

Apollo Chief Economist

Outlook for the US consumer

Torsten Slok, Chief Economist

Jyoti Agarwal, Senior Economist

Rajvi Shah, Economist

tslok@apollo.com

June 2022

Unless otherwise noted, information as of June 2022

Confidential and Proprietary - Not for distribution, in whole or in part, without the express consent of Apollo Chief Economist, Inc.

It should not be assumed that investments made in the future will be profitable or will equal the performance of the investments shown in this document.

To the extent distributed in the U.S., this presentation is distributed by Apollo Global Securities, LLC ("AGS"), a broker-dealer registered with the U.S. Securities and Exchange Commission and a member of FINRA.

Legal Disclaimer

Unless otherwise noted, information included herein is presented as of the dates indicated. Apollo Global Management, Inc. (together with its subsidiaries, “Apollo”) makes no representation or warranty, expressed or implied, with respect to the accuracy, reasonableness, or completeness of any of the information contained herein, including, but not limited to, information obtained from third parties. Opinions, estimates and projections constitute the current judgment of the author as of the date indicated. They do not necessarily reflect the views and opinions of Apollo and are subject to change at any time without notice. Apollo does not have any responsibility to update the information to account for such changes. Hyperlinks to third-party websites in these materials are provided for reader convenience only. There can be no assurance that any trends discussed herein will continue.

The information contained herein is not intended to provide, and should not be relied upon for, accounting, legal or tax advice and does not constitute an investment recommendation or investment advice. Investors should make an independent investigation of the information contained herein, including consulting their tax, legal, accounting or other advisors about such information. Apollo does not act for you and is not responsible for providing you with the protections afforded to its clients.

Certain information contained herein may be “forward-looking” in nature. Due to various risks and uncertainties, actual events or results may differ materially from those reflected or contemplated in such forward-looking information. As such, undue reliance should not be placed on such information. Forward-looking statements may be identified by the use of terminology including, but not limited to, “may”, “will”, “should”, “expect”, “anticipate”, “target”, “project”, “estimate”, “intend”, “continue” or “believe” or the negatives thereof or other variations thereon or comparable terminology.

Key conclusions

Consumer spending growth will remain solid, driven by:

- 1) The virus subsiding and more people going to restaurants, flying on airplanes, and staying at hotels
- 2) Robust wage growth
- 3) Robust employment growth
- 4) High levels of excess savings and elevated levels of wealth, driven by high home prices

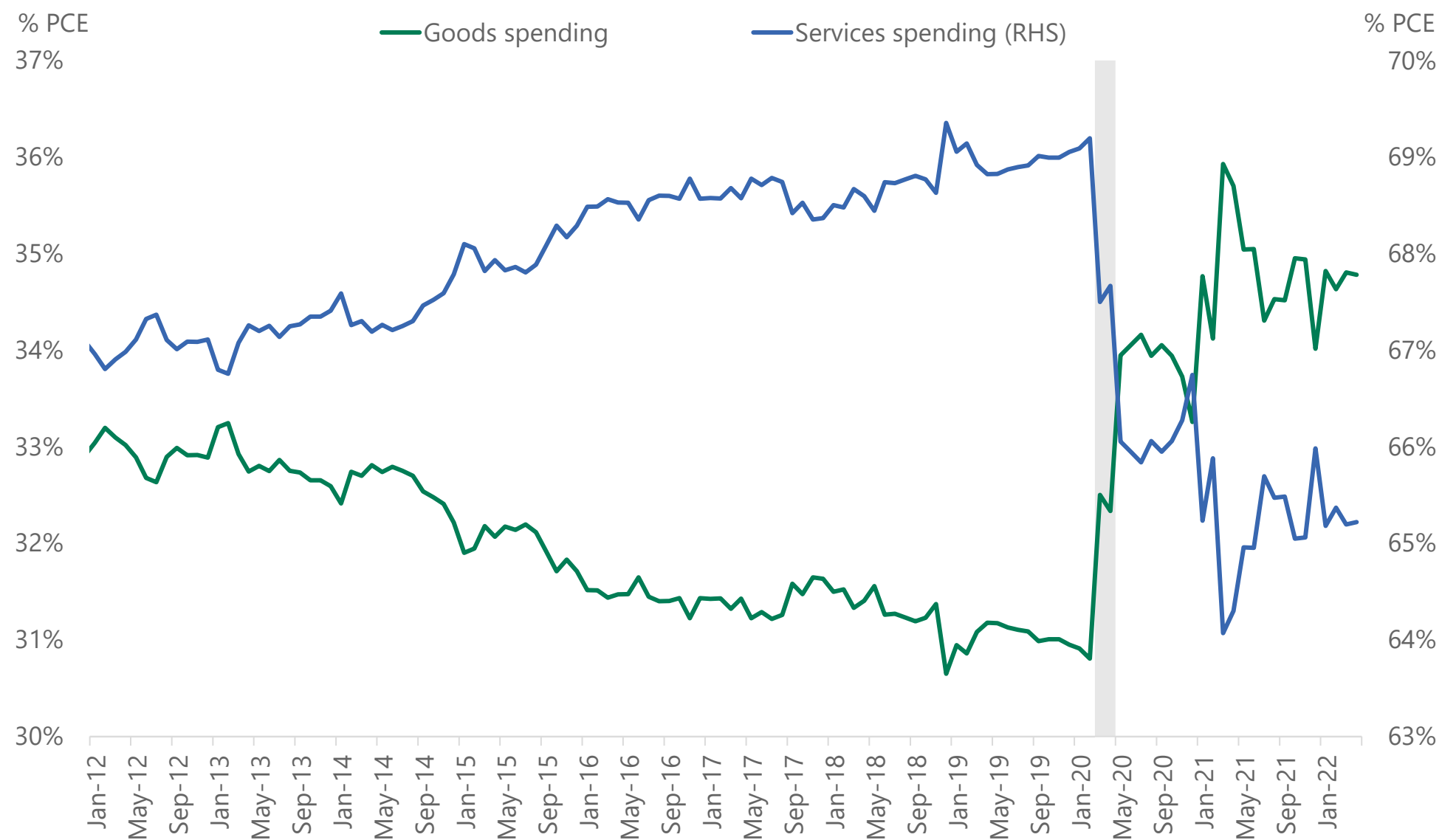
Risks to the outlook for the consumer are higher interest rates, lower stock prices and crypto prices, and high inflation making many purchases such as cars, gas, and homes too expensive.

Table of contents:

- **Overview**
- **Leading indicators of consumer spending**
- **Health of the household sector balance sheet**
- **Outlook for spending on housing**
- **Outlook for spending on cars**
- **Outlook for spending on restaurants**
- **Outlook for spending on travel**
- **Outlook for spending on other consumer goods**
- **Conclusions**

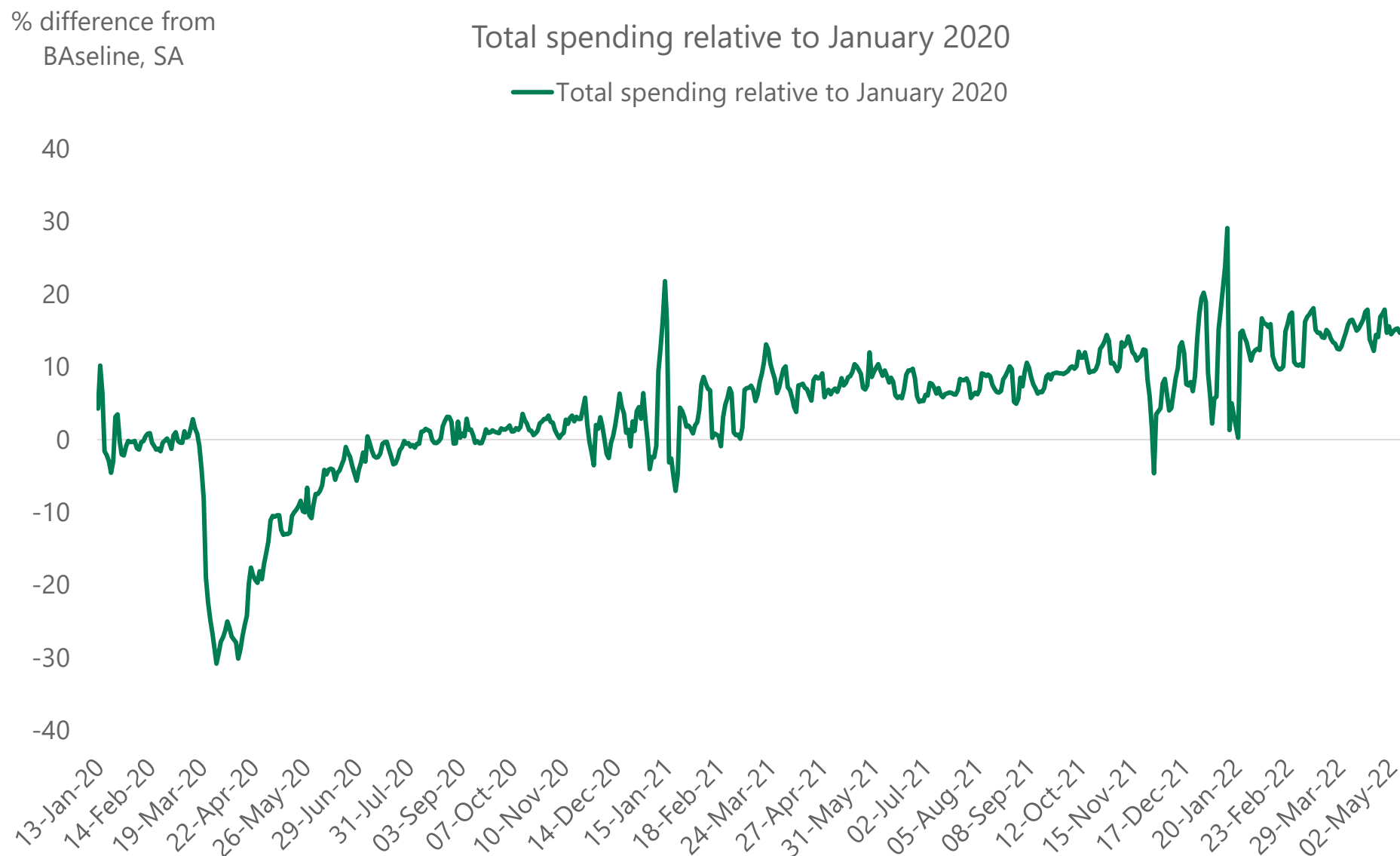
Overview

Shift from goods to services coming in US consumer spending



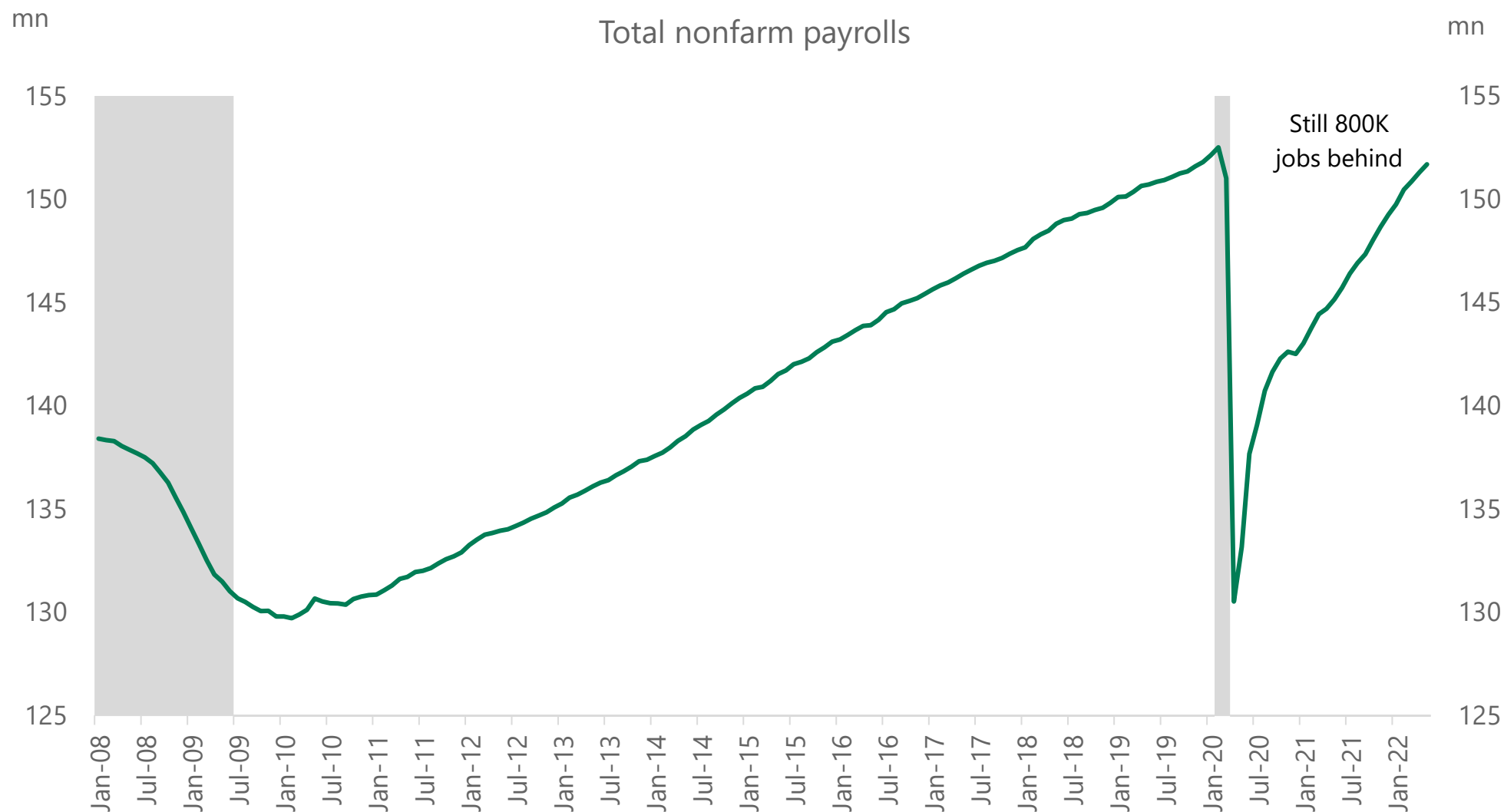
Source: BEA, Haver Analytics, Apollo Chief Economist

The level of consumer spending now 14% above pre-pandemic levels



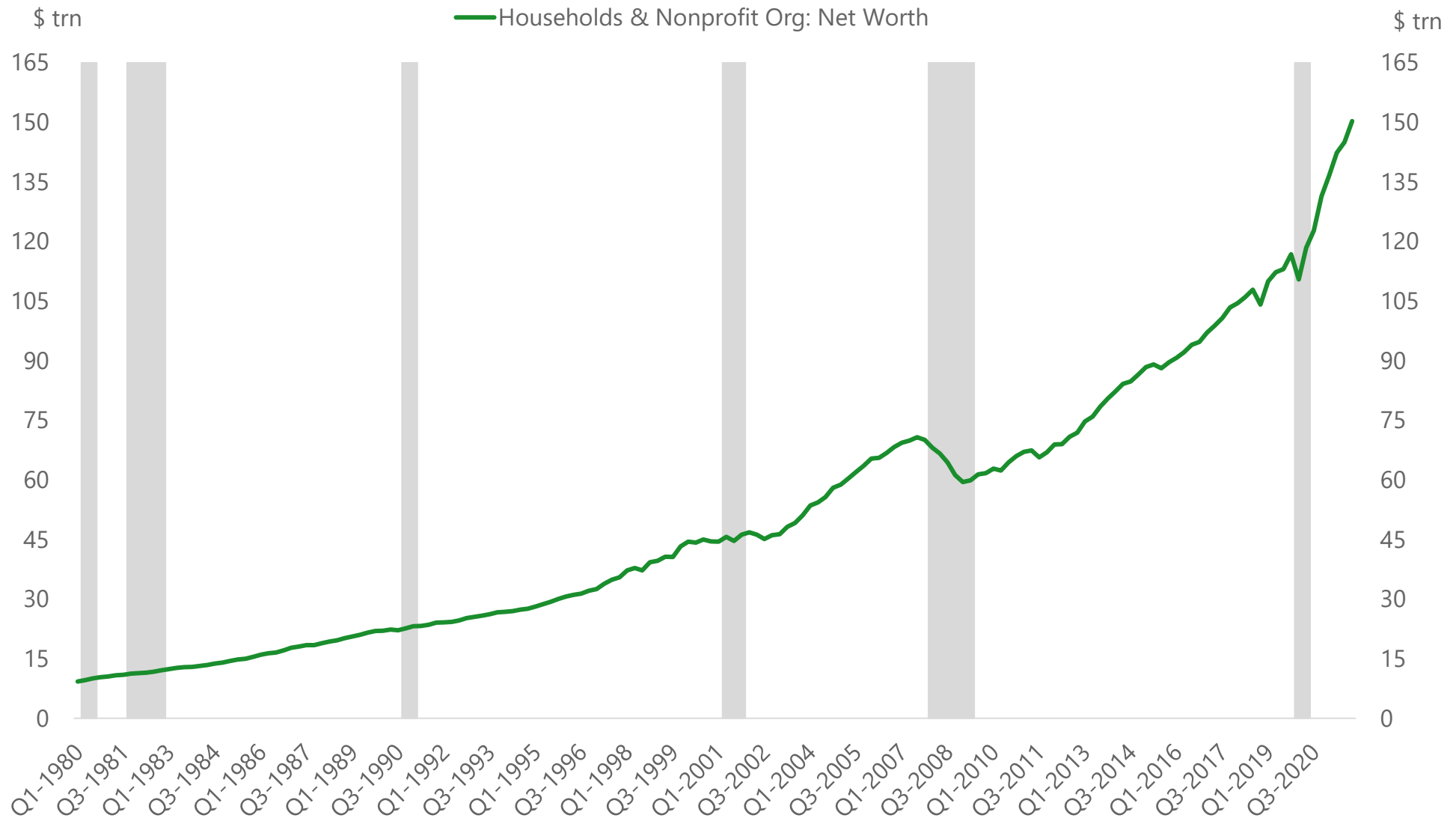
Source: Affinity solutions, Apollo Chief Economist

Total employment 800K jobs lower than in February 2020



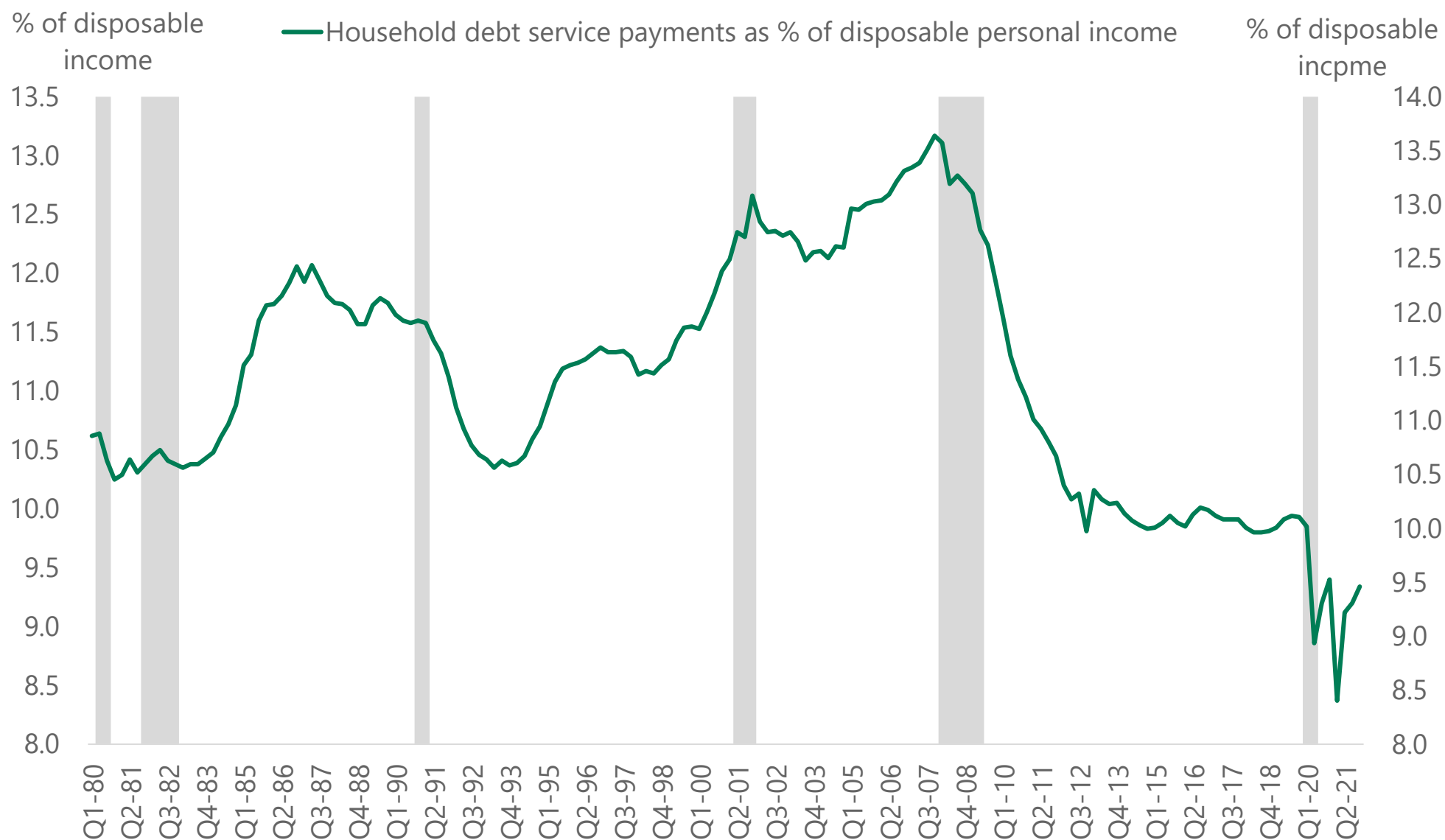
Source: BLS, Apollo Chief Economist

Net worth of the US household sector at record high: \$150trn



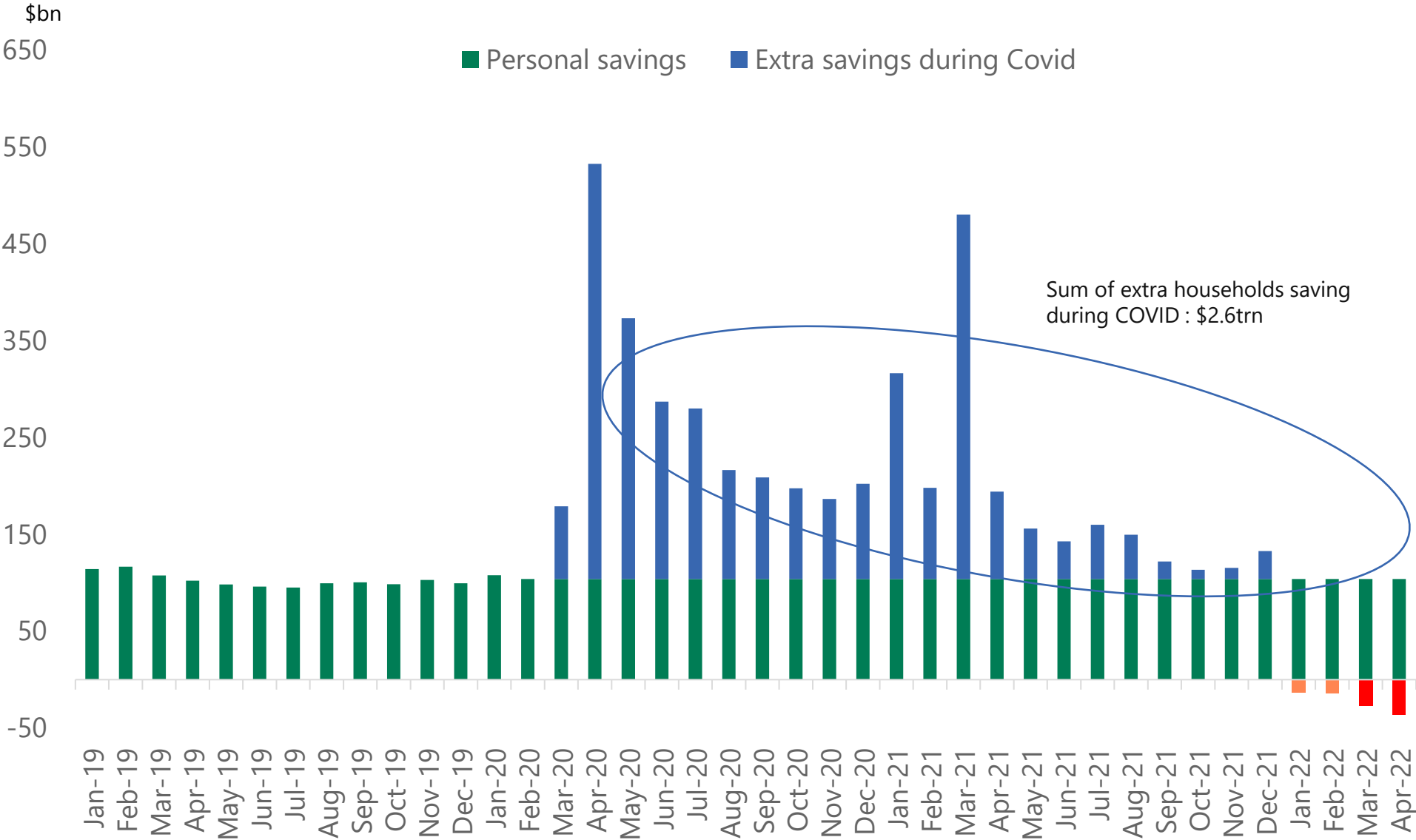
Source: FRB, Haver, Apollo Chief Economist

Household debt service payments as a share of income still low



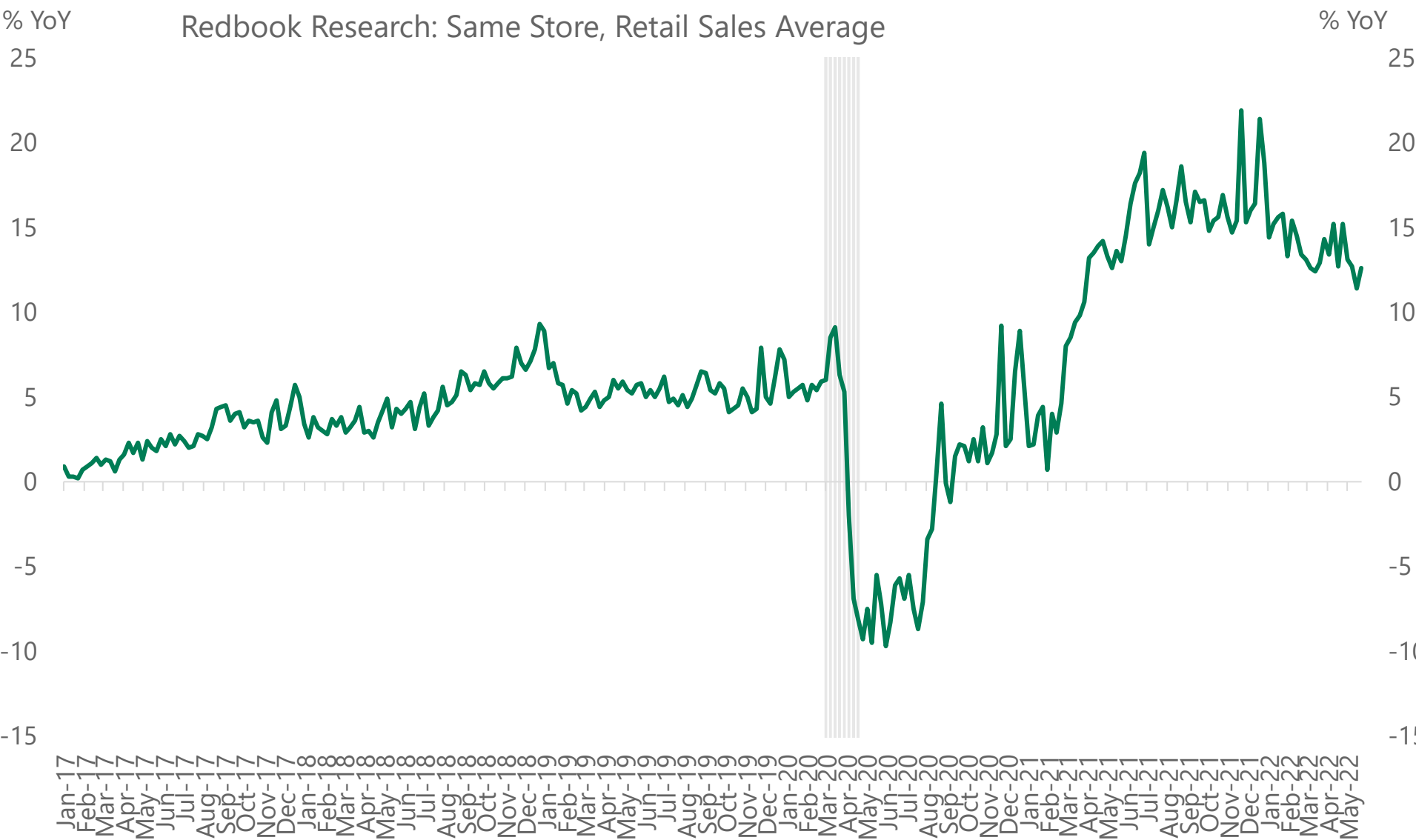
Source: FRB, Haver, Apollo Chief Economist

Households have \$2.6trn in excess dry powder, saved during the pandemic



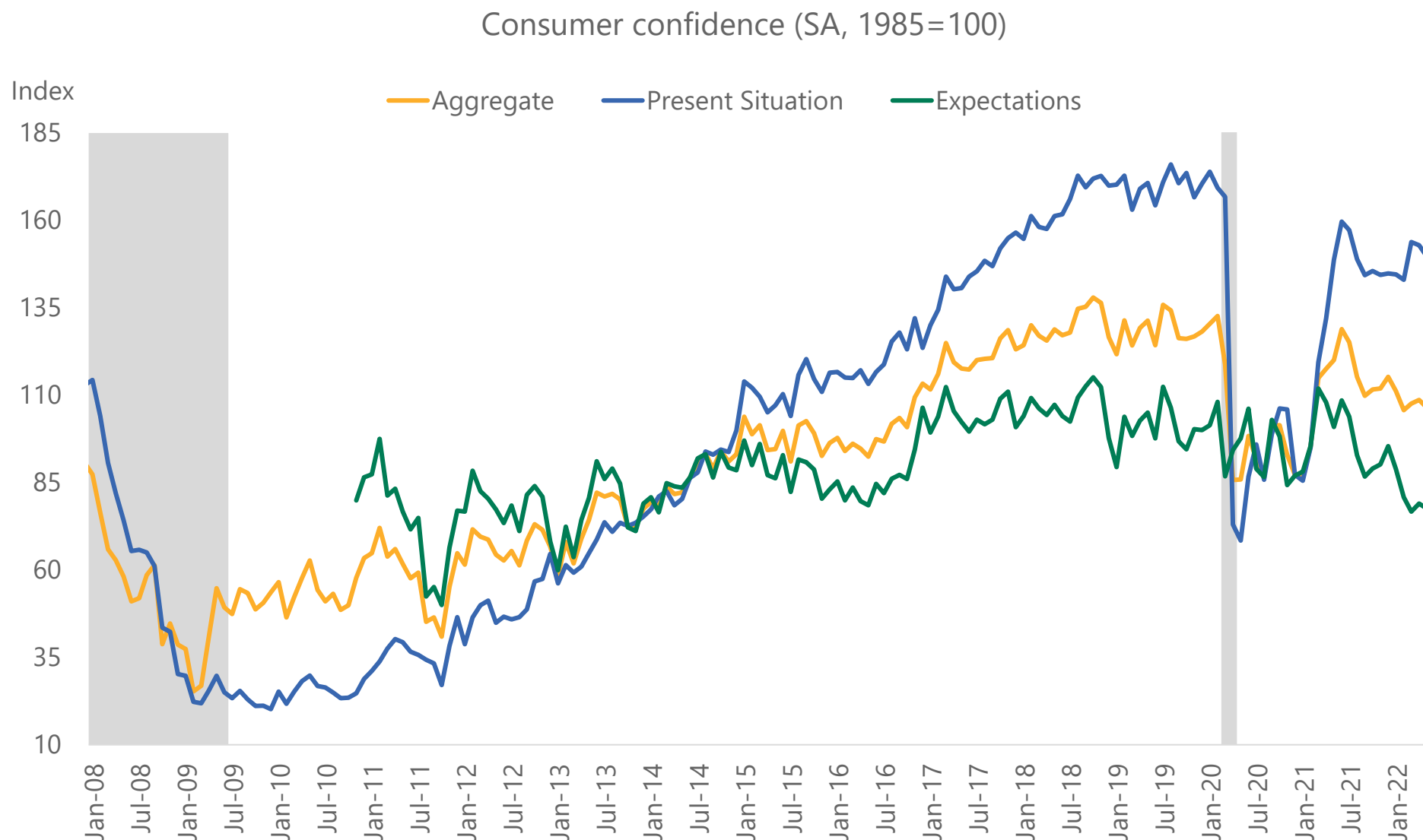
Note: Bloomberg, Apollo Chief Economist

Weekly data for same-store retail sales still high but trending lower



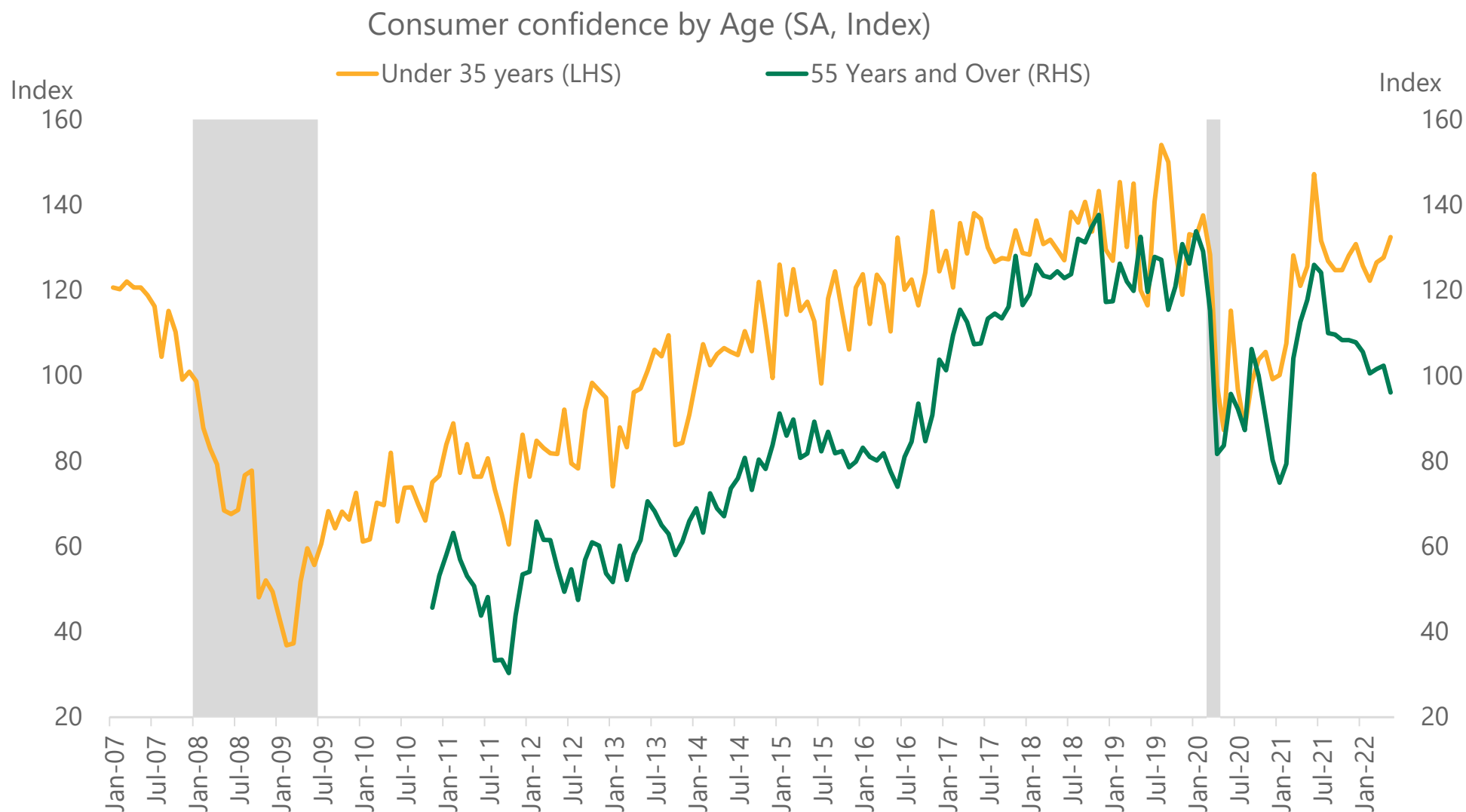
Source: Redbook, Haver Analytics, Apollo Chief Economist

Consumer confidence softening



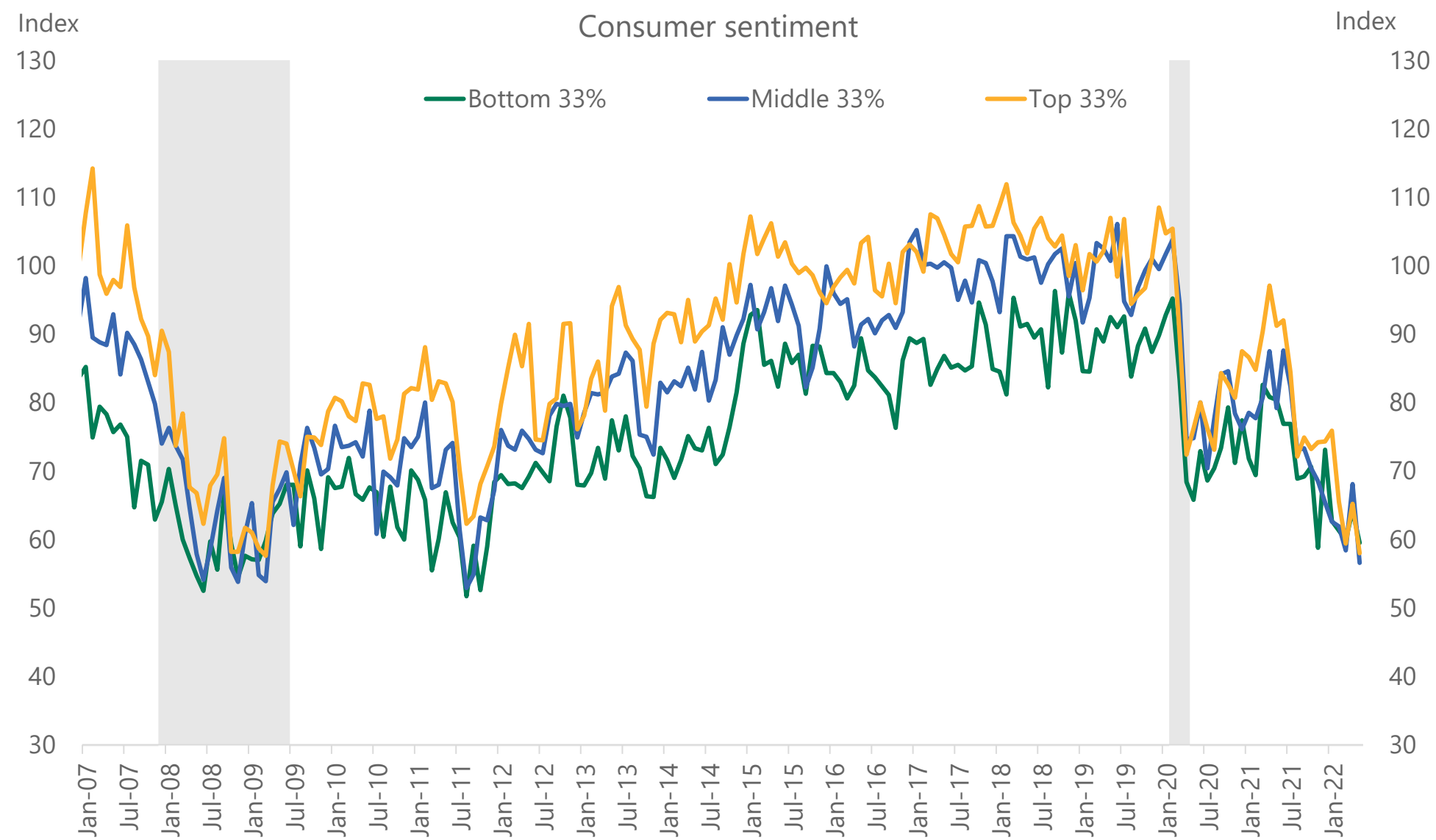
Source: Conference Board, Haver Analytics, Apollo Chief Economist

Consumer confidence softening for older generations



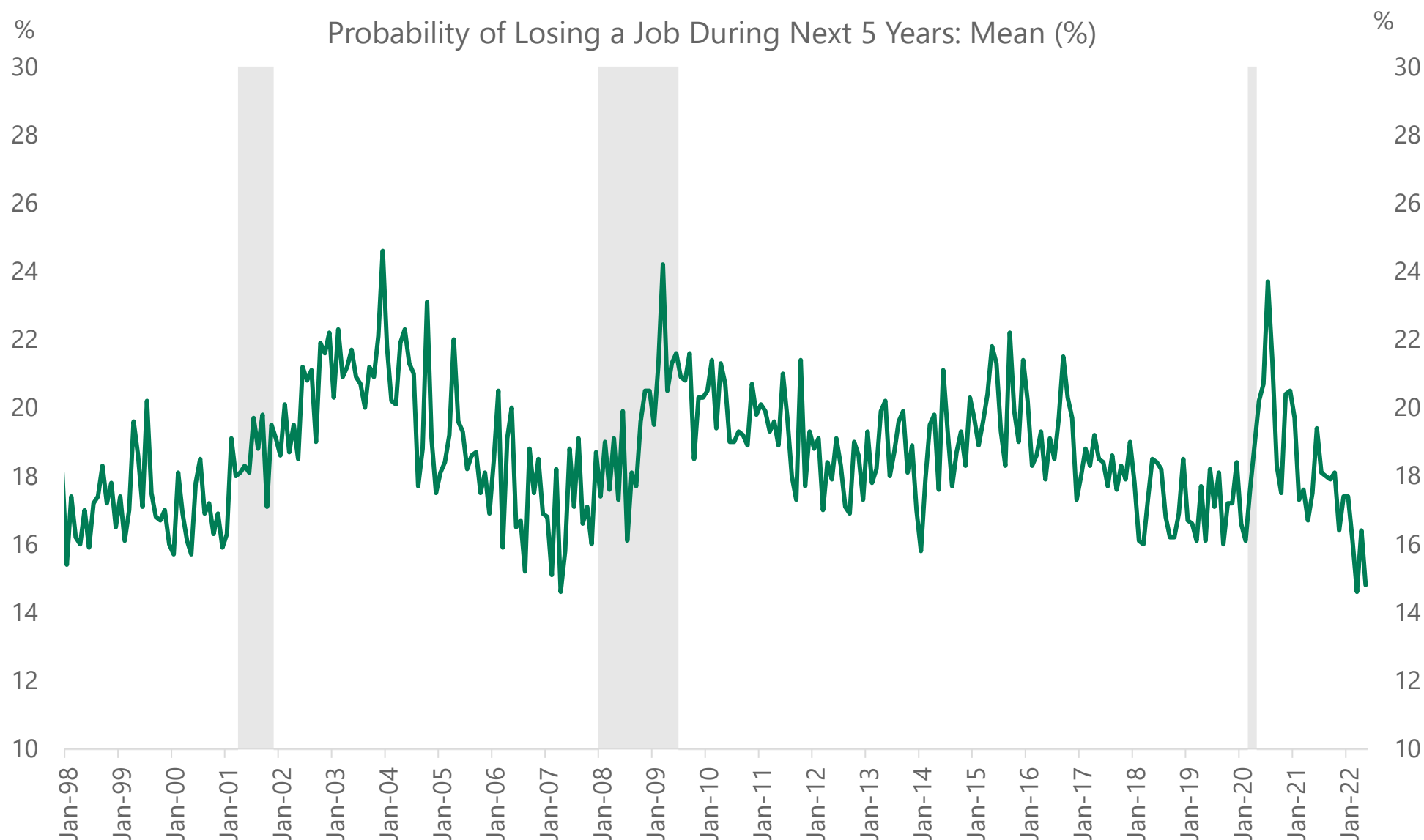
Source: Conference Board, Haver Analytics, Apollo Chief Economist

Consumer sentiment lower across the income distribution



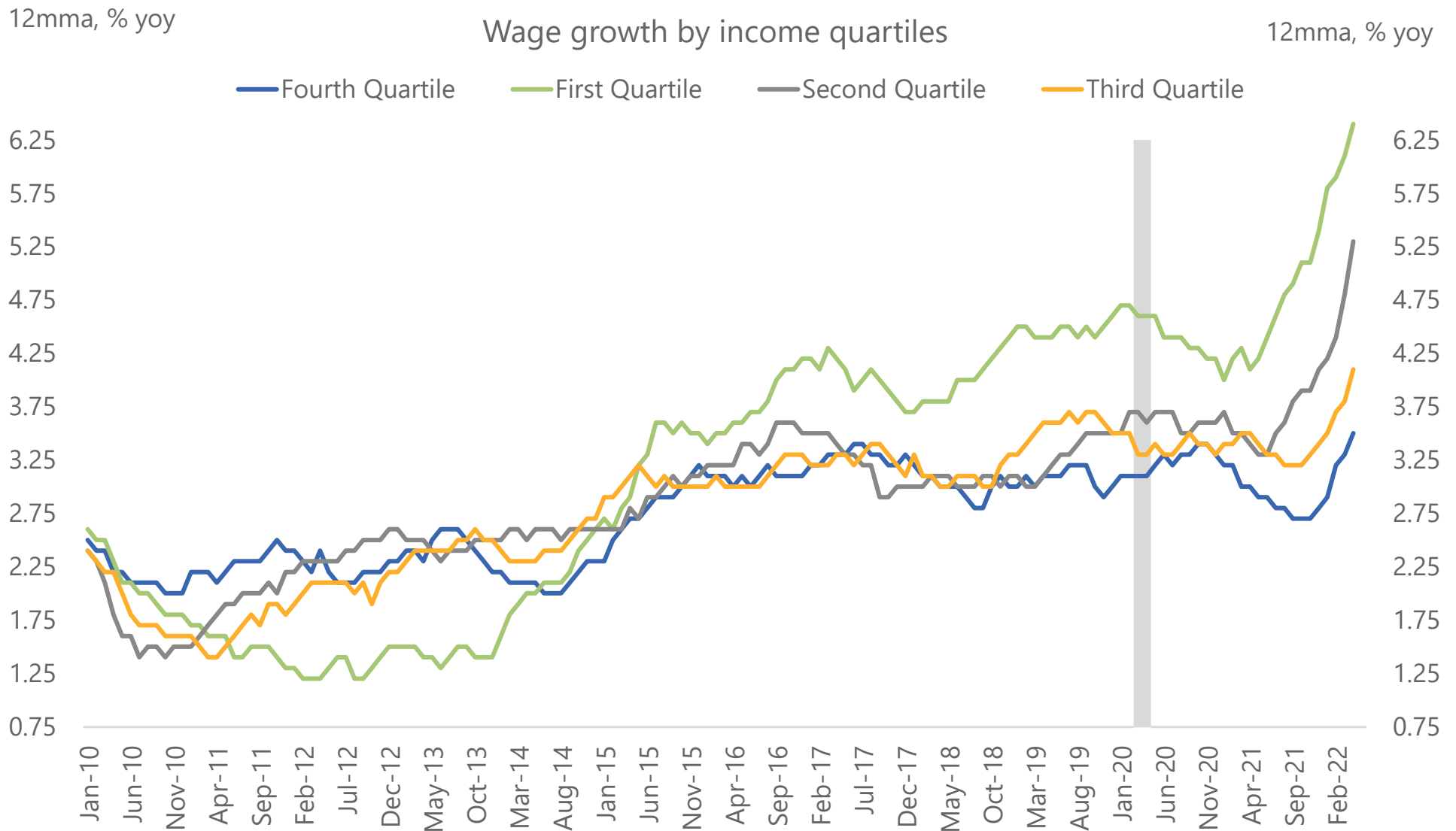
Source: University of Michigan, Haver Analytics, Apollo Chief Economist

Households not worried about losing their jobs



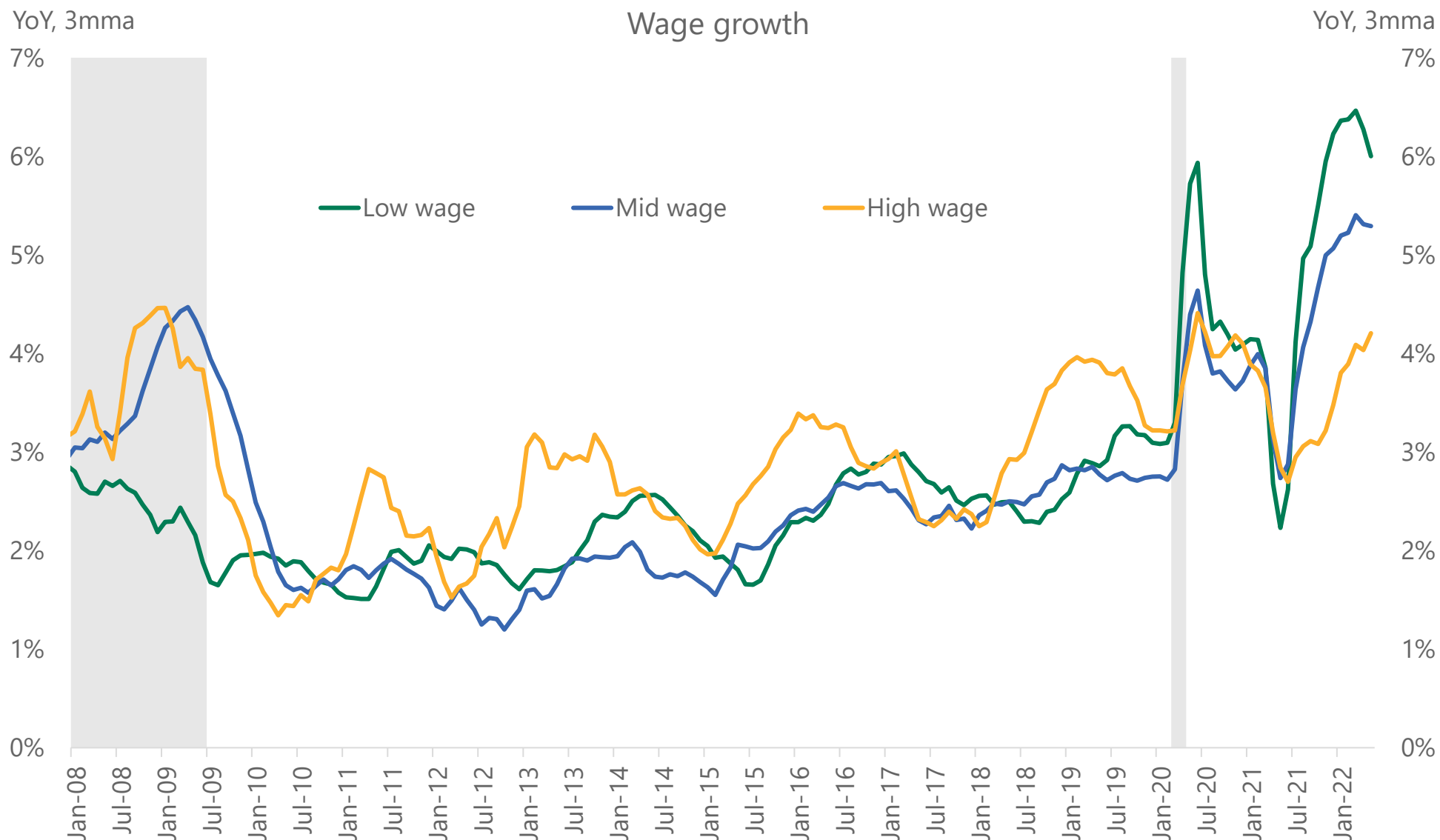
Source: University of Michigan, Haver Analytics, Apollo Chief Economist

Wage growth high across all income quartiles



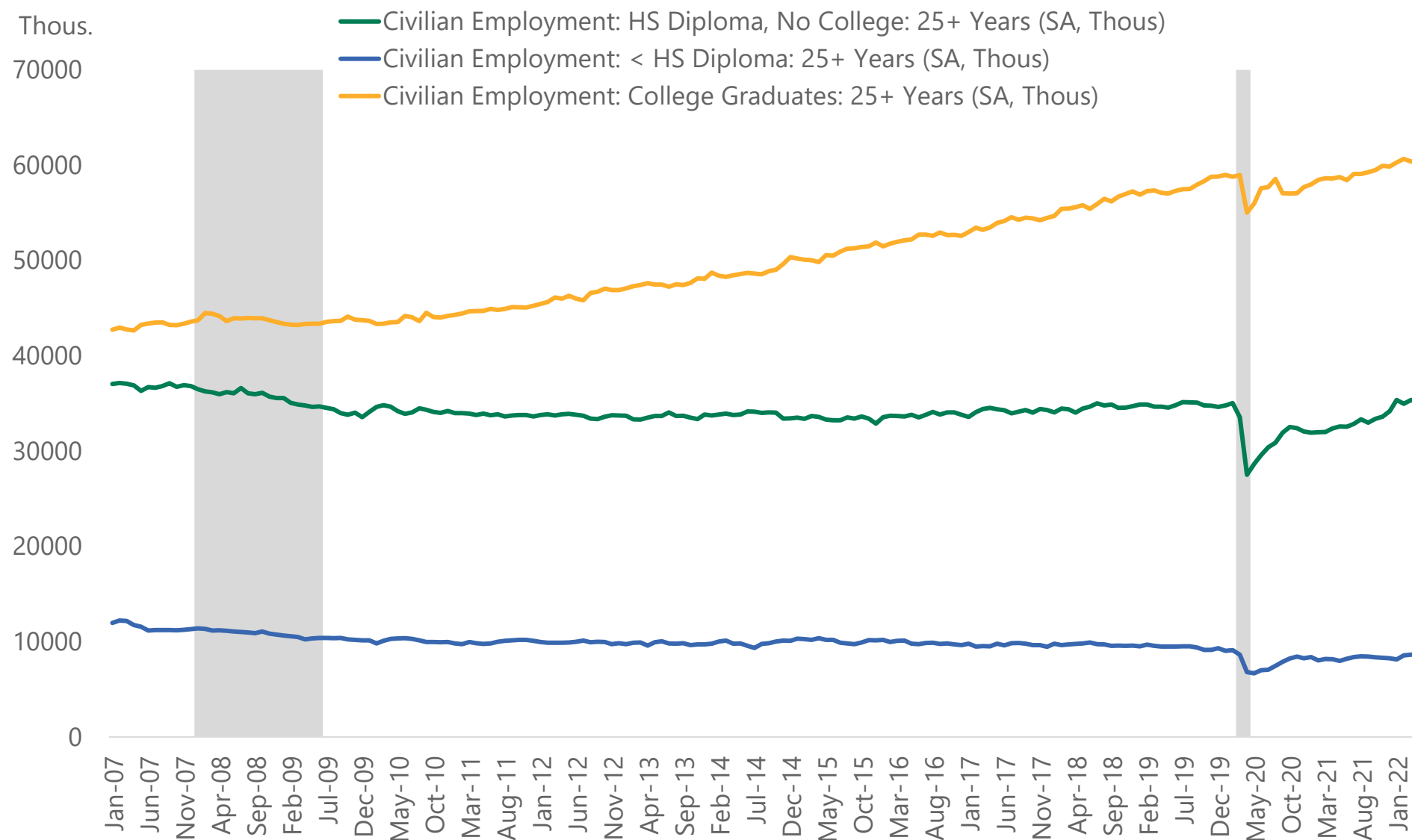
Source: Federal Reserve Bank of Atlanta, Haver, Apollo Chief Economist

Wage inflation may have peaked



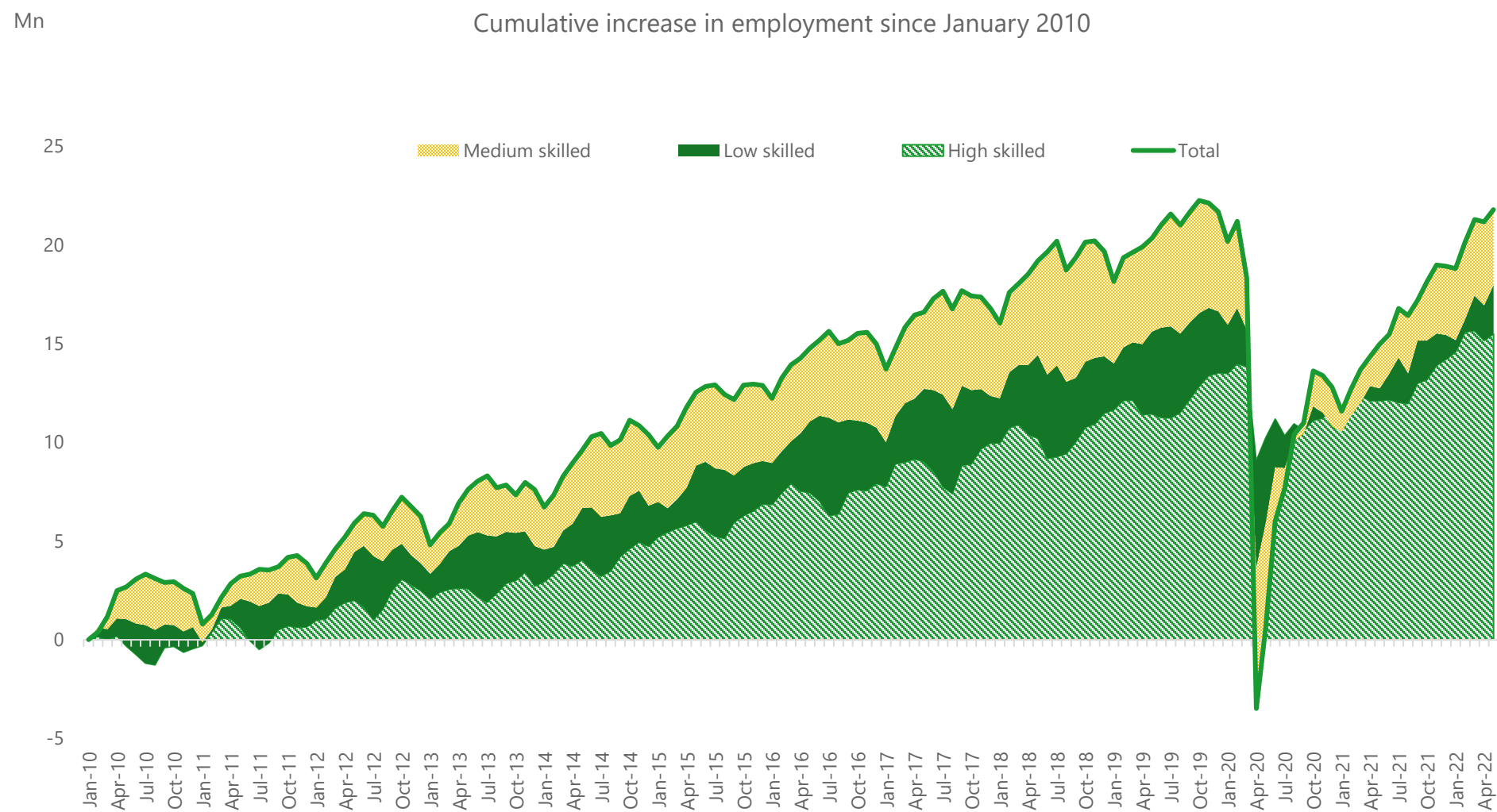
Source: BLS, Apollo Chief Economist. Note: Low wage workers are defined as the bottom third percentile in the wage distribution, mid wage workers as the mid third percentile and high wage workers as top third percentile

Employment for workers, by education



Source: BLS, Haver, Apollo Chief Economist

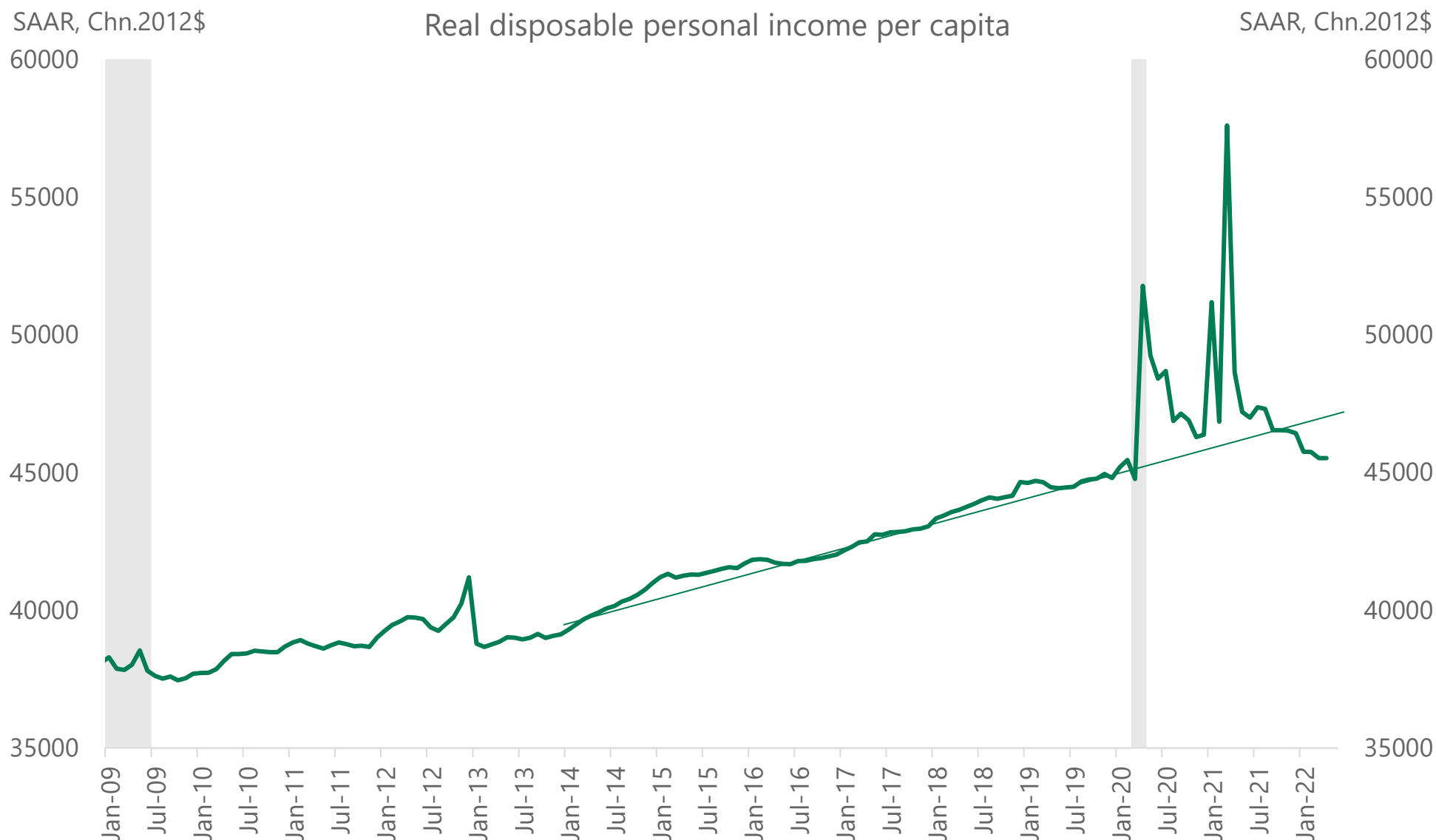
Jobs regained since April 2020, by occupation



Source: BLS, Haver, Apollo Chief Economist

Note: High-skill occupational categories are management and financial operations and Professionals and related occupations; Medium-skill categories are sales and related occupations, office administrative support, construction, installation and repair, production occupations, and transportation and material moving; Low-skill categories are service occupations and farming, fishing, and forestry.

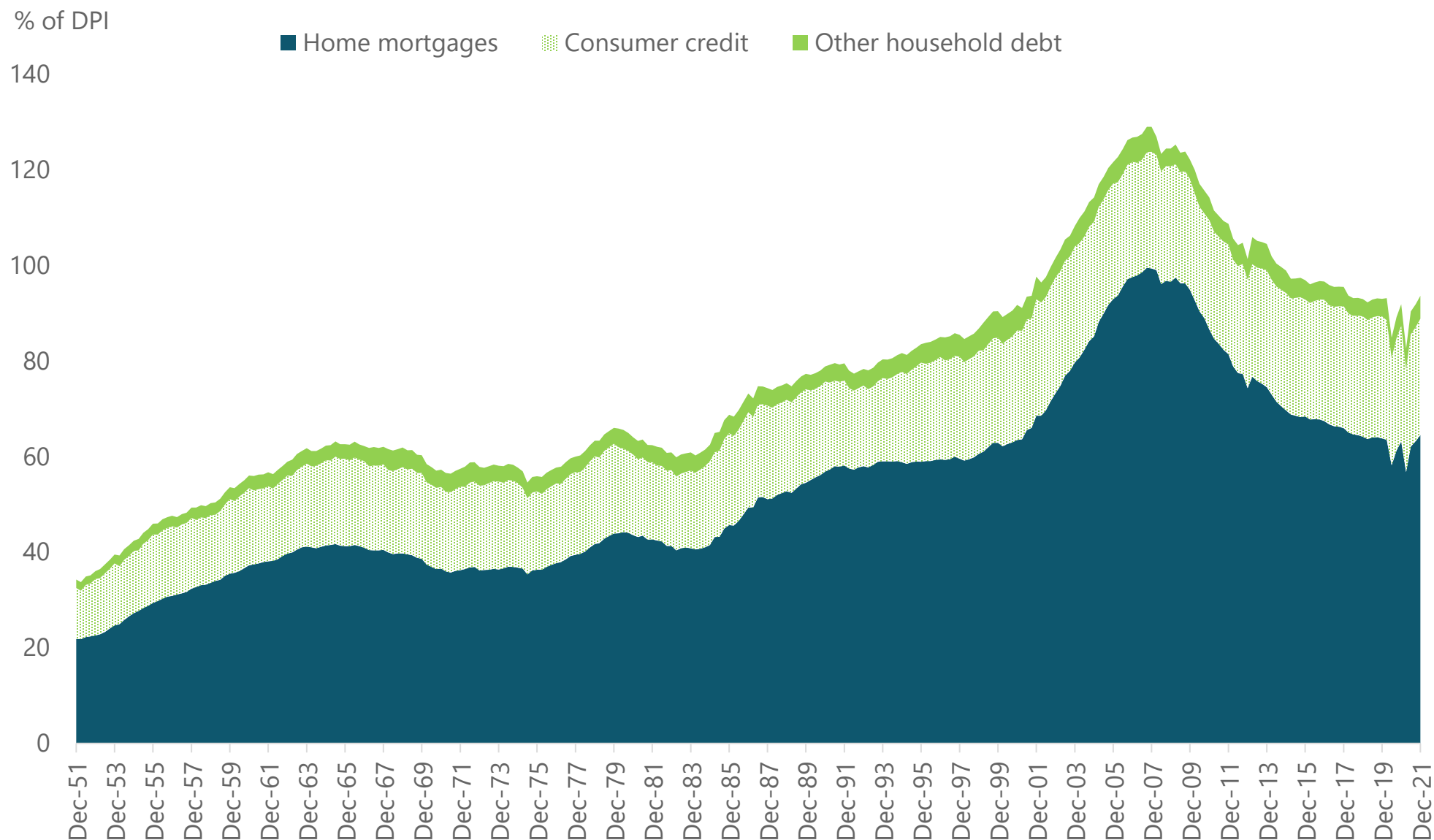
Real income per capita below pre-pandemic trend. Driven by high inflation and fiscal drag



Source: BEA, Haver Analytics, Apollo Chief Economist

Health of the household sector balance sheet

Household debt as a share of income has been declining since 2008



Source: FRB, Haver, Apollo Chief Economist

Small improvement in consumer credit quality in April

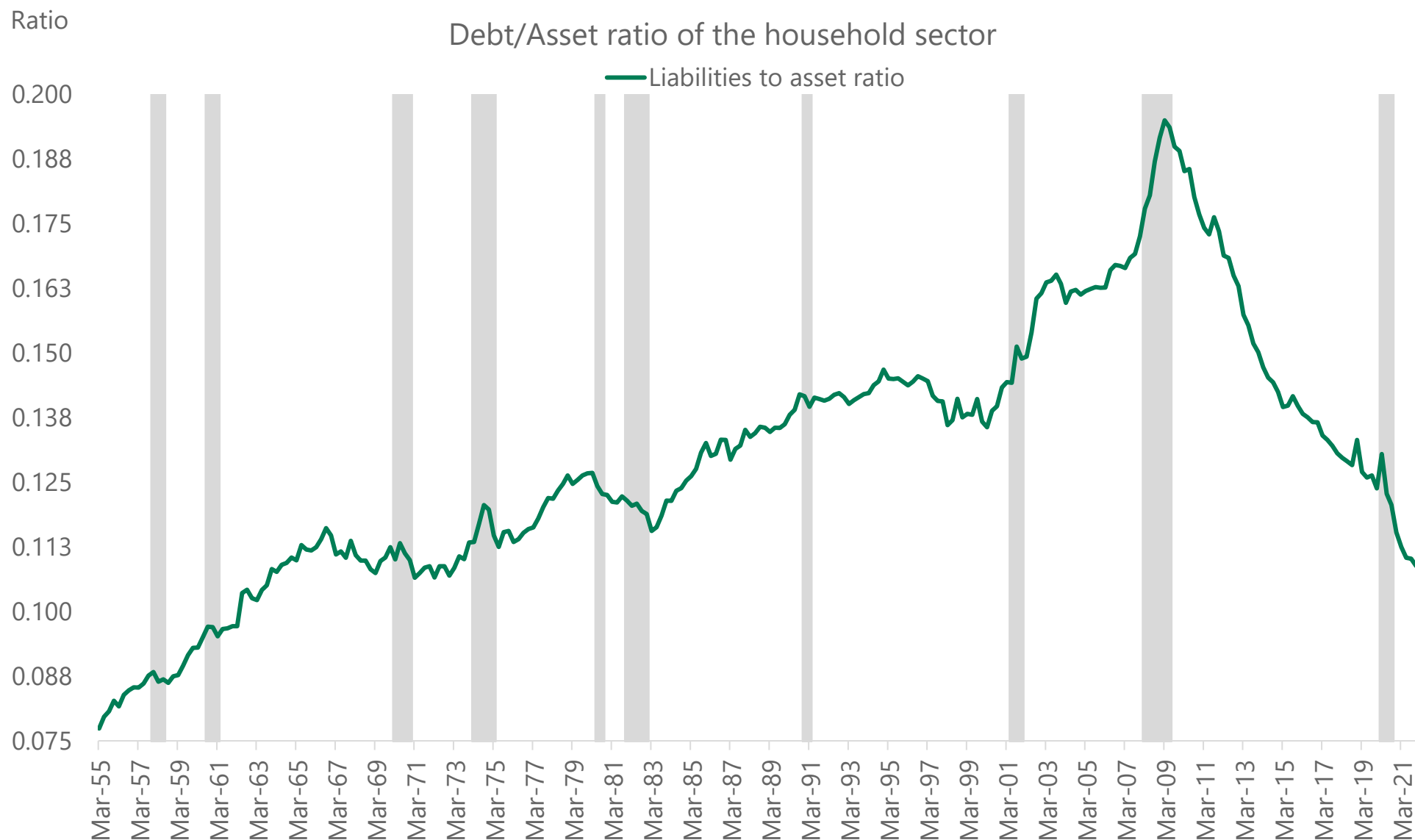
Auto Loans				
+60 day delinquency rate				
	Apr. 2022	Mar. 2022	Apr. 2021	April 2019
Super Prime	0.0%	0.0%	0.0%	0.0%
Prime plus	0.0%	0.0%	0.0%	0.0%
Prime	0.1%	0.1%	0.1%	0.1%
Near prime	0.5%	0.5%	0.5%	0.4%
Subprime	10.5%	11.2%	9.1%	6.8%
Total	1.5%	1.6%	1.2%	1.1%

Credit Cards				
+90 day delinquency rate				
	Apr. 2022	Mar. 2022	Apr. 2021	April 2019
Super Prime	0.00%	0.00%	0.00%	0.00%
Prime plus	0.01%	0.01%	0.01%	0.01%
Prime	0.17%	0.16%	0.14%	0.15%
Near prime	0.96%	0.97%	0.93%	1.11%
Subprime	16.3%	16.5%	14.3%	18.8%
Total	1.55%	1.58%	1.11%	1.78%

Mortgages				
Distribution of Delinquency				
	Apr. 2022	Mar. 2022	Apr. 2021	April 2019
Current	96%	95.6%	96.5%	94.0%
30-59 DPD	2.1%	2.3%	1.7%	3.2%
60-89 DPD	1.1%	1.2%	1.0%	1.6%
90+	0.7%	0.8%	0.7%	0.9%
Foreclosure	0.1%	0.1%	0.1%	0.2%

Source: Transunion Monthly Industry Snapshot, Apollo Chief Economist

Household liabilities to assets trending lower



Source: FRB, Haver, Apollo Chief Economist

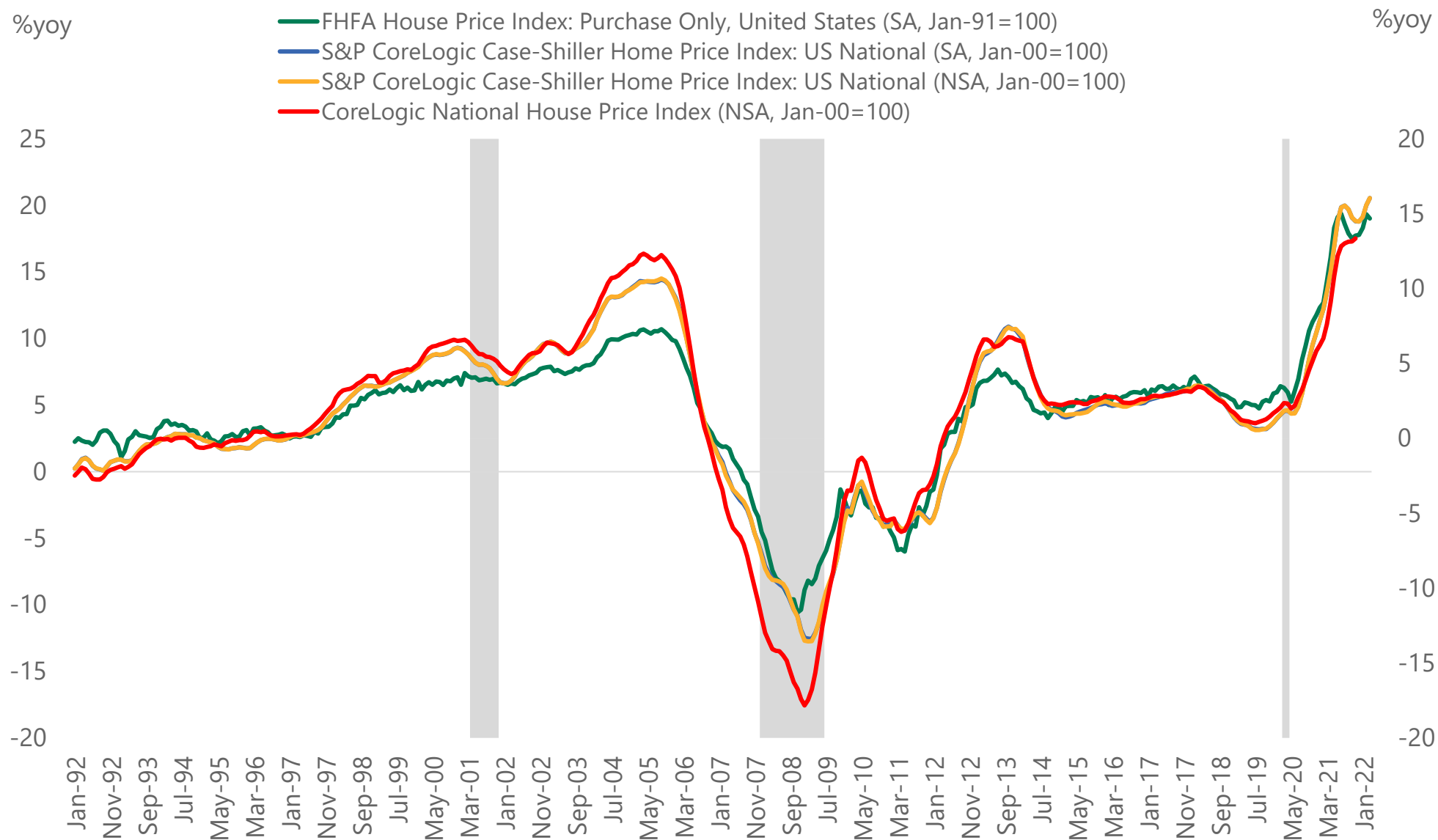
Banks more willing to lend to consumers



Source: FRB, Haver, Apollo Chief Economist

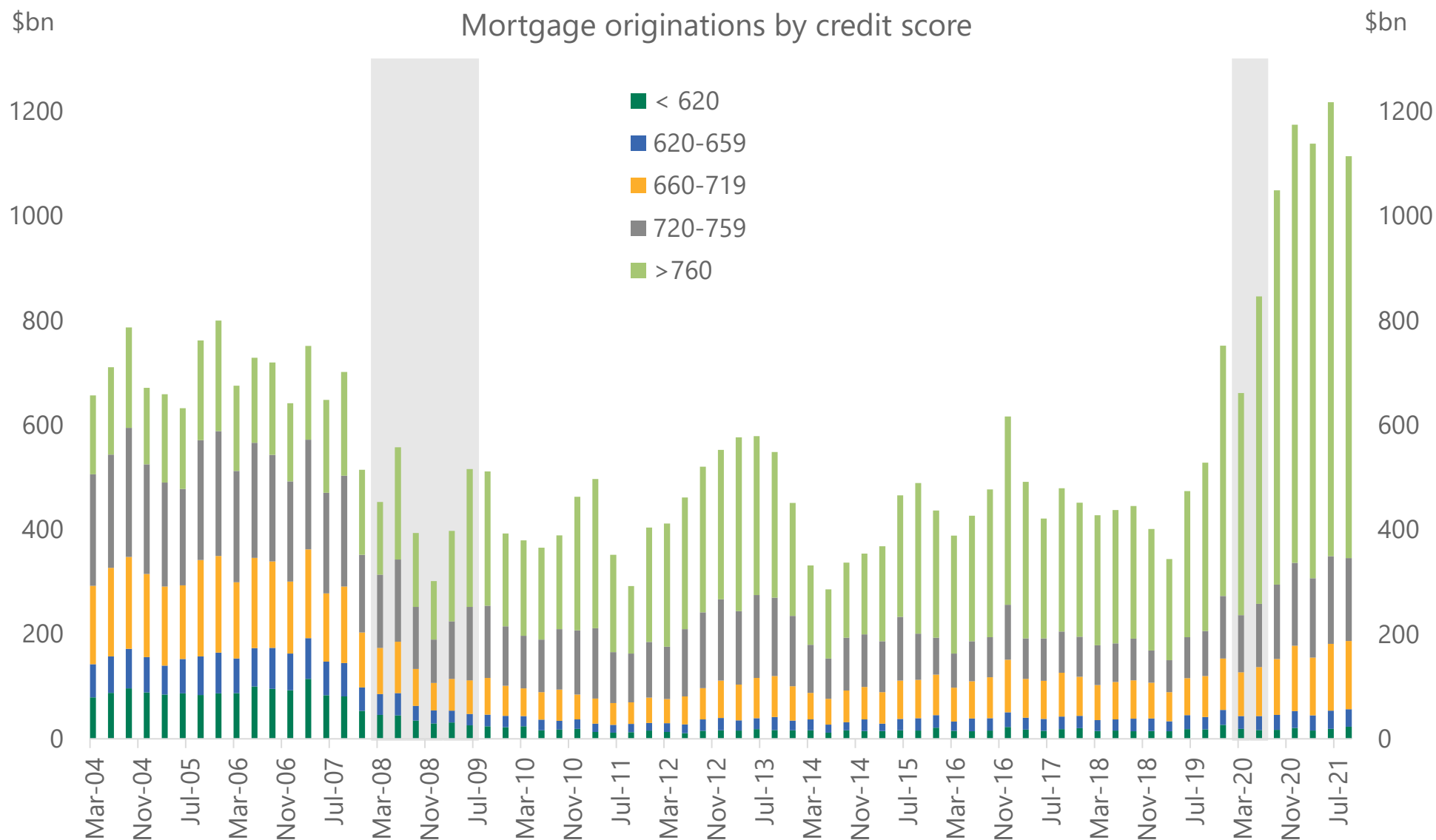
Outlook for spending on housing

Strong US home price inflation during the pandemic



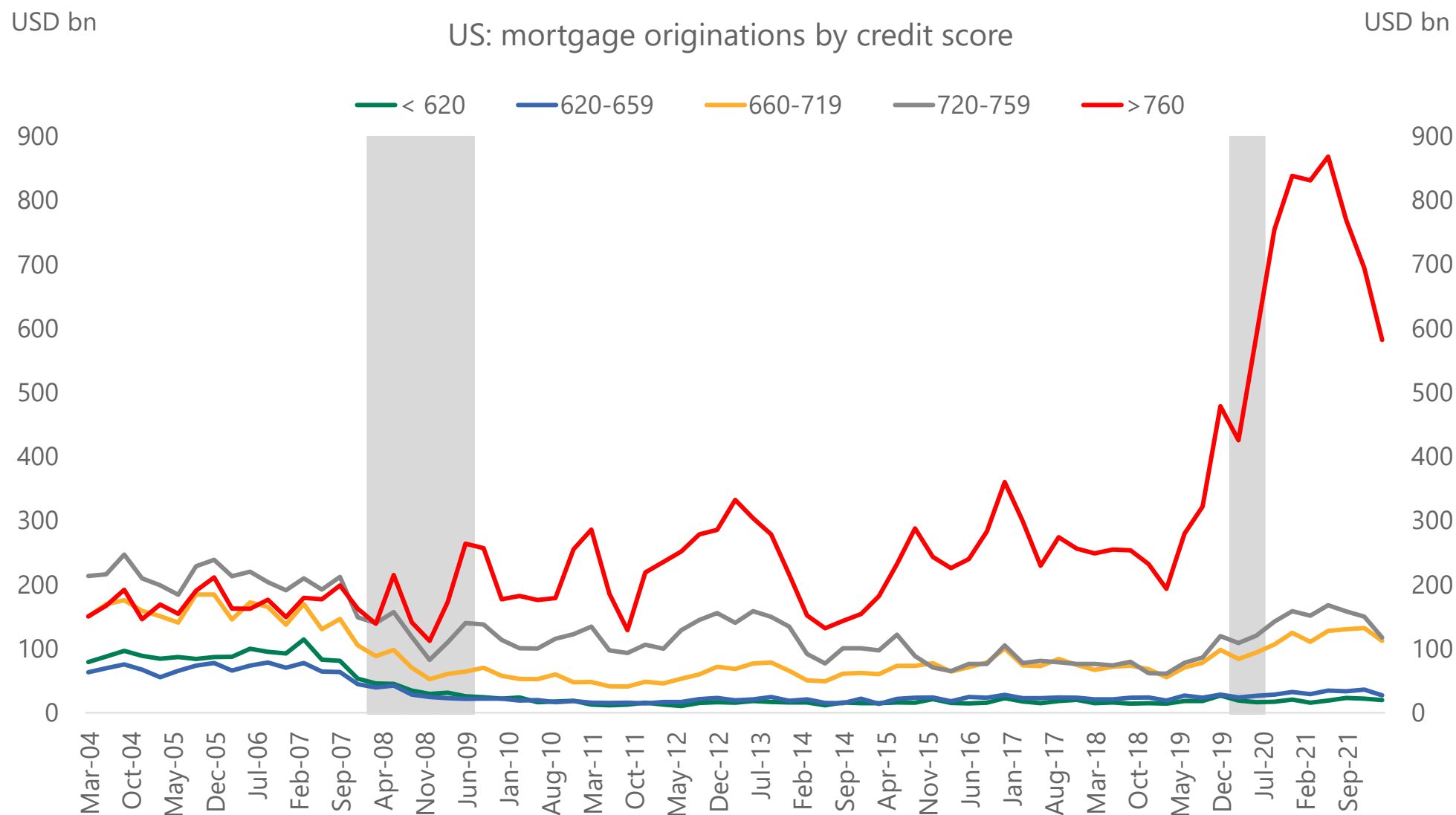
Source: Haver, Apollo Chief Economist

Purchase and refi activity during pandemic driven by households with top credit scores



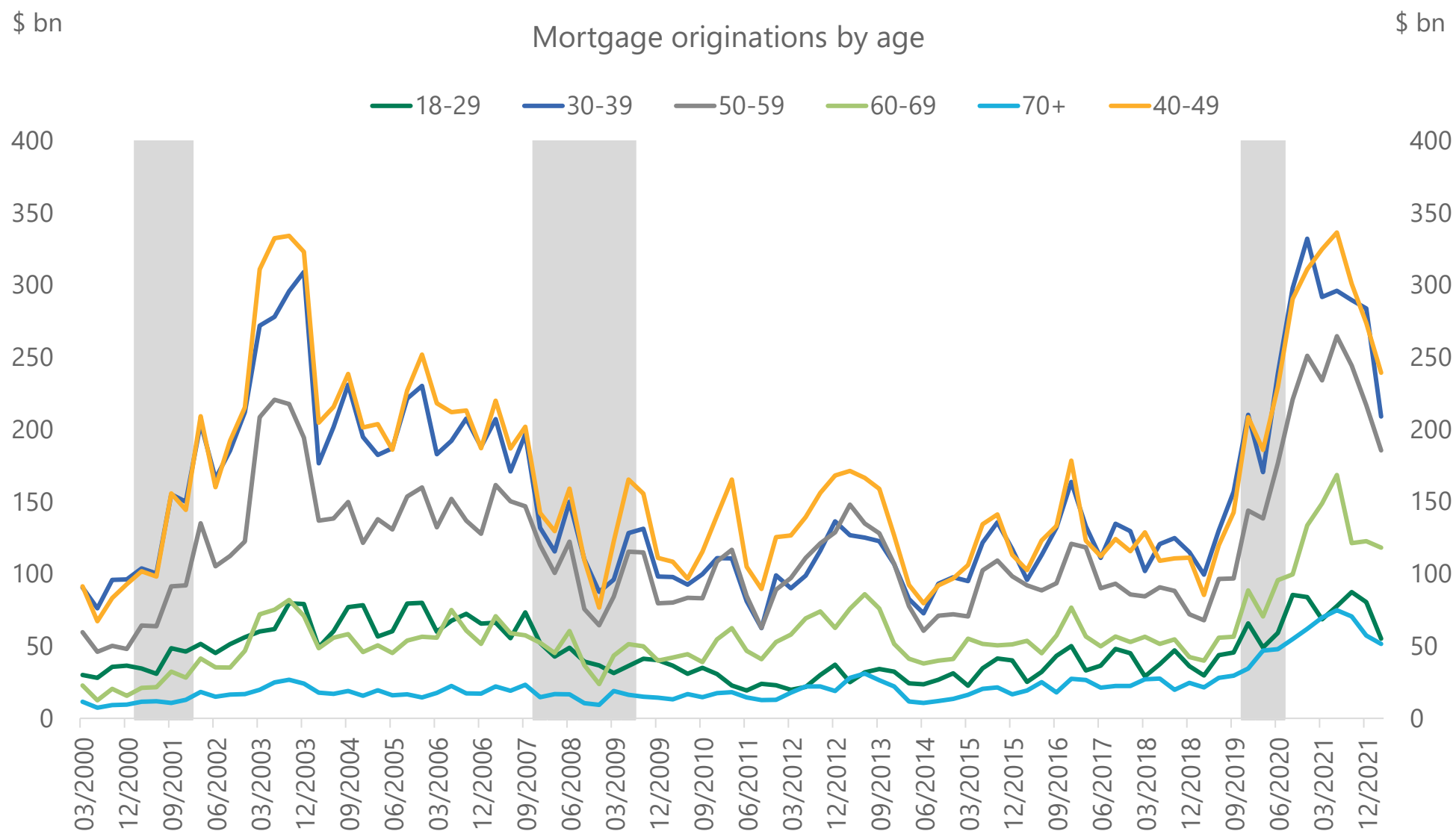
Source: FRBNY Consumer Credit Panel, Equifax, Haver Analytics, Apollo Chief Economist.

US mortgage credit originations by credit score



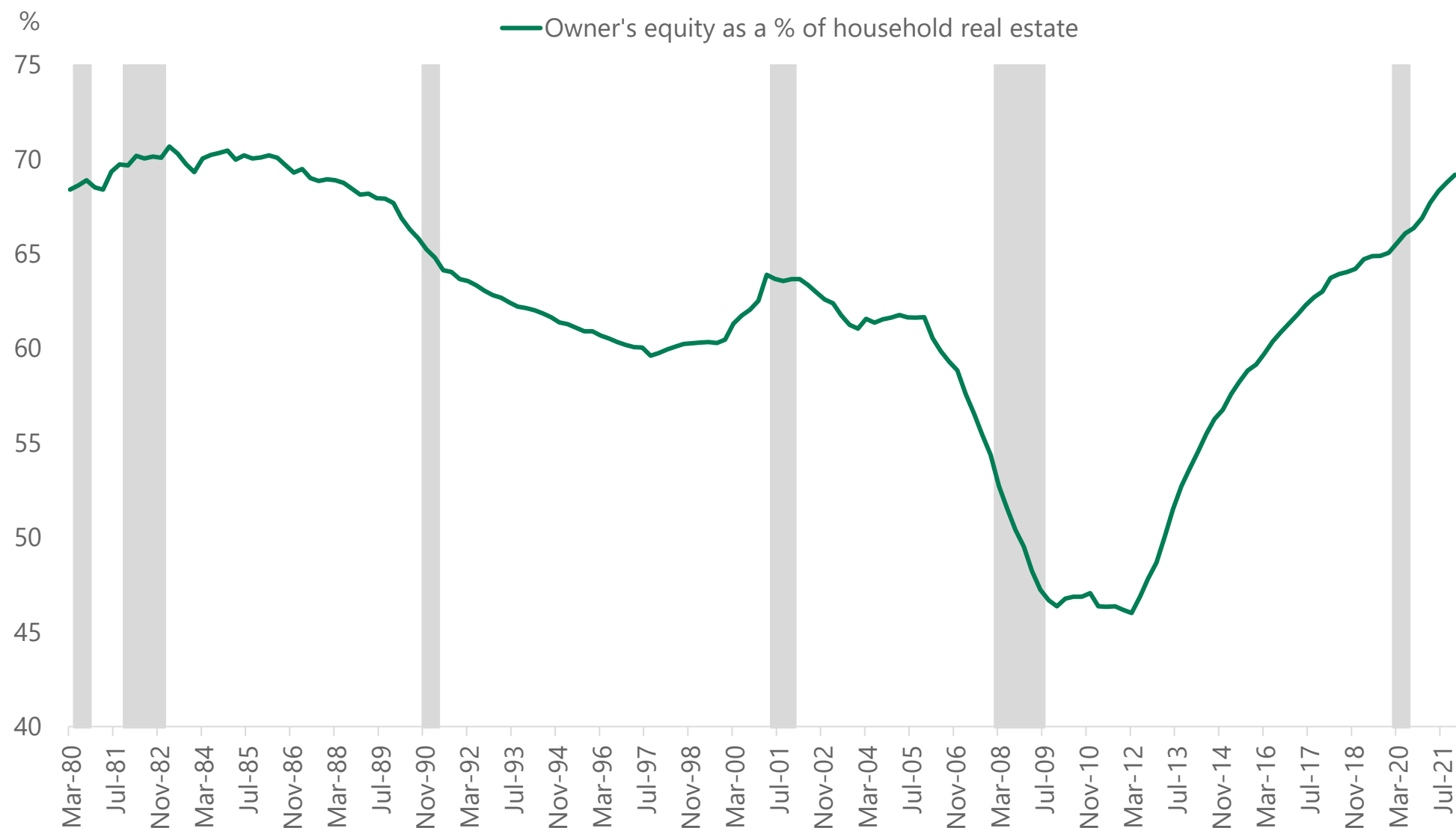
Source: FRBNY Consumer Credit Panel, Equifax, Haver Analytics, Apollo Chief Economist.

Mortgage origination falling across age groups



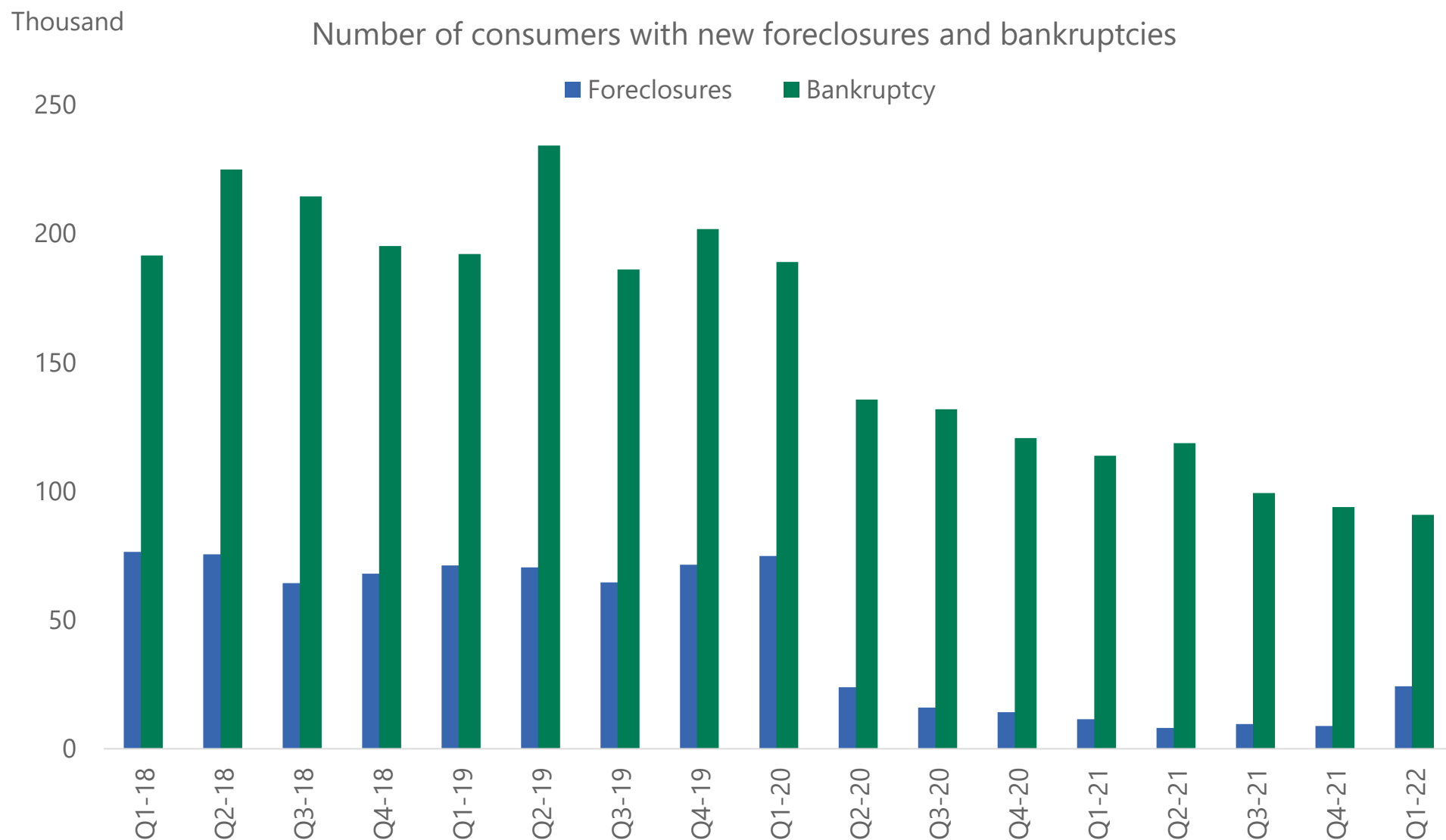
Source: NY Fed, Bloomberg, Apollo Chief Economist

Households have less debt in their homes: Homeowner's equity at highest level in decades



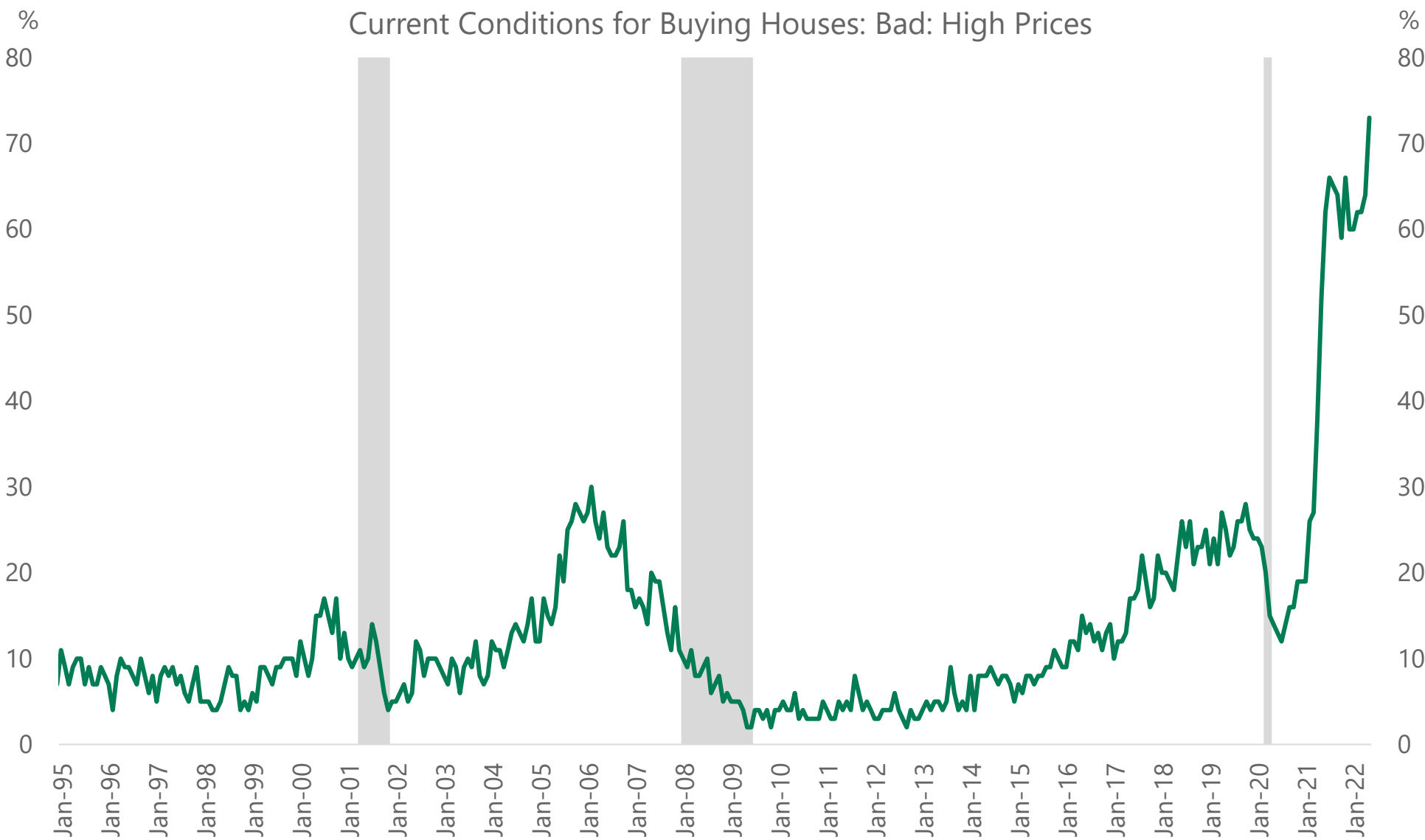
Source: FRB, Haver Analytics, Apollo Chief Economist

Foreclosures starting to rise, bankruptcies still declining



Source: FRBNY,,Equifax, Haver, Apollo Chief Economist

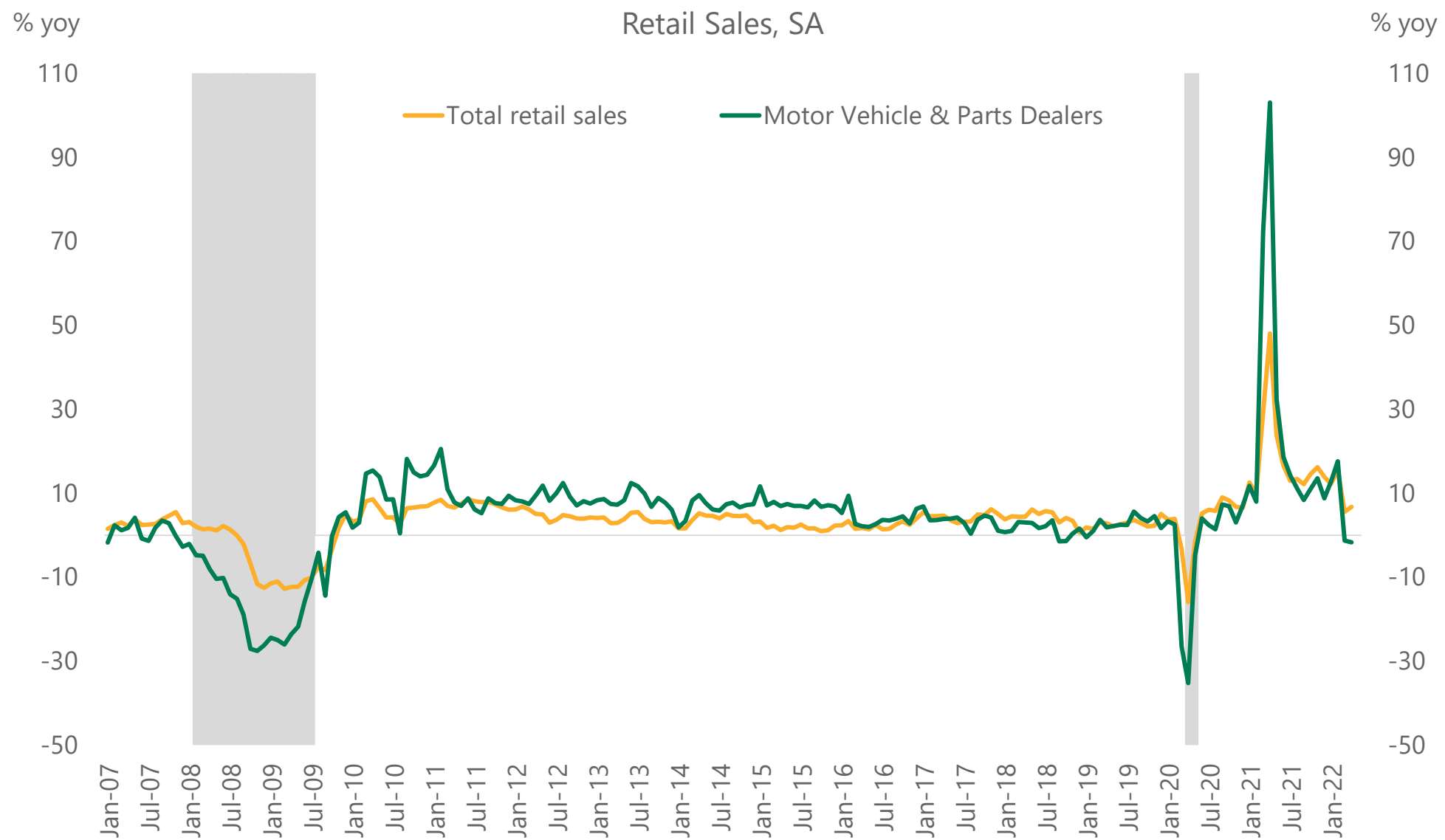
Consumers are worrying about high home prices



Source: University of Michigan, Haver Analytics, Apollo Chief Economist

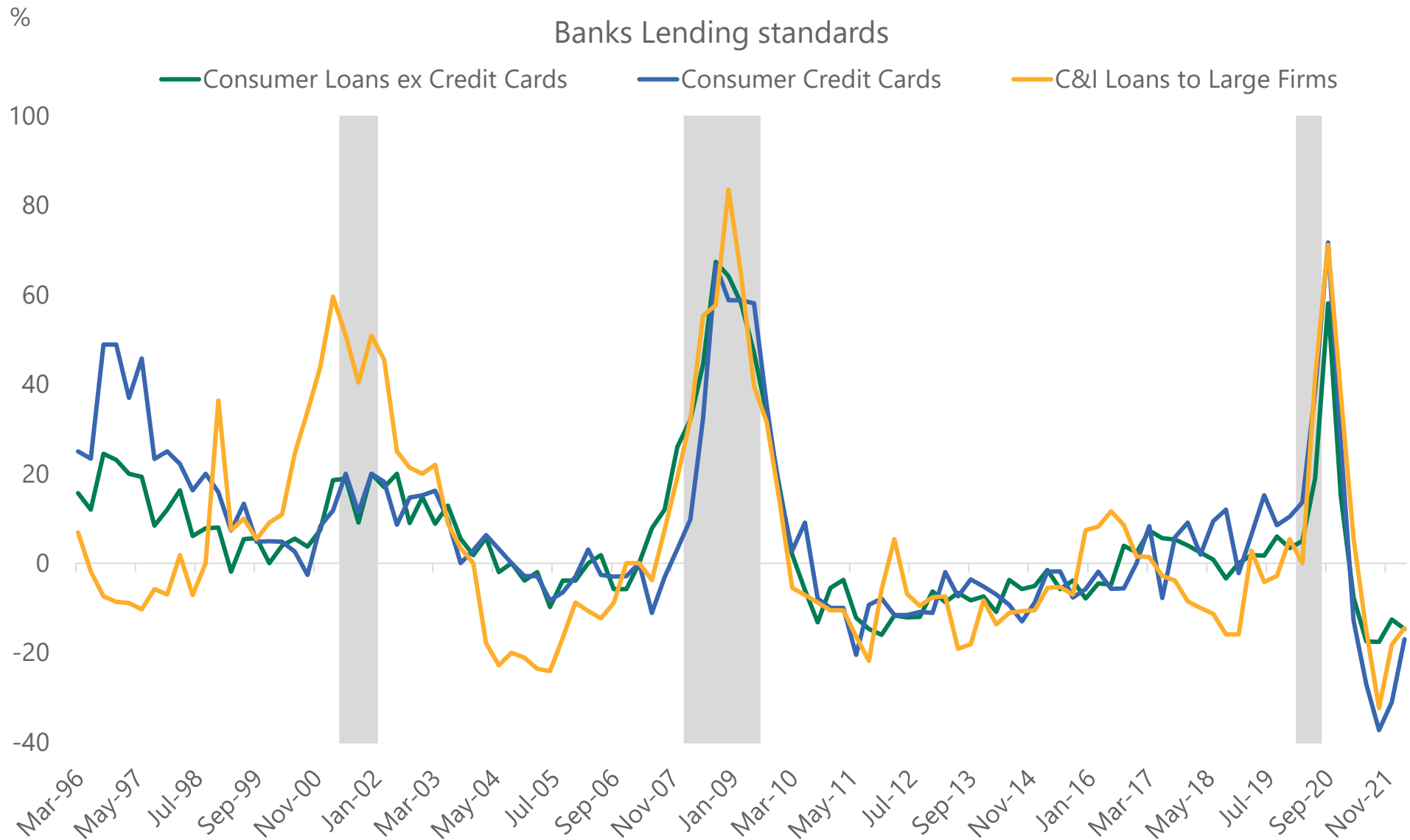
Outlook for spending on cars

Motor vehicle sales affected by high car prices



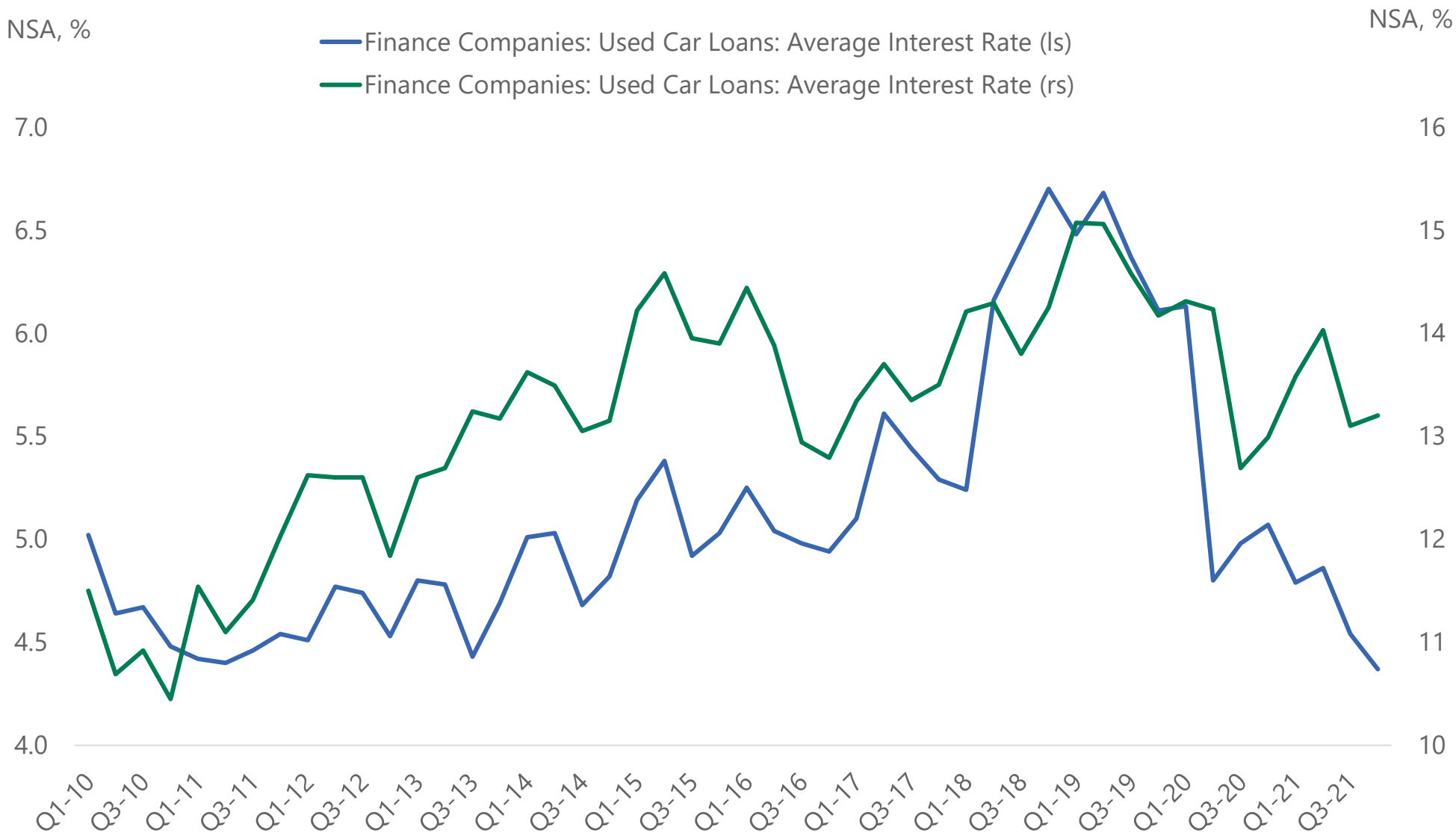
Source: Census Bureau, Apollo Chief Economist

Lending standards still easing



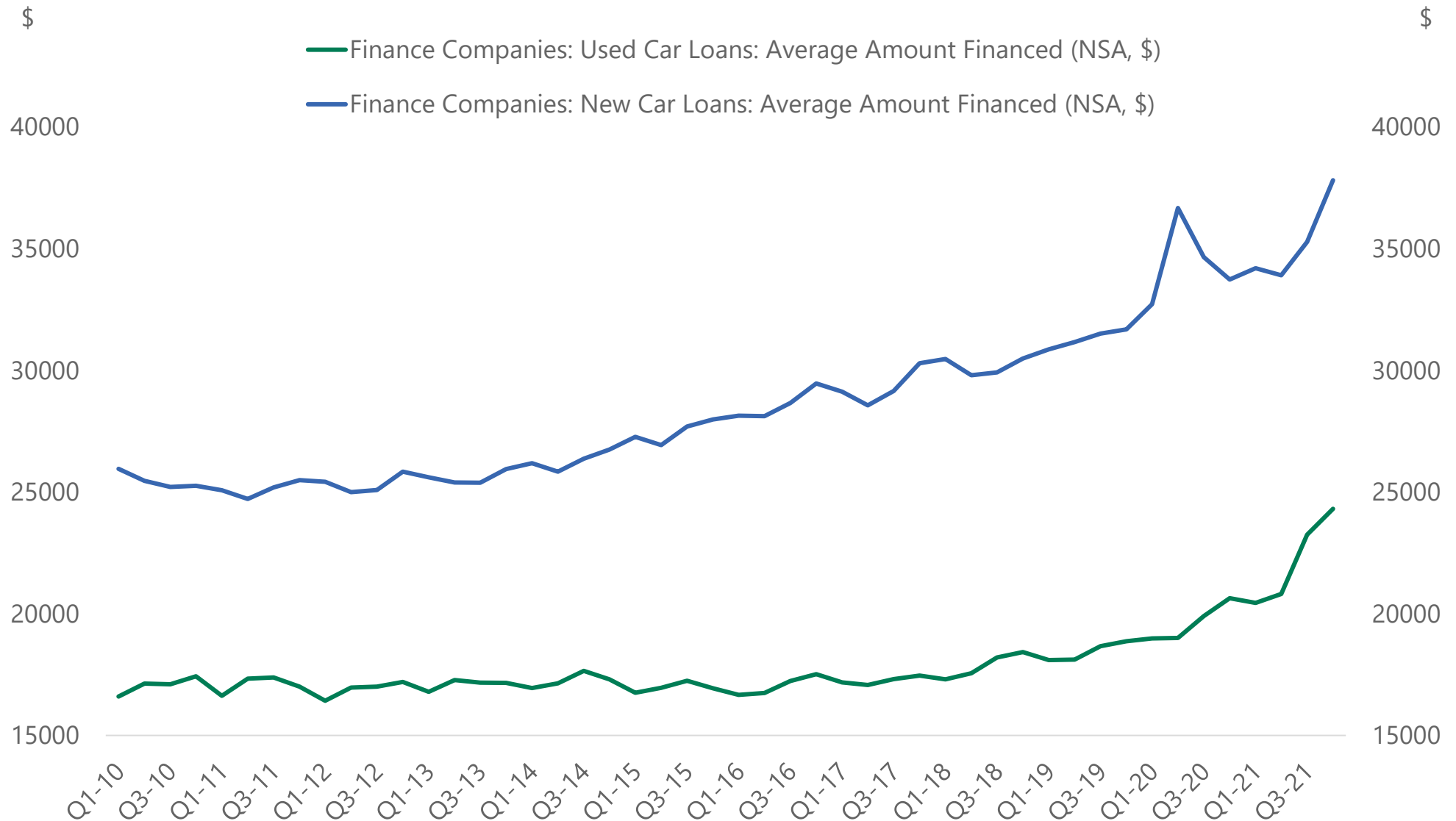
Source: FRB, Haver, Apollo Chief Economist

Interest rates on auto loans for new and used cars



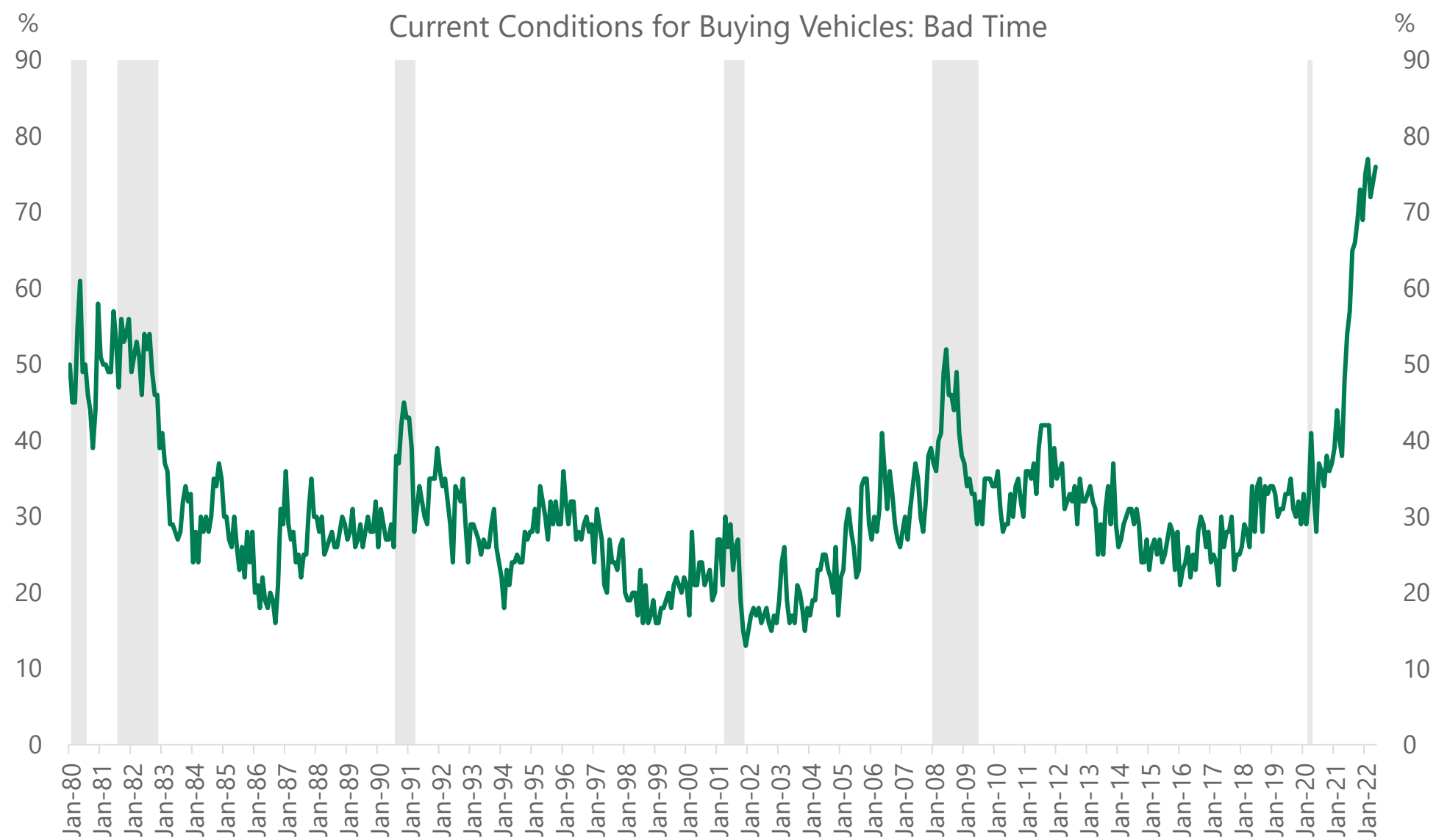
Source: FRB, Haver, Apollo Chief Economist

Average amount financed for new and used car loans



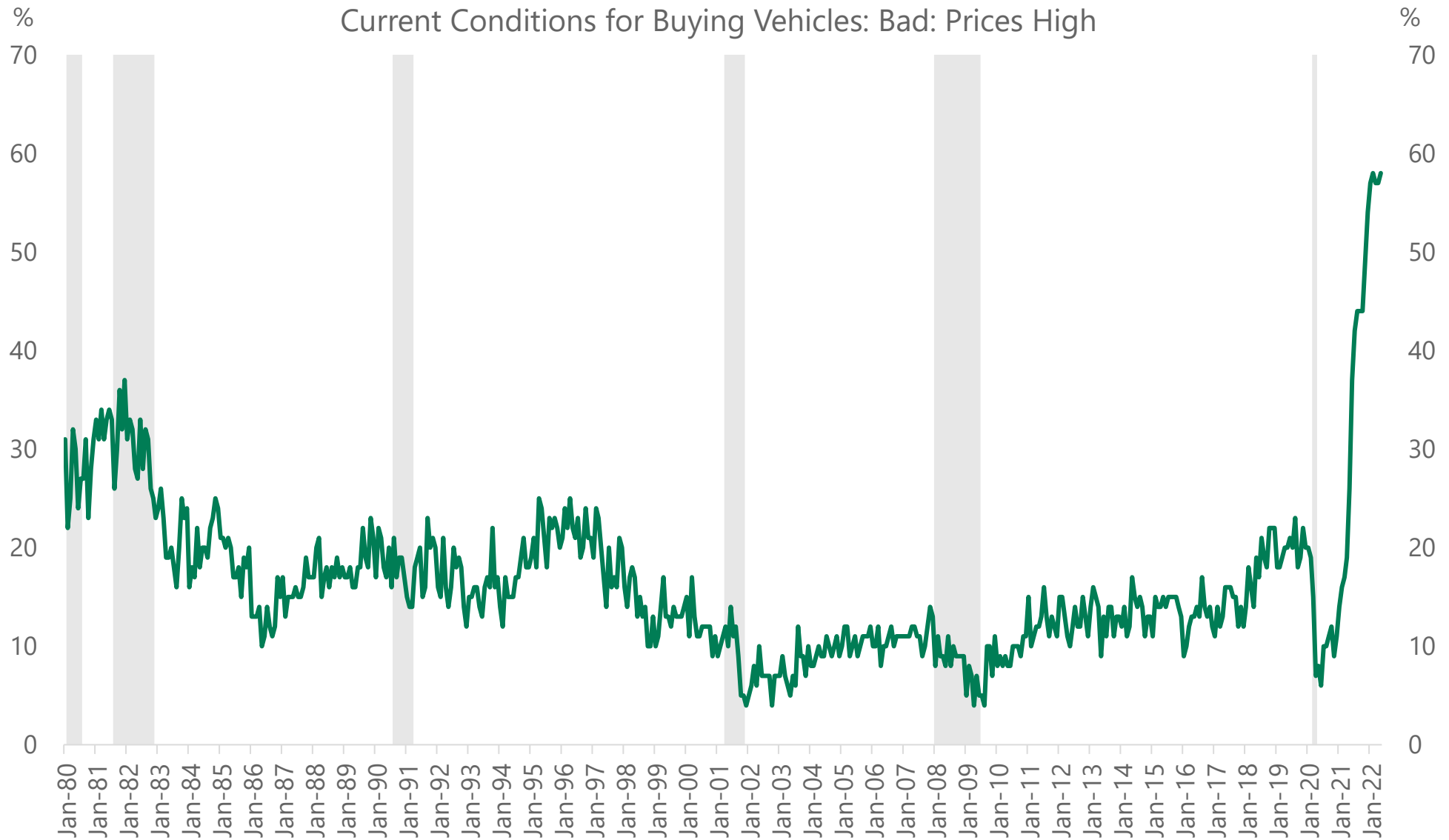
Source: FRB, Haver, Apollo Chief Economist

Sentiment softening for car buyers



Source: University of Michigan, Haver Analytics, Apollo Chief Economist

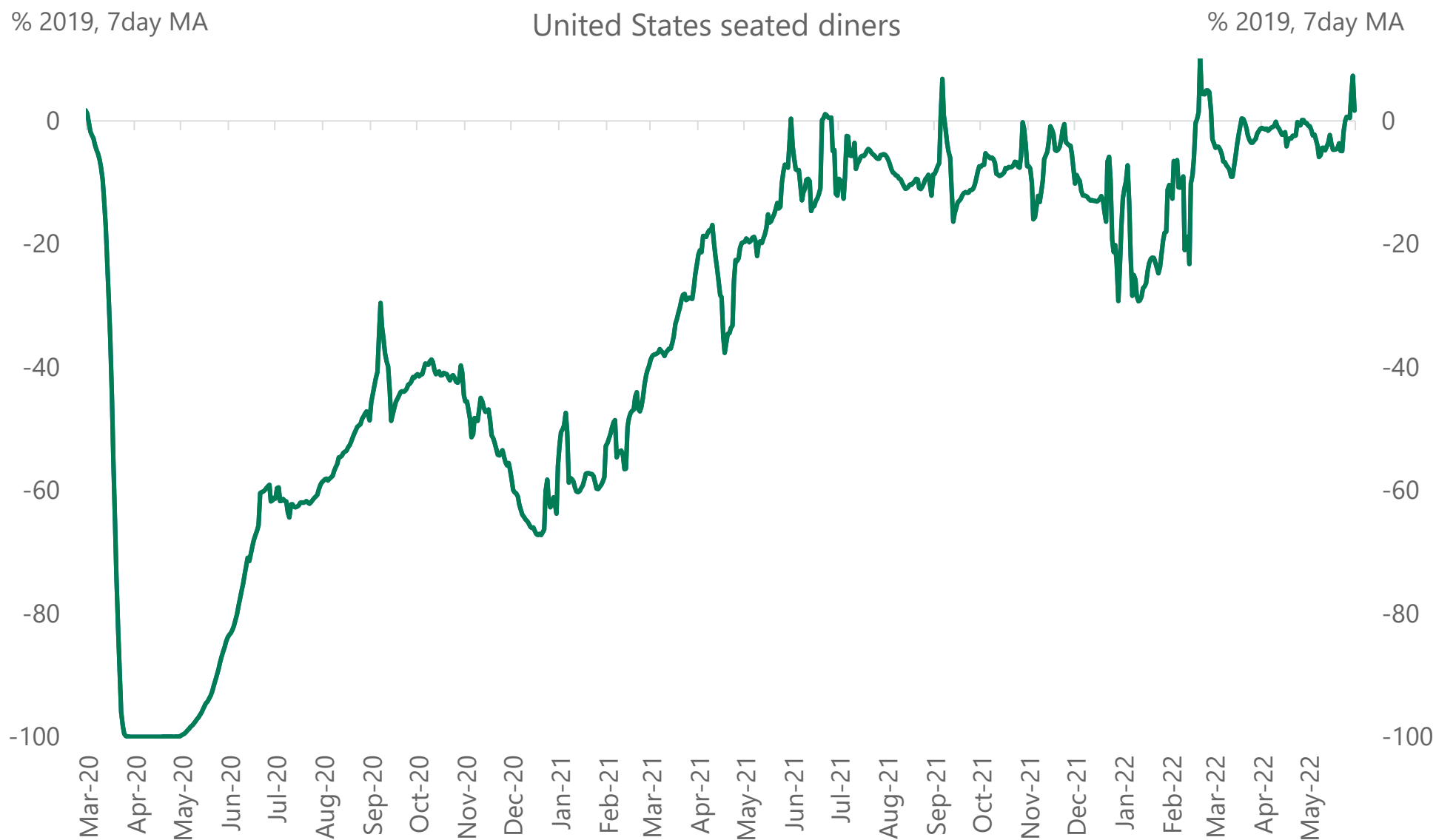
High car prices having negative impact



Source: University of Michigan, Haver Analytics, Apollo Chief Economist

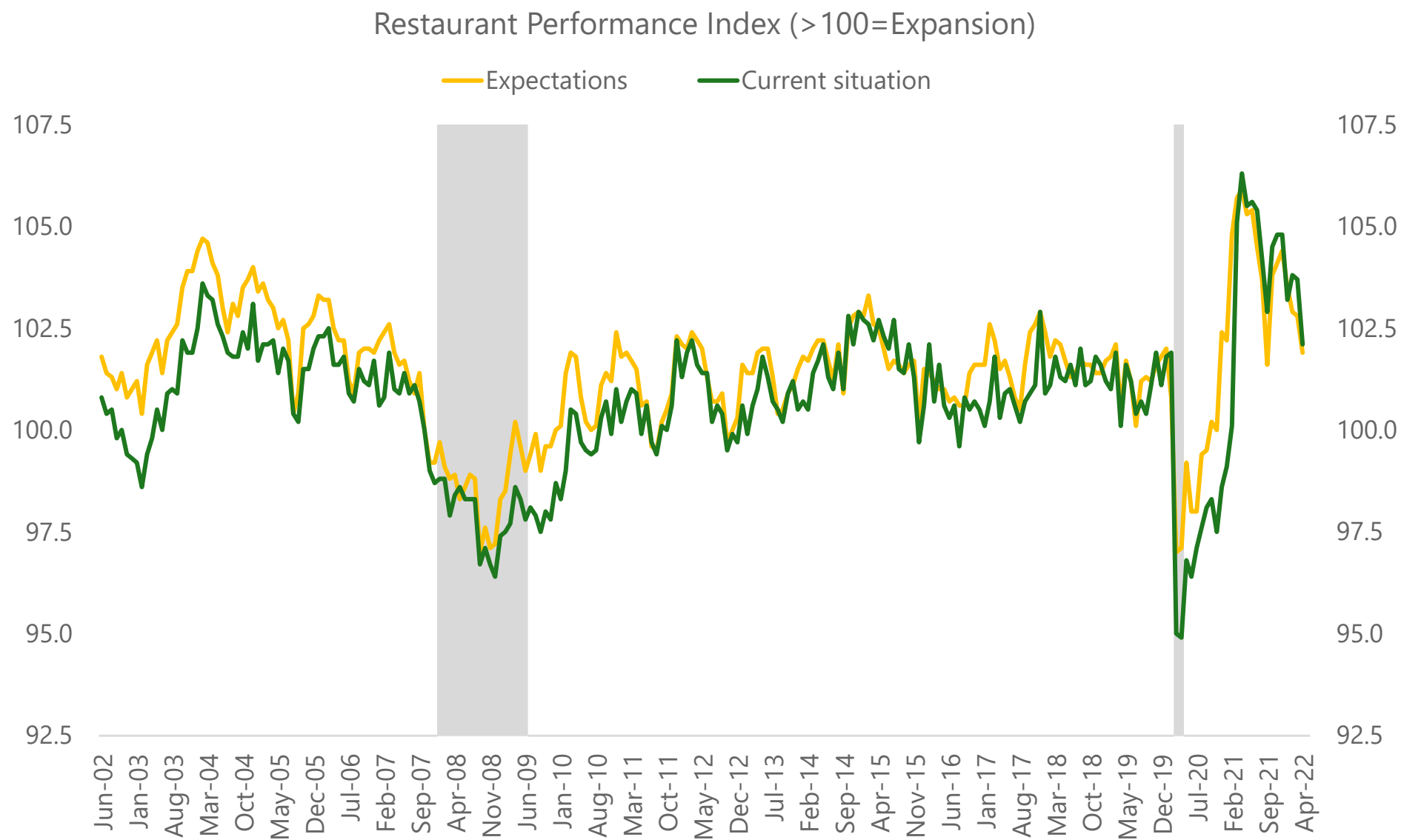
Outlook for spending on restaurants

United States restaurant bookings



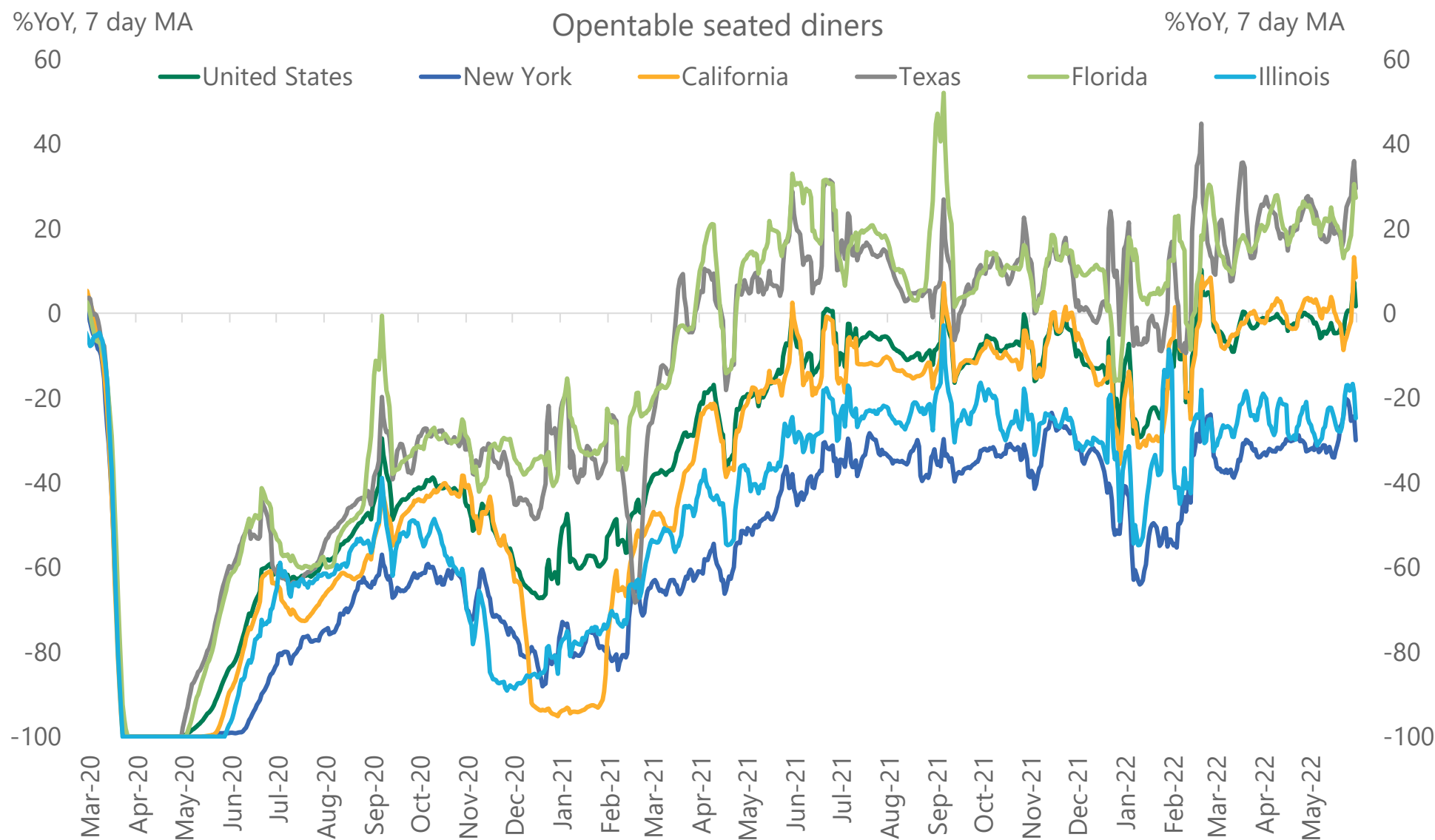
Source: OpenTable, Apollo Chief Economist

Restaurant demand weakening from high level



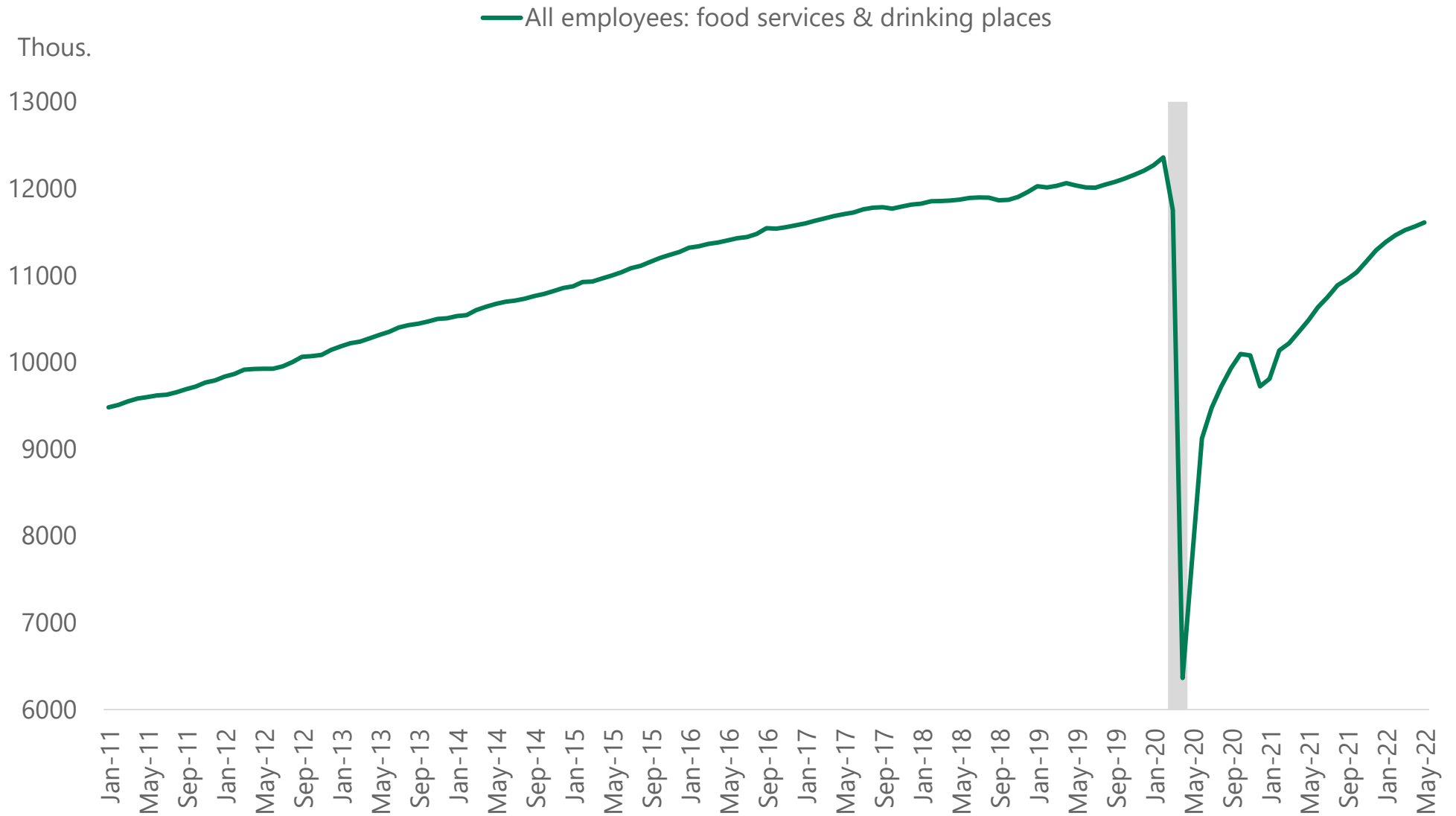
Source: National Restaurant Association, Haver, Apollo Chief Economist

Some difference between NY and Texas/Florida restaurant bookings



Source: OpenTable, Apollo Chief Economist

Employment in restaurants and bars



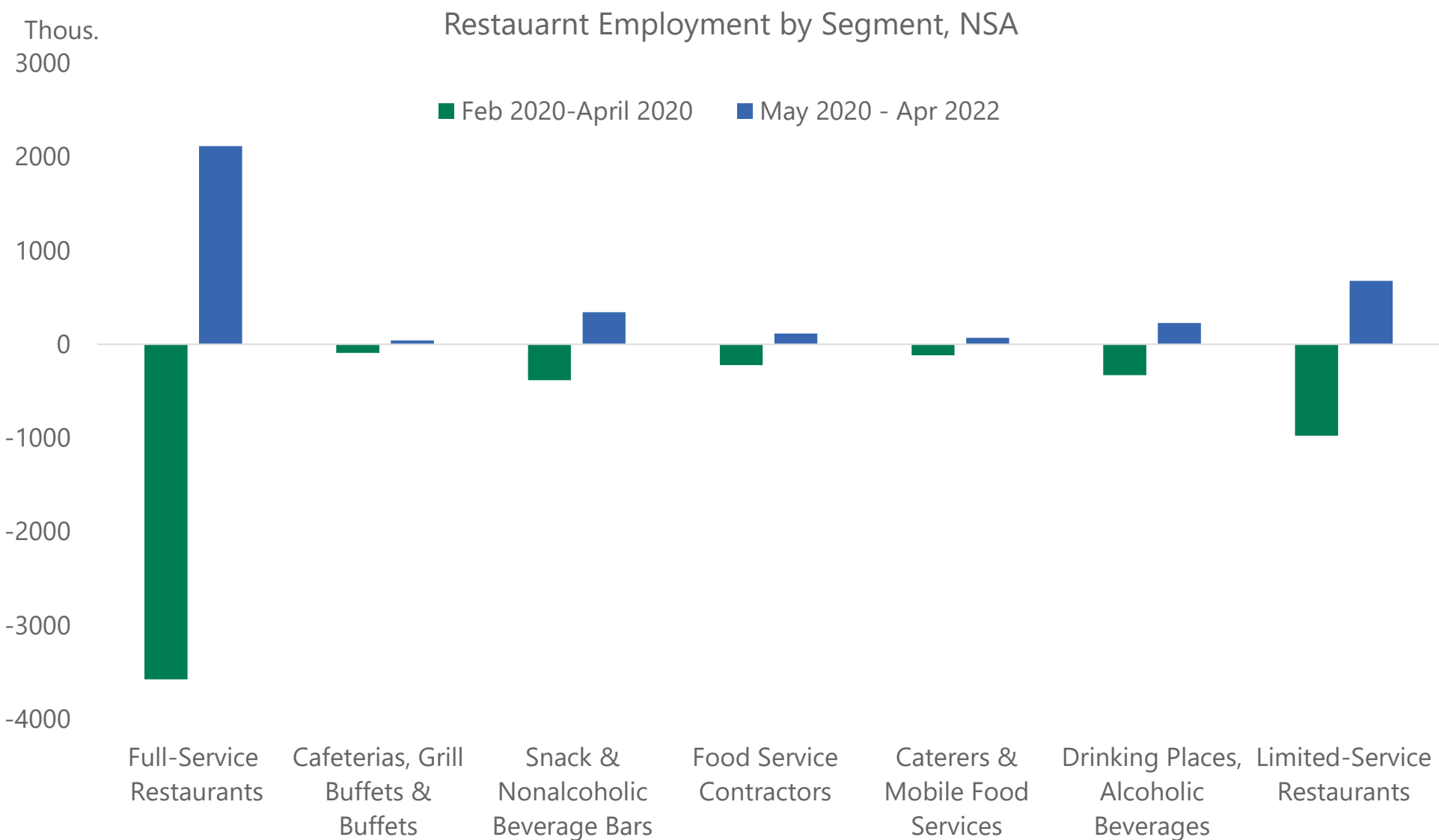
Source: BLS, Haver, Apollo Chief Economist

Hiring at Eating and Drinking places



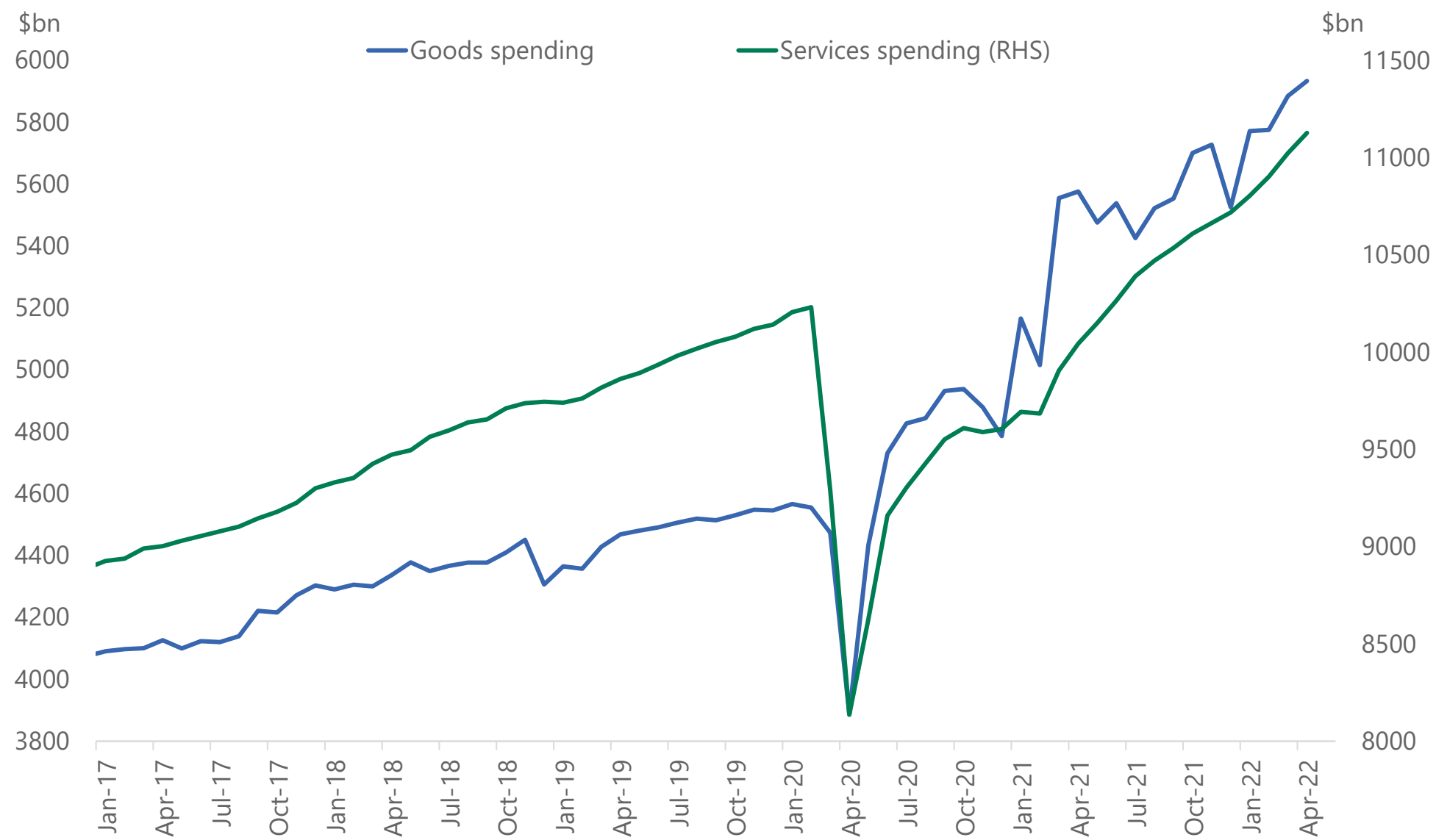
Source: BLS, Haver, Apollo Chief Economist

Growth in restaurant employment by type of restaurant



Source: BLS, Haver, Apollo Chief Economist

Service sector spending has rebounded to pre-pandemic levels



Source: BEA, Haver, Apollo Chief Economist

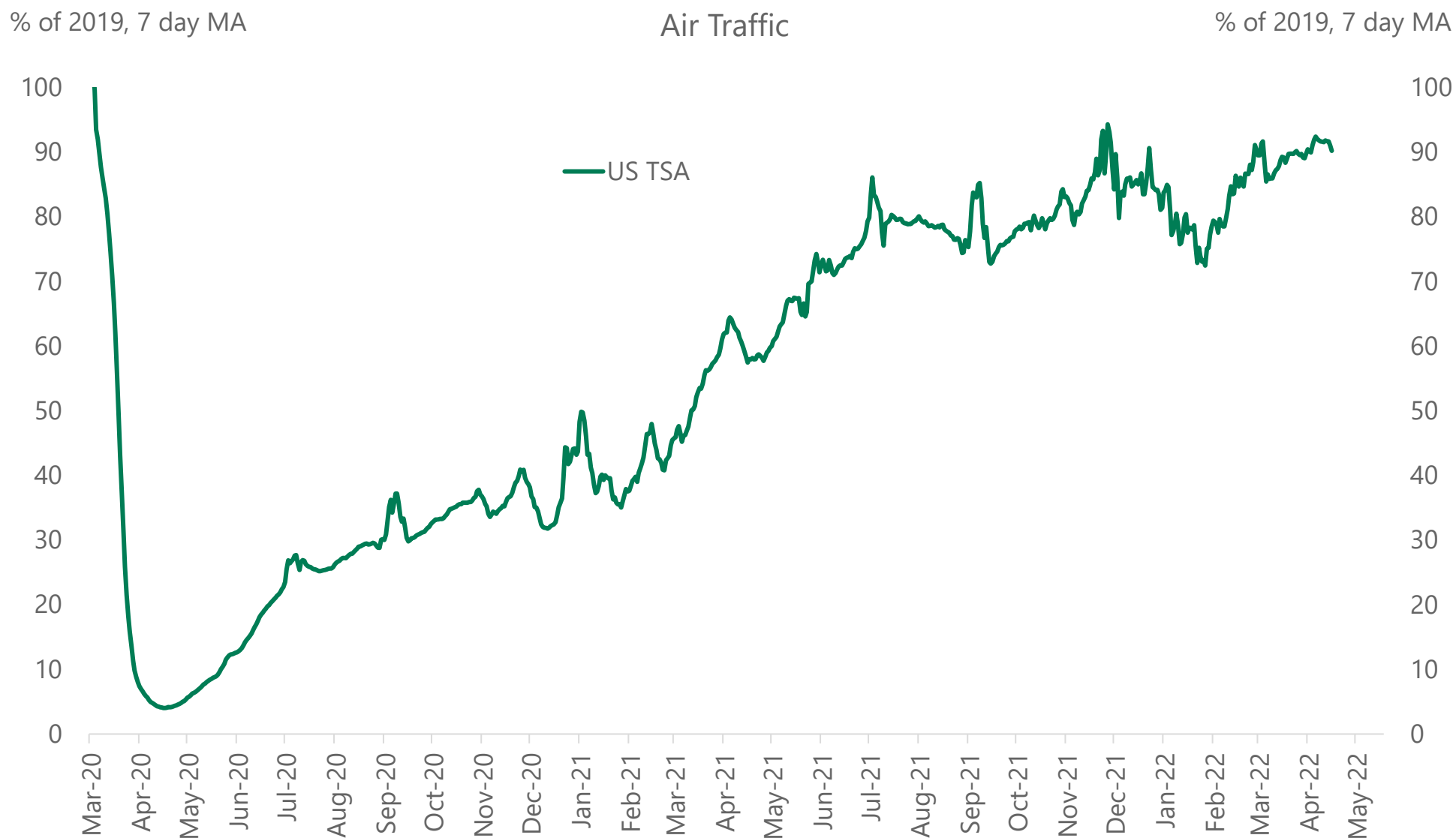
Stock market: Restaurants and bars



Source: Bloomberg, Apollo Chief Economist

Outlook for spending on travel

TSA: US air travel still strong



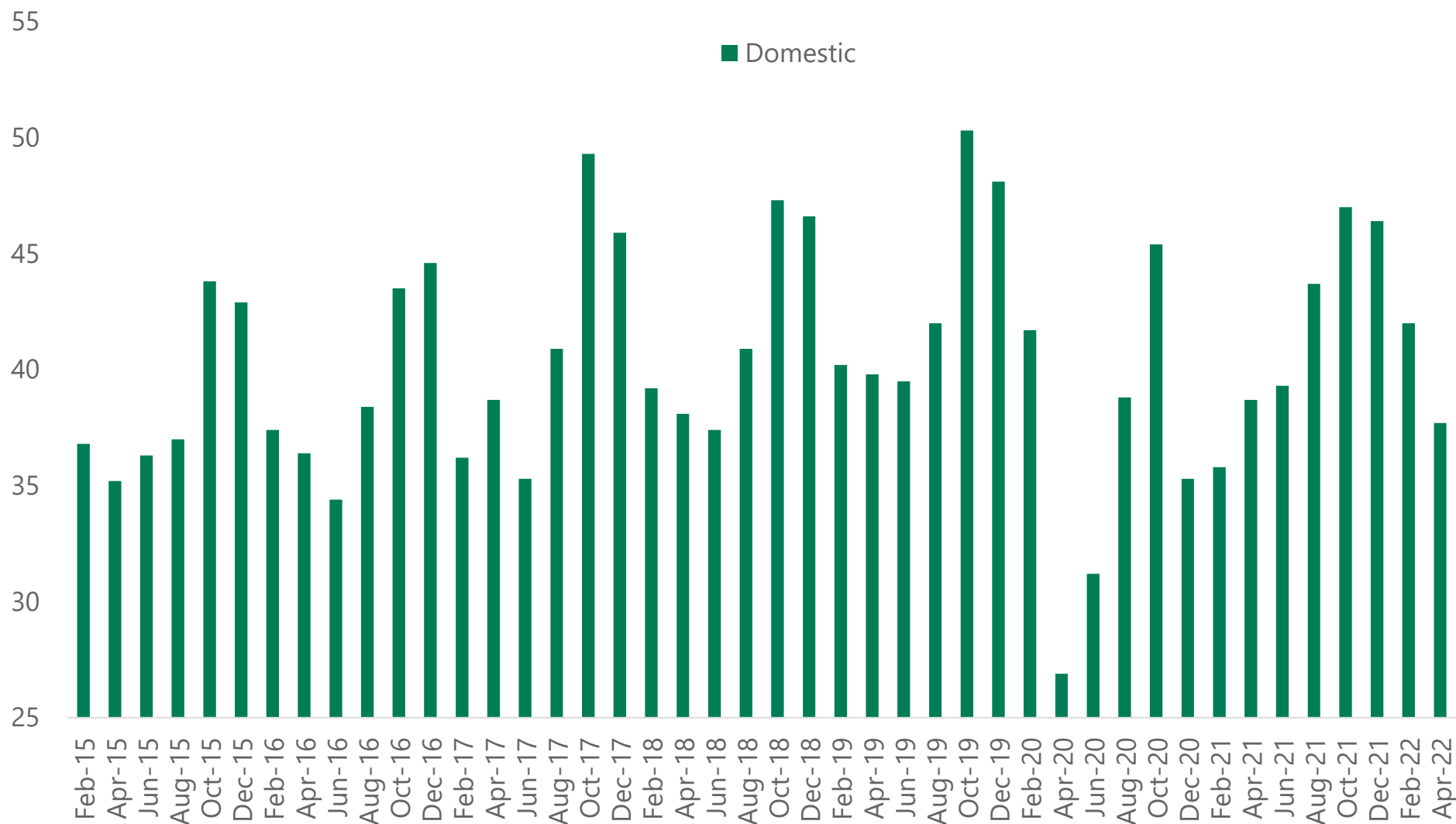
Source: TSA, Apollo Chief Economist

Vacation intentions: Within the US

% respondents, SA

Vacation intended within 6 months:

■ Domestic

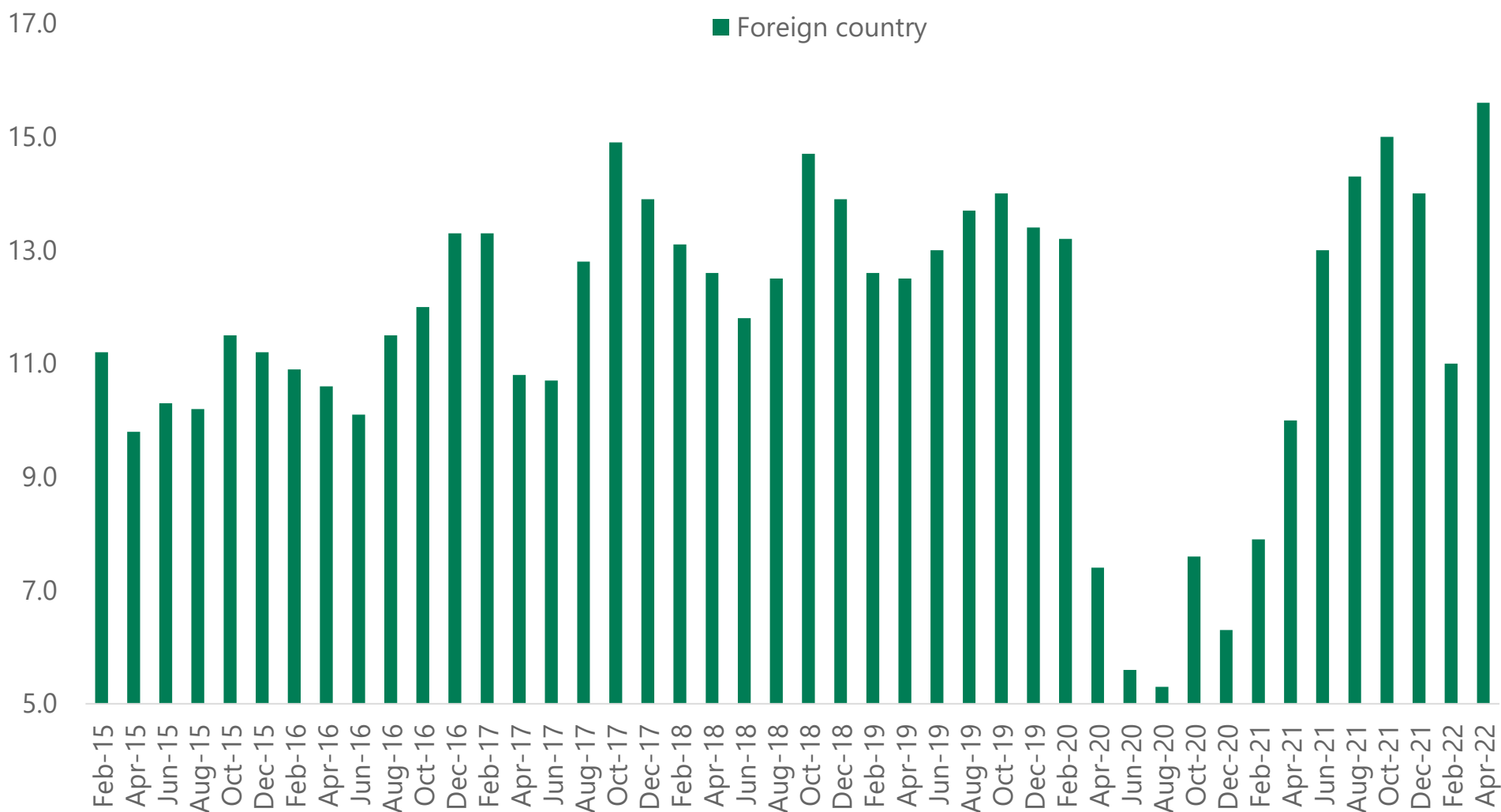


Source: Conference Board, Apollo Chief Economist

Vacation intentions to a foreign country above pre-pandemic levels

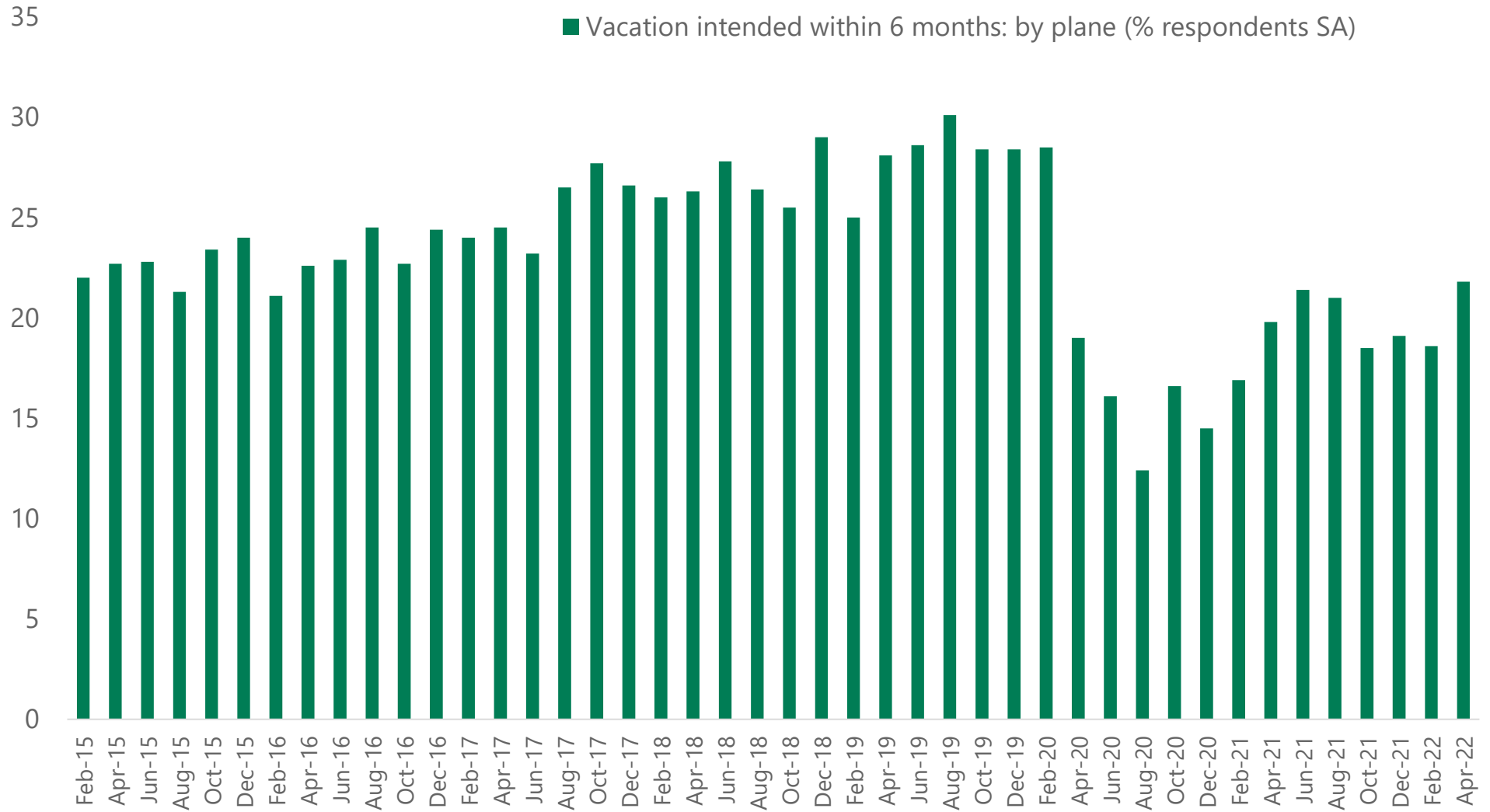
% respondents, SA

Vacation intended within 6 months:



Source: Conference Board, Apollo Chief Economist

Vacation intentions: By plane



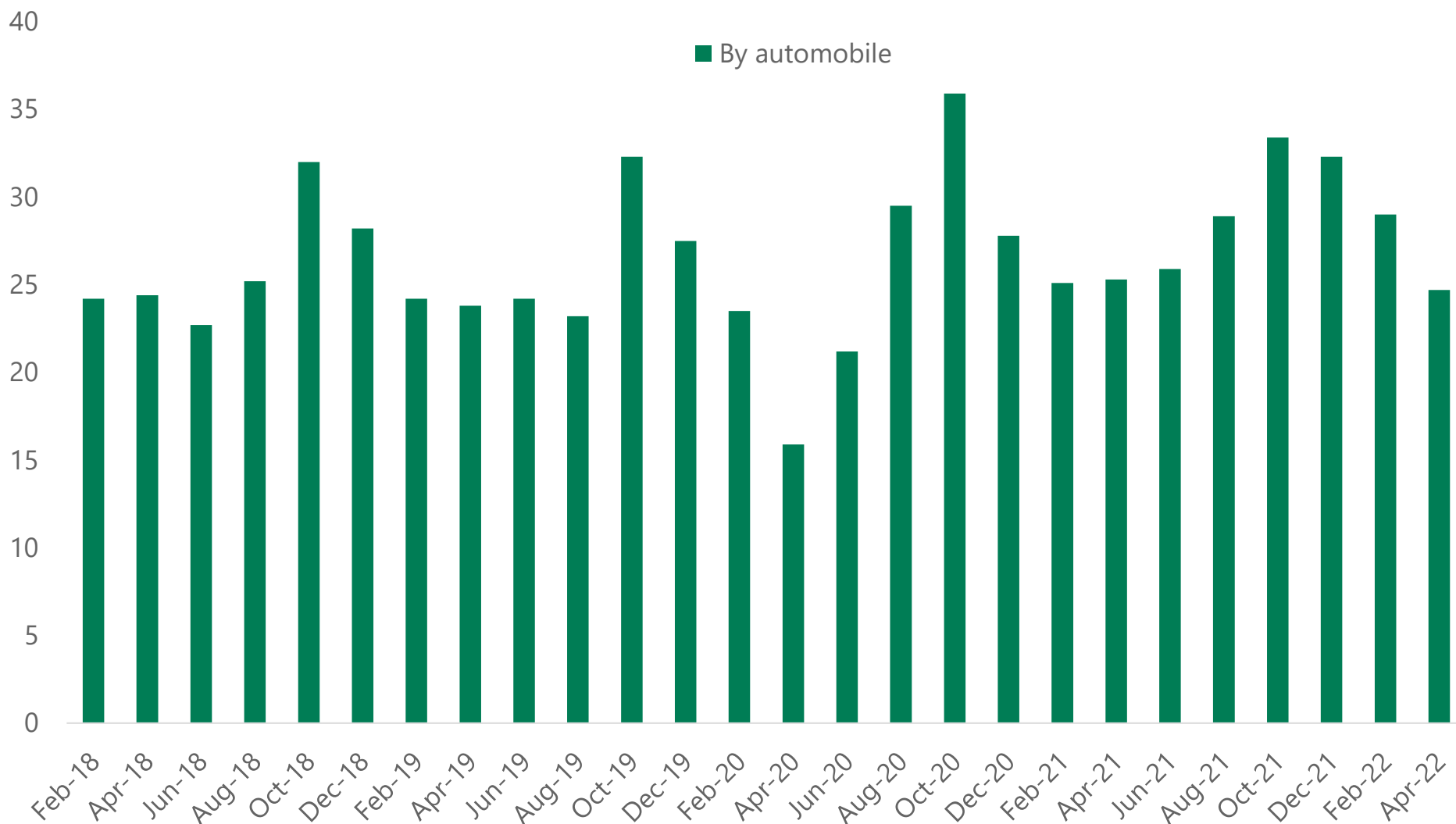
Source: Conference Board, Apollo Chief Economist

Vacation intentions: By car

% respondents, SA

Vacation intended within 6 months:

■ By automobile



Source: Conference Board, Apollo Chief Economist

Air travel coming back



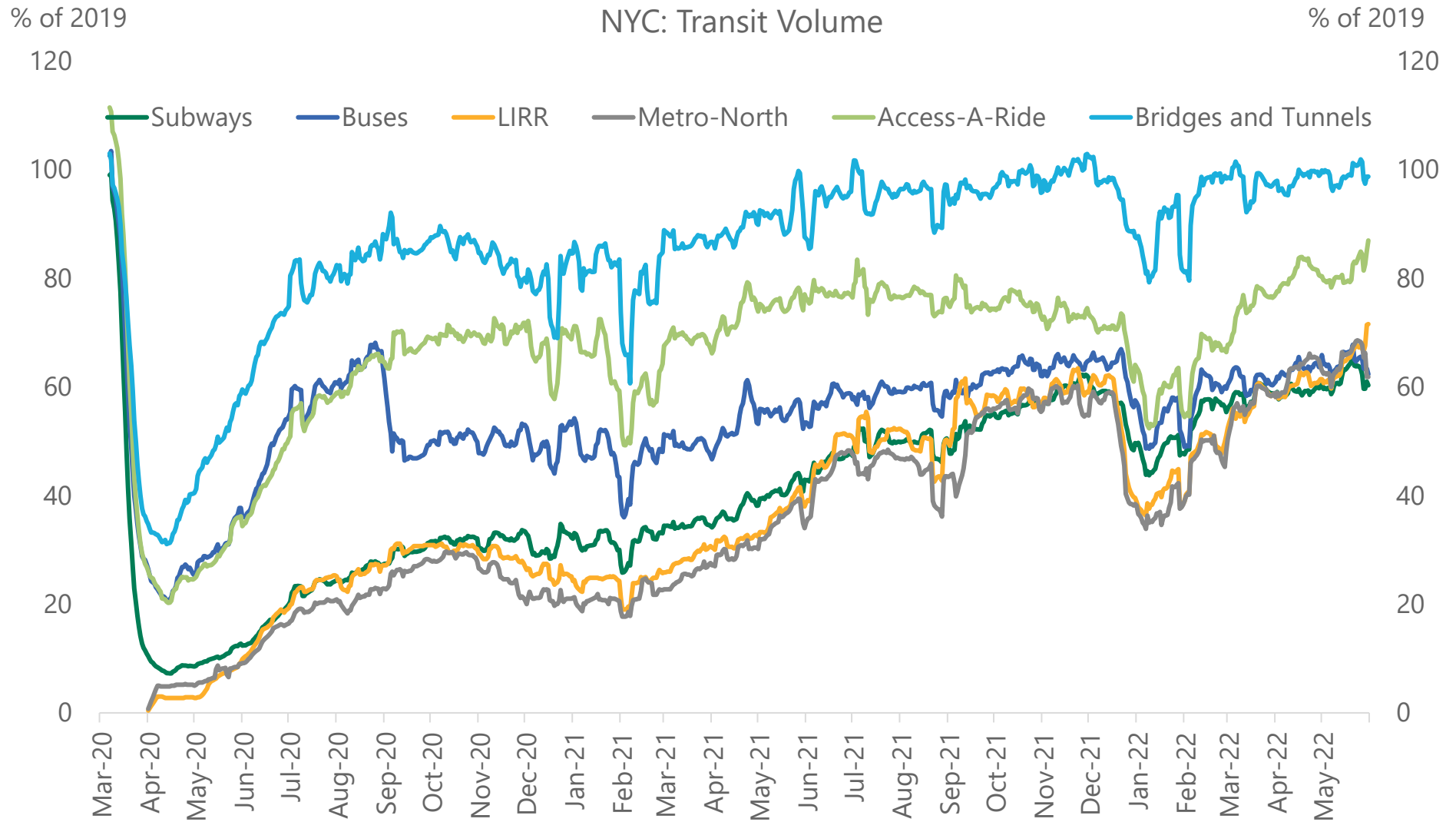
Source: TSA, Apollo Chief Economist

Las Vegas visitor volumes near 2019 levels



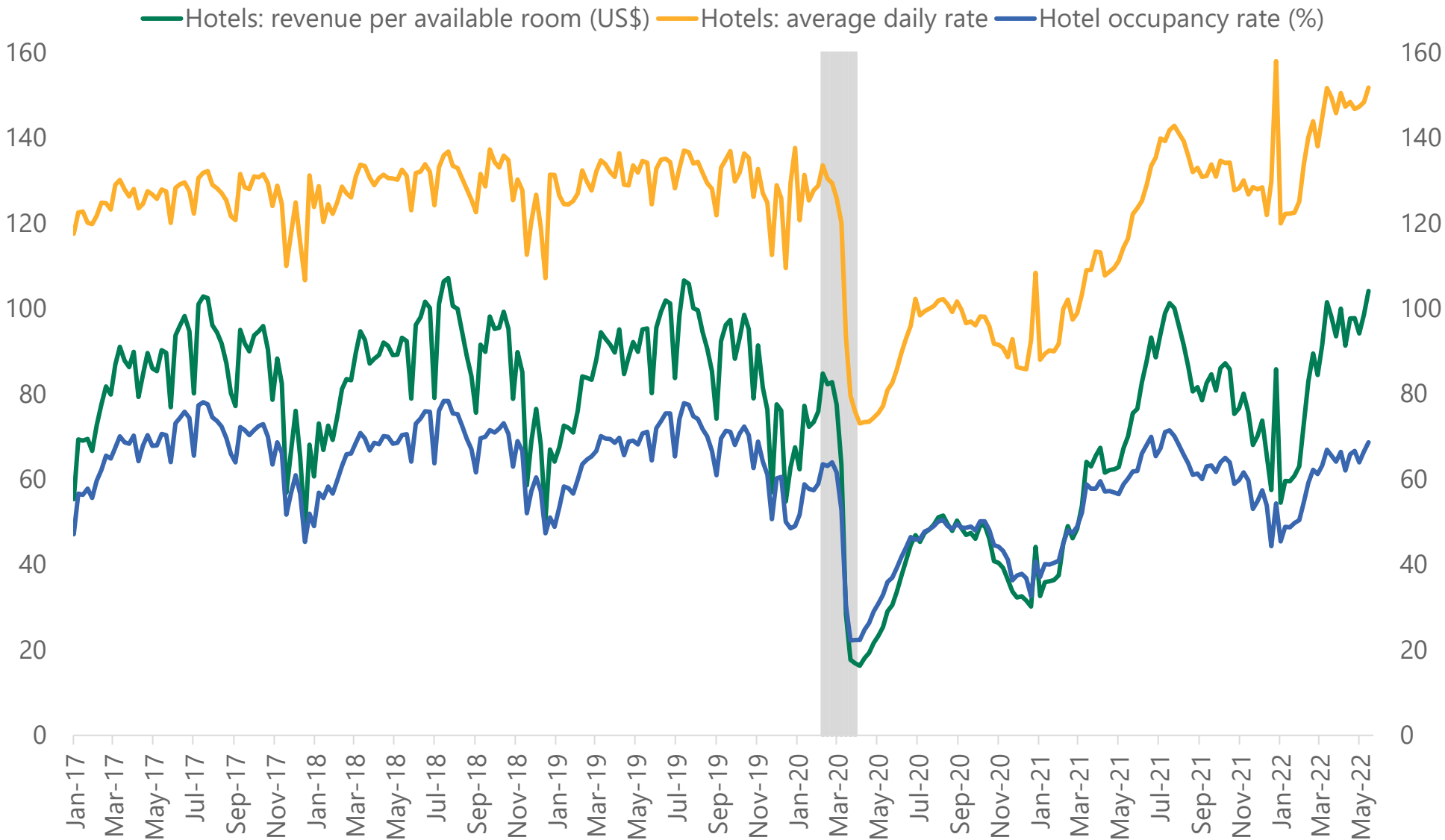
Source: Las Vegas Convention and Visitors Authority, Apollo Chief Economist

New York City mobility indicators



Source: MTA, Apollo Chief Economist

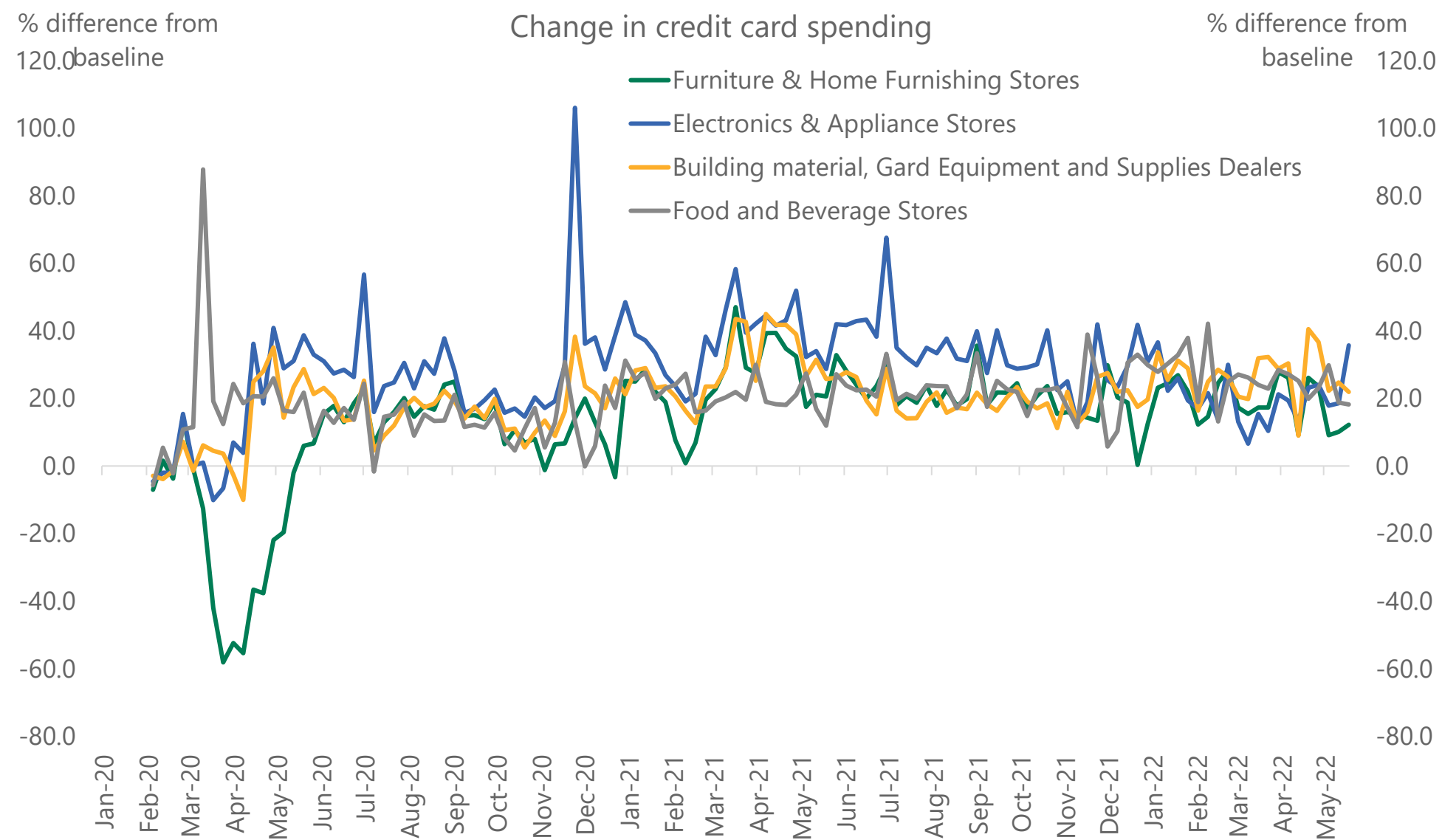
Hotel data still strong



Source: STR, Haver, Apollo Chief Economist

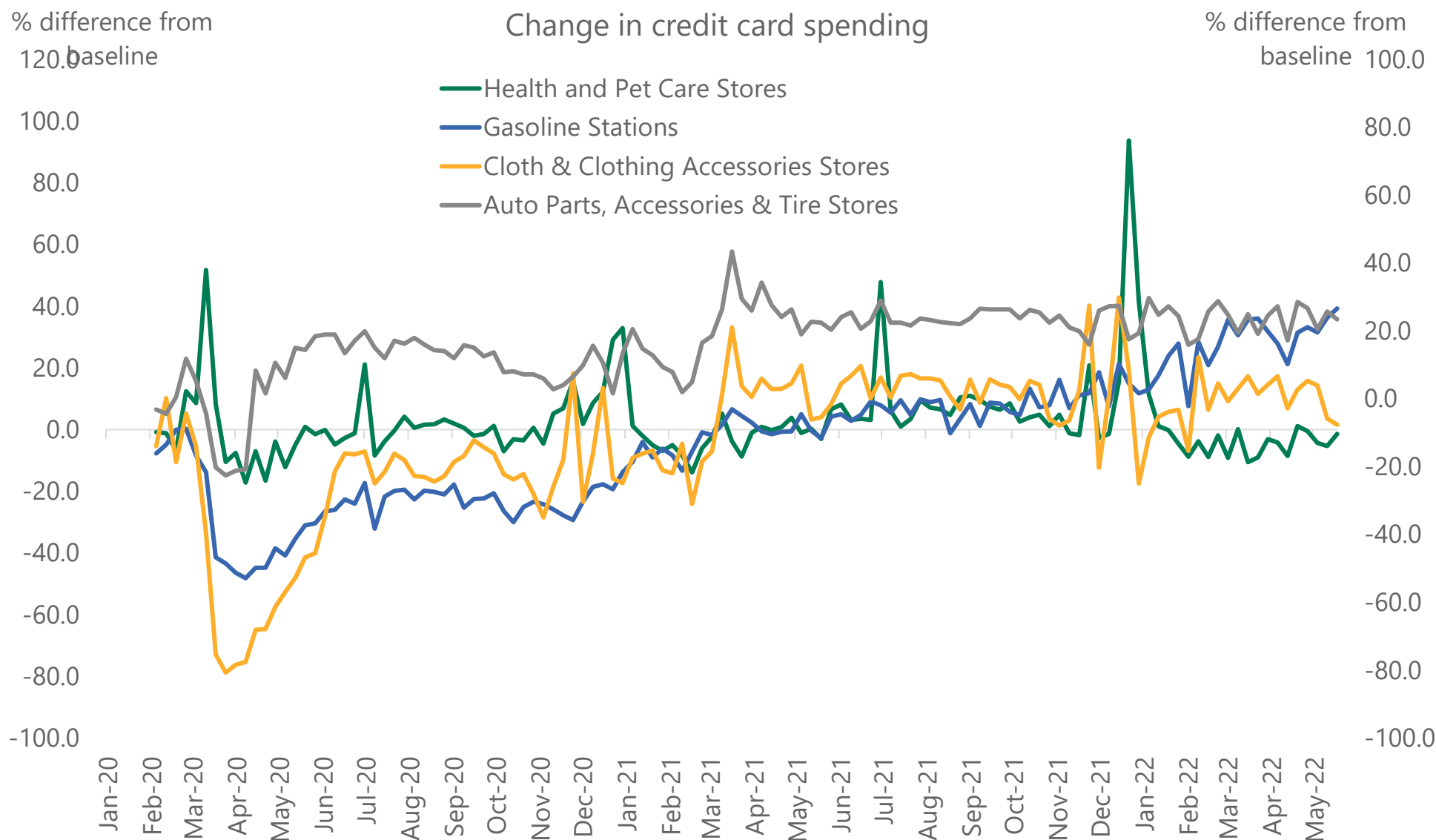
Outlook for spending on other consumer goods

Credit and debit card spending still solid



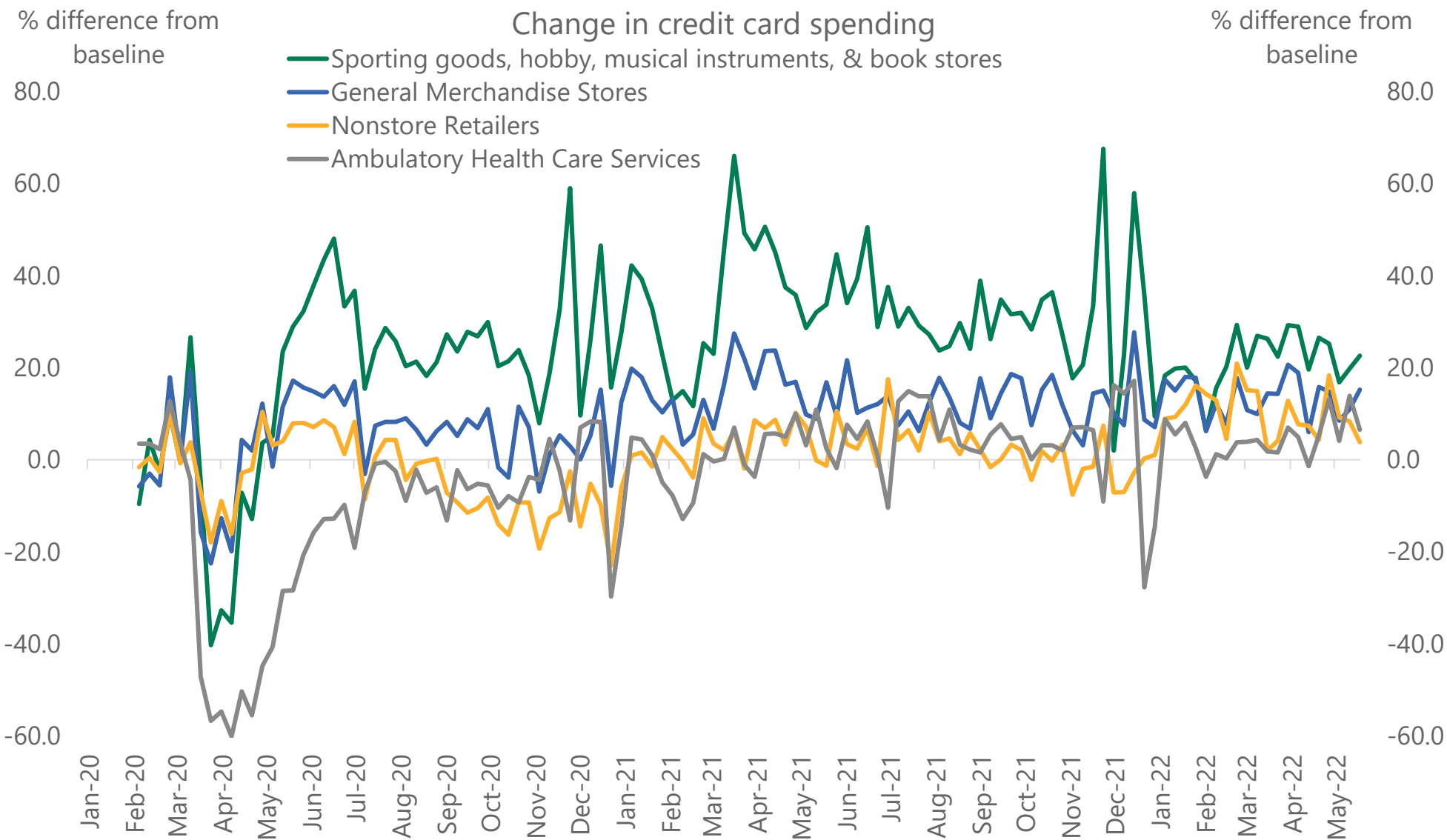
Source: BEA, Haver analytics, Apollo Chief Economist. Note: The weekly values represent the predicted percentage difference from the typical level of spending (prior to the pandemic declared by the World Health Organization on March 11, 2020) after adjusting for day-of-week, month, and year effects, based on daily data. The typical level corresponds to a value of zero.

Credit and debit card spending still solid



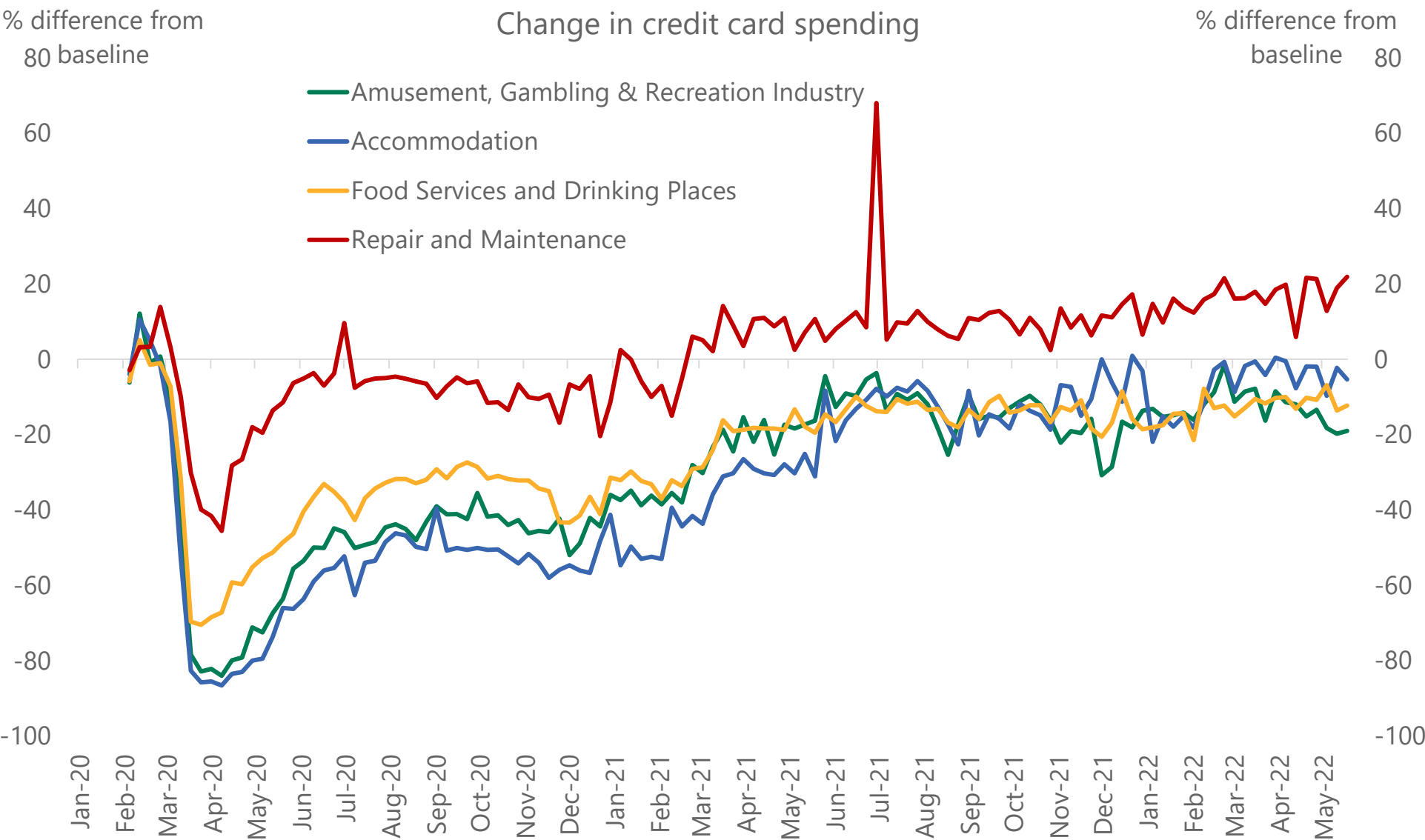
Source: BEA, Haver analytics, Apollo Chief Economist. Note: The weekly values represent the predicted percentage difference from the typical level of spending (prior to the pandemic declared by the World Health Organization on March 11, 2020) after adjusting for day-of-week, month, and year effects, based on daily data. The typical level corresponds to a value of zero.

Credit and debit card spending still solid



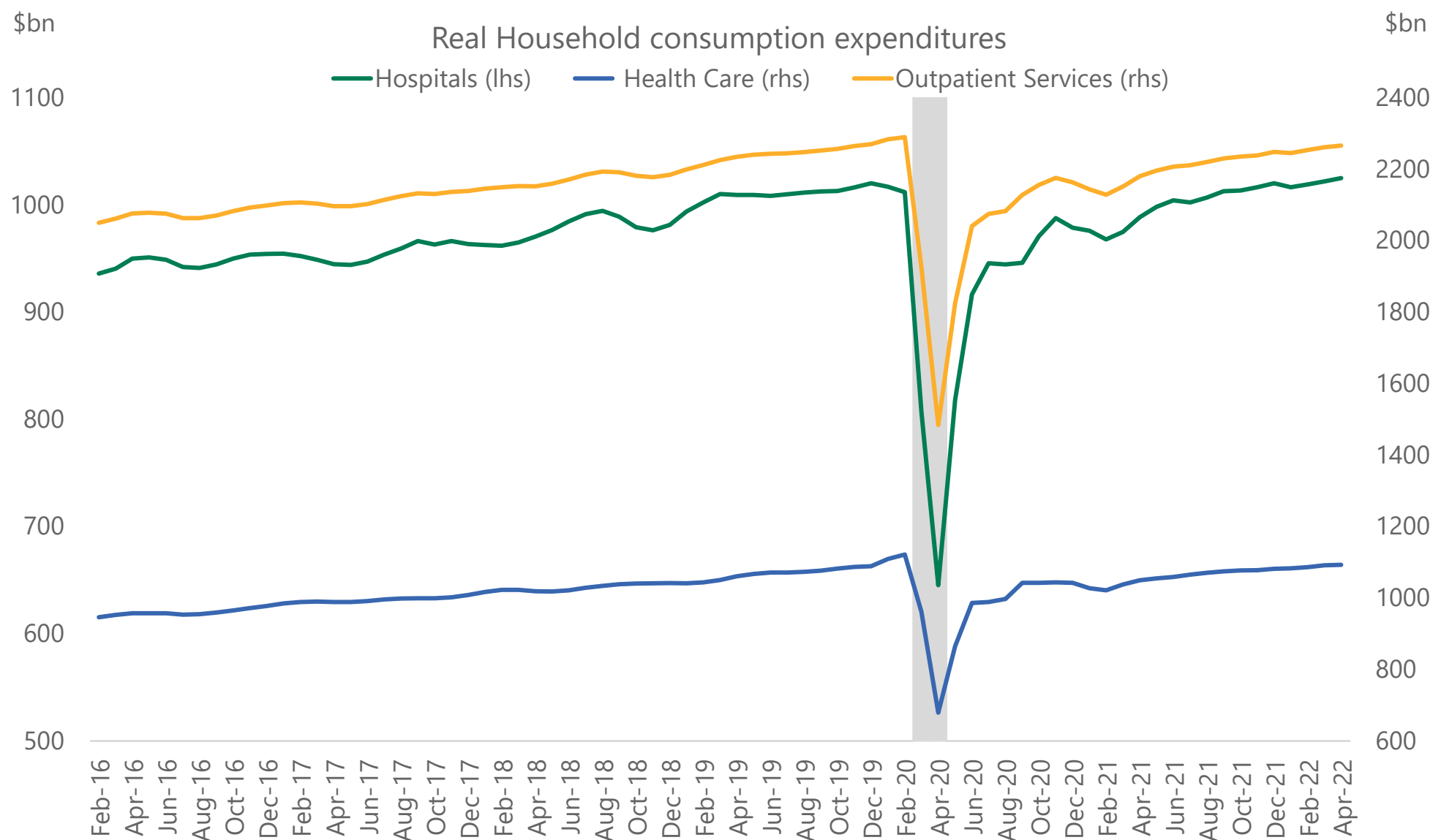
Source: BEA, Haver analytics, Apollo Chief Economist. Note: The weekly values represent the predicted percentage difference from the typical level of spending (prior to the pandemic declared by the World Health Organization on March 11, 2020) after adjusting for day-of-week, month, and year effects, based on daily data. The typical level corresponds to a value of zero.

Credit and debit card spending still solid



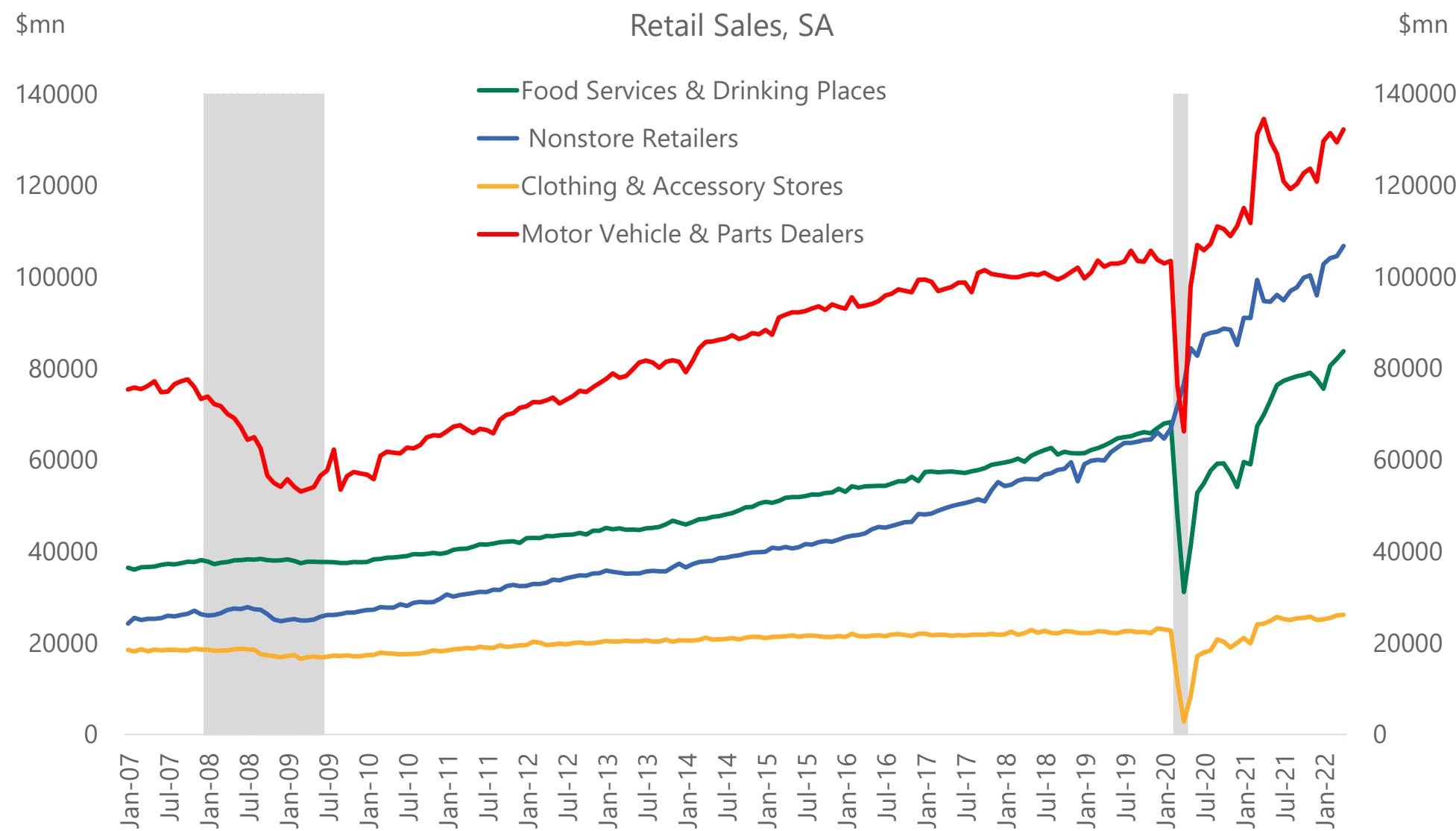
Source: BEA, Haver analytics, Apollo Chief Economist. Note: The weekly values represent the predicted percentage difference from the typical level of spending (prior to the pandemic declared by the World Health Organization on March 11, 2020) after adjusting for day-of-week, month, and year effects, based on daily data. The typical level corresponds to a value of zero.

Health care spending approaching pre-pandemic levels



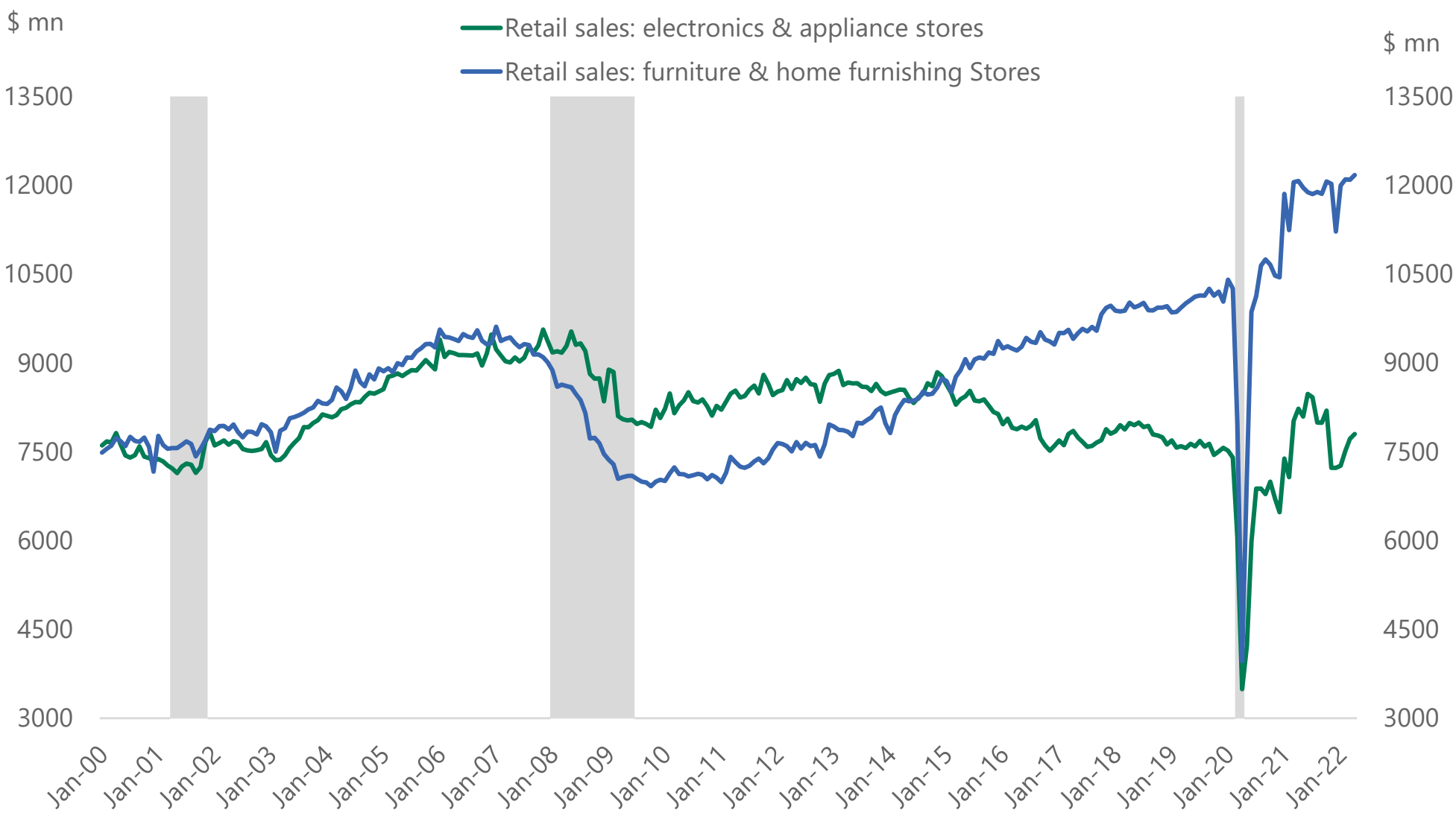
Source: BEA, Haver, Apollo Chief Economist

Retail sales across different spending categories



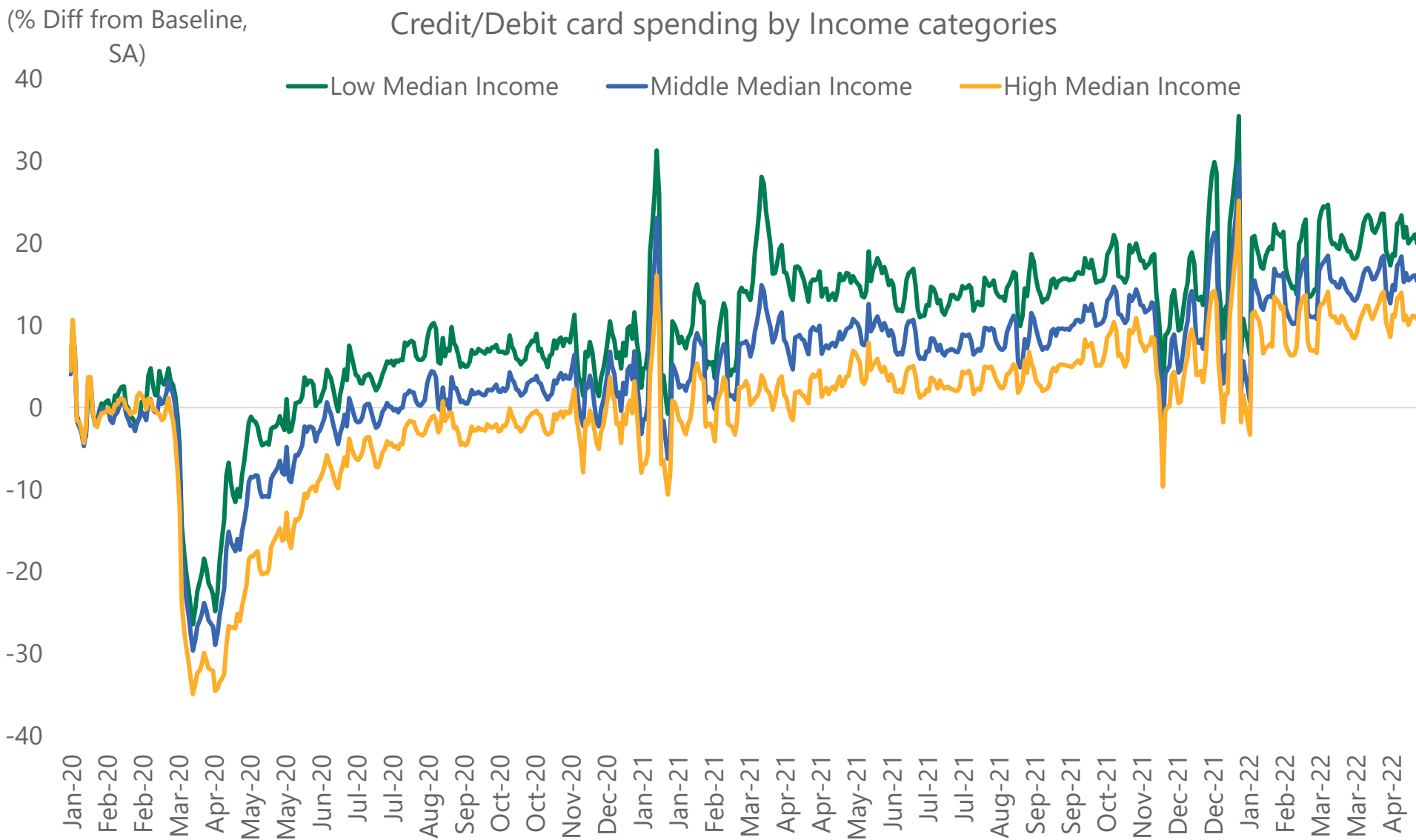
Source: Census Bureau, Haver, Apollo Chief Economist

Sales of Furniture and Electronics and appliances



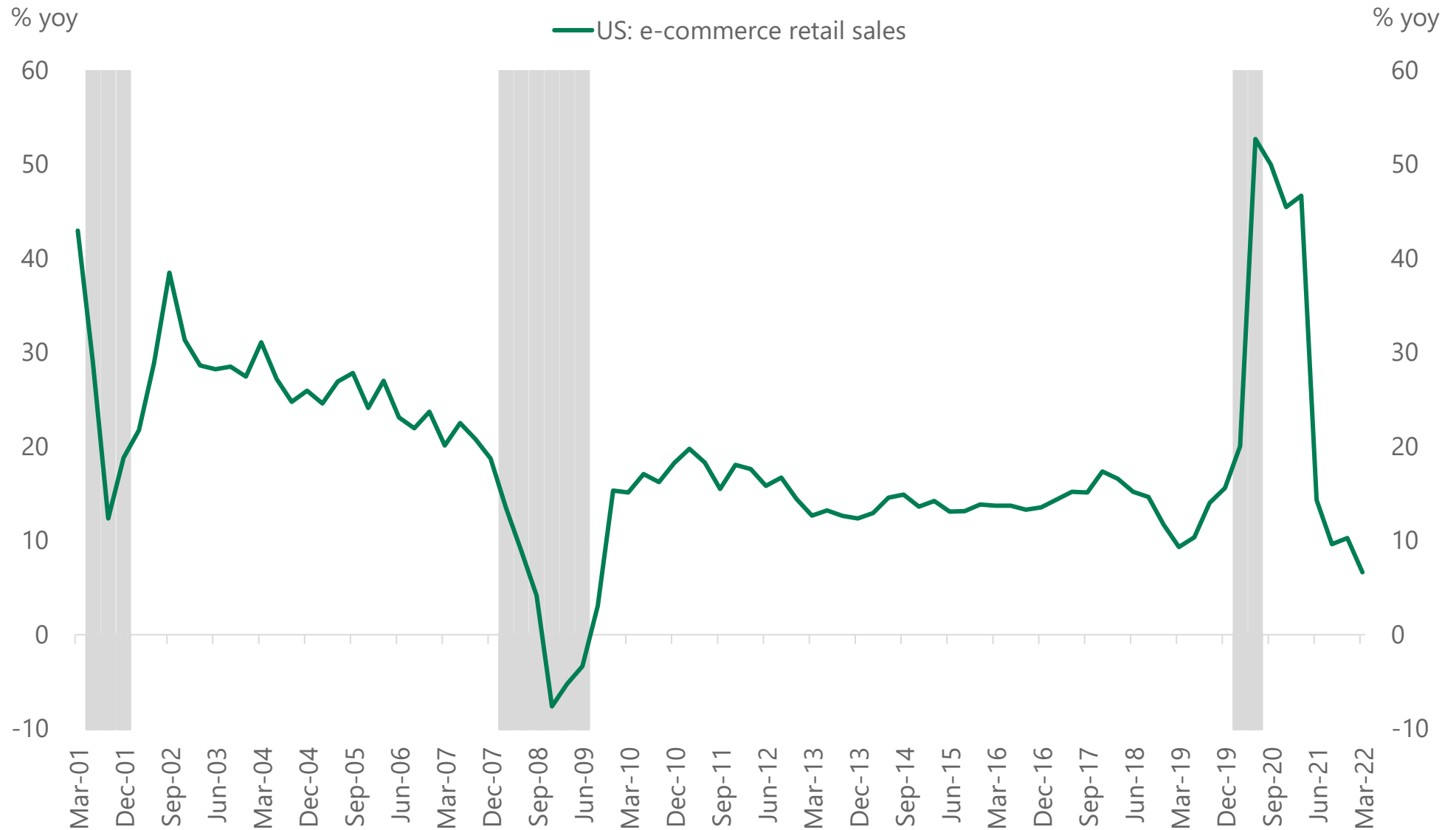
Source: Census Bureau, Haver, Apollo Chief Economist

Consumer spending above pre-covid levels across income groups



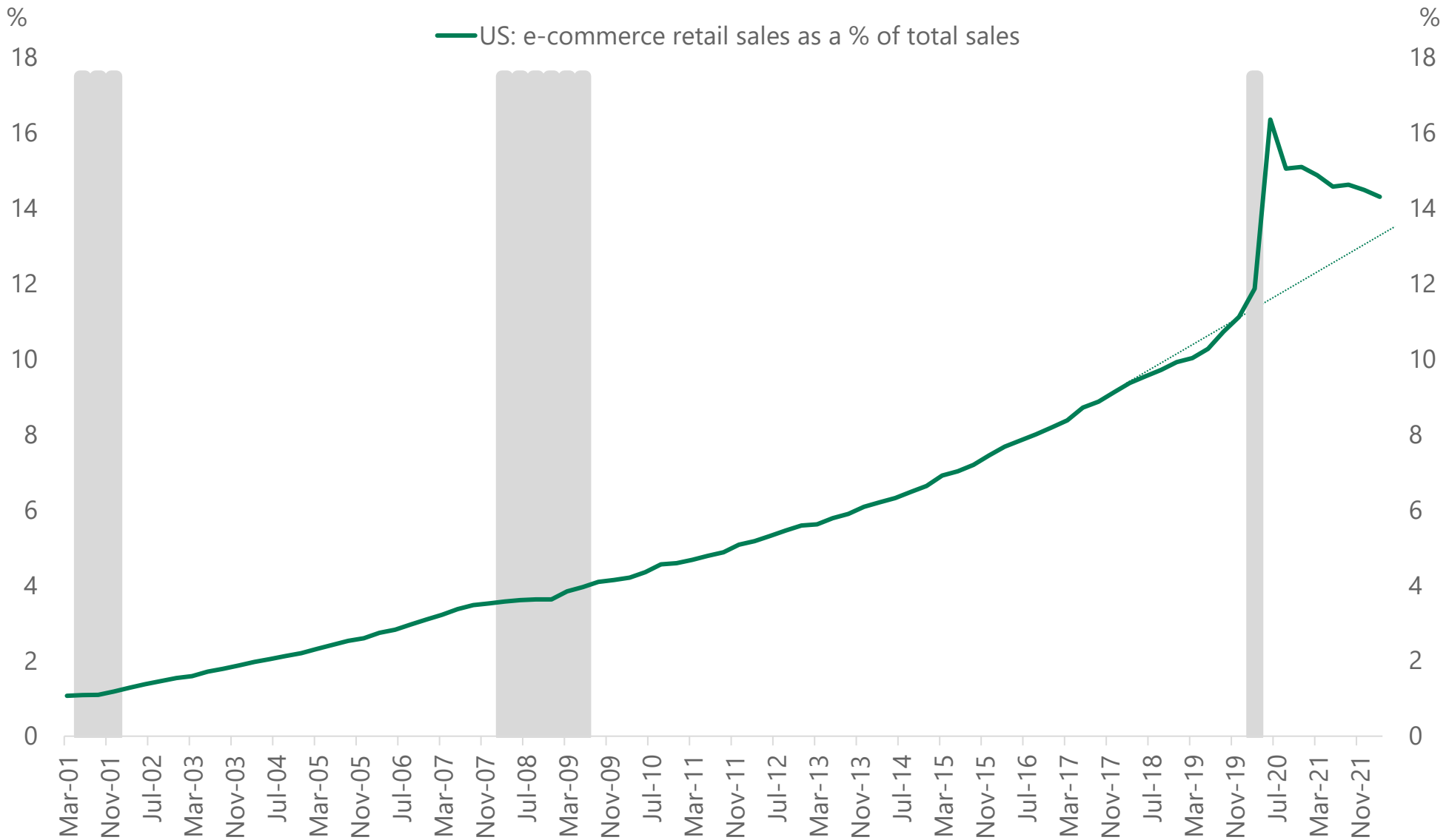
Source: Affinity Solutions via Opportunity Insights, Haver, Apollo Chief Economist

E-commerce sales softening



Source: Census Bureau, Haver, Apollo Chief Economist

Online shopping as a share of total consumer spending coming back to trend



Source: Census Bureau, Haver, Apollo Chief Economist

Conclusions

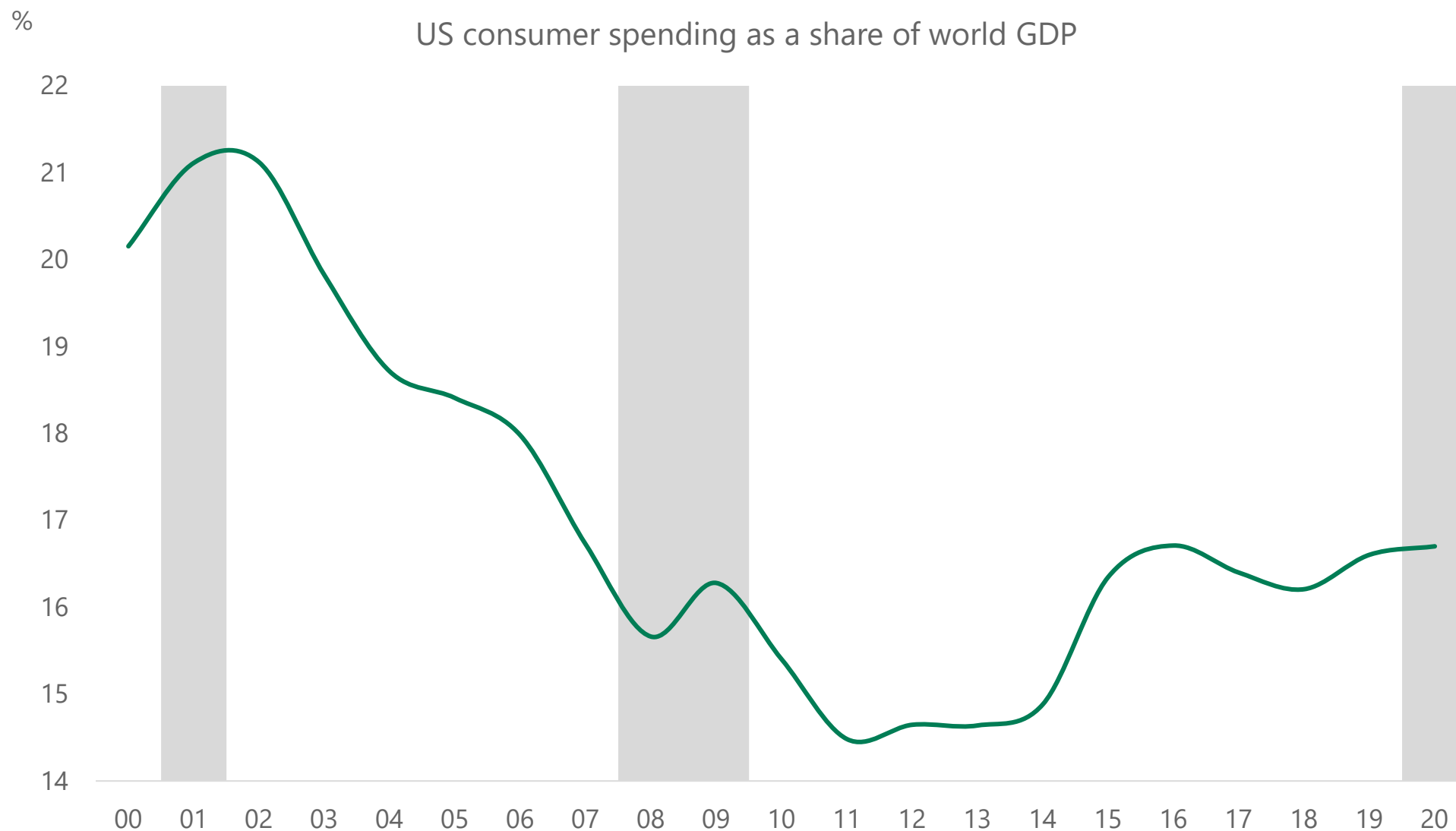
Key conclusions

Consumer spending growth will remain solid, driven by:

- 1) The virus subsiding and more people going to restaurants, flying on airplanes, and staying at hotels
- 2) Robust wage growth
- 3) Robust employment growth
- 4) High levels of excess savings and elevated levels of wealth, driven by high home prices

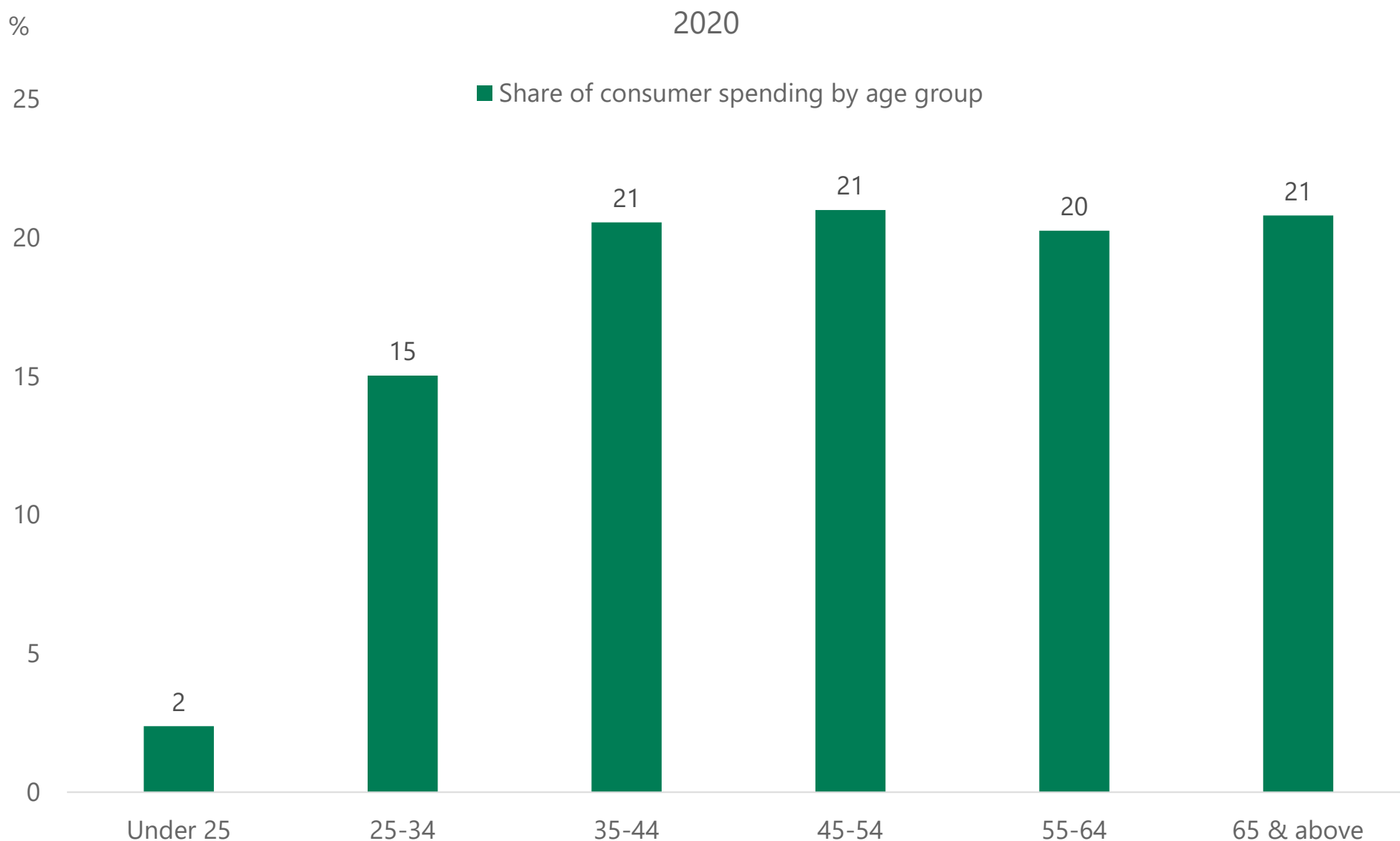
Risks to the outlook for the consumer are higher interest rates, lower stock prices and crypto prices, and high inflation making many purchases such as cars, gas, and homes too expensive.

US consumer makes up 17% of global GDP



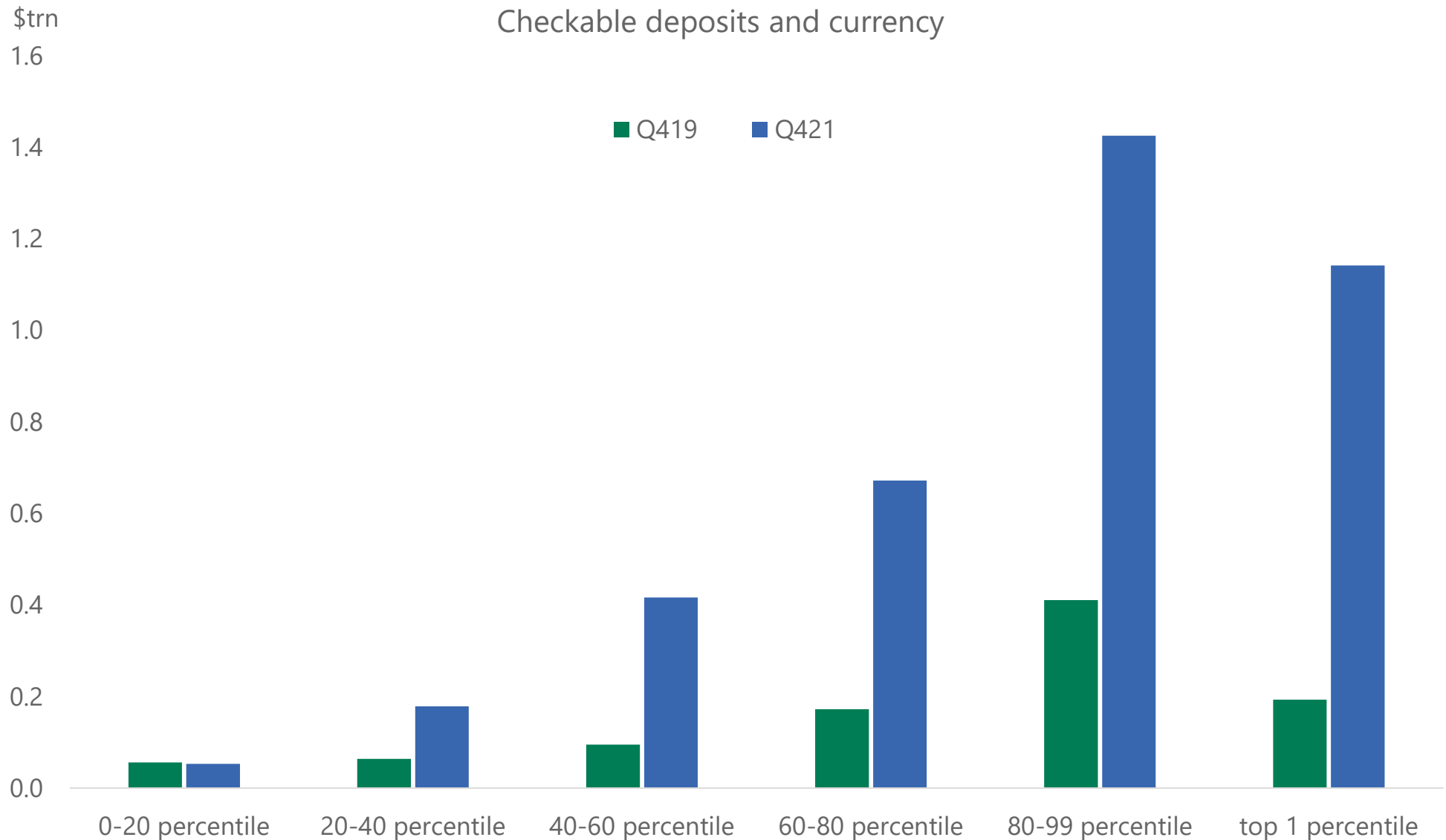
Source: Haver, World Bank, Apollo Chief Economist

People age 55 and above account for 41% of total consumer spending



Source: BLS, Haver, Apollo Chief Economist

Household savings across different income groups



Source: FRB, Haver Analytics, Apollo Chief Economist

Biography



Torsten Slok, Ph.D.

Chief Economist

Apollo Chief Economist

tslok@apollo.com

Torsten Slok joined Apollo in August 2020 as Chief Economist and he leads Apollo's macroeconomic and market analysis across the platform.

Prior to joining, Mr. Slok worked for 15 years as Chief Economist at Deutsche Bank where his team was top ranked in the annual Institutional Investor survey for a decade, including #1 in 2019. Prior to joining Deutsche Bank Mr. Slok worked at the IMF in Washington, DC and at the OECD in Paris.

Mr. Slok has a Ph.D in Economics and has studied at the University of Copenhagen and Princeton University.