

Benefits from Implementation of the WCO Framework of Standards to Secure and Facilitate Global Trade

Index

Executive summary

1. Introduction
2. Framework of Standards to Secure and Facilitate Global Trade
3. Expected benefits
 - 3.1. Benefits for nations/governments/Customs
 - Enhanced security
 - Increased efficiency
 - Improved border control and compliance
 - Revenue increase
 - Trade facilitation
 - Benefits from the Authorized Economic Operator (AEO) arrangement
 - Capacity building eligibility
 - 3.2. Benefits for business
 - Enhanced security
 - Uniformity and predictability
 - Trade facilitation
 - AEO benefits
 - A. AEO status
 - Enhanced security and safer work environment
 - Improved Business-Client relationship
 - Improved Customs-Business relationship
 - Increased efficiency
 - B. Incentives to be certified as AEOs
 - Special border procedures
 - Lower inspection rates
 - Reduced border clearance time
4. Observations for maximizing the expected benefits
 - Early implementation
 - Single Window
 - Flexibility for future development
 - Mutual recognition of AEO status
5. Conclusion

References

- Attachment 1: Evidence on the costs of terrorism
Attachment 2: Evidence on the benefits of trade facilitation

Executive Summary

In the light of increasing threats of global terrorism, the issue of security of global trade has attracted considerable attention in the international community. It is often pointed out that Customs should play a vital role to secure and facilitate global trade, because of its unique authority and expertise to inspect cargo shipped in, through, and out of a country. In response, the WCO, as the sole global organization in charge of Customs matters, has developed the Framework of Standards to secure and facilitate global trade (hereinafter referred to as “the Framework”).

The primary objective of the Framework is to establish a set of standards that provide supply chain security and facilitation at a global level to promote certainty and predictability. The aim is to move from a set of security-related guidelines to standards that WCO Members are able to implement in a pragmatic and flexible manner. Most security-enhancing measures in the Framework have been developed based on modern Customs procedures in relevant WCO guidelines, recommendations, and instruments. At the same time, those measures will facilitate the legitimate trade as well as promote Customs reform and modernisation..

This paper aims to carry out a detailed analysis of the benefits from implementation of the Framework. This analysis may help WCO Members to implement the Framework, and encourage business to support and actively participate in the Framework. Given that the Framework has not yet been implemented, however, it should be kept in mind that the findings in this paper are to be considered no more than indicative and expected ones,

The benefits for WCO Members include enhanced security, increased efficiency, improved Customs control and compliance, revenue increase, and trade facilitation. Most of those benefits may be amplified by a cooperative arrangement between Customs and business, called the “Authorized Economic Operator (AEO) arrangement”. Furthermore, WCO Members who express the political will to implement the Framework are eligible for WCO strategic support at various phases of implementation, and will have more opportunities to benefit from support from other Members or donors.

The benefits for business include enhanced security, uniformity and predictability, trade facilitation, and benefits specifically for AEOs. In particular, the AEO benefits are twofold; benefits associated with AEO status, and benefits given by Customs as incentives. The former include enhanced security and a safer work environment, improved Business-Client and Customs-Business relationships and increased efficiency. The latter cover various special border procedures, lower inspection rates and reduced border clearance time. In order to attract a large number of private parties involved in the international movement of cargo to the AEO arrangement, it is important that each WCO Member determines its own kinds of incentives through careful business consultation, taking into account its capability, needs and other relevant factors.

This paper also touches upon how to maximize the expected benefits identified above. Earlier implementation by a critical mass of WCO Members and active participation of business are among the most important factors. Also, there are challenges of how to achieve the Single Window concept, how to update the Framework timely and appropriately for sustainable benefits, and how to develop common AEO certification criteria and mutual recognition systems on AEO status.

Both the public and private sectors may meet costs to implement the Framework. Sound security is an indispensable condition for international trade. However, they may need to consider how to effectively and efficiently put into practice a set of standards in the Framework, rather than take the option of doing nothing or seeking different approaches to secure and facilitate global trade.

Benefits from Implementation of the WCO Framework of Standards to Secure and Facilitate Global Trade

1. Introduction

1. In the light of increasing threats of global terrorism, the issue of security of global trade has attracted considerable attention in the international community. It is widely recognized that global actions are needed to fight global terrorism¹. In particular, there is a relatively high potential risk of international cargo being utilized by terrorists to carry WME-type² weapons and related goods into a targeted country. Thus, there is an increasing need to detect illegal cross-border movements of such cargo.

2. It is often pointed out that Customs should play a vital role to secure and facilitate global trade, because Customs has the unique authority and expertise to inspect cargo shipped in, through, and out of a country. The WCO is the sole global organization in charge of Customs matters with 165 Members that process over 99 percent of world trade, and thus it is a duty for the WCO to meet the challenge. In response, the WCO has developed the Framework of Standards to Secure and Facilitate Global Trade (hereinafter referred to as "the Framework").

3. In considering the large-scale damage to society and the economy of WME attacks, the need to enhance quality of control is inevitable. Nevertheless, less business-distorted and restrictive standards are desired. This is why a set of the benefits for business is described as one of the four core elements of the Framework.

4. Consequently, this paper aims to carry out a detailed analysis of the benefits from implementation of the Framework. This analysis may help WCO Members to implement the Framework, and encourage business to support and actively participate in the Framework. Given that the Framework has not yet been implemented, it should be borne in mind that the findings in this paper should be considered as no more than indicative and expected ones.

5. The rest of this paper is constituted as follows. The second part briefly explains several tenets of the Framework. The third part deals with the benefits expected from implementation of the Framework, and the fourth part deals with maximising the expected benefits. The conclusions are found in the fifth part.

2. Framework of Standards to Secure and Facilitate Global Trade

6. The primary objective of the Framework is to establish a set of standards that provide supply chain security and facilitation at a global level to promote certainty and predictability. To achieve this objective, the Framework consists of four core elements, based on the Customs-to-Customs pillar and the Customs-to-Business pillar (Table 1). The pillars have eleven and six standards, respectively.

¹ For example, United Nations Security Council Resolutions 1373 (2001) and 1456 (2003), Cooperative G8 Acton on Transport Security (2002) and G8 Action Plan on Building International Political Will and Capacity to Combat Terrorism (2003).

² WME (Weapons of Mass Effect) include nuclear, chemical, biological, and radiological weapons, as well as high quantities of explosives.

Table 1: Structure of the Framework of Standards to Secure and Facilitate Global Trade
(as of April 2005)

1. Foreword
 - 1.1. Introduction
 - 1.2. Objectives and Principles of the Framework
 - 1.3. Four Core Elements of the WCO Framework
 - Harmonizing advance electronic cargo information to allow risk assessment
 - Using a consistent risk management approach
 - Using non-intrusive detection equipment to effect inspections
 - Leading to defining benefits for business
 - 1.4. Two Pillars of the Framework
 - 1.5. Benefits
 - 1.6. Capacity Building
 - 1.7. Implementation
 2. Benefits
 - 2.1. Nations/Governments
 - 2.2. Customs
 - 2.3. Business
 3. WCO Standards to Secure and Facilitate Global Trade
 - 3.1. The Customs-to-Customs Pillar
 - 3.2. Pillar1 Standards (11 Standards)
 - 3.3. The Customs-to-Business Pillar
 - 3.4. Pillar 2 Standards (6 Standards)
- Annex 1: Technical Specifications to Pillar 1 of the Framework
Appendix I: Seal Integrity Programme for Secure Container Shipments
Annex 2: Technical Specifications to Pillar 2 of the Framework

7. The Framework provides for many security-enhancing measures such as a consistent use of risk management and modern technology, most of which are built on modern Customs procedures in relevant WCO guidelines, recommendations, and instruments such as the revised Kyoto Convention³. At the same time, those measures will facilitate the legitimate trade as well as promote Customs reform and modernisation. In other words, the Framework aims to consolidate such modern Customs procedures into security-enhancing measures for anti-terrorism security purposes. It also aims to move from a set of security-related guidelines to standards that WCO Members are able to implement in a pragmatic and flexible manner.

8. One of the tenets of the Framework is to improve the ability of Customs to detect high-risk cargo as early as possible in the international supply chain. As it is not practical to inspect all inbound, through and outbound cargo with current technology, it is essential to employ risk assessment to identify high-risk cargo. Precise information through advance electronic requirements

³ The revised Kyoto Convention has not yet entered into force as of May 2005.

enables Customs to undertake risk assessment on all the cargo at the earliest possible time, in order to identify high-risk cargo. Non-intrusive equipment should be used to efficiently inspect high-risk cargo. In short, to the extent that Customs is able to concentrate its limited resources on high-risk cargo while facilitating the flow of legitimate cargo, the objective of securing and facilitating global trade would be achieved.

9. Another tenet concerns the Authorized Economic Operator (AEO) arrangement in order to increase the volume of cargo that is low risk. It is important to attract a large number of private parties involved in the international movement of cargo to the cooperative arrangement. To the extent that Customs relies on AEOs in detecting high-risk cargo, Customs is able to further concentrate its limited resources on high-risk cargo, and thereby the objective to secure and facilitate global trade would be further achieved.

10. Thirdly, the aim is to give WCO Members guidance to avoid a situation where they establish conflicting national requirements. It is important to maintain compatibility with other initiatives in this area. The US's Container Security Initiative (CSI) and Customs-Trade Partnership Against Terrorism (C-TPAT), the Secure Trade in the APEC Region (STAR), and the new EU Customs Code are among the national and regional initiatives. The Framework also supports the efforts in other international organizations, including the IMO and ICAO as well as the WTO.

11. The fourth tenet is a mechanism for pragmatic implementation of the Framework. The public and private sectors may incur costs to implement the Framework. It may be also required to restructure organizations, change Customs systems, and modernize and streamline border procedures in many Members. Therefore, a limited number of Members may implement the Framework immediately. This is why the Framework allows WCO Members to take pragmatic implementation programmes in line with a phased and developmental approach in accordance with their different levels of capabilities. In this regard, pilot projects should be encouraged. In addition, the Framework requires Members to provide periodic reports on progress towards implementation. This may be useful in developing best practices among Members and generating peer pressure from other Members and business for early implementation.

12. The fifth, but not the least important tenet, is the crucial element of capacity building. The Framework contemplates appropriate support with capacity building for WCO Members who express the political will to implement the Framework, if needed. The WCO will mobilize human resources to take up this work, and help Members to seek financial and human resources from other Members or donors. At each phase of the implementation, many existing WCO tools are also available.

3. Expected benefits

13. Given that the Framework has not yet been implemented at the time of drafting this paper, it is very difficult to evaluate the benefits to be derived from its implementation. As described in various parts of the Framework, however, there are several expectations from the implementation. In this part, the expected benefits are analysed based on the descriptions in the Framework, supplemented by evidence from relevant sources on both a qualitative and a quantitative basis.

14. While some benefits accrue to all stakeholders in the international supply chain, some are more relevant for certain parties. In the following parts, the benefits are therefore analysed separately for nations/governments/Customs and business. For reference, the section in which the descriptions of the benefits are referred to in the Framework is indicated in brackets under the corresponding benefit item.

3.1. Benefits for nations/governments/Customs

15. A detailed analysis of the benefits expected from implementation of the Framework may encourage WCO Members to implement the Framework. In particular, tangible benefits would be

useful in convincing governments and domestic interests to embark on implementation. In the following paragraphs, the benefits for nations, governments and Customs are analysed together for convenience, because they are closely related.

- *Enhanced security (Framework 1.5; 2.1; 2.2)*

16. WCO Members who implement the Framework (hereinafter, “implementing Members”) may reap great benefits from enhanced security of cargo in global trade. Customs needs to improve the intelligence process and risk management capacity to efficiently and effectively target and inspect high-risk cargo for anti-terrorist security purposes. Also, the Framework may help Customs to collect information from as many sources as possible, including from original sources before export.

17. A terrorist incident causes significant damages not only to the targeted country but to the entire global economy. It includes direct destruction of property as well as indirect influence on trade, investment, and economic growth (Attachment 1). For example, a single nuclear terrorist attack on a major US seaport could cause the loss of one million lives, property damage up to USD 500 billion, and disruption of US trade valued at as much as USD 200 billion (US Congressional Research Service, 2005). In addition, countries are afraid that there may be no trade in the absence of security. One report showed that heightened terrorism during 1975-91 reduced annual net FDI inflows to Spain by 13.5% and to Greece by 11.9%⁴.

18. Furthermore, lower insurance premiums may be charged on cargo as well as trucks, trains, vessels and planes travelling to, through, and from implementing Members because of certainty about adequacy of local security procedures (Australian Foreign Affairs and Trade, 2003). This will contribute to enhancing the competitiveness of the port, airport and other border facilities in implementing Members.

19. In addition, implementing Members may see another competitive advantage in the event of a terrorist attack. Immediately following the 11 September attacks, all US airports were closed for three days, and the New York and New Jersey ports shut down for two days (OECD, 2002). Many efforts have been taken to avoid repeating such a situation. For example, the cargo identified as low risk at the CSI ports⁵ and with valid integrity⁶ may be subject to the least delay at a US port in the event of a terrorist attack. Since the cargo from the CSI ports is deemed low risk, the US Customs and Border Protection (CBP) are able to focus on high-risk cargo from non-CSI ports (US CBP, 2005a).

- *Increased efficiency (Framework 1.5; 2.1; 2.2)*

20. Implementation of the Framework may be used as a driver of Customs reform and modernization, and thus increase efficiency of Customs. It may be needed to adjust or restructure an organization, reallocate Customs resources, change a Customs system, modernize and streamline border procedures to provide an adequate environment for implementation. For example, implementing Members may cut or reallocate redundant resources to more demanding activities depending on their priority. More officials assigned to the demanding sectors may lead to a further increase of the overall efficiency in the public sector. Without those changes, implementing Members would suffer from rather inefficient border operations to detect high-risk cargo.

⁴ Enders and Sandler (1996), cited in Australian Foreign Affairs and Trade (2003)

⁵ The 35 CSI ports operational as of early April 2005 are in Belgium, Canada, France, Germany, Greece, Hong Kong, Italy, Japan, Korea, Malaysia, the Netherlands, Singapore, South Africa, Spain, Sweden, Thailand, United Arab Emirates, and United Kingdom.

⁶ The integrity of the cargo is deemed valid unless additional information is available or integrity of its seal is compromised.

- *Improved Customs control and compliance (Framework 2.1; 2.2)*

21. Implementing Members may improve the ability for Customs control and compliance on inbound, through and outbound cargo. Customs administrations in implementing Members improve the ability to detect high-risk cargo for anti-terrorist security purposes, as observed above. As a consequence, Customs is able to make use of the improved ability to identify high-risk cargo for wider range of Customs control to protect national society, relating to those such as drug trafficking, health, environment, counterfeiting of intellectual property rights and revenue collection, including the combating of commercial fraud.

22. In addition, implementing the Framework may provide Customs officials with a greater insight into, and better understanding of, international transactions and transport operations, thereby enabling them to carry out better control over the cargo in the international supply chain.

23. The Framework could also be used as a driver for improving integrity in Customs. The Framework requires sound integrity of Customs officials as well as their counterpart business community involved in the international movement of cargo for anti-terrorist security purposes. Customs officials as well as business with sound integrity are unlikely to commit themselves to such informal activities as bribery and corruption. It is often pointed out that bribery and corruption cause significant damages to the national economy⁷. Given that such informal activities are effectively suppressed by implementing the Framework, Customs control and compliance would be further enhanced.

24. The nexus between illegal Customs offences and terrorist activities has been often pointed out. For example, a UNODP report (2004) pointed out that "*It [drug use] also finances criminal and, to some extent, terrorist activities*". Reportedly, the March 2004 train bombing in Madrid was linked with, and likely financed by, drug trafficking activities⁸. As such, the improved ability for Customs control and compliance is considered effective in combating global terrorism. Furthermore, it could be used for enforcing anti-money laundering or detecting the activities of transnational organized crime.

- *Revenue increase (Framework 2.2)*

25. To date, there is little evidence regarding a direct linkage between security-enhancing measures and increased Customs revenue. However, implementing the Framework will promote ongoing Customs reform and modernization efforts, given that most measures in the Framework have been developed based on existing modern Customs procedures. As a proxy, experiences from Customs reform and modernization programmes may provide a useful insight into consequences from implementation of the Framework.

26. Lessons learned from the Customs reform and modernization programmes have shown that Customs revenue following the programmes may be enhanced mainly by two means; one by increased volume of trade, and the other by a reduction of informal border activities, including theft, bribery and smuggling (World Bank, 2005a). In Angola, for example, Customs revenue was increased from USD 230 million in 2000 to USD 345 million in 2001, and is expected to be around USD 500 million for 2002 in the course of its Customs reform and modernization projects (OECD, 2004). Among seven cases in the World Bank's Customs Modernization Handbook (2005a), Customs duty revenue as a percent of GDP was doubled at post-reforms in Uganda, and at the same level in Bolivia, Morocco, Mozambique, and Peru despite a large cut in Customs duty rates (Table 2). In the Philippines and Turkey, the Customs duty revenue as a percent of GDP following their reforms greatly dropped, but it actually grew in monetary terms according to other sources (World Bank, 2003).

⁷ In Bangladesh, for example, the revenue loss from corruption and inefficiency in a major seaport was estimated at more than 5% of GDP, and in Zaire, around USD 400 million of taxes and Customs fees due were estimated to have been lost per year on account of thriving informal activities (OECD, 2004).

⁸ Based on BBC homepages: www.bbc.co.uk

Table 2: Customs Duty Revenue Prior to and Post Customs Reforms
(as a percent of GDP)

	Bolivia	Morocco	Mozambique	Peru	Philippines	Turkey	Uganda
Prior to reforms	1.2	3.7	2.2	1.2	4.0	0.6	0.8
Post reforms	1.1	3.2	2.0	1.4	1.5	0.2	1.6

(Note) The period prior to reforms refers to following years: Bolivia, Morocco, and Mozambique, 1996; Peru, 1990, Philippines, 1991, Turkey, 1994; and Uganda, 1990/91. The period post reforms refers to 2001 for all countries.

Source: Table 6.2. Revenue Performance prior to and Post Customs Reforms (World Bank, 2005a)

- *Trade facilitation (Framework 1.5; 2.1)*

27. The Framework will enhance uniformity and predictability of the international movement of cargo, and security-related regulations and multilateral rules might be established based on the Customs-related best practices prescribed in the Framework, while avoiding possible different or conflict requirements in implementing Members. Therefore, the Framework will encourage facilitating legitimate trade and investment without compromising national security concerns, thereby promoting economic development in implementing Members. In the preparation for the WTO negotiations on trade facilitation, in particular, many studies have estimated economic gains from trade facilitation measures, including risk assessment and simplified Customs procedures (Attachment 2).

28. It is widely recognized that trade is a vital engine for economic development. For example, the World Bank (2005a) proved that the countries with trade facilitation measures through Customs reform and modernization programmes have experienced more rapid economic development than those without such programmes. A quantitative study has indicated that global gains from trade facilitation are estimated at around USD 40 billion, two-thirds of which accrues to non-OECD countries (OECD, 2003a). The global gains could be over USD 400 billion depending on various factors, including model characteristics and scenario specification in the modelling exercises (Attachment 2).

- *Benefits from the Authorized Economic Operator (AEO) arrangement (Framework 3.3; Annex 2)*

29. Most benefits referred to above may be amplified by the AEO arrangement. Private parties involved in the international movement of cargo, as certified as AEOs by a national Customs administration, are required to share responsibilities in the safe and secure management of cargo according to a self-assessment and self-policing process. Cargo handled by AEOs is deemed low risk because of their increased compliance. In detecting high-risk cargo, Customs relies to a certain extent on AEOs, enabling Customs to concentrate its limited resources on non-AEO cargo. As such, the AEO arrangement may bring further benefits to implementing Members, for example through further enhanced security, further increased efficiency and further improved Customs ability for anti-terrorist security and other Customs control purposes.

- *Capacity building eligibility (Framework 1.1; 1.6)*

30. In the light of the recently-launched WTO negotiations on trade facilitation, trade-related capacity building for trade facilitation is likely to further increase in the coming years (WTO/OECD, 2004). As of early 2005, for example, the World Bank (2005b) has 29 projects with a Customs modernization element amounting to USD 309 billion. Considering the increased importance of the security issue in international trade, it is important to include security elements in the trade-related capacity building. In this regard, the Framework is considered to be a useful tool to guide implementing Members to take a right direction worldwide in undertaking the trade-related capacity building projects.

31. The Framework will also promote ongoing Customs reform and modernisation by adding new guidance in the field of security. Implementing Members may need less investment to implement the Framework by making the most of the existing organizational structure, Customs system, border procedures and infrastructure to the extent that they are appropriate for implementation. This is also supported by the fact that the Framework has been developed based on modern Customs measures, as well as designed to be compatible with other ongoing security-related initiatives.

32. In addition, WCO Members who express the political will to implement the Framework are eligible for WCO strategic support at various phases of the implementation. The WCO will mobilize its human resources to conduct the capacity building work, and help Members to seek financial and human support from other Members or donors. At each phase of the implementation, many existing WCO tools are also available, including the Security Framework Self-Assessment Guide, WCO National Legislative Guidelines, and Standard Risk Assessment Guidelines. On the other hand, implementing Members may introduce pragmatic implementation programmes in line with phased and developmental approaches according to their levels of capability, development, conditions and requirements.

3.2. Benefits for business

33. Without business support and participation, WCO Members could not successfully implement the Framework. Thus, a detailed analysis of the benefits for business is useful in encouraging business to support the Framework. In particular, it is beneficial to business to identify tangible benefits in return for their active participation in the Framework, in particular in the AEO arrangement.

- *Enhanced security (Framework 2.3)*

34. Business may enjoy a safer and more secure environment in implementing Members. All private parties involved in the international movement of cargo may benefit from reduced threats of terrorism resulting from the security-enhancing measures in the Framework.

35. Considering that the international supply chain will not function if just one of the links is disrupted, a terrorist attack directed against transportation will cause significant damage to business. In addition to the direct loss of life and properties, it could include an interruption of service, closures of ports and terminals and delays in the shipment of freight and passengers (ICC, 2002; Attachment 1).

- *Uniformity and predictability (Framework 2.3)*

36. The Framework may provide uniform and predictable security and facilitation of the international supply chain at a global level. Where the Framework is implemented in a uniform and predictable manner among WCO Members, business is able to avoid different and conflicting security approaches in different Members.

37. In addition, the Framework ensures a level playing field for business in a less business-distorted manner, while recognizing great diversity of private parties involved in the international movement of cargo. With uniformity and predictability, private parties are to be equally provided with the opportunity to benefit from implementation, depending on the assessed risk.

- *Trade facilitation (Framework 1.5; 2.3)*

38. The Framework will promote more opportunities to facilitate legitimate trade without mitigating national security concerns. Benefits for business from trade facilitation have been well-

documented (Attachment 2). In particular, reductions in both border compliance costs and border clearance times⁹ are among the most frequently mentioned as tangible benefits for business.

39. One recent analysis commissioned by Japan Customs summarised direct-incurred and indirect-incurred effects of trade facilitation measures, such as simplified Customs procedures, for importation at Japan's seaports (Nomura Research Institute, Ltd., 2004; Table 3). This analysis also assessed that business had saved around USD 0.4 billion by a four-day reduction in border clearance time over the last decade. On the other hand, it was estimated that each day saved would be worth about 0.5 percent of the value of the traded goods by investigating the willingness-to-pay of exporters for switching from slower ocean to faster air shipment (Hummels, 2001).

Table 3: Effects of Border Clearance Time Reduction for Importation at Japan's Seaports

Entity	Direct Effects	Indirect Effects
Cargo owners	<ul style="list-style-type: none"> - Reduction of border clearance time - Greater reliability of border clearance time - Time reduction from carrying-in to import permit insurance 	<ul style="list-style-type: none"> - Reduction of lost sales opportunity - Stock reduction (i.e. reduction of unnecessary purchasing and savings on storage costs and interest costs) - Reduction of safety stock due to adoption of just-in-time - Increased flexibility in use of free time
Shipping company	<ul style="list-style-type: none"> - Reduction of quayside time - Reduction of requisite container yard area 	<ul style="list-style-type: none"> - Reduction of costs per port call - Reduction of container yard rental costs
Terminal operator	<ul style="list-style-type: none"> - Higher work efficiency and reduction of work time 	<ul style="list-style-type: none"> - Reduction of work costs - Response to cargo owner (shipping forwarders) needs for fast handling
Shipping Forwarders	<ul style="list-style-type: none"> - Higher work efficiency and reduction of work time 	<ul style="list-style-type: none"> - Reduction of work costs - Reduction of malfunction costs
Truck operators	<ul style="list-style-type: none"> - Fixing of pickup time 	<ul style="list-style-type: none"> - Higher truck turnover rates

Source: Nomura Research Institute, Ltd. (2004)

- *AEO benefits*¹⁰

40. As one of the four core elements, the Framework describes a series of benefits for AEOs. These are twofold: benefits associated with AEO status, and benefits given by Customs as incentives. In order to attract a large number of private parties involved in the international movement of cargo, it is important to determine what incentives are given to AEOs. Thus, it is important that each implementing Member determines the kinds of incentives through careful business consultation, taking into account its capability, needs and other relevant factors.

A. AEO status

41. Several benefits are associated with AEO status. They heavily depend on AEO certification criteria, which are to be determined by a national Customs Administration. In other words, they may hardly vary from Customs to Customs if common or similar AEO certification criteria are in place among implementing Members.

⁹ For convenience in this paper, "border clearance time" is defined as the time from when transport means arrive at the border to when customs permission is given.

¹⁰ Most parts of this section are based on business inputs at and after the First Consultative Meeting for Members and Business (Brussels, 28 February - 2 March 2005).

Enhanced security and safer work environment (Framework 3.3; Annex 2)

42. Enhanced security of cargo and a safer work environment are among the benefits associated with AEO status. AEOs are required to incorporate sound security practices and Customs-related best practices into their business practices. This ensures a high level of security of their cargo, and contributes to a safe work environment.

43. If they do not ensure safe and secure cargo, private parties involved in the international movement of cargo would run the risk of destruction of goods, immobilisation of cargo, legal resource, reputation, etc. For example, goods imported as iron scrap accidentally exploded when unloaded from a truck in India; ten workers died¹¹. Neither the truck driver, the workers in charge of unloading, nor the importing steel company knew that at least forty-eight explosives had been hidden in the iron scrap. As a result, mandatory certificate requirements were introduced for iron scrap to be imported into India.

44. In addition, the security practices taken by AEOs may lead to a reduction of cargo theft and pilferage. Cargo theft poses significant problems at present; reportedly, direct costs of cargo theft were estimated at about USD 40 billion per year at a global level, and indirect costs were many times higher (Eyefortransport First Conferences Ltd., 2002).

45. Furthermore, insurance companies may take the AEOs' security practices into consideration in assessing insurance conditions. Insurers respond to the highlighted threats of terrorism by increasing premiums and reducing terrorist risk coverage (OECD, 2002). Thus, AEOs may benefit from lower insurance costs and other favourable conditions for their cargo because they are considered low risk in terms of terrorism as well as theft and pilferage.

Improved Business-Client relationship (Framework 3.3)

46. AEOs may improve relationships with clients, benefit from enhanced company reputation, and thereby increase company competitiveness. It is often pointed out that security is regarded "as a *competitive tool*" (Peck, 2001). AEO cargo is deemed low risk in terms of terrorism, theft and pilferage. Furthermore, AEO staff is well trained with the highest degree of integrity. These represent important assets in the field of competition.

47. In addition, AEOs may encounter more opportunities for new business in the international supply chain security. The security level of the international supply chain is heavily affected by the security level of each party in the supply chain. In other words, a high level of security represents a necessary condition for the high-performance of the international supply chain. AEO status appears a useful indication in this respect. As such, companies may insist that their business partners be certified as AEOs, or AEO status may be the indispensable factor for involvement in the international supply chain.

Improved Customs-Business relationship (Framework 3.3)

48. AEOs may improve their understanding of Customs requirements and enjoy better communication with Customs. This improvement will lead to greater compliance to the relevant laws and regulations. It will also result in fewer mistakes in their Customs formalities and consequently fewer penalties imposed by Customs.

Increased efficiency (Framework 3.3)

49. AEOs may do business more efficiently in the international supply chain, thereby ensuring better asset control inside companies. As a whole, all AEO-status-associated benefits observed

¹¹ Based on news sources on the incident on 30 September 2004 at a steel company near New Delhi, India

above, such as the highest degree of AEO staff integrity and less risk of cargo theft and pilferage, may enhance business efficiency in the international supply chain, while meeting twin demands of security and trade facilitation. In short, AEOs are able to increase business efficiency by fulfilling their roles and responsibilities expected by the Framework.

B. Incentives to be certified as AEOs

50. Incentives to be certified as AEOs may vary from Customs to Customs as well as from sector to sector involved in the international movement of cargo, because they could be determined by a national Customs administration. The Framework describes three kinds of possible incentives; namely, special procedures, lower inspection rates and reduced border clearance times. AEOs may reap border cost savings and border clearance time reductions, thereby gaining better predictability, creditability and certainty relating to cargo delivery times. It should be kept in mind that they are examples, so as to allow implementing Members to establish other forms of incentives.

Special border procedures (Framework 3.3; Annex1; Annex 2)

51. AEOs may bear fewer burdens because of special border procedures designed for them. Nevertheless, the Framework leaves it to implementing Members to decide what special procedures AEOs are eligible for. Such special procedures should be clearly defined in national laws and regulations in the process of implementation of the Framework. Possible procedures are listed below, each of which is applicable to all sectors of AEOs, if not otherwise specified. Again, since they are examples, implementing Members are able to select some of them, or establish other types of procedures depending on their needs and capabilities.

- Extended time for Customs control operations, ideally 24 hours 7 days;
- Release of goods with minimum information necessary to identify the goods, and subsequent completion by means of a supplementary declaration;
- Favourable time limit for filing cargo and goods declarations;
- Priority when there is an increase in threat levels and “post incident” restart priorities from import and export countries, commensurate with the AEOs’ levels of effective security investments;
- Preferential treatment for fees or charges (applicable AEOs only);
- Release of goods by means of an entry in the record of the AEO, subsequent completion by a supplementary declaration (importer-AEOs only);
- Clearance of goods at the declarants’ premises or another place authorised by Customs (exporter/importer-AEOs only);
- Periodic goods declaration (importer/exporter-AEOs only);
- Periodic or deferred duty payment (importer/exporter-AEOs only);
- Preferential treatment in assessing penalties by Customs;
- Simplified post-entry requirements and procedures (importer/exporter-AEOs only); and
- A single cargo declaration to be shared by the exporting and importing Customs (carrier-AEOs only).

52. Several special border procedures can be found in the national and regional security-related initiatives. For example, a participation in C-TPAT is a prerequisite for truck drivers to access Free and Secure Trade (FAST) lanes installed at designated Canada-US and US-Mexico border points (US CBP, 2004). This enables truckers to benefit from faster clearance, especially where the road structure allows faster access to a primary checking point. In addition, the new EU Customs Code envisages that the time limit for advance cargo and goods declarations may be significantly reduced where an international agreement provides for satisfactory security checks to be carried out in the exporting country (European Commission, 2005).

Lower inspection rates (Framework 2.3; Annex 2)

53. It is rather unclear to what degree fewer inspections are given to AEOs because the inspection rates are not normally referred to in national laws and regulations. At this stage, it is unlikely that AEOs are completely free from border interventions. Nevertheless, it is undoubtedly an advantage for business to benefit from lower inspection rates. In Japan, for example, a Customs physical inspection by opening an inbound container generally took half a day with an additional cost of around USD 1000 (Japan Customs, 2003).

54. It is reported that six-times fewer C-TPAT participants undergo security-related inspections, and four-times fewer undergo trade-related inspections, as compared to non-C-TAPT participants at US ports (CBP, 2005b). The new EU Customs Code envisages that AEO cargo is subject to intervention by Customs at its external border only exceptionally (European Commission, 2005).

Reduced border clearance time (Framework 2.3; 3.3; Annex 1; Annex 2)

55. Similarly in the case of lower inspection rates, it is unknown to what extent border clearance times would be reduced for AEOs in comparison with non-AEOs, since this is not provided for in national laws and regulations. It is noted that several special border procedures designed for AEOs, such as 24-hours and 7-days Customs control operations, may reduce border clearance times for AEO cargo. In addition, it seems apparent that the average border clearance time for AEO cargo is shorter than for non-AEO cargo to the extent that AEO cargo is subject to fewer Customs interventions than non-AEO cargo.

4. Observations for maximizing the expected benefits

56. There are several observations to be made when one considers how to maximise the benefits to be derived from implementation of the Framework. They include, but are not limited to the following.

Early implementation

57. First of all, global benefits would be greater if more WCO Members implement as many measures in the Framework as possible and as early as possible. The benefits would be further enhanced if more private parties support and actively participate in the Framework. This is because the expected benefits heavily depend on what measures in the Framework are implemented, and by whom, how, and when.

58. Based on the analysis in this paper, benefits will probably result from self-efforts. In other words, no implementation leads to no benefit, or possibly disadvantages because non-implementing parties and their cargo may be considered as high risk. It is crucial to keep the continuous political will to implement the Framework. In this regard, it may be useful to develop best practices and generate peer pressure from other WCO Members and business for early implementation by sharing the implementing Members' experiences and progress towards implementation.

59. For the public sector, therefore, one of the key elements for maximizing benefits is to efficiently and effectively help WCO Members with capacity difficulties for early implementation. For the business sector, it appears important for the WCO and Members to encourage private parties involved in the international movement of cargo to support and actively participate in the Framework.

Single Window

60. Secondly, there is a challenge regarding the Single Window concept and how it could be obtained in the course of implementing the Framework. The Single Window systems allow private parties involved in the international movement of cargo to submit the required information only once to

a single designated data entry point for either import or export purpose. The Framework extends this commonly agreed Single Window concept by introducing the possibility of a single submission for both export and import purposes, thus requiring the sharing of the data not only among domestic government entities, but also with those of another country.

61. The Framework places great importance on the use of Single Window systems by Customs administrations and other governmental regulatory authorities, but it leaves it to implementing Members to find the most appropriate way forward. The Framework recommends that the advance and supplementary electronic cargo and goods declarations be submitted using the WCO Customs Data Model¹². The current version of the Data Model (Version 2.0) includes certain data requirements of other governmental regulatory authorities, which supports the establishment of Single Window systems. However, the Data Model will be regularly updated, so that future versions will have an even wider scope for Single Window systems covering all relevant aspect of regulatory intervention in international trade. This will help business to maximise the use of advance data transmission.

Flexibility for future development

62. Thirdly, the Framework needs to be updated timely and appropriately for sustainable benefits from implementation of the Framework. Otherwise, the benefits would be significantly undermined. Sustainable applications of new technology should be taken into account in the first place. Furthermore, the Framework should remain compatible with ever-evolving national and regional security-related initiatives, while the Framework gives WCO Members guidance to take a consistent and uniform approach under its umbrella.

Mutual recognition of AEO status

63. Fourthly and finally, more benefits are expected if more private parties participate in the AEO arrangement, in particular. Duplicate or redundant requirements for AEO certifications in different countries may discourage business from participating in the AEO arrangement since it could be a heavy burden for business to meet such multiple requirements.

64. The Framework recognizes the need for a mutual recognition system of AEO status between implementing Members, through which a AEO status certified by a Customs administration is recognized by different Customs administrations. There are many ways to obtain a mutual recognition system. For example, bilateral or regional recognition systems may be one of the most practical ways, whilst third party certification or using the WCO as a certifying body may be another option. Further research is needed on the key features, advantages, and disadvantages of each option.

5. Conclusion

65. This paper aims to carry out a detailed analysis of the benefits to be gained from implementation of the Framework based on the descriptions in the Framework, supplemented by evidence from relevant sources on both a qualitative and a quantitative basis. This analysis may help WCO Members to implement the Framework, and encourage business to support and actively participate in the Framework. Given that the Framework has not yet been implemented at the time of drafting this paper, however, it should be kept in mind that the findings in this paper should be considered as no more than indicative and expected ones.

¹² The WCO Customs Data Model provides a maximum framework of standard and harmonized sets of data and standard electronic messages to be submitted by trade for Customs and other regulatory purposes to accomplish formalities for the arrival, departure, transit and clearance of goods in international cross-border trade. It has aligned export and import data requirements and created a single electronic structure. This enables a more effective exchange of information between export and import and allows export information to being reused at import.

66. Implementing Members reap benefits from implementation of the Framework, such as enhanced security, increased efficiency, improved Customs control and compliance, increased revenue, and trade facilitation. Most of those benefits may be amplified by the AEO arrangement. Furthermore, WCO Members who express the political will to implement the Framework are eligible for WCO strategic support at various phases of the implementation. The WCO also helps Members to seek financial and human support from other Members and donors in the course of implementation.

67. On the other hand, the benefits for business include enhanced security, uniformity and predictability, trade facilitation, and those for AEOs. In particular, the AEO benefits are twofold; benefits associated with AEO status, and benefits given by Customs as incentives. The former include enhanced security and a safer work environment, improved Business-Client and Customs-Business relationships and increased efficiency. The latter cover various special border procedures, lower inspection rates, and reduced border clearance times. In order to attract a large number of private parties involved in the international movement of cargo to the AEO arrangement, it is important to determine what incentives are given to AEOs. The Framework leaves this to implementing Members' discretion. It is important that each implementing Member determines the kinds of incentives through careful business consultation, taking into account its capability, needs and other relevant factors.

68. This paper also touched upon observations of how to maximise the expected benefits identified above. Earlier implementation by a critical mass of WCO Members and active participation of business are among the most important factors. Also, there is the challenge of how to achieve the Single Window concept in the course of implementation. In addition, it is important that the Framework needs to be updated timely and appropriately for sustainable benefits. It is also important that the Framework remains compatible with ever-evolving national and regional security-related initiatives. Furthermore, there is another issue of how to develop mutual recognition systems of AEO status between implementing Members.

69. While this paper mainly focuses on the benefits of implementation of the Framework, it may be necessary to consider the costs¹⁴. WCO Members may need financial and human resources to implement the Framework, while business may need initial and management costs. Therefore, both the public and the private sectors may consider whether such investment is compensated by the incurred benefits. Considering sound security is an indispensable condition in international trade, however, they may need rather to consider how to effectively and efficiently put into practice a set of standards in the Framework than to take the option of doing nothing or seeking different approaches to secure and facilitate global trade.

¹⁴ For financing issue, please refer to "How can the security of the international supply chain be financed - A Global public good approach" (Dulbecco, and Laporte, 2003).

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Attachment 1: Evidence on the costs of terrorism¹⁵

1. Direct effects from an actual terrorist attack

- Loss of property and other insurance losses from the September 11 attack were estimated at about USD 21.4 billion, or around 0.25% of annual GDP (IMF, 2001);
- A shutdown of major ports or airports due to terrorist attacks could result in high costs, particularly for those economies more reliant on trade. In a modelling exercise, the effects of widespread port closure in the US were estimated at USD 58 billion over the 92 day simulation period (PECC, 2004);
- Terrorism directly cost the US about 0.3% of non-farm GDP and also reduced total factor productivity by around 0.3% (Congressional Budget Office, 2002);
- A single nuclear terrorist attack on a major US seaport could result in the loss of one million lives, and cause property damage of up to USD 500 billion and disruption of US trade valued at as much as USD 200 billion (US Congressional Research Service, 2005);
- Over and beyond terrible loss of life and property, a terrorist incident directed at the world's transportation system would result in interrupted service, port and terminal closures and delays to cargo and passenger travel, with potentially catastrophic effects on world trade (ICC, 2002).

2. Indirect effects arising from the perceived threat of terrorism

A: Trade decrease

The continuing threat of terrorism reduces trade flows, and raises the cost of undertaking trade through a range of mechanisms.

- A doubling of the number of terrorist incidents in over 200 countries between 1968-79 decreased bilateral trade between targeted economies by about 6 % (Nitsch and Schumacher, 2002);
- It increases insurance costs for cargo and passengers (Australian Foreign Affairs and Trade, 2003);
- In large US companies, inventory levels would rise in 2002 to 1.43 months from 1.36 months in 2001, leading to additional business costs at USD 50-80 billion (OECD, 2003b);
- If the US has to carry 10% more in inventories and pay 20% more for commercial insurance premiums as a result of the increased terrorism threat, it would cost 0.1% and 0.3% of GDP or USD 7.5 billion and USD 30 billion per year, respectively (UBS Warburg, 2001);
- In the period immediately after September 11, trade costs rose associated with the response to the perception of a higher security risk by 1-3% of the value of the goods being shipped (OECD, 2002);
- Developing economies, particularly those with internationally integrated production chains, would face relatively higher costs as a result of security-enhancing measures (Australian Foreign Affairs and Trade, 2003).

B: Reduction in investment and economic growth

Terrorism and the spectrum of future terrorist acts create uncertainty which increases perceived risk. This increases costs through several channels and dampens economic activity.

¹⁵ The flowing references in this attachment are cited in Australian Foreign Affairs and Trade (2003): namely, Congressional Budget Office (2002); Nitsch and Schumacher (2002); UBS Warburg (2001); Poirson (1998); Becker and Murphy (2001); Joint Economic Committee (2002); stratfor.biz (2003); Euroweek (2002); Drakos and Kutan (2001); Enders and Sandler (1996); Addison, et. al.(2002); Abadie and Gardeazabal (2001); and Walkenhorst and Dihel (2002).

Attachment 1: Evidence on the costs of terrorism (Cont.)

- Measures that increased economic security in relatively insecure developing countries to levels in best practice regions raised private investment by 0.5-1% of GDP in the short to medium term; and by 0.5-1.25% of GDP, from a modelling exercise with 53 developing countries from 1984 to 1995 (Poirson, 1998);
- The fall in US investment by about 0.2% of GDP due to ongoing terrorism threats (Becker and Murphy, 2001, cited in Joint Economic Committee, 2002);
- Terrorist attacks on pipelines in Pakistan have disrupted natural gas supplies to business, compounding fiscal problems and deterring investors in future pipelines (stratfor.biz, 2003);
- In 2001, international tourist arrivals fell by 0.6%, the first year of negative growth since 1982 (Australian Foreign Affairs and Trade, 2003);
- Partly reflecting the Bali tragedy, Indonesia's 2002 tourist arrivals fell by 2.2%. The expected cost of lost tourist receipts at around 1% of Indonesia's GDP (Euroweek, 2002);
- Activity in Greece, Israel and Turkey shows sensitivity to terrorist incidents (Drakos and Kutan, 2001);
- Increased terrorism risks and associated uncertainty reduce consumers' willingness to spend, particularly on discretionary items and major consumer durables, thereby reducing investment in consumer goods; industries and depressing growth (Australian Foreign Affairs and Trade, 2003);
- Heightened terrorism during 1975-91 reduced annual average net FDI inflows to Spain by 13.5% and to Greece by 11.9% (Enders and Sandler, 1996);
- Currencies of economies seen as carrying higher risk premiums may experience exchange rate volatility and sudden depreciation in response to terrorist events, as investors switch to reserve currencies like the US dollar. The fear of depreciation and inflation can adversely also affect the process of financial deepening by undermining confidence in the domestic currency (Addison, et. al., 2002);
- Increasing premiums and reducing terrorism risk coverage in response to the increased risk of terrorism could significantly lower investment and output in affected sectors and economies in the medium term. The unpredictability and potential size of terrorism events will make it difficult to price for terrorist risk events, and premiums for risky activities are likely to be high (Australian Foreign Affairs and Trade, 2003).

C: Overall economic impact

- The loss of US output resulting from terrorism related costs could be as high as 0.75% of GDP or USD 75 billion per year (IMF, 2001);
- Terrorism reduced the Basque region's per capita GDP by 10%, with the gap between expected and actual per capita GDP appearing to increase in response to spikes in terrorist activity (Abadie and Gardeazabal, 2001);
- Terrorism could impose a disproportionately high cost on developing economies' income growth because of their heavy dependence on trade and FDI flows, as well as higher insurance premiums on cargo and vessels travelling to and from them due to insurers' uncertainty about adequacy of local security procedures (Australian Foreign Affairs and Trade, 2003);
- The loss of welfare at a global level from a 1% rise in trade costs was estimated at USD 75 billion or 0.4 % of global GDP (OECD, 2002; Walkenhorst and Dihel, 2002)

Attachment 2: Evidence on the benefits of trade facilitation

Study	Base year	Model characteristics			Scenario specification			Annual income gains *	
		Competition	Dynamics	Regional coverage	Sector coverage	Reduction in trade value	(in USD billion)	(% of GDP) **	
Dee (1998)	1992	Imperfect	Dynamic	APEC	All goods and transport services	Uniform a) 5% b) 10%	a) 216 b) 442	a) 1.1 b) 2.3	
APEC (1999)	1996	Perfect	Dynamic	APEC	All goods	By country group a) 1% & 2% b) 2% & 3%	a) 45.8 b) 64	a) 0.25 b) 0.4	
Hertel, Walmsley & Itakura (2001)	1995-2020	Perfect	Dynamic	Japan & Singapore	All goods	By goods sector 0.21-3.5%	6.6 (Japan) & 0.17 (Singapore)	0.16 (Japan) & 0.29 (Singapore)	
UNCTAD (2001)	1997	Perfect	Static	Developed countries	a) Trade services b) Air & sea transport c) All services	Uniform 1%	a) 47.9 b) 6.1 c) 117.9	a) 0.22 b) 0.04 c) 0.54	
APEC (2002)	1997	Perfect	Static	Intra-APEC trade	All goods	a) 5% *** (uniform) b) 2.9-7.7% *** (by country group)	a) 154.0, b) 100.9-203.5	a) 0.98 b) 0.64-1.30	
Fox, Francois & Londoño-Kent (2003)	1997	Perfect	Static	Bilateral USA & Mexico trade	Goods shipped by truck	1% (northbound) & 5% (southbound)	1.4 (US) & 1.8 (Mex)	0.02 (US) & 0.47 (Mex)	
Francois, van Meijl & Tongeren (2003)	1997	Imperfect	Dynamic	World	All goods	Uniform a) 1.5% b) 3%	a) 72.3 b) 150.9	a) 0.25 b) 0.52	
OECD (2003a)	1997	Perfect	Static	World	All goods	Country, sector & trader diversity: total 0.5% (export) & 0.5% (import)	43.3 (15.1 for OECD & 28.2 for non-OECD)	0.15 (0.07 for OECD & 0.47 for non-OECD)	
OECD (2003c)	1997	Perfect	Static	World	All goods and services	Uniform 1%	76.4	0.26	

*) Due to methodological differences, the estimates are not directly comparable. See the individual studies for details.

) Calculated from GDP data if not available in the particular study. *) Reduction in trade transaction costs.

Source: OECD (2003a); note: All references in the attachment 3 are cited in OECD (2003a).

