is time to take the next step in capacity building, acknowledging the leadership parameter, updating the capacity building paradigm and introducing a new generation of support.

We need a stairway to successful leadership development and maybe this paper can be the first step. Who will take the next one?

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Notes

- 1 Comments made by former UN Secretary-General Kofi Annan in his speech at the UNCTAD Conference held in February 2000, soon after the demonstrations against the World Trade Organization.
- 2 Quoted in Lindgren (2012).
- 3 PICARD stands for 'Partnerships in Customs Academic Research and Development' which is a structured cooperation between the World Customs Organization (WCO) and the International Network of Customs Universities (INCU) to foster professionalism in Customs, and research and development in the areas of customs and trade. Under the PICARD Programme, INCU and the WCO have developed international standards of recognition for customs-related education which provides WCO recognition to qualifying curricula and graduates.
- 4 Editor's note: Lars has written about some of these practices in his upcoming book, *When elephants fly: customs leadership and management in a globalised world*.

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A perspective on the impact of trade friction on customs performance

*Libing Wei*¹

Abstract

International trade contributes significantly to economic growth. Yet, increasing cases of trade friction have emerged as one of the main issues undermining international trade. Indeed, the WTO-OECD-UNCTAD *Reports on G20 trade and investment measures* state that ‘at a time of continuous economic difficulties, trade frictions seem to be increasing’. The most frequent measures associated with trade friction continue to be trade remedy actions, in particular the initiation of anti-dumping investigations, followed by more stringent customs procedures.

Customs administrations are mandated to control the cross-border movement of goods and thereby safeguard national interests. However, with increasing cases of trade friction, where certain forms of trade are perceived by one country to have negative economic consequences, Customs face a conflicting situation between the desire to manage their performance effectively and efficiently and the political inference that inefficient customs procedures can actually be a desirable objective in instances where two countries are mired in trade friction. This paper analyses the impact of trade friction on customs performance and suggests a number of indicators that may be useful in analysing trade friction.

1. Introduction

Recent *Reports on G20 trade and investment measures*,² prepared by the World Trade Organization (WTO), Organization for Economic Co-operation and Development (OECD) and the United Nations Conference on Trade and Development (UNCTAD) indicate that ‘at a time of continuous economic difficulties, trade frictions seem to be increasing’ (WTO-OECD-UNCTAD 2012, p. 5). The mid-May to mid-October 2012 Report also calls on G20 governments to ‘redouble their efforts to keep their markets open, and to advance trade opening as a way to counter slowing global economic growth’ (WTO-OECD-UNCTAD 2012, p. 5). According to the Report, the trade coverage of the restrictive measures put in place since October 2008, excluding those that have been terminated, is estimated to be around 3% of world merchandise trade, and around 4% of the trade of G20 economies. The most frequent measures used in trade friction are the standard trade remedy actions, in particular the initiation of anti-dumping investigations and surveillance measures, followed by more stringent customs procedures such as the application and enforcement of anti-dumping measures.

Since their first summit meeting in 2008, the G20 leaders have agreed to take measures to promote global financial stability; this includes the shared view of resisting widespread protectionism. Despite this commitment, there is no strong evidence to indicate a slowdown in the imposition of new trade restricting measures. What is worrisome is that the restricting measures so far have not successfully

solved nationalistic problems and risk generating trade friction and tit-for-tat reactions amongst trading partners.

Notwithstanding the various causes leading to trade friction, it also has an impact on customs performance; for example, by requiring Customs to enforce technically complex measures borne out of trade friction, or simply by the fact that in a situation where two countries enter into trade friction, inefficient customs procedures – at least at home – may be considered virtuous. This paper attempts to address the following questions: what is trade friction? what are the implications of trade friction on customs performance? and, what performance indicators can be applied in light of the customs measures borne out of trade friction?

2. What is trade friction?

There is no common agreement on the definition of trade friction, be it by international organisations or amongst those countries mired in trade friction. However, the OECD argues that the promotion of trade policies in support of market access and ‘fair’ trade can be at odds with the competition policy aim for efficiency in cases where managed trade is used to gain market access or where remedies are applied to protect domestic producers from ‘unfair’ trade. Trade friction can arise because competition laws and market regulations are designed primarily with domestic consequences in mind (OECD 1996). Suggesting a solution, the WTO states that ‘Consumers and producers know that they can enjoy secure supplies and greater choice of the finished products, components, raw materials and services that they use. Producers and exporters know that foreign markets will remain open to them. ... Trade friction is channeled into the WTO’s dispute settlement process where the focus is on interpreting agreements and commitments, and how to ensure that countries’ trade policies conform with them. That way, the risk of disputes spilling over into political or military conflict is reduced’ (WTO 1994).

By reference to the applicable literature and the documents of relevant international organisations, many other terms bearing similar implications to trade friction can be found. These include *trade tension*, *trade dispute* or *trade conflict*, suggesting multiple levels of tension between trading partners. By reference to the causes and consequences of past and current trade friction between the US-EU, US-Japan, EU-Japan, US-China, EU-China, the following definition can be offered:

New tariff and non-tariff restrictive measures encompassing procedures that are inconsistent with WTO rules, especially technical barriers and customs procedures that impede free trade and the flow of legitimate goods. These restrictive measures are driven by protectionist trade policies and restrictive border regulations designed to support the national interest.

This definition, however, is subject to further discussion. For example, the Economic Planning Agency of Japan (1986) defined that ‘fundamentally speaking, trade friction is a phenomenon which arises when trade protectionism or the Customs of major countries themselves collide’. However trade friction is defined, there are several factors which jointly create a climate conducive to trade friction. Examples for a trade friction conducive climate include:

- The rise in protectionism resulting from economic recessions or imbalanced bilateral trade. With tight government budgets, high unemployment, and slower growth, governments may employ trade protectionist measures like WTO-inconsistent trade policies, extra technical standards, and various remedies and barriers to protect domestic labour markets or to prevent the excessive import of foreign goods.
- The increase in illegal trade such as smuggling, intellectual property rights (IPR) infringement, and harmful goods transactions which lead to disputes and lack of trust between importing and exporting

border agencies. In addition, profiteers and non-compliant traders rush to cut prices under informal transactions which result in implementing protective measures and remedies by the importing economy.

- The lack of real and complete customs statistics to assist decision makers. In this context, a particular challenge is that production networks are global and can be extremely complex. Consequently, intra-firm transactions³ can involve multi-nationalities and therefore challenge the interpretation of traditional trade statistics.

3. Implications of trade friction on customs performance

According to the *Reports on G20 trade and investment measures*, over the review period mid-May to mid-October 2012, 55 border measures were recorded, out of which the majority were measures that facilitate trade (64%). The main facilitating measure was the reduction and in some cases, elimination of import tariffs, while stricter customs procedures were among the main trade restrictive actions at a time of continuous economic difficulties and increasing trade friction.

Table 1: Border measures, mid-May 2012 to mid-October 2012

Type of border measure	Restrictive	Facilitating	Total
Tariff	6	30	36
Tax	3	1	4
Customs procedures*	9	4	13
Quantitative restrictions	1	0	1
Other	1	0	1
Total	20	35	55

* *Emphasis added*

Source: WTO-OECD-UNCTAD 2012, p. 10.

Trade friction has significant implications on Customs. A brief study of measures adopted in cases of trade friction generally includes trade remedy actions, tariff increases, quantitative limits (quota), higher technical standards of licences and restrictive customs controls. Such restrictive measures administered by Customs will reduce service levels and increase the compliance cost for business as well as the administrative costs for Customs. Therefore, Customs is frequently caught in an enforcement dilemma and becomes an object under attack from society, even from those stakeholders with high expectations of administrative efficiency and effectiveness. This situation can be exemplified by reference to the core customs roles identified in the WCO strategy document *Customs in the 21st century*. These roles are: promoting socio-economic development; creating the conditions for economic growth; controlling borders; providing security; and protecting citizens (WCO 2008).

3.1 Implication on customs revenue collection to promote socio-economic development

In most countries, customs revenue collection remains the main source of national revenue. In some African countries, that source represents more than 50% of their national revenue collection. This demonstrates that international trade drives economic growth as well as confidence in the faith of either *Smith's Absolute Advantage theory* or *Ricardo's Comparative Advantage theory*. However, in times of economic recession or in the context of imbalanced bilateral trade, governments likely employ trade protectionist measures and barriers to protect domestic labour markets or to prevent excessive importation of foreign goods. This becomes one of the main causes of trade friction.

Although protectionism is a broad issue generally out of reach of Customs and not within the scope of this paper, it can impact negatively on customs performance due to the fact that a significant share of restrictive measures will be performed by Customs or under customs supervision, including trade remedies such as anti-dumping duties, countervailing duties, and safeguard measures. In this connection, when trade friction is occurring, those trade restrictive barriers can cause national economic competitiveness to weaken due to the lack of facilitation of entry into a market and an increase of uncertainty for traders doing business. In examining the history of trade friction, such ensuing restrictive measures do not necessarily solve nationalistic expectations and risk, generating tit-for-tat reactions by trading partners.

Box 1: Case analysis on the Japan-US trade friction that trade remedies could not solve nationalistic problems

According to David Flath (1998): 'Before 1980, most of the friction was generated by U.S. industries seeking protection from Japanese imports, including textiles, steel, televisions, and automobiles. ... By the mid-1980's, a substantial fraction of Japan's exports to the United States were subject to Japanese government restraints. Nevertheless, protectionist pressures in the U.S. seemed to grow rather than dissipate. To counterbalance the protectionist pressure, American politicians and government officials attempted to shift the focus of U.S. trade policy, away from Japanese imports and towards expanded sales of U.S. products to Japan ... From the one-sidedness of the complaints, one might think that Japan-U.S. trade friction really is about Japan's "unfair" practices and "closed" markets. It is not. It is about how best to deal with, or deflect, the protectionist response in the U.S. to expanded Japanese exports ...' (Flath 1998, p. 7).

'The television case is illustrative. A 1968 petition by Zenith for imposing anti-dumping penalties on Japanese exporters was decided upon favorably by the U.S. Tariff Commission in 1971 ... Meanwhile, in December 1970, some American television manufacturers had initiated antitrust suits against the Japanese competitors (yes, charging them with violating U.S. law by pricing their products at too low a level) ... After the USITC [US International Trade Commission] ruled favorably on a petition by Sylvania for special protection based on the [WTO] escape clause, the government of Japan acceded to voluntarily restrain its exports of color television sets, between July 1977 and June 1980. The voluntary restraint did not prevent television imports from entering the U.S. from countries other than Japan ... Within a few years after the voluntary export restraint had expired, Zenith was the only American-owned manufacturer of televisions still in operation' (Flath 1998, pp. 9-10).

3.2 Implication on trade facilitation for economic growth and competitiveness

In most countries, trade facilitation is the key task of Customs in order to meet socio-economic development and national competitiveness, as evidenced by the WCO SAFE Framework (WCO 2011) and the WCO PICARD Programme (Partnership in Customs Academic Research and Development). Widdowson (2006) suggests that this (trade facilitation) implies keeping the amount of regulatory intervention or interference to the minimum necessary to achieve the desired policy outcome and also ensuring that regulatory requirements (red tape) are not unduly onerous or overly prescriptive. In seeking to achieve this balance, border agencies must simultaneously manage two risks – the potential for noncompliance with relevant laws and the potential failure to provide the level of facilitation expected by their government. This is supported by Grainger who identifies that 'transaction costs threaten business competitiveness and inhibit Customs' best use of limited control resources. However, despite the immediate utility of trade facilitation for both business and government organisations, the implementation of trade facilitation concepts is often riddled with difficulties. Most of these could be associated with conflicting interests, institutional limitations and lack of knowledge' (Grainger 2008, p. 25). This proposition is reinforced in the context of trade friction as those restrictive enforcements not only drive up trade cost but also could likewise legitimise bureaucracy or corruption if due attention is not paid to integrity and good governance where Customs is struggling with conflicting interests, institutional limitation and lack of knowledge.

The *World Competitiveness Yearbook* (International Institute for Management Development [IMD] 2009) listed one of the criteria in evaluating national competitiveness as 'Customs authorities do facilitate the

efficient transit of goods'. However, in the context of trade friction, those ensuing restrictive measures implemented by Customs serve to undermine the efforts of trade facilitation. This is clearly stated in the *Reports on G20 trade and investment measures*. When trade friction is happening, Customs is usually playing a vanguard role in implementing government restrictive policies and providing a service to realise national interest – including those measures borne out of trade friction – in the shortest possible timeframe. Yet, a poor customs service perception undermines confidence in the business environment, including economic competitiveness and implications for foreign direct investment. This situation presents Customs with a challenge as it attempts to secure the national interest through restrictive measures in a specific period as well as meeting expectations of various stakeholders for long-term trade facilitation.

Box 2: Statement from WCO and the WCO Private Sector Consultative Group (PSCG) on the impact of non-tariff barriers to economic development

To emphasise the key role of Customs in international trade for economic competitiveness, the WCO called on the G20 not to use Customs procedures as non-tariff barriers to trade: 'Governments, through their customs operations, conduct a wide spectrum of international regulatory duties on the cross-border movement of goods and persons, including collecting revenue that funds government operations; consumer protection; national security; and environmental protection. Simultaneously, the WCO promotes the notion that these legitimate regulatory activities should not, and need not impede the smooth flow of goods. In other words, while government has the responsibility of conducting controls at the border, it also has the responsibility of facilitating trade in international supply chains' (WCO 2009, p. 1).

In the same vein, a report of the WCO Private Sector Consultative Group (2012) states that: 'The PSCG is undertaking a small study on Customs efficiency, ... [u]sing the World Bank Logistics Efficiency Index and levels of inventory on hand as indicators, our thesis is that poor Customs performance (characterized by uncertainty and inefficiency at borders) leads to higher costs for business due to the maintenance of higher levels of inventory' (WCO PSCG 2012, p. 2).

3.3 Implications on border control to combat illegal trade and to protect citizens

As analysed above, one of the causes leading to trade friction is illegal trade and lack of communication between relevant authorities and stakeholders. When trade friction occurs between trade partners, the potential exists for an increase in illegal trade and commercial fraud. With the target goods' price rising, low-quality, counterfeit and pirated goods try to bypass official processes, through informal channels, to force into market competitively low priced goods, resulting in a significant threat to social security and community safety. Grainger observes that 'Inefficient procedures not only inflate business costs, they also inhibit a border agency's ability to meet its control objectives. For example, a country's inspection efforts are severely impeded if its laws make it difficult for government officials to use risk management principles. ... And onerous regulations encourage traders to illegally circumvent costly, time consuming procedures by finding ways to shortcut regulatory requirements or by entering the shadow economy' (Grainger 2010, p. 159).

In fact, Customs is increasingly being brought under the spotlight in its protection of society role with the increasing interdependence of global economic growth. Society demands 'protection from unfair international trading practices such as smuggling of goods, under-invoicing, origin fraud, tariff misclassification and IPR infringements' (WCO 2008, p. 3). However, most customs administrations are almost exclusively focused on import controls; export controls remain superficial and with limited restrictions. This appears primarily due to the emphasis on revenue collection and efforts to grow exports. However, illegal trade and commercial fraud not only bring harm to the importing economy but also to the exporting economy in the long run, since illegal trade is likely to cause potential trade friction, or even trade embargo.

Box 3: Customs' efforts in resolving China-US trade friction

The China-US trade relationship is currently the world's most complicated. They spar over a wide range of sensitive issues; however, with so much at stake, the two nations have to keep their rapport cordial. According to the latest WTO trade dispute settlement statistics, the US has filed 15 cases against China, meanwhile China filed eight cases against the US (both figures are the highest on the WTO Map of Disputes). The main causes are argued by the US government as being the manipulation of currency exchange mechanisms, protectionist industrial policies and IPR infringements on the part of China; conversely, the Chinese government complains about the US protectionist industrial policies, the discriminatory treatment of China as not being a market economy and the trade remedy measures thereof. How can Customs play under this dilemma? As a catalyst to or an extinguisher of trade friction?

Facing the increasing cases of trade frictions, customs administrations of both China and the US realised the importance of strengthening cooperation and compliance management of supply chains, for instance, in terms of mutual exchange of information, mutual support in enforcement and mutual recognition in control, underpinning the effort to combat and prevent illegal trade from escalating into mutual exchange of blows. In this regard, the two sides have been strengthening trust building, particularly concerning supply chain security and trade facilitation, exchange of information and personnel, joint operational exercises to identify and interdict illegitimate and illicit trade activities such as IPR infringements. However, trade friction is a broad issue that goes well beyond customs control.

Source: China Customs, <http://english.customs.gov.cn/publish/portal191/tab3972/info304642.htm>; US Customs and Border Protection, Department of Homeland Security, www.cbp.gov/xp/cgov/newsroom/highlights/2011/china.xml.

3.4 Implications for customs statistics to assist decision making

Customs is at the forefront of global commerce activities. It has the mandate, expertise and responsibility to inform what commodities are being imported or exported by which party and from where they originate or are transferred. Thus the involvement of customs statistics in decision making is essential for national economic development as a whole. This proposition is also demonstrated in an evaluation report for the World Bank's *Doing Business* survey: 'Since regulations generate social benefits as well as private costs, what is good for an individual firm is not necessarily good for the economy or society as a whole. Therefore, policy implications are not always clear-cut, and the right level and type of regulation is a matter of policy choice in each country' (IEG 2008, p. xv). Pascal Lamy, the WTO Director General, has said that 'With trade imbalance causing friction between leading economies, the [current trade statistics] measures we use can gravely exacerbate geopolitical tensions at a time when co-operation is more vital than ever' (Lamy 2011, p. 1). (See 'Box 4: The role of customs statistics in China-US trade friction cases' next page.)

4. Recommended indicators to analyse the impact of trade friction

For Customs involved in a trade friction context, the question of whether or not priority is given to restrictive enforcement, trade facilitation or knowledge-based rational control will vary as these are derived from the mandate that Customs receives from its government. In such potentially contradictory situations, Customs usually has no choice but to implement tailored restrictive measures, each of which has its own specific tariff schedule. False documentation such as invoices and certificates of origin may be on the increase as some non-compliant importers or exporters try to ensure that their goods qualify for the lower rates and are not subject to restrictive measures. This situation not only drains already scarce human resources but also impacts on the efficiency of customs performance. Ireland, Cantens and Yasui indicate that customs performance measurement is most effective when it 'take[s] into account the varying aims of the customs service and the specific political, social, economic and administrative conditions in their country' (Ireland, Cantens & Yasui 2011, p. 2; see also WCO 2012, p. XIII-2). Indeed there exists a myriad of performance indicators, quantitative or qualitative, in a bid to provide recommendations and benchmarking for measuring service quality. In this connection, the following indicators are suggested with the intention of analysing potential causes of trade friction and their negative impact.

Box 4: The role of customs statistics in China-US trade friction cases

Increasing global trade interdependence is leading to fragmentation of production worldwide and complexity in trade statistics. This is evident in China-US trade relations, where a trade imbalance exists. However, there is a large gap between the statistics of the two sides which can be reduced significantly in three aspects:

Apply the WTO '*Made in World*' initiative to measure trade in value added statistics. The traditional measurement of trade statistics, which is based on the full commercial value to the last country of origin, fails to capture values added to the goods in each country. For example, 'a study (IDE-JETRO and WTO 2011) estimated that the trade deficit of the United States against China was reduced by 53% in 2005 and by 42% in 2008 if estimated in value added ...' (Yasui 2012, p. 7).

Take account of processing projects in customs statistics. Processed goods make up a large portion of China's exports to the US, and US businesses have established a number of processing projects in China – and the Chinese receive comparatively low processing fees.* It is noteworthy that most of the commodities China exports to the US are consumer goods, many kinds of which are labour-intensive, low value added goods.

Expand US exports to China. '[T]ight US control on high-tech exports has deprived many competitive US companies of the opportunity to enter the Chinese market. Between 2001 and 2011, China's import of high-tech products increased from US\$56 billion to US\$463 billion, up by 23.5% annually. Yet in the same period, the share of US high-tech products in China's total high-tech imports dropped from 16.7% to 6.3%' (Xi Jinping 2012). And, '[A]ccording to the U.S. Census Bureau, ... U.S. ATP [advanced technology products] exports to China in 2011 were [US]\$21.4 billion; these accounted for 20.6% of total U.S. exports to China and 7.5% of U.S. global ATP exports. In comparison, U.S. ATP exports to China in 2003 were [US]\$8.3 billion, which accounted for 29.2% of U.S. exports to China and 4.6% of total U.S. ATP exports' (Morrison 2012, p. 9).

* A study on the Apple iPod 'concluded that Apple's innovation in developing and engineering the iPod and its ability to source most of its production to low-cost countries, such as China, has helped enable it to become a highly competitive and profitable firm (as well as a source for high-paying jobs in the United States)' (Morrison 2012, p. 13).

Degree of trust building between import and export customs administrations

A common belief is that people who trust each other are more likely to accept their mutual viewpoints and ideology and maintain greater confidence. Building trust and harmonising customs procedures between customs administrations will achieve close collaboration and gain necessary synergy in targeting non-compliance activities. This will help to reduce the causes of potential trade friction on the one hand and on the other hand, will encourage trade partners to minimise the negative impact of friction.

In situations where two or more economies are in trade friction, inefficient customs procedures actually become a desirable objective in terms of domestic protectionism. Administrative inefficiency, red tape, and rules and procedures that favour the home country may suddenly be viewed as virtuous. As an immediate result, customs administrations in both the importing and exporting country may feel the need to employ improvised restrictive measures in order to 'punish' or 'create barriers against' each other. Holding against such threat to trade, the WCO's *International Convention on the Simplification and Harmonization of Customs Procedures* (the Revised Kyoto Convention) seeks to build trust amongst customs administrations. Due to the legally binding nature of the Revised Kyoto Convention, it helps Contracting Parties to collectively build trust and maintain efficient modern customs procedures consistent with international standards, where legitimate trade is facilitated without compromising the customs controls function.

Degree of compliance management based on multilateral trade rules

Customs is not only seen as a support for national economic development but also as an internationally acknowledged trading mechanism to help achieve a level playing ground for business. Therefore, while supervising traders to ensure compliance with laws and regulations applicable to border control,

customs administrations themselves should maintain compliance with internationally acknowledged standards and rules. Customs must therefore seek to harmonise procedures and remain consistent with multilateral trade rules in a bid to minimise negative effects in a trade friction context. Moreover, application of standardised measurement criteria and the WTO-consistent trade rules will help monitor the appropriateness of customs enforcement strategies and provide a benchmark for a better business perception in the long run.

The current WTO trade facilitation negotiations under the Doha Development Agenda are mostly focused on customs procedures. Aniszewski (2009) observes that a potential WTO Trade Facilitation agreement would mean that these measures (non-binding WCO instruments, guidelines, recommendations, etc.) would become legally binding obligations and countries would need to introduce them as part of their legislation.

Effectiveness of knowledge management

The demand for a specific range of knowledge has already placed Customs in a unique position to specify data requirements, analyse transaction data, monitor cargo movements and identify high-risk cargo. In the context of trade friction, Customs is required to implement various trade remedy actions by implementing government restrictive measures tailored to different origins of goods and exporters under different trade friction cases. This means that customs administrations, particularly those frontline officers, are challenged with a higher demand for professionalism on core customs techniques such as the application of rules of origin and tariff classification, in line with the remedial rules that apply in times of trade friction – such as anti-dumping and countervailing duties, and safeguard measures.

In this context, timely and accurate customs statistics for decision making are essential for effective knowledge management. Customs statistics can:

- support government decision makers to monitor the world market through import and export and make appropriate macro-economic adjustments
- provide additional intelligence for risk management in combating illegal trade
- provide pre-warning for the private sector to be aware of potential restrictive barriers resulting from trade friction.

In this regard, Customs plays a key preventive role in guarding against trade friction because accurate statistics are critical references in providing the right information to the right person at the right time, enabling Governments to make the right decision for macro-economic competitiveness and in negotiation with trade partners, for balanced trade relations. In this sense, potential trade friction causes could be reduced at the border performance level through mutual administrative support and mutual information exchange. Kunio Mikuriya, the WCO Secretary General, emphasises that ‘Customs managers [of both public and private sectors] need quality information and reliable analysis on which they can base their strategic decision-making and leadership to manage change and guide their organisations’ (Mikuriya 2011).

Effectiveness of risk profiling

As discussed above, key causes leading to trade friction are illegal trade and lack of communication between relevant authorities and stakeholders. In this connection, effective risk management can empower Customs to attain the necessary intelligence so as to minimise the potentially negative impact of trade friction. Widdowson and Holloway contend that [r]isk management is a technique that facilitates the effective allocation of resources. ... [N]o border agency is going to check each and every single passenger, consignment, carrier, or crew member. Nor is it likely to have the resources to do so. ... In other words, risk management is at the heart of border management efficiency and effectiveness’ (Widdowson & Holloway 2010, p. 100).

In the context of trade friction, what is worth highlighting is that effective information sharing between Customs, other border agencies and reliable traders, can assist governments to prevent potential trade friction. Indeed, the information provided by traders can greatly benefit customs risk management, since traders have in their custody large amounts of commercial and logistics intelligence. Taking IPR protection as an example, traders are more cognisant than regulators: where an infringement is taking place and from where the contract is ordered; what commodity is being infringed; and which parties are involved. In parallel, timely information exchange can also be supportive in ensuring that traders are aware of regulatory requirements. No compliant traders want to see their imports or exports suddenly encounter difficulty in market access due to an abrupt or unanticipated imposition of restrictive measures. In this regard, Holloway suggests that ‘A more three dimensional approach to performance measurement necessarily implies better integration between border (regulatory) performance and supply chain performance. In this way the impact of particular border management initiatives on the efficiency of international supply chains can be assessed, as can the effectiveness of the border management initiative in achieving particular policy objectives ...’ (Holloway 2010, p. 47).

5. Conclusions

The rise in international trade and subsequent economic growth has, to some extent, been undermined by the high costs and restrictive measures associated with trade friction. Generally speaking, trade friction is an issue beyond the reach of Customs in terms of policy making and legislative and institutional frameworks but Customs is generally tasked with the implementation of these restrictive tariff and non-tariff measures. In enforcing these requirements, Customs is facing the dilemma of its desire to carry out its responsibilities efficiently, and the political inference that inefficient border procedures can actually support the national interest in situations of trade friction. In this context, inefficient knowledge management, misuse of trade facilitation standards or misunderstanding of multilaterally acknowledged trade rules on the part of both policy makers and administrators may create distortions to Customs’ mandate. A focus on trust building between customs administrations, strict adherence to multilateral trade rules, effective knowledge management and effective risk management assist in avoiding such distortions.

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Notes

- 1 The author would like to thank the Editorial Board of the *World Customs Journal* for its assistance in developing this paper.
- 2 These reports on a semi-annual basis have been prepared in response to the request by the G20 to the WTO, together with the OECD and UNCTAD, to monitor and report publicly on G20 adherence to their undertakings on resisting trade and investment protectionism and promoting global trade and investment.
- 3 Intra-firm trade is defined as cross-border flows of goods and services between parent companies and their affiliates or among these affiliates. The OECD made a broad estimation that intra-firm trade in goods accounted for one-third of world merchandise trade. The share of intra-firm trade in total trade showed a great variation across countries and industries. For instance, it is higher among OECD economies and lower between OECD and emerging economies. It is driven by the activities of multi-national enterprises (MNEs) who use their affiliates to move raw materials and intermediate goods across borders along international production networks, as well as distribute final and consumer goods through wholesale trade affiliates in distribution networks (Lanz & Miroudot 2011; Yasui 2012).

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Section 3

Reference Material

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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.

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