



# Seeking Certainty in an Uncertain Automotive World

## The U.S. Auto Industry in 2024 & 2025

31<sup>ST</sup> ANNUAL AUTOMOTIVE INSIGHTS SYMPOSIUM  
5 FEBRUARY 2025

**KRISTIN DZICZEK**  
**POLICY ADVISOR—REGIONAL ANALYSIS & ENGAGEMENT**  
**FEDERAL RESERVE BANK OF CHICAGO**

*The views expressed here do not necessarily reflect the views of the  
Federal Reserve Bank of Chicago or the Federal Reserve System.*

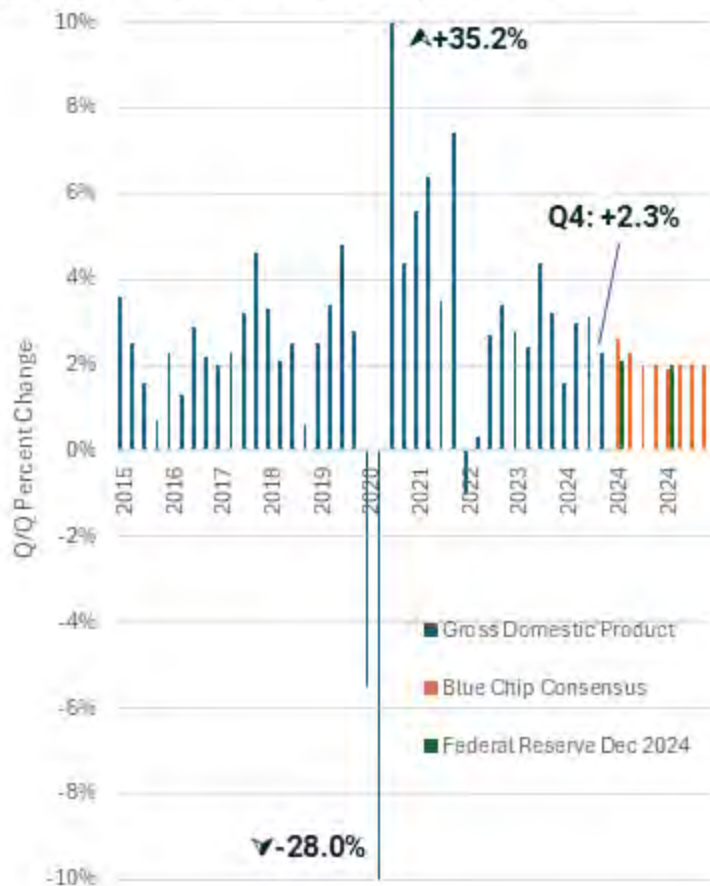
2024:  
A strong economy &  
the best light vehicle  
sales year since 2019



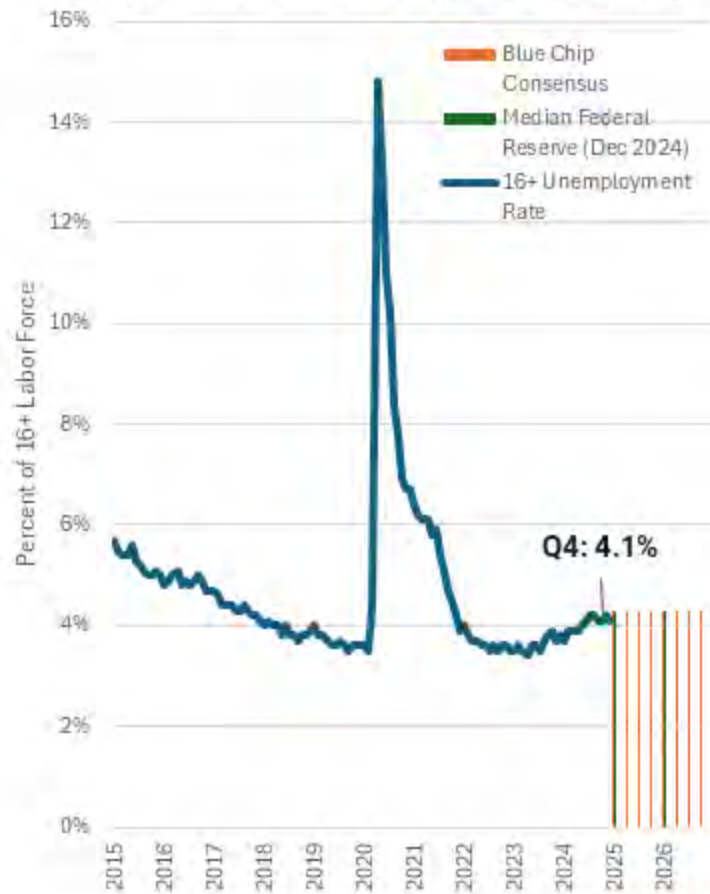
# STRONG ECONOMY

## U.S. economic growth, labor market, & prices all coming into balance

Gross Domestic Product (Q/Q SAAR)  
(2015-2024 & 2025-2026 Blue Chip & Fed Forecasts)



U.S. 16+ Unemployment Rate (M/M)  
(2015-2024 & 2025-2026 Blue Chip & Fed Forecasts)



U.S. Core Personal Consumption Expenditure Inflation (less Food & Energy) (M/M)  
(2015-2024 & 2025-2026 Blue Chip & Fed Forecasts)



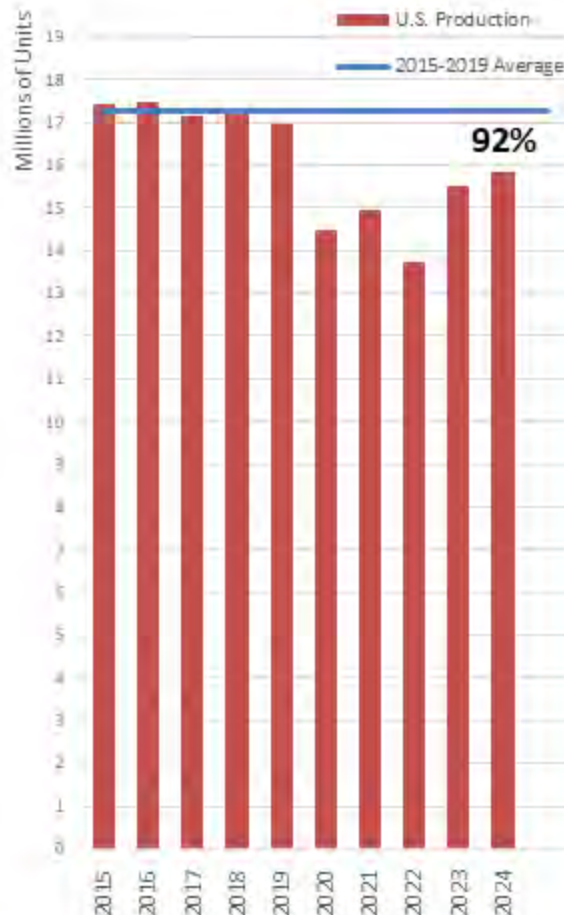
Source: U.S. Department of Commerce, Bureau of Economic Analysis; U.S. Department of Labor, Bureau of Labor Statistics; Board of Governors of the Federal Reserve; Wallers/KUWA; Blue Chip Forecast via Haver Analytics



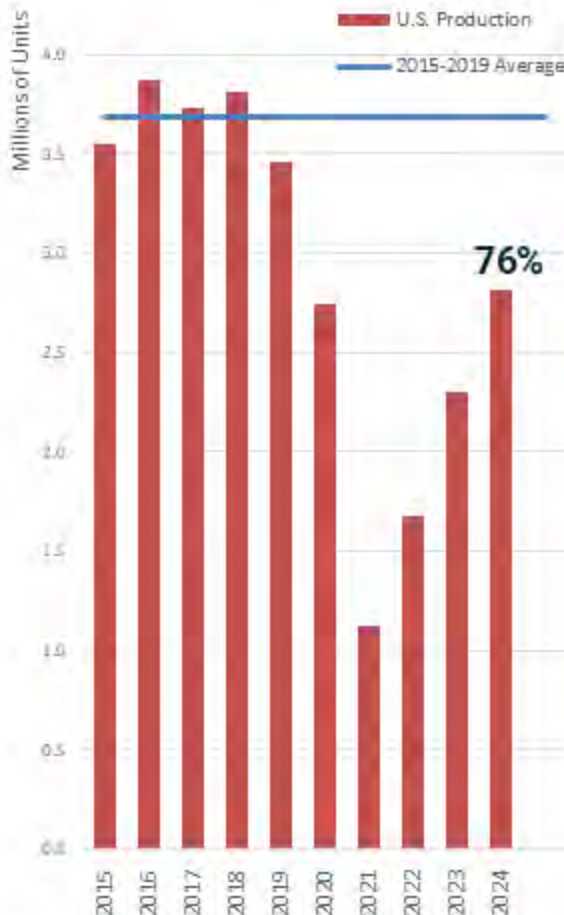
# U.S. AUTO INDUSTRY

## U.S. light vehicle sales & production: still recovering from COVID shocks

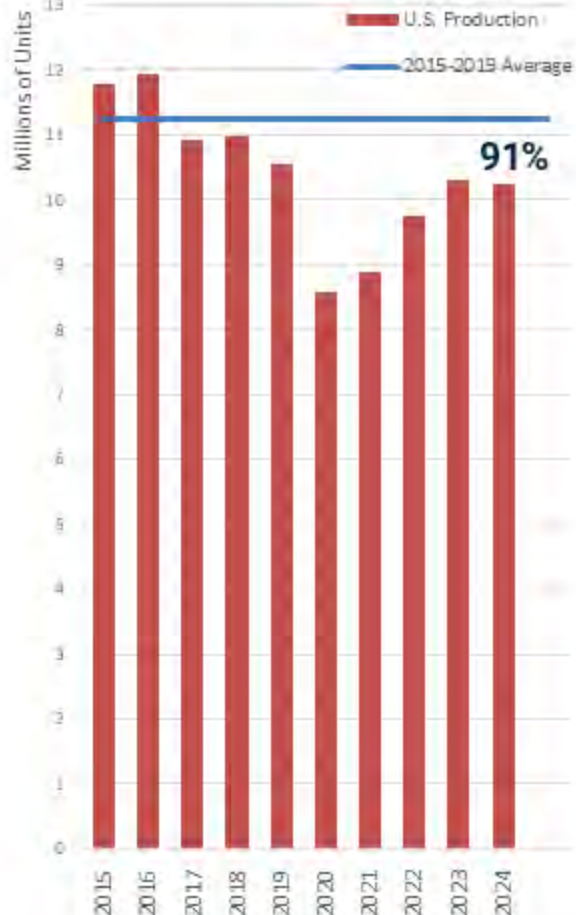
U.S. Light Vehicle Sales  
(2015-2024 vs. 2015-2019 Average)



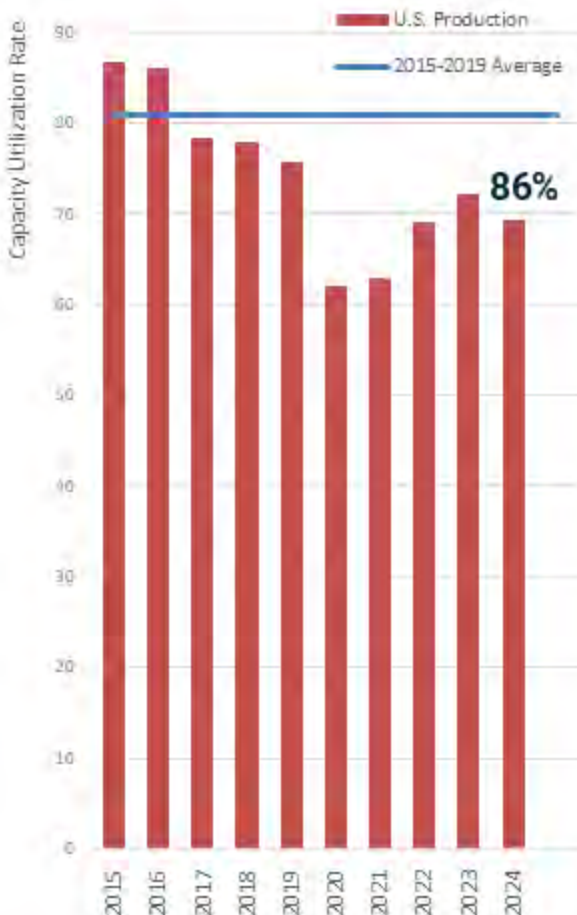
U.S. Light Vehicle Inventory  
(2015-2024 vs. 2015-2019 Average)



U.S. Light Vehicle Production  
(2015-2024P vs. 2015-2019 Average)



U.S. Light Vehicle Capacity Utilization  
(2015-2024 vs. 2015-2019 Average)

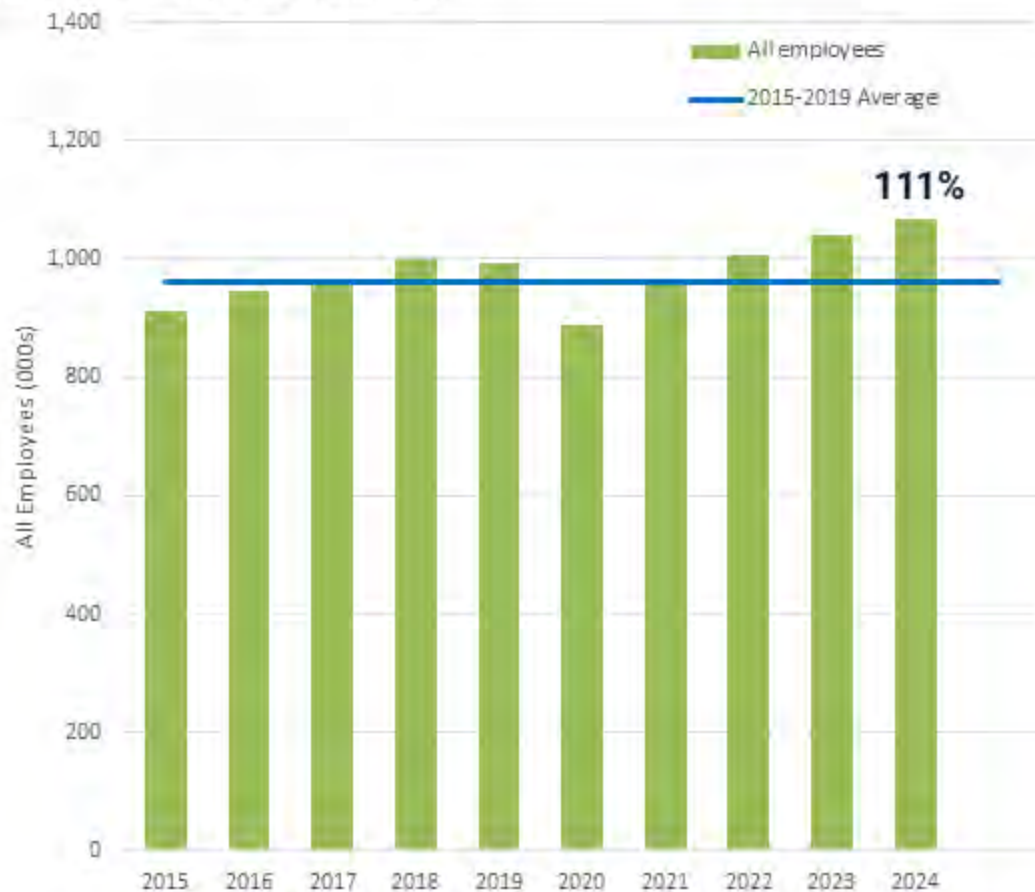


Source: Wards Intelligence, Board of Governors of the Federal Reserve System

## U.S. AUTO INDUSTRY

# U.S. motor vehicle industry employment is above pre-COVID levels

U.S. Motor Vehicle, Body/Trailer & Parts  
Total Employment  
(2015-2024 vs. 2015-2019 Average)



U.S. Motor Vehicle, Body/Trailer & Parts  
Production & Non-Supervisory Employment  
(2015-2024P vs. 2015-2019 Average)



Source: U.S. Department of Labor, Bureau of Labor Statistics, NAICS 3361, 3362, & 3363 combined annual calculations



## SUPPLY CHAIN CONDITIONS

# Overall, supply chain pressures are returning to more “normal” levels

The NY Fed’s “Global Supply Chain Pressure Index” is a gauge of global supply chain conditions

- Above the median supply chains are under significant pressure with major disruptions & bottlenecks
- Below the median, supply chains are running relatively more smoothly

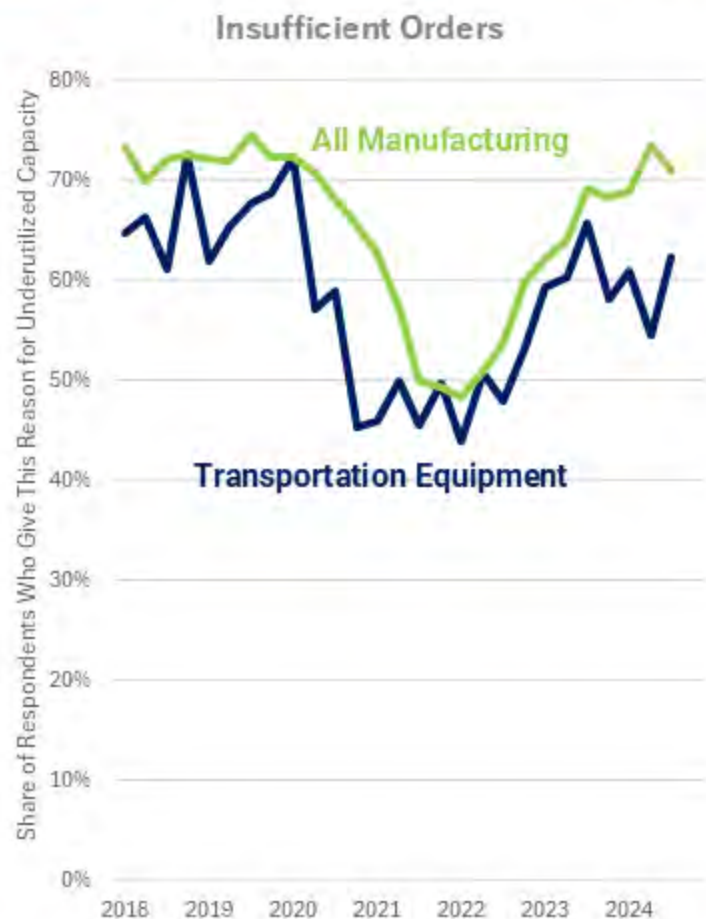
New York Fed’s Global Supply Chain Pressure Index (all industries)  
2014-2025



Sources: Federal Reserve Bank of New York Global Supply Chain Pressure Index; Bureau of Labor Statistics; Harper Petersen Holding GmbH; Baltic Exchange; IHS Markit; Institute for Supply Management; Haver Analytics; Refinitiv; FRB-New York authors' calculations.

## SUPPLY CHAIN CONDITIONS

# Transportation Equipment Industry Needs for Labor & Materials are Greater than in Manufacturing as a Whole



Source: U.S. Department of Commerce, Bureau of the Census, Selected metrics from the [Quarterly Survey of Plant Capacity Utilization](#), Tables 3a & 3b



**The product is changing**

**The fuels are changing**

**The infrastructure is changing**

**The technologies are changing**

**The processes are changing**

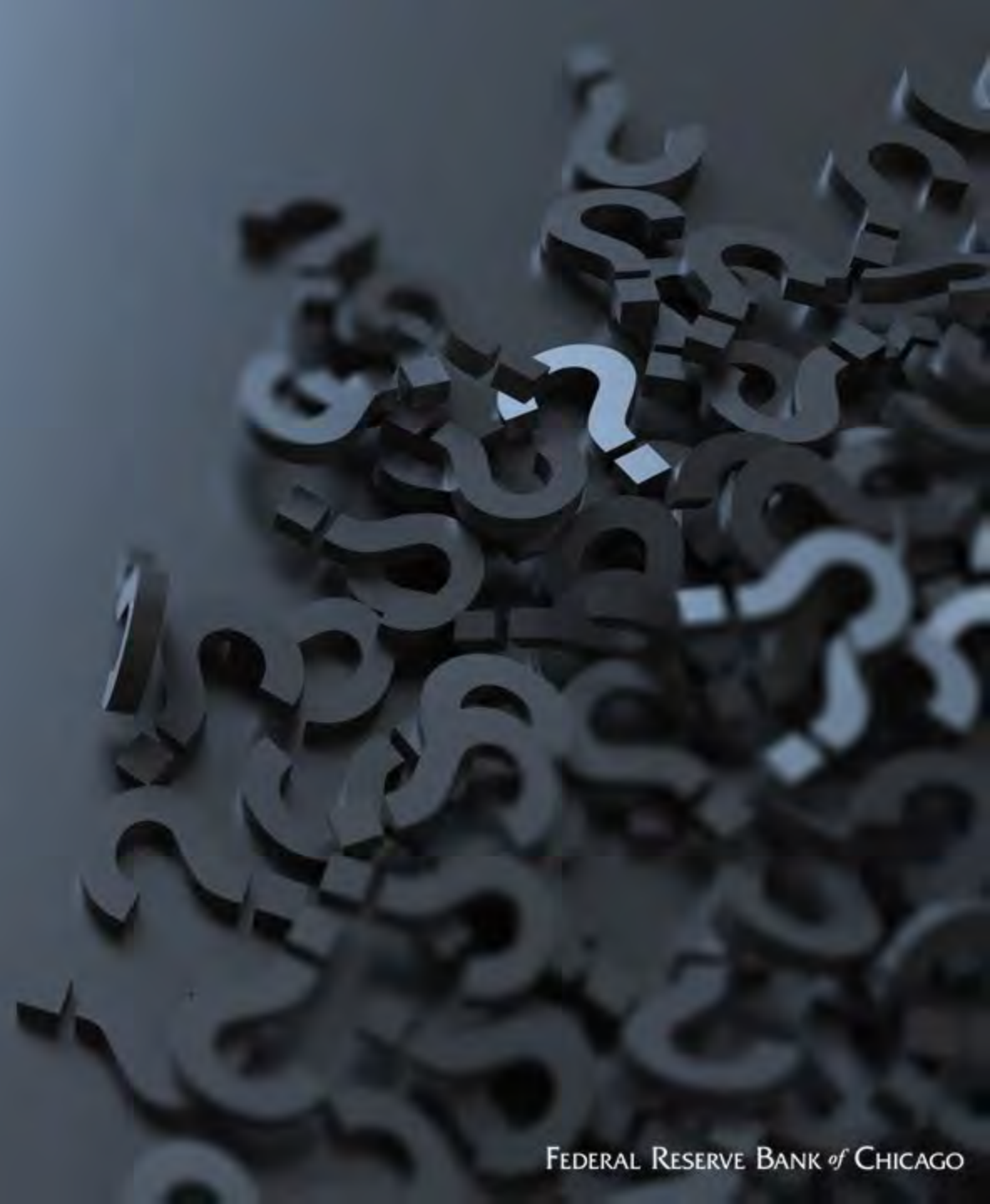
**The supply chains are changing**

**The competition is changing**

**The rules are changing**

**And all the while, most people need a vehicle  
to get around**

**...and that's getting less and less affordable**





Automotive product development timelines are not synchronized to political timelines...

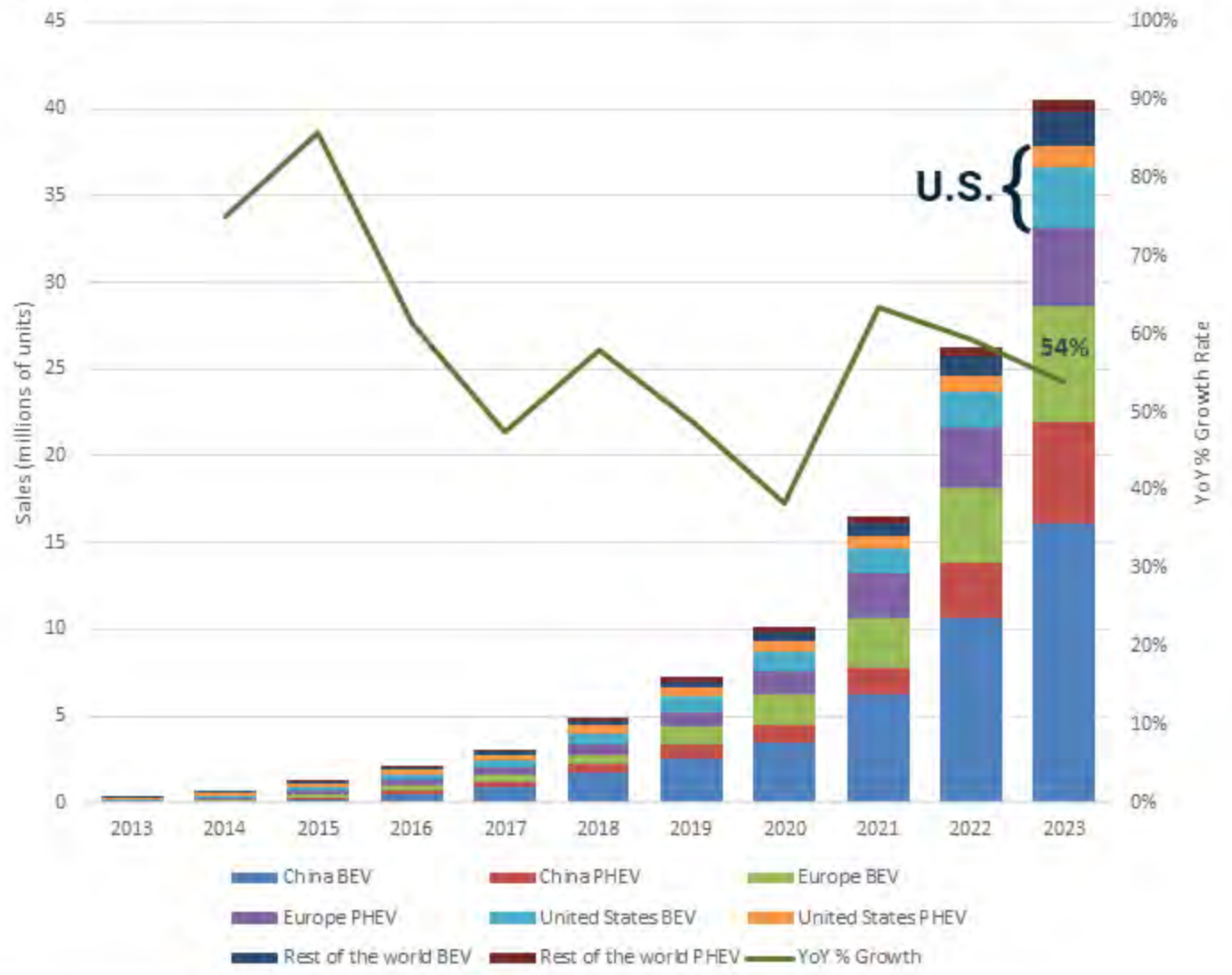
...and with vehicles on global platforms, automakers must meet requirements in all markets –not just in the United States



### GLOBAL MARKET

Electrified vehicle sales continue rapid growth in global markets

### Global Electrified Light Vehicle Sales Country & Type, YoY % Change 2013-2023



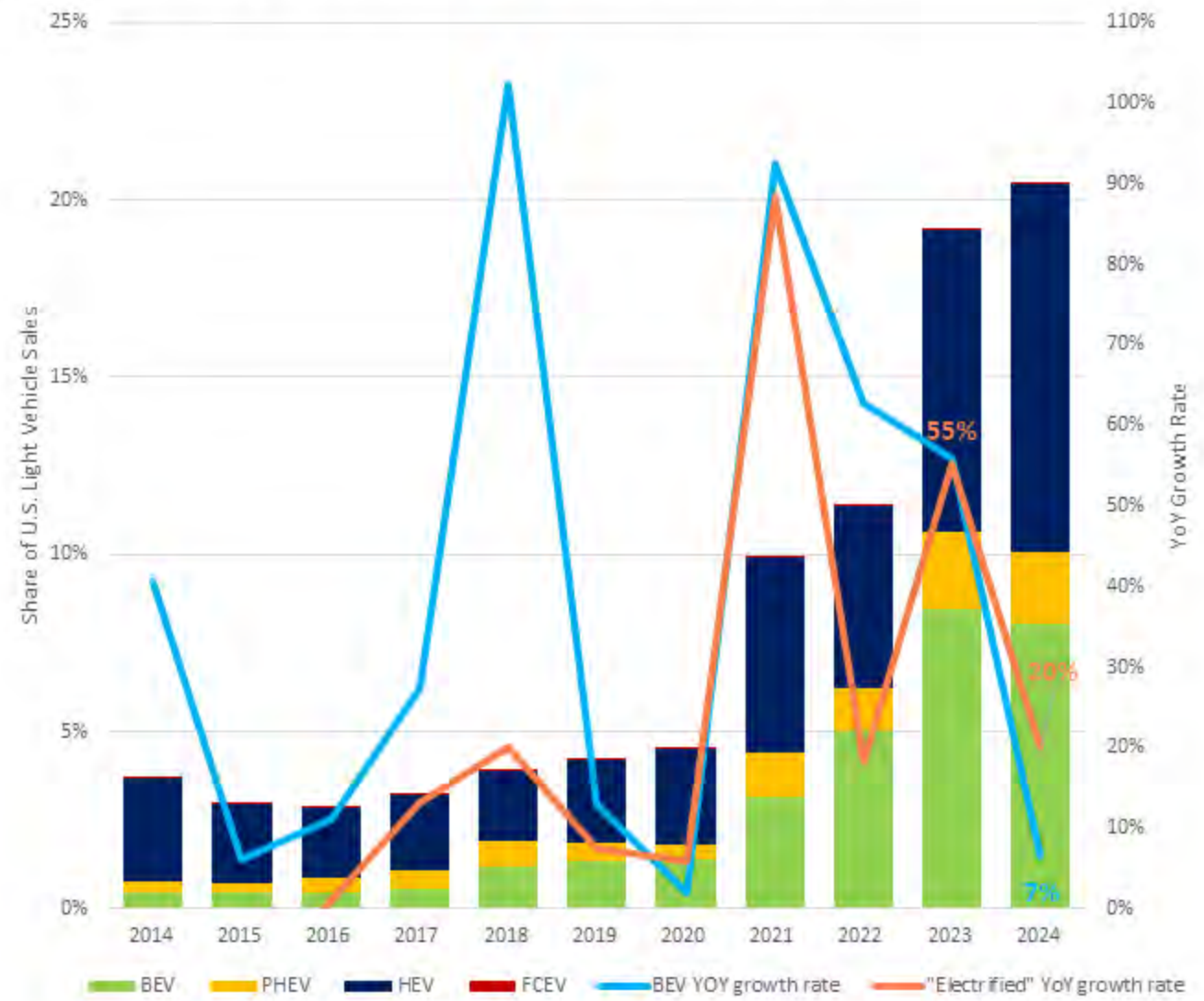
Source: IEA (2024), Global electric car stock, 2013-2023, IEA, Paris <https://www.iea.org/data-and-statistics/charts/global-electric-car-stock-2013-2023>, Licence: CC BY 4.0



### U.S. MARKET

U.S. electrified vehicle sales grew at the global pace in 2023, slowing in 2024

### U.S. Electrified Light Vehicle Market Share & YoY % Growth 2014-2024



Source: Wards Informa; author's analysis

Competing in this world requires not only huge investment & continuous innovation to make better products, but also careful attention to costs



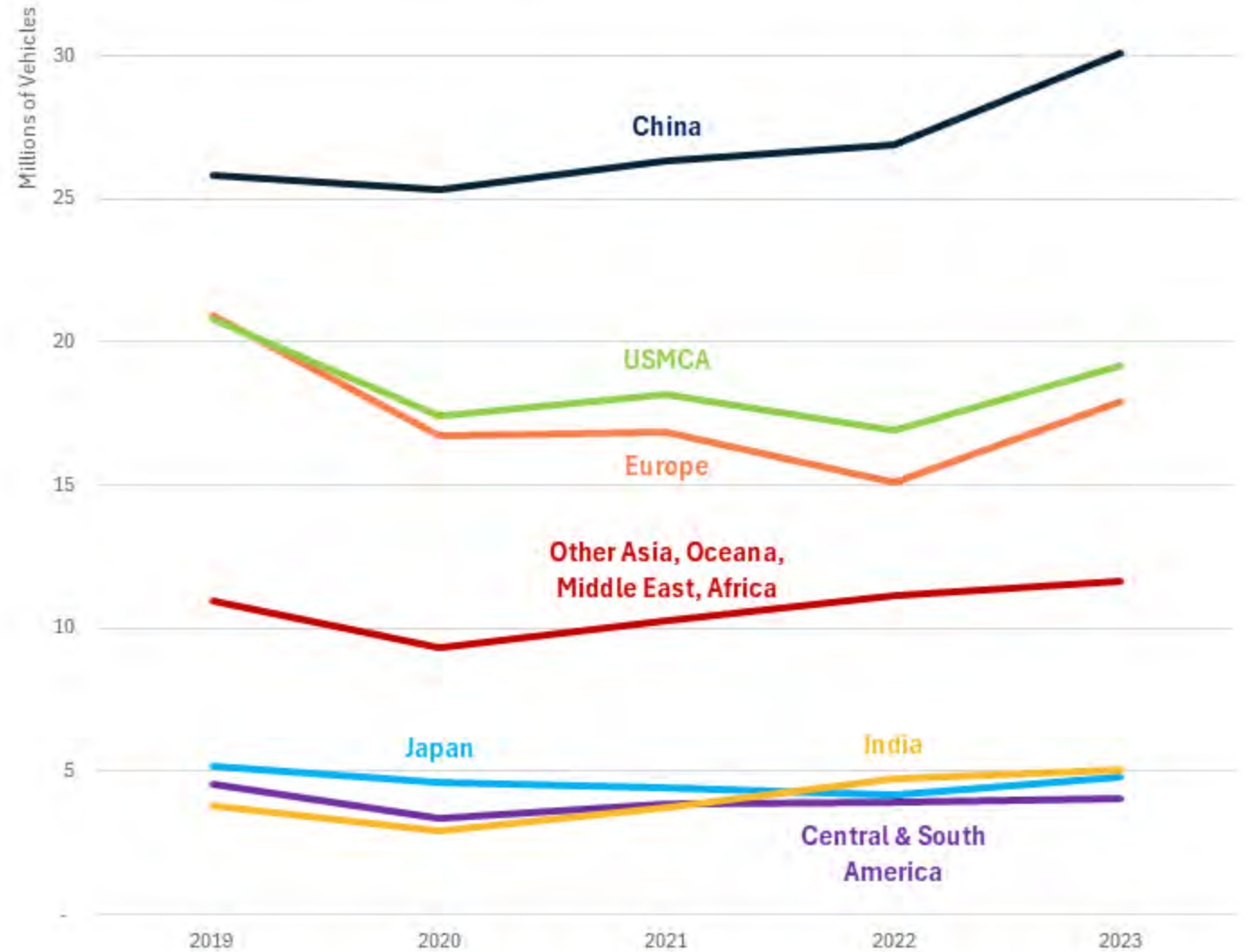


## GLOBAL MARKET

Motor vehicle market growth has been concentrated mainly in China

	2019-2023 5-year Δ	2022-2023 1-year Δ
China	+16.7%	+12.0%
USMCA	-7.9%	+13.4%
Europe	-14.5%	+18.7%
Other Asia, Oceania, Middle East, Africa	+6.3%	+4.5%
India	+33.1%	+7.5%
Japan	-8.0%	+13.8%
Central & South America	-11.1%	+2.8%

Annual Motor Vehicle Sales by Country  
2019-2023



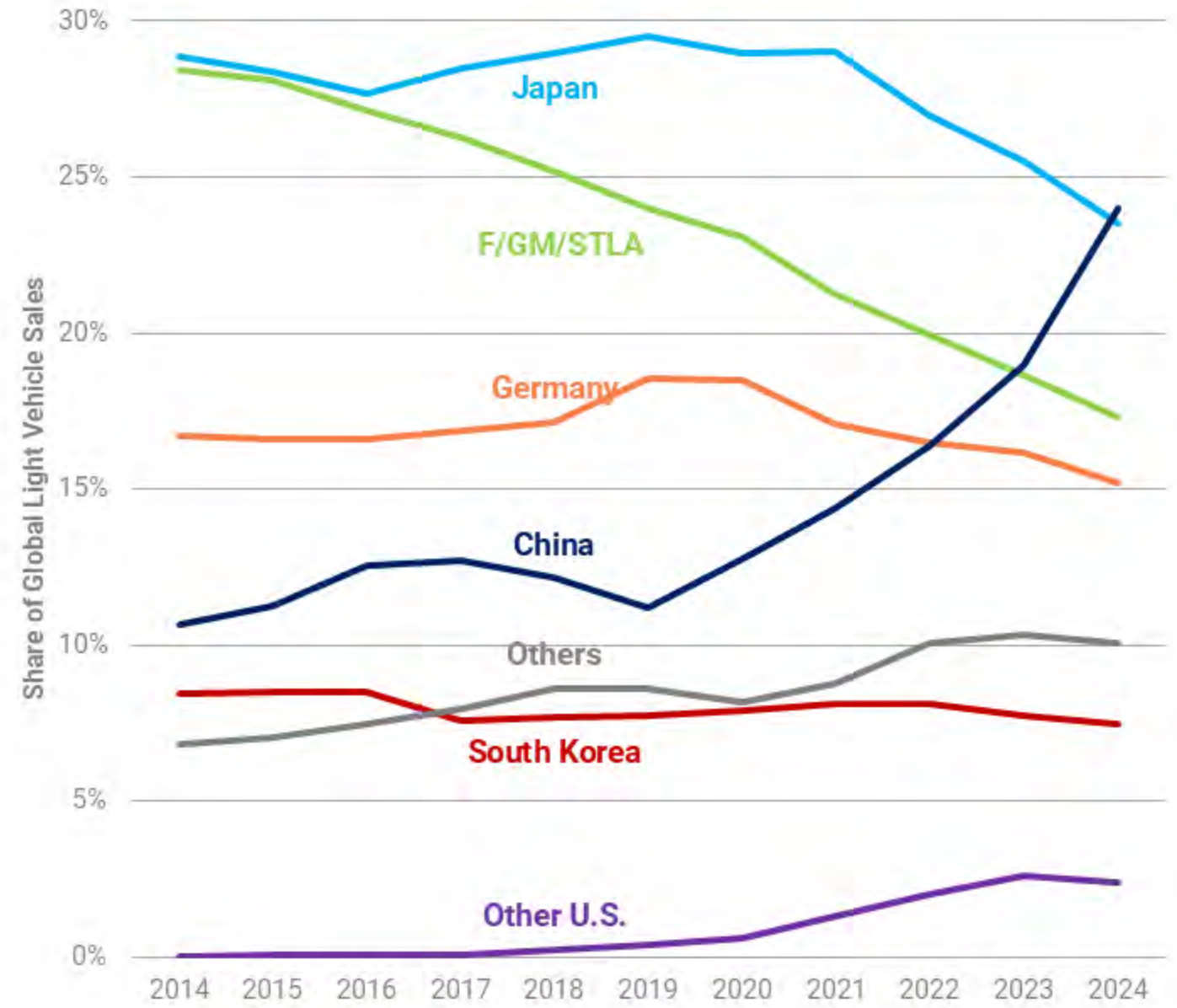
Source: OICA

GLOBAL MARKET

Auto market leadership has shifted in the past 10 years

	2020-24 5-year Δ	2015-24 10-year Δ
"US"	-400 bps	-850 bps
- F/GM/STLA	-580 bps	-1,080 bps
- Other US	+18 bps	+23 bps
China	+1,060 bps	+1,210 bps
Japan	-480 bps	-420 bps
South Korea	+40 bps	+100 bps
Others	+190 bps	+300 bps

100 bps = 835K light vehicles in 2024



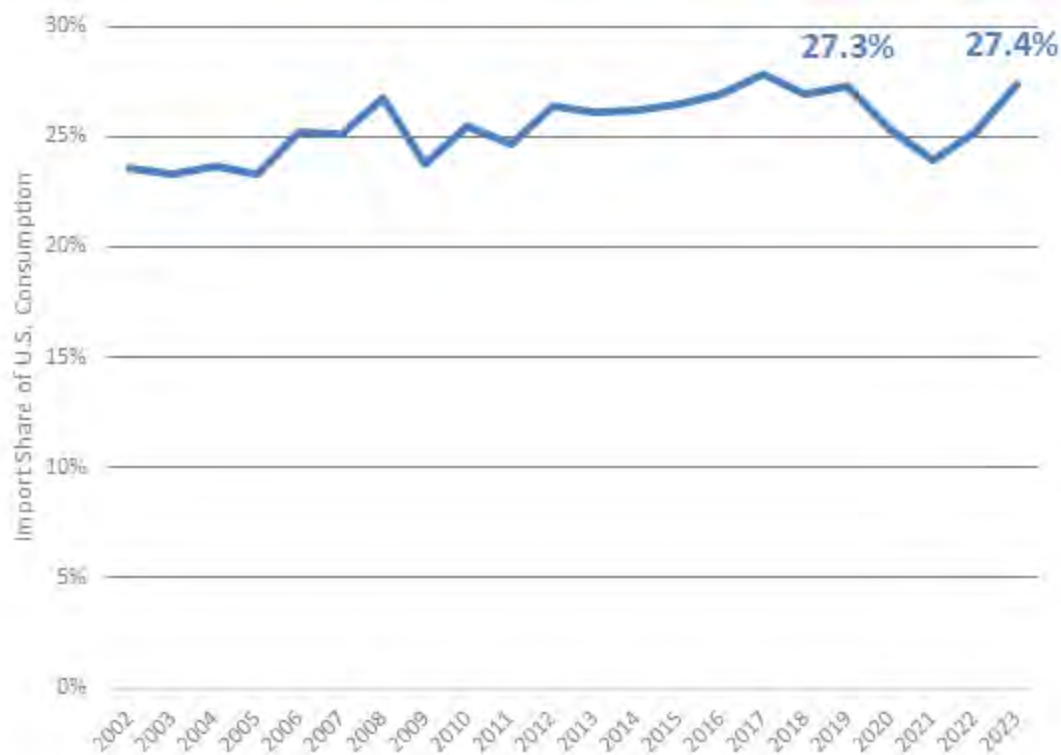
Source: Wards Informa; author's analysis; country assigned based on company HQ, not production country



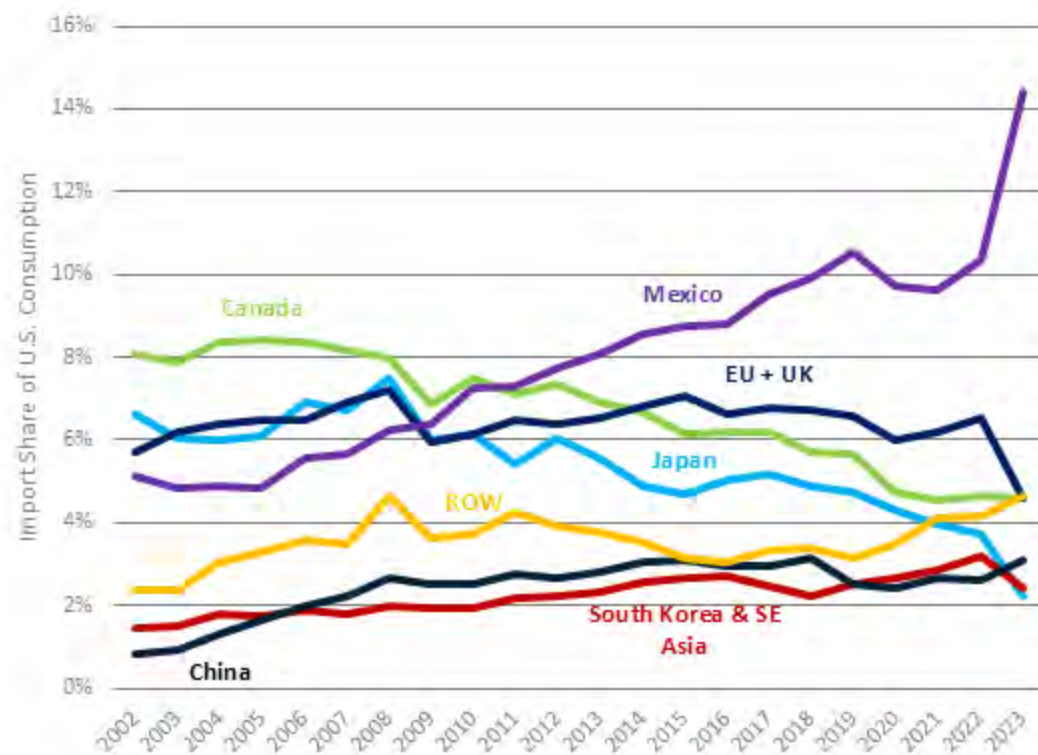
## U.S. MARKET

# U.S. Motor Vehicle/Bodies & Trailers & Parts Sourcing Has Also Changed

Import Share of U.S. Motor Vehicles, Bodies & Trailers, & Parts Personal Consumption Expenditures, 2002-2023



Import share of U.S. Motor Vehicle, Bodies & Trailers & Parts Personal Consumption Expenditures By Country/Region of Origin, 2002-2023



Source: U.S. Department of Commerce, Bureau of Economic Analysis, Input-Output Accounts & U.S. Census Bureau, USA Trade; FRB-Chicago analysis by Hobbijn, Zhang, & Royal

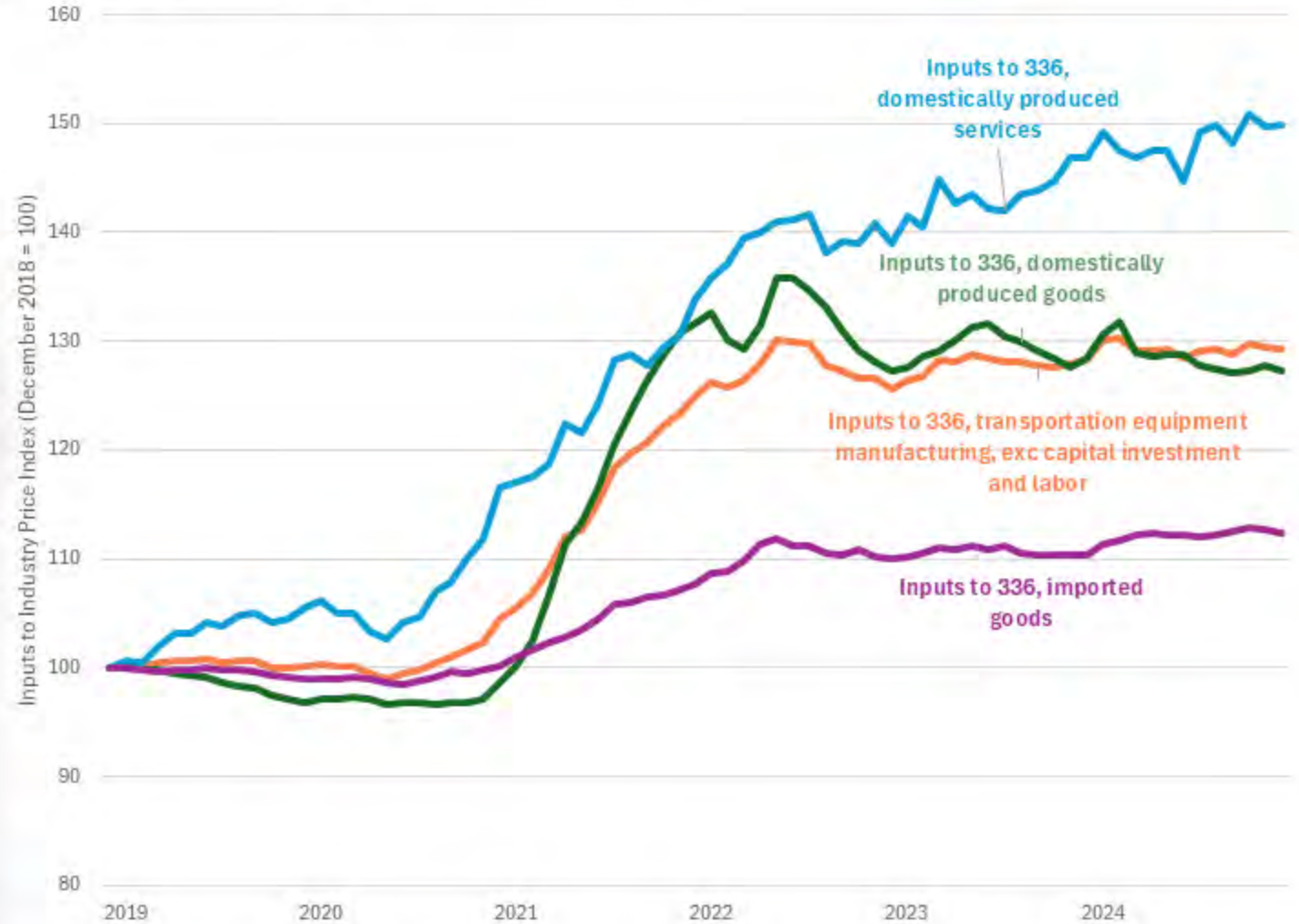
**AFFORDABILITY**

It's more expensive to produce vehicles these days

Relative to December 2018 prices, December 2024 prices were higher overall:

<b>All inputs</b>	<b>+29.2%</b>
<b>Domestically produced goods</b>	<b>+27.2%</b>
<b>Domestically produced services</b>	<b>+49.9%</b>
<b>Imported goods</b>	<b>+12.4%</b>

**Inflation in Inputs to Transportation Equipment**  
2019-2024, December 2018=100



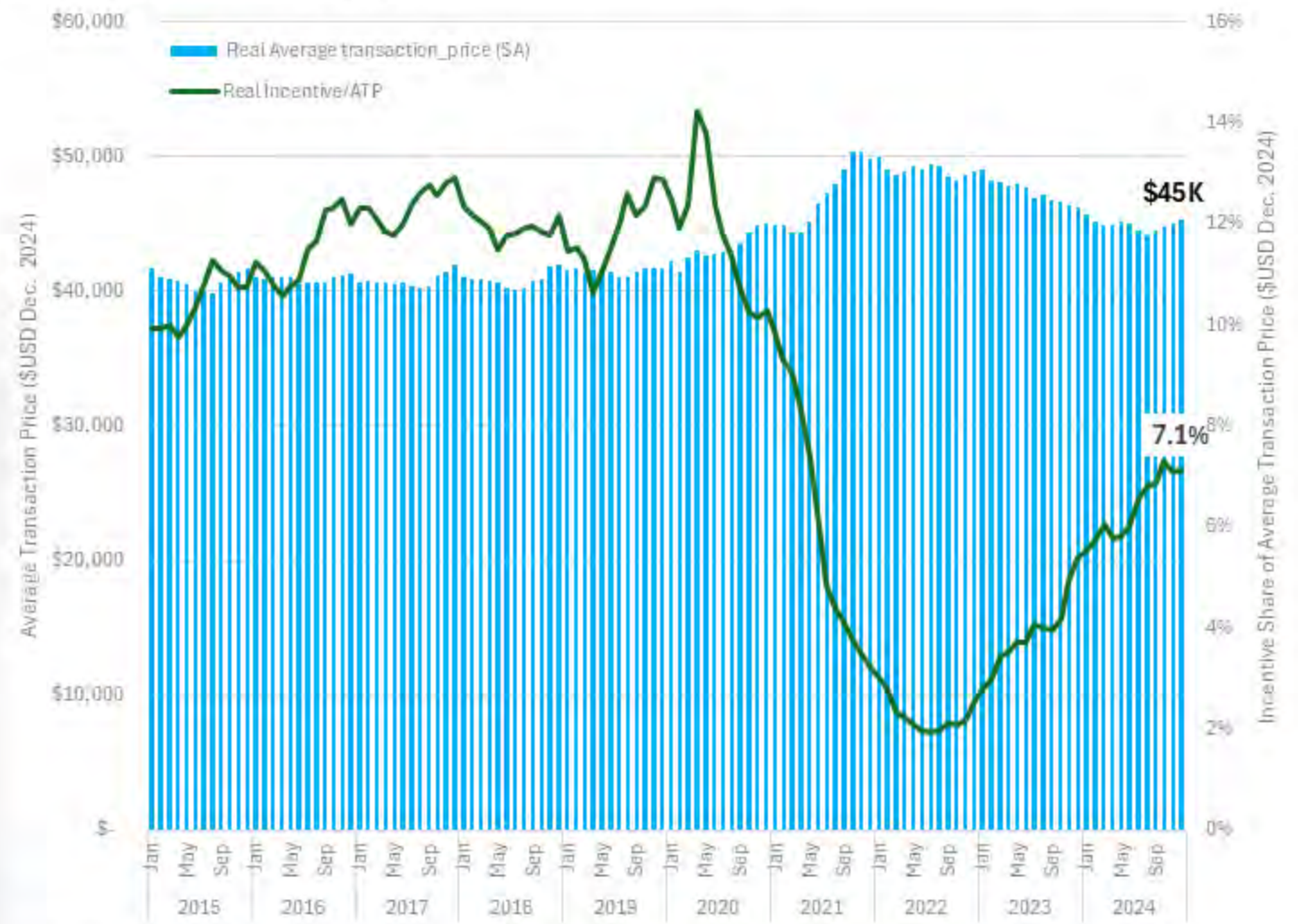
Source: U.S. Department of Labor, Bureau of Labor Statistics' Satellite Series: Inputs to Industry Price Indexes



AFFORDABILITY

Growth in real new vehicle average transaction prices has slowed & incentives are climbing

Average Transaction Prices & Incentive Share of Average Transaction Prices 2015-2024, December 2024 \$



Source: JDP & author's calculations using U.S. Department of Labor, Consumer Price Index (CPI-U) (1982-1984=100).

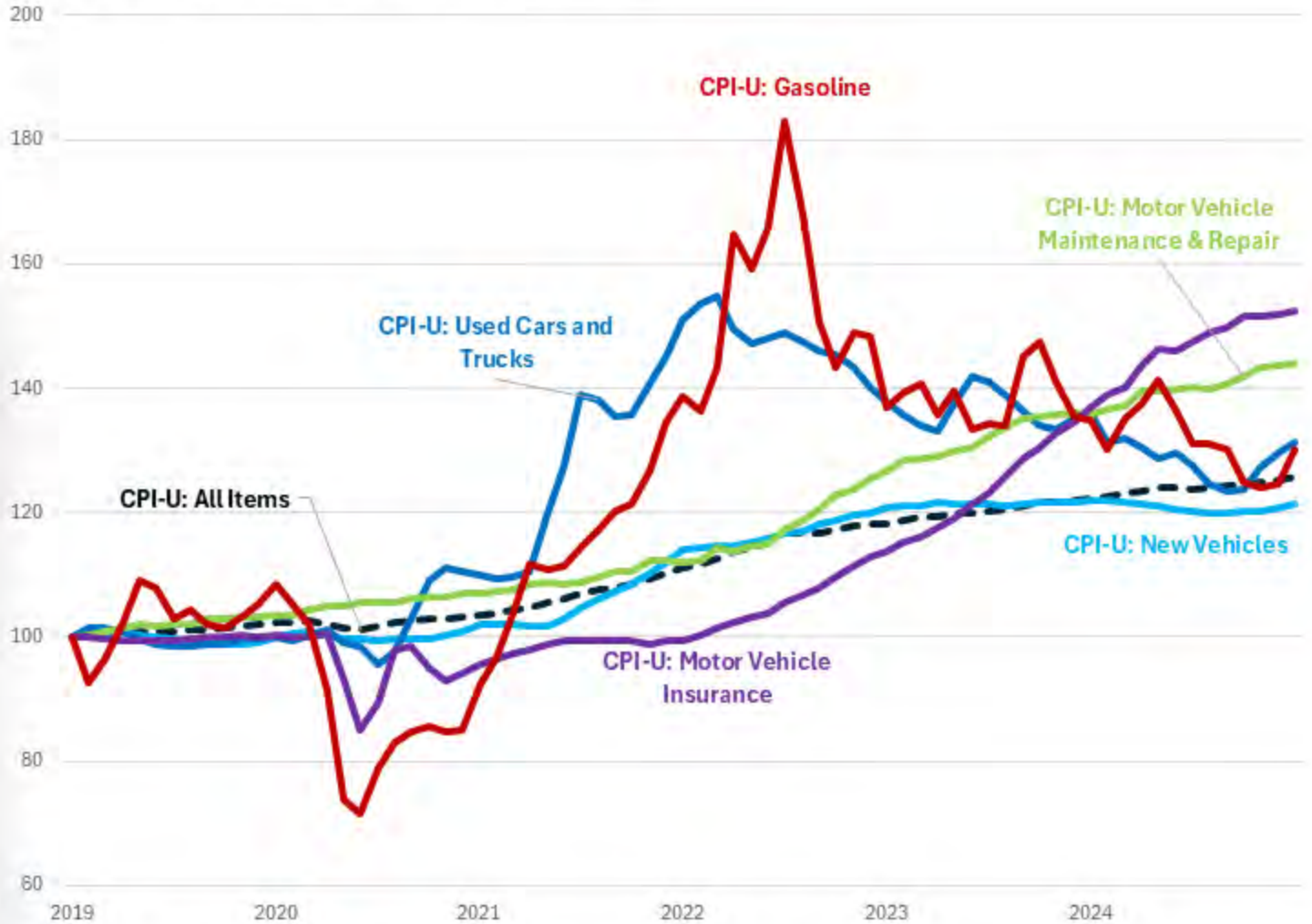
**AFFORDABILITY**

It's more expensive to own & drive a vehicle these days

Relative to December 2018 prices, December 2024 prices were higher overall:

<b>All items</b>	<b>+25.7%</b>
<b>New Vehicles</b>	<b>+21.4%</b>
<b>Used cars &amp; trucks</b>	<b>+31.3%</b>
<b>Maintenance &amp; repair</b>	<b>+44.1%</b>
<b>Insurance</b>	<b>+52.4%</b>
<b>Gasoline</b>	<b>+30.1%</b>

**Inflation in Motor Vehicle & Related Categories**  
CPI-U, SA, December 2018 = 100



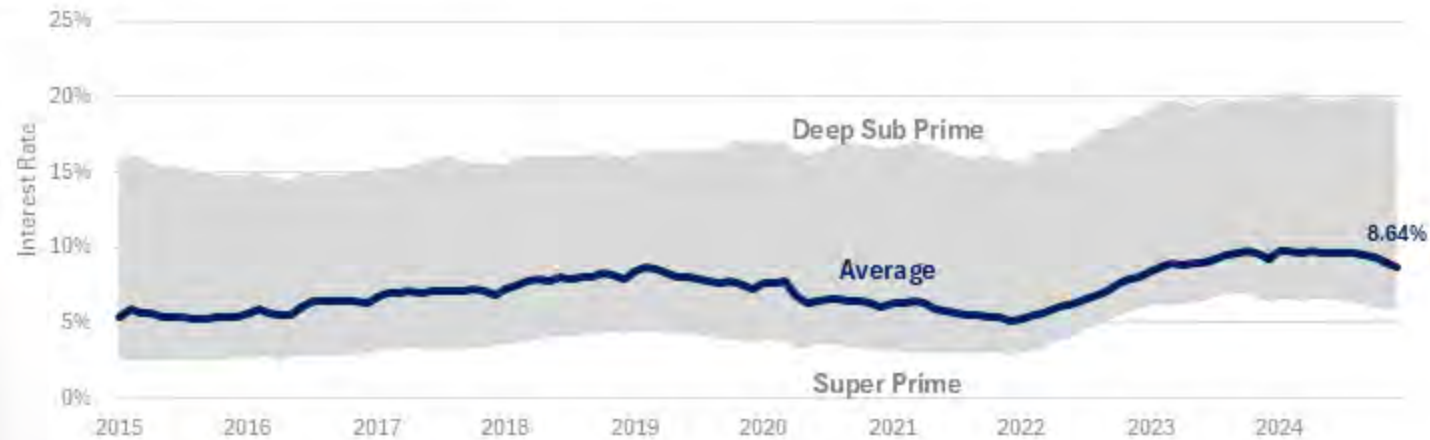
Source: U.S. Department of Labor, Bureau of Labor Statistics, Consumer Price Indices-All Urban Consumers, Seasonally Adjusted, 1982-84=100 normalized to December 2018=100



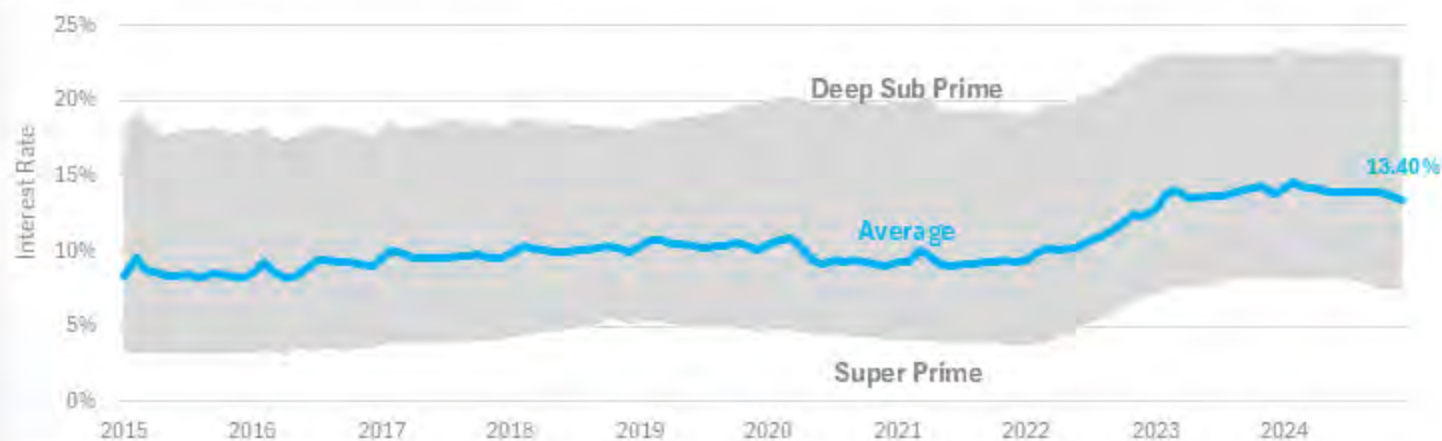
**AFFORDABILITY**

Vehicle loan rates are starting to come down, but consumers face a wide range of rates in the market

**Average, Deep Sub-Prime, & Super Prime Interest Rates for New Vehicles 2015-2024**



**Average, Deep Sub-Prime, & Super Prime Interest Rates for Used Vehicles 2015-2024**

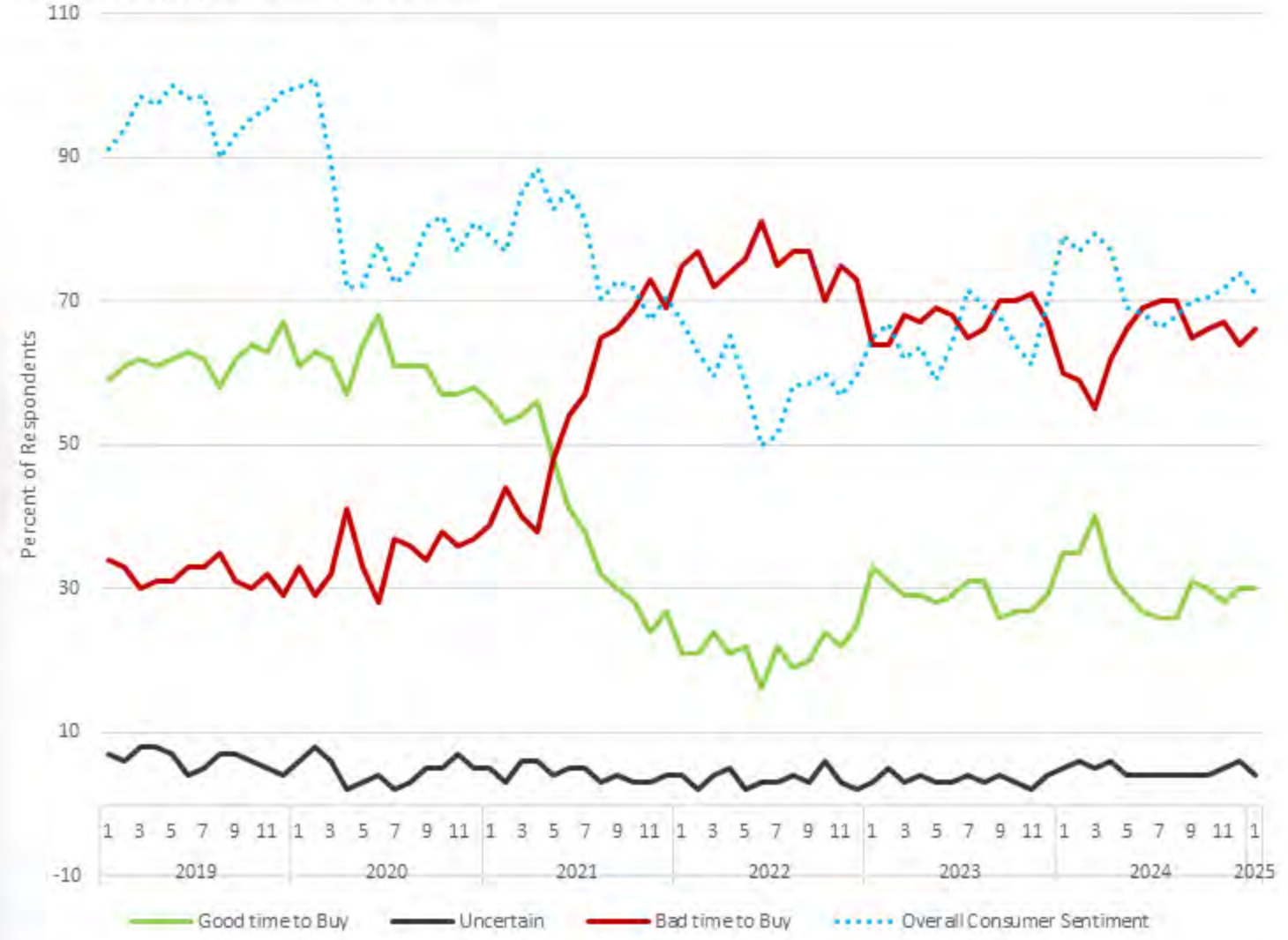


Source: Dealertrak via Cox Automotive

### AFFORDABILITY

Consumers still think it is a bad time to buy a new vehicle

Table 37: Buying Conditions for Vehicles



Source: University of Michigan Survey of Consumers, Table 1 & Table 37, January 2025



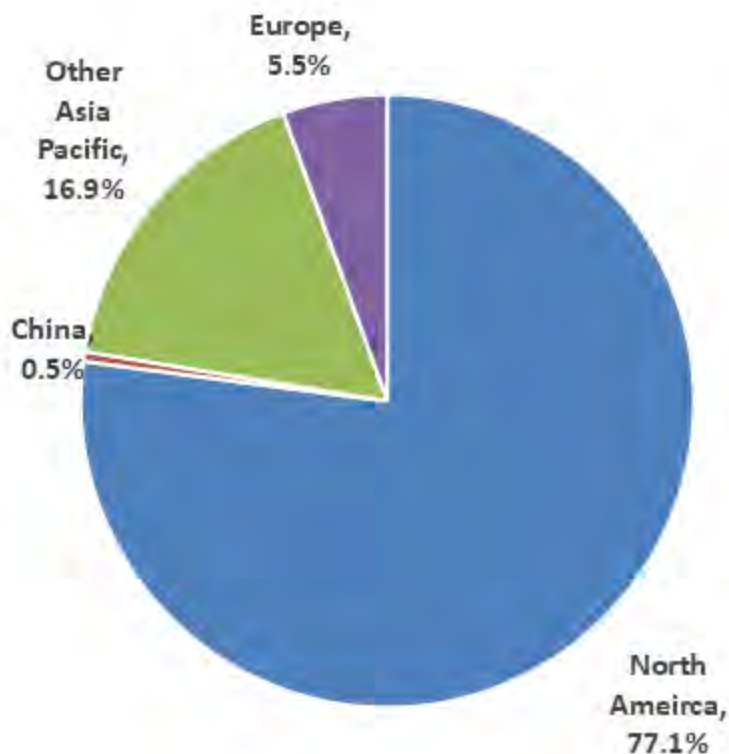
Trade is in the  
DNA of this  
industry



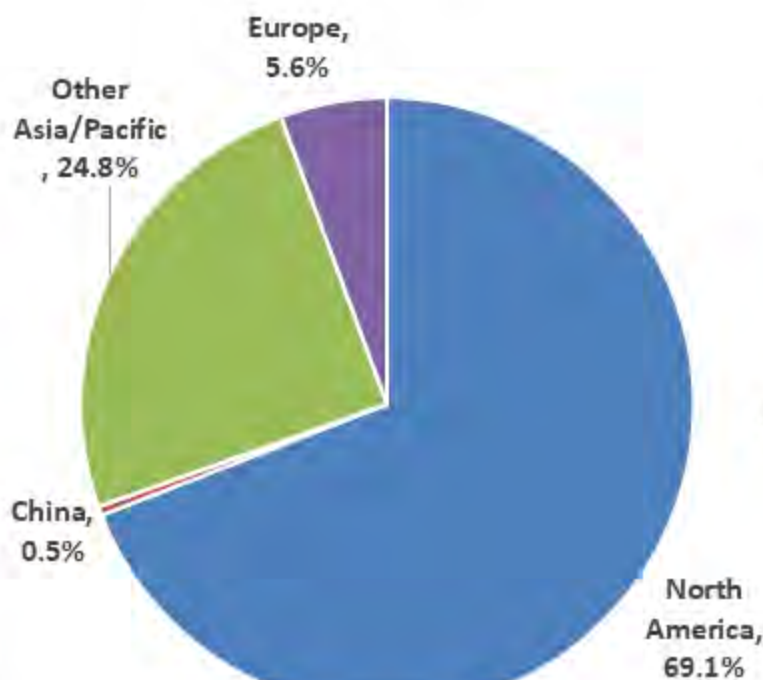
# TRADE

## You hear the rise of China, but few in U.S. or Canada have seen them (yet)

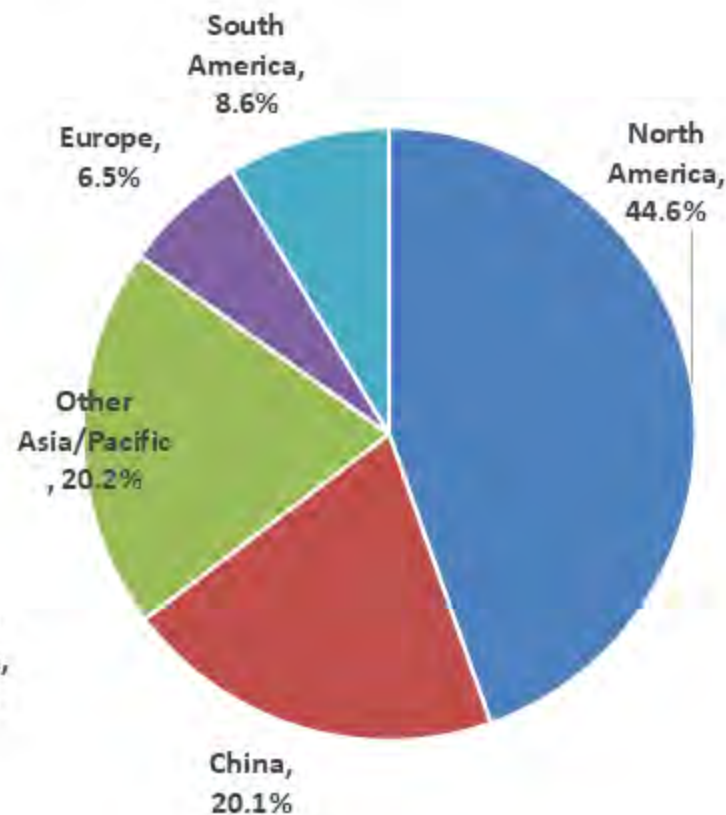
Origin Region of U.S. Light Vehicle Sales  
2024



Origin Region of Canada Light Vehicle Sales  
2024



Origin Region of Mexico Light Vehicle Sales  
2024



Source: Ward's Intelligence, author's calculations













2025:  
Are we in for  
a wild ride?



[www.chicagofed.org](http://www.chicagofed.org)

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