



CENTER FOR
AUTOMOTIVE
RESEARCH

Automotive Globalization & COVID-19

Implications for the Future of the Automotive Supply Chain

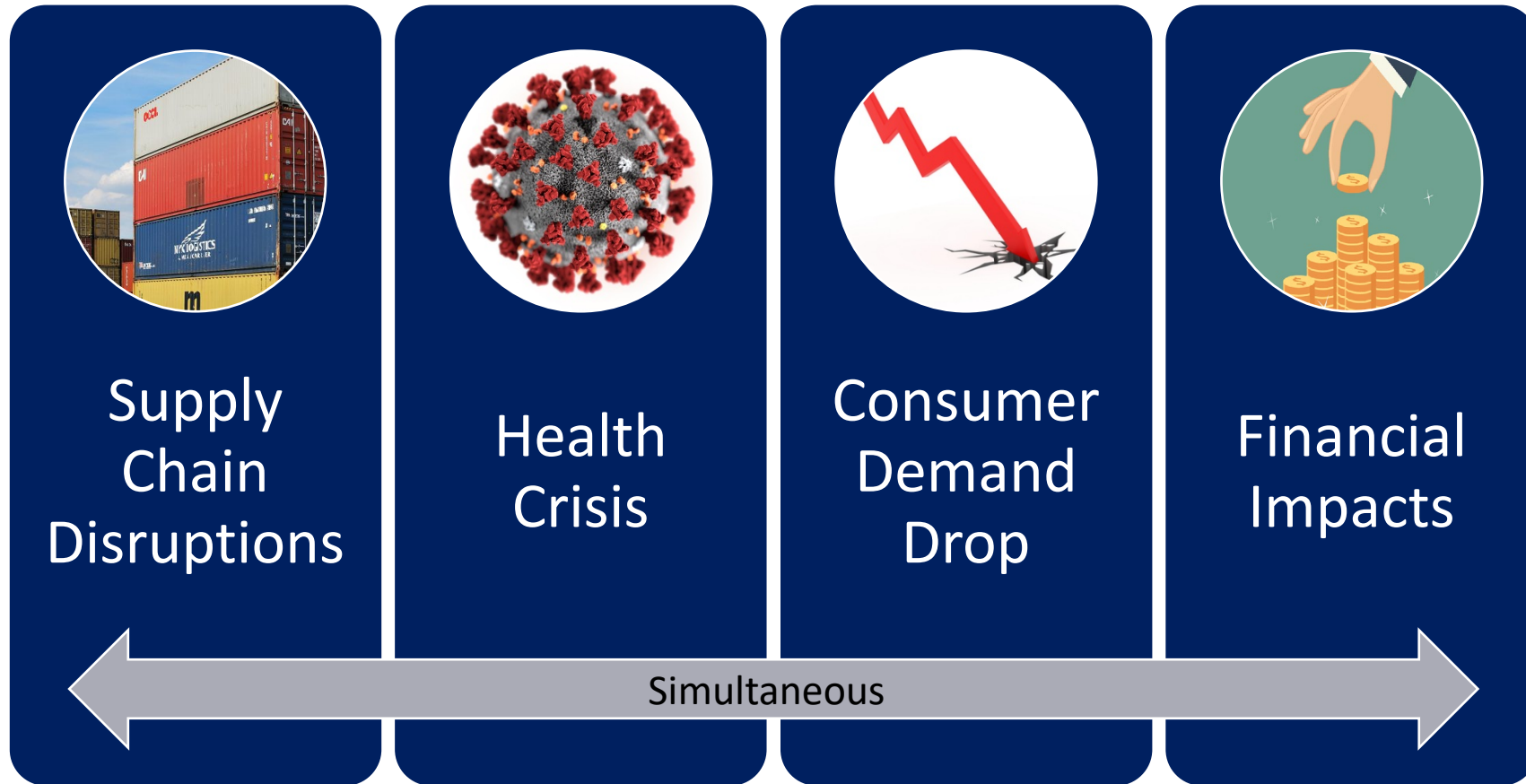
Kristin Dzikczek – Vice President
Center for Automotive Research

2020 Automotive Outlook

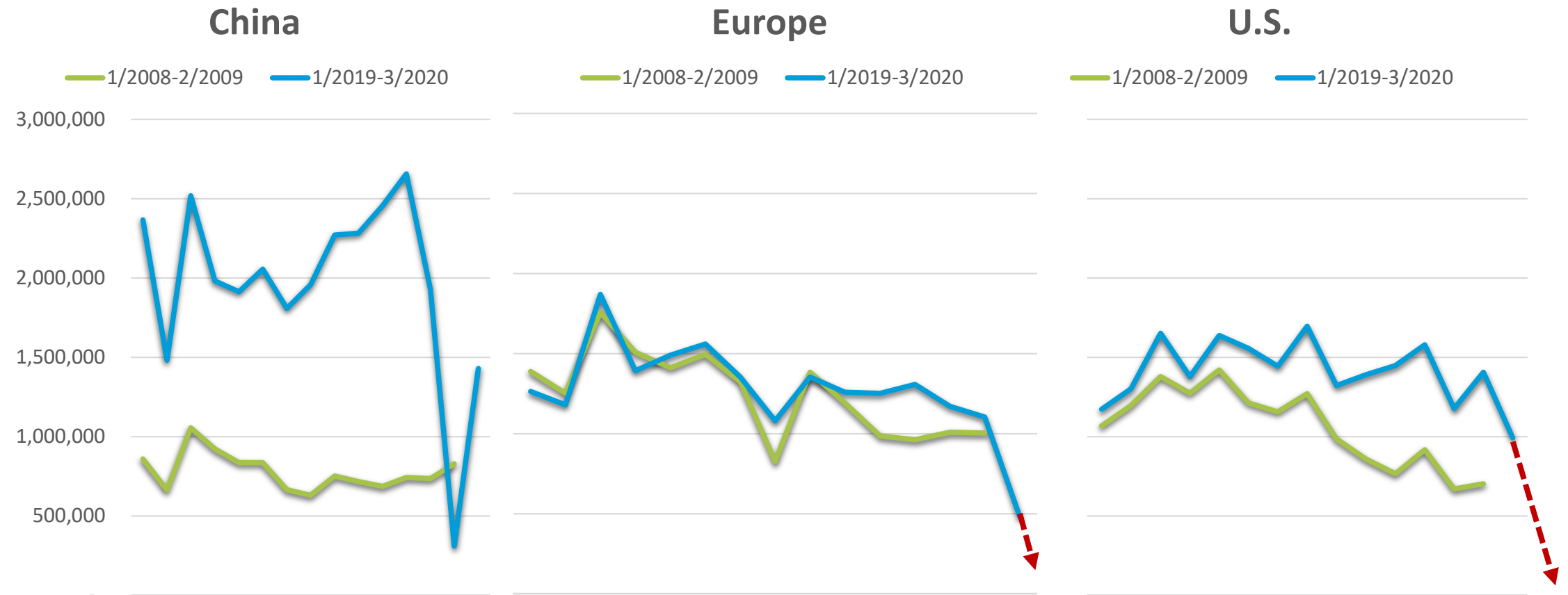
30 April 2020

Coronavirus (COVID-19) Update

Threats to U.S. Production & U.S. Firms



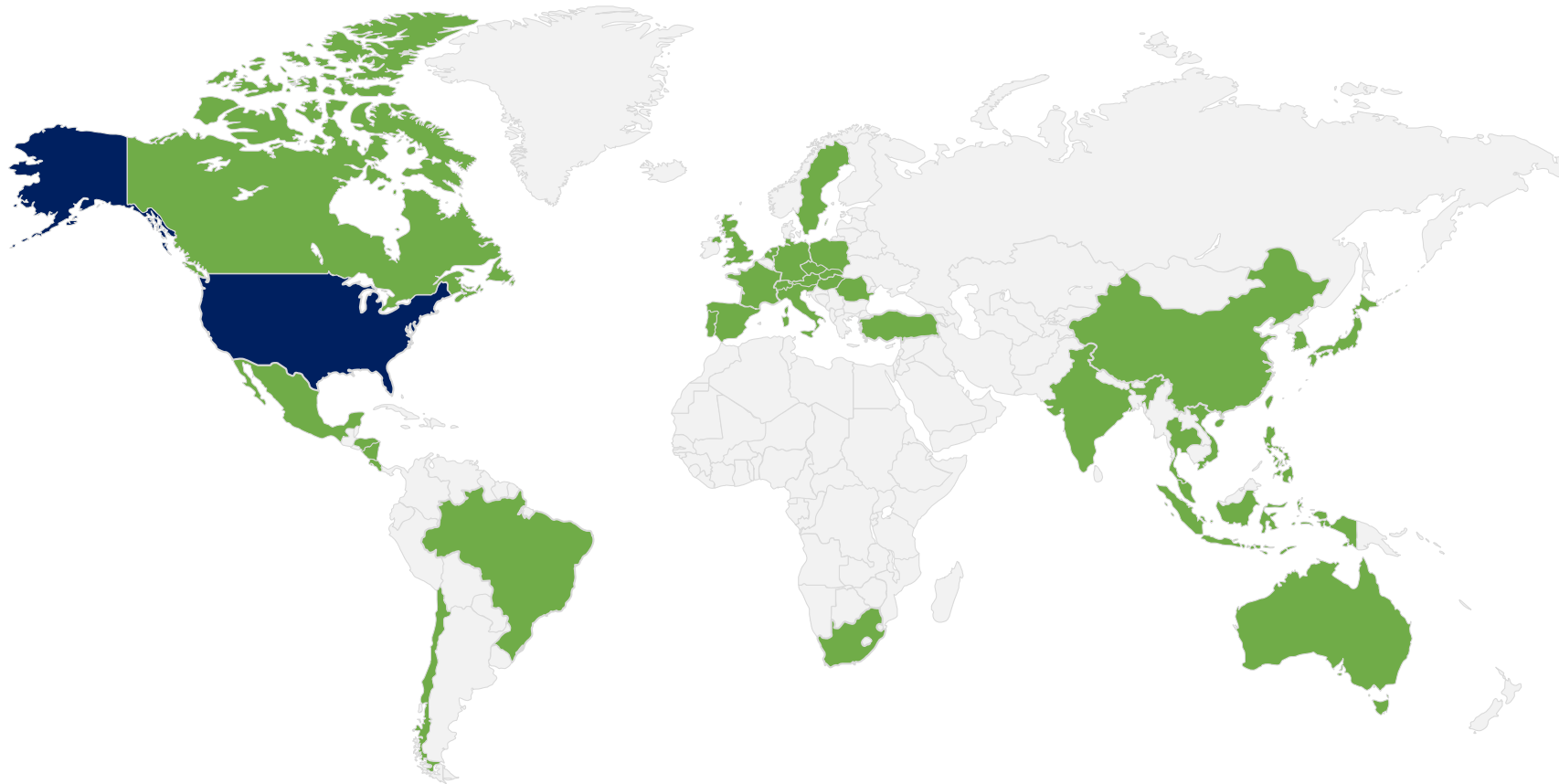
Motor Vehicle Sales During Economic Slowdowns China, Europe, & the United States





Globalization & Trade

Top 35 U.S. Automotive Parts Imports Sources 2019



Countries in Green
account for 99%
of all U.S. auto parts
imports

70% of U.S. parts imports
from 4 countries:
Mexico (39%)
Canada (11%)
China (10%)
Japan (10%)

The "World Car"

© 200 BY VOLKSWAGEN OF AMERICA, INC.



Do you think the Volkswagen is homely?

The Volkswagen was designed from the inside out. Every line is a result of function. The snub nose cuts down wind resistance. The body lines hug the interior workings. Nothing protrudes.

One Briton called the Volkswagen "a marvelous economy of design." An American owner put it differently, "It's funny," he said, "how she grows on you. At first you think she's the homeliest thing you ever saw. But pretty soon you get to love her shape. And after awhile, no other car looks right."

The VW defies obsolescence. You can hardly tell the doughy shape of a 1950 model from a '61. To suggest altering it is heresy to owners. (Would you change the perfect form of an egg?) But we are continually making changes you cannot see. Example: a new anti-sway bar eliminates sway on curves. Over a hundred such changes since 1950, but never in the basic design.

Is the Volkswagen homely? It depends on how you look at it (and how long).

SPORTS ILLUSTRATED November 7, 1960 1

COROLLA: The world's top-selling car in '74*!

The year of the small car

It's not surprising really when you consider the Corolla features that come as standard equipment. Then there's durability and economy that has characterized Corolla's success in Australia and throughout the world. We call it the excitement machine. It would seem that the world likes a little Corolla excitement.




TOYOTA
JAPAN'S LARGEST AUTOMOBILE PRODUCER
See how much car your money can buy.

*Statistics compiled from the following international automobile associations:
Japan: Japan Automobile Manufacturers Association.
U.S.A.: Motor Vehicle Manufacturers Association.
W. Germany: Verband der Automobilindustrie.
The statistics include only those units produced in the country where the model originates.

AMF 7611

THE NEW WORLD CAR. FORD ESCORT

BUILT TO TAKE ON THE WORLD.





Vehicle Platform, Model Variants, & Production



T3 Platform

Models:

F-150
F-250/350 Super Duty
Expedition
Navigator



Plants:

Kentucky Truck, KY
Dearborn, MI
Kansas City, MO
Avon Lake, OH



Plants:

Louisville, KY
Chongqing, CHN
Saarlouis, DEU
St. Petersburg, RUS
Valencia, ESP

C2 Platform

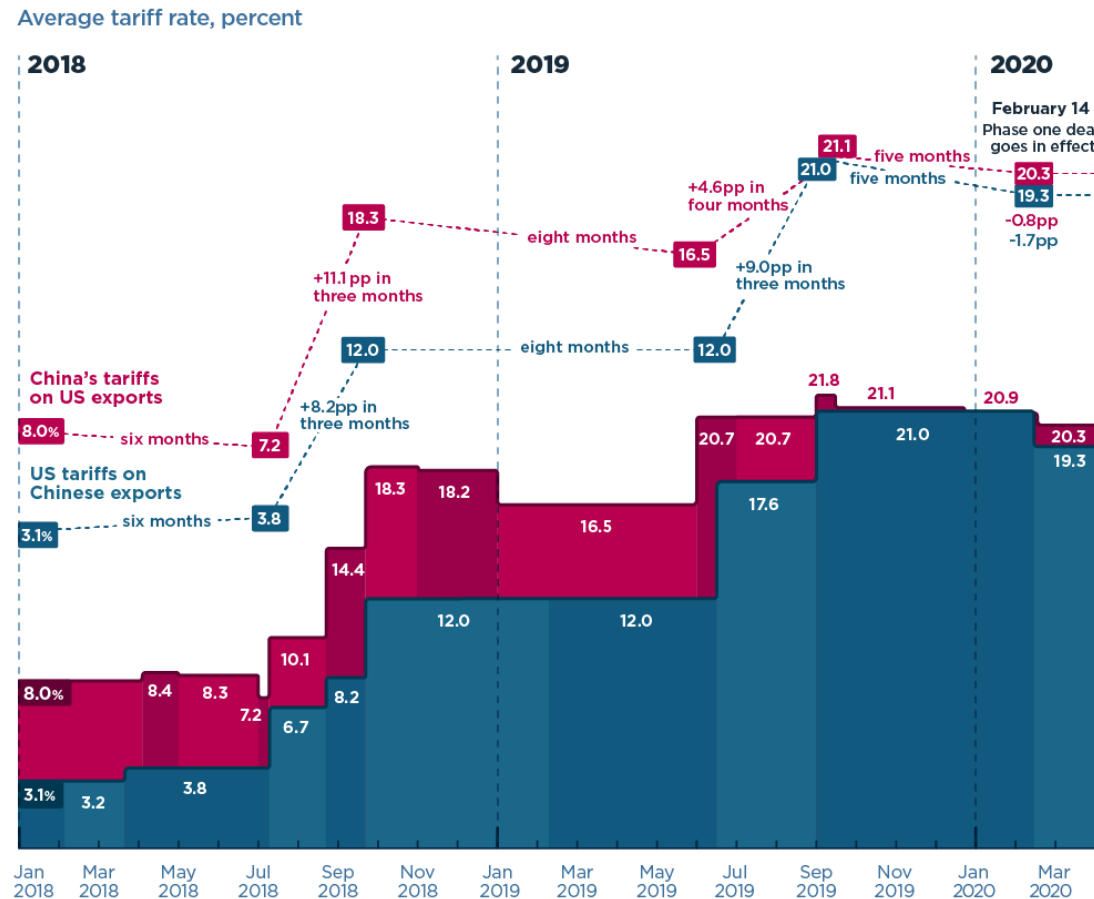
Models:

Focus
C-Max
Escort (China)
Escape/Kuga
Transit Connect/Turneo
Lincoln MKC

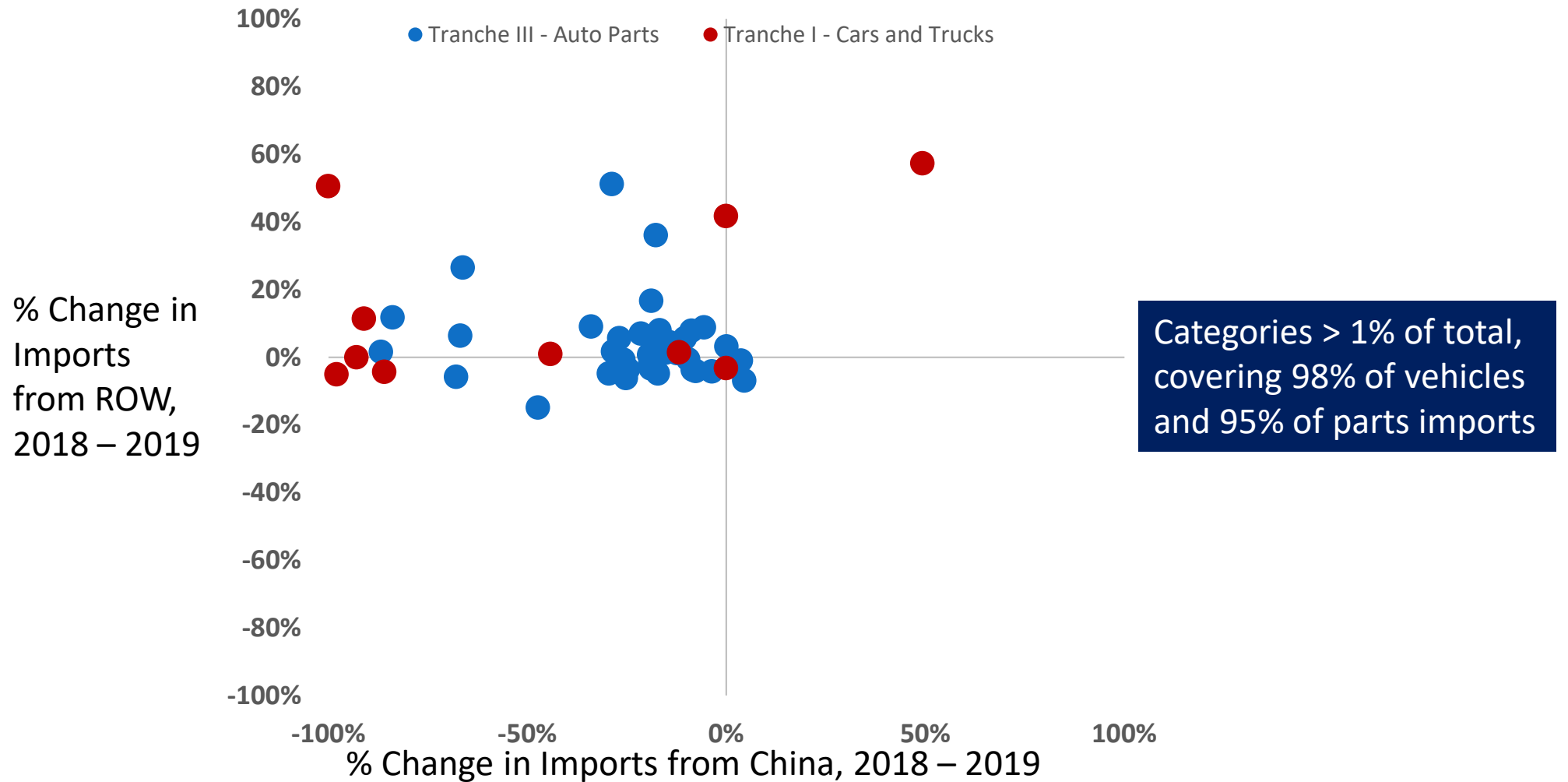
Chung Li, TWN
Pluak Daeng, THA
Kocaeli, TUR
Hai Duong, VNM

Chinese sales growth was slowing & wages were rising, and then...

US-China Trade War Tariffs: An Up-to-Date Chart



The Consequences: Tariff Impacts on Chinese and the Rest of World Auto Imports 2018 vs. 2019



NAFTA and USMCA: Overview of Major Changes

NAFTA has a single threshold: 62.5 percent originating content

USMCA has five thresholds, each applying to a different set of parts or finished vehicles, ranging from 65 to 75 percent originating content

NAFTA was explicitly designed to prevent roll-ups

USMCA rules explicitly allow, even encourage roll-ups

NAFTA incorporates a tracing list as one of the measures against roll-up

USMCA abolishes the tracing list but requires more items to be originating

NAFTA has no requirements for steel and aluminum sourcing

USMCA introduces a requirement for North American steel and aluminum purchases

NAFTA does not have any labor value requirements

USMCA requires a minimum of 40 (45) percent of the value of manufacturing labor incorporated in a car (truck) to have been paid a wage rate above \$16 per hour. Up to 10 points of the requirement can be earned via R&D or IT salaries.

NAFTA does not address trade measures other than conditions for tariff-free access to each country's market

Provisions within the USMCA and its side letters provide limited protection for Canada and Mexico from a potential \$232 tariff placed on imported vehicles and vehicle parts

The USMCA provides limited protection for Mexico in the event that the U.S. raises its MFN tariff rates applied to vehicles and vehicle parts

Core Parts Rule + Labor Value Content Rule Combine to Incentivize U.S. & Canadian Production

Vehicle Rule of Origin

+

Core Parts Rule of Origin

+

Labor Value Content @ \$16/hour

=

More U.S. & Canadian Content

75%

75%

40% C

45% T



(engine, transmission, body, chassis, axle, suspension, steering, advanced batteries)

Cars=25% from materials & manufacturing
Trucks=30% from materials & manufacturing



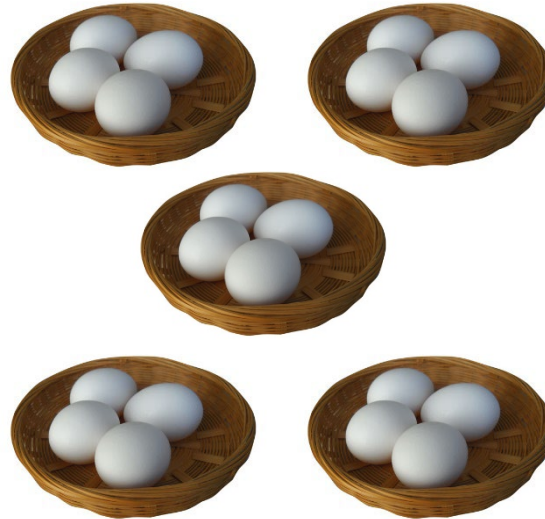
The Post-COVID-19 Automotive Industry

Three Options

Reshoring



Diversification



Status Quo



How will manufacturing change?

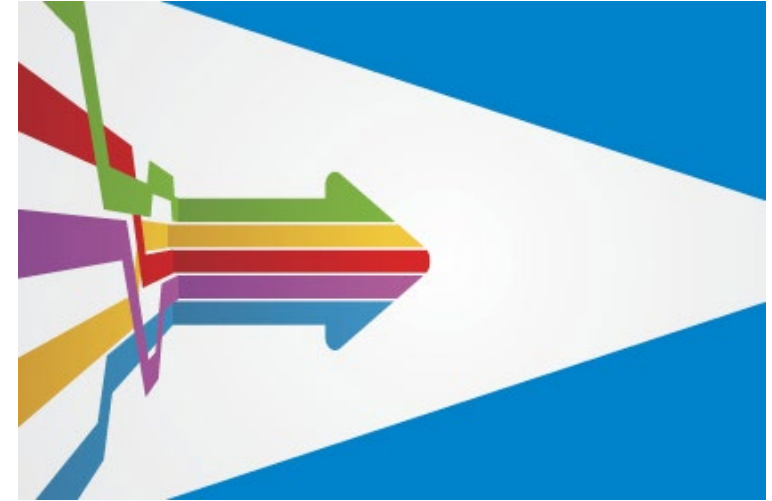
Automation



“Plump” Lean



Consolidation





Thank you
