



Shape Shifting: How the pandemic is changing the contours of the economy.

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KPMG Economics

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Covid has changed the shape of the economy

Global Financial Crisis

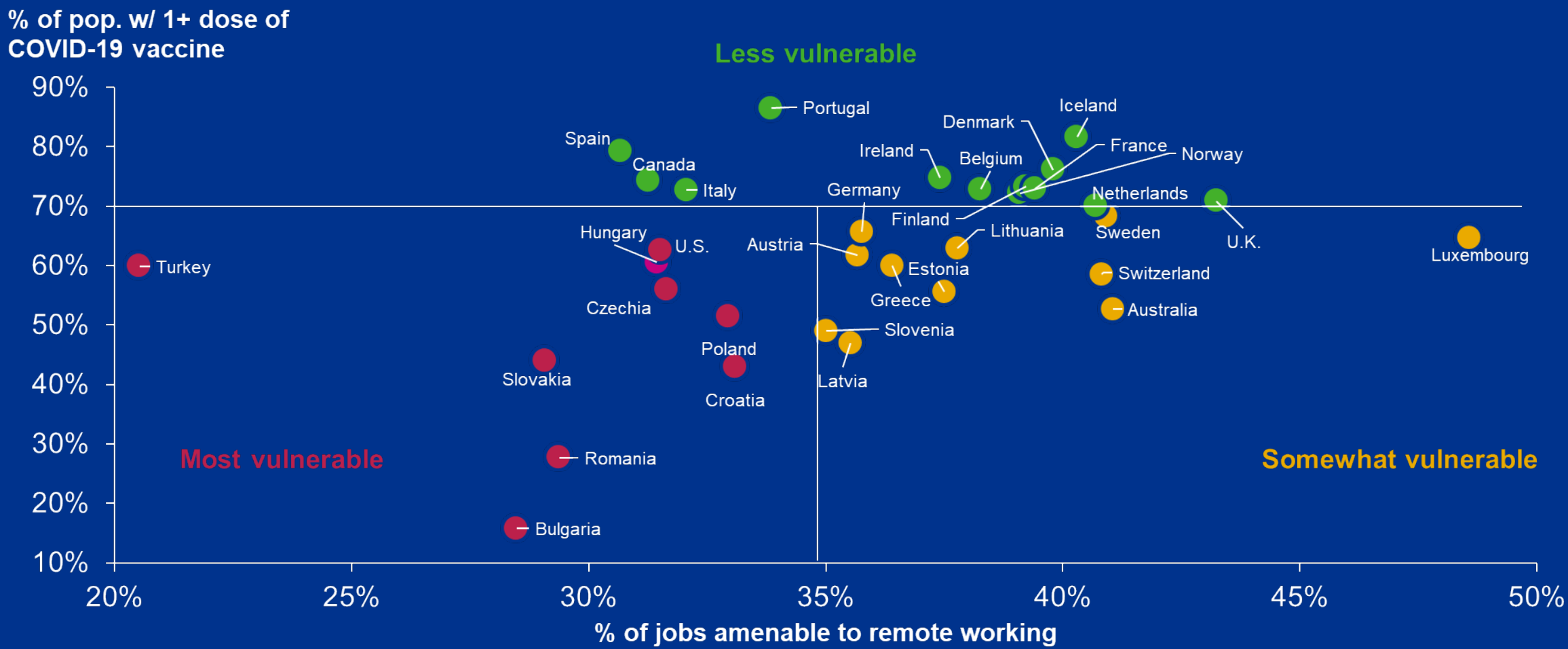
Longest Expansion in post-World War II Era

Covid-induced deepest
recession since WWII

Shape of the economy is
different than prior to Covid

Countries with low WFH and low vaccination rates most vulnerable

Economic and health vulnerability correlated with WFH and Vaccination rates

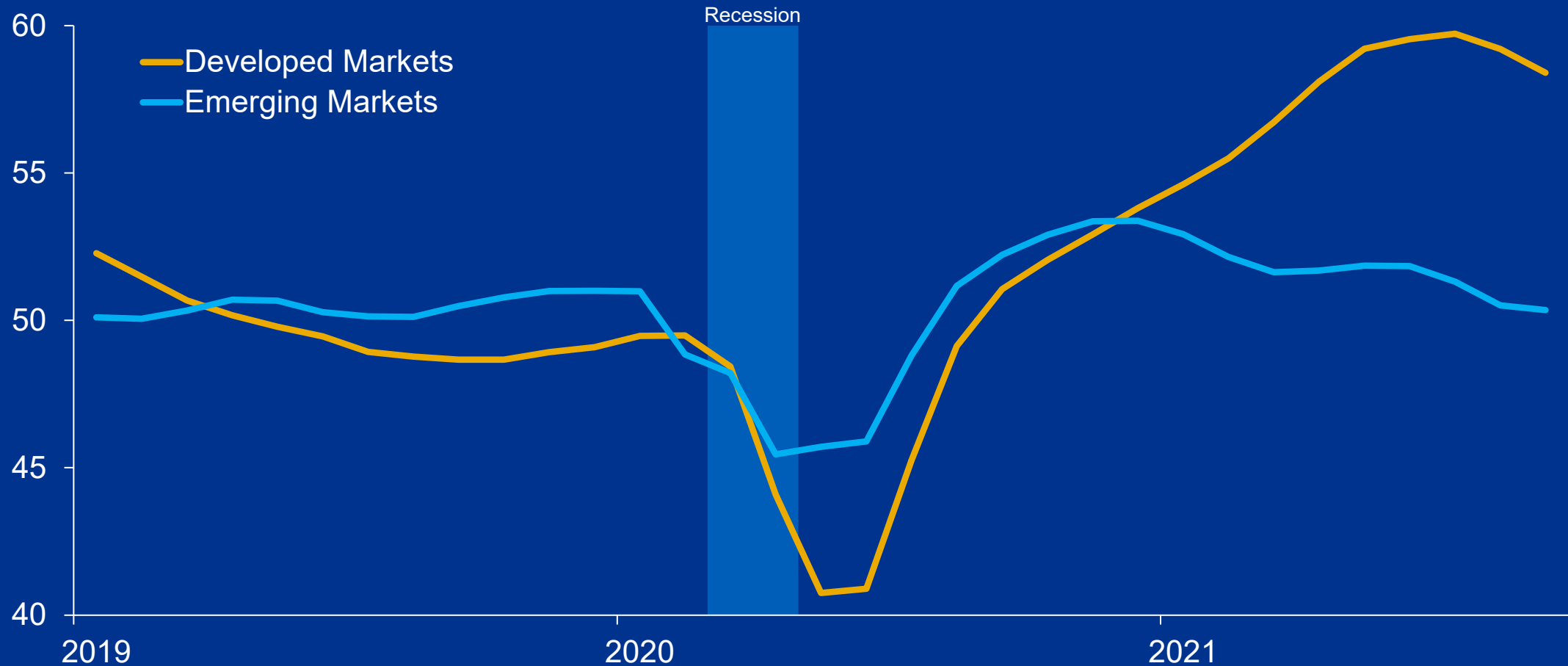


Source: KPMG Economics, OECD

Emerging markets see greater toll from COVID

Manufacturing Purchasing Managers Index (PMI)

50+ = Expansion, 3-Month Moving Average



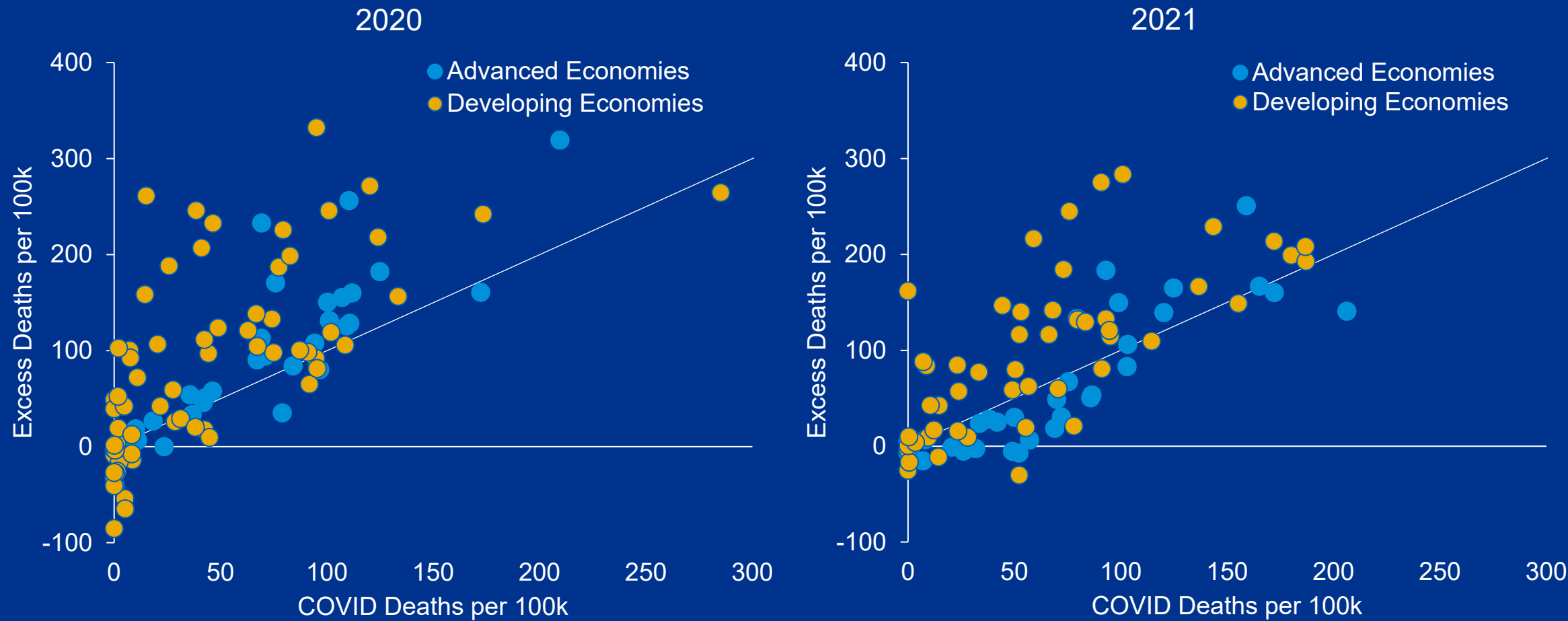
Source: KPMG Economics, IHS Markit (September 2021), Haver Analytics



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Emerging economies see higher excess deaths, particularly in 2021

Excess Deaths vs. COVID Deaths



Source: KPMG Economics, The Economist

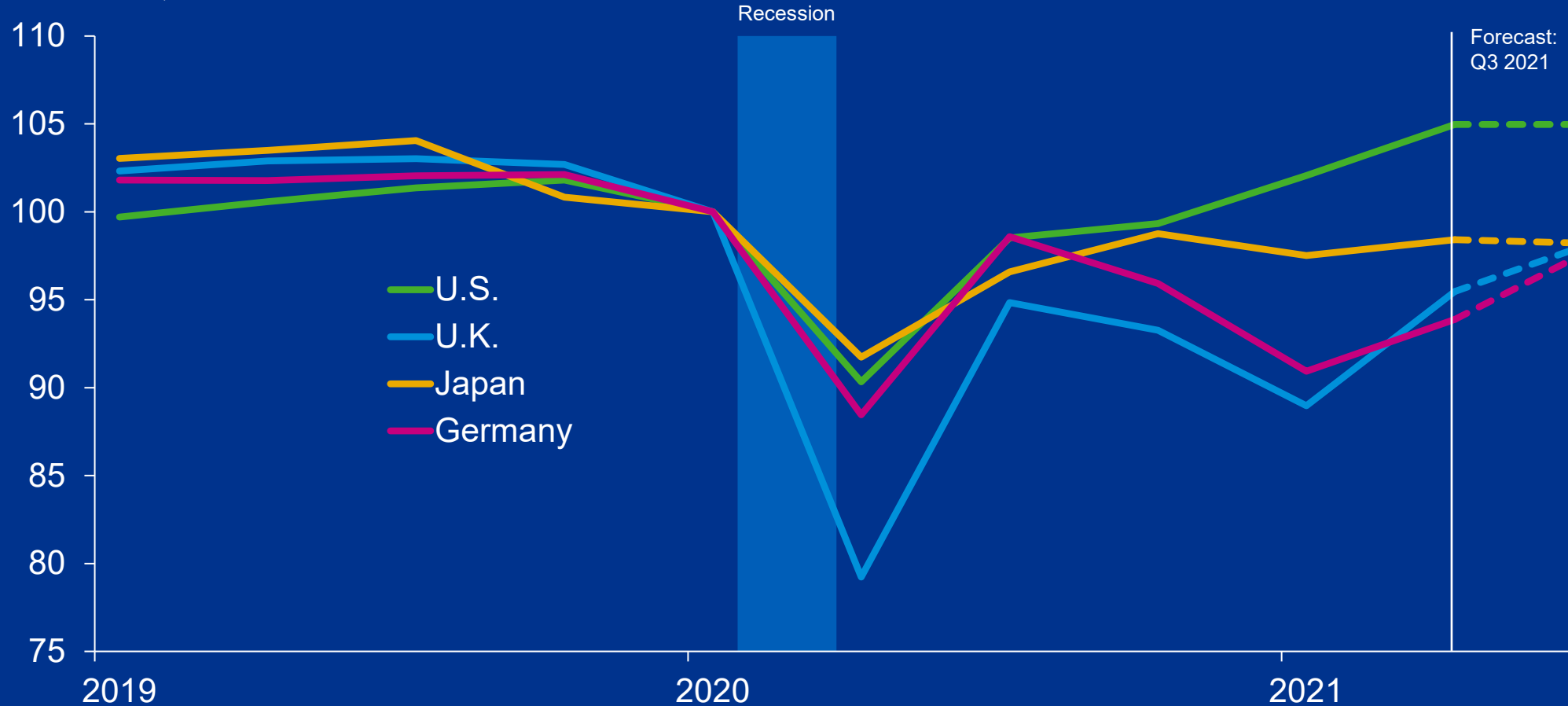


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Delta slows Q3 consumption in impacted countries

Consumption Heavily Impacted by Path of Pandemic

Indexed to Q1-2020



Note: Consumption forecasts for United Kingdom, Japan and Germany are from Bloomberg

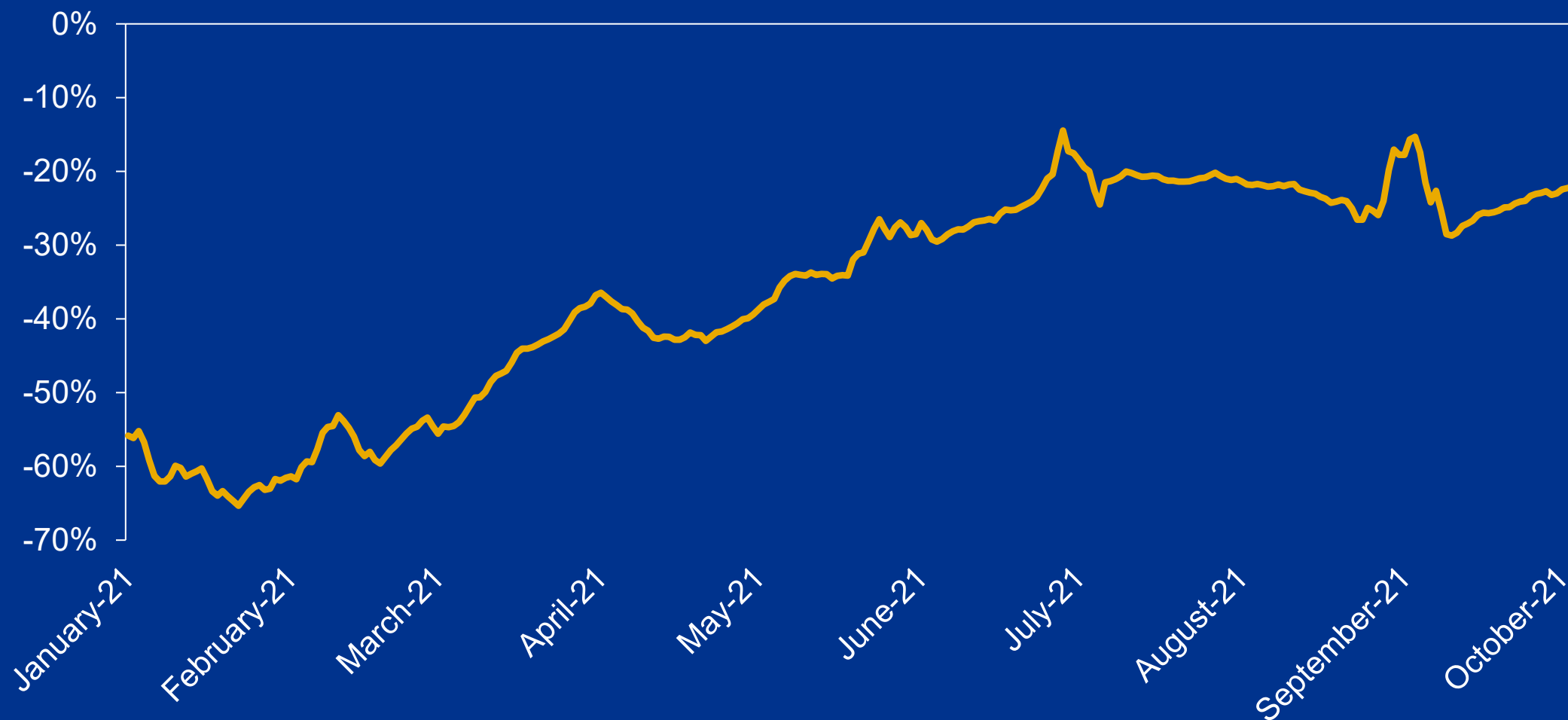
Source: KPMG Economics, BEA, INSEE, CAO, BBK, Haver Analytics



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Air travel gives an early signal services consumption

2021 TSA Passenger Volume Versus 2019 Volume



Source: KPMG Economics, TSA, Bloomberg (October 10, 2021)

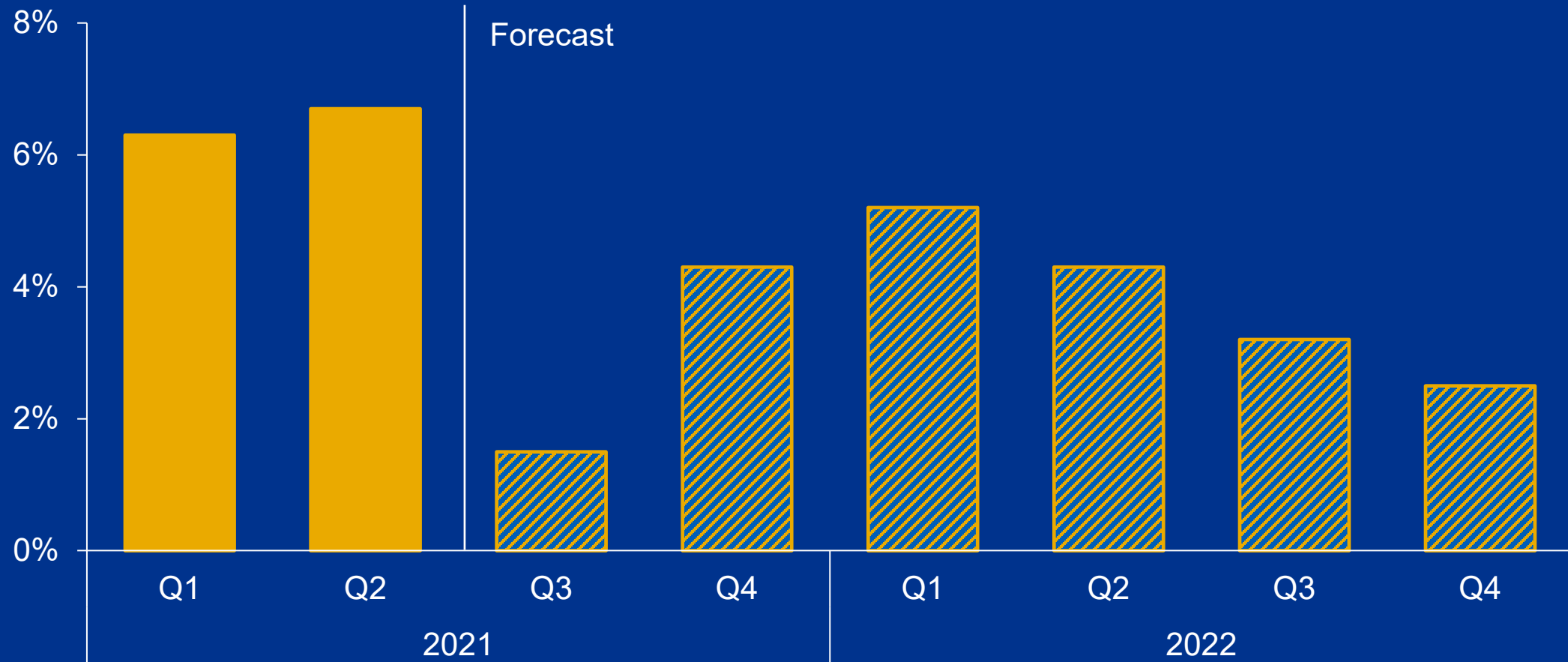


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Delta variant a speedbump in the pace of the recovery

Real GDP

% Change, Annual Rate



Source: KPMG Economics, Bureau of Economic Analysis, Macroeconomic Advisors by IHS

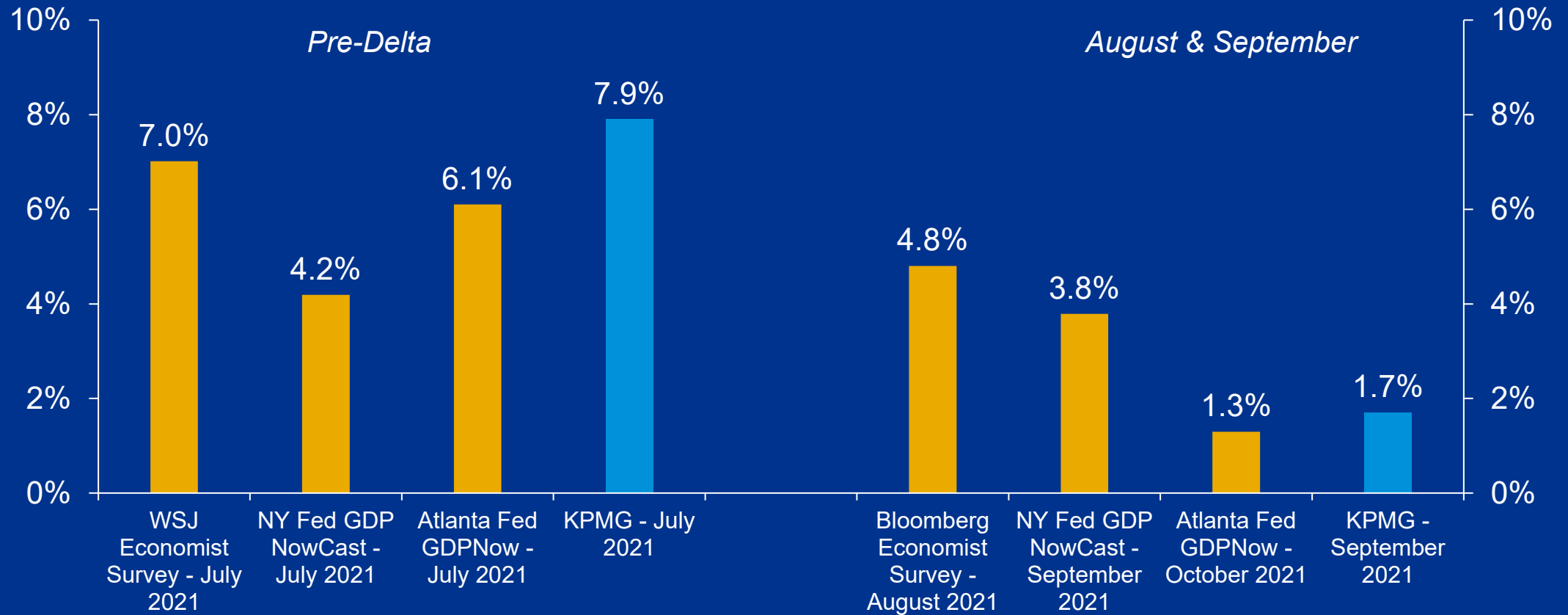


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Q3 GDP forecasts came down as Delta took hold

Real GDP Forecasts – Q3 2021

■ Q3 2021 GDP Forecast (% Change, SAAR)



Source: KPMG Economics, WSJ, Bloomberg, Federal Reserve Bank of New York, Federal Reserve Bank of Atlanta, Macroeconomic Advisors by IHS



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Jobs growth to reaccelerate as Delta recedes

Change in Total Nonfarm Employment

Millions of Jobs



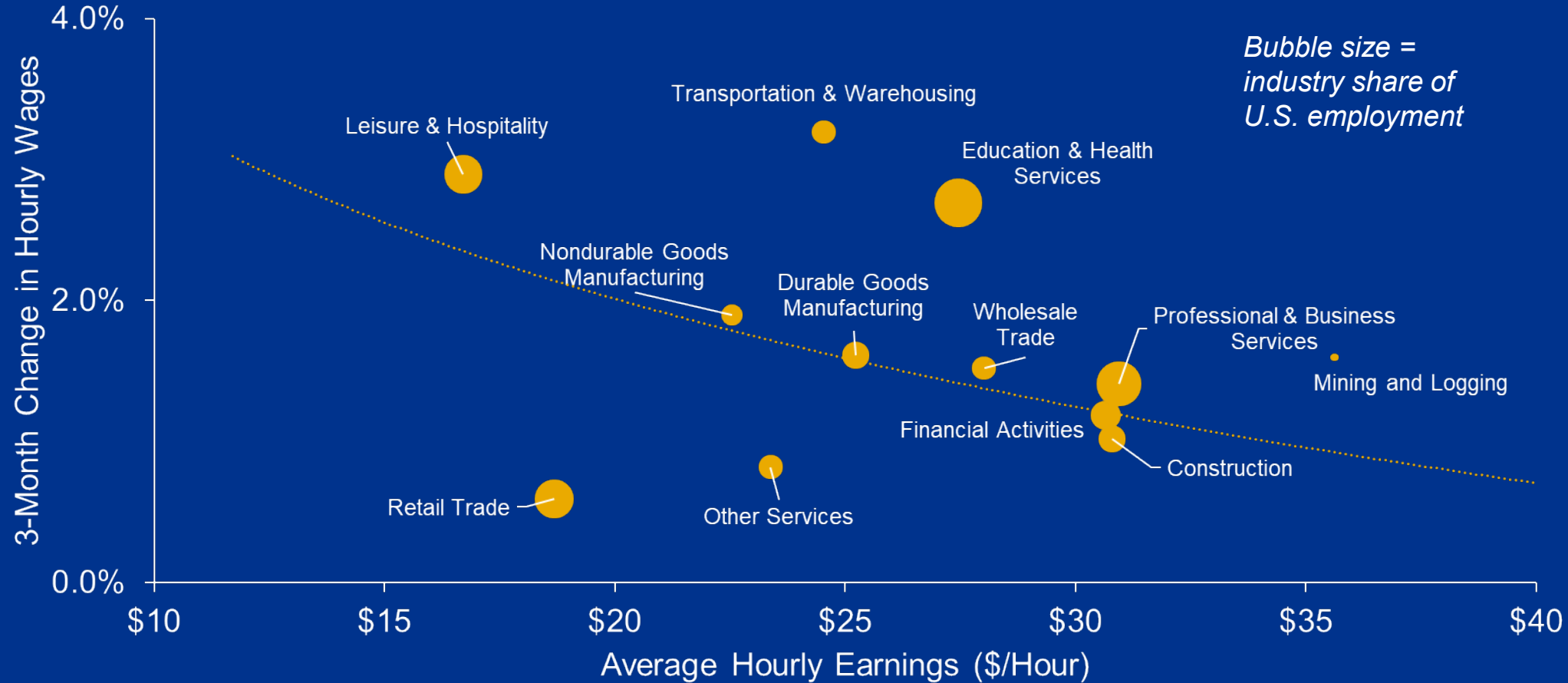
Source: KPMG Economics, BLS (September 2021), Haver Analytics



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Lower paid workers see the greatest average wage growth

Industry Wage Growth and Wage Level



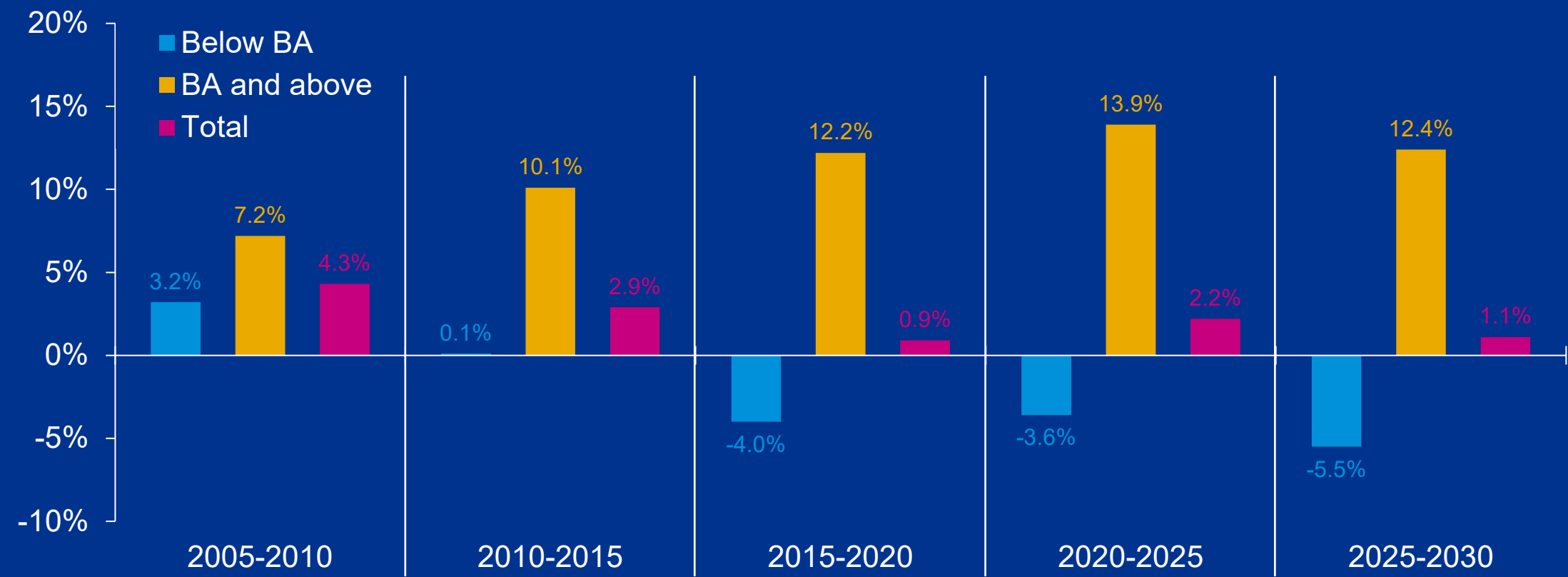
Source: KPMG Economics, Bureau of Labor Statistics (September 2021), Haver Analytics



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Labor force changes shape as work force becomes more educated

Working-age population (20-64) growth by education group
5-year % change



Source: KPMG Economics, The Conference Board, US Census Bureau, IPUMS-ACS, University of Minnesota.



Fastest growing jobs concentrated in healthcare and STEM

Bureau of Labor Statistics Employment Projections 2020-30

Excluding Pandemic Recovery

Top 10 fastest growing occupations	Percent change, projected 2020-30	Employment change, projected 2020-30 (in thousands)	Median annual wages, May 2020
Wind turbine service technicians	68.2%	4.7	\$56,230
Nurse practitioners	52.2%	114.9	\$111,680
Solar photovoltaic installers	52.1%	6.1	\$46,470
Statisticians	35.4%	14.9	\$92,270
Physical therapist assistants	35.4%	33.2	\$59,770
Information security analysts	33.3%	47.1	\$103,590
Home health and personal care aides	32.6%	1129.9	\$27,080
Medical and health services managers	32.5%	139.6	\$104,280
Data scientists and mathematical	31.4%	19.8	\$98,230
Physician assistants	31.0%	40.1	\$115,390

Source: KPMG Economics, Bureau of Labor Statistics

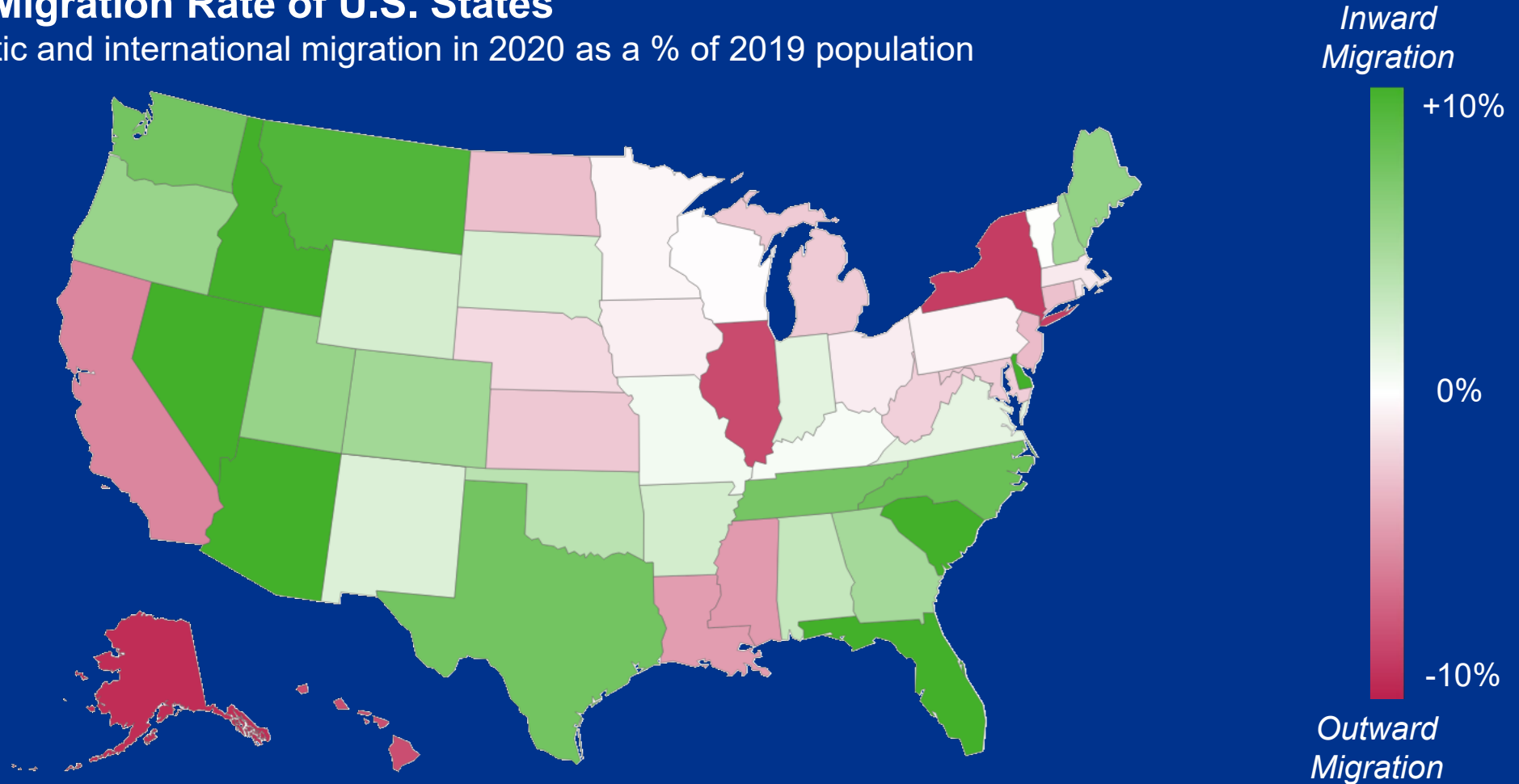


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Shifts out of urban areas drove changing demand for goods

2020 Net Migration Rate of U.S. States

Total domestic and international migration in 2020 as a % of 2019 population



Source: KPMG Economics, U.S. Census Bureau, Haver Analytics

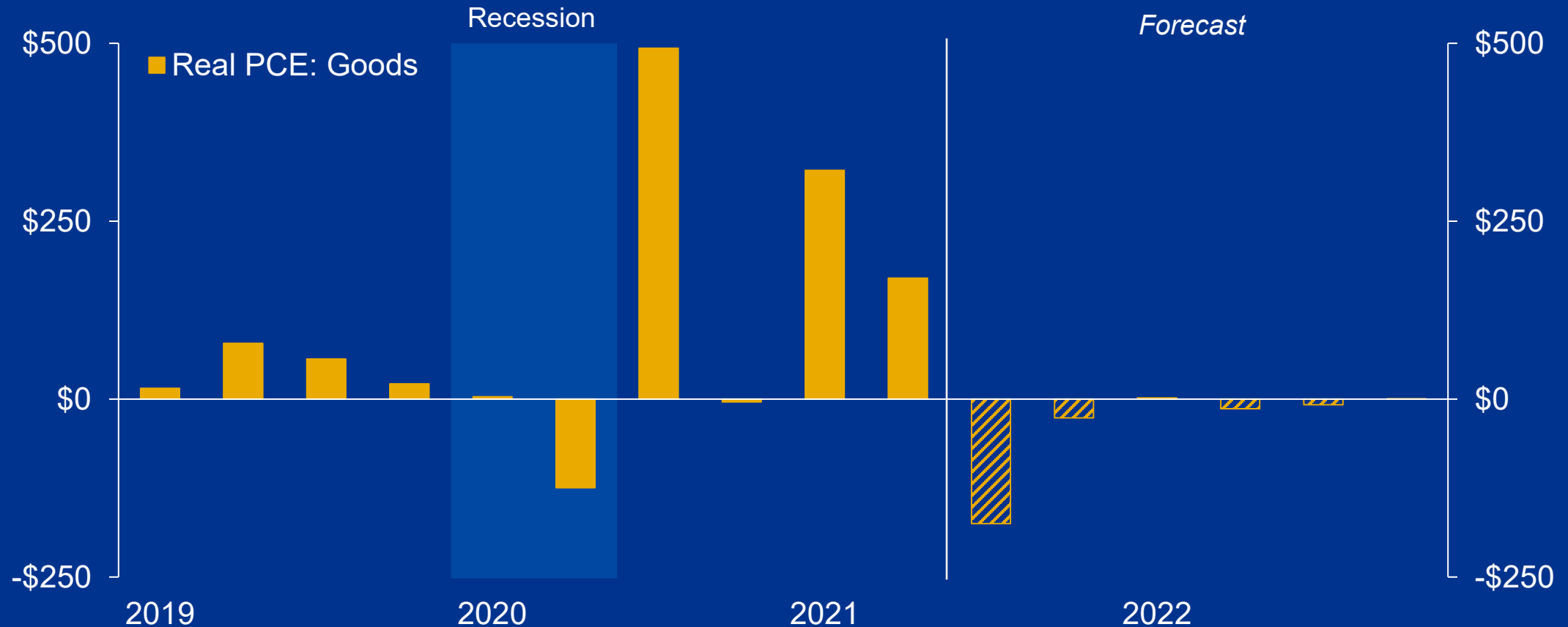


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Goods consumption will not continue at the H1 pace

Goods Consumption Boom Had Knock-on Effects

Change in Real PCE Expenditures: Goods, Billions of 2012 Dollars



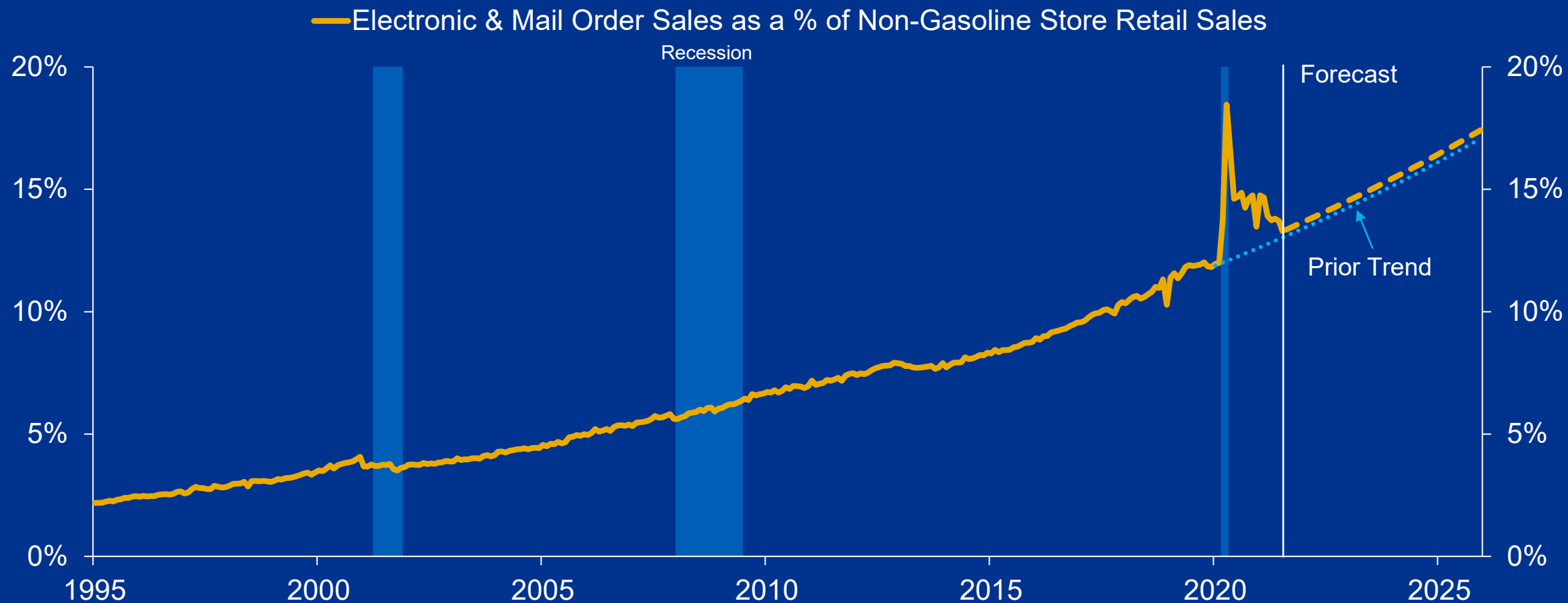
Source: KPMG Economics, Bureau of Economic Analysis, Haver Analytics



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Online sales likely to map to the pre-Covid trend

E-Commerce as a Share of Retail Sales



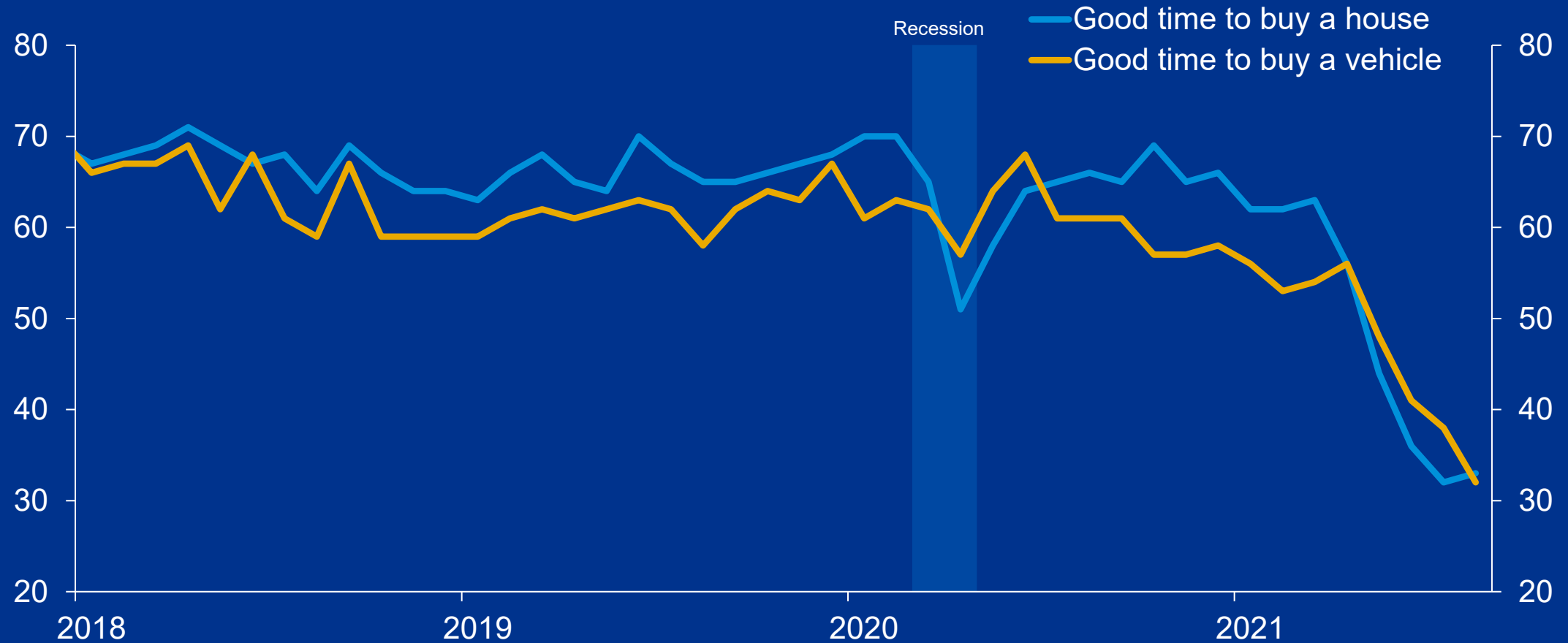
Source: KPMG Economics, Census Bureau (July 2021), Haver Analytics



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Consumer appetite for goods consumption wanes

Rising Pessimism for Large Purchases



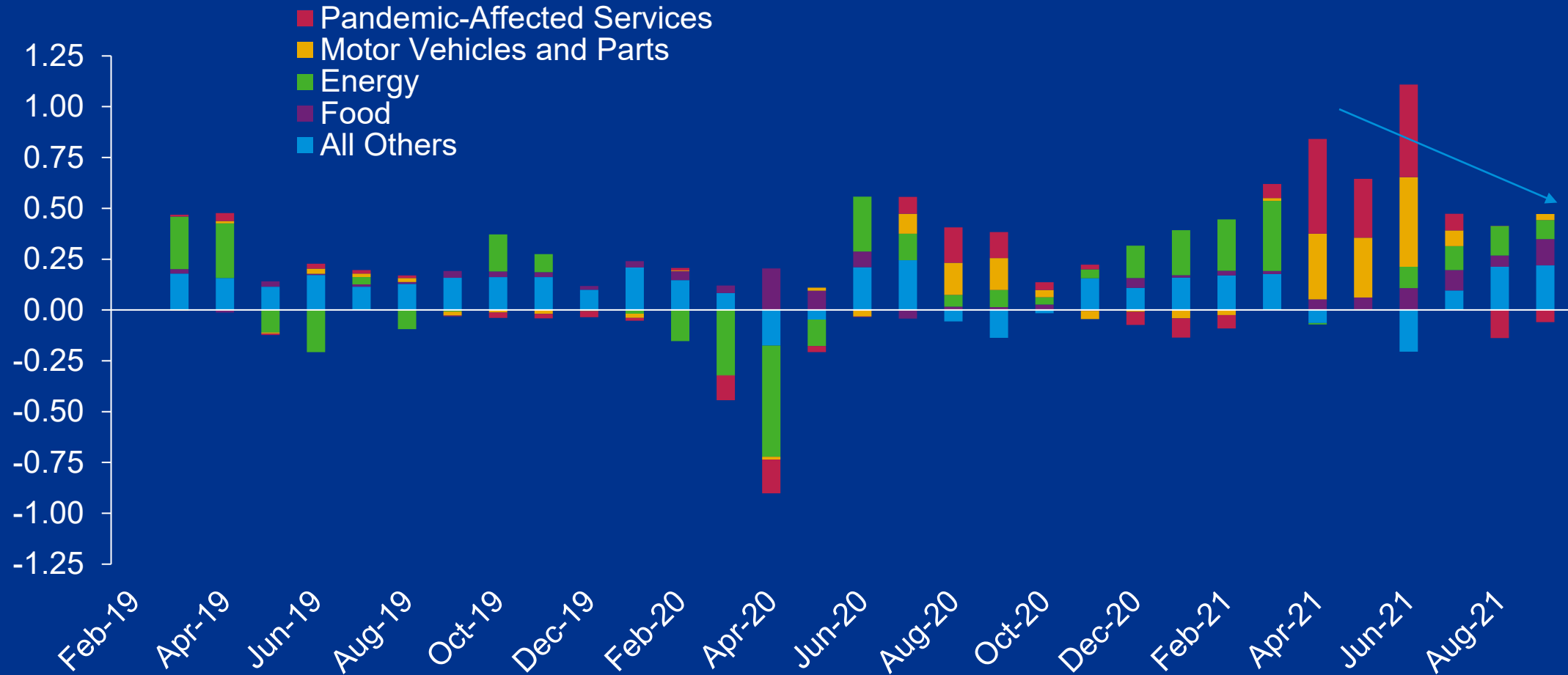
Source: KPMG Economics, University of Michigan (August 2021), Haver Analytics



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Pandemic-related inflation pressures abate for now

Contributions to Month-Over-Month CPI Growth



Source: KPMG Economics, Bureau of Labor Statistics, Council of Economic Advisors, Haver Analytics

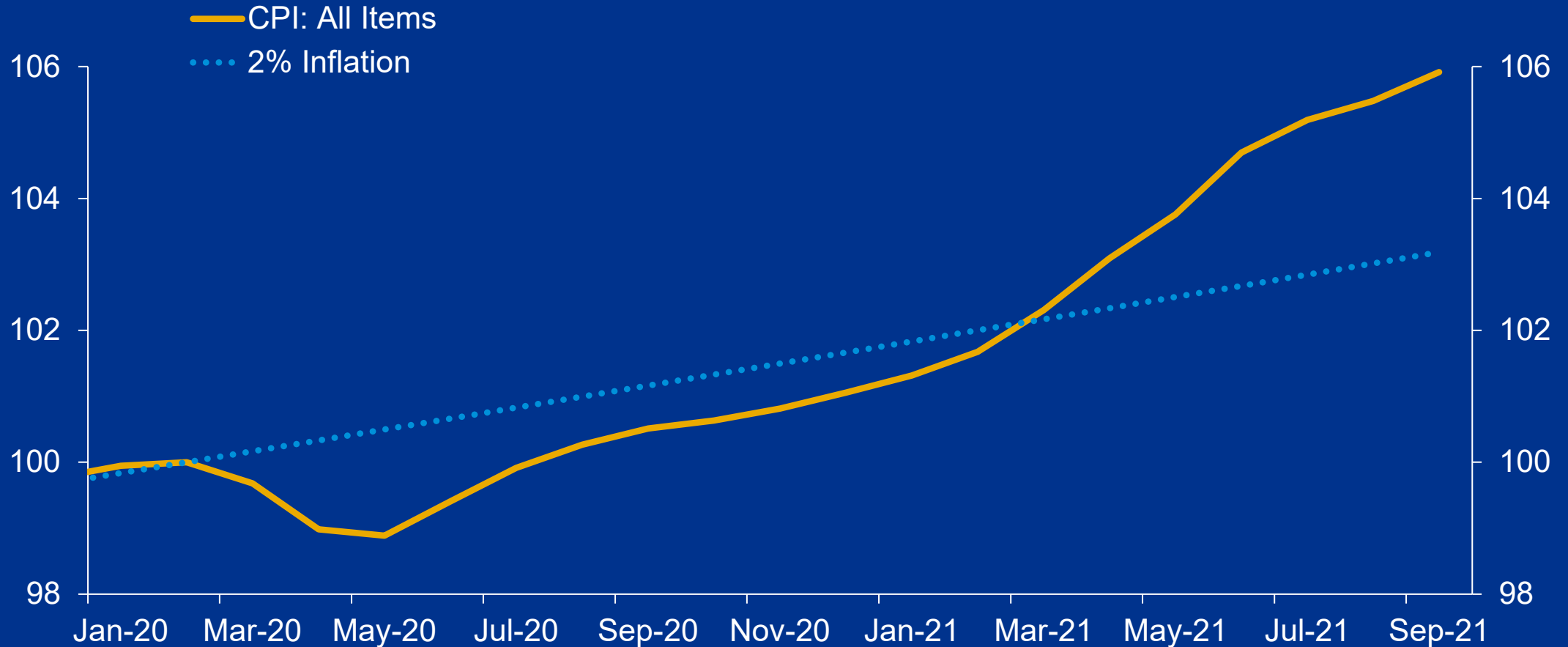


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Prices have more than made up for pandemic slump

Consumer Prices vs. Pre-COVID Trend

Indexed to February 2020



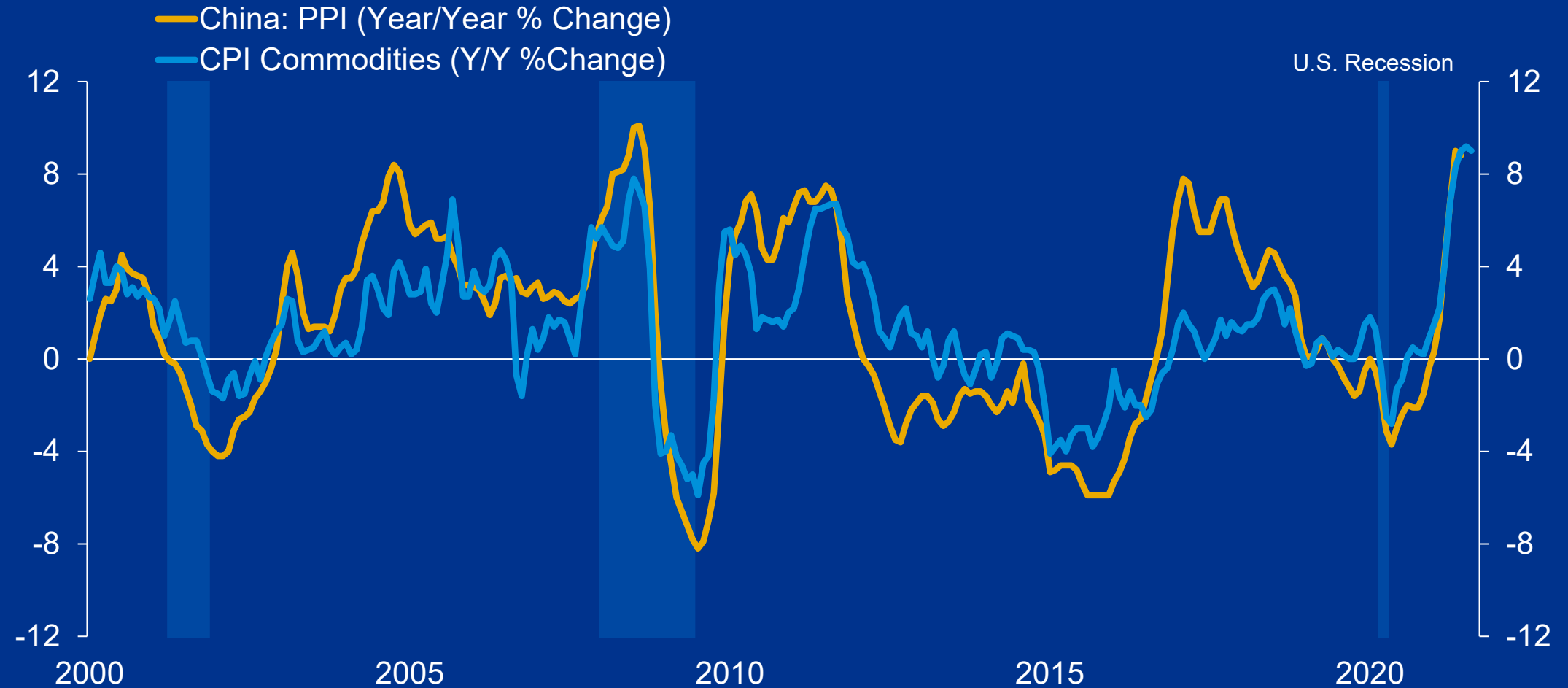
Source: KPMG Economics, Bureau of Labor Statistics, Haver Analytics



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China PPI has influences U.S. commodity prices

China PPI Pressured to Electricity Supply Shortages



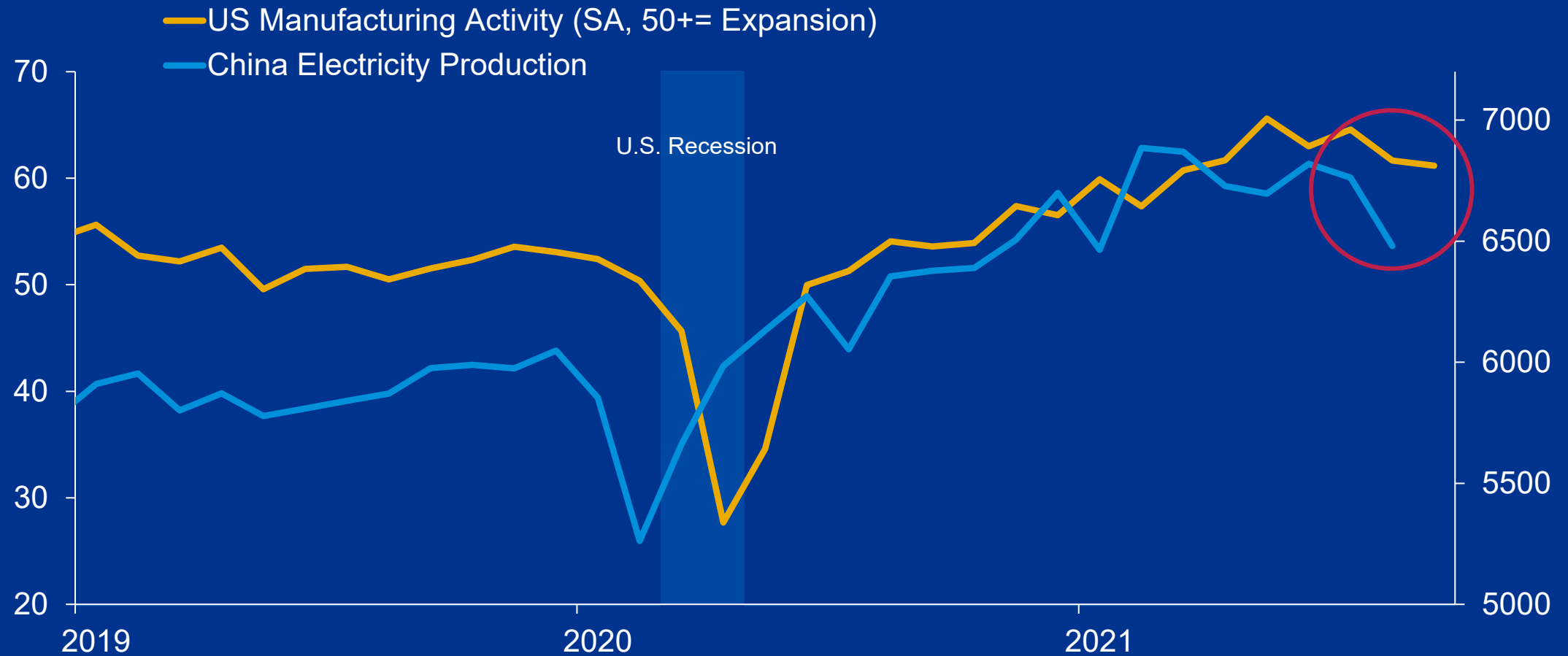
Source: KPMG Economics, OECD, BLS, Haver Analytics



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Fall in Chinese electricity production to weigh on U.S. supply

China Electricity Production and U.S. Manufacturing Demand



Source: KPMG Economics, IHSM, CNBS, Haver Analytics



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CPI to remain above 2.0% through 2023 with upside risks

CPI Inflation

Annual % Change



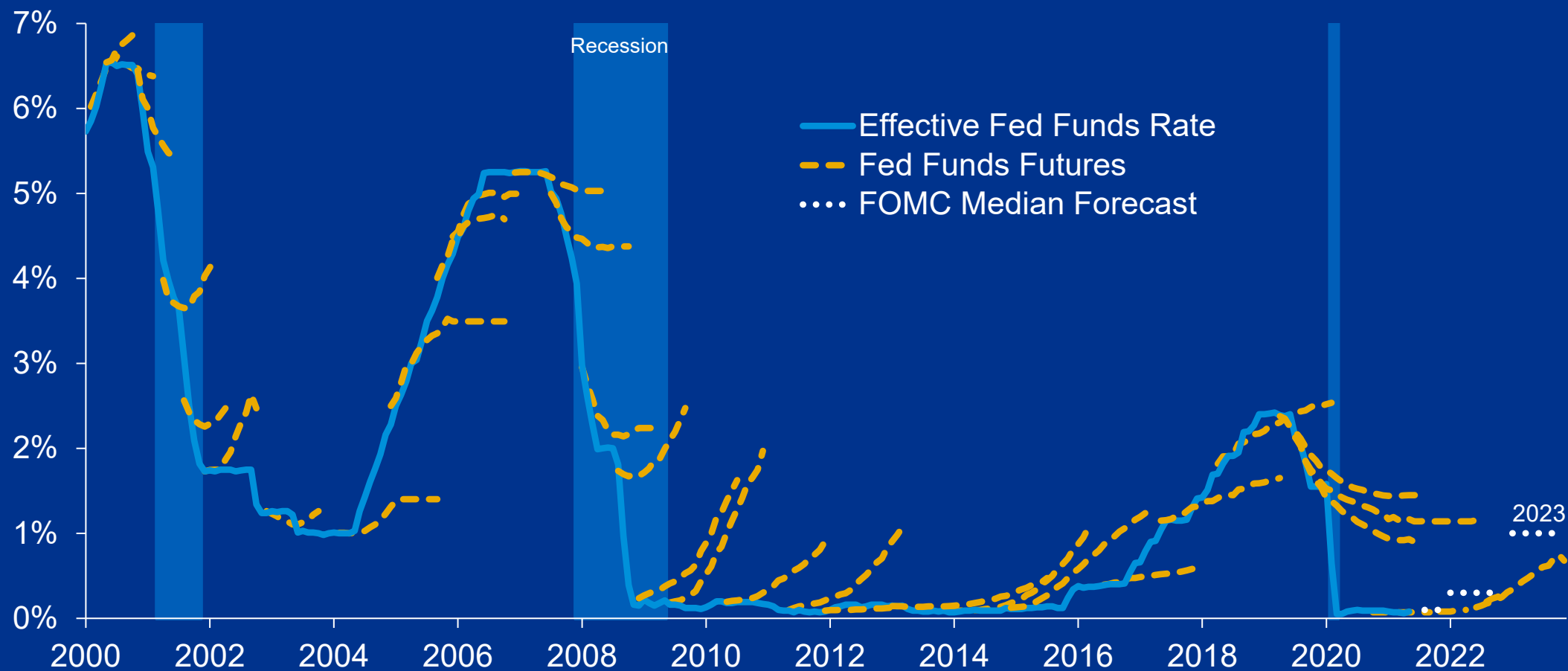
Source: KPMG Economics, Bureau of Labor Statistics, Haver Analytics



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However Federal Reserve not taking chances on runaway inflation

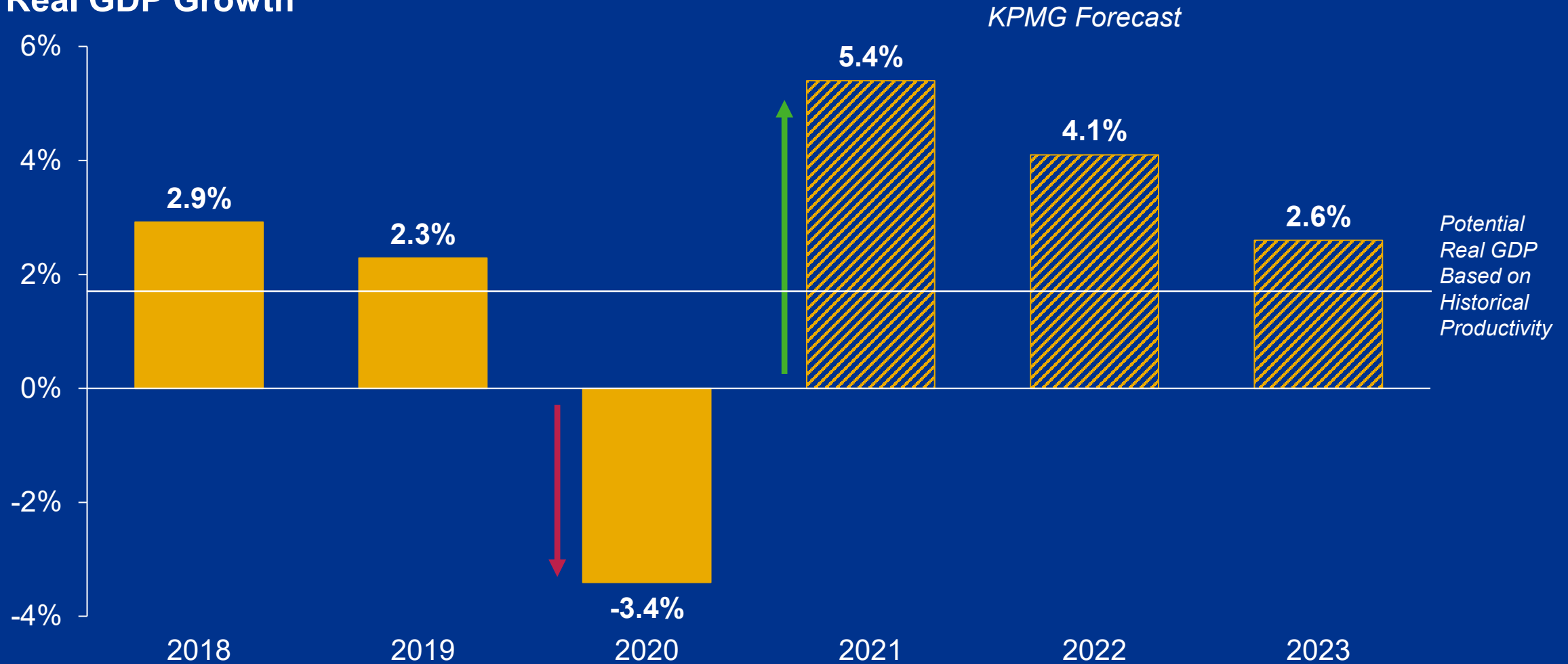
Fed Funds Futures Paths



Source: KPMG Economics, Federal Reserve Board, Bloomberg (October 11, 2021)

GDP to slow into 2023 but still grows above trend

Real GDP Growth



Source: KPMG Economics, Bureau of Economic Analysis, Haver Analytics

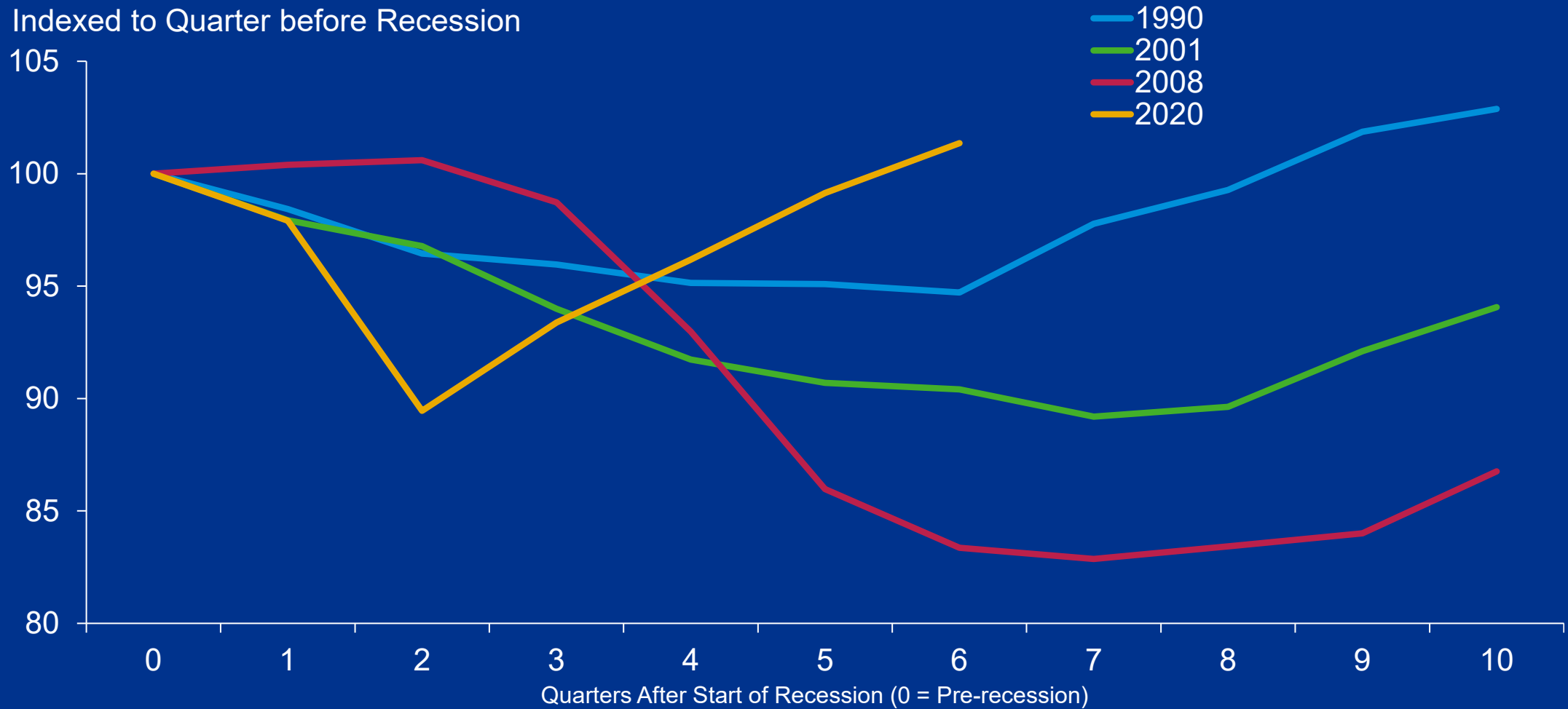


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The shock of the pandemic turbo charged capex

Real Business Investment

Indexed to Quarter before Recession



Source: KPMG Economics, Bureau of Economic Analysis, Haver Analytics

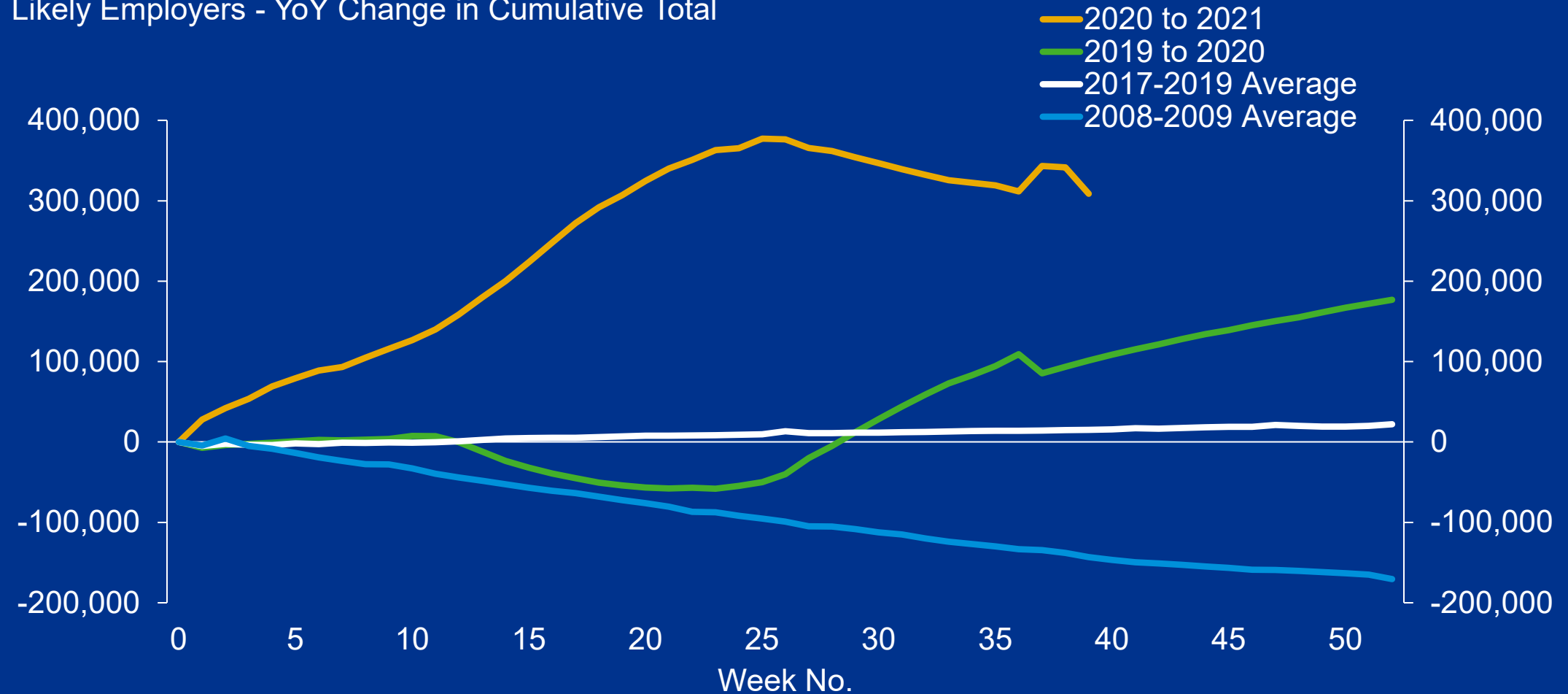


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Business formation rebound encouraging sign for productivity

Change in Cumulative New Business Applications

Likely Employers - YoY Change in Cumulative Total



Source: KPMG Economics, U.S. Census Bureau

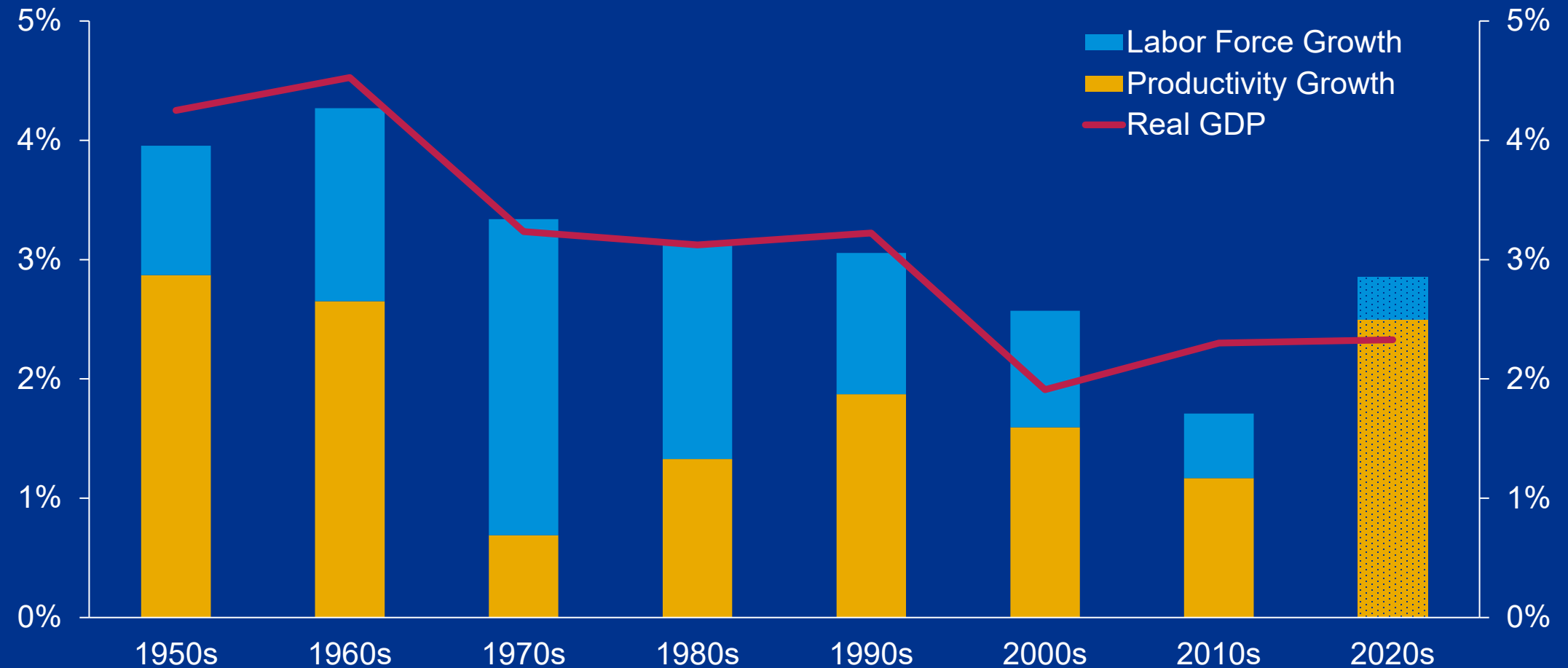


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If higher productivity is durable, higher growth is possible

Real and Potential GDP Growth

Annual - % Change, Decade Averages



Source: KPMG Economics, Congressional Budget Office, Haver Analytics



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Thank you

For more information, please see KPMG's COVID-19 resource page:

<https://www.kpmg.us/insights/2020/COVID-19-resilience-readiness.html>



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