University of Southern California



Executive Summary APEC Supply Chains: Identifying Opportunities for Improvement

This report presents a detailed comparative analysis of APEC supply chains. Specifically this study focused on identifying and quantifying the most significant chokepoints, inefficiencies, and barriers which impose time delays, raise transaction costs unnecessarily, and increase supply chain risk and uncertainty. The report's objective was to bring into focus for policymakers those chokepoints where improvements would have the greatest impact.

Chokepoints impose direct economic losses. Chokepoints benefit no one; they hurt consumers, businesses, and economies. And when chokepoints are large and persistent, they impact competitiveness and divert trade and investment. Achieving improvements is difficult because supply chains require the coordination of multiple parties and multiple government agencies in different economies. Additionally, the chain-linked nature of supply chains means that changes in one part offer diminished benefits unless the entire chain is improved. Consequently, it is crucial for APEC to identify which chokepoints are most critical and what improvements will provide the greatest potential time and cost savings.

Our research included the following:

- A comprehensive descriptive comparison of APEC supply chains with data drawn from the WEF Enabling Trade Report, the World Bank Logistics Performance Index and Doing Business Report.
- A detailed analysis of potential time and cost savings in APEC supply chains.
- Detailed analyses designed to identify the most significant chokepoints in APEC supply chains.
- In depth interviews with 181 APEC business executives, supply chain experts, and government officials; and an analysis of 44 detailed supply chain questionnaires.
- A detailed examination of the key chokepoints identified by the APEC Supply Chain Taskforce, May 2009.

KEY FINDINGS

- APEC economies lead and lag in supply chain competitiveness. As a region, APEC is home to economies that lead the world in supply chain efficiency. It also has economies that lag world averages, and lag substantially. Where supply chains cross multiple APEC economies this becomes a collective concern.
- Substantial opportunity exists to improve APEC supply chains, particularly in emerging economies. When compared to a best-in-APEC supply chain, potential time and cost savings were estimated at:

POTENTIAL TIME & COST SAVINGS	Developed Economy (Import)	Emerging Economy (Import)
Developed Economy (Export)	2.1 Days / Shipment \$617 / Container	4.1 Days / Shipment \$1,084 / Container
Emerging Economy (Export)	3.6 Days / Shipment \$840 / Container	5.6 Days / Shipment \$1,307 / Container

- Concerns about supply chain chokepoints differ across economies. Executives in developed economies complained
 about the speed of customs and port clearance, complex regulations and standards, non-tariff barriers (NTBs), and
 burdensome document requirements. In emerging economies the issues raised were around infrastructure,
 transparency of procedures, variability in clearance times, efficiency and quality of customs services, availability of
 logistics services and connectivity of transport modes.
- Emerging economies lagged developed economies most in transparency, availability and use of online IT systems,
 efficiency of customs, and transportation and port infrastructure. Developed economies have benefited most from
 moving to online IT based systems and improved customs efficiency and procedures. A lack of transparency and the
 presence of corruption burden emerging economies the most.
- Trade barriers, particularly NTBs, continue to plague APEC supply chains. Significant progress on tariff reduction has been accomplished in the APEC region. This progress, however, has been outweighed by the continued presence of non-tariff barriers and the emergence of new NTBs.

- Improvements in port operations and custom services offer the opportunity for the largest immediate
 improvements. In emerging economies, improvements in both customs and port clearance efficiency will produce
 immediate time and cost saving, while improved port efficiency in developed economies will offer immediate benefits.
- Absence of detailed data required for rigorous analysis. In our attempts to quantify the impact of supply chain chokepoints, we discovered that businesses and economies are not capturing relevant data in a holistic manner. There is a need to encourage businesses to track information related to specific chokepoints with an emphasis on standardized data.
- **Benefits of IT systems to supply chains.** A finding that emerged in many areas of our research was that there are benefits to the adoption of information technology. IT systems were found to positively impact documentation, custom and port clearance, connectivity, and to dramatically improve transparency problems. Electronic systems can produce substantial cost and time savings at ports
- Uncertainty and variability is also critical. Interview and questionnaire respondents focused on improvements in reducing uncertainty and variability in shipping time and customs procedures as being as important as, or more important than, achieving improvements in supply chain costs and time.
- Burdensome documentation requirements and complex regulations and standards, and in particular, disadvantage small and mid-sized enterprises (SMEs). Business complained loudly about unnecessary and complex documentation requirements. Complex requirements to meet rules of origin requirements discourage many businesses, particularly small and mid-size firms without additional resources, from taking advantage of the provisions of free trade agreements.
- **Problems of multi-jurisdictional authority behind and at the border.** Across economies the lack of coordination among government agencies was raised as a source of unnecessary costs and time delays.
- Found support for all 8 chokepoints identified by the APEC Taskforce, and added market access barriers. Our interviews with APEC business executives confirmed that all 8 chokepoints are issues within APEC. However, concern of the continued presence of restrictive trade barriers in some APEC economies led us to conclude market access remains an important issue for APEC. Customs and port clearance, transparency, and market access were found to be relatively more important.

ACTION AGENDA

APEC has an important role in improving regional supply chains. Improving supply chains across borders requires collective coordinated action.

- APEC must expand its role in coordinating the sharing of supply chain best practice information. Supply chain best practices for developed and emerging economies do exist within APEC. APEC is home to best-in-the-world supply chains; both within firms and at the economy-level. This study has identified where best practices exist in APEC for each component of the supply chain.
- **Get the Data.** The analysis and conclusions reached in this study could have been improved if greater granularity of data were available. The data that is currently available is simply not sufficient to provide estimates of impact that can be segmented down to individual chokepoints. Better data collection by both business and government would allow the creation of a stronger business case for change that is not dependent on "black box" economic models.
- Accelerate harmonization efforts in customs requirements and procedures across APEC. Improved customs clearance times will have significant impacts on competitiveness and GDP.
- APEC must expand its role in the leadership, governance, and oversight of standardization initiatives within supply
 chains. Standardization has broad positive economic consequences. Improved standardization will impact multiple
 chokepoints including transparency, documentation, customs efficiency, and customs transit arrangements.
- Develop APEC-wide "model measures/model protocols" for information and communication technology systems
 (ICTs). Encourage adoption of compatible IT online systems for all parts of the supply chain by all economies in APEC.
 Simply put, it is an issue of economic competitiveness. Adopting IT systems will "force" coordination among
 government agencies with responsibility for supply chain activities.
- Keep the focus on NTBs. APEC must encourage increased transparency by all economies for non-tariff measures (NTM) requirements. APEC must create opportunities for economies to discuss new emerging industry and NGO-initiated NTBs. APEC must produce model measures for all new emerging NTBs. Establishing APEC-wide standards for all NTMs, and procedures for testing and compliance, will greatly reduce cost of NTBs.