



CENTER FOR
AUTOMOTIVE
RESEARCH

Michigan Automotive Industry Update

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Consensus Revenue Estimating Conference

17 May 2019

THE CENTER FOR AUTOMOTIVE RESEARCH (CAR)

Automotive industry contract research and service organization (non-profit) with more than 30 years experience forecasting industry trends, advising on public policy, and sponsoring multi-stakeholder communication forums.



RESEARCH

Independent research and analysis on critical issues facing the industry.



EVENTS

Industry-driven events and conferences that deliver content, context, and connections.



CONNECT

Consortia that bring together industry stakeholders to participate in working groups, networking opportunities, and access to CAR staff.

FORWARD WITH AUTOMOTIVE RESEARCH

AGENDA

- Sales & Production
- Employment
- Automaker Investments
- GM Announcements
- Trade Update

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Sales & Production Overview

Areas to Watch

- Michigan's share of U.S. vehicle production increased to 18.8%
- Michigan's engine production will decrease and transmission production will increase over the next few years
- Electrified vehicle market share increased to 4.4%, the highest level ever recorded

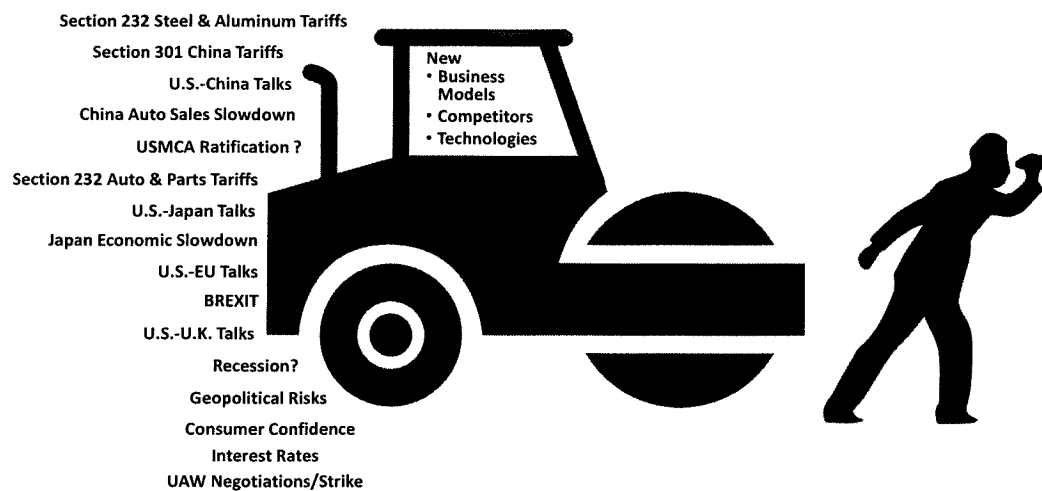
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Positive Factors in the CAR Forecast

- Projected moderate U.S. economic output growth in 2019
- Historically low U.S. unemployment rates
- Relatively low oil prices continue through 2020
- Underlying nominal wage growth continues
- High levels of consumer confidence were reached in Q4 2018, and
- Solid new housing starts and home prices rebounding to pre-recession levels

Source: U.S. International Trade Administration

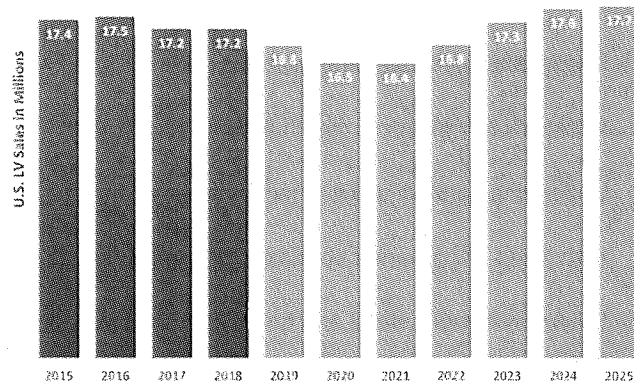
Risks to the Forecast



Source: U.S. International Trade Administration

CAR's U.S. Light Vehicle Sales Forecast 2019-2025

U.S. Sales

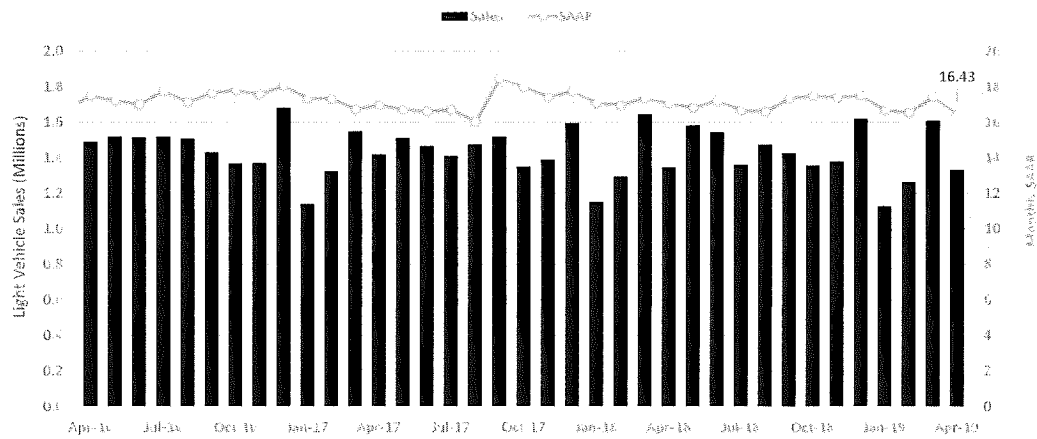


Source: CAR Research, January 2019

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U.S. Light Vehicle Monthly Sales and SAAR: April 2016 to April 2019

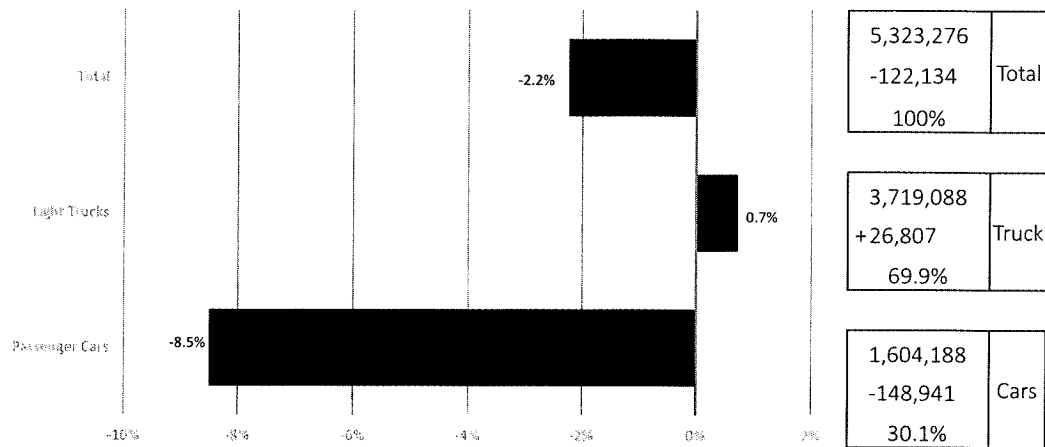


Source: Ward's Auto CAR Research

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U.S. Light Vehicle Sales

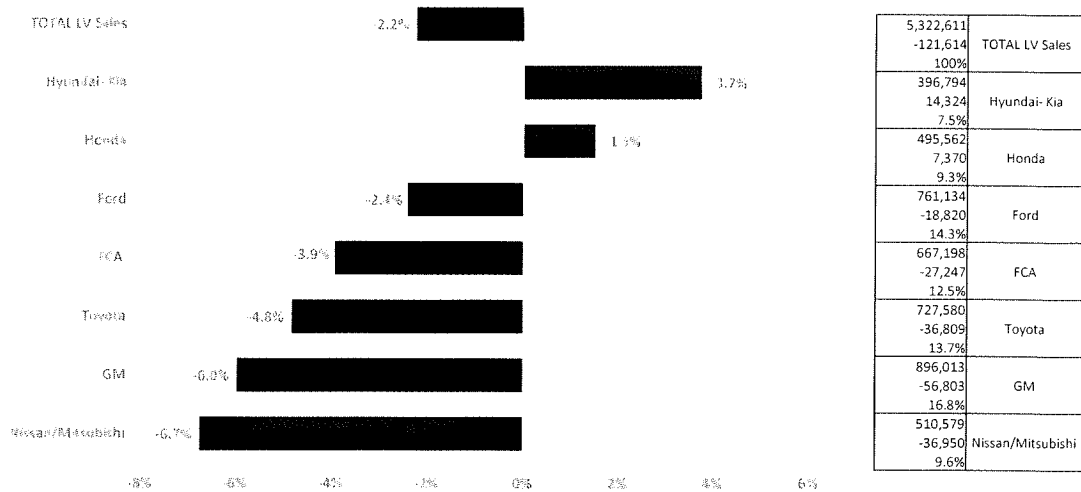
Percent Change (YTD) Through April: 2019 vs. 2018



Source: Honda Motor Co. Ltd. Research

100% of the total sales are accounted for

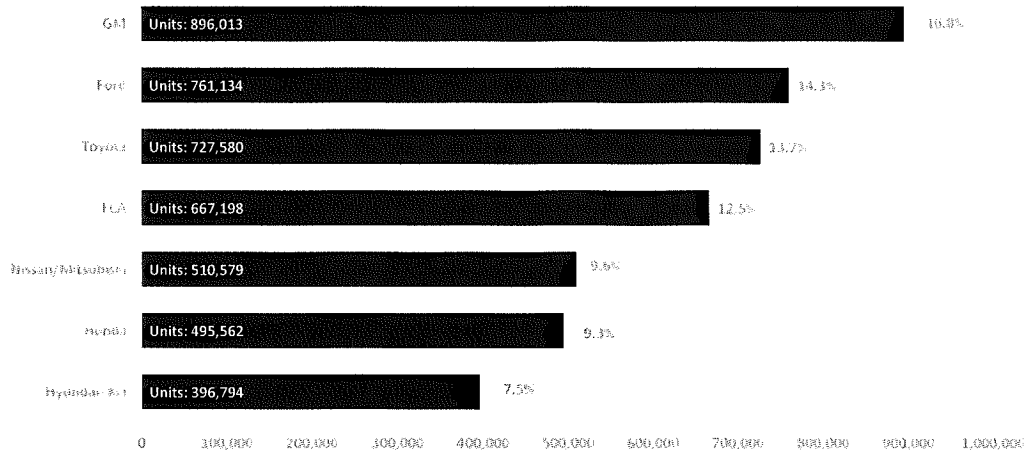
Percent Change in Sales of Light Vehicles Per OEM: YTD Through April: 2019 vs. 2018



Source: Honda Motor Co. Ltd. Research

100% of the total sales are accounted for

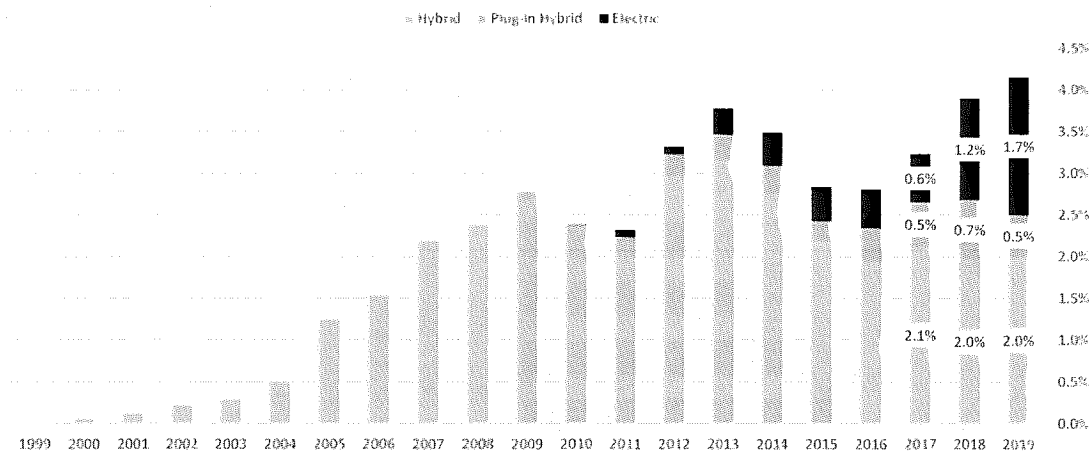
U.S. Market Share: YTD April 2019



Source: Ward's Automotive Reports (from 2010 and on), HybridCar.com and E&A Research
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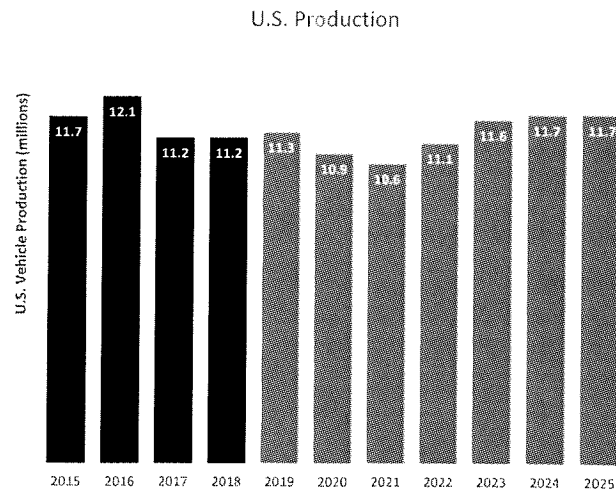
U.S. Electrified Light Vehicle Sales by Propulsion Technologies

1999 – 2019 YTD Through April



Note: Electrified vehicles consist of BEVs, HEVs and PHEVs
Source: Ward's Automotive Reports (from 2010 and on), HybridCar.com and E&A Research
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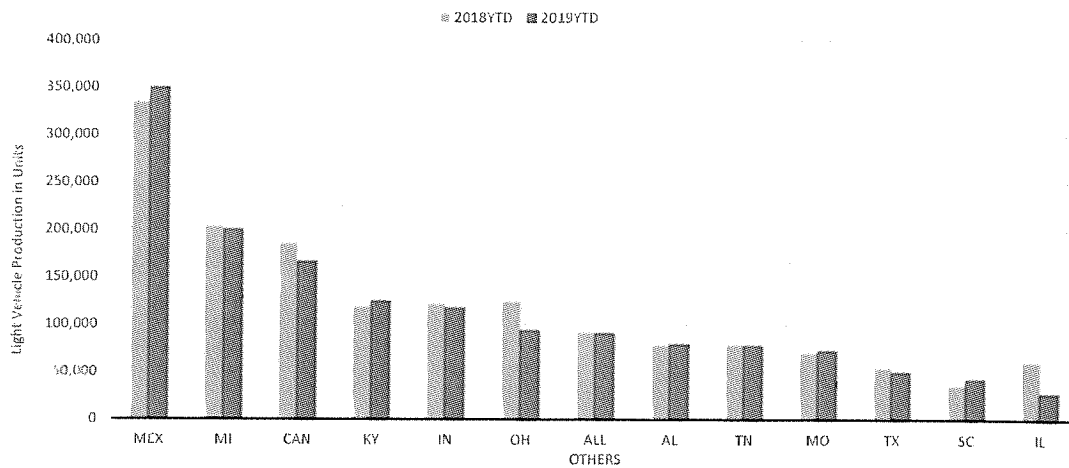
CAR's U.S. Light Vehicle Production Forecast 2019-2025



Source: CAR Research, January 2019

Figure 1: U.S. Light Vehicle Production Forecast

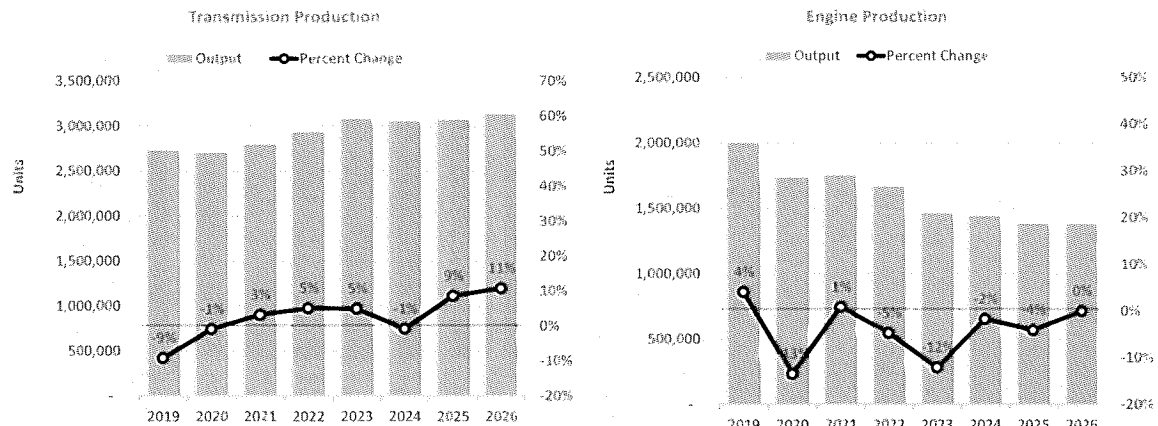
2019 Light Vehicle Production: Michigan Ranks 1st in the U.S.; 2nd in NAFTA Region



Source: CAR Research, January 2019

Source: World & Auto Intelligence

Michigan Powertrain Production Forecasts: 2019 to 2026



Source: UAW Automotive, Q1 2019

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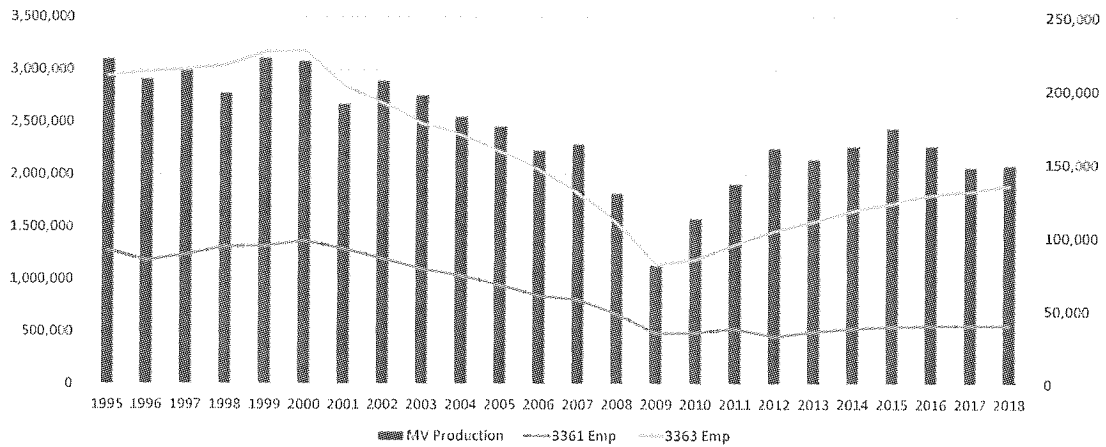
Employment Overview

Areas to Watch:

- At the end of Q1 2019, Michigan motor vehicle & parts manufacturing employment increased by 2.2% YOY
- Michigan holds the highest share (21.4%) of U.S. automotive employment, down 0.5 percentage point from the fourth quarter last year

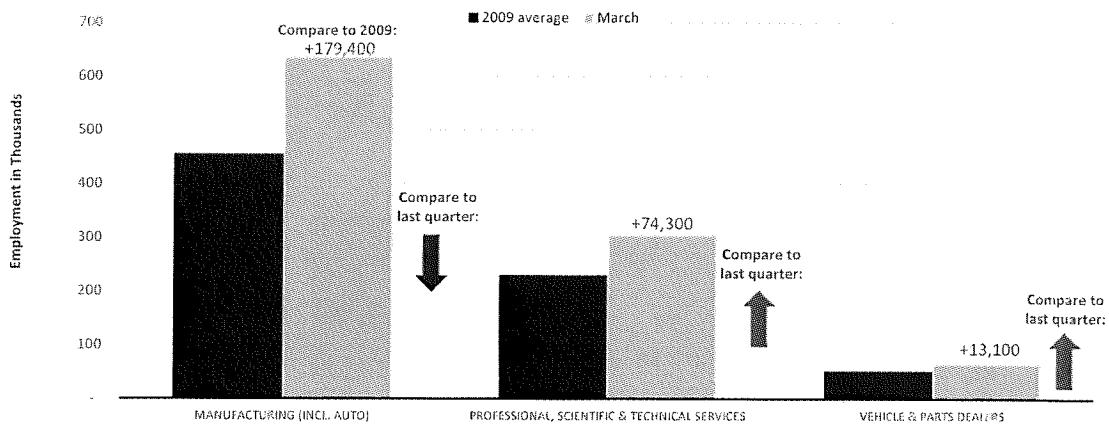
SOURCE: UAW AUTOMOTIVE, Q1 2019

Michigan Motor Vehicle Production and Motor Vehicle Employment 1995 – 2018



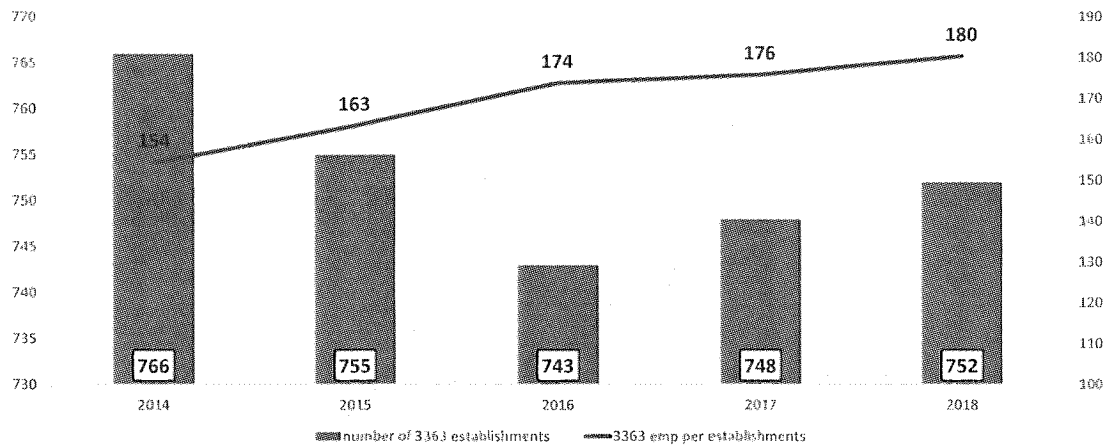
Source: Current Employment Statistics, Bureau of Labor Statistics

Michigan Employment by Automotive-Related Industries Professionals And Engineering, Vehicles & Parts Dealer Employment Increased March 2019



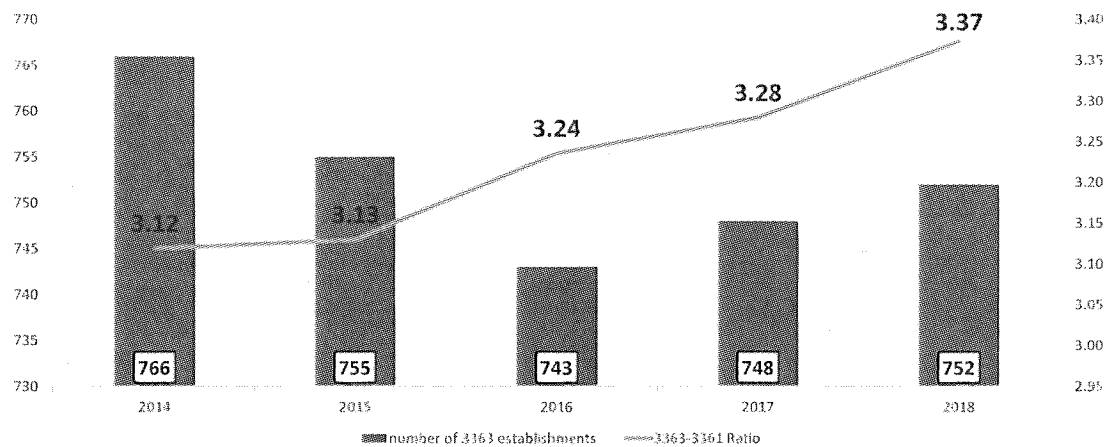
Source: Current Employment Statistics, Bureau of Labor Statistics, tables 3001 & 3003

Michigan Automotive Supplier Establishments and Employment Per Establishment 2014 – 2018



Source: Quarterly Census of Employment and Wage, Current Employment Statistics, Bureau of Labor Statistics
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Michigan Automotive Supplier Establishments and Supplier Employment Per Motor Vehicle Manufacturing Employment 2014 – 2018



Source: Quarterly Census of Employment and Wage, Current Employment Statistics, Bureau of Labor Statistics
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Investment Overview

Areas to Watch

- Since the recession, automakers have announced roughly \$131.2B across North America
- In Q1 2019, Michigan received 55% of U.S. investment
- FCA has announced 2 of Michigan's largest investments – both at \$1.6B each for Mack Engine and Sterling Heights

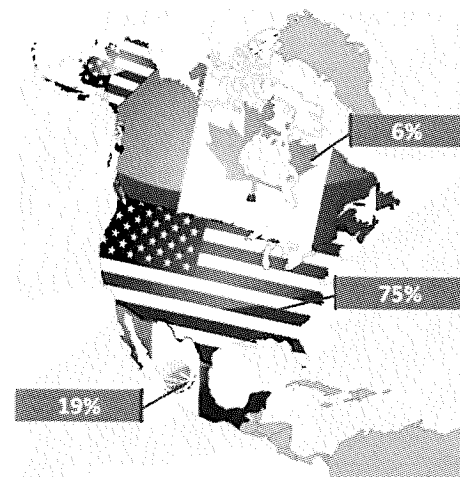
Note – the following Bond of Credit analysis covers publicly announced and confirmed projects made by manufacturers throughout North America.

Source: Bond of Credit, 11/15/2018, 10/2018, 10/2018

N.A. Announced Automaker Investment by Region 2009 to Q1 2019

Region	Investment Amount (\$USD)
Canada	\$8.2B
United States	\$98.2B
U.S. Great Lakes	\$63.1B
Michigan	\$32.8B
South	\$22.3B
Mexico	\$24.8B
Total	\$131.2B

Note: U.S. Great Lakes includes: IL, IN, KY, MI, MO, and OH
South includes: AL, FL, GA, MS, SC, TN, and TX



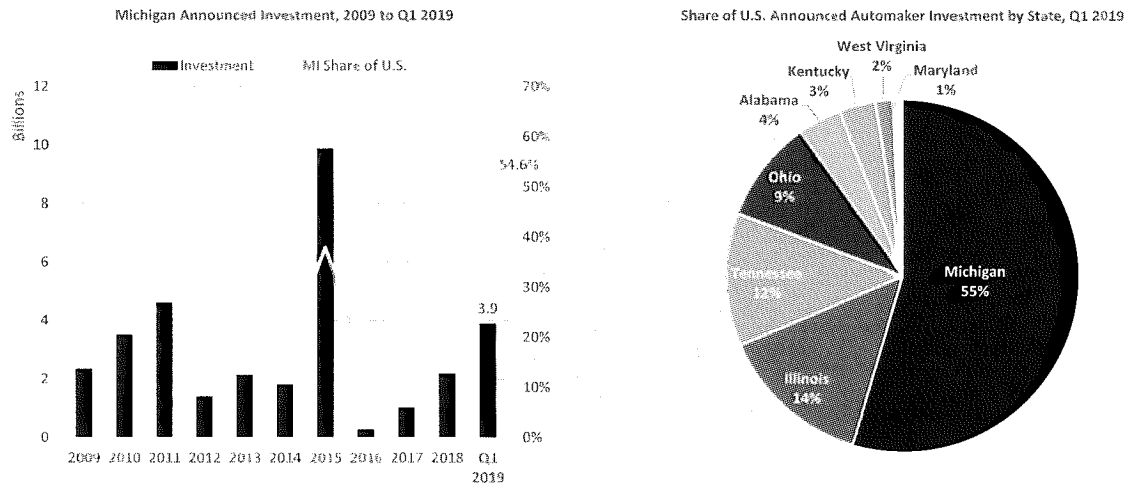
Source: Bond of Credit, 11/15/2018, 10/2018

Note: U.S. Great Lakes includes: IL, IN, KY, MI, MO, and OH

South includes: AL, FL, GA, MS, SC, TN, and TX

Automaker Announced Investment: MI vs. Other States

Q1 2019



Source: CAR Book of Deals, Q1 2019

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Automaker Investments in Michigan

Q1 2019

FCA: \$3.5 Billion (6 announcements)

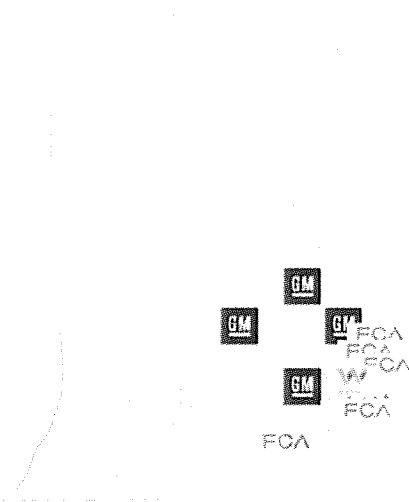
Mack Ave Engine: \$1.6B
 Jefferson North: \$900.0M
 Warren Truck: \$500.0M
 Sterling Heights/Warren (Stamping): \$400.0M
 Dundee Engine: \$119.0M
 Auburn Hills (Components Plants): \$12.6M

GM: \$356.0 Million (4 announcements)

Orion Township: \$300.0M
 Lansing Delta: \$36.0M
 Romulus Powertrain: \$20.0M
 Flint: Not Disclosed

Waymo: \$13.6 Million (1 announcement)

Detroit (AAM's Tech Center): \$13.6M



Source: CAR Book of Deals, Q1 2019

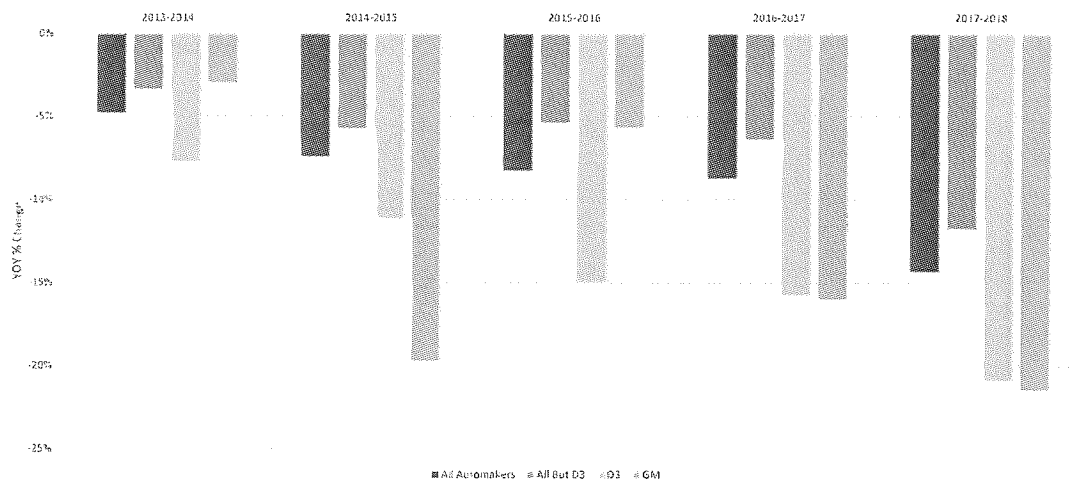
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GM Announcements

Plant	Products	End of Production	Employment	Union Local
Detroit/Hamtramck	LaCrosse, Volt, CT6, Impala	June 1, 2019 January 2020	1,542	UAW Local 22
Lordstown	Cruze	March 1, 2019	1,618	UAW Local 1112
Oshawa	Impala, XTS, Silverado, Sierra	Q4 2019	2,900	Unifor Local 222
Warren Trans.	6 Speed Trans	August 1, 2019	335	UAW Local 909
Baltimore Ops.	Pickup transmissions	April 1, 2019	310	UAW Local 239

DETROIT HUB ASSOCIATES/STEVENS WOODWARD

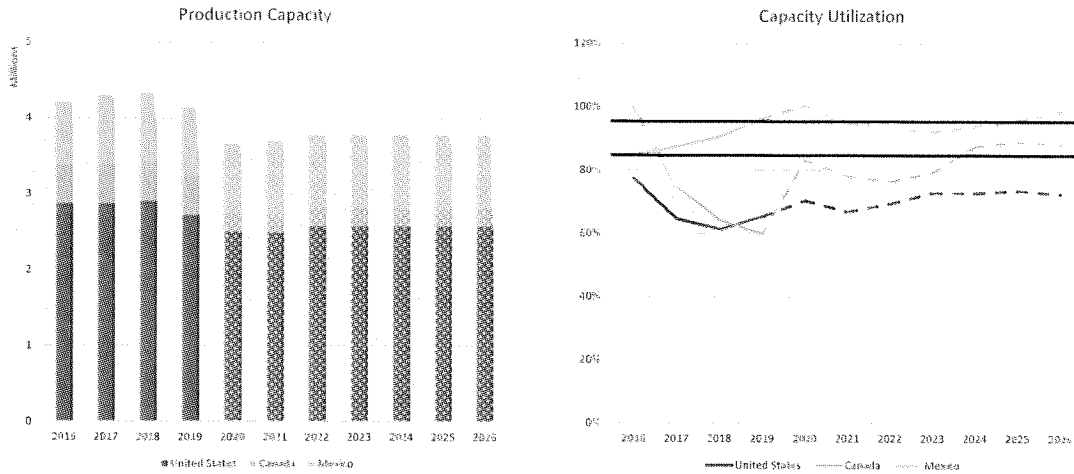
YOY Change in U.S. Passenger Car Market Shares 2013 – 2018



■ All Automakers ■ All But D3 ■ D3 ■ GM

DETROIT HUB ASSOCIATES/STEVENS WOODWARD

GM Vehicle Production Capacity and Capacity Utilization by Country, 2015-2018, 2019-2025(f)

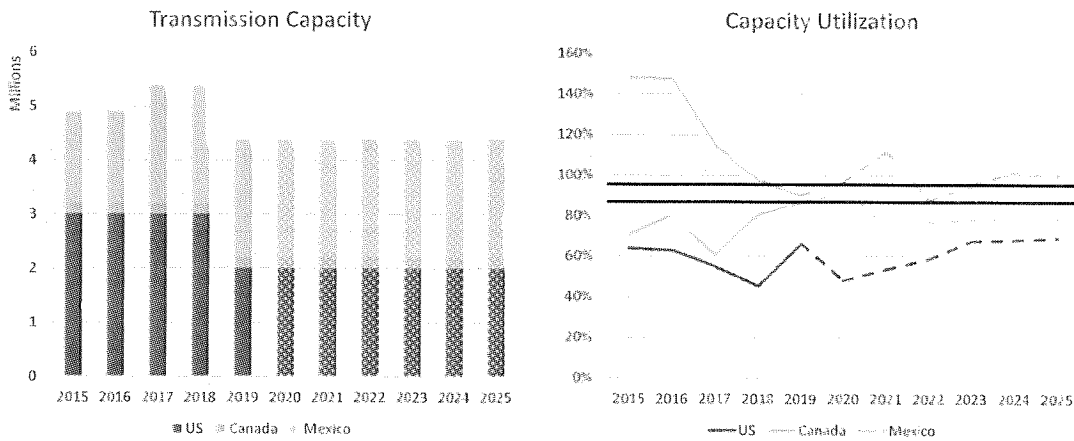


Source: GM analysis of IAD Automotive data

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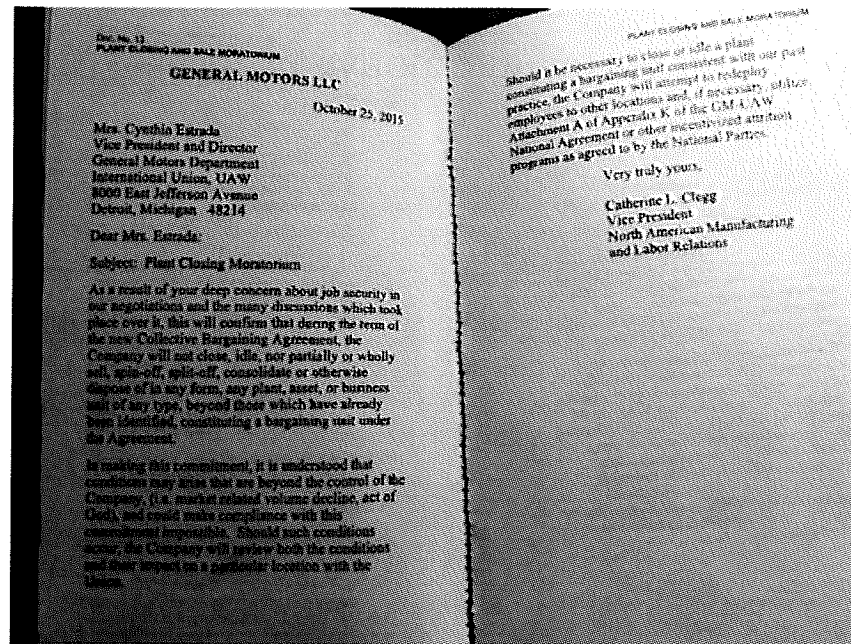
GM Transmission Capacity and Capacity Utilization by Country, 2015-2018, 2019-2025(f)



Source: GM analysis of IAD Automotive data

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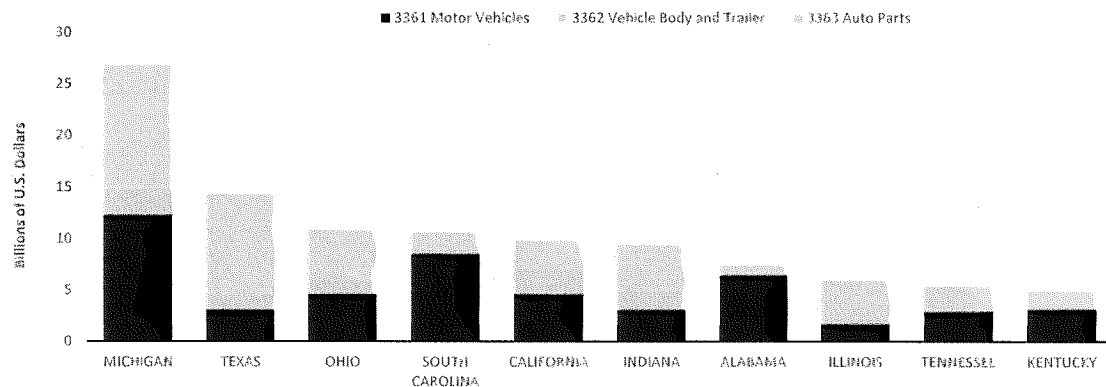


Export Overview

Areas to Watch

- Michigan automotive exports were \$26.8 Billion in 2018
- 61% of Michigan vehicles exports go to Canada
- 70% of Michigan auto parts exports to NAFTA region

Top Ten U.S. States by Automotive Exports in Dollar Terms: Michigan Motor Vehicle Exports decreased 1.03% in 2018 Total



- The major destinations for Michigan exports are Mexico and Canada

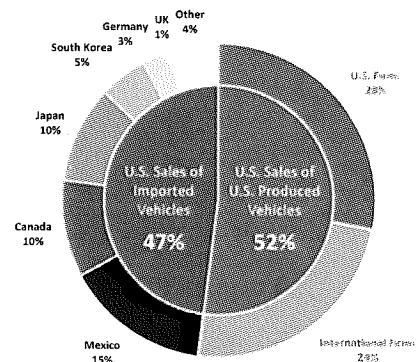
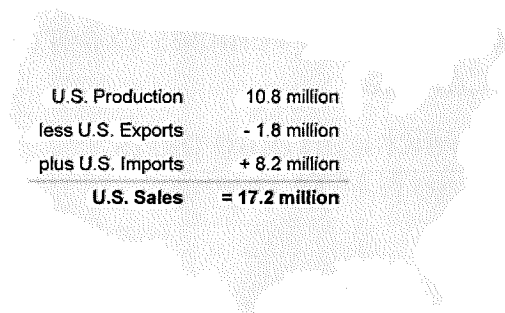
Source: International Trade Administration TradeShip Express

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The United States cannot currently self-supply the vehicles American dealers sell to U.S. consumers.

Sourcing of U.S. Light Vehicle Sales

2017



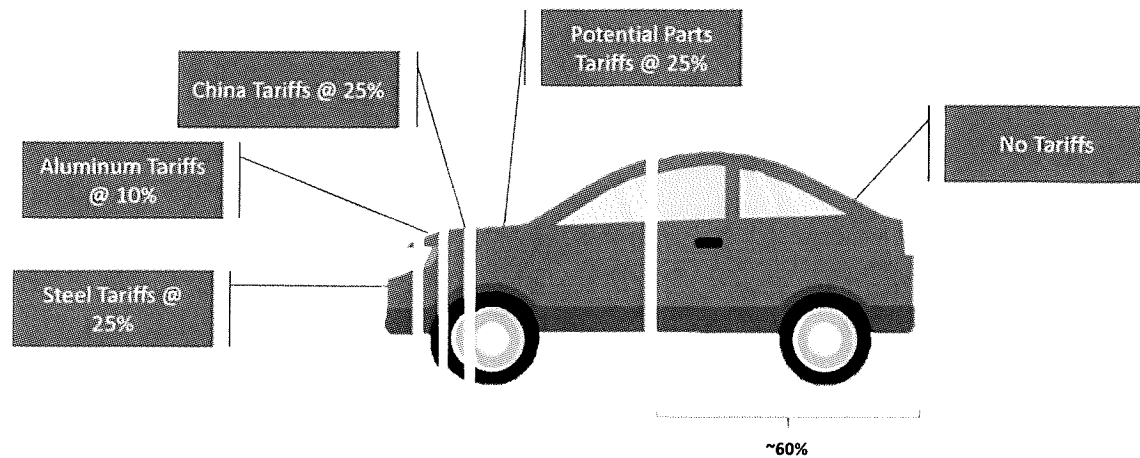
FCA, Ford, & GM Represent 43% of Canada & Mexico Imports

Source: (HS) Market data

CHARTER FOR ALL INFORMATION RESPONSIBILITY

Source: CAR, U.S. International Trade Administration

Tariffs are piling up on light vehicles



Source: Center for Automotive Research

Center for Automotive Research

U.S. Consumer & Economic Impacts of U.S. Automotive Trade Policies

- Assume:
 - USMCA is ratified,
 - Section 232 tariffs on steel & aluminum remain in place on all current countries,
 - Section 301 China tariffs remain at current levels, and
 - Section 232 auto & parts tariffs are levied at 25% on all trading partners except Canada, Mexico, & South Korea

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Impact of USMCA, Section 232 Steel & Aluminum Tariffs, Section 301 China Tariffs & Potential Section 232 Auto & Parts Tariffs



+\$2,750 average
+\$1,900 U.S.-built
+\$3,700 imports



-366,900 jobs



-\$30.4B GDP



-1.3M fewer U.S. sales
-\$43.6B dealership revenue
-77,000 dealership jobs

Source: Center for Automotive Research

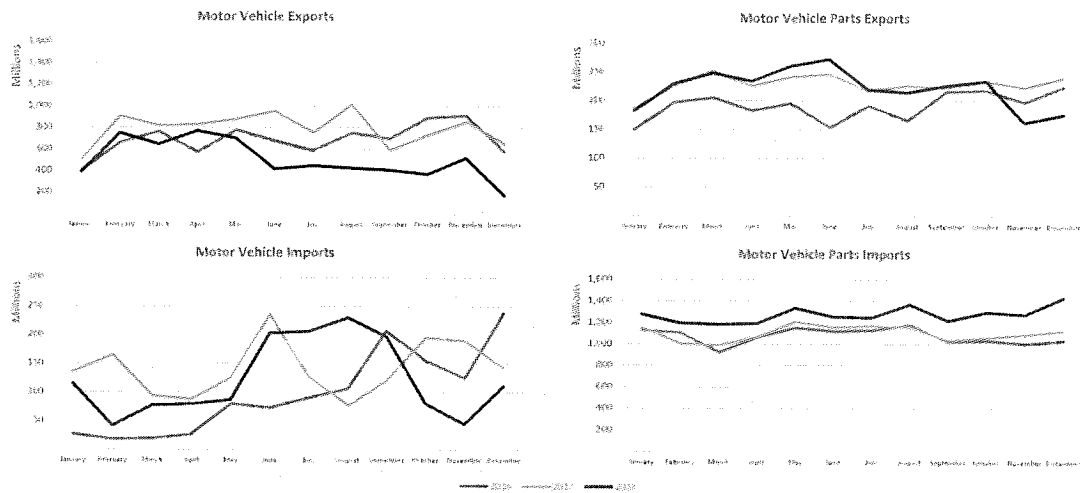
U.S. Trade Representative, BEA, BLS

Steel & Aluminum Tariffs

By HumeiczRocks - Own work, CC BY-SA 3.0, <https://commons.wikimedia.org/w/index.php?curid=2929407>

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Trends in Monthly China Motor Vehicle and Parts Domestic Exports and Imports for Consumption 2016-2018



Source: U.S. International Trade Administration

U.S. INTERNATIONAL TRADE ADMINISTRATION

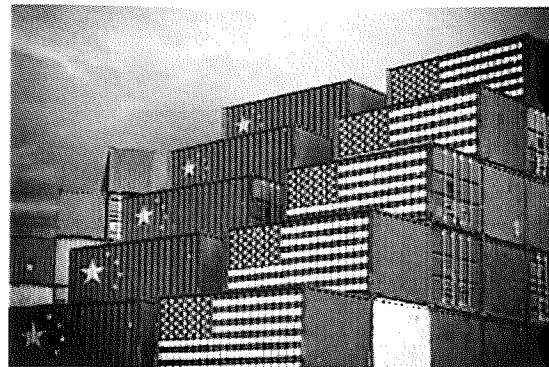
Brief China Trade Update

U.S. raised tariffs from 10% to 25%
– includes all automotive goods

U.S. moves to impose tariffs on
nearly all Chinese imports –
including consumer goods

China retaliates with tariffs on
\$60B U.S. imports (rates increase
from 5-10% to 20-25%)

Average increase in cost due to
tariffs/U.S.-built vehicle = \$190



U.S. INTERNATIONAL TRADE ADMINISTRATION

Section 232 on Autos & Parts Presidential Decision due by Saturday, 18 May 2019; Executive Order Expected TODAY

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Ana Swanson

@AnaSwanson

Following

"I have no idea what's going to happen,"
Trump said.

11:41 AM - 9 May 2019

13 Retweets 14 Likes



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Thank you

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