



MEMA's Policy Breakfast Series:

A World Without NAFTA? A Look at the Future Through the Lens of the Motor Vehicle Industry

Washington DC, October 12, 2017

THE BOSTON CONSULTING GROUP

Welcome to MEMA's Policy Breakfast Series

Today's speakers and panelists

Bill Long



President and Chief
Operating Officer
AASA & Executive Vice
President, Government
Affairs MEMA

Detroit
+1.919.406.8813
blong@mema.org

Ann Wilson



Senior Vice President of
Government Affairs for
MEMA

Washington DC
+1 202 312 9246
awilson@mema.org

Xavier Mosquet



Senior Partner & Managing
Director at BCG, founder of
the firm's Detroit office, and
lead author of the study

BCG Detroit
+1 248 688 3456
mosquet.xavier@bcg.com

Welcome to MEMA's Policy Breakfast Series

Today's speakers and panelists

Ian Musselman



Director, Government
Affairs, Continental
Automotive

Washington DC

Charles Uthus



Vice President for
International Policy,
American Automotive
Policy Council

Washington DC

Agenda for today's session

Time (EDT)	Agenda	Speakers/Panelists
9:30am-9:35am	Program Introduction	Bill Long, MEMA
9:35am-9:50am	BCG/MEMA NAFTA study findings	Xavier Mosquet, BCG
9:50am-10:20am	Panel Discussion	Xavier Mosquet, BCG Ian Musselman, Continental Charles Uthus, AAPC Ann Wilson, MEMA
10:20am-10:30am	Questions	

Who is MEMA?

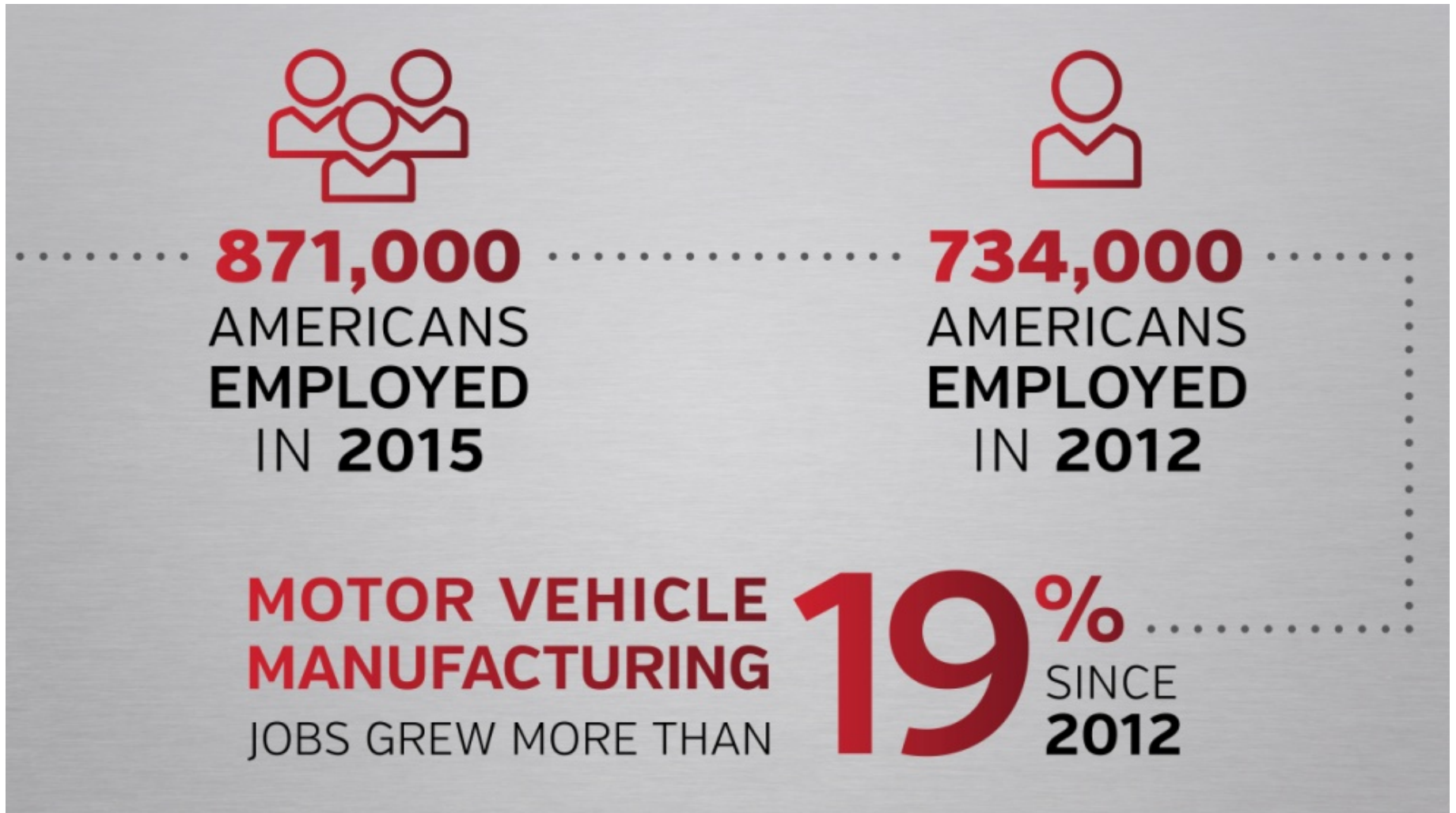


Why did MEMA commission BCG to conduct this study?




From "The Employment and Economic Impact of the Vehicle Supplier Industry in the U.S." released by MEMA in January 2017. Research undertaken by IHS Markit.

The impact of motor vehicle parts suppliers on the U.S. economy (1 of 3)



From "The Employment and Economic Impact of the Vehicle Supplier Industry in the U.S." released by MEMA in January 2017. Research undertaken by IHS Markit.

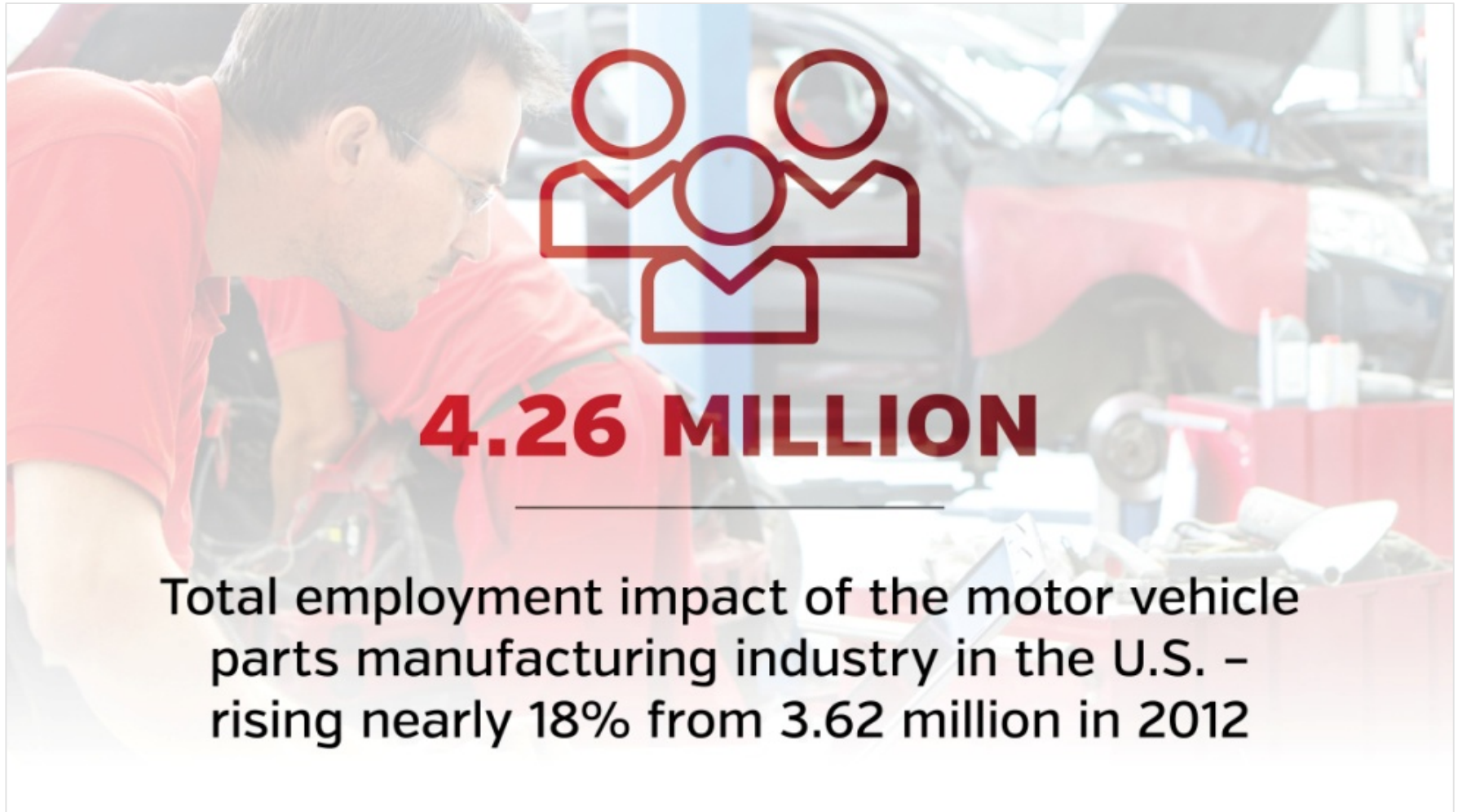
The impact of motor vehicle parts suppliers on the U.S. economy (2 of 3)



2.4% OF THE U.S.
GDP GENERATED BY THE
MOTOR VEHICLE PARTS
MANUFACTURING INDUSTRY

From "The Employment and Economic Impact of the Vehicle Supplier Industry in the U.S." released by MEMA in January 2017. Research undertaken by IHS Markit.

The impact of motor vehicle parts suppliers on the U.S. economy (3 of 3)



From "The Employment and Economic Impact of the Vehicle Supplier Industry in the U.S." released by MEMA in January 2017. Research undertaken by IHS Markit.

Key findings

NAFTA has benefitted the US and has had positive impact on the GDP of around 0.1 to 0.5%

US has seen high growth in automotive jobs since recession (6%), in line with NAFTA (7%)

Other automotive powerhouses in the developed world such as Germany and Japan also have complex and integrated supply chains similar to the US, with access to low cost production (e.g. ~45% of German parts imports from Eastern Europe vs 34% for the US)

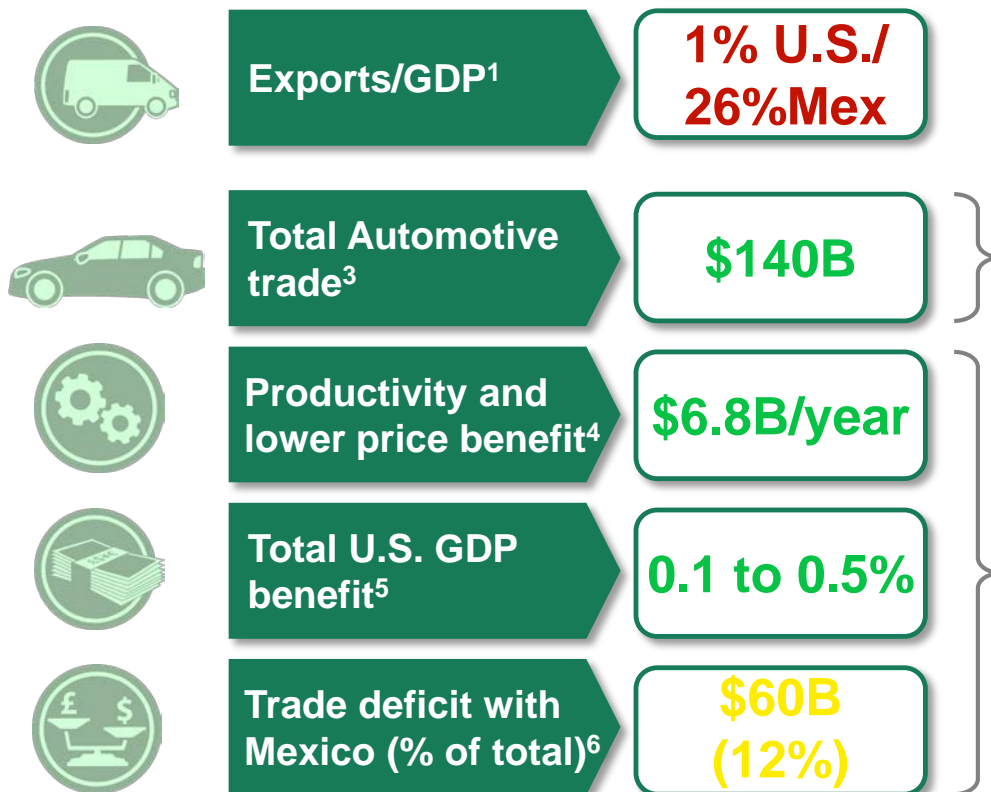
- Germany and Japan countries are able to achieve a positive trade balance in vehicles as well as parts driven mainly by focus on specialization and ability to keep OEMs in the country, leading part suppliers to stay

Step changes in Regional Value Content, US content requirements and changes in tariff shifting and tracing rules can have negative impact on the US automotive jobs

- Up to 24k jobs might be impacted
- Tariffs from leaving NAFTA impact 25-50k jobs

To really modernize NAFTA and address trade deficit from automotive trade, we can take a page from best practices around the world

NAFTA has benefitted the US



Relative boon for Mexico lead a *majority of Americans to think NAFTA has harmed the US⁷*

...NAFTA allowed OEMs to *optimize supply chain* and weather competition from China...

...This, along with other productivity increases, lower prices, and increased competitiveness lead 95% of trade experts agree that *NAFTA benefitted the U.S.⁷*

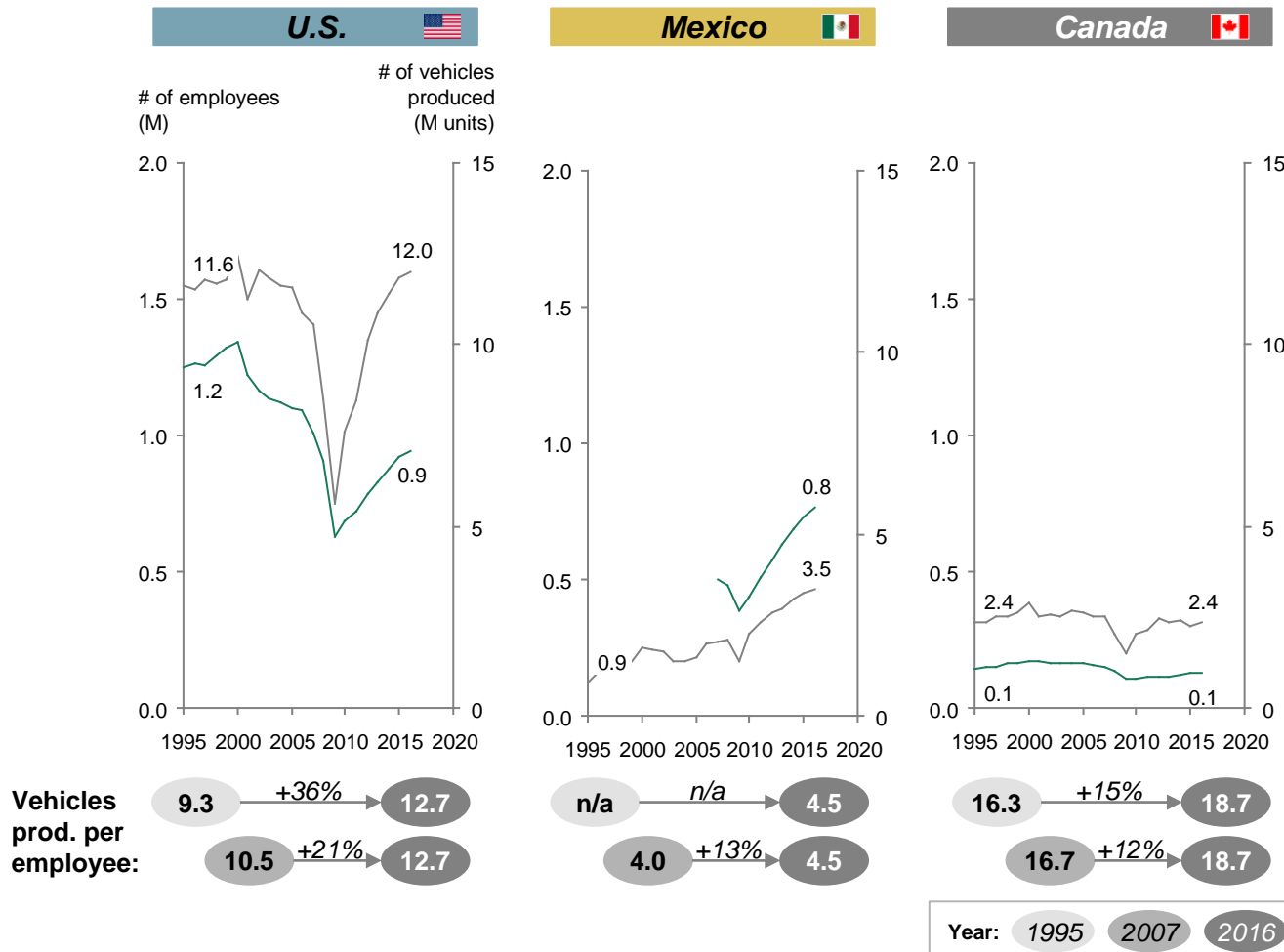
1. Ratio of total US (Mexico) exports to Mexico (US) to GDP of US (Mexico). 3. Total automotive trade is a sum of U.S. exports and imports with Mexico 4. Estimate of value created in the U.S. economy due to higher productivity and lower wages

5. Estimate of increase in U.S. GDP from NAFTA (from USITC report on NAFTA) 6. Trade deficit is with Mexico is 12% of total U.S. trade deficit 7. Data from Sapienza and Zingales 2013

US has seen high growth in automotive jobs since recession

Evolution of employment and vehicle production per country

Comments



Labor productivity significantly increased across all three countries in past 20 years

- U.S. with highest boost in output per employee

Differences in output per employee across countries likely due to differences in set up of production plants

- Mexico higher share of manual tasks than U.S. and Canada

Note: Analysis not reflecting changes in types of cars produced per country as well as capacity utilization, both of which also influence output per employee

Note 1: Mexico data pre-2007 not shown as incomplete for parts manufacturing category

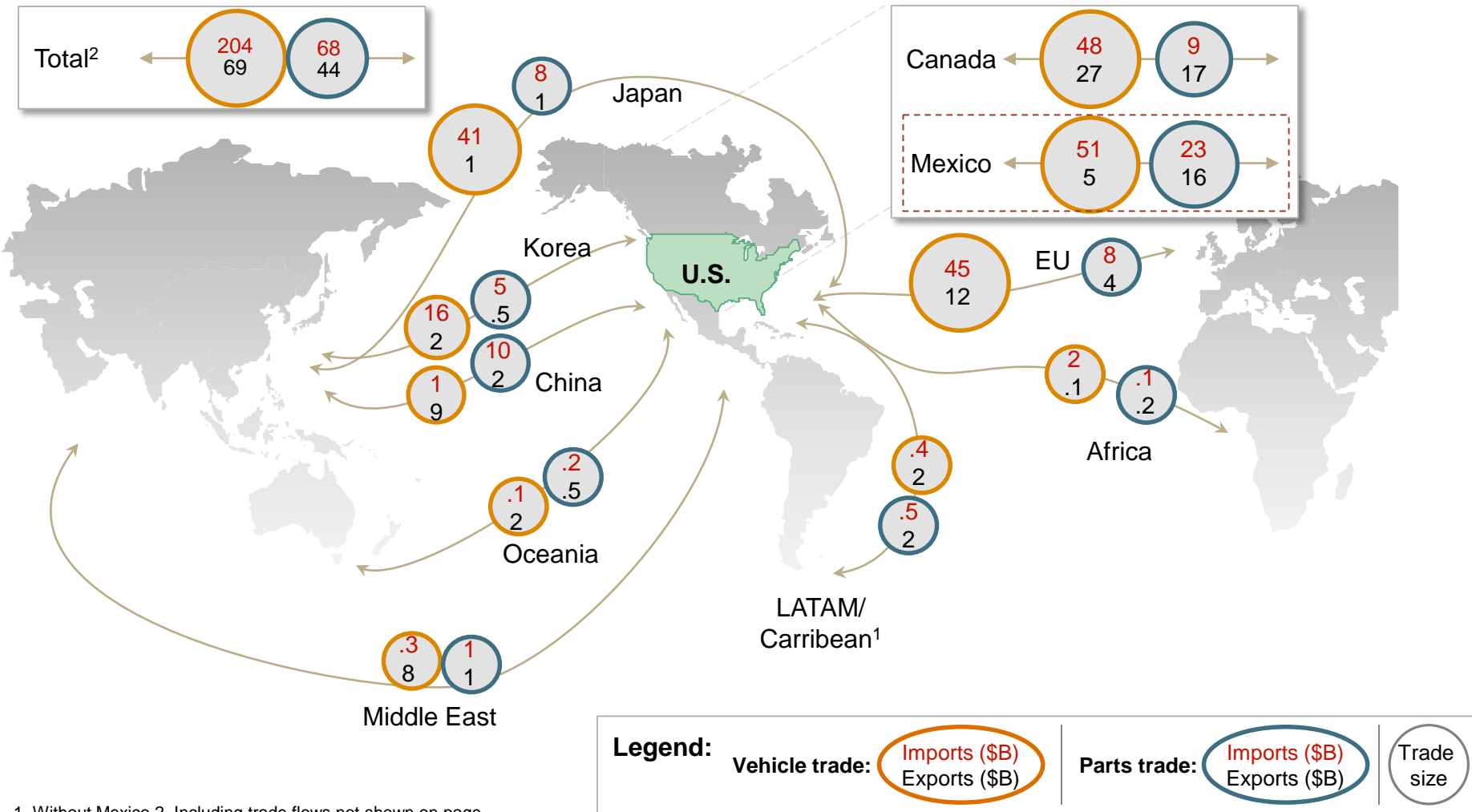
Note 2: NAICS codes 3361,2,3 (motor vehicle manuf., motor vehicle body and trailer manuf., motor vehicle parts manuf.), not seasonally adjusted

Source: BLS, INEGI, StatCan, IHS

The US automotive industry's integrated global supply chain has benefited the US

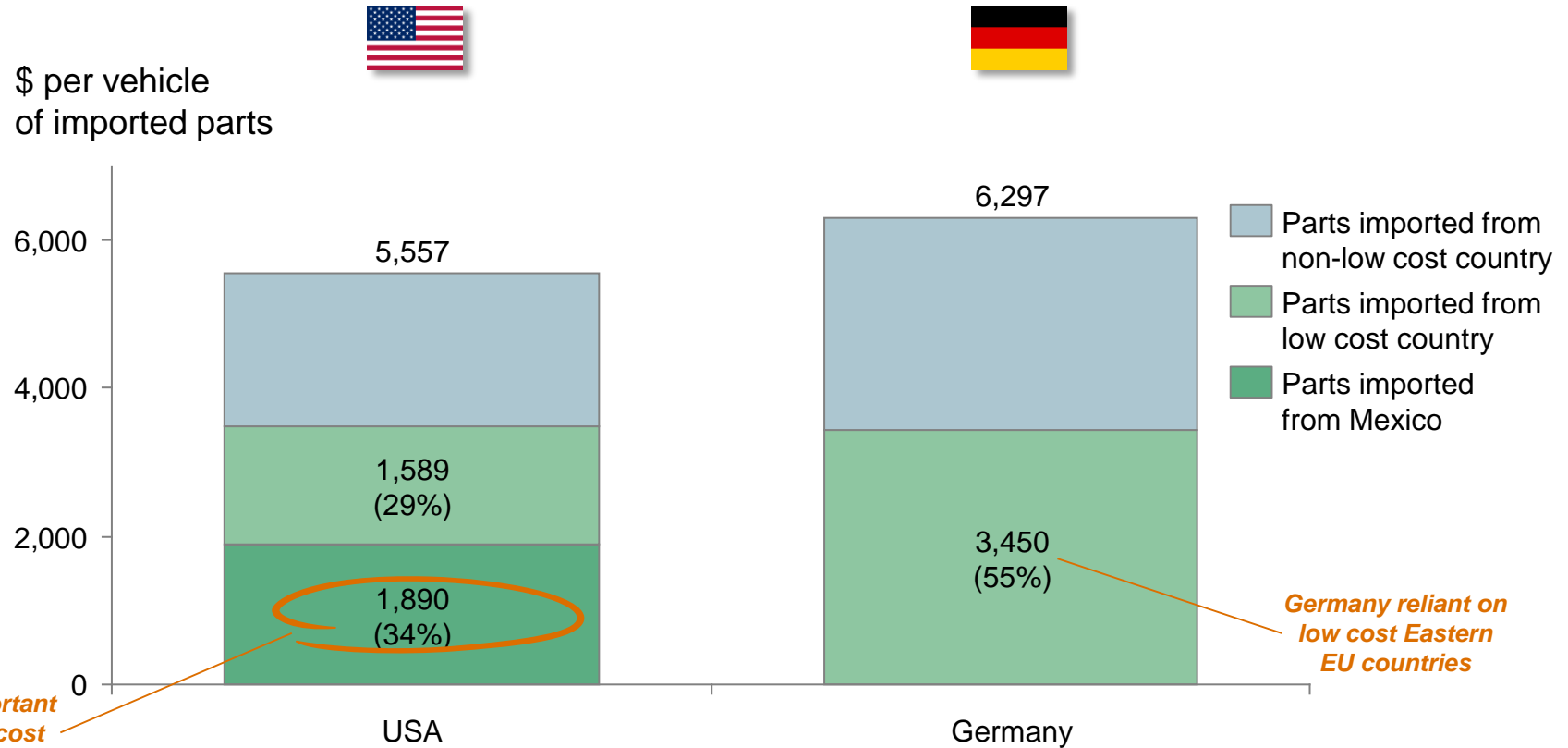


Total 2016 trade for vehicles and parts, \$B



1. Without Mexico 2. Including trade flows not shown on page
 Note: Includes the following HS commodity codes: vehicles - 870120, 870210, 870290, 8703, 8704; parts - 8708, 870600, 870710, 870790
 Source: Comtrade, BCG analysis

Both the U.S. and Germany rely heavily on imported parts from low-cost countries

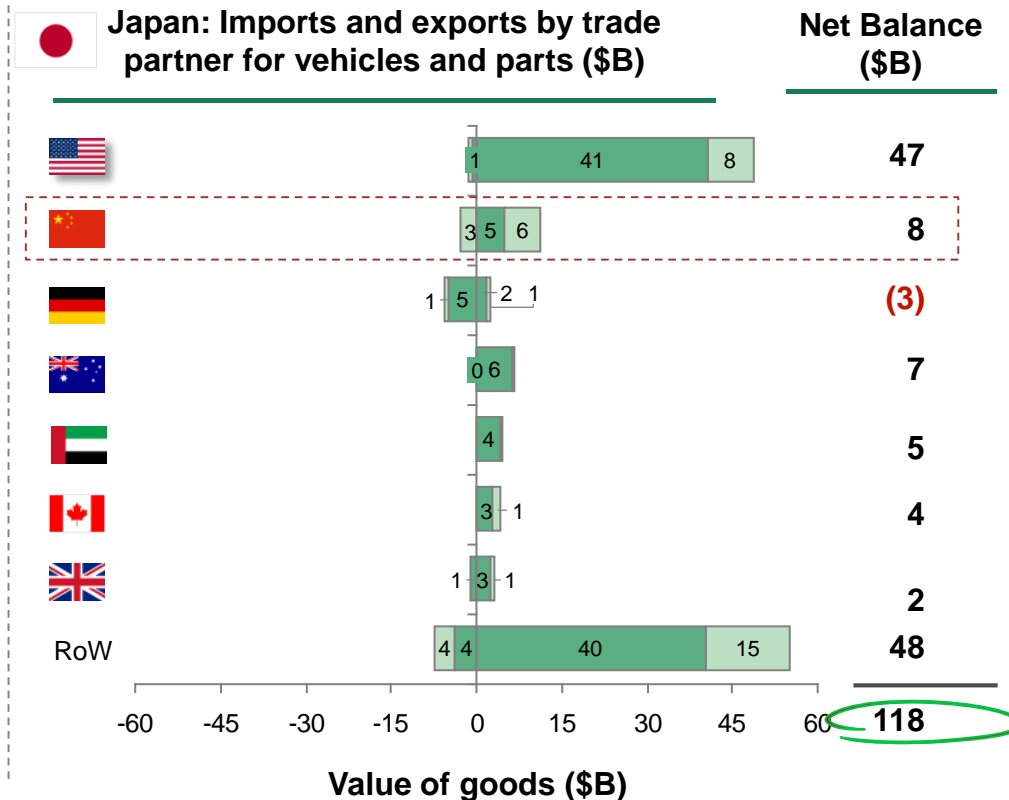
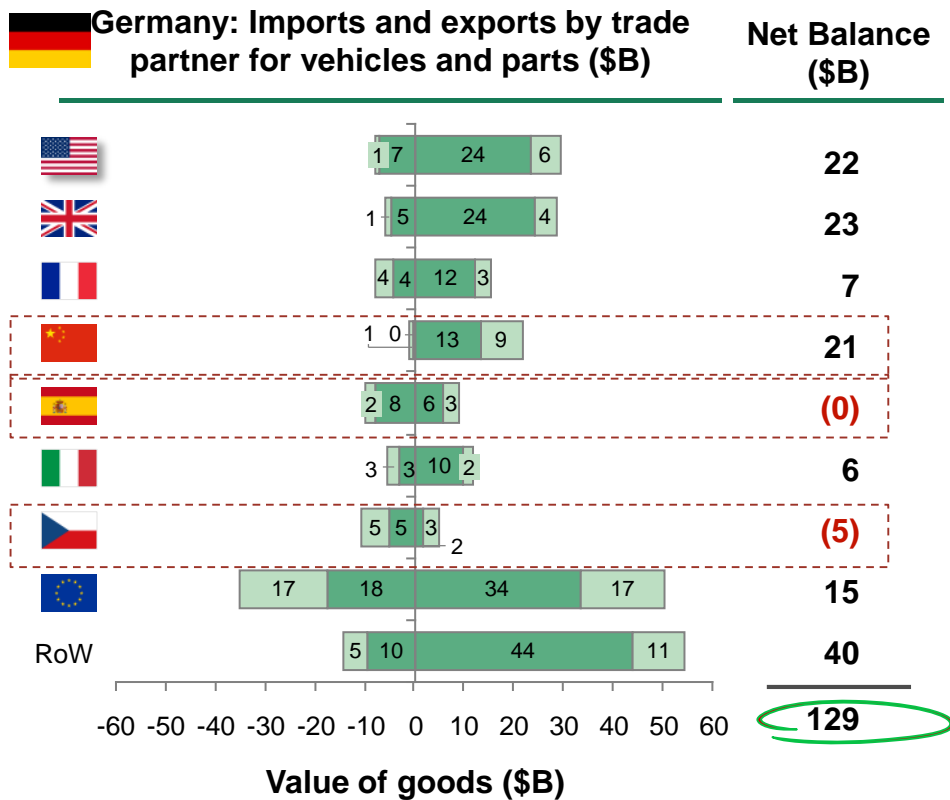


\$ of parts imported from low cost country / vehicle



U.S. and Germany are equally reliant on imported parts from low-cost countries

Germany and Japan with access to low cost countries as well as positive trade balance

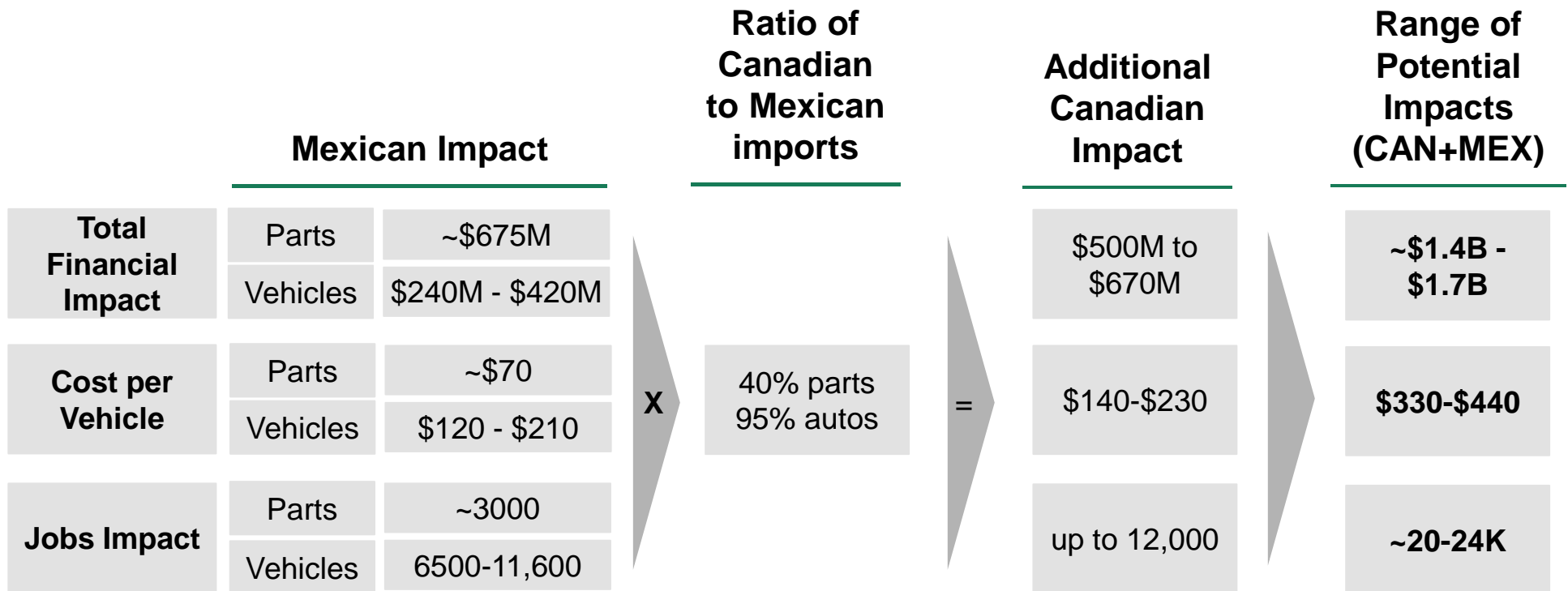


Parts
 Vehicles

Low/med cost country

NAFTA : Elimination of "Tariff Shifting" and "Deemed Originating" can lead to loss of up to ~24k automotive jobs

Canadian impacts extrapolated from Mexican impacts

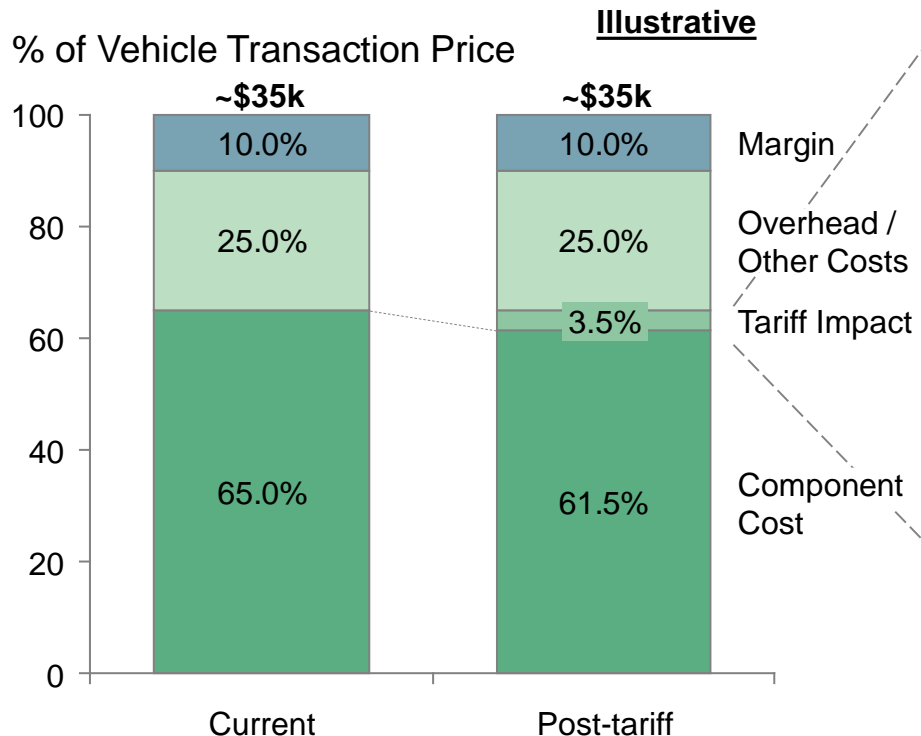


Note: Production data analyzed did not break out Canadian-origin content as a separate category, so potential impact of policies on Canadian goods was determined by multiplying expected Mexican impacts by the ratio of Canadian imports to Mexican imports

Source: Comtrade, BCG Analysis

Similarly, tariff from leaving NAFTA could impact around 25-50,000 suppliers' jobs as a result of content decrease

Costs due to a 35% tariff could decrease supplier content from 65% to ~61.5%¹...



...potentially impacting supplier volume and thus manufacturing jobs

Currently ~870k supplier employees producing components in US

~6% loss in component content → ~3-6% loss in employees

~25-50k US manufacturing employees at risk

Employees working for suppliers with content that is most likely to be removed are most at risk

1. As a % of total cost of vehicle.

Note: Example illustrates unweighted average impact for OEMs (~\$1,150 tariff impact / \$35,000 vehicle price → ~3.5% content \$ reduction required for customers to maintain paying same price
Sources: BCG analysis, expert interviews.

Becoming compliant with new tracing requirements poses significant cost burden for Tier 1 suppliers

In order to ensure compliance with traceability beyond current requirements, companies will have to:

Source and / or develop new IT systems to track origin of all material in supply chain, as well as breaking out NAFTA content by country

- Not currently done by most Tier 1 suppliers

Work with suppliers down to the Tier 4 and Tier 5 level to understand sourcing of basic commodities like plastic resin and iron ore

- Previous efforts with conflict mineral tracking programs suggests this is extremely difficult and fraught with data errors / gaps

Potentially redesign entire multi-country electronics supply chains

Re-train supply chain workforce on new requirements and procedures

Facing these costs and barriers, many suppliers will decide that paying a 2.5% tariff is the "better" option...reducing competitiveness and jobs.

Many ideas from other agreements could be implemented

US / Canada / Mexico already agreed in principle during TPP negotiations

Harmonize de minimis threshold

- Monetary value threshold under which a good is not subject to tariffs
- Currently at \$800 for US, but \$25-\$50 for Canada & Mexico
- Critical for small businesses and logistics firms

Harmonize emissions and safety standards

- Reduce administrative overhead on Tier 1s and OEMs
- Could also result in decrease in traffic accidents and air pollution

Liberalize trade in services

- Allows companies to reduce costs by seeking most efficient banking, telecoms, and insurance providers across all three countries
- Reducing triplication of effort when sourcing third-party services

Additionally, NAFTA can also be modernized by addressing today's pain points

Creating electronic system for issuance and validation of certificates of origin

Allow certificates of origin to last for entire product cycle of a vehicle (currently must be renewed every year)

Expanding NEXUS "trusted driver" program

Streamlining electronic processing of customs documents