

Impacts of Chinese Tariffs on Soybeans and other Ag Commodities and the Renegotiated NAFTA Agreement

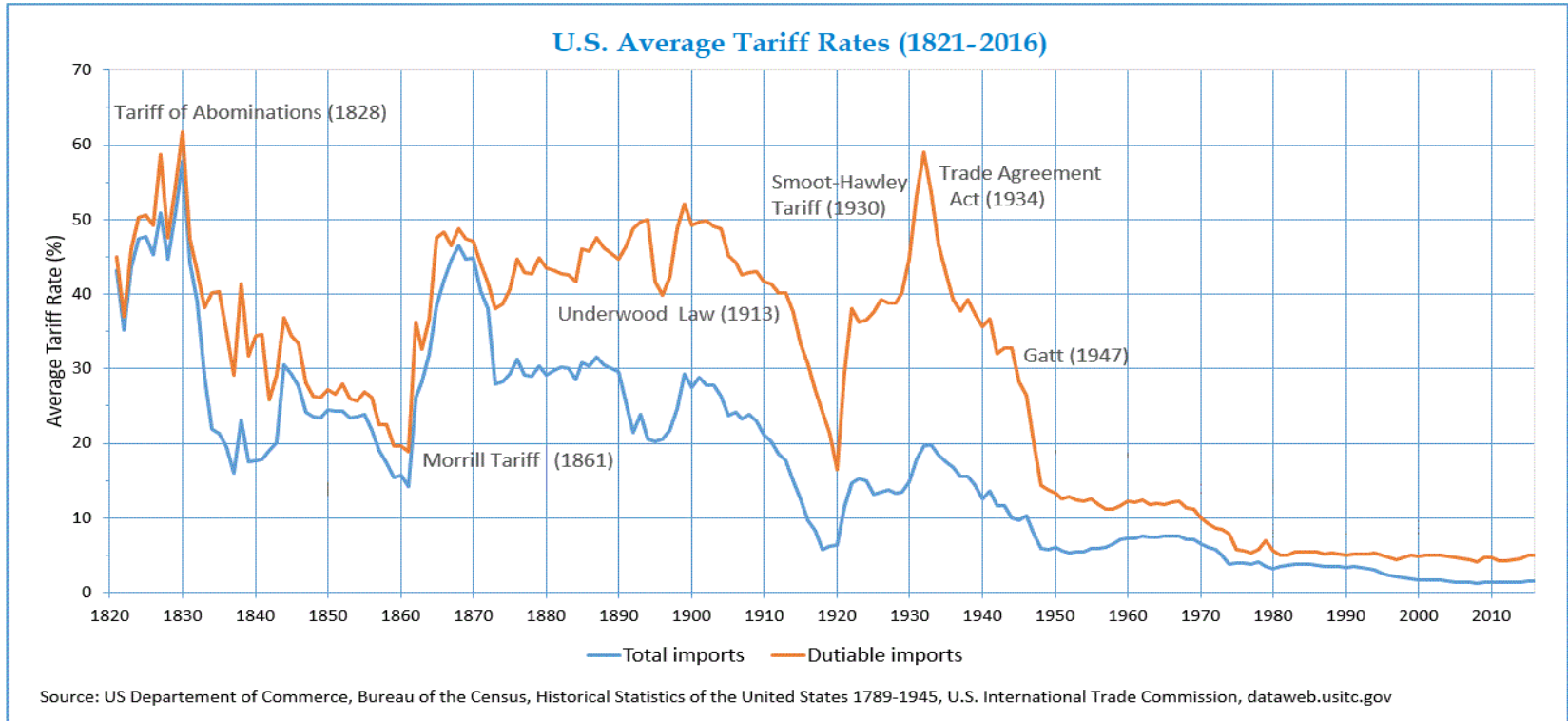
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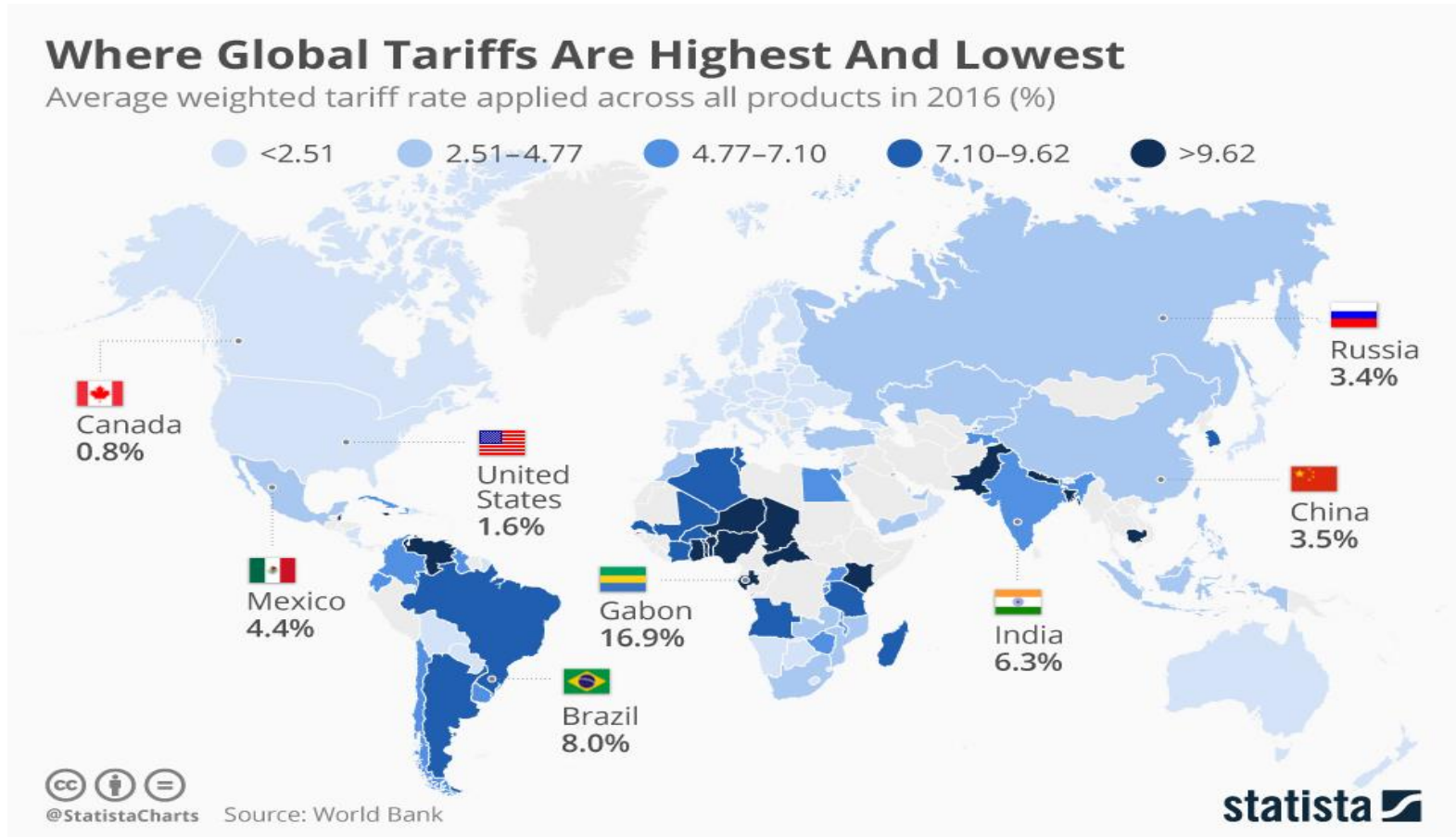
What do economists think?

- Comparative advantage
 - 18th & 19th Centuries—Adam Smith, David Ricardo
- Most economists would argue that the net gains from free international trade are positive.
- However, when there is a change in trade policy, there generally are gainers and losers.
- Often those who gain are more dispersed, and those who lose are more concentrated.

US tariffs have never been lower...

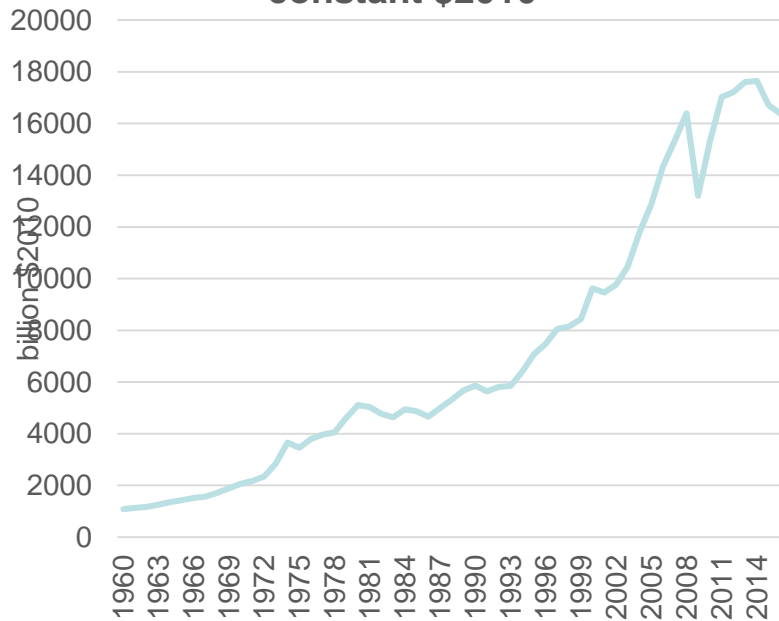


And tariffs are low in most parts of the world



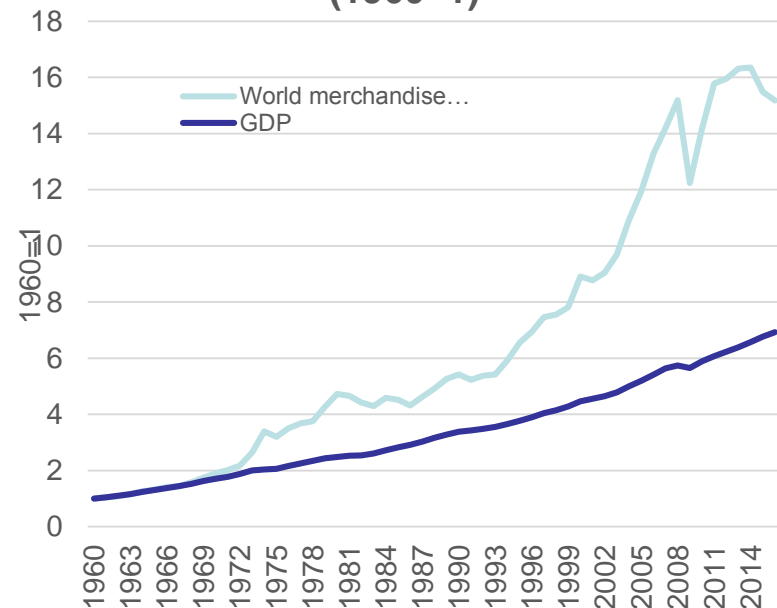
Global trade has outpaced global output

World merchandise export, constant \$2010



Source: World Trade Organization, World Bank

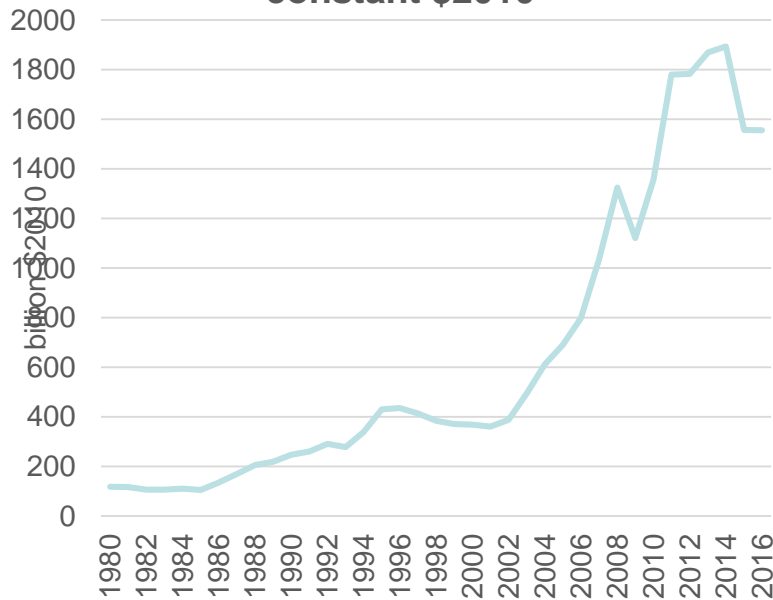
World merchandise export vs GDP (1960=1)



Source: World Trade Organization, World Bank

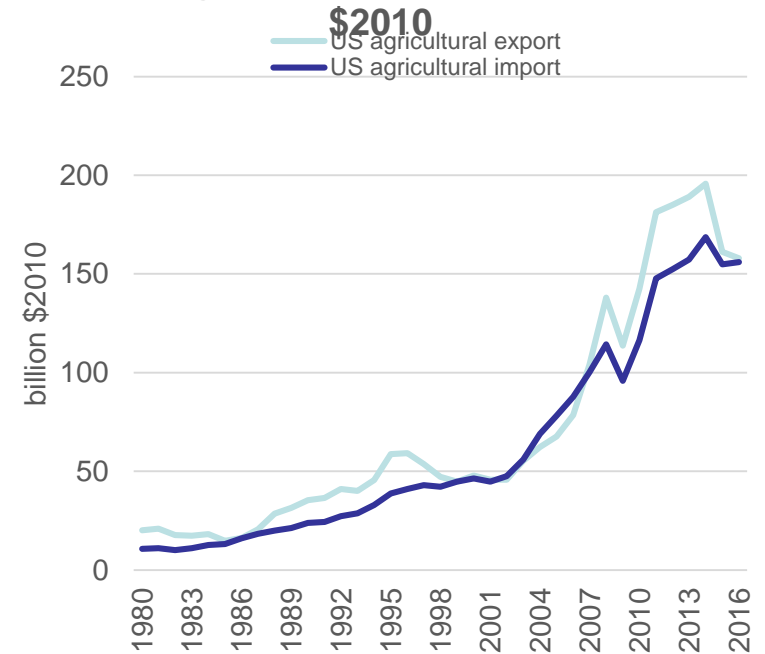
Large rise in agricultural trade, particularly post-2000

World agricultural export, constant \$2010



Source: World Trade Organization, World Bank

US agricultural trade, constant \$2010



Source: World Trade Organization, World Bank

Assessing benefits/costs from free trade

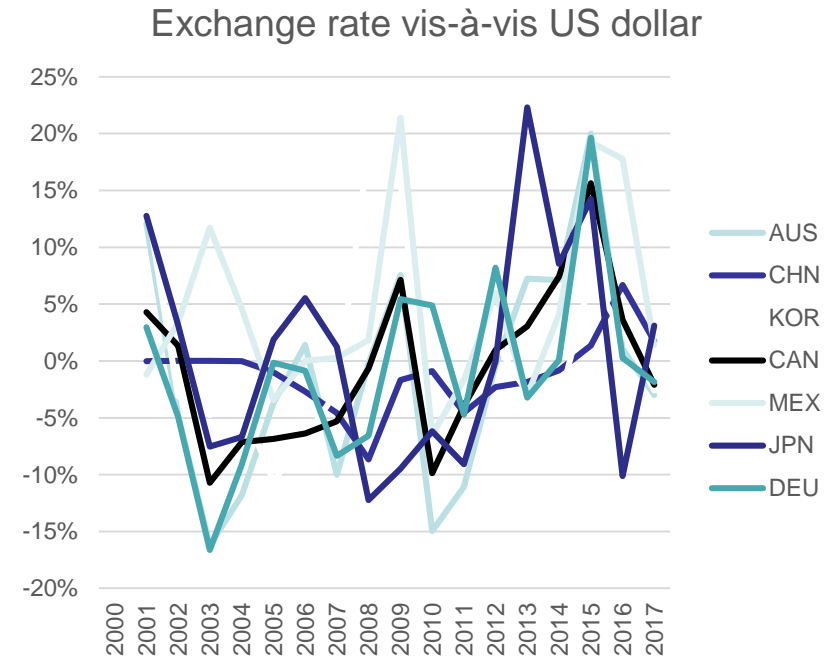
- +1-2% of GDP from efficiency gains
 - Ignores dynamic effects (productivity, innovation, pro-competitive, increased varieties)
- There are nonetheless winners and losers
 - Those negatively impacted are typically easy to identify, the benefits are more diffuse
- Gains should be sufficient to help displaced workers
 - Re-training, re-localization
 - But implementation has typically been deficient

Trade vs. technology

- Still an open question
 - Consensus is that productivity improvements account for up to 80% of job losses in manufacturing
 - In other words, a good bit of the job losses that have been blamed on trade are due to capital substitution for labor, not imports for domestic goods.

Is the trading system fair?

- Negotiated multilaterally
 - Implies countries see mutual benefit (not necessarily always purely economic)
- Most tariffs are too low to matter, currency movements and trade impediments (e.g. ports, logistics, procedures, standards) are likely to be a bigger hindrance to trade
- Countries do not always play by the rules, but there are remedies



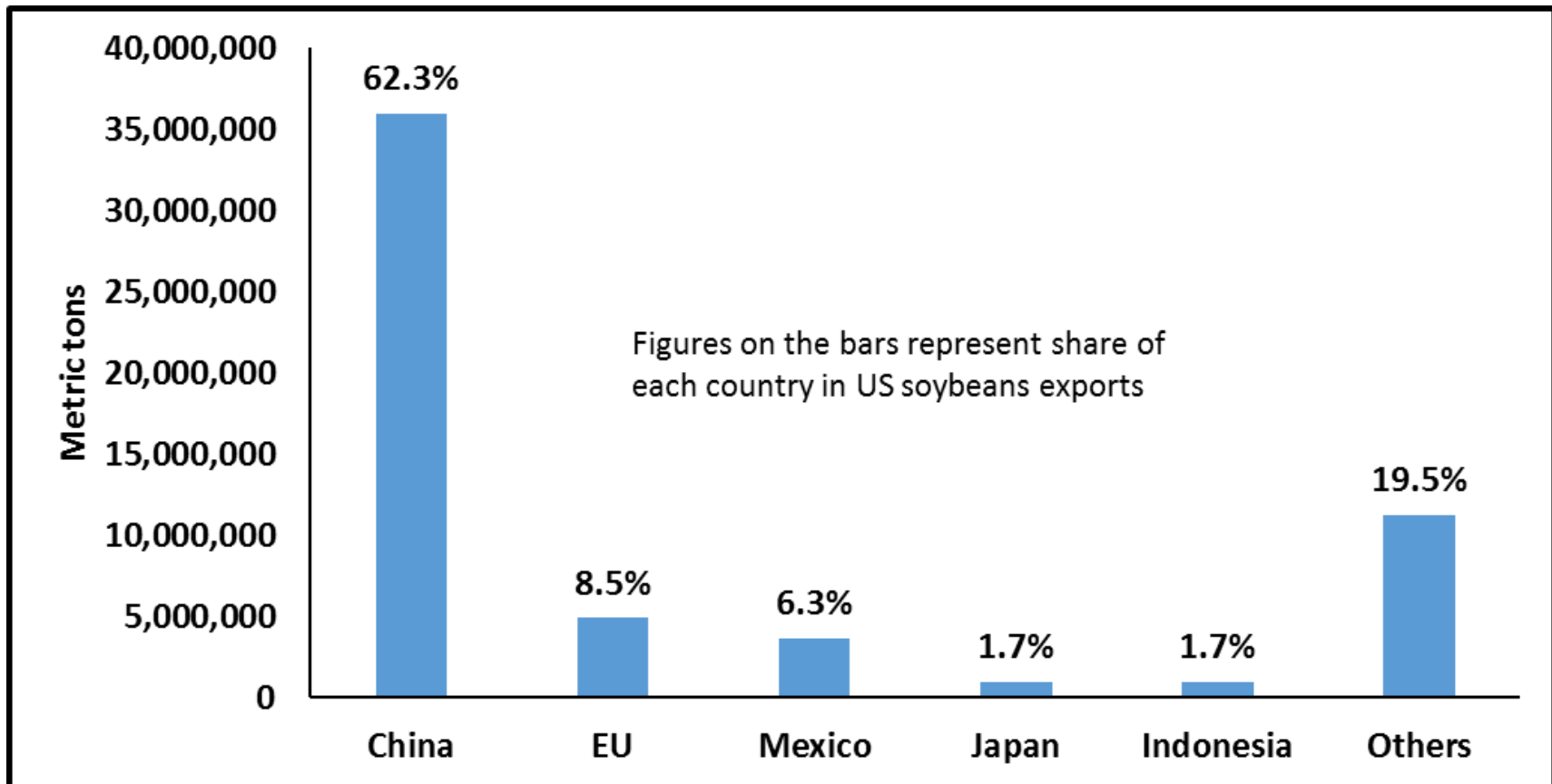
China Tariff Study Objectives

- Our aim was to estimate the medium term impacts of Chinese imposition of a 25% tariff on US soybeans, corn, wheat, sorghum, and beef.
- The study was funded by the US Soybean Export Council

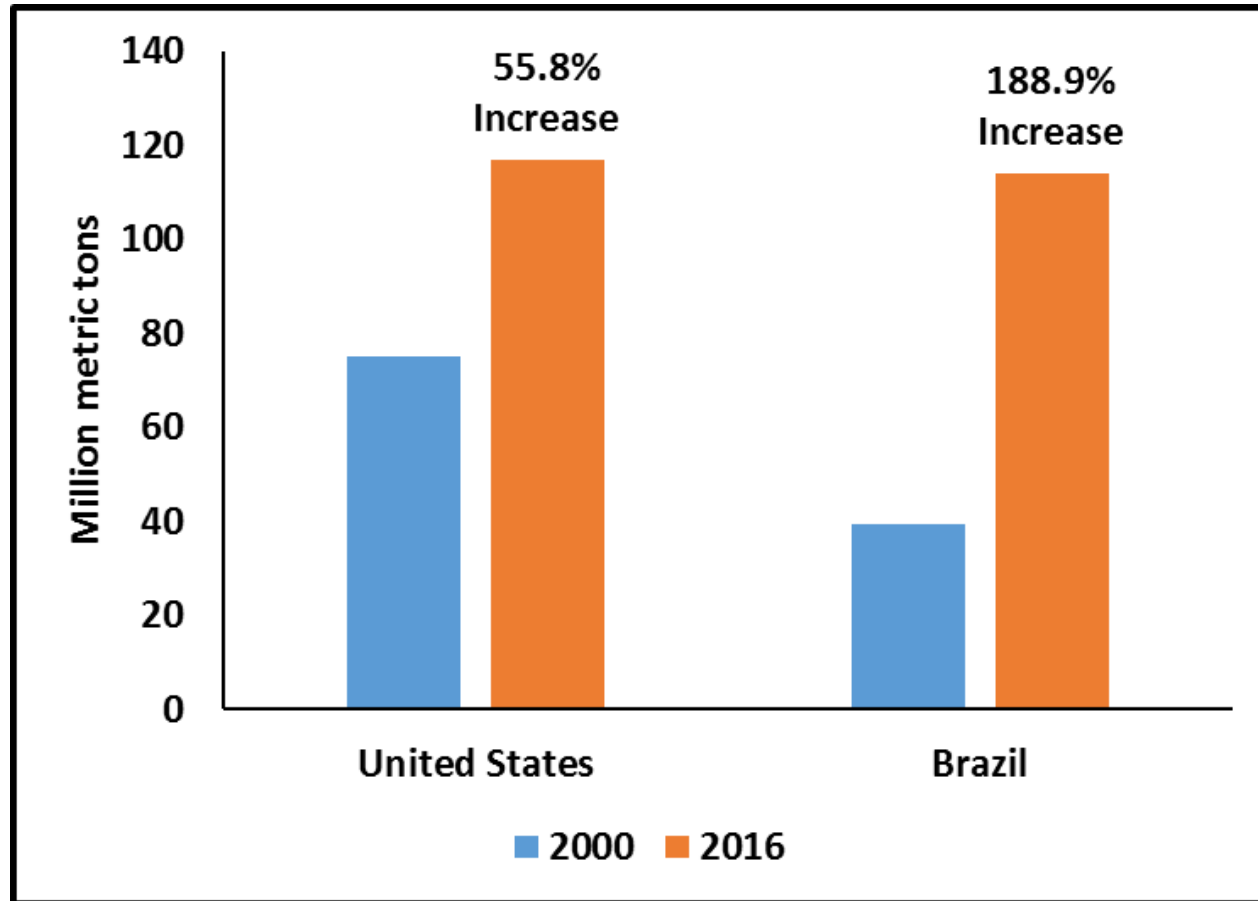
China is World's Largest Soybean Market

- China imported 93.5 MMT in 2016, about 65% of global soybean imports.
- These imports mainly come from US (42%), Brazil (44%), and Argentina (9%).
- In 2016, total US exports were 59.2 MMT and for Brazil 63.1 MMT.

US Soybean Exports – Major Destinations



US and Brazilian Soybean Production Increase, 2000-16



Analytical Approach

- We used the GTAP model developed and housed at Purdue for this analysis
- It is a global computable general equilibrium model covering 140 countries/regions and 57 commodities
- For this analysis, we aggregated to 6 regions: US, EU, Brazil, China, South America, Rest of World

Data

- The latest public version of the GTAP data base is 2011.
- Lots has happened in the agricultural commodity production/trade world since then, so we updated the data base to 2016.
- We updated all important variables including GDP, population, capital formation, crop area and production, and trade

Shares of export in US production and shares of China in US export for targeted crops (figures are in quantity %)

Commodities	Share of export in US production	Share of China in US export
Wheat	45.6	3.8
Sorghum	50.1	78.8
Corn	14.4	0.5
Soybeans	50.6	62.3

Summary of Impacts

Variable	Tariff on soybeans (cases 1 and 2)	Tariff on all targeted Commodities (Cases 3 and 4)
Change in quantity of China's soybean imports from US (%)	-69	-69
Change in quantity of total US soybean exports (%)	-29	-29
Change in quantity of US soybean production (%)	-13	-13
Change in US soybean producer price (%)	-4	-4
Change in US economic welfare (\$ billion)	-2.3	-2.6
Change in China economic welfare (\$ billion)	-2.4	-2.6
Change in Brazil economic welfare (\$ billion)	+2.2	+2.2

The tariffs are a lose-lose proposition – both the US and China lose about the same amount.

Brazil is the winner.

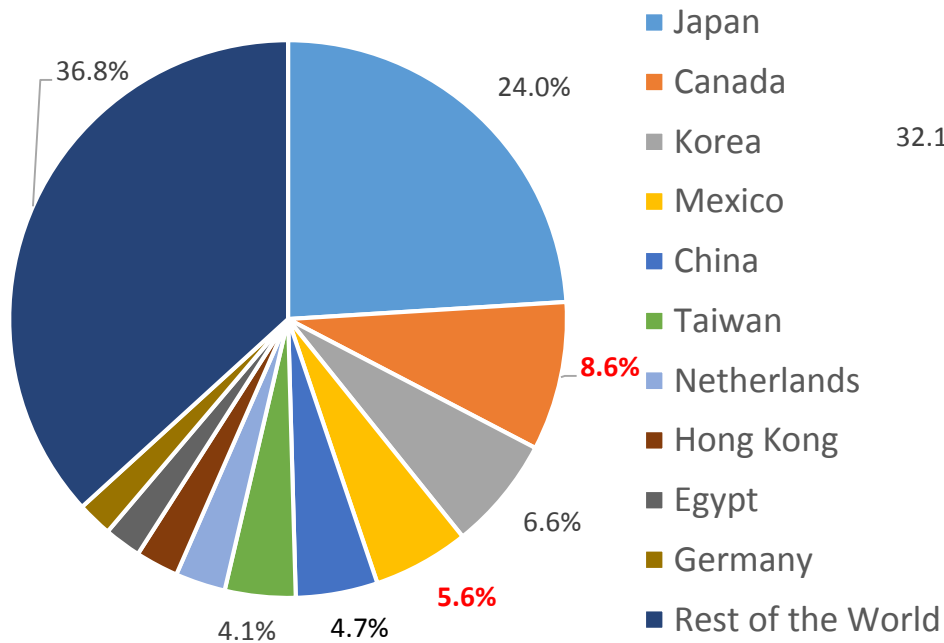
These are medium term impacts – not short term.

USMCA/NAFTA Analysis

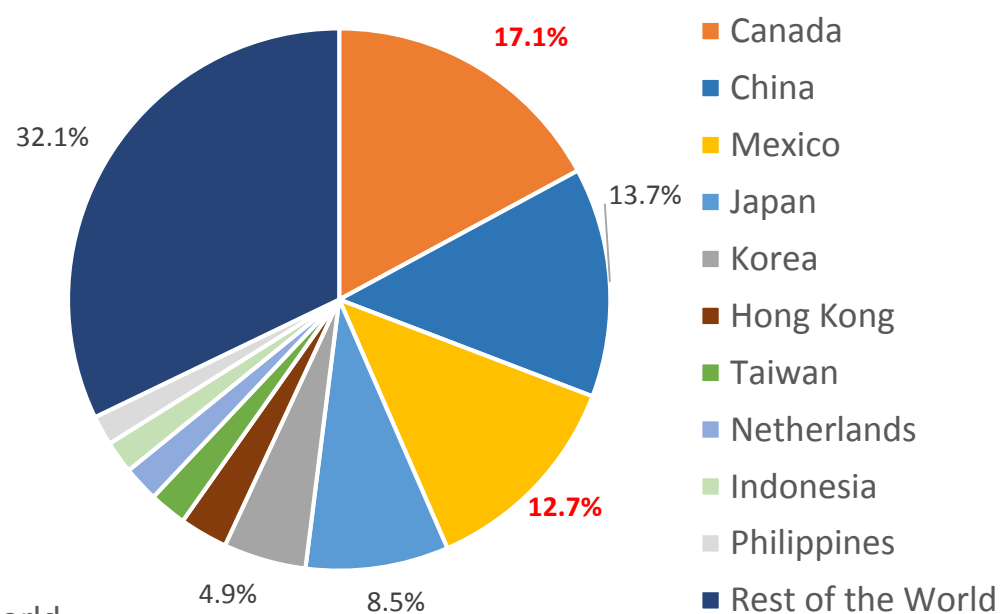
- USMCA consolidates gains of NAFTA-1.0 with modest improvements in market access
- Nonetheless, farmers are facing strong headwinds as U.S. trading partners react to rising U.S. tariffs
- Dissolution of NAFTA could be costly for U.S. agricultural interests

Canada and Mexico have doubled their share in U.S. agricultural exports

Top 10 importers (1995)



Top 10 importers (2017)

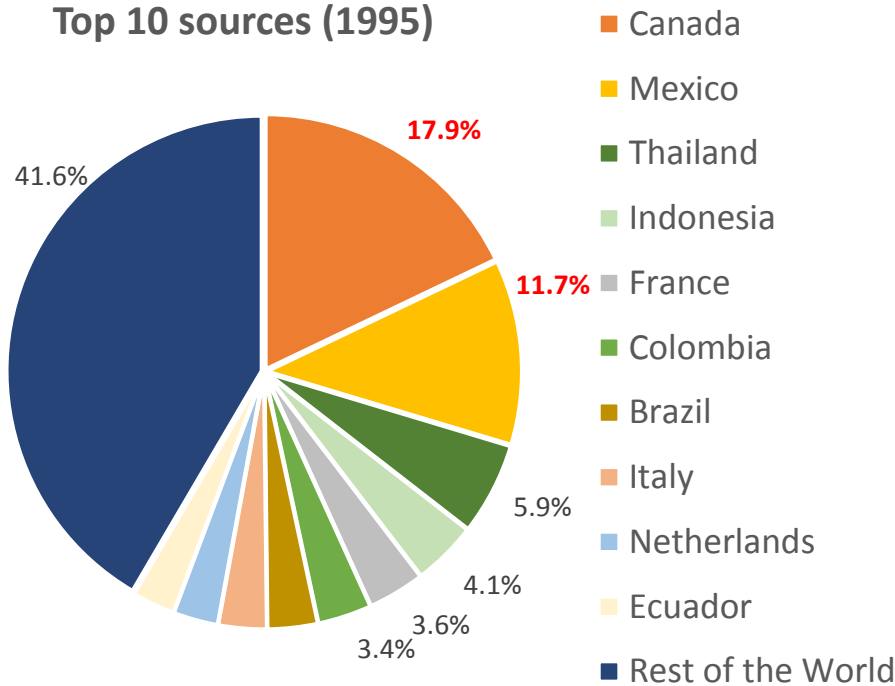


Source: GTAP 9 bilateral merchandise trade data

Source: UN Comtrade

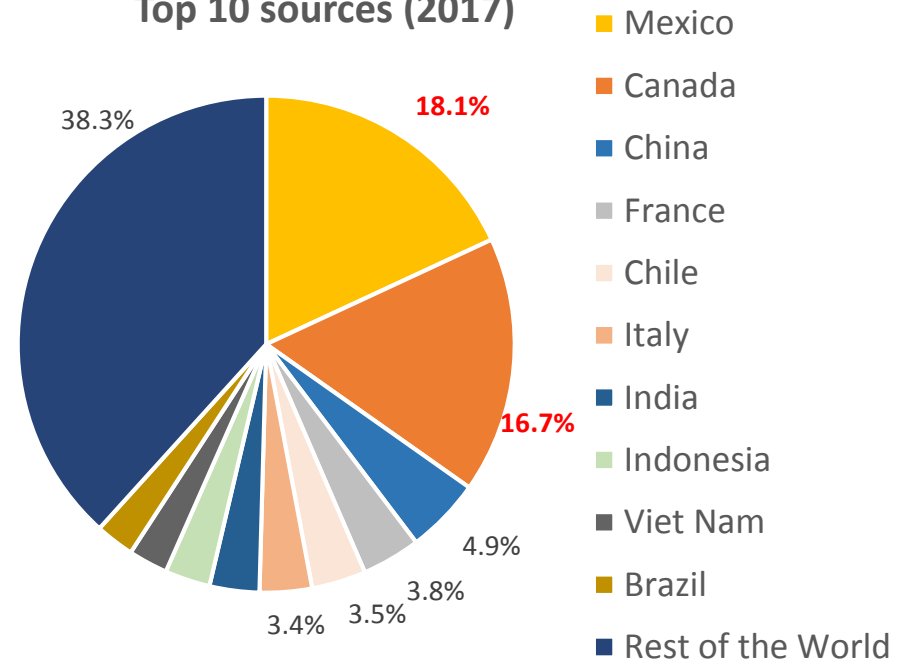
Mexican exports have gained market share, but Canada less so

Top 10 sources (1995)



Source: GTAP 9 bilateral merchandise trade data

Top 10 sources (2017)

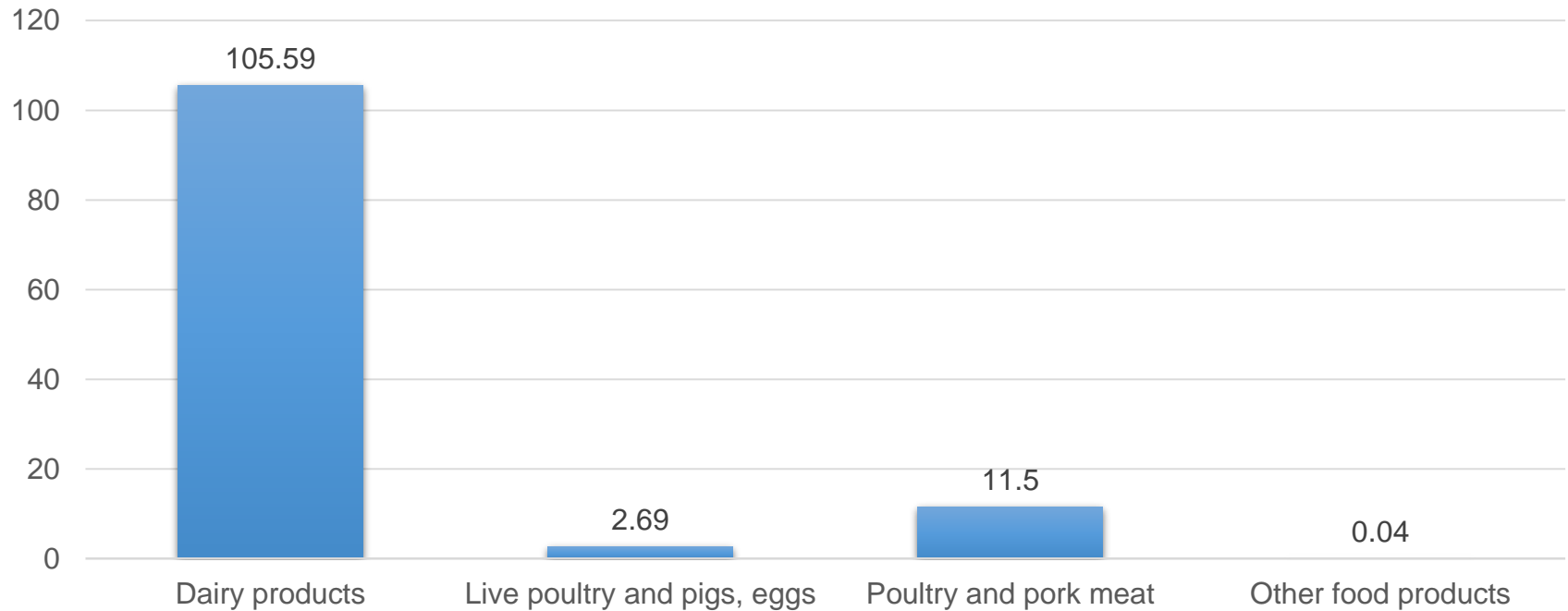


Source: UN Comtrade

What's in the agreement?

- **Consolidates NAFTA 1.0**
- **Main market access changes**
 - Auto content for duty free access is raised to 75% from the existing 62.5%
 - 45% of the auto content must be produced in factories where workers are paid at least \$16/hour
 - Expanded import quotas in Canada for dairy and poultry products
- **A variety of other changes not directly linked to market access, for example:**
 - Extension of copyright protection from 50 to 70 years
 - New measures for the digital economy: no duties on music and e-books, protection for internet companies
 - Improved transparency in import and export licensing

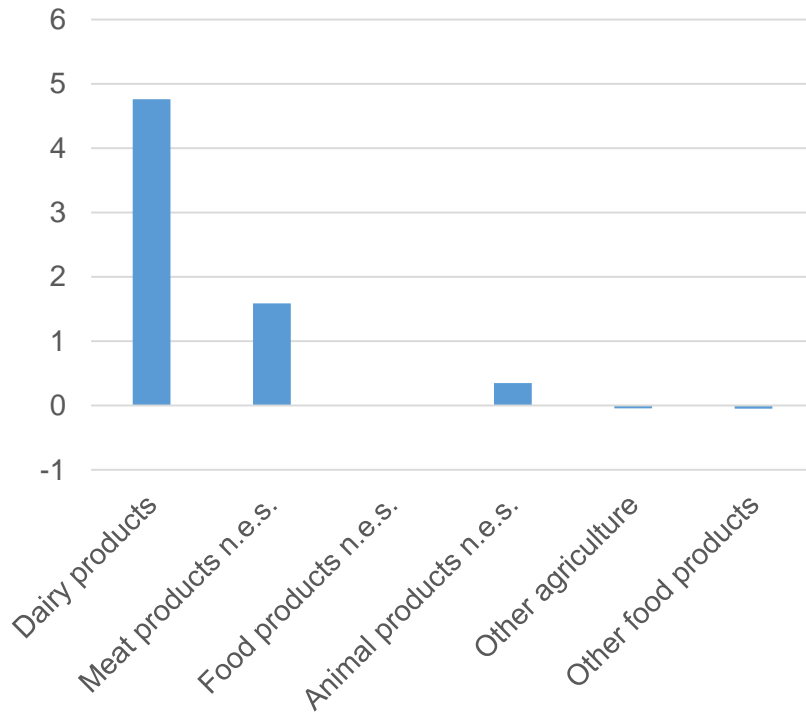
New market access measures in agriculture, estimated changes in quotas, percent



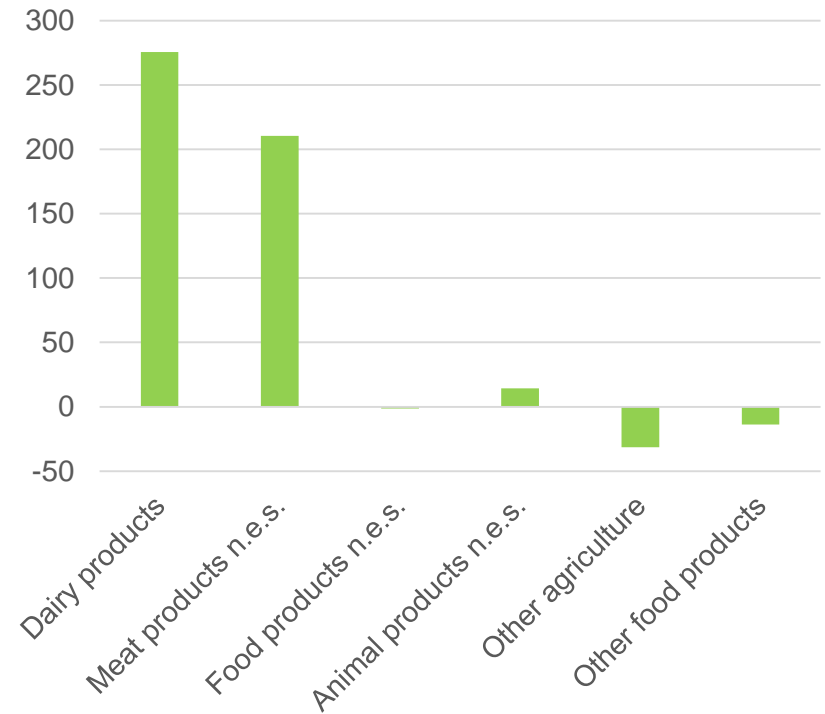
Source: authors' estimates based on USTA (2018a; 2018b)

Modest increases in U.S. agricultural exports

Change in U.S. exports, %



Change in U.S. exports, \$ million



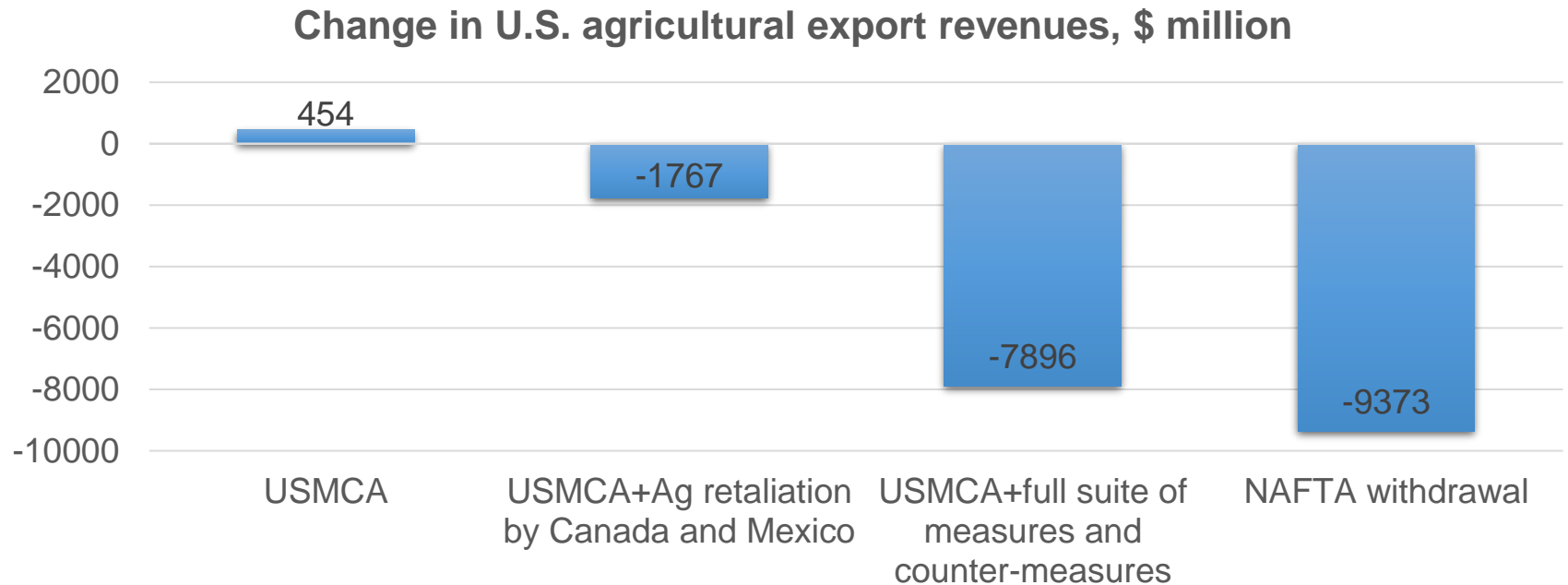
What Happens if NAFTA is Eliminated with no Replacement?

- Reversion to most favored nation (MFN) tariff rates
- Uncertainty about special regimes such as dairy quotas
- Findings reflect work by Ciuriak et al. 2017 and Walmsley and Minor 2017

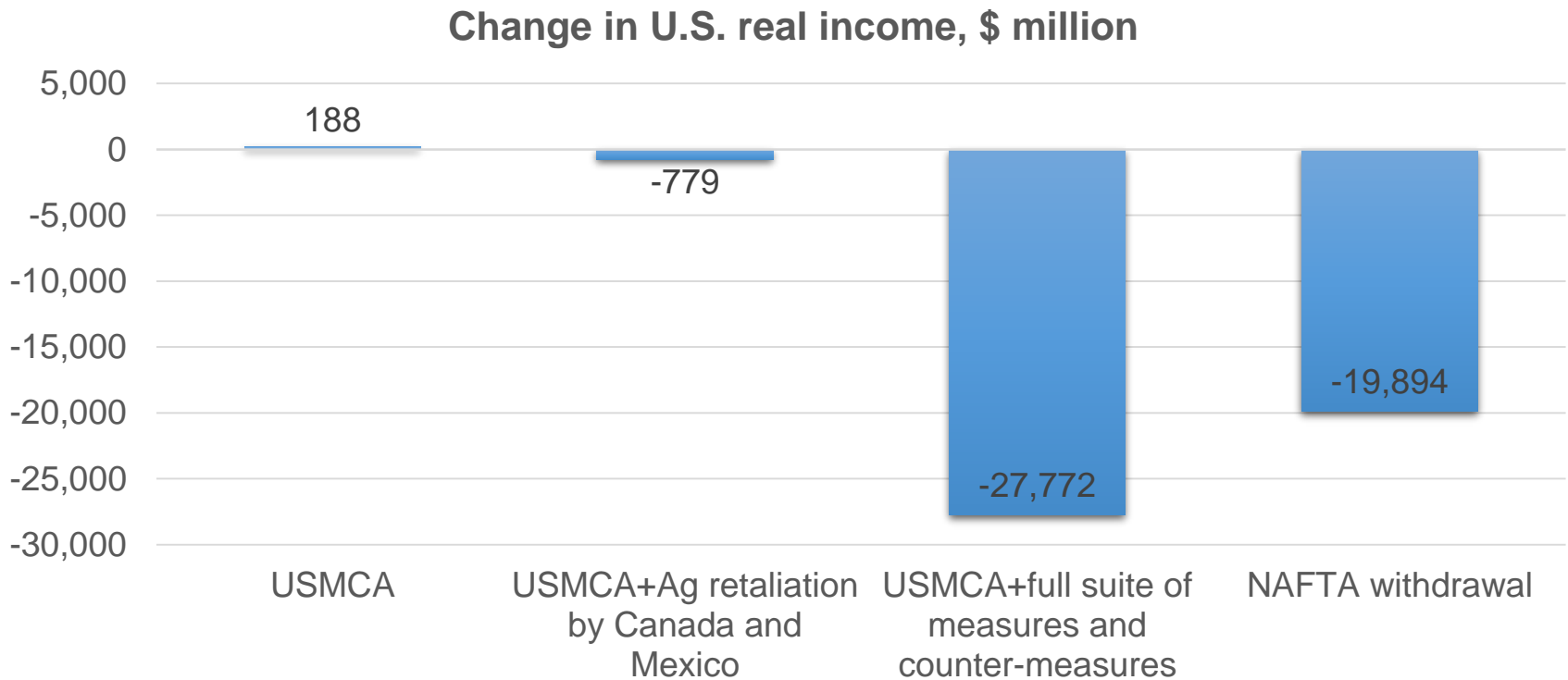
Concluding Remarks

- **Results are subject to a number of assumptions, though likely to be robust**
 - Results reflect long-term impacts after adjustment
 - Results ignore adjustment costs
 - Results assume standard investment behavior, however:
 - A different tariff environment in NAFTA could impact investment and changes to the deep supply chains
 - A volatile tariff environment could dampen the appetite for investment
- **USMCA consolidates the gains from NAFTA-1.0 and increases market access for some agricultural sectors**
- **However, recent actions by the U.S. could end up harming farming interests that are targeted by retaliatory actions**
 - Lower agricultural exports
 - Job losses and a reduction in land values

In summary: current policies will lead to agricultural export losses, USMCA notwithstanding



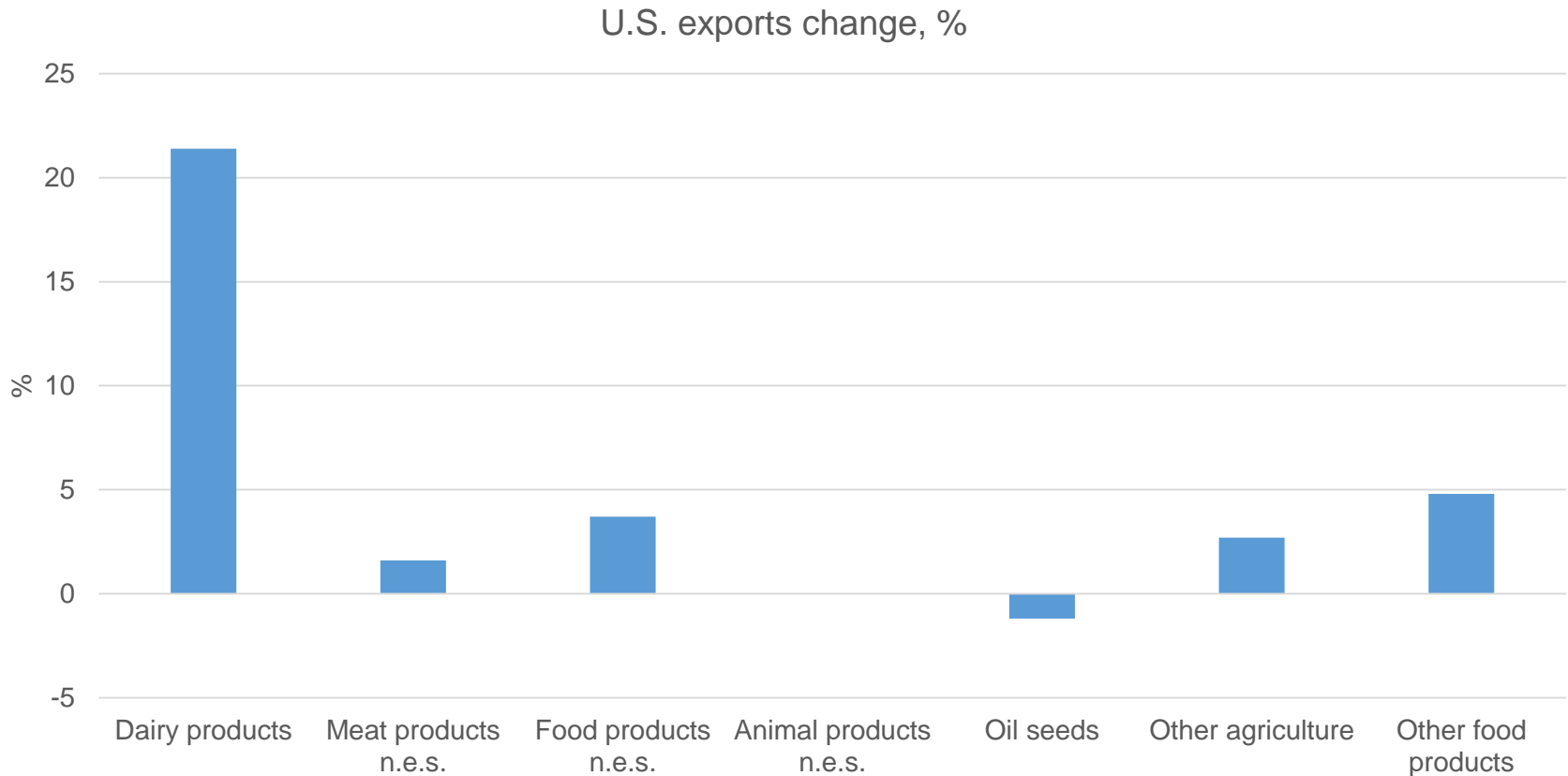
And will lead to read income losses



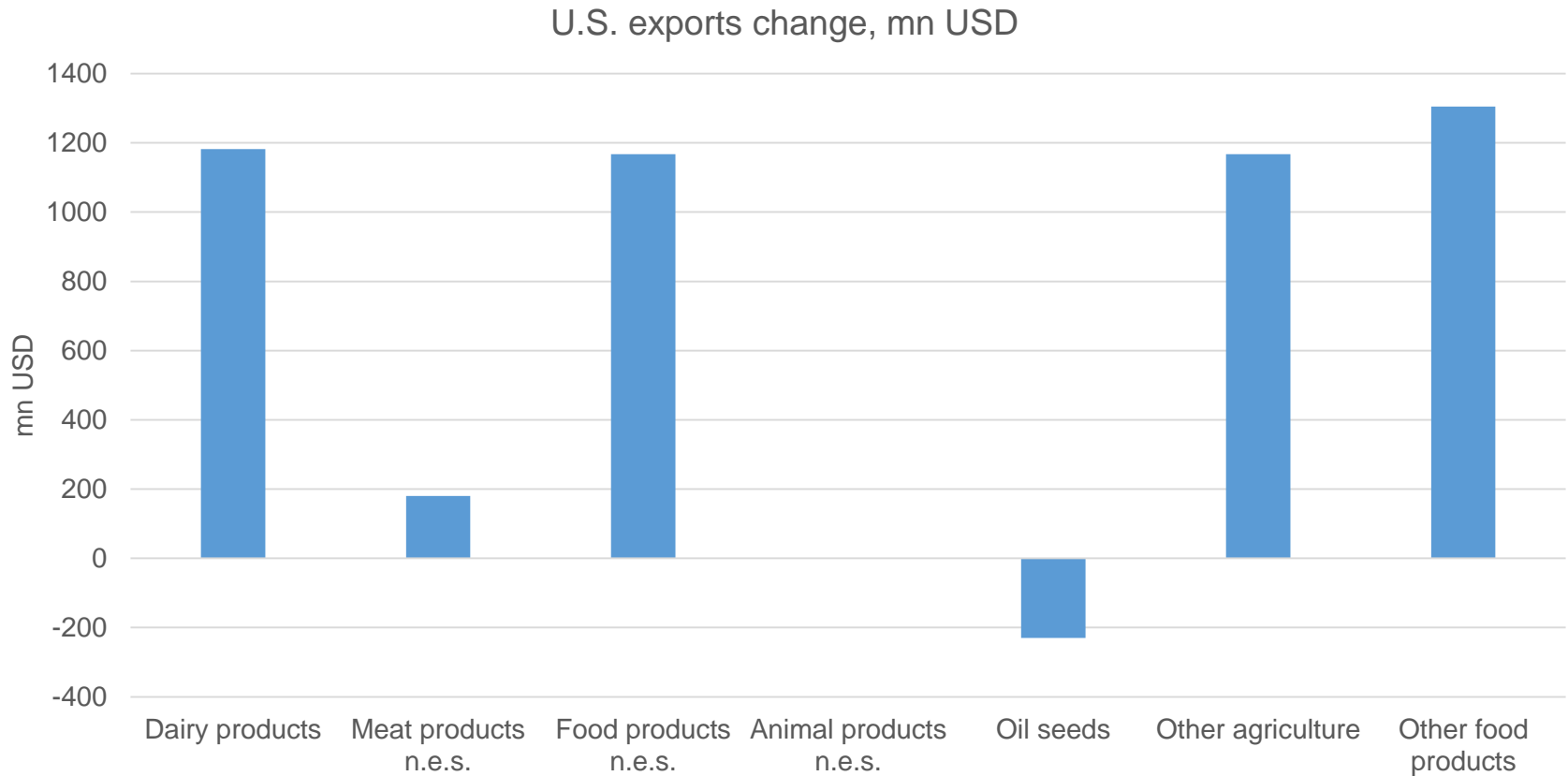
It could be better...

- USMCA is approved
- U.S. and trade partners agree to roll back trade war
- U.S. joins the TPP

TPP12 would be beneficial for U.S. exports

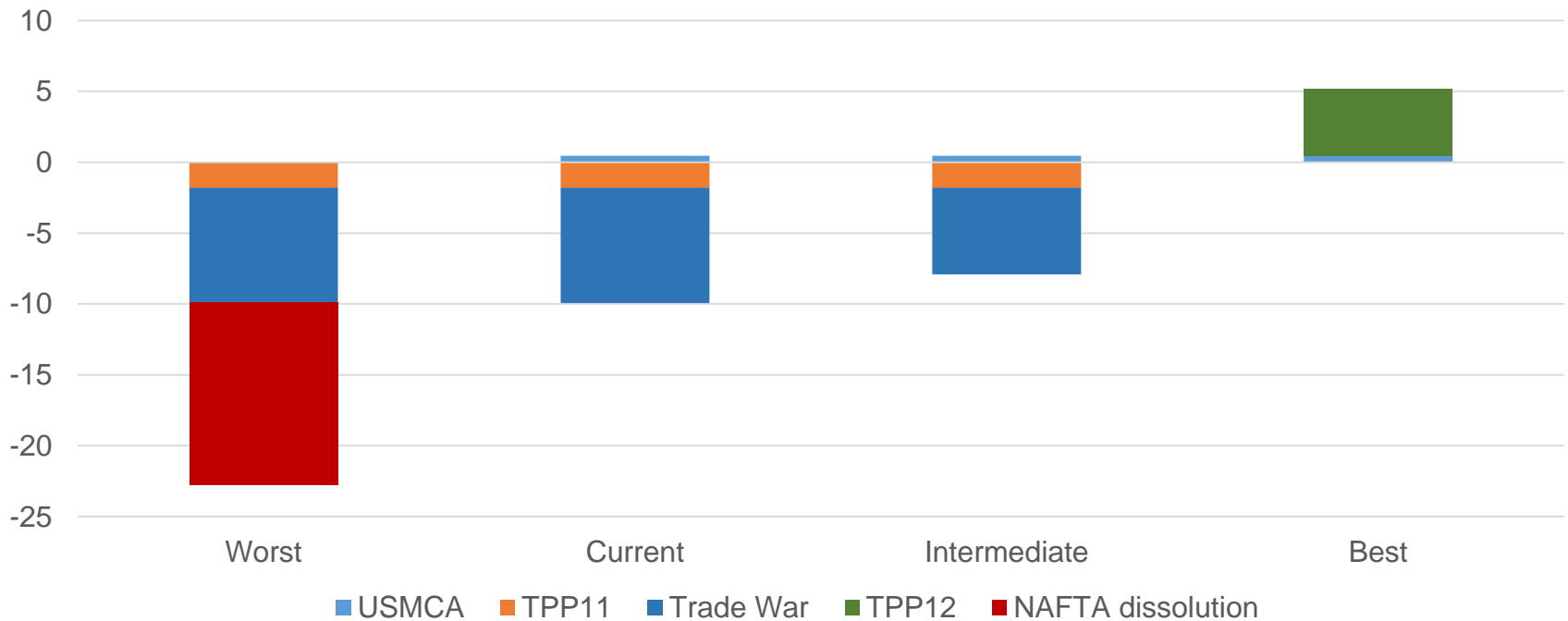


An agricultural export gain of nearly \$5bn



In summary: current policies will lead to agricultural export losses, USMCA notwithstanding

Impact on U.S. agricultural exports, \$bn



Thanks!

Questions and Comments