Economic Implications for the U.S. of a North America without NAFTA or USMCA

Kei-Mu Yi

September 26, 2019
Forging a New Path in North American Trade and Immigration
Federal Reserve Bank of Dallas

1Federal Reserve Bank of Dallas, U. of Houston and NBER. Abigail Boatwright provided outstanding research assistance. The views expressed here are those of the author and are not necessarily reflective of views of the Federal Reserve Bank of Dallas or the Federal Reserve System.
Background: Changes in Trade Following NAFTA

- In 1993, before NAFTA, Mexico’s trade with U.S. was about 9.5% percent of Mexico’s GDP
- In 2018, after NAFTA, Mexico’s trade with U.S. is about 19% percent of Mexico’s GDP

Key feature of the increased integration of the two economies is increased global supply chains (GSC) – production processes that are linked sequentially across countries
  - Imported inputs are used in production to make goods subsequently exported
Mexico’s foreign value-added share of exports has increased significantly since NAFTA. World-wide, foreign VAX rose about 5 pp between 1995 and 2009 (Johnson and Noguera, 2017)

Source: OECD, Author’s calculations
Specialized inputs – using inputs specialized for the production process of a particular good – are important.

For example, as Alonso de Gortari showed earlier:

- 74% of foreign inputs that Mexico uses to make motor vehicles for export to the U.S. come from the U.S., but ...
- only 18% of foreign inputs that Mexico uses to make motor vehicles for export to Germany come from the U.S. (and only 38% come from Germany)
Assessing Gains and Losses from Adding or Removing a Free Trade Agreement (e.g. NAFTA)

- After the fact, key challenge: Sorting out the effect of NAFTA from the effects of other events happening at same time

- Before the fact, key challenge: Need to use a quantitative theoretical model – have not performed well in past (but getting better). Typical framework and methodology:
  - Multi-country, multi-sector model of international trade
    - International trade is based on “comparative advantage”
    - Barriers to international trade: tariffs, non-tariff policy barriers (NTBs), all other costs of trade. If tariffs and other barriers are lowered, cost of imports fall – more trade, more specialization: good, overall
    - Quantify model with data from input-output tables, national income and product accounts, and other sources
    - Examine effects of increasing tariffs to typical U.S. tariff rate with its trading partners (MFN)
Economic Effects of Removing NAFTA

Change in real income from raising tariffs to:

<table>
<thead>
<tr>
<th>Country</th>
<th>MFN</th>
<th>MFN plus higher NTBs</th>
</tr>
</thead>
<tbody>
<tr>
<td>USA</td>
<td>-0.00%</td>
<td>-0.22%</td>
</tr>
<tr>
<td>MEX</td>
<td>-0.25%</td>
<td>-1.81%</td>
</tr>
<tr>
<td>CAN</td>
<td>-0.06%</td>
<td>-2.15%</td>
</tr>
</tbody>
</table>

Wide disparity in losses across sectors and U.S. states (with some even gaining)

Source: Auer, Bonadio, and Levchenko (2019)
But, Framework Does Not Allow for Global Supply Chains with Specialized Inputs

- Work by Antras and de Gortari (2018) and de Gortari (2019) suggests losses from higher trade barriers could be from 1.5 times to 10 times larger once global supply chains are taken into account. Why?

- When goods are produced in multiple sequential stages, each time a stage of production crosses an international border, there are costs (tariffs, transportation costs, non-tariff barriers)
  - The more crossings, the higher the costs.
  - Hence, effects of increases in tariff rates (and other trade barriers) can be magnified.
Also, Framework Does Not Allow for Effects on Long-run Capital Investment

- Research by Ravikumar, Santacreu, and Sposi (2018) suggests including for long-run capital investment doubles the effects of changes in barriers to trade

Putting all the numbers (conservatively) together suggests losses in real income of about 4 to 8 percent for Mexico and about 0.5 to 1 percent for U.S. in a world without NAFTA
Are losses in real income of about 4 to 8 percent for Mexico and 0.5 to 1 percent for the United States small or large? During Great Recession:

- U.S. inflation-adjusted GDP fell 4 percent, and employment/population ratio fell 4 percentage points
- Mexico’s inflation-adjusted GDP fell 7.5 percent

More broadly, if U.S. continues trade war with China (and pulls out of NAFTA), losses to U.S. would be even greater
Conclusion

- A world without NAFTA or USMCA would not be the end, but owing to increased linkages between the countries, especially global supply chain linkages, the costs to ending NAFTA now could be significant.

- Analytical frameworks used to study trade agreements need to be refined more to better capture:
  - Global supply chains with specialized inputs
  - Long-run capital investment
  - Non-tariff barriers
  - Least-traded products