

Welcome

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NAIAS

Industry Insights Breakfast

January 13, 2019

COX AUTOMOTIVE™

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Mobility Solutions:

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Vice President, Xtime

Karl Brauer

Executive Publisher,
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Brian Moody

Executive Editor, Autotrader

Mandy Savage

General Manager,
Manheim Detroit

Schedule of Events

9:30 a.m. Cox Automotive: Disruption
John Kovac

2018: A Year of Surprises
Charlie Chesbrough

Key Factors to Watch in 2019
Jonathan Smoke

Evolution of Mobility
Isabelle Helms

NAIAS '19
Karl Brauer and Brian Moody

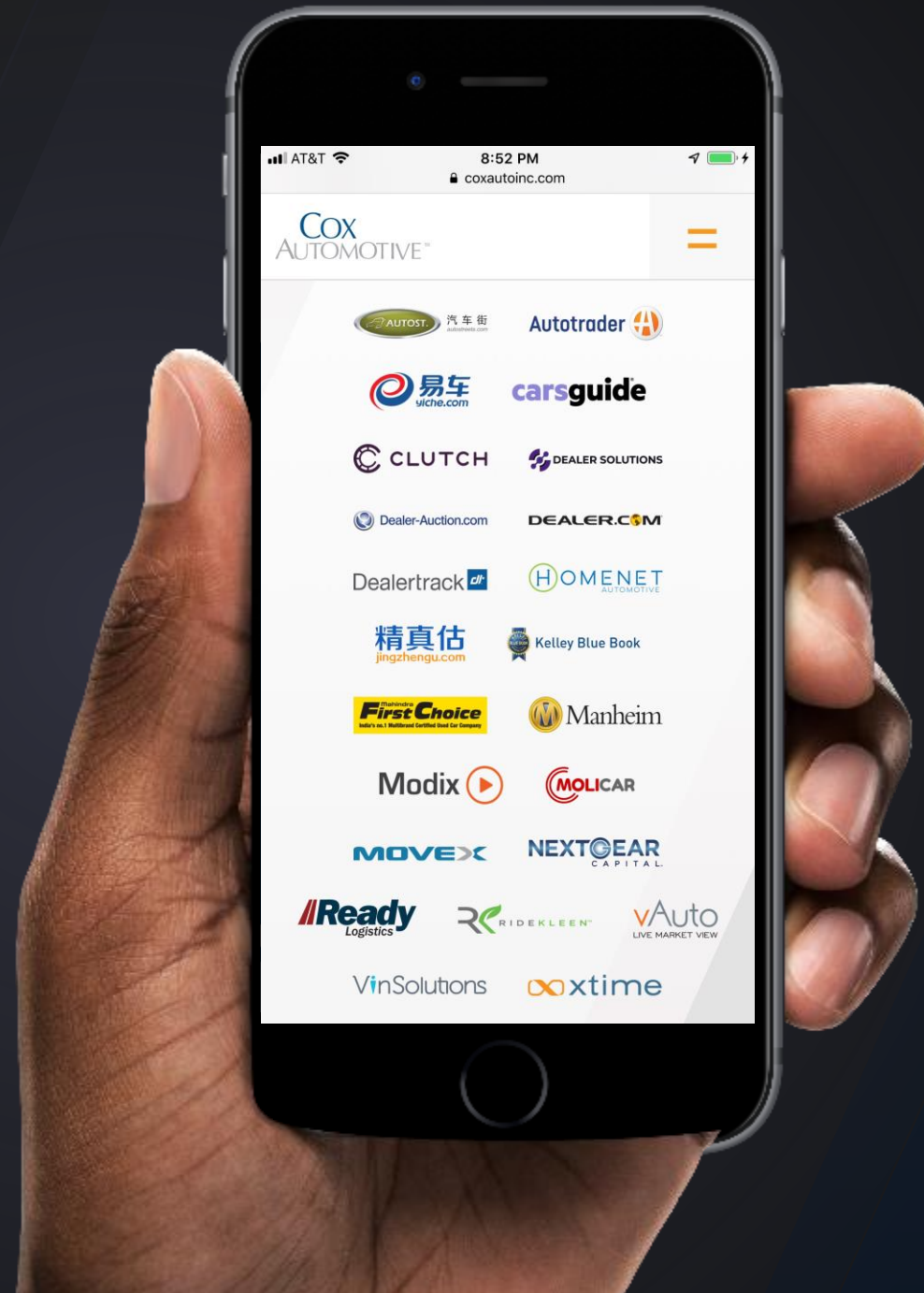
Q & A

11:00 a.m. Formal Presentation Ends

11:30 a.m. Event Ends

John Kovac

Executive Vice President
& Chief Marketing Officer







Disruption



COX AUTOMOTIVE™

**TRANSFORMING THE WAY THE WORLD
BUYS, SELLS, OWNS AND USES CARS**


SOURCE


SELL



SERVICE



SUPPORT


SUBSCRIBE / SHARE

 HOMENET
AUTOMOTIVE

Autotrader 

Dealertrack 

Dealertrack 

 CLUTCH

 Manheim


DEALER.COM

 Manheim

VinSolutions

 RIDEKLEEN

NEXTGEAR
CAPITAL


Dealertrack 

 RIDEKLEEN

VinSolutions

∞xtime

vAuto
LIVE MARKET VIEW

 Kelley Blue Book

 Manheim

vAuto
LIVE MARKET VIEW

VinSolutions



Personalization Process Participation

Digital Wholesaling



Lot Vision

COX AUTOMOTIVE™



Digital Retailing



Mobility



Manheim

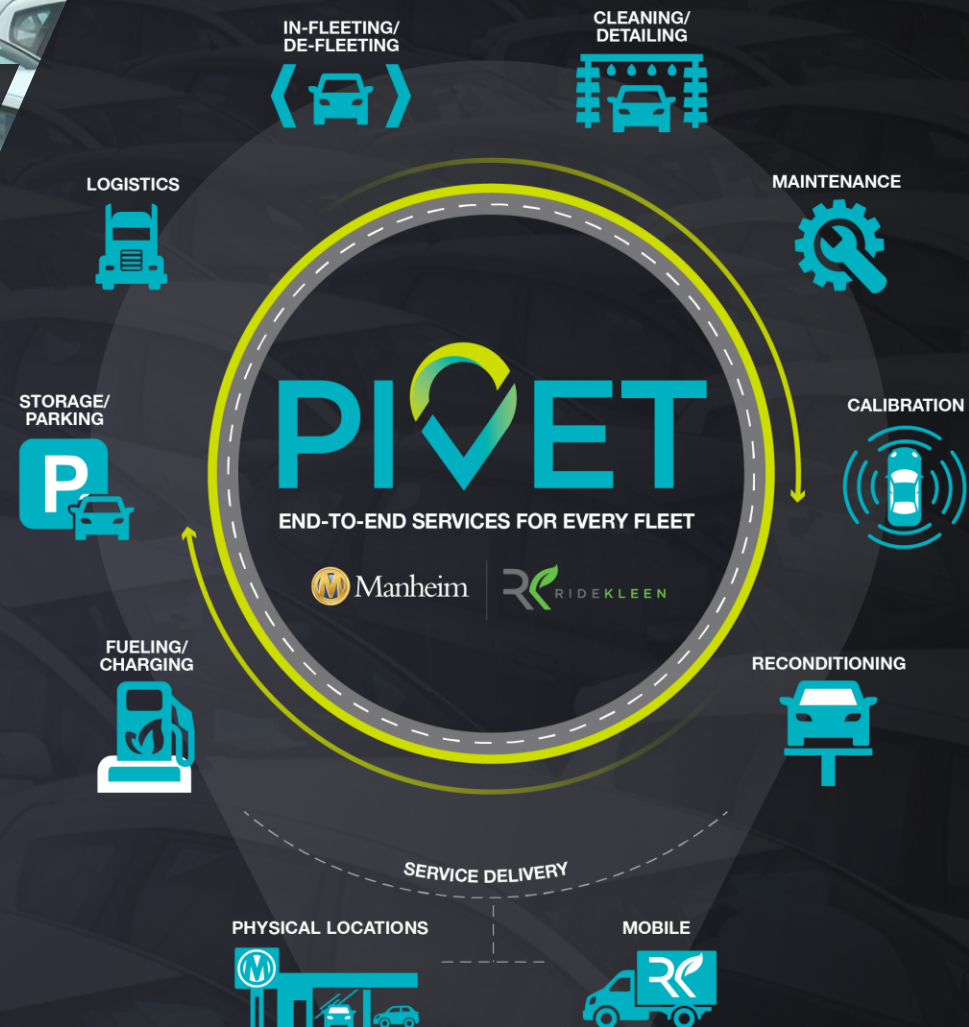
COX AUTOMOTIVE™



CLUTCH



Mobility



COX AUTOMOTIVE™



Charlie Chesbrough

Senior Economist



2018: A Year of Surprises

Vehicle market finishes above 17.2 million,
up slightly from 2017

A great year, but **more** fleet, **less** retail suggests
market demand waning



2018: A Year of Surprises

Winners

— Jeep, Land Rover, Ram, Subaru, Tesla

Thanks for Participating

— Chrysler, Fiat, Genesis, Jaguar



2018: A Year of Surprises

Fleet sales up over 8 percent (more than 200,000 units) in 2018

- Reverses a similar sized decline in fleet that occurred in 2017
- Fleet share of market rises over 1 percent to nearly 19 percent of all sales. GM, FCA, Hyundai account for nearly 60 percent of the increase
- Tax reform, stabilizing residuals contributing to increased activity



2018: A Year of Surprises

Retail sales drop over 1 percent in 2018, reflecting worsening buying conditions for consumers. Retail share near 81 percent, down slightly from 2017.

- **Leasing Share of Retail:** Activity remained near 30 percent and the volume change was flat
- **Transaction Prices:** Higher in 2018, reflecting the lower car mix
- **Incentives:** Stable in 2018, rates impacting both buyers and sellers



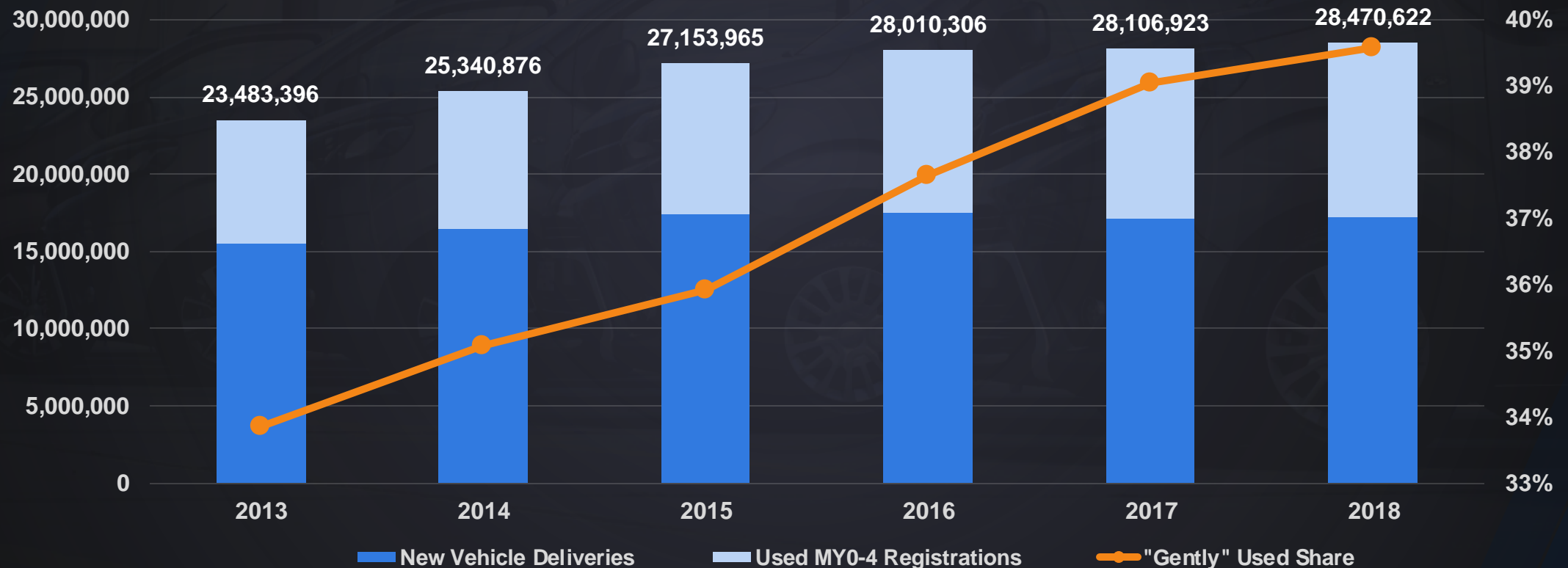
Vehicle Shopper Perspective

Market Consideration Above 28,000,000

New Light Vehicle and MY0-4 Used Light Vehicle Demand Strong, Importance of Used Rising

COMBINED NEW AND USED MY0-4 VEHICLE MARKET

"Gently" Used Share



As 2018 Becomes 2019:

New and Used Buying Conditions Become Less Favorable



Labor Markets
Consumer Confidence
Product Choice



Credit Availability
Gasoline Prices
Tax Reform Impact
Vehicle Prices
Inventories



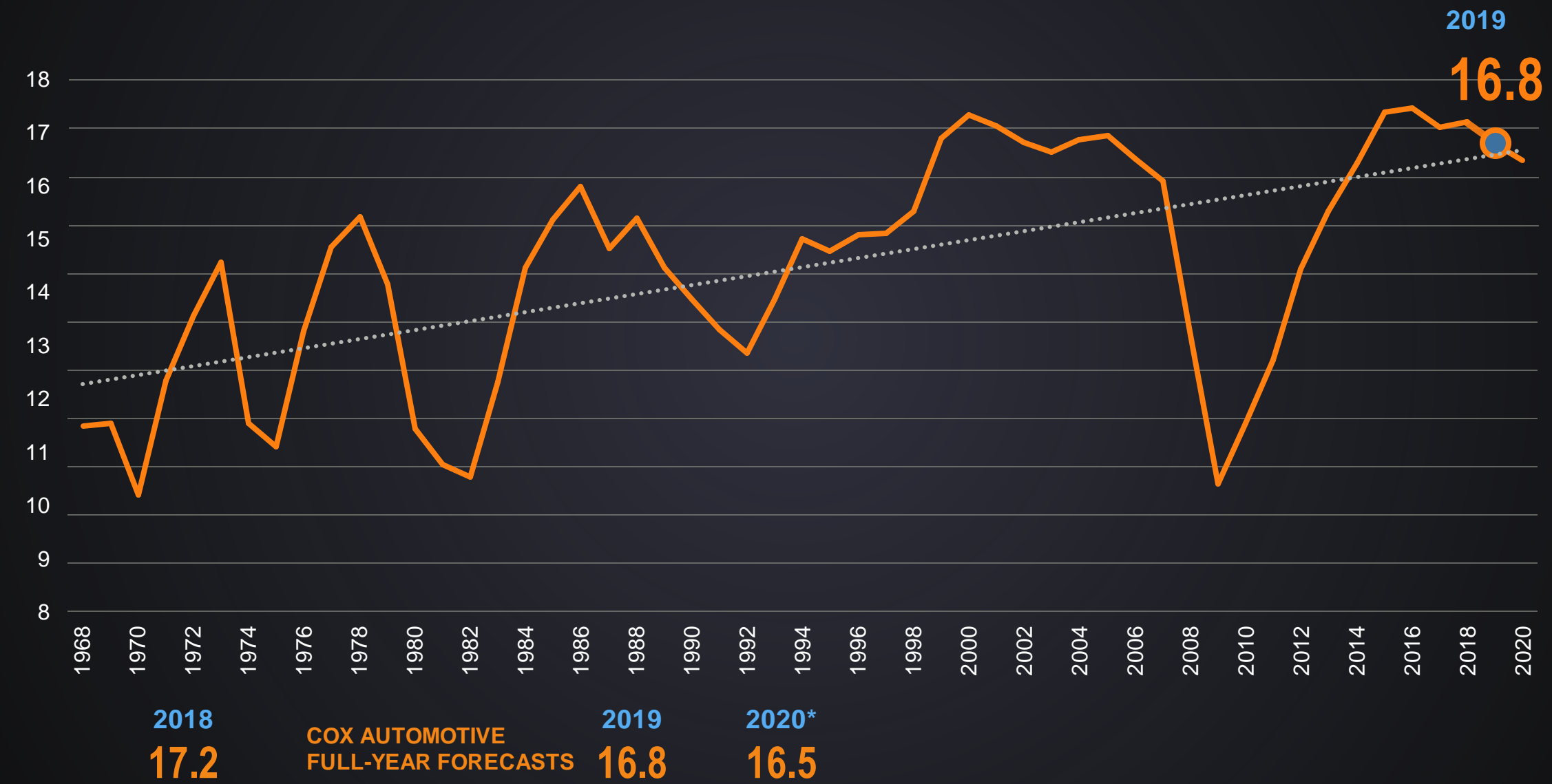
Equity Markets
Monetary Policy
Fiscal Policy
Housing Market

Jonathan Smoke

Chief Economist, Cox Automotive



New Vehicle Sales Forecast for 2019



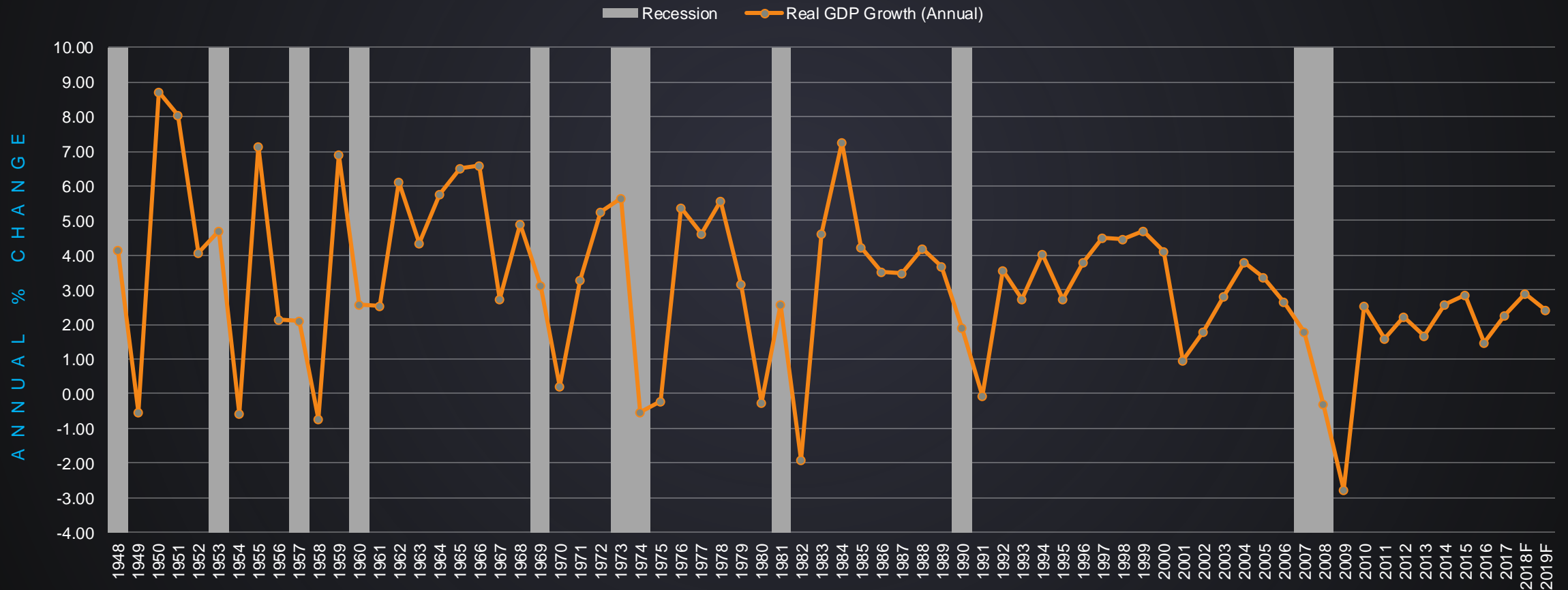


KEY FACTOR:
Slowing Economy

Economic Momentum Turns

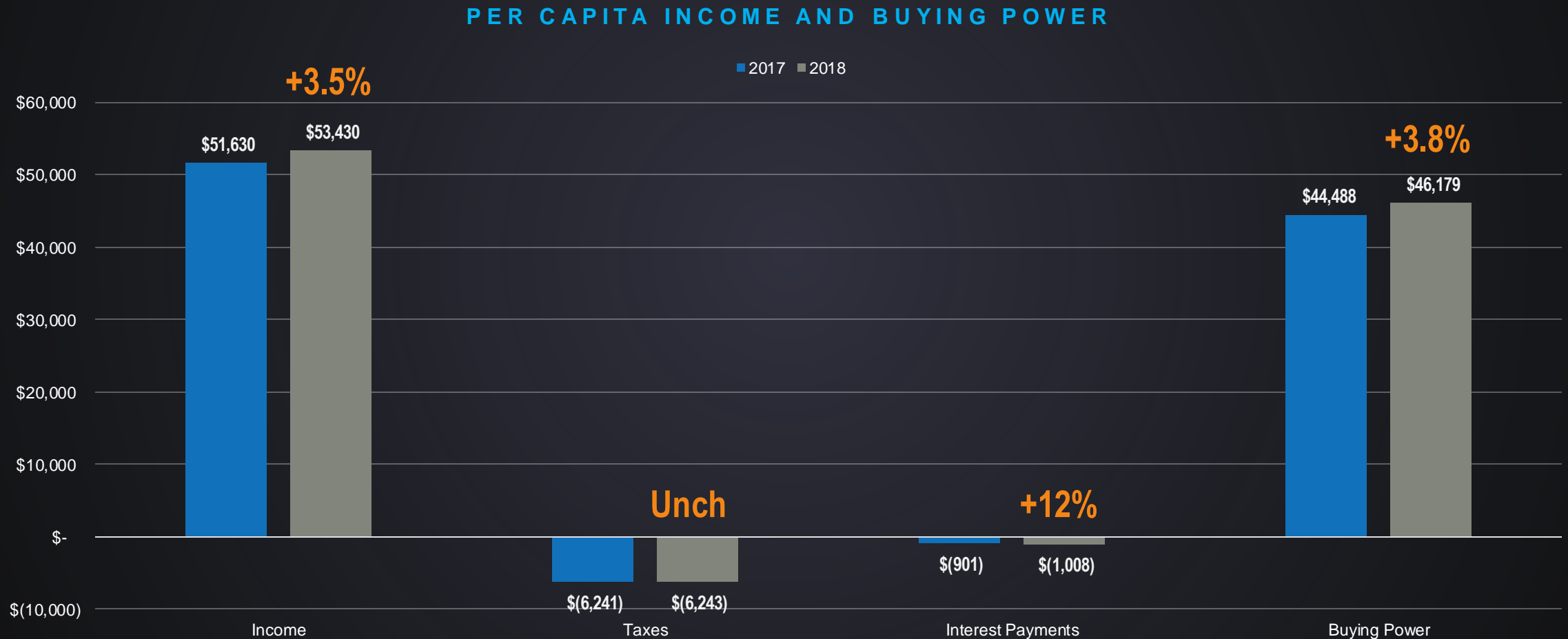
Real GDP growth will slow to 2.6% in 2019 while a risk of recession grows


US ECONOMIC GROWTH SINCE WORLD WAR II



Tax Reform Boosted Disposable Personal Income

Lower tax rates effectively allowed average income gains to translate into equivalent gains in spending

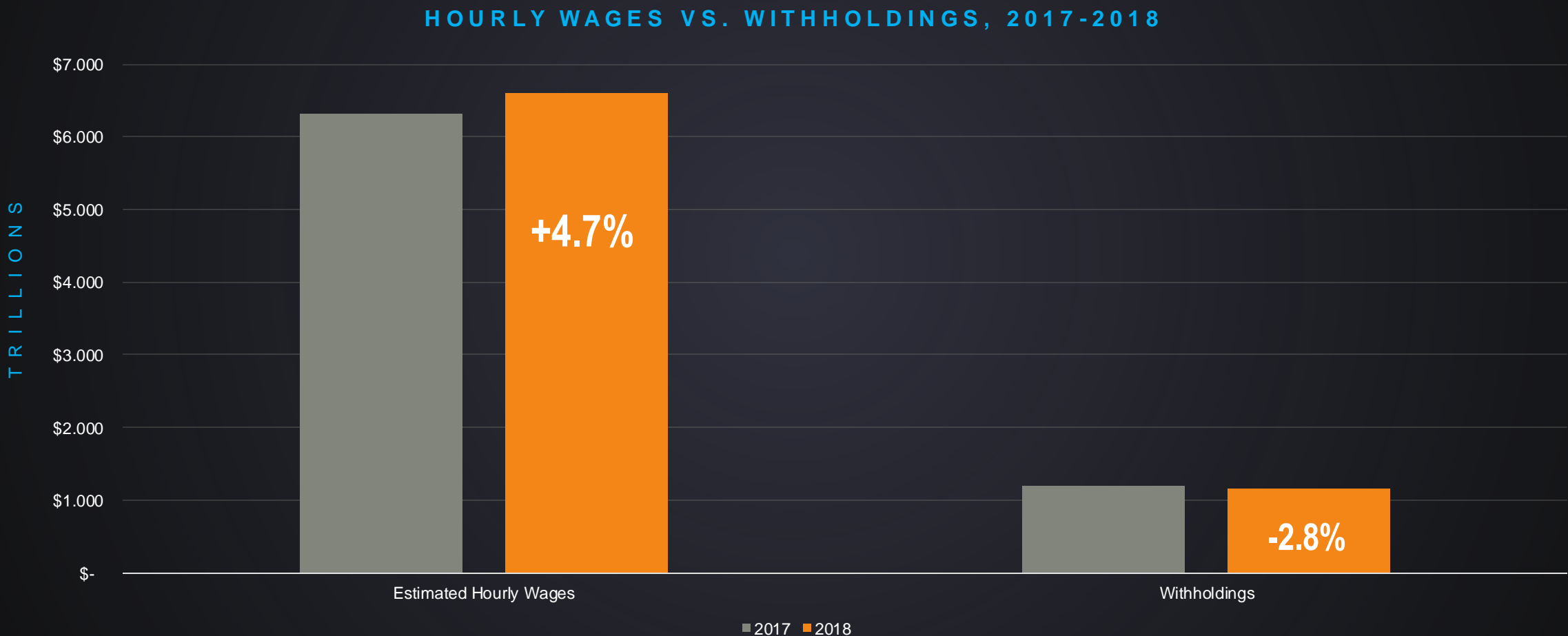


A close-up, dimly lit photograph of a person's hand using a black calculator on a wooden desk. In the background, a laptop keyboard is visible on the left, and a glass of water is on the right. The scene is overlaid with a dark blue gradient and a diagonal gold line.

KEY FACTOR: Trouble with Tax Refunds

Withholdings are Down in Total and Per Employee

Average withholdings per employee are down 4% YTD, yet average tax rate change was 1% and wages are higher



Source: Cox Automotive estimates based on US Treasury Monthly Statements and BLS Total Nonfarm Employment

Implications of Underwithholding

MORE THAN 102 MILLION FILERS RECEIVED A REFUND IN 2018 FOR 2017 TAXES

Millions of households likely to be in a different position relative to tax refunds than they are accustomed

THE AVERAGE REFUND LAST YEAR WAS ALMOST \$2,800

The average refund is likely to be smaller

Consumer spending likely to be negatively impacted

Consumer credit conditions likely to deteriorate

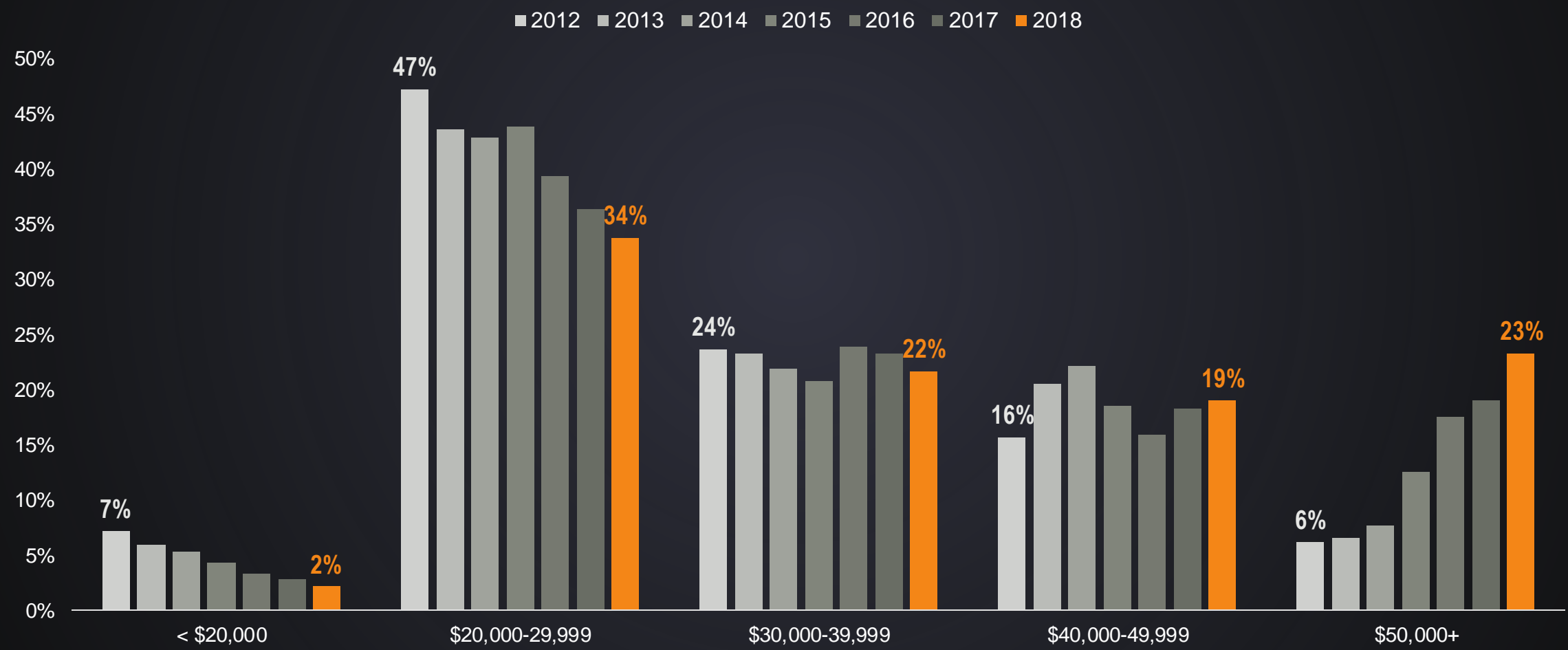
Updated W4 will lead to higher withholdings and lower disposable income



KEY FACTOR:
**Changing New
Vehicle Market**

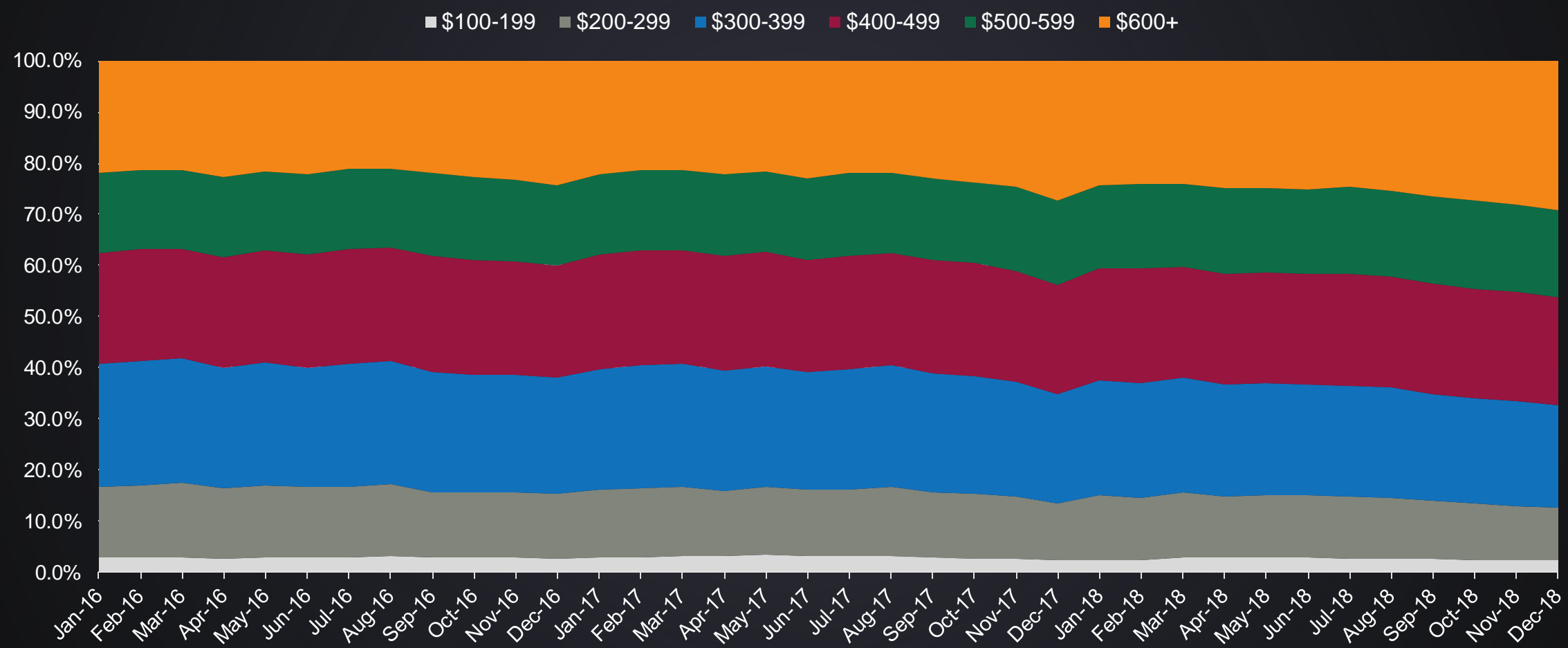


Share of New Vehicle Sales Under \$30,000 MSRP Declining



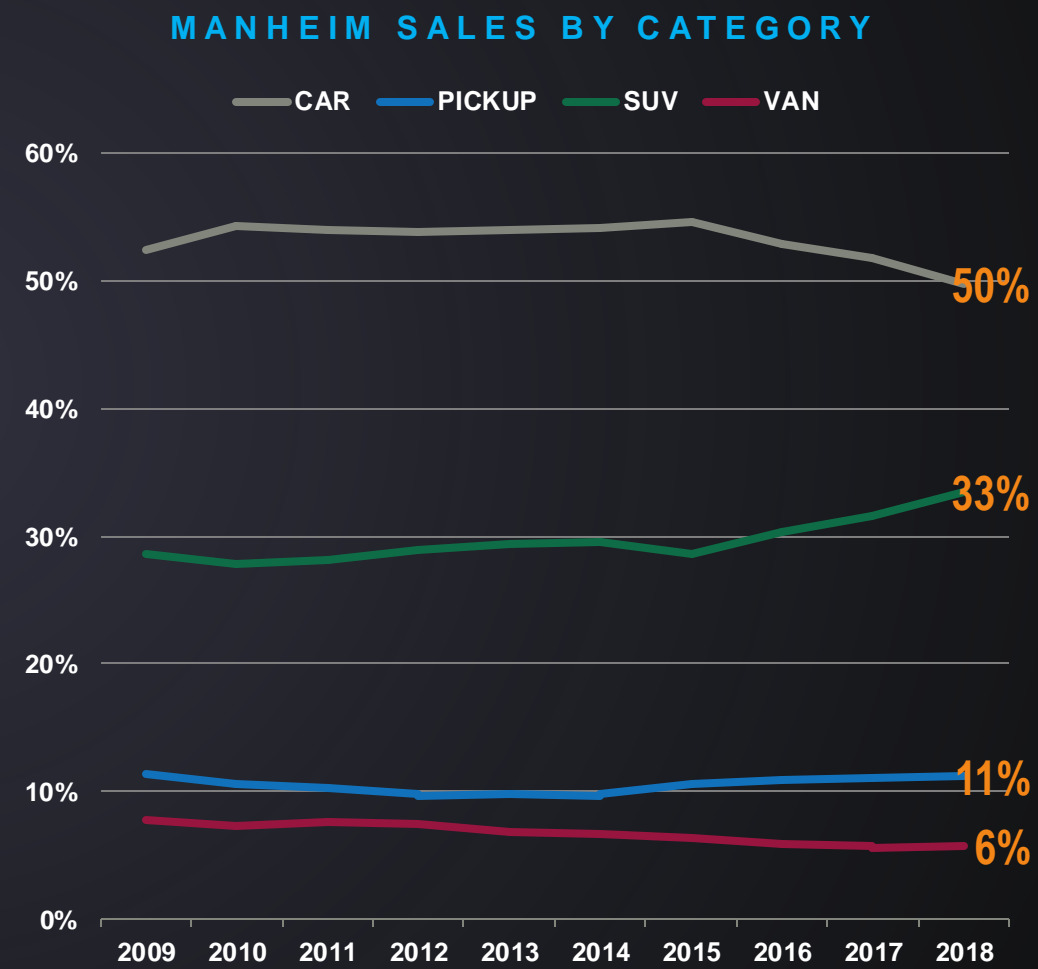
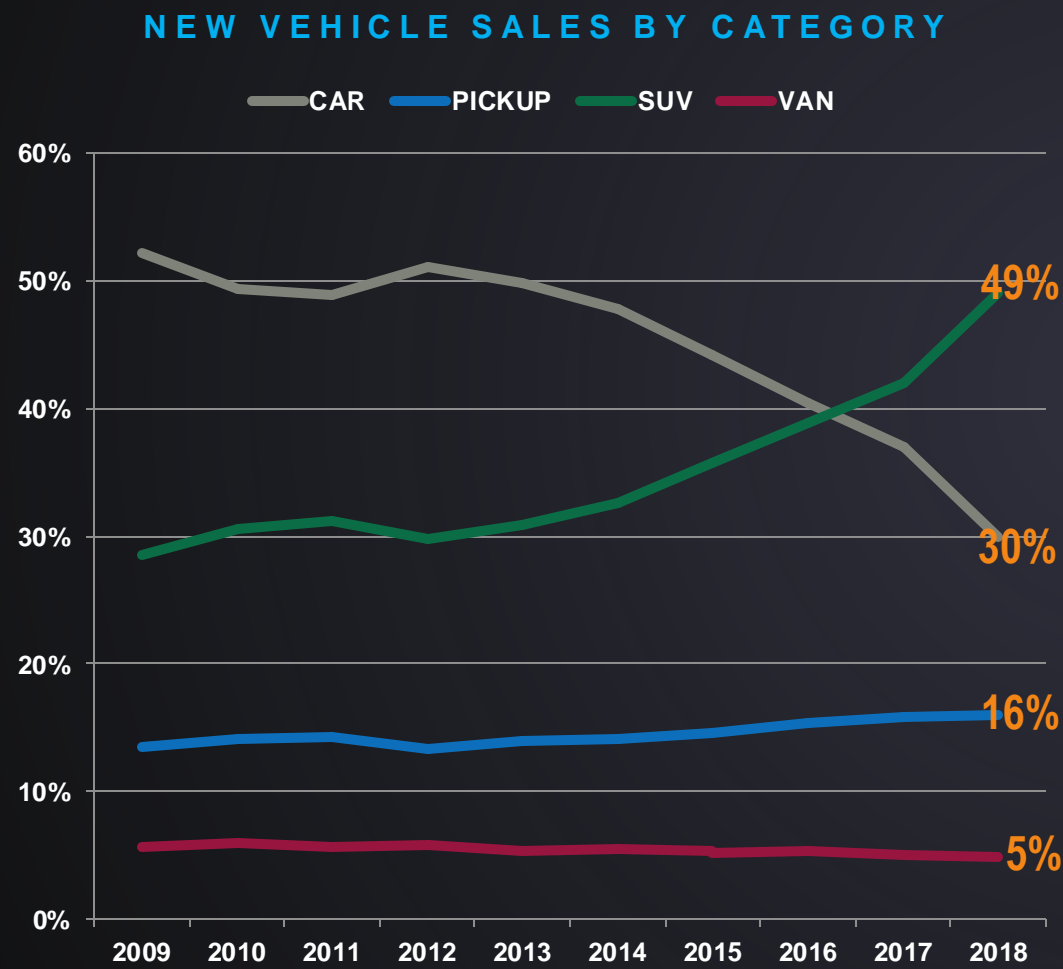
Share of New Vehicle Monthly Payments **Over \$600** Increasing

The average payment on a new vehicle reached \$533 in 2018 or 10.2% of median household income



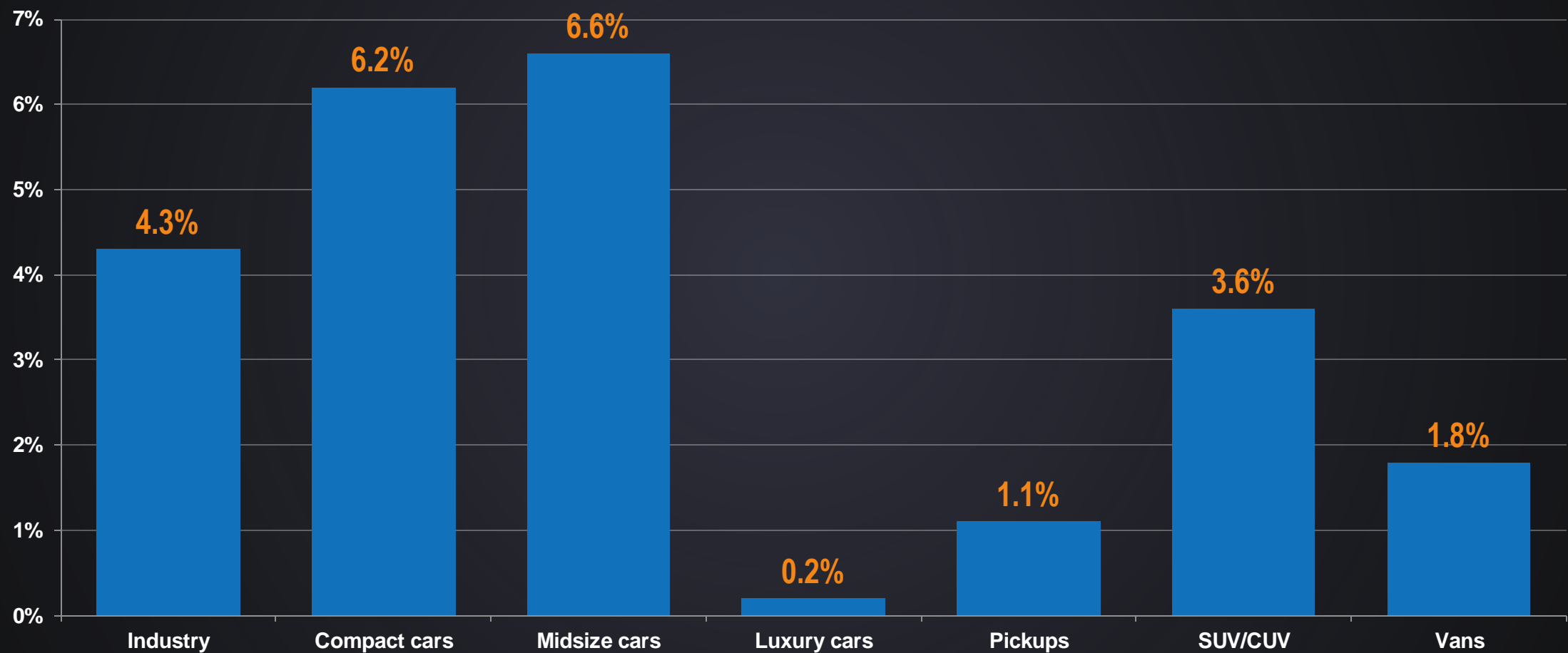
Decline of Cars Not Reflected in Wholesale Market Volumes

The SUV reigns supreme in new vehicle sales while cars still dominated the used car market



Affordable Cars Outperforming other Segments

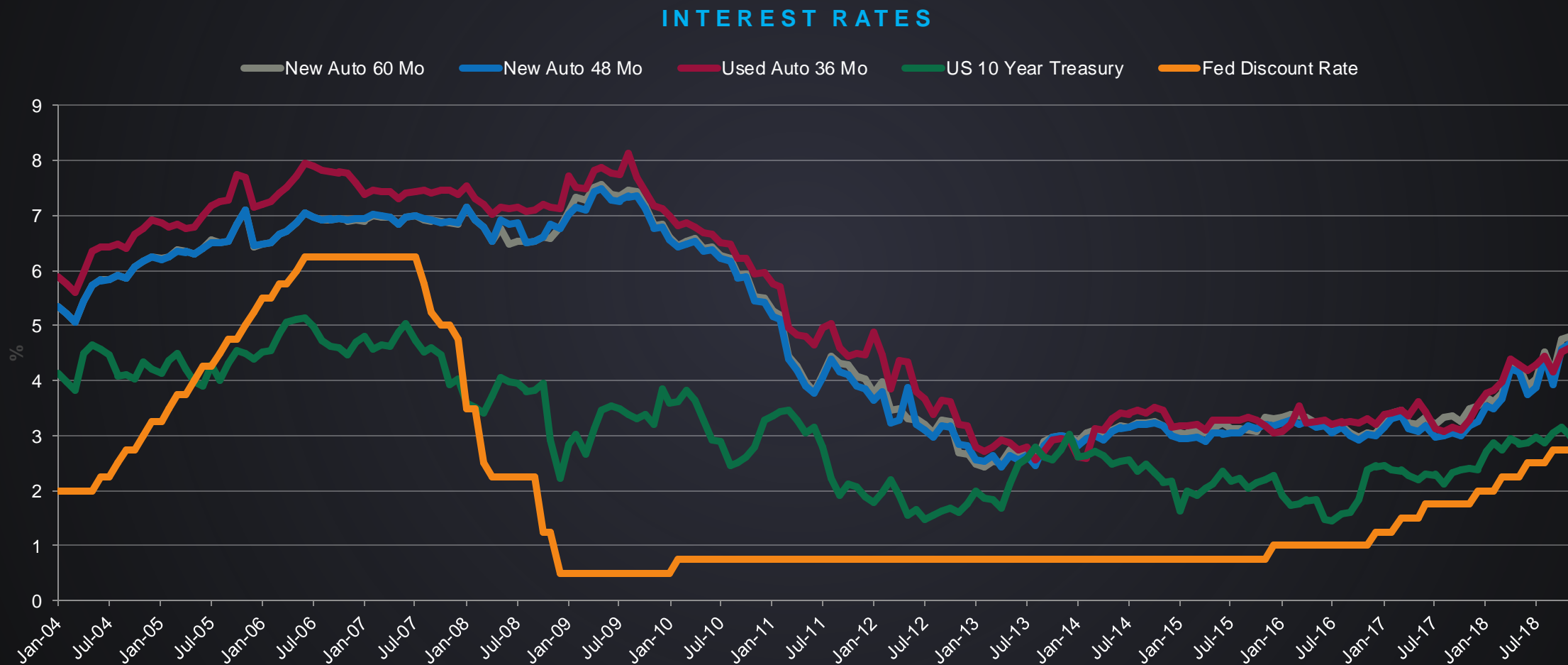
Percent change in Manheim Used Vehicle Value Index year-over-year December 2018



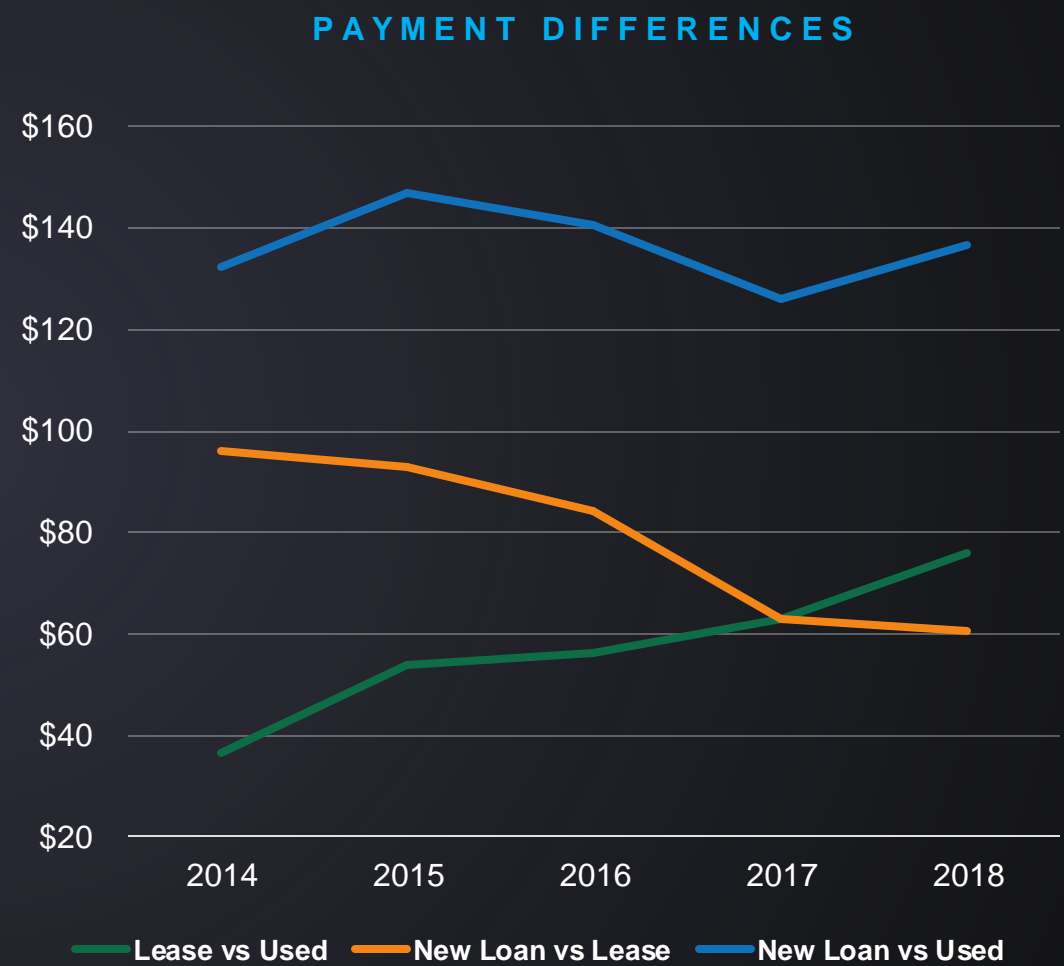
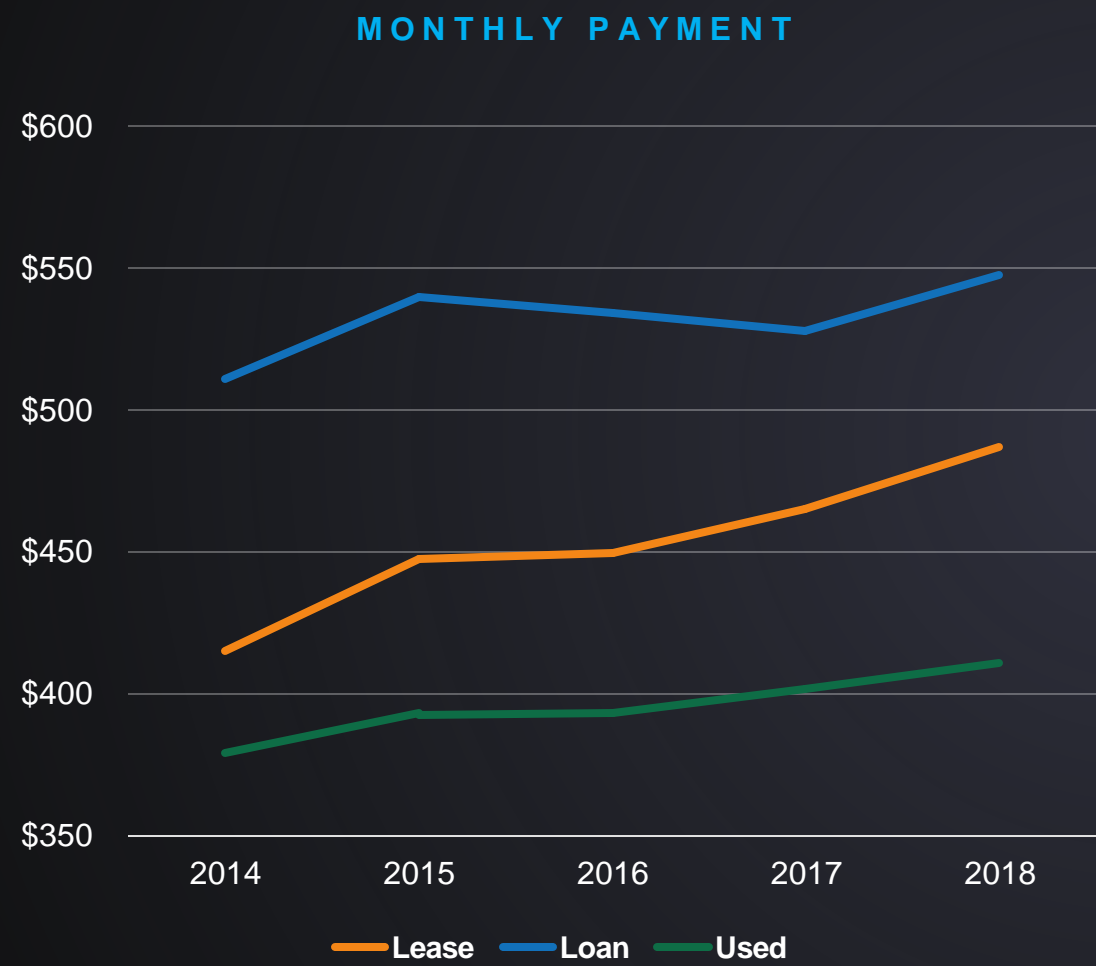
KEY FACTOR: Interest Rate Direction

“Best Available” Auto Rates at Seven-year High

The discount rate ended 2018 up 1% while best available auto rates were up more and up 2.4% from absolute low



Payment Inflation Impacted Consumers

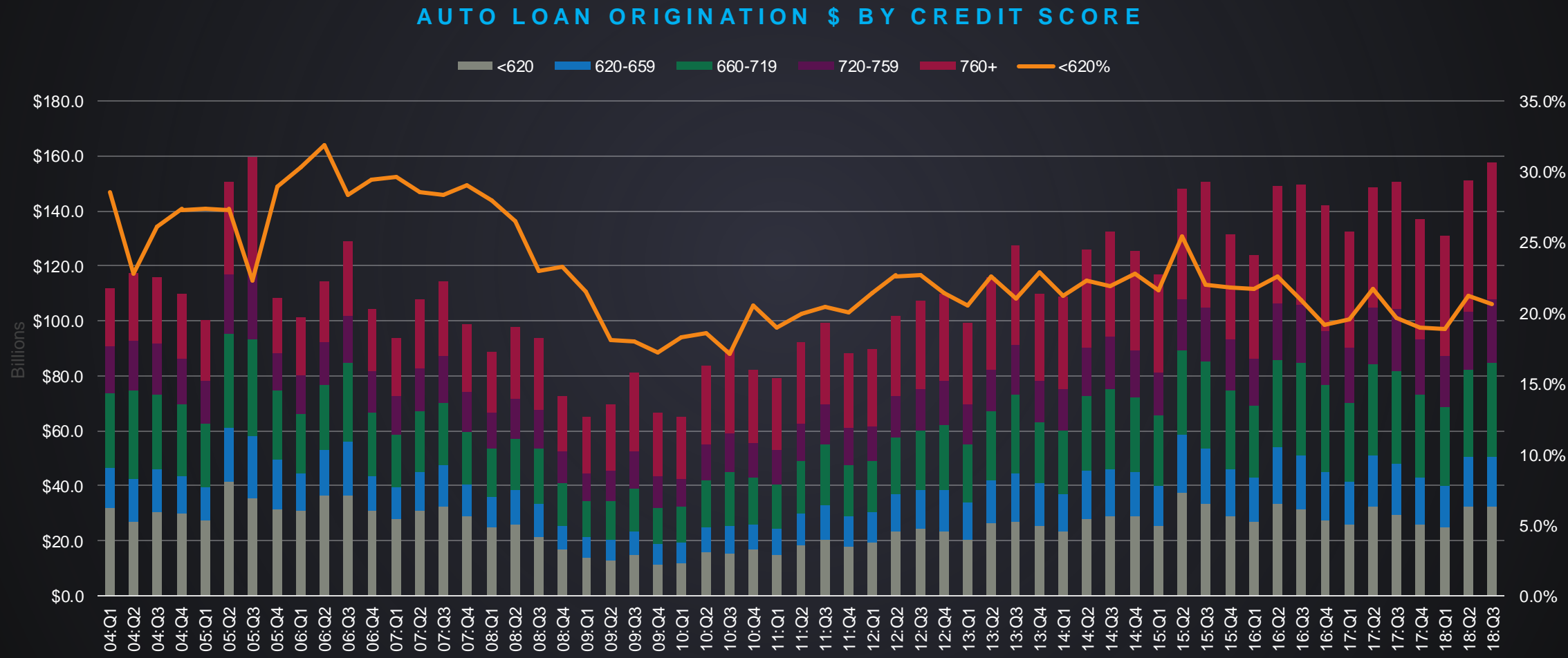


KEY FACTOR: Credit Tightens



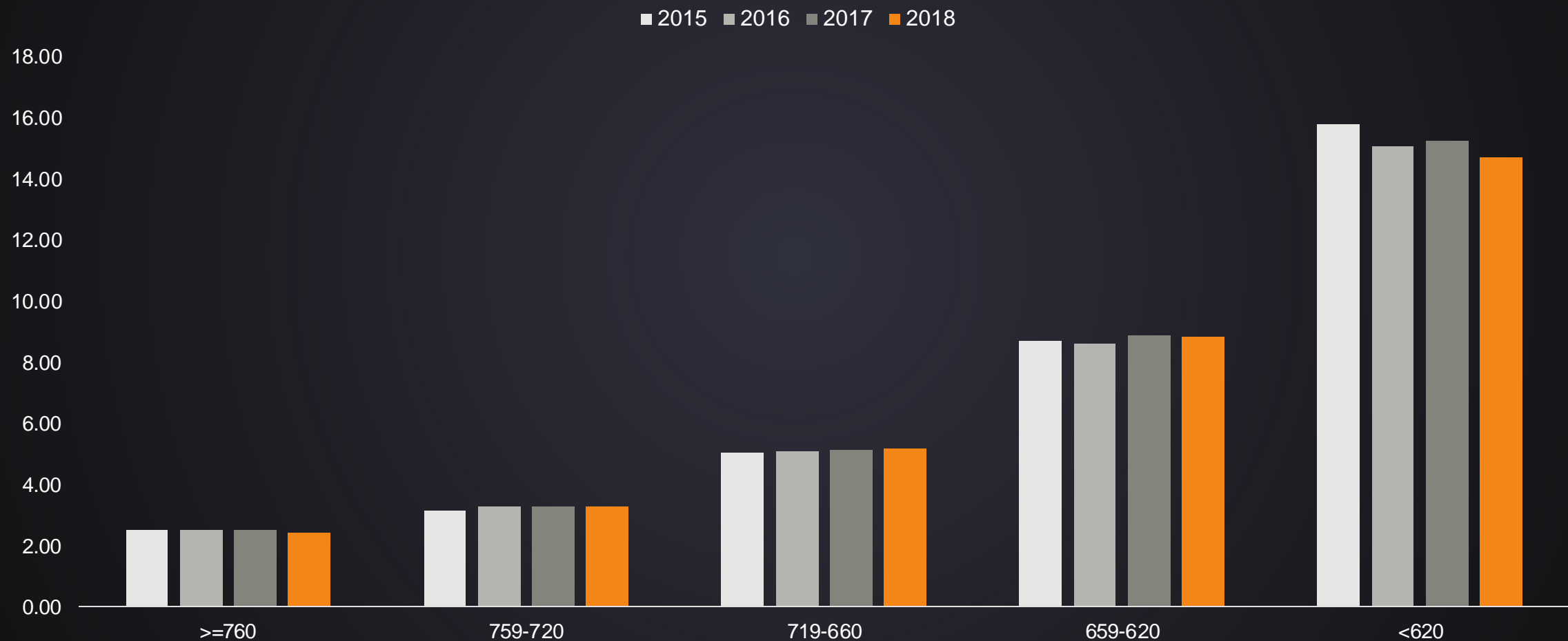
Easier Lending Supported Peak Auto Sales(LENDING EXPANDED IN Q3)

Lending grew by 4.6% Y/Y in Q3 by 10% gains in subprime and 8% gains in 760+ \$ volumes



Source: New York Federal Reserve Consumer Credit Panel/Equifax

Average Interest Rate vs Fed Funds Rate: Spread (Points)



Subprime Penetration Varies by Brand





KEY FACTOR:
Trade & Tariffs

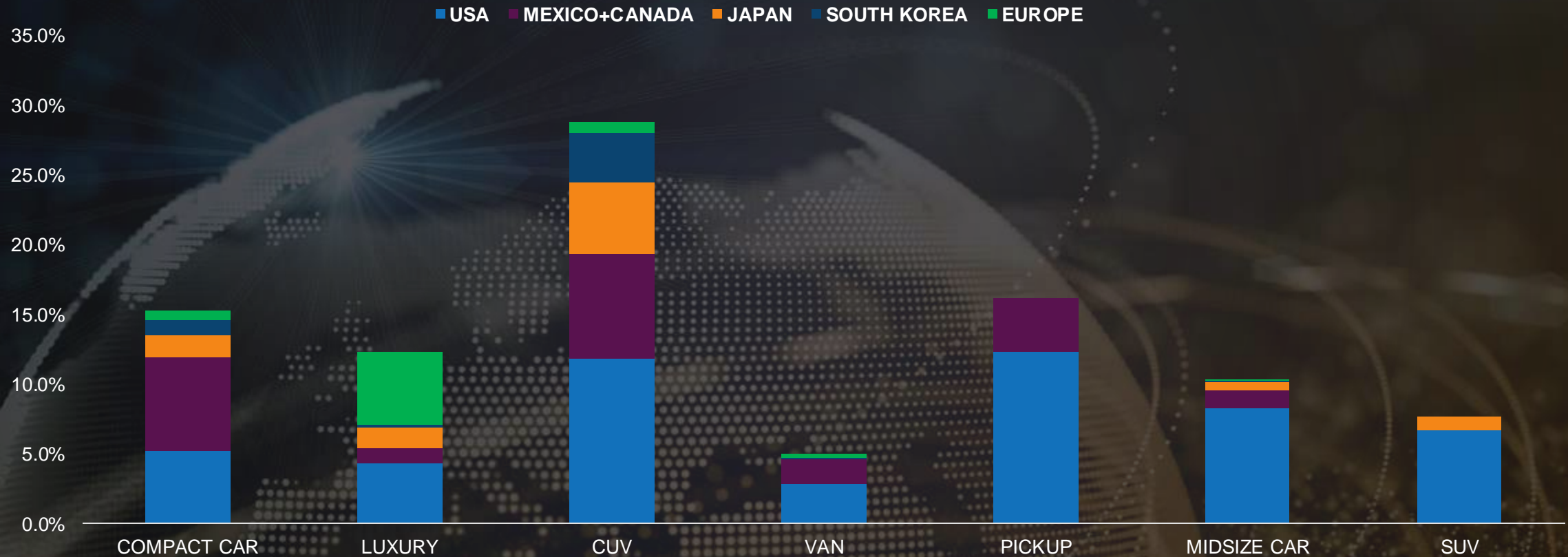
Negative Impact of Import Tariffs

	Q4 2018	Q3 2018
Higher prices on all used vehicles as market adjusts	61%	60%
Higher prices on imported vehicles	57%	55%
Higher prices on all new vehicles as market adjusts	40%	48%
Lower (or delayed) used vehicle sales	28%	23%
Lower (or delayed) new vehicle sales	26%	27%
Higher prices on domestic vehicles	25%	25%
Other	5%	3%
No Concerns	2%	4%

Q: What, if any, positive impacts would imposing tariffs on imported vehicles and parts have on your business? Please select all that apply.

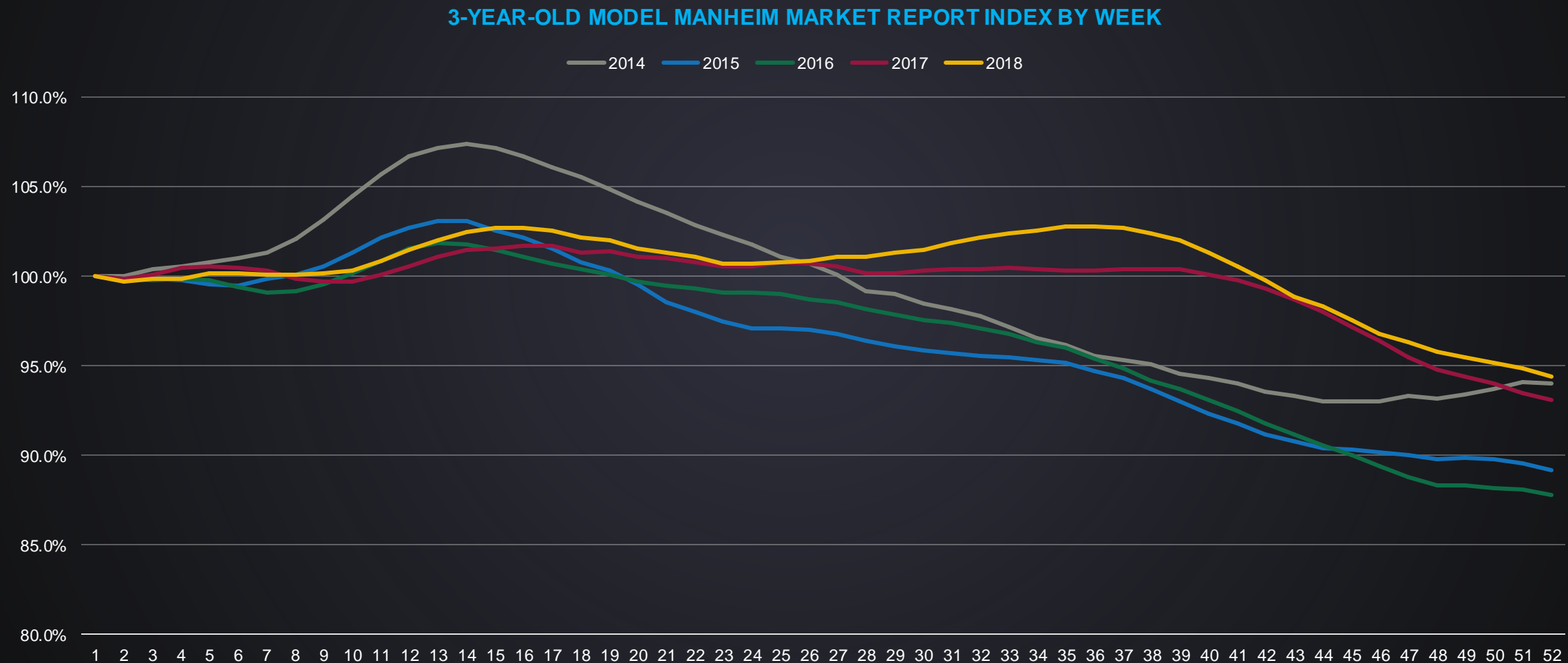
The US Market is Heavily Dependent on a Complex Global Supply Chain

COMPOSITION OF NEW VEHICLES SOLD IN THE US BY MAJOR SEGMENTS AND MAJOR REGIONS OF ORIGIN



Vehicle Prices Already Impacted by Tariffs

11 weeks of appreciation in the summer brought prices to a new equilibrium reflecting an average 2% increase in value





OPEN QUESTIONS Regarding Auto Trade & Tariffs

Ratification of USMCA

Section 232 tariff on
imported autos and parts

China trade deal

EU trade deal

Japan trade deal

Isabelle Helms

Vice President,
Research & Market Intelligence



EVOLUTION OF MOBILITY:

FOUR PREDICTIONS
FOR THE FUTURE



The Evolution of Mobility

Phase I Consumer attitudes about the changing mobility landscape



Perceptions and perceived need for traditional vehicle ownership model are changing

Phase II Dealer attitudes about the changing mobility landscape



Dealers recognize that change is coming but don't feel equipped to offer consumers the alternatives they seek.

Phase III A Look Into the Future



What factors impact consumers' transportation decisions?

How is share of miles traveled impacted by ownership alternatives?

Which consumers are likely to embrace alternatives first?



Choice Exercise

Imagine that the three transportation options below were all available to you and you could use any of them, for any occasion. Which of these options would you most prefer, generally speaking, to get around?

For ease of further consideration – we've calculated the average cost per month, based on the indicated number of miles you travel per month. As a reminder, you travel 750 miles per month.

Please select one.

	Ride-Sharing/Hailing (e.g., Uber, Lyft)	Car Subscription (e.g., Clutch, Flexdrive)	Owned or Leased Vehicle
Driver	Driver	Self-driving (autonomous)	You
Duration of Commitment	A ride	A month	Until you purchase/lease a new one
Can Accommodate Special Needs/Equipment	Yes, provided to you for an additional cost	Yes, you provide	Yes, you provide
Vehicle Type	Luxury vehicle (Audi, BMW, Porsche, etc.)	Foreign Non-Luxury vehicle (Toyota, Nissan, Honda, etc.)	Domestic Non-Luxury vehicle (Ford, Chrysler, GM, etc.)
Ride Availability	15 minutes until pick up	Ready now	Ready now
Cost Per Month	\$ 975.00	\$ 600.00	\$ 375.00
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

TRANSPORTATION ATTRIBUTES:

- **Ownership Model** = The type of transportation method (ride sharing, car sharing, ownership/leasing, subscription)
- **Cost** = Monthly cost of transportation (including insurance, maintenance, etc. – if applicable)
- **Vehicle Type** = Luxury / Non-Luxury; domestic / import
- **Driver** = The type of driver (owner, stranger, AV, etc.)
- **Ride Availability** = The amount of time to wait for a ride to be available
- **Duration of Commitment** = How long you are committed to the vehicle (per ride, per day, per month)
- **Special Needs/Equipment** = Additional equipment available to use

PREDICTION #1:
CONSUMERS WILL
RELY SIGNIFICANTLY
LESS ON PERSONALLY-
OWNED VEHICLES



Consumer Attitudes About Vehicle Ownership Are Changing

“Having Transportation is Necessary, but Owning a Vehicle is Not”

% Agree

35%

2015

39% ↑

2018



1/3 of Consumers Are Open
to New Mobility Options

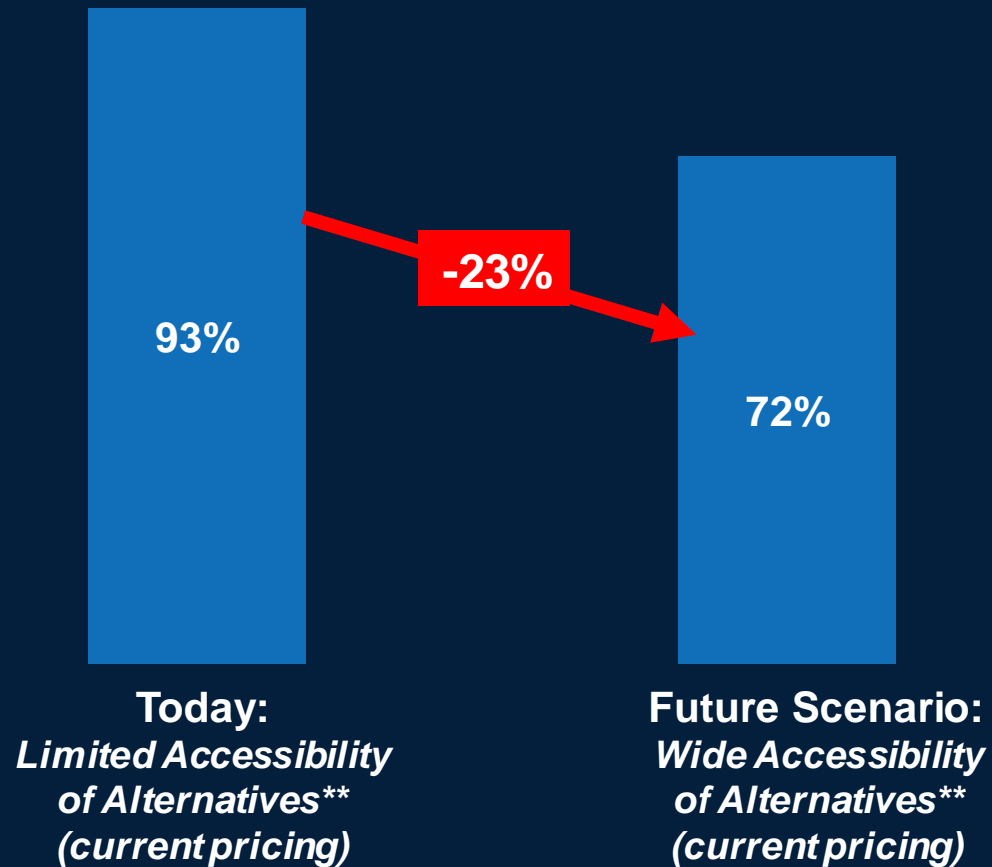
33%

**“I’m open to exploring new
transportation methods”**

(vs. 67% I like to own)

Assuming All Transportation Alternatives Were 100% Accessible, Share of Miles Driven by Personal Vehicles Would Drop Significantly

Share of Miles Traveled by Personally-Owned Vehicle*



*personal vehicle ownership (\$0.50/mile)

**transportation alternatives: public transportation (\$0.25/mile), ride-hailing (\$1.30/mile), car-sharing (\$1.50/mile), car subscription (\$0.80/mile)

Increased Accessibility of Alternatives Impacts New Vehicle Retail Sales

**When Personally-Owned
Vehicles Drop To
72% of Miles Traveled...**

**...New Vehicle Retail
Units Sold Are Expected to
Drop by 6%**





PREDICTION #2:
AFFORDABILITY
**INCREASES
CONSIDERATION OF
MOBILITY ALTERNATIVES**



The Cost Benefit of Ownership is Eroding

**“Owning/Leasing a
Vehicle is Becoming
Too Expensive”**

% Agree

42%

2015

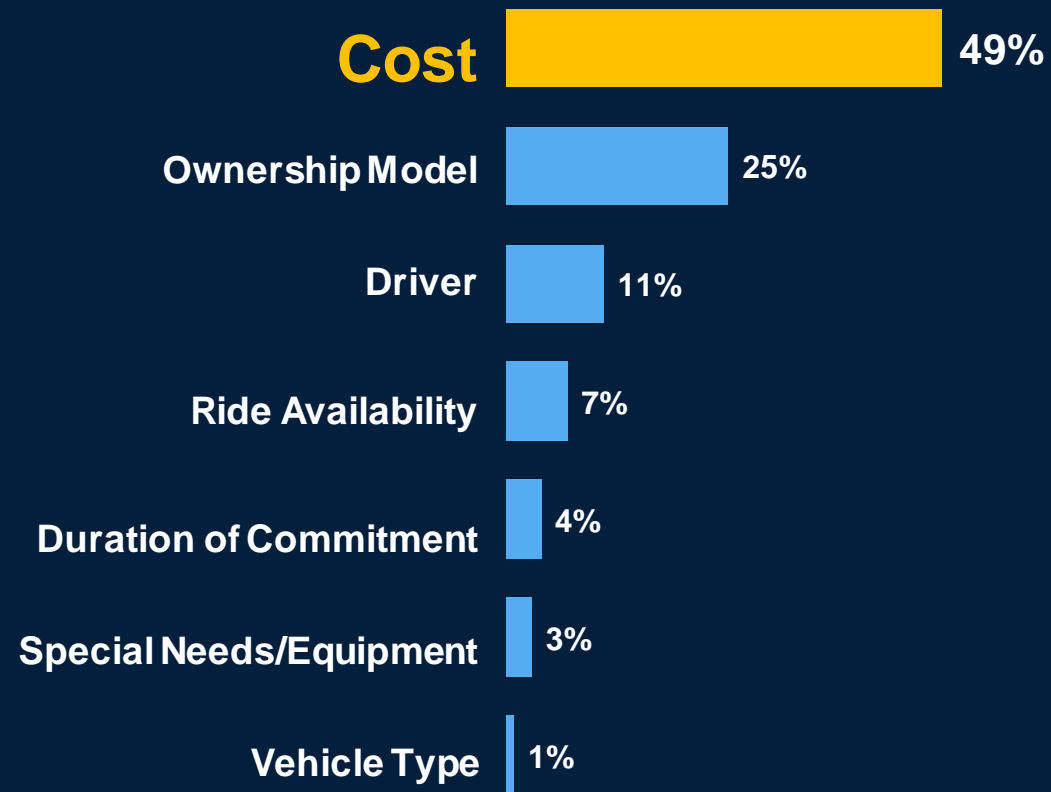
48% ↑

2018



Price is the Biggest Influencer Affecting Consumers' Preferred Transportation Mode

Factors Impacting Transportation Choice



Share of Miles Traveled by Personal Vehicle Decline as Average Price of Alternative Ownership Models Drop

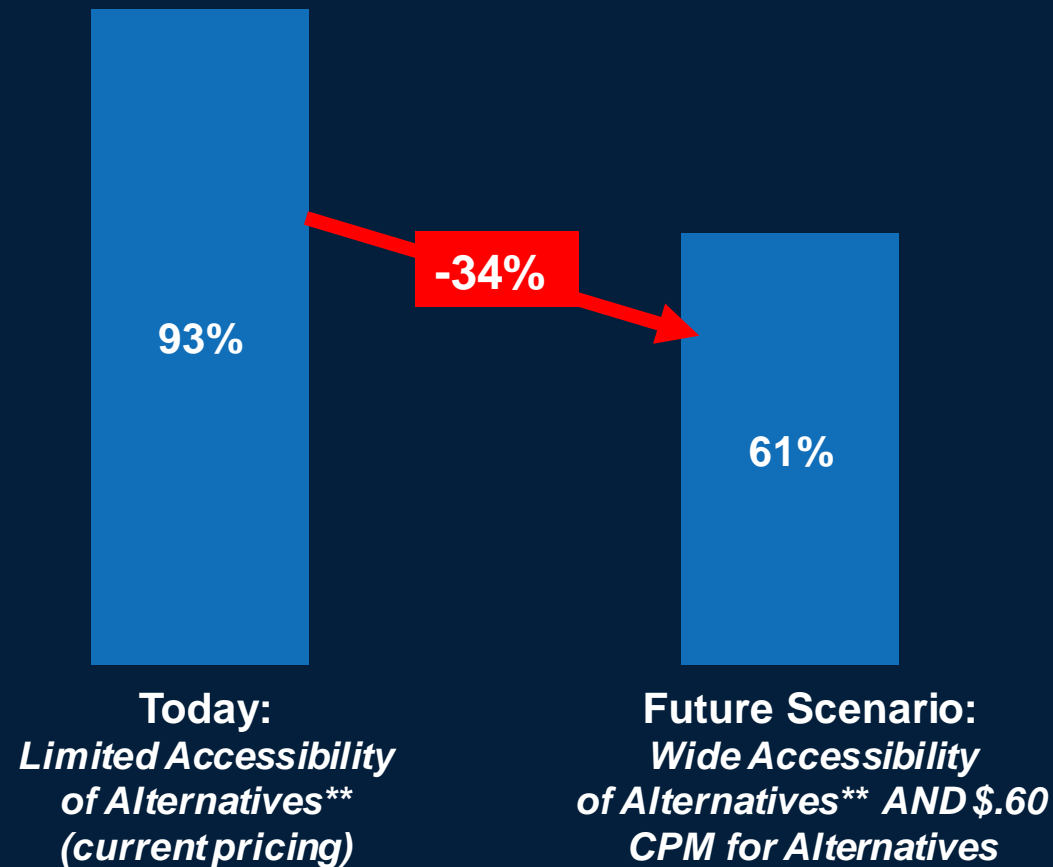


*Personal Vehicle Ownership cost held constant at current cost (\$0.50)

**Alternative Ownership includes Car Subscription, Car-sharing, and Ride-hailing. The Alternative Ownership (Net) is comprised of their optimal solutions, with Autonomous driver used for Ride-hailing

Assuming 100% Accessibility and \$.60 cost-per-mile of Alternatives, Share of Miles Driven by Personal Vehicles Would Drop to 61%

Share of Miles Traveled by Personally-Owned Vehicle*



*personal vehicle ownership (\$0.50/mile)

**transportation alternatives: public transportation (\$0.25/mile), ride-hailing (\$1.30/mile), car-sharing (\$1.50/mile), car subscription (\$0.80/mile)

Retail Sales Are Further Suppressed When Alternative Ownership Costs Drop

**When Personally-Owned
Vehicles Drop To
61% of Miles Traveled...**

**...New Vehicle Retail
Units Sold Are Expected to
Drop by 29%**



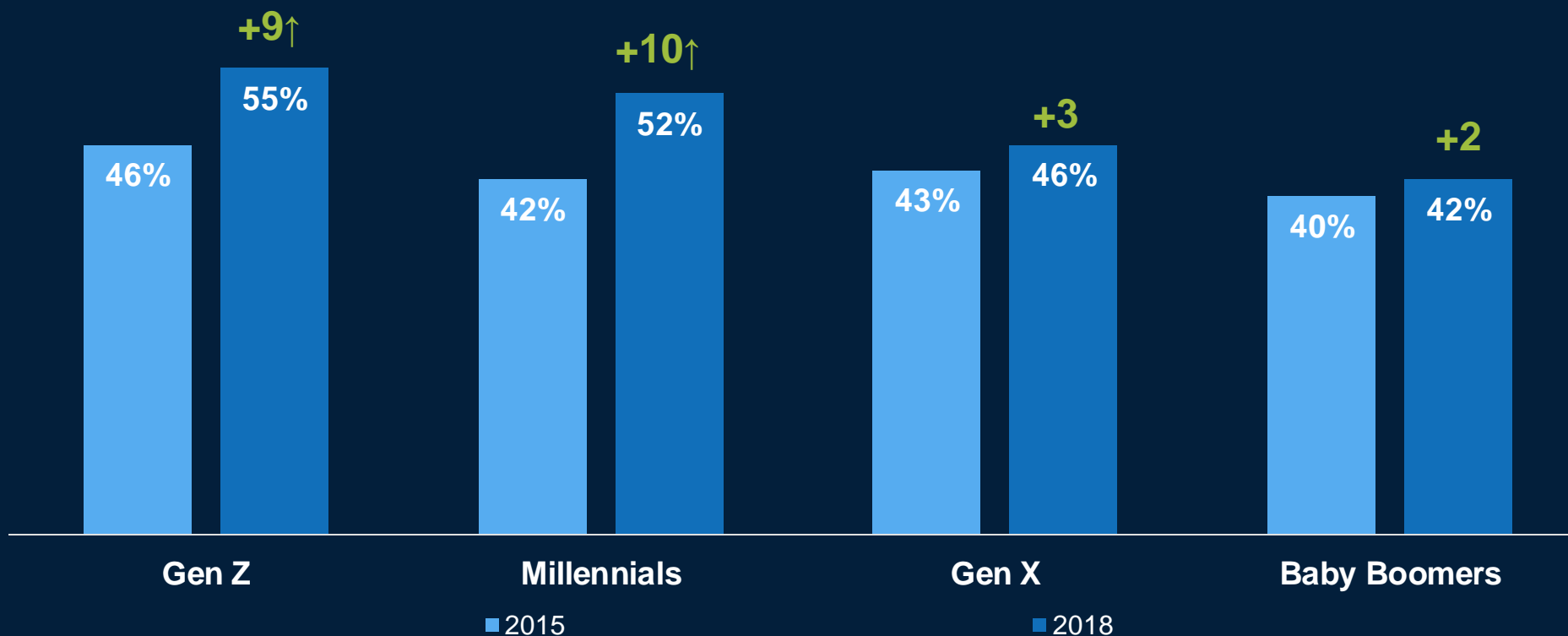
PREDICTION #3:
GEN Z & MILLENNIALS
WILL BE THE *FIRST* TO
ADOPT ALTERNATIVE
OWNERSHIP MODELS



Gen Z & Millennials are Most Likely to Say Ownership is Becoming Too Expensive

**“Owning/Leasing a Vehicle is
Becoming Too Expensive”**

% Agree



Gen Z and Millennials Are Also Less Reliant On Their Vehicle

Share of Miles Traveled by
Personally-Owned Vehicle*
(if Alternatives** Are Widely Accessible at Current Pricing)

64%
Gen Z

65%
Millennials

71%
Gen X

82%
Boomers

*personal vehicle ownership (\$0.50/mile)

** transportation alternatives: public transportation (\$0.25/mile), ride-hailing (\$1.30/mile), car-sharing (\$1.50/mile), car subscription (\$0.80/mile)



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Source: 2018 Cox Automotive Evolution of Mobility Study



PREDICTION #4:
CAR SUBSCRIPTION
WILL BE THE *GATEWAY*
TO ALTERNATIVE
OWNERSHIP MODELS



Accessibility is the Biggest Barrier to Subscription Services Adoption

Top Barriers For **Car Subscription** Adoption

42%

“Not Available in My Area”

39%

“I Like Riding in a Vehicle That is Completely My Own”

27%

“It’s Too Expensive”



When All Alternative Ownership Models Are Fully Accessible, Car Subscription Claims the Greatest Share of Miles Traveled

Share of Miles Traveled by Alternative Ownership Models*

Today:
*Limited Accessibility
of Alternatives
(current pricing)*

Car subscription:
0.2%

Ride-hailing:
2.1%

Car sharing:
0.5%

Future Scenario:
*Wide Accessibility
of Alternatives
(current pricing)*

Car subscription:
9.5%

Ride-hailing:
1.3%

Car sharing:
1.1%

Future Scenario:
*Wide Accessibility
of Alternatives With Multiple
Subscription Offerings*

Car subscription:
23.9%

Ride-hailing:
1.0%

Car sharing:
0.8%

A man wearing a dark suit, a light-colored patterned shirt, and glasses is sitting in the driver's seat of a car. He is looking down at a silver laptop on his lap, with his hands on the keyboard. The car's interior, including the door panel and window, is visible in the background. The image is overlaid with a dark blue geometric shape on the left side.

RECAP:
**FOUR PREDICTIONS
& HOW TO STAY
AHEAD OF THE CURVE**



Four Predictions & How to Stay Ahead of the Curve

1

**CONSUMERS WILL
RELY SIGNIFICANTLY
LESS ON PERSONALLY-
OWNED VEHICLES**

Explore additional revenue streams outside of retail vehicle sales

2

***AFFORDABILITY*
INCREASES
CONSIDERATION
OF MOBILITY
ALTERNATIVES**

Educate consumers on the total cost of ownership so they can make informed decisions on the transportation mode that will best meet their financial needs

3

**GEN Z & MILLENNIALS
WILL BE THE *FIRST* TO
ADOPT ALTERNATIVE
OWNERSHIP MODELS**

Target consumers most likely to be the early adopters of alternative ownership models

4

**CAR SUBSCRIPTION
WILL BE THE
GATEWAY TO
ALTERNATIVE
OWNERSHIP MODELS**

Consider a car subscription platform as a first step into the alternative ownership space



Karl Brauer

Executive Publisher, Autotrader & Kelley Blue Book

Brian Moody

Executive Editor, Autotrader



NAIAS '19

Cadillac XT6

Lincoln Continental Coach Door Edition

Ford Explorer

Ford Mustang GT500

Kia Telluride

Lexus LC Convertible Concept

Ram Heavy Duty

Subaru WRX STI

Toyota Supra

Volkswagen 2020 Passat



Q&A

NAIAS

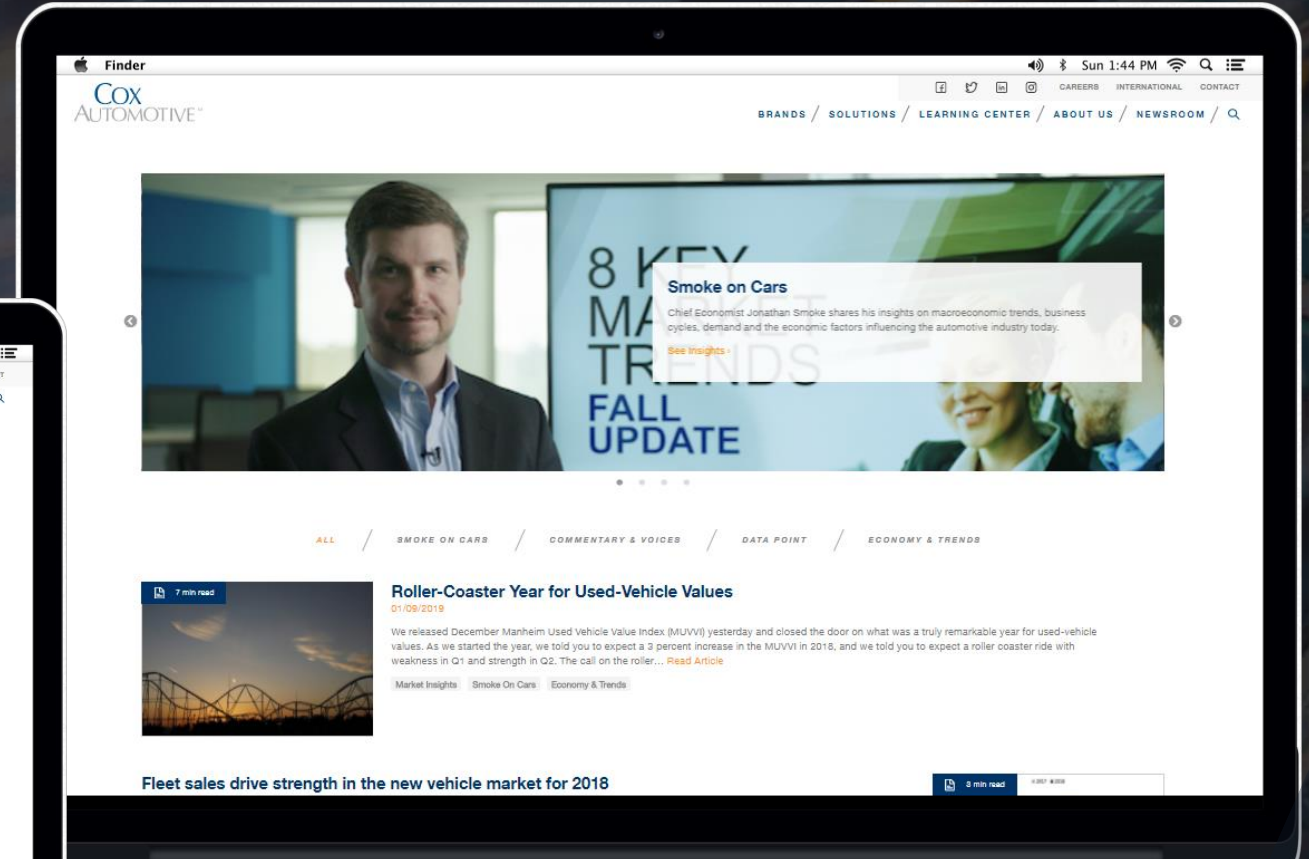
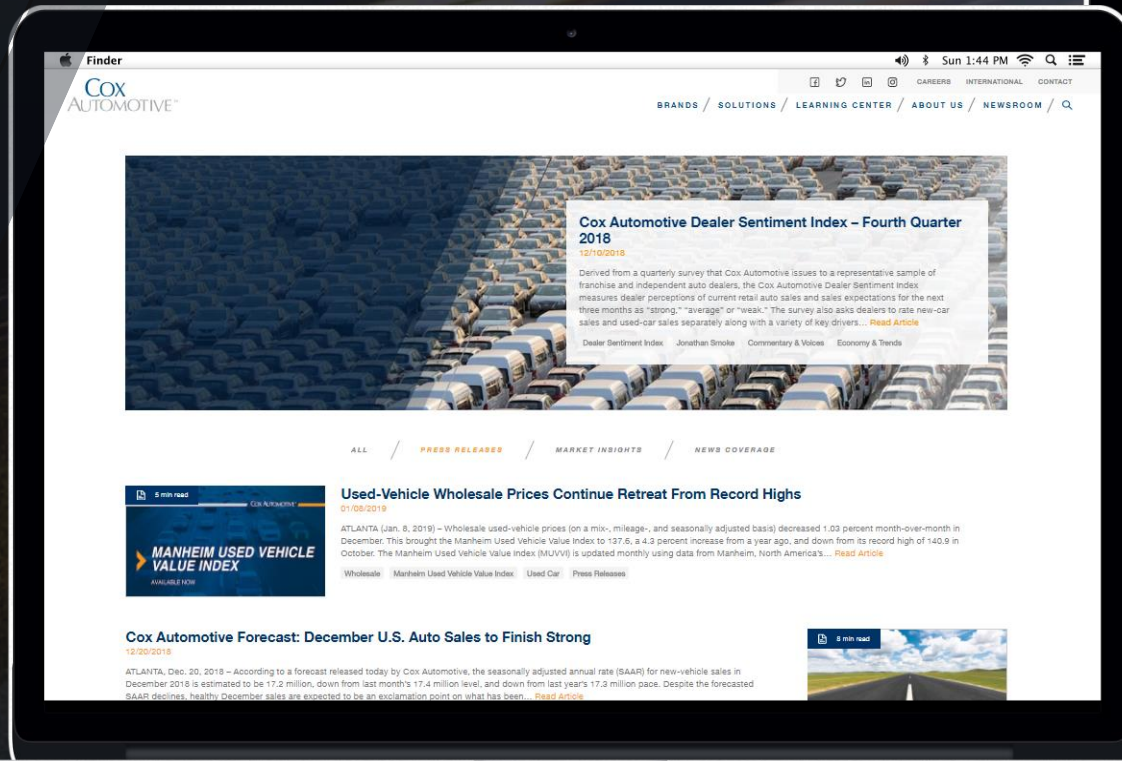
Industry Insights Breakfast

January 13, 2019



Cox Automotive Newsroom

WWW.COXAUTOINC.COM/NEWSROOM



QUIZ:

Total New Vehicle Sales in CY2018,
according to Kelley Blue Book?

Answer Range: 16,404,670 to 17,488,000

Actual KBB Number: 17,320,981

Winner: 17,276,503

David Muller
Automotive News

Thank You!

NAIAS

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