

Uncertainty on Crossing Times at US/Mexican Border: Impacts on Safety Stocks of NAFTA Supply Chains

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In the future, increased growth of the NAFTA integration is foreseen, based on logistics flows boosted by the automotive industry and also by the electronic and aerospace industry. A “reverse globalization” is becoming a tendency as firms back off from China to other countries as Mexico for sourcing and manufacturing requirements. The opportunity to organize one of the largest regional manufacturing zones in the world exists (Black and Rodriguez, 2010; Manners-Bell, 2010); However, because of intensification of trade, improving cross-border process will be a critical issue for NAFTA. In fact, one of the key success factors for the region is to increase cross-border throughput, which is: “the speed and volume with which products move through transportation, manufacturing processes, and even customs at the border” (Lawrence, Leon, 2010). Clearly, Bakir and Pakdaman (2006) argue that: “Mexican cross-border trucking appears to be in the future of (North American) free trade.” Thus, the uncertainty caused by delays as well as disruptions at the U.S. /Mexico Border and transmitted all along NAFTA supply chains located on both sides of the border is analyzed. The non standardized security policies at the U.S./Mexico Border and their cost implications to export-oriented supply chains are identified. Information regarding the impact of variability on supply chain safety stocks because of cross-border policies is provided. Based on a quantitative model and literature review, implications for the design of export-oriented supply chains and future research are presented.