NAFTA 20 Years After Study Release

What do recent research studies tell us about where we are and where we are headed?

A META-ANALYSIS RELEASED BY THE TEXAS A&M TRANSPORTATION INSTITUTE

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On January 1, 1994, the North American Free Trade Agreement (NAFTA) between the United States, Canada and Mexico took effect. Prior to NAFTA, in 1987 the Canada-United States Free Trade Agreement was signed. One of the main objectives of the free-trade agreement was to eliminate tariff barriers, as well as non-tariff barriers, on goods and services within 15 years. NAFTA created the world’s largest free-trade region, which now links 444 million people producing $17 trillion worth of goods and services (U.S. Department of Commerce, International Trade Administration 2013).

NAFTA was conceived by the three North American countries in part to compete with the Treaty of Rome, which later became the European Union.

NAFTA will represent the most creative step toward a new world order taken by any group of countries since the end of the Cold War, and the first step toward an even larger vision of a free-trade zone for the entire Western Hemisphere... NAFTA is not a conventional trade agreement, but the architecture of a new international system.

—Henry Kissinger, 1993

### Key milestones for NAFTA

- **June 10, 1990**
  - The United States, Canada and Mexico agree to pursue a free-trade agreement.
- **February 5, 1991**
  - NAFTA negotiations begin.
- **December 17, 1992**
  - Leaders from Canada, the United States and Mexico sign NAFTA.
- **August 1993**
  - Additional side agreements on labor and the environment are negotiated.
- **January 1, 1994**
  - NAFTA takes effect.

### Trade and Transportation Facts and Figures

Since NAFTA took effect, U.S.-Canada surface trade has more than doubled, while U.S.-Mexico trade has more than quadrupled (U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics).
Not only has trade between the United States and its NAFTA partners grown, but the value of trade has increased. For example, the value to weight ratio of U.S. imports from Mexico has more than doubled between 2004 and 2013, reflecting the growth of advanced industries in the region.

### Environment

While NAFTA was being negotiated, environmental issues became a main concern. Environmental organizations from the United States and Canada demanded the inclusion of environmental regulations in the agreement. Organizations like the Sierra Club, Action Canada Network and World Wildlife Fund were concerned that Mexico would become a pollution heaven and U.S. and Canadian companies would elude domestic environmental regulations by migrating to Mexico.

Driven in part by the U.S. administration’s desire to mitigate public concern about the impact of trade liberalization on the environment, the three NAFTA countries signed the North American Agreement on Environmental Cooperation (NAAEC). The NAAEC is a commitment that liberalization of trade and economic growth in North America will be accompanied by collaboration and continuous improvement in the environmental protection provided by each of the three countries. The Commission for Environmental Cooperation (CEC) was created to implement the NAAEC, and currently CEC is probably the only true North American institution that works at the continental level (Akerberg 2011).

The United States, Mexico and Canada have implemented policies to reduce greenhouse gas (GHG) emissions in transportation; however, the United States and Canada have mandatory transportation emission reduction targets, while Mexico has not established these targets.

### Other notable developments in trade and transportation include the following:

- Truck size and weight regulations differ among all three NAFTA members, and even within each country. Harmonizing truck size and weight regulations could bring benefits to all countries and facilitate cross-border traffic (Trent 2007).
- Freight transport is a vital element that supports global supply and commodity chains, from the transformation of raw materials to market distribution and after-market services. However, the rising costs associated with security and other constraints, as well as the complexity of getting goods delivered, reduce profit margins for manufacturers around the globe (Leinbach and Capineri 2007).
- The three NAFTA countries have a shared interest in harmonizing climate change policy, and while they have taken steps in that direction, there is still much that can be done to promote renewable energy development and reduce GHG emissions (Fickling and Schott 2011).
- Freight transportation, and particularly cross-border freight movement, is a high GHG-emitting industry. A coherent combination of policies consisting of subsidies, regulation and emissions pricing is the most promising approach toward mitigation of GHGs from truck and freight rail transportation. Also, by reducing fuel consumption, private-sector truck and rail carriers reduce costs while reducing emissions (Protopapas and Villa 2011).
- Infrastructure development and process modernization have not kept pace with growth, creating bottlenecks and congestion, particularly at land ports of entry. A potential solution to this issue is the modernization of land border-crossing practices, using technology and adding key infrastructure (Djah and Villa 2002).
- NAFTA trucking provisions have not been fully implemented, creating unnecessary drayage operations at land ports of entry that generate additional empty trips, and using limited physical infrastructure and human resources for inspection. A holistic solution to this issue must be designed and implemented to reduce drayage operations (Rico 2001).

### Other findings about the environment include the following:

- The three NAFTA countries have harmonized renewable energy standards, trading renewable electricity credits, improving cross-border transmission capacity between the United States and Mexico, and using NAFTA institutions for data collection and monitoring of regional climate policies and for capacity building in Mexico (Texas A&M Transportation Institute et al. 2010, Federal Highway Administration 2012).
Other findings about energy include the following:

- Biofuels as alternative energy for transportation were supported through subsidies to reduce dependence on oil imports in the United States; however, biofuels did not reduce oil consumption and are not that much cleaner than fossil fuels (Gillon 2012). Recent oil and gas production booms in North America could impact the support that biofuels had in the past as other alternative energies for transportation like gas, electric or hybrids become more attractive. Mexico is analyzing the use of different raw materials to produce biofuels but has no mass production yet (Lozada et al. 2010).

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- Some authors recommend analyzing policies to make trucks cleaner and do not include an analysis of options to reduce the overall number of trucks (Blank 2010).

- The most frequent recommendations in environmental studies for the transportation sector are harmonizing renewable energy standards, trading renewable electricity credits, improving cross-border transmission capacity between the United States and Mexico, and using NAFTA institutions for data collection and monitoring of regional climate policies and for capacity building in Mexico (Texas A&M Transportation Institute et al. 2010, Federal Highway Administration 2012).

Other findings about energy include the following:

- Transportation is the second greatest consumer of energy in the United States and Mexico, and the first greatest consumer in Canada. Usually, transportation and energy are not the North American agenda’s primary focus, but both local and national regulations on climate change have increased interest in transportation energy efficiency.

- Local, state and national rules about climate change have now tied environmental and energy issues together. Reducing energy consumption is now both an environmental and energy concern (Fickling and Schott 2011).

- Due to climate change, North America is seeking alternative energies for transportation. Biofuels and gas are the most feasible alternative energies for the present because they do not involve a technological conversion, which is why they have experienced a boom in the last decade. But at the beginning of the second decade of the millennium, several critics questioned biofuels’ feasibility. The United States and Mexico implemented policies to improve biofuels (BID-GTZ 2006, Protopapas and Villa 2011).

Energy

Historically, energy has been a polarizing issue in North America because the United States’ high consumption of fossil fuels contrasted with Canada’s traditional environmental restrictions and Mexico’s protectionism of this sector. Currently, North American energy production and consumption trends are changing. Canada and Mexico have shifted their views to a more cooperative position, and U.S. energy production is increasing, especially in the gas sector. North America could be energy self-sufficient in the short term, and a more cooperative environment is evolving due to Canada’s openness to extracting tar sands and Mexico’s recent energy reforms.

Other findings about integration and competitiveness include the following:

- To stimulate trade and reduce illegal migration, the three countries should establish a fund to invest in the continent’s infrastructure (Pastor 2012).

- Transaction costs, meaning those not associated with direct transportation costs, can reduce and sometimes eliminate the benefits gained from the removal of tariffs and trade liberalization caused by NAFTA. The solution is to reduce these costs by changing current border-crossing procedures among NAFTA partners, exchanging security and safety information, and harmonizing procedures (Villa 2007).

- In the early stages of NAFTA, from a Canadian perspective, the impact of NAFTA on non-tariff barriers was identified as a potential issue that could reduce the positive impacts of the free-trade agreement. These non-tariff barriers include operating and safety standards, access to cargo (cabotage), ownership regulations, and investment screening (Brooks 2001).
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