Presentation from the FHLBNY to:

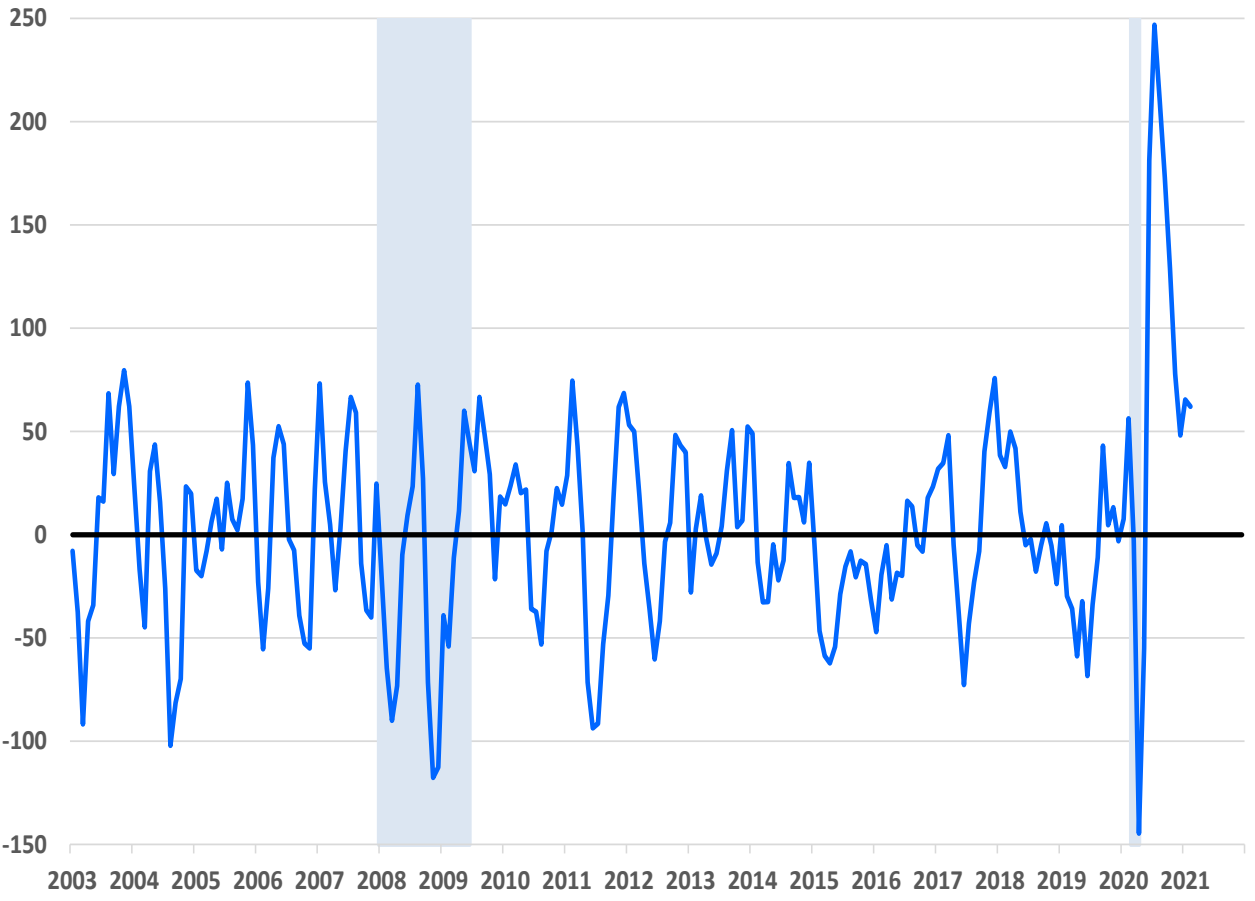# Turning the Page: The U.S. and Local Economic Outlook

Brian Jones, Vice President & Financial Economist, FHLBNY

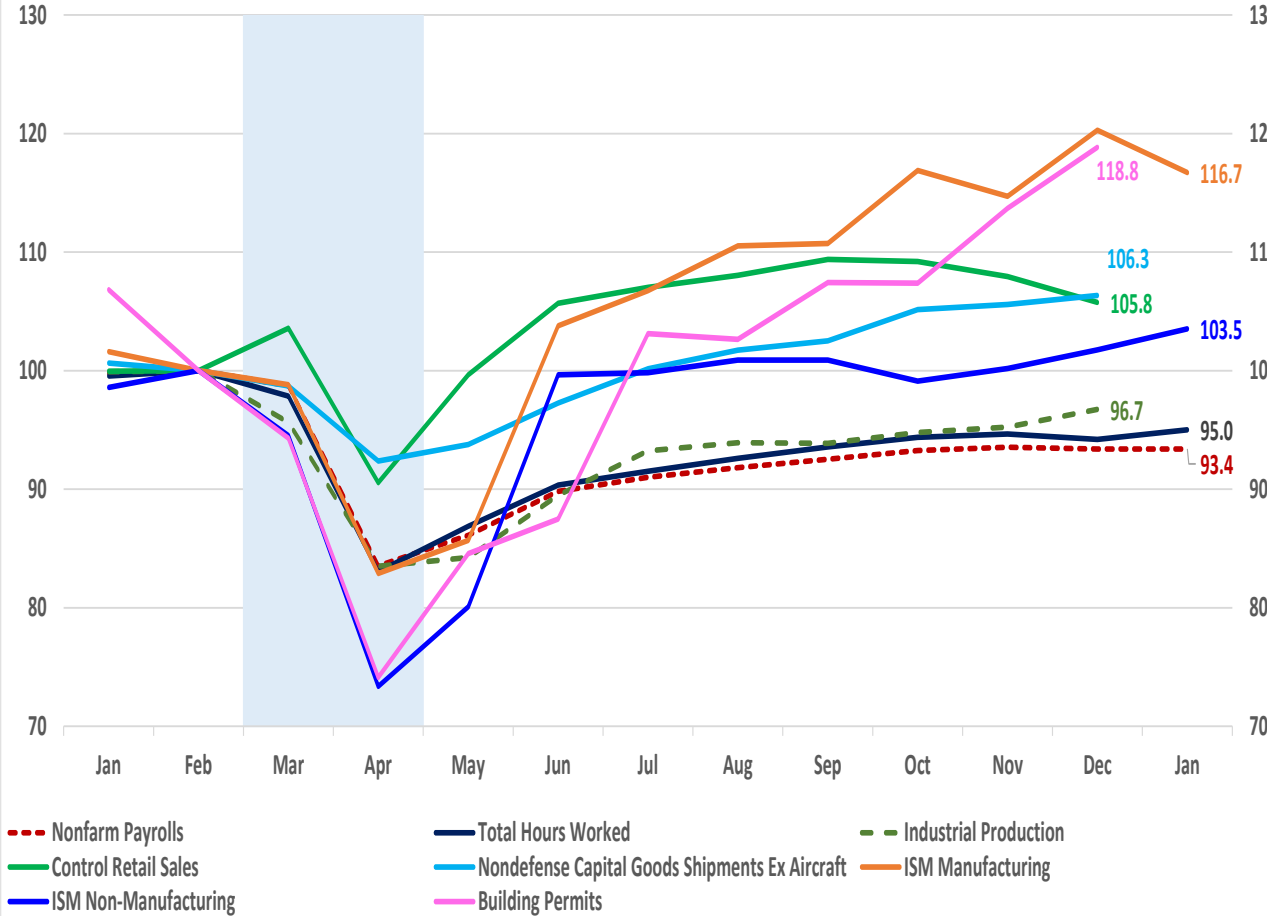February 11, 2021

Recent Data Continue to Eclipse Economists' Expectations

Citi U.S. Economic Surprise Index
(end of month observations)

Recent Performances of Key Economic Variables
(Index February Cycle Peak = 100)

Legend:
- Nonfarm Payrolls
- Total Hours Worked
- Industrial Production
- Control Retail Sales
- Nondefense Capital Goods Shipments Ex Aircraft
- ISM Manufacturing
- ISM Non-Manufacturing
- Building Permits

Key values: 118.8, 116.7, 106.3, 105.8, 103.5, 96.7, 95.0, 93.4

Note: Shaded areas denote recessions. Sources: Citi Investment Research, Bureau of Labor Statistics, U.S. Commerce Department, Federal Reserve System, Institute for Supply Management
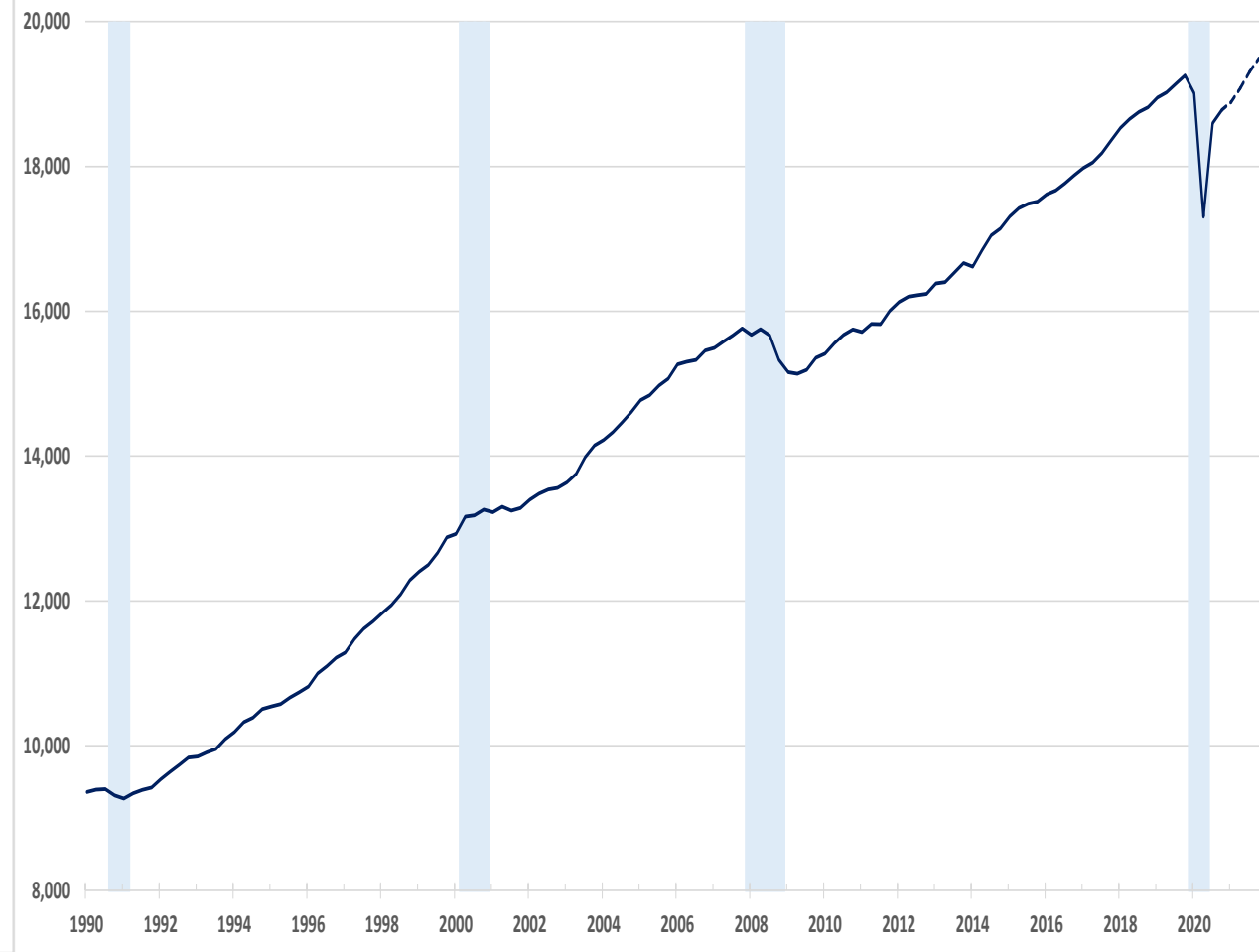
Consensus Projections Imply That Output Lost to the Pandemic Will Be Recovered By Mid Year

Net Contributions to Real GDP Growth
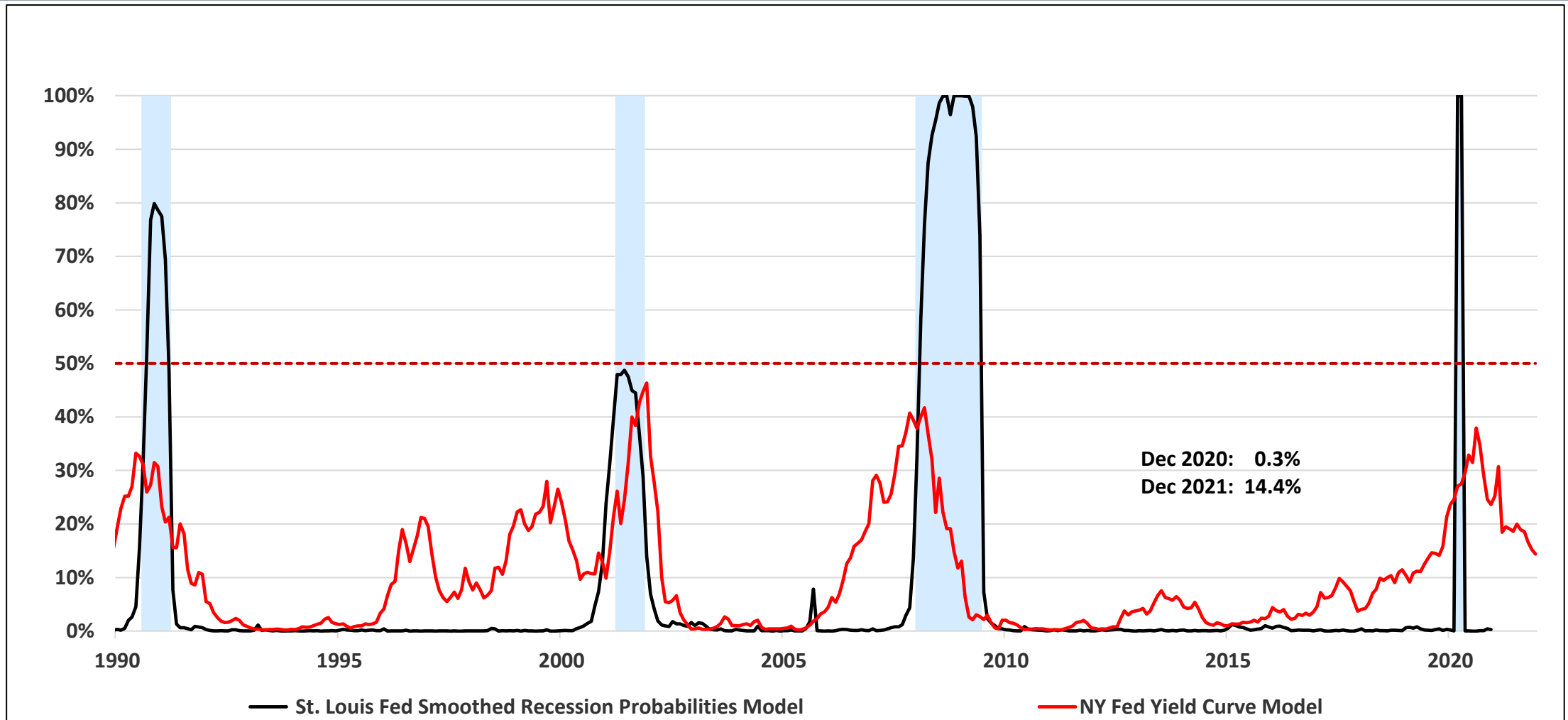*(quarterly percentage change at seasonally adjusted annual rate)*
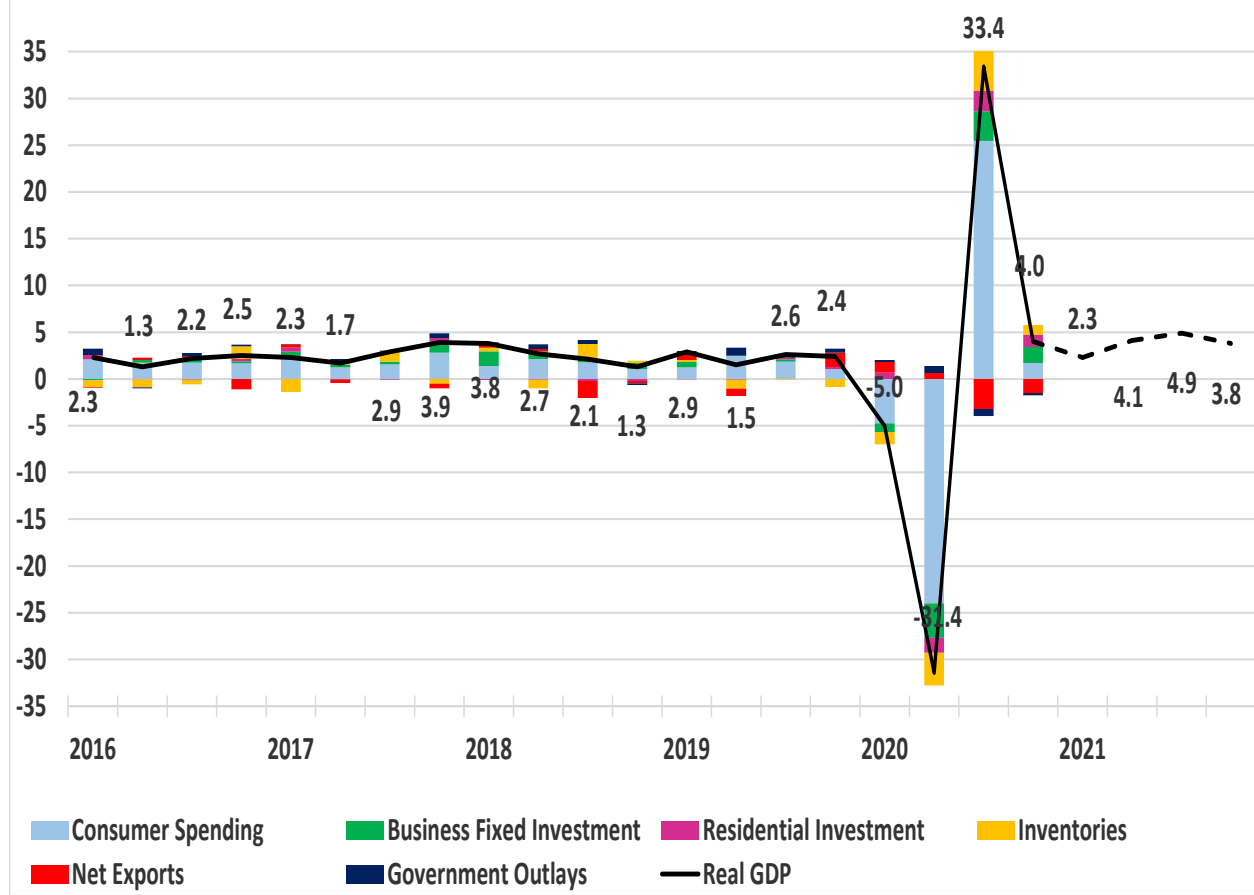
Real Gross Domestic Product, Billions of Chained 2012 Dollars, Quarterly, Seasonally Adjusted Annual Rate

Legend:
- Consumer Spending
- Business Fixed Investment
- Residential Investment
- Inventories
- Net Exports
- Government Outlays
- Real GDP

Source: Bureau of Economic Analysis

COVID-19 Recession Likely Ended in May, Year-Ahead Chances of a Downturn Declining

Dec 2020: 0.3%
Dec 2021: 14.4%

St. Louis Fed Smoothed Recession Probabilities Model   NY Fed Yield Curve Model
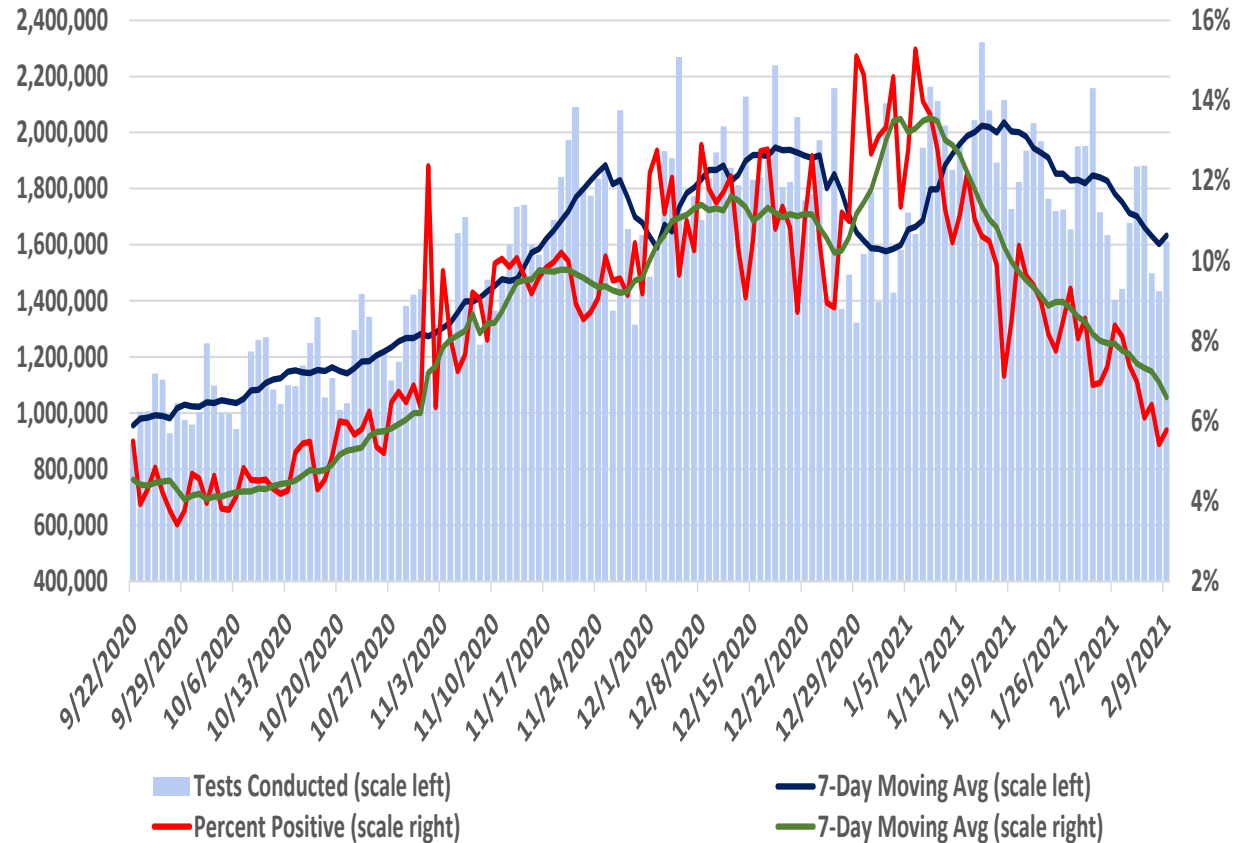
Note: Shaded areas denote recessions.
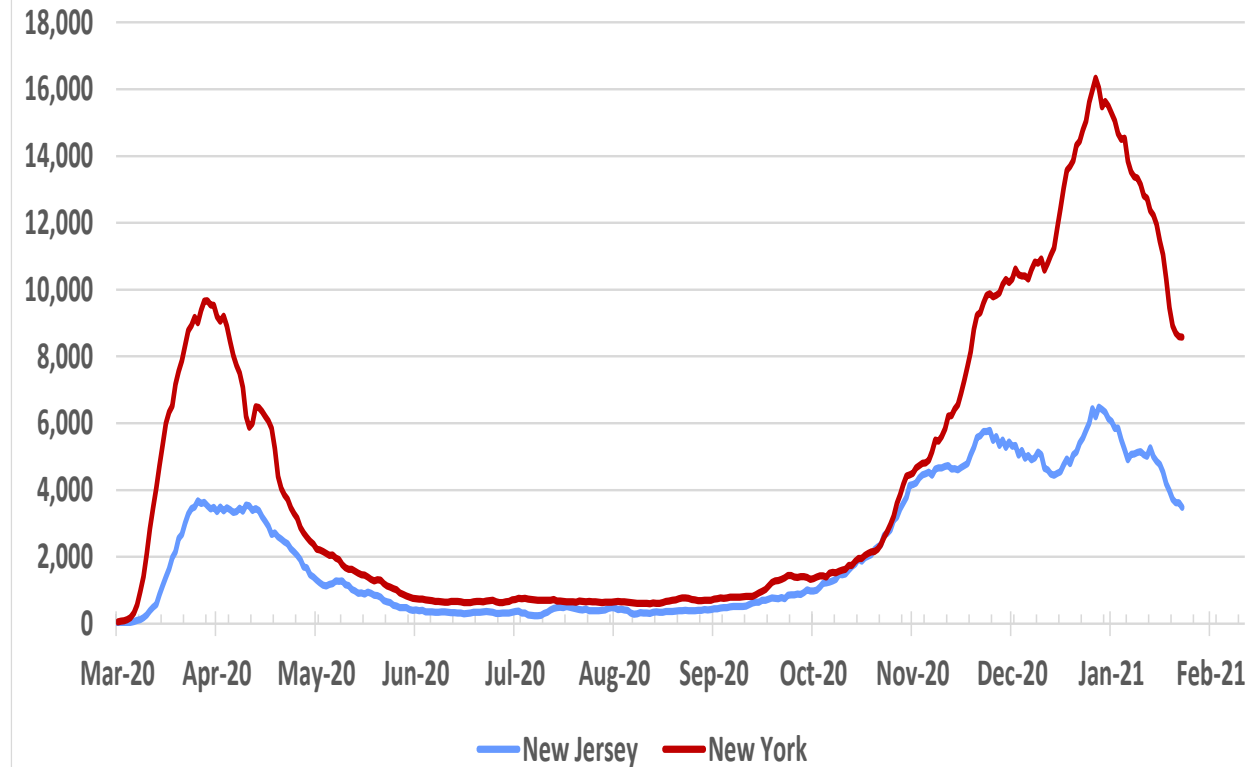Sources: Federal Reserve Banks of New York and St. Louis

Economy's Near-Term Progress Will Depend on Stemming Renewed COVID-19 Outbreak

U.S. COVID-19 Tests Results Per Day

Legend:
- Tests Conducted (scale left)
- 7-Day Moving Avg (scale left)
- Percent Positive (scale right)
- 7-Day Moving Avg (scale right)

Positive COVID-19 Test Results
(7-Day Moving Averages)

Legend:
- New Jersey
- New York

Source: COVID Tracking Project

And Progress in Distributing COVID-19 Vaccines

|	Doses Administered	% of Population Given		Daily Rate of Doses Administered	% of Supply Used
		1+ Dose	2 Doses		
United States	44,413,509	10.2	3.1	1,528,618	70.6
FHLBNY District:					
New York	2,513,387	9.7	3.2	76,921	73.3
New York City	1,032,158	9.3	3.0	29,784	69.9
New Jersey	1,096,789	9.6	2.7	37,172	74.1
Puerto Rico	321,965	7.4	2.4	21,783	51.0
Virgin Islands	10,064	6.9	2.6	479	46.8

Source: Bloomberg

U.S. Railroad Traffic Well Off Pandemic Lows

Total U.S. Rail Carloads
(6-week moving average)

2021

2020

2019
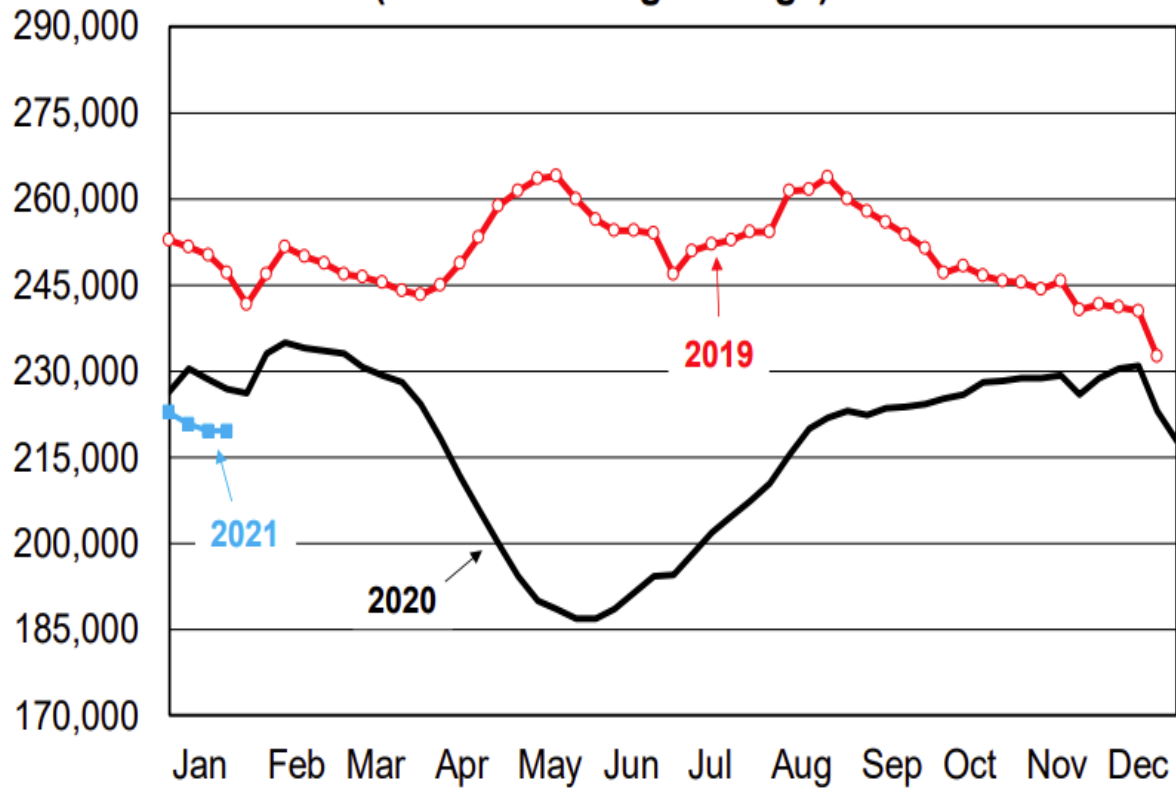
Data are 6-week moving average originations, do not include intermodal, and do not include the U.S. operations of CN, CP, and GMXT.   Source: AAR *Rail Time Indicators*

U.S. Rail Intermodal Units
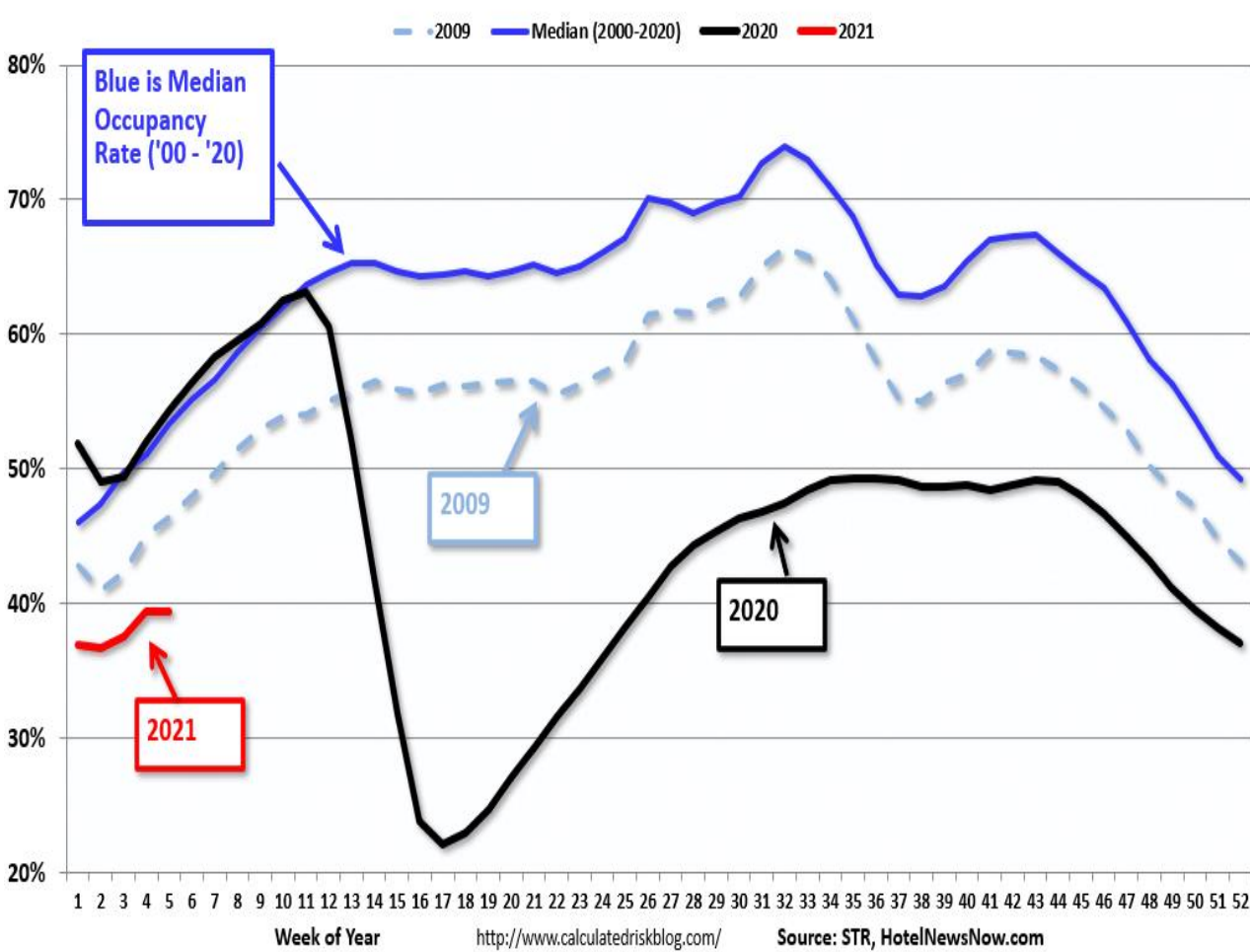(6-week moving average)

2020

2020

2019
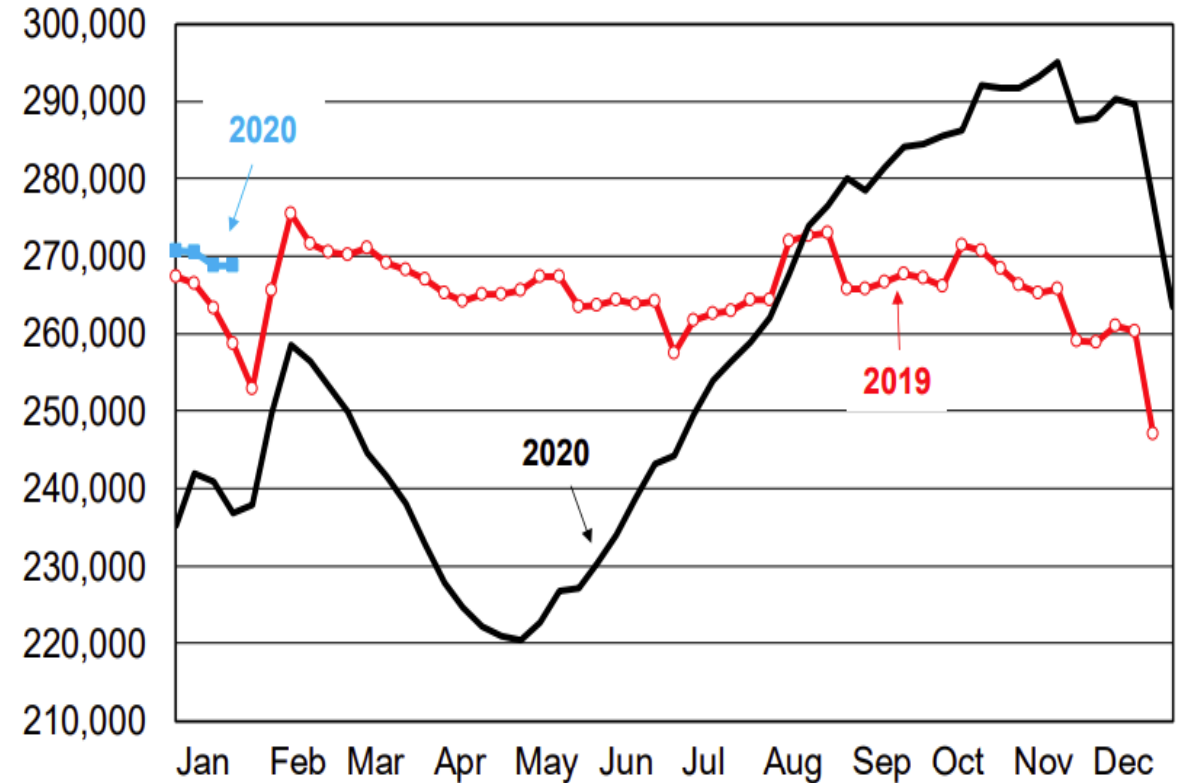
Data are 6-week moving average originations and do not include the U.S. operations of CN, CP, and GMXT.   Source: AAR *Rail Time Indicators*
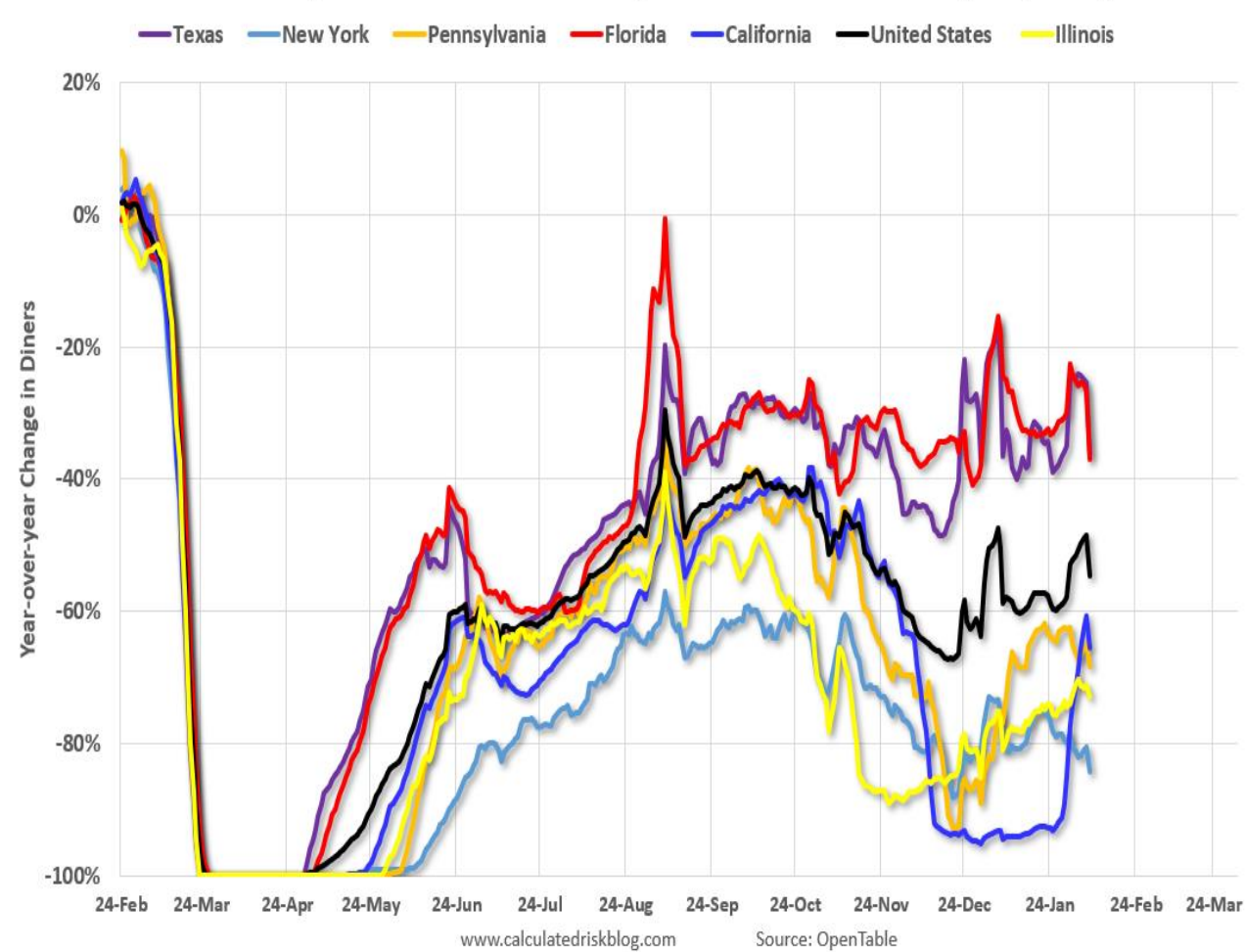
Source: Calculated Risk

Resurgence in COVID-19 Infections Impacting Service-Sector Activity

Source: Calculated Risk

Office Occupancy Rising in Major Metro Areas, But Still Well Below Pre-Pandemic Levels

Source: Kastle Systems

With Less Than 15% of Workers Back in the Office, Subway Usage Well Below Normal

Daily Turnstile Entries

Data via MTA
toddwschneider.com
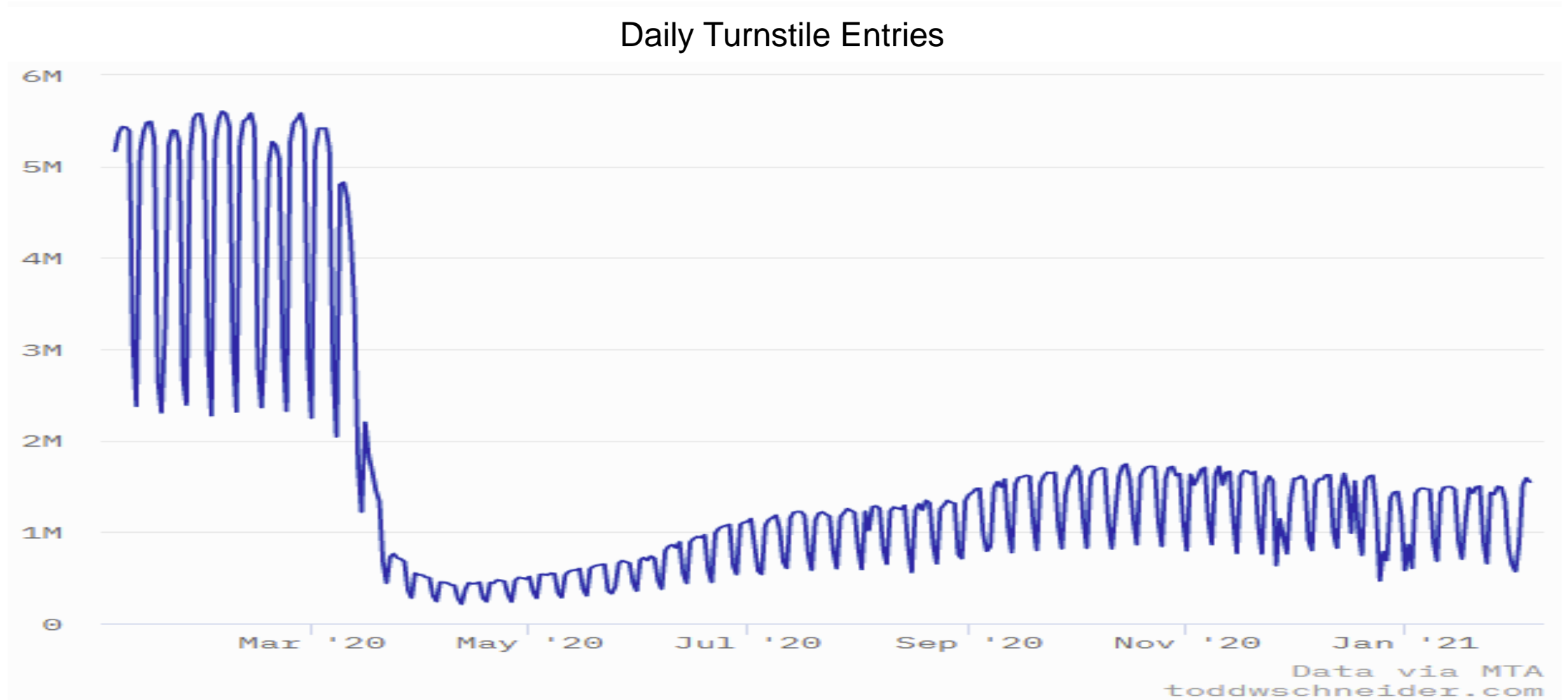
Source: Calculated Risk

Other Service-Producing Segments Continue to Struggle

TSA checkpoint travel numbers, 7 Day Average and Percent of Last Year

— 2020-2021 — 2019-2020 - - Percent of Last Year
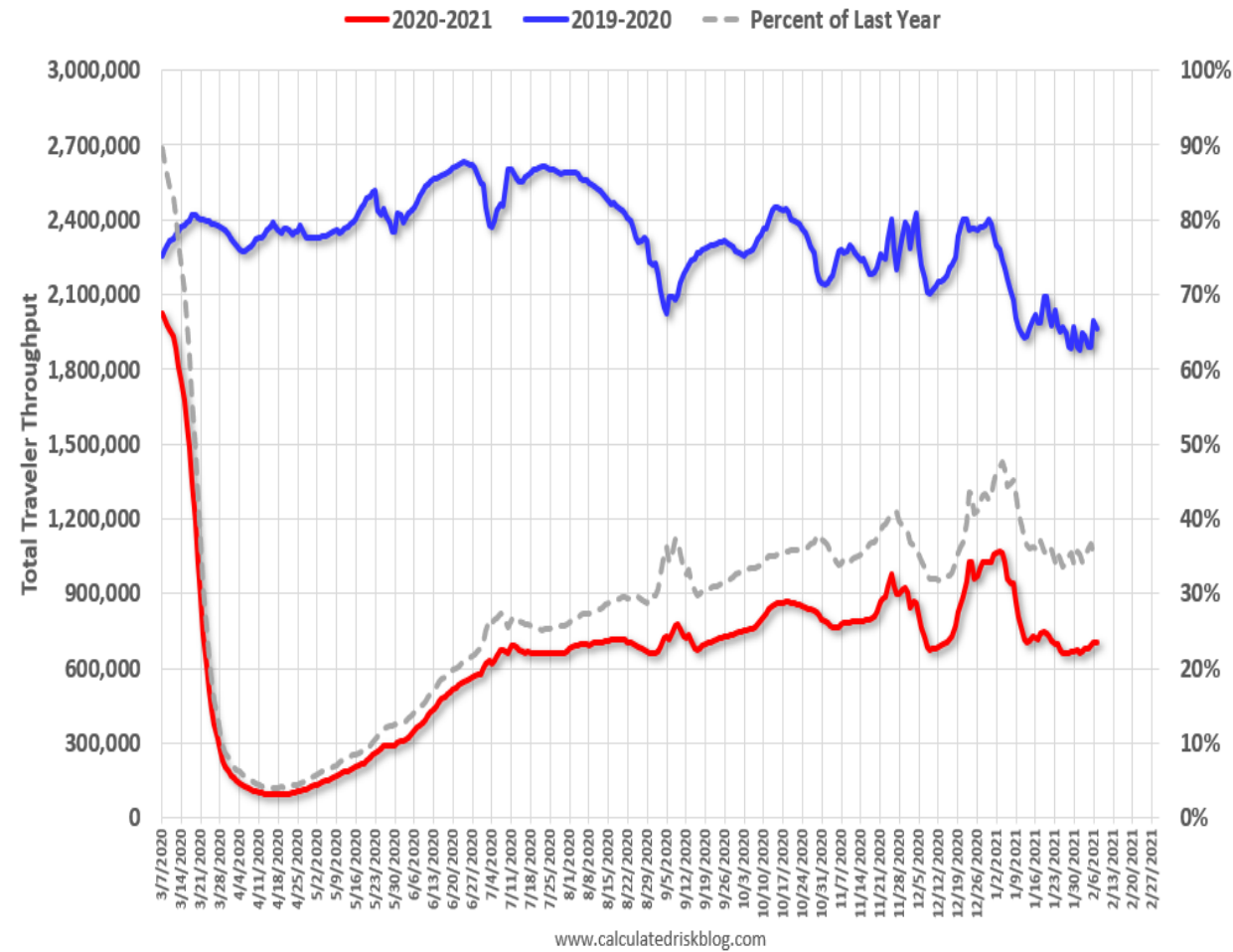
Gross Movie Sales Weekly, Max and Min for 2016 - 2019

···· Max ···· Min — 2020 — 2021

Week of Year, Source: Box Office Mojo

www.calculatedriskblog.com
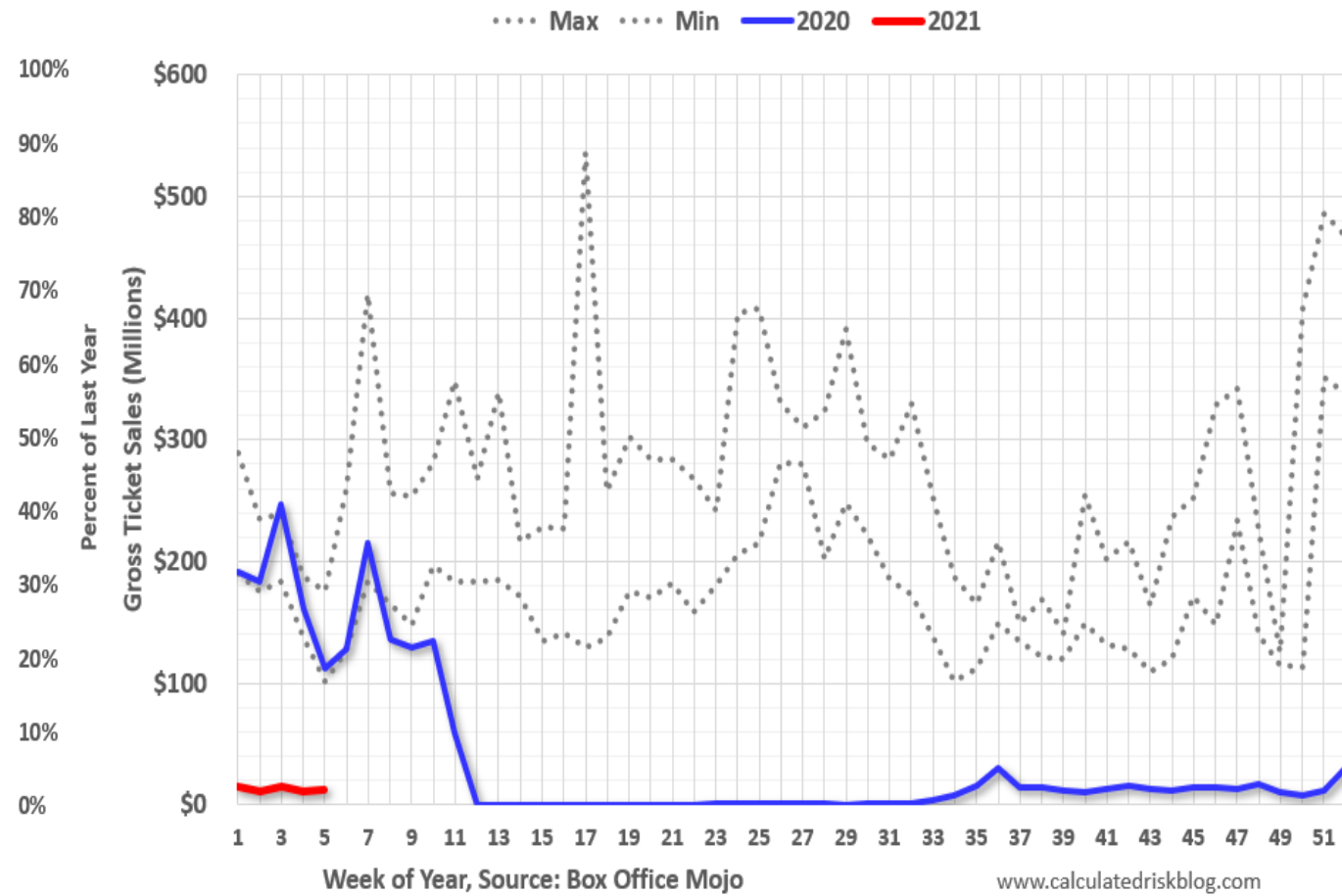
Source: Calculated Risk

Labor Market Conditions Will Remain Challenging
for the Foreseeable Future

Jobless Claims Remain Well Above Pre-Pandemic Levels

Initial Claims (scale left) — Continuing Claims (scale right)
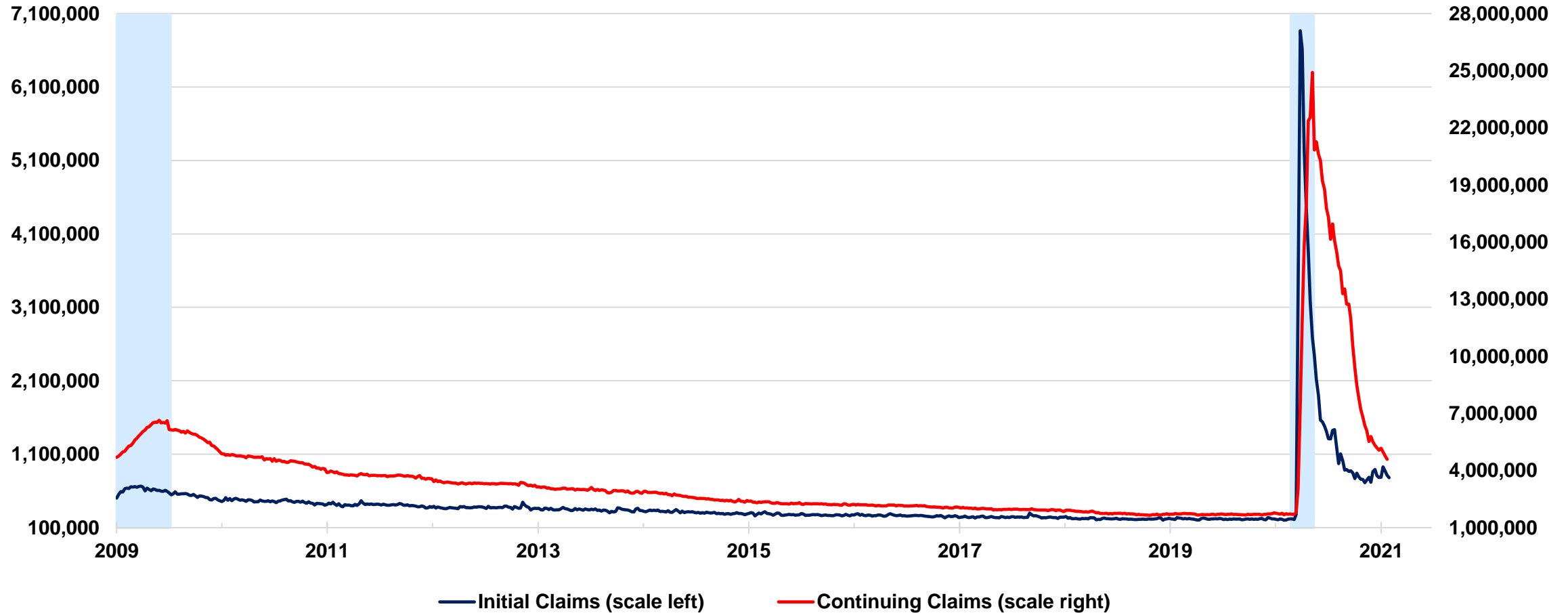
Note: Shaded areas denote recessions. Source: U.S. Department of Labor

Roughly 11% of the Civilian Labor Force Receiving Assistance

Unemployment Assistance Recipients Under Various Programs

Legend: Total, Pandemic Unemployment Assistance, Regular State, Pandemic Emergency Unemployment Compensation, Extended Benefits
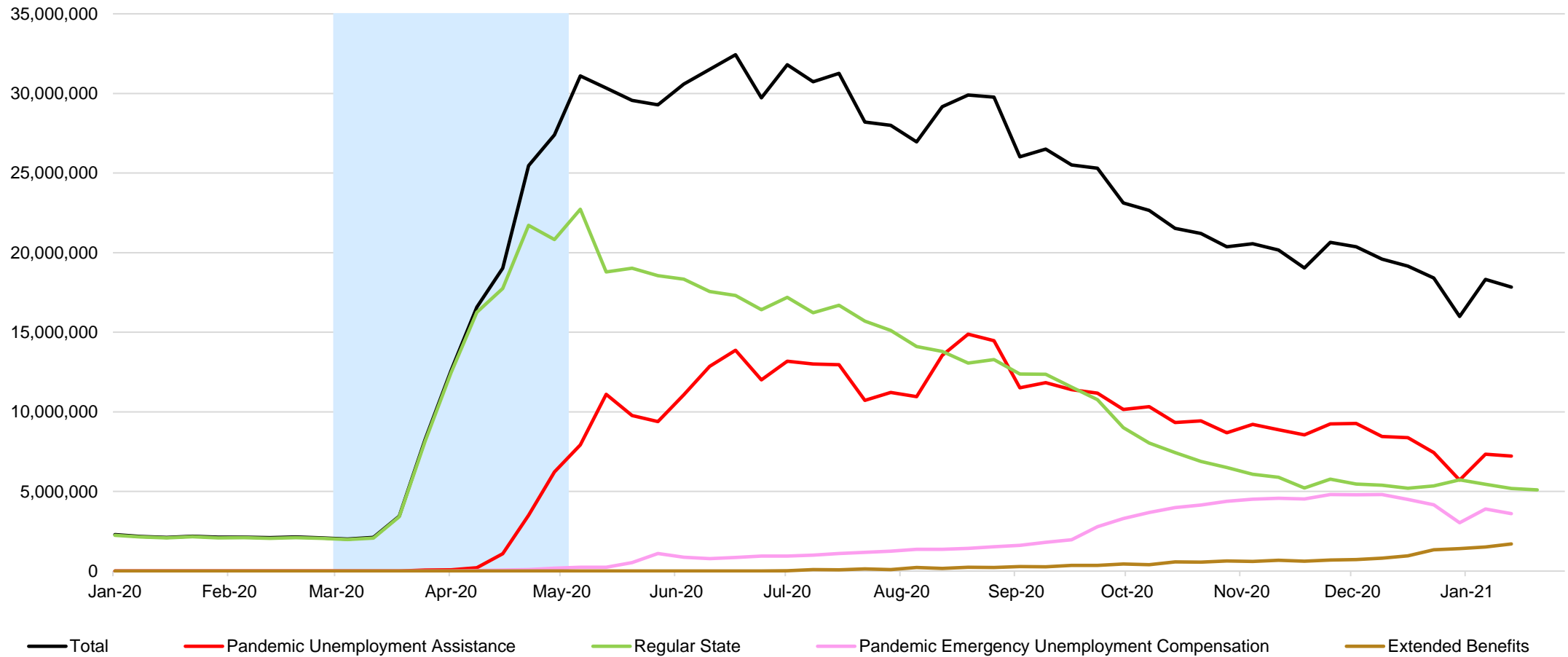
Note: Shaded area denote recession. Source: U.S. Department of Labor

Nonfarm Payrolls Rose Modestly in January; 59.9% of Private Jobs Lost Have Been Recovered

January Changes in Nonfarm Payrolls
(thousands, seasonally adjusted)
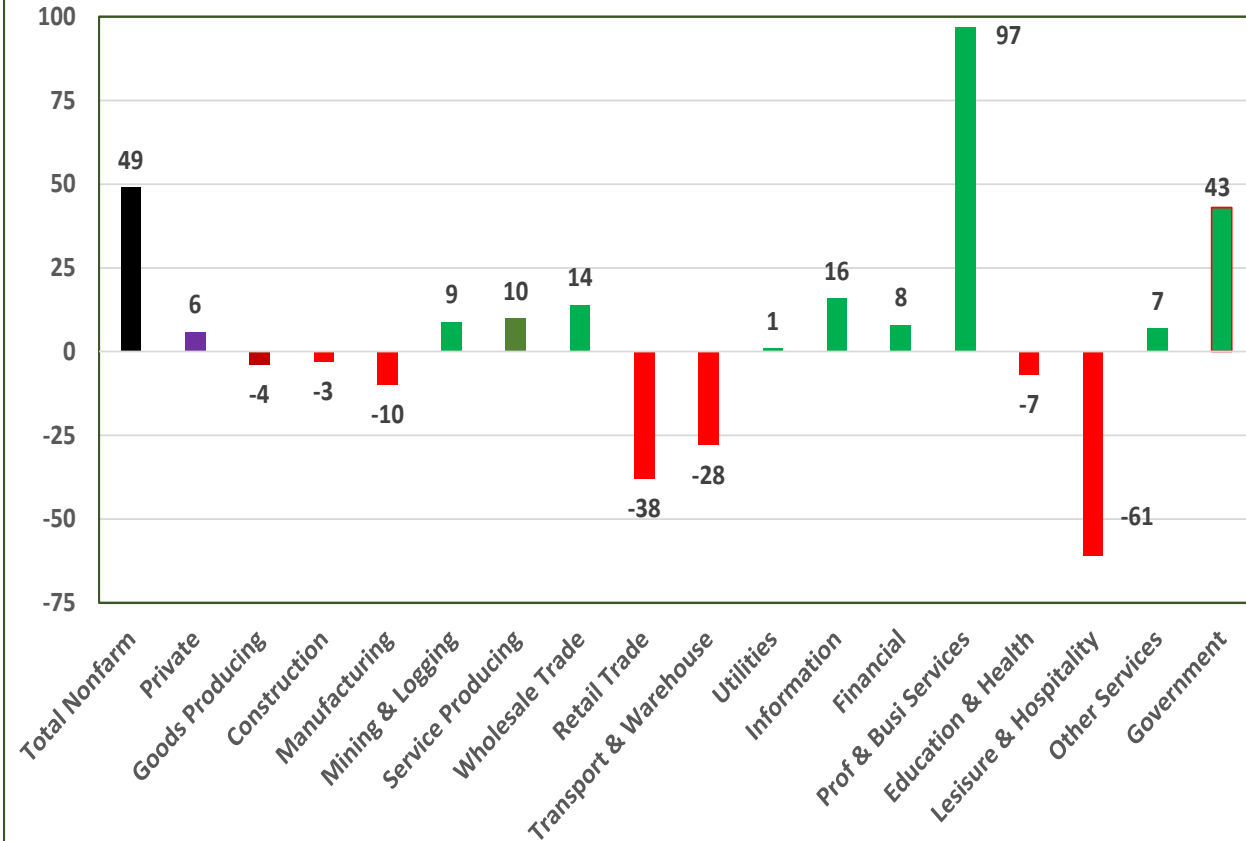
Still a Considerable Way to Go to Recover COVID-19 Job Losses
(thousands, seasonally adjusted)

■ Jobs Lost (Mar 20-Apr 20) ■ Jobs Recovered (May 20-Jan 21)
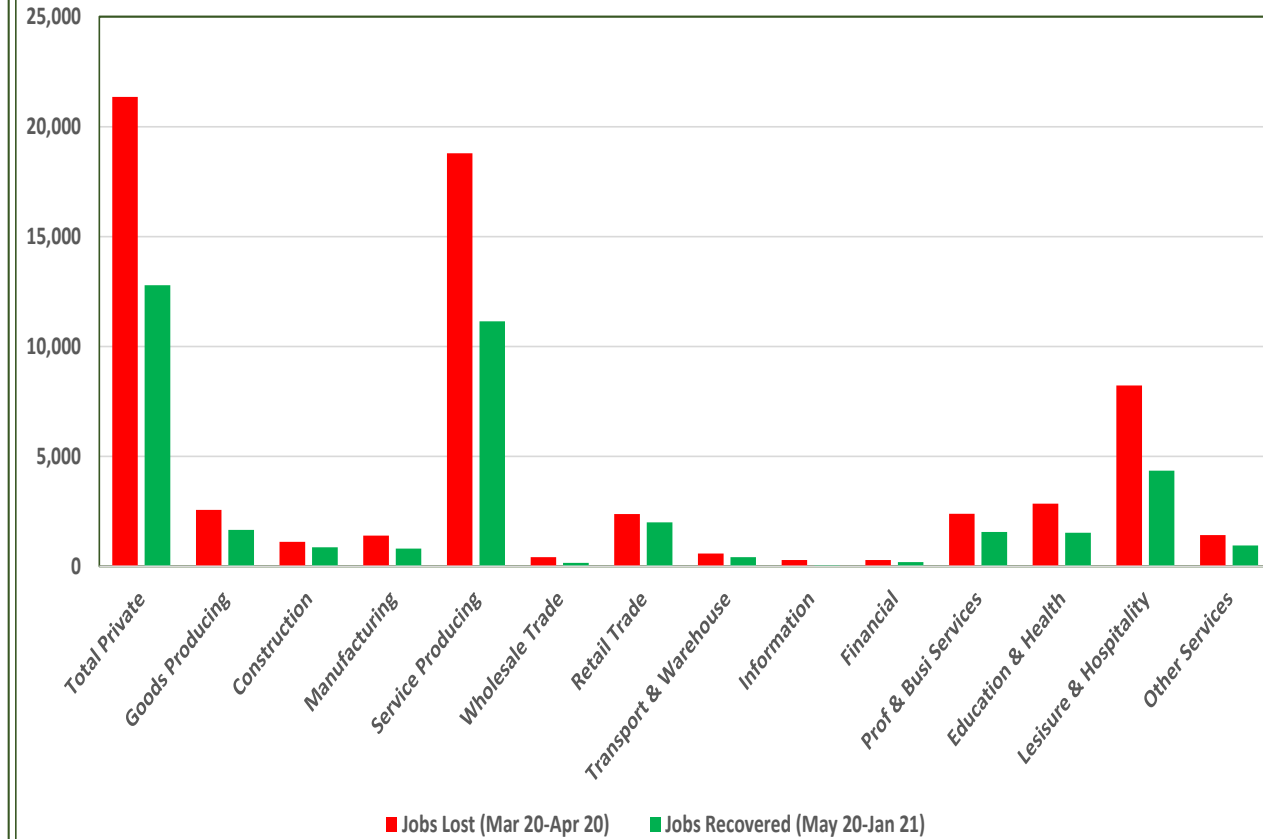
Source: Bureau of Labor Statistics

Hiring Breadth Gauges Retreated Across the Board in January

Diffusion Indexes of Nonfarm Payrolls
(% increase plus one half those unchanged)

Legend: One Month (red), Three Months (blue), Six Months (green)
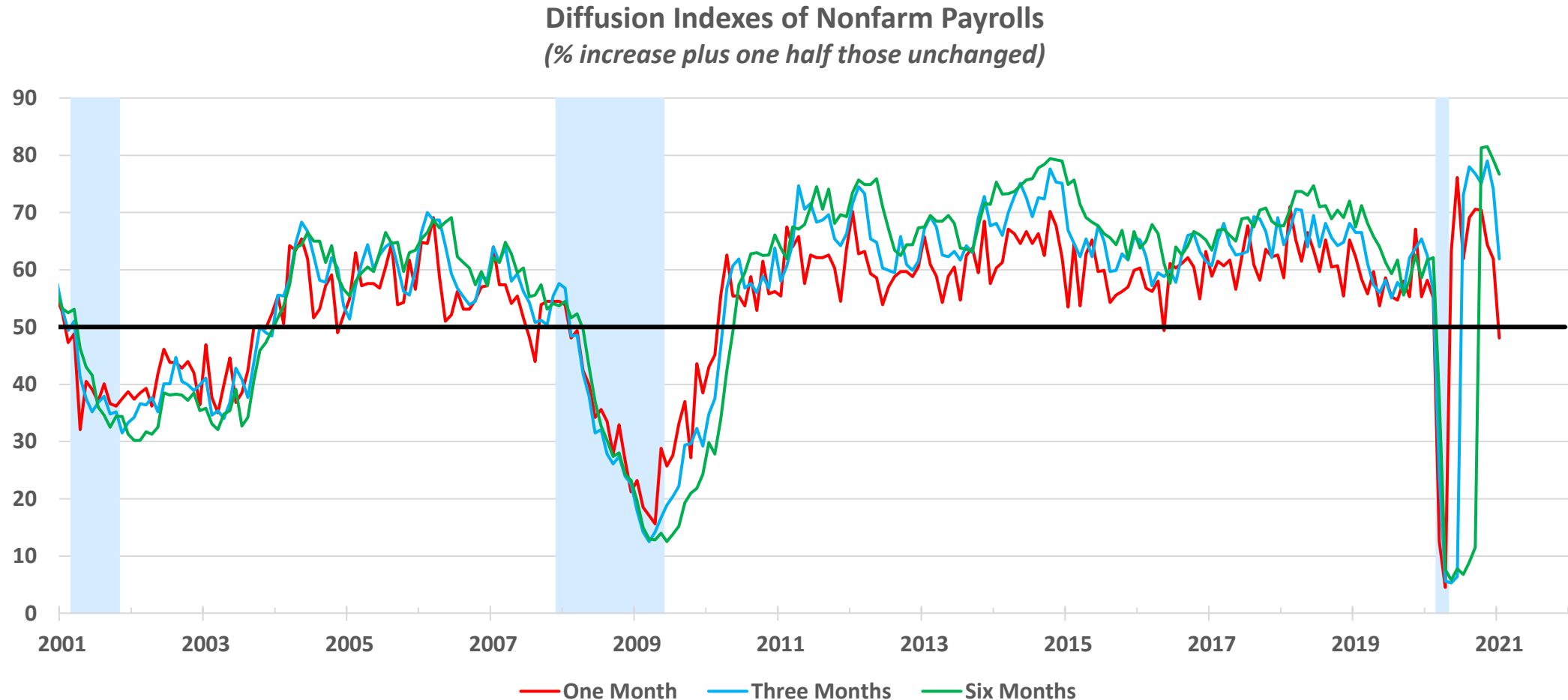
Note: Shaded areas denote recessions. Source: Bureau of Labor Statistics

Unemployment Measures Remained Elevated at Beginning of New Year

Unemployment Rates
(percent)

Legend:
- Conventional Unemployment Rate (U-3)
- Plus marginally attached workers & those on part time for eco reasons (U-6)
- NAIRU (Non-Accelerating Inflation Rate of Unemployment)
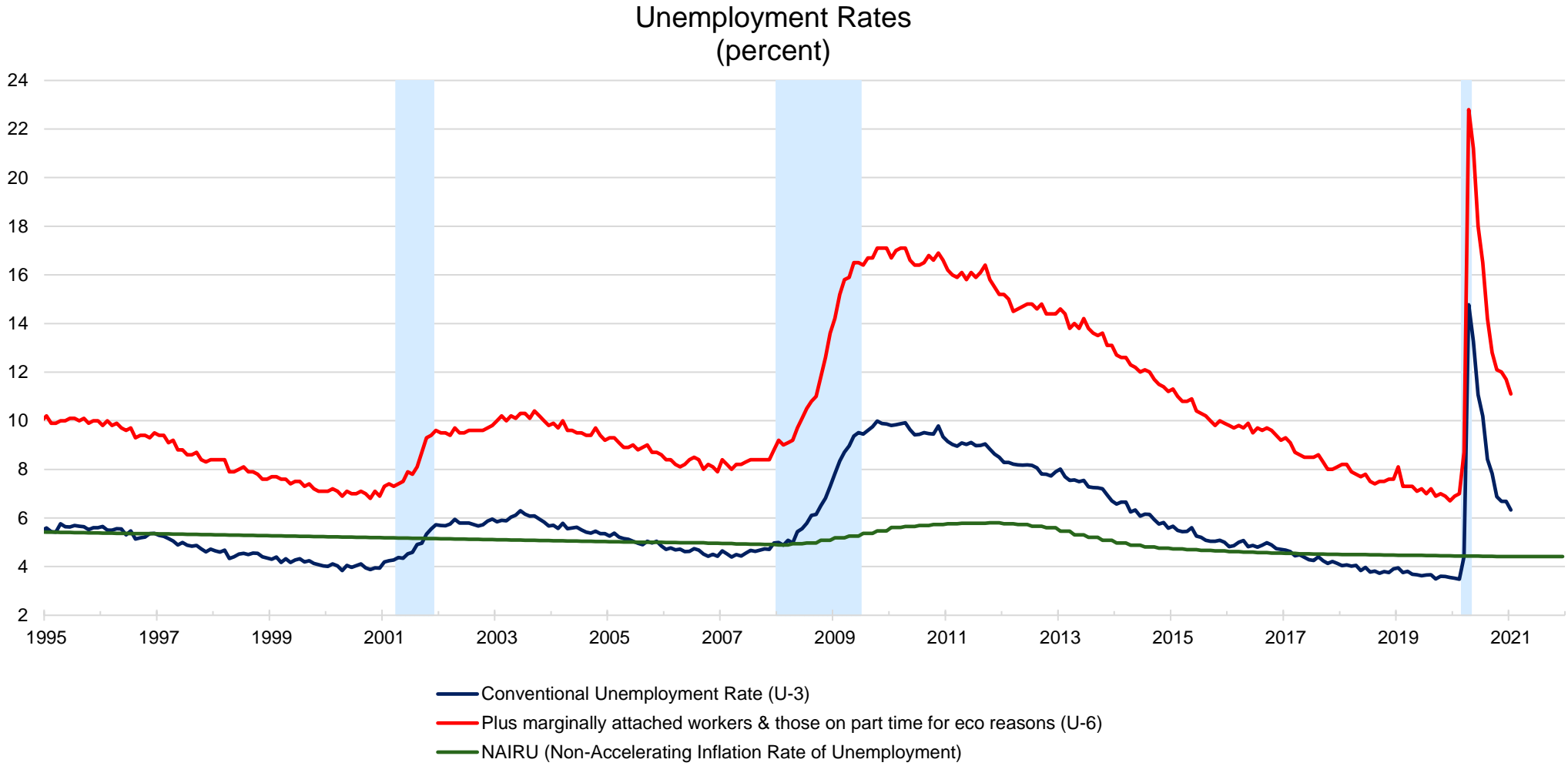
Note: Shaded areas denote recessions. Source: Bureau of Labor Statistics

Core Consumer Inflation Gauges Likely Will Remain Below Fed Target Until the Spring

Core Consumer Inflations Measures
(percentage change from year ago)

Legend: Core Consumer Price Index — Core PCE Chain Price Index — Federal Reserve Target
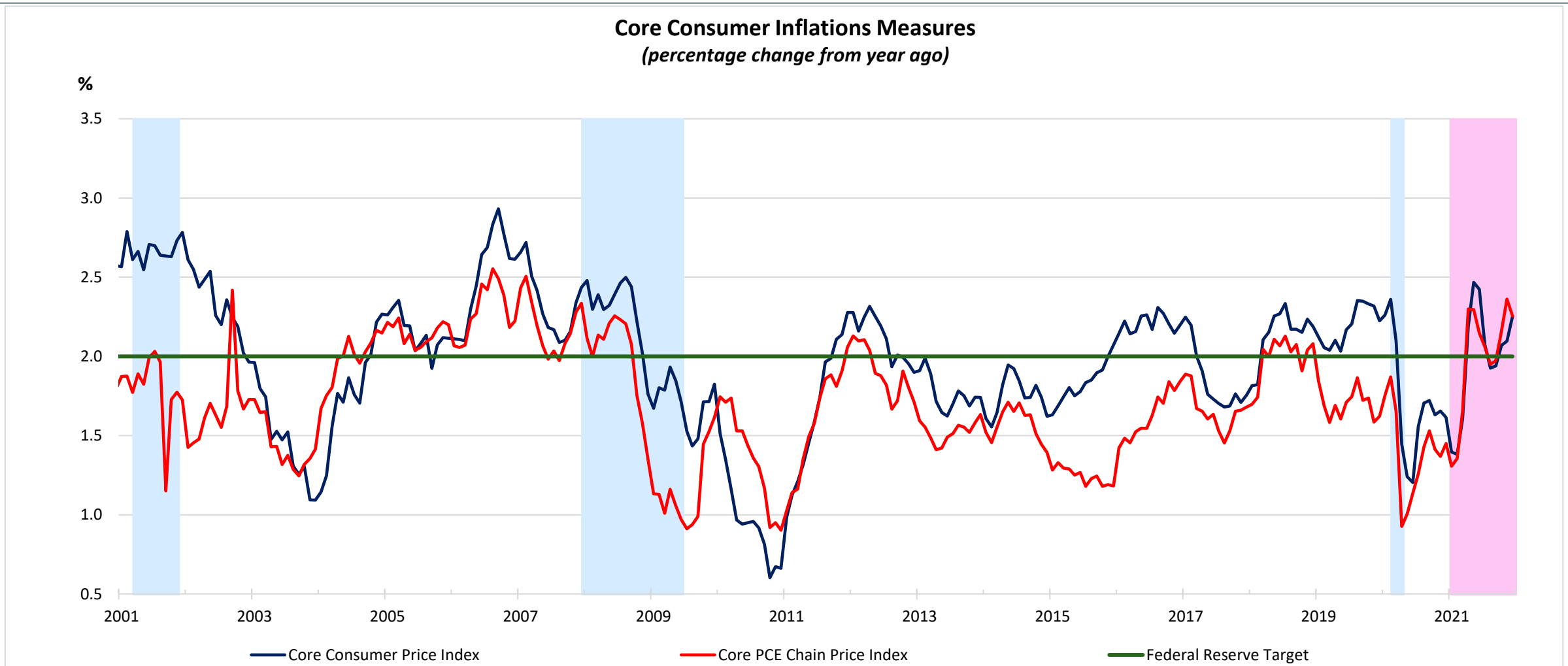
Notes: Light blue shaded areas denote recessions. Pink shaded area denotes projections. Sources: Bureau of Labor Statistics and FHLBNY

Financial Conditions Have Returned to Pre-Pandemic Levels

Bloomberg U.S. Financial Conditions Index
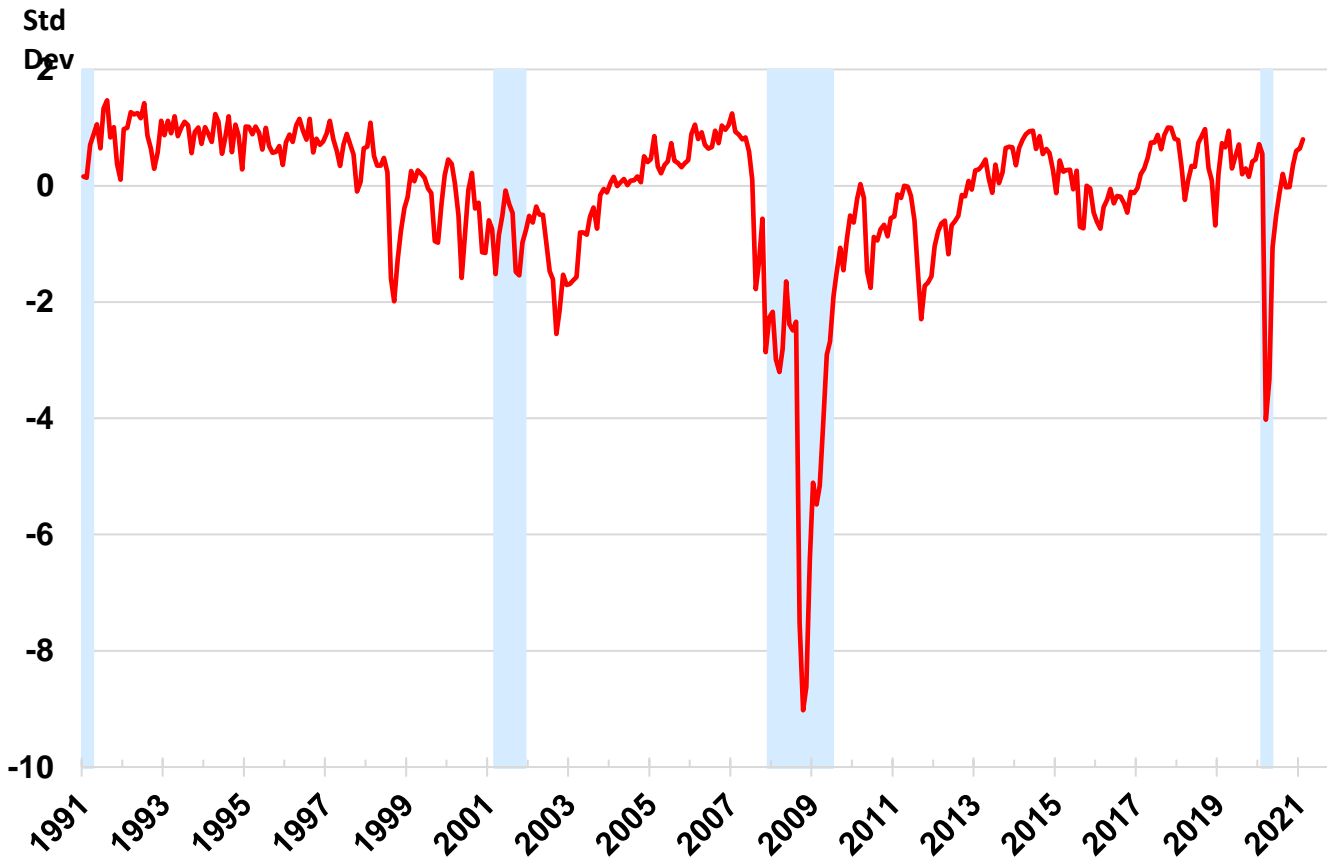
	24-Mar-20	10-Feb-21	Change
US Financial Conditions	-6.34	0.80	7.13
Money Market Spreads:			
TED Spread	127.05	16.98	-110.07
Libor/OIS Spread	112.05	13.11	-98.94
Com Paper/T-Bill Spread	205.64	9.20	-196.44
Bond Market Spreads:			
Baa/10-Yr Treasury Spread	456.37	98.71	-357.66
High-Yield/10-Yr Treas Spread	11.00	3.28	-7.72
Muni/10-Yr Spread	235.89	-44.14	-280.03
Swaption Volatility Index	118.27	63.78	-54.49
Equity Market:			
S&P 500	2447.33	3903.24	1455.91
VIX S&P Volatility Index	61.67	22.68	-38.99

Note: Shaded areas denote recessions. Source: Bloomberg

Fed Officials Expect No Change in Fed Funds Target Range Over Next Three Years
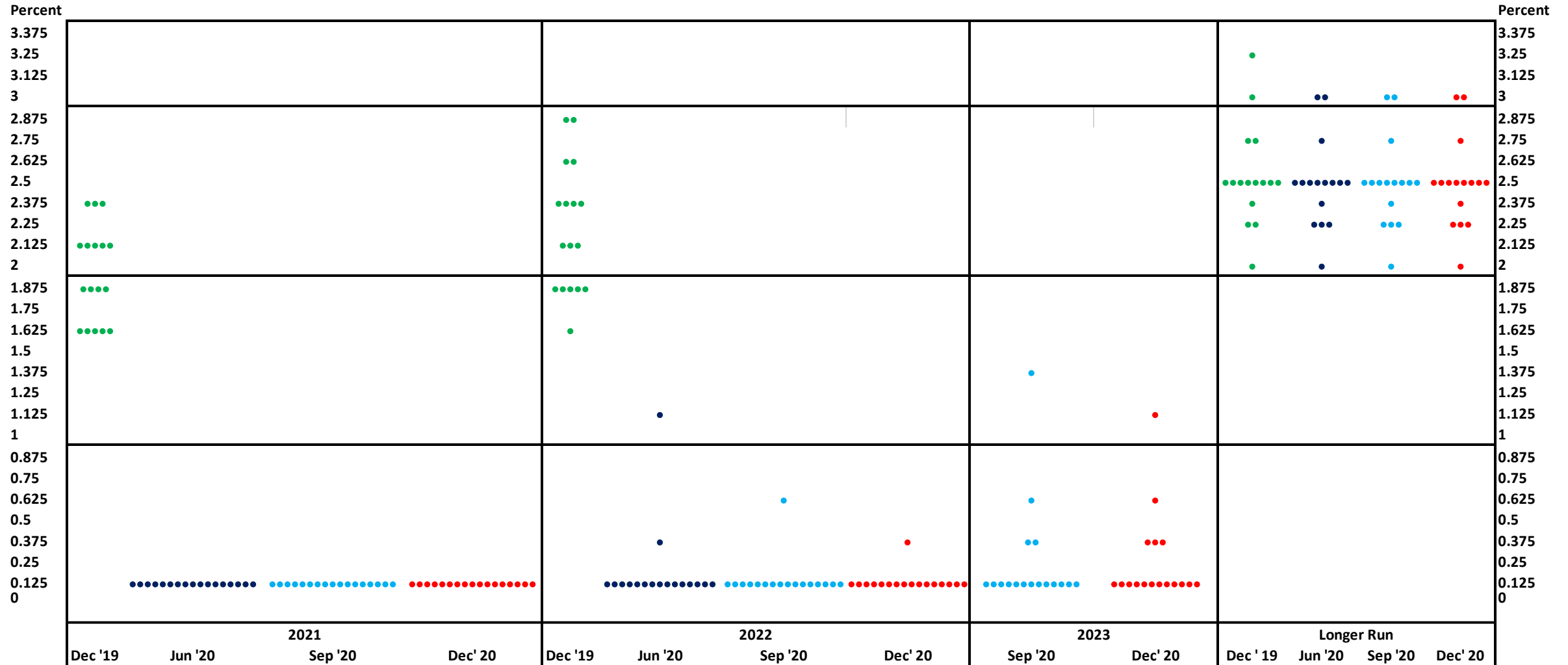
Source: Federal Reserve Board

Policymakers Revised Forecasts at December FOMC Meeting

Real GDP Growth
(percentage change Q4/Q4)

Unemployment Rate
(average level in Q4 of inciated year)

PCE Inflation
(percentage change Q4/Q4)

Core PCE Inflation
(percentage change Q4/Q4)
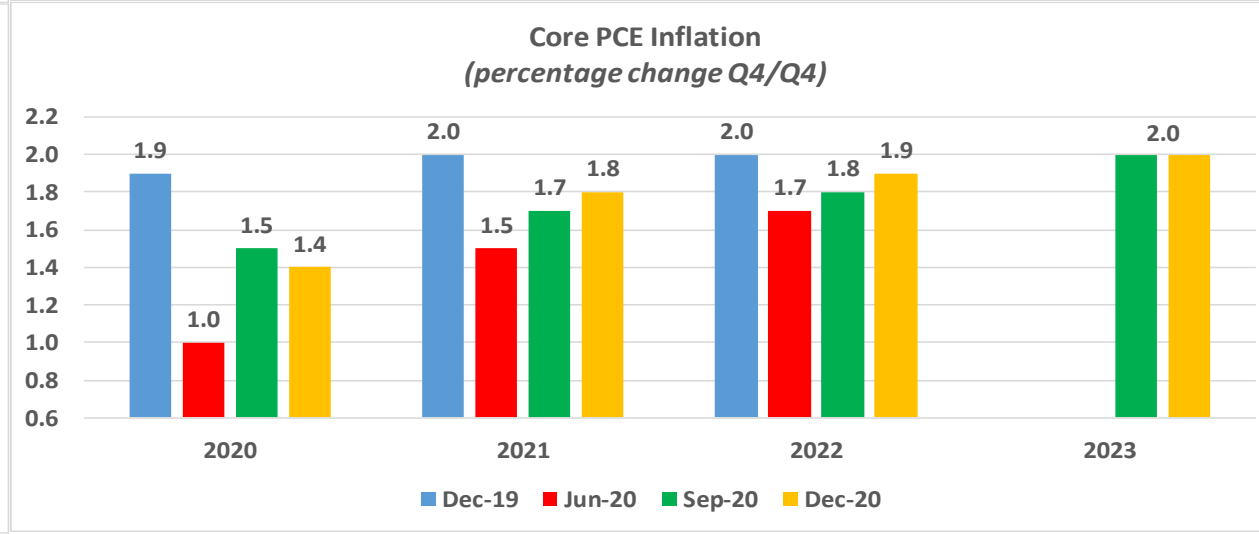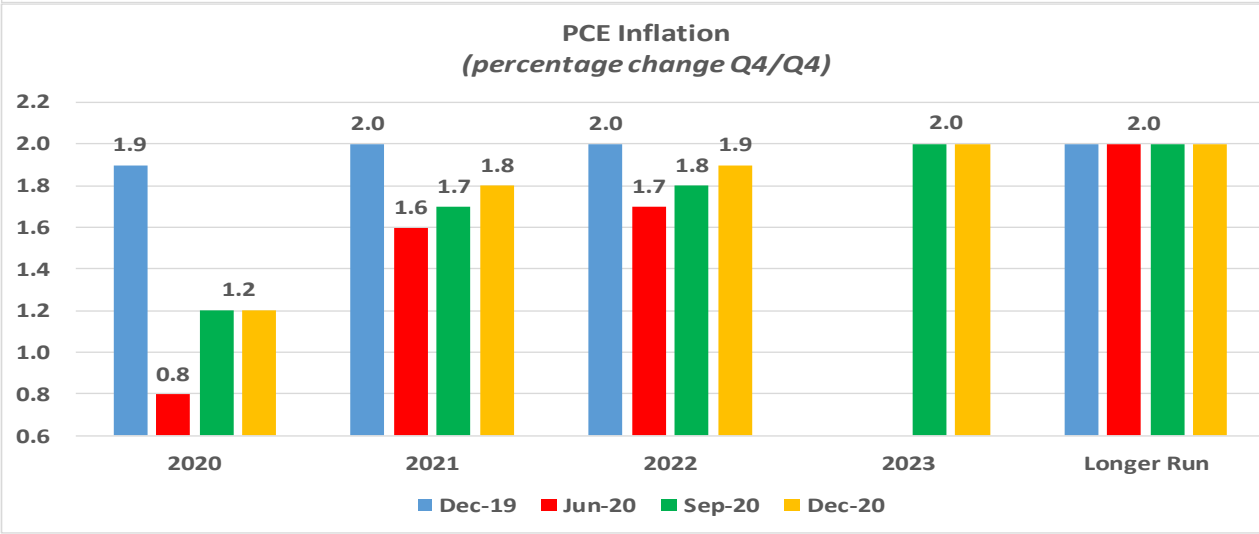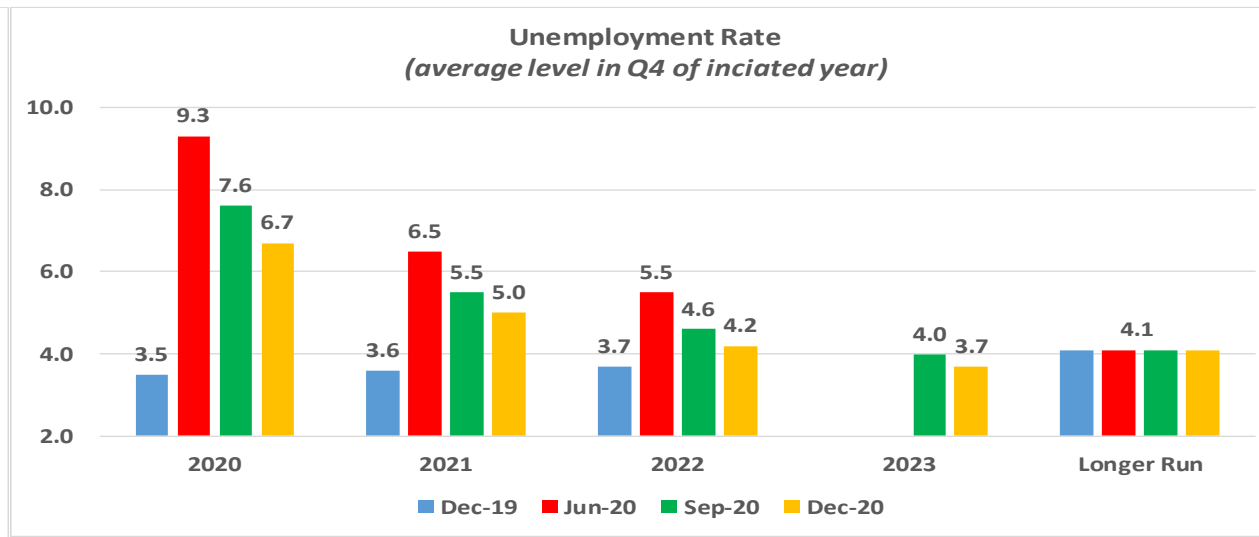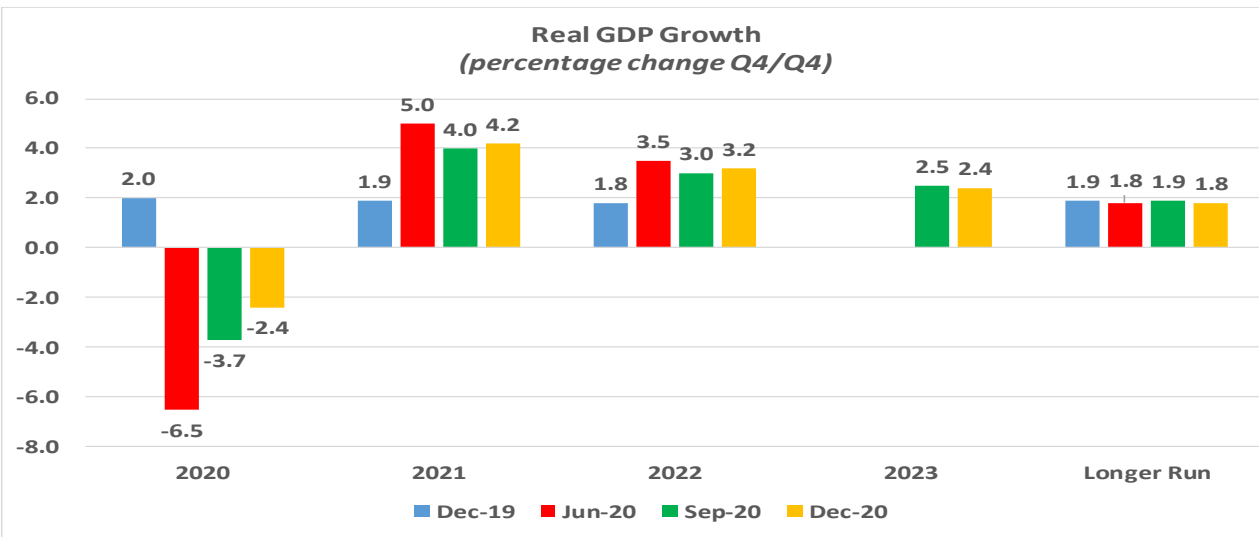
Source: Federal Reserve Board

Fed Securities Holdings Stand $2.9 Trillion Above Their Pre-COVID-19 Level

Securities Held Outright by the Federal Reserve
(trillions of dollars)

Legend: Treasuries, Federal Agency Debt, Mortgage-Backed Securities, CMBS, Securities Held Outright
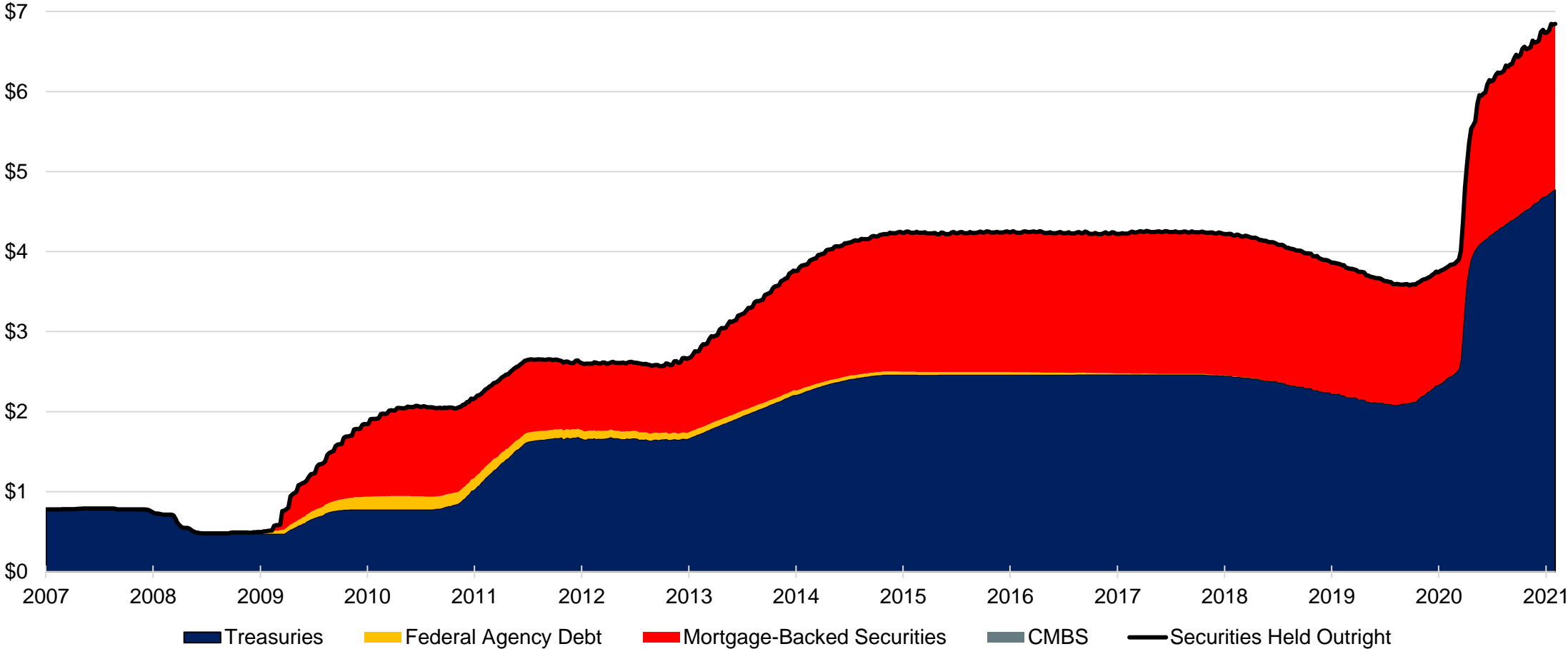
Source: Federal Reserve Board

Massive Federal Deficits in the Wake of the COVID-19 Outbreak Will Require Record Treasury Debt Issuance

Figure 1.

Deficits in CBO's September 2020 Baseline Versus Its March 2020 Baseline

Percentage of Gross Domestic Product
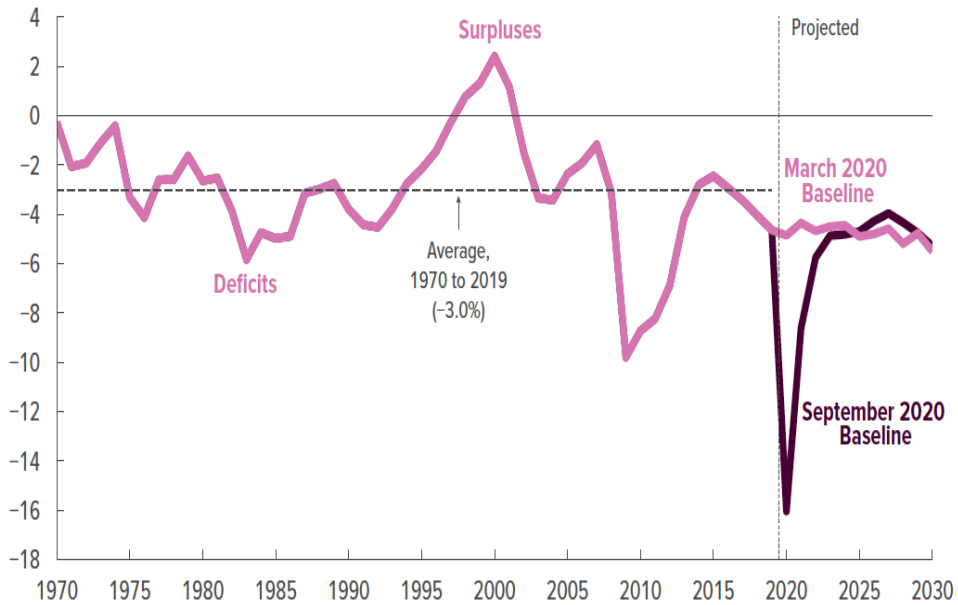
The deficit in 2020 will be the largest since 1945 as a percentage of GDP. Under current law, it is projected to shrink over the following few years, eventually returning to levels similar to those CBO projected before the coronavirus pandemic. Nevertheless, annual deficits would exceed their 50-year average throughout the 2021–2030 period.

Source: Congressional Budget Office.

When October 1 (the first day of the fiscal year) falls on a weekend, certain payments that would ordinarily have been made on that day are instead made at the end of September and thus are shifted into the previous fiscal year. All projections presented here have been adjusted to exclude the effects of those timing shifts. Historical amounts have been adjusted as far back as the available data will allow.

GDP = gross domestic product.

Figure 3.

Federal Debt Held by the Public

Percentage of Gross Domestic Product
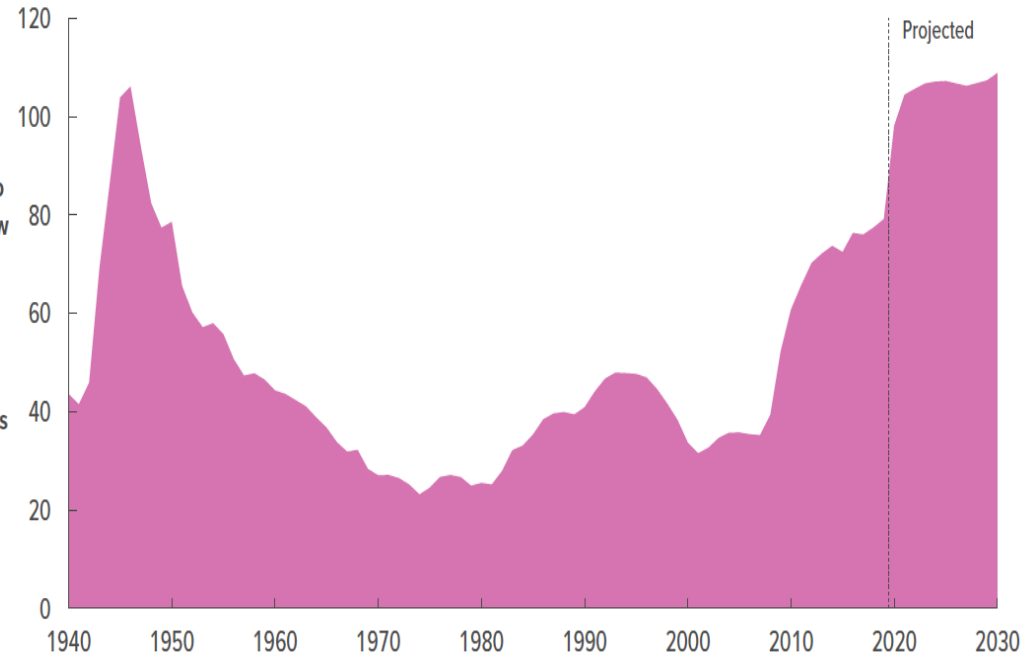
Federal debt has increased sharply this year and is projected to increase in most years over the coming decade. Beginning in 2023, debt would be higher than at any other time in the nation's history.

Source: Congressional Budget Office.

Consensus Projections Call for Steady Rise in Treasury Rates Through Spring of 2022
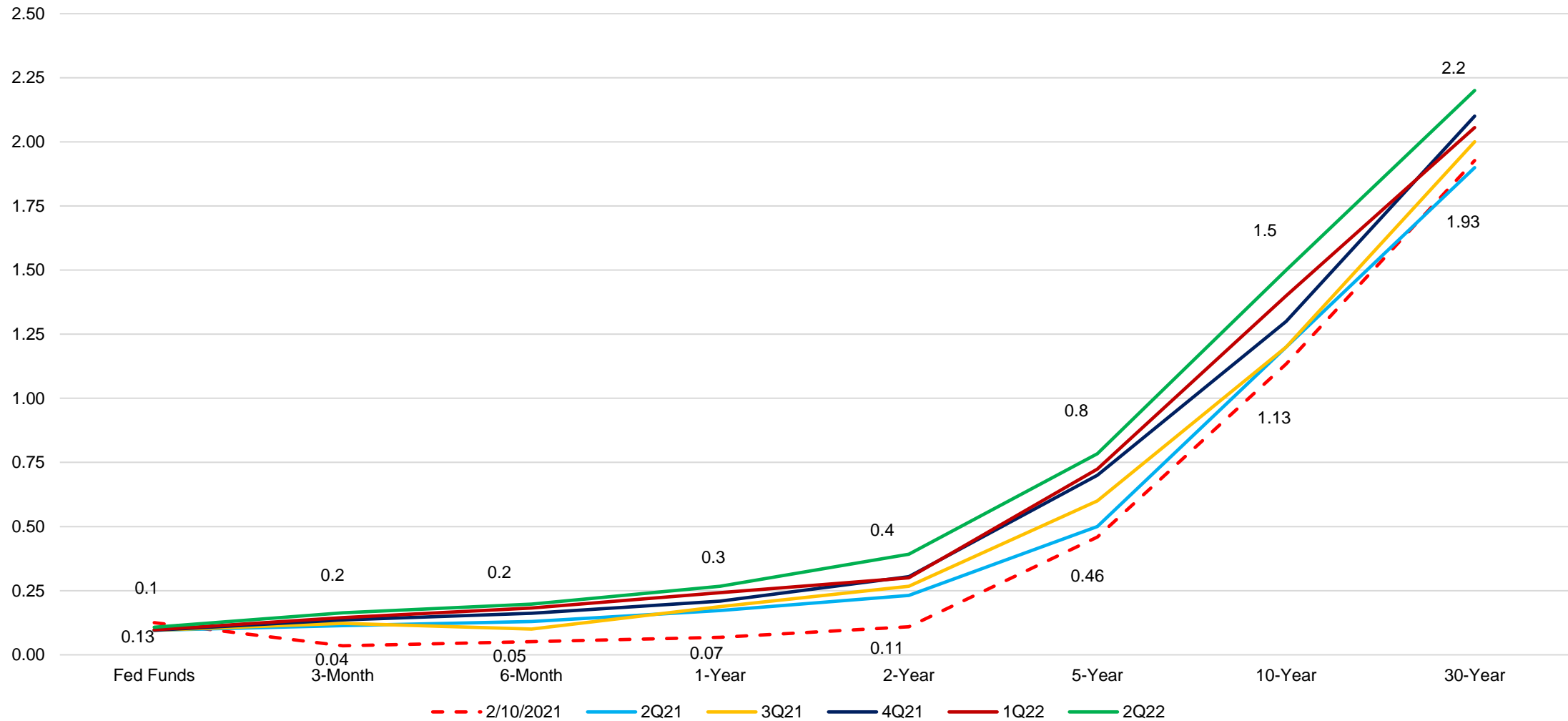
Sources: Bloomberg, Blue Chip Consensus

NY Factory Activity Rose Modestly in January; Firms More Hopeful About the Future

Empire State Manufacturing Survey
(diffusion indexes, 50 = no change from prior month)

Legend: Composite, New Orders, Employment
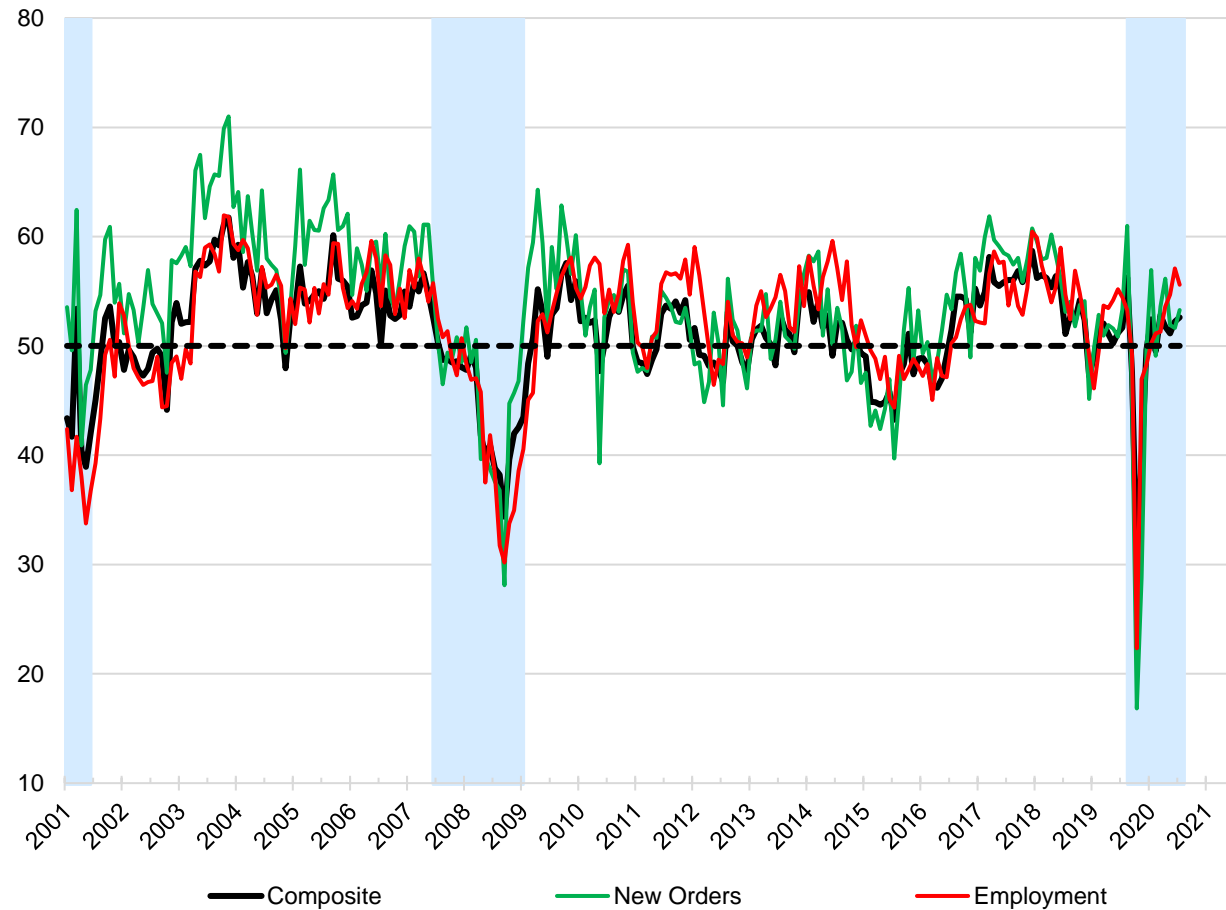
Empire State Manufacturing Composite Indexes
(diffusion indexes, 50 = no change from prior month)
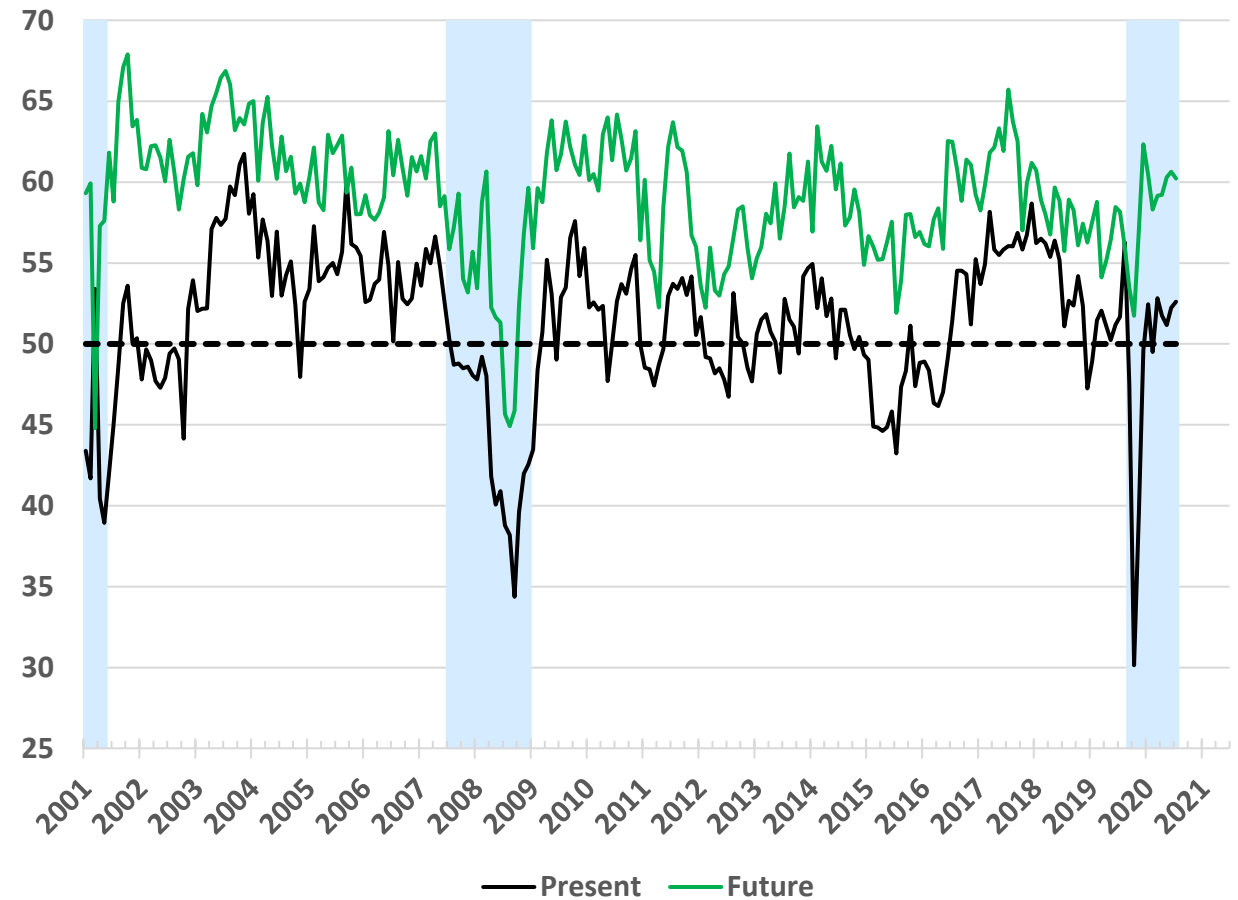
Legend: Present, Future

Note: Shaded areas denote recessions. Sources: Federal Reserve Bank of New York, FHLBNY estimates

Local Service-Producing Activity Weakened, Yet Firms More Optimistic About the Future

New York Fed Business Leaders Survey
(diffusion indexes, 50 = no change from prior month)
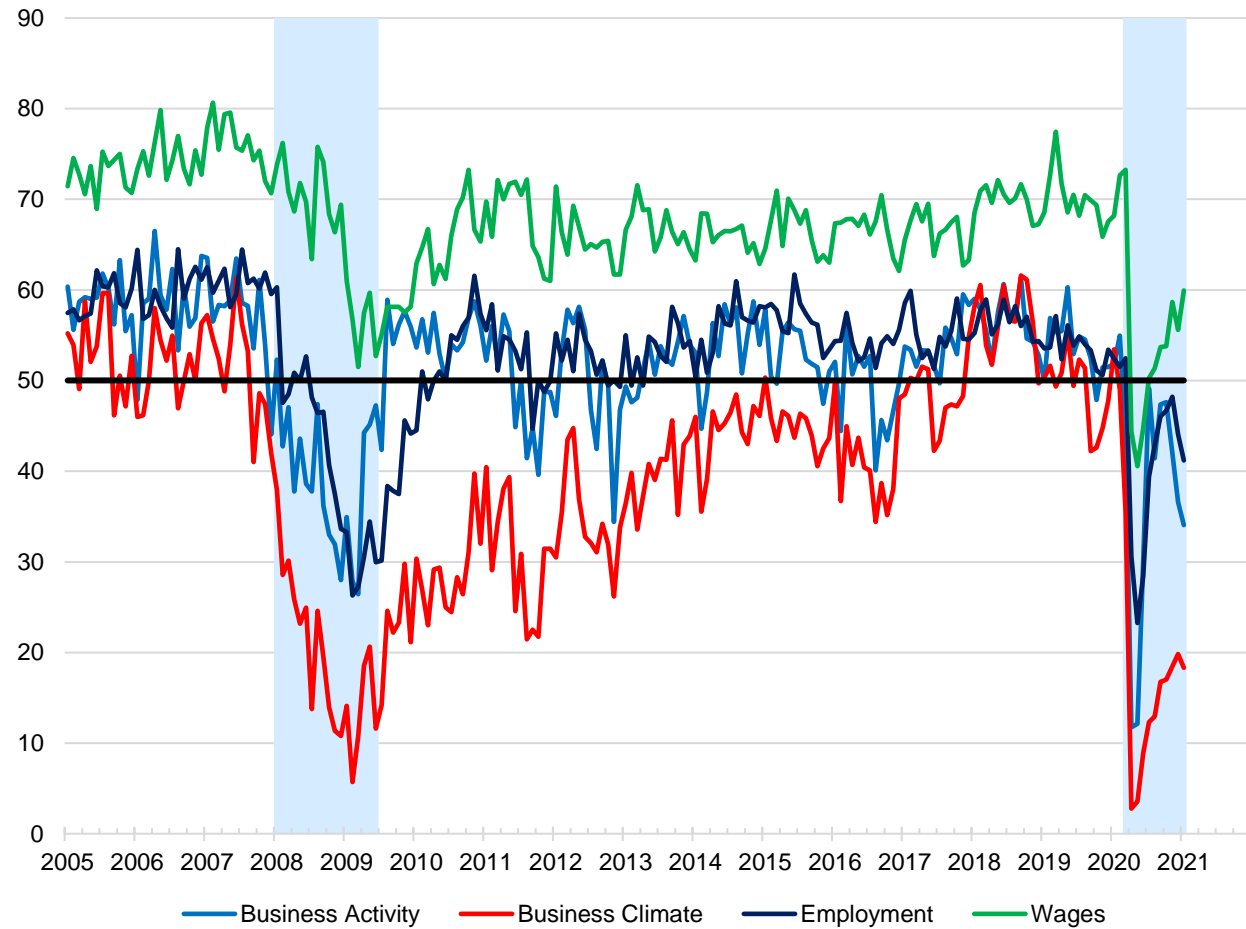
New York Fed Business Leaders Survey
(diffusion indexes, 50 = no change from prior month)

Business Activity — Business Climate — Employment — Wages

Future Business Activity — Future Business Climate
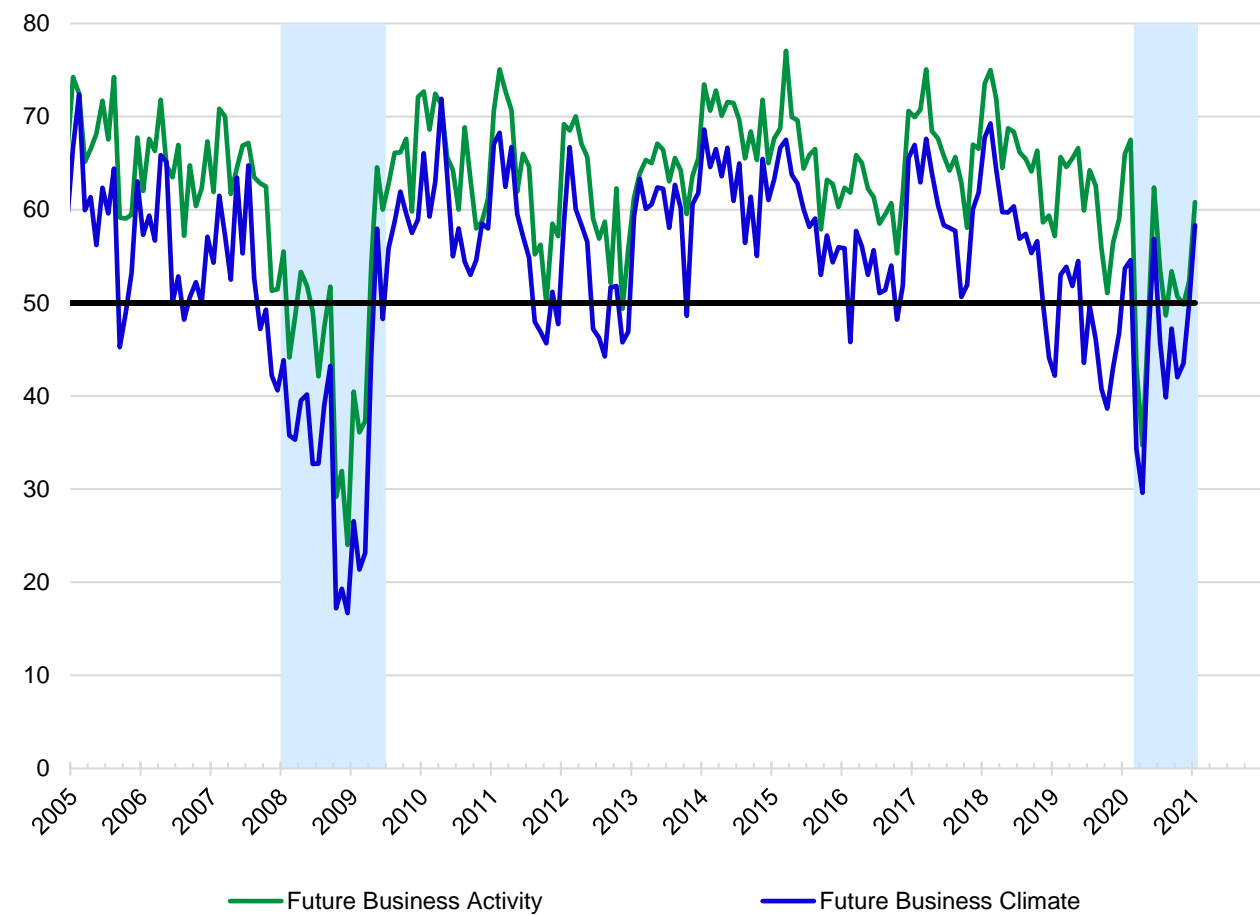
Note: Shaded areas denote recession. Sources: Federal Reserve Bank of New York, FHLBNY estimates

Small Business in the FHLBNY District Have Suffered More Than Others Amidst Healthcare Crisis

Firms Experiencing a Large Negative Impact From COVID-19 By Industry

Average 30.7%

- Mining: 43.9%
- Construction: 17.8%
- Manufacturing: 29.0%
- Wholesale Trade: 30.1%
- Retail Trade: 24.1%
- Transport. & Warehousing: 32.8%
- Utilities: 5.2%
- Information: 29.9%
- Finance & Insurance: 13.7%
- Real Estate: 20.7%
- Prof, Scientific & Tech Services: 22.2%
- Management of Companies: 14.0%
- Administration & Support: 26.5%
- Educational Services: 52.5%
- Healthcare & Social Assistance: 30.1%
- Arts, Entertainment & Recreation: 60.7%
- Accommodations & Food: 64.9%
- Other Services: 44.0%

Overall, how has business been effected by the COVID-19 pandemic?

	National	New Jersey	New York	Puerto Rico
Large Negative Impact	30.7%	35.9%	40.3%	28.6%
Moderate Negative Impact	44.3%	42.6%	40.8%	51.4%
Little or No Effect	18.7%	12.2%	12.8%	16.7%
Moderate Positive Impact	5.0%	7.0%	4.5%	0.0%
Large Positive Impact	1.4%	2.4%	1.7%	0.0%
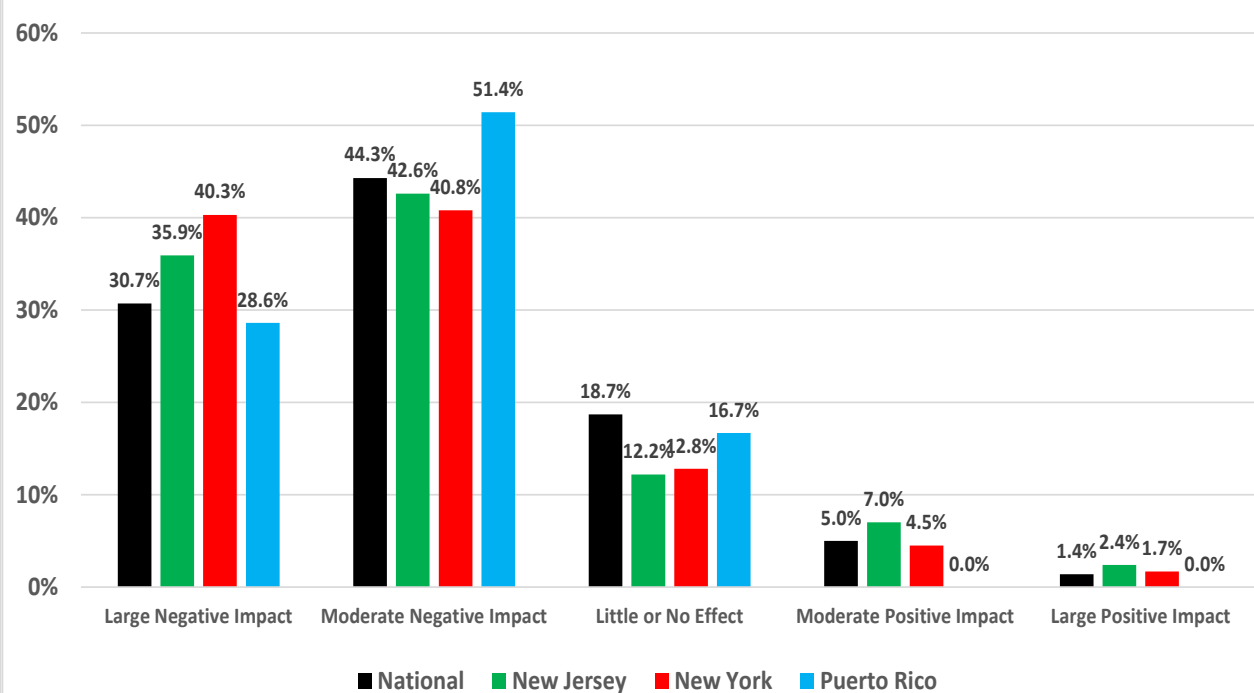
Source: U.S. Census Bureau

FHLBNY District Added Jobs Over May-December Span, But Payrolls Remain Well Below Pre-Pandemic Levels

FHLBNY Nonfarm Payrolls
(thousands, seasonally adjusted)

	New York	New Jersey	Puerto Rico	Virgin Islands	FHLB-NY District
Jobs Lost (March-April), thous	-1,944.9	-831.3	-119.6	-2.7	-2,898.5
Jobs Recovered (May-December)	886.6	479.4	46.4	0.2	1,412.6
% Recovered	45.6%	57.7%	38.8%	7.4%	48.7%

Private Payroll Changes By Industry in the FHLBNY District

Thous

Industry	March-April	May-December
Mining & Logging	43.8%	
Construction		76.1%
Manufacturing		61.0%
Wholesale Trade		54.0%
Retail Trade		71.1%
Transport & Utilities		57.6%
Information		38.2%
Financial Activities		12.1%
Prof & Busi Services		33.9%
Education & Health		40.4%
Leisure & Hospitality		44.4%

Legend: ■ March-April ■ May-December

Note: Shaded areas denote recessions. Source: Bureau of Labor Statistics

FHLBNY District Has a Considerable Way to Go to Recoup COVID-19 Job Losses
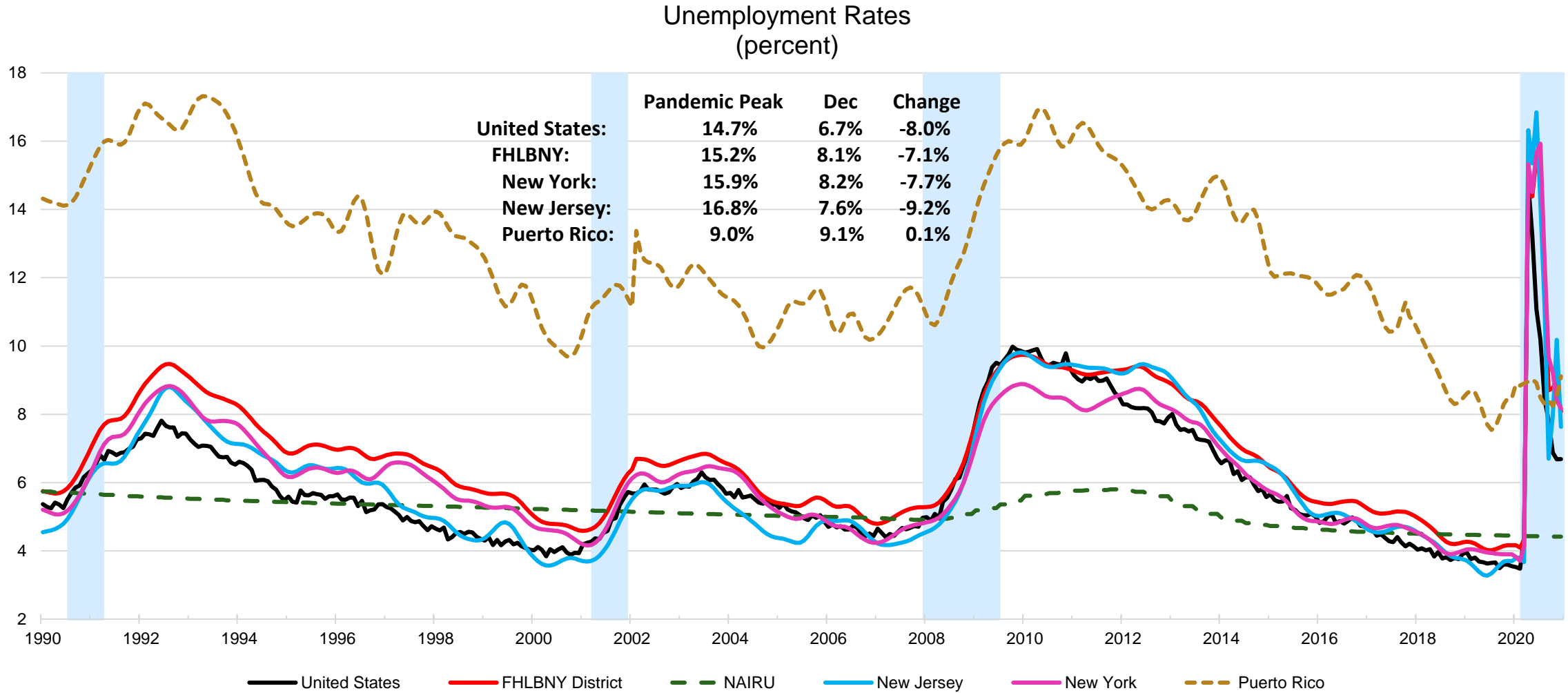
	Jobs Lost (thous)	Jobs Recovered (thous)	Percent
United States	-22,160	12,321	55.6%
FHLBNY District	-2,899	1,413	48.7%
New York State	-1,944.9	886.6	45.6%
Albany-Schenectady-Troy, NY	-74.9	29.3	39.1%
Binghamton, NY	-14.2	7.6	53.5%
Buffalo-Cheektowaga-Niagara Falls, NY	-111.7	66.3	59.4%
Dutchess County-Putnam County, NY Metropolitan Division	-26.0	11.2	43.1%
Elmira, NY	-4.6	2.2	47.8%
Glens Falls, NY	-10.5	5.8	55.2%
Ithaca, NY	-9.7	7.3	75.3%
Kingston, NY	-9.6	6.4	66.7%
Nassau County-Suffolk County, NY Metropolitan Division	-296.4	187.5	63.3%
New York-Jersey City-White Plains, NY-NJ Metropolitan Divisio	-1,478.2	683.0	46.2%
New York-Newark-Jersey City, NY-NJ-PA	-2,036.2	986.7	48.5%
Rochester, NY	-100.0	43.1	43.1%
Syracuse, NY	-59.9	25.4	42.4%
Utica-Rome, NY	-19.6	9.3	47.4%
Watertown-Fort Drum, NY	-7.3	3.3	45.2%
New York City, NY	-944.1	360.9	38.2%
Orange-Rockland-Westchester, NY	-149.7	85.3	57.0%

	Jobs Lost (thous)	Jobs Recovered (thous)	Percent
New Jersey	-831.3	479.4	57.7%
Atlantic City-Hammonton, NJ	-44.5	25.3	56.9%
Camden, NJ Metropolitan Division	-89.7	54.4	60.6%
Newark, NJ-PA Metropolitan Division	-225.8	105.4	46.7%
Ocean City, NJ	-11.1	9.1	82.0%
Trenton, NJ	-38.1	22.5	59.1%
Vineland-Bridgeton, NJ	-8.3	4.2	50.6%
Bergen-Hudson-Passaic, NJ	-185.5	108.8	58.7%
Middlesex-Monmouth-Ocean, NJ	-195.1	128.0	65.6%
Puerto Rico	-119.6	46.4	38.8%
Aguadilla-Isabela	-7.9	4.0	50.6%
Arecibo	-4.9	3.7	75.5%
Guayama	-1.6	0.9	56.3%
Mayaguez	-3.9	0.6	15.4%
Ponce	-10.2	5.3	52.0%
San German	-2.7	1.7	63.0%
San Juan-Carolina-Caguas	-91.8	24.5	26.7%
Virgin Islands	-2.7	0.2	7.4%

Source: Bureau of Labor Statistics

District Jobless Rates Have Generally Moved Lower, But Remain Well Above National Average

Unemployment Rates
(percent)

	Pandemic Peak	Dec	Change
United States:	14.7%	6.7%	-8.0%
FHLBNY:	15.2%	8.1%	-7.1%
New York:	15.9%	8.2%	-7.7%
New Jersey:	16.8%	7.6%	-9.2%
Puerto Rico:	9.0%	9.1%	0.1%

Legend: United States — FHLBNY District — NAIRU — New Jersey — New York — Puerto Rico

Note: Shaded areas denote recessions. Source: Bureau of Labor Statistics

# Income Inequality Rising Across U.S. and Majority of FHLBNY District
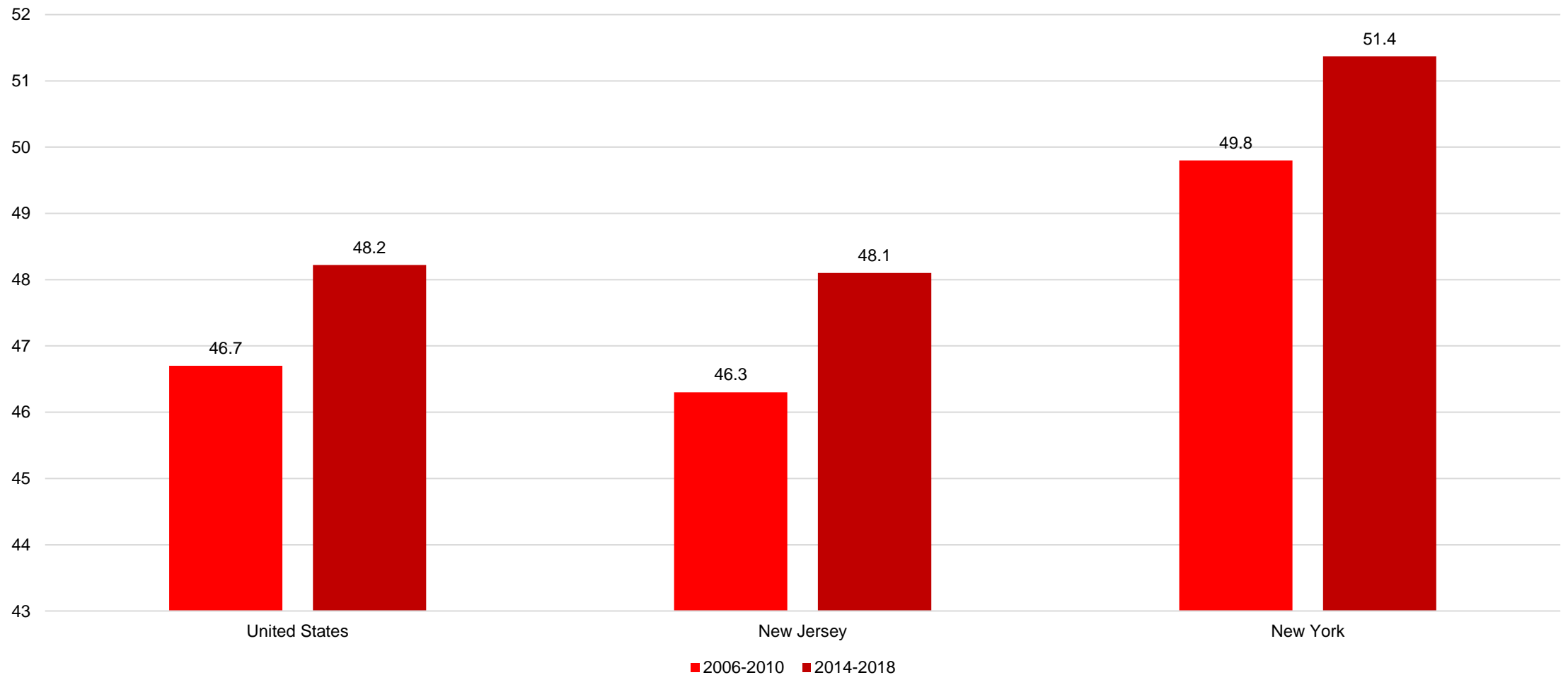
Note: The Gini Index is a summary measure of income inequality. A value of 0 indicates perfect equality while a value of 1 (or 100) indicates perfect inequality. Source: Population Research Bureau
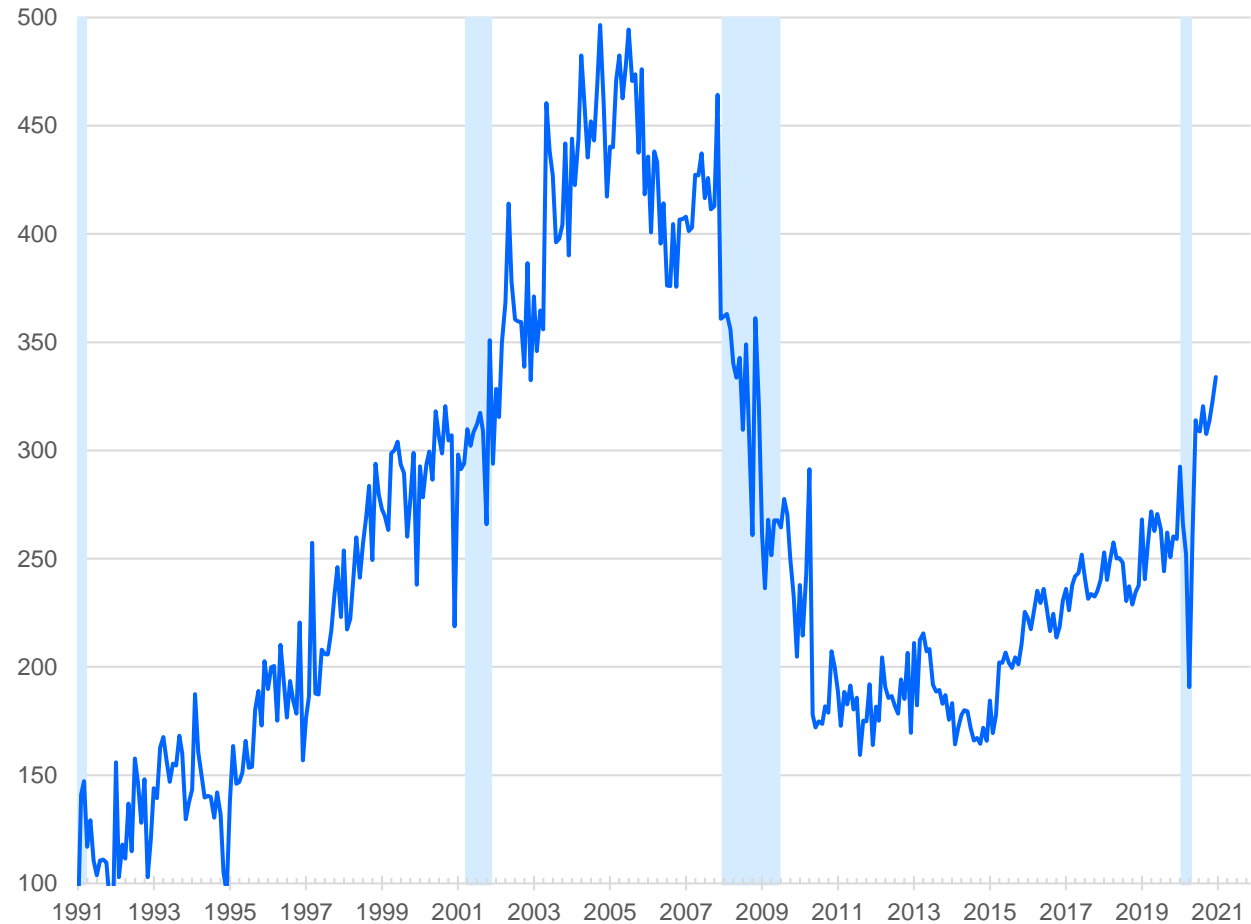
Record Low Mortgage Rates Are Boosting Home-Purchase Mortgage Applications


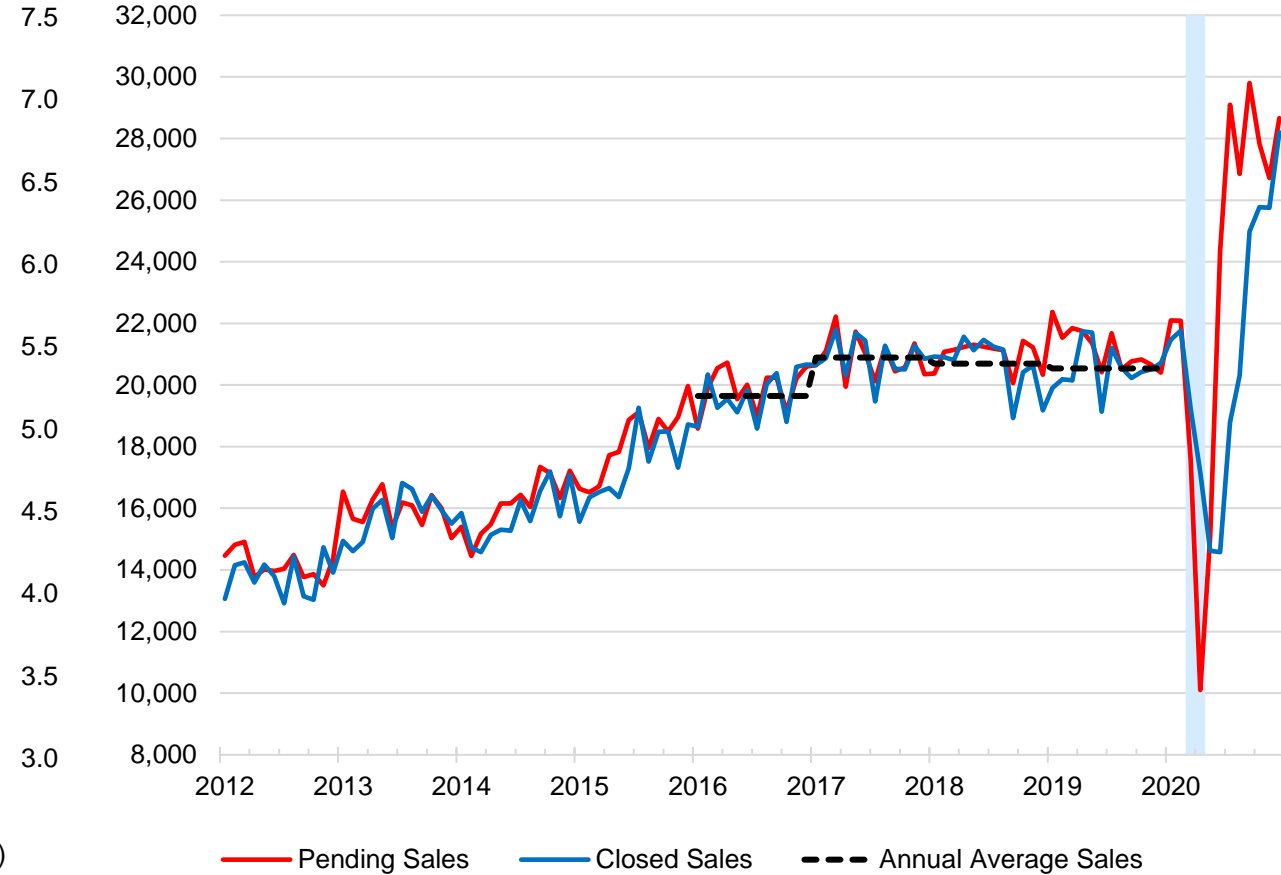
Mortgage Interest Rates
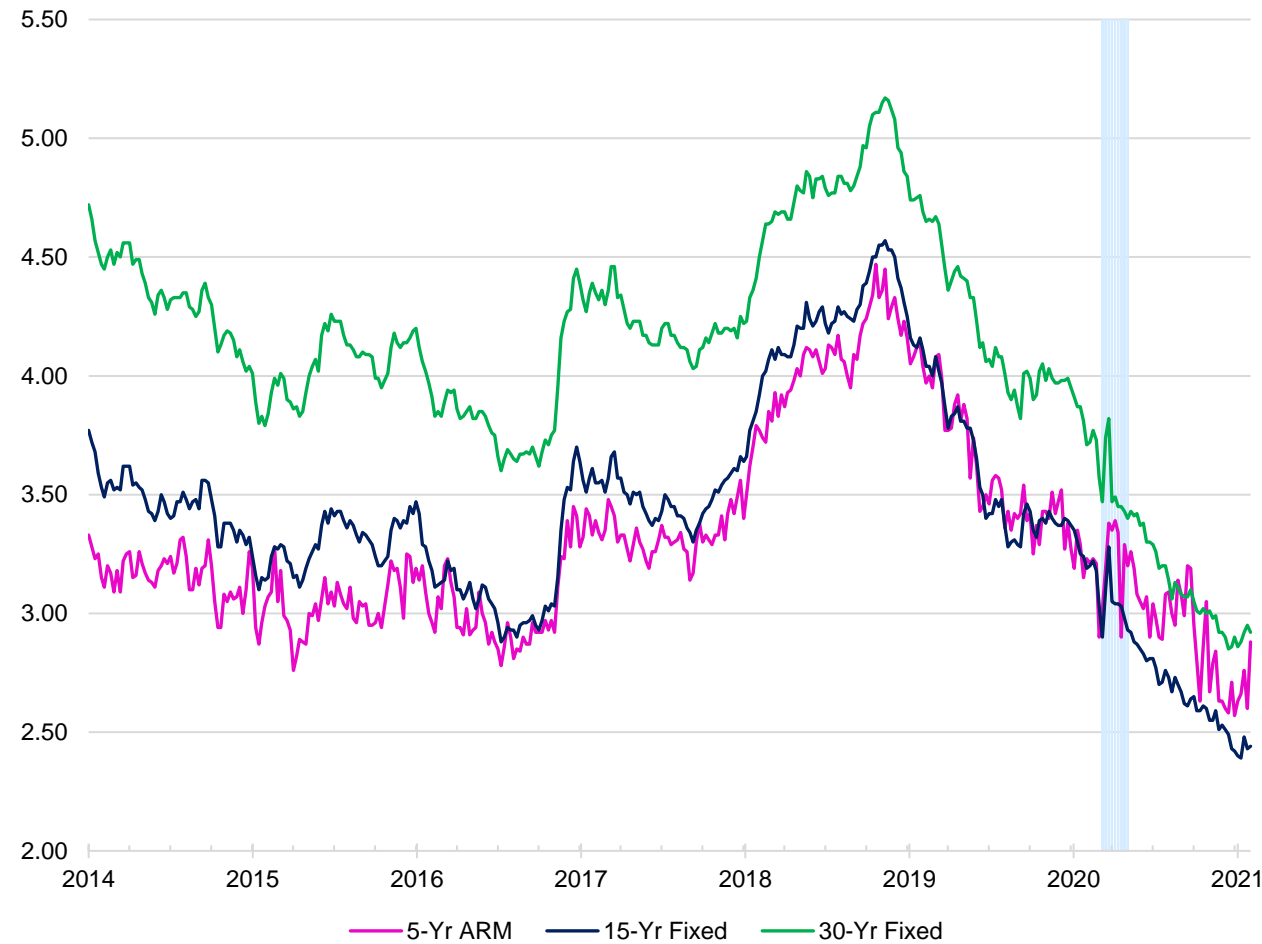
Home-Purchase Mortgage Applications

Legend: 5-Yr ARM, 15-Yr Fixed, 30-Yr Fixed

Note: Shaded areas denote recessions. Sources: Mortgage Bankers Association

Strength in Contract Signings Points to Further Gains in Local Home Sales


U.S. Pending and Existing Home Sales

Pending Home Sales (index 2001 = 100, left) — Existing Home Sales (millions saar, right) — Annual Average Sales
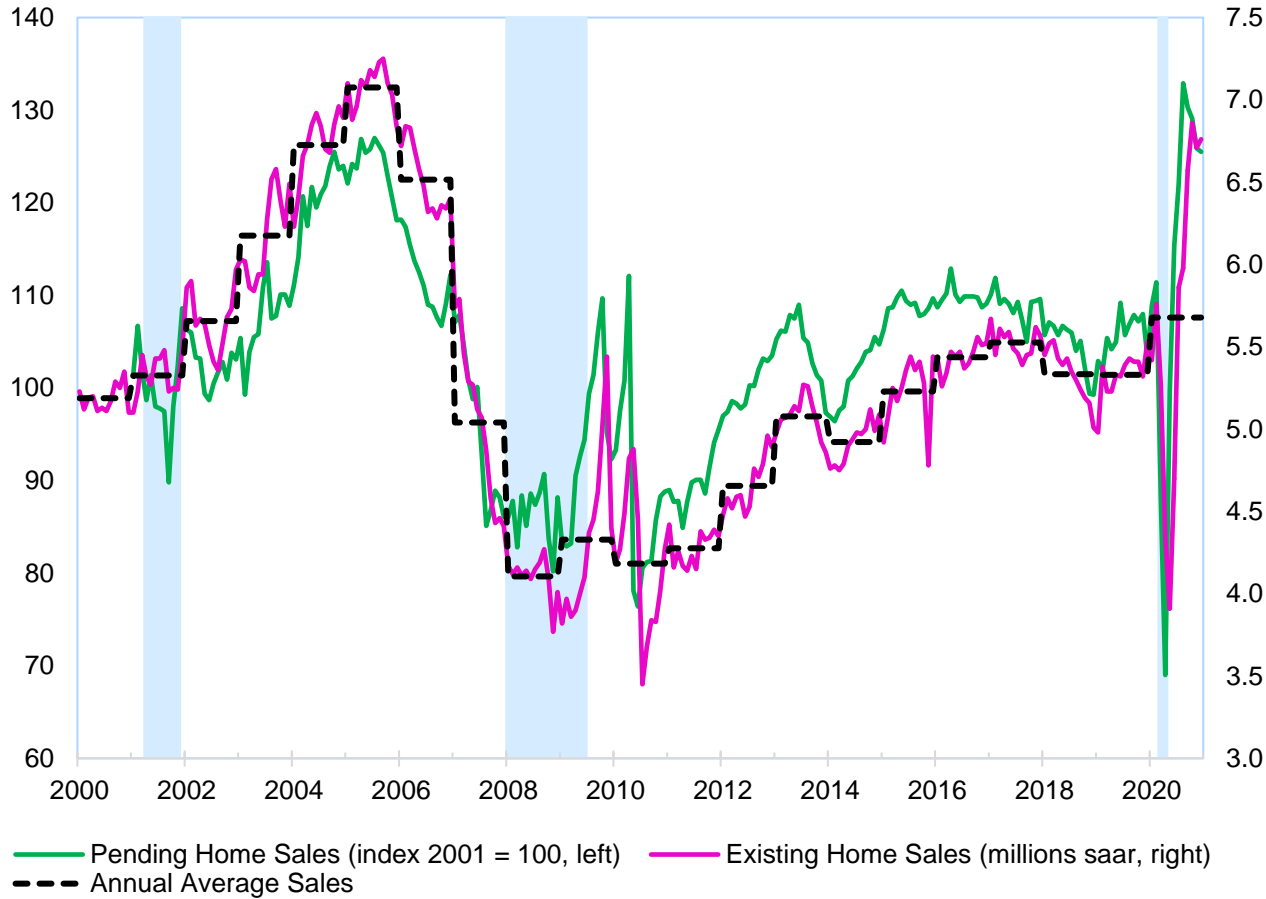
Pending and Closed Home Sales in New York & New Jersey (seasonally adjusted)

Pending Sales — Closed Sales — Annual Average Sales

Note: Shaded areas denote recessions. Sources: Mortgage Bankers Association, NYSAR, NJ Realtors and FHLBNY estimates

Historically Low Homes on the Market Will Continue to Support Local Median Prices
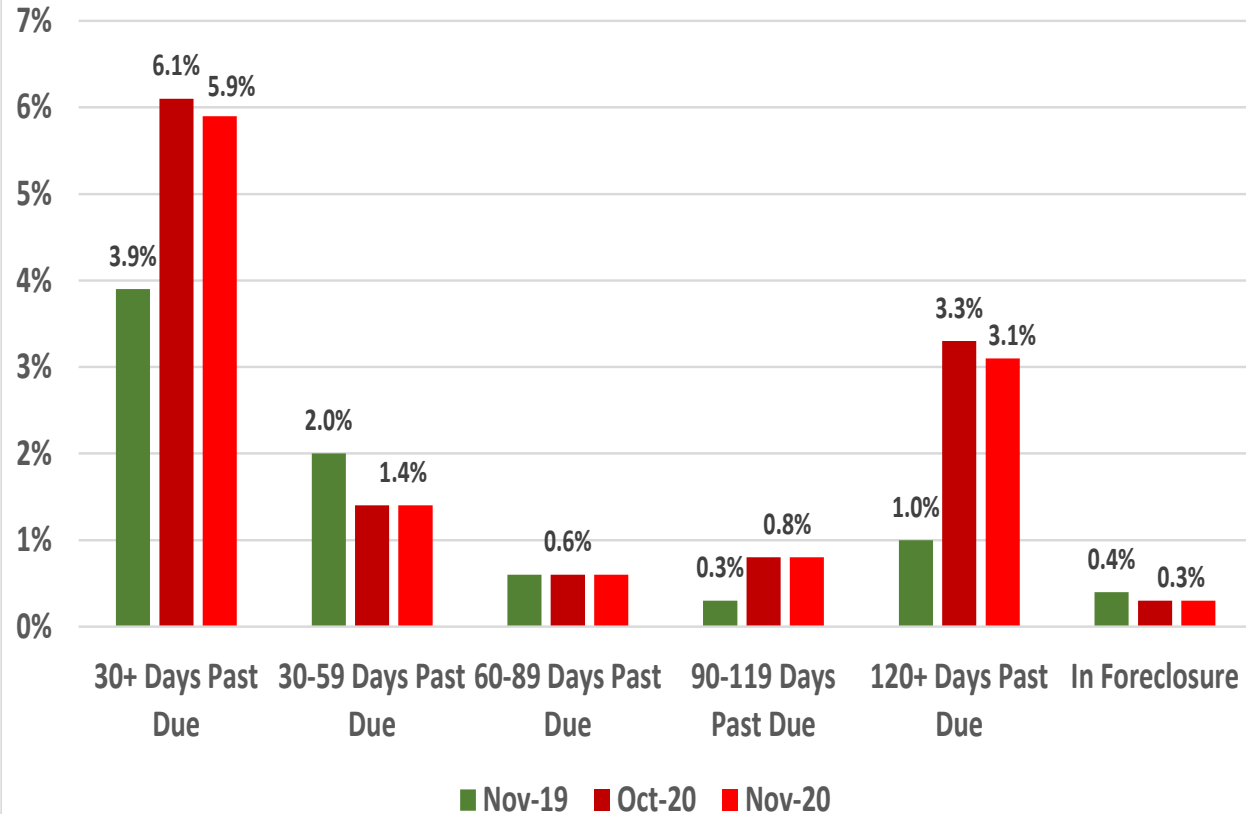

Homes Available for Sale (seasonally adjusted)
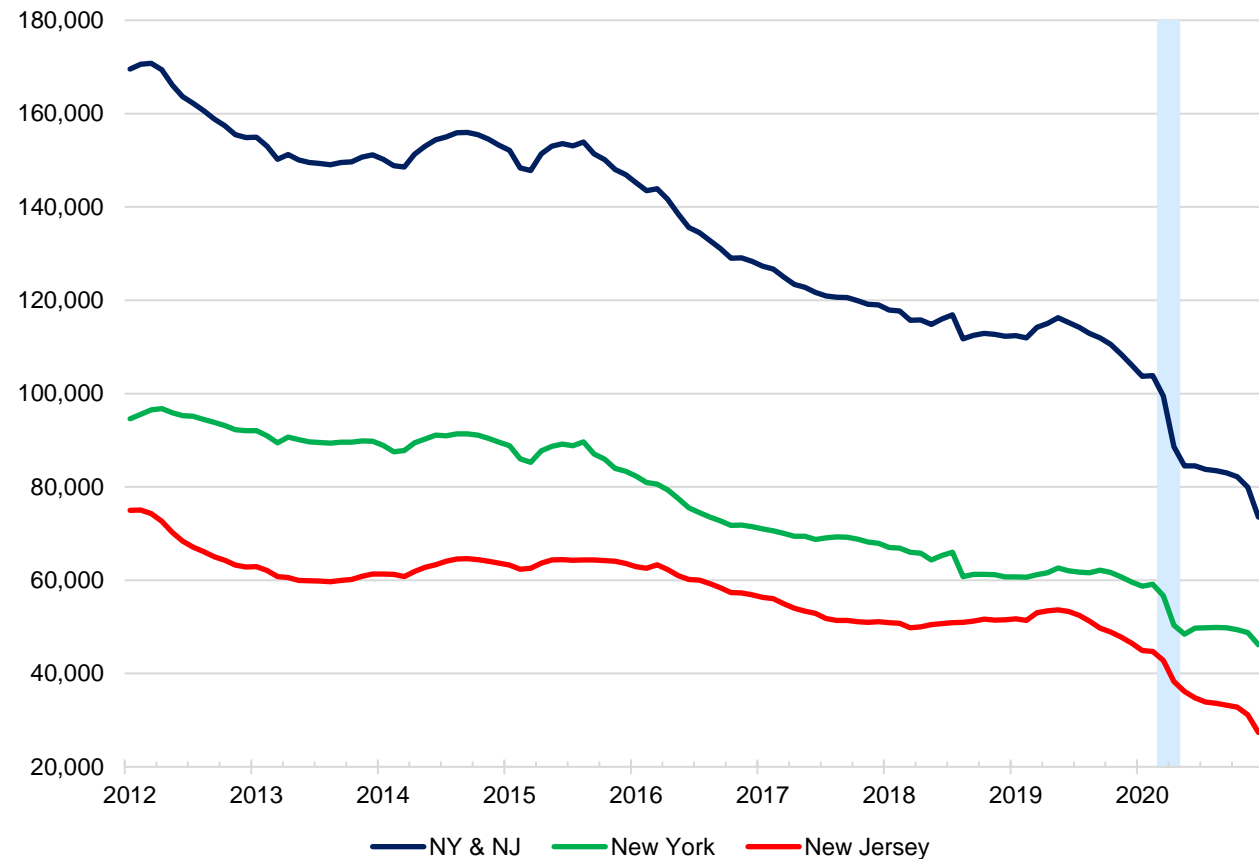
Median Selling Prices (seasonally adjusted)

Legend: NY & NJ · New York · New Jersey
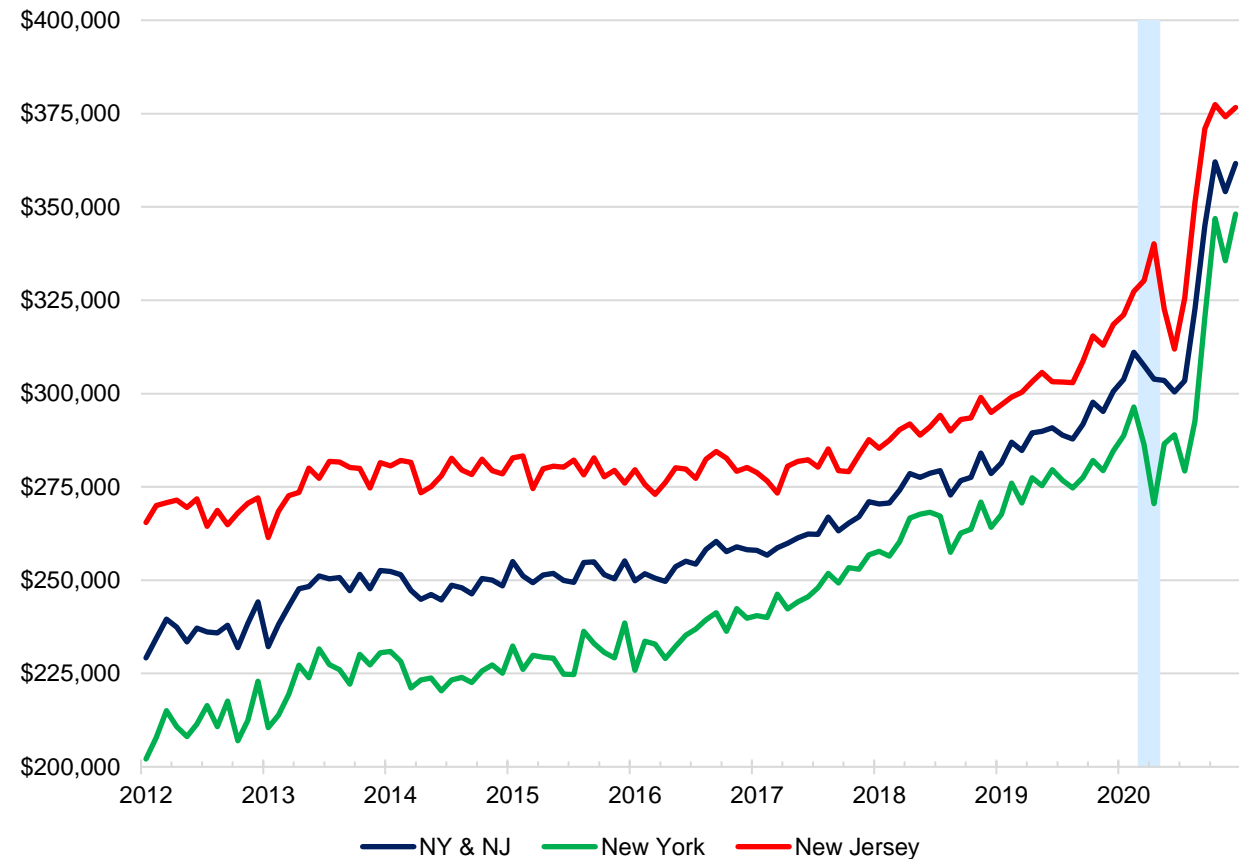
Note: Shaded areas denote recession. Sources: NYSAR, NJ Realtors and FHLBNY estimates

Mortgage Delinquencies Dipped in November; Forbearances Edging Lower

Mortgage Delinquency Rates

(bar chart with legend: Nov-19, Oct-20, Nov-20)

- 30+ Days Past Due: 3.9%, 6.1%, 5.9%
- 30-59 Days Past Due: 2.0%, 1.4%, 1.4%
- 60-89 Days Past Due: 0.6%, 0.6%, 0.6%
- 90-119 Days Past Due: 0.3%, 0.8%, 0.8%
- 120+ Days Past Due: 1.0%, 3.3%, 3.1%
- In Foreclosure: 0.4%, 0.3%, 0.3%

% of Servicing Portfolio Volume in Forbearance by Investor Type over Time (Full Sample)
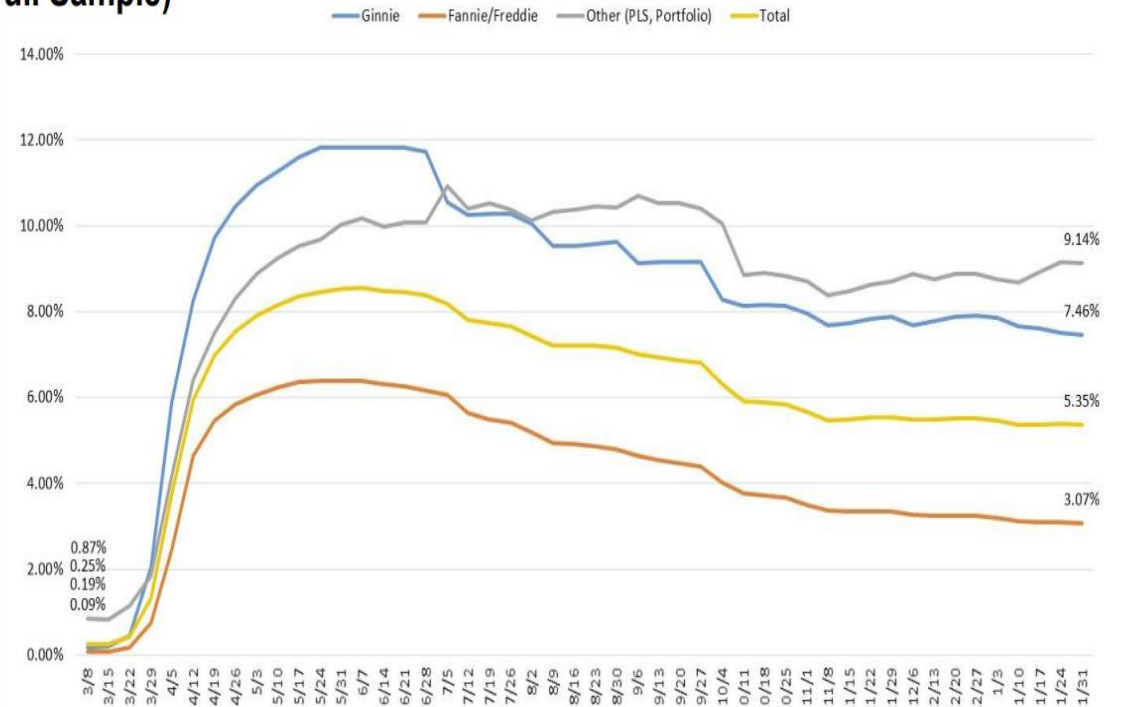
Legend: Ginnie, Fannie/Freddie, Other (PLS, Portfolio), Total

End values: 9.14%, 7.46%, 5.35%, 3.07%

Note: Shaded areas denote recessions Source: Mortgage Bankers Association

Commercial Segment Drove Nonresidential Building Projects Higher at Beginning of 2021

Dodge Momentum Index
(2000 = 100, seasonally adjusted)

— Dodge Momentum Index   — Commercial Building Planning Index   — Institutional Building Planning Index
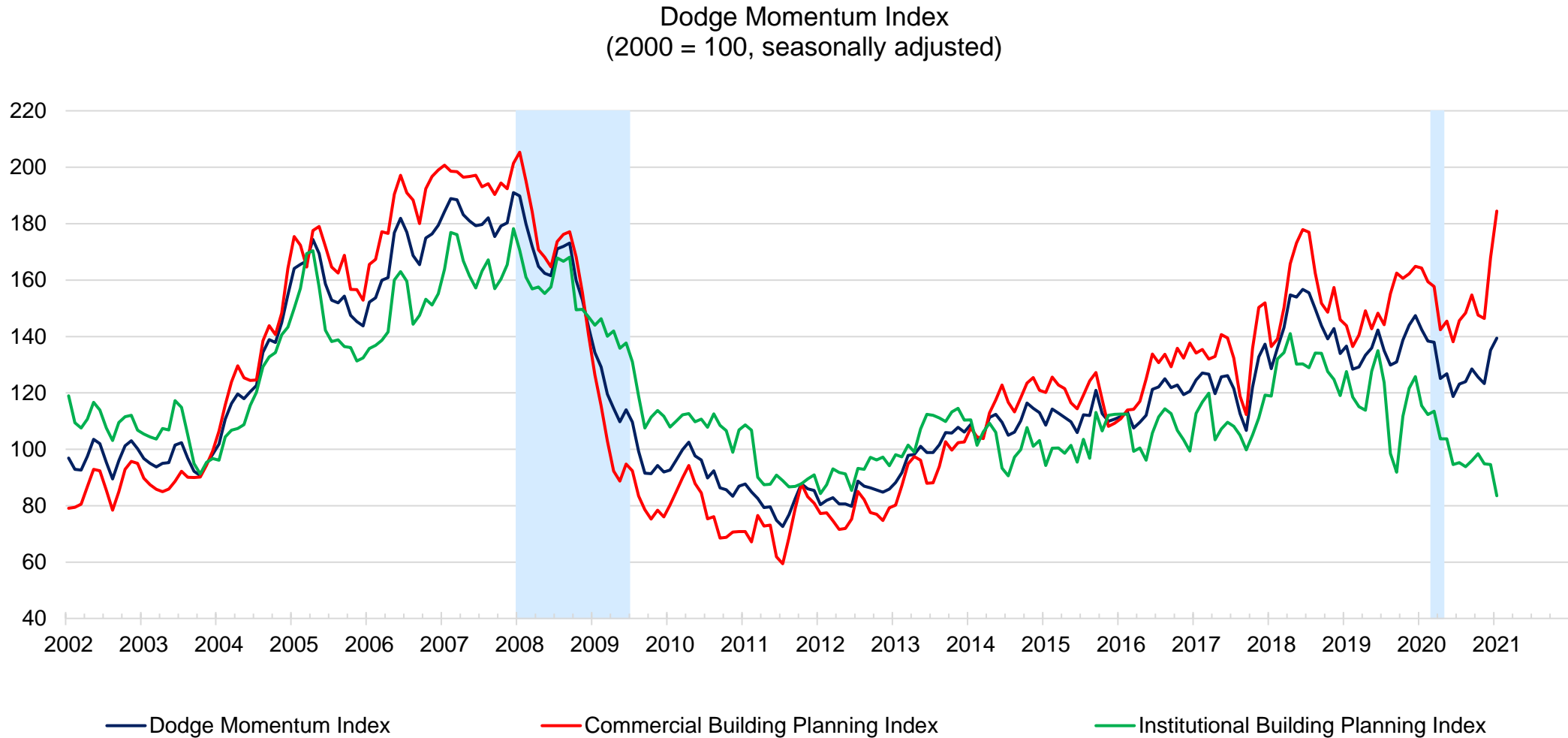
Note: Shaded areas denote recessions. Source: Dodge Data & Analytics

Risks to Commercial Real Estate Will Remain High

In contrast to the residential sector, commercial real estate likely will face significant headwinds in the future:

- $10,000 cap on state and local tax deductions in the Tax Cuts and Jobs Act of 2018 put the New York City metropolitan area at a competitive disadvantage as people and then businesses moved to lower tax states.

- The City's population growth, which turned negative for the first time in 2017, suffered accelerated declines over the past two years, falling from a peak of 8.47 million in 2016 to 8.34 million in 2019.

- Financial problems at co-working firms – the largest consumers of office space during the past several years – have further reduced demand.

- In addition, the ability to operate successfully from a remote posture in the wake of the COVID-19 pandemic has prompted many companies to question the need for physical office space.

- Finally, new competitive construction will weigh on existing properties, resulting in a rise in vacancy rates.

Advancing Housing and Community Growth

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