

Economic Update

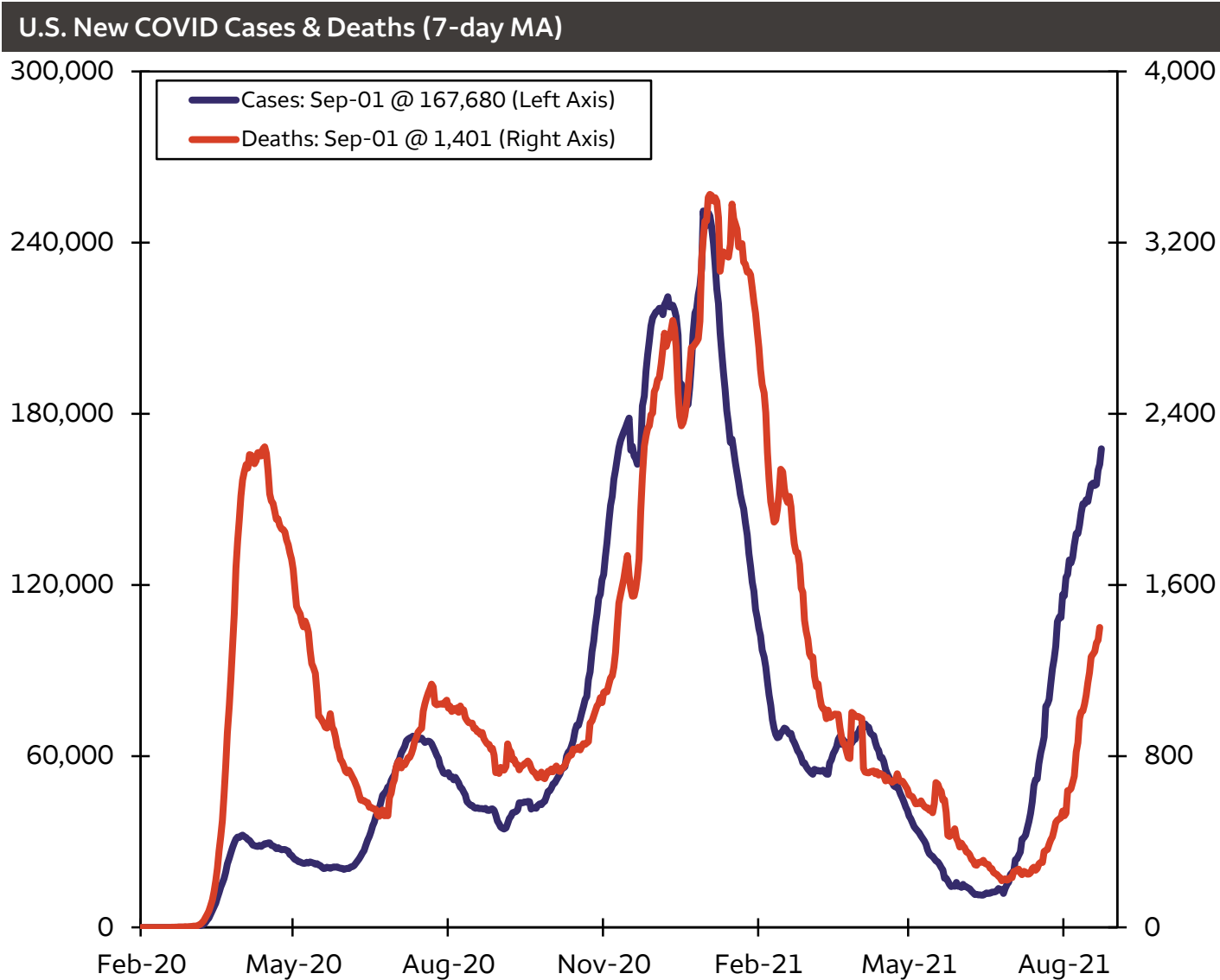
September 9th, 2021

Vanessa McMichael, CTP, Director
Fixed Income Strategy



Current State of the U.S. Economy

COVID will continue to impact the economic outlook, although it is anticipated to be far less negative compared to the beginning of 2020.

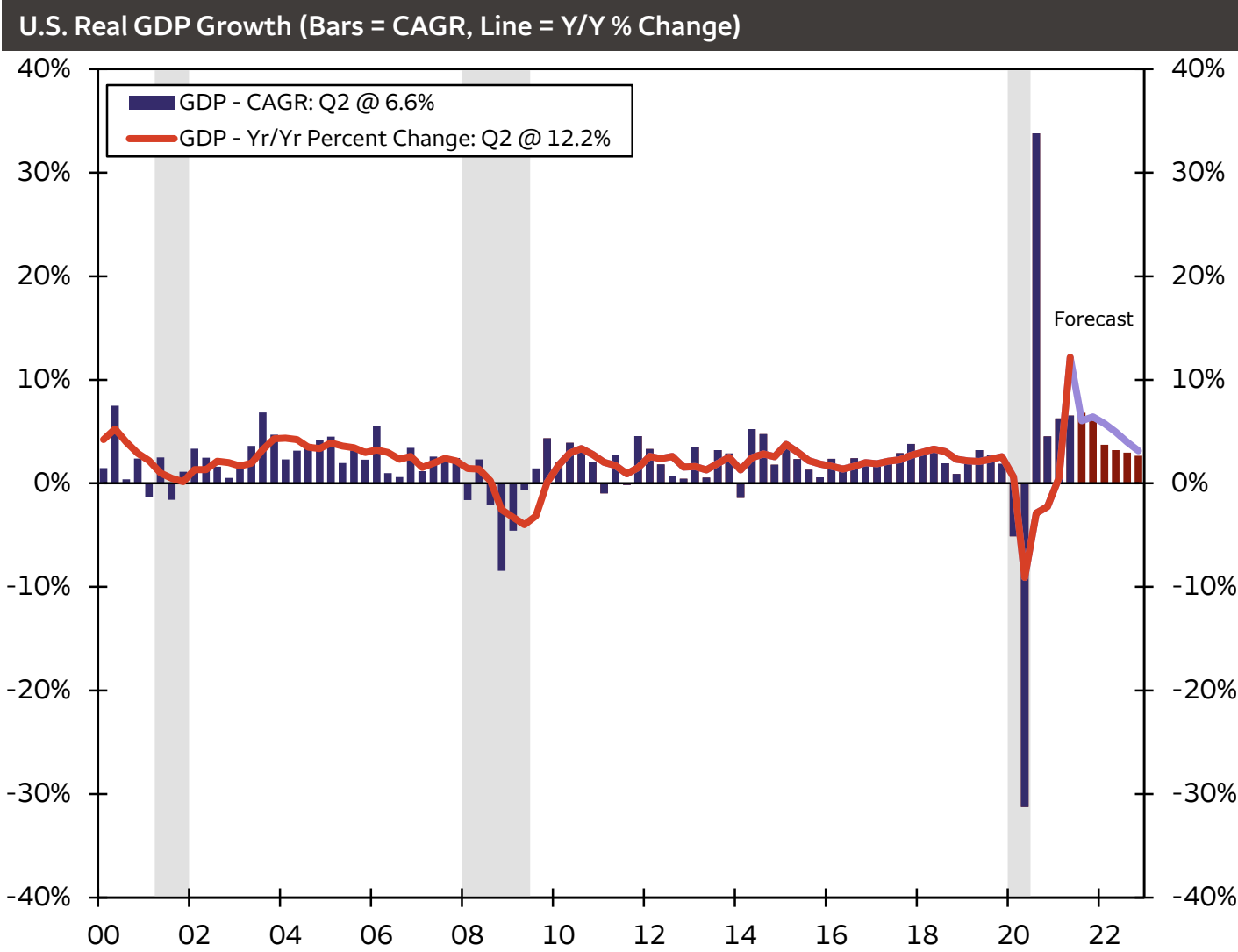


Source: Bloomberg, Wells Fargo Corporate & Investment Banking (Economics)

U.S. Economic Growth

WF economists estimate GDP to grow by 6.1% by the end of 2021, which was recently revised lower from the prior 8.1% estimate.

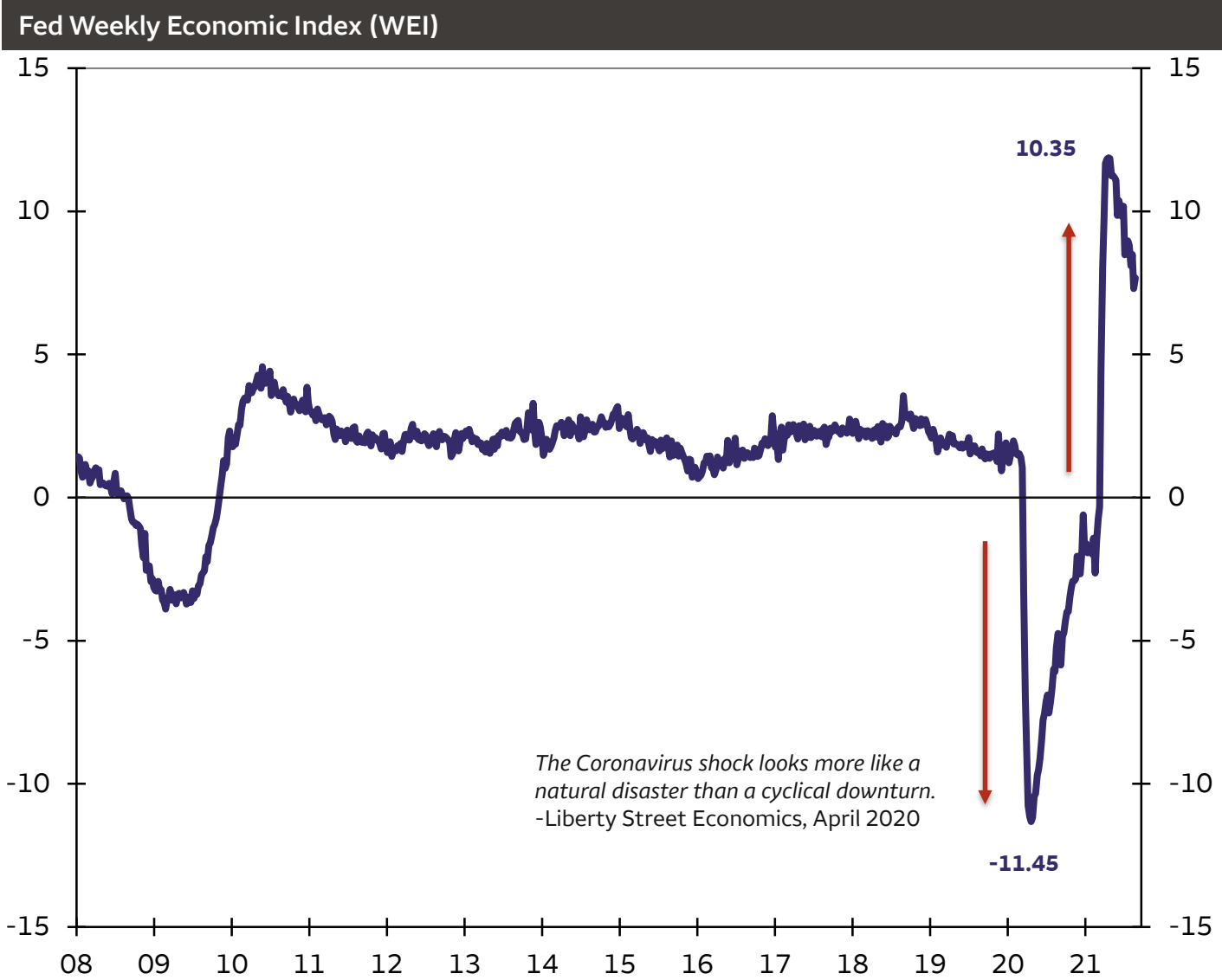
If this projection comes to fruition, this will be the *strongest growth rate in decades*.



Source: U.S. Department of Commerce, Wells Fargo Corporate & Investment Banking (Economics)

The WEI provides a signal of the state of the U.S. economy based on 10 daily/weekly indicators of real economic activity.

Represents consumer behavior, the labor market and production.

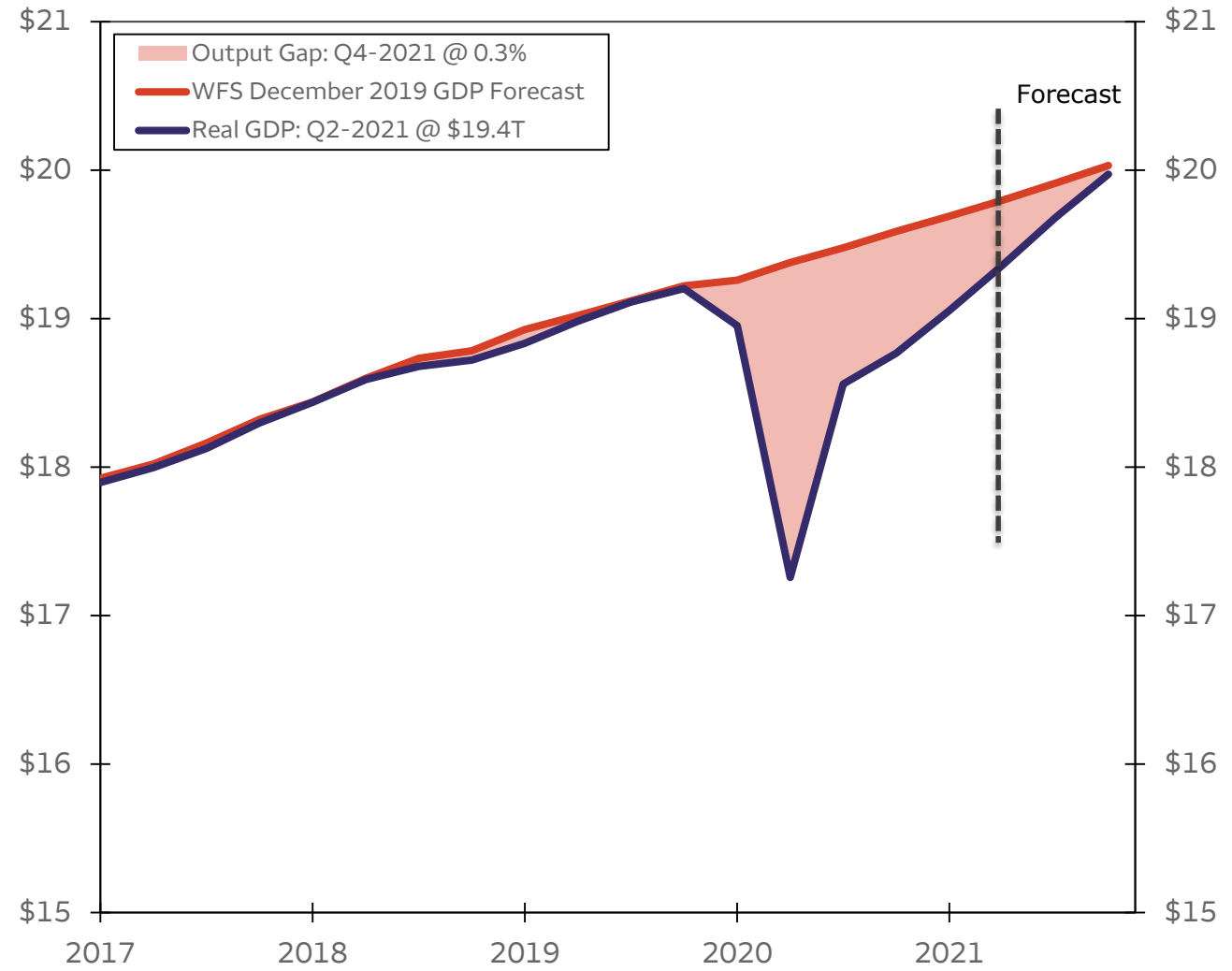


Source: Federal Reserve, Wells Fargo Corporate & Investment Banking

COVID Output Gap

While we expect the economy is currently experiencing its peak rate of growth, we are still forecasting growth well-above trend through next year as the economy continues to chip away at the output gap created by the pandemic.

Current Real GDP Forecast Relative to December 2019 Forecast (trillions)



Source: U.S. Department of Labor, Wells Fargo Corporate & Investment Banking (Economics)

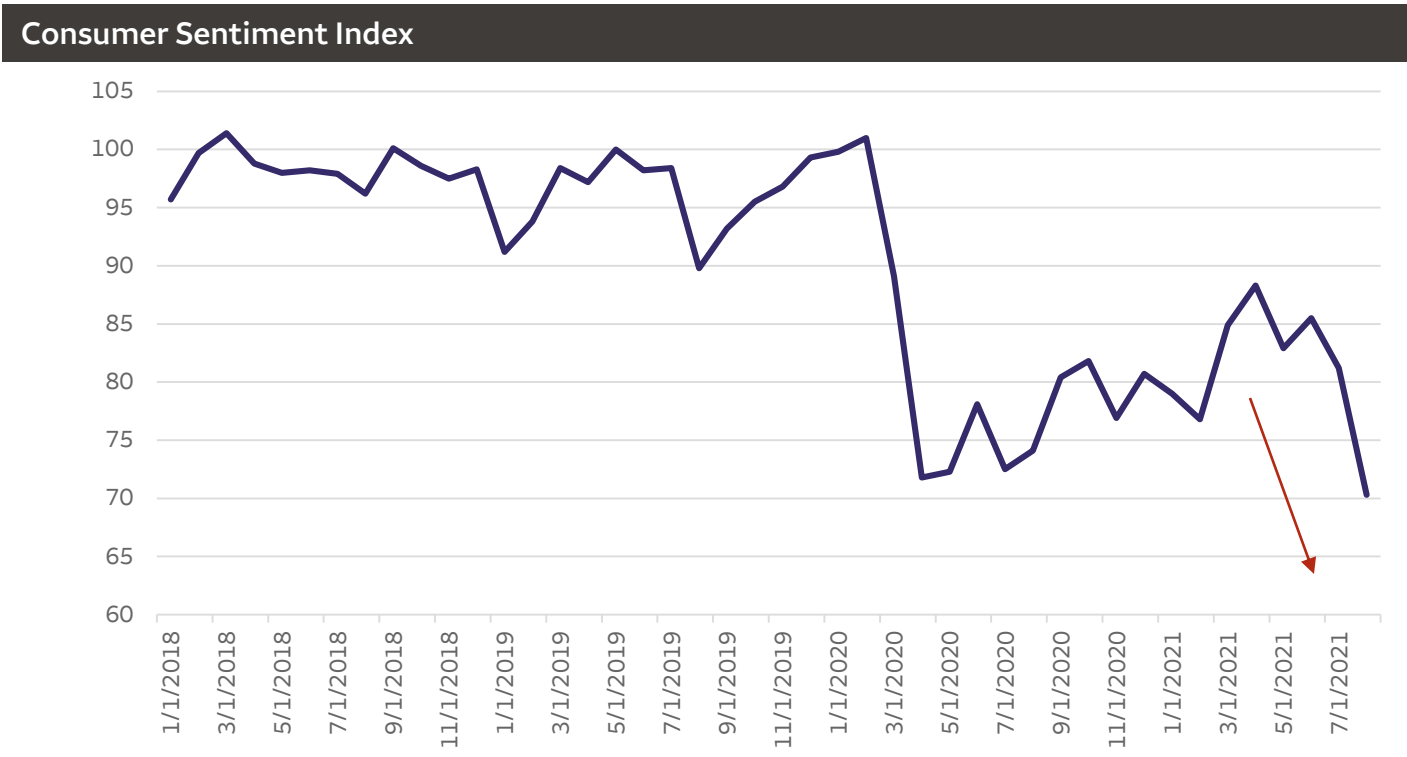
Consumer Confidence

University of Michigan Sentiment index

The latest consumer sentiment index represents the least favorable economic prospects in more than a decade.

The index has only recorded larger losses in 6 other monthly surveys since 1978.

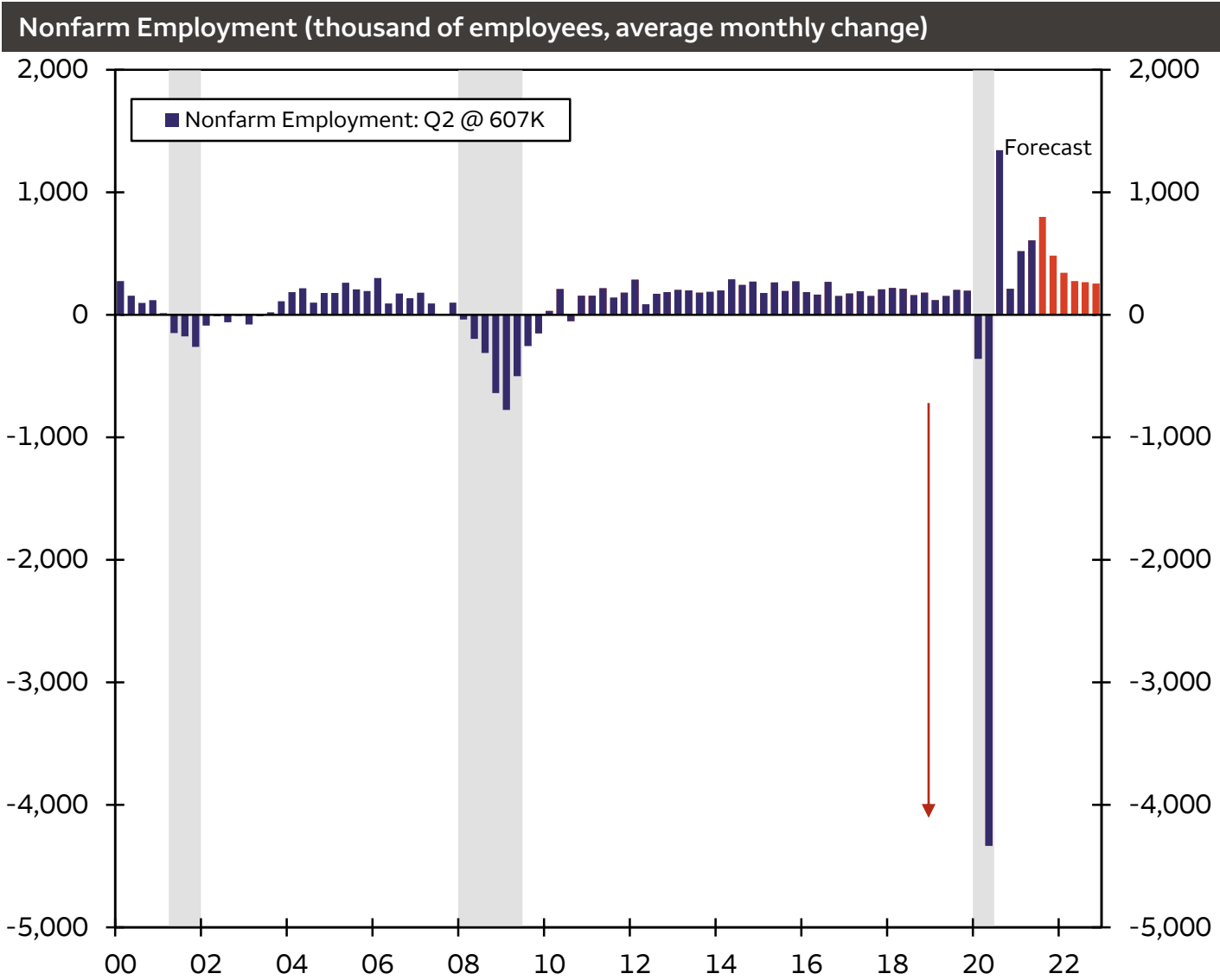
	August 2021	July 2021	August 2020	M-M	Y-Y
Index of Consumer Sentiment	70.3	81.2	74.1	-13.4%	-5.1%
Current Economic Conditions	78.5	84.5	82.9	-7.1%	-5.3%
Index of Consumer Expectations	65.1	79.0	68.5	-17.6%	-5.0%



Source: Survey of Consumers University of Michigan, Wells Fargo Corporate & Investment Banking

Labor Market: Nonfarm Payrolls

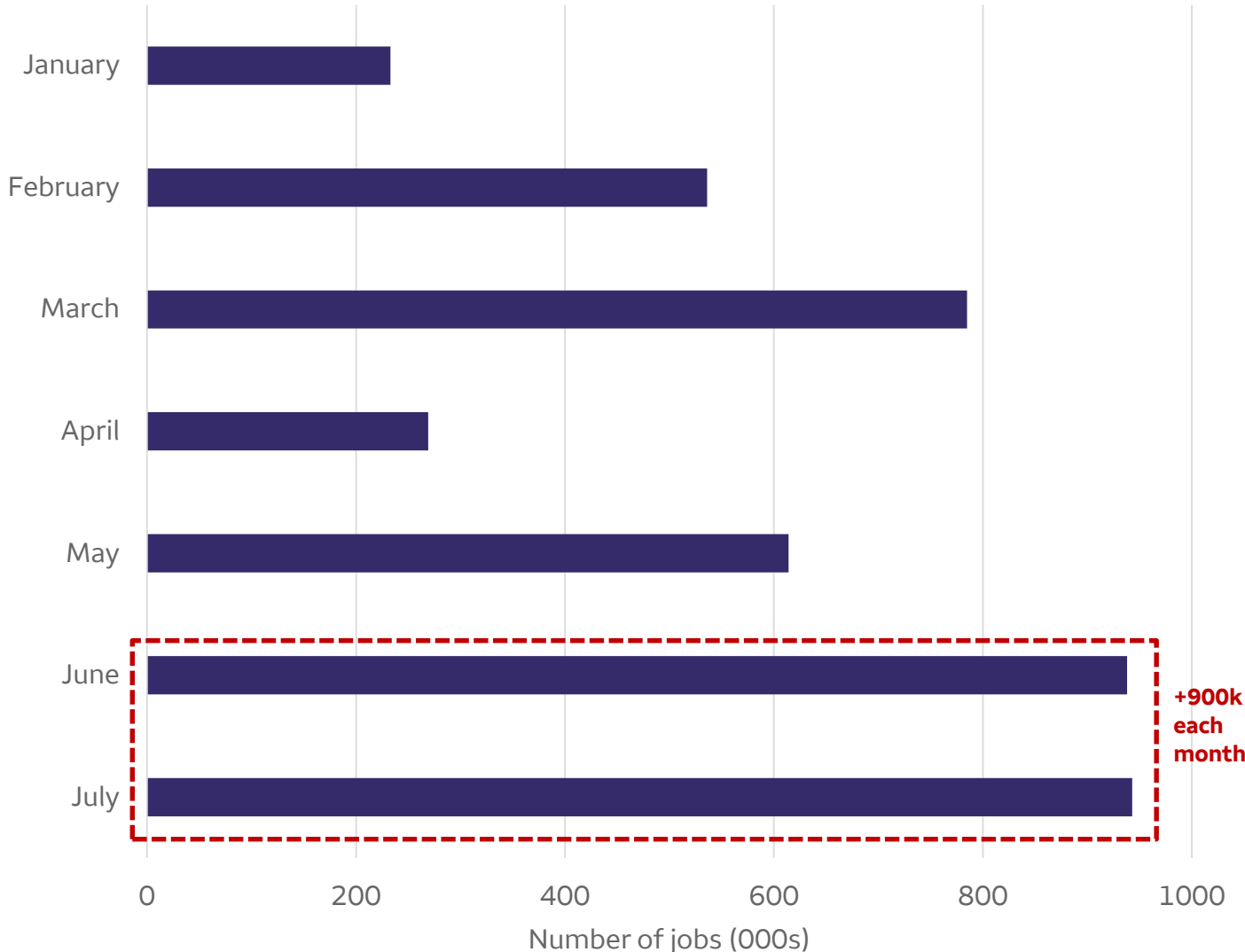
The step decline in nonfarm payrolls was magnitudes more than the fall during the 2008 financial crisis.



Source: U.S. Department of Labor, Wells Fargo Corporate & Investment Banking (Economics)

Labor Market: Nonfarm Payrolls

Nonfarm payroll data has been encouraging over the past few months.

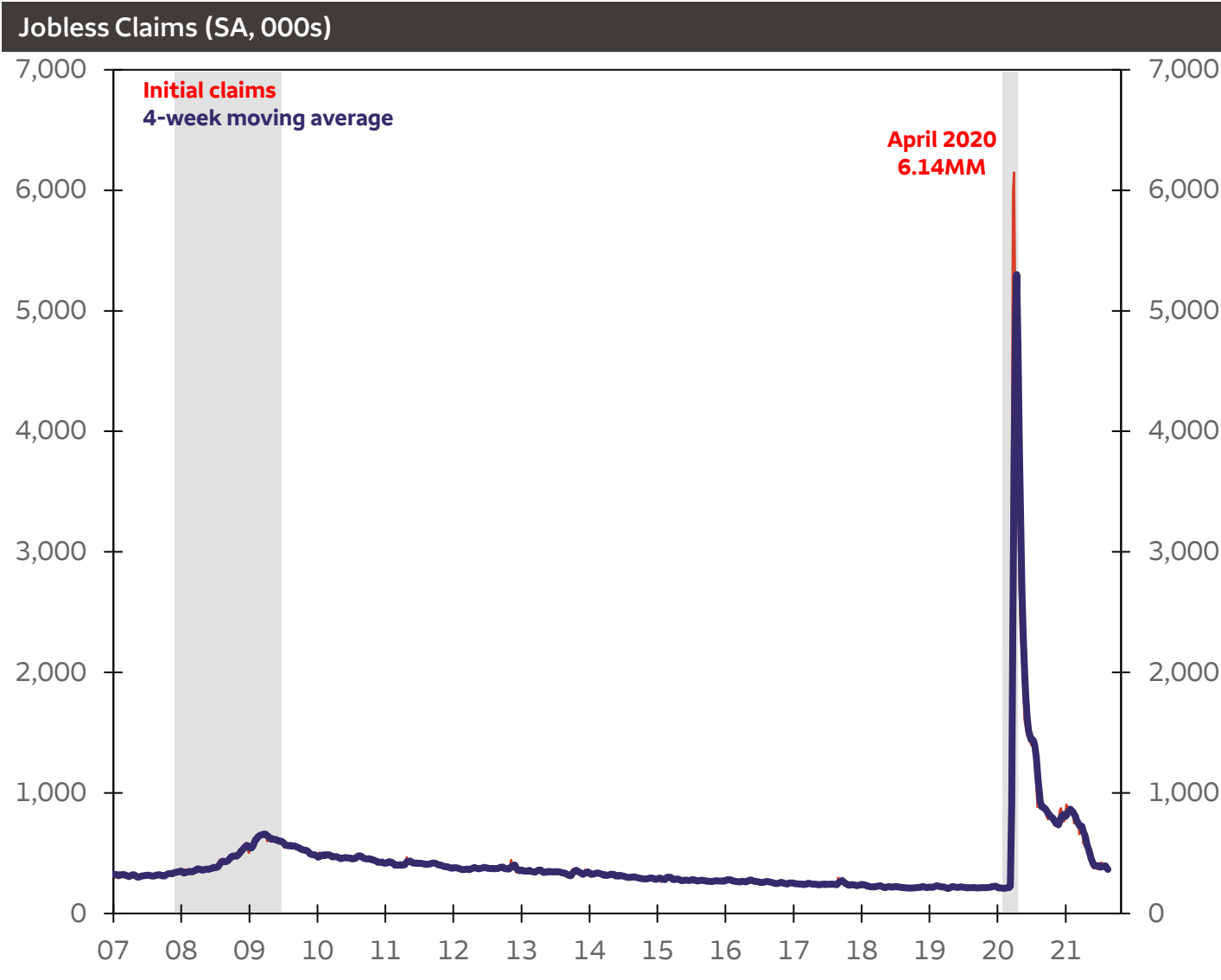


Source: U.S. Department of Labor, Wells Fargo Corporate & Investment Banking, Bloomberg

Labor Market: Weekly Jobless Claims

Jobless claims have reached a new YTD low of 340k on August 28th.

Early 2020 (pre-COVID), initial weekly jobless claims ranged between 206k and 212k.



Source: U.S. Department of Labor, Wells Fargo Corporate & Investment Banking

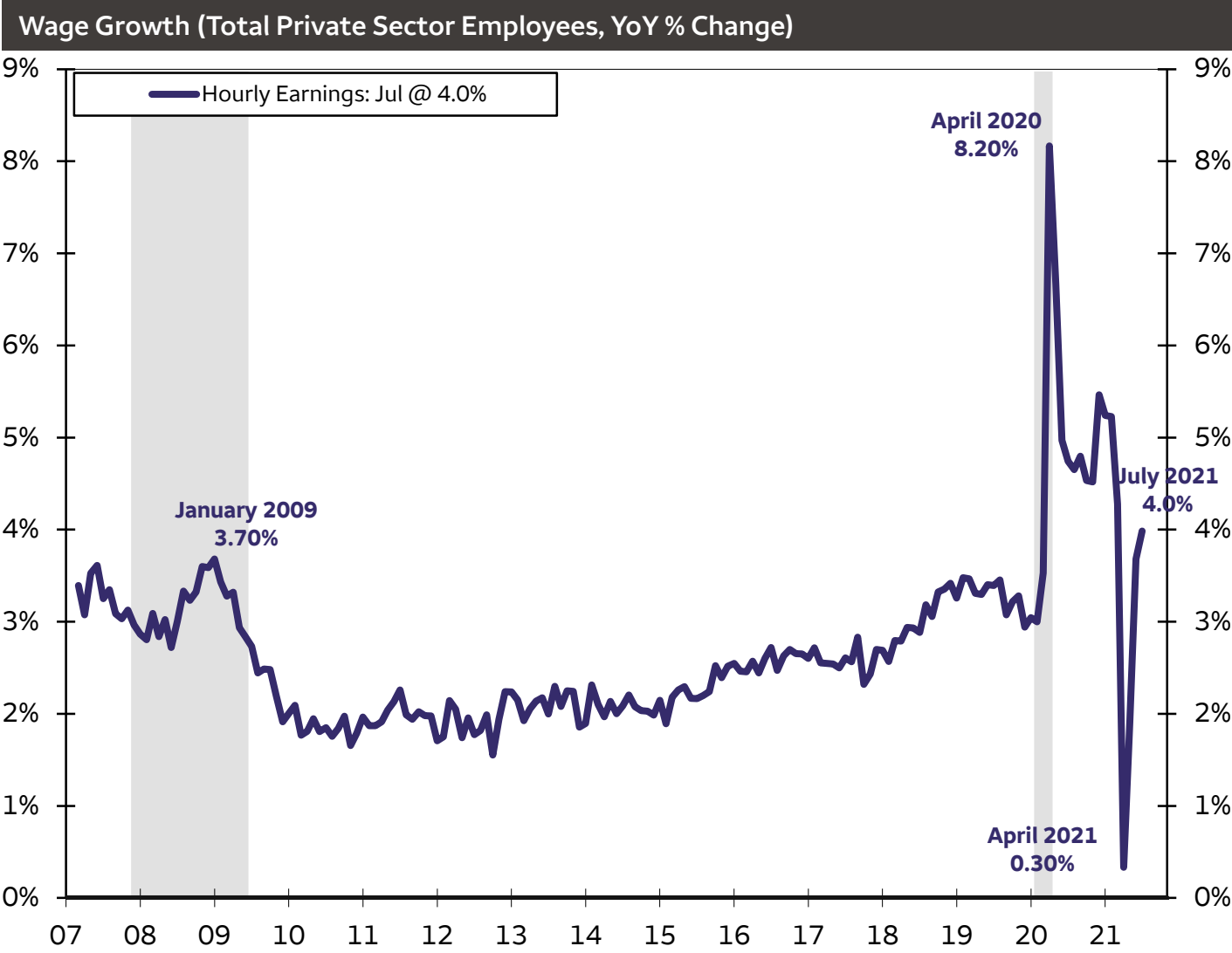
Labor Market: Continuing Claims

There are still about 12 million Americans without a job and the labor market recovery remains uneven across sectors.

Unemployment Programs		
	August 14 th , 2021	One Year Ago
Regular State	2,796,767	13,762,778
Federal Employees	8,977	14,108
Newly Discharged Veterans	6,024	13,629
Pandemic Unemployment Assistance	5,413,238	13,964,384
Pandemic Emergency UC	3,800,000	1,538,663
Extended Benefits	114,357	181,528
State Additional Benefits	1,030	2,327
STC / Workshare	45,765	270,232
Total	12,186,158	29,747,649

Source: U.S. Department of Labor, Wells Fargo Corporate & Investment Banking

There have been some large gyrations in hourly earnings over the past year and a half.

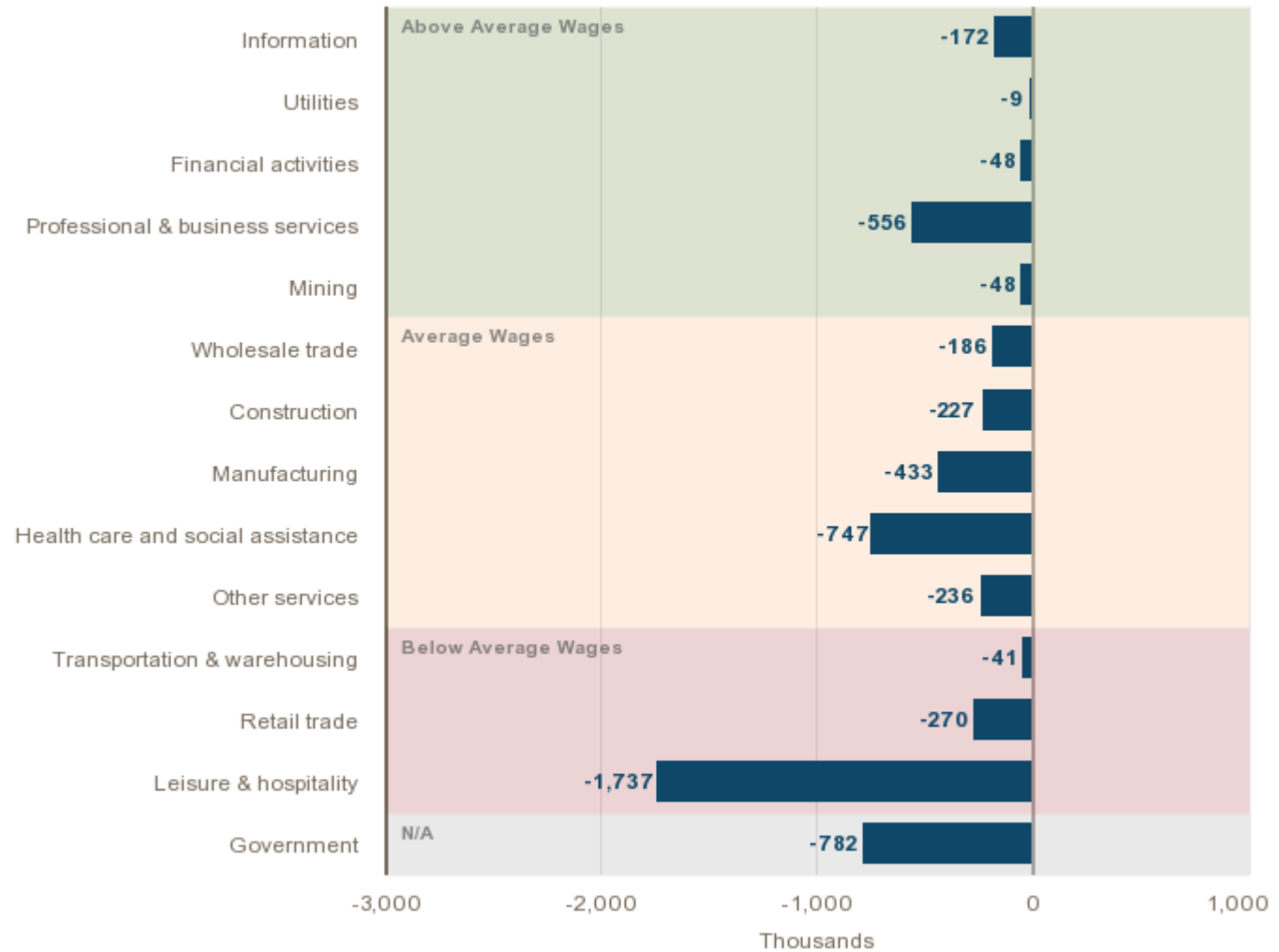


Source: U.S. Department of Labor, Wells Fargo Corporate & Investment Banking

Employment Change Since February 2020 as of July 2021

Ranked by industry earnings

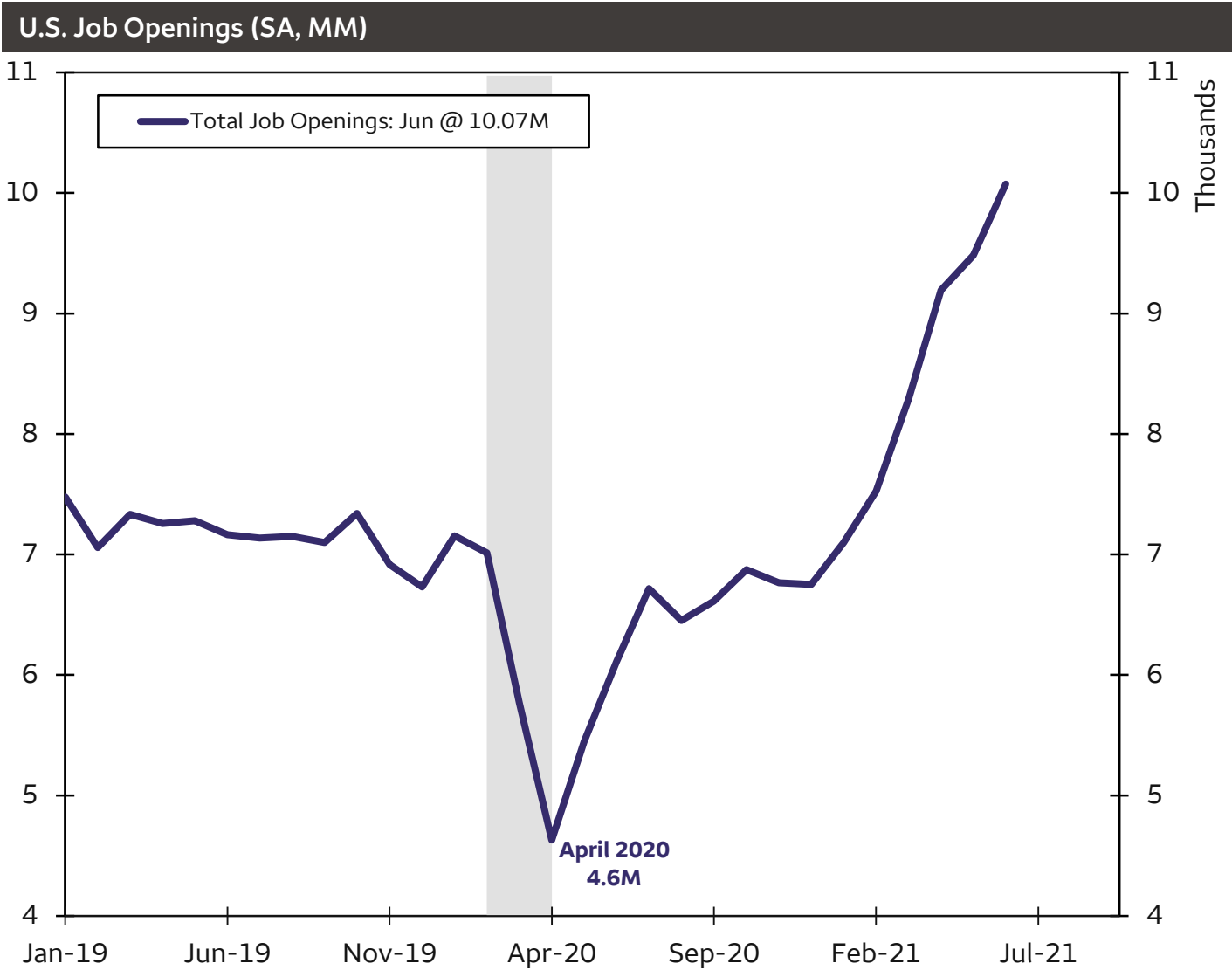
The lowest paid industries are those that have been impacted the greatest by job losses during the pandemic.



Source: Atlanta Federal Reserve Bank, Wells Fargo Corporate & Investment Banking

Labor Market: Job Openings

Job openings continue to climb to new heights.

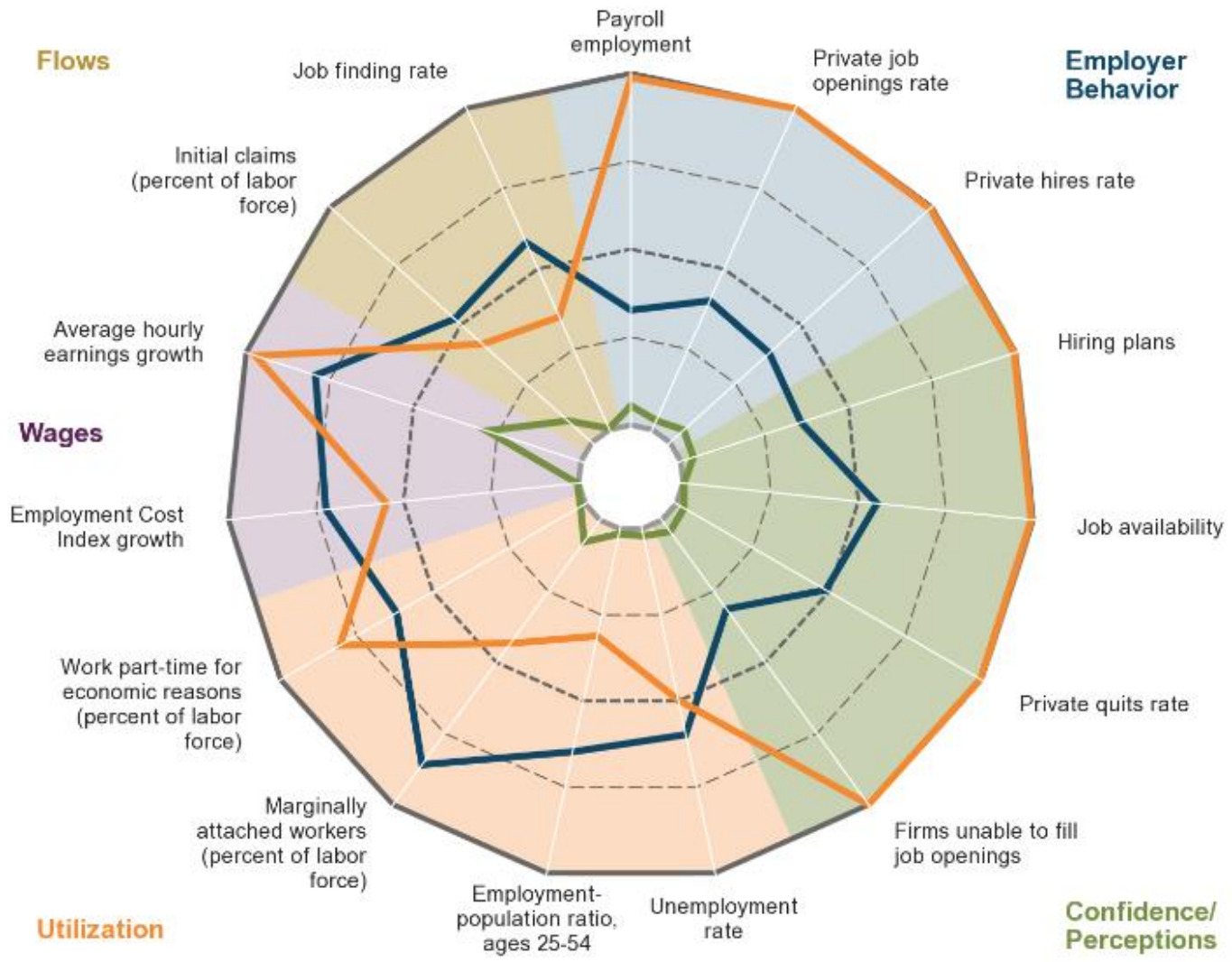
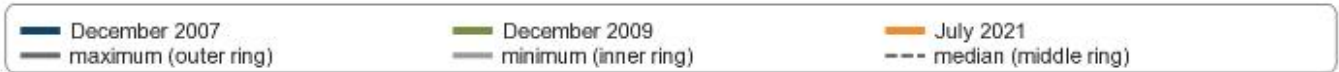


Source: U.S. Department of Labor, Wells Fargo Corporate & Investment Banking

Labor Market Distributions Spider Chart

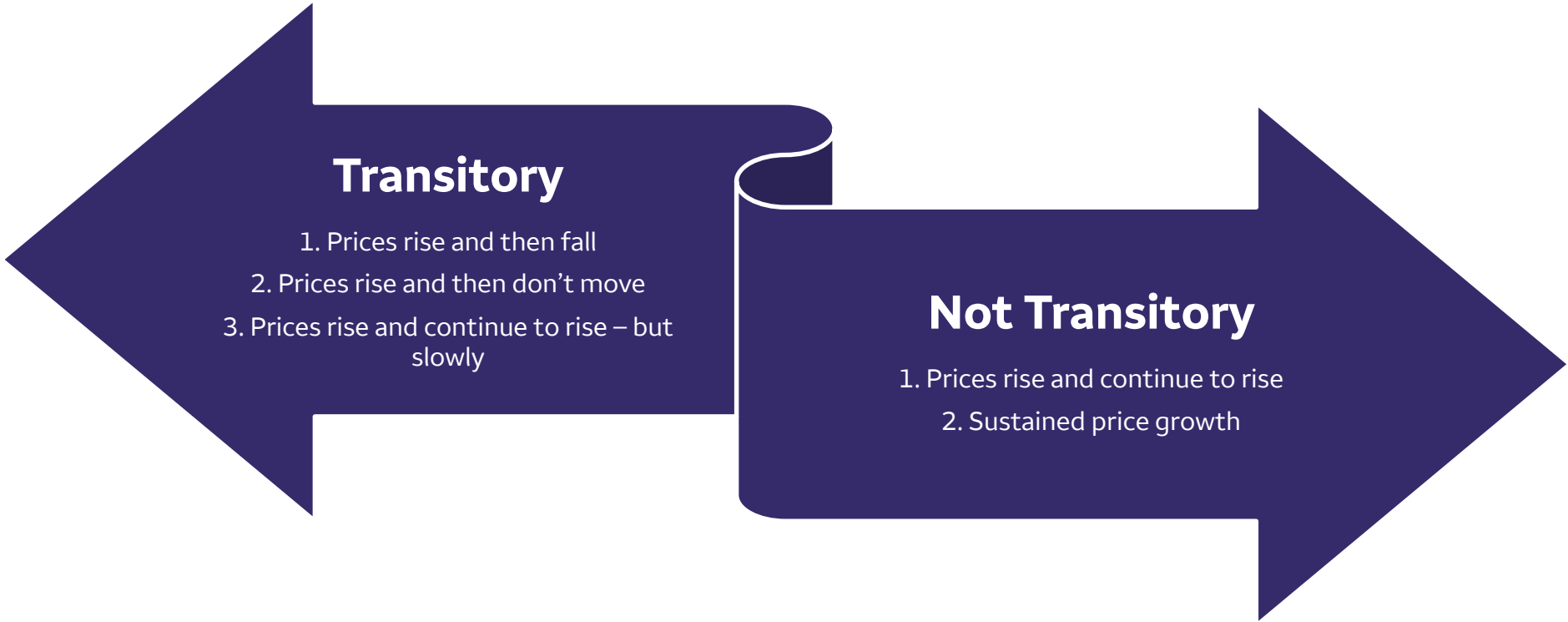
Data since March 1994

The labor distribution chart provided by the Atlanta Federal Reserve reflects the dispersion in data between job openings and job seekers.



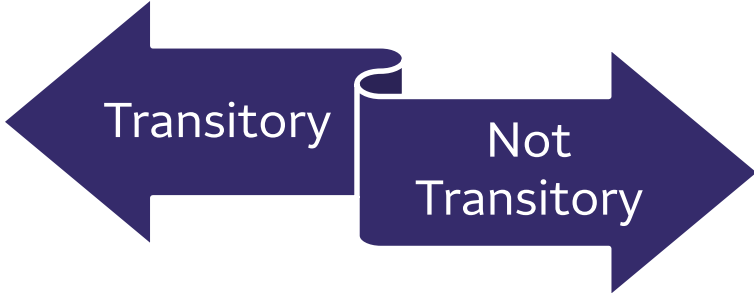
Source: Atlanta Federal Reserve Bank, Wells Fargo Corporate & Investment Banking

The Federal Reserve continues to describe inflation as “transitory”



Source: Wells Fargo Corporate & Investment Banking

The consensus from the FOMC is that inflation is transitory.



Chair Jerome Powell, August 2021

“The spike in inflation is so far largely the product of a relatively narrow group of goods and services that have been directly affected by the pandemic and the reopening of the economy...we expect the inflation effects of these increases to be transitory”

Richard Clarida, August 2021

- Risks to inflation are to the upside.
- Now is not the time for the Fed to use monetary policy to lower inflation.
- If inflation as persistently high, the Fed would act to lower.
 - Still expects inflation jump to be temporary.

Patrick Harker, August 2021

“there is also some evidence that they [inflation factors] may not be so transitory”

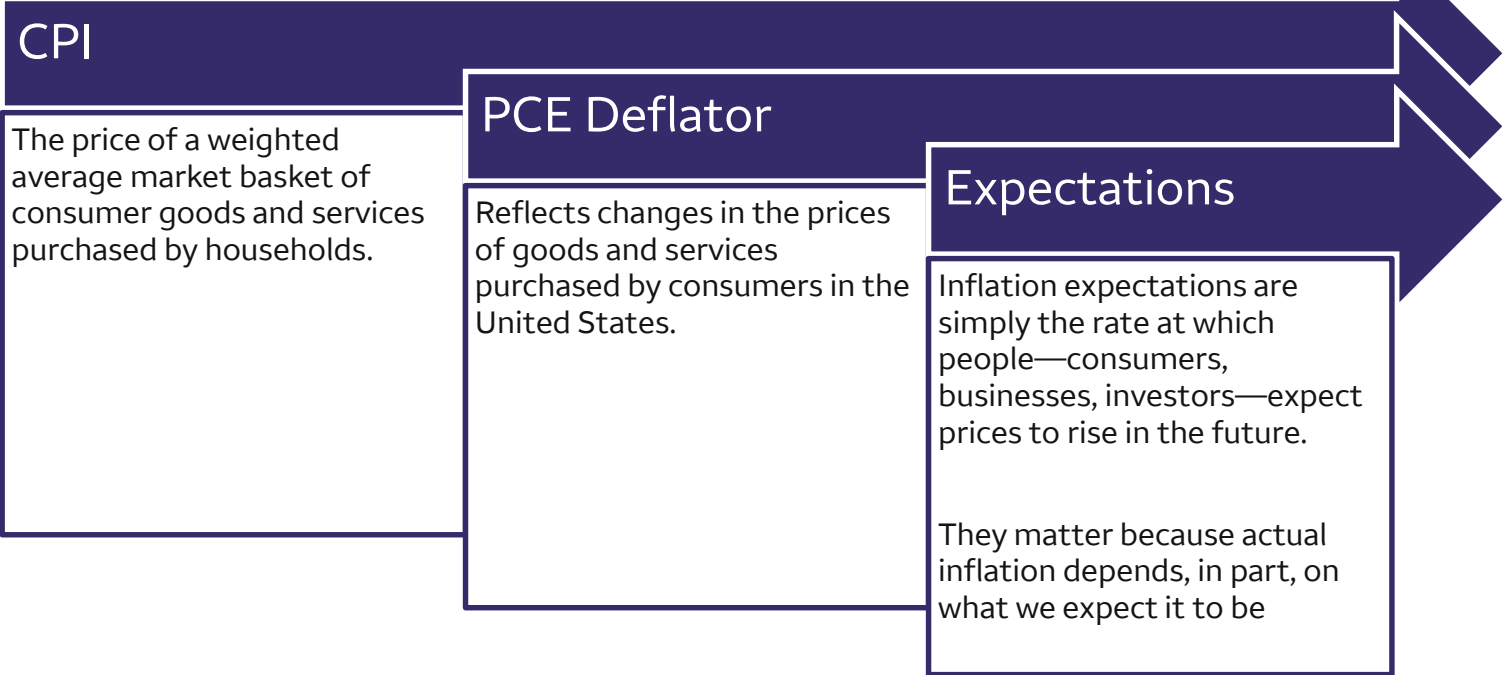
James Bullard, August 2021

“1H 2022 will determine if inflation moderates... if prices don't moderate, might have to apply pressure”

Source: Bloomberg, Wells Fargo Corporate & Investment Banking

Inflation

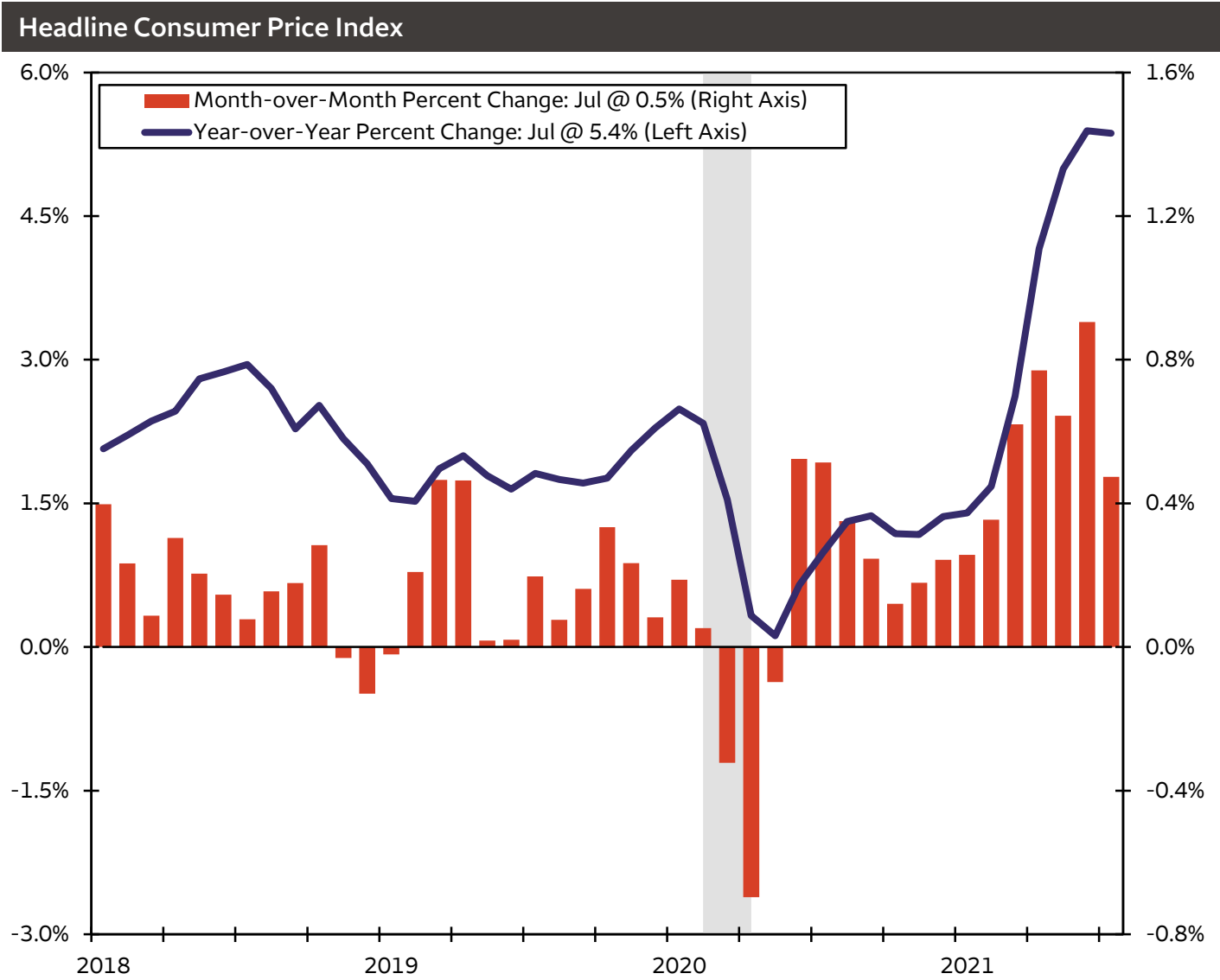
Which metric is the right one?



Source: Wells Fargo Corporate & Investment Banking

Inflation: Headline Consumer Price Index

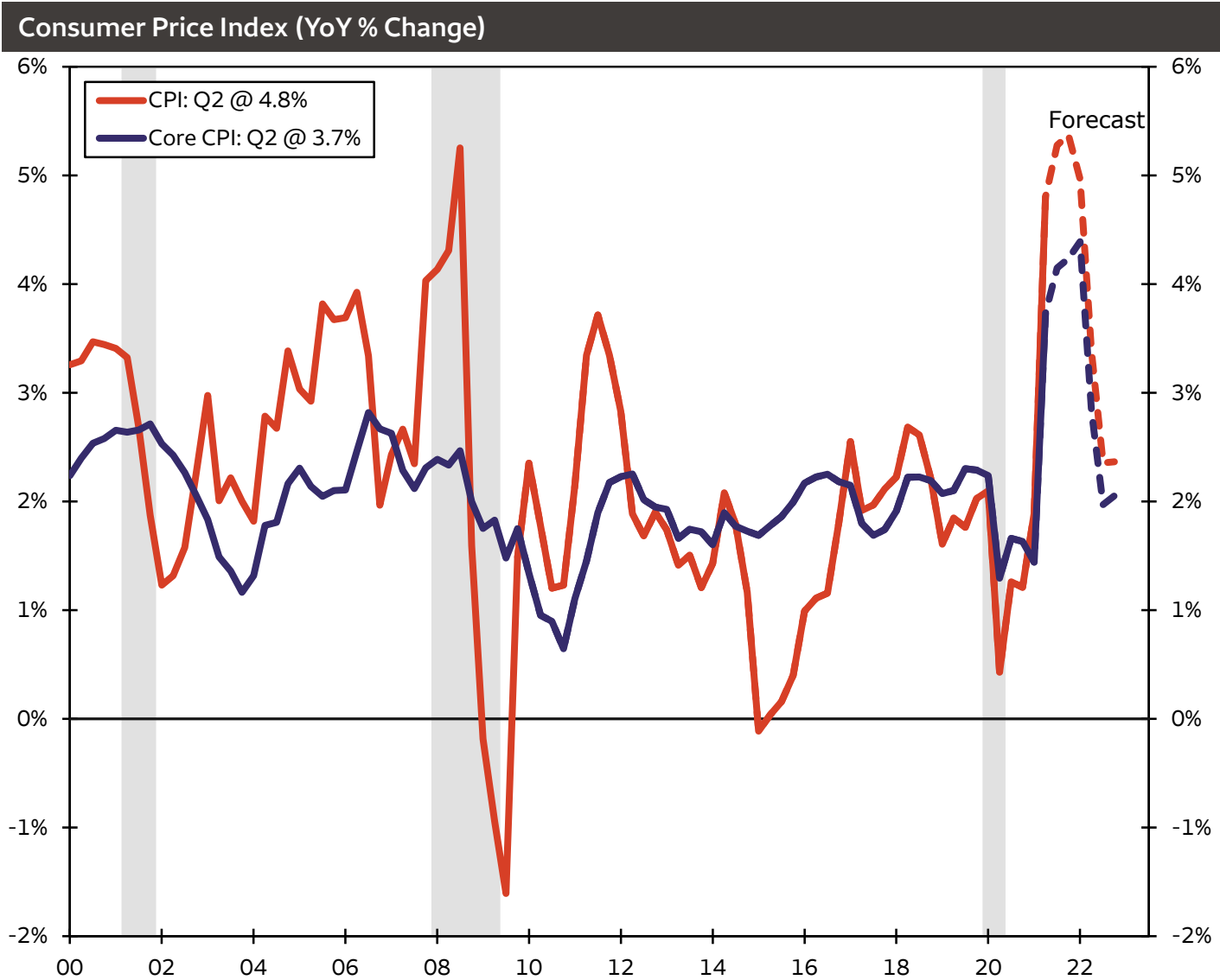
Headline CPI has surged higher YoY.



Source: Wells Fargo Corporate, Investment Banking, Wells Fargo Economics

Inflation: Consumer Price Index Forecast

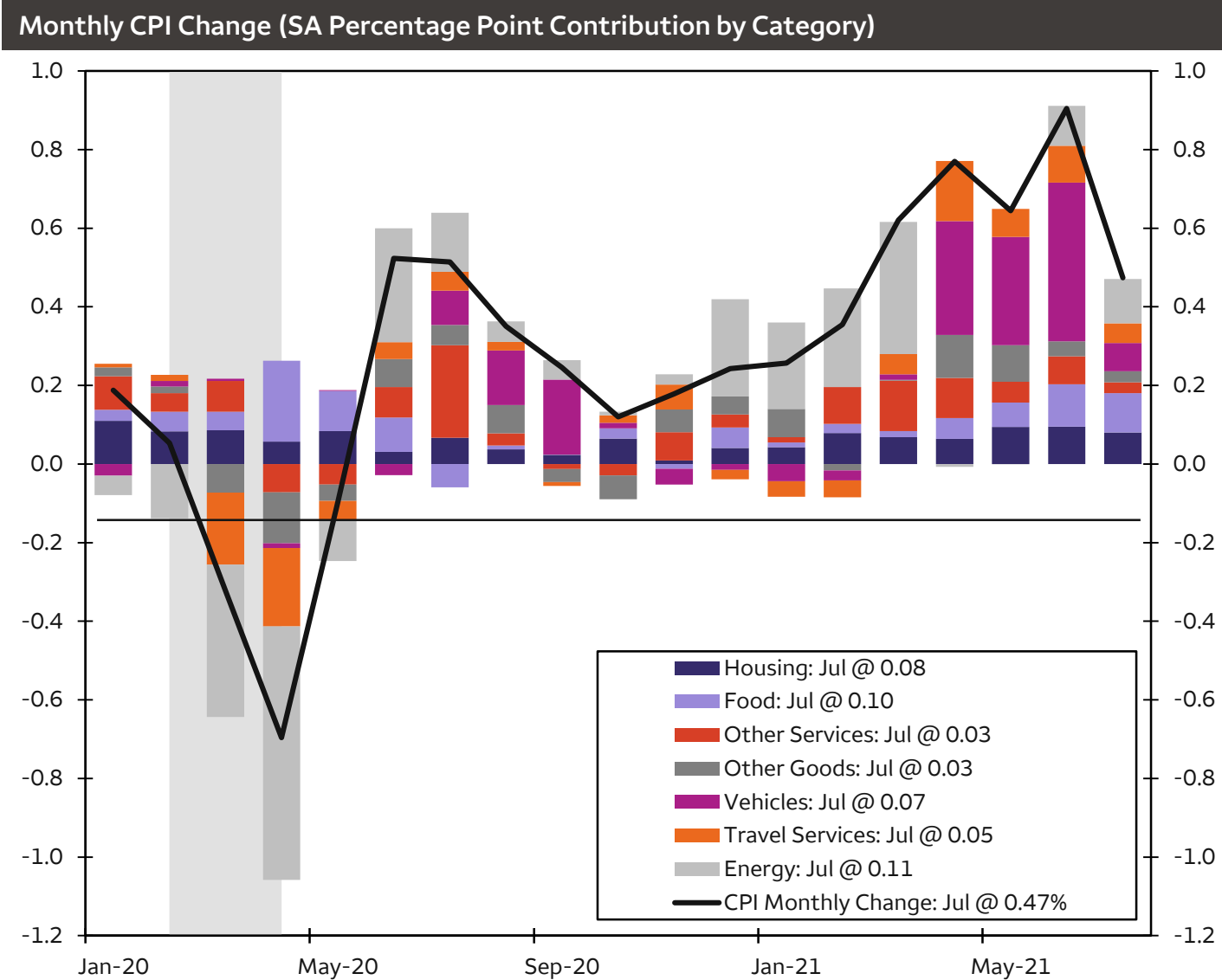
Wells Fargo Economics Group expects CPI to decline in 2022.



Source: Wells Fargo Corporate, Investment Banking, Wells Fargo Economics

Inflation: Consumer Price Index

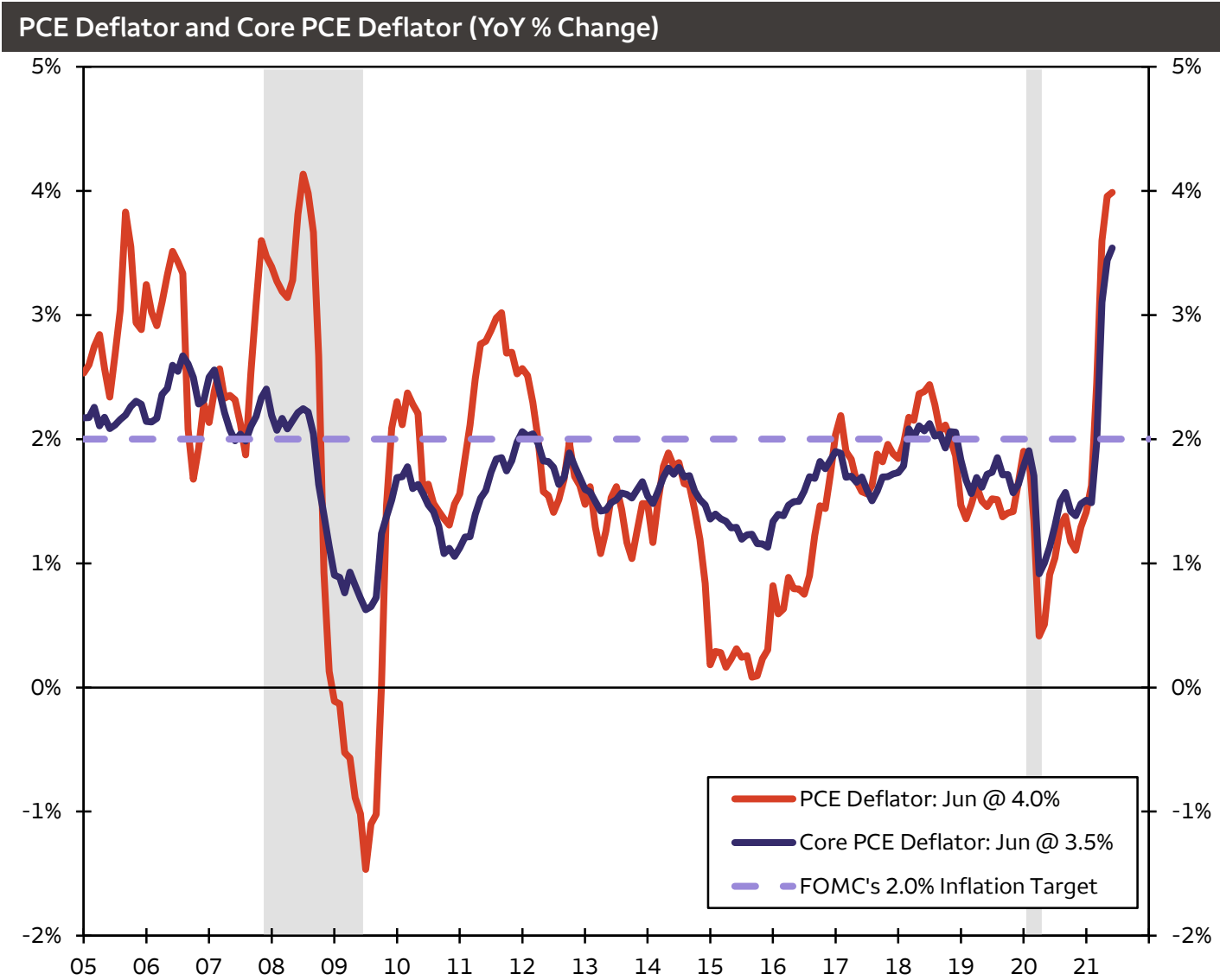
The surge in CPI this year can be attributed in large part to the swift rise in vehicles from April to June.



Source: Wells Fargo Corporate, Investment Banking, Wells Fargo Economics

Inflation: Personal Consumption Expenditures

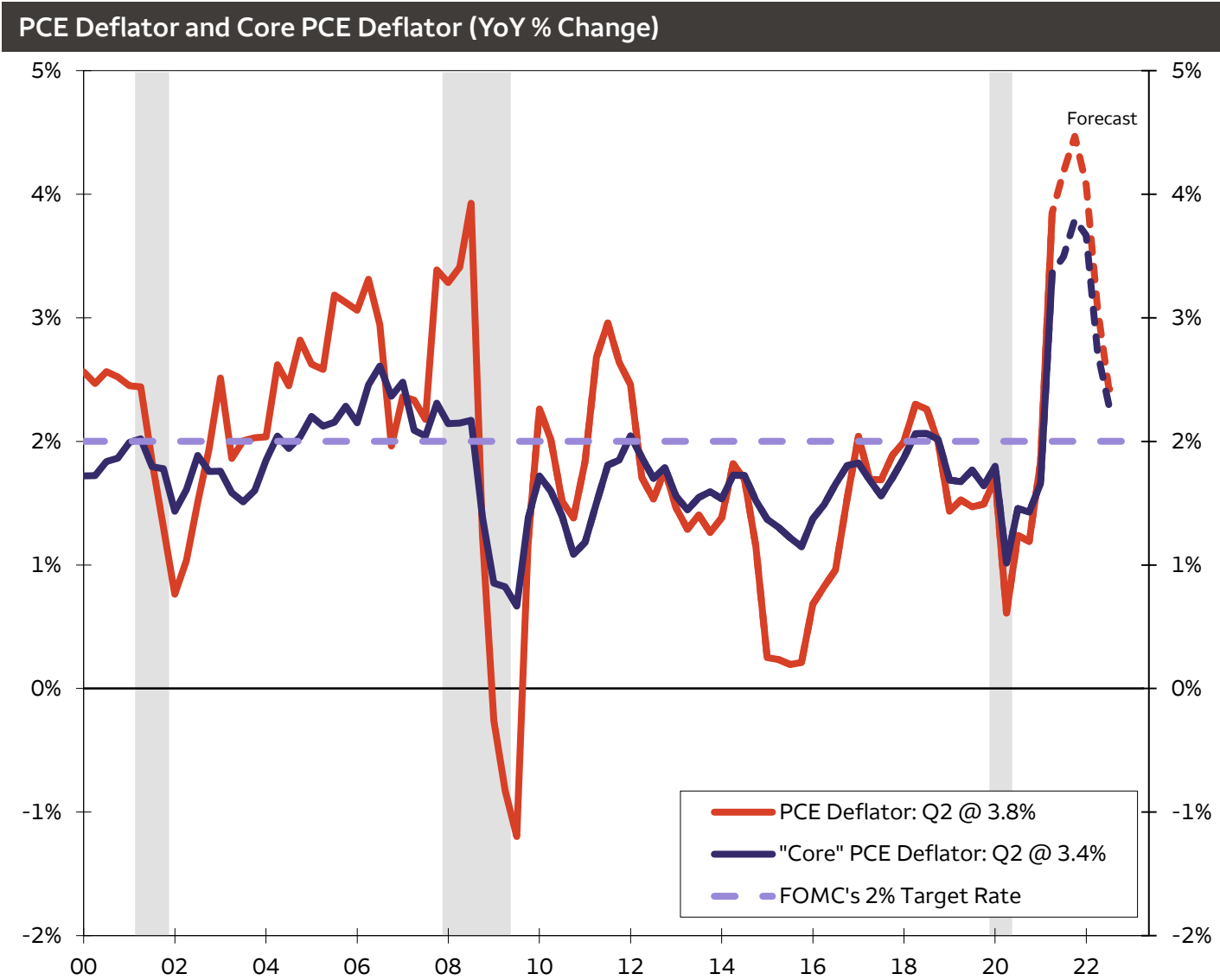
The PCE deflator is the Fed's preferred inflation metric.



Source: Wells Fargo Corporate, Investment Banking, Wells Fargo Economics

Inflation: Personal Consumption Expenditures Forecast

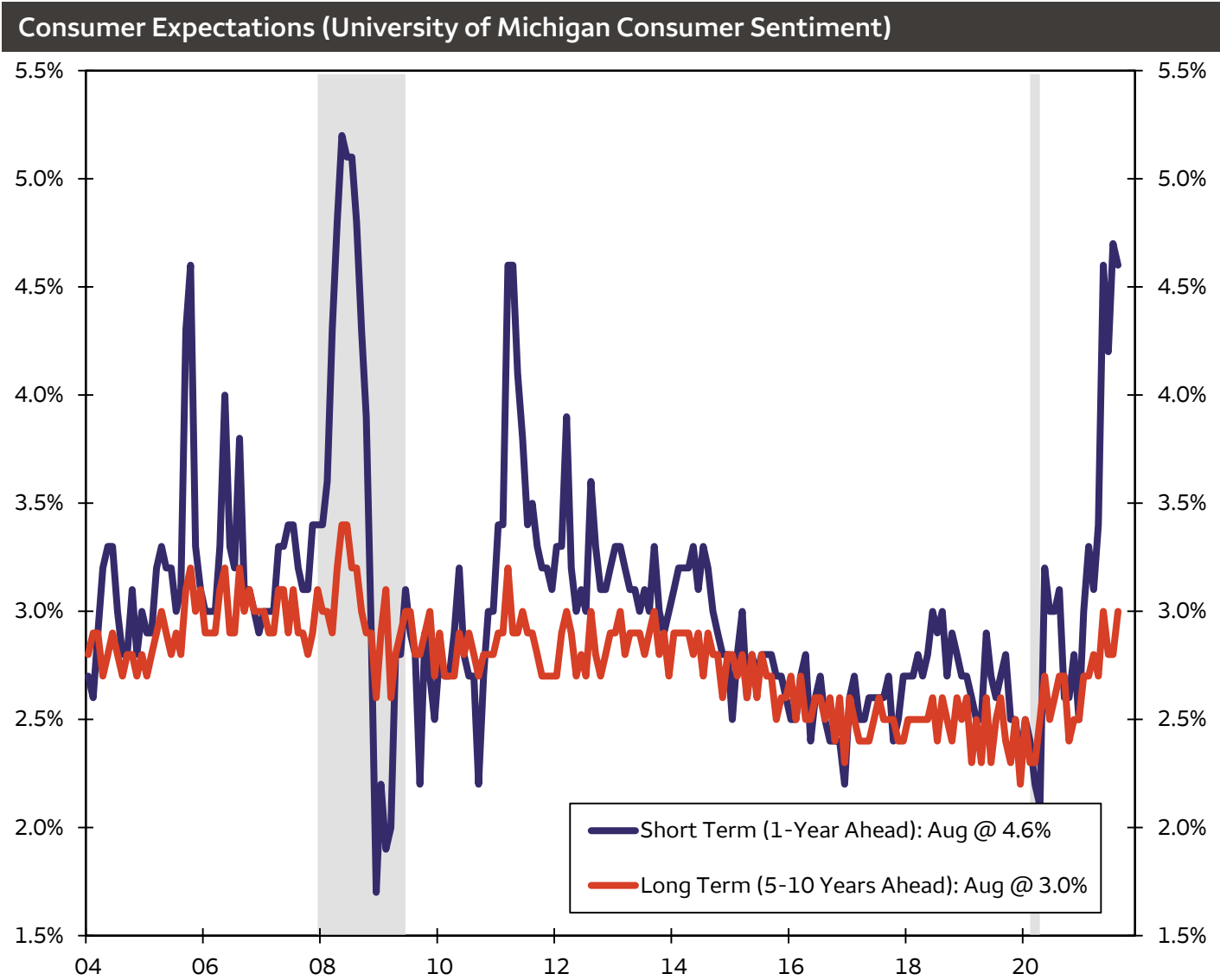
Like CPI, Wells Fargo's Economics Group expects PCE to shift lower beginning in 2022.



Source: Wells Fargo Corporate, Investment Banking, Wells Fargo Economics

Inflation: Consumer Expectations

Consumer expectations play an integral role in the pace of inflation.

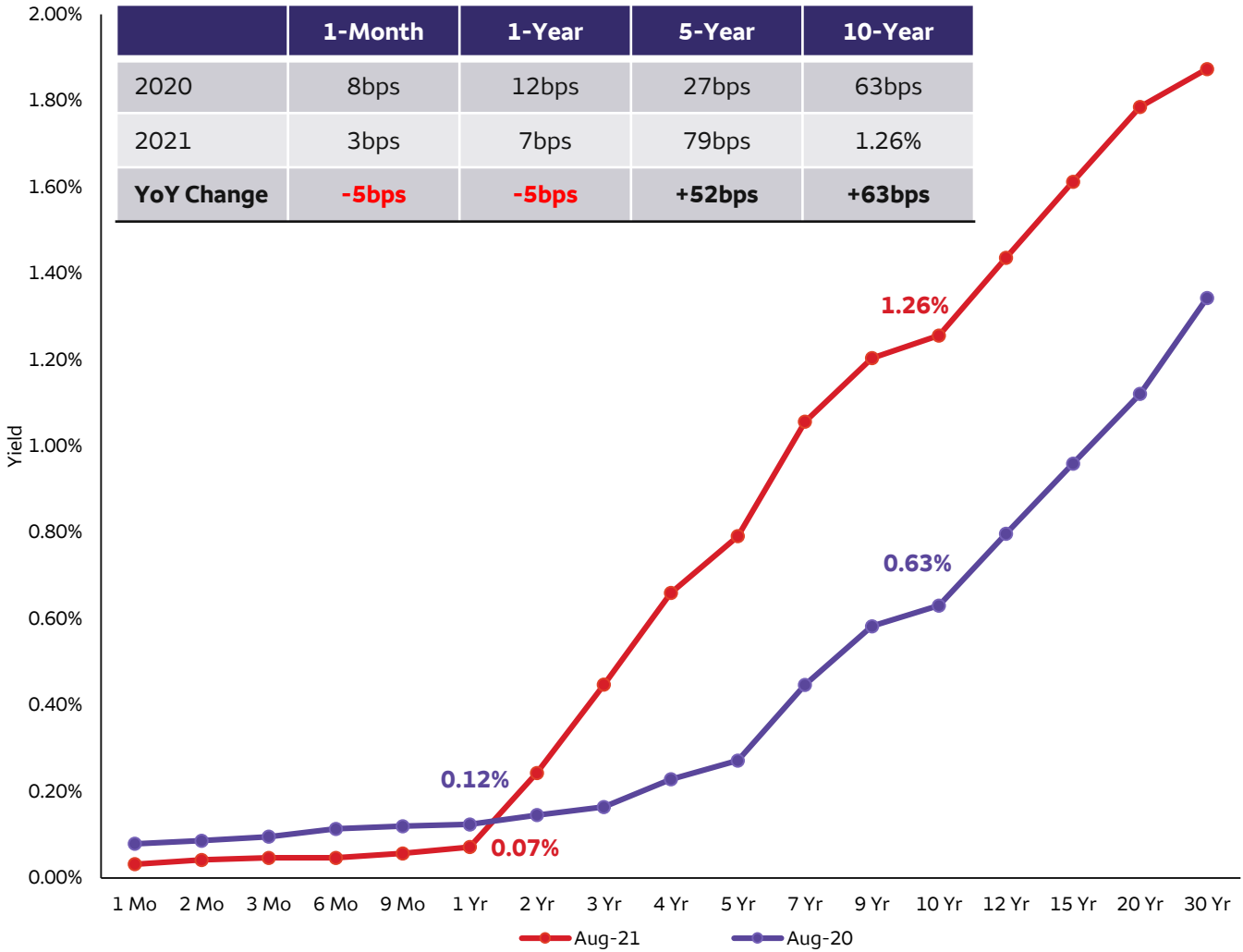


Source: Wells Fargo Corporate, Investment Banking, Wells Fargo Economics

Fixed Income Market Update

Year-over-year, front-end rates have edged lower while the curve beyond 1-year has shifted higher.

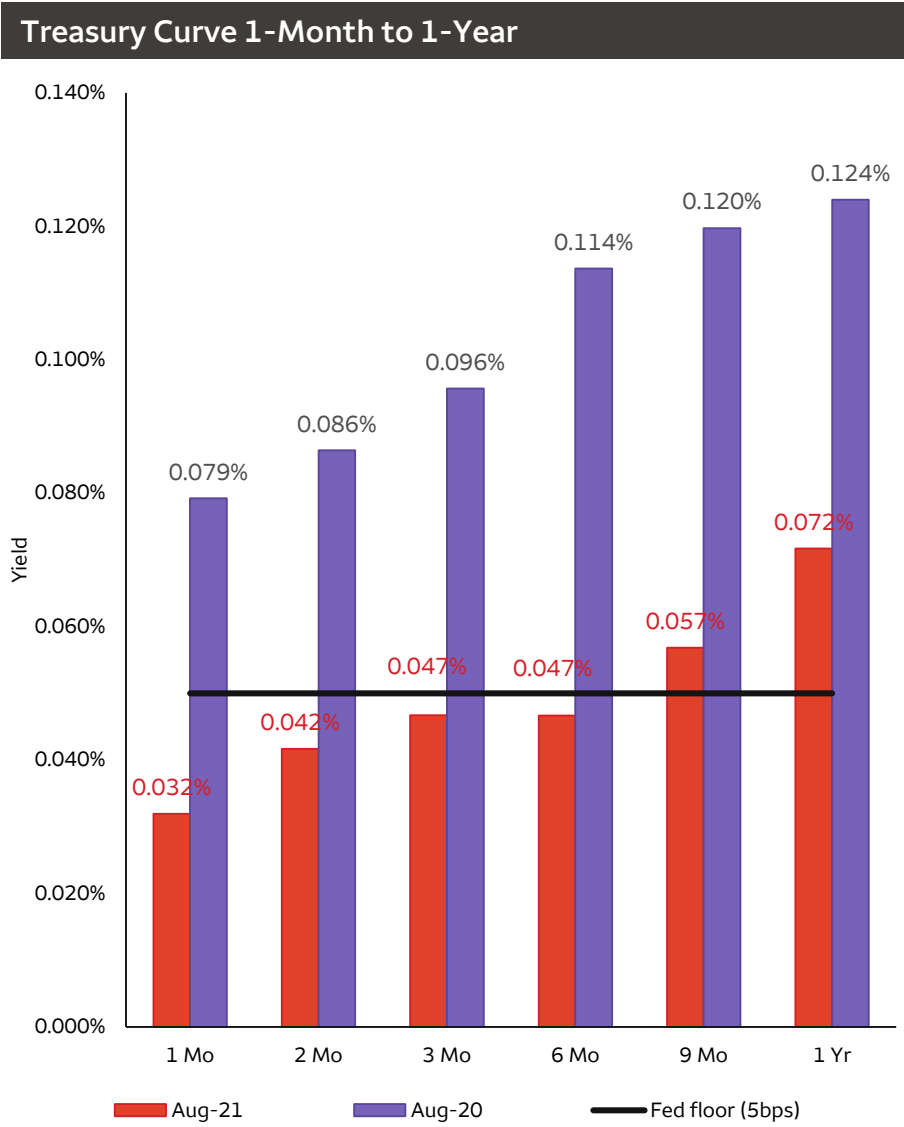
U.S. Treasury Curve



Source: Wells Fargo Corporate and Investment Banking, Bloomberg

Data as of August 23, 2021

Fixed Income Markets: Front-end <1-Year



Source: Wells Fargo Corporate and Investment Banking, Bloomberg

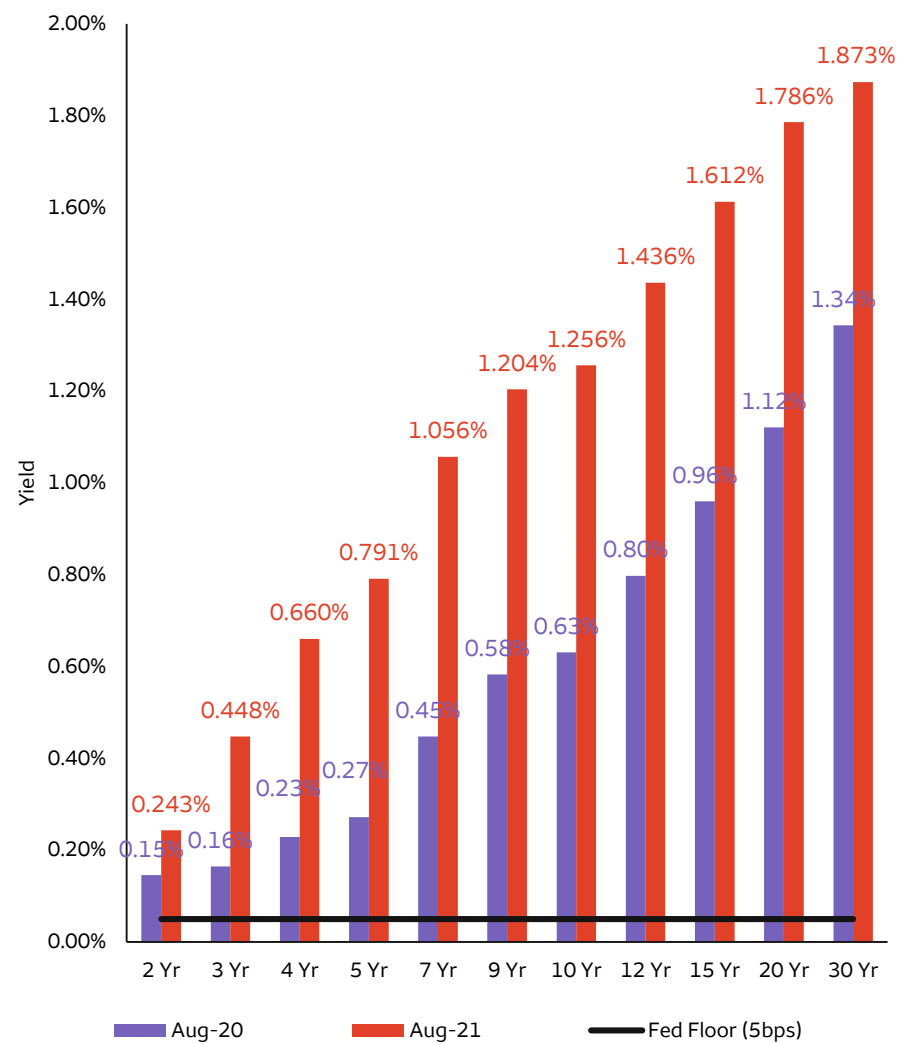
What's Going on?

Why is the front-end less than 1-year, so compressed?

- Supply/demand**
 - There is a record amount of cash but limited front-end investment vehicles.
 - Institutions have shored up liquidity during the COVID pandemic in the form of equity/debt raises and Federal stimulus.
 - Investors desire to maintain a high degree of liquidity in the face of uncertainty.
 - Banks are not able to take unlimited deposits from investors.
 - Government supply (Treasury & GSE) has fallen and continues to dwindle due to U.S. debt ceiling restrictions.
- The Federal Reserve maintains an extremely accommodative policy stance.**
 - Rates are anchored at 5 basis points.
 - Asset-purchases persist

Fixed Income Markets: Treasury Beyond 1-Year

Treasury Curve Greater than 1-Year



Source: Wells Fargo Corporate and Investment Banking, Bloomberg

What's Going on?

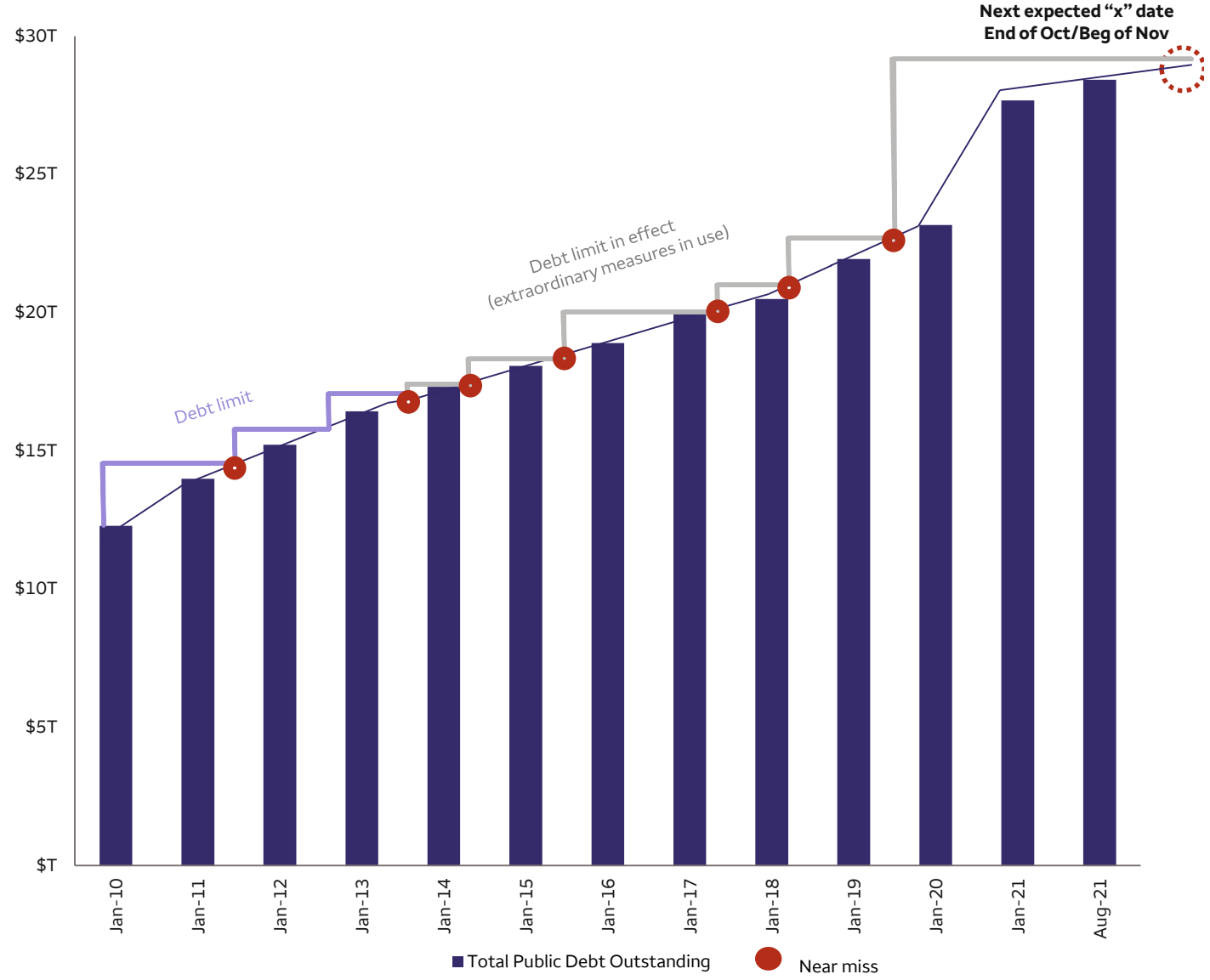
Why has the curve steepened beyond 1-year?

- Economic recovery**
 - The U.S. economy continues to recover from the deep lows created by the COVID-19 pandemic, although at an uneven pace.
 - The yield curve is an indication of the path of interest rates. An upward sloping yield curve points to economic expansion, as longer-rates are higher than shorter-rates.
- Inflation**
 - Inflation data for at least the past 4-5 months has surged higher.
 - Rising inflation will shift interest rates higher.
- Fed Taper**
 - Once the Fed begins to taper, or reduce the amount of Treasury and mortgage-backed securities it purchases, rates on the belly and longer-end of the curve should incrementally rise.
 - There is anticipation that the Fed will begin tapering by the end of this year, but even after it begins to taper, the accommodation will continue given the size of the monthly purchases.

Treasury Debt Ceiling History

The debt ceiling suspension expired at the end of July.

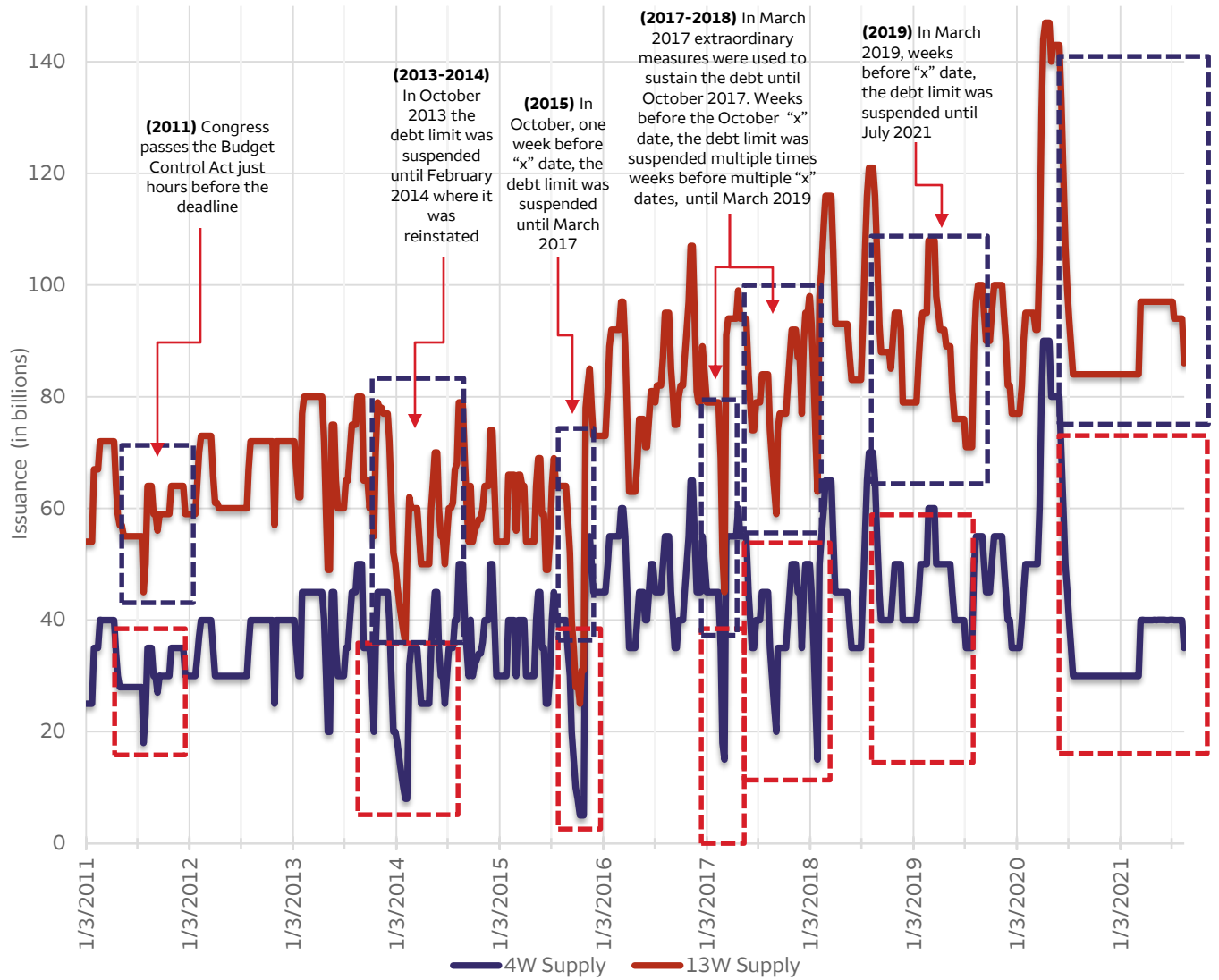
Until the debt ceiling is resolved, supply will continue to decline on the very front-end of the Treasury curve.



Source: Wells Fargo Corporate and Investment Banking, Bloomberg

Treasury Debt Ceiling History

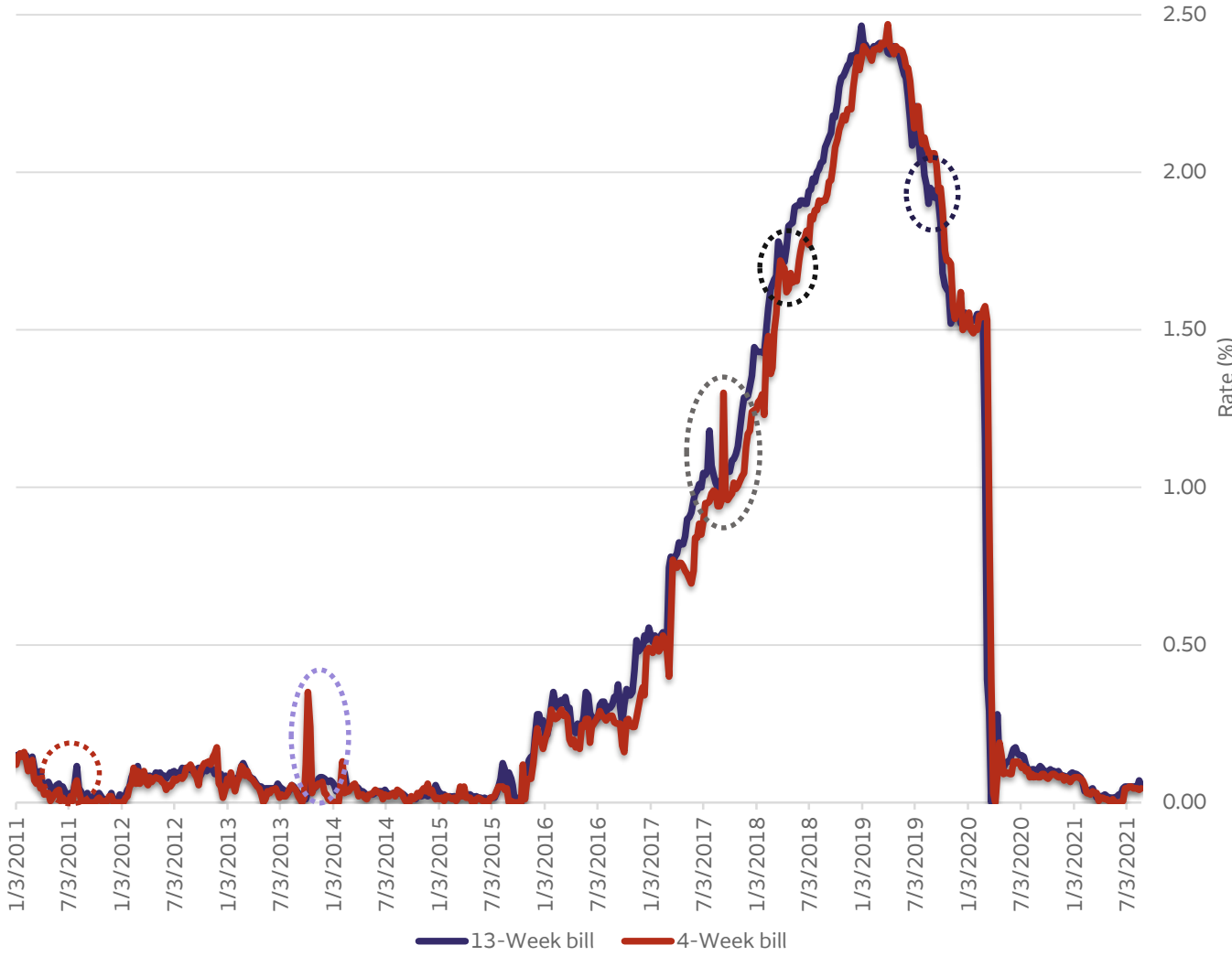
If the debt ceiling is not resolved, front-end T-bill supply will decline leading into the “x” date...



Source: Wells Fargo Corporate and Investment Banking, Bloomberg

Debt Ceiling Impact on t-bill Rates

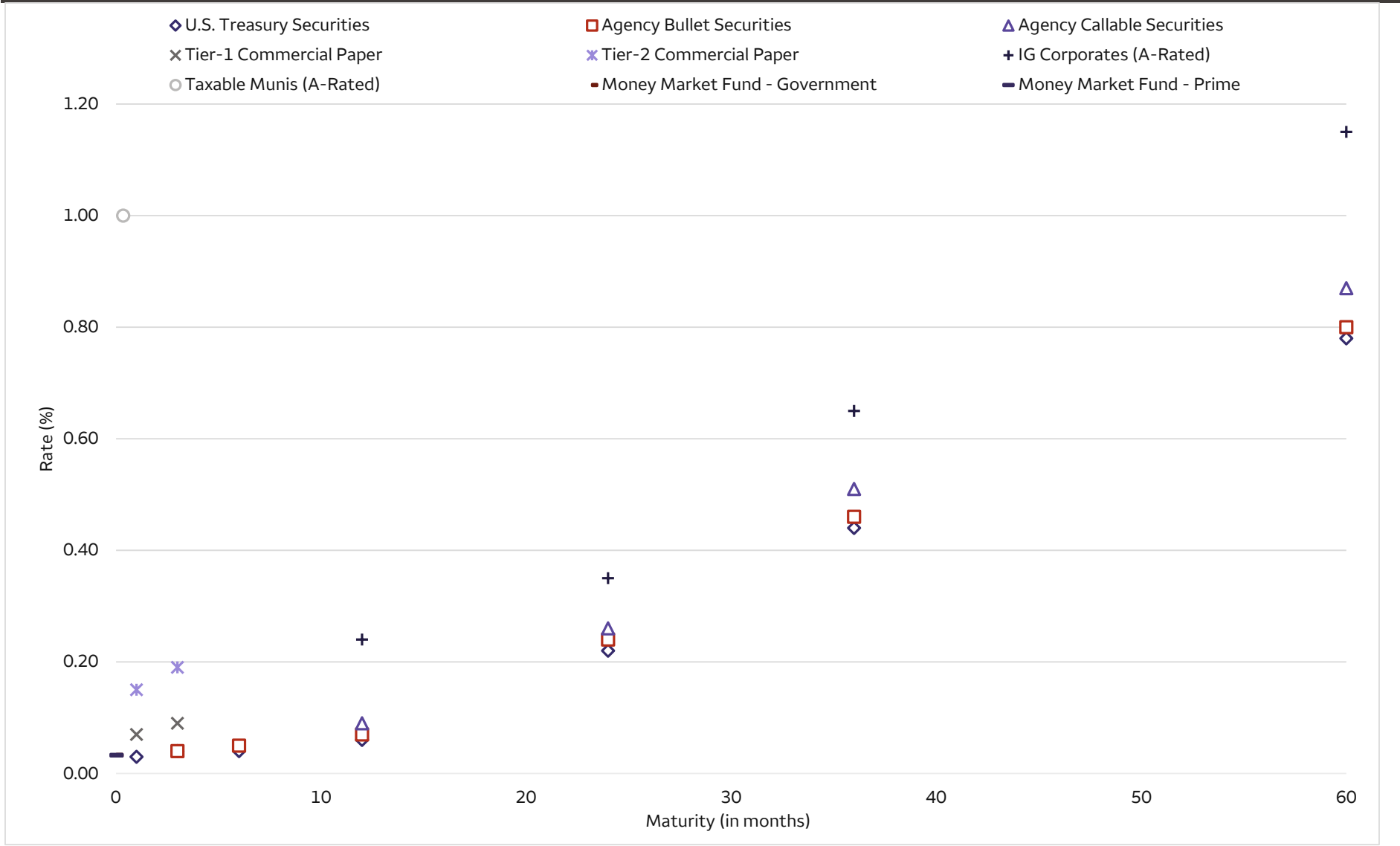
...and even though the reduction in supply does not necessarily alter demand, yields for T-bills that mature around an “x” date will surge higher to reflect the risk in these maturities.



Source: Wells Fargo Corporate and Investment Banking, Bloomberg

Fixed Income Snapshot

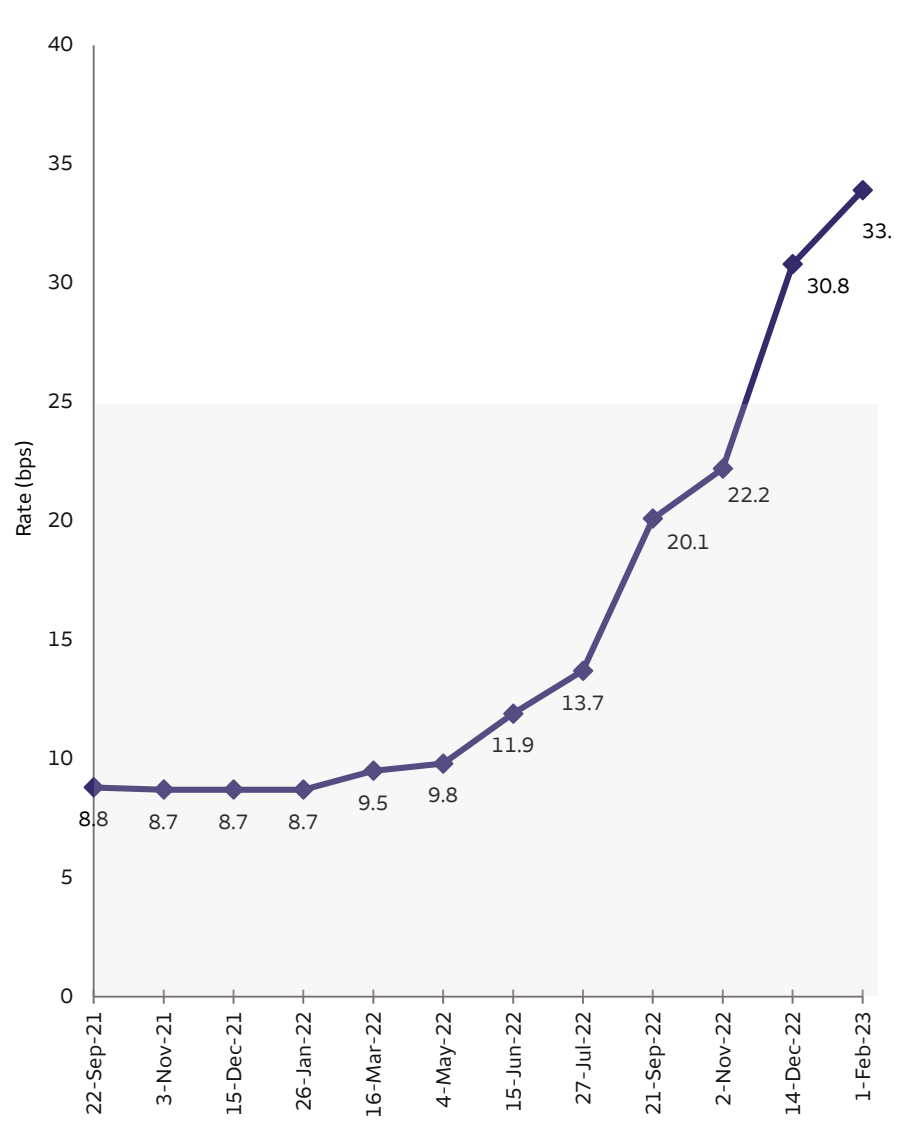
Rates for asset classes 5-years and in



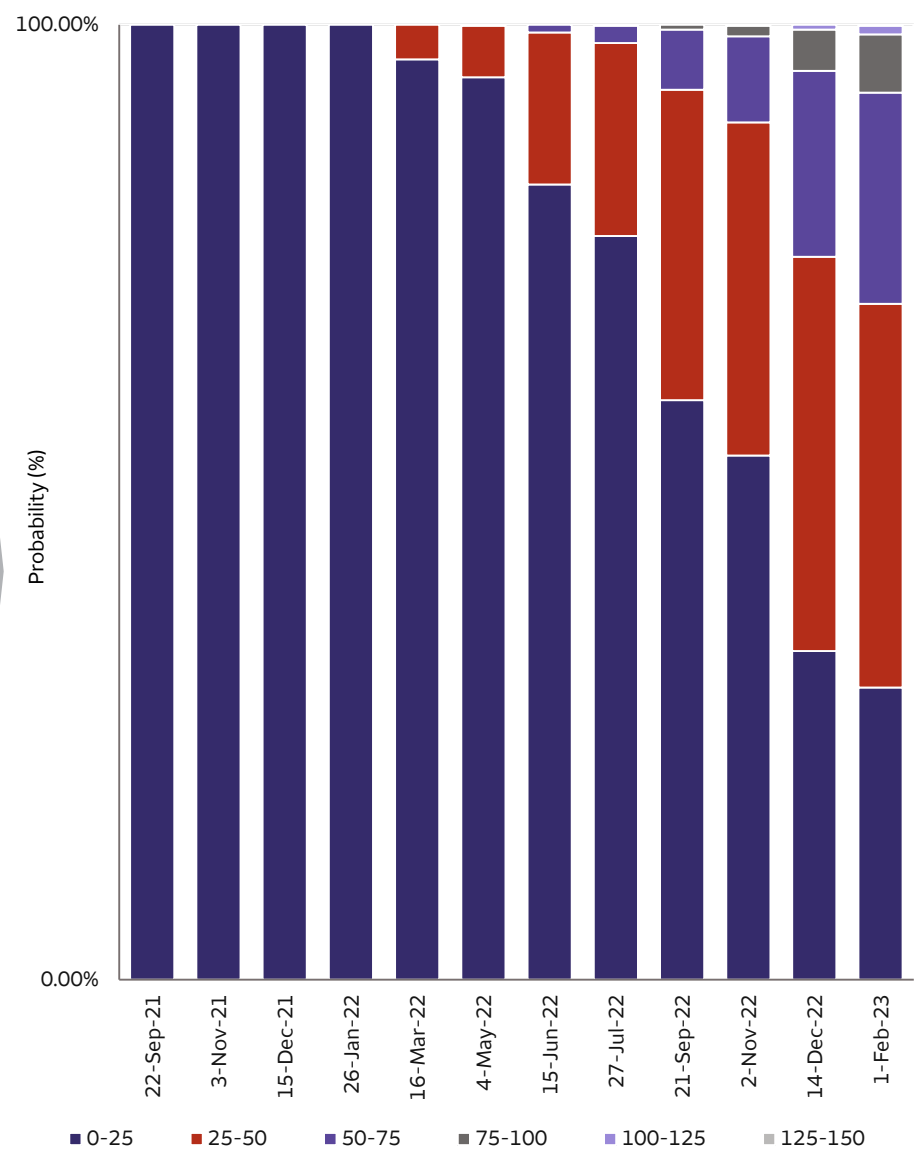
Source: Wells Fargo Corporate and Investment Banking, Bloomberg

Fed Fund Expectations

Fed Fund Expectations (Bloomberg)



Fed Fund Target Expectations (CME FedWatch)

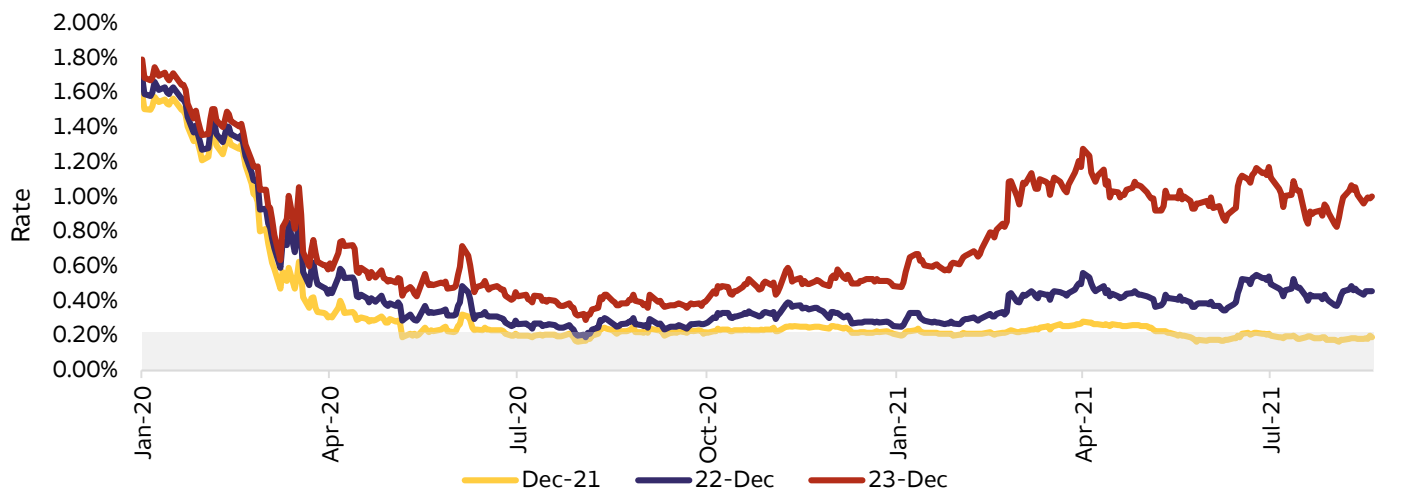


Source: Wells Fargo Corporate and Investment Banking, Bloomberg, CME Group

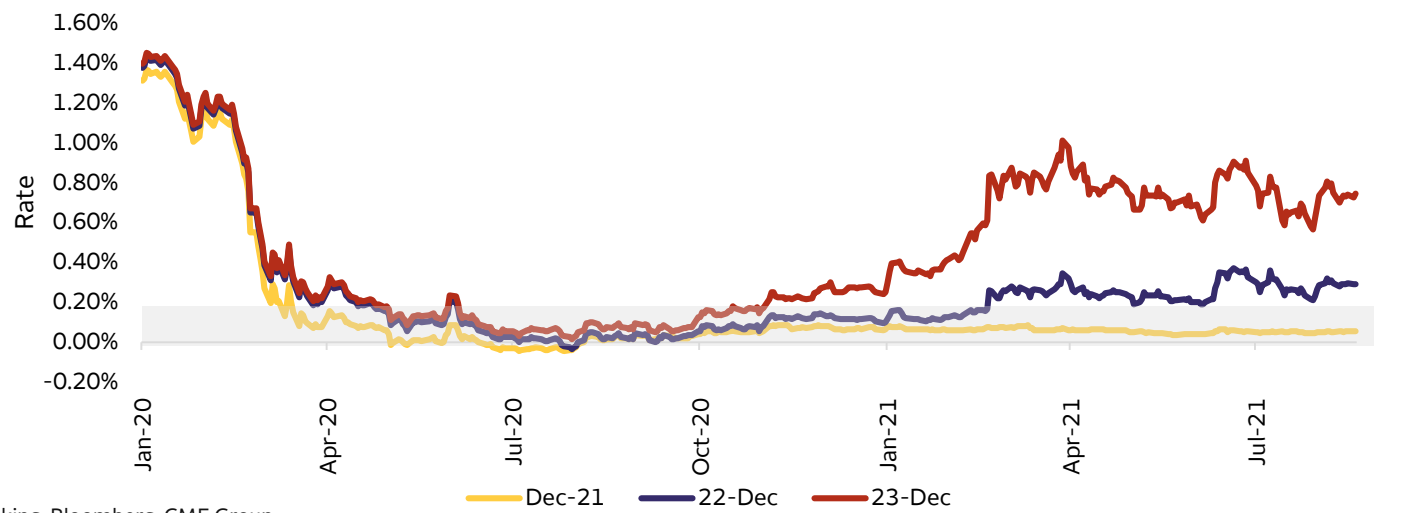
Rate Expectations

Markets are expecting front-end rates to rise in late 2021/2022.

December EDSF Contracts



December SOFR Contracts



Source: Wells Fargo Corporate and Investment Banking, Bloomberg, CME Group

The Taper Decision

The Federal Reserve continues to purchase \$80 billion of Treasury securities and \$40 billion mortgage-backed securities each month.

Tapering and raising the Fed funds target range are two distinct and separate decisions.

“We have said that we would continue our asset purchases at the current pace until we see substantial further progress toward our maximum employment and price stability goals, measured since last December, when we first articulated this guidance. My view is that the **"substantial further progress" test has been met for inflation.** There **has also been clear progress toward maximum employment.** At the FOMC's recent July meeting, I was of the view, as were most participants, that if **the economy evolved broadly as anticipated, it could be appropriate to start reducing the pace of asset purchases this year.**”

– *Chairman Jerome Powell, 2021 Jackson Hole*

- The Committee is cautious given the recent spread of the COVID-19 Delta variant.
- The Fed has also been very careful in the way it communicates its intent around tapering so as not to repeat the “taper tantrum” (2013).
- **Wells Fargo’s Economics Group expects the Fed to announce tapering by late this year and begin to reduce asset purchases by early 2022.**

Taper Talk

There has been a shift in the taper discussion amongst the FOMC over the past few months...

Chair Jerome Powell, August 2021

The “substantial further progress” test has been met for inflation, there has also been clear progress towards maximum employment.

James Bullard, August 2021

...I think we want to get going on taper. Get the taper finished by the end of the first quarter next year.

Raphael Bostic, August 2021

We are very close and I am hopeful that it [taper] will happen soon. My view would be let’s start the taper and let’s do it quickly. Let’s not have this linger.

Loretta Mester, August 2021

The U.S. Federal Reserve has met its goal of “substantial further progress” on both employment gains and inflation and should begin to reduce its massive monthly bond buys this year.

Robert Kaplan, August 2021

It would continue to be my view that when we get to the September meeting, we would be well served to announce a plan for adjusting purchases and begin to execute that plan in October or shortly thereafter.

Patrick Harker, August 2021

I’m still supportive of moving the taper along.

Taper: Then and Now

2013

- The U.S. economy was not “robust” when Chairman Ben Bernanke announced taper in 2013.
 - Taper tantrum ensued.
- Déjà vu: political drama
 - Debt ceiling was suspended from February through May 2013 (extraordinary measures put in place because debt ceiling was not temporarily suspended again until October 2013).
 - During this period, U.S. t-bill supply diminished and bills traded very technical.
 - Furthermore, the government also temporarily shut down in October 2013.
- Fed continued its QE program through October 2014.
- The Fed raised Fed funds almost 2 years after tapering began - December 2015.

2021

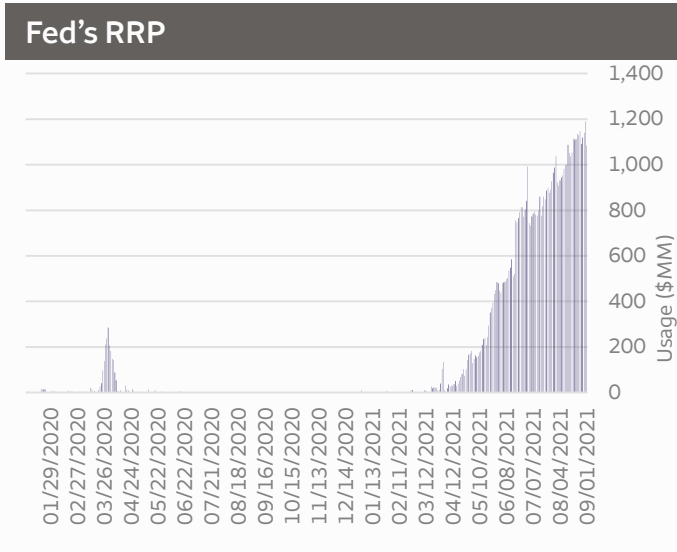
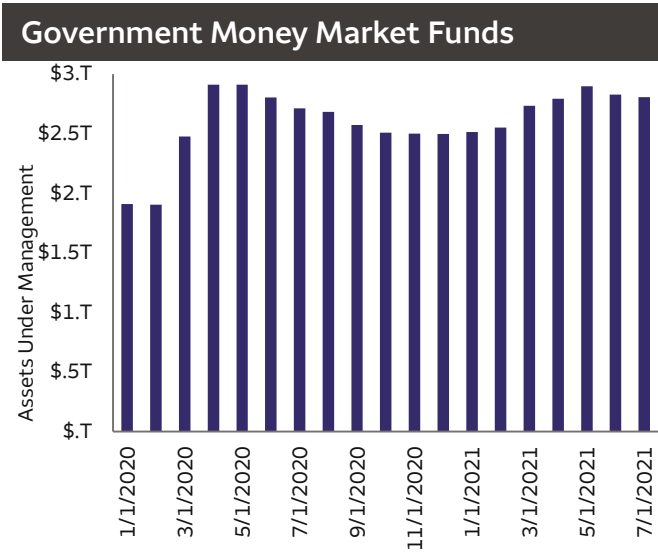
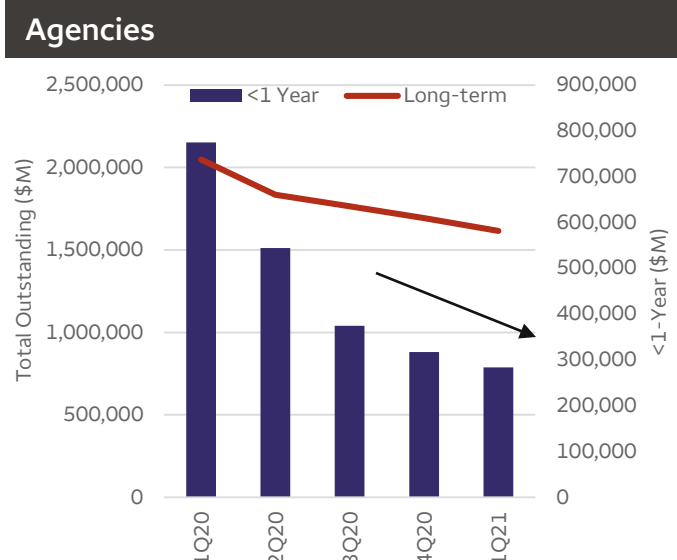
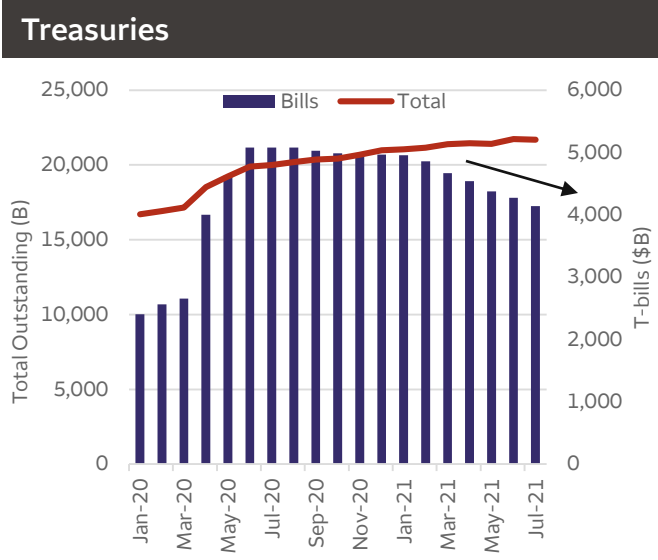
- The economic recovery is still well under way (as discussed at the start of this presentation).
- The Fed has telegraphed its intent to begin reducing asset purchases well in advance.
 - This should mitigate the market reaction when it is announced (limit a taper tantrum repeat).
 - There is pent up demand for fixed income securities, given the amount of cash in the system which should keep a lid on rates surging higher.
- Political drama
 - The debt ceiling has been reinstated and the Treasury is currently using extraordinary measures to fund itself. Further, there is risk of a temporary government shutdown if politicians do not figure out how to fund the government beyond the end of September.
- The Fed has clearly communicated that reducing asset purchases and raising Fed funds are two separate and distinct decisions, unrelated to one another.
 - Tapering is the reduction of monthly asset purchases that were used as an emergency solution to aid in market functioning.
 - Raising Fed funds is a tightening of monetary policy because the Fed’s mandates have been met and the economy is accelerating.

Fixed Income Supply

Supply: Government

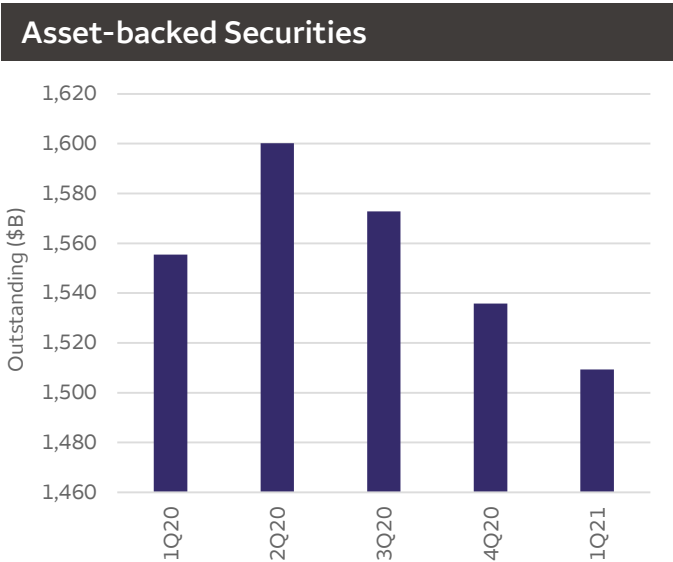
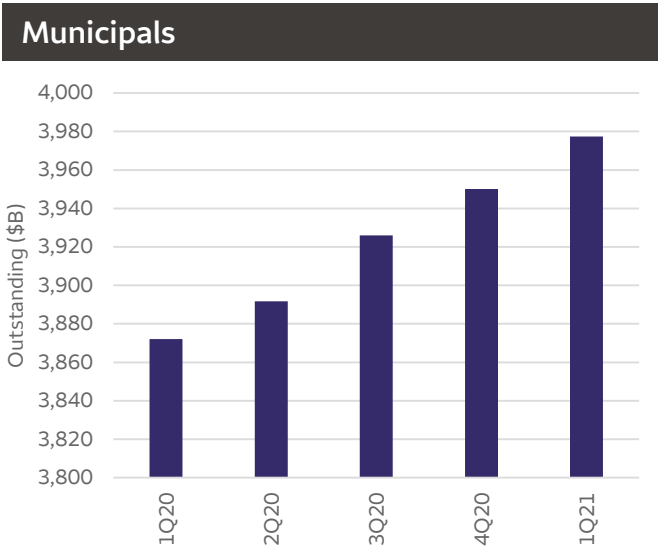
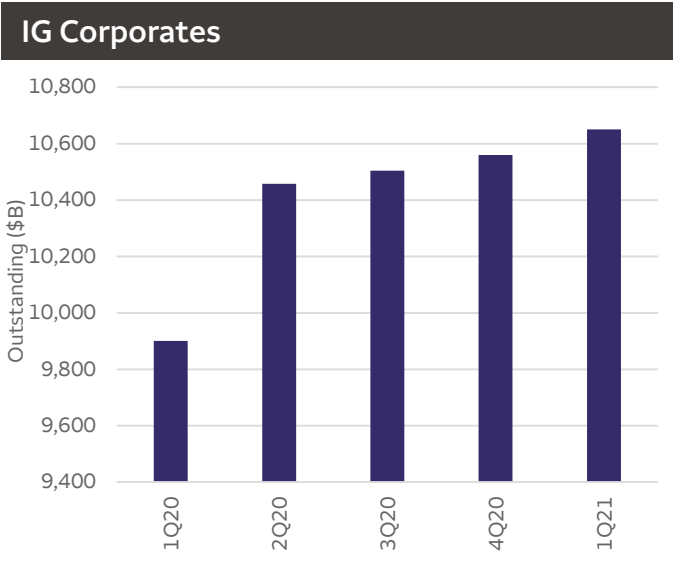
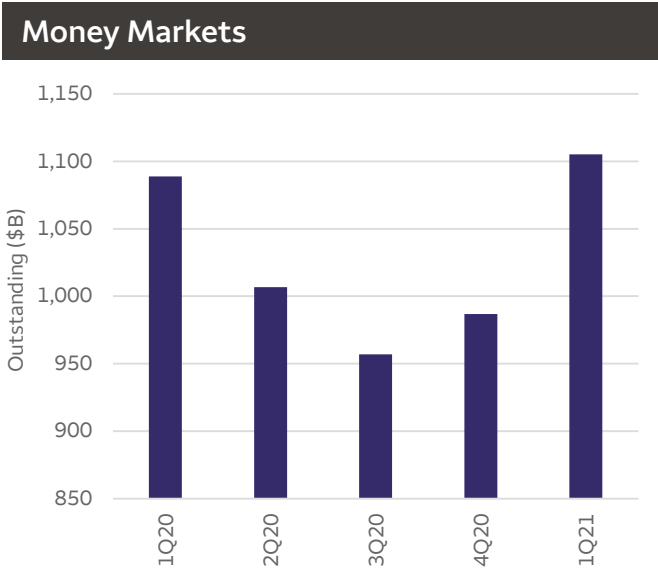
Government supply has shifted. Treasury bill and Agency discount note supply has declined.

Government money market fund assets continue to rise, supporting the need for liquid, government investment alternatives. MMFs have been able to support the inflow of cash because of the Fed's RRP.



Source: Wells Fargo Corporate and Investment Banking, Bloomberg, Federal Reserve, SIFMA, ICI

Unlike government supply, most of the credit markets have seen a rise in issuance over the past year.



Source: Wells Fargo Corporate and Investment Banking, SIFMA

Conclusion

- The economic expansion is still underway, but COVID concerns remain and are beginning to weigh on data once again.
- Forecasts for growth have been lowered heading into year-end, but they are still robust.

Wells Fargo Economics Group Forecast Table (excerpt)									
	2019	2021				2022			
	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q
Real GDP	1.9	6.3	6.5	6.8	6.1	3.7	3.2	3.0	2.7
Core PCE Deflator	1.6	1.7	3.4	3.5	3.8	3.7	2.7	2.3	2.3
Nonfarm Payroll Change	196.7	518.0	607.0	797.7	483.3	343.3	275.0	265.0	255.0

Grey area represents forecasted data

- Rates are low and expected to remain in this range for at least another year or two.
 - According to the Fed’s recent dot plot, most Committee members anticipate a liftoff from zero by year-end 2023.
- Even after the Fed begins to taper, monetary policy will remain accommodative.
 - The Fed is currently buying \$120 billion in assets each month.
- The last time the Fed embarked on ZIRP, it remained there for about 7 years.
 - The Fed’s dot plot in the Summary of Economic Projections was continually adjusted lower as time progressed.

Source: Wells Fargo Corporate and Investment Banking, Wells Fargo Economics Group

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