

© 2009

Chieh Ju Chang

ALL RIGHTS RESERVED

GLOBAL TRADE, 9/11 ATTACKS, AND CUSTOMS ORGANIZATIONS IN  
COMPARATIVE PERSPECTIVES

By Chieh Ju Chang

A dissertation submitted to the

Graduate School-Newark

Rutgers, the State University of New Jersey

in partial fulfillment of requirements

for the degree of

Doctor of Philosophy

Graduate Program in Global Affairs

Written under the direction of

Professor Rey Koslowski

and approved by

-----  
  
-----  
  
-----  
  
-----

Newark, New Jersey

October, 2009

## ABSTRACT OF DISSERTATION

Global Trade, 9/11 Attacks, and Customs Organizations in Comparative Perspectives

By Chieh Ju Chang

Dissertation Director: Prof. Rey Koslowski

In this age of globalization where the world is becoming increasingly volatile and violent, safeguarding global trade has become a contentious concern, especially after the 9/11 attacks. The customs organization, as an international stakeholder and a gatekeeper of a nation, has been called upon to simultaneously promote and protect international commerce against terrorism and traditional transnational crimes. This author makes the argument that the idea to pursue a balance between trade facilitation and security is correct; however, it is within the formation and execution of policies and programs tailored to achieve such a strategy where challenges can emerge.

This dissertation is divided into three parts. Part I states the underlying problem, provides a background of the issue with literature reviews, and gives an overview of the policy machinery process. Part II depicts key case studies that were specifically chosen to illuminate this controversial issue from national, regional, and global perspectives. Each case study attempts to advance the understanding of how key customs organizations address the “balance” issue followed by a comparative review. Part III discusses existing, updated, and new policy options, followed by recommendations and conclusions. An elite survey was also conducted to expose additional diverging views and converging suggestions.

Although progress has been made on this “balance” issue, more needs to be done. No single or easy solution will resolve this conundrum. To optimally address this dilemma, two guiding principles must be considered: cooperation and the multi-layered approach must be standardized and systematically adopted. In addition to embracing these two “force multiplier effect” principles, compromises in policy-making and decision-making processes must also be encouraged. In the final analysis, this dissertation attempts to bring awareness, to foster discussions, and to promote effective resolutions to the trade-balancing predicament.

## **Acknowledgements**

I am honored and grateful to have been given the opportunity to pursue my academic aspirations. I would have never accomplished this dissertation if it were not for the support of my family, friends, and mentors.

I want to take this opportunity to thank Richard Langhorne, the former Director of Division of Global Affairs at Rutgers University, for providing me with the opportunity, the guidance, and the strength to complete my graduate studies. I would like to extend my appreciation to Rey Koslowski, the Dissertation Chair, for giving me the encouragement and the enlightenment for a better understanding of today's global affairs. I also want to thank Stephen Flynn and Yale Ferguson, members of my dissertation committee, for their insightful comments and suggestions on my dissertation.

It is to my wife to whom I want to dedicate this work, for being supportive, for taking care of our son, and for proofreading full drafts of this dissertation with candor and cheerfulness. It is to my mother to whom I want to dedicate this work, for endless praying and wishful thinking. She once said that she would like to participate in my commencement for a change. These are two special women of my life, to whom I will forever be indebted and thankful. It is also to my deceased father (1986), whom I want to thank, for instilling in me the value of a good education; an advise that I did not take to heart until later in my life.

It is to my life long mentors, Wayne Roberts, Scott A. Davis, and John Maughan, of whom I thank, for believing in me, for inspiring me, and for opening the door to the American dream. I am proud and glad to carry their torch of wisdom, kindness, and courage as long as I live.

I also want to thank the National Science Foundation in concert with Rey Koslowski for granting me the much-needed financial support. Such funding has significantly contributed to my Ph.D. tuition.

Composing this doctoral essay has truly taught me to balance my professional, personal, and academic interests. As I was growing up in Rio de Janeiro, Brazil, I never imagined that I would wind up in the United States with a Bachelor's degree in Computer Science from Rutgers College/Rutgers University, much less a Master's degree in Global Affairs. Again, I could have never accomplished this doctoral thesis if it were not for the support system. It is to the above individuals and many others, to whom I dedicate this accomplishment and to whom I am forever thankful.

## Table of Contents

Abstract		ii
Acknowledgements		iv
<b>Part I</b>	<b>Transnational Paradoxes</b>	
Introduction		1
Chapter I	The Underlying Problem	3
	The Background of the Problem	4
Chapter II	Analysis of General Policy Protocols	20
Chapter III	Analysis of Specific Criteria	31
<b>Part II</b>	<b>Case Studies in Policy Development and Implementation: National, Regional, and Global Spectrum</b>	
Chapter IV	United States Customs Administration	39
	Conclusion	93
Chapter V	Section I: Hong Kong Customs Administration	95
	Comparative Conclusion	100
	Section II: New Zealand Customs Administration	105
	Comparative Conclusion	109
	Section III: Canadian Customs Administration	112
	Comparative Conclusion	121
Chapter VI	European Union Customs Administration	124
	Comparative Conclusion	130
Chapter VII	World Customs Organization	137
	Comparative Conclusion	142
<b>Part III</b>	<b>Policy Options and Recommendations</b>	
Chapter VIII	Policy Options	148
Chapter IX	Recommendations	199
	Conclusion	229

Appendix A (Survey)	234
Appendix B (Acronyms)	238
Bibliography	240
Curriculum Vitae	259



## **Part I: Transnational Paradoxes**

### **Introduction**

Living in this age of globalization and terrorism, policy experts have identified vulnerabilities and concerns of worldwide impact. One such anticipated vulnerability is the implication of terrorism in today's complex trading system. The challenge of how to proceed with the development and implementation of optimal resolutions to simultaneously protect and promote today's supply chain has become an unparalleled concern. As opinions about how to interface trade facilitation with security in this age of terrorism vary in kind and degree, the challenge rests on how to engage, manage, and overcome such an intricate task. The array of available policies and programs tackling the trade-balancing issue is a clear indication that diverging outlooks exist. Not only can the disagreement be found within a governmental body and among governments, but it can also be found in the private sector and different international organizations.

This dissertation is divided into three parts. The above introduction is a segment of Part I, which consists of three chapters. Chapter I addresses the underlying problem of finding a balance between trade facilitation and security, as well as provides a background of the problem through a series of literature reviews. Chapter II gives an overview of the policy machinery process. Chapter III outlines the result of a survey taken by customs officials from all around the world. Part II is comprised of four chapters. It depicts key case studies that were strategically chosen to illuminate the trade-balancing issue from national, regional, and global perspectives. Chapter IV portrays a national view based on the U.S. customs administrations' effort to cope with this "balance" challenge. Chapter V highlights the Hong Kong customs administration's

standpoint (Section I) on this divisive topic, followed by the New Zealand customs administration's perspective (Section II) and the Canadian customs administration's outlook (Section III). Chapter VI underlines a regional view by analyzing the European Union's approach on the subject matter in question. Chapter VII underscores a global point of view by evaluating the WCO's perspective on the trade-balancing dilemma. Through these case chapters and sections, which rely primarily on the qualitative research method and comparative analysis, this author attempts to make the argument that all the pertinent variables specified in these paradigms contribute directly and/or indirectly towards the demand of securing and facilitating international trade. This has come to represent a challenging task that customs organizations around the world must now perform with little time and with a minimal margin of error. Finally, Part III sums up the lessons learned by discussing existing, updated, and new policy options (chapter VIII), followed by a proposition of tangible recommendations and conclusions (chapter IX).

## **Chapter I**

### **The Underlying Problem(s)**

This chapter aims to address the underlying problem of balancing trade facilitation with security and provides background information derived from literature reviews. The key problem of balancing trade facilitation with security is not just that it is out of balance or whether the security and facilitation protocols are incompatible with each other. Rather, the underlying problem lies within the development and implementation of policies and programs tailored to simultaneously strengthen and facilitate global trade. It is more in the execution rather than in the formation phase of procedures and practices where fundamental challenges arise.

The most ordinary predicaments found during the policy implementation phase hinge on the matters of resource management, time constraints, practicability, limited focus, and inefficient oversight. Among these, cost estimation and time management are probably the most common obstacles. Delivering a project on time and within the budget is probably the biggest challenge of all. In terms of policy development predicaments, they include, but are not limited to the fundamentals of research application, vetting, initiation, composition, approval, and monitoring. It is in those areas, individually or collectively, where we can find the inadequacies of implementation and development of a policy, which could in turn compromise the overall strategic goal of balancing trade facilitation with security. Each of the above categories, as they relate to the implementation and development of policies and programs, will be discussed in a later chapter.

## **The Background of the Problem (s)**

We no longer live in a stable and secure world. Fear of another terrorist attack is imminent, nondiscriminatory, and ubiquitous. It is apparent that the terror of the September 11 events has redefined the status quo of our time. Terrorism has indeed come into a new light with the 9/11 attacks. If bringing down two skyscrapers can cause such tumultuous chaos and monumental changes in our society, imagine what would happen if the next terrorist attack hits a major societal artery such as the global trade.

International trade is the driving force for a prosperous global economy. The health and wealth of a nation depends on how well one balances trade facilitation with security. Such a subject, however cliché and lackluster in media appeal it may be, is important to address, as global trade supplies us with our everyday necessities. If safeguards are not properly and promptly in place, the consequences could be significant. If practical strategies, effective policies, and efficient programs aimed at the trade-balancing ideal are not properly formulated and executed, social, political, and economic upheaval may ensue.

In order to better understand and evaluate the ideal of balancing the trade facilitation agenda with security concerns, it is necessary to define the terms. Trade facilitation is a process designed to streamline trade practices among nation-states and between the private and the public sphere by reducing the cost and complexity that are involved in trade transactions. The World Trade Organization (WTO) has defined trade facilitation as a process that embraces simplification, standardization, and elimination of procedures, data requirements and other bureaucratic apparatus involved in international trade transactions. Protectionist legislation, unnecessary licenses, ineffective guidelines,

and unproductive inspection/enforcement practices are examples of procedures that could be eliminated in order to facilitate everyday trade operations (WTO 2008). Defining security; however, is a much more complicated matter.

The concept of security is vast, confusing, interrelated, and multi-faceted. As Haftendorn (1991, 3) has pointed out, “the term security is as ambiguous in content as in format: is it a goal, an issue-area, a concept, a research program, or a discipline?” The meaning of the word in itself has many nuances and classifications. It is not uncommon for the major news media, newspapers, websites, and magazines to cover this particular topic loosely and interchangeably. There is much speculation and confusion when it comes to addressing global security, national security, border security, infrastructural security, economic security, supply chain security, trade security, maritime security, port security, cargo security, and so on. To make matters worse, issues such as illegal migration, terrorism, sovereignty, privacy, to name a few, are also thrown in the mix with the term security. The end result is that we end up with a complicated term to define. I define security in a trade context as a means taken by nation-states and international organizations to ensure economic prosperity and a better quality of life with a minimal degree of harm and loss.

While defining the components of an argument is an important step to take, it is more important to provide diverging views on their relationship where all sides are exposed, as it will produce a series of perspectives to the issue in question. To date, seasoned policymakers, high-level government officials, respected leaders in international organizations, prominent private industry experts, and renowned academic observers have been known to voice the need to find a balance between security and

facilitation of global trade, and many policies and programs have been developed to address such a comprehensive concern. From a state-centric perspective, in the United States, the strategic initiative to simultaneously secure and facilitate the movement of legitimate trade is a part of the overall national security strategy to safeguard the U.S. homeland from terrorists and transnational criminals alike. The first National Strategy for Homeland Security, published in July 2002 and devised by the Bush administration, was specifically formulated to achieve such an objective.

The National Strategy for Homeland Security has three strategic objectives: (1) prevent terrorist attacks within the United States; (2) reduce America's vulnerability to terrorism; (3) minimize the damage and maximize recovery from terrorist strikes. This presidential directive focuses on six critical mission areas: (1) intelligence and warning; (2) border and transportation security; (3) domestic counterterrorism; (4) protecting critical infrastructure; (5) defending against catastrophic terrorism; (6) emergency preparedness and response. Under the border and transportation security critical mission area is where the strategy of balancing trade facilitation with security resides. Under the border and transportation security mission, six initiatives come into effect. They are as follow: (1) to ensure accountability in border and transportation security; (2) to create "smart borders;" (3) to increase the security of international shipping containers; (4) to implement the Aviation and Transportation Security Act of 2001; (5) to recapitalize the U.S. Coast Guard; (6) to reform immigration services (White House 2002). The guidelines for balancing trade facilitation with security are under the smart borders and security of international shipping containers initiatives.

From a regional and global perspective, both the European Union (EU) and the World Customs Organization (WCO) have taken a significant step in addressing this controversial issue. The WCO, through the Framework of Standards to Secure and Facilitate Global Trade (FoS SAFE), is bridging the gap between members of the customs community and the private sector towards the trade-balancing issue. Through the Authorized Economic Operator (AEO), the EU is also trying to accomplish the same. By consolidating their efforts through a series of compromises, both the WCO and the EU plan to promote fair and sensible practices to undertake such a thorny issue from both micro and macro perspectives.

The World Customs Journal, known for its academic and practical contribution to the discussion of global supply chain security and facilitation, has also heightened the importance of the WCO FoS SAFE and EU AEO. Theo Fletcher (2007), a top private sector (IBM) expert on supply chain security, posted an article in World Customs Journal, expressing his view that AEO is an important building block to be employed when it comes to solving the trade-balancing conundrum. AEO is the right approach to adopt when strengthening supply chain security while facilitating it. Kunio Mikuriya (2007), a former WCO Deputy Secretary General and a 25-year veteran of the Japanese Ministry of Finance, shares the view that the WCO plays a fundamental role in the effort of attaining a balance between enforcing and facilitating global trade. The WCO FoS SAFE can become an instrumental tool in tackling such an intrinsic issue.

The idea of balancing trade facilitation with security is not new. It has been an occasional front-page story long before the 9/11 attacks. In a pre 9/11 era, such a thought could be traced back to the WCO. Through the Kyoto Convention protocol, the WCO has

been addressing the issue since 1974. The word of choice to describe security in those days was compliance. The Kyoto Convention is an international agreement that focuses on simplification, standardization, and harmonization of customs procedures as they pertain to international trade and its community. Customs administrations' commitment to provide transparency, predictability, and efficiency for all those involved in aspects of international trade is the governing principle of the Kyoto Convention (WCO 2007a).

Stephen E. Flynn, a prominent policy observer, had also been advocating such an ideal well before the 9/11 attacks. Being a former U.S. Coast Guard Commander and a Senior Fellow in the Council of Foreign Relations, he absolutely understood the importance of balancing the trade facilitation agenda with security concerns. In the article titled "Transportation Security: Agenda for the 21st Century," not only had Flynn (2000) warned us about the vulnerabilities found in the global transport network, but he had also offered several proposals to address these vulnerabilities. Through his nuke-in-the-box principle, he emphatically stressed the possibility and the gravity for dangerous items being smuggled. At the same time, he was keenly aware that the prevention of such a threat must not be so drastic that would halt global commerce. Compromises must be set and met. From his arsenal of well-regarded recommendations, more committed Business to Government (B to G) partnership based on the "point-of-origin control" principle, additional transparency in the supply chain management, and endorsement of the EZ lane concept derived from the incentive/sanction doctrine are the proposals that take precedence.

In a post 9/11 era, the former U.S. Customs Service (USCS) Commissioner and the former WCO Director of Compliance & Facilitation have set the tone for today's



policies on trade facilitation and security. The former USCS Commissioner and the first Customs and Border Protection (CBP) Commissioner, Robert C. Bonner, said in one of several speeches that striking a balance between trade facilitation and security would be a monumental challenge. Concerted efforts to meet such a challenge are on the rise, but more are needed. CBP has developed several initiatives to simultaneously secure and facilitate global trade. The Customs Trade Partnership Against Terrorism (C-TPAT), 24-hour advance notification rule, Container Security Initiative (CSI), the Free and Secure Trade (FAST) program, and many others have been created to address such a “balance” ordeal (CBP 2002). The former WCO Director of Compliance & Facilitation, Juoko Lempinen, has indicated that through the FoS SAFE and Capacity Building, the WCO actively addresses the trade-balancing conundrum (WCO 2007b).

Besides using the 9/11 factor as a point of reference to describe changes and challenges (pre 9/11 and post 9/11 points of view), there are other enabling factors that can also be used to accomplish the same, such as the collapse of the Soviet empire, which can easily be used as a point of reference (pre and post cold war era). Independent of which one prompted the changes and challenges in today’s world order, whether it is the 9/11 factor or the end of the cold war, history has taught us that any significant issue that is worth to debate will fall into at least two diverging, and yet convincing schools of thought. On this divisive matter, there are those who favor more security measures in the global trade under the auspices that safety comes first, and there are those who oppose having more security apparatuses due to cost concern and hindrance to the already clogged global trade.

Thomas J. Donohue, the President of U.S. Chamber of Commerce, said that there is a need to improve the flow of goods crossing borders. If the channels of commerce are clogged from the traditional bureaucratic inspectional delays and additional fees to the newly post 9/11 security measures and policies that would just hinder the growth of global trade. He goes further to add that the United States is a host to some of these problems. The burdensome U.S. security policies and programs have forced goods to be piled up at some points of entry, compromising the already strained just-in-time supply chain practices (a business practice that avoids unnecessary storage cost) that the border town businesses have come to depend on, particularly on the Northern border (U.S. Chamber of Commerce 2005).

The Coalition for Secure and Trade-Efficient Borders, one of the largest business coalitions formed in Canadian history with members that include the manufacturing, technology, transportation, retail, tourism, energy and agriculture industries businesses, has raised its concern as to where the efforts of striking a balance between facilitation and security of global trade are heading. The creation of CBP and the Canada Border Services Agency (CBSA) respectively, has added complexity to border processes. The consequence of such action is troubling and a series of concerns has been raised from: (1) logistics at the Canada-U.S. border has become a competitive disadvantage for business, especially those dependent on just-in-time supply chain; (2) customs rules of both countries are more complex today than ever before and are being enforced inconsistently; (3) paperwork and information requirements for border inspections are increasingly onerous; (4) at several key crossings there is limited or no access to dedicated lanes for commercial vehicles in the FAST program; (5) business travelers still face increasing

delays and complications at border crossings (Canadian Manufactures & Exporters 2008).

This view is also echoed by Jim Phillips, President of the Canadian/American Border Trade Alliance, an organization comprised of Canadian and American companies, who commented that the mission of his organization is to get effective programs implemented while avoiding knee-jerk reactions to security concerns, such as some legislators demanding that everything be inspected (Terrerri 2007).

Conversely, there are others, particularly those in the political arena, who tend to favor more safety measures on the global trading system, as security is a topic with significant political implications and media appeal. The U.S. Congress proposition to examine 100% of shipping containers reaching the U.S is a clear example that illustrated such a line of thought. Another example is the U.S. Senator Charles Schumer's sponsorship of a bill, S2426, which would mandate physical inspection of 10% of containers coming into the U.S. along with the allocation of \$50 million for developing technological solutions for examining containers (Parker 2008).

With such a contentious issue at stake, it is not surprising to have an army of experts from the private and public sector to weigh in with very convincing and diverging arguments. On one hand, you have an individual like Mr. Donahue, who is skeptical of the effect of security policies on global trade, as he believes that not only will the cost of doing business increase, but also these measures will actually do more harm than good. By having the leading voice of the U.S. business community raise concerns about U.S. strategies, policies, and programs tailored to the trade-balancing idea, it goes to prove the U.S. government does not inspire too much confidence when it comes to addressing such

a divisive issue. Based on the Coalition for Secure and Trade-Efficient Borders' contention, it appears that the trade facilitation initiatives fostered by the WCO, WTO and between the U.S. and Canada through the NAFTA agreement are in danger of being overturned since the U.S. strategy for homeland security took effect. Jason Conley, a Senior Manager of homeland security for Washington, D.C.-based U.S. Chamber of Commerce, summarizes best where the private sector stands by pointing out there is a sense in the business community that the balance has tipped in favor of security. Indeed, the concerns raised by the business community at home and abroad are not without merit and to some extent, they are expected since they naturally tend to favor trade facilitation over security.

On the other hand, you have individuals like Senator Schumer who advocates safeguarding global trade at any cost, even if that means hindering the flow of commerce. Schumer's policy for inspecting 10% of all containers not only was controversial, but it was also downright naïve and to some degree ludicrous. For one, how did Senator Schumer arrive at the 10% ratio? What would happen with the other 90% of the containers? Such an arbitrary choice of number/ratio would be subjected to the same controversy that has been plaguing CBP for years, about physically inspecting only 2% of the containers arriving at the U.S. ports of entry. The 10% is not much of an increase either. In addition, how did he come up with the \$50 million figure, and what is the justification behind the odd number? Based on the review of readily available information on S2426, no significant data was ever found to properly answer such questions, which validates the point that such proposal was drafted in a haphazard way.

In the matter of the U.S. Congress proposing to examine 100% of shipping containers destined to U.S., other than grasping major news headlines, this proposition indicates that such a strategic policy was devised under duress and in an ad hoc manner. It was proposed and put forward right after the 9/11 attacks when emotions of patriotism and protectionism ran high. Not surprisingly, the proposition faced massive opposition and was completely discarded as a policy option (Kochems and Carafano 2006). More significant is what has emerged from these proposals, the conclusion that the word “inspection” is hard to define.

One of the controversial questions confronting policy analysts, politicians, and policymakers alike, is what does the word inspection mean? What does an inspection of a container constitute? Does a review of a cargo manifest comprise an inspection? Does the word inspection have to correlate to a physical action? Does taking an x-ray snapshot of a container imply that an inspection has taken place? Certainly, there are more questions than answers. One thing is for sure; there are different types and degrees of inspection. The types can be visual, virtual, physical, and whatever human senses encompass. Inspections are also categorized as primary or secondary. The difference between them is in the level of intensity. Compounding the problem is the seemingly interchangeability of the terms inspecting, examining, screening, scanning, unloading, checking, and evaluating. Thus, it is indeed a hard concept to grasp and becomes even more complicated when it commingles with other challenges. As the dilemma of balancing global trade facilitation and security incorporates the word inspection, it will only serve to add more fuel on an already convoluted and controversial subject matter (Lake 2007).

The type of examination that most people are accustomed to associate with the trade-balancing issue is the physical inspection of cargo and conveyances. Depending upon the type of commodity and how it is being loaded into a container, it can easily take up to a day to physically inspect one container with a typical crew of 8 customs officers. The physical inspection process is multi-faceted and entails targeting the “right” containerized cargo, moving the targeted container from a shipyard to a Customs Examination Sight (CES), unloading the container, followed by the examination of the container itself and the actual freight, and finally reloading the shipment back into the container. The entire procedure can be challenging, time consuming, and costly if the cost of manpower, training, rental/maintenance of CES, and the transportation of the container is factored in. Therefore, increasing the number of physical inspections without significantly impacting the overall flow of the movement of containerized cargo, even to the slightest ratio, can be a very demanding task with enormous repercussions. Ships, ports, shipyards, warehouse docks & spaces, traffic around/within the port, damages, and delays are a few of the factors to be considered when increasing the percentage of physical inspection of containers. It is indeed more easily proposed than it is actually carried out.

Branching out from those who have opposing views, you have those who endorse a more moderate approach, like Dr. Flynn, former CBP Commissioner Bonner, and former WCO Director Lempianen. These subject matter experts were willing to compromise as long as a balance between trade facilitation and security is met.

Despite the fact that Flynn’s approaches to tackling the issue of strengthening supply chain security while facilitating the flow of legitimate goods were innovative and

compelling, I suspect that a number of his well thought-out goals and strategies were perceived by some as too costly and too comprehensive to be pursued. Flynn is effective at describing in great detail the problems and action plans that interface with this controversial issue, as he meticulously explains the concepts of nuke-in-a-box and the smart-container. However, if key decision-makers are not listening or lack the proper mindset to understand or the will to support, then no matter how plausible his assertions and recommendations are, they may just not be fully adopted.

Using a hypothetical scenario to describe a problem is a significant and effective way to expose its severity as well as to capture an audience's attention, as Dr. Flynn has administered so proficiently. When he pointed out the dire feasibility of smugglers trafficking nuclear weapons inside of a shipping container, he has single-handedly broadened and heightened the level of concern about the vulnerabilities found in the global trade. With his nuke-in-a-box scenario, he has fueled the trade-balancing debate. He has, in a roundabout way, raised the question that smuggling Weapons of Mass Destruction (WMD) in a container is not only confined to a nuclear one. In fact, biological, chemical, and cyber weapons are much cheaper, easier to obtain, and better to conceal. One does not need to use a freight container containing WMD to create a nuke-in-a-box effect. A small package containing anthrax (or an appearance of such) sent through a mail courier could do the job, or an e-virus downloaded into the defense, transportation, or energy computerized systems could also produce a disruptive effect on critical infrastructures. For obvious reasons, there is no comparison between a nuclear blast and the side effects produced by a biological, chemical, or cyber discharge. The radiation factor alone would cause more casualties and devastation than any other type of

WMD. But, the frequency and the scale in engaging bio/chemical/cyber warfare (deadly contaminated packages and e-viruses being delivered daily and ubiquitously) to interrupt day-to-day operations can create an effect similar to that of a nuclear blast, figuratively speaking. Although the likelihood of nuclear terrorism is low, its devastating impact would be significantly high. In the spirit of Stephen Flynn's concern, the emphasis here is on the level of psychological effect – to instill the elements of terror and insecurity in our lives when WMD is employed and not so much on the hard science of WMD itself.

In any event, developing and implementing optimal supply chain security management does not guarantee that it will be 100% fail-proof, other than coming to a realization that it is going to be a costly and a time consuming endeavor. So the next best and safest bet is to choose the right approach to address this cumbersome issue, which is to adopt the Smart Container principle, as Flynn has proposed. Despite the downfalls that come from endorsing such an expensive and elaborate endeavor, it holds great promise if properly supported and implemented. To offset the stigma of being too costly and too comprehensive, fostering a genuine B to G partnership with a true collaborative effort and commitment, such concerns could be overcome, as it will lay the foundation to make such an option more adoptable and affordable. It makes perfect sense that the two parties that have the most to gain and to lose should bear the responsibility, the burden and the reward of applying the Smart Container resolution, if the quest to promote and protect the global supply chain is to be achieved. In fact, the Smart Container proposition, which will be better elaborated in a later chapter, is neither too bold nor too broad to accommodate. It is actually a sound solution, as it tackles supply chain, maritime, and container insecurity from a “point-of-origin control” standpoint.



Going back to those who share a moderate view, such as Dr. Flynn, on the trade-balancing issue, to date (2008), the former CBP Commissioner Bonner's vision in addressing the "balance" issue continues to be carried out by the current CBP Commissioner, W. Ralph Basham. This also is true for Mr. Lempianen. The current WCO Director of Compliance & Facilitation, Michael Schmitz, strives to carry out his predecessor's work. In one of Commissioner Basham's speeches, he reaffirmed CBP's commitment to the twin goals of securing the borders of the United States while facilitating legitimate global trade. He even goes further to state that the course that Bonner has set for CBP was the right course (CBP 2006a). In one of Mr. Schmitz's speeches, he stated that the WCO finds itself largely in the business of globalizing and to the extent possible standardizing customs enforcement efforts to improve both the security and facilitation of the global supply chain (Organization for Security and Cooperation 2006a). Thus, the consensus is that they all have correctly identified the problem. However, they differ in how to best overcome it.

Whether one is prone to take Senator Schumer's side, despite his view being too drastic and unrealistic, or inclined to agree with the business community, which is traditionally known to be concerned with profit, or to echo governmental officials' middle ground sentiments with questionable policy and program development and implementation, one fact remains undisputable, they all share the consensus that there is a dilemma. The problem is that there is no one single or easy solution to solve the quandary of finding a balance between security and facilitation of global trade. Independent of one's position, going too far in either direction would just complicate the matter even

further. A system of trial and error to resolve such a conundrum might just have to follow suit and hope that it would not be too late and too costly.

The trade-balancing issue is paradoxical as its contents are contradictory and multi-faceted in nature. On one hand, trade facilitation fosters the easy flow of goods and services while trade security encourages restrictions and regulations. With close examination, while the idea of balancing trade facilitation and security may diverge in principle, it actually converges in objectivity. Securing the global supply chain is to facilitate the flow of legitimate goods, as it would free customs and other authorities in charge of enforcing and regulating import & export laws to concentrate more on the illicit side of trade. The better-secured trade is; the better it will flow. It is indeed a paradoxical issue.

On the same note, we must be careful not to set in motion the idea of security measures being misconstrued as trade facilitation measures. For instance, CSI and C-TPAT were developed as security measures, but as they get implemented in a real world setting, they have become facilitation procedures. One of the incentives to join these programs is to have one's shipment expedited. Shipments with a CSI or C-TPAT "rubber stamp" of approval will be quickly released without the traditional restrictions and additional customs inspections that have surfaced since 9/11. So, countries that are not CSI members or companies that are not C-TPAT certified may feel less competitive in the global market. In that sense, those programs have created a reverse effect from being security measures to becoming trade facilitation measures.

Looking back to 9/11 as a point of reference, I am a believer that the 9/11 attacks and the continuation of terrorist strikes are the side effects of the end of cold war. At least

during the cold war era, the “rogue” states that we have come to know today were somewhat restrained by the Soviet Union. With the end the cold war, those same oppressed state actors became liberated to exercise their own views and that includes carrying out acts of terror in the name of religion. So, in my opinion, the end of cold war, not the event of 9/11 attacks, has come to define the turning point of 21<sup>st</sup> century historic events. But today, many have come to perceive and associate the 9/11 phenomenon and not the end of cold war, as the catalyst of change and challenge, as a point of reference for social, economic, and political transformation.

One thing is for certain, terrorism is here to stay, and we need mechanisms in place that will simultaneously protect and promote global trade. Independent of which measures are being adopted, they must be crafted and implemented intelligently, transparently, and effectively, with limited political and personal persuasion, and most importantly, the efforts must be global, as we are dealing with a transnational issue. Unfortunately, developing optimal prescriptions to solve the trade-balancing dilemma is easier said than done, as I will demonstrate in the pages that follow.

## **Chapter II**

### **Analysis of General Policy Protocols**

This chapter provides an overview of the policy machinery process. One of the purposes of conducting a policy analysis is to assess the probability for success of a particular policy in advance. Living in this age of global terrorism, time is of the essence, as danger is imminent, and certain policies just cannot afford to be tested in a real world setting, much less fail. The policy analysis process serves the function to shave off the uncertainties and downfalls that may arise during the policy development and implementation phase. It is a practice that must be applied and mastered if we are to find optimal solutions to address the trade-balancing dilemma (Kugler 2006, 2). Policy analysis is needed to make sure that the right policies are chosen. Unfortunately, no amount of analysis can prevent controversy in policy choices.

Policy is a road map; it is a set of standards that gives the proper guidance to keep the programs aligned with strategic goals and mission. Policy provides users with the necessary guidelines to best handle a situation, and for managers, the guidance to make the best possible decision. The ideas about how to balance trade facilitation with security are generally better evaluated based on how well they interact with the variables found within the policy development and implementation phases. In the upcoming chapters that cover the case studies, one will notice why certain policies and programs are better suited to carry out the “trade-balancing” strategy, as the categories found within the policy implementation and development play an important role in streamlining such process.

## Policy development

Policy development is a term used to describe the framework that is being used to formulate policies. It is the first and the most important step in the “policy-making” process. If a policy is badly rooted, then whatever follows can unduly become compromised. It is all based on the fruit of the poisonous tree concept or the domino effect. It is therefore paramount to get the policy right from the start. A good geopolitical policy needs to be clear, concise, and flexible to sustain the forces of globalization. A good policy should always be practical. It is through the practical factor that one can measure the level of effectiveness of a policy, a program, and for that matter a strategy. Policy development in a global trade facilitation and security context needs to be attentive to global actors, non-governmental actors, and state-centric actors.

Unfortunately, policymakers and politicians alike are often known to develop policies that are ambiguous, incomprehensive, and impractical in nature. An idea may sound great on paper, but when applied in a real world setting where variables of uncertainty, complexity, and practicability come to test such idea, it may not work as planned. Risk management and assessment are good calibration tools during the policy development stage that are often times unused or misused.

Ad-hoc responses and ineffective policymakers can significantly overshadow the overall policy development process. Sometimes, policies are developed in an abrupt manner, triggered by unprecedented roadblocks of life, or created for liability and/or for appearance purposes rather than to serve the greater good. That, in itself, can come to represent a problem, especially if they are policies that are being developed to attend the needs of global trade, a subject matter of multi-jurisdictional and multi-faceted scope.

Often time, policymakers do not have the proper background, training, or credential to formulate policies. The events of 11 September 2001 have propelled the creation of several policies and procedures that have come to be ineffective because they were formulated in hurry, haphazardly, and by the wrong people. Examples to substantiate such a statement will be covered in later chapters.

Policy development is indeed an intricate process, but a necessary one. Policy development includes, but is not limited to the fundamentals of research, vetting, initiation, composition, approval, and monitoring.

## Research

The most important step to take when formulating policy is to listen and to evaluate whether there is an actual need to have a policy devised in the first place. The first course of action is to conduct a survey, such as market research, for policy suitability. The users, the enforcers, and the managers, the personnel who will be affected by it, would probably be the best pool of survey takers that need to be consulted prior to devising any policy. As obvious as the above statement may sound, it is not always practiced. By vesting such a course of action from the start, the likelihood to develop a meaningful and successful policy is promising. By conducting a poll for policy formulation in advance, time wasted and misuse of invaluable resources would be kept to a minimum. In the domain of finding a balance between trade facilitation and security, there is no clear indication in public, private, or academic records that a survey was ever conducted to address such an issue, other than the application of hypothetical scenarios to determine whether a particular policy and program would work.

## Vetting

The process of identifying and vetting for existing policies aimed at the strategy of balancing trade facilitation and security is an important one to invest, as it can save time and resources in the long run. Why formulate policies from scratch when we can very well use existing ones as “go-by”, making adjustments and improvements as needed. We ought to be able to choose the most readily available ones and perfect them. The vetting process is an integral part of risk management and the assessment process where common sense, practicability, and simplicity apply.

## Initiation

Risk assessment and risk management are probably the most important factors to take into consideration when formulating policies, especially in the policy initiation phase. They can be instrumental when it comes to calibrating the amount of resources needed to formulate a policy. Misguided risk management and assessment practices are known to compromise the flow of the policy development process. Ambiguity should be avoided at all costs during the policy development initiation phase, as the fruit of the poisonous tree effect is attached. Unclear policies will only produce ineffective programs and perpetuate predicaments, hindering the overall effort of striking a balance between trade facilitation and security.

## Composition

A policy’s self-value is directly correlated to the quality of a policymaker. An accomplished policymaker is the driving force behind a cohesive and effective policy. It

is paramount that the selection of policymakers be impartial and practical. Well-written policies and well-developed procedures lie at the heart of the successful implementation of standardized manuals, policy and procedural documents, and work instructions. People in charge of composing such policies and manuals should have the appropriate credentials to perform such a task. It is a critical assignment that should not be taken lightly.

### Approval

Deciphering who is going to be ultimately responsible for the policy itself should be directly correlated to whom should be the ultimate approving official. At the end of the day, it is that person-in-charge who will take the credit as well as the blame on the effectiveness or ineffectiveness of a policy. Competency, innovation, and thoroughness should be the predominant criteria to use when selecting the person in charge of validating guiding principles and action plans. As much as the above statement may sound like an understatement, it is often overlooked. For the strategic goal of finding a balance between trade facilitation and security, usually the head of an agency and/or the executive directors responsible for developing and implementing those trade-balancing policies and programs are the ultimate approving officials.

### Monitor

When a policy is being formulated and implemented, a system of oversight and accountability must be in place to assess its progress. The mechanism should provide accurate feedbacks as to whether the policies and programs are operating efficiently.



Under the C-TPAT [Customs-Trade Partnership Against Terrorism], a CBP initiative tailored to secure and facilitate the global supply chain by fostering a partnership with the private sector, the validation process for its members fell short. There was no mechanism in place to validate what the C-TPAT members are saying that they are going to do. Such above contention will be better elaborated in a later chapter.

### Policy Implementation

As for policy implementation, this is the phase where the formulated policy's worth will be determined. It is within the policy execution phase where problems emerge with a vengeance, and not so much in the policy development phase where considerable prudence is given if proper time is allocated and the right policymakers are chosen. It is in the policy implementation where the theoretical world crashes with the real world. It is in this stage where real world settings come to test the practicability of these strategies, policies, and programs.

During the development phase where the ideas, goals, and strategies are being formed, the margin for errors can be kept to a minimum, as it operates in a more predictable and controllable environment than that of the implementation phase, where the inevitability and unpredictability factors are added to the equation. Indeed, it is one thing to come up with a decision and another to carry it out. The major areas of predicaments that may occur during the implementation phase can be found in resources management, time constraint, practicability, limited focus, and inefficient oversight.

## Resources

One of the classic deficiencies that emerges during the policy implementation phase is resource allocation. Within the domain of resources, cost management, human capital, and technological compatibility is where the areas of chronic problems can easily surface. Cost overrun is probably one of the most common predicaments faced by policymakers and program managers alike during the implementation phase. Applying the proverbial "expect the unexpected" is a good practice to factor in when dealing with cost. Capital resources can definitely become a problem if preventive measures are not properly in place. Human resource is another core issue. Not having the right people or enough people is a familiar problem. Having a competent workforce can make all the difference during the implementation process. The other common challenge is technological shortfall or merely the wrong choice of technology that is being employed for a task, which in this case, the wrong technology and equipment that are being used to examine sea shipping containers. All these resources, singularly and/or collectively can significantly impact the efficiency of a program, and for that matter, jeopardize the entire strategic goal.

CSI [Container Security Initiative] is a good example to illustrate the aggregated challenges found in resource management, cost overrun, and technological shortfall. CSI is a CBP program directly designed to carry out the strategic goal of balancing trade facilitation and security. One of the CSI key components is deployment of CBP officers overseas. Within the CSI implementation phase, it is not an uncommon practice to deploy less-than-qualified CBP officers to carry out the CSI mission. As CBP covers an array of customs disciplines in addition to incorporating immigration functions, it is highly

feasible that some of the CBP officers being deployed may have never seen a container, never targeted one for examination, much less physically examined one up close. Compounding these factors with high cost and limited capability of Non-Intrusive Inspection (NII) equipment and radiation detection technology to examine high-risk containers, another critical component of the CSI program, we might very well set the entire CSI mission for a failure.

## Time

Schedule delay is a prevalent problem found during the implementation phase. Just as is cost, unpredictable aspects of life and world events come to test the time factor. For instance, natural disasters, such as Hurricane Katrina, can seriously deplete one's planned resource allocation. Time, funding, and personnel were shifted to attend the havoc created by this hurricane that hit parts of Louisiana with great vengeance. Personnel from sister agencies within the DHS, such as Immigration and Customs Enforcement (ICE), CBP, and Coast Guard, were deployed to assist the Federal Emergency Management Agency (FEMA) with the effort of dealing with Katrina and its aftermath. Some managers and staffers who were directly involved in the implementing phase of policies and programs tailored to the global trade balance strategy, may have had their precious time taken away to assist with the Hurricane Katrina and its aftermath. Unfortunately, uncontrollable events have to be factored in when assessing time management. Time adjustment ought to be a practice to be taken into account during the policy implementation phase, which is often time overlooked. Additional time allocation

should be factored in as a cost of doing business. It is better to be perceived being ahead of schedule rather than behind of schedule.

### Practicability

Although cost, personnel, time, and technology are important elements to be considered during the implementation process, the most important aspect to take into account is the practicability factor. No matter how expensive or cheap is to implement a policy or a program, or how well or poorly it is applied, or how long it will take to put into practice, it all becomes irrelevant if it is not practical. Policy with pragmatism matters. The most effective element in practicability is the degree of impact that it will have on the users, enforcers and managers. It is within the policy implementation phase that we are going to find out whether a set of procedures, a strategic goal, and, for that matter, a mission will really work. It is the practical factor embedded in the policies and programs that really counts.

### Oversight

Oversight is another element that is much needed during the implementation phase. It will give the necessary structure to keep a program aligned with its strategic goal. The performance measures must be quantitative, qualitative, and practical in nature. For every step of the program implementation, developers, enforcers, and managers alike must be evaluated and accountable for their actions. Independent agencies, such as the Office of Inspector General (OIG) and Government Accountability Office (GAO) should

be involved throughout the process, as they possess the corporate knowledge, the infrastructure, and the credibility to perform such a task.

When it comes to addressing the equilibrium between security and facilitation initiatives, security policies are much harder to evaluate than facilitation protocols. How can one properly compare security procedures, as they are specific in nature? What are the criteria used to quantify and qualify a security measure? One may use the number of seizures (i.e. contraband) to measure the level of success. While one may argue that quantifying seizures is a good indicator that a particular policy/program is being effective, another may argue that no seizure of contraband is also a good indicator that the same policy/program is working, as it has become a deterrence. Appraising the level of success on security measures is indeed a complicated matter. On the other hand, evaluating facilitation measures is much easier to assess. One can measure the level of success by counting the number of goods released in the market and by timing the flow of legitimate goods when crossing border lines.

### Focus

Because life is dynamic, it is easy to get side-tracked. World events, the changing of mission and personnel, natural catastrophe, and the creation of new departments and agencies can easily distract the natural course of a strategy. Focus is needed to align strategic goals with policies and programs. Performance shortfall is a clear indication that policy and strategy are out of focus.

In sum, this chapter summarizes what the policy analysis process generally entails. Through an array of pertinent variables from both policy development and policy

implementation, a guiding principle is ascertained. As long as the strategy of striking a balance between trade facilitation and security hangs in the balance, these variables will help to shape the best possible policies that conform to this particular strategy. In the grand scheme of this dissertation, policy development and implementation are two major components in the “policy-making” process that are paramount to address. What follows is Chapter III, in which the use of an elite survey puts the trade-balancing issue in a more specific perspective.

## **Chapter III**

### **Analysis of Specific Criteria**

In order to gain a better understanding of the trade facilitation and security dilemma, a survey targeting former and current customs officials was conducted, as their opinions on the subject matter are invaluable. This survey is elite in nature as the participating individuals display specific knowledge – customs, trade, and security background. This elite survey was sent to individuals who are and/or were once associated with the U.S. customs administrations, the Canadian customs administration, the New Zealand customs administration, the Hong Kong customs administration, the EU customs administration, and the WCO. The only entities that responded to the survey were the U.S. customs administrations and the WCO. Both the Canadian and the Hong Kong customs organizations replied by stating that they did not grant such a request, while the New Zealand customs administration and the EU customs did not respond at all.

This dissertation outlines an overview of a four-page elite survey, a 16-item self-administered questionnaire that was approved by the Rutgers University - Office of Research & Sponsored Programs. This three-month survey has followed the strict guideline of the Institutional Review Board for the protection of human subjects in research. This elite survey contained 11 questions with 5 follow-up sub-questions. Each criteria/question was rated from a scale of 1 to 5: (1) as none; (2) as low; (3) as average (4) as high; and (5) as highest, yes and no choices, and comments. After a thorough examination, the pertinent factors of the survey are reported in Figure 2.1.

Out of 35 surveys sent, 32 participants responded, a response rate of nearly 91%.

Below are the highlights of the survey:

- The respondents of the elite survey ranked as extremely high (4.5) the level of interest when it comes to addressing the issue of striking a balance between trade facilitation and security.
- The respondents of elite survey rated as high (3.9) the level of significance in addressing the possible vulnerabilities found in international trade compared to potential vulnerabilities found in other types of infrastructure, such as nuclear power plants, global communication networks, or mass transportation systems, to name a few.
- The respondents of elite survey graded as above average (3.9) the use of technology as a sound solution in dealing with the balance between trade facilitation and security in comparison to other possible resolutions, such as fostering international and B to G cooperation, domestic and international information sharing, optimal recruitment and training, and corporate knowledge retention and dissemination.
- 70% (those who responded in the affirmative) of the survey participants knew what Radio Frequency Identification (RFID) was and 50% believed that RFID was a valuable and useful tool to address the issue of balancing trade facilitation and security.
- The respondents of the elite survey assessed as above average (3.6) the value of RFID to address the trade-balancing issue as such technology has at least dual usages. RFID can both meet the needs of the private sector in terms of supply chain/inventory control and the demands of governments as a tracking and detection device.
- The respondents of the elite survey rated as above average (3.5) the need for the government to lead the efforts of striking a balance between trade and security.
- 94% of the elite survey participants believe that the customs administration is the appropriate governmental agency to spearhead such an effort.
- 68% of the elite survey participants believe that the WCO ought to be the ultimate entity leading such an effort since we were dealing with a global issue that was highly related to customs matters.
- 38% of the elite survey participants believe that the WCO is capable of leading such an effort, as it does not have enforcement authority.



- The respondents of the elite survey ranked as above average (3.5) the need for the private sector to lead the efforts of striking such a balance.
- 94 % of the elite survey participants believe that both the government and the private sector should share the responsibility of striking such a balance.
- 52% of the elite survey participants believe that it is possible to share real intelligence and foster genuine international cooperation given the complexity of nation-state geopolitics.
- The respondents of the elite survey ranked as average (3.0) the level of effectiveness for both government and the private sector in setting long and short terms goals in terms of creation, change and implementation of rules and regulations aimed to strike a balance between trade facilitation and security.
- The respondents of the elite survey rated as average (3.0) the level of redundancy of current local, national, regional, and international responses when it comes to addressing the “balance” issue.
- The respondents of the elite survey ranked as high (4.0) the likelihood for an Improvised Explosive Device (IED) or a WMD to be used to disrupt global commerce.

In short, the purpose of conducting this elite survey was to add value to the dissertation by presenting additional points of view from a pool of subject matter experts in trade facilitation and security with roots traced back to national and international arenas. It is perceived from this survey that respondents viewed the B to G partnership critical, as is the use of technology. At the same token, only roughly half of the survey participants believed in international cooperation in the form of intelligence sharing. In that sense, the overall conclusion reached is that collaboration among global actors varies in kind and degree. In the grand scheme of this survey, this focus group reached the consensus that customs organization should take the lead in striking the balance between trade facilitation and security.

Figure 2.1: Criteria and overall rating to measure the relationship between security and facilitation of global trade

<b>ELITE SURVEY</b>	
<b>CRITERIA</b>	<b>RATING</b>
<b>Level of Interest</b>	<b>4.5</b>
<b>Level of Priority</b>	<b>3.9</b>
<b>Technological Approach Advocate</b>	<b>3.9</b>
<b>RFID Supporter</b>	<b>70% Yes, 27% No, 3 % Blank</b>
<b>RFID Valued</b>	<b>3.6</b>
<b>RFID Benefit Outweighs its Detriment</b>	<b>50% Yes, 41% No, 9% Blank</b>
<b>Government Involvement</b>	<b>3.5</b>
<b>Customs Leadership</b>	<b>94% Yes, 6% No</b>
<b>WCO Leadership</b>	<b>68% Yes, 32% No</b>
<b>WCO Leadership Despite No Enforcement Authority</b>	<b>38% Yes, 53% No, 9% Blank</b>
<b>Private Sector Involvement</b>	<b>3.5</b>
<b>Sharing Responsibility</b>	<b>94 % Yes, 6% No</b>
<b>International Cooperation and Intelligence Sharing</b>	<b>52% Yes, 48% No</b>
<b>Effectiveness of Long and Short Term Goals</b>	<b>3.0</b>
<b>Redundancy in Resolutions</b>	<b>3.0</b>
<b>Global Trade Disruption by IED or WMD</b>	<b>4.0</b>

Source: Elite Survey

In sum, Part I underlined the core argument of the dissertation followed by a background of the problem, an overview of the policy machinery process, and the outcome of an elite survey. More specifically, chapter I attempted to convey the idea that balancing trade facilitation and security is a paradoxical issue as its contexts are contradictory in nature. It is also further argued that it is more in the implementation rather than in the development phase of policies and programs where problems emerge.

Chapter II attempted to pinpoint where problematic areas tend to arise in the formation and execution of policies and programs. Chapter III outlines the result of a survey taken by current and former customs officials from all around the world. What follows is Part II, which will elaborate on the trade-balancing matter from national, regional, and global perspectives through a series of case studies. Chapter IV and V will illustrate case studies based on national views from the U.S., Hong Kong, New Zealand, and Canada customs administrations' dealings with the "balance" conundrum. Chapter VI will underline a regional view based on the European Union's approach to the subject matter in question while Chapter VII will portray a global view based on WCO's perspective on the trade-balancing dilemma.

## **Part II: Case Studies in Policy and Program Development and Implementation: National, Regional, and Global Spectrum**

As the inquiry of finding a balance between border control and trade facilitation has increasingly become a worldwide concern, it would certainly be interesting to examine the courses of action taken by customs administrations around the world as pertains to the “balance” issue. Why customs and not any other organization in the government, one may ask? The answer is simple. Customs agencies manage the interface among the world’s economy (McElman 2003). The Customs organization plays one of the most important and traditional roles in the administration of global trade. The Customs administration is the chief enforcer and facilitator of global trade and border security in its own right. It is a mandatory checkpoint that clears inbound, in-transit and outbound movement of goods, people, and services, collects duties when applicable, enforces import and export laws, and secures the borders. However, the event of the 9/11 attacks has changed the identity, the role, functions, and responsibilities of customs organizations around the world, particularly the U.S. customs.

Before the 9/11 attacks, the customs organization’s primary challenge was to strike a balance between trade facilitation and customs control with emphasis on collection of tariffs, commingled with the responsibility of curtailing traditional illicit transnational activities. Prior to the 9/11 events, historically speaking, the initiatives and policies tailored to international trade facilitation and security practically ran on opposite tracks due to the very nature of their own affiliations – restriction versus facilitation. In the past, measures to secure the global supply chain were known to clash with the initiatives that promote global trade facilitation. Protectionism through strict tariff control

was a way to approach trade for many countries. Not until 15 to 20 years prior to 11 September 2001, customs administrations, particularly in developed countries, began focusing on trade facilitation by eliminating, or at least by minimizing the unnecessary customs controls, as Michael Schmitz, the WCO Director of Compliance and Facilitation and a former high level official in the U.S. customs administration pointed out during one of his speeches about the revised Kyoto convention (WCO 2007c).

In a post 9/11 environment, however, the new challenge is to find a balance between trade security and facilitation with emphases on bilateral and multilateral agreements, combined with the responsibility of preventing another terror attack by deterring the smuggling of WMD through one's porous borders. Global trade security is indeed a complex issue to address. It deals with border security, economic security, national security, maritime security, port security, cargo security, and supply chain security.

According to a United Nations Economic and Social Council (2006) report, trade security is a double-edged sword conundrum. Trade security in terms of threats can be defined in two ways: threats can be imposed "To Trade" and "From Trade." Threats *to trade* would be the ordinary smuggling, hijacking, cargo theft, fraud, etc. and threats *from trade* would be to use the weakness in the global supply chain to smuggle WMD and terrorists to their final target of destruction.

Through the case studies that follow, this author hopes to enlighten the "balance" issue from national, regional, and global perspectives. Each case study was selected on the merits of importance and availability of research material. In addition, the U.S. was chosen as a case study because of its leading role in the global trade system and

transnational security. Hong Kong was selected due to its unique position in the global market as both a supplier and a consumer. Studying Hong Kong will give us a better overview of China, which is increasingly becoming a powerful international actor. New Zealand was chosen because of its innovating role and its efforts in taking a more leading role in the WCO. Canada makes an interesting case because of its geographic proximity to the only remaining superpower of the world as well as its economic dependency on the U.S. market. In sum, each of the case studies was organized in terms of policy and program analysis followed by a comparative conclusion.

## **Chapter IV: U. S. Customs Administrations**

Chapter IV portrays a national view based on the U.S. customs administrations' effort to cope with this "balance" challenge. Prior to March of 2003, the legacy USCS [U.S. Customs Service], founded on July 31, 1789, was known both as the second largest revenue-collecting agency and as a premier law enforcement entity, falling under the guidelines of the U. S. Department of Treasury (CBP 2007a). The USCS was indeed one of the oldest U.S. federal agencies with a rich history dating back as far as that of the nation itself. The U.S. customs organization has always been the most visible authority responsible for border and trade security.

From the moment that the tentacles of international terrorism physically reached the U.S., claiming almost 3,000 lives and putting the rest of its citizens' lives and livelihood in peril, the world that we came to know was about to change. In the wake of the 9/11 terrorist attacks, front-line agencies like the USCS, one of the CBP's key legacy agencies, has been called upon to aid in the efforts of overcoming this overwhelming challenge - fighting terrorism while maintaining the free flow of legitimate goods, people, and service. This was not the first time that the USCS was enlisted to overcome challenges of great magnitude.

In the early years of its existence, the USCS was called upon to save the young nation [United States] from the brink of bankruptcy. This organization was known to single handedly finance the entire government and its major infrastructures. Fighting a revolution had depleted the nation's treasury and through collection of duties on imported goods, the USCS was able to restore the nation's coffer and confidence (Kane 2008, 52). Two hundred years later, CBP is aiding with the efforts of protecting and promoting

global trade in this age of global terrorism. Just how CBP will arrive at the right balance between border openness and border controls stemmed by terrorism and traditional transnational threats to public safety and security continues to be a perpetual question.

As the concern to balance trade facilitation and security is directly correlated with border security and national security, the U.S. efforts in addressing this “balance” issue, directly or otherwise, could be traced back as early as 1993, when the first terror attack physically reached American soil - the first World Trade Center attack. From that moment on, it captured the interest of the U.S. Congress to further examine and understand the relationship between terrorism and border security. Starting in 1998, the U.S. Congress created and sponsored three commissions to broaden the understanding of the terrorist threat in America. They were the Gilmore Commission, which investigates domestic responses towards weapons of mass destruction, the Bremer Commission, which explores terrorist threats and preventive measures, and the Hart-Rudman Commission, which addresses national security challenges in the 21st Century (Seghetti, Lake, and Robinson 2005b). Following the aftermath of the Sept. 11th attacks, both the White House and the Congress set plans in motion to combat a “post cold war” threat; known as terrorism. In order to have a better understanding on the trade-balancing issue, we must first understand the terms of terrorism and terrorist in a global trade context.

Terrorism is not a new concept. It existed for decades and in many venues. Terrorism has surfaced in Spain through the Basque Fatherland and Liberty, in Colombia through the Revolutionary Armed Forces of Colombia, in Sri Lanka through the Tamil Tiger, in Ireland through the Irish Republican Army, in Palestine through the Islamic Resistance Movement Hamas, in Afghanistan through the Al Qaeda and the list goes on



(U.S. Department of State 1997). As Mr. Mohd Puad Zarkashi from the United Nation's Committee on terrorism pointed out that until nation-states countries agree on the concept of terrorism, there will always be loopholes and safe havens for terrorists to escape justice and the rule of law (United Nations 2005). According to a series of organizations attempting to define the term terrorism, they all share the same general syntax: terrorism is generally defined as the use of force or violence against individuals, governments, or properties in the furtherance of one or a group of individuals' political, religious, or ideological views. In specific terms, according to Title 22 of the United States Code, Section 2656f (d), the term terrorism is defined as a calculated, politically and religiously motivated violence committed by groups or a single individual against non-combatant targets (Cornell University Law School 2007).

Defining the term terrorist has also proven to be a challenge. The term terrorist is also wide open for interpretation. Depending on whom to ask, one may get a different answer every time. Terrorists can be viewed as zealot individuals who use any means necessary, especially violent ones, to carry out their purpose. If one asks whether the Hamas group is a terrorist group to both the Israeli and the U.S., both governments would label Hamas as a terrorist group. Former Prime Minister of Israel, Benjamin Netanyahu, said that Hamas promotes the destruction of Israel, and the U.S. State Department lists Hamas as a terrorist group (CNN 2006a). However, if one asks the Palestinians from the West Bank about Hamas, the majority views them as freedom fighters, liberators of Western oppression, so much so that they won the Palestinian recent elections (Wilson 2006). The difference now is that the events of 9/11 have accentuated terrorism. When the World Trade Center, a symbol of western wealth and the Pentagon, an icon of mighty

U.S. military power, were attacked, such actions have shed a new light on terrorism. It appears that the war of terrorism has replaced the cold war.

In any event, a terrorist attack on American soil has decisively turned a new page in the American history and for that matter the history of mankind. The U.S. Congress enacted several laws to provide the necessary legal foundation for subsequent actions, as both the government and its citizens demanded - these callous attacks would not go unanswered. Through the Homeland Security Act of 2002, the Congress enabled the White House to create the Department of Homeland Security (DHS). Through the U.S. Patriot Act, the government provided the law enforcement community, the fundamental legal tool to confront this new challenge that the nation was about to face. In the meantime, the White House, under the Bush Administration, created the Office of Homeland Security and put in charge the former Governor of Pennsylvania, Tom Ridge. This new office would serve as a command center where a centralized anti-terrorism and border security action plan could be discussed, drafted, and directed. On June 6, 2002, President Bush proposed the establishment of a new department - DHS (Koslowski 2002).

DHS has become the “new” department entrusted to secure the U.S. borders, ports of entry, transportation sector, and critical infrastructure. DHS has also the role to coordinate communications with state and local governments, to train first responders, to manage federal emergency response activity, and much more. DHS was created to tackle man-made, home-made, and nature-made hazardous threats. DHS is in the business of preventing, protecting, and responding to any forthcoming disaster (DHS 2002). Picture 1 illustrates the DHS formation. It shows exactly how “legacy” agencies became new

agencies. Unfortunately, the creation of DHS and its agencies was not without critics. A reorganization of such magnitude is doomed to be followed by controversies.

Figure 3.1: DHS organizational structure

<b>Original Agency (Department)</b>	<b>Current Agency/Office</b>
1. U.S. Customs Service (Treasury)	CBP [U.S. Customs and Border Protection] ICE [U.S. Immigration and Customs Enforcement]
2. The Immigration and Naturalization Service (Justice)	CBP, ICE, and U.S. Citizenship and Immigration Services (CIS)
3. Federal Protective Service	ICE
4. Transportation Security Administration (Transportation)	Transportation Security Administration
5. Federal Law Enforcement Training Center (Treasury)	Federal Law Enforcement Training Center
6. Animal and Plant Health Inspection Service (part)(Agriculture)	CBP
7. Office for Domestic Preparedness (Justice)	FEMA [Federal Emergency Management Agency]
8. Federal Emergency Management Agency	FEMA
9. Strategic National Stockpile and the National Disaster Medical System (HHS)	Returned to Health and Human Services, July, 2004
10. Nuclear Incident Response Team (Energy)	FEMA
11. Domestic Emergency Support Teams (Justice)	FEMA
12. National Domestic Preparedness Office (FBI)	FEMA
13. CBRN Countermeasures Programs (Energy)	Science & Technology Directorate
14. Environmental Measurements Laboratory (Energy)	Science & Technology Directorate
15. National BW Defense Analysis Center	Science & Technology

(Defense)	Directorate
16. Plum Island Animal Disease Center (Agriculture)	Science & Technology Directorate
17. Federal Computer Incident Response Center (GSA)	U.S. CERT
18. National Communications System (Defense)	Office of Cyber-Security and Communication
19. National Infrastructure Protection Center (FBI)	Office of Operations Coordination and Office of Infrastructure Protection
20. Energy Security and Assurance Program (Energy)	Office of Infrastructure Protection
21. U.S. Coast Guard	U.S. Coast Guard
22. U.S. Secret Service	U.S. Secret Service

Source: DHS Website

One of the controversies that surrounds the creation of this new department rests on the fact that DHS is actually composed of 21 agencies as of July 2004 and not 22 as it is often misreported. The Strategic National Stockpile and Nation Disaster Medical System was returned to its original department, the U.S. Department of Health and Human Services. Why was this particular agency allowed to move back? That is a controversy that will probably go unanswered in a public arena. A quick glance at which legacy agencies became part of DHS has revealed that some original agencies were fragmented during the formation process while others were brought intact into DHS, particularly those involved and in charge of enforcing the U.S. borders: seaports, airports, and ports of entry. That, in itself, is another issue that surrounds the controversial formation of DHS.

As of March of 2003, the USCS got fragmented and its components merged to form CBP and ICE. Both newly created agencies are now collectively<sup>1</sup> known as the “U.S. customs.” The Immigration and Naturalization Service (INS), on the other hand, has become CBP, ICE, and CIS under the new organization structure.

Among DHS agencies, CBP, ICE, Coast Guard, and TSA are the primary entities entrusted to strike a balance between trade facilitation and security. Their missions, duties and functions have evolved from the concept of protecting the U.S. from terrorism and transnational crimes alike without hindering the flow of legitimate trade. It is a controversial question as the need to have four independent agencies within the same department tackling the same issue. Furthermore, instead of having one agency in charge of enforcing either immigration or customs matters, one has now CBP and ICE collectively and simultaneously enforcing immigration and customs laws.

A closer look at the new border agencies’ formation also revealed that with the merge of the immigration and customs mission and personnel, the uniformed division of the legacy USCS and INS became CBP officers, and the Border Patrol agents also went to CBP. Meanwhile, the non-uniformed division including criminal investigators of the legacy USCS and INS, the USCS intelligence specialists, and the INS detention and removal officers all went to ICE. So the controversy rests on the logic as to why to separate the uniformed division from the non-uniformed division. A good analogy would be to take a police department, split the uniformed police officers from the detectives, and

---

<sup>1</sup> But because of how it was named, CBP –Customs and Border Protection is better perceived to be associated with the legacy customs agency while ICE- Immigration and Customs Enforcement is better known to be associated with the legacy immigration agency, despite to the fact that both agencies enforce immigration and customs rules and regulations.

multiply such action by two, since we are dealing with customs and immigration organizations. Indeed, those are the major controversies that surround the DHS formation. The way that the DHS components were formed is an enigma that few can make a sense of it and fewer are committed to get to the bottom of it. Untangling such a bureaucratic mess is to admit that mistakes were made.

Legacy USCS and INS officials are now expected to be well versed on each other's domain of expertise. Although the subject of enforcing customs and immigration laws shares a common trait- the border, they are distinct disciplines in their own right. It is hard enough to find a subject expert in one discipline on any given capacity; it is even harder to find a subject expert in both immigration and customs. If seasoned officers need more time to adjust with this new change, the recent graduates will need much more time to master both subjects, but time is of essence in this age of terrorism. As CBP's primary mission has shifted from revenue collection and fighting traditional transnational crimes to being the first-line of defense against terrorism, more time and resources will be required to protect international trade.

As Richard M. Stana pointed out DHS is the third largest governmental agency with an estimated budget for the year of 2007 in the amount of \$40 billion dollars and a workforce of approximately 170,000 employees. Not since the creation of the Department of Defense (DOD), more than 50 years ago, has the government experienced an integration of this magnitude. In DOD's case, the effective transformation took several years to achieve, and yet, DOD continues to endure operational and managerial challenges, in part, legacies of its unfinished merge. DOD was formed from three entities (Department of Navy, Department of Army, and Department of Air Force) with each one

sharing a common mission - national defense. DHS, on the other hand, is comprised of 21 “legacy” agencies whose principal missions vary. Some of their missions are related to homeland security such as border control, law enforcement, and cyber security, while others, such as marine safety and natural disaster response, are not. Moreover, some of the legacy agencies were brought intact while others were fragmented, reshuffled, and revamped to form new agencies. Yet, only through an effective assimilation of these newly created entities will the U.S. rise to overcome the challenge of safeguarding the homeland against terrorism. The scale of the responsibilities, combined with the challenge and complexity of the transformation will certainly be one daunting task to conquer (Stana 2003). Somehow, it seems that history is repeating itself. While DOD was formed under the national defense umbrella, DHS is now being formed under the homeland security umbrella; both actions triggered by the threat of “war” (cold war and war on terrorism). Furthermore, I cautiously suspect that there is only a thin line separating national defense and homeland security. Governmental reorganization is indeed an intriguing issue.

Meanwhile, in the midst of DHS’s controversial formation, the men and women of CBP still have a job to do. To address such an epic conundrum, under Bonner’s guidance, he directed CBP to come up with programs and policies that were tailored to the need of “National Strategy for Homeland Security.” CBP has developed several initiatives to simultaneously secure and facilitate global trade. The C-TPAT, the Advance Electronic Cargo Information Notification “the 24-Hour rule”, the CSI, the Free and Secure Trade (FAST) program, and many others have been created to address such a

balance. What follows is my attempt to synopsise each CBP program tailored to address the trade-balancing challenge.

#### Customs -Trade Partnership Against Terrorism (C-TPAT)

C-TPAT is a program tailored to cultivate a close working relationship between CBP and key operators of the global supply chain such as importers, shippers, freight forwarders, customs brokers, transporters, consolidators, Non-Vessel Operating Common Carriers (NVOCC), terminal operators, and manufacturers in providing the highest level of cargo security. The name itself Customs – Trade Partnership Against Terrorism sums up best the objective of the program, which is to foster a B to G partnership between the private sector and CBP to make the global trade safer and more secure from terror threats while simultaneously facilitating its flow. C-TPAT participants' role is to sponsor a secured supply chain from the supplier's loading zone to a U. S. port of entry. C-TPAT membership operates under a tiered principle where each member is categorized under a tier-status that ranges from the lowest: tier one, to the highest: tier three, with each tier having its own set of requirements and benefits. The beneficial treatments include, but are not limited to, expeditious processing of their shipments, reduction in the numbers of CBP physical inspections, and exemption from inspections under the FAST initiative, not to mention better customer service for those who are members (CBP 2007b).

To successfully join C-TPAT, which operates on a voluntary basis, a company must conduct a comprehensive self- assessment of its current supply chain security procedures using C-TPAT security criteria. To become a C-TPAT member, a participant



must meet minimum supply chain security standards. Perhaps most importantly, participants also make a commitment to work with their business partners and customers throughout their supply chains to ensure that those businesses also increase their supply chain security. By using C-TPAT importers' influence as leverage, C-TPAT is able to increase security of U.S. bound goods to the point of origin – the manufacturers. Such influence is an important one because C-TPAT operating procedures and regulatory reach are limited in a foreign environment (Ibid). Such argument will be better elaborated in a later section. The SAFE Port Act provides the legal support for C-TPAT.

Although C-TPAT is built on a B to G partnership, the sense of mutual trust needs to be cultivated and improved. The self-policing is still a premature proposition at this point. A system of checks and balances and the doctrine of “trust, but verify” are still much needed. Therefore, CBP has created a position known as Supply Chain Security Specialist (SCSS) to validate the commitments made by C-TPAT participants. This cadre of specially trained SCSS together with personnel from C-TPAT certified companies and their business partners evaluate their supply chain security measures. Such procedures vary from security at manufacturing stations and overseas loading docks to means and routes of transportation connected to the United States. Through this validation process, CBP attempts to work closely with the certified members to identify innovating techniques that they can use to further increase their overall supply chain security. Companies that are not honoring their commitments may have their certification temporary suspended or permanently revoked (Ibid).

As of March of 2006, during a C-TPAT conference, Deputy CBP Commissioner Deborah J. Spero pointed out that C-TPAT has increased its memberships from 4600 to have over 5700 certified partners. Out of 5700 partners, 1500 had been validated and another 2,200 members were in progress (CBP 2006b).

The overall C-TPAT objective is to concentrate security efforts on high-risk containers while facilitating the flow of low risk ones. C-TPAT members' containers are considered of low risk. To efficiently utilize CBP's already limited human and financial resources is one of the primary goals of the C-TPAT program. Although C-TPAT holds great promise as a program that improves supply chain security without compromising the flow of legitimate containerized cargo, it is far from being perfect. This is a classic example of a strategic program that nails the concept, but falls short on its implementation. Unquestionably, the main flaw in the C-TPAT program is its validation phase, which is a big part of the implementation phase.

As previously stated, an important part of the C-TPAT program encompasses the validation process. When a SCSS does not have access to C-TPAT certified members' partners – including owners of manufacturing plants, such as those located in China, the part of the validation process that requires on-site visits by CBP personnel becomes compromised. Therefore, this increases the level of difficulty and delay in validating business partners of C-TPAT certified companies.

As of now, it is unfortunate that China prohibits C-TPAT validation of Chinese companies on the grounds of sovereignty. However, there is a possibility that the Chinese government may consider having an independent party to validate their companies, rather

than having CBP SCSS perform such a task. Such a compromise may work because a neutral 3<sup>rd</sup> party will not represent a direct challenge to the Chinese sovereignty, as would CBP (CBP 2007c). Of course the 3<sup>rd</sup> party would have to be vetted by both countries. Recently, we learned that the Sino-American C-TPAT negotiation has revealed that both countries have agreed to select Cotecna, a Swiss international inspection group founded in 1974, as one of many companies, to participate in a one-year pilot program to conduct on-site supply chain security validations in China. The pilot program officially took effect in July 1, 2007 (Asia Pulse 2007).

GAO indicated in a 2005 report that CBP was known to grant benefits before members had completed the validation process. In addition, CBP had no Standard Operating Procedures (SOP) to record and indicate what scope of effort was adequate to constitute the validation. CBP had not developed a comprehensive set of performance measures for the program. Key program decisions were not always documented and problematic feedback was not updated regularly or accurately. GAO recommended that CBP eliminate the weaknesses in its validation process, complete its human capital plan and performance measures, and put in place internal controls for the program (GAO 2005a).

GAO also pointed out that the current procedure that is in place to validate each and every single member has high backlogs. The reasons for the backlog can range from the sheer volume of C-TPAT certified members to the shortage in the number of SCSS available to the SCSS' level of experience. Keeping in mind that CBP is composed of legacy customs, immigration, and agriculture personnel; therefore, a SCSS position must

be legally made available to everyone, regardless of his/her specific supply chain experience or knowledge.

Eventually, the success of C-TPAT will depend on the private sector's level of commitment and compatibility to the program. Companies like Wal-Mart and Nike with their sheer economic influence, will eventually weigh in on the fate of C-TPAT's success. They are the ones who have the leverage, through business partners such as the manufacturers, in pressuring uncooperative governments, such as the Chinese government, to overcome differences in terms of what C-TPAT was designed to accomplish in the first place. This is assuming that the basic law of economics is applicable where the law of supply and demand gives the importers an upper hand over the manufacturers.

The concept behind C-TPAT is not new. The Carrier Initiative Program (CIP), the Americas Counter Smuggling Initiative (ACSI), and the Business Anti-smuggling Coalition (BASC) were the predecessors of C-TPAT. These programs were originally created to detect and deter narcotics from commingling with legitimate commercial cargo. So, the ideals of supply chain security and B to G partnership have preceded the 9/11 era.

CIP, established in 1984, was a voluntary program designed to foster a close working partnership between the legacy USCS [U.S. Customs Service] and the carriers. The program encouraged the air, sea, land, and railroad carriers to improve their security practices to minimize drug smuggling onboard their conveyances. Once signed to the program, the shippers were expected to apply several security preventive measures under the USCS guidance. In the event that an illegal shipment was intercepted, penalties that

would normally be applied would be reduced or mitigated (North of England P&I Group 2006).

BASC, initiated in 1995, was a business-led and customs supported anti-smuggling program aimed to simultaneously facilitate and secure the entire supply chain process between the United States and its business partners. It is a voluntary program that has no government-imposed mandates and operates under the premise of increasing the private industry's awareness about having their companies utilized by smugglers and terrorists alike (CBP 2001).

ACSI, instituted in 1998, was a program established by the former USCS to strengthen anti-smuggling security programs with the business communities and governments throughout Central and South America. It is an initiative that was built upon the success of the CIP and BASC (CBP 2008a).

However, some analysts have argued differently and distinctly. One of the World Customs Journal' contributors, Michael D. Laden, a private sector expert on customs matters, has suggested that USCS, later known as CBP, did not know how the international supply chain operated before the 9/11 attacks. A line of reasoning that directly contradicts my argument as well as the one presented by Ximena Gutierrez, another World Customs Journal's contributor, who, along with her co-authors (Juha Hintsa, Dr. Philippe Wieser and Dr. Ari-Pekka Hameri), favorably wrote a well-detailed piece on BASC (Gutierrez et al.'s 2007). Laden has further insinuated that CBP was unaware that most of the business community want to do the right thing – to help the government in curtailing illicit activities. This is also flawed, as the ideals of supply chain security and B to G partnership have preceded the 9/11 era through BASC, CIP,

and ACSI. In any event, Laden and I agree at least on one point of view – our confidence in C-TPAT's potential for success. Laden's was a proponent of C-TPAT. Throughout his article published at the World Customs Journal, he conveyed the message that C-TPAT was an important, sound, and promising program (Laden 2007). He has articulated well C-TPAT's strength and weakness. He has provided a valuable analysis of the program, and I agree with many of his predictions, inferences, suggestions, and expectations.

C-TPAT, as an unofficial successor of these original programs, possesses all the necessary elements to become a successful endeavor, not just in terms of concept, but also from a functional standpoint, assuming that the flaws are being corrected. One significant difference between C-TPAT and its forerunners is in the matter of objectivity. While CIP, BASC, and ACSI were formulated to prevent drug smuggling, C-TPAT was designed to strengthen the entire supply chain to include first and foremost the targeting and prevention of the trafficking of weapons of mass destruction, then to other types of contraband and fraud. C-TPAT must encourage feedback from the private sector to determine the level of its efficiency, accountability, and fairness, rather than just relying on GAO reports. The private sector is the one who can truly measure the scope of success of this program. Even if C-TPAT falls short on its delivery, it has brought awareness to the issue of supply chain security, as the C-TPAT ideology is recognized worldwide.

Finally, it is not uncommon to have individuals, nation-states, and for that matter international organizations oppose C-TPAT on the grounds of privacy and sovereignty. Endorsing such a program can be viewed as being an enthusiast of American interests or, for lack of better word, a supporter of pro-Americanism. Nations, like China, and

international organizations, like the EU, are known to resent American predominance or American neo-imperialism practices in today's global geopolitics.

Conversely, the C-TPAT program embodies and cultivates the right values and tradition in striking the right balance between international trade facilitation and security by the U.S. customs administration. The initiative focuses on supply chain strategy and enlists the partnership of the private sector. If every single customs organization around the world adopts or at least mirrors the C-TPAT initiative, as has the New Zealand customs has with its Secure Export Scheme (SES), such multiplier and global efforts may equip us to stand a better chance to promote and protect global trade. If such initiatives would cut across domestic and nationalistic boundaries, the grand result of securing and facilitating the international commerce could be quite a substantial accomplishment. So far, 15 countries have embraced this initiative (CBP 2006c).

#### Fast And Secure Trade (FAST)

FAST is a program designed to simultaneously expedite and secure the process of clearance of commercial freight in a land border environment. It is an initiative that operates under bilateral agreements between the United States and its contiguous neighbors: Mexico and Canada. FAST attempts to facilitate and secure trade by applying risk-management principles in the fields of global supply chain security, B to G partnership, and technology to improve the efficiency of day-to-day operations in the commercial traffic at land border ports of entry. FAST identifies "low risk" participants to receive expedited border processing. Basically, FAST was designed to allow CBP

personnel to concentrate security efforts on high-risk cargo, while ensuring the movement of legitimate, low-risk commerce has minimal interruption (CBP 2005a).

The FAST program offers expeditious border clearance through dedicated lanes to those importers, carriers and drivers who have become FAST members after passing a rigorous background check. As of May 2008, there were approximately 81,000 FAST members. In terms of rating the program success, a survey conducted by the Canada Border Service Agency, the legacy Canadian Customs Service, employing the services of a Montreal research firm, revealed that out of 404 truckers who were FAST members, 89% of survey participants rated the program satisfactory. The report also indicated that FAST members saved an average 27 minutes when transporting goods into the U.S. and an average of 18 minutes when entering Canada (CBP 2008b).

The FAST program can be viewed as a supplemental initiative when compared to C-TPAT in terms of its scope and application. This initiative is only tailored toward land cargo security from two countries while C-TPAT is more complex and ubiquitous in nature.

#### 24-Hour Rule

The 24-Hour rule is another initiative tailored to assist in the balance between trade facilitation and security as a result of the terrorist threat. This strategy operates under the premise that the sea carriers and NVOCC are required to provide customs with detailed information of the contents of an ocean freight container 24 hours before it is loaded onto a vessel destined to the United States. The objective of the 24-Hour rule is to allow enough time for customs officers to analyze the information provided for the



possibility of the shipment becoming a terrorist threat. The 24-Hour rule took effect on December 2, 2002 and was fully enforced as of February 2, 2003 (USCS 2003a).

While the idea of having cargo information readily available 24 hours prior to being loaded onto a container destined to U.S. port is a great concept, it is only advantageous if the source of information is accurate and accountable in nature. The entire logic of the 24-Hour rule falls under the “fruit of the poisonous tree” principle. If the description of the contents of the container is incorrect or fraudulent in nature, then no matter how far in advance the information is submitted and how capable a CBP targeting officer may be, he or she is hindered in targeting the right containers for inspection. Even when a container is properly targeted and inspected, there is no guarantee that any WMD, contraband or fraud would be 100% uncovered. It is not uncommon to have loads of narcotics missed during secondary inspections. That is the nature of contraband; it is supposed to be well concealed.

For the 24- Hour rule to be effective, the key is to have measures in place to have the data entered with a minimum standard of accuracy and a maximum margin of accountability. It is paramount to have the correct data entered, even if it is incomplete and general in nature, as well as to hold the shipping line, the freight forwarder, and the booking personnel accountable for their actions if the 24-Hour rule is to work properly and efficiently. The other weak link is the clientele. Requiring and validating customers’ personal information such as physical address and corporate data as minimum requirements will considerably improve the overall quality of data provided. Unfortunately, there are no mechanisms in place to hold clients accountable for the information provided. The question of identity theft, credit card fraud, and many other

types of crime makes the accountability factor almost impossible to enforce. Additional financial, technical, and human resources must be allocated in order to efficiently vet the clientele list.

There is no significant “open source” information available that has catalogued incidents involving the breach of the 24-Hour rule or even a SOP that would describe in detail and in length what steps to take if the 24-Hour rule is breached. Two consequences that may ensue are to deny entry/clearance (entrance) of the compromised shipment and to penalize the perpetrators for submitting fraudulent cargo declarations. The last, any penalty assessed after the fact (WMD being smuggled in) becomes obsolete, as the threat of terror becomes imminent. Prevention is the key here.

In order to comply with the advance electronic cargo manifest requirement, transport companies would have to increase the level of staff and update the IT department, especially those computer systems that directly interface with the Automated Manifest System. At first glance, major shipping companies would need to require their customers to submit cargo data at least 48 hours prior to loading so that they can present cargo data in a timely fashion to CBP: 24-hours prior to loading in the case maritime cargo; in the case of land cargo (trucks arriving at the US borders) 1 hour prior to arrival for a shipment entered through the Pre-Arrival Processing System and Automated Broker Interface, and 30 min through FAST; 2 hours for rail cargo; 4 hours for air cargo.

Table 3.1: Cargo data submission timetable according to type of conveyance

<b>Conveyance</b>	<b>CBP 24 Hour Rule</b>
Vessel	24 hours
Air	4 hours prior to departure for the U.S. or "Wheels Up" (depending where the flight originates)
Rail	2 hours
Truck	1 hour if through PAPS or ABIS and 30 min through FAST

Source: CBP Website

Table 3.1 has demonstrated that the time for submission of data is systematic and precise. The CBP advance notification rule does not guarantee that the information provided will be accurate, just that it will be provided promptly.

To ensure proper and timely cargo data submission, transport companies would be required to undertake considerable countermeasures. These could include, but are not limited to an increase in inventory (storage fee), workload (outsourcing for document processing), production (change of schedule), and cost (additional expenses) (Cunha 2004). An Organization for Economic Cooperation and Development (OECD 2003) report estimates the potential burden imposed on carriers by this “24 rule” to be approximately \$281.7 million per year. In the end, the 24-rule can be a costly endeavor, but an optimal and indispensable one to endorse, as long as the cargo data submitted in advance is accurate and accountable.

### Automated Commercial Environment (ACE)

ACE is the new commercial information processing system with twenty-first century technology that is being developed by CBP to streamline commercial processes, to facilitate growth in global trade, and to ensure international cargo security. But with the tragic events of 9/11, another purpose has been added to the list, to incorporate safety modes into the system. Security features have been added to ACE to support the fight on terrorism by scrutinizing the flow of goods and people entering and leaving the country (CBP 2006d).

ACE is an e-governmental application designed to incorporate and replace the Automated Commercial System, the Automated Export System, the Border Release Advanced Screening and Selectivity, the Customs Automated Forms Entry System, FAST system, and the Pre-arrival Processing System. It will also interface with the Advance Passenger Information System, the Automated Targeting System, the Interagency Border Inspection System, the National Criminal Information Center, and the Treasury Enforcement Communications System. It is intended to be the “hub” of all processing systems that will benefit both the government and the business community (CBP 2007d). ACE is another customs contribution in the effort of striking a balance between safety and facilitation of today’s trade. The continuing growth of trade along with new security threats has made ACE an important tool of trade and security.

ACE will consist of many “release” modes. Each release, while individually achieving critical business needs, will also lay the foundation for the subsequent releases. When fully implemented, ACE will: (1) allow the business community to access and manage their own trade information; (2) expedite legitimate trade by providing CBP with

tools to efficiently monitor and expeditiously process border crossing of import/export goods; (3) improve communication, collaboration, and compliance efforts between CBP and the private industries; (4) store, process, and analyze commercial data; (5) provide a one stop shop for trade information sharing to government agencies (U.S. DHS Office of Inspector General 2008).

ACE's initial design and development began in August 2001. In June 2003, ACE had 41 importers establish accounts during its initial implementation. In October 2003, the ACE Secure Data Portal was introduced. Currently, any importer or broker doing business with CBP is required to open an ACE Portal Account. As of December 2007, approximately 14,000 ACE portal accounts have been established, including more than 1,300 importer accounts, nearly 800 broker accounts, and nearly 11,800 carrier accounts. More than \$14 billion in duties and fees have been collected via ACE since the first payment was made in July 2004. The budget for ACE in fiscal year 2007 was approximately \$300 million (Ibid). Thus far, ACE has proven to be a sound investment and an effective conduit in promulgating the Customs Modernization act.

Through the data portal, ACE collects data from truck carrier account information, broker account information, importer account information, electronic truck manifests (e-Manifests), U.S. Postal information on importations, CBP employee information, and information pertaining to employees of Participating Government Agencies (PGAs). ACE draws on the International Trade Data System to share electronic international trade and transportation data with PGAs. Through the ITDS interface, ACE will allow for a one-stop automated mechanism for enforcing hundreds of U.S. laws and international trade and transportation requirements (Ibid).

With all this information being readily available, the question now is how to put it to good use, whether it is to enforce or facilitate global trade or both. Data mining will be a key component in making the ACE program more resourceful and compatible with today's needs of striking a balance between trade facilitation and security. Through the practices of data mining, CBP would be in a great position to make a genuine contribution to scrutinizing high-risk cargo while facilitating the flow of the low-risk shipments.

Besides data mining technology, the data collected through RFID technology, either by the government or private entities, can also be interfaced and incorporated into the ACE trade processing system. The RFID data that is usually generated and gathered by corporations for inventory purposes can now be used as a source of comparison against the e-manifested information of containerized cargo provided by carriers and brokers. The RFID data that have already been collected by NEXUS, SENTRI, and FAST programs<sup>2</sup>, can also be added to ACE's massive data bank. Such a practice would definitely increase the level of checks and balances for data input accuracy that is so important to ACE as well as the 24-hour rule's success. The RFID technology itself will be better explained in a later chapter.

Some U.S. Senators, including Sen. Schumer, along with Stephen Flynn, have claimed that CBP only inspects 2% of the 5.7 million sea containers entering the country each year, and the number of critics of CBP's inspection rate continues to increase each year. That goes back to the argument of what inspection means; if we are talking about

---

<sup>2</sup> Both Nexus and Sentri, the "trusted traveler" programs, were developed to expedite people border crossing while FAST is aimed to expedite cargo border crossing.

physical inspection, then the 2% estimation is probably right. To physically inspect 100% of cargo would bring global trade to a halt. A domino effect would just follow suit: the lines and cranes would be backed up; the vessels would not be able to load and unload; warehouses and seaport yards would be running out of space. Thus, to physically inspect 100% or even to considerably increase the percentage of physical inspection would just be an implausible practice to perfect.

According to CBP, the 2% myth is just implicitly inaccurate and creates a wrong and damaging perception of the container security that is being conducted by CBP. The 2% figure implies that 98% of sea containers receive no attention or scrutiny at all from customs. The fact is CBP screens and analyzes the data and information for all 5.7 million cargo containers arriving in the U.S. each year; and closely scrutinizes and examines all shipments identified as high risk (CBP 2007e).

The legacy USCS has had a system in place to conduct sporadically 100% physical inspections of sea containers. It is called Physical Verification of the Manifested Quantity (PVMQ) operation, where all containers coming from a particular ship are physically opened upon arrival to a port of entry. No significant seizure has derived from such a PVMQ operation, as it was never publicized. In addition, it is a poor use of resources in terms of people, time, and cost to tax payers (USCS 1999).

Moreover, if CBP were to examine 100% of all cargo entering the US, there would still be no guarantee that such action will be 100% effective. It is not uncommon for contraband, whether it is drugs, weapons, counterfeit merchandise, or items imported contrary to law, to be discovered after a thorough customs secondary examination – an inspection that is conducted in an intense and systematic manner until the suspicions are

satisfied; as opposed to a primary inspection where questioning, manifest review, and superficial visual examination are the norms. Therefore, examining 100% of the cargo does not exactly translate into preventing another terror attack of 9/11's proportion. So with ACE, at least virtually, CBP has improved the odds for cargo inspection.

With ACE in place and the options of adopting data mining as a tool of trade and of feeding RFID data to the hub of information, the odds of conducting 100% inspection of cargo entering the U.S. without compromising too much time, cost, and more importantly the flow of global trade, are good. ACE holds great promise in promoting the clause found in the "National Strategy for Homeland Security" under the "smart borders" initiative that endorses information and intelligence sharing as a means to improve the struggle of balancing trade facilitation and security.

However, we must not forget that ACE is still a work in progress and there are many technical, managerial, and fiscal glitches that need to be fixed. GAO has pointed out that the ACE management team needs to effectively set and use performance goals and measures. Although the program set performance goals, there were not always practical. For example, in fiscal year 2005, the program set a target for 11 percent of all CBP employees to use ACE. However, this target does not reflect the fact that many CBP employees will ever need to use the system. Additionally, the program has established 6 program goals, 11 business results, 23 benefits, and 17 performance measures, but the relationships among these are not utterly defined or adequately aligned with each other. Additionally, not every goal has defined benefits, and not every benefit has an associated performance measure. Without pragmatic performance measures and realistic targets that align with the overall program goals and desired results, CBP and DHS will face



accountability and suitability challenges. In addition, DHS plans to develop several concurrent increments (releases). In the past, such releases have led to cost overruns and schedule delays as such increments use resources that have already been allocated for future increments (GAO 2006).

In any event, CBP holds ACE as a tremendous source of hope that will help to facilitate legitimate trade while strengthening border security. A project like ACE is definitely an important step towards overcoming pragmatic challenges created by the trade-balancing issue. One can only hope that ACE as a technological ingenuity of the twenty-first century has the potential to deliver at least half of what the government and the business community expect it to deliver in the near future.

With the 9/11 attacks, ACE has indeed become a dual-use technology. Through the ITDS where PGAs can now access information that will aid in the fight against terrorism, ACE has become a tool of trade security while simultaneously complying with its original responsibility of being a tool of trade facilitation by streamlining commercial transactions. Indeed ACE has the potential to become resourceful machinery that can genuinely assist in the efforts of finding a balance between facilitation and security of inter-modal transportation.

#### Container Security Initiative (CSI)

CSI is a program tailored to inspect high-risk containers prior to being loaded onto a vessel destined for a U. S. port. CSI's overall goal is to strike a balance between border security and global trade facilitation in a maritime environment where containers can be used as a Trojan horse to deliver WMD and IED to the U.S. and its citizens. The

concept of CSI is a part of the overall “National Strategy for Homeland Security,” more specifically it falls under the domain of the “Smart Borders” initiative. CSI operates under the principle of increasing security of containerized cargo by “pushing the borders” to the farthest point possible, which is to examine the containers at the port of loading (CBP 2007f).

Under the CSI program, CBP deploys multi-disciplined teams comprised of ICE special agents, CBP intelligence analysts, and CBP officers to CSI member seaports, to serve as the first line of defense against terrorist plots from a sea freight environment. As previously stated, a critical component of the CSI program is the usage of NII equipment and radiation detection technology to examine high-risk containers. The most common types of NII equipment used are large-scale X-ray and gamma ray machines that scan the entire container to produce an image of a container’s content with the smallest level of intrusion and disturbance. Based on established risk factors and current intelligence, host customs organizations in consultation with CBP officers, select high-risk containers for inspection and use NII technology to assist in such inspections of these targeted containers prior to being loaded onto a ship bound for the United States (Ibid).

CSI consists of three core elements: (1) identify high-risk containers. The first element is based on using intelligence and automated information to identify and intercept high-risk containers; (2) pre-screen and evaluate containers before they are shipped. The second element focuses on pre-screening high-risk containers before being loaded onto a vessel destined to a U. S. port; (3) use technology to prescreen high-risk containers to ensure that screening can be done rapidly without slowing down the movement of trade. The third element emphasizes using detection technology to

expeditiously pre-screen high-risk containers with minimal interruption in the flow of trade (Ibid).

As of January 2002, 26 customs administrations have committed to join CSI. As of October 2007, 58 CSI ports have reached operational status in Europe, Asia, Africa, North America, and South America, which covers approximately 90% of all oceanic cargo imported into the U.S. that are subjected to prescreening. CSI is one of the few state-centric oriented programs that has been endorsed and advocated by major IGOs such as the G8, the WCO, and the EU, giving significant credibility to the program (Ibid).

CSI is a strategic global program tailored to address maritime security. According to the Homeland Security and Governmental Affairs Committee Chairman Senator Susan Collins (2006), seaports are more than waterfront facilities. They are a crucial and complex component of the overall supply chain. Therefore, seaports are uniquely rich for business enterprises and highly susceptible to be targeted by terrorists. By improving security measures in seaports, we will better improve our supply chain security, and consequently cargo security. Indeed, better maritime security can promote trade and strengthen the global economy.

CSI operates primarily under three strategic premises: (1) pushing the nation's borders to the farthest point; (2) deploying customs personnel to host countries; (3) instilling the 3 core elements throughout the program. My analyses of CSI strategies are as follow:

Under the first premise, it is safe to assume that CSI promotes primarily maritime security, which subsequently and symbiotically supports global trade security. In my opinion, CSI is a classic example of a program that is fundamentally flawed conceptually

and strategically. It is a program that falls short on its formation and execution. If CSI operates under the presumption of pushing the layers of border security beyond one's physical boundaries to the farthest feasible point, then the program itself may be flawed as the farthest point of border control is actually the production line where global supply chain starts, and not a foreign port.

The relationship between maritime security and global supply chain security is indeed intrinsically paradoxical. Although global supply chain security is a small component of maritime security, it actually plays a bigger role. If we know what goes into a container – the content of the freight itself, then we will most likely be in a better position to secure containers, vessels, seaports, international trade, the global economy, and for that matter, the entire world. If one properly addresses global supply chain security, then maritime security will also be simultaneously addressed.

Under the second premise – the deployment of personnel to host countries, it is unclear whether CSI is deploying the best and the brightest, or even the right people. Based on the comments from the elite survey, taken by current and former U.S. customs officials, a considerable portion of personnel being deployed to overseas CSI assignments are inexperienced officers and agents, if we are to base the level of experience on time in service and compatible background. As previously stated, some that are being deployed have no targeting or seaport experience, much less customs knowledge. With the merge or split of the former USCS, we must take into consideration that legacy INS inspectors and special agents are now eligible to be deployed to CSI assignments. Additionally, hypothetically and logically speaking, very few CBP Port Directors (PD) or ICE Special

Agents in Charge (SAC), the top-management would allow their best targeting officers and/or investigators to participate in long-term assignments such as CSI.

Nonetheless, the real question is whether there is a genuine need to send officers to target overseas as a part of the CSI operational protocol as the technology behind CSI allows any trained officer to target high-risk containers from any location. In the U. S. alone, the legacy USCS established the National Targeting Center (NTC), a targeting hub that is capable of targeting not only maritime containerized cargo, but also air cargo and passengers.

Overseas assignment is in itself challenging. It takes dedication and commitment to adjust in a foreign environment. Quality of life, language barrier, and culture shock are a few of the obstacles to be faced by CSI personnel, and not all are cut out for this kind of work and lifestyle.

The mere idea of stationing foreign entities in a host nation due to the very nature of the CSI program; however reciprocal, may still be construed as selfish, impractical, costly, and monopolistic practice by some. It is selfish because it conveys the idea that is acceptable to prevent a WMD from reaching American soil, while the host country co-sponsoring the CSI program bears the risks of having the WMD intercepted on its soil. There is no fairness to have a transshipment container allegedly containing WMD to be examined by a third party CSI member country.

It is impractical because the level of compatibility in communication as well as the diverging cultural, political, religious, economic, and social views may become imminent challenges. The language barrier could easily compromise the success of the program itself. Moreover, there are already competent customs personnel stationed in

embassies and consulates overseas in all of the CSI countries that are fully operational. There is no need to send officers and additional agents overseas specifically to target as they can very well target from the U.S., both in the U.S. ports and at the NTC. If the reason for deployment is to cultivate a working relationship with foreign counterparts, then CBP should limit the number of officers and agents being sent, as well as raise the required qualification of personnel deployed overseas. The bottom line is that we already have well-qualified customs personnel assigned in Customs Attaché offices, now referred as DHS Attaché offices, whose primary mission is to build and cultivate a working diplomatic relationship with the host country and who are also perfectly competent to work with the host country to carry out the CSI mission.

CSI is a costly endeavor as the deployment of customs officers overseas is expensive. The cost of deployment may become exponential if one adds the cost of family members eligible to accompany the deploying official. From a host nation perspective, the NII technology that the CSI counterpart member is required to acquire as a condition to join the CSI program is in itself very costly. The cost is embedded in the acquisition of such equipment, maintenance, personnel training, and operational procedures.

Sgut (2004) points out that the cost to own a single “container scanner” can range from US\$ 1,000,000 to US\$ 12,000,000 depending on the required capacity (containers checked per hour), plus 15% annual expenditure for maintenance. The acquisition of other equipment, the employment, the deployment, the training of certified scanners, the adaptation of information systems, and the establishment of new operation procedures also generate considerable costs especially to developing countries. Furthermore, the

simple task of scanning a container is estimated to cost at least US\$ 60 per unit, a cost that is absorbed by the importer and ultimately passed on to the consumers. CSI is indeed a costly proposition for both the U.S. government and its partner country with limited compensation and sketchy feedback.

The program also displays a subtle monopolist trait and message - either you are with us or against us - a term that was famously used by the Bush administration and President Bush himself. Being a CSI member has its benefits. A CSI seal of approval on one's cargo implies expedited customs clearance. It also is a means to have an immediate access to one of the richest markets in the world, the U.S. market. Through CSI, the U.S. makes it very clear that for any country that wishes to do business with the U.S., it is within its best interest to join the CSI. The CSI is particularly important for countries where trade with the U.S. represents a substantial part of their domestic economy. By not joining the CSI, countries could lose competitiveness in the overall global market; a risk that not too many developing nations are willing to take.

But, CSI membership is not extended to everyone. Certain financial and strategic obligations must be first met. Those who meet the minimum requirement to join the CSI program, independent of whether they have joined voluntarily or involuntarily, are the "fortunate" ones. Fortunate in a sense that trading with one of the richest markets in the world will continue to bring prosperity to its people. Those who have the financial standing to join, but do not meet the strategic need, are left to come up with its own alternative version of CSI. For those who are eligible to join the program, but lack financial resources, both the U. S. government and the IGOs have developed a financial assistance program known as Capacity Building to assist. In some circumstances, CBP

has lent NII equipment to certain member countries due to strategic reasons. These practices have given less developed countries a better chance to join the program.

The third premise falls in the analyses of the core elements of the CSI program. By closely examining its core values of operation, the following were concluded: Element #1 (using intelligence and automated Information to identify high-risk containers): Information sharing is a dicey subject, especially if the type of information is intelligence. The intelligence business is secretive and volatile in nature. Intelligence and secrecy go hand and hand, which makes it harder to share. For instance, how much intelligence is the U.S. willing to share with its CSI counterparts, such as the Chinese CSI partner, where the memory of the cold war still lingers in the minds of many? In short, not much information is shared, realistically speaking. I believe that the word intelligence is being misused to describe CSI Element #1. Even within the U. S. intelligence agencies, there is still a culture of reservation when comes to intelligence sharing. The turf battle within the U. S. intelligence community; however improved, still persists even after the 9/11 attack. Furthermore, are those who work on the frontline, day-in and day-out, getting the necessary intelligence to perform their job in a timely manner? In short, it is everyone's guess as to how such information is classified. A later chapter in this dissertation will be specifically designated to address this intricate topic of information sharing, which includes intelligence.

Element #2 (pre-screening those containers identified as high-risk, at the port of departure, before they arrive at U.S. ports): Such a concept is a dangerous one to promote, practice, and protect; as it can easily be perceived as a selfish practice. Common sense would dictate that it is not fine to examine a compromised container on foreign soil



rather than on American soil. Furthermore, the host country, the U.S. CSI partner, reserves the sovereign right to ultimately approve or deny any examination of a targeted container. Although the deployed CBP officers participate in the targeting process, the host country makes the ultimate decision of what gets examined. CBP officers are just guests in the host country with no power to demand, much less enforce, that a particular shipment be examined. They can only recommend it. However, CBP reserves the right of that particular shipment to be examined when it arrives in the U.S, but that would defeat the entire purpose of the CSI program. So, the second element of CSI, it has come to exemplify another CSI conceptual failure (along with the “pushing the border of protection farther” flawed principle).

Element # 3 (using detection technology to quickly pre-screen high-risk containers with minimal interruption on trade): NII technologies, including radiation detection equipment, are a critically important component of CSI that enable customs officers to screen high-risk cargo with minimal time while facilitating legitimate trade. As of 2006, CBP had 170 large- scale NII imaging systems deployed (including 59 systems to seaports), 567 radiation portal monitors (RPMs) deployed (including 143 RPMs to seaports), 549 radiation isotope identification devices (RIIDs) deployed (including 200 RIIDs to seaports), and 12,449 personal radiation devices (PRDs) deployed (over 3,500 PRDs to seaports) (Hatfield Jr. 2006). However impressive the above statistical statement, what comes to mind are the cost, compatibility, and efficiency of such equipment. Technological equipment is expensive, and several CSI qualified countries cannot afford it.

In addition, too many variables come to into play when using x-ray and gamma-ray machines to scan the entire container for WMD. Is the NII equipment or the radiation detection devices 100% full proof, capable of detecting WMD in a container every single time? Are there ways to trick such an expensive machine? Based on open source research conducted on the efficiency of NII and radiation technology to detect WMD as a required part of the CSI implementation program, the technology is not fail-proof. There are ways to circumvent the NII technology. Although technology is powerful, it is far from being perfect and is just a tool of trade. No amount of technology will replace judgment and experience. Technology can only aid in the resolution of finding a balance between trade security and facilitation and not be the solution itself. The bottom line is that CSI is a costly endeavor, full of flaws, and with limited rewards.

There was another core element that was initially listed on the CBP CSI program fact sheet – element #4 (using smart container and tamper proof technology), which I believe should not have been stricken from the original list of CSI core values. The scrapped fourth element is probably the most promising of all the core values. If only CSI would concentrate on the Smart Container and Smart Seal concepts, maybe there would be a better chance to secure the entire international supply chain, under the premise that we are using the container as a conduit of security.

Having a smart container (which will be better explained in a later chapter) capable of detecting WMDs, as well as a smart seal, capable of alerting to tampering, would be the ideal solutions that would revolutionize the supply chain security and for that matter, maritime security. However utopian and expensive it may sound, given the proper incentive and time, the smart containers and seals could be the security solutions

of tomorrow. If tamper proof technology would actually become feasible and practical, CSI would be accomplishing a lot, not just from preventing terrorism, but from all illicit activities imaginable, from smuggling to fraud to theft and so on. The government would benefit from a security standpoint, while the private sector would gain from a supply chain inventory and productivity standpoint. The bottom line is that the best feasible line of defense in enhancing global supply chain security is to work under the assumption that it only matters what goes into the container and not where the container is being examined. Ideally, global supply chain security should start from the production line, but the matter of accessibility comes into question. Thus, the next best approach would be to control the global supply chain from a container environment perspective and not at a foreign port.

The container itself is probably the farthest point of enforcement in the supply chain where we can technically and feasibly keep an “eye” on the threat. Although the production line of a factory is actually the farthest point of a global supply chain, it is hardly controllable, much less enforceable. This would involve having thousands of companies and dozens of countries that would have to allow a sovereign nation to have direct or even indirect access to their production lines. Unless securing the production line is a part of the C-TPAT strategy, there is no way that we can monitor all the activities that surround the production line through CSI. Even if it is a part of the strategy, it is still bound to face formidable challenges, not just in matters of sovereignty, but also of privacy and civil rights. Imagine asking a foreign government such as China, to have their business community comply with a U. S. lead compliance initiative such as CSI or C-TPAT. The irony from all this is that the Chinese government has accepted the CSI

program while C-TPAT is still facing some challenges. China does not allow SCSS to go into China as a part of the C-TPAT validation process<sup>3</sup>. Sometimes the forces of the global economy supersede national interests.

There are many more issues that run outside of the analysis of the three strategic objectives of CSI. Controversies surrounding the issues of sovereignty infringement, national security, privacy, diplomatic immunity, workforce compatibility, and routine bureaucratic challenges are bound to arise with time. When two nation-states are asked to work as closely as CSI implementation demands, sooner or later, poisonous differences in opinion in terms of targeting, inspection, and investigation, will emerge. Diplomacy holds the key to overcoming most of the CSI foreseeable gridlocks. Negotiation is one of the core values of diplomacy that is frequently used to overcome conflicts.

Some have defined diplomacy as the art of advancing national interests through the exchange of information among nations, groups, and people. Its purpose entails changing attitudes and behavior while simultaneously embracing national pride. It represents the practice of state-to-state persuasion (Freeman 1997). Although the words “diplomat” and “diplomacy” are traditionally portrayed in a positive light, by being a noble profession and a well-regarded discipline, requiring a great deal of composure and tactfulness, they can at times, demand a profusion of shrewdness and firmness. Such a perception did not come to light until Richard Langhorne, a renowned scholar and practitioner of diplomacy pointed out that diplomacy, which incorporates a great sense of negotiation and statesmanship, may, at times, have a less than positive connotation (Richard Langhorne, personal communication, October 2007). After all, the art of negotiation in itself can, at time, be confrontational and controversial. Diplomacy can

---

<sup>3</sup> The C-TPAT impasse in China would eventually be overcome by the 3<sup>rd</sup> party validation pilot program.

indeed be unpredictable, calculated, and persuasive, as diplomats use their astuteness to work out the differences by relying first on their conciliatory skills while resorting to the threat of force as a last option.

As the world dynamics change, so should the notion of diplomacy. The first change should be to minimize the culture of state-centrism that is apparent in the old school diplomacy. However understandable, as the classic diplomatic corps operates under the conventional nation-state paradigm, changes in international relations (such as an increase in complexity in the inter-state relations, an emergence of new global actors, and a decline of state-centric power) are compelling the diplomatic machinery to adjust if it is to continue to exist. Unfortunately, today's global conflicts and alliances are no longer symmetric and homogenous, taking place among individual nation-states, and addressing the conflicts of war and peace, they are asymmetric and heterogeneous, taking place between nation-states and violent extremists, and tackling a wide range of global affairs, not just limited to the political arena, but ranging from the economy to environmental concerns.

Secondly, diplomacy should move from a linear system to one that recognizes the porous borders and the free flow of information as variables of globalization. As information is another core value of diplomacy, the new diplomatic machinery needs to embrace and encourage the notions of sensible openness and calculated trust. With the Internet and Iphone as parts of our everyday culture, information provided from these new technological gadgets will unduly influence the contemporary diplomatic machinery. Diplomacy and information technology must coexist with each other in order to cope with the challenges of the 21<sup>st</sup> century. Transparency in terms of information sharing

should strike the core of today's diplomatic negotiations. Finally, diplomacy should incorporate a combination of cohesive principle and pragmatism rather than a concoction of rigid philosophy and practice.

Unfortunately customs officials are neither diplomats by trade nor trained in the art of diplomacy and negotiation. Nonetheless, they are tasked to perform a diplomatic role as a CSI representative. Personnel conflict within the U. S. and between the host-country CSI members is one issue that is bound to arise, but is often overlooked, until it is too late. Langhorne (1997) has suggested that anyone could be a diplomat as he raised the question in one of his compelling articles titled "Current Developments in Diplomacy: Who Are the Diplomats Now?" in *Diplomacy and Statecraft*. Diplomacy, like global trade, is indeed a complex discipline that continues to evolve with time.

Deploying the right cadre of individuals is paramount to the success of the CSI program. Public relations and perception are important when we are in a foreign country. Foreign governmental officials are judged at all times and are held to a higher standard. What the first CSI group does in a host country will directly affect the upcoming groups, not just on the level of cooperation, but also how they perceive the U. S. as a whole. There must be an acceptable level of accountability and expectation to those who are chosen to serve in this privileged assignment. The human capital factor ought to be an asset rather than a liability; therefore quality over quantity matters. If we want to send the best and the brightest to lead such missions, then we must have mechanisms in place to attract the right people for the job. Offering a better career path or better financial compensation to take on such assignments is a small price to pay in comparison with the overall CSI cost.

There is a general level of confusion created by this program. CSI is a security program, not a business strategy program where “the haves” are members and “the have-nots” are not members. There is a certain misconception in becoming a member of CSI. Several countries have already displayed discontent about the monopolistic CSI practices. Several have already complained to the World Bank, WTO, and WCO about preferential treatment that comes from being a CSI member. Many countries that are willing to be part of CSI, but lack the financial resources to comply with the basic CSI requirements or they just don’t meet the strategic requirement to be a member, are feeling left out. Fortunately, both CBP and the WCO, through the Capacity Building program, are trying to address this dynamic issue – a later chapter will cover the entire scope of this program. As a preview, it is basically a program that will assist developing countries in building the basic needed infrastructure to acquire the CBP CSI membership and to adopt the WCO FoS SAFE, two strong initiatives that support the balance of trade facilitation and security. By injecting enough financial and technical support, we hope to capacitate the developing countries, as the name of the program implies, to be competitive with the needs of promoting and protecting global trade. For those who could not join the CSI for strategic reasons, the option exists to do what the New Zealand government has done – to come up with their own version of CSI.

The skeptics may argue that the CSI program has fallen short of its expectations, as its detriments appear to outweigh its benefits in terms of logic, cost, productivity, and resources. A WMD has yet to be discovered and intercepted since the program has started. It is indeed a “catch 22 program.” On one hand, one may argue that the program is working because no WMD has been detected inside of an ocean freight container. On

the other hand, no WMD has been found because the program is flawed. The worst scenario would involve a WMD being successfully smuggled from and through CSI member countries to the U. S., as well-respected Stephen Flynn has described in his insightful book. But the question remains, do the drawbacks of the CSI program outweigh the benefits? I suspect that having some security measures is better than having none.

However, there are others who would argue that the psychological impact created by the implementation of CSI is quite significant, despite falling short on its formation and execution. Having countries around the world coming together and embracing the CSI program, forced or otherwise, and making the effort of striking a balance between trade security and facilitation a global one is, in itself, a colossal accomplishment. Creating a global karma and support behind a global cause, as has the CSI program, is an important step in the right direction to address the trade-balancing issue. Where CSI practicability and conception may have fallen short, it has compensated with its positive and collective psychological effects. Despite to the fact that CSI may still run the risk of being a costly initiative with limited rewards, for now, the CSI program appears to be here to stay. The program would greatly benefit by reinstating the CSI core value #4 – the smart container and seal.

#### Secure Freight Initiative (SFI)

SFI is a program sponsored by both DHS and Department of Energy (DOE). This \$60 million initiative is designed to advance the security of international trade by scanning at 6 foreign ports for nuclear materials overseas. The participating countries are



Pakistan, Honduras, the United Kingdom, Oman, Singapore, and Korea. DHS/CBP and DOE/National Nuclear Security Administration (NNSA) each contributed \$30 million for the project (U.S. DOE National Nuclear Security Agency 2006). It is an ambitious effort that it is built upon existing port security measures to gain accurate intelligence and data about each incoming shipment so that terrorists attempting to smuggle weapons of mass destruction, components or people in a container to attack the United States or the maritime trade network can be better detected.

Since SFI can be viewed as a narrower and more specialized version of CSI, differing primarily on the level of support given to target WMD with respect to technological and specialized personnel support in the field of nuclear radiation. The irony lies as to what would happen once a WMD is detected, intercepted, and seized by a host country. What are the measures in place to deal with such a dilemma? Under the initial phase of SFI, of the 6 ports that are committed to the effort, which country or countries are really equipped to manage a WMD incident? What is the level of collaboration in terms of intelligence sharing, law enforcement cooperation, and technological backup that is in place to deal with a seized WMD? The amount of bureaucracy, sovereignty concerns, and danger involved can easily hinder the objectives of the program.

The above questions can easily be answered with bilateral and multilateral agreements for assistance between the U.S. and those countries as pertain to the detection of a WMD. I am sure that the U.S. is more than willing to provide technical, financial, human, and logistical support in case a WMD destined to the U.S. is discovered in those ports. I am also convinced that if done properly, those countries, if needed, will welcome

the help. No one wants to be holding a “hot potato,” a bomb, for too long. More importantly, what SFI is trying to accomplish is to concentrate on high-risk countries, similar to the idea of targeting high-risk containers for examination. The entire concept operates under the premise of threat assessment and prevention. The more potential sources of threat that can be eliminated, the better the position to protect global trade. The original idea for CSI was to only include strategic ports. Then it became a politically and economically controversial initiative; it ceased from being a security measure to become a business strategy. In turn, SFI can pick up where CSI left off by concentrating its efforts on preventing, intercepting, and annihilating the threats of WMD being smuggled in a container.

#### Shield America

Project Shield America is an integral part of the ICE strategy that prevents illegal exports of licensable commodities. It targets criminal organizations involved in the smuggling and trafficking of WMD components and technologies. It is a program designed to enforce U.S. sanctions and embargoes and to prosecute those who are in violation (ICE 2004).

The concept of Shield America is not new. In fact, it derived from another program called Operation Exodus that emerged during the cold war era. Operation Exodus is a USCS export enforcement program that stems the flow of the illegal export of U.S. sourced arms and technology to the Soviet Union, its allies, and other prohibited destinations. Exodus, which began in 1981, allowed USCS special agents to investigate, pursue, and arrest individuals involved in the illegal sale of sensitive goods and technologies, all part of enforcing the 1976 Arms Export Control Act (USCS 2003b).

The pronounced differences between the past and current are who is leading the program and how it is being carried out. Before March 2003, when CBP and ICE were formed, Shield America was led by the legacy USCS [U.S. Customs Service], Office of Investigations division, but now it is being led by ICE. Despite the fact that Shield America is an ICE led initiative, its sister agency, CBP, plays a pivotal role in its application, as CBP officers are entrusted to review export documents and inspect exported commodities, while the special agents are responsible for investigating export violations. As ICE and CBP are charged with the dual mission of enforcing customs and immigration laws, compounded with the break up of the USCS: separating officers from special agents - the challenge of promoting Shield America has doubled. If carrying out such a program was already difficult when both officers and agents were under the umbrella of USCS, imagine the level of collaboration required now that they are found in two different agencies (ICE - agents and CBP - officers). As the level of mutual cooperation, resources, and time allocation to support such a program is considerably being reduced, the program's contribution to the effort of fighting terrorism and of finding a balance between security and trade facilitation is also diminished.

All the above initiatives fall under the guidance of CBP and under the scope aimed at the 'balance' concern. Below are some of the initiatives focused on the same issue, but outside of the customs domain.

#### Operation Safe Commerce (OSC)

OSC is a pilot program spearheaded by the TSA (2003) that brings together private business, ports, local, state, and federal representatives to analyze current security

procedures for containerized cargo entering the country. The program functions like a venture capital fund to utilize existing technology to monitor the movement and integrity of containers through the supply chain. The OSC program sounds extremely similar to another program, CSI. One may argue that the program is more tailored to the domestic arena than the foreign one. Others may argue that both programs share great similarities. It should not come as a surprise, as the familiarity in these programs could be traced back to Dr. Flynn's influence.

Because TSA does not have as much clout as CBP, the program is less marketable and it is starting to show signs that it is fading away. There is very little current information available on OSC today (2008), indicating that there has not been much of an update on the program. Furthermore, policy observers have come to realize that this is a classic example of governmental redundancy, where agencies within the same department, DHS, are developing similar programs to solve the same issue with limited variations. The OSC program was always a TSA program. The only difference now is that TSA was under DOT when it was first developed and implemented, but as March of 2003, TSA became a DHS component.

#### International Port Security Program (IPSP)

As a leading agency for maritime security in the U.S., the U.S. Coast Guard (USCG) works closely with international trading partners to encourage, employ, and enforce the International Ship and Port Facility Security (ISPS) code. THE ISPS code was developed to enhance sea security in countries and seaports that participate in global

trade. The ISPS code can be perceived as a global response to secure maritime transport from today's main threat: terrorism.

The USCG contributes to the facilitation and security of global trade through its IPSP [International Port Security Program]. The program's purpose is to enforce the Maritime Transportation Security Act (MTSA), the U.S. law which mandates implementation of the ISPS Code. The IPSP also encourages bilateral and/or multilateral discussions with nations around the world in an effort to exchange information and share best practices that align implementation and enforcement requirements of MTSA with the ISPS Code and other international maritime security standards. Under the IPSP, USCG teams, comprised of HQ and overseas personnel, visit countries to determine whether port facilities and vessels are in compliance with the ISPS code. Usually, the team members have backgrounds in port, facility and vessel security in addition to knowledge of maritime industry operations (U.S Coast Guard 2004).

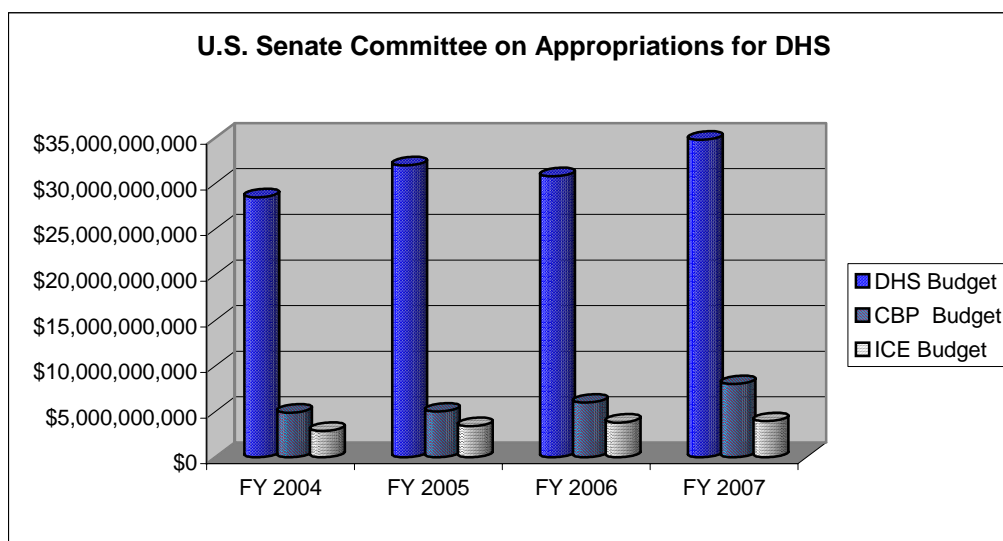
Unfortunately, the IPSP is not a unique program in terms of concept and applications. USCG IPSP is in direct conflict and competition with CBP CSI and TSA OSC. Although they are not duplicating each other, they do share similar objectives, characteristics, and targets. The main difference among them is in the level of scope. IPSP approaches the balancing of trade facilitation and security from a broader perspective while CSI and OSC address the issue in a more confined approach. While USCG IPSP focuses more on a ship and port interface from vessels in high-sea to domestic/ foreign ports and eventually trickling down to the movements of containers and cargos; CBP CSI and TSA OSC focus strictly on the containers and freight

themselves. In fact, USCG IPSP has the infrastructural capability to embrace what the CBP CSI and TSA OSC programs are trying to accomplish.

Allocation:

Based on the U.S. Senate Committee on Appropriations - fiscal year budget reports, for the fiscal year of 2007, DHS was allocated a budget of \$ 34.8 billion, of which CBP was allocated \$ 8,036,356,000 and ICE was allocated \$ 3,958,281,000 (U. S. Senate Committee on Appropriation 2006). For the fiscal year of 2006, DHS was allocated a budget of \$30.8 billion dollars, of which CBP was allocated \$5,998,170,000 and ICE was allocated \$3,808,106,000 (U. S. Senate Committee on Appropriation 2005). For the fiscal year of 2005, DHS was allocated a budget of \$32.0 billion dollars of which CBP was allocated \$5,008,587,000 and ICE was allocated \$3,409,657,000 (U. S. Senate Committee on Appropriation 2004) For the fiscal year of 2004, DHS was allocated a budget of 28.5 billions dollars, of which CBP was allocated \$4.9 billion and ICE was allocated \$2.9 billion (U. S. Senate Committee on Appropriation 2003).

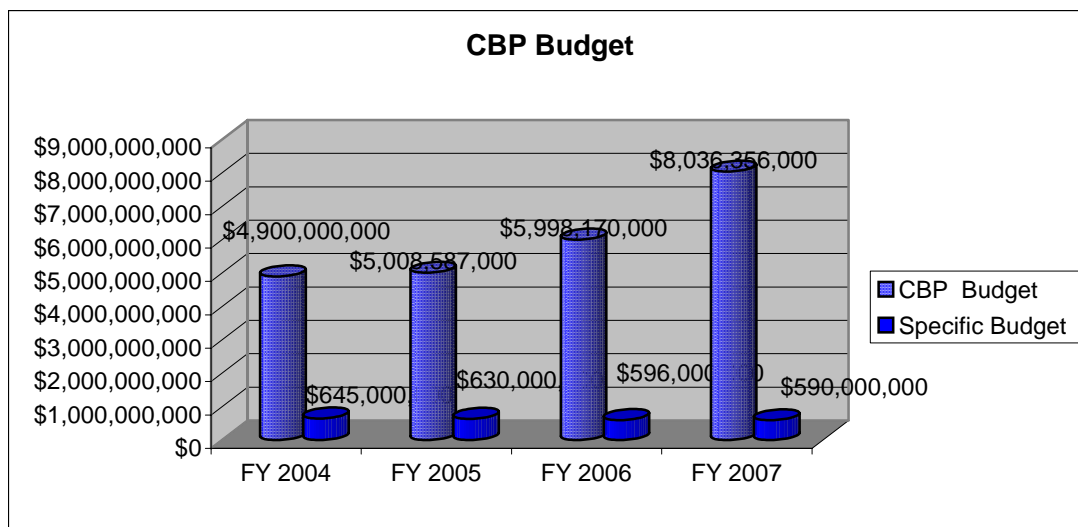
Figure 3.2: Overall DHS/ICE/CBP budget from the U.S. Senate Committee on Appropriation



Source: U.S. Senate Committee on Appropriations for DHS

The DHS budget has increased by 22.1% between FY 2004 and FY 2007, as can be seen in Figure 3.2. This demonstrates that the U.S. government is still very much committed to the cause of securing the home front by continuing to increase border agencies' budget.

Figure 3.3: Data comparison between CBP's overall budget and specific budget allocated to strike a balance between trade facilitation and security



Source: U.S. Senate Committee on Appropriations for DHS

Isolating the U.S. Senate Committee on Appropriations fiscal year budget report targeting only CBP and the budget specifically aimed at the initiatives of facilitating and securing global trade depicted by the Figure 3.3, the analysis indicates the following: for the fiscal year of 2007, CBP was allocated \$ 8,036,356,000 and out of this amount, roughly \$ 590 million was directly destined to finance the efforts of striking such a “balance.” This specific budget is being directly invested into CSI, C-TPAT, technological resolutions, and modernization of commercial processing systems (U. S. Senate Committee on Appropriation 2006). For the fiscal year of 2006, CBP was allocated \$5,998,170,000 and out of this amount, roughly \$ 596 million was directly destined to finance the efforts of striking such a “balance” (U. S. Senate Committee on Appropriation 2005). For the fiscal year of 2005, CBP was allocated \$5,008,587,000 and out of this amount, roughly \$ 630 million was directly destined to finance the efforts of



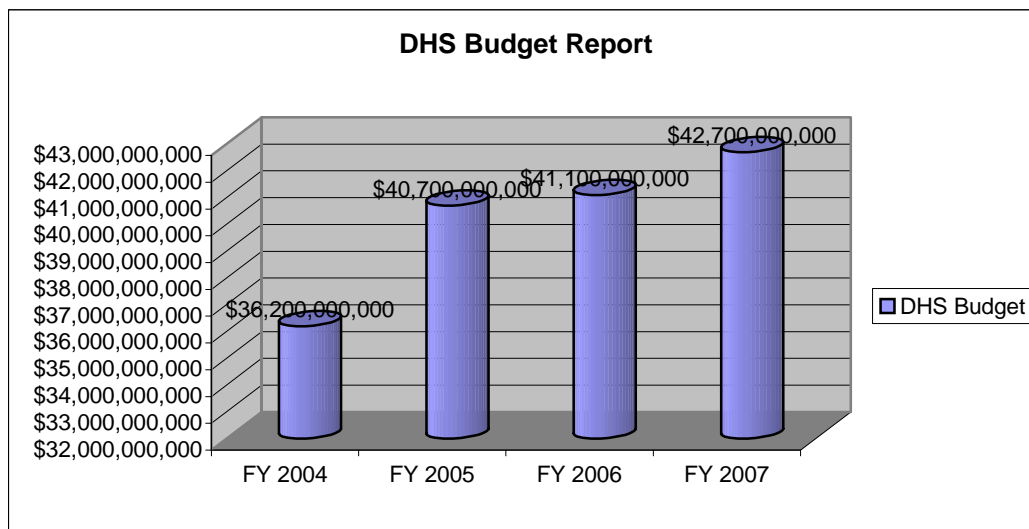
striking such a “balance” (U. S. Senate Committee on Appropriation 2004). For the fiscal year of 2004, CBP was allocated \$4.9 billion and out of this amount, roughly \$ 645 million was directly destined to finance the efforts of striking such a “balance” (U.S. Senate Committee on Appropriation 2003).

According to Figure 3.3, CBP budget has increased by 63.3% between FY 2004 and FY 2007. However, the specific budget for trade facilitation and security efforts has decreased by 9.3 % for the same period. The reasons for the decrease of the “specific budget” can range from the rise of new priorities to program stabilization to the increase in contribution by other actors aimed at the “balance” issue. Despite the decrease in fiscal appropriation aimed specifically at the “balance” issue, the overall CBP budgetary figures send a clear and strong message that CBP continues to be financially supported for their mission in making the U.S. borders and global trade safer.

The total DHS budgetary figures also vary when compared with other sources of allocated funds such as found in the Library of Congress, the White House and the DHS official website. For instance, at the DHS official website, the figures for the fiscal budgets are as follow:

Based on the DHS fiscal year budget reports (Figure 3.4), for the fiscal year of 2007, DHS was allocated a budget of 42.7 billion (DHS 2006). For the fiscal year of 2006, DHS was allocated a budget of 41.1 billion dollars (DHS 2005). For the fiscal year of 2005, DHS was allocated a budget of 40.7 billion dollars (DHS 2004). For the fiscal year of 2004, DHS was allocated a budget of 36.2 billion dollars (DHS 2003a).

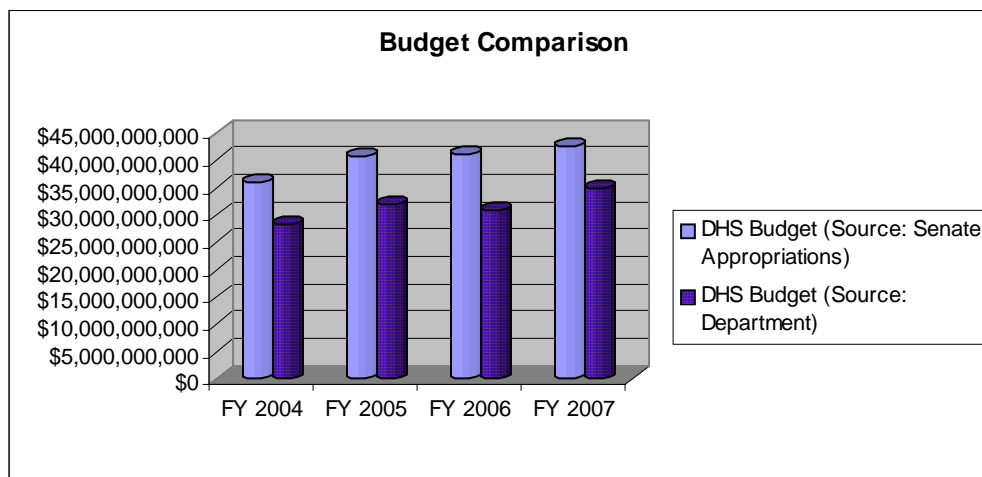
Figure 3.4: Overall DHS budget from DHS official fiscal report



Source: DHS official website

As one can notice, there is a significant disparity in numbers between U.S. Senate Committee on Appropriations - fiscal year budget reports (Figure 3.2) and DHS fiscal year budget reports (Figure 3.4). Such disparity can only come to indicate that the subject of budget is a difficult topic to address. It is open to interpretation and sources are widespread and inconsistent. Despite having an Office of Management Budget to manage the federal budget, unforeseen events may have triggered budget adjustments that were not always properly and timely recorded.

Figure 3.5: Comparison of budgetary data between DHS and U.S. Senate



Source: U.S. Senate Committee on Appropriations for DHS and DHS official website

Independent of the disparity found in funding figures allocated (Figure 3.5) to fight the war on terror, and for that matter, the expenditure directly aimed at striking a balance between trade facilitation and security, we ought to be amazed by the total amount allocated. If the figures from FY 2004 to FY 2007 are added, the total amount can easily reach the sum of \$ 150 billion dollars. Rather than being captivated by the mammoth figure allocated to fight terrorism, we ought to be concerned whether such a monumental amount of capital has made the U.S. and for that matter, the rest of the world safer since 9/11? I argue that despite improvements on security measures aimed at the “balance” issue, the sense of feeling insecure remains.

The other contentious issue raised is the matter of cost. We are not just dealing with the financial cost, but also the human and psychological cost, where for instance, flying has become a nuisance itself, not to mention the low morale and confusion that are widespread among the border agency workforces who are entrusted to fight terrorism.

## Legislation

In order to have any validity, it is paramount that the initiatives tailored to strike a balance between trade facilitation and security be legislatively supported. No one doubts that the U.S. government has been vigorously spearheading the efforts of protecting and promoting global trade against terrorism through a series of trade-balancing initiatives and legislative acts. In the U.S., there have been laws enacted to back up such initiatives such as the Patriot Act, the Safe Port Act, Secure Fence Act, the Maritime Transportation Security Act of 2002, the Customs Modernization Act, and many others. But as with any law, the lack of or too much enforcement can become a problem.

## Conclusion

The United States, as a global icon of power and resentment, was the target of the 9/11 attacks, and must always prepare for the worst and hope for the best. With 101,900 miles of contiguous and shoreline border to patrol, 326 ports of entry to safeguard, 1.13 million people and 70,200 of cargo containers to process each day, CBP and its partners have their work cut out for them (CBP 2008d). To properly tackle these variables, it is paramount to get the trade security strategy in terms of its policy implementation and policy development phase right on the first try.

Based on open source research, no one doubts that CBP is sincerely making the effort to strike a balance between trade facilitation and security. Out of several programs developed to address the “balance” issue, it could be argued that C-TPAT is the one that holds the most promise in terms of cost, concept, and application.

Engaging the private sector to take a more active role in protecting trade is a great step into the right direction toward attaining such a “balance.” Encouraging the private sector to take a more proactive role in terms of bearing the cost and sharing the benefits is the ideal resolution that should be fostered. Neither the government nor the private sector alone can strike such a “balance.” If the concept of C-TPAT is adopted worldwide, the force-multiplier effect could be astronomical, but the validation process must first be revamped.

As for CSI, this author believes that having an imperfect security measure is better than having none at all. Combined with the fact that a great amount of resources has already been poured into this effort, perhaps CSI should be encouraged to expand to a global level. As CSI reaches best practice status, a genuine multilateral CSI partnership

ought to be promoted. All current CSI members should be encouraged to partner up with each other and not just with the U.S., since they are already CSI compliant. That way, we would be multiplying our efforts of promoting and protecting global trade. Standardizing and streamlining the CSI program fits exactly what the WCO, through the FoS SAFE, is trying to accomplish. A quick overview of the WCO FoS SAFE is to standardize customs enforcement efforts with the intent to improve both the security and facilitation of the global supply chain.

Enforcement of preexisting initiatives, especially the C-TPAT program, is the key to the successful fulfillment of these efforts. Nonetheless, all programs are important in their own right, and all have their benefits and flaws. In fact, the concepts of CSI and C-TPAT were derived from existing initiatives - BASC, CIP, and ACSI, as previously stated. The difference now is that the concepts are more defined and specialized in both scope and implementation.

Although the likelihood for Stephen Flynn's nuke-in-a-box hypothetical scenario to become a reality is low, we must always operate under the premise of "when" and not "if". As of 2007, based on the elite survey, the subject experts on the trade-balancing issue believe that it will be just a matter of when and not if that today's global supply chain will be disrupted by an IED or WMD. Therefore, such a controversial issue needs to be treated proactively rather than reactively. If global trade is actually affected, it might just be too late to deal with it. Rebooting the global trade after it has been halted is not like rebooting a computer. Restarting international commerce involves a series of operations and logistical procedures that takes time and resources to get back on track.

## **Chapter V**

Chapter V highlights the Hong Kong customs administration's standpoint (Section I) on this divisive topic, followed by the New Zealand customs administration's perspective (Section II) and the Canadian customs administration's outlook (Section III).

### **Section I: Hong Kong Customs Administration**

Raymond Wong, Hong Kong Commissioner of Customs & Excise Department, once stated, "governments, mindful of the vulnerabilities inherent in the conduct of international trade, are requiring customs administrations to take on a more proactive role in protecting national security from the threat of terrorism" (Hong Kong Customs and Excise Department 2003a). While it could be argued that customs administrations around the world are aware of the importance of the trade-balancing issue, it is unclear whether they all have actually taken actions to make it a priority. Below are some of the initiatives sponsored and implemented by the Hong Kong customs administration, which pertain to striking a balance between trade facilitation and security after the 9/11 events.

#### **Container Security Initiative Pilot**

Through the Container Security Initiative Pilot program, the Hong Kong Customs and Excise Department has become a member of the CBP CSI program. Having consulted with the stakeholders in the supply chain and taken into account a host of factors such as ocean container security, impact on trade, as well as port efficiency and competitiveness, the Hong Kong government decided to cooperate with the U.S. Government on the CSI. This commitment was formalized by the signing of a

Declaration of Principles (DoP) between the U.S. and Hong Kong on 23 September 2002. The signed DoP represents the first binding step that fosters a partnership between Hong Kong and the U.S. Under the DoP, the two customs administrations are committed to exchanging information and working together closely to identify and inspect by screening high-risk containers destined for the U.S. (Hong Kong Customs and Excise Department 2003b).

#### Enforcement of Strategic Trade Controls

The Enforcement of Strategic Trade Controls is a program where the Hong Kong Customs & Excise Department implements comprehensive and strict controls over the import and export of strategic commodities that protect Hong Kong from being used as a conduit of WMD proliferation, while simultaneously ensuring the easy flow of strategic technology for legitimate commercial, industrial and research use. The Hong Kong customs administration is the primary enforcement agency for strategic trade controls, which also comprises an import and export licensing system administered by the Trade and Industry Department. (Hong Kong Customs and Excise Department 2005a).

Indeed, this Hong Kong program shares great similarity to the U.S. DHS ICE Shield America project. Both programs stem from the effort to curtail the illegal commercialization of commodities that might have dual usage: military and commercial, as well as enlisting assistance from the private sector. WMD proliferation is most definitely one concern that cuts cross national boundaries. Perhaps we could increase the odds of fighting this common threat by closing the gap and bridging these two programs where the sharing of information, inspection methods, and joint-investigations is fostered.



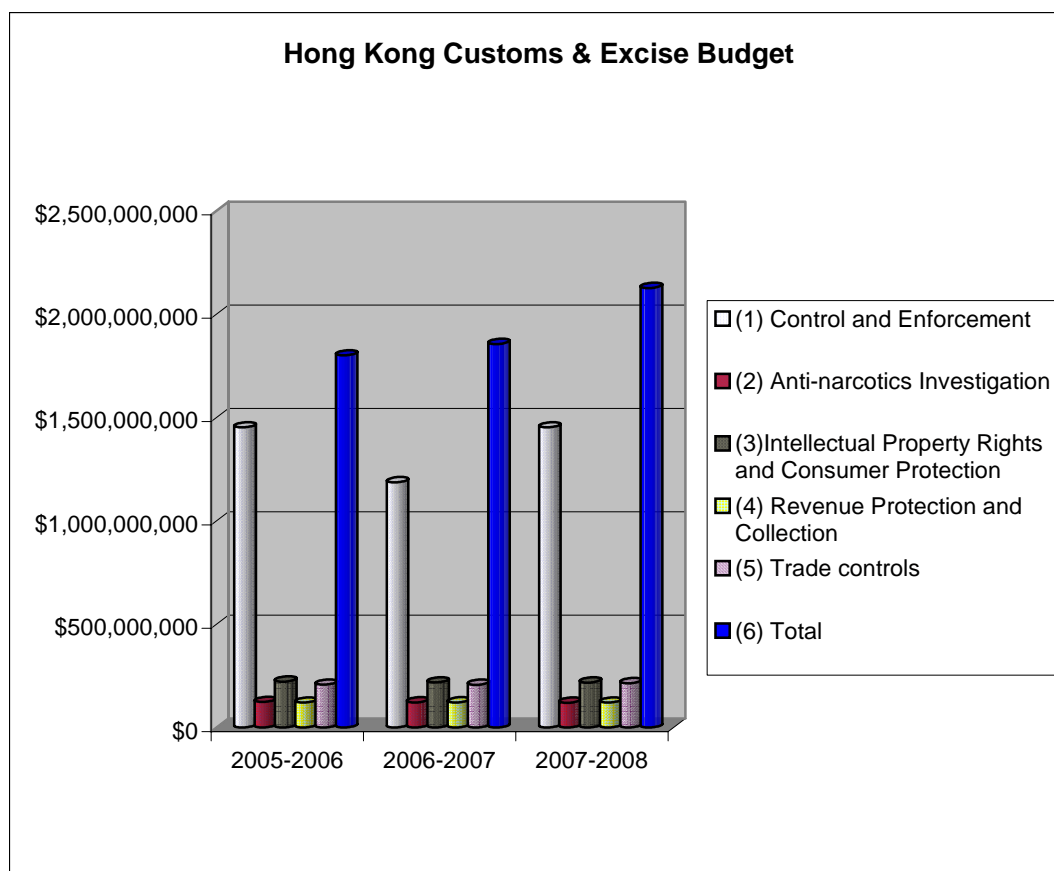
After all, the trafficking of WMD and its derivatives is a transnational issue, and so should be the efforts to curtail it.

#### Air Cargo Clearance System (ACCS)

The Air Cargo Clearance System (ACCS) is a processing system designed to expedite the clearance of air cargo. This system allows customs and cargo operators to interface with each other from both air and sea. ACCS provides a simplified clearance procedure that ensures speedy cargo clearance. In other words, it is an e-mechanism that allows exchange of electronic cargo data and customs clearance instructions that will help to facilitate and protect trade (Hong Kong Customs and Excise Department 2005b)

Allocation:

Figure 4.1: Hong Kong Customs' overall and specific budgetary information



Source: Hong Kong Customs and Excise Department website

Based on the data analysis, it appears that Trade Controls (5) is where most of the initiatives tailored towards the “balance” issue are found. Looking at the figures, there were \$207.5 million for 2005-2006, \$207.1 million for 2006-2007, and \$215.1 million for 2007-2008. One could safely conclude that there was no considerable budgetary increase between 2005-2006 and 2007-2008. It was only a 3.7% increase, to be precise. Looking at the figures for the total amount allocated for Hong Kong Customs & Excise, \$1,801.6 billion for 2005-2006, \$1,856.6 billion for 2006-2007, and \$2,127.4 billion for 2007-

2008, one can adequately conclude that there was a slight budgetary increase of about 18.1% (Hong Kong Government 2006). From these figures, one can draw the conclusion that the Hong Kong government is not really concerned about the trade-balancing issue in the grand scheme of things, despite its position in the global trade, global market, and global economy. Comparing the budgetary increase between the Hong Kong Customs & Excise Department (3.0%) and CBP (33.3%) between FY 2006 and FY 2007, there was about 1000 % difference between them. When taking this disparity in budgetary increases into account along with limited Hong Kong led initiatives on the trade-balancing issue, one may conclude that the Hong Kong government has not placed a high priority on the trade-balancing issue.

### Legislation

As for law enactments, the research has not been fruitful. There has not been a significant act of legislature specifically devised to promote and protect global trade facilitation and security. The Hong Kong government did not formulate any noteworthy anti-terrorism bills or amend laws that deal with terrorism or the “balance” issue in the post 9/11 environment.

## **Comparative Conclusion**

The policy analysis of the Hong Kong customs administration with respect to the trade-balancing issue has revealed that the Hong Kong Special Administration Region (HKSAR), a term used to describe the Hong Kong government after it has been returned to China, has made limited efforts to address this issue when compared with the U.S. government. Three good indications to illustrate such disproportional efforts are: (1) the direct amount of funding allocated; (2) the number of initiatives developed and implemented; (3) the idleness in the legislative body to support trade facilitation and security.

The Hong Kong Customs and Excise Department was allocated approximately \$1,856,600,000 for FY 2007 while CBP received \$ 8,036,356,000 for the same year, a comparative difference of a 333% between these two customs organizations. Again, based on the importance of Hong Kong in the global market, where Asia plays a major role in the transpacific trade, this is a great disparity in investment. One explanation for such budgetary disparity may be due to the fact that the HKSAR did not perceive that there was an actual need to heavily invest in the trade-balancing issue. The other reason may be that HKSAR shared the view that the U.S. was actually overspending, trying to overcompensate for the hatred that some sub-national groups may have for the U.S. One other reason may be the mere fact that the HKSAR did not want to alienate the international community by perpetuating the idea that throwing money at the problem would actually solve it.

A careful review of the HKSAR's strategies, policies, and programs revealed that such initiatives did not require a great amount of investment as the procedures and

practices adopted were unoriginal in nature and based on partnership. The reasons that the Hong Kong customs administration did not develop as many initiatives as the U.S. customs perhaps lie within three factors: (1) economic prosperity comes first; (2) terrorism is somebody else's problem; (3) domestic interest supersedes international interest, despite knowing that a good standing on the world stage is important.

It is no secret that Hong Kong is traditionally and historically known to cater to the business community's needs where economic prosperity is the ultimate goal for both the private and public sector to attain. It is therefore highly conceivable to believe that the Hong Kong government and the business community still perceive a trade security measure as a hindrance rather than a necessity. Based on the statements made by Joseph W.P. Wong, Hong Kong Secretary for Commerce, Industry and Technology, it appears that when it comes to the trade-balancing concern, Hong Kong tends to favor the interests of the private sector by promoting trade facilitation measures over security measures. Secretary Wong has pointed out during an Asia Pacific Economic Commerce (APEC) symposium that trade among APEC economies was significant and continues to grow. The volume of trade has more than doubled since 1994, from US\$1.4 trillion to more than US\$3 trillion. 80% of Hong Kong's trade was with APEC members. He further commented that the symposium has provided a forum for dialogue between the public and private sectors, with a better view to match trade facilitation measures with the needs of businesses. (Hong Kong Digest 2007)

It is important to point out that APEC is an organization traditionally known to favor trade facilitation over security of trade, and for a Hong Kong government official to host an APEC conference, it sends a clear message where the Hong Kong government

really stands on the trade-balancing issue. To further this point of view, as previously stated, before the Hong Kong government agreed to endorse the CSI pilot program, they first “consulted” with the private sector. Hong Kong’s approach on container security was totally different from the one taken by the U.S. government, where the private sector had to conform to the new U.S. security initiatives and not the other way around.

HKSAR may also have come to a realization that there was no need to develop and implement security measures in the supply chain as the U.S. has, since Hong Kong is not on terrorists’ radar screen. By taking a more neutral and low-key position on terrorism, maybe Hong Kong will be spared from the wrath of these violent extremist groups. Besides, the great U.S. is already doing enough for everyone else, so why not enjoy the free ride. Unfortunately, it is not that simple. What the Hong Kong government failed to understand is that an interruption in the U.S market not only would affect the U.S., but the entire global trade, and that would include Hong Kong.

Hong Kong Customs Commissioner Raymond Wong perfectly understood that we all live in a new era where the new world order, terrorism, is a predominant fact of life. He also understood the seriousness and the importance of promoting security and facilitation of trade simultaneously. Although the Hong Kong customs administration has come up short on initiatives and financial support, the HKSAR did not stand in the way either. They have actually endorsed several U.S. led initiatives by working closely together with the U.S. through bilateral agreements resulting in its participation in the CSI program and also by adopting the WCO FoS SAFE (Hong Kong Economic and Trade Office. 2007). HKSAR has been operating under the premises of not interfering in what other nation-states, IGOs, or NGOs are doing about the “balance” issue. HKSAR is

known to participate in several partnerships and multilateral programs, as long as they did not conflict with its national interests and internal affairs.

HKSAR is taking a calculated approach and hoping that time will do magic. It is taking a passive stand and adopting whatever is best available in terms of policies and programs aimed at the “balance” dilemma to best fit its own agenda. For instance, the Hong Kong customs administration implemented the 24-hour rule policy as a means to enhance their relations with mainland China. While the U.S. intended the advance manifest notification to be used as a security measure, the HKSAR is using it both as a tool to facilitate local trade and as a token of good faith, showing the rest of the world that HKSAR is contributing to the efforts of balancing trade facilitation and security. In reality, HKSAR can be perceived to be just trying to kill two birds with one stone.

Besides adopting the 24-hour rule concept, officials from HKSAR and the People’s Republic of China are moving forward with plans to introduce an e-customs clearance system for cargo crossing the border between Hong Kong and China, despite concerns raised by some industry groups that business could be adversely affected. Some smaller operators have argued that they lack in-house IT capability to sustain such a change. As a response, both governments have plans to install workstations at various ports of entry to enable the information to be submitted electronically. In an overall scheme of this e-customs system implementation, such a move could reduce cost and time lost in cross-border operations. The transporters can now make more than one cross-border trip a day; therefore, increasing their margin of profitability (Wallis 2007). The HKSAR even went further to make the compelling argument that the failure to implement e-customs clearance would mean that “overseas” customs authorities would

most likely impose more stringent clearance requirements on goods coming from or passing through Hong Kong (Lloyd's List 2007). Again, HKSAR is trying to kill two birds with one stone by projecting the perception that the Hong Kong government is concerned with “balance” issue while putting self-serving interests first. The truth of the matter is that the e-customs clearance procedure was adopted to favor trade facilitation over security concerns. Such inference is subtly supported by HKSAR’s own actions.

Furthermore, it is not farfetched to speculate that the Hong Kong government may have a different take on the implications of terrorism in today’s global trade. And that explains the idleness of its legislative body to support the efforts of balancing trade facilitation with security. If legislation is directly tied to the financial backing, then it should not come as surprise that the efforts in legislative support came up short, as we know exactly where HKSAR stands on this issue financially.

In sum, although Hong Kong Customs and Excise Department is partaking in the efforts of protecting and promoting global trade, its contributions in terms of policy/program/legislation development and fiscal allocation are comparatively small, given Hong Kong’s geographic and economic importance in the grand scheme of global trade. It appears that its participation in securing worldwide trade is closely coordinated with the private sector. It seems that the Hong Kong customs administration is willing to take action to secure trade as long as it does not interfere with the private sector’s priorities and national interests. In an essence, Hong Kong does not want to upset its relations with China: its major business partner and its “governing ruler.” After all, HKSAR knows that it can easily be replaced by another important international city, Shanghai.



## **Section II: New Zealand Customs Administration**

Section II illustrates the New Zealand Customs Service's efforts towards the trade-balancing issue. The research revealed that the New Zealand Customs Service (NZCS) has developed and implemented the Supply Chain Security Strategy and the Secure Exports Scheme to balance trade facilitation with security.

### **Secure Exports Scheme (SES)**

NZCS understands the importance of keeping legitimate trade flowing and secured in order to safeguard the continuing success of New Zealand's trade practices with the international community, particularly with the U.S. NZCS has demonstrated its commitment to this effort by developing the SES [Secure Exports Scheme], which was tailored to enhance the security of exporters' supply chains, specifically on trade with the U.S. (NZCS 2007a). The SES is a program that shares great similarity with the U.S. C-TPAT.

### **Supply Chain Security Strategy (SCSS)**

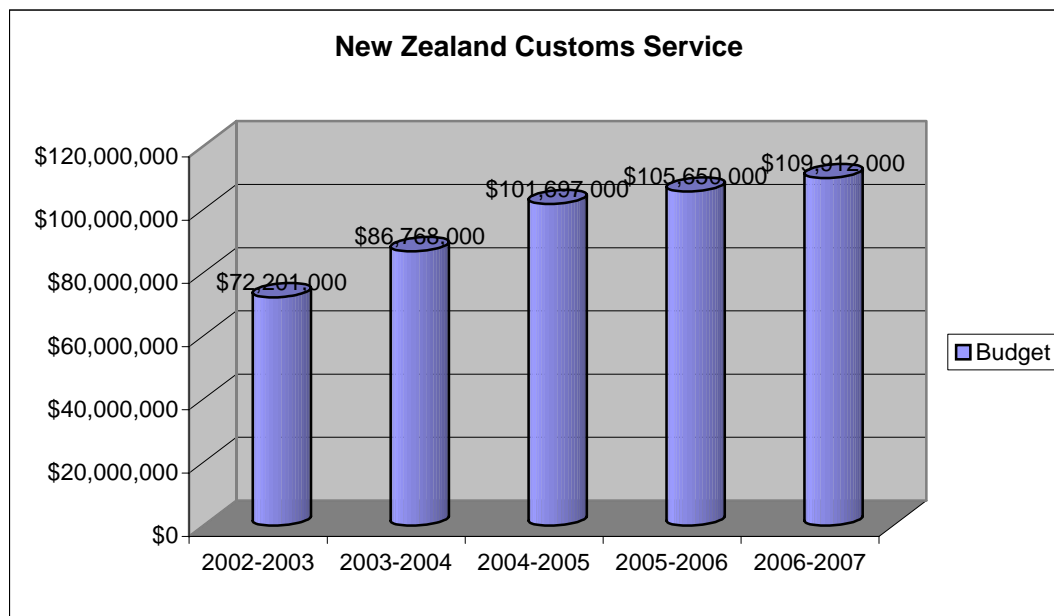
The NZCS, in consultation with its business community, has developed and implemented an initiative called Supply Chain Security Strategy to provide greater security assurance for exports, imports and transshipped goods. SCSS operates under four core elements that are based on the advance submission of electronic cargo information; intelligence-based risk assessment; examining of high-risk cargo to New Zealand and its trading partners by using non-invasive technology and physical inspection as required; voluntary agreements to reduce risk (NZCS 2007b).

The SCSS shares great similarity to the U.S. CSI program as the SCSS' core values will reflect. The New Zealand government through its NZCS is making the effort to assimilate U.S. customs administration initiatives tailored to address the balance of trade facilitation and security. The New Zealand government has financially empowered the NZCS to develop and implement initiatives tailored to strike such a "balance."

Conversely, another plausible explanation for the development of SCSS might have just been a pure and simple business strategy rather than a security tactic. Afraid of lose a competitive edge in the U.S. market for being unable to join the ranks of CSI, the New Zealand business community may have pressured its government to develop SCSS, as an alternative to counterbalance the perceived economic disadvantage created by the CSI program. In that sense, SCSS, like its counterpart, CSI, has ceased to be a security initiative to become a trade facilitation initiative. In any event, independent of what the motives were, such governmental action has only served to enhance the ideal of balancing trade facilitation and security.

## Allocation

Figure 4.2: New Zealand Customs Service's overall budgetary information



Source: New Zealand Customs Service website

Based on the Estimates of Appropriations for the Government of New Zealand for the years 2006-2007, NZCS was allocated a budget of \$109,912 million (New Zealand Treasury 2006). Based on the same report, for the years 2005-2006, NZCS was allocated a budget of \$105,650 million (New Zealand Treasury 2005). For the years 2004-2005, NZCS was allocated a budget of \$101,697 million (New Zealand Treasury 2004). For the years 2003-2004, NZCS was allocated a budget of \$ 86,768 million (New Zealand Treasury 2003). For the years 2002-2003, NZCS was allocated a budget of 72,201 million (New Zealand Treasury 2002). Based on additional NZCS' fiscal data, about half of the overall NZCS budget, in any given year, was allocated directly or indirectly to help strike a balance between trade facilitation and security. One can also notice that the

overall budget has increased significantly from \$72,201 million (FY 2003) to \$109,912 (FY 2007), an increase of 52.2%. Comparing the budgetary increase between NZCS (26.7%) and CBP (63.3%) between FY 2004 and FY 2007, there was about 137 % increase in difference between them. Taking into consideration where New Zealand stands as a trading partner in the grand scheme of the global economy, the New Zealand's budgetary allocation is considerably proportional to its level of importance on a global scale as opposed to Hong Kong.

### Legislation

The two major New Zealand laws enacted that have the most impact on the issue of balancing trade facilitation and security are: (1) the Border Security Act 2004 and (2) the Maritime Security Act 2004. The Border Security Act 2004, also known as the Customs and Excise Amendment Act 2004, has enhanced border security in relation to law enforcement and trade components. One of the key components of this legislature is the mandatory provision of advance electronic information of passengers and cargos. Such an added piece of legislation has allowed customs to better target people and goods, entering and exiting the country (NZCS 2008). The Maritime Security Act 2004 has enabled New Zealand to put in place a new maritime security framework, as required by the International Maritime Organization. Ships and ports around the country were required by the Maritime Safety Authority to develop new security plans (New Zealand Ministry of Foreign Affairs and Trade 2006).

## **Comparative Conclusion**

The NZCS has made innovating contribution domestically and abroad towards security and facilitation of international trade. NZCS knows that cultivating a close working relationship within entities of its own government, particularly with the Ministry of Foreign Affairs and Trade, is a must. NZCS is also well aware that promoting partnerships with other governments, as well as the international business community, is paramount to show to its allies, such as the U.S., WCO and the United Nations, that New Zealand is truly engaged in the “balance” issue. Through the development and implementation of SCSS, New Zealand’s version of U.S. CSI, and SES, the New Zealand’s version of the U.S. C-TPAT, the enactment of anti-terrorist laws, and the substantial budgetary increases, NZCS has clearly demonstrated its level of commitment in achieving a balance between security and facilitation of global trade. New Zealand has definitely taken a stand on the “balance” issue rather than standing on the sideline.

For those who share a moderate view on the issue, crafting those programs may be construed as a matter of necessity and survivability rather than an alliance of convenience. After all, being associated with CSI and C-TPAT brings benefit to New Zealand and its business community. Developing SCSS and fostering a partnership with the business community through the SES program secures New Zealand’s position in the global arena, which translates to the easy flow of New Zealand’s exports in the international commerce, especially into the U.S. market. For those who share skeptical views on the subject matter, the NZCS’ action in developing its own version of CSI and C-TPAT may be construed as signs of submission to the pressures of global trade and its actors. However perceived by others as submissive, being a friend of the alleged sole

hegemonic superpower of the world, the United States, still has its benefits. Independent of what one comes to believe or conceive, each nation-state should do what is in its own best interests as have the New Zealand and Hong Kong's governments, and not be faulted for it. In the end, it will one way or other contribute in the efforts of attaining such a "balance."

Depending on how it is being interpreted, variety in strategies, policies, and programs can be a good thing. Based on the forces of the free market and the spirit of open society, in which competition is a welcoming sight, we could end up with a host of CSI versions that can be made available for the best version to be chosen and accepted universally. On the other hand, having too many options that tackle the same issue may actually slow down the entire resolution process. Every country would want to have its version validated and implemented.

For quite some time, New Zealand and the United States have long been hard at work to recognize each other's strategies, policies, and programs. The Customs Mutual Assistance Agreement (CMAA) is a clear example that illustrates such cooperation. The NZCS has worked and continues to work closely with CBP to ensure mutual alignment and recognition of their initiatives. The validation of the SCSS program is another unmistakable example of such mutual recognition, in which it conveys the message that U.S. welcomes other nation's initiatives.

By taking such an approach, the U.S. will be less criticized by other nations or entities of bullying the rest of the world into complying with the U.S. maritime security standards. Moreover, the U.S. should not be the only one burdened by the cost of global maritime security, after all, the operative word is global. Improving global maritime

security will benefit the entire world, not just the U.S. With such practice, it will foster democracy, innovative practices, and unite all the actors to achieve a common goal – fighting terrorism. Global terrorism is not an American dilemma, but a global quandary.

When drawing a comparison between the U.S. customs and the New Zealand customs' goals and support, both nation-states want the same thing, a safer and more efficient trade. Such efforts can be backed by one factor, the level of fiscal appropriation committed by both governments. Both customs administrations received considerable financial support to carry out their mission. Based on the fiscal report produced by the New Zealand government, NZCS was granted \$101.5 million in 2004 and \$106.6 million in 2006 while CBP was granted \$ 5 billion in 2004 and \$ 8 billion in 2006. Both administrations indeed have had their budgets significantly increased throughout the course of these years.

### **Section III: Canadian Customs Administration**

Section III focuses on the Canadian customs' initiatives aimed at the trade-balancing issue. The Canadian government has conceded to a series of significant changes in its customs organization to cope with the increase in challenges imposed by terrorism. The Canadian customs administration has undergone considerable changes since the 9/11 attacks.

The Canadian customs administration, previously known as the Canada Customs and Revenue Agency (CCRA), is now known as the Canada Border Services Agency (CBSA). CBSA was created when the Department of Public Safety and Emergency Preparedness Canada (PSEPC), later referred as the Department of Public Safety (PS), was formed on December 12, 2003. PS is the Canada's leading department responsible for public safety issues and has at its disposal CBSA and four other sister agencies to assist in carrying out its mission. The other four agencies are the Royal Canadian Mounted Police, the Canadian Security Intelligence Service, the Correctional Service of Canada, the National Parole Board, and the Canada Firearms Centre (Public Safety Canada 2007). The newly created department shares great similarity with the U.S. DHS in terms of formation, mandate, and responsibility.

CBSA is consisted of the former CCRA, the Citizenship and Immigration Canada (CIC) and the Canada Food Inspection Agency (CFIA). This newly established agency supports national security and public safety priorities and is also responsible for border control. The President of the CBSA reports directly to the Minister of PS (CBSA 2006a).

In this age of globalization, CBSA knows the importance of protecting the border against novel terrorist threats and traditional transnational crimes while promoting



domestic and international trade. With approximately \$2 billion in daily cross-border trade with the United States, keeping the Canadian-American trade system healthy and fluid is paramount to ensuring Canada's economic prosperity (CBSA 2007a). Knowing the importance of border control and economic prosperity, CBSA has developed and participated in a series of initiatives that directly deal with balancing trade security and facilitation.

One such initiative is the CSI program. As previously stated, the CSI is a bilateral initiative with multinational effect that requires a comprehensive level of cooperation within the customs community. The first CSI pilot program that took effect was between the U.S. and Canada. As previously stated, this initiative was primarily developed to protect and promote the principal system of global trade - containerized shipping - from being disrupted by terrorists. It is designed to safeguard global maritime trade without compromising the legitimate flow of freight through the global supply chain. Both CBSA and CBP signed a CSI partnership arrangement, the DoP [Declaration of Principles], in October 2005. The objective of DoP is to enhance marine security by deploying CBSA officers to foreign ports to pre-screen and examine high-risk cargo containers in coordination with the host nation before their arrival (CBSA 2007b). As stated before, CSI is a reciprocal program. The reciprocity of the deployment of customs officers between the U.S. and its CSI counterparts, in this case, Canada, is one of the cores of the CSI program, which is based on a bilateral and not on a multilateral agreement, where the common partner is the U.S.

As a member of the CSI program, CBSA is required to use the NII technology for container examination at its ports of entry. Using the NII, radiation detection and

gamma-ray technology are used to expeditiously inspect targeted containers with minimal cargo inspection intrusion. Radiation detection equipment is designed to locate and identify sources of radiation in sea shipping containers. There are two main tools used to detect radiation in a marine container: the portal and the carborne unit. A portal radiation detection is a stationary screen unit, composed of two four-metre-high panels that are anchored to the ground and placed wide enough apart for a container to pass through. The carborne unit is a mobile screening system mounted onto the roof of a vehicle and can detect the precise types and levels of radiation present (CBSA 2007c).

The gamma-ray technology operates using two forms: mobile and stationary. The mobile Vehicle and Cargo Inspections System (VACIS) is a truck-mounted, gamma ray, mobile scanning system that captures an image of a marine container, rail car or truck contents. It gives the targeting officers an image similar to an X-ray. A pallet VACIS is a self-contained stationary gamma-ray scanning system that captures images of pallets and large pieces of freight in customs examination facilities (CBSA 2007d).

CBSA has made significant efforts to be a proactive CSI partner. CBSA has designed, developed, and implemented several programs to supplement the core elements of the CSI program. By developing information sharing programs such as the Advance Commercial Information and eManifest along with the usage of radiation detection and gamma-ray equipment as tools to conduct NII inspection, CBSA has shown its undeniable commitment to the CSI mission and for that matter, the entire supply chain security strategy.

## Advance Commercial Information (ACI)

ACI program is designed to provide CBSA officers with advance electronic cargo information that are used to identify high-risk containers prior to arrival to Canada. ACI mandates carriers to transmit pre-arrival cargo information to targeting officers for vetting before the actual cargo arrives to Canada (CBSA 2007e). This program is quite similar to the U.S. 24-hour rule.

## eManifest

eManifest is a program that requires air, sea, highway, and rail carriers to submit pre-arrival cargo, crew and conveyance information electronically. Getting the advanced cargo information allows CBSA to facilitate legitimate trade while scrutinizing the threatening ones. In other words, eManifest streamlines border processing of goods entering Canada's market and is the next phase of the ACI program (CBSA 2007f).

Besides joining CSI, CBSA had also embraced the FAST program, another multinational U.S. led initiative. In the process, CBSA has also developed "pseudo" self-initiated programs such as Partners in Protection (PIP) and Customs Self Assessment (CSA) initiatives.

As previously stated, FAST is a program designed to expedite the movement of cross-border commercial shipments with minimal interruption and without compromising security. Under the FAST program, approved importers and carriers from both sides: Canada and the U.S., through a system of registered drivers, is allowed to transport shipments from either side with a minimal level of customs restriction and with greater speed; therefore, reducing the overall cost of compliance. There are 19 FAST sites where

importers can clear their goods, in both Canada and the U. S., before arriving at the border. As of September 30, 2005, there were 23 FAST approved importers, 518 FAST carriers and over 58,000 FAST registered drivers who participated in the FAST program (CBSA 2006b). The FAST program is also extended to Mexico and the working principles are the same whether the partner is Canada or Mexico. Basically, the FAST program is aimed to increase the level of collaboration in terms of land border crossing among contiguous countries of the United States.

#### The Customs Self Assessment (CSA)

CSA is a program that provides qualified participants such as importers, carriers, and Commercial Driver Registration Program registered drivers the option to reasonably reduce the costs of compliance while enhancing their ability to comply with customs requirements. The CSA program gives eligible importers the advantage of streamlining the processing system for imported goods. By streamlining accounting and payment processes, it minimizes the need for importers to maintain separate and costly customs processes, allowing them to save money while still meeting their customs obligations (CBSA 2006c).

#### Partners in Protection (PIP)

PIP is a program that enlists the business community to share the responsibility, the cost, and the benefit of securing international trade. Through this program, CBSA works closely with the industry partners to develop a symbiotic security strategy, assessment, and recognition that would simultaneously promote and protect the global

supply chain from terrorist threats. To date, there are 1, 486 signed partners in the PIP program. Organizations that demonstrate their commitment to a secure trade chain by joining PIP will also make them eligible to participate in the FAST program (CBSA 2008).

Overall, the FAST, the PIP, and the CSA programs are intertwined with each other. In Canada, FAST builds upon the CSA program and its principles of pre-approval and self-assessment, as well as on the increased security measures under the PIP initiative. FAST participants must meet the requirements of Canada's PIP program or the United States C-TPAT program. As part of these programs, companies must adopt and implement security procedures to be compatible with guidelines set by both the CBSA and CBP.

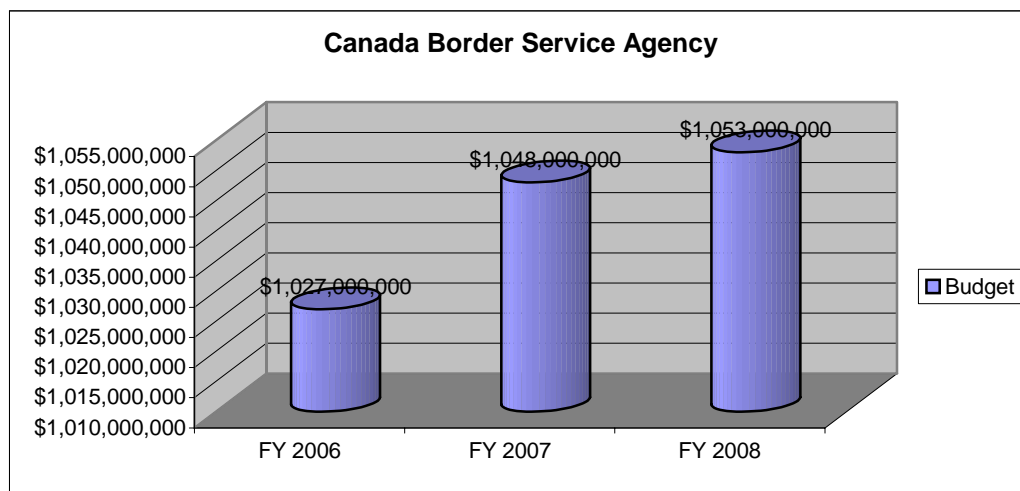
There are also other organizations with the Canadian government that play a pivotal role in striking a balance between trade facilitation and security. They are the Laboratory Scientific Service Directorate (LSSD) and the National Risk Assessment Centre (NRAC). LSSD is the scientific arm of the CBSA and provides innovative technical and technological solutions to questions related to contraband detection, country of origin of goods determination and a number of other specialty areas. In summary, LSSD offers a diverse range of scientific, analytical, and research advisory services to the CBSA (CBSA 2005a). NRAC is the intelligence arm of the CBSA. NRAC is an intelligence hub created to increase Canada's ability to detect and detain the movement of high-risk people and goods. This is done by analyzing and sharing intelligence information with national and international partners (CBSA 2005b).

There is also the Business Resumption, which is not an organization, but a B to G partnership formed between the private sector and the governments of Canada and the United States. Such B to G interface plays an important role in helping to strike a balance between trade facilitation and security (CBSA 2007g).

Just as any partnership, differing in terms of sponsorship where the Canadian government plays an important role, its goal is to serve as a forum of discussion to promote a better understanding in the matters of strategies, policies, and programs guided towards trade and security concerns. Through this “joint venture association,” both of the governments, the U.S. and Canada, along with the business community attempt to reach trade and security agreements and practices upon which they can all agree.

#### Allocation

Figure 4.3: Canadian customs overall budgetary information



Source: Canada Border Service Agency website

On January 12, 2007, the Minister of Public Safety, the Honorable Stockwell Day, who oversees the Canada Border Service Agency, announced an investment of \$431.6

million for a period of over five years to support several border security and trade facilitation related initiatives. Such an investment represents a testament that the Canadian government is working closely with the business community, the U.S., and WCO, on initiatives that simultaneously increase security and economic growth. According to Mr. Day, the eManifest program was allocated \$396 million; Business Resumption was allocated \$24 million; PIP was allocated \$11.6 million (CBSA 2007h).

The overall FY 06 appropriation allocated for CBSA was \$ 1, 027 billion dollars, for FY 07 was \$ 1, 048 billion and for FY 08 will be \$ 1, 053 billion (Treasury Board of Canada Secretariat 2005). The data for FY 04 and 05 expenditures proved to be inconclusive, possibly because PS was in the process of being formed and adjustment of PS's budget was made, but not necessary or properly recorded. In any event, the CBSA budget has increased by 2.5 % between FY 2006 and FY 2008, as can be seen in Figure 4.3. Comparing the budgetary increase between CBSA (2.0%) and CBP (33.3%) between FY 2006 and FY 2007, it was about 1550 % in difference between them. While Canada may not have had as many budgetary increases throughout the years, it has compensated by developing several programs aimed at the balancing of trade facilitation and security. In addition, Canada has proven to be a genuine U.S. partner in trade and security. Certain U.S. led initiatives would not have been developed and implemented without the collaboration of the Canadian authorities.

## Legislation

As a response to remain competitive with the demands of globalization and global terrorism, the Canadian government Order in Council created CBSA on December 12,

2003, which is legally supported by the Canada Border Services Agency Act. The Act sets out the responsibilities, mandate, powers, duties and functions of the PS, the Department responsible for CBSA. Under this Act, the CBSA is responsible for providing integrated border services that support national security priorities and facilitate the easy flow of persons and goods, including animals and plants (CBSA 2007i).



## **Comparative Conclusion**

When comparing the Canadian and U.S. customs administrations and their initiatives, one can conclude that they have been working together to close the existing gaps in trade and security. They share great similarities in terms of mission, infrastructural change, legislative enactment, and financial support from their government to carry out their new mission. One can also conclude because of its high dependency to the U.S. economy by being its biggest business partner and its close proximity to the U.S. by being the biggest contiguous neighbor, Canada did not have much of choice of not partner up with the U.S.

One can easily notice that there is a clear parallel in the level of transformation that both the U.S. and the Canadian customs administration underwent as a result of the increased emphasis on balancing trade facilitation with security in this age of global terrorism. The Canadian customs administration experienced almost identical infrastructural changes as those experienced by the U.S. customs organization. Both customs administrations underwent similar adjustments from name change to changing its mission, strategies, policies, and programs. Both customs entities are a part of a newly formed department, and are now primarily entrusted to safeguard the homeland from imminent terrorist attacks while continuing to carry out the traditional mission of enforcing customs and immigration laws and statutes. The former CCRA, now referred as CBSA, entrusted to strike a balance between trade facilitation and security, was one of the 5 core agencies that operate under the newly created department, the PS. Just as the former USCS, now known as CBP, was one of the 21 agencies brought into the newly created department, the DHS, also entrusted to find a balance between safeguarding and

facilitating global trade. The level of resemblance shared by these two customs organizations in terms of its overall vision, mission, and organization is unparalleled. No other customs entity in the world has undergone such changes and shared so many common traits and interests as the U.S. and the Canadian customs administrations.

Since the 9/11 events, not only has Canadian customs undergone major infrastructural changes, but it has also produced a considerable number of initiatives tailored to protect and promote global trade. Most of the Canadian customs initiatives shared great similarities with the U.S. initiatives, not just in terms of partnership, but also in its design. While some of the Canadian programs may require more cooperation than others, they can also operate independently, but never too far away from the influence of U.S. led initiatives. While programs such as FAST and CSI may function more under the partnership apparatus and programs such as PIP and CSA are purely Canadian led initiatives, somehow they still share traits with the U.S. initiatives. For instance, the Canadian PIP shares great similarities with the U.S. C-TPAT. The Canadian ACI displays parallel characteristics of the U. S. 24- hour rule and the CBSA e-Manifest resembles the CBP ACE program. The ACE Truck Manifest System, also known as “e-Manifest” and the Canadian e-Manifest actually share the same name. The only difference is that the U.S. e-Manifest helps create a secure and streamlined environment for processing cargo at the land borders where the Canadian e-Manifest encompasses the entire gamut of cargo processing from air, sea, land, or rail.

The only distinct difference between these two customs services was in the matters of infrastructural reorganization. CBSA was formed without any fragmentation of

its legacy agencies from either the customs or immigration side. The Canadian approach, in terms of merging its border agencies, represents the ideal way to implement major organizational change. Bringing the legacy border agencies to CBSA intact, i.e.: CCRA, CIC and CFIA, was the proper way of doing it. In contrast, its counterpart, the USCS, can be found into two newly created agencies: CBP and ICE; and the INS could be found into three newly created agencies: CBP, ICE, and CIS, as previously stated. Instead of creating a central border agency, the U.S. government created a new department, the DHS with limited common denominators, and completely ignored the mission, the function, and the employee culture that were embedded in each agency (DHS 2003b). From a department level perspective, under the Canadian post 9/11 infrastructural reorganization, the RCMP, entrusted to police the nation, to enforce federal laws, and to uphold national security matters, was transferred over to the leadership of PS, while its U.S. counterpart, the FBI, remained with the Justice Department.

As for which countries are better prepared and more effective in promoting and protecting global trade, only time will tell. Future dire events will decide which one is best equipped to handle another terror attack or natural catastrophe. In my opinion, when it comes to the effectiveness of governmental reorganization, the Canadian government has been more successful, considering that DHS scored in the low 3 in job satisfaction and performance in the “Best Places to Work in the Federal Government 2007” report (Go 2007). One knows that an unsatisfied workforce translates into less effective strategies, policy, and programs.

## **Chapter VI: EU Customs Administration**

Chapter VI is comprised of a case study that deals with the issue of striking a balance between trade security and facilitation from a regional level. Examining the EU's reactions and responses towards the trade-balancing dilemma will certainly enlighten the issue from a regional perspective. The EU has unquestionably earned its place and secured its position to discuss today's geopolitical affairs.

The EU is an intergovernmental organization of European countries that work closely with each other to derive solutions aimed to address specific and general matters of common interest at a regional level. This sometimes results in nation-state members delegating some of their sovereign powers to accomplish issues of regional significance. The EU is now comprised of 27 Member States, but its original members can be traced back to its original members: Belgium, France, Germany, Italy, Luxembourg and the Netherlands. The idea of forming such an organization has come to fruition right after the World War II (Europa Paronama of the European Union 2007).

The particular institution in the EU that I am most interested in discussing is the European Customs Union (CU), which is considered by many as one of the principal pillars in the early formation of the EU. As the European economy grew, the interest to liberate trade among European nations also grew. As the idea of making cross-border operations more fluid by eliminating unnecessary customs restrictions among the EU countries evolved, a movement to push for an integration of customs organizations within Member States took effect. This resulted in the creation of a CU.

Today the CU is referred to as the Taxation and Customs Union (TCU). The TCU is an international coalition organized to establish the EU's external borders with a

uniform tariff policy toward non-member nations and to eliminate internal “customs” borders by abolishing internal border controls, such as customs restrictions on goods exchanges among EU Member nations. The European TCU consists of 27 European customs administrations, which must act as though they are one. The overall purpose of the TCU is to allow the EU to function as a single market. The single market can only function properly when there is a common application of rules at its external borders. These common rules go beyond common tariffs. They extend to all aspects of trade policies, environmental policies, public safety policies, and food policies (European Commission 2005).

According to the European Commission (EC):

Customs in the EU handles 19% of total world trade. That is more than two billion tons of goods per year passing through EU ports and airports. Customs processes more than 120 million customs declarations each year, checks more than 15 million documents and carries out 5.6 million physical customs controls (EC 2007a).

The above statistical information shows how important is TCU on the grand scheme of global market as well as the European market. By having a centralized customs service that underscores uniformity and modernization, the EU hopes to increase the competitiveness of companies doing business in Europe and abroad, reduce compliance costs and improve EU security. By taking such actions, the EU, through TCU, is showing to the rest of the world that it has been making the efforts to strike a balance between trade facilitation and security (EC 2007b).

In a pre 9/11 environment, the TCU controls tended to concentrate on the revenue protection aspect. In a post 9/11 environment, however, the EU customs controls have

increasingly shifted to emphasize more on the matters of security and environmental protection rather than the traditional fiscal aspect of customs work.

TCU's policies and proposals aspire: (1) to endorse the customs union as a vital part of protecting the external borders of the EU; (2) to facilitate trans-border operations; (3) to seize the Internal Market's benefit; (4) to encourage changes in the tax systems that support common objectives, competitiveness, and development; (4) to effectively respond the international challenges associated with customs and tax policies; (5) to foster better collaboration among Member States in addressing tax and customs illegal activities; (6) to promote a regular and open dialogue with stakeholders on policies and programs that are compatible with the pressures of global trade and globalization (EC 2007c).

TCU has also been developing measures to strike a balance between trade facilitation and security. These measures are expressed in initiatives that are depicted below. They are primarily the Customs Security Programme, AEO, and Electronic Customs Project (EC 2007d).

#### Customs Security "Programme" CSP

CSP is the core component developed by TCU to deal with the "balance" issue. The CSP advocates proper security controls to ensure the protection of the EU economy, to foster a close working cooperation with the business community, and to facilitate trading partners who are compliant with securing international trade (EC 2007e).

### Authorized Economic Operator (AEO)

AEO is a program that functions as one of the major foundations for CSP. Basically, it is a program designed to enhance global supply chain security based on voluntary partnership. It is a program that has the goal of facilitating trade by working closely with customs authorities while simultaneously securing it (EC 2007f). It resembles the U.S. C-TPAT.

### Electronic Customs Project

In order to remain competitive with demands of globalization and the international market, the European Commission initiated a project known as the Electronic Customs initiative. EC aims to replace the way that cargo manifestos were transmitted to customs from a paper format to a paperless, electronic transmitted version; thus modernizing the customs day-to-day operations. The project has the objective to strengthen international cargo security while facilitating the legitimate trade. The implementation of such a project should benefit both the private and the public sector. Electronic customs procedures have become one of the major developments for the EU's TCU (EC 2007g).

Living in this age of terrorism, experts within the EU know the importance of striking a balance between trade facilitation and security. Frits Bolkestein (2003), a member of the EC for TCU Internal Market, stated "It is of the greatest importance to strike the right balance between the need for greater security and the legitimate concerns of traders regarding obstacles to legal trade. There is no point in having the greatest

security controls in the world if they simultaneously kill off trade.” Reconciling customs controls with trade is where the challenges lie. In order to be effective in acquiring such a real balance between trade and security, a series of trial and error on initiatives would need to take place.

### Allocation

The TCU plans to allocate \$133 million euros in the course of five years for the effort in striking a balance between trade facilitation and security. Depending on how the current currency market fluctuates, such an amount in dollars can easily double it (EC 2004).

### Legislation

EC Regulation 725/2004, EC Regulation 884/2005, EC Regulation 648/2005, and most recently the EC Regulation 450/2008 adopted in April 2008 are the primary legislative systems that support the EU’s efforts in facilitating and securing global trade. Regulation 725/2004 is a directive developed to enhance port facility security by extending the common security rules to the outer perimeters of the port (Espo 2004). Regulation 884/2005 states that Member States must make available to the Commission national inspectors for inspections - examination of the Member States’ national security quality control systems, measures, procedures and structures (Espo 2005). Regulation 648/2005 requires pre-arrival and pre-departure information (in the form of summary declarations lodged before the goods are brought into or out of the Community customs territory) to be filed electronically and shared among Member States’ administrations, when possible (Official Journal of European Union 2005). Regulation 450/2008 also



known as the “Modernised” Customs Code is perhaps the most important of all. This is a piece of legislation that will streamline customs procedures and control methods (Europa 2008), and shares great similarity with the U.S. Customs Modernization Act.

## **Comparative Conclusion**

Independent of whether we are talking about the EU or TCU, their origins can be traced back to the very ideal of balancing trade facilitation and security, however tilting more towards trade facilitation. As regional agreements favor commercial liberalization among contiguous nation-states, the principle of economic integration was always the objective to attain. The practice of lifting trade barriers among neighboring European countries not only may be viewed as a source of economic growth, but also a fountain of empowerment to small countries, which standing alone, have little chance to achieve respect and recognition in today's world stage. But collectively, they can become an international powerhouse that few would want to reckon with militarily, economically and politically, as the EU is today.

Although not traditionally known to be an adversary to the U.S. when addressing global challenges as are the usual suspected countries such as China, Russia, and the so-called "rogue" states, the EU has increasingly come to voice their diverging opinions on matters such as the trade-balancing issue, terrorism, the anti-drug strategy in Afghanistan, and the treatment of Iran, to name a few. On the Iran matter, while both the EU and the U.S. agree that Iran's nuclear program is a serious issue, both parties disagree on the gravity of the Iranian nuclear program and the approaches in dealing with such a concern (Nixon Center Working Group 2004). On the anti-drug policy in Afghanistan, the U.S. approach was to create a Drug Czar position for the country while the EU fostered the legalization of poppy opium production in Afghanistan (Weitz 2007). On terrorism, while both sides agree that terrorism must be addressed, they differ in how to address it. The U.S. advocates a hard-line tactic. It applies militaristic and unilateral approaches in

combating terrorism while the EU sponsors a softer approach with diplomatic and multilateral agreements in dealing with terrorism (Hughes 2002). On the issue of finding a balance between trade facilitation and security, the EU TCU Commissioner Laszlo Kovac was indubitably opposed to a new U.S. bill requiring all containers shipped to the U.S. to be scanned by customs officers. He was so adamantly opposed and concerned that he flew to the U.S. to speak with members of the U.S. Congress about the EU concerns in inspecting all containers destined to the U.S. market. He further commented that "following the logic of international trade, if any major player introduces measures unilaterally, it could be followed by reciprocal measures." He predicted the rule would require huge infrastructural investment, create a negative impact on EU-U.S. trade and "could be interpreted as a negative signal" for transatlantic relations (Europe Information Service 2007). These peculiar disapproval and disagreement have emerged at a time when both the EU and the U.S. were making progress in drafting an expedited customs clearance system for legitimate traders, known as the AEO [Authorized Economic Operators] program, the EU version of the US C-TPAT program.

Fortunately in April of 2004, a bilateral agreement on CSI, another important joint-program, was reached and signed between the EU and the U.S., putting aside some of their differences on supply chain security, at least temporarily, while the differences on how to approach B to G trade partnership programs such as C-TPAT and AEO lingered. Through the Joint Customs Cooperation Committee (JCCC), both the EU and the U.S. continue to work out their differences by making these two B to G trade programs compatible and operational on a mutual recognition and inclusive basis (Europa 2004).

Either way, independent of who is right or wrong or whose approach is better or worse, or which one will be adopted or rejected, one fact is for certain, the EU has increasingly become more vocal and less concerned about defying the U.S. The EU has become such a dominating force with which few would dare to reckon. As the U.S. wages war on two fronts along with the weakening of the dollar, the U.S., the world's remaining superpower, is in no position to make demands from the EU. When it comes to addressing the matter of balancing trade facilitation and security through customs apparatus, it is no different.

TCU, considered by many as a model of efficiency in dealing with today's global market and international trade, has inspired talks to establish a US-Canada Customs Union. Danielle Goldfarb in her paper titled "the Road to a Canada-US Customs Union" has explored the feasibility of creating such a partnership (Goldfarb 2003). With a little more inspiration and determination, the idea of establishing a North American Customs Union, mirroring the EU TCU model, where the Mexican, Canadian, and American customs would come together and function as one, would not be unfeasible idea after all; but it is not without resistance.

This conceptual proposition for an America Customs Union is not original at all. In fact, the "North American Perimeter" has already covered such a concept. The North American Perimeter advocates a cooperative approach between the U.S. and Canada to collectively address customs, immigration, security, and trade affairs. It shouldn't come as a surprise since original ideas are hard to come by and definitely not without reservations or controversy. This principle shares great conceptual similarities with the EU model, where state-centric internal border controls are eliminated and replaced by a

common external border control. Like any worthwhile idea, there will always be those who support and those who oppose it.

As Koslowski (2004) mentioned in his well-researched paper titled “International Cooperation to Create Smart Borders,” there were individuals like the U.S. Ambassador to Canada, Paul Cellucci, and Perrin Beatty, the President of the Canadian Manufacturers and Exporters, who shared the vision of a “North American Perimeter” as a solution to protect Canada and the United States from external threats while facilitating the flow of goods, people, and services between them. However, the Canada Foreign Affairs Minister, John Manley, voiced caution about a “North American Perimeter,” which he viewed as an overly simplistic approach to address border security and trade concerns.

Further research on the matter of erasing internal borders has revealed that the concept of the “North American Perimeter” is also aligned with the “North American Union” principle, where the main difference between the two is the inclusion of Mexico (Corsi 2006). Incorporating Mexico into these alleged utopian concepts can be of a formidable challenge in terms of scope and probability. Social and economic boundaries between developed and developing countries are bound to rise. Compound that with illegal migration and the traditional “stigmas” that surround Mexico and its citizens from stereotypes to discrimination, it will make such an idea almost unfeasible to attain.

Conversely, the current (2008) Canadian Prime Minister, Stephen Harper, is a proponent of Security and Prosperity Partnership of North America (SPP), a sub-version of the “North American Union” principle. The SPP is a trilateral initiative that brings the Canadian, the American, and the Mexican governments closer in the pursuit of a collective economic and security prosperity through greater cooperation and information

sharing (Council of the Americas 2008). Upon further research on SPP, it came as a surprise to learn that John Manley has come to promote SPP. He even makes the compelling argument that “to make North America more competitive and secure, the three leaders should announce a plan to establish a North American security and economic community by 2010 (Manley, Aspe, and Weld 2005),” contradicting what he once said and believed about the purpose of the “North American Perimeter.” A person of his stature, reversing his position on the North American unity ideal, must give some validity to the policy and program aimed at bringing Mexico, Canada, and the U.S. together.

In any event, to move the ideals of one economic market and one security perimeter from the drawing board to an action plan, immigration challenges (visa and asylum) and customs challenges (modernization of customs clearance) will have to be overcome first before any constructive path can be set forth for the North American Perimeter to advance. Through SPP, the consensus has been reached that such a unifying ideal is not farfetched to attain after all.

The North America Free Trade Agreement (NAFTA), a trilateral trade agreement is living proof that the U.S., Canada, and Mexico can come together and work side by side. Depending on whom to ask, some even claim that NAFTA has been operating so well that it has outperformed its original expectation, which it is to stimulate and strengthen the North American (U.S., Canada, and Mexico) economy.

Furthermore, the EU was formed from the unification of more than three countries, so why can't the North American unification ideal be feasible, as we are dealing with only three countries? If the problem is Mexico, keep in mind that EU

membership has become more heterogeneous and bigger with time. The earlier idea of having Eastern European countries to join the EU was once considered unimaginable, but it is now a reality. Moreover, Portugal, once discarded and discouraged to join the ranks of the EU because of its disadvantageous economic status, has now one of its citizens, Jose Manuel Barroso, presiding as the president of EU. As for the “balance” issue, on February 21, 2006, the EU President Barroso endorsed the WCO FoS SAFE project (Organization for Security and Co-operation 2006b), showing that EU is actively supportive of trade-balancing initiatives.

Aside from igniting and inspiring debate on unification, the EU knows that customs organizations around the world today are facing formidable challenges in this age of globalization. The TCU knows that the dynamics of global trade have changed. Living in this age of global terrorism, the TCU has come to a realization that the strategy to simultaneously protect global trade needs to be added along with the customary tasks of duty collection and prevention of traditional transnational crimes. The EU is, without question, committed to achieve a balance between trade facilitation and security; so dedicated that it has proposed to change the Community Customs Code. To achieve the right balance, customs procedures and control methods must be modernized and collaboration among all the actors involved in the global supply chain must be fostered. For that reason, the “Modernised” Customs Code (EC/ Regulation 450/2008) was developed and adopted, giving the necessary legal foundation for the TCU to pursue the trade-balancing goal.

As previously mentioned by Bolkestein, TCU has also presented a package to the EU council and parliament for customs to take a greater role in managing trade facilitation and security matters at the EU's external border. Indeed, the EU's action has been quite distinctive from those of Canada, New Zealand, and Hong Kong. While Canada and New Zealand have come to accept and support U.S. leadership on this issue with minimal resistance, and Hong Kong has taken a more "calculated" approach by screening and adopting policies and programs that fit best its own needs first, the EU has taken a more controversial and sometimes confrontational approach. The main difference in addressing the "balance" issue between EU and other countries listed in the case studies lies on the fact that TCU did not always follow the U.S. guidance on the "balance" issue. EU has been known to flex its muscle and assert its collective sovereign powers over the U.S. without reservation. The EU has made it clear that it is not fond of unilateral trade security and facilitation agreements and measures, which the U.S. has been imposing on the rest of the world; but rather preferring to embrace a more multilateral approach as the one being sought by the WCO. TCU has come to believe that the way to find real and practical solutions to secure and facilitate global trade is through international cooperation among governments and a partnership with the private industries that must be based on mutual trust and not on a homogeneous and heavy handed approach. EU, through TCU, is definitely taking an unyielding stance on the "balance" quagmire that may or may not be aligned with the U.S. position. EU will do whatever it takes to protect its own interest, independent what the U.S. thinks of its decision.



## **Chapter VII: WCO**

Chapter VII underscores the trade-balancing issue from a global perspective through the lens of the WCO [World Customs Organization]. WCO brings customs organizations around the world together to discuss primarily trade and regulatory matters. Its roots can be traced back to what was known as the Customs Cooperation Council that started in 1952 with 17 participants and has expanded its membership to encompass 171 members (WCO 2007d).

For decades, the WCO has strived to achieve a balance between trade facilitation and customs compliance. Such efforts were aimed at simplifying and standardizing customs practices. The organization has implemented conventions, standards, and programs tailored to provide its member administrations with mechanisms to strengthen trade facilitation, combined with effective customs control. Below are the most relevant pre-9/11 programs tailored to the trade-balancing issue (WCO 2007e).

### **The Kyoto Convention**

The International Convention on the simplification and harmonization of customs procedures, also referred to as the Kyoto Convention, is an international agreement that focuses on standardization and harmonization of customs procedures as pertain to international trade and its community. The Kyoto convention was implemented into force in 1974. This particular initiative hinges on the modernization of customs administrations, which encompass the implementation of standards, simplification of procedures, improvement of customs control techniques, maximization of the use of information technology, and the fostering of partnerships between customs and trade. The

Kyoto Convention initiative was named after Kyoto, Japan, since the forum of discussion on the modernization of customs procedures took place in Kyoto, Japan (Ibid).

#### The Revised Kyoto Convention

The Revised Kyoto Convention is an upgraded version of the original, which focuses on the current demands of governments and international trade and particularly on the e-domain requirements, where paperless customs transactions are becoming more and more the norm. The WCO council adopted the Revised Kyoto Convention in June 1999 as the 21st century blueprint for modern and efficient customs procedures with new and mandatory rules for its application, with which all members must comply without any reservation. Once implemented, it is intended to provide international commerce with the transparency, predictability, and efficiency that modern trade demands (WCO 2007f).

Following the events of 9/11, the WCO understood and recognized that there was a need to simultaneously champion trade facilitation with security protocols, expanding beyond the compliance level. The trade enforcement efforts needed to weigh more on the unconventional side of the global threat: terrorism related anomalies, such as smuggling and trafficking of WMD rather than just on the traditional transnational crimes such as general smuggling, commercial fraud, and cargo theft, to name a few. The time had come for the WCO to adjust with the new trends and demands of today's global forces. Below are the principal post-9/11 programs tailored to address the trade-balancing issue.

## WCO Framework of Standards to Secure and Facilitate Global Trade (FoS SAFE)

The WCO FoS SAFE is an initiative designed to enhance security and facilitation of international trade. The international customs community has formulated this global supply chain security regime to protect world trade against today's contemporaneous threats - international terrorism, organized crime, and ever-increasing customs offenses. While simultaneously providing a structured platform to facilitate the movement of legitimate goods that are being traded in the global market, not only does the FoS SAFE shepherd a safer trade environment, it also steers programs and partnerships for both customs and business alike. Based on the principles of cooperation, the FoS SAFE attempts to solidify the bonds between customs administrations and the business communities, committing them to implement a series of 17 standards, which regulate the security and facilitation of international trade. Through Capacity Building, implementation of the FoS SAFE will be expedited worldwide. As of today, 144 WCO members have signed the letter of intent to implement the FoS SAFE. Twenty-five of these members are from the Asia Pacific Region (Hong Kong Economic and Trade Office 2007).

### Capacity Building

The WCO FoS SAFE initiative along with the Revised Kyoto Convention hold great promise as true vehicles to make international trade safer while easing the flow of legitimate goods. Another crucial component that will complement the success of SAFE framework is the supplemental program known as Capacity Building.

Unfortunately, not all customs administrations are created equal. Customs agencies around the world vary in kind and degree. Some WCO members, primarily from the third world nations, do not have the proper infrastructure and resources to fully embrace and comply with the SAFE framework requirement. Therefore, assistance is greatly needed. This is where Capacity Building comes into play. This is a program intended to level the playing field by providing the less developed members with a real and fair chance to endorse the SAFE framework's mission. The FoS SAFE program was designed to deal directly with today's global trade challenges, and we all need to be a part of the solution. When it comes to protecting and promoting international trade, we are only as strong as our weakest link; all countries benefit from having a level of minimum equality among members.

Developing nations are aware and understand the potential benefits of securing global trade, and they don't want be left out of the FoS SAFE initiative. Less-developed nation members welcome the developed world's commitment for financial and technical support. Such assistance and commitment has come to represent the core elements of the Capacity Building program.

Building a modern global trade system is going to cost money, said Juoko Lempianen, the former WCO Director of Compliance & Facilitation. Fortunately, major lenders are already lining up, including the International Monetary Fund, World Bank, and regional banks to provide such assistance. He added that when it comes to the implementation phase, the contentious issue would be how to offset cost. Lempianen lumped the expenses of implementation into three categories: no-cost, low-cost and high-cost. He explained that implementing B to B partnerships (business-to-business joint

venture), G to G partnerships (customs-to-customs mutual assistance), or B to G partnerships (business-to-customs affiliation) would fall under the “no-cost” category. Improving physical security at the loading docks, bonded warehouses, or maritime terminals will fall in the “low-cost” category. However, making infrastructural investments to support the framework, such as in the field of information technology, to meet the demand for customs administrations to operate in a paperless environment in their day-to-day activities, would fall in the “high-cost” category (Edmonson 2005).

As expected, there was no fruitful open source information that would appropriately describe the WCO’s expenditures, much less lawmaking information associated with the “balance” challenge that could be utilized for further analysis. After all, the WCO is an IGO, not a corporation, or a nation-state, but oftentimes is mistaken for one, as it is a powerful entity in its own right with a wealth of knowledge and influence.

The WCO deals with the “balance” conundrum through a series of initiatives that was previously depicted in this section. Those policies and programs are often times interpreted and utilized as a legal foundation to address the conundrum of finding a balance between trade facilitation and security from a national, regional, and global perspective.

### **Comparative Conclusion**

Since WCO is an international institution with think tank qualities without operational dispositions, discussing cost and legislation would be irrelevant. The recommendations developed by such an organization are what we should focus on and value. Apart from the WCO, there are other international organizations that also play an important role in the “balance” dilemma such as the United Nations- the United Nations Economic Commission for Europe, WTO, the International Maritime Organization, the International Civil Aviation Organization, the International Organization for Standardization, the International Labor Organization, the APEC, the EU, the African Union, Security Council’s Counter-Terrorism Committee, the International Atomic Energy Agency, the United Nations Office on Drugs and Crime, the Group of Eight, the Group of Twenty, the World Health Organization, Interpol, the Organization for the Prohibition of Chemical Weapons, and Organization for Security and Cooperation in Europe. However, no institution plays a more influential role than the WCO when it comes to dealing with the trade-balancing debacle. Unfortunately with so many actors involved in this onerous process of finding a compromise, duplicative effort to resolve such a dilemma is unavoidable.

Duplication is unfortunately a wide spread phenomenon, particularly on a global level. The WCO FoS SAFE framework coincides with the WTO Doha Round of negotiations. The FoS SAFE initiative attempts to combine the interests of trade facilitation and security into one harmonic balance of global scope and magnitude, while the Doha Round’s primary objective is to promote trade facilitation by clarifying and simplifying customs procedures with a focus on providing transparency and efficiency

when goods are crossing borders (World Trade Organization. 2007). The WTO Doha Round of negotiation also shares great similarity with another WCO initiative - the Kyoto Convention framework.

The WCO holds tremendous promise when it comes to tackling such an issue as members share a similar background, interests, and culture. As an international icon, respected and sought after by many from both the public and private sphere for guidance, it shares the responsibility and the duty to pave the way in overcoming such a seismic challenge. The WCO possesses the right international connections and machinery to adequately address the “balance” matter. Unfortunately, the WCO has no regulatory or enforcement powers to implement any program. It is simply a great forum for inspiration, guidance, and exchange of ideas that takes place primarily within the customs community, while attending to the needs of the international trade community. It is up to the member nation-states to adopt and implement communal ideas such the Kyoto Convention and the WCO FoS SAFE.

Yesterday’s trade facilitation model that was based on promoting transparency, efficiency, and predictability of cross border trade related requirements, procedures and formalities must now be modified. With terrorism concerns hovering over us, today and tomorrow’s models of trade facilitation must incorporate security-preventive measures. So far, it appears that the U.S. is leading the efforts to address the balance of trade facilitation and security, or at least is making the most comprehensive and outreaching effort. The compilation of strategies, policies, and programs put into practice by the U.S. government to avert threats in the global trade demands not only additional border controls, but also a complete gamut of procedures to safeguards the entire supply chain.

The question is whether progress made to facilitate trade by the WCO, WTO, and other IGOs could be lessened by the U.S.' action.

To some extent, the measures taken by the American government to address the vulnerabilities found in the supply chain may have added more layers of bureaucracy, which do not necessarily translate into making the global trade safer. There is a viable argument that the U.S. government's new security measures have actually set back the progress made on trade facilitation, as Mr. Donahue from the U.S. Chambers has once claimed. This fact alone questions the legitimacy of these security measures, which can easily be imposed on existing business practice, and casts doubts on the limits of what is perceived reasonable and acceptable to further one's national interest over the interest of everyone else.

In short, in a pre 9/11 era, the WCO's approach to balancing trade facilitation and security was focused on the elimination of unnecessary customs controls by applying the simplification and harmonization of customs procedures principle. In a post 9/11 era, however, the WCO's view on the trade-balancing issue took a different outlook. Yesterday's customs compliance measures must now undergo a facelift to remain competitive with today's new world order-terrorism, by incorporating new security and safety features. The WCO needs to convince its core members that securing the global supply chain is to facilitate global trade. By facilitating low-risk cargo, it will free us to better scrutinize high-risk shipments; therefore, better securing the supply chain from terrorist attacks and transnational crime alike. Without a secured international commerce, there will be no global trade left to facilitate. Unfortunately there is only so much that the



WCO can do, as it does not have enforcement capability and that can come to represent a challenge in itself.

Since customs administrations play a pivotal role in the outcome of the trade-balancing issue, choosing the WCO to lead such an effort would be an option worth considering. Based on the elite survey, 35 surveys were sent and 32 responded. Out of 32, 68% (who responded in the affirmative) believed that the WCO should be spearheading the efforts of striking a balance between trade facilitation and security. That leads us to believe that one third did not see the WCO as a leader, despite to the fact that the “balance” issue is a global issue. Some have commented that the problem is already convoluted and bureaucratic enough as it is, and by having an IGO to lead such an effort would only make the resolution process more cumbersome than it needs to be. Once these same respondents learned that WCO has no enforcement authority; only 38% of the elite survey participants believe that the WCO was capable of leading such an effort. Now two-thirds did not see the WCO fit for the leadership role. Unfortunately, this author is in the minority who believes that WCO should lead such effort, as the challenge is global, so should be its resolution. WCO has the perfect forum to perform such an imperfect task. It is indeed, a paradoxical issue.

In the end, the effort of protecting and promoting trade security should not just be only based on government, NGO, IGO, or private sector, but rather it should come from all of us. Securing global trade should be everyone’s responsibility. Neither the public sector nor the private sphere can be policing everywhere at all times. If only individuals, companies, organizations, and nations would come together, willing to compromise for moral and civic reasons, rather than just for economic gain, then finding a balance

between trade facilitation and security could come to fruition. The motivation would then rest on self-preservation rather than on self-serving ideals. Making the world safer is everyone's responsibility.

For instance, the terrorist incident that took place at the Glasgow, Scotland airport could have been worse if it were not for the action of a regular person who decided to take action and wrestled down the terrorist responsible for driving a car bomb into a terminal. This baggage handler single-handedly prevented the terrorist from leaving the scene and causing further harm (Edwards, Bunyan and Cramb 2007). If more people would come forward, take a stand, and do the same, then the force-multiplier effect would take effect and we would be one step closer in making the world a much safer place to live. Another example of the power of the people is the event of 9/11 itself, where the 9/11 commission concluded that the action taken by the passengers and crew members on board of the United Airlines flight 93, who averted the plane from hitting the U.S. Capital or the White House, saved lives, even though they paid the ultimate price (9/11 Commission Report 2004). All these heroic actions were performed by regular people and not by companies or governments. We have within us what it takes to protect the global trade, the global economy, and for that matter, our own survivability in this world that is currently being threatened by terror attacks.

In sum, Part II, through chapters IV and V, attempted to undertake the trade-balancing concern from a national perspective by sharing the U.S., Hong Kong, New Zealand, and Canada customs administrations' views on the issue - through a series of comparative studies that were based on policies, programs, practices, budgets, and legislative parameters and analyses. Chapter VI (EU) provided a regional and

comparative outlook on the trade-balancing issue based on the same ‘evaluating’ factors. While Chapter VII (WCO) offered a global perspective using the same comparative variables to address this contentious matter, as the issue is multi-dimensional in nature. What follows is Part III, which is comprised of two chapters. Chapter VIII is devised to put a spin on a series of current and newly proposed policy-options. Chapter IX is composed of two parts: recommendations and conclusion. The recommendations section will put into perspective the discussed policy-options under a prescriptive light. Recommending a series of “smart” prescriptions is the goal to achieve, as the faith of global trade hangs in the balance. As for the conclusion, this last part will summarize the entire dissertation with a critical overview and a final message.

### **Part III: Policy Options and Recommendations**

#### **Chapter VIII: Policy Options**

This chapter exposes an array of existing, updated, and foreseeable policies and programs tailored to the trade-balancing issue. Following the devastating events of 9/11, there was a significant surge in the amount of policy options devised, proposed, and in many instance implemented by nation-states and IGOs alike to address the issue. Even though more guiding principles and action plans were developed and executed, this does not mean that the trade-balancing issue has been fully and effectively addressed. The programs and policies that were created prior to 9/11 focused more on the modernization of trade practices rather than curtailing terrorism; while the procedures and practices developed in a post-9/11 era aim more towards security rather than trade facilitation. Figuring out which ones best fit with today and tomorrow's envisioned security agenda without compromising the flow of global trade is what defines the central vision of this dissertation. Analyzing them under a microscope to determine their worth is what really at stake. Taking the best ones, adjusting them as needed, and recommending them, as policy and program options are what define this dissertation.

In the U.S. alone, the strategies to simultaneously expedite and scrutinize the flow of global trade fall primarily under the purview of the "Border and Transportation Security" initiative, which is a part of the overall "National Strategy for Homeland Security." The directive framework as related to this proposal can be grouped into the following general categories: (1) pushing the border outwards to intercept unwanted people and goods before entering the U.S.; (2) reinforcing the border through technology and human resources; (3) facilitating legitimate trade and travel; (4) strengthening the

border through better information and intelligence sharing; (5) multiplying effectiveness through partnership between nation-states, among governmental agencies, and with the private sector (Seghetti, Lake, and Robinson 2005a). Since the 9/11 attacks, those were the primary U.S. strategic policies aimed at expediting the release of legitimate goods, people, and service while intercepting high-risk cargo and unlawful persons from entering the U.S.

Outside of the United States, Canada and other nations, the WCO, and the EU have been developing plans to accommodate and accomplish the common goal of minimizing vulnerabilities in the global trade. Canada is known to develop strategies, policies, and programs that are either similar or are intimately intertwined with the U.S. initiatives. The WCO, through the FoS SAFE framework, and the EU, with AEO and other programs and policies, are also tackling the issue.

If the policy analysis process is applied to the policy building blocks prior to their implementation, then the likelihood for these guiding principles and action plans to be effective is fairly good. The analysis behind the policy-making process has revealed that the business of making policies in itself is quite cumbersome. Policies concentrating on security requirements and commercial needs are known to overlap with other types of policies such as those found within the national security policy, border security policy, maritime security policy, foreign policy, and so on. Sorting them out in a proper order is where the challenge rests. From a poll of existing and updated policies that best align with the proposed strategy of balancing trade security and facilitation, six principles must be taken into consideration. They encompass (1) **Duplication Exclusion;** (2)

**Technological Insertion; (3) Multi-layered Protection; (4) Cooperation; (5) Human Capital; (6) First Response Preparedness.** Below are the details of these core values.

### **Duplication Exclusion**

Like any organization of monumental size, government is not immune to bureaucratic influence. On the contrary, government embodies bureaucracy and duplicative effort is one of its major side effects. Duplication in formulating parallel resolutions to address the controversial issue of expediting legitimate trade without compromising security is overtly widespread. A great deal of duplication occurs when the initiatives tailored to strike such a balance come from different agencies of the same department, and even more so when other departments from the same government are also involved in achieving the same endeavor.

From a state-centric level, just in the U.S., at the federal level, several departments and agencies have been tasked and/or have taken the initiative to develop programs and policies towards the “balance” quandary. Departmentally speaking, we have DHS, DOD, DOC, DOE, and DOT, to name a few, addressing the balance between trade facilitation and security. Within the same department, such as DHS, we have CBP, ICE, Coast Guard, and TSA developing similar programs tailored to address the trade-balancing issue.

Outside of DHS, DOD, through the Defense Advanced Research Projects Agency (DARPA), actively supports a number of special assistance programs that are tailored to finding innovative ways to safeguard WMD, preventing it from commingling with the legitimate cargo. Having DARPA involved on the process is a good indication that the

problem is being taken seriously. In the past, DARPA was best known to be the pioneer in developing the Internet. Having DOD DARPA and Massachusetts Institute of Technology (MIT), the best of private and public Research and Development (R&D), tackling the “balance” issue, the likelihood of finding a real solution is high.

From a global standpoint, the UN-UNICEF, WCO, WTO, and ISO, to name a few, are also involved in the trade-balancing efforts. It should not come as a surprise since we are dealing with a complex problem with worldwide implication.

An effort must to be made to minimize duplicative work, which is different from maximizing overlapping efforts. The fundamental difference between duplicating and overlapping efforts is the type of policies and programs that are being formulated and implemented. Duplicative effort implies developing parallel programs that share similar traits, techniques, and targets while an overlapping effort is based on developing different types of programs with distinct attributes and different targets, but still focusing on the same overall challenge.

An example of overlapping effort would be to develop three different programs with distinctive strategic styles and targets, but still tackling the same issue. In the ideal of balancing trade facilitation with security, one can develop an overlapping agenda of addressing maritime security by developing specific procedures that address container security, conveyor security, and port security. So, there one has three different strategic protocols that overlap with each other, while maintaining distinct characteristics and targets: container, vessel, and port. The multilayered approach that will be later recommended as a principal policy option for solving the “balance” issue is based on having overlapping strategies, policies and programs, and not on duplication.

Although it is understandable that there is a level of duplication to address the “balance” issue between public and private spheres, among nation-states, and among IGOs and NGOs, what is not understandable is the level of duplication that exists among governmental entities from the same nation-state and within the same departmental affiliation. The level of duplication is just incomprehensible, irresponsible, and fiscally unacceptable.

### **Technological Insertion**

When government is asked to do more with less, technology becomes an invaluable tool in the process. Innovating ideas and initiatives with technological backing is a must. Although, in theory, technology increases the probability and feasibility of attaining a balance between trade facilitation and security, in practice, technology alone cannot perform miracles. We must always remember that although technology is a powerful resource, it is just a tool of trade. Technology may replace a mundane workload, but it will never replace judgment.

One of the WCO officials that took a survey conducted by this researcher commented that the usage of technology has to complement and/or to be complemented by other factors. Technology alone has its limitation, but combining it with the human factor, technology can be a force that few will want to reckon with, as the force-multiplier effect is attached to it.

One machine can do the work of 50 ordinary men. No machine can do the work of one extraordinary man.

Elbert Hubbard



It takes human skills to use the high tech “border control” machines and to manage the complicating factors that affect its use, such as climate condition, venue, the volume of trade, and the list goes on (Kane 2008, 16). Take for instance the P-28 project<sup>1</sup>, a perfect example where promising technological gadgets fell short of expectations. Cameras could not focus on targets and systems were affected by natural phenomena such as rain.

To properly inspect high-risk cargo, it will take man and machine to work in harmony. Indeed, technology is only as good as “who, when, where, and how” it is being implemented and operated. We may have a superb piece of technology that is capable of scanning an entire 40-foot shipping container, but if it lacks qualified personnel to operate it or it is improperly used or maintained, then such technology may become obsolete. The question is not just technological reliability and capability, but the whole “package” that comes with it – personnel, maintenance, and training. It takes time, money, and dedication to become a subject matter expert to fully and properly operate the NII container inspection technology and that includes spotting anomalies on those scanned images. The surroundings also play an important role. The venue and setting of the x-ray and Gamma-ray container scanners play an important part in the process. The usage of NII technology can also be symbiotic, as it may be used to prevent other types of transnational crimes. Besides being used to prevent terrorism, the NII technology can also be symbiotically and unintentionally used to detect fraud, cargo theft, smuggling, and in-bond diversion<sup>2</sup>. Technology such as NII can indeed serve multi-purposes.

---

<sup>1</sup> P-28 project is a virtual fence equipped with cameras and sensors to detect illegal border crossing activities.

<sup>2</sup> In bond diversion is scheme where criminals illegally introduce merchandise into the U.S. commerce by avoiding the payment of customs duties.

The elite survey ranked as above average (3.9) the usage of technology in dealing with the balance between trade facilitation and security in comparison to other possible resolutions, such as fostering international and B to G cooperation, domestic and international information sharing, optimal recruitment and training, and corporate knowledge retention and dissemination. Technology is indeed a powerful tool in contributing to the efforts of balancing the trade facilitation agenda with security protocols. If technology can help to detect and identify threats accurately, efficiently, and in a timely fashion, then it has proven its worth.

Among all the technologies that are readily available in the market place to simultaneously secure and facilitate today's global supply chain, Radio Frequency Identification (RFID) technology is the one that aligns the best with the core values of this dissertation. In order to better understand and substantiate the above argument, we must first put in perspective what RFID entails and what are the current points of view on the subject matter in question.

RFID is a generic term used to describe technologies that use radio waves to automatically e-identify people and objects. A RFID transponder, also known as a RFID tag, is comprised of a chip and an antenna. The antenna enables the chip to transmit the identification information to a reader. The reader converts the radio waves reflected back from the RFID tag into digital information that can then be passed on to a computer system that can make use of it. There are several methods of identification, but the most common is to store a serial number that identifies a person or object, and perhaps other information, on a microchip that is attached to an antenna (RFID Journal 2007a).

Reading more articles written on RFID, this author was surprised to learn that there were more opponents than proponents of such technology. The advocates view RFID technology as a means to improve overall security, to better detect fraud, to reduce the volume of counterfeit goods in the market, to upgrade the inventory process, to increase the capability of tracing shipments in real time, to accurately pinpoint contaminated food, and so on. There are some who believe that RFID is the next generation of the bar code technology. The adversaries view RFID's cost-effectiveness, non-linear standard, privacy infringement, and governmental intrusion as major downfalls. The skeptical ones believe that there are other forms of technology that are better than RFID, such as biometrics. With that said, one should not limit to just relying on RFID to assist in the balance of trade facilitation and security.

According to Mark Robert, founder of the RFID journal, there are at least 30 million RFID devices that can now be found in car theft prevention, toll collection, and access identifications. And no reports of id theft or fraud have been identified (CNN 2006b). Beth Given, the founder of Privacy Rights Clearinghouse, testified in the California Legislature that RFID technology has the potential to seriously infringe on personal privacy and that "big brother" can intrude on one's civil rights if companies choose to put RFID tags on consumer products and such tags are not inactive. It may also be possible for governments to use RFID tags for surveillance (Privacy Rights 2007). Rod McDonald, former Chief Information Officer of DHS/CBP said that the RFID pilot program tailored to border security has come up short on its expectations. As result, CBP might be looking for alternative technology rather than just relying solely on RFID technology. Michael Chertoff, the DHS Secretary, has echoed the same message during

his testimony before the U.S. Congress. Moreover, according to a GAO report, during a one-week period at a test site, scanners only read 14% of 166 RFID tags that crossed the border. The DHS had set a goal for the test of reading 70% of tagged documents crossing the border (Songnini 2007), supporting the conclusion that RFID had fallen short on its expectation.

Independent of what one comes to believe, reacting positively, negatively, or indifferently, RFID is an avant-garde piece of technology that is worthwhile to explore. To those who are in favor, they believe that RFID and the global supply chain should go hand in hand. By adopting RFID technology in the supply chain, we might be able to minimize the risks “From Trade” and “To Trade” while simultaneously facilitating the legitimate flow of goods. If we can trace a product in real time from a box to a pallet to a loading zone to a container to a ship to a port of entry to a truck to an unloading zone to an establishment and finally, to a person, we might have a real chance to secure global trade without hindering it. By intensifying examination of cargo that poses a high-risk while releasing low-risk freight, we will be better employing our resources. Combining this dual and symbiotic technological approach with a multi-layered protection approach, we may be one step closer to genuinely protect the global supply chain from transnational crime, whether it is criminal or terrorist in nature, while promoting the easy flow of legitimate shipments.

RFID technology is capable of generating data that can be used to both facilitate and secure global trade; making it useful to both the private and the public sector. The government would benefit from a security standpoint, while the private sector would profit from a business standpoint. With RFID technology, the source of information can

be better trusted at least in theory since the technology operates under the scanning and tracking principles with limited human interference. Without RFID technology, the norm was to rely on the accuracy of shipping information input and transmitted by carriers, which in turn, relies on the integrity of the importer/exporter to accurately describe the contents of a shipping container. However, if RFID technology were to be fully embraced and properly integrated, the cargo manifest would be automated, transparent, and reliable. The margin for unintentional human error would be kept to a minimum and individuals who want to commit negligence, gross negligence, or even fraud would be better identified. Furthermore, by using the bar code technology or better yet, the RFID technology, we would be in a better position to accurately and timely track down a compromised container, whether the source of compromise is WMD, IED, chemical/biological weapons, counterfeit pharmaceutical products, or tampered/contaminated food. Time is of the essence when it comes to preventing a nuclear catastrophe or a global epidemic. Whether we are using it for inventory, security, or consumer safety purposes, this type of technology can no longer be ignored, much less invalidated.

It would be in the government's best interest and advantage to let the private sector spearhead and develop such technology, as they have a self-vested interest in it. The private sector believes that RFID could revolutionize the inventory tracking system. From a business standpoint, the motivation to accurately maintain the inventory system would be to minimize the chances to under or over stock while maximizing the cost-efficiency factor. While from a government standpoint, it would free customs organizations to target high-risk containers while facilitating the flow of legitimate goods.

In that sense, RFID technology is a symbiotic proposition that helps both the private and the public sphere in striking a balance between trade facilitation and security.

As long as the price is right, the likelihood to use RFID in the mainstream of global commerce is good. All the government needs to do is to be open-minded and embrace the technology. RFID may hold the answer for all those concerns growing at home and abroad as well as in the body of governments and the business community. It holds the potential to be the end-solution we all seek.

Perhaps such levels of optimism about RFID technology derive from the fact that the R&D of such technology is being spearheaded by MIT, one of the finest academic institutions known to be on the cutting edge of technological engineering in the world. In addition, RFID is a technology embraced by Wal-Mart, one of the most influential corporations in the world (Rey Koslowski, personal communication, October 2003). With MIT and Wal-Mart as proponents of such technology, RFID holds great promise to make it into the mainstream.

To those who oppose and raise the concern of RFID standard, they do raise a valid point, as the RFID system uses different types of standards. There are the low and high-frequency standards, but most companies want to use Ultra High Frequency (UHF) in the supply chain because it offers a longer read range—up to 20 feet under good conditions. UHF technology is relatively new, and standards weren't established until recently (RFID Journal 2007b). Many companies have invested in RFID to get the advantages it offers. These investments are usually made in closed-loop systems—that is, when a company is tracking goods in a confined and controlled environment. That's because some existing RFID systems use proprietary technology, which means that if

company A puts an RFID tag on a product, it can't be read by Company B unless they both use the same RFID system from the same vendor (RFID Journal 2007c). Indeed, it is a compelling concern. Therefore, the systematic standardization of RFID needs more work and uniformity is what we need to strive more in the future.

As for the issue of RFID's cost, the Wal-Mart's suppliers have been arguing that the cost of such technology outweighs the benefits. While the current production of RFID tags costs around 15 cents apiece, bar codes cost a fraction of a cent. Beyond the tags, suppliers are compelled to acquire hardware readers, transponders, antennas, and computer software to track, analyze, and integrate data with their current inventory and manufacturing applications. Moreover, suppliers say that instead of saving labor, RFID tagging actually creates more work. While bar codes are automatically imprinted on the merchandise in the assembly line, the current RFID tags are still being manually tagged. Nonetheless, Wal-Mart's suppliers are careful enough not to publicly criticize a mega client that buys \$260 billion worth of products annually, and they say they don't expect any return on their RFID investments for years, if at all. Some say Wal-Mart hasn't achieved any savings, itself. Other retailers, including Albertson's, Best Buy, Target, and several U.S. departments are also pursuing RFID projects and facing similar obstacles to finding cost savings (McWilliams 2007).

Another source has indicated that RFID tags may cost 20 cents or more, which makes them impractical for identifying millions of items that may cost only a few dollars to produce. Furthermore, RFID readers can typically cost \$1,000 or more. Companies would need thousands of readers to cover all of their factories, warehouses and stores. If a company tracks assets within its own four walls, it can reuse the tags over and over

again, which is cost-effective. For a system to work in an open supply chain, it has to be cheap because the company that puts the tag on a case or pallet is unlikely to be able to reuse it (RFID Journal 2007b).

The bottom line is that RFID, at least in this early stage of development, is still a costly and controversial proposition whether we are talking about 15 cents or 20 cents per tag. In order to move forward, the issue of how to offset cost must be first addressed. Ultimately, it needs more R&D work to reach a level of acceptance in the mainstream of both the private and governmental spheres.

As for RFID competitiveness with other technology, there have been case studies conducted on biometric technology, which revealed to be more promising than RFID technology. DHS has temporarily suspended the usage of RFID because its test result did not meet expectations, and biometrics is now being considered to replace RFID technology (Vadney 2006).

In retrospective to privacy and civil rights infringement issues raised previously by Mrs. Given, such concerns can be resolved with compromise and common sense between the private and the public sector. There are ways to detect and block signals generated by the readers. If compromise cannot be reached, there is always the alternative of regulating it from a legislative standpoint.

Whether we like it or not, we are entering into the age of “big brother” where RFID is no different than cameras that one sees mounted above traffic lights on major and small U.S. intersections. The main difference between these two technologies is that one is visual while the other is digital, but both serve the same purpose of tracking down goods, people, and patterns. However intrusive may these technologies be, if one has



nothing to hide, then fearing “big brother” should not be an issue. A balance between trade facilitation and security through technology would be better attained if reasonable oversight were in place to put the skeptics at ease.

There is no doubt that many still view RFID technology with skepticism and reservation. When using RFID as a technological resolution to the “balance” dilemma, the desired and intended result has yet to be achieved. Unfortunately, to date, the inefficiencies of such technology still outweigh the benefits. Many argue that RFID R&D is still in its infancy despite having a history that can be traced back to 1970 (RFID Journal 2007d).

Perhaps, given time, the technology may turn around and mature. The best analogy for adopting RFID technology is to draw a comparison with the cell phone technology. Look how far cell phone technology has evolved since its early days, from being a big and heavy electronic device to becoming a tiny, multi-purposed device. The bottom line is that we have to bring RFID technology into the mainstream, where the concept of the free market, based on the invisible hand principle, will stimulate individuals around the world to perfect the technology in such a way that will improve the overall RFID device. With a better quality product in hand, the demand will increase, which in turn, will offset the cost. If the improved RFID technology becomes affordable, then it may become economically compatible with the bar code technology. Even with the fact that the RFID may never end up being cheaper than the bar code, one must take into account that RFID is a multi-purposed technology. It may cost more, but it may also deliver more.

No matter how imperfect RFID technology is at this present stage of development, it is still a worthwhile technological investment, especially if the quest of attaining a balance between trade facilitation and security is at stake. In the end, this author suspects that RFID is the right technology to endorse. RFID, if perfected, it will help to properly address the most important building block of global trade security – the supply chain. If done properly, RFID will simultaneously address cargo security, container security, port security, trade security, and global security. We will definitely be one step closer to finding a real solution to address the trade-balancing dilemma, and for that matter the big picture problems: terrorism and global trade harmony. But, one must always keep in mind that technology is only as good as who is operating it, and it is only a part of the solution and not the solution itself. RFID and technology in general will continue to be a divisive issue for years to come.

Based on the elite survey, about 70% of survey participants knew what RFID was and 50% believed that RFID is valuable and useful tool to address the balance issue between trade and security. It was surprising that only one half of the survey takers indicated that RFID was a good technological choice, especially taking into account that all the survey participants are foremost subject experts of border security.

### **Multi-layered Protection**

In the U.S., the best way to shield citizens from today's imminent terrorist threat is to adopt a multilayered defense approach, which CBP has long been incorporating into its mission to safeguard the homeland since 9/11. When terrorists are willing to commit suicide for their cause, it is very hard to defeat such twisted will. The multi-layered

strategy is perhaps the most plausible alternative to disrupt such suicidal plots. No single initiative is fail-proof, but collectively, global trade stands a better chance against acts of terror. No matter how many strategies, or policies, or programs are being formulated and executed, global trade will always remain an attractive target for terrorists and transnational criminals alike. The key here is to become a hard target.

The ideal of the multi-layered approach was seriously entertained on at least four occasions. First in the Gore Commission Report in 1997, second in the Hart-Rudman Commission Report in 2001, third in the 9/11 Commission Report issued in 2004 and fourth in Stephen Flynn's book titled *America the Vulnerable: How Our Government Is Failing to Protect Us From Terrorism*, published in 2004. The first two reports preceded the 9/11 events (Seghetti, Lake, and Robinson 2005c).

The two primary pre 9/11 references to the "layering" approach were found in the Gore Commission Report, which indicated "aviation security should be a system of systems, layered, integrated, and working together to produce the highest levels of protection (Gore Commission 1997)" and in the Hart-Rudman commission report, which described "we believe that homeland security can best be assured through a comprehensive strategy of 'layered defense' that focuses first on prevention, second on protection, and third on response (Hart-Rudman Commission 2001)." The post 9/11 references to "layering" are found in the 9/11 Commission Report and in Flynn's book. The 9/11 Commission stated "the Federal Aviation Administration (FAA) set and enforced security rules, which airlines and airports were required to implement. The rules were supposed to produce a 'layered' system of defense. This meant that the failure of any one layer of security would not be fatal, because additional layers would provide

backup security (National Commission Report 2004).” Flynn gave his interpretation of the multi-layered approach by applying it to a household setting. He stated that a house with a locked door is a good conventional way to deter a home invasion. Such an act of locking a door will deter less persuasive thieves. Investing in a sturdier door and lock may increase the odds of making the house safer, but it will also considerably increase the cost, as well as instigate other ways to break-in. In the end, a single security strategy will not be enough to completely (100%) secure the house. In my opinion, Flynn’s analogy has best described the concept of the multi-layered approach.

There are at least two points that Flynn makes in his analogy between safeguarding a house and the global supply chain. The first is to refute the silver-bullet approach. Anyone who claims that he/she has found the solution for the security challenges should be viewed with skepticism. A real effective solution is based on a multi-layered approach. Each of the layers may be imperfect, but collectively they can almost be perfect. The second is that adding layers of protection does not necessarily mean that it has to be a costly endeavor. Going back to Flynn’s household scenario, we may increase the level of security of a home by installing motion security lights, by hinting that the house has a dog, by posting signs that the residence is equipped with an alarm system, and by displaying neighborhood watch signs. The cost of all these measures is less expensive than trying to upgrade any one of these measures, like actually owning a dog. In addition to these additional security approaches being relatively low cost and working only 20% of the time, collectively, five 20% measures will increase the overall probability of preventing a burglary to 100%. (Flynn 2004, 68-69).” In short, we can increase the odds of making the global supply chain more secure with a multi-layered

approach, without necessarily increasing the overall cost. With the layered approach being cited and embraced over and over by esteemed subject experts, it is without doubt, the most promising policy of all to be adopted in the effort of finding a balance between trade facilitation and security.

Experts on the subject of making global trade safer, especially against terrorist attacks, agree that there is no magic bullet in solving such a challenge. According to DHS Secretary Michael Chertoff, he believes in layered security and the minimization concept. Any single approach can fail (DHS 2007). Therefore, the best response is to build layers of security that create rings of protection, but keeping duplication and not overlap to a minimum, as there is a distinction between these two.

A multilayered approach operates under the premise of having several elements of protection. The layers that strengthen and ease today's global trade from a U.S. customs organization's perspective are CSI, C-TPAT, FAST, and the 24-hour rule, to name a few. If a tainted container containing WMD goes through these layers of defense, the chance of being detected is much higher than if we only rely on one layer of defense.

The strategic policy of a layered approach to trade security and facilitation is gaining momentum in policy discussion circles. Recent talks have revealed that one of the layers in the layered approach to cover the twin goals of promoting and protecting global trade is to incorporate the concept of identification (ID) authentication. The biometric identifier, the iris-scan, digital fingerprints, RFID cards, and hand geometrics are some of the cutting edge technology available that can be incorporated into the ID authentication protocol. A background check, both cursory and comprehensive in nature, must also be a part of this ID initiative (Seghetti, Lake, and Robinson 2005c). The point

here is to convey the idea that even within one layer of protection (ID authentication), such a layer can still be fortified through a conglomerate of technological security protocols as depicted above. In other words, this creates a multi-layered protection effect within the elements of protection.

But, even with this promising layered approach, there is no guarantee that it would be enough. It should be noted that actions taken to secure and facilitate trade would need to be weighed against prevailing resource constraints and possible conflict with other communal issues such as infringement of national sovereignty, privacy, and civil liberty. Indeed, the trade-balancing issue is a very sensitive and complicated matter.

We know that terrorists are notoriously known for being persistent, dedicated, and creative, so sooner or later; they will find flaws in the multilayered approach. We need to be right every single time; they only need to be right once. Through a multi-layered approach, we can only hope to become a more elusive and a hardened target.

### **Cooperation**

Cooperation is a multi-faceted discipline that varies in kind and degree. As related to the strategy of balancing global trade, three key topics come to mind: (1) international cooperation; (2) B to G cooperation; (3) information sharing. Information sharing can be further sub-grouped into three sub-categories: (a) intelligence sharing; (b) sensitive law enforcement information sharing; (c) commercial transaction information sharing. The domain of information sharing is where it can get very complicated.

The boundaries separating terrorists and criminals are increasingly becoming blurred and intertwined each day. They interact with each other in more than one way. If

transnational criminals can find innovating ways to smuggle contraband and people, it is not much of a leap for international terrorists to tap into the same resources and routes to smuggle WMD and themselves. Information gathering on these types of activities is already difficult, but more difficult is how to properly disseminate it. In order to gather and share information as it relates to the matters of curtailing transnational crimes, combating terrorist activities, and protecting national security interests, it is critical to foster teamwork among nation-states, between government and the private industries, and within the law enforcement community. Information needs to flow uninterrupted to those who need it the most, the first-line of defense – the border agents and officers who are entrusted to simultaneously protect national borders and promote the easy flow of legitimate goods, people, and services. Information is a valuable asset when the world is constantly reminded that another terror attack of 9/11 magnitude is imminent and ubiquitous. Police and military personnel can't be everywhere, safeguarding everything, nor can they be right every time. Information needs to flow both ways – to the public and from the public.

Sometimes what cooperation is intended to accomplish is not always carried out. Issues such as sovereignty infringement, national security interests, communication barriers, domestic priorities, and cultural diversity come to test the spirit of mutual aid. Since we are dealing with trans-border issues and globalization, it is not farfetched to state the obvious that the consensus to address such a dilemma will certainly fall in the international cooperation arena.

### International Cooperation

The first attribute of cooperation with respect to the trade-balancing issue is international cooperation. However cliché, to successfully promote the strategy of balancing trade facilitation with security in this age of globalization, international alliances must be formed and fostered. But, it is easier said than done. International cooperation can be traced back as far as the development of the modern system, the creation of the nation-state concept, and the development of international relations theory (Realism, Liberalism, Marxism, etc), and yet impasses in this domain have persevered over in time. Despite the fact that hundreds of years have passed, international cooperation remains challenging and complex. Many obstacles continue to challenge the collaboration among nation-states. Among many, five obstacles in particular come to mind: (1) sovereignty infringement; (2) disparity in legal settings; (3) formulation of international agreements; (4) compatibility among partners; (5) weakening of state-centric power.

#### (1) Sovereignty Infringement

Sovereignty infringement is one of the cornerstone concerns raised when addressing the issue of international cooperation. Concerns on protectionism and national security interests are bound to arise when nation-states come together to work on issues of global ramification. The art of diplomacy, designed to identify common goals and areas of conflict, will most likely be required to overcome such challenges. Living in this age of globalization where the mutual interest of deterring foreseeable terrorist attacks in global trade is at stake, concessions must be made. It is through the diplomatic machinery



that such a threat will be best dealt. Yesterday's nemeses will have to become today's partners.

Nations around the world, particularly the U.S., faced with the forces of globalization such as today's global financial crisis, will feel the need to embrace a more protectionist approach (i.e.: buy American and jobs created by the bailout funds is for Americans only). Although protectionism is a natural choice to make in times of disarray, it may not be the wisest option to adopt in the long run. Protectionism tends to create a domino effect, as other nations will follow with retaliation, and the end-result will be to limit the growth of the global economy. But, more importantly, the threat of U.S. protectionist policies can seriously undermine the process of reconstructing America's image abroad, not to mention jeopardize the already volatile state-centric relationships such as the U.S.- China relationship, as well as accomplishments made by the G20, UN, WCO, and WTO in the arena of global trade.

In the U.S., under the auspices of the "National Homeland Security Strategy," international cooperation has already been incorporated as an integral part of the solution to address the trade-balancing dilemma. Within the critical mission area of border and transportation security, under the initiative to create "smart borders", the strategy states, "this border of the future will provide greater security through better intelligence, coordinated national efforts, and unprecedented international collaboration against the threats posed by terrorists... The federal government will allocate resources in a balanced way to manage risk in our border and transportation security systems while ensuring the expedient flow of goods, services, and people (DHS 2002)." Implementing the strategy of balancing trade facilitation and security, as a part of the overall "smart border" initiative,

without infringing on one's sovereignty will require considerable tactfulness and trust. Implementing security measures that require assistance from host countries will be a key challenge to overcome in the domain of international partnership, and for that matter, it will come to test the diplomatic machinery.

Indeed, sovereignty infringement expressed in the forms of protectionism and national interests will be one of the hardest obstacles to overcome when addressing international cooperation. This author believes that in order to be one step closer to bridge the existing ideological differences in today's international relations, today's new cadre of diplomats not only must possess the basic diplomatic skills, but also be well-versed in a wide range of global affairs and technology.

#### (2) Disparity in legal settings

Different countries have different sets of laws, legal standards, and practices. In some countries, there may not be a legislative body in place to adequately support the initiatives of balancing trade facilitation and security, as we have in the U.S., through the Maritime Transportation and Security Act, the Patriot Act, the Safe Port Act, the Homeland Security Act, to name a few. In certain countries, security measures may still be construed as a hindrance rather than as a benefit to global trade. Without rules and regulations, the U.S. concept of pushing the layers of security outwards might be short lived. Perhaps through a mutual legal international agreement, we can improve the odds of overcoming the existing legal deficiencies of certain countries.

#### (3) Formulation of international agreements

International agreements are the pillars that sustain and define the basis for effective international collaboration. Independent of what kind of agreement is being

devised whether it is unilateral, bilateral, or multilateral in nature, such a document needs to be clear, concise, and consistent as the goal is to reduce bureaucracy and to foster a genuine partnership. By embracing a well-structured agreement, one can only hope that the state-centric parties can work out their differences and be one step closer to the common goal of attaining a balance between trade facilitation and security.

Often times, an international agreement does not need to be legally binding to produce the desired effect of a legally binding contract. For instance, under the principle of “smart border” that advocates the “balance” strategy; the CSI DoP is a perfect example of an effective international agreement that is not legally binding. It is through this non-legally binding, but legitimate document that the mission of CSI and the spirit of international cooperation are being carried out.

#### (4) Compatibility Among Partners

The U.S. policy that guides international partnership is not without controversy. What might be important to the U.S. might not necessarily be important to a host country or an ally. Unless there is a common and symbiotic interest at stake, cooperation within governments and international organizations are bound to face roadblocks. Finding common ground and enforcing mutual interests will pave the way to build symbiotic international assistance. Only with a strong foundation of mutual welfare can the system of international cooperation thrive.

Compatibility in terms of sharing common views in the pursuit of international cooperation is paramount. If the parties are not ideologically aligned, in this case, if the nation-state partners don't see that achieving the balance between trade facilitation and security is a global problem and international collaboration is required, then the entire

process of striving for international cooperation might be in jeopardy. Global trade under the threat of terror attacks is an international concern; therefore, enlisting collaboration among nation-states is no longer a matter of when but of how. It is no longer a matter of selectivity, but of necessity. It is no longer a matter of politics, but of survival.

Without security, there will be no prosperity in the global economy. When you have individuals of different backgrounds, cultures, and languages in the pursuit of finding a common resolution to a difficult problem such as the “balance” predicament, the challenges and the unintentional consequences are doomed to emerge. Issues such as language barrier, domestic priority, personality conflict, culture shock, disparity in diplomatic skills, and corporate knowledge come to weigh on the effectiveness of international collaboration. It is therefore important to have at least the compatibility in ideology to be on the right foundation when negotiating international agreements and cooperation.

#### (5) Weakening of state-centric power

In this age of globalization, government is struggling to uphold its position as the principal actor in world affairs, losing its capacity, legitimacy, and authority to ordinary and concerned citizens; signaling that the principle of Post-International Politics is in effect (Ferguson and Mansbach 2004). Anyone equipped with a computer and an Internet connection can take a stand, make a statement, or even leap to action on any issue that he or she sees worth getting involved with, without necessarily having to wait for government’s action and leadership. Globalization through information has revolutionized and leveled the playing field. Anyone can be a global actor in today’s world politics and international relations, as the only requirement is to have a will.

As of 2007, based on the elite survey, only one-half of the subject matter experts on the trade-balancing issue believe that it is feasible to foster genuine international cooperation. Indeed, even with a full endorsement of international collaborative practices, there is no guarantee that it will work. Now, with only one-half of the subject experts believing in such a strategy, it does not inspire too much confidence. Even so, such an approach is so paramount and worthy to pursue when the “balance” challenge is at stake that we must proceed. Besides, nobody said that it was going to be easy to cultivate international cooperation; otherwise, the discipline of diplomacy would not exist, if it were that simple.

International cooperation is indeed, an intrinsic challenge to tackle, as it is surrounded by the complexity of global affairs. Among the difficulties mentioned above, sovereignty infringement and weakening of state-centric power are the main obstacles that continue to challenge the collaboration among nation-states. The way to achieve a genuine international cooperation is by making the global economy bigger and stronger through the expansion of global trade. When one nation-state’s finance is healthier and wealthier, the likelihood for a better level of international cooperation is high.

### B to G Cooperation

The second aspect of cooperation is B to G cooperation. The World Bank estimated that for 2005, the total world Gross Domestic Product (GDP), the best barometer to measure the global economy, was approximately \$ 44.4 trillion dollars (Economic Society Research Council 2008). For 2005, the U.S. had a GDP of \$12.4 trillion dollars. For 2006, the U.S. GDP was 13.1 trillion dollars. For 2007, the U.S.’s

GDP was estimated to be around 13.8 trillion dollars (Central Intelligence Agency 2008). With the continuing threat of terrorism looming over the ever-growing international trade and global economy, particularly the U.S. economy, safeguards need to be in place to prevent them from falling into socio, political, and economic peril.

Aside from the fact there are several actors that have a considerable vested interest in the health and wealth of the global economy and international transport network, effective leadership is what is needed the most. When addressing an issue of such colossal complexity, collaborative leadership is what is needed, and at least two major players come to mind: the government and the private sector. The government, entrusted to regulate and expected to safeguard global trade from terrorists and transnational criminals alike, and the private entities, which heavily rely on international trade for their livelihood, should share the responsibilities to address the balance of trade facilitation and security.

As of 2007, based on the elite survey, the subject experts on the trade-balancing issue believe that a B to G partnership is a compelling strategic approach pertaining to the “balance” issue as they have equally ranked as above average for both the government (3.5) and the private sector (3.5) to lead the efforts of striking such a balance. 94% of the elite survey participants believe that both the government and the private sector should share the responsibility of balancing trade facilitation with security. The question was posed in three different ways, producing similar responses.

In foresight, it is common knowledge that these two actors must work together, but in hindsight, aligning their roles, functions, and actions in this age of globalization is where the challenges reside. Needless to say, for the B to G partnership to be effective,

both of these global actors need to have a set of defined responsibilities to follow. In this author's opinion, when the time comes to set standards, the government should be the one assuming the planning role. The government should be accountable for policy development while the private-industry stakeholders should bear the responsibility for policy implementation. That said, it does not mean that they should be working independently without valuing each other's input, on the contrary, they should adopt each other's recommendations. The point to make is that they should complement each other where best practices are identified and adopted, but still be accountable for their defined area of responsibilities. The liability of securing and facilitating the international supply chain is a colossal challenge for just one actor alone to bear. As trivial as it may sound, it makes perfect, logical, and fair sense that those who have the most to gain and to lose should partner up and share their resources for the common good.

Time is running out; it is only a matter of time for the global supply chain to be compromised, if it is not by a WMD, it could be by food contamination, hazardous counterfeited goods, and so on. The B to G partnership is no longer a matter of luxury, but a matter of necessity. By developing and maintaining symbiotic mechanisms that can leverage partners of the government, we will then be one step closer to effectively implementing the strategy of balancing trade facilitation and security, to better promote the U.S. homeland security strategy, and for that matter global security.

Information sharing: Intelligence Sharing, law enforcement information sharing, and commercial transaction information sharing

The third and last attribute of cooperation is information sharing. The Webster electronic dictionary defines information as a collection of facts from which conclusions

may be drawn (Webster 2008). Intelligence is a specific type of information with national security ramifications that is requested, gathered, analyzed, and provided to policymakers and decision-makers alike. The purpose of intelligence information, hereinafter referred to as intelligence, is to provide warnings, to identify vulnerabilities, and to assist policymakers and heads of state in national security decision-making (Lowenthal 2003); while information in itself has a more multidisciplinary peripheral. Types of information other than intelligence, as related to the strategy of balancing trade facilitation and security, are sensitive law enforcement information and commercial transaction information. Law enforcement information is data collected that can be used to investigate, solve, prosecute, and prevent crimes. Commercial transaction information is cargo data provided by the business community (customs broker, freight forwarder, shipping line, consolidator, importer, and exporter) to customs. This type of information usually contains a detailed description of the contents inside of a shipping container.

The sharing of information is where it gets complicated -to whom, when, and how to share are the questions. To illustrate how complicated information sharing can be, let's analyze the least complicated one. Within the domain of commercial information sharing, under the policy of the advance electronic cargo manifest requirement, there are diverging views on the CBP 24-hour advance notification rule.

On one hand, there are those who believe that the transmission of electronic cargo information 24 hours before the cargo arrives in the U.S. is a necessary means to monitor trade activities as well as to protect the United States and global trade. On the other hand, there are others who believe that the CBP 24-hour rule will negatively impact trade procedures and tarnish the accomplishments already made on "Trade Facilitation." In



their view, such security procedures add new costs to already costly operations and set new bureaucratic demands. In addition, such information can be easily diverted from protection to protectionism.

From an intelligence-sharing standpoint, the challenge arises when information becomes classified or misconstrued as a piece of intelligence. Such a dilemma can be illustrated by analyzing the CBP C-TPAT and CSI programs. Both programs require the deployment of customs officials to host countries, CSI in the long term (CBP officers are actually stationed overseas) and C-TPAT in the short term (SCSS are sent to validate the supply chain of C-TPAT members). It gets complicated because the issues of sovereignty infringement and the cold war mentality are bound to rise. The host countries, particularly those who are in non-ally category, will always be suspicious as to what type of information are being actually gathered and transmitted, So far, we already know that the Chinese government does not allow SCSS to go into China as a part of the C-TPAT validation process. That is a good example of where the complexity of information sharing can occur, because trade information is not intelligence information, but sometimes it is misconstrued or even treated as such.

From a sensitive law enforcement information sharing standpoint, the complication rests on turf battles or cultural warfare. It is the traditional bickering of law enforcement sensitive information sharing that takes place between Customs and DEA or between FBI and local/state Police, where the mundane matters of proprietary ego, cultural compatibility, asset & forfeiture sharing, workload, resources, and credit for an arrest or a seizure come into play. The difference is that the disagreement now, under the purview of balancing trade security and facilitation, is on an international level, where

law enforcement agencies among countries are partnered up and allegedly working collectively to curtail terrorism. However trivial as it may sound, it is true and impacts the issue. If partners cannot trust each other, it will just undercut the entire spirit of information sharing by making such efforts worthless.

As of 2007, based on the elite survey, only one-half of the subject experts on the trade-balancing issue believe that it is feasible to share real intelligence. I personally don't believe that intelligence sharing is tangible, unless our allies and foes come to a realization and understanding that terrorism does not recognize boundaries and it is a global problem with worldwide ramification.

### **Human Capital**

The terrorist attacks of September 11, 2001, have heightened the need for increased security within the global trade environment. In response, CBP has implemented new programs to improve the security of the global supply chain. These new programs have significant implications for its human capital strategies and trade functions (GAO 2003).

Human capital is the most valuable asset in an organization. It is the people who get the mission, the strategy, and the program accomplished. Human resource is what defines an agency's role, culture, and identity. It is the driving force behind the pursuit of formulating and implementing directives towards the strategy of balancing trade facilitation and security. The problems that we encounter during the implementation and development phases of policies and programs are directly correlated to the quality of the workforce responsible for such tasks.

“Strategic human capital management can help to marshal, manage, and maintain the people and skills needed to meet agency’s critical mission (GAO 2005b).” Human capital can be better understood if it is partitioned into four categories: (1) hiring practices; (2) competitive workforce; (3) comprehensive career path incentives; (4) retention practices.

### Hiring Practices

Although attracting the best and the brightest is the desirable status quo in any hiring practice, hiring the right person for the right job is what really matters. When it comes to addressing this combustible issue of balancing trade facilitation with security, the hiring process needs to be more selective and informative in order to be more compatible and marketable. It is perceived that everything in the government moves slowly, and the governmental hiring process is no exception.

From the time that a job is actually offered to the point that a person is in fact working; it can take from a few months to a few years. Expediting hiring practices without compromising the integrity of the hiring process is a much-needed strategy. It is common knowledge that when candidates apply for a job, they don’t just apply for one job at the time, so reducing the unnecessary waiting time is paramount in attracting the right candidate. Marketing is another important factor in the policy of enhancing human capital. Putting job information booths or advertisements where there is a captive and diversified audience, such as universities, websites, airports, train and bus terminals, will make the hiring practice much more competitive and cost efficient.

Another crucial factor in the hiring procedure is to systematically standardize such process. The purpose of having a standardization process is to promote

compatibility and fairness on the job. The hiring process could be based on a system of criteria. Potential recruits could be required to meet a certain standard as a qualifying requirement before he/she can be considered. For instance, the hiring criterion for an entry-level position would be to possess a four-year commitment, of some sort, whether it is to have a four-year college degree, or four-years of military service or four-years of related work experience. The purpose of this criterion is to identify a candidate's level of commitment, maturity, and credibility. The four-year hiring requirement would make all candidates reasonably compatible with each other, as it would serve as a baseline for a fair hiring practice.

#### Competitive workforce

The second human factor category is competitive workforce. The ideal of a competitive workforce needs to be front and center to assure an optimal level of development and implementation of policies and programs. To have a competitive workforce, it is imperative that the workforce possesses the basic job-relevant knowledge and skills necessary to accomplish organizational goals and strategies. Such requirements can start at the recruitment level where job qualification can be used as a baseline. In order to have a competitive workforce, stability and job satisfaction must be the core values to strive for. Long term commitment and mutual respect between managers and employees are good ways to promote stability. Recognition and promotional feasibility are good course of actions to uphold job satisfaction. A motivated workforce can significantly increase the level of drive to develop better policies and programs guided toward the trade-balancing issue, not to mention finding better ways to implement them.

As the work and the workplace become more technical, particularly in the business of identifying high-risk cargos while facilitating the low-risk ones, training has become an imperative tool in the efforts of making the workforce more competitive. However, training needs to be relevant, disciplined, and cost efficient in order to be effective. Training is an important conduit of keeping the corporate knowledge fluid.

An organization is better off to opt for more training than outsourcing. Although outsourcing may be an easy and cost efficient way out to fix a problem, it makes an agency dependent. The organization is better off to train its own people with a set of new skills to do a job than contract it out, as self-reliance is a good attribute to possess. This line of thought is based on the old-saying: “give a man a fish; you have fed him for today. Teach a man to fish; and you have fed him for lifetime.” In short term, training may be seen as a costly and time-consuming endeavor, but in the long term, it will teach us to be self-reliant.

No one doubts that when it comes to dealing with trade facilitation and security, the human factor is a key component in the equation. One can have the best technology, the best machinery, the best data mining software, the best policy, but ultimately one needs someone competent to operate the machine, to analyze the data, to make decisions and to execute it. Having the right person at the right place and at the right time is more valuable than having a million-dollar machine. Furthermore, one does not need to possess a set of complex skills or even technology to make a difference in the war against terrorism.

A good example to support such an argument is to describe what occurred in Seattle, Washington in 1999. A legacy USCS inspector, Diana Dean, who relied

primarily on her training and experience, prevented another terrorist attack from reaching the U.S. soil. Benni Noris, later identified as Ahmed Ressam, was an Al-Qaeda operative who was apprehended by USCS inspectors for transporting bomb-making components and timing devices in his rental car as he attempted to cross into the U.S. on a ferry from Victoria, British Columbia (USCS 2000) It was with a good old fashioned police work and instinct with no technological gadget or unusual skill set that another terror attack was prevented and a terrorist was captured. This is the kind of person who one wants to hire and see promoted.

There is a distinction between being a manager and a leader. A manager is someone who is usually technically proficient in his/her job, may possess some interpersonal skill, should have a sense of prioritization, and a sparkle of common sense. But a leader, besides being an outstanding manager, is someone who inspires and motivates others to do great things. It is an individual who has the “whole package.” Although leadership may vary in style, the workforce has no single style; it is up to the leaders to mold the workforce. Managers and leaders alike need to develop a healthy and robust relationship with the workforce. A good leader will recognize and use one’s strengths and improve one’s weakness, to better serve the agency’s goal. It is, therefore, essential to have a competent workforce and strong leadership to optimally address the trade-balancing and border security issues.

Border insecurity has long been a controversial and sensitive issue. Smuggling of goods and people are traditional endemic problems, particularly at the U. S. land borders. It is estimated that everyday 1.13 millions people and 70,200 containers cross the U. S. borders legally. Illegally, just for the year 2004, experts on immigration issues pointed

out and cited by Koslowski that it has been estimated that the U.S. has 9.6 million undocumented migrants (Passel, Capps, Fix 2004) and 56,000 drug seizures, totaling nearly 2.2 million pounds, were seized in our nation's borders. Specifically, out of 56,000 seizures, 48,325 seizures took place in a land border environment. On the northern border, CBP made 2,693 drug seizures, amounting 45,732 pounds. On the Southwest land border, it was 15,526 seizures, amounting to 1,942,833 pounds. That is not taking into account other types of seizures as related to public safety (weapons, hazardous material, and food), intellectual property rights (counterfeit products), and currency bulk smuggling (CBP 2005b). With these astronomical figures in place, CBP definitely has its work cut out. Balancing trade facilitation and security in the midst of protecting the border against all types of transnational crimes and terrorist activities during a transitional period will unquestionably test the workforce's competence and competitiveness in more than one way.

Traditionally, the control of human smuggling falls under the jurisdiction of immigration authorities, the legacy INS, while the smuggling of goods falls under the responsibility of customs authorities, the legacy USCS. Before March 2003, immigration and customs officials were superficially cross trained to enforce each other's laws, but with the merge of the legacy agencies in March of 2003, both legacy INS and USCS workforces are now presumably expected to become experts in preventing smuggling of all kinds, whether it is goods or people. So, this author suspects that the DHS/CBP workforce is bound to face significant challenges ahead, particularly when faced with formulating strategies guided towards the trade-balancing issue.

Although the drama that revolves around the formation of DHS, particularly CBP, may sound distant to the “balancing” ideal, in actuality, it is intrinsically interconnected. All CBP programs mentioned so far in this dissertation underline the “balance” issue either directly or indirectly. So addressing the creation of CBP, particularly its workforce, is to address the balance of trade facilitation and security.

Deborah Meyer (2005), a distinguished policy analyst from the Migration Policy Institute, has pointed out that “one face at the border” initiative is a positive step toward creating a unified, efficient, and professional border agency. Through her well-written article titled “One Face at the Border - Is It Working?” she described in great detail and length the advantages and disadvantages of merging border agencies along with insightful recommendations and conclusions. Some of her policy and program analyses, although sincere, might be slightly misguided as she was viewing the formation of DHS agencies from an outsider’s perspective. As trivial as it may sound, as an outsider, she relied on a different set of variables to come up with her judicious analyses and sagacious suggestions. Despite her persuasive efforts to get the best inside information possible by conducting numerous interviews with CBP field office and headquarters personnel, she is unfazed by the decision-making process. She lacks the corporate knowledge and the self-vested interest to fully understand what really goes on underneath the formulation and the execution of policy and programs, as related to the ideal of merging border agencies and the effort of finding a balance between trade facilitation and security.

CBP is not only comprised of an inspectional workforce, which works essentially at the ports of entry, but also of the Border Patrol (BP), which operates primarily between the ports of entry, as Meyer briefly mentioned. However, her focus and analysis of her



paper were aimed at the inspectional side of the CBP. As of 2008, there were nearly 44,000 CBP employees, and out of 44,000, approximately 20,000 were CBP officers and agriculture specialists and roughly 13,000 were BP agents and CBP Air and Marine agents. The other 11,000 were distributed among other existing CBP positions (CBP 2008c). Her comment on CBP staffing was as follows: “prior to the consolidation of the inspection agencies, there were approximately 10,000 customs inspectors, 6,500 immigration inspectors, and 1,500 agriculture inspectors, giving CBP a total of approximately 18,000 inspectors. An additional 2,136 officers had completed the new CBP training as of December 2004,” pushing the CBP staffing number to 20,136<sup>3</sup>.

By her focusing her analysis primarily on the inspection side of the house, Meyer has limited herself in only examining roughly one-half of the CBP challenges and one such concern being the staffing problem; a problem that can easily trickle down to policy and program formulation and implementation. She has in a roundabout way excluded the difficulties faced by the BP agents and the BP, itself, as having problems within CBP. If we are to apply the concept of “one face at the border” to the letter of the law, as she clearly understood, she did not explain in-depth and in detail the reasons for enabling BP to maintain a distinctive identity within CBP. BP was able to keep a separate chain of command, retain its legacy traditions such as its flag and green uniforms, and carry out its own hiring practice. The other important point that she fell short to cover was the question of whether BP agents were required to learn and enforce customs laws as their

---

<sup>3</sup> Based on the statistical figures, one can easily conclude that the number of CBP officers between 2004 and 2008 has roughly remained the same. In other words, since the formation of CBP, the U.S. government did not feel that there was a need to increase the workforce despite an increase in demands to secure borders and trade.

counterparts, the CBP officers (comprised of former customs and immigration inspectors and new CBP officers), who were required to master both customs and immigration laws. If BP agents were only required to enforce immigration laws, what happened to the “one face at the border” concept? Shouldn’t the tasks be equally distributed after the merge of missions? Why were the legacy customs personnel forced to learn and enforce immigration rules and regulations while the legacy immigration personnel, particularly the BP, had the choice to learn and/or enforce customs laws? If the argument is based on its well-recognized identity and well-defined mission, or on the job series, or the law enforcement retirement status of its position, unlike its counterpart the inspectors, later known as CBP officers, with a different job series and no law enforcement retirement until recently (in 2008), then the proposed concept of “one face at the border” is flawed at the core; especially if BP is to be an integral part of CBP.

By allowing two distinct border agency management styles (Office of Field Operations and Office of Border Patrol) with diverging agency culture to coexist in the same organization, it just goes to prove that we do not have “one face at the border,” literally or figuratively. As of today, there are uniformed CBP officers wearing dark blue uniforms and BP agents wearing the green uniform, both patrolling and protecting our ports of entry and borders. Although the above observation was made with cynicism in mind towards the concept of “one face at the border”, it is symbolic nonetheless, as each element of the organization still maintains parts of its distinct legacy corporate culture, mission, and uniform.

The alleged reasons behind BP’s strength in the newly formed CBP organization, as it was not forced to fully integrate, rests on the fact that BP is a well-grounded, well-

respected, and well-funded institution with great representation in the Congress. Through the lobby machinery, contributing both politically and financially, BP was able to gather support to retain its mission and tradition. It is also believed that the BP's strength emerged during a decisive moment in the formation of CBP. While some of legacy agencies were fragmented and merged into DHS' agencies (customs and immigration investigative division were separated from the uniformed inspection division), the BP's leadership was able to keep its institution intact and merged as a whole; therefore, maintaining its strength. The BP air and marine division was never detached from BP as its counterpart; not only the legacy customs air and marine division was detached from the legacy USCS, it originally went to ICE and later to CBP. It is indeed an intriguing story that goes on behind the BP's integration or non-integration into CBP.

Aside from the BP issue, where does the rest of INS workforce fit in? Legacy INS special agents, INS immigration enforcement agents, and INS detention and removal officers are now part of the ICE workforce, so does it make sense under the "one face at the border" initiative, designed to integrate the immigration, customs, and agriculture missions and functions into one, to only be carried out by three new and independent DHS sister agencies: CBP, ICE, and CIS, all entrusted to enforce immigration and customs (excluding CIS) laws and regulations? One may ask where the logic is in all this. When one breaks down two distinct legacy agencies and attempt to merge its fragmented components into three newly created agencies, one only ends up perpetuating the "jack of all trades, master of none" proverbial ideology. Furthermore, the FPS [Federal Protective Service], an agency that is neither currently nor historically known to enforce immigration or customs laws, but to secure federal facilities, has also become a

component of ICE. So, it is not farfetched to conclude that the strategy of “one face at the border” would be more aptly named “multi-facets at the border.”

The real question is why DHS or even the White House and the Congress have allowed this to happen? One may speculate that the development and the implementation of policy and programs towards DHS formation were done in such an ad hoc manner that the entire process was set up for failure and the low morale of the legacy agencies workforce were doomed to follow, but no one could or would stop it. It can be further insinuated that the Bush administration and the Congress were more concerned about making visible and quick decisions rather than making the right decisions. As Richard Falkenrath, the former Deputy Homeland Security Advisor to President Bush pointed out and was cited by Meyer summarizes the best “...the time frame for action was tight and unforgiving; the daily operational and policy demands were relentless; the interagency environment could be treacherous; the external constituencies, perpetually discontented...as a result, the organization was addressing issues as they arose rather than engaging in careful planning. The lack of a sufficient number of policy staff within CBP, BTS, and DHS more generally likely intensified the challenge (Falkenrath 2005).” Indeed, the formation of DHS was a pronounced strategy compiled with limited clarity, comprehensiveness, and credibility, not to mention practicability.

The truth of the matter is that all the border agencies (immigration, customs, and agriculture), excluding the Coast Guard (which was incorporated into DHS intact), have become a “jack of all trades and master on none” workforce. It will take years, if not decades, for the border workforce to be optimally functional and effective. GAO reported and cited by Meyer that it would take 5 to 7 years for a successful reorganization of a

large scale to be productive and effective. Six years have passed and chronic problems still persist in DHS, as the latest “Best Places to Work in the Federal Government 2007” report will reflect, ranking DHS in the bottom three organizations. As DHS is faced with multi-task roles, diverging functions, and different responsibilities, compounded with low morale, the expectation to properly address the trade-balancing cannot be high.

Meyer is right about recommending a need for specialization in CBP. In this author’s humble opinion, she has nailed the idea conceptually, but has fallen short strategically. She advocated specialization in terms of passenger and cargo clearance functions, but the fundamentals of lacking immigration, customs, and agriculture knowledge will still linger according to her recommended strategy. Again, it goes back to the same argument: the complexity in handling the CBP missions, laws, policies, and programs. It is just too much for one CBP officer to handle. Compounding this with the level of attrition that is taking place at ICE and CBP, where the corporate knowledge on both of the disciplines is walking out of the door, during the most sensitive time of the transition; it is not only a bad proposition, but it is also down right scary. We must find a way revamp the workforce competitiveness and stop this personnel hemorrhage, before it is too late.

Meyer is also right about identifying CBP’s problems being rooted in immigration matters. Keep in mind, the legacy INS was the agency that was abolished during the DHS’ agencies formation. INS has long carried the stigma of being an ill-managed and ill-equipped agency, as the nation’s immigration policy is broken. The S.2444 proposition, the INS reorganization bill, proposed well before the 9/11 event, is a clear indication that INS needed to be reformed, as it was dysfunctional. Senator Dianne

Feinstein, a ranking member from the Senate Immigration Subcommittee made the remarks that “the INS is so dysfunctional it grants visas to dead terrorists (U.S. Senate 2002).” In fairness, the business of enforcing immigration laws not only is complicated in its own right (i.e. for most of the immigration statutes, there is an exception rule attached to it), but it is also highly politicized. Furthermore, it is the Department of State that issues visas and not the INS.

On the other hand, the legacy USCS, while far from being perfect, was known to be the nation’s second largest revenue collecting agency. “In fiscal year 2002 alone, the legacy USCS collected \$23.8 billion. As a source of revenue for the federal government, CBP ranks second to the Internal Revenue Service (CBP 2004). The legacy USCS was also a well-respected law enforcement agency recognized for its interdiction (narcotics, dangerous goods, counterfeit merchandises, endangered animals, and so on) and investigative (smuggling, arms trafficking, money laundering, child pornography, fraud, and much more) capabilities.

In this author’s opinion, it does not make any sense under the concept of “one face at the border” to merge one distraught workforce (INS) with a quasi-functional workforce (USCS), with the hope to produce an average workforce when protecting the homeland from terror attacks is at stake. Merging workforces is no easy task, as I, Meyer, and many others before us have come to the same trivial conclusion and concern. Meyer stated that the proposals to merge border-related agencies numbered in the dozens and it could be traced back nearly one hundred years. Yet it took the 9/11 events to make border management and infrastructural changes a reality. Maybe there was a reason for taking so long and that it was met with such resistance.

Indeed, with surreal political pressure and time constraints mounting to do something right after the 9/11, forced the newly created department, DHS and the newly created agency, CBP, to be reactive rather than proactive, to become operational before its time, to lose the advantage of carefully crafting an ideal border management strategy and border infrastructural changes. In any event, I suspect that the damage has already been done. Unfortunately, the root of the issue of integrating border agencies, as the critical strategy of balancing trade facilitation with security, is one complex issue to undertake. It is only with trial and error, with the humility to recognize that mistakes were made, and with the courage to repair the damage that we can move forward and make the agencies in charge of border security effective.

#### Comprehensive Career Path Incentives

The third human factor category is the comprehensive career path incentive, preceded by the hiring practice and the competitive workforce categories. A comprehensive career path incentive is needed to attract qualified individuals who have the aspiration to climb the corporate ladder. Career mobility strengthens an organization's mission, pride, and structure. Such a career path program needs to contain a clear promotional guideline. Promotion should be based on the employee's performance and managerial skills. Performance should be based on the level of productivity and corporate knowledge. Managerial skills should be based on inter-personal, leadership, and communicational skills, to include creativity and writing skills. Advancement should be limited to competency and merits rather than quota and favors. Unfortunately, we don't live in a perfect world, but we should still strive for perfect intentions.

Promoting fairness and professionalism in both the workplace and the workforce should always be a priority. Promotion should not be based on gender, age, race, religion beliefs, or office politics because such action would just alienate people and affect the overall morale and fairness. Morale is the “soul” of any agency. Without pride in one’s work, the agency is doomed to fail. Fairness in the workplace will foster optimal corporate knowledge transition and good work practices. Promoting inexperienced individuals, or worse, incompetent people to a managerial position is not only unfair and immoral, but also downright detrimental and dangerous. Such a practice can easily compromise the moral and well-being of an institution in both long and short run.

#### Retention Procedures

The forth and the last human factor category is retention procedure. Balancing trade facilitation and security is a challenging task. A set of skilled strategists, savvy policymakers and driven program managers are much needed in the pursuit of such policy option. Such specialized skills require time, money, and training to develop. Allowing these well-trained personnel to leave the workforce would be a travesty that we should prevent at all costs. Whatever the reason may be, whether it is for early retirement, job dissatisfaction, or better job offer, compromises must be met to minimize the level of attrition. Corporate knowledge is invaluable in the pursuit of achieving a balance between trade facilitation and security. Adding that to the fact that new employees are joining the ranks with different skill sets and career expectations, it makes such a dilemma even a bigger challenge.

Unfortunately, workforce retention is an overlooked practice. Until the level of attrition reaches the unbearable threshold, business will be carried out as usual. It is



unfortunate that there is an unspoken trend that is taking place at DHS ICE and CBP, where experienced leaders and journeymen are leaving in considerable numbers for various reasons. I suspect it is because of lack of an effective leadership. Time and time again, first-class management at both HQ and in the field is leaving at a considerable pace. Reasons may include, but limited to inconsistencies and ill practices that took place when merging legacy agency functions and workforces; unqualified and transitional top management making highly questionable decisions; unfair promotional and labor practices. Those same top managers who got promoted on quota and agency affiliation rather than on merits and experience, are forcing seasoned career managers to leave for other jobs.

The most controversial are the political appointees who occupy the top management jobs and often times use such positions of power as career advancement rather than doing what is the best for the agency. Take for instance, the person who presided as a DHS ICE Assistant Secretary from 2005 to 2008. Julie L. Myers has served as acting Assistant Secretary of DHS since mid-2005, when she was appointed by the Bush administration, under a recess appointment. Not until September of 2007, was her nomination approved by the full Senate (U.S. Senate 2007). Many have raised reservations about her qualifications to be appointed for the top ICE job, and have speculated that she got the job because of her political connections with the White House through her uncle, who was a former chairman of the Joint Chiefs of Staff, along with being married to DHS Secretary Chertoff's chief of staff. Not until behind the scene politics intervened and overshadowed such concerns, was she eventually confirmed. No add-value to the agency will come from appointing political-appointees to those high-

ranking positions, if they are not being fulfilled by career senior executive civil servants who have agency's best interests and priorities at heart. Unfortunately, that is the political machine in which all civil servants must abide. However, a true public servant would interpret its civic duties as to serve the public's best interest and not to a political appointee or a politician, who sometimes forgets that he/she also works for the taxpayers, the public and not just for the president.

This "jack of all trade and master of none" morale compounded with inexperienced managers being promoted at a fast rate to top positions, and the new/young hire's attitude and expectations of the job, in which patience, loyalty, and respect are not their best attributes, are really hurting the opportunity to formulate a competitive workforce. Soon, there won't be enough competent and knowledgeable people left to perform the job. This hemorrhage of skilled personnel must be stopped before it is too late. One fact that gets compromised throughout the process is finding seasoned and specialized people to carry out the strategies, policies, and programs of balancing trade facilitation and security, not to mention to fulfill those important managerial positions. Indeed, to discuss human resource matters is to put in perspective the challenge of balancing trade facilitation agenda with security.

### **First Response Preparedness (Contingency Plan)**

When terrorism has actually reached the American soil, one fact remains undisputed – no one is immune from terrorism. The idea of terrorism tangibly and physically reaching the alleged only superpower still standing is no longer an inconceivable concept, as the events of 11 September 2001 have shown. As matter of

fact, terrorism has suddenly become an illustrious topic and an instant worldwide concern.

There is no longer a safer haven. The expansive oceans are no longer a means of protective barriers, but are areas of vulnerabilities. In this age of globalization, where the volume of global trade continues to grow each and every day, and where the majority of international business is conducted in a sea-like environment, finding a balance between security measures without hindering the flow of legitimate goods, particularly in a seaport environment, is no longer a matter of choice, but of necessity.

Stephen Cohen, professor of regional planning at the University of California at Berkeley, estimated that a five-day shutdown of a handful of West Coast ports in 2002, due to labor dispute, cost the national economy around \$4.7 billion and reduced tax collection by \$115 million (Del Franco 2002). The cost of the 2002 West Coast port shutdown has provided a real expense estimation of the economic impact if a terrorist attack is to strike one of the arteries of the supply chain. This is just an estimation for one port within one nation-state; multiply that figure with the number of seaports available in the U.S. and add it to the number of seaports spread throughout the world, and one can only imagine what an astronomical sum that would be. Such an exorbitant figure is a clear indication of how dependent we are on international trade, how important global trade is to the world economy, and how much detriment we are to face if a terrorist strikes the international commerce. The degree of affliction and cost inflicted by the 2002 West Coast labor strike followed by a port shutdown does not come close if it is to be compared with the level of impact and loss that would be imposed by a terrorist strike.

The 2002 port shutdown had no casualties. The strike was forewarned as opposed to an unexpected terror attack. The mechanism to reopen the seaport was intact; unlike if the source of the strike had been a terrorist one and nuclear in nature, where the port infrastructure could be significantly affected. The port facility could be seriously damaged not only by an explosion, but also followed by the spread of nuclear radiation. In addition, the loading, unloading, and storage process at the port could easily be compromised and for a considerable amount of time. Shipping lines would have to divert ocean freighter vessels to docks in other ports, assuming those ports are capable of absorbing additional volume of commercial ships and containers, not to mention raising the cost of doing business.

If it were unable to immediately open for business, as opposed to the 2002 labor dispute where the port quickly resumed its usual activities once the court ruled the strike to be illegal, the economy that surrounds this large seaport may not ever be the same. As matter of fact, the entire global economy that depends so much on maritime trade could be scarred forever. Besides the loss of life, the contamination factor, and a hit in the local economy, the overall cost to re-build the port itself would be astronomical. Compounding the above effects with mental anguish, it could be hard to start all over again. The business community may not want to come back, bear the cost, and take the chance that it may happen all over again.

To put this in a numerical perspective, according to the Booz Allen Hamilton firm, a 92-day simulation of a non-detonated WMD found in a port would cost \$ 58 billion in losses, resulting from factory shutdowns, spoilage, lost sales, declining equity value, and shipment diversion as every container would have to be screened. According

to the Brookings Institution, a detonated WMD would cost approximately \$ 1 trillion in damage (Booz Allen Hamilton 2002). It is, indeed, a big deal and a costly endeavor if a terrorist were to strike a seaport. That is why it is so important to have security measures that don't hinder the flow of legitimate shipments in place now. Even with harmonic trade security measures in place, there are still no guarantees that an interruption of global trade could be 100% prevented. That is why it is so important to have first response policy in place in case a terror attack succeeds.

In short, it is impossible to completely protect global trade from terrorism or any type of catastrophe man-made, nature-made, home-made, or foreign-made. Consequently, it is paramount to have a contingency plan in place if the worst is unavoidable. First response policy is a matter of necessity rather than of luxury. The first logical step is to identify existing first responder policies and programs, assess which ones are the most practical, comprehensive, and cost efficient in nature, and consolidate them by streamlining those that work into one national first responder policy and program. The second step is to take seriously the recommendations from the 9/11commission report, in which the commission pointed out that one of the major difficulties in handling the disaster of 9/11's magnitude was a lack of adequate communication systems, in terms of interoperable communication equipment and protocol. The radio equipment used among public safety entities, particularly between the police and the firefighters, were not compatible when handling the 9/11 casualties. The local, state, and federal first responders did not have their channel of communication aligned with each other, from chain of command to warnings to logistics. All these details are still being worked out even though seven years have passed. The last step is to ensure

that the funding is adequately allocated and proportionally distributed throughout the first response agencies from all levels so that policies and programs developed are attending to the needs of curtailing terrorism and of balancing trade security and facilitation.

Independent of how these six disciplines (Duplication Exclusion, Technological Insertion, Multi-layered Protection, Cooperation; Human Capital, and First Response Preparedness) are adopted, collectively and/or individually, each one of them can independently carry out the strategic goal of expediting legitimate shipments while examining the high-risk ones. However, the multi-layered and cooperation approaches are the most promising ones, as they are the “catalysts” of all these policy options.

## **Chapter IX: Recommendations**

This chapter provides an array of plausible prescriptions that can be considered when addressing the trade-balancing issue followed by an overall summary of the dissertation. Living in today's globalized world where terrorism has challenged and changed the status quo of our time, adequate strategies, policies, and programs are needed to counterbalance such a threat. One area where the fear of terror attacks is apparent is in the domain of global trade. A series of sound and controversial policies have been formulated to address the diverging issue of finding the right balance between trade facilitation and security and many of which have been cited and put in perspective by this dissertation.

For any playbook of recommendations to be taken seriously without sounding too impractical or too cerebral, a system of risk assessment and management must be applied to each policy option. The matters of oversight, transparency, and accountability must be considered. Finding ways to implement security measures in the global trade without hindering the legitimate flow of goods, without infringing on one's privacy or violating one's sovereignty will take a great amount of effort in terms of development, implementation, and coordination among all the actors involved in the supply chain management, border security management, and policymaking management.

The syllabus of recommendations from this dissertation will focus on three principles: prevention, protection, and preparedness. All of these three elements are parts of the overall multi-layered approach that this dissertation so much advocates and recommends as a policy option. It starts with preventive measures and ends with a

proactive first response preparation (Seghetti, Lake, and Robinson 2005c). What follows is a highlight of each policy option that was discussed in the previous chapter.

### Duplication Exclusion

Since the issue of finding a balance between trade facilitation and security is a multi-disciplinary, multi-jurisdictional and multi-agency problem with global repercussion, avoiding duplicative effort in this bureaucratic governance of ours will never come to fruition. Therefore, **policymakers should concentrate on keeping the level of duplication to a minimum.** An enhancement in harmonization and integration of agency systems and processes could be a good start. A good initial strategy to keep duplication to a minimum is to conduct an empirical study/research prior to policy and program formation and execution. However trivial it may sound, finding out first what really needs to be done is always a good step to take, but is not always taken. Searching domestically and abroad for policies and programs that have already shown signs of success to addressing trade facilitation and security would also be another effective approach to adopt. This thinking process is based on the proverbial combination of “work smarter and not harder” and “there is no need to reinvent the wheel.” Taking these first steps will absolutely save us time and cost in the long term as well as keep the level of duplication to a minimum. Ad-hoc projects are developed and implemented everyday in the government. The DHS formation is a classic example of such a practice.

A centralized coordination of efforts and consolidation of duplicative policies and programs tailored to obtain the right balance between global trade facilitation and



security ought to be promoted and embraced. All sister agencies within DHS should channel their efforts toward devising one comprehensive DHS initiative, instead of having initiatives under each agency. The TSA OSC, the CBP C-TPAT & CSI, and the USCG IPSP ought to be consolidated, as they share the common goal of securing and facilitating supply chain. So why not develop a DHS program that collectively targets vessels, ports, containers, and shipments, where the tasks of enforcement are divided and not the policies and programs? Having three sister agencies sharing the same departmental chain of command, mission, and priorities and addressing the same issue with different initiatives, management styles, and budgets hinders efficiency. Fortunately, in 2008, DHS has recently made the efforts to reduce duplication within its own structure by bringing all agencies and programs that share common goal together into one umbrella of discussion, development and decision-making. Overlap and not duplication is what we should strive for.

Once there is a clear and acceptable level of centralization and collaboration among agencies within the same department, then we will move forward to foster teamwork among departments from the same nation as is already occurring between DHS and DOE, through the SFI program. Once a state centric effort in cooperation is in place, then we can expand to a global level under the leadership and guidance of the WCO.

Uniformity is also another integral part of the duplication exclusion that must be considered. If we cannot bring every entity involved in the “balance” process under one umbrella, we might as well define each one’s role. Coordination and communication play an important role in dealing with this “balance” dilemma. Determining who is doing what

would minimize duplication and maximize consistency. If we are at least uniform and unique in our initiatives, we may see significant progress in enhancing the security of inter-modal freight without interfering the efforts of facilitating global trade. The more homogeneous the policies and programs are, the better the odds will be to attain the overall “balance” strategy.

The other advantage of embracing uniformity is that a unique policy and program may emerge, which could be systematically adopted or at least modeled by others, as in the harmonized tariff system (HTS) where all products are uniformly classified and globally accepted. The HTS concept was spearheaded by the WCO and adopted throughout the customs community. The same logic can be applied to formulate a harmonized system of global security initiatives in the domain of protecting and promoting global trade. For instance, formulating a uniform C-TPAT program, which contains a minimal standard for a B to G partnership, can be a good starting point. The whole idea is to develop and implement systematic international supply chain security standards.

Unfortunately, there are too many variables and too many governmental actors addressing the issue of balancing trade facilitation and security. One has not even taken into account non-state actors and private groups. Duplicative effort creates confusion, inconsistency, and unaccountability. Perhaps, the one positive outcome derived from duplication is the sign of importance, where many individuals and institutions recognize the importance of such an issue. The elite survey rated as average (3.0) on the level of

redundancy of current local, national, regional, and international responses when it comes to addressing the “balance” issue.

### Technological Insertion

Despite the notion that technology alone is not a solution, it is still a practical, feasible, and effective tool that can assist both the government and the private industries with the efforts of finding the right balance between trade facilitation and security. Living in this age of globalization where terrorism and transnational crime concerns are on the rise, where resources are limited and expensive, technology must be relied upon. **Policymakers should encourage and adopt more technological oriented resolutions, but never forget that technology is just a tool of trade.** By prioritizing smart container and RFID technology as integral parts of the overall technological approach, the policymakers will be one step closer to making the case that the technological approach is the way to go. Technological approaches that tackle specific choke points such as the mode of transportation (container) and the production line will take us one step closer to achieving the right balance. Technology is a powerful, resourceful, and necessary tool that we must rely on when overwhelmed by the sheer volume and the perpetual demands of global trade. For the year 2007, the volume of global trade has reached approximately \$16 trillion dollars, equal to 31 percent of the world GDP, and global trade keeps growing (Dadush and Nielson 2007, 22).

One-third of the U.S. economy is dependent on international trade (Kelly 2007). 95% of international trade goes in, out, or through a U.S. seaport. More than 90% of global trade movement uses the maritime transportation system and the majority of goods, raw materials and component parts move by sea in cargo containers (U.S.

Chamber of Commerce 2008). By embracing the Smart Container concept, we could be making the global trade 90% safer. That would considerably increase the odds to better protect the international commerce against terrorism and transnational crimes; as we would be only required to concentrate our security efforts on the remaining 10% of international commerce.

As part of the effort in endorsing the technological approach, the CSI core value #4 from the CSI program, which advocated the usage of smart container, should be reinstated rather than removed. This author completely concurs and absolutely supports Flynn's Smart Container principle. A container outfitted with sensing technology (i.e.: light sensor, temperature sensor, pressure sensor, radiation sensor, and CO2 sensor), tracking technology (i.e.: global positioning system, geo stationary satellite, and data logger) (Flynn 2004, 94), and imaging technology (i.e.: high-resolution camera, high-depth digital image resolution, and 3D recording conversion) is a fruitful and practical way to make the commercial maritime environment a safer place, as is the usage of smart electronic seals. Although equipping a container can be a costly endeavor, it will pay itself off in the long run. A combination of a smart container and a smart seal can truly make a difference when it comes to preventing and detecting tampering of any kind, at any level, and at any time. Keep in mind that the concept of transporting cargo inside of the container has revolutionized the transportation industry, and for that matter, the global economy, by making it more efficient and profitable. It was the U.S. who led the containerized cargo revolution<sup>1</sup> in 1956. Again another opportunity or challenge has

---

<sup>1</sup> Malcom Purcell McLean was the one who pioneered the world's first use of containers for inter-modal sea-land movements and later founded the SeaLand Inc., one of the most respected shipping industries in the world (Mayo and Nitin 2005).

arisen, through the Smart Container approach; the U.S. could lead the efforts of revolutionizing better ways to achieve the balance between trade facilitation and security. Not only would the U.S. be in the position to keep global trade efficient and profitable, but it would also make it safer and compatible with the new 9/11 security measures. Sooner or later, one will come to the conclusion that the smart container is one of the “choke points” of supply chain security that is worth to invest.

Instead of wasting on human and financial resources to suffice the CSI element #2 (container pre-screening) requirement, we could shift CBP’s effort and enlist the private sector’s assistance in transforming those regular 40-foot cargo containers into super smart containers. The smart container could be categorized into low, medium, and high-risk containers, depending on the number of gadgets applied. The low-risk smart containers would be equipped with the basic technological apparatus while the high-risk smart containers would be outfitted with every possible technological device available and imaginable. The high-risk smart containers would then be primarily used to ship cargo from ports that present the most threat to the global trade and not just to the U.S. Eventually, we would want to indoctrinate the concept of the Smart Container as a part of the WCO FoS SAFE initiative, where international standardization of security measures is the goal to achieve.

Besides, the smart container is a part of the dual-use technology concept – an application that can be used for security and commercial purposes with several benefits, as it is the NII technology used to carry out the CSI mission and the RFID technology. If solutions are aimed to resolve the supply chain security issue, the “mother” of all infrastructural securities – the maritime security, trade security, and global security, then

---

we are definitely one step closer to finding a real solution to address the balance between trade security and facilitation.

### Multi-layered Protection

Faced with the complex challenge of achieving the twin goals of securing and facilitating global trade where one successful downfall can bring serious implications to the entire global economy, the policy option of promoting the layered protection approach must be fully embraced and expanded. A multi-layered protection approach is the right policy to address this combustible issue. **The policymakers should continue to improve the multi-layered protection approach, as this is the “mother” of all policy-options.**

This is probably the best policy option to endorse when dealing with global trade where points of vulnerability are numerous and ubiquitous. When the hindrance of global economic growth lingers on the balance between security and trade facilitation measures, all actors, domestic and abroad, ought to adopt this action plan. If one takes all the approaches described in this dissertation and combine them into one super layered approach, where each approach will act as a layer of protection, the terrorists and transnational criminals alike will certainly have their work cut out.

### Cooperation

Cooperation is another crucial option that needs to be absolutely adopted, but with reservation, as it is a broadly multi-faceted discipline. Policymakers should phase in collaboration unilaterally, bilaterally, and multilaterally. **Policymakers should deepen**

**the partnership between government and the private sector. Policymakers should cultivate more “unconventional” partnerships, such as between Government and Academics (G to A). Policymakers should find better ways to increase international cooperation. Policymakers should encourage information sharing, but weigh on the side of caution when dealing with intelligence sharing.**

**Policymakers should deepen the partnership between government and the private sector.** When time and resources are limited, finding efficient ways to achieve and maintain harmony in the international trading system should be the goal. The policy of strengthening B to G partnership should be the beacon of all cooperative policies aimed at the strategy of finding a balancing between trade security and facilitation. It is a policy that if crafted right, could significantly make a difference in the efforts of attaining such a “balance.”

Government can only do so much and there is no feasible way that government can really enforce security protocols at the farthest point of the supply chain, the production line, without enlisting the assistance from the private sector. Government is adherent to institutional limitation. Just the sheer number of manufacturers alone will make such an enforcement objective unfeasible, not to mention the issues of sovereignty, privacy, and corporate secrets that come into play. Securing global trade in this age of globalization is everyone’s responsibility, not just government or private industry. 94% of the elite survey participants agree that B to G partnership needs to be embraced as a big part of the solvency equation.

Crafting a robust B to G partnership policy, where both actors united can do better than alone, is definitely an efficient and a preferable way to tackle the “balance” issue.

The alliance model needs to be dynamic, flexible, and adjustable to the pressures of globalization. To be optimal, the partnership needs to contain and conform to four working platforms: (1) a set of security measures in the production line must be fostered, (2) a system of reward and reprimand must be in place; (3) a transparency principle for trade transactions must be adopted; (4) a two-way communication must be established.

If the private stakeholders know that they will be compensated for firmly establishing trade security and compliance into their business practices, then the level of motivation and genuine cooperation may rise considerably. For instance, the type of rewards that are currently being provided by CSI and C-TPAT programs is a good incentive for the private sector to commit to this partnership. By having transparent logistics and financial processes readily available for audit by authorized personnel, it will promote efficiency in both security and the business process, which in turn, will save time and keep the costs down in the long term. By convincing the private sector to take an active role in the strategy of balancing global trade, where its constructive criticism is valued, the two-way collaboration may actually project a true sense of B to G partnership.

If the business community really understands that the cost of securing global trade is no longer a burden but a benefit, then any practical mechanism that follows to foster such partnership would be based on a self vested interest rather than on a heavy-handed approach. By adopting best business practices and by improving the level of commitment between the parties involved in the trade-balancing issue, we will then be one step closer to developing practical policies and programs tailored to overcome such a multi-dimensional challenge.



**Policymakers should cultivate more “unconventional” partnerships, such as between Government and Academics (G to A).** Fostering a partnership with the academic world is a smart way of tapping into an invaluable resource that is traditionally known to be resourceful, innovative, and reliable. The academia, known for its controversial and conventional wisdom, provides the foundation and the reputation that both the government and the business community can rely upon to overcome challenges, without necessarily draining the already limited resources and time constraints. The academic world has the time, the talent, and the discipline to assist with research and case studies to address specific needs. Recruiting scholars to help resolve dilemmas of global ramifications, such as finding optimal resolutions to address the trade-balancing act, is a sound and logical proposition that ought to be cultivated and expanded.

Bridging the gap between scholars and practitioners could be an innovative way to address the trade-balancing issue. Although the idea of enlisting the academic world to assist with contemporaneous challenges is not new, the method for going about it can be. The U.S. government, through the National Science Foundation (NSF) and the National Institute of Health (NIH), to name a few, has been putting such a concept into practice for many years now. Rather than stopping at the conventional grants, the government could adopt selective recruitment and entrepreneurship for academics as the next steps, after the financial support. In any event, incorporating academic researchers, professional educators, and enthusiastic students is definitely a “welcome” practice, as we need all the help that we can get to overcome the trade-balancing quandary. Building a solid and unconventional bridge between the academic world and the policy world could create

new perspectives and innovating resolutions. Reaching beyond the conventional channels of assistance should be a strategic approach to endorse.

**Policymakers should find better ways to increase international cooperation.**

Finding efficient ways to sharpen diplomatic skills and to enforce mutual interests could significantly pave the way to build a symbiotic international cooperation. Unfortunately, a challenge of this magnitude, partnership of any sort will depend on the art of diplomacy since impasses are bound to surface. To optimally funnel these cooperative efforts, a cooperation coordinator is needed, like a community organizer, capable of bringing parties of all backgrounds together, engaging them in a forum of open, honest, and systematic discussion. The recommendations derived from this forum could then be vetted and implemented in a real world setting and tested for practicability.

Selecting the best-qualified person, preferably someone who is already inclined to conduct diplomatic work, who enjoys the international setting, who is trained in the disciplines of policy, global affairs, security, trade, and diplomacy could increase the odds of optimally improving international relations. Promoting realistic results by keeping the inefficiency and toxic bureaucracy to a minimum should be the motto to adopt, particularly if the challenge is to facilitate legitimate cargo while scrutinizing high-risk ones.

As briefly discussed, it is extremely hard to physically safeguard global containerized cargo. Conducting 100% inspection or even entertaining the idea of increasing the current physical inspection rate of 2% without halting the international flow of commerce is just impractical, not to mention economically suicidal. The gridlock at marine terminals, traffic congestion around the ports of entry, and warehouses running

out of space would just be too much to bear. It would run both the global and the domestic economy into the ground. So, what is the alternative to addressing this trade-balancing conundrum? The optimal way to simultaneously secure and facilitate global trade would be through a strong international cooperation. As prominent experts in global supply chain security management have pointed out, the international community should come together and work collectively to ease the pressure on customs organizations by taking cooperative steps to corroborate the legitimacy and to uphold the integrity of the transnational flow of goods from their points of origin and throughout the supply chain (Bryan and Flynn 2002, 7). Fostering an international collaboration among nation-states and a partnership with the private sector is probably the most optimal way to “inspect” the movement of cargo around the world.

The international community should also come together to harden their efforts in developing, implementing, and enforcing “smart sanctions” against “rogue” states (Hellquist 2003, 16). If all the contiguous countries come to a consensus to sever their commercial ties with Afghanistan, the external and internal pressures could become so unbearable to the Afghan people that they would deliver Bin Laden themselves. There are other ways besides military intervention to capture the mastermind of the 9/11 attacks and to fight terrorism. But then, we have Cuba. The skeptics will be quick to point out whether the U.S. embargo on this little island nation for the past 40 years has really worked. The answer will depend on one’s interpretation of what Cuba has become since the imposed sanction.

In this age of global terrorism and globalization, trade security and trade facilitation are not mutually exclusive. They must coexist and operate under an inclusive

collaboration and an international one as well. Their existence depends on such an alliance. International cooperation is the means that will bring the trade facilitation and security agendas together. Perhaps through international bodies such as the WTO, UNICE, and WCO, we might reach a sophisticated compromise. The WCO Kyoto convention is a perfect example that international collaboration is attainable and international policies and programs can coexist as long as everyone is on the same page and willing to make it happen.

The operative word in composing cooperative strategies, policies, and programs is collaboration. The policy aimed at the idea of balance was to increase the level of alliance among members of the intelligence community, among governments, between the public and private sector, within the law enforcement community, and in the international arena. Programs tailored to enforce such an ambitious policy will need to take into consideration both domestic and foreign geopolitical challenges.

The policy that mandates the accurate and timely electronic transmittal of cargo data to customs is a good example of a sound collaborative policy. This policy makes sense because it is practical, applicable, and enforceable. The 24-hour rule policy was developed to assist in the balance between trade facilitation and security. Not only was this policy well developed, but it was also well implemented. Under the 24-rule, sea carriers and non-vessel operating common carriers are required to provide customs with detailed information of the contents inside an ocean freight container 24 hours before it is loaded onto a vessel destined to the United States, giving enough time for containers to be vetted for examination. It is a policy that is practical in nature and contains most of the elements of cooperation (B to G, law enforcement, and international).

**Policymakers should encourage information sharing, but weigh on the side of caution when dealing with intelligence sharing.** The business of intelligence gathering is secretive and deceitful in nature, independent of whether the source is based on human intelligence (HUMIT), signal intelligence (SIGNIT), image intelligence (IMIT), or signature intelligence (MASINT) (National Security Agency 2008). Choosing cooperation in terms of international intelligence sharing as a policy option does not come without reservations. Sovereignty infringement as well as national interests comes to mind. Sharing intelligence with foreign governments is a hard practice to be performed in a truthful and fruitful manner. Domestic intelligence sharing is another question.

Not only should cooperation in the realm of domestic intelligence sharing be fostered, but it should also be statutorily mandated. The 9/11 tragedy was the biggest U.S. intelligence failure thus far. No warning about hijacking commercial airlines to be used as missiles to attack the U.S. was ever remotely entertained by the U.S. intelligence community. That is not to say that no one in the U.S. government knew about the possibility of using an airplane as a means to carry out terror attacks. There was speculation within the U.S. law enforcement community that the FBI knew about it, but somehow, the information got entangled in the web of bureaucracy at the FBI headquarters. The FBI knew by 1996 of a specific terrorist threat that Al Qaeda might be using a plane to carry out a suicide attack against federal buildings in the U.S. (Shenon 2002). In any event, finger-pointing as to whom to blame for the 9/11 attacks will not undo the tragic events of 9/11; however, we can learn from the mistakes.

In order to avoid another unfathomable tragedy of 9/11 proportion, the White House in concert with the Congress, should create a centralized information hub within

DHS that brings both the intelligence and law enforcement community together to collectively gather information from across the board, analyze it, and share with others on need-to-know basis. However, the information collected should be specifically classified and partitioned into four different categories and compartments: (1) domestic intelligence; (2) foreign intelligence; (3) law enforcement intelligence and information; (4) national security intelligence and information (Richelson 1999). This information should be available to be used interchangeably and appropriately with oversight in place. This DHS fusion center should closely interact with the Defense Intelligence Agency (DIA), the Central Intelligence Agency (CIA), the National Security Agency (NSA), and the FBI<sup>2</sup> (Scardaville and Spencer 2002), or better yet, the Commander-in-Chief should direct the Secretary of DHS to work closely with the Attorney General from the DOJ, the Secretaries of Defense, Treasury, Transportation, and the heads of NSA, DIA, CIA, and FBI to collaborate with each other on the creation of this DHS fusion center. All information relevant to homeland security should be sent to the center and made accessible to federal, state, and local law enforcement agencies with homeland defense responsibilities (Dillon 2002).

To be effective and disciplined, this information hub must be able to maintain a combined intelligence database. Contributing departments and agencies should be able to access intelligence at a level consistent with their mission and security clearance. The proposed DHS information fusion center is different from the existing Office of the Director of National Intelligence (DNI). The main difference between these two entities

---

<sup>2</sup> FBI has become by statute to be the leading agency responsible for investigating terrorism, terrorist related crimes, and treason. As DHS was created to fight terrorism, it does make sense to transfer FBI, intact, from DOJ to DHS. But then, some may claim that we may be shifting too much power to one cabinet level appointee.

is the level of collaboration from the law enforcement community. In addition, while the director of DNI is the head of the Intelligence Community (IC), which is comprised of several intelligence agencies (Office of the Director of National Intelligence 2008), the DHS secretary would serve as primary liaison of the proposed fusion center. The principal role of the proposed DHS fusion center is to serve as the hub of information gathering, analysis, and dissemination to all actors from all levels of the government, as well as foreign governments (when warranted), and not just limited to serve the intelligence community. This proposed DHS information hub also differs from the current office of DNI, in terms of level of operation. While the director of DNI serves as the principal advisor for the President and the National Security Council in intelligence and national security matters, acting in a similar capacity of the director of the Office of National Drug Control Policy (Drug Czar), the DHS secretary would play a more active and hands-on type of role. A good analogy to describe the relationship between DNI and DHS is the relationship between HQ and the field office, where the office of DNI would be the HQ and DHS would be the field office, despite being a department and the DHS secretary, a cabinet level appointee.

The proposed DHS information fusion center would operate similarly to the current DHS Office of Intelligence and Analysis (I&A). The DHS I&A is a member of the national IC that ensures that information related to homeland security threats is collected, analyzed, and disseminated to all the actors from both the private and the public sector involved in securing the homeland. The DHS I&A is primarily comprised of intelligence branches from CIS, USCG, CBP, ICE, and TSA. The main difference between DHS I&A and the proposed DHS fusion center is the level of participation from

the law enforcement community along with the type of information that is being collected. The primary focus of DHS I&A is on intelligence as related to a series of threats ranging from border security to radicalization and extremism to infrastructure to usage of WMD, while the proposed DHS fusion center would deal with a gamut of information not just limited to intelligence and national security information, but also to law enforcement sensitive information, trade information, cargo information, passenger list information, regular mail information, e-mail information, banking information, and the list goes on. The primary role of the proposed DHS fusion is to narrow down the gap between the intelligence and law enforcement communities.

Improving information and intelligence sharing, cutting the red tape among users, overcoming obstacles of legal, regulatory, and procedural issues, increasing partnerships and outreach efforts between traditional sectors (public and private) and across levels of government (local, state, federal), and collaboration across disciplines will make the efforts in attaining a balance between trade facilitation and security more effective.

Perhaps the key to making information sharing viable and efficient is through transparency, but never sacrificing national interest. By making the entire process of information dissemination more transparent and better safeguarded, we might be able to minimize the level of mistrust and maximize the efforts in protecting and promoting global trade.

#### Human Capital

**The policymakers should be strengthening the human capital factor.** When it comes to devising effective strategies, policies and programs, personnel quality matters.



Leaders, managers, and workers working in sync will substantially increase the odds of formulating constructive and forthcoming practices. When it comes to striking the right balance between trade facilitation and security, it is of the utmost importance to recommend human capital enhancement as a policy option. After all, human resource is the foundation for delivering an agency's mission and its strategies.

Strengthening human capital resources is to culminate the best hiring practice, the best promotion practice, and the best retention practice. A combination of these three elements is what will bring closer the prospects of attaining the right balance. Best hiring practices should incorporate on the spot hiring principles, especially to fulfill entry-level positions.

On the spot hiring with a minimal job qualification, an intensive interview process, and a mandatory year's probation is an efficient way to accelerate the hiring process without compromising the integrity of the hiring practice. A new hire's true work ethic and aptitude for the job will emerge with time. Hiring through the traditional interview process does not reveal much other than to provide a snapshot of the applicant. Furthermore, letting go an untrained and probationary employee is much easier and cost-efficient than firing a permanent and trained staff. The money and time saved in training and lawsuits could be worthwhile. If such a hiring proposal is a farfetched proposition, at least, other efforts to streamline the hiring process should be considered.

A hiring practice that incorporates diversity and promotes first-rate training is a good way of enhancing the workforce. The federal government hires individuals of all backgrounds. Prior of being civil servants, they were once accountants, computer scientists, engineers, journalists, lawyers, mathematicians, mechanics, office managers,

police officers, political scientists, soldiers, teachers, technicians, and so on. In that sense, there is a true need to better screen and capitalize in-house talents. Having a diverse workforce should give us the advantage to utilize their inherent skills to fulfill the need to run intricate operations, to support R&D, to better manage the budget, to teach, to market, instead of just contracting out these functions. Contractors may have the in-depth technical knowledge, but they lack corporate knowledge. This author truly believes that we have people in the government who possess both technical and corporate capacity to work on complex programs such as those aimed at balancing trade facilitation and security. So why contract it out when we can very well utilize in-house talents. More importantly, we may have a workforce that is eager to expand their professional horizons and willing to learn new traits and skills. To meet the demand of striking a balance in global trade, we don't need to look further, much less outsource. All it is needed is to provide first-class specialized training to those who want to learn a new set of skills.

The other source of the workforce that can be utilized in terms of assisting in striking a balance to such a thorny issue is the cadre of former government employees and leaders who could be rehired as contractors or advisors. It is comforting to know that there already exist programs such as the rehired annuitant plan in place at CBP and ICE to retain this pool of talented and experienced individuals. These are the types of contractors that we need to be hiring and not just the ones with technical expertise. All we need is to expand programs of such nature.

Best hiring processes need to be complemented by best promotional and retention practices. As promotion is the natural transitional step within a career path, promoting competent people is the key to carrying out an agency's mission. Leaders and managers

alike are what will drive the workforce. Developing a more in-depth career path and leadership programs is essential in making the workforce more proficient, proactive, and prolific.

As striking the balance between trade facilitation and security is directly correlated to DHS' mission, human capital challenges that this newly created department faces as it merges the workforces of legacy agencies, is a crucial concern to raise. Although it is important to determine if CBP and ICE supervisory promotions have been proportionally distributed between legacy agencies, more importantly is to independently evaluate and review each ICE and CBP promotional decision for job competency and competitiveness. It is of the utmost importance to stop the vicious cycle of promoting unfit individuals independent of their agency affiliation to supervisory positions as it directly impacts the agency's mission, and in this case, the policies and programs tailored to the trade-balancing issue. Current leadership in both ICE and CBP must be vetted for competency, as chronic problems still exist since its formation.

To add-value to the above argument, as for CBP and ICE career paths, policymakers should consider reinstating the seniority system where the status of a senior officer or agent was earned on merits and not automatically given with time. In the pre-DHS merge days, to become a senior special agent, one had to successfully conduct complex cases, to possess advanced investigative skills and knowledge. To be a senior inspector (officer), one had to be well-versed in several disciplines within customs or immigration, to be knowledgeable in complex inspectional procedures and laws. In other words, the senior position was competitive. The current policy in place grants any agent or inspector the right to become a senior agent or senior inspector without possessing any

basic senior qualifications. By instilling the seniority system, one has to be a senior agent or officer first in order to qualify and compete for a supervisory position; therefore, diminishing the prospect to promote unqualified supervisors in the workforce. Seniority plays an important function in our society, as many respected institutions such as the Congress and military services value. Junior senators, freshman congressmen, and junior officers are made to recognize and respect such ranking system. There is a reason behind having a hierarchy in place. As of now (2008), DHS, particularly in CBP and ICE, lacks enforcement of the seniority system.

It is also not uncommon to find supervisors overseeing people, programs, and policies that are not within their domain of expertise, whether it is customs, immigration, or agriculture. And that is a problem. Finding managers who are well versed in multiple disciplines or even who possess the fundamentals of being a manager is indeed a challenge itself. Common sense would dictate to properly match one's set of skills with the appropriate task. But, this is far from being the case. Some top managers believe that putting in place a supervisor with an immigration background to manage customs affairs is a good practice, as it will force that supervisor to learn a new set of skills. Unfortunately, it will take time and willingness for that supervisor to learn a new discipline, which is, in itself, a complex matter to begin with, and time is one luxury that we don't have when fighting terrorism.

The lack of experienced managers today is seriously undermining the competitiveness of tomorrow's workforce. To address such a conundrum, a promotional SOP should be encouraged. A "box checking" promotional approach should be applied, emulated, and enforced. For instance, in order to be a special agent in charge in the field,

one has to check the box to be first a senior special agent, a group supervisor, an assistant special agent in charge, with each assignment lasting at least 3 years; a tour in HQ, in the internal affairs division, or an overseas post, as a part of the promotional process should also be imposed. Such natural job transition will not only prepare someone for the “top” job, but it will also project a sense of fairness and structure in the overall promotional process and restore a sense of confidence to those who occupy the senior managerial positions that they are actually qualified for the job. If such promotional guideline were to be in place, adopted and enforced, promotions based on nepotism, agency affiliation, sexual favors, blackmailing, and quota would be kept to a minimum, as a promotional standard would be set forthright. Such a promotional SOP, if respected and enforced, would keep the level of attrition and defiance within the workforce to a minimum and the level of the productivity to a maximum.

In the matter of political appointees, however understandable, as each administration brings its own agenda and loyalists, what is not understandable is to appoint someone who doesn't even meet the minimum qualifications for the job. Those are powerful positions that can really impact an agency from the top to the bottom and in all aspects. The ideal is to appoint someone who is at least knowledgeable about the job, familiar with the culture of that particular agency, and who possesses the basic managerial qualifications. If such an ideal is too ambitious to attain, at least, efforts should be made to consult with the Senior Executive Service (SES) management from that agency to pick the best political appointee for the job. Although congressional approval for those jobs is important, it is not far from being enough. Congress doesn't have an inside picture as a career SES manager from that particular agency would have.

The senior executives are the ones who really have the pulse of an agency, especially those who got promoted through the ranks. Therefore, senior level management approval is imperative. Political appointees who are being endorsed by career SES managers will bring with them confidence, credibility, and cooperation when they assume those high level positions. Continuity and credibility are the marks of a healthy agency, which translate to a productive and proud workforce. Keep in mind that it is the personnel who develop and carry out the strategic goal of an agency.

In the overall spectrum of best hiring and promotional practices as pertaining to human capital enhancement, more qualified leaders that check the promotional boxes is what is needed. Efforts in hiring the right people for the right job should always be applied, but more important is how to retain them. Corporate knowledge is just too valuable of an asset to vanish. Financial rewards, flexible working schedules, effective leadership, rehire mechanisms, and career mobility incentives are the few bargaining chips that can be used to retain quality people.

For the DHS workforce to emerge from the bottom three in on job satisfaction and performance to becoming a highly competitive workforce, this author would propose to revamp parts of the DHS infrastructure. Part of the proposal would be to create a new agency under the BTS [Border and Transportation Security] directive that would be called the Office of Border Security (OBS) in DHS, abolish CBP, ICE, and CIS, and reinstate the legacy structures of USCS and INS, by re-merging them independently and collectively into OBS, the same way that we have merged the Coast Guard and Secret Service into DHS, intact.

Not to elaborate in great detail, FPS would be removed from the abolished ICE and put back with General Services Administration (GSA), while keeping the post merged APHIS structure (agriculture inspection) with the customs organization, but as a specialized workforce. This way one will have all the border missions, structures, and functions independent but working dependently with each other, under the control of one Border Czar, the director of OBS, where the legacy USCS, legacy INS, and Coast Guard will share the same budget and resources. This would mean no more singular systems. No more Customs, INS, Coast Guard's IT, management, and payroll systems, but OBS systems that will be shared by all OBS components. More importantly, this Border Czar will be different from other Czars, as he or she will have real power, a real budget to operate, a real agency to manage, and not just to serve as a chief advisor on border matters to the president.

Within OBS, one would find the legacy agencies and Coast Guard under one umbrella (the new ICE and CBP personnel will be redistributed according to the OBS' needs), a little variation of what the Rudman Commission proposed that was to integrate the Coast Guard, the USCS, and the U.S. Border Patrol into the FEMA [Federal Emergency Management Agency] to form a new Department of National Homeland Security. At that time, it made sense since Coast Guard was under the Department of Transportation, the Customs Service was located in the Department of the Treasury, and the Immigration and Naturalization Service that oversaw the Border Patrol was with the Department of Justice. However, it did not make sense to use FEMA as the "mother" agency to bring all these border agencies together, as FEMA primarily deals with natural catastrophes. OBS makes more sense because it uses "border" as the common

denominator and not “catastrophe” as the building block. This is similar to the approach used to create the DOD, where the operative word was “military,” uniting all the armed forces under one umbrella. Only then, one can only hope that we will be one step closer in promoting the “one face at the border” initiative in terms of concept and conduct. As for now, one thing is for sure, and this author certainly agrees with Deborah Meyer that “it is clear that “one face at the border,’ which has been primarily an organizational and management change, cannot enhance facilitation or security on its own.”

#### First Response Preparedness (Contingency Plan)

**Policymakers should undertake first response preparedness policy as the first policy option to develop and implement,** adding meaning to the proverb of preparing for the worst and hoping for the best. We would be downright naïve if we did not develop and implement such strategic policy from the “get go.” The reason behind is that it has already happened more than once. Terror attacks in the U.S. did not start on September 11, 2001. If one carefully studies the intricate history of terrorism, both Israel and the United Kingdom, as well as other nations, have been living and dealing with this phenomenon for years, and one lesson learned is that terrorism keeps coming back. History repeats itself. Therefore, making the first response plan is a matter of necessity rather than of choice.

When developing first response policies and programs, it should not be tailored to just respond to a terrorist attack, although it would be a good starting point of preparation, as the standard would be set high. First response strategy must address both man-made and nature-made catastrophes. DHS response to the Hurricane Katrina was a



clear example to indicate that FEMA was ill-prepared (Lake 2007) and that DHS did not have an adequate first response policy and program in place to overcome such a challenge.

If all else fails, we must be prepared to (1) minimize the casualties and destructions from the attack; (2) counterattack in full force; (3) put the most effective rebuilding mechanisms in motion; (4) resume immediately the normal activities. The most important element in the preparedness and response strategy is to resume to normal activities as quickly as possible. We must send a strong message to those who want to do harm that we are unfazed by it. Israel and England have set efficient protocols to be resilient against terror attacks; they bounce right back to business as usual. Showing resilience is the key here. Fighting terrorism is, above all else, a mind game rather than just a war game. Terrorism is a psychological warfare, aimed to intimidate and terrorize people.

Although the topics of expectation and media are not covered in the playbook of recommendations, they are nonetheless worthwhile to mention. One fact that we need to understand and accept is that there is no silver-bullet resolution to address the balance between trade facilitation and border security. Perhaps the most proper and promising approach to better addressing such a dilemma is to manage under the minimization concept.

The minimization concept operates under the pretenses of both risk management and risk assessment with a genuine and reasonable expectation of long and short-term resolutions. Protecting the global supply chain shares great similarities in terms of challenges and resolutions to issues similar to illegal immigration and drug trafficking.

They all share the bulging balloon phenomenon, squeeze here and bulge there. As long as there is demand, there will always be a supply. Problems of such magnitude also shared limited human and financial resources. To address these types of problems is to accept the fact that there are certain challenges in life that will never be solved 100%. When it comes to finding resolutions to address these dilemmas, we have to accept the fact that we cannot completely curtail them, but we can only minimize the expectations of solving it to an acceptable level. If someone is willing to die for his/her beliefs and causes, we can only minimize the damages and maximize the efforts in becoming a hard target.

We can also maximize the exposure of the trade-balancing issue through the power of the media, as we live in a media driven society. But it is easier said than done. High-profile Flynn has been known to expose maritime insecurity for years, but coverage with worthwhile responses was few and far between. Then, the United Arab Emirates (UAE) attempted to acquire U.S. ports. All of the sudden, maritime security became a headline on major newspapers and national news. Many U.S. ports are foreign owned and many Middle Easterners have investments in the U.S. But, the difference between then and now is in the level of media coverage that has fueled the controversy of an Arab owning properties in the U.S.

No one doubts that the media conglomerate is the gatekeeper for exposure. Without its endorsement, an idea may never thrive. Although coverage is important, more important is to personalize the information to the point that people in power can identify and relate to it. When decision-makers connect to an issue, the better will be the chance to resolve it.

In short, this author suspects that the media represents the fourth branch of power along with the executive, legislative, and judiciary. If we can convince the media moguls to embrace the idea of balancing trade facilitation agenda with security concerns, then more than half of the battle is won.

Unquestionably, the 9/11 tragedy was a devastating episode in American history. In the World Trade Center, New York City, New York, the official death toll was 2751. At the Pentagon, Arlington County, Virginia, it was 184 lives. In Shanksville, Somerset County, Pennsylvania, there were 40 fatalities - a total of 2975 casualties to be remembered in the anniversaries of 9/11 (CBS News 2008). Seven years have passed, and the death tolls in the aftermath of 9/11 have surpassed the 9/11's casualties. As of September 10, 2008, the U.S. death toll in the Iraq war was 4,158, and in the Afghanistan war, it was 583, and that is not even taking into account the number of allied forces fatalities, the physically and mentally wounded, the number of dead civilians, and the number of dead Iraqis and Afghanis (U.S. Department of Defense 2008). Worst of all, the one who has claimed the responsibility for the 9/11 tragedy, Osama Bin Laden, is still alive and free to roam the world.

For those who believe that the event of 9/11 attacks was equated to the Pearl Harbor attack and was in effect an act of war, then the 9/11 catastrophe can be used as a justification for change. As a catalyst for change, the most visible change was the creation of the DHS followed by its one-track promotion of the U.S. homeland security mission, strategies, policies, and programs. However, for those who believe that the 9/11 attacks were just a tragic event and it should not be perceived as an act of war, then the rationale for changes at home and abroad are unjustified. Independent of what one comes

to believe whether it was an act of war or an act of terror, or both, the 9/11 event has shattered America's sense of vulnerability, as the U.S. is no longer physically immune from terror attacks.

This author believes that we should minimize the notion that everything revolves around the 9/11 cataclysm. This assertion is not to discredit the importance of the 9/11 calamity, but to stop giving so much credibility to terrorists. We must not allow the event of the 9/11 attacks to redefine the changes that take place around us. Changes can be triggered by other factors of life besides terror attacks. We must minimize the 9/11 overexposure and exercise prudence when it comes to developing and implementing security directives in a manner that it does not turn into an obsession to the point that interferes with the U.S. and the rest of the world's order and progress. On the same token, we should always remember, respect and reflect on what happened on September 11, 2001.

Today's world leaders must make the case that the need to simultaneously protect and promote is in response to the infrastructural enhancement needs, rather than just a knee jerk reaction triggered by terrorism. They must convey the message that measures aimed at the trade-balancing challenge are being taken to strengthen the global transport network, to modernize trade procedures, to eliminate inefficient and unnecessary customs practices and not as just a reaction to acts of terror. They must make clear to the public, to politicians, and to policymakers that terrorism is not the only potential culprit of interrupting the global supply chain.

## Conclusion

As the world becomes more interconnected, so does the level of volatility. Living in this age of globalization, there are vulnerabilities and concerns that need to be properly addressed. One such vulnerability is the threat of terrorism in today's global trading system. One such concern is how to strike the right balance between trade facilitation and security. This author makes the argument that the idea of finding a balance between trade facilitation and security is correct; however, it is within the formation and execution of policies and programs tailored to this strategy where things can go wrong.

It is more in the implementation rather in the development phase where challenges emerge with distinction. Throughout this dissertation, more specifically in chapters IV, V, VI, VII, this author has attempted to analyze in great detail all the relevant policies and programs tailored to such a strategy. The US – CTPAT [Customs Trade Partnership Against Terrorism], the EU – AEO [Authorized Economic Operator], and the WCO – FoS SAFE [Framework of Standard Secure and Facilitate Global Trade] are the ones that best illustrate the above argument. They are, in part, all well-intended programs, as they incorporate the concept of (B to G) partnership and the supply chain choke point type of security. However, when it comes to implementing them in a real world setting, problems emerge. For instance, the CTPAT program falls short in the validation process.

This dissertation offers several findings. Generally speaking, with so many diverging opinions on the trade-balancing issue, one fact remains undisputable, subject experts share the consensus that a dilemma in the domain of global trade exists. The number of solutions, the variety of resolutions, and the level of duplication in problem

solving strategies strengthen the point that this is an important matter to address. One can also conclude that there is no easy or single solution to address the trade-balancing dilemma, as the issue is multi-faceted, multi-jurisdictional, and global. Thus, the consensus is that we all have correctly identified the problem. However, we differ in how to best overcome it.

The specific findings are based on the analyses of case studies and the elite survey. On the national level, with respect to the U.S., when it comes to addressing the trade-balancing concern, the U.S. customs has taken a more monopolistic, unilateral, and security-oriented position, as the majority of its policies, programs, and strategies will reflect. As for the Hong Kong government, the Hong Kong Customs & Excise Department has taken a very calculated approach on the issue. Its main concern in terms of the trade-balancing concern is to not upset the private sector and China. The HKSAR [Hong Kong Special Administration Region] values its position as the primary trading partner with the “Mainland.” However, it fails to understand that without proper security measures in the global trade system today, disruption in the global trade will be just a matter of time. As for New Zealand, the New Zealand Customs Service’s approach to the trade-balancing challenge is to go along in order to get along. When the New Zealand government was not able to join the CSI – a trade/security initiative, it came up with their own version of CSI, called the SCSS [Supply Chain Security Strategy]. Independent of the reason behind in developing its own version of programs, whether it is to protect the public or satisfy the private sector’ interests, the New Zealand Customs Service wants to actively be part of the solution, rather than standing on the sideline like Hong Kong. The New Zealand government has proven to be a significant ally to the U.S. and the WCO in

all aspects, whether it is security or trade. As for Canada, the Canadian government has truly demonstrated its commitment to be a genuine U.S. partner when addressing the trade-balancing issue. The amount of programs that fosters partnership between US and Canada and the amount of self-initiated programs, spearheaded by the CBSA [Canada Border Services Agency], the new Canadian Customs, have proven to be imperative in the effort to balance trade facilitation with security. A good indication that Canada is as committed as the U.S. on the trade-balancing issue is through the level of similarity that its departments and agencies entrusted to address trade and border security underwent. Such similarity was unparalleled when compared with other countries.

On the regional level, the EU has developed its own style of addressing the trade-balancing issue, which was not always in concert with the U.S. One example of such inference, as previously stated, would be to point out that when the U.S. Congress proposed to examine 100% of the containers arriving to the U.S. ports, the EU immediately denounced such an idea, and declared that if this proposal were adopted, retaliation would follow.

On the global level, the WCO has developed a universal approach to balancing trade facilitation with security expressed in the FoS SAFE [Framework of Standard Secure and Facilitate Global Trade]. The WCO has always maintained a good record in addressing global trade matters. The WCO was very successful in streamlining customs processes, such as modernizing customs procedures and harmonizing the tariff code, but less so in promoting the trade-security initiative FoS SAFE. Based on the elite survey, 94% of the elite survey participants believe that the customs administration is the appropriate governmental agency to spearhead such an effort since we are dealing with a

global issue that is highly related to customs matters. However, only 68% of the elite survey participants believe that the WCO ought to be the ultimate entity leading such an effort. Once, the survey participants learned that the WCO did not have any enforcement authority, the number dropped to 38%.

As for the private sector's view on this issue, the opinions and approaches taken on this subject matter vary in kind and degree. There are those who continue to view security measures as hindrances to trade facilitation, such as individuals from the U.S. Chamber of Commerce. There are others who take a more moderate approach, who advocate a modernization of trade practices, especially the ones that opt for a dual-usage approach, such as the usage of RFID [Radio Frequency Identification devices] in supply chain management. Wal-mart is a great example of a private entity that fosters the usage of RFID technology for inventory purposes, which in turn, can also be used to secure the supply chain.

Despite the fact that several actors, such as found within nation-states, IGOs, NGOs and private institutions, have made the efforts of formulating and applying policies and programs tailored towards the trade-balancing dilemma, more needs to be done. The way that we should be approaching the trade-balancing concern is to put more emphasis on "trade facilitation," as it is more marketable. Balancing trade facilitation with security is indeed a paradoxical issue. Given the fact that security measures are naturally perceived as a hindrance to trade facilitation, it is difficult to imagine that by securing global trade, one will be facilitating it; as it will free authorities responsible for regulating and enforcing trade practices to focus more on the illicit side of trade while facilitating the legitimate side of it. In time, as the technology evolves, trade facilitation and security



may come to complement each other. Over time, striking the right balance will become more viable, as differences in international cooperation will lessen with the advances in technology.

By no means is this dissertation to be interpreted as a scare tactic, but at the same time, we must be mindful that we do live in a more perilous time. Due to the amazing advances in the fields of nuclear, biological, chemical, and cyber technology, the quality of life has considerably improved, and so has the level of danger and destruction. With the breakdown of the Soviet empire, the threat of nuclear attacks has become accentuated, as the trafficking of nuclear materials is more viable. With the evolution of information technology, the threat of cyber attacks is no longer confined to the fictitious video games and Hollywood action movies. And the World Health Organization alert on natural pandemics has given us a preview of what man-made bioterrorism can cause. Thus, the purpose of this dissertation is to inform people that today's degree of threat and tragedy is much higher than that of yesterday. Today's civilization can easily come to an end with a push of a button or a click of a mouse. Unfortunately, the technological evolution in weaponry (from rocks to arrows to bullets to nuclear bombs) has put our life in greater peril. Compounded with today's ongoing wars and the threat of more wars, along with the current global financial crisis, the time has really come to address challenges of worldwide repercussion, before it is too late.

## Appendix A (Survey)

My name is C. J. Chang. I am a Rutgers University Ph.D. student majoring in Global Affairs. I am conducting a survey entitled **“How do Customs organizations, particularly the United States (US) Customs and Border Protection, strike a balance between trade facilitation and security?”** I have prepared a series of questions related to the above topic. This study is in part sponsored by a National Science Foundation grant. My interest in this subject matter stems from my commitment to raise the level of awareness about the importance of protecting today’s global supply chain as well as present sounding resolutions to the dilemma in question. For those who are interested in reading more about this topic, an abstract of my dissertation can be provided. I appreciate you taking the time to complete this survey. Your contribution will be confidentially kept and will be only used for statistical purposes.

**General: From a scale of 1 to 5: 1. as none; 2. as low; 3. as average; 4. as high; 5. as highest. How would you score the following:**

1. How would you rate your level of interest when it comes to addressing the issue of striking a balance between trade facilitation and security?

Score:

Comments:

2. How would you grade the level of significance in addressing the possible vulnerabilities found in international trade compared to potential vulnerabilities found in other types of infrastructure, such as nuclear power plants, global communication networks, or mass transportation systems, to name a few?

Score:

Comments:

3. How would you rank the use of technology in dealing with the balance between trade facilitation and security in comparison to other possible resolutions, such as fostering international and Business to Government (B to G) cooperation; domestic and international information sharing; optimal recruitment and training; and corporate knowledge retention and dissemination?

Score:

Comments:

- a. Are you familiar with Radio Frequency Identification Device (RFID) technology? (yes/no):

Comments:

If yes,

- b. We know that RFID has at least dual usages. The technology can both meet the needs of the private sector in terms of supply chain/inventory control and the demands of governments as a tracking and detection device. How would you rate the value of the usage of RFID to address the balance issue between trade and security?

Score:

Comments:

- c. The two main concerns when it comes to implementing RFID are the matters of privacy and data security. Do you think the benefits that come from implementing this type of technology offset the downfalls? (yes/no):

Comments:

4. How would you rate the level of involvement of governments in terms of leading the effort of striking a balance between trade and security?

Score:

Comments:

5. Do you believe that the Customs administration is the appropriate governmental agency to spearhead such an effort? (yes/no):

Comments:

a. Do you believe that the World Customs Organization (WCO) should be the ultimate entity leading such an effort since we are dealing with a global issue? (yes/no):

Comments:

b. By not having a true enforcement authority, do you believe that the WCO is capable of leading such an effort? (yes/no):

Comments:

6. How would you rate the level of involvement of the private sector in leading the effort of striking such a balance?

Score:

Comments:

7. Should both the government and the private sector share the responsibility of striking such a balance?

(yes/no):

Comments:

8. In your opinion, is it possible to share real intelligence and foster genuine international cooperation given the complexity of nation-state geopolitics?

(yes/no):

Comments:

9. How would you rate the level of effectiveness for both government and the private sector in setting long and short terms goals in terms of creation, change and implementation of rules and regulations aimed to strike a balance between trade facilitation and security?

Score:

Comments:

10. How would you grade the level of redundancy, if any, based on the current local, national, regional, and international responses when it comes to addressing the balance issue?

Score:

Comments:

11. What is the likelihood for an Improvised Explosive Device (IED) or a Weapons of Mass Destruction (WMD) be used to disrupt global commerce?

Score:

Comments:

## Appendix B (Acronyms)

<b>ACCS</b>	<b>Air Cargo Clearance System</b>
<b>ACE</b>	<b>Automated Commercial Environment</b>
<b>ACI</b>	<b>Advance Commercial Information</b>
<b>ACSI</b>	<b>America Counter Smuggling Initiative</b>
<b>AEO</b>	<b>Authorized Economic Operator</b>
<b>APEC</b>	<b>Asia Pacific Economic Commerce</b>
<b>BASC</b>	<b>Business Anti Smuggling Coalition</b>
<b>CBP</b>	<b>Customs and Border Protection</b>
<b>CBSA</b>	<b>Canada Border Services Agency</b>
<b>CCRA</b>	<b>Canada Customs and Revenue Agency</b>
<b>CFIA</b>	<b>Canada Food Inspection Agency</b>
<b>CIC</b>	<b>Citizenship and Immigration Canada</b>
<b>CIP</b>	<b>Carrier Initiative Program</b>
<b>CIS</b>	<b>Citizenship and Immigration Service</b>
<b>CSA</b>	<b>Customs Self Assessment</b>
<b>CSI</b>	<b>Container Security Initiative</b>
<b>CTPAT</b>	<b>Customs Trade Partnership Against Terrorism</b>
<b>DHS</b>	<b>Department of Homeland Security</b>
<b>DOD</b>	<b>Department of Defense</b>
<b>DOE</b>	<b>Department of Energy</b>
<b>DoP</b>	<b>Declaration of Principles</b>
<b>EC</b>	<b>European Commission</b>
<b>EU</b>	<b>European Union</b>
<b>FAST</b>	<b>Free and Secure Trade</b>
<b>FEMA</b>	<b>Federal Emergency Management Agency</b>
<b>FBI</b>	<b>Federal Bureau of Investigations</b>
<b>FoS SAFE</b>	<b>Framework of Standard to Secure and Facilitate Global Trade</b>
<b>GAO</b>	<b>Government Accountability Office</b>
<b>HKSAR</b>	<b>Hong Kong Special Administration Region</b>
<b>ICE</b>	<b>Immigration and Customs Enforcement</b>
<b>IED</b>	<b>Improvised Explosive Device</b>
<b>IGO</b>	<b>International Government Organization</b>
<b>INS</b>	<b>Immigration and Naturalization Service</b>
<b>IPSP</b>	<b>International Port Security Program</b>
<b>ISPS</b>	<b>International Ship and Port Facility Security</b>
<b>MTSA</b>	<b>Maritime Transportation Security Act</b>
<b>NAFTA</b>	<b>North America Free Trade Agreement</b>
<b>NGO</b>	<b>Non Governmental Organization</b>
<b>NII</b>	<b>Non Intrusive Inspection</b>
<b>NTC</b>	<b>National Targeting Center</b>
<b>NVOCC</b>	<b>Non Vessel Operating Common Carriers</b>
<b>NZCS</b>	<b>New Zealand Customs Service</b>
<b>OIG</b>	<b>Office of Inspector General</b>
<b>OSC</b>	<b>Operation Safe Commerce</b>

<b>PD</b>	<b>Port Director</b>
<b>PIP</b>	<b>Partners in Protection</b>
<b>PGA</b>	<b>Participating Government Agency</b>
<b>PS</b>	<b>Department of Public Safety (Canada)</b>
<b>PVMQ</b>	<b>Physical Verification of the Manifested Quantity</b>
<b>RFID</b>	<b>Radio Frequency Identification</b>
<b>SAC</b>	<b>Special Agent in Charge</b>
<b>SCSS</b>	<b>Supply Chain Security Specialist</b>
<b>SES</b>	<b>Secure Export Scheme</b>
<b>SFI</b>	<b>Secure Freight Initiative</b>
<b>SOP</b>	<b>Standard Operating Procedures</b>
<b>TCU</b>	<b>Taxation and Customs Union</b>
<b>TSA</b>	<b>Transportation Security Agency</b>
<b>UN</b>	<b>United Nations</b>
<b>USCG</b>	<b>United States Coast Guard</b>
<b>USCS</b>	<b>United States Customs Service</b>
<b>VACIS</b>	<b>Vehicle and Cargo Inspections System</b>
<b>WCO</b>	<b>World Customs Organizations</b>
<b>WMD</b>	<b>Weapons of Mass Destruction</b>
<b>WTO</b>	<b>World Trade Organizations</b>

## Bibliography

9/11 Commission Report. 2004. *The 9/11 Commission Report: Final Report of the National Commission on Terrorist Attacks Upon the United States*, (Washington, DC: GPO, 2004), p. 83;

Asia Pulse. 2007. "Cotecna awarded US Safety Act Designation," Nationwide International News, September 5, 2007. Retrieved on September 15, 2008 at: [http://www.lexisnexis.com.proxy.libraries.rutgers.edu/us/lnacademic/results/docview/docview.do?docLinkInd=true&risb=21\\_T4747738512&format=GNBFI&sort=RELEVANCE&startDocNo=1&resultsUrlKey=29\\_T4747738570&cisb=22\\_T4747738569&treeMax=true&treeWidth=0&csi=157371&docNo=4](http://www.lexisnexis.com.proxy.libraries.rutgers.edu/us/lnacademic/results/docview/docview.do?docLinkInd=true&risb=21_T4747738512&format=GNBFI&sort=RELEVANCE&startDocNo=1&resultsUrlKey=29_T4747738570&cisb=22_T4747738569&treeMax=true&treeWidth=0&csi=157371&docNo=4);

Bolkestein, Frits. 2003. "EU Customs Policy Boosting Security and Modernizing Procedures. Europa Gateway to the European Union," Press Release, January 12, 2003. Retrieved on March 29, 2007 at: <http://europa.eu/rapid/pressReleasesAction.do?reference=SPEECH/03/584&format=HTML&aged=0&language=en&guiLanguage=en>;

Booz Allen Hamilton. 2002. *Port Security War game: Implications for U.S. Supply Chains*. (Washington: Booz Allen Hamilton, 2202), pp. 45-52;

Bryan, Anthony T. and Stephen E. Flynn. 2002. "Free Trade, Smart Borders, and Homeland Security: U.S. – Caribbean Cooperation in a New Era of Vulnerability," *The Dante B. Fascell North-South Center*, Working Paper Series No.8, September 2002;

Canadian Manufactures & Exporters. 2008 "Canada-US Border Requirements Impede Trade and Reduce North American Competitiveness: Border Coalition's Fourth Report," About Coalition. Retrieved on September 25, 2008 at: [http://www.cme-mec.ca/national/template\\_na.asp?p=104](http://www.cme-mec.ca/national/template_na.asp?p=104);

CBP. 2001. "BASCIing in success," U.S. Customs Today, August, 2001. Retrieved on August 18, 2008 at: [http://www.cbp.gov/xp/CustomsToday/2001/August/custoday\\_basc.xml](http://www.cbp.gov/xp/CustomsToday/2001/August/custoday_basc.xml);

CBP. 2002. "Remarks of Commissioner Robert C. Bonner: Safeguarding America, Washington, D.C.," Newsroom. Retrieved on March 20, 2007 at [http://www.cbp.gov/xp/cgov/newsroom/commissioner/speeches\\_statements/archives/2002/jun032002.xml](http://www.cbp.gov/xp/cgov/newsroom/commissioner/speeches_statements/archives/2002/jun032002.xml);

CBP. 2004. "\$24 Billion in Federal Revenue Collected by Customs and Border Protection Fiscal Year 2003 Tops 2002 by a Billion," Newsroom, January 14, 2004. Retrieved September 15, 2008 at: [http://www.cbp.gov/xp/cgov/newsroom/news\\_releases/archives/2004\\_press\\_releases/012004/01142004.xml](http://www.cbp.gov/xp/cgov/newsroom/news_releases/archives/2004_press_releases/012004/01142004.xml);



CBP. 2005a. "U.S. Customs and Border Protection - FAST Program," Newsroom. January 17, 2005. Retrieved on March 2, 2006 at:  
[http://www.cbp.gov/xp/cgov/newsroom/fact\\_sheets/trade/fact\\_sheet\\_fast1.xml](http://www.cbp.gov/xp/cgov/newsroom/fact_sheets/trade/fact_sheet_fast1.xml);

CBP. 2005b. "U.S. Customs and Border Protection Made Over 56,000 Illegal Drug Seizures, Nearly 2.2 Million Pounds, in FY2004," January 11, 2005. Retrieved on August 22, 2008 at:  
[http://www.cbp.gov/xp/cgov/newsroom/news\\_releases/archives/2005\\_press\\_releases/012005/01112005\\_2.xml](http://www.cbp.gov/xp/cgov/newsroom/news_releases/archives/2005_press_releases/012005/01112005_2.xml);

CBP. 2006a. "Commissioner Basham Speaks Before American Association of Exporters and Importers." Newsroom. June 13, 2006. Retrieved on August 27, 2008 at:  
[http://www.cbp.gov/xp/cgov/newsroom/commissioner/speeches\\_statements/aaei\\_conference.xml](http://www.cbp.gov/xp/cgov/newsroom/commissioner/speeches_statements/aaei_conference.xml);

CBP. 2006b. "Remarks of Acting Commissioner Deborah J. Spero, C-TPAT Conference," Newsroom. March 21, 2006. Retrieved March 21, 2006 at:  
[http://www.cbp.gov/xp/cgov/newsroom/commissioner/speeches\\_statements/03012006\\_ctpat\\_conf.xml](http://www.cbp.gov/xp/cgov/newsroom/commissioner/speeches_statements/03012006_ctpat_conf.xml);

CBP. 2006c. "Remarks of Acting Commissioner Deborah J. Spero, C-TPAT Conference," Newsroom, March 1, 2006. Retrieved on August 25, 2008 at:  
[http://www.cbp.gov/xp/cgov/newsroom/commissioner/speeches\\_statements/03012006\\_ctpat\\_conf.xml](http://www.cbp.gov/xp/cgov/newsroom/commissioner/speeches_statements/03012006_ctpat_conf.xml);

CBP. 2006d. "Privacy Impact Assessment for Automated Commercial Environment (ACE) e-Manifest: Trucks (ACE Release 4) and International Trade Data System (ITDS)," July 14, 2006;

CBP. 2007a. "U.S. Customs Service - Over 200 Years of History," History. Retrieved Dec. 25, 2007 at: <http://www.cbp.gov/xp/cgov/toolbox/about/history/history.xml>;

CBP. 2007b. "C-TPAT Frequently Asked Questions," Commercial Enforcement. June 26, 2007. Retrieved on Dec. 23, 2007 at:  
[http://www.cbp.gov/xp/cgov/import/commercial\\_enforcement/ctpat/ctpat\\_faq.xml](http://www.cbp.gov/xp/cgov/import/commercial_enforcement/ctpat/ctpat_faq.xml);

CBP. 2007c. "C-TPAT Third Party Validators Pilot Program Final Selection," Commercial Enforcement. April 26, 2007. Retrieved January 10, 2007 at:  
[http://www.cbp.gov/linkhandler/cgov/import/commercial\\_enforcement/ctpat/third\\_ptysel.ec.ctt/third\\_ptyselec.doc](http://www.cbp.gov/linkhandler/cgov/import/commercial_enforcement/ctpat/third_ptysel.ec.ctt/third_ptyselec.doc);

CBP. 2007d. "ACE Frequently Asked Questions," Commercial Enforcement. March 1, 2007. Retrieved April 9, 2007 at:  
[http://www.cbp.gov/linkhandler/cgov/toolbox/about/modernization/ace/ace\\_faq.ctt/ace\\_faq.doc](http://www.cbp.gov/linkhandler/cgov/toolbox/about/modernization/ace/ace_faq.ctt/ace_faq.doc);

CBP. 2007e. "The 2% Myth Automated System, Technology, People Screen Cargo for Contraband, Anti-Terror Initiative," Retrieved April 9, 2007 at: [http://www.cbp.gov/xp/cgov/border\\_security/antiterror\\_initiatives/2myth.xml](http://www.cbp.gov/xp/cgov/border_security/antiterror_initiatives/2myth.xml);

CBP. 2007f. "CSI in Brief: International Port Security," Retrieved on Dec. 23, 2007 at: [http://www.cbp.gov/xp/cgov/border\\_security/international\\_activities/csi/csi\\_in\\_brief.xml](http://www.cbp.gov/xp/cgov/border_security/international_activities/csi/csi_in_brief.xml) ;

CBP. 2008a. "CBP Americas Counter Smuggling Initiative (ACSI)." Retrieved on August 18, 2008 at: [http://www.cbp.gov/xp/cgov/border\\_security/international\\_operations/partnerships/acsi.xml](http://www.cbp.gov/xp/cgov/border_security/international_operations/partnerships/acsi.xml);

CBP. 2008b. "Canada Border Services Agency (CBSA) Surveys Show Positive Feedback on Nexus and FAST from Travelers and Truckers," May, 2008. Retrieved on August 18, 2008 at: [http://cbpnet.cbp.dhs.gov/xp/cbpnet/ofc/content/field\\_ops\\_news/cbsa\\_surveys.xml](http://cbpnet.cbp.dhs.gov/xp/cbpnet/ofc/content/field_ops_news/cbsa_surveys.xml);

CBP. 2008c. "Snapshot: A summary of CBP Facts and Figures," Retrieved on August 22, 2008 at: [http://www.cbp.gov/linkhandler/cgov/newsroom/fact\\_sheets/cbp\\_overview/cbp\\_snapshot\\_final.ctt/cbp\\_snapshot\\_final.pdf](http://www.cbp.gov/linkhandler/cgov/newsroom/fact_sheets/cbp_overview/cbp_snapshot_final.ctt/cbp_snapshot_final.pdf);

CBP. 2008d. "A Day in the Life of CBP – Fiscal Year '07 Statistics Published," Fact Sheet. Retrieved on December 20, 2008 at: [http://www.cbp.gov/xp/cgov/newsroom/fact\\_sheets/cbp\\_overview/fiscal\\_year.xml](http://www.cbp.gov/xp/cgov/newsroom/fact_sheets/cbp_overview/fiscal_year.xml);  
CBS News. 2008. "Official 9/11 Death Toll Climbs by One," July 10, 2008. Retrieved on September 11, 2008 at: <http://www.cbsnews.com/stories/2008/07/10/national/main4250100.shtml>;

CBSA. 2005a. "Laboratory Scientific Services Directorate," Media Room. April, 2005. Retrieved on November 25, 2007 at: <http://www.cbsa-asfc.gc.ca/media/facts-faits/035-eng.html>;

CBSA. 2005b. "National Risk Assessment Centre," Media Room. January 2005. Retrieved on November 25, 2007 at: <http://www.cbsa-asfc.gc.ca/media/facts-faits/039-eng.html>;

CBSA. 2006a. "Audit of the CBSA Transition Internal Audit Report. Reports," September 6, 2006. Retrieved on April 17, 2007 at: [http://www.cbsa-asfc.gc.ca/agency-agence/reports-rapports/ae-ve/2006/transition-e.html#\\_Toc136860843](http://www.cbsa-asfc.gc.ca/agency-agence/reports-rapports/ae-ve/2006/transition-e.html#_Toc136860843);

CBSA. 2006b. "Contraband Detection," Facilitating Trade. July 7, 2006. Retrieved on February 6, 2007 at: <http://www.cbsa-asfc.gc.ca/import/fast/menu-e.html>;

CBSA. 2006c. "The Customs Self Assessment Program," Facilitating Trade. July 7, 2006. Retrieved on February 6, 2007 at: <http://www.cbsa-asfc.gc.ca/prog/csa-pad/menu-eng.html>;

CBSA. 2007a. "Trade Security, Safety & Security," January 26, 2007. Retrieved on March 1, 2007 at: <http://www.cbsa-asfc.gc.ca/agency-agence/who-qui-e.html>;

CBSA. 2007b. "Working Together to Secure Our Borders, Safety & Security," January 26, 2007. Retrieved on March 1, 2007 at: <http://www.cbsa-asfc.gc.ca/security-securite/csi-irsc-eng.html>;

CBSA. 2007c. "Radiation Detection – Overview," Facilitating Trade. May 7, 2007. Retrieved on March 11, 2007 at: <http://www.cbsa-asfc.gc.ca/security-securite/detect/rad-eng.html#s04>;

CBSA. 2007d. "Contraband Detection," Facilitating Trade. January 26, 2007. Retrieved on March 11, 2007 at: <http://www.cbsa-asfc.gc.ca/security-securite/detect/02-eng.html>;

CBSA. 2007e. "Advance Commercial Information - Program Overview," Facilitating Trade. October 4 2007. Retrieved on March 11, 2007 at: <http://www.cbsa-asfc.gc.ca/prog/aci-ipecc/menu-eng.html>;

CBSA. 2007f. "eManifest – Background," Facilitating Trade. January 12, 2007. Retrieved on March 11, 2007 at: <http://www.cbsa-asfc.gc.ca/prog/manif/menu-eng.html>;

CBSA. 2007g. "Business Redemption," Media Room. January 12, 2007. Retrieved on November 25, 2007 at: <http://www.cbsa-asfc.gc.ca/agency-agence/br-rda-eng.html>;

CBSA. 2007h. "Canada's New Government Invests over \$430M for Smart, Secure Borders," Media Room. January 12, 2007. Retrieved on March 1, 2007 at: <http://www.cbsa-asfc.gc.ca/media/release-communique/2007/0112windsor-eng.html>;

CBSA. 2007i. "Canada Border Service Agency Act," Retrieved on March 1, 2007 at: <http://www.cbsa-asfc.gc.ca/agency-agence/legislation-eng.html>;

CBSA. 2008. "Partners in Protection," Facilitating Trade. February 15, 2008. Retrieved February 25, 2008 at: <http://www.cbsa-asfc.gc.ca/general/enforcement/partners/menu-e.html>;

Central Intelligence Agency. 2008. "The World Fact Book." Retrieved on September 9, 2008 at: <https://www.cia.gov/library/publications/the-world-factbook/geos/us.html>;

CNN. 2006a. "Hamas' past casts shadow over peace plans," World. January 26, 2006. Retrieved on November 25, 2005 at: <http://www.cnn.com/2006/WORLD/meast/01/26/palestinian.election>;

CNN. 2006b. "RFID Near You." Retrieved on July 9, 2007 at:  
<http://www.cnn.com/2006/TECH/07/10/rfid/index.html>;

Collins, Susan. M. 2006. "Opening Statement of Susan M. Collins, Chairman Susan M. Collins, Committee on Homeland Security and Governmental Affairs. The Future of Port Security: The Green Lane Maritime Cargo Security Act," Committee on Homeland Security and Governmental Affairs. April 5, 2006. Retrieved on March 12, 2007 at:  
[http://hsgac.senate.gov/\\_files/040506SMCOpen.pdf](http://hsgac.senate.gov/_files/040506SMCOpen.pdf);

Cornell University Law School. 2007. "Annual Country Report on Terrorism," Title 22 of the United States Code, Chapter 38, Section 2656f(d). Retrieved on March 11, 2007 at:  
[http://www.law.cornell.edu/uscode/uscode22/usc\\_sec\\_22\\_00002656---f000-.html](http://www.law.cornell.edu/uscode/uscode22/usc_sec_22_00002656---f000-.html)

Corsi, Jerome R. 2006. "North American Union to Replace USA," Human Events. May 19, 2006. Retrieved on October 6, 2008 at:  
<http://www.humanevents.com/article.php?id=14965>;

Council of the Americas 2008. "North American Competitiveness Council." Retrieved on September 11, 2008 at: <http://coa.counciloftheamericas.org/group.php?id=10>;

Cunha, Paulo Jose. 2004. "The Impact of Security Measures Adopted by the USA post-9/11 on International Trade," Institute of Brazilian Business and Public Management Issues, January 1, 2004;

Dadush, Uri and Julia Nielson. 2007. "Governing Global Trade: The Multilateral System that has underpinned World Trade for Over 50 Years is Facing Serious Challenges," International Monetary Fund, Finance & Development, December 2007, p.22;

Del Franco, Marc. 2002. "West Coast port slowdown threatens marketers," News. July 2, 2002. Retrieved August 8, 2007 at:  
[http://multichannelmerchant.com/news/marketing\\_west\\_coast\\_port/](http://multichannelmerchant.com/news/marketing_west_coast_port/)

DHS. 2002. "The National Strategy for Homeland Security 2002," About the Department, July 16, 2002. Retrieved on July September 14, 2008 at:  
[http://www.dhs.gov/xlibrary/assets/nat\\_strat\\_hls.pdf](http://www.dhs.gov/xlibrary/assets/nat_strat_hls.pdf);

DHS. 2003a. "Fiscal Year 2004 Budget Fact Sheet," Budget. Retrieved on October 11, 2006 at: [http://www.dhs.gov/xnews/releases/press\\_release\\_0077.shtm](http://www.dhs.gov/xnews/releases/press_release_0077.shtm);

DHS. 2003b. "History: Who Became Part of the Department?" History. Retrieved February 29, 2008 at: [http://www.dhs.gov/xabout/history/editorial\\_0133.shtm](http://www.dhs.gov/xabout/history/editorial_0133.shtm);

DHS. 2004. "DHS Budget in Brief – Fiscal Year 2005," Budget. Retrieved on October 11, 2006 at: [http://www.dhs.gov/xabout/budget/editorial\\_0391.shtm](http://www.dhs.gov/xabout/budget/editorial_0391.shtm);

DHS. 2005. "DHS Budget in Brief – Fiscal Year 2006. Budget," Retrieved on October 11, 2006 at: [http://www.dhs.gov/xabout/budget/editorial\\_0807.shtm](http://www.dhs.gov/xabout/budget/editorial_0807.shtm);

DHS. 2006. "Budget in Brief – Fiscal Year 2007," Budget. Retrieved on October 11, 2006 at: [www.dhs.gov/xlibrary/assets/Budget\\_BIB-FY2007.pdf](http://www.dhs.gov/xlibrary/assets/Budget_BIB-FY2007.pdf);

DHS. 2007. "Remarks by Homeland Security Secretary Michael Chertoff to the American Association of Port Authorities," Speeches. March 20, 2007. Retrieved on April 9, 2007 at: [http://www.dhs.gov/xnews/speeches/sp\\_1174503082769.shtm](http://www.dhs.gov/xnews/speeches/sp_1174503082769.shtm);

Dillon, Dana R. 2002. "Breaking Down Intelligence Barriers for Homeland Security," Backgrounder No. 1536, April 10, 2002. Retrieved May 30, 2002 at: <http://www.heritage.org/Research/NationalSecurity/BG1536.cfm>;  
Economic Society Research Council. 2008 "The World Economy – Overall Size," Retrieved on March 9, 2008 at: <http://www.esrc.ac.uk/ESRCInfoCentre/facts/international/economy.aspx?ComponentId=15037&SourcePageId=19546>;

Edmonson, R.G. 2005. "Challenges Remain for World Security and Trade System," Pacific Shipper. November 28, 2005. Retrieved on April 3, 2006 at: [http://web.lexis-nexis.com.proxy.libraries.rutgers.edu/universe/document?\\_m=1f3e636561241bf48bf5bf2c50c11c9b&\\_docnum=1&wchp=dGLbVzb-zSkVA&\\_md5=1550781abd0e13180bcc4f260370265c](http://web.lexis-nexis.com.proxy.libraries.rutgers.edu/universe/document?_m=1f3e636561241bf48bf5bf2c50c11c9b&_docnum=1&wchp=dGLbVzb-zSkVA&_md5=1550781abd0e13180bcc4f260370265c);

Edwards, Richard, Nigel Bunyan, and Auslan Cramb. 2007. "Airport Car Bombers Hoped to Murder Hundreds," *Telegraph. CO.UK*. March 7, 2007. Retrieved on January 21, 2008 at: <http://www.telegraph.co.uk/news/main.jhtml?xml=/news/2007/07/02/nterror202.xml>;

Espo. 2004. "Proposal for a Directive of the European Parliament and of the Council on Enhancing Port Security – COM (2004) 76 Final - 10/02/2004," Legislative Observer. May 19, 2004. Retrieved on March 28, 2008 at: [http://www.espo.be/Legislative\\_Observer.aspx?TopicID=212](http://www.espo.be/Legislative_Observer.aspx?TopicID=212);

Espo. 2005. "Proposal for a Regulation of the European Parliament and of the Council amending Council Regulation (EEC) 2913/92 establishing the Community Customs Code – COM (2003) 452 Final - 24/07/2003," Legislative Observer. November 5, 2005. Retrieved on March 28, 2008 at: [http://www.espo.be/Legislative\\_Observer.aspx?TopicID=141](http://www.espo.be/Legislative_Observer.aspx?TopicID=141);

Europa Panorama of the European Union 2007. "How Are We Organized ?" The EU at a Glance. Retrieved on March 29, 2007 at: [http://europa.eu/abc/panorama/howorganised/index\\_en.htm#commission](http://europa.eu/abc/panorama/howorganised/index_en.htm#commission);

Europa. 2004. "EC-US Customs Experts Group Customs Cooperation on Transatlantic Supply Chain," October 21, 2004. Retrieved on May 13, 2007 at:

[http://72.14.253.104/search?q=cache:dqW4PejEwIYJ:ec.europa.eu/taxation\\_customs/resources/documents/csi\\_recomm\\_sum\\_en.pdf+eu+and+us+differences+on+trade+facilitation+and+security&hl=en&ct=clnk&cd=1&gl=us;](http://72.14.253.104/search?q=cache:dqW4PejEwIYJ:ec.europa.eu/taxation_customs/resources/documents/csi_recomm_sum_en.pdf+eu+and+us+differences+on+trade+facilitation+and+security&hl=en&ct=clnk&cd=1&gl=us;)

Europe Information Service. 2007. "EU/US: 100% Container Scanning Rule Arouses Commission's Ire," European Report (ISSN: 1021-4267), March 7, 2007. Retrieved on May 13, 2007 at:  
[http://rdsweb2.rdsinc.com.proxy.libraries.rutgers.edu/taxis/rds/suite2/\\_xevr6DetxwwwFqz6\\_vsKWx+wxFqoG1BtnG5+/full.html](http://rdsweb2.rdsinc.com.proxy.libraries.rutgers.edu/taxis/rds/suite2/_xevr6DetxwwwFqz6_vsKWx+wxFqoG1BtnG5+/full.html);

EC. 2004. "What is Customs 2007: Introduction to the Customs 2007 Programme," Customs Cooperation Programme. September 30, 2004. Retrieved on March 27, 2007 at:  
[http://ec.europa.eu/taxation\\_customs/customs/cooperation\\_programmes/customs\\_2007/index\\_en.htm](http://ec.europa.eu/taxation_customs/customs/cooperation_programmes/customs_2007/index_en.htm);

EC. 2005. "Customs: European Commission proposes a new customs environment to face globalization challenges," Taxation and Customs. November 30, 2005. Retrieved on January 1, 2005 at:  
<http://europa.eu.int/rapid/pressReleasesAction.do?reference=IP/05/1501&format=HTML&aged=0&language=en&guiLanguage=en>;

EC. 2007a. "Overviews of the European Union Activities Customs," In Brief, Retrieved on March 29, 2007 at: [http://europa.eu/pol/cust/overview\\_en.htm](http://europa.eu/pol/cust/overview_en.htm);

EC. 2007b. "General. Customs Control," Policy Issues. February 13, 2007. Retrieved on March 29, 2007 at:  
[http://ec.europa.eu/taxation\\_customs/customs/customs\\_controls/general/index\\_en.htm](http://ec.europa.eu/taxation_customs/customs/customs_controls/general/index_en.htm);

EC. 2007c. "Customs Strategy," Policy Issues. Retrieved on March 29, 2007 at:  
[http://ec.europa.eu/taxation\\_customs/customs/policy\\_issues/customs\\_strategy/index\\_en.htm](http://ec.europa.eu/taxation_customs/customs/policy_issues/customs_strategy/index_en.htm);

EC. 2007d. "Welcome and Mission Statement," About Us. Retrieved on March 29, 2007 at: [http://ec.europa.eu/taxation\\_customs/common/about/welcome/index\\_en.htm](http://ec.europa.eu/taxation_customs/common/about/welcome/index_en.htm);

EC. 2007e. "Customs and Security: Customs Security Programme," Policy Issues. Retrieved on March 29, 2007 at:  
[http://ec.europa.eu/taxation\\_customs/customs/policy\\_issues/customs\\_security/index\\_en.htm](http://ec.europa.eu/taxation_customs/customs/policy_issues/customs_security/index_en.htm);

EC. 2007f. "Customs and Security: Authorized Economic Operator," Policy Issues. Retrieved on March 29, 2007 at:  
[http://ec.europa.eu/taxation\\_customs/customs/policy\\_issues/customs\\_security/index\\_en.htm](http://ec.europa.eu/taxation_customs/customs/policy_issues/customs_security/index_en.htm);

EC. 2007g. "Electronic Customs," Policy Issues. Retrieved on March 29, 2007 at: [http://ec.europa.eu/taxation\\_customs/customs/policy\\_issues/electronic\\_customs\\_initiative/index\\_en.htm](http://ec.europa.eu/taxation_customs/customs/policy_issues/electronic_customs_initiative/index_en.htm);

Falkenrath, Richard A. 2005. "Present and Future Challenges Facing the Department of Homeland Security," Senate Committee on Homeland Security and Governmental Affairs, January 26, 2005. Retrieved September 11, 2008 at: <http://www.brookings.edu/views/testimony/fellows/falkenrath20050126>;

Ferguson, Yale H. and Richard W. Mansbach 2004. *History's Revenge and Future Shock: The Remapping of Global Politics*, (Cambridge, England: Cambridge University Press, 2004), pp.1-18;

Fletcher, Theo. 2007 "Authorized Economic Operator (AEO) programs: IBM's Perspective," World Customs Journal, Vol.1, No. 2 (September). Retrieved on December 15, 2008 at [http://www.worldcustomsjournal.org/media/wcj/-2007/2/authorised\\_economic\\_operator\\_aeo\\_programs\\_ibms\\_perspective.pdf](http://www.worldcustomsjournal.org/media/wcj/-2007/2/authorised_economic_operator_aeo_programs_ibms_perspective.pdf)

Flynn, Stephen. 2000. "Transportation Security: Agenda for the 21st Century," Transportation Research Board TR News, (Nov-Dec 2000): 3-7 Retrieved on August 28, 2008 at: <http://209.85.173.104/search?q=cache:jUVLxg7OqBwJ:gulliver.trb.org/publications/security/sflynn.pdf+Transportation+Security:+Agenda+for+the+21st+Century,%E2%80%9D&hl=en&ct=clnk&cd=1&gl=us>;

Flynn, Stephen. 2004. *America The Vulnerable: How Our Government Is Failing to Protect Us From Terrorism*, (New York, N.Y.: HarperCollins Publishing, 2004), pp. 68-69 and p. 94.

Freeman Jr., Chas. 1997. "The Diplomat's Dictionary," rev. ed. (Washington, D.C.: USIP Press, 1997);

GAO. 2003. "Statement of Loren Yage, Director on Human Capital Significant Challenges Confront U.S. Trade Agencies," Subcommittee on Oversight of Government Management, the Federal Workforce and the District of Columbia, U.S. Senate. December 9, 2003;

GAO. 2005a. "Homeland Security: Key Cargo Security Programs Can Be Improved," (Reference: GAO-05-466T). May 26, 2005. Retrieved November 31, 2005 at: <http://www.gao.gov/docsearch/abstract.php?rptno=GAO-05-466T>;

GAO. 2005b. "Statement of David M. Walker, Comptroller General of the United States on Human Capital Observations on Final DHS Human Capital Regulations," Subcommittee on the Federal Workforce and Agency Organization, Committee on Government Reform, House of Representatives. March 2, 2005;

GAO. 2006. "Information Technology: Customs Has Made Progress on Automated Commercial Environment System, but It Faces Long-Standing Management Challenges and New Risks," (GAO Publication No. GAO-06-580). May 31, 2006. Retrieved October 21, 2006 at: <http://www.gao.gov/docdb/lite/summary.php?rptno=GAO-06580&accno=A54904>;

Go, Alison. 2007. "Best Places to Work in the Federal Government," April 4, 2007. Retrieved on September 1, 2008 at: <http://www.usnews.com/usnews/biztech/articles/070419/19bestfederal.htm>;

Goldfarb, Danielle. 2003. "The Road to a Canada U.S. Customs Union: Step by Step or In a Single Bound ?" *The Border Papers* (I S S N 0 8 2 4 - 8 0 0 1). C. D. Howe Institute Commentary. Retrieved on March 11, 2007 at: [http://72.14.253.104/search?q=cache:5KoiUQVd-5EJ:www.cdhowe.org/pdf/commentary\\_184.pdf+comparison+between+Canadian+customs+and+us+customs&hl=en&ct=clnk&cd=1&gl=us](http://72.14.253.104/search?q=cache:5KoiUQVd-5EJ:www.cdhowe.org/pdf/commentary_184.pdf+comparison+between+Canadian+customs+and+us+customs&hl=en&ct=clnk&cd=1&gl=us);

Gore Commission. 1997. *White House Commission on Aviation Safety and Security: Final Report to President Clinton*, Commission established by the Executive Order 13015 on Aug. 22, 1996, February 12, p. 18;

Gutierrez, Ximena, Juha Hintsa, Philippe Wieser and Ari-Pekka Hameri. 2007. "Voluntary Supply Chain Security Program Impacts: An Empirical Study With BASC Member companies," International Workshop on Risk Management in Port Operations, Logistics and Supply Chain Security, Imperial College, London, UK, 29 September 2006. *World Customs Journal*, Vol.1, No. 2 (September) Retrieved on December 15, 2008 at: [http://www.worldcustomsjournal.org/media/wcj/-2007/2/voluntary\\_supply\\_chain\\_security\\_program\\_impacts\\_an\\_empirical\\_study\\_with\\_basc\\_member\\_companies.pdf](http://www.worldcustomsjournal.org/media/wcj/-2007/2/voluntary_supply_chain_security_program_impacts_an_empirical_study_with_basc_member_companies.pdf);

Haftendorn, Helga. 1991. "The Security Puzzle: Theory-Building and Discipline-Building in International Security," *International Studies Quarterly*, Vol. 35, No. 1, pp. 3-17. March, 1991. Retrieved on April 22, 2007 at: <http://links.jstor.org/sici?sici=00208833%28199103%2935%3A1%3C3%3ATSPTAD%3E2.0.CO%3B2-C>;

Hart, Gary and Warren Rudman. 2001. *Road Map for National Security: Imperative for Change*, U.S. Commission on National Security in the 21st Century, Hart- Rudman Commission, March (Washington, DC: GPO), p. 11;

Hatfield Jr., Mark O. 2006. Statement of Mark O. Hatfield, Jr. Deputy Federal Security Director for Newark Liberty International Airport, Transportation Security Administration. National Strategy for Maritime Security. January 24, 2006. Retrieved on March 12, 2007 at: [http://web.lexisnexis.com.proxy.libraries.rutgers.edu/universe/document?\\_m=4a25e8c4c](http://web.lexisnexis.com.proxy.libraries.rutgers.edu/universe/document?_m=4a25e8c4c)



4603d931bd6ef7bd2bdcfa1&\_docnum=1&wchp=dGLzVlz-zSkVA&\_md5=5dd90efeda92d2ab6b1d073d8db430b5;

Hellquist, Ingvar 2003. "Information Operations – Demands Of Increased Cooperation Within the Cabinet and Between the State and Private Sector," *Strategy Research Project*, U.S. Army War College, April 7, 2003;

Hong Kong Customs and Excise Department. 2003a. "Speech by Mr. Raymond Wong Commissioner of Customs & Excise at the CSIS Conference of the Securing Asia's Transportation Infrastructure- Hong Kong, China's Experiences," April 28, 2003. Retrieved on March 30, 2005 at:  
[http://www.customs.gov.hk/eng/new\\_speech\\_28042003\\_statement\\_by\\_commissioner\\_e.html](http://www.customs.gov.hk/eng/new_speech_28042003_statement_by_commissioner_e.html);

Hong Kong Customs and Excise Department. 2003b. "Container Security Initiative Pilot Scheme," CSI. May 13, 2003. Retrieved on March 30, 2005 at:  
<http://www.customs.gov.hk/eng/csi/index.htm>;

Hong Kong Customs and Excise Department. 2005a. "Air Cargo Clearance System (ACCS)," Notice ACCS. Retrieved on March 30, 2005 at:  
[http://www.customs.gov.hk/eng/notice\\_accs\\_e.html](http://www.customs.gov.hk/eng/notice_accs_e.html);

Hong Kong Customs and Excise Department. 2005b. "Enforcement of Strategic Trade Controls," Notice Strategic. Retrieved on March 30, 2005 at:  
[http://www.customs.gov.hk/eng/notice\\_strategic\\_e.html](http://www.customs.gov.hk/eng/notice_strategic_e.html);

Hong Kong Digest. 2007. "Hong Kong Hosts APEC Symposium on Trade Facilitation 2007," May 2007. Retrieved on September 26, 2008 at:  
<http://www.hketony.gov.hk/ny/e-newsletter/07may/APEC.htm>;

Hong Kong Economic and Trade Office. 2007. "World Customs Organization Promotes Secure Global Trade," Newsletter. Retrieved on April 25, 2007 at:  
<http://www.hketowashington.gov.hk/dc/circle/feb07/Articles/text.htm#title1>;

Hong Kong Economic and Trade Office. 2007. "World Customs Organization Promotes Secure Global Trade. Newsletter," Retrieved on April 25, 2007 at:  
<http://www.hketowashington.gov.hk/dc/circle/feb07/Articles/text.htm#title1>;

Hong Kong Government. 2006. "The 2007-2008 Budget: Head 31 – Customs and Excise Department," Retrieved on May 30, 2006 at:  
<http://www.budget.gov.hk/2007/eng/estimates.htm>;

Hughes, Kirsty. 2002. "US and Europe fall out in the fight against terrorism," Debate, February 2, 2002. Retrieved on October 11, 2007 at:  
<http://193.41.101.59/debates/article.jsp?id=3&debateId=56&articleId=750>;

- ICE. 2004. "Project Shield America," Fact sheets. July 12, 2004. Retrieved on March 21, 2007 at: <http://www.ice.gov/pi/news/factsheets/shield071204.htm>;
- Kane, Linda. 2008. "Technology's Promise – Today's Reality," *Frontline U.S. Customs and Border Protection*, Summer 2008: pp 12-16 and p.52;
- Kelly, Robert W. 2007. "Containing the Threat: Protecting the Global Supply Chain Through Enhanced Cargo Container Security," *The Reform Brief*, October 3, 2007. Retrieved October 2, 2008 at: <http://www.reforminstitute.org.USChamberInternationalAgreementSafe.doc.pdf>;
- Kochems, Alane and James Jay Carafano. 2006. "Complete Cargo Inspection and Port Security Grants Do Not Promote Homeland Security," Executive Memorandum, No: 998, April 3, 2006. Retrieved on September 3, 2008 at: <http://www.heritage.org/Research/Homelandsecurity/em998.cfm>;
- Koslowski, Rey. 2002. "Information Technology, Migration and Border Control," Institute for Government Studies, University of California, Berkeley. April 25, 2002;
- Koslowski, Rey. 2004 "International Cooperation to Create Smart Borders," Institute for Research on Public Policy, Ottawa, April 1-2;
- Kugler, Richard. 2006." Policy Analysis in National Security Affairs: New Methods for a New Era," (Washington, D.C.: National Defense University Press 2006), p.2;
- Laden, Michael D. 2007 "The Genesis of the US C-TPAT Program: Lessons Learned and Earned by the Government and Trade," *World Customs Journal*, Vol.1, No. 2 (September) Retrieved on December 15, 2008 at: [http://www.worldcustomsjournal.org/media/wcj/2007/2/the\\_genesis\\_of\\_the\\_us\\_ctpat\\_program\\_lessons\\_learned\\_and\\_earned\\_by\\_the\\_government\\_and\\_trade.pdf](http://www.worldcustomsjournal.org/media/wcj/2007/2/the_genesis_of_the_us_ctpat_program_lessons_learned_and_earned_by_the_government_and_trade.pdf);
- Lake, Jennifer E. 2007. "Border and Transportation Security: Selected Programs and Policies (Updated)," Congressional Research Service -The Library of Congress (Order Code RL 32839), January 24, 2007;
- Langhorne, Richard. 1997. "Current Developments in Diplomacy: Who Are the Diplomats Now?" in *Diplomacy and Statecraft*, Vol. 8, Issue: 2 (London: Routledge 1997), pp.1-15;
- Lloyd's List. 2007. "Customs Going Electronic; Electronic Clearance for Cross-Border Trucking Will Eliminate Costly Paper Chain for Shippers," December 3, 2007. Retrieved on September 26, 2008 at: [http://www.lexisnexis.com.proxy.libraries.rutgers.edu/us/lnacademic/results/docview/docview.do?docLinkInd=true&risb=21\\_T4671435302&format=GNBFI&sort=RELEVANCE&startDocNo=1&resultsUrlKey=29\\_T4671435307&cisb=22\\_T4671435306&treeMax=true&treeWidth=0&csi=233585&docNo=25](http://www.lexisnexis.com.proxy.libraries.rutgers.edu/us/lnacademic/results/docview/docview.do?docLinkInd=true&risb=21_T4671435302&format=GNBFI&sort=RELEVANCE&startDocNo=1&resultsUrlKey=29_T4671435307&cisb=22_T4671435306&treeMax=true&treeWidth=0&csi=233585&docNo=25);

Lowenthal, Mark M. 2003. *Intelligence: From Secrets to Policy* (Washington, D.C.: CQ Press, 2003), p. 8;

Manley, John, Pedro Aspe, and William F. Weld. 2005. "North America the Beautiful Council on Foreign Relations," March 23, 2005. Retrieved on September 11, 2008 at: [http://www.cfr.org/publication/7955/north\\_america\\_the\\_beautiful.html](http://www.cfr.org/publication/7955/north_america_the_beautiful.html);

Mayo, Anthony J. and Nohria Nitin. 2005. "The Truck Driver Who Reinvented Shipping," Working Knowledge, Harvard Business School, October 3, 2005. Retrieved on October 1, 2008 at: <http://hbswk.hbs.edu/item/5026.html>;

McElman, Clyde. 2003. "Trade Corridor Transparency and Security," *The Innovation Journal*, Volume 8 (4);

McWilliams, Gary. 2007. *Wal-Mart's radio-tracked inventory hits static* [Electronic Version]. *The Wall Street Journal*, Business Section. February 15, 2007. Retrieved on July 9, 2007 at: [http://web.lexis-nexis.com.proxy.libraries.rutgers.edu/universe/document?\\_m=e6a4ca30c1ff67220014d65997a58919&\\_docnum=1&wchp=dGLbVlb-zSkVb&\\_md5=2103bc9349204ca26e1a92b2ba136ea8](http://web.lexis-nexis.com.proxy.libraries.rutgers.edu/universe/document?_m=e6a4ca30c1ff67220014d65997a58919&_docnum=1&wchp=dGLbVlb-zSkVb&_md5=2103bc9349204ca26e1a92b2ba136ea8);

Meyer, Deborah. 2005. "One Face at the Border: Behind the Slogan," Migration Policy Institute. June 2005;

Mikuriya, Kunio. 2007 "Supply Chain Security: The Customs Community Response," *World Customs Journal*, Vol.1, No. 2 (September). Retrieved on December 15, 2008 at: [http://www.worldcustomsjournal.org/media/wcj/2007/2/supply\\_chain\\_security\\_the\\_customs\\_communitys\\_response.pdf](http://www.worldcustomsjournal.org/media/wcj/2007/2/supply_chain_security_the_customs_communitys_response.pdf);

National Commission Report. 2004. *The 9/11 Commission Report: Final Report of the National Commission on Terrorist Attacks Upon the United States* (New York: Norton); 9/11 commission report, ch.1, pp. 10-13;

National Security Agency. 2008. "Signal Intelligence," Retrieved on October 1, 2008 at: <https://www.nsa.gov/sigint/index.cfm>;

NZCS. 2007a. "Supply Chain Security and Legitimate Trade, Exporters," Retrieved on March 21, 2007 at: [http://www.customs.govt.nz/NR/exeres/CCD6BD23-0793-4B43-AF9A-2B56458F0B20\\_frameless.htm?NRMODE=Published](http://www.customs.govt.nz/NR/exeres/CCD6BD23-0793-4B43-AF9A-2B56458F0B20_frameless.htm?NRMODE=Published);

NZCS. 2007b. "Supply Chain Security Strategy, Frequent Asked Questions," Retrieved on March 21, 2007 at: [http://64.233.167.104/search?q=cache:1\\_V51g\\_lAroJ:www.customs.govt.nz/NR/rdonlyres/CD7151D7-2C44-499A-9B18-](http://64.233.167.104/search?q=cache:1_V51g_lAroJ:www.customs.govt.nz/NR/rdonlyres/CD7151D7-2C44-499A-9B18-)

7D3A77521C40/0/securityfaq.doc+Supply+Chain+Security+Strategy+nz&hl=en&ct=clnk&cd=2&gl=us;

NZCS. 2008. "Border Security," Library. Retrieved on September 30, 2008 at: <http://www.customs.govt.nz/library/Accountability+Documents/Annual+Report+2004-2005/Part+A+-+Key+Issues+in+2004-2005/Strategic+Intent/Border+Security/Border+Security.htm>;

New Zealand Ministry of Foreign Affairs and Trade. 2006. "Trade Matters," May 2006. Retrieved on October 6, 2008 at: <http://www.mfat.govt.nz/downloads/media-and-publications/tradematters-security.pdf>;

New Zealand Treasury. 2002. "Vote Customs," Retrieved on March 27, 2007 at: [http://72.14.253.104/search?q=cache:hyoF86c2\\_HsJ:www.treasury.govt.nz/budget2002/estimates/est02cust.pdf+appropriation+for+New+Zealand+Customs&hl=en&ct=clnk&cd=1&gl=us](http://72.14.253.104/search?q=cache:hyoF86c2_HsJ:www.treasury.govt.nz/budget2002/estimates/est02cust.pdf+appropriation+for+New+Zealand+Customs&hl=en&ct=clnk&cd=1&gl=us);

New Zealand Treasury. 2003. "Vote Customs," Retrieved on March 27, 2007 at: <http://72.14.253.104/search?q=cache:8qNQsWLhee8J:www.treasury.govt.nz/budget2003/estimates/est03cust.pdf+est03cust.pdf&hl=en&ct=clnk&cd=2&gl=us>;

New Zealand Treasury. 2004. "Vote Customs," Retrieved on March 27, 2007 at: [http://72.14.253.104/search?q=cache:gcFIx\\_taVngJ:www.treasury.govt.nz/budget2004/estimates/est04cust.pdf+est04cust.pdf&hl=en&ct=clnk&cd=1&gl=us](http://72.14.253.104/search?q=cache:gcFIx_taVngJ:www.treasury.govt.nz/budget2004/estimates/est04cust.pdf+est04cust.pdf&hl=en&ct=clnk&cd=1&gl=us);

New Zealand Treasury. 2005. "Vote Customs," Retrieved on March 27, 2007 at: <http://72.14.253.104/search?q=cache:wHDmuisu1U4J:www.treasury.govt.nz/budget2005/estimates/est05cust.pdf+est05cust.pdf&hl=en&ct=clnk&cd=1&gl=us>;

New Zealand Treasury. 2006. "Vote Customs," Retrieved on March 27, 2007 at: <http://72.14.253.104/search?q=cache:It9FE5z8Q64J:www.treasury.govt.nz/budget2006/estimates/pdfs/est06cust.pdf+est06cust.pdf&hl=en&ct=clnk&cd=1&gl=us>;

Nixon Center Working Group. 2004. "Iran and its Neighbors: Diverging View on a Strategic Region," Colloquium. January 8, 2004. Retrieved on October 11, 2007 at: [http://72.14.253.104/search?q=cache:wiHUFzF68kIJ:www.tfpd.org/pdf/iran\\_jan04.pdf+diverging+views+between+us+and+eu&hl=en&ct=clnk&cd=8&gl=us](http://72.14.253.104/search?q=cache:wiHUFzF68kIJ:www.tfpd.org/pdf/iran_jan04.pdf+diverging+views+between+us+and+eu&hl=en&ct=clnk&cd=8&gl=us);

North of England P&I Group. 2006. "US: Sea Carrier Initiative replaced by C-TPAT," News Industry, August 4, 2006. Retrieved April 7, 2008 at: [http://www.nepia.com/news/industrynews\\_article.php?id=540](http://www.nepia.com/news/industrynews_article.php?id=540);

OECD. 2003. "Security in Maritime Transport: Risk Factors and Economic Impact," Maritime Transport Committee. July 1, 2003;

Office of the Director of National Intelligence. 2008. "About IC," Frequent Asked Questions. Retrieved on October 18, 2008 at: [www.dni.gov/faq\\_about.htm](http://www.dni.gov/faq_about.htm);

Official Journal of European Union. 2005. "Regulation (EC) No 450/2008 European Parliament and of the Council of 23 April 2008 laying down the Community Customs Code (Modernized Customs Code)." Retrieved on September 11, 2008 at: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2008:145:0001:0064:EN:PDF>;

Official Journal of European Union. 2005. "Regulation (EC) No 648/2005 of the European Parliament and of the Council of 13 April 2005." Retrieved on March 28, 2008 at:  
<http://64.233.167.104/search?q=cache:l76s0A9bsv0J:www.espo.be/downloads/archive/58352ad2-e744-4a99-bf7a-b5a57b3f61f1.pdf+EC+Regulation+884/2005&hl=en&ct=clnk&cd=5&gl=us>;

Organization for Security and Co-operation. 2006a. "WCO SAFE Framework of Standards Security and Facilitation in a Global Environment: Remarks by *Michael Schmitz* Director Compliance & Facilitation World Customs Organization Global Conference on Customs-Trade Security, Prague, Czech Republic," Organization for Security and Co-operation in Europe (OSCE). May 22, 2006. Retrieved April 3, 2008 at: [http://www.osce.org/documents/eea/2006/05/19153\\_en.pdf](http://www.osce.org/documents/eea/2006/05/19153_en.pdf);

Organization for Security and Co-operation 2006b. "Annual Worldwide Security Conference in Brussels on February 21, 2006," Retrieved on September 13, 2008 at: [http://www.osce.org/documents/eea/2006/05/19153\\_en.pdf](http://www.osce.org/documents/eea/2006/05/19153_en.pdf) page 5;

Parker, Barry. 2008. Container Security. Retrieved on September 1, 2008 at: <http://74.125.45.104/search?q=cache:gRxUNLSwZIOJ:www.thedigitalship.com/DSmagazine/digital%2520ship%2520archive/digital%2520ship%2520august%25202002/barry%2520on%2520container%2520security.doc+Charles+Schumer+bill+S2426&hl=en&ct=clnk&cd=1&gl=us>;

Passel, Jeffrey S., Randy Capps, and Michael Fix 2004. "Undocumented Immigrants: Facts and Figures," Urban Institute Immigration Studies Program, January 12, 2004. Retrieved on August 22, 2008 at: <http://www.urban.org/Template.cfm?Section=Home&NavMenuID=75&template=/TaggedContent/ViewPublication.cfm&PublicationID=8685>;

Privacy Rights. 2007. "RFID and the Public Policy Void," RFID California Legislature Hearing. Retrieved on April 9, 2007 at: <http://www.privacyrights.org/ar/RFIDHearing.htm>;

Public Safety Canada. 2007. "Who We Are," November 8, 2007. Retrieved on February 24, 2007 at: <http://www.publicsafety.gc.ca/abt/wwwa/index-eng.aspx>;

RFID Journal. 2007a. "What is RFID?" Frequent Asked Questions. Retrieved on June 8, 2007 at: <http://www.rfidjournal.com/faq/16/49>;

RFID Journal. 2007b. "What has prevented RFID from taking off until now?" Frequent Asked Questions. Retrieved on July 9, 2007 at: <http://www.rfidjournal.com/faq/16/54>;

RFID Journal. 2007c. "If RFID has been around so long and is so great, why aren't all companies using it?" Frequent Asked Questions. Retrieved July 9, 2007, from <http://www.rfidjournal.com/faq/16/53>;

RFID Journal. 2007d. "Is RFID new?" Frequent Asked Questions. Retrieved on June 11, 2007 at: <http://www.rfidjournal.com/faq/16/52>;

Richelson, Jeffrey T. 1999. *The U.S. Intelligence Community*. (Boulder, Colorado: Westview Press, 1999);

Scardaville, Michael and Jack Spencer. 2002. Federal Homeland Security policy: A Nine-Month Assessment," *Background*, No. 1549, June 25, 2002;

Seghetti, Lisa M, Lake, Jennifer E. Lake, and William H. Robinson. 2005a. "Border and Transportation Security: The Complexity of the Challenge," Congressional Research Service -The Library of Congress (Order Code RL 32839), March 29, 2005;

Seghetti, Lisa M, Lake, Jennifer E. Lake, and William H. Robinson. 2005b. "Border and Transportation Security: Selected Programs and Policies," Congressional Research Service -The Library of Congress (Order Code RL 32840), March 29, 2005;

Seghetti, Lisa M, Jennifer E. Lake, and William H. Robinson. 2005c. "Border and Transportation Security: Possible New Directions and Policy Options," Congressional Research Service -The Library of Congress (Order Code RL 32841), March 29, 2005;

Sgut, Martin. 2004. "La Protección y Seguridad Marítima y Portuaria en Sudamérica," Intal-Cepal. Junio;

Shenon, Philip. 2002. "Traces of Terrorism: the Warnings; FBI Knew for Years About Terror Pilot Training," U.S. News, *The New York Times*, May 18, 2002;

Songnini, Marc. L. 2007. "DHS Nixes RFID for Border Program," *Computer World News*. February 16, 2007;

Stana, Richard M. 2003. "Homeland Security: Challenges Facing the Department of Homeland Security in Balancing its Border Security and Trade Facilitation Missions, Statement of Richard M. Stana, Director of Homeland Security and Justice Issues," Testimony before the Subcommittee on Infrastructure and Border Security, Select Committee on Homeland Security (GAO-03-902T), House of Representatives, Washington. D.C., June 16, 2003;

Terreri, April. 2007. "Is Border Security Trumping Trade?" May 31, 2007 Retrieved on September 25, 2008 at: [http://www.worldtrademag.com/Articles/Feature\\_Article/BNP\\_GUID\\_9-5-2006\\_A\\_10000000000000114159;](http://www.worldtrademag.com/Articles/Feature_Article/BNP_GUID_9-5-2006_A_10000000000000114159;)

Treasury Board of Canada Secretariat . 2005. "RPP 2005-2006 Public Safety and Emergency Preparedness Canada," Portfolio Resource Summary. March 24, 2005. Retrieved on March 1, 2007 at: [http://www.tbs-sct.gc.ca/est-pre/20052006/PSEPC-SPPCC/PSEPC-SPPCCr5601\\_e.asp#8;](http://www.tbs-sct.gc.ca/est-pre/20052006/PSEPC-SPPCC/PSEPC-SPPCCr5601_e.asp#8;)

TSA. 2003. "Operation Safe Commerce," Public. July 11, 2003. Retrieved on March 23, 2007 at: <http://www.tsa.gov/public/display?theme=44&content=090005198003f277;>

USCS. 1999. "MIS – New Customs Compliance Program," (Administrative Message: 99-0222). Washington D.C. April 6, 1999. Retrieved on March 11, 2006 at: <http://www.brokerpower.com/admmgs/1999/99-0222.html;>

USCS. 2000. "Port Angeles Inspectors honored in Washington, D.C.," U.S. Customs Today, February 2000, Retrieved on October 11, 2008 at: <http://www.cbp.gov/custoday/feb2000/heroes.htm;>

USCS. 2003a. "Enforcement of 24-Hour Rule Begins February 2," Newsroom. January 30, 2003. Retrieved on March 2, 2006 at: [http://www.cbp.gov/xp/cgov/newsroom/press\\_releases/archives/cbp\\_press\\_releases/012003/01302003.xml;](http://www.cbp.gov/xp/cgov/newsroom/press_releases/archives/cbp_press_releases/012003/01302003.xml;)

USCS. 2003b. "The Greatest Generation: 1939-1988," U.S. Customs Today. February 2003. Retrieved October 15, 2008 at: <http://cbp.gov/xp/CustomsToday/2003/February/great.xml;>

U. S. Senate Committee on Appropriation. 2003. "Senate Appropriations Committee Approves FY 2004 Homeland Security Bill," Press Release. July 10, 2003. Retrieved on October 9, 2006 at: <http://appropriations.senate.gov/releases/record.cfm?id=205992;>

U. S. Senate Committee on Appropriation. 2004. "Senate Passes Fiscal Year 2005 Homeland Security Bill," Press Release. September 16, 2004. Retrieved on October 9, 2006 at: <http://appropriations.senate.gov/releases/record.cfm?id=226294;>

U. S. Senate Committee on Appropriation. 2005. "Senate Approves FY 2006 Homeland Security Appropriation Bill," Press Release. July 14, 2005. Retrieved on October 9, 2006 at: <http://appropriations.senate.gov/hearmarkups/07-14-05prhomlandfullsenate.htm;>

U. S. Senate Committee on Appropriation. 2006. "Conferees Approve FY 2007 Homeland Security Appropriation Bill," Press Release. September 25, 2006. Retrieved on

October 9, 2006 at:

<http://appropriations.senate.gov/hearmarkups/homelandconferencepr07.mht>;

U.S. Chamber of Commerce. 2005. "Symposium on International Trade and Investment. Luncheon Keynote Address by Thomas J. Donohue. President & CEO, U.S. Chamber of Commerce," Press, Speeches, May 2005. Retrieved on September 22, 2008 at: [http://www.uschamber.com/press/speeches/2005/050329\\_stamford\\_chamber\\_trade\\_speech.htm](http://www.uschamber.com/press/speeches/2005/050329_stamford_chamber_trade_speech.htm);

U.S. Chamber of Commerce. 2008. "Balancing Security and Trade Facilitation in the 21st Century Global Supply Chain: A Study Evaluating International Agreements to Implement The SAFE Framework of Standards," April 2, 2008;

USCG. 2004. "International Port Security Program," Fact cards. July 1, 2004. Retrieved on March 23, 2007 at: <http://www.uscg.mil/hq/g-m/mp/IPSP.shtml>;

U.S. Department of Defense. 2008. "DoD Casualty Report," September 10, 2008. Retrieved on September 11, 2008 at: <http://www.defenselink.mil/news/casualty.pdf>;

U.S. Department of State. 1997. "Background Information on Terrorist Groups," Patterns of Global Terrorism Contents (Appendix B). Retrieved on February 16, 2006, at: <http://www.state.gov/www/global/terrorism/1997Report/backg.html>;

U.S. DHS Office of Inspector General. 2008. "Additional Controls Can Enhance the Security of the Automated Commercial Environment System (Redacted)," June 2008;

U.S. DOE National Nuclear Security Agency. 2006. DHS and DOE launch Secure Freight Initiative: \$60 Million Effort Begins at 6 Foreign Ports to Scan for Nuclear Material Overseas. News releases. December 7, 2006. Retrieved on March 21, 2007 at: [http://72.14.209.104/search?q=cache:qnvaKyUnPCoJ:www.nnsa.doe.gov/docs/newsreleases/2006/PR\\_2006-12-07\\_NA-06-50.pdf+cbp+secure+freight+initiative&hl=en&ct=clnk&cd=5&gl=us](http://72.14.209.104/search?q=cache:qnvaKyUnPCoJ:www.nnsa.doe.gov/docs/newsreleases/2006/PR_2006-12-07_NA-06-50.pdf+cbp+secure+freight+initiative&hl=en&ct=clnk&cd=5&gl=us);

U.S. Senate. 2002. "The Senate Immigration Subcommittee held a hearing on "Immigration Reform and the Reorganization of Homeland Defense." June 26, 2002. Retrieved on September 11, 2008 at: [http://www.fairus.org/site/PageServer?pagename=leg\\_legislation48fb](http://www.fairus.org/site/PageServer?pagename=leg_legislation48fb);

U.S. Senate. 2007. "Lieberman, Collins Vote in Favor of Myer's Confirmation Nominee Sent to Senate Floor for Full Vote," Senate Committee on Homeland and Government Affairs. Press Release. September 26, 2007. Retrieved September 17, 2008 at: [http://hsgac.senate.gov/public/index.cfm?FuseAction=PressReleases.Detail&Affiliation=C&PressRelease\\_id=6069b1ca-9a32-4453-85b6-801527c4bf84&Month=9&Year=2007](http://hsgac.senate.gov/public/index.cfm?FuseAction=PressReleases.Detail&Affiliation=C&PressRelease_id=6069b1ca-9a32-4453-85b6-801527c4bf84&Month=9&Year=2007);



United Nations Economic and Social Council. 2006. "Trade Facilitation and the New Security Environment: Issues for Developing and Least Developed Countries in the Asian and Pacific Region," Committee on Managing Globalization, Third session, Part I, (E/ESCAP/CMG(3/I)/3) August 17, 2006. Retrieved on July 2007 at: [http://www.unescap.org/cmng/2006/CMG3-I/English/CMG3-I\\_3E.pdf](http://www.unescap.org/cmng/2006/CMG3-I/English/CMG3-I_3E.pdf);

United Nations. 2005. "Agreed definition of term 'Terrorism' said to be needed for Consensus on completing comprehensive convention against it," Press (Sixtieth General Assembly Sixth Committee 4<sup>th</sup> Meeting (GA/L/3276), July 10, 2005. Retrieved September 17, 2007 at: <http://www.un.org/News/Press/docs/2005/gal3276.doc.htm>;

Vadney, Kelly. 2006. "Plug Pulled on New Border Technology," Business and Financial News. *Watertown Daily Times*, December 23, 2006

Wallis, Keith. 2007. "Hong Kong Clears Road for e-customs: Electronic Road Cargo Clearance System to Go Ahead Despite Industry Concerns," January 16, 2007. Retrieved on September 26, 2008 at: [http://www.lexisnexis.com.proxy.libraries.rutgers.edu/us/lnacademic/results/docview/docview.do?docLinkInd=true&risb=21\\_T4671435302&format=GNBFI&sort=RELEVANCE&startDocNo=1&resultsUrlKey=29\\_T4671435307&cisb=22\\_T4671435306&treeMax=true&treeWidth=0&csi=233585&docNo=5](http://www.lexisnexis.com.proxy.libraries.rutgers.edu/us/lnacademic/results/docview/docview.do?docLinkInd=true&risb=21_T4671435302&format=GNBFI&sort=RELEVANCE&startDocNo=1&resultsUrlKey=29_T4671435307&cisb=22_T4671435306&treeMax=true&treeWidth=0&csi=233585&docNo=5);

WCO. 2007a. "WCO Initiatives to Promote Trade Facilitation," Topics Issues. Retrieved on March 30, 2007 at: [http://www.wcoomd.org/ie/en/Topics\\_Issues/FacilitationCustomsProcedures/facil\\_Initiative.htm](http://www.wcoomd.org/ie/en/Topics_Issues/FacilitationCustomsProcedures/facil_Initiative.htm);

WCO. 2007b. "Speech by Michael Schmitz, WCO Director of Compliance and Facilitation, on the WCO Framework of Standard and the implementation of United Nations Security Council Resolution 1540," Speech. February 23, 2007. Retrieved on March 21, 2007 at: [http://64.233.167.104/search?q=cache:WjYHURH8M5IJ:www.wcoomd.org/ie/EN/Past\\_Events/speech/UNSC%2520Speech%2520Schmitz%2520-%2520verbatim%2520transcript%2520EN.pdf+michael+schmitz+on+trade+facilitation&hl=en&ct=clnk&cd=1&gl=us](http://64.233.167.104/search?q=cache:WjYHURH8M5IJ:www.wcoomd.org/ie/EN/Past_Events/speech/UNSC%2520Speech%2520Schmitz%2520-%2520verbatim%2520transcript%2520EN.pdf+michael+schmitz+on+trade+facilitation&hl=en&ct=clnk&cd=1&gl=us);

WCO. 2007c. "Speech by Michael Schmitz, WCO Director of Compliance and Facilitation, on the WCO Framework of Standard and the implementation of United Nations Security Council Resolution 1540. Speech. February 23, 2007. Retrieved on March 21, 2007 at: [http://64.233.167.104/search?q=cache:WjYHURH8M5IJ:www.wcoomd.org/ie/EN/Past\\_Events/speech/UNSC%2520Speech%2520Schmitz%2520-%2520verbatim%2520transcript%2520EN.pdf+michael+schmitz+on+trade+facilitation&hl=en&ct=clnk&cd=1&gl=us](http://64.233.167.104/search?q=cache:WjYHURH8M5IJ:www.wcoomd.org/ie/EN/Past_Events/speech/UNSC%2520Speech%2520Schmitz%2520-%2520verbatim%2520transcript%2520EN.pdf+michael+schmitz+on+trade+facilitation&hl=en&ct=clnk&cd=1&gl=us);

WCO. 2007d. "Organisation Mondiale des Douanes," History. Retrieved on March 27, 2007 at: [http://www.wcoomd.org/home\\_about\\_us\\_auhistory.htm](http://www.wcoomd.org/home_about_us_auhistory.htm);

WCO. 2007e. WCO Initiatives to Promote Trade Facilitation. Topics Issues. Retrieved on March 30, 2007 at: [http://www.wcoomd.org/ie/en/Topics\\_Issues/FacilitationCustomsProcedures/facil\\_Initiative.htm](http://www.wcoomd.org/ie/en/Topics_Issues/FacilitationCustomsProcedures/facil_Initiative.htm);

WCO. 2007f. "WCO Instruments and Programmes - Customs Procedures and Trade Facilitation," Topics. Retrieved on March 30, 2007 at: [http://www.wcoomd.org/ie/en/Topics\\_Issues/FacilitationCustomsProcedures/facil\\_wco\\_instruments.htm](http://www.wcoomd.org/ie/en/Topics_Issues/FacilitationCustomsProcedures/facil_wco_instruments.htm);

Webster 2008. "Definition on Information." Retrieved on October 1, 2008 at: <http://www.websters-online-dictionary.org/definition/information>;

Weitz, Richard. 2007. "Afghanistan: US and EU Anti-Drug Strategies Are Diverging," EurasiaNet.org – Civil Society. April 3, 2007. Retrieved on October 11, 2007 at: <http://www.eurasianet.org/departments/insight/articles/eav040307.shtml>;

White House. 2002. "The National Strategy For Homeland Security: Office of Homeland Security," Homeland. July 1, 2002. Retrieved on August 26, 2008 at: <http://www.whitehouse.gov/homeland/book/index.html>;

Wilson, Scott. 2006. " Hamas sweeps Palestinian elections, complicating peace efforts in Middle-East," *Washington Post*, Foreign Service (Page AD1), January 27, 2006;

WTO. 2007. "The Doha Declaration Explained." Retrieved on March 22, 2007 at: [http://www.wto.org/english/tratop\\_e/dda\\_e/dohaexplained\\_e.htm](http://www.wto.org/english/tratop_e/dda_e/dohaexplained_e.htm);

WTO. 2008. "Trade Facilitation," Glossary. Retrieved on July 11, 2008 at: [http://www.wto.org/english/thewto\\_e/glossary\\_e/glossary\\_e.htm](http://www.wto.org/english/thewto_e/glossary_e/glossary_e.htm).

## Curriculum Vitae

- 1971 Born in Taipei, Taiwan;
- 1988 Graduated from Colegio Pentagono, Rio de Janeiro, Brazil;
- 1994 Bachelor's degree requirements completed, Rutgers University, Rutgers College, New Brunswick, New Jersey; majored in Computer Science and minored in Portuguese; Employed by Microelectronics Inc., as marketing associate;
- 1996 Employed by the U.S. Department of Treasury: U.S. Customs Service - Office of Field and Operations, as inspector;
- 1999 Attended Rutgers University, Graduate School - Newark, Newark, New Jersey;
- 2001 Received a Master of Science degree in Global Affairs from Rutgers University; Attended pre-qualifying graduate studies towards a Doctorate degree in Global Affairs at Rutgers University; Employed by the U.S. Department of Treasury: U.S. Customs Service - Office of International Affairs/Training Division, as inspector/course developer;
- 2002 Employed by the U.S. Department of Treasury: U.S. Customs Service – Office of Investigations, as criminal investigator (special agent);
- 2003 Employed by the U.S. Department of Homeland Security: U.S. Immigration and Customs Enforcement - Office of Investigations, as criminal investigator;
- 2004 Employed by the U.S. Department of Homeland Security: U.S. Immigration and Customs Enforcement - Office of International Affairs/Foreign Operations Division, as criminal investigator/desk officer for Asia;
- 2005- Present  
Employed by the U.S. Department of Homeland Security: U.S. Immigration and Customs Enforcement - Office of Investigations, as criminal investigator; Attended post-qualifying graduate studies towards a Doctorate degree in Global Affairs at Rutgers University.