

Towards Effective Inter-organizational Partnerships in Trans-Border Supply Chains

by

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PRESENTATION OUTLINE

- ❑ Lest we forget ...Gateways → Gateway (Border) governance
- ❑ A post-9/11 border governance priority: security
- ❑ Controlling the costs of national and supply chain security
- ❑ Inter-organizational partnerships (IOP) around security:
 - ❑ *Inter-governmental: Mutual Recognition Arrangements*
 - ❑ *Government and firms:*
 - ❑ *SC security validation*
 - ❑ *Border traffic flow control*
- ❑ Gateway/Corridor implications and issues

BORDER GOVERNANCE POLICIES

ACE: the USA's Automated Commercial Environment
ACI: Canada's Advance Commercial Information System
ACROSS: Canada's Accelerated Commercial Release Operations Support System
AMPS: Administrative Monetary Penalty System
AMS: the USA's Automated Manifest System
CADEX: Customs Automated Data Exchange System
CDRP: Commercial Driver Registration Program
CSA: Canada's Customs Self Assessment
CSI: the USA's Container Security Initiative
C-TPAT: Customs Trade Partnership Against Terrorism
eManifest System: Electronic Manifest System (third generation ACI)
FAST: Free and Secure Trade
PARS: Canada's Pre-arrival Review System
PIC: Canada's Partners in Compliance
PIP: Canada's Partner's in Protection
WHTI: Western Hemisphere Travel Initiative

A BUSINESS VIEW OF SECURITY

STATED GOVERNMENT/NATIONAL POLICY GOAL

Facilitate the flow of **legitimate** trade through trans-border gateways/corridors; i.e., trade with **minimal risk** of harm to national security

GOVERNMENT'S DEMAND ON THE PRIVATE SECTOR

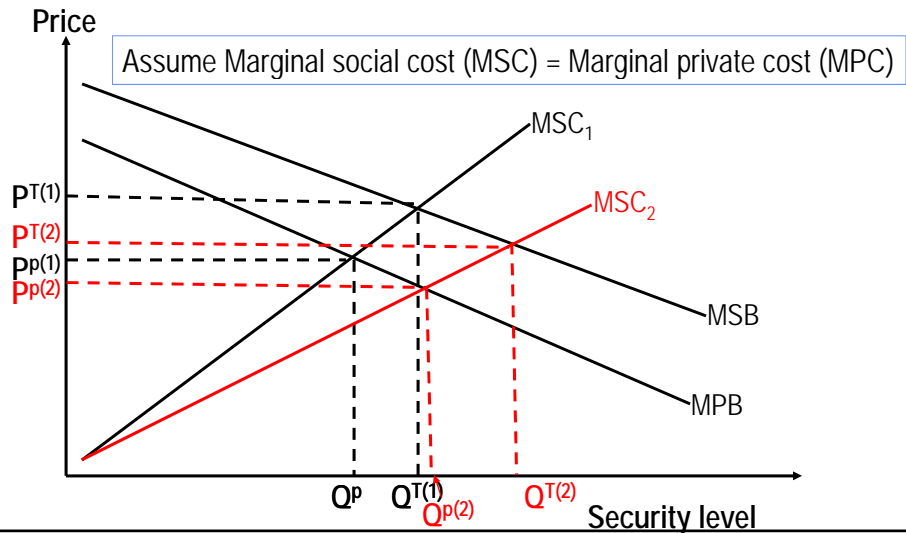
Invest in securing supply chains to prove that they present **minimal risk** of being conduits for or a targets of attacks on national security; i.e., supply chain security investments to become compliant with programs such as Free and Secure Trade (FAST)

PRIVATE SECTOR'S DEMAND ON ITSELF

Cost-effective and beneficial compliance with trade security and shipment expediting programs

SECURITY: SHIFT IN FOCUS NEEDED?

The attainment of border security goals could benefit from a (complementary) greater focus on cost containment



IOP #1: MRAs and learning

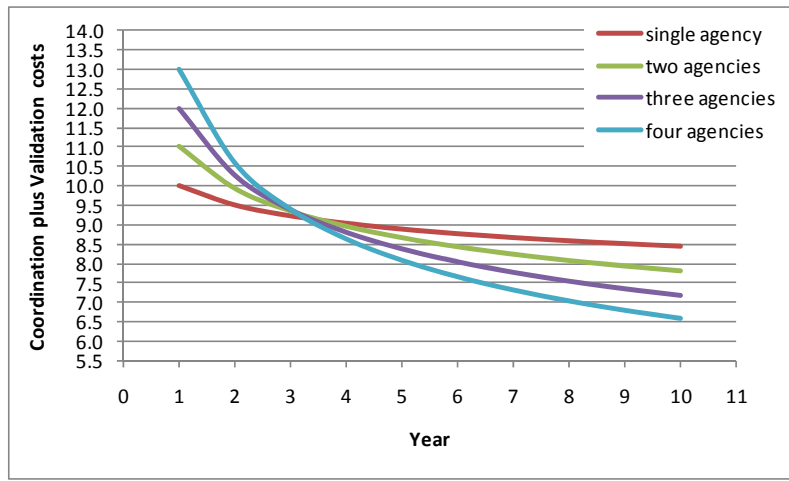
VARIABLE/FACTOR, SYMBOL (and ILLUSTRATIVE VALUE)

- Number of countries in the MRA the Border agency participates in: n
{ $n = 1, 2, 3, 4$ }
- The agency's total cost of validating firms' supply chain security in year t :
 $C_{1,t}$ { $C_{1,1} = 10$ }
- The agency's total cost of coordinating with other agencies in the MRA in year t :
 $(n-1)C_{2,t}$ { $C_{2,1} = 1$ }
- The agency's internal learning curve rate for cost-effective execution of validation audits and participation in inter-organizational initiatives: r (0.90)
- The agency's MRA-based learning curve rate for cost-effective execution of validation audits and participation in inter-organizational initiatives: r_E { $= r^n$ }

Sum of validation cost and MRA coordination cost =

$$C_{1,t} + C_{2,t} = \left(C_{1,1} + (n-1)C_{2,1} \right) \times t^{\ln(r_E) + \ln(2)}$$

IOP #2: MRAs and learning



Over time, the agency's ability to learn of promising cost reduction initiatives is likely to be enhanced through the MRA

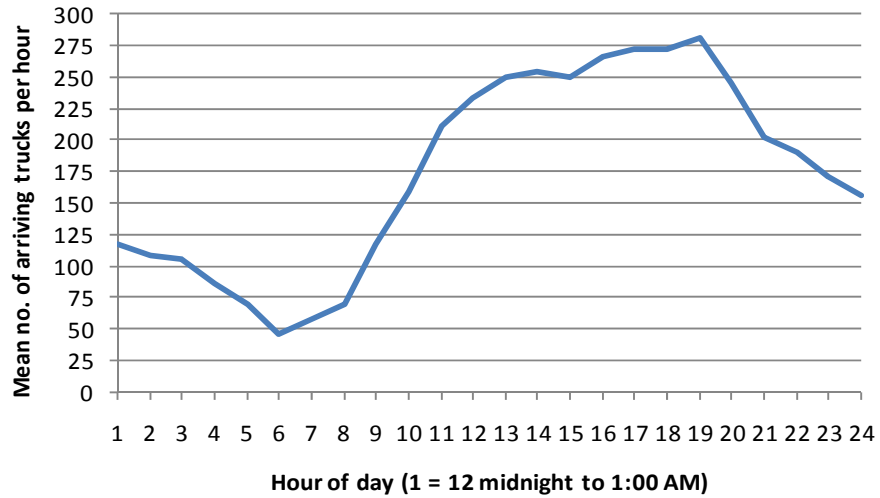
IOP #2: SUPPLY CHAIN SECURITY VALIDATION

INITIATIVES BY BUSINESSES AND GOVERNMENT

OUTCOMES	Company	Border agency
	Efficiently facilitate the Border agency's personnel performing validation audits	Disseminate companies' cost-effective best practices for both validation audits and supply chain security
Reduction in company's validation cost	<i>More efficient facilitation can automatically translate to more efficiency for the company itself</i>	<i>Efficient facilitation practices can be adopted by validated companies for future audits and by other companies for the first audit.</i>
Reduction in the Border agency's validation cost	<i>The Border agency benefits directly from more efficient facilitation by company</i>	<i>Successfully encouraging un-validated companies to become validated will raise a Border agency's experiential learning and competence in doing cost-effective validation audits.</i>
Larger proportion of firms becoming validated	<i>Provides solid empirical data for the Border agency to use in encouraging un-validated companies to seek validation.</i>	

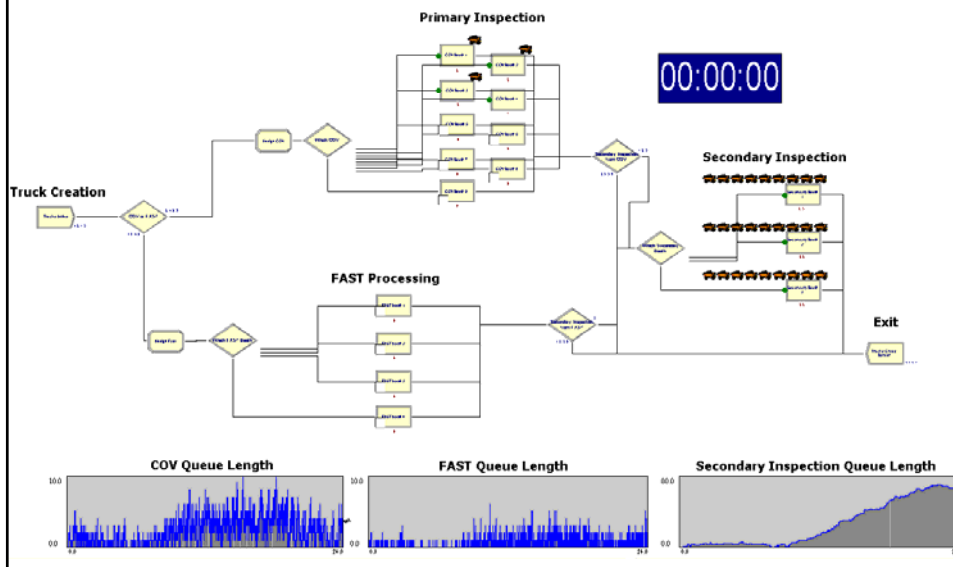
IOP #3: BORDER TRAFFIC FLOW CONTROL

ESTIMATED HOUR-TO-HOUR CHANGES IN MEAN ARRIVAL RATE THROUGH DETROIT-WINDSOR USING US BTS WAIT TIME DATA



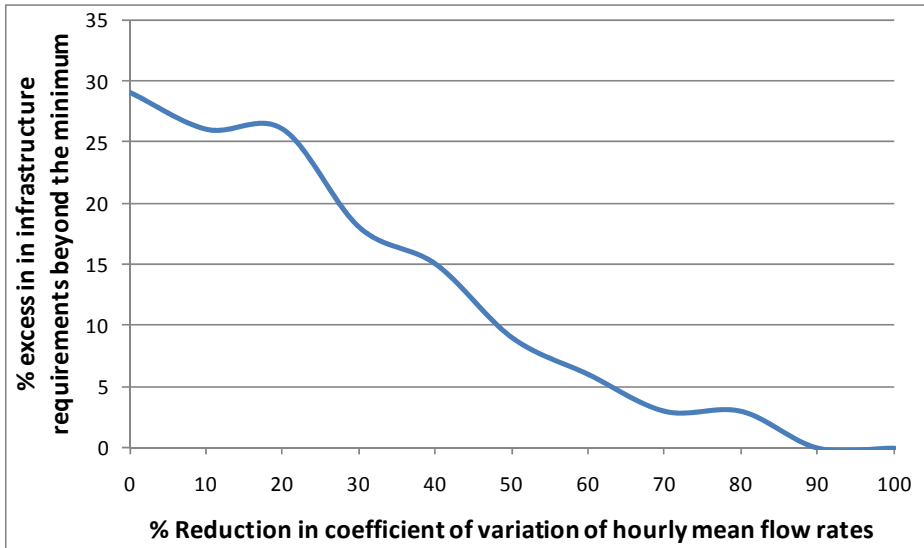
IOP #3: BORDER TRAFFIC FLOW CONTROL

ARENA SIMULATION RUN FOR DETROIT-WINDSOR



IOP #3: BORDER TRAFFIC FLOW CONTROL

OVERALL SIMULATION RESULTS



CORRIDOR RELEVANCE

- ✓ What is the status of corridor-focused inter-governmental partnership with respect to issues such as learning?
- ✓ To what extent are cost efficiencies prominent in deliberations concerning corridor infrastructure investments and PPP investment models
- ✓ What is the status of PPP and other inter-organizational partnerships on gateway logistics?

Thanks for Listening

Questions/Comments?

