

U.S. Auto Sales Chartbook

May 2021

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Main messages

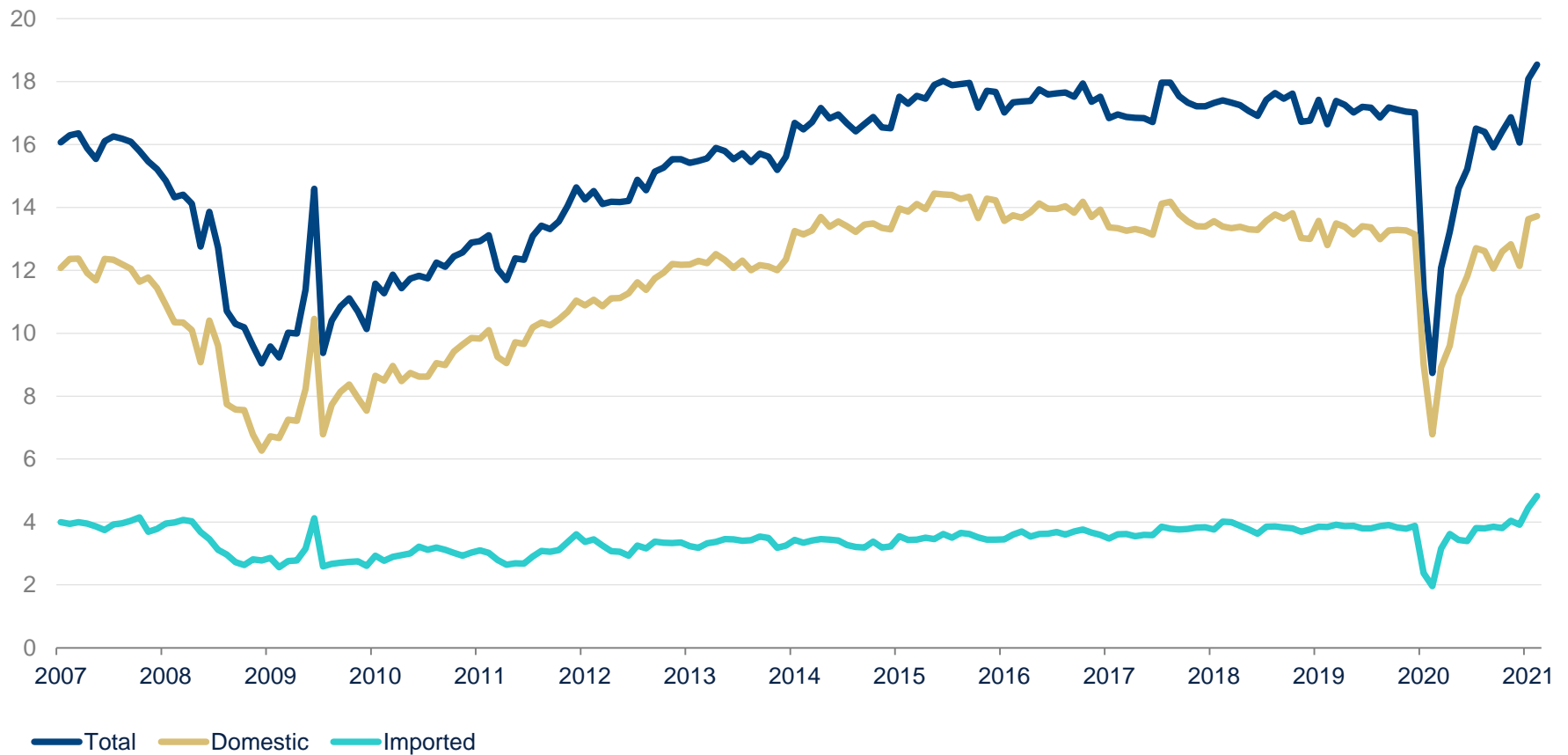
- Auto sales rebounded 12.2% yoy in 1Q21, averaging 17 million units (SAAR). Meanwhile, April sales reached 18.5 million units (SAAR), the highest in 15 years.
- Two rounds of stimulus checks, low interest rates, home price appreciation, higher stock prices, access to credit, and robust trade-in values of used vehicles spurred consumers who delayed the purchase of new vehicles due to the pandemic.
- A shortage of computer chips caused by severe weather in Texas and a fire at Japan's Renesas Semiconductor Manufacturing Co., disrupted the supply of new vehicles. Supply constraints are likely to remain through the summer.
- As a result, a portion of new-vehicle demand shifted to the used-vehicle market, exerting significant upward pressures on used-vehicle prices.
- Strong consumer demand and supply bottlenecks have benefited auto retailers that were able to compensate the shortage of new-vehicles with higher volumes of used-cars.
- We expect sales of new vehicles to average 17 million units (SAAR) in 2021 supported by fiscal and monetary stimulus, strong economic growth and pent up demand.
- Electric vehicle sales increased 20% yoy in 4Q20. The outlook for EVs is positive as the federal government seeks to invest \$174bn to build a network of 500K charging stations, replace the federal fleet, 50K transit vehicles and 10% of school buses with EVs, and offer rebates and tax incentives to consumers.

01

Sales

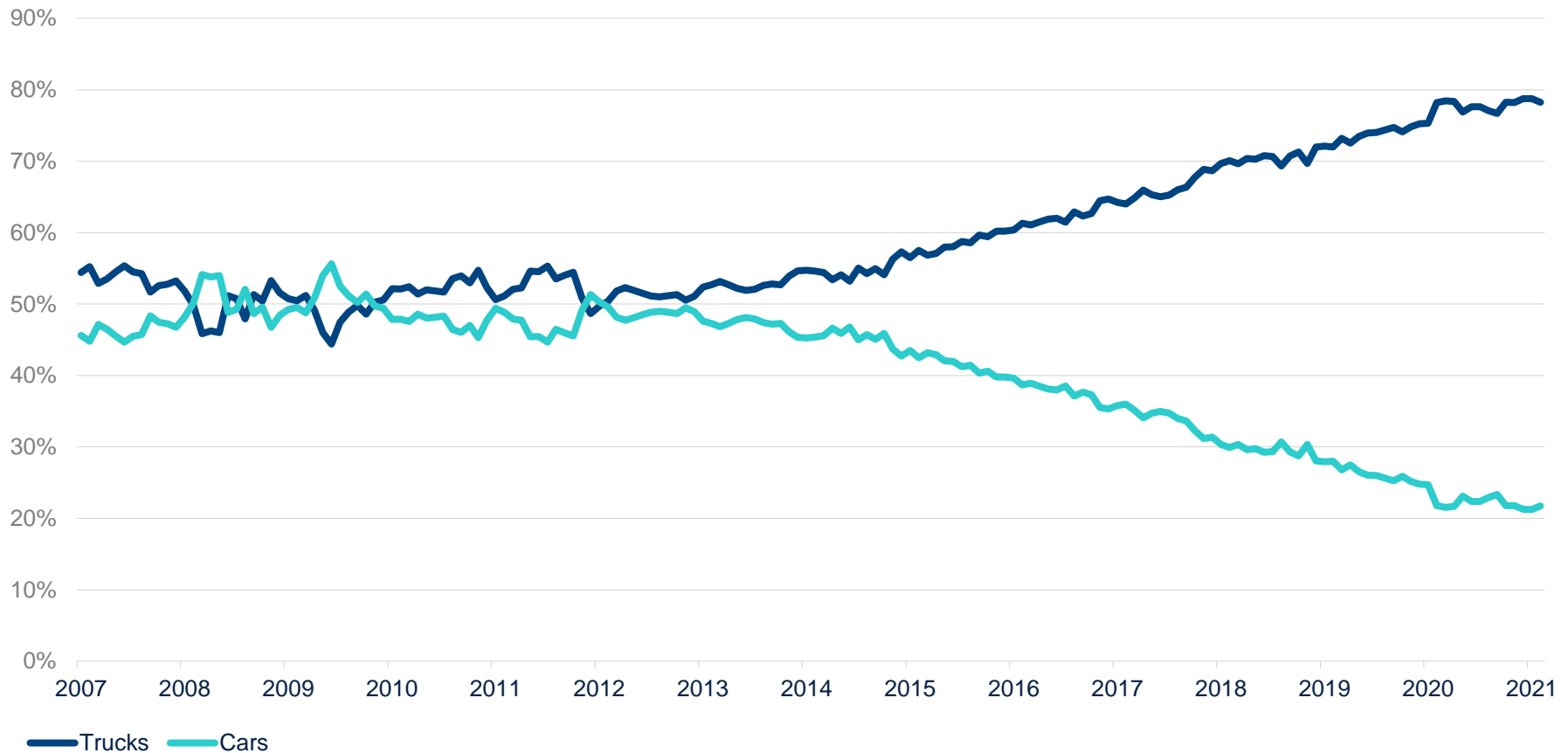
Sales

U.S. TOTAL LIGHT WEIGHT VEHICLE SALES (SAAR, MILLION UNITS)



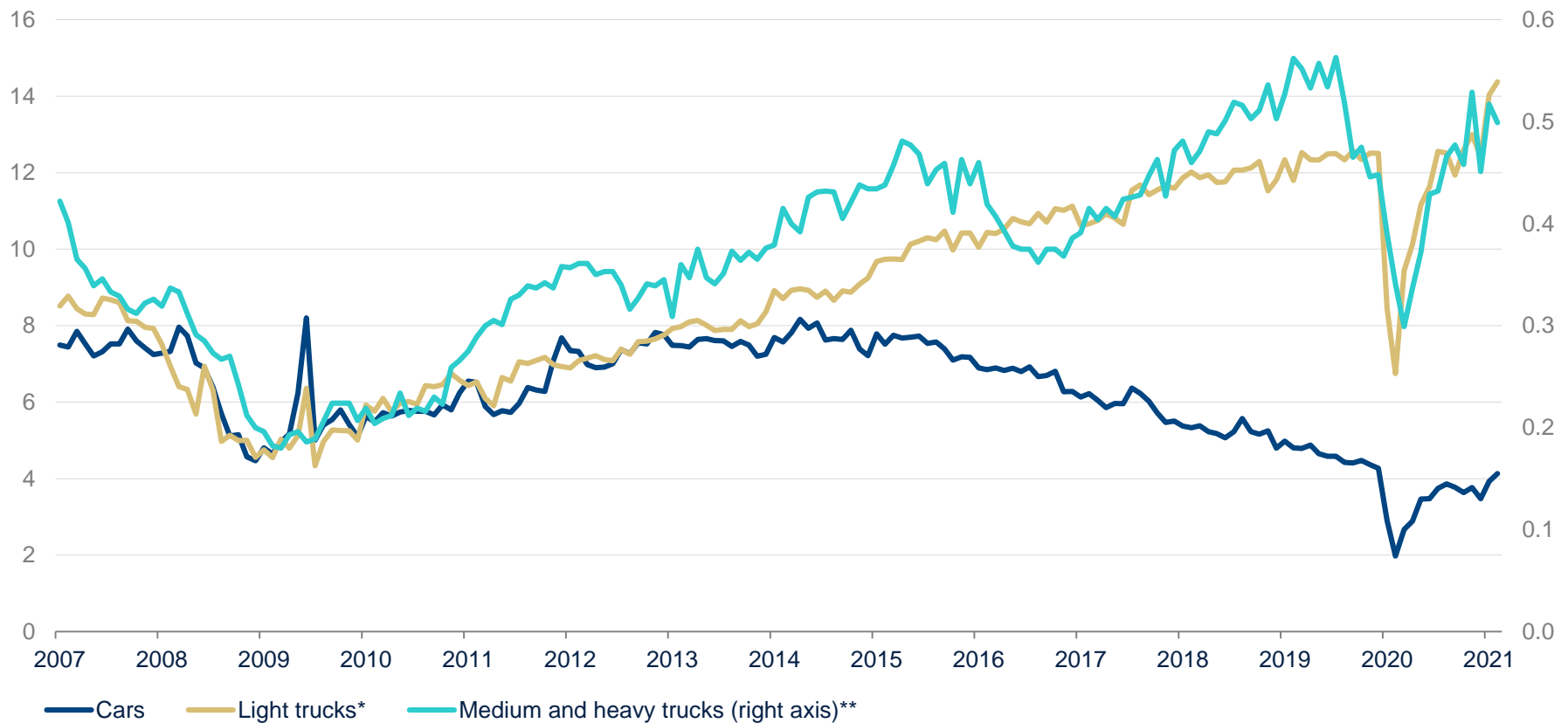
Sales

U.S. TOTAL VEHICLE SALES (SHARE OF TOTAL)



Sales

U.S. TOTAL VEHICLE SALES (SAAR, MILLION UNITS)



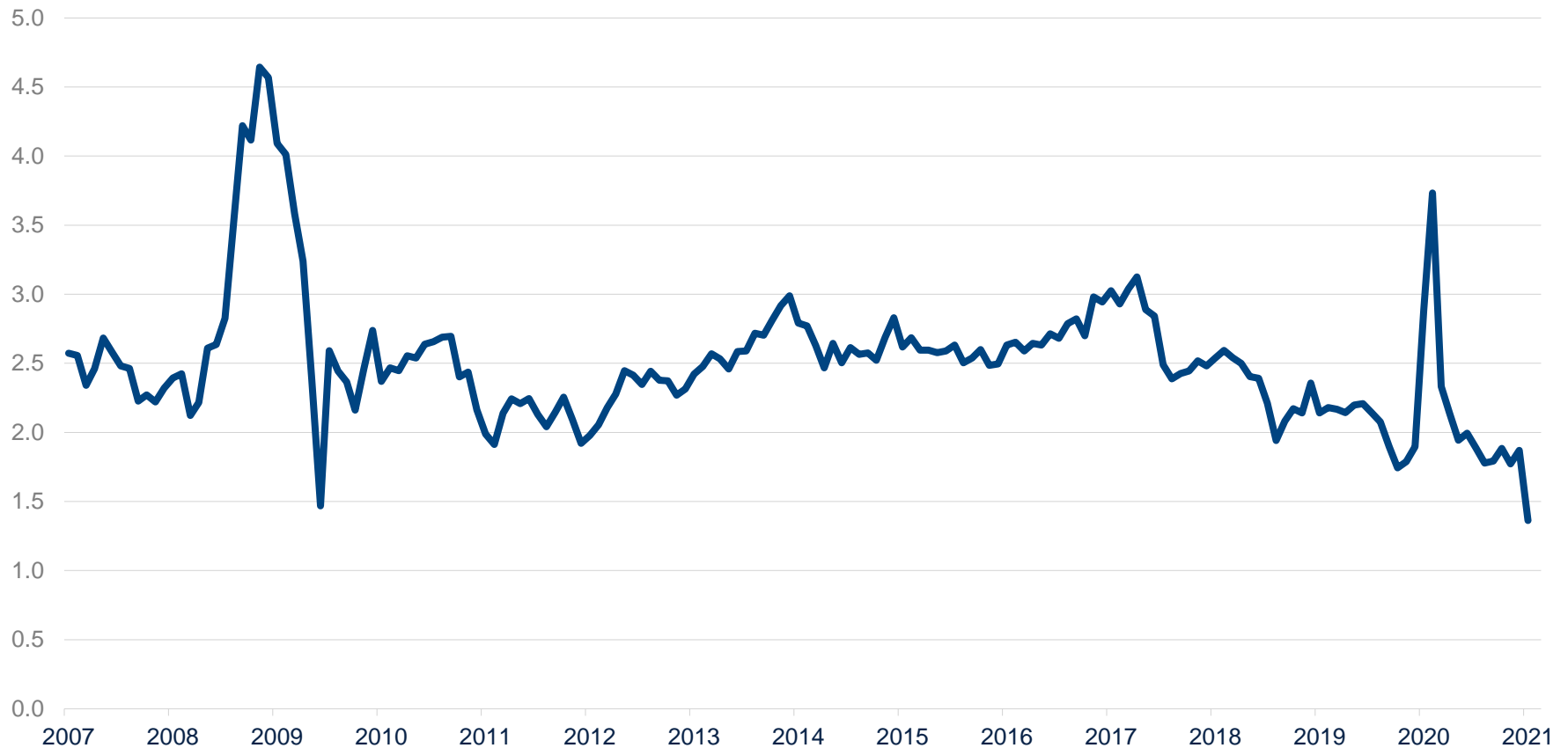
* 0-14,000 pounds GVWR.

**14,001 pounds GVWR and over.

Source: BBVA Research and Haver Analytics.

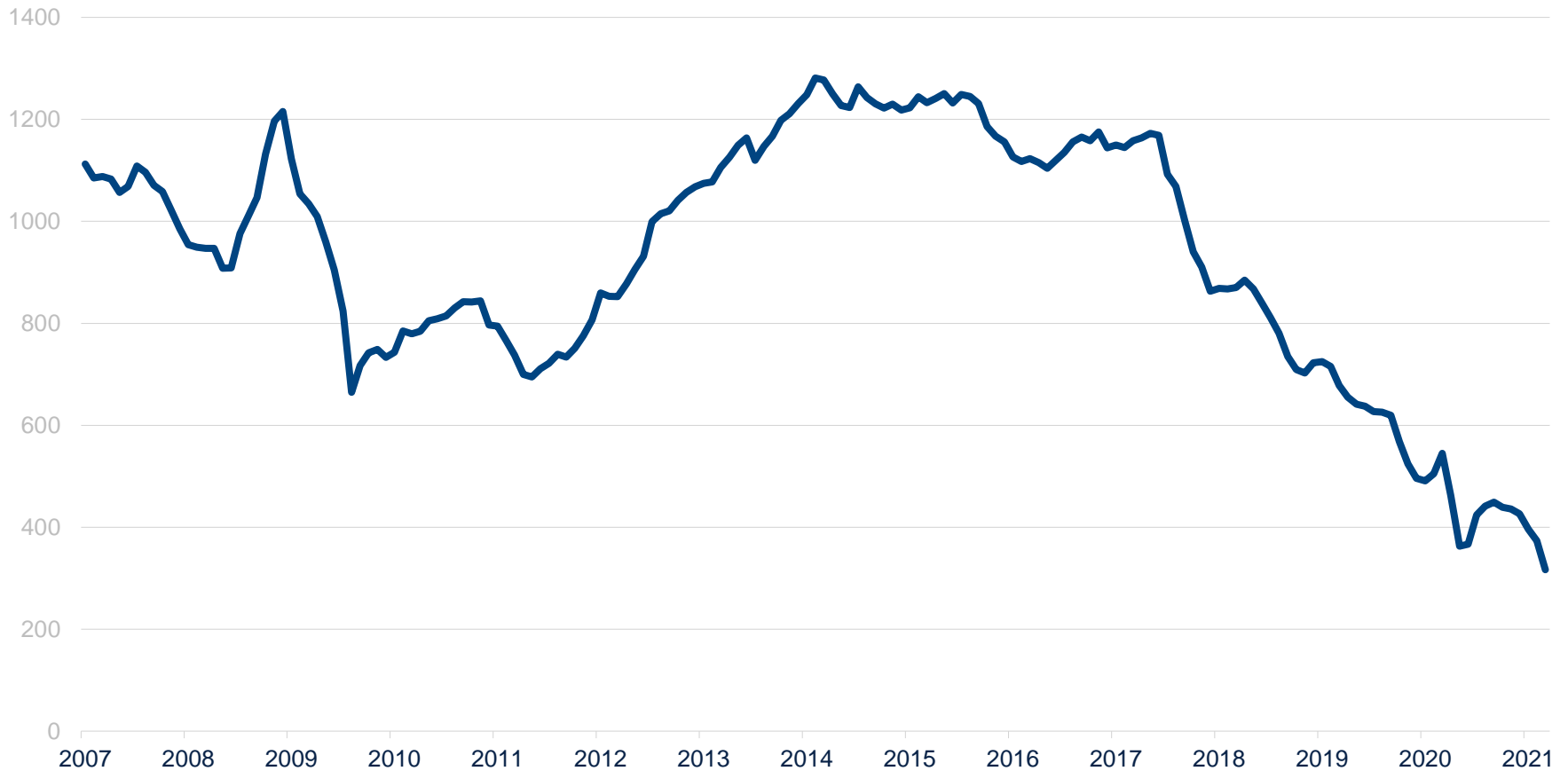
Sales

U.S. DOMESTIC AUTO INVENTORY/SALES RATIO (SEASONALLY ADJUSTED)



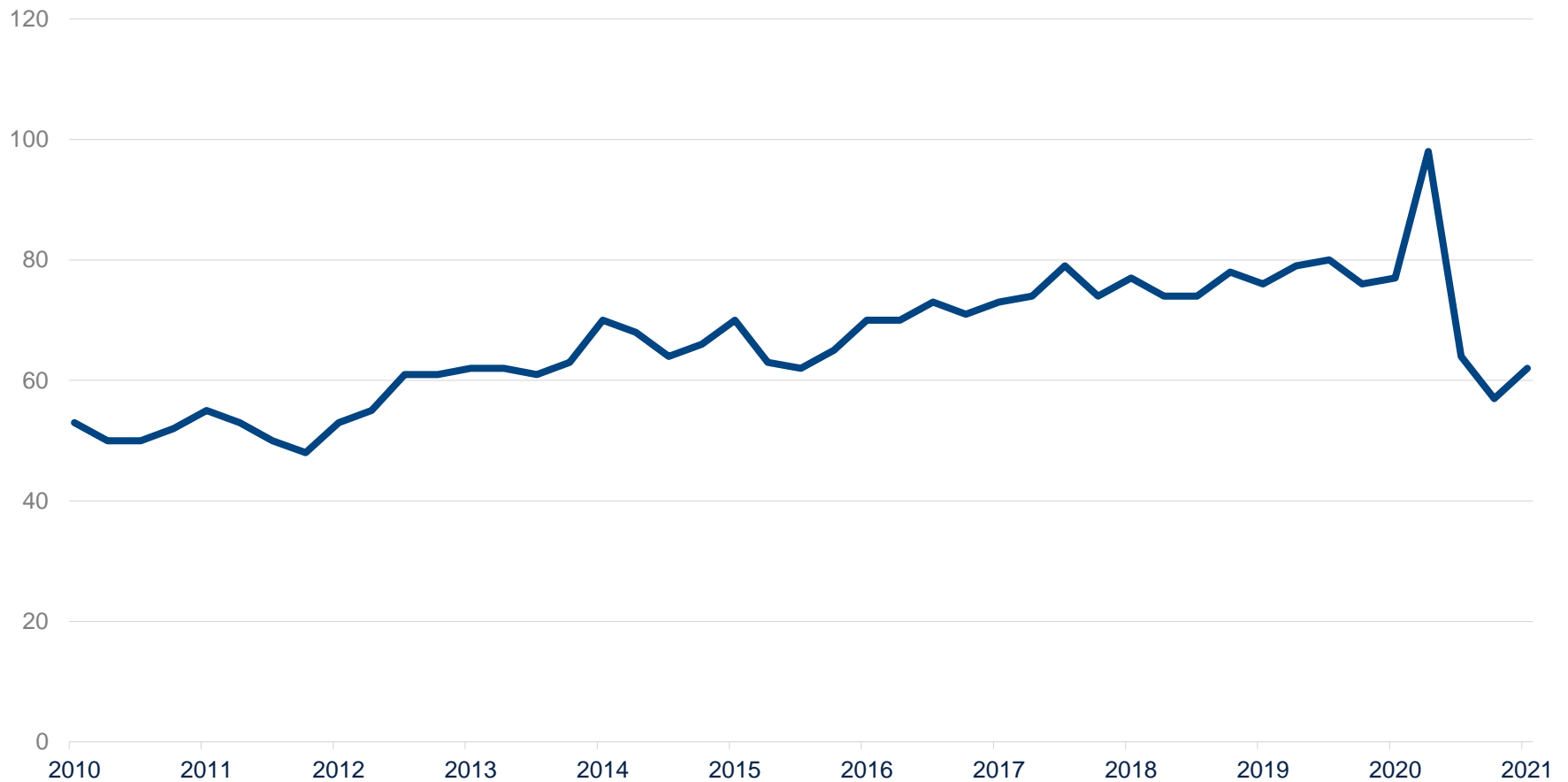
Inventories

U.S. DOMESTIC AUTO INVENTORIES (SA, EOP, THOUSAND UNITS)



Days to turn

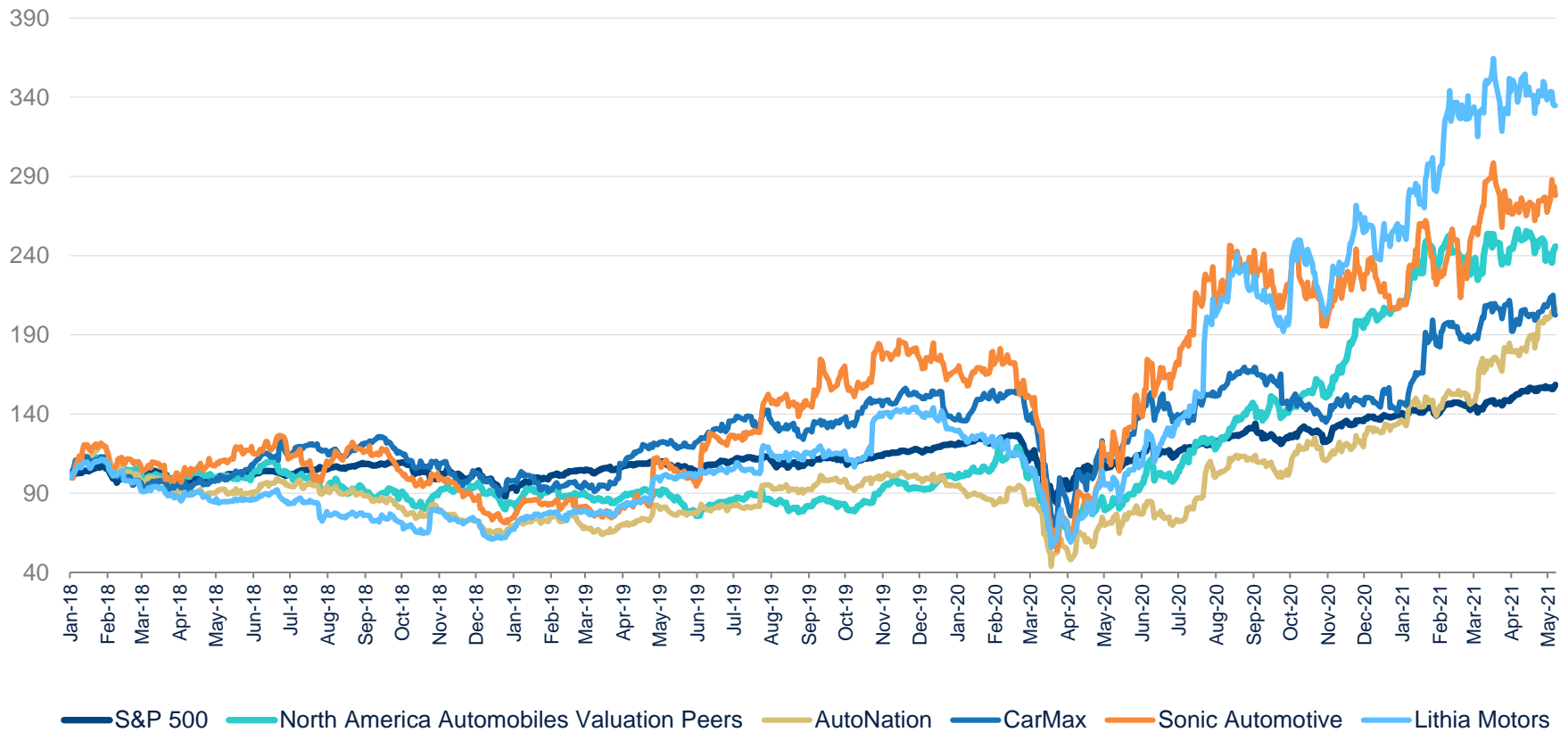
U.S. VEHICLE DAYS TO TURN (SEGMENT AVERAGE)



Stock market

STOCK MARKET INDICATORS

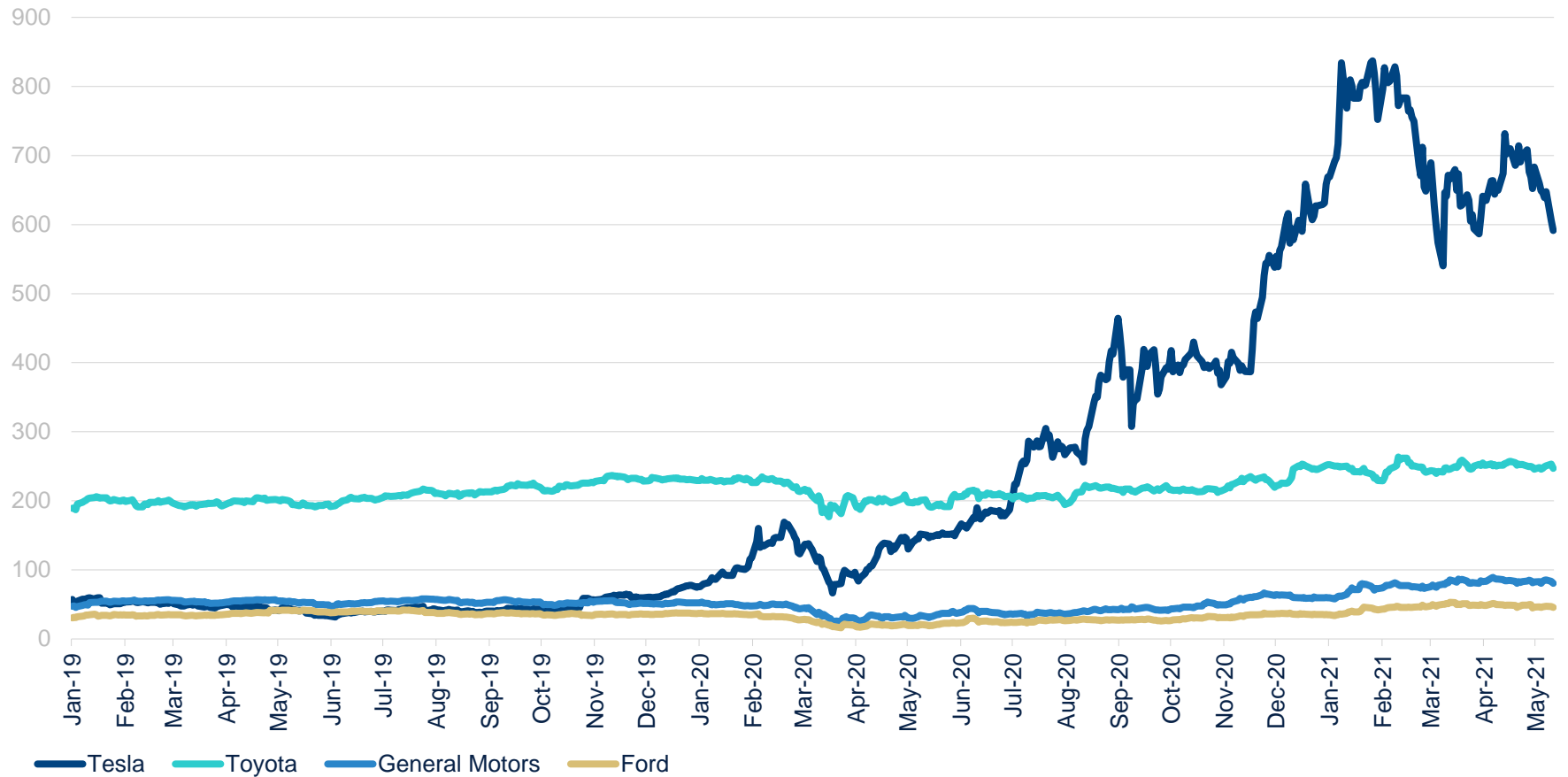
(INDEX, 1/1/2018 = 100)



North America Automobiles Valuation Peers: Fiat Chrysler Automobiles, Ford Motor Co., Tesla Inc., General Motors Co.
 Source: BBVA Research and Bloomberg.

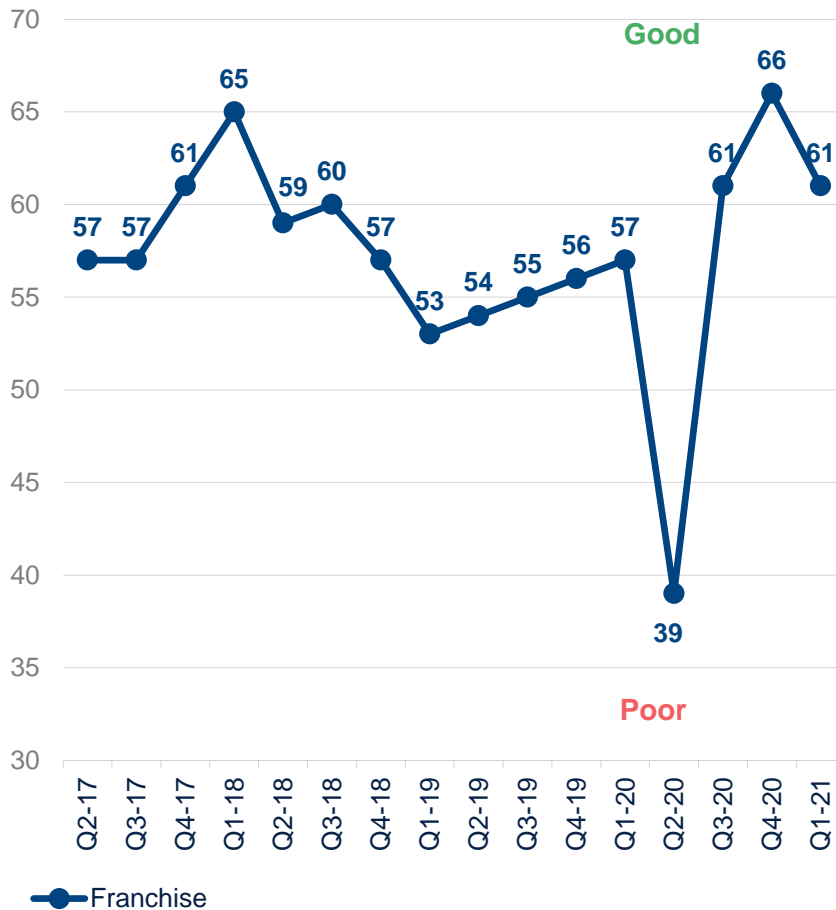
Stock market

STOCK MARKET INDICATORS (MARKET CAP, \$BILLION)



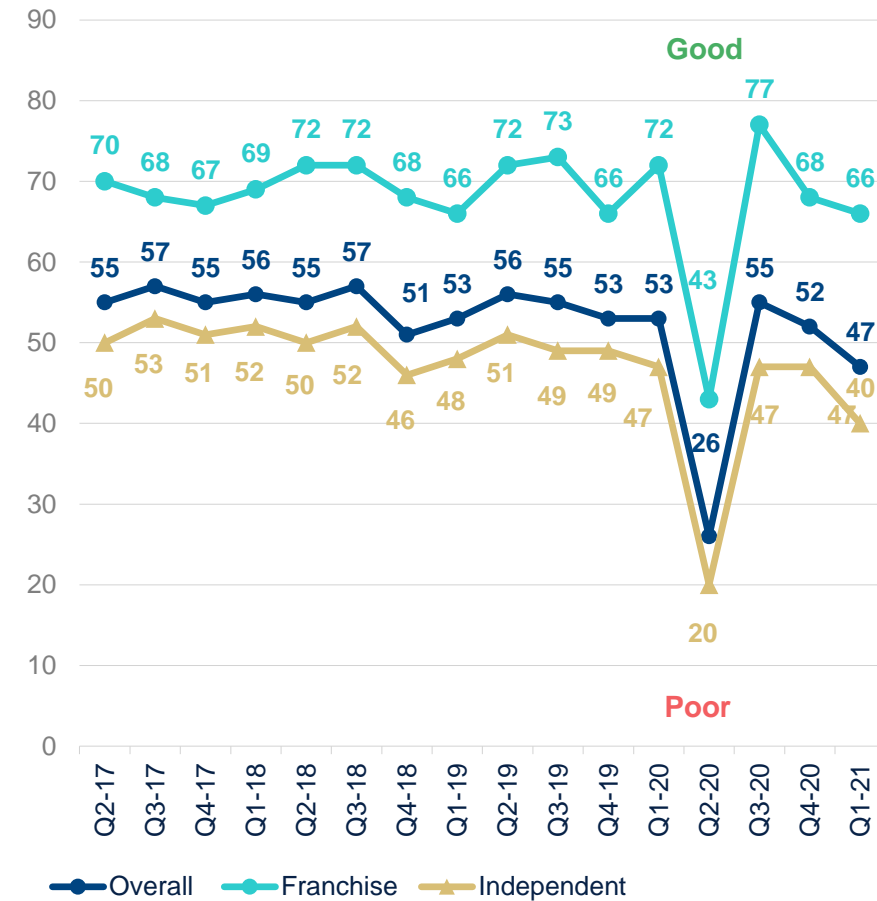
Dealers

HOW WOULD YOU DESCRIBE THE NEW-VEHICLE SALES ENVIRONMENT?



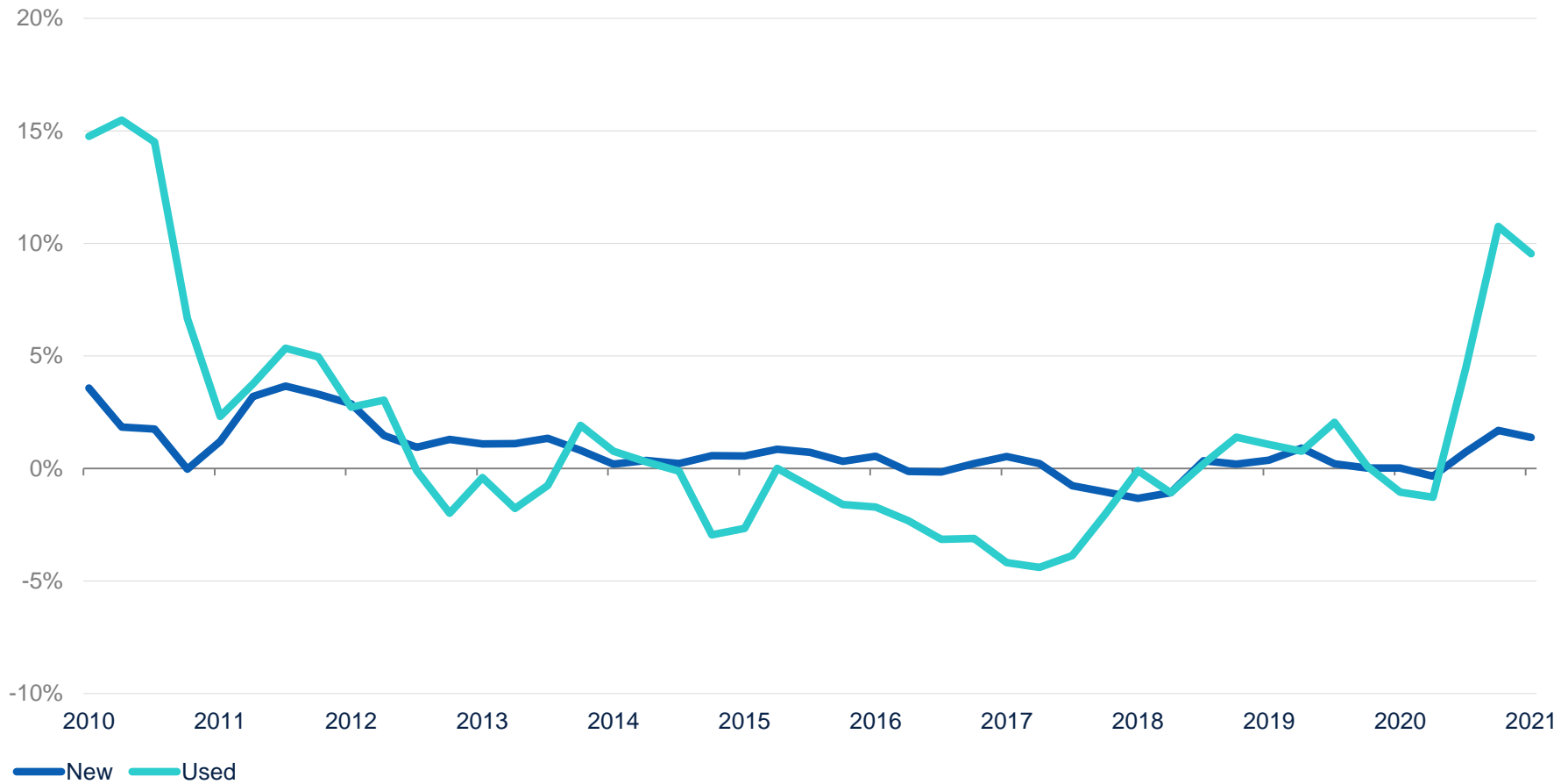
Source: Cox Automotive, Dealer Sentiment Index 1Q21.

HOW WOULD YOU DESCRIBE THE CURRENT USED-VEHICLE SALES ENVIRONMENT?



Prices

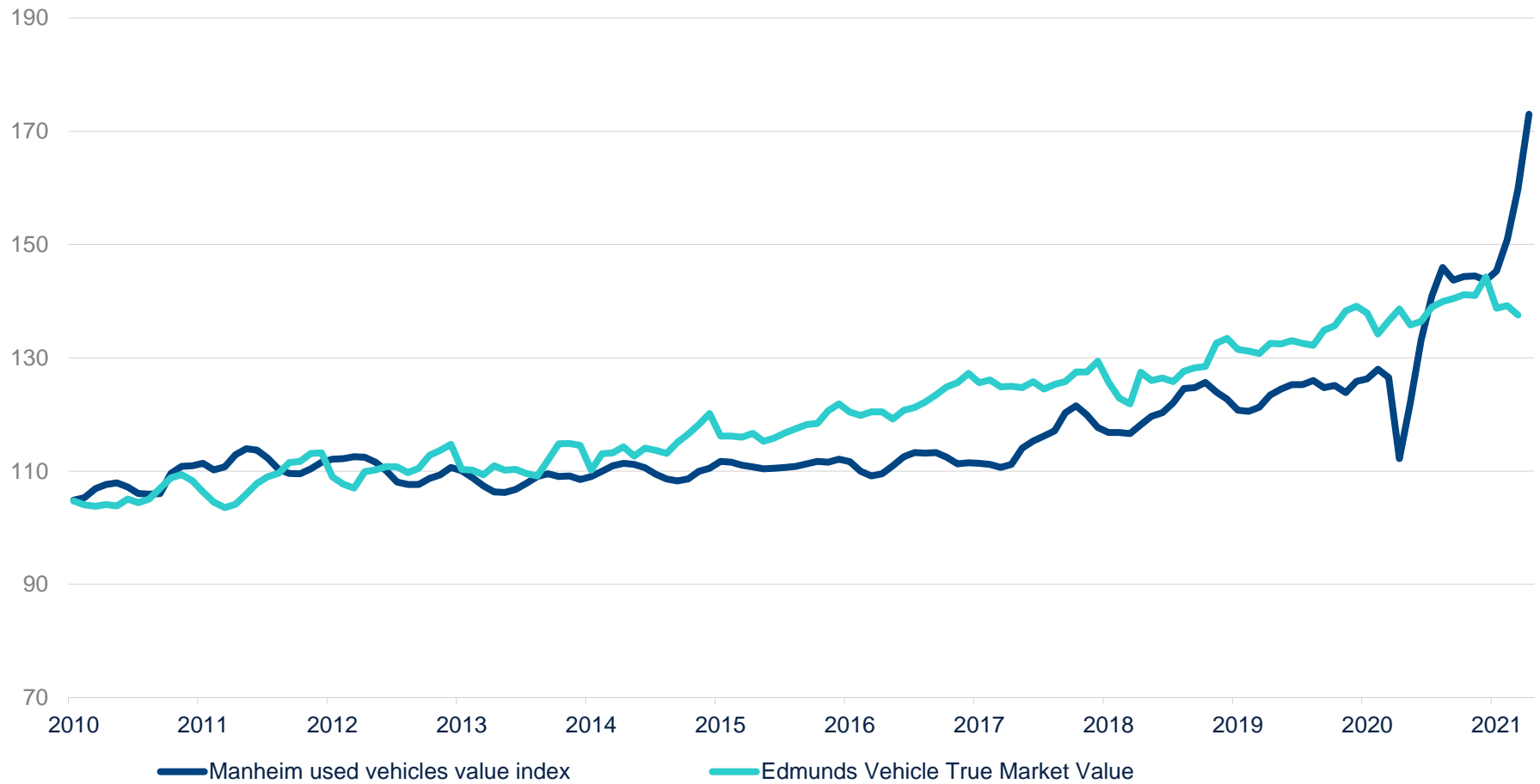
U.S. CONSUMER PRICE INDEX: CARS AND TRUCKS (YOY % CHANGE)



Prices

U.S. AUTO PRICES

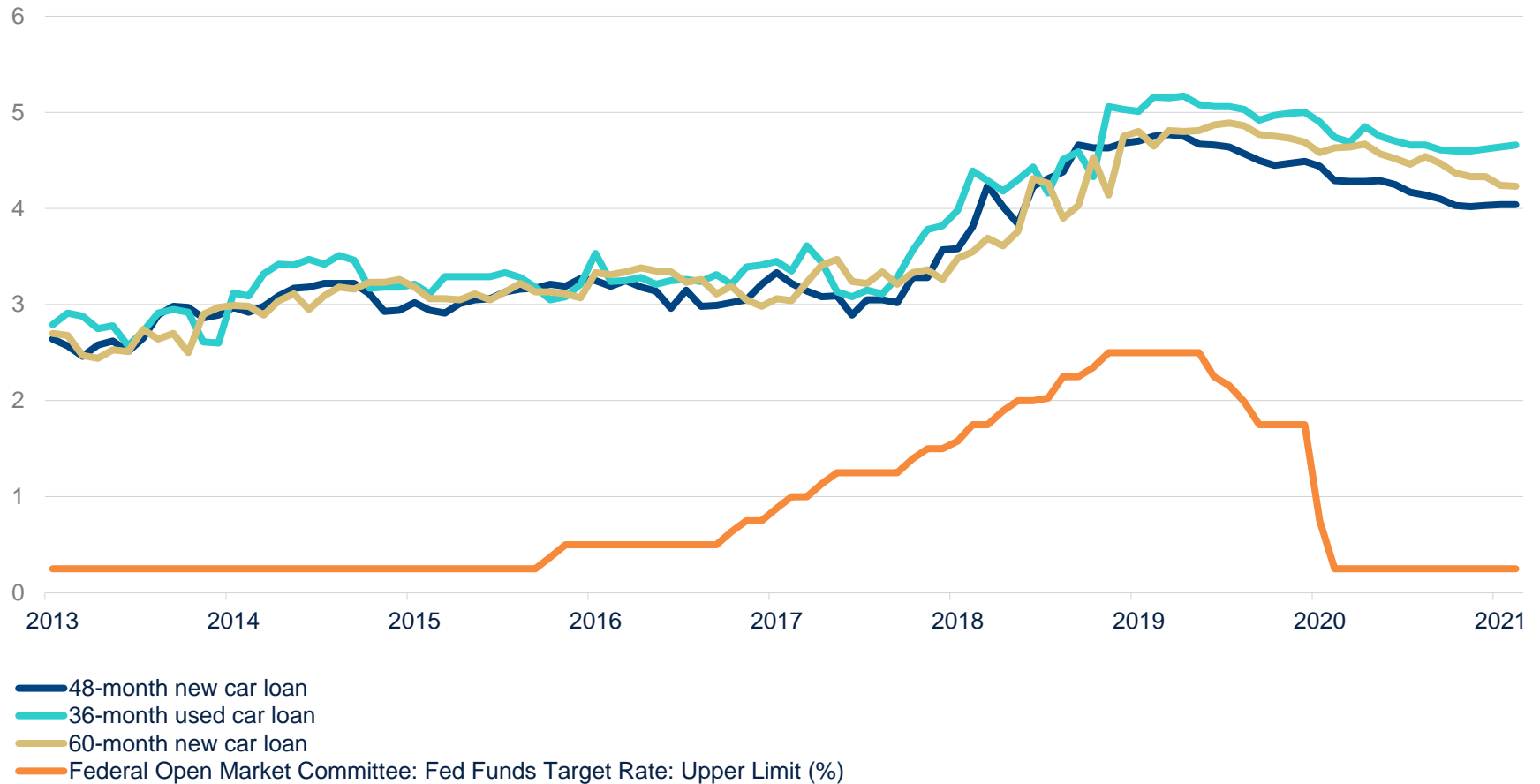
(INDEX, 2009 = 100)



Financial conditions

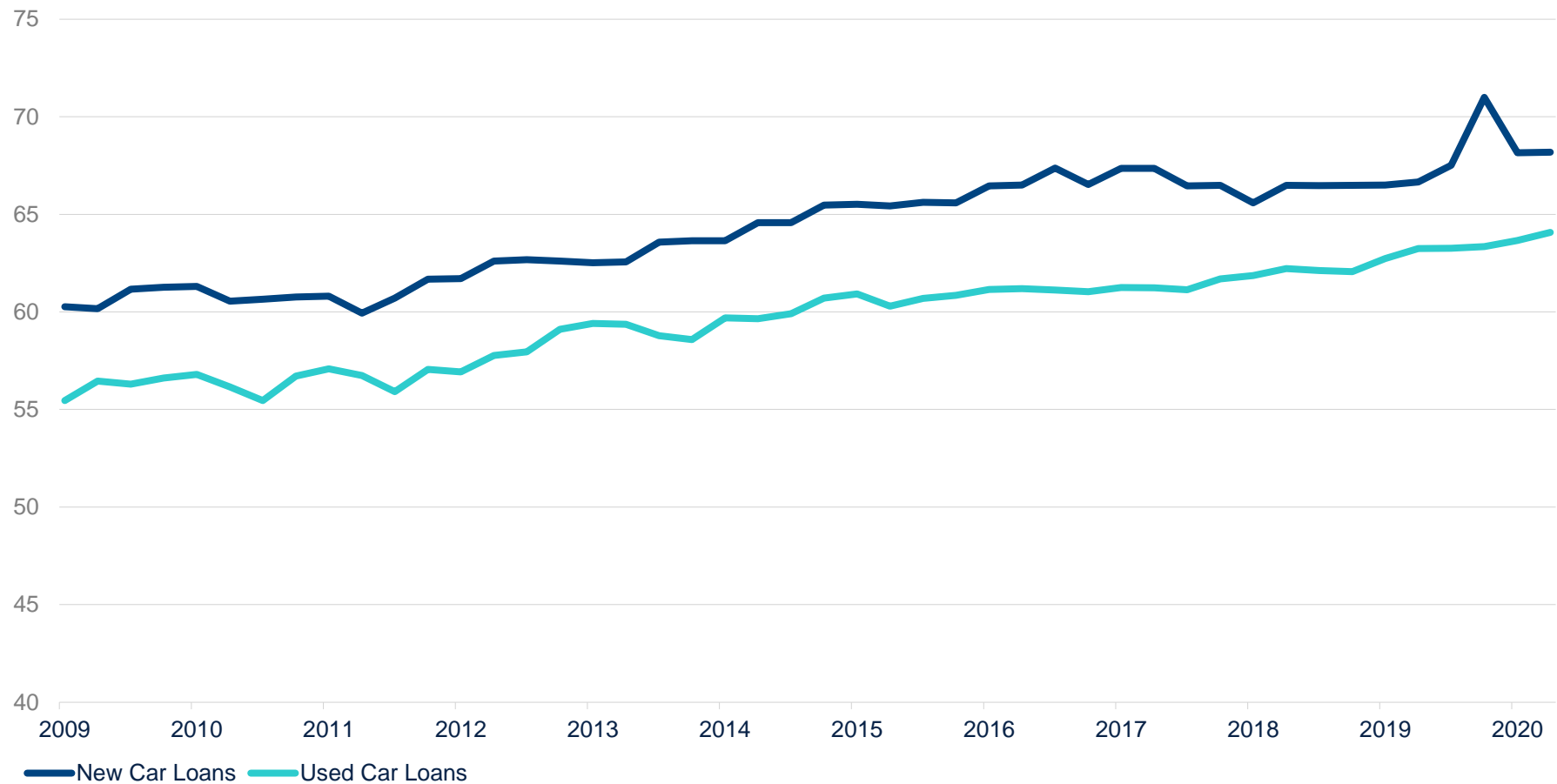
U.S. INTEREST RATES

(%)



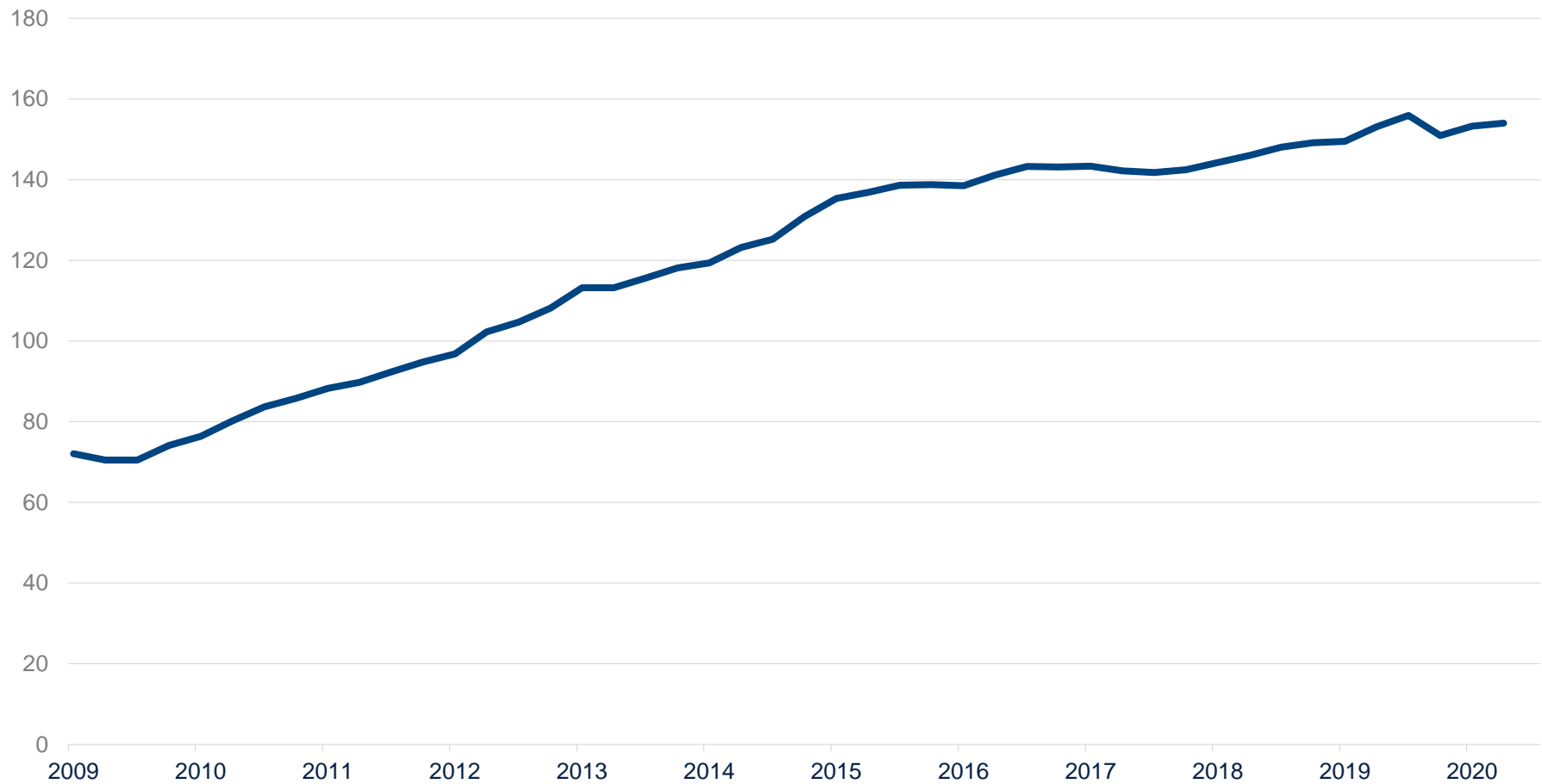
Financial conditions

U.S. AUTO FINANCE COMPANY LOANS (MATURITY, MONTHS)



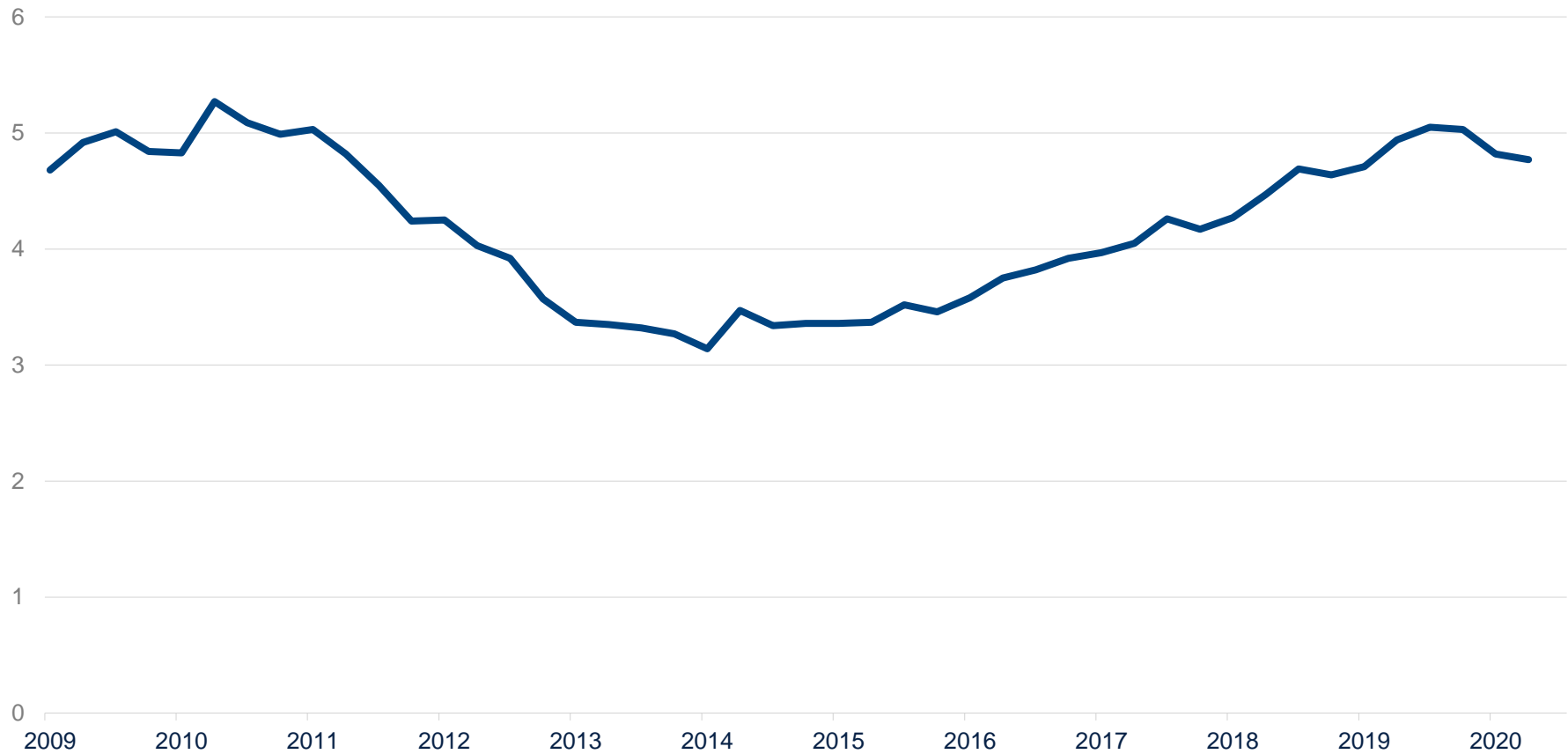
Financial conditions

U.S. NEWLY ORIGINATED INSTALLMENT AUTO LOANS (\$ BILLION, EOP, 4-QTR MOVING AVG.)



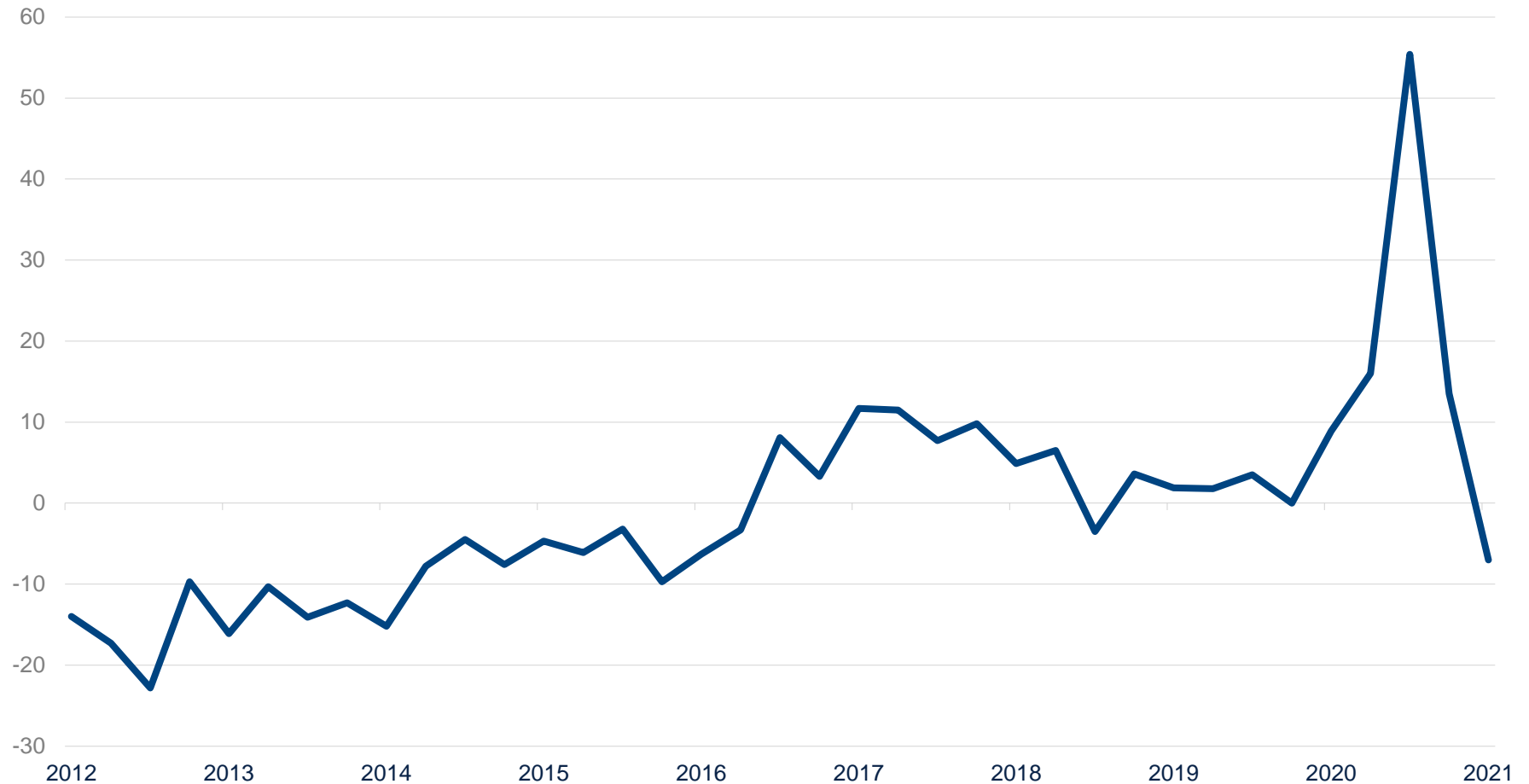
Financial conditions

U.S. AUTO LOAN 90+ DAYS DELINQUENT (% OF BALANCE)



Financial conditions

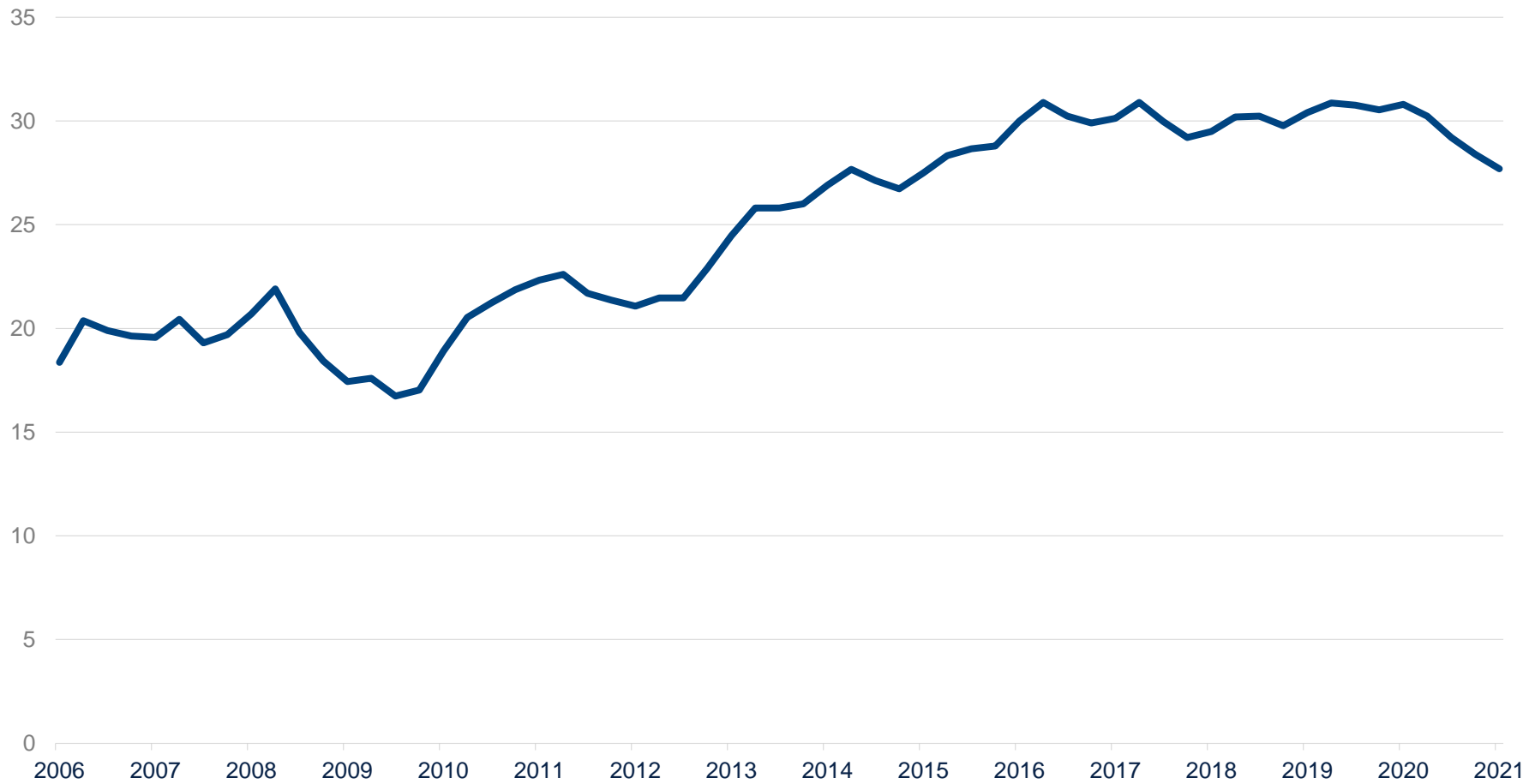
U.S. OVER THE PAST THREE MONTHS, HOW HAVE YOUR BANK'S CREDIT STANDARDS FOR APPROVING APPLICATIONS FOR AUTO LOANS FROM INDIVIDUALS OR HOUSEHOLDS CHANGED?
(BANKS TIGHTENING STANDARDS FOR AUTO LOANS, NET PERCENTAGE BALANCE)



Source: Senior Loan Officer Opinion Survey on Bank Lending Practices, Board of Governors of the Federal Reserve System.

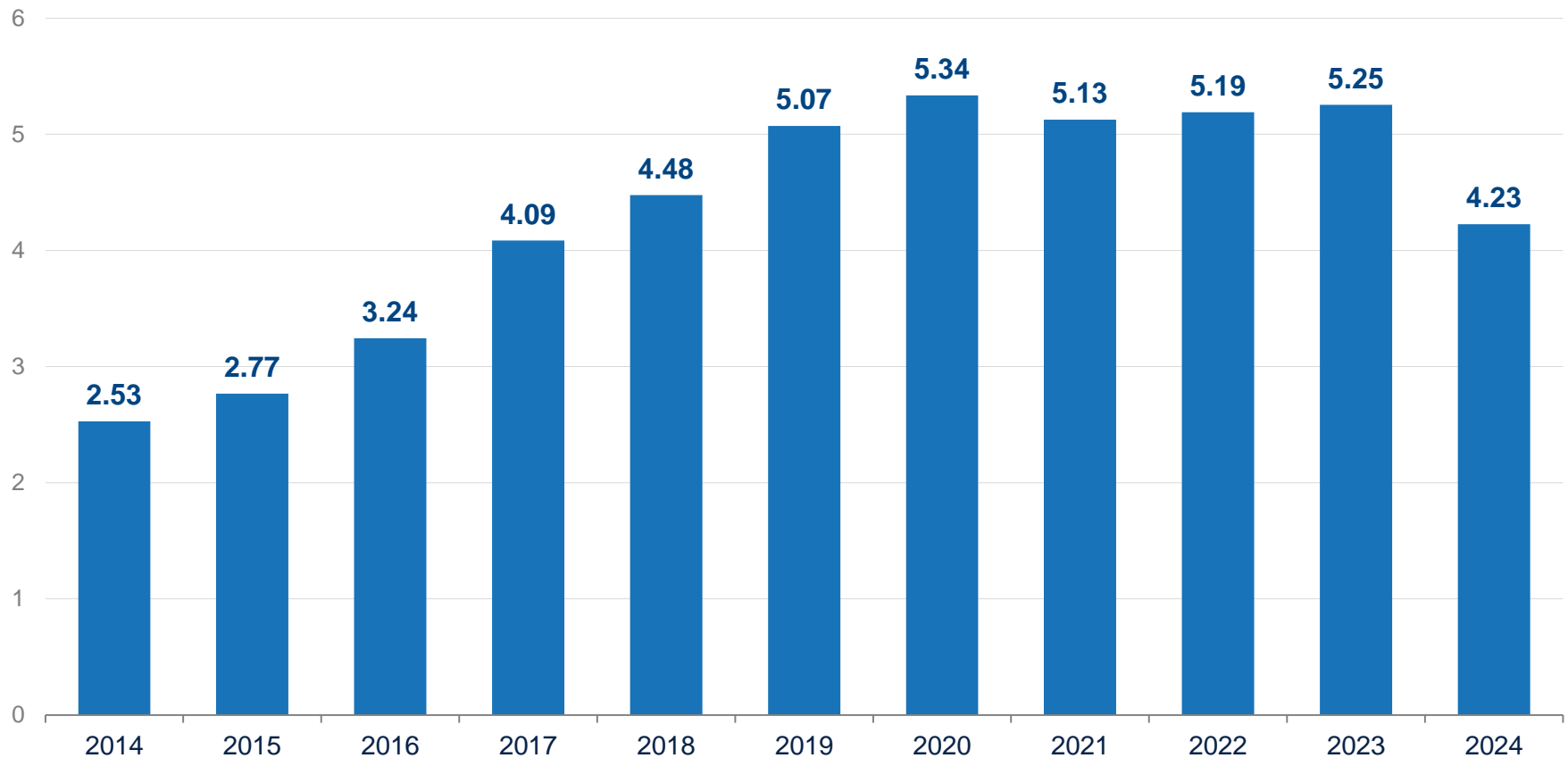
Leasing

U.S. LEASING PENETRATION RATE (%, 3-MONTH MOVING AVERAGE)



Leasing

OFF-LEASE RETURNS AND SUPPLY* (MILLIONS UNITS)



*Assumes 36-month lease terms.

Source: Bloomberg and BBVA Research.

Gasoline

U.S. RETAIL GASOLINE PRICE (AVERAGE CENTS PER GALLON)

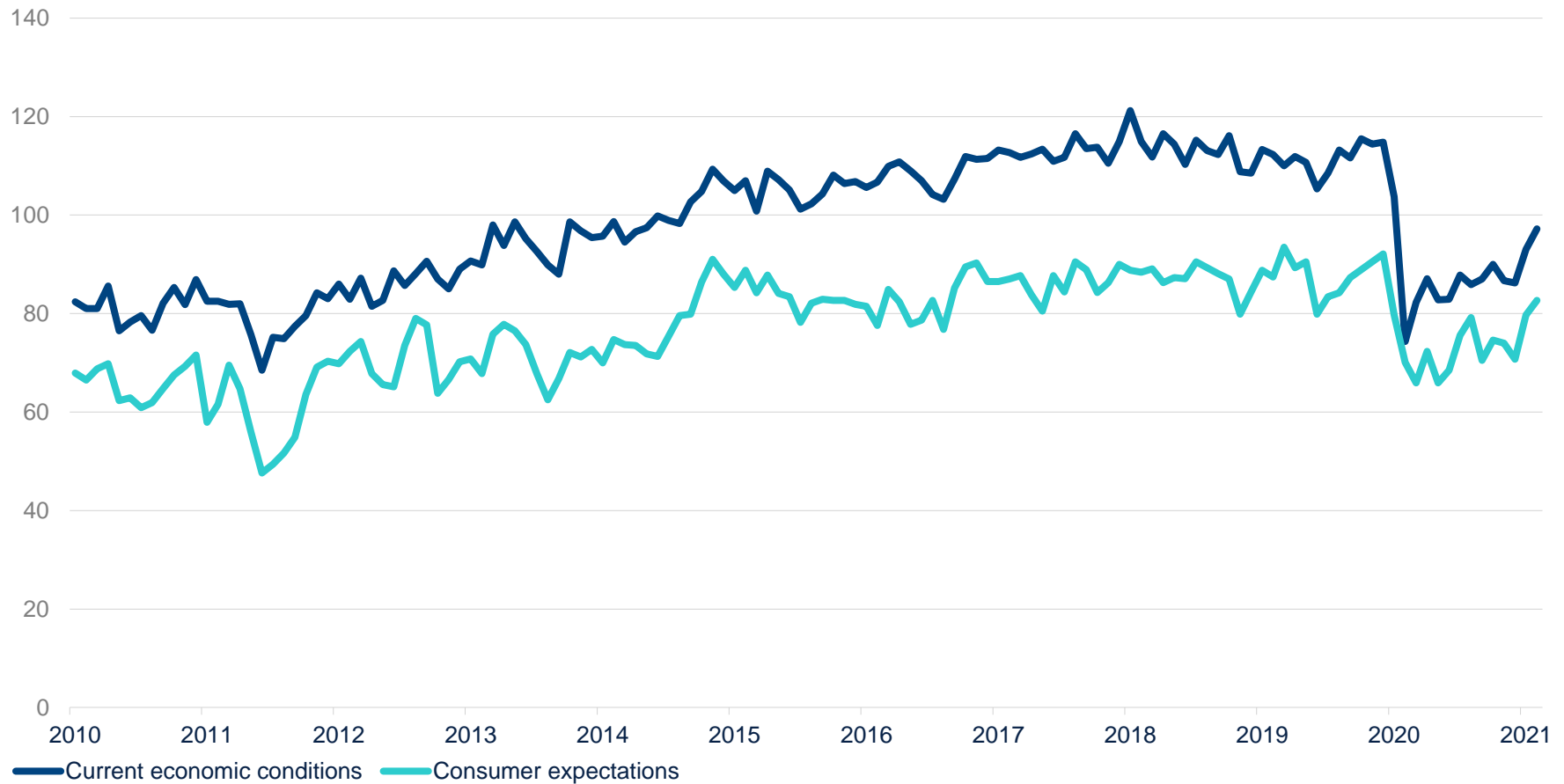


02

Consumers

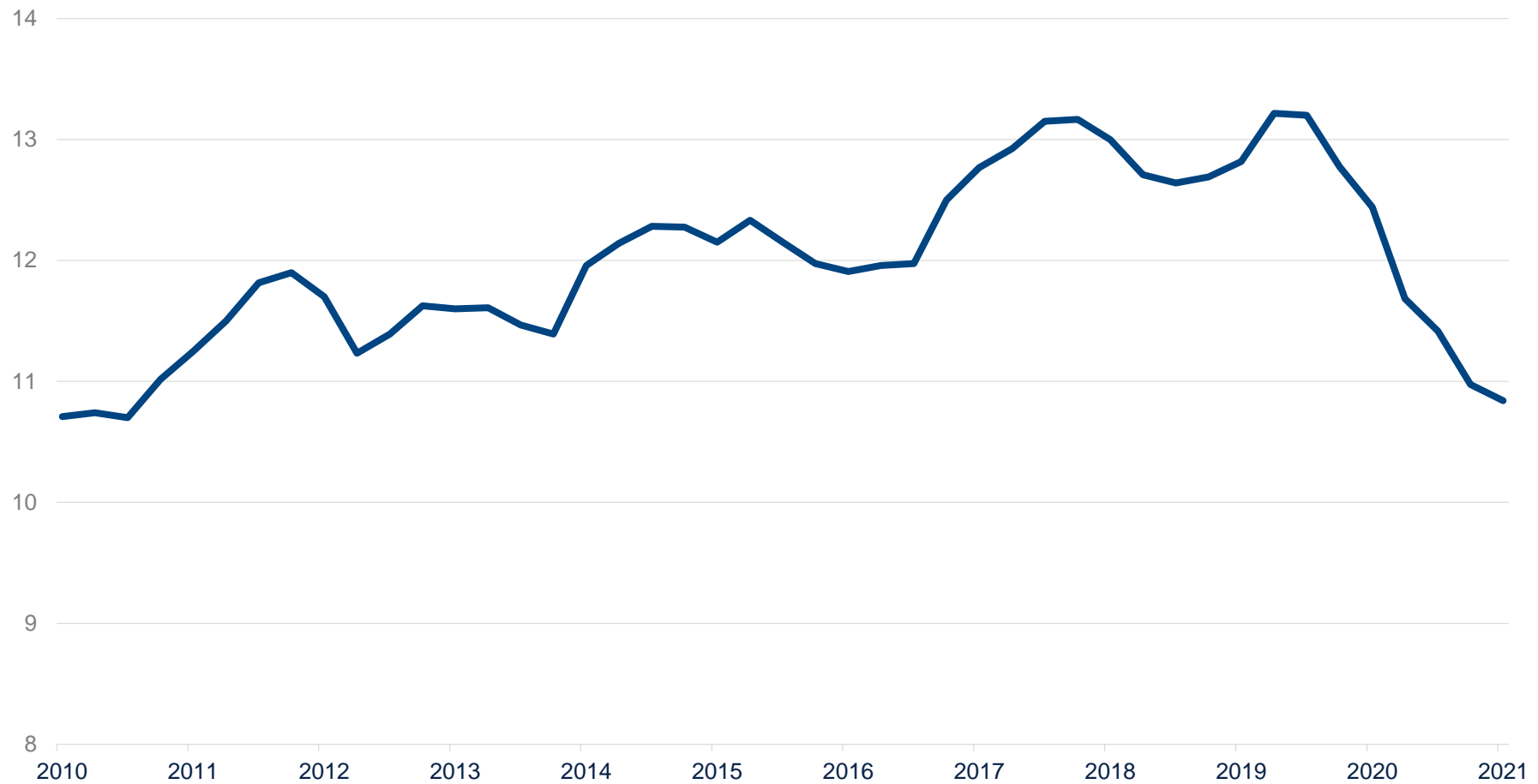
Consumers

UNIVERSITY OF MICHIGAN: CONSUMER SENTIMENT INDEX



Consumers

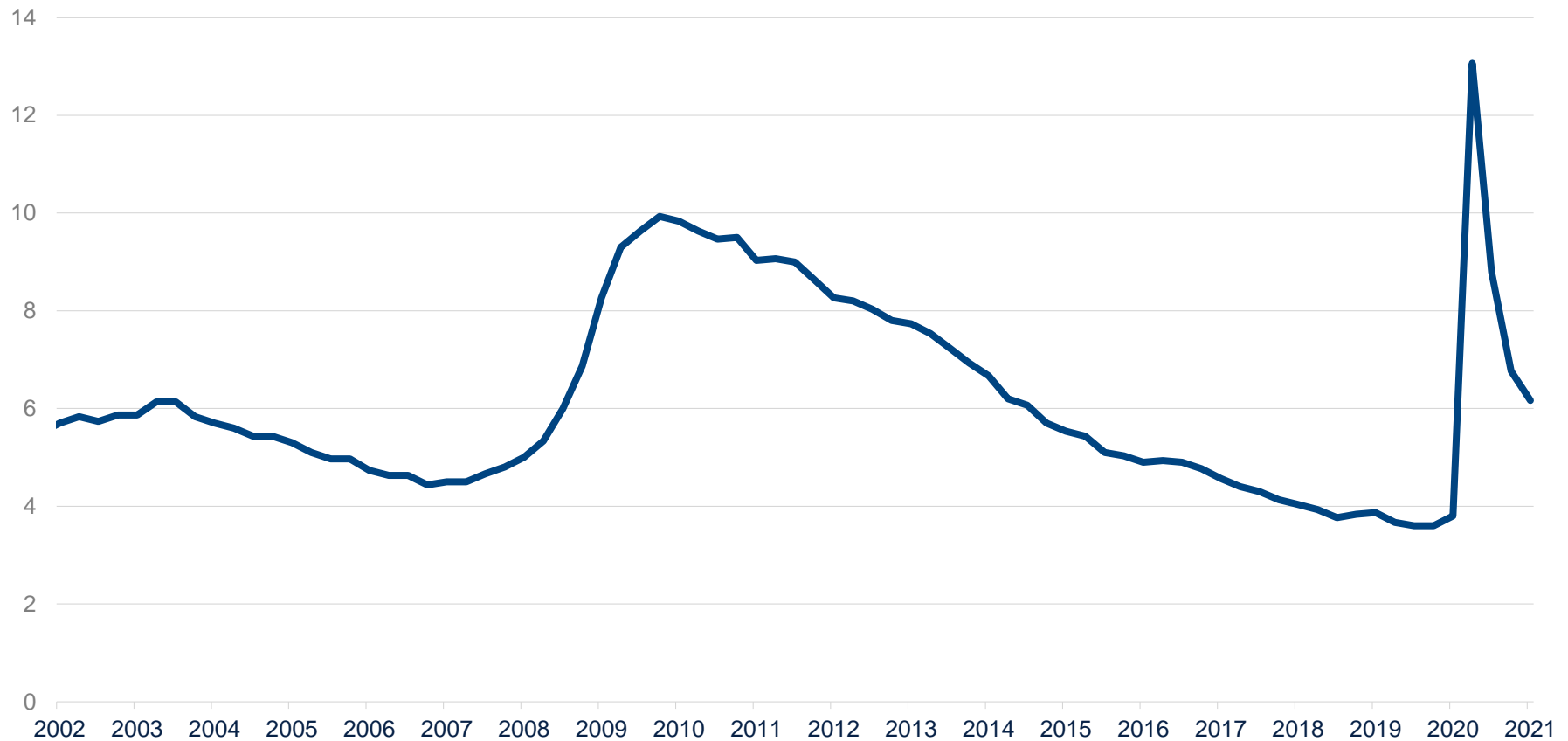
CONFERENCE BOARD: CONSUMER PLANS TO BUY A CAR WITHIN 6 MONTHS (% OF RESPONDENTS)



Consumers

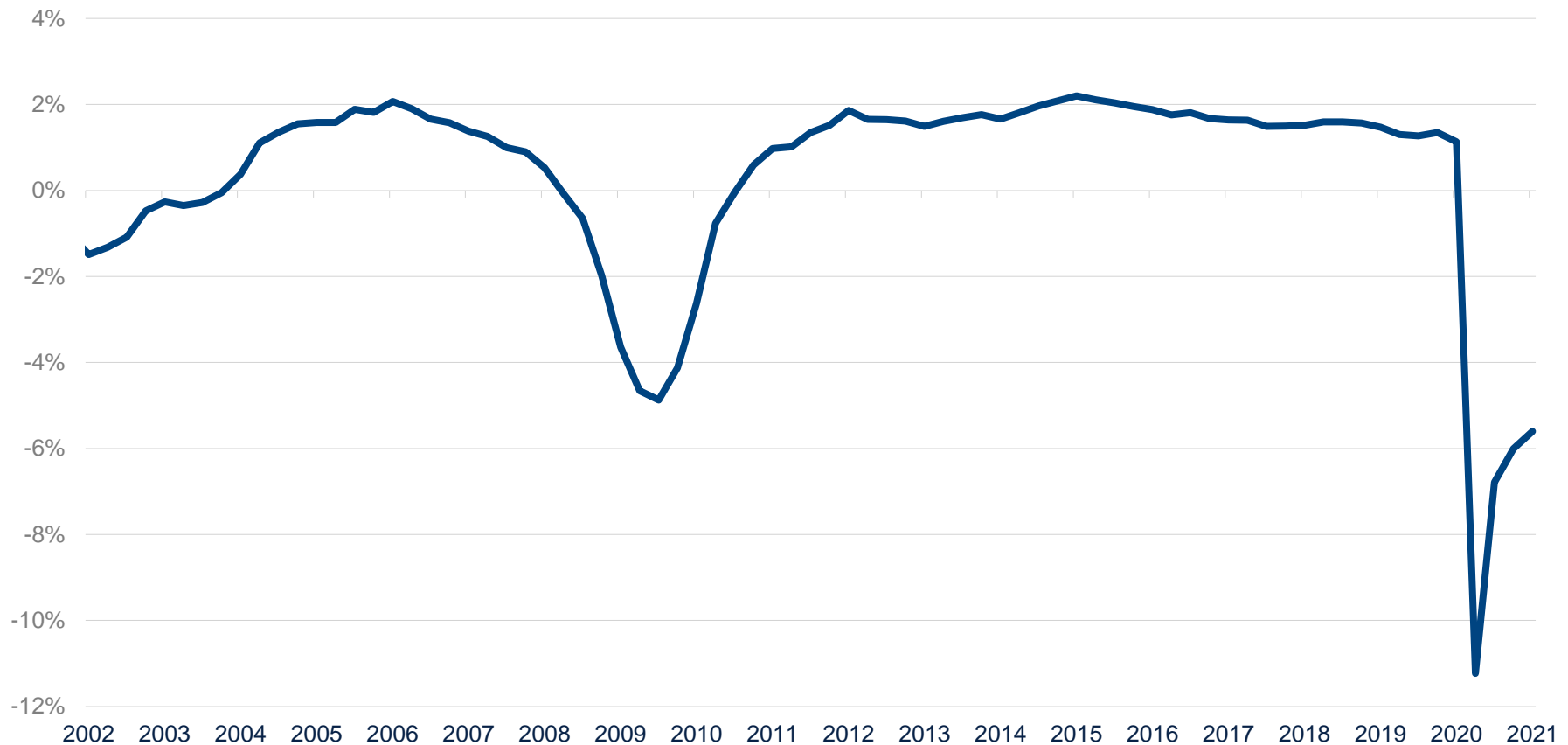
U.S. UNEMPLOYMENT RATE

(%)



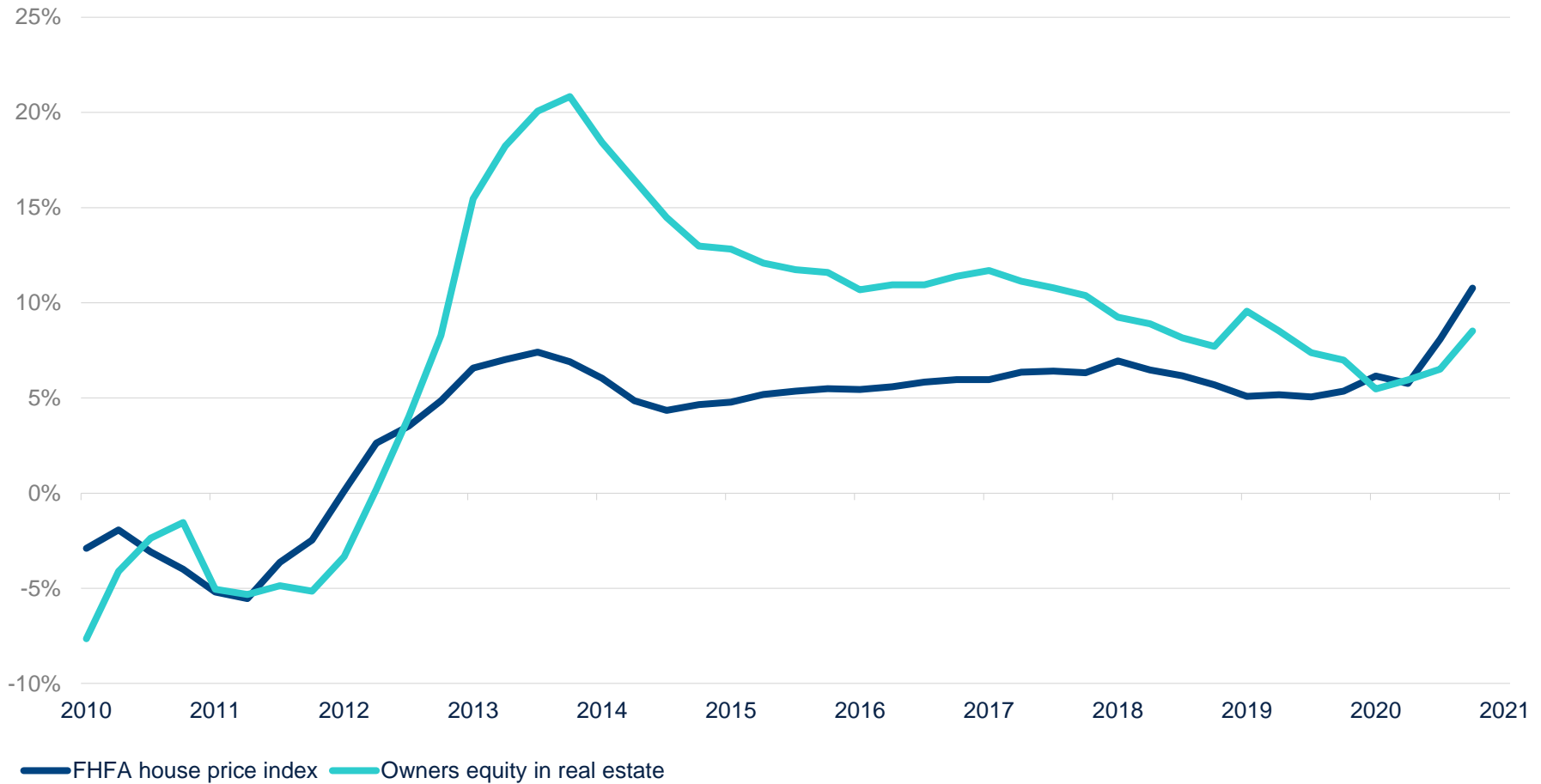
Consumers

U.S. NONFARM PAYROLL (MONTHLY YEAR-OVER-YEAR CHANGE)



Consumers

U.S. HOUSEHOLD EQUITY AND HOME PRICES (QUARTERLY YEAR-OVER-YEAR CHANGE)

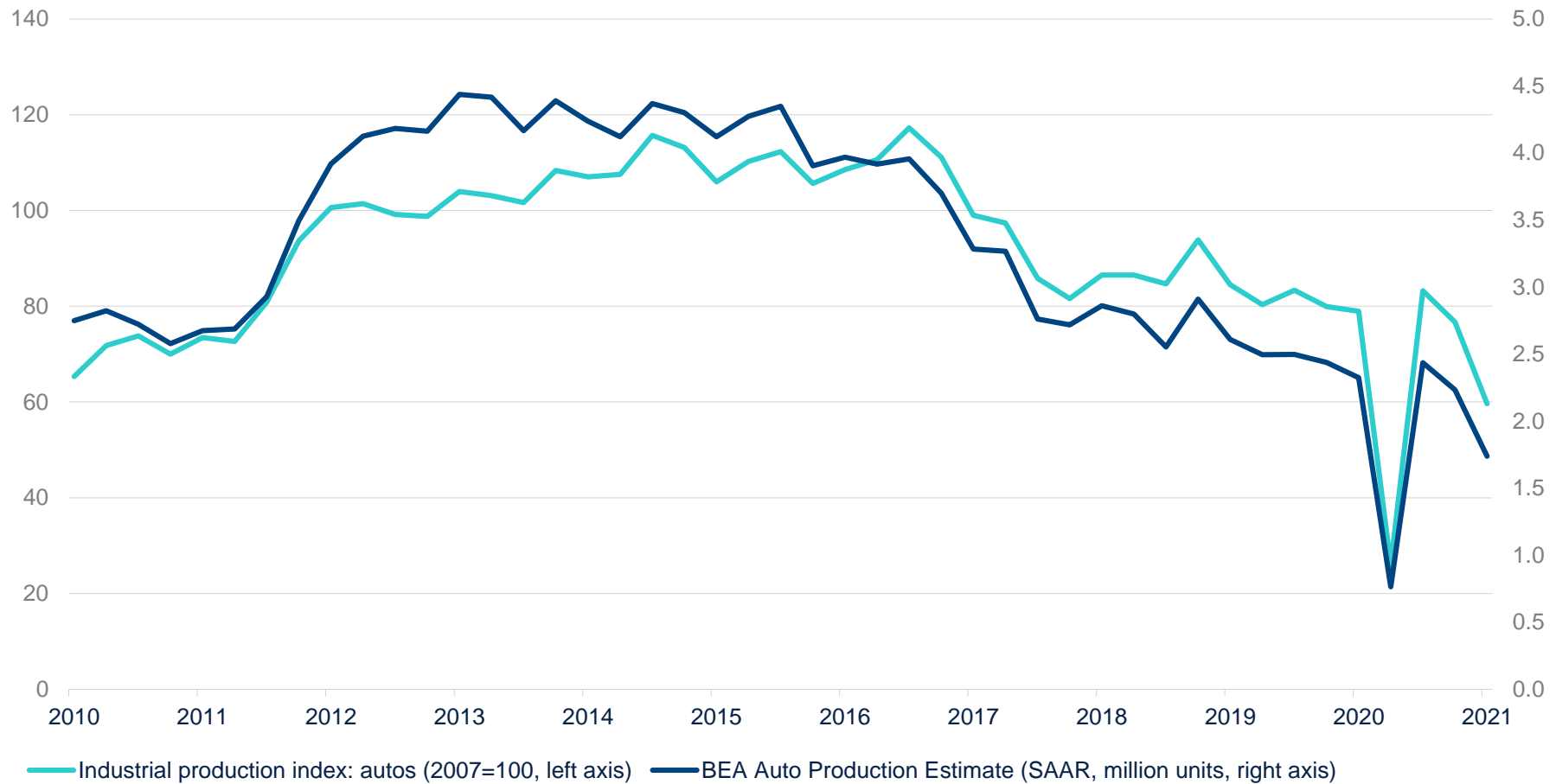


03

Production

Production

U.S. AUTO PRODUCTION

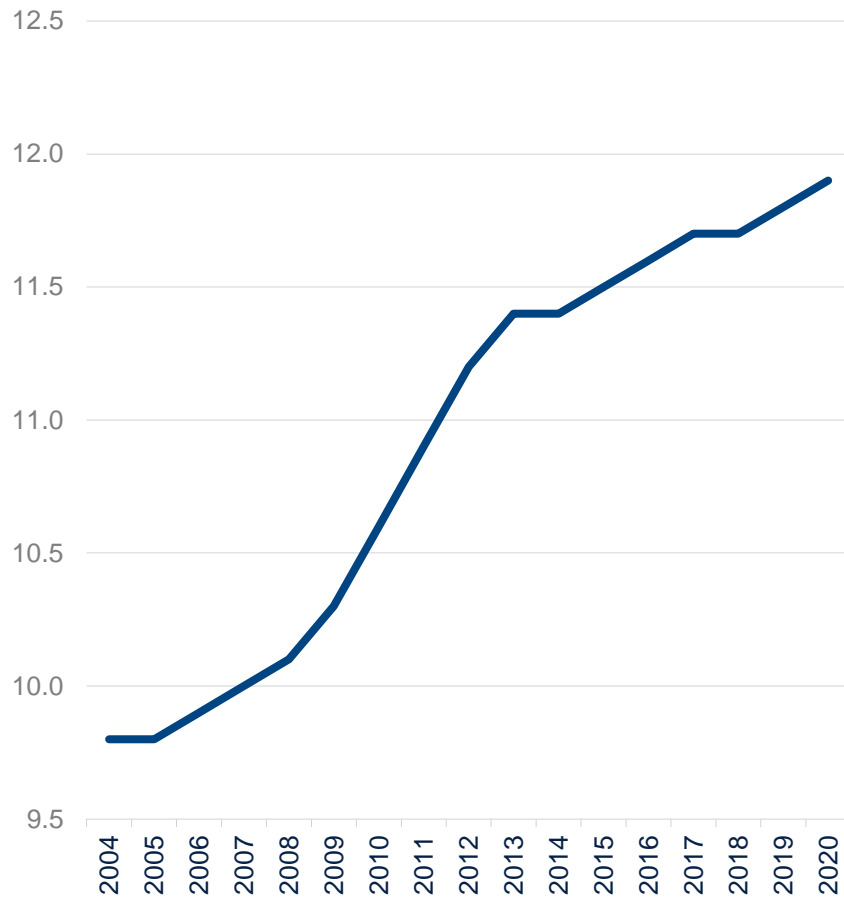


04

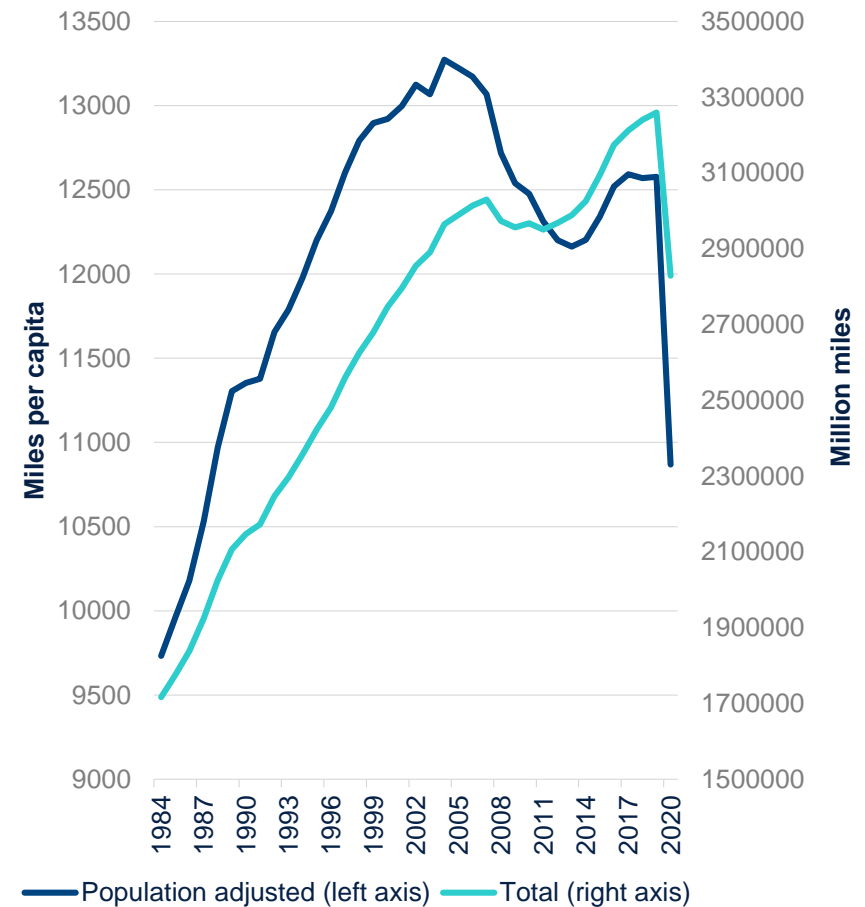
Structural

Fundamentals

MEAN AGE OF PASSENGER CARS IN OPERATION (YEARS)

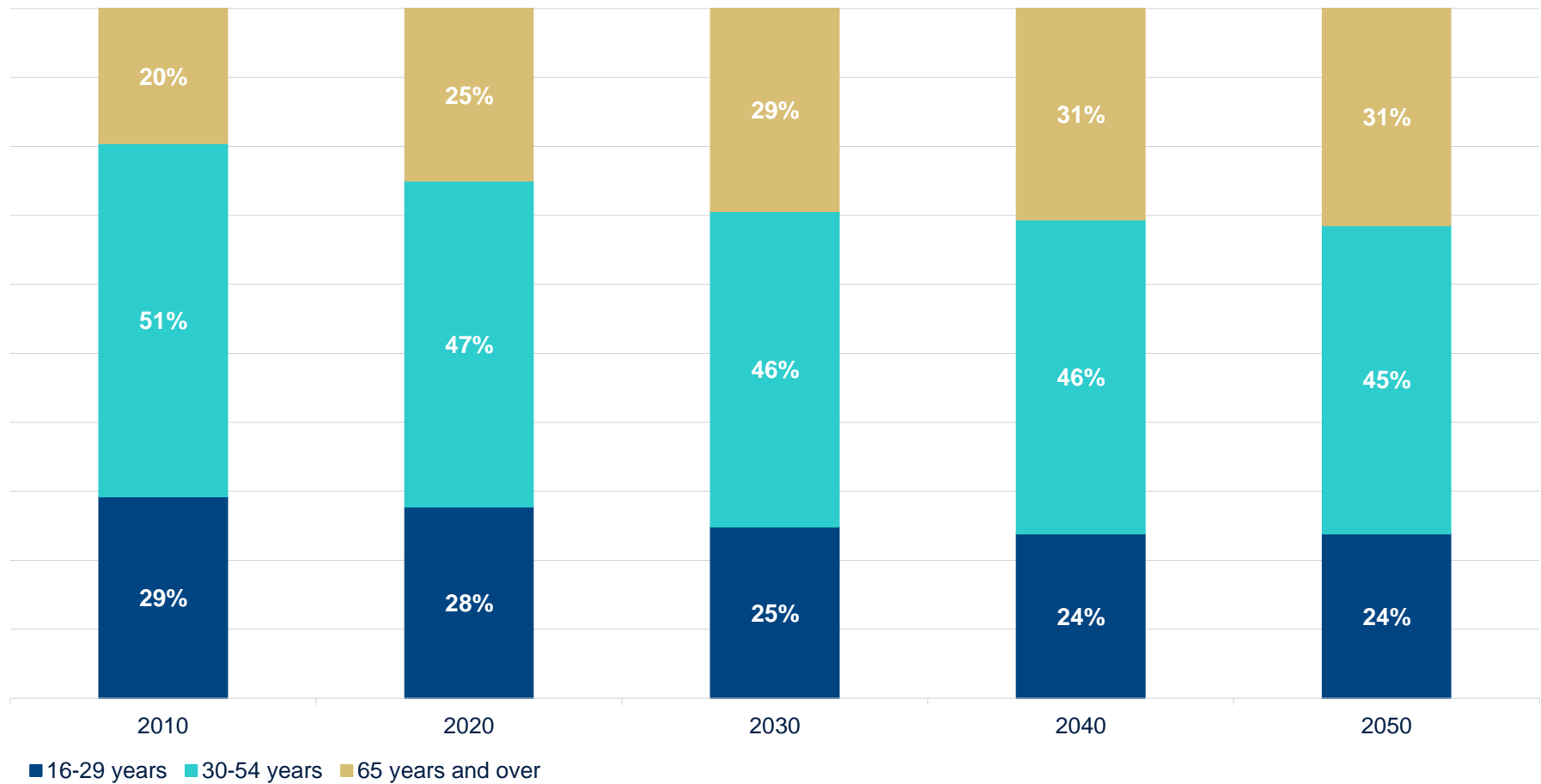


VEHICLE MILES OF TRAVEL (TOTAL AND ADJUSTED BY POPULATION)



Demographics

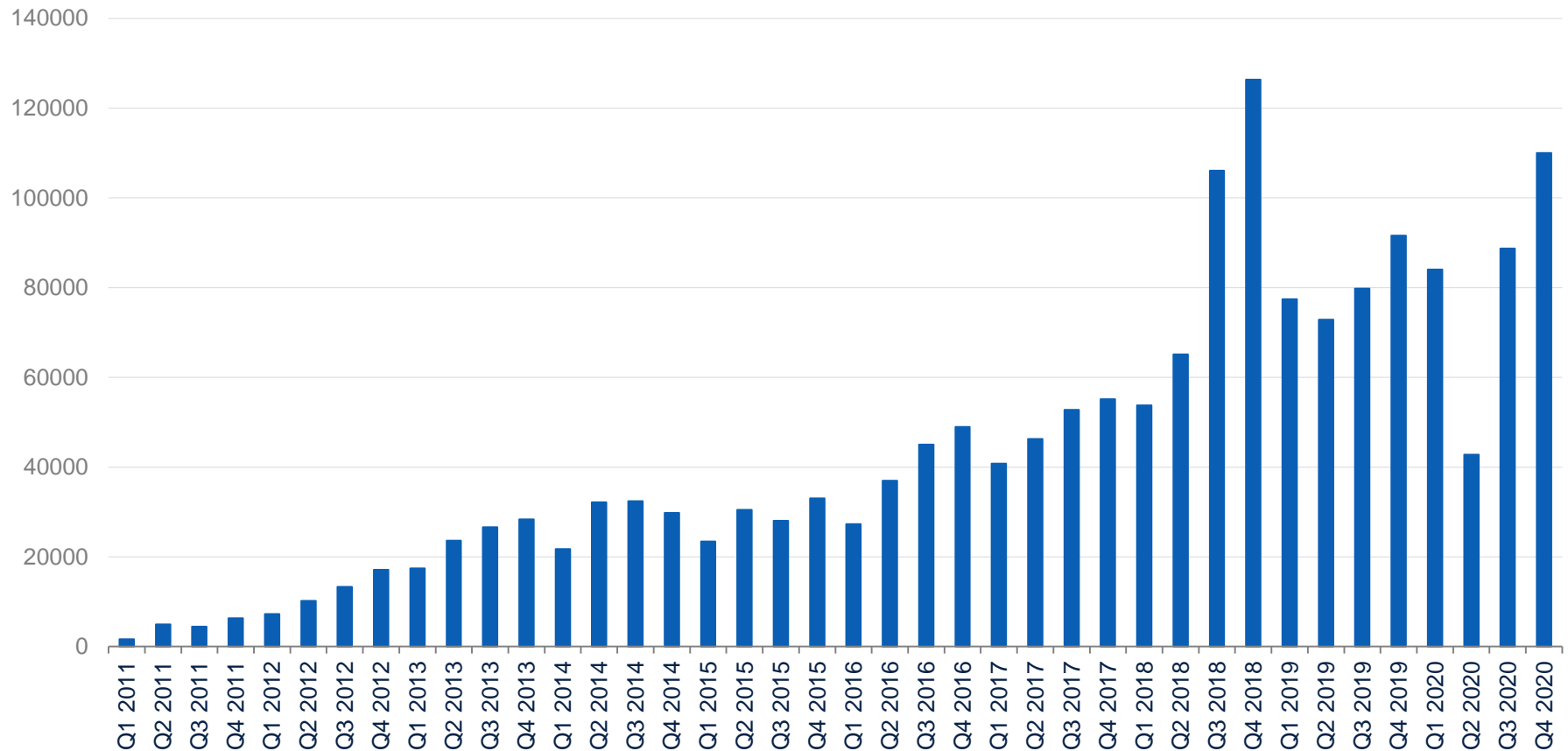
U.S. POPULATION PROJECTIONS BY AGE (SHARE OF 16 & ABOVE)



Source: BBVA Research, Census and Haver Analytics.

Electric vehicles

U.S. ELECTRIC VEHICLE SALES* (UNITS)



*Figures may be subjected to revision. Includes PHEV and BEV.
Source: BBVA Research and Bloomberg New Energy Finance.

05

Forecast

Forecasts

| | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 |
|--|------|------|------|------|------|------|------|------|
| New-vehicle sales (millions units) | 17.5 | 17.2 | 17.2 | 16.9 | 14.5 | 17.0 | 17.2 | 16.8 |
| Real GDP growth (% change) | 1.7 | 2.3 | 3.0 | 2.2 | -3.5 | 6.2 | 5.1 | 3.7 |
| Unemployment rate (% avg.) | 4.9 | 4.4 | 3.9 | 3.7 | 8.1 | 5.6 | 4.3 | 3.7 |
| Fed funds (%, eop) | 0.75 | 1.50 | 2.50 | 1.75 | 0.25 | 0.25 | 0.25 | 0.50 |
| 5-year Treasuries (%, avg) | 1.3 | 1.9 | 2.7 | 2.0 | 0.5 | 0.8 | 1.1 | 1.2 |

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