
Consumer and Wealth Management

Outlook for the Pandemic, Economy, and Equities

September 9, 2021

Investment Strategy Group

- Update on COVID-19
- Overview of the Economy
- Outlook for Equities

With:



Scott Gottlieb, MD

- Resident fellow at American Enterprise Institute
- Former FDA Commissioner
- Serves on the boards of Pfizer, Illumina, Aetion, and Tempus



Jan Hatzius

- Head of the Global Investment Research and Chief Economist

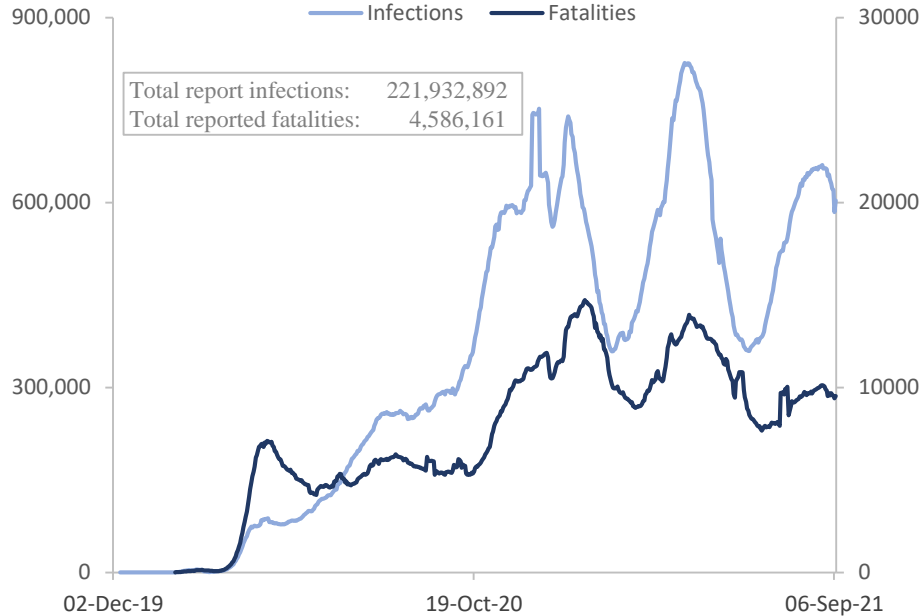


Brett Nelson

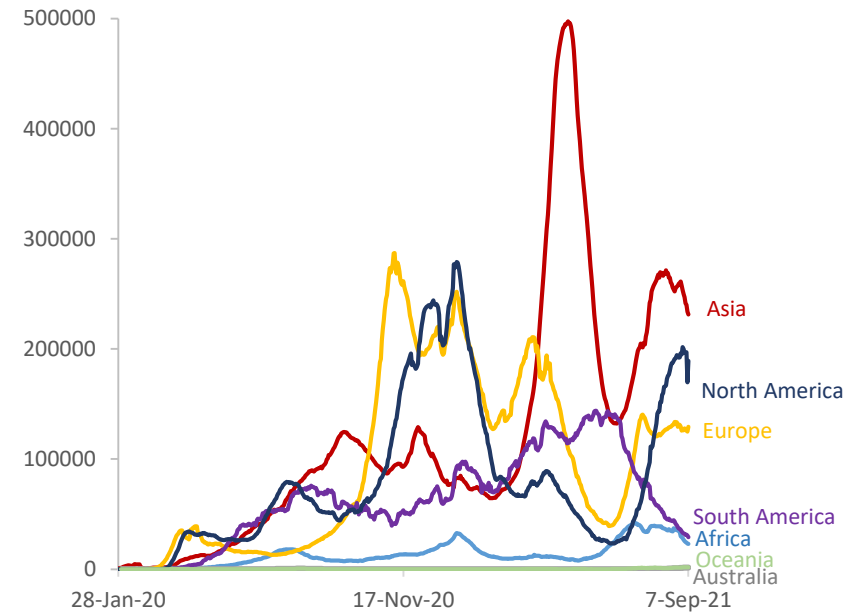
- Head of Tactical Asset Allocation, Investment Strategy Group

COVID-19 Globally

1. Infections and Fatalities (7DMA)



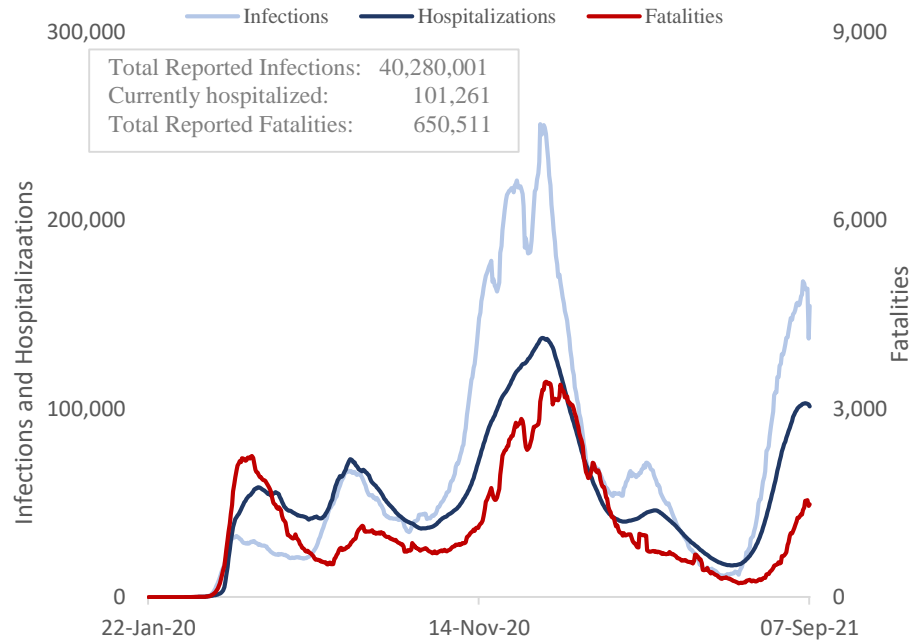
2. Regional Picture (new infections; 7DMA)



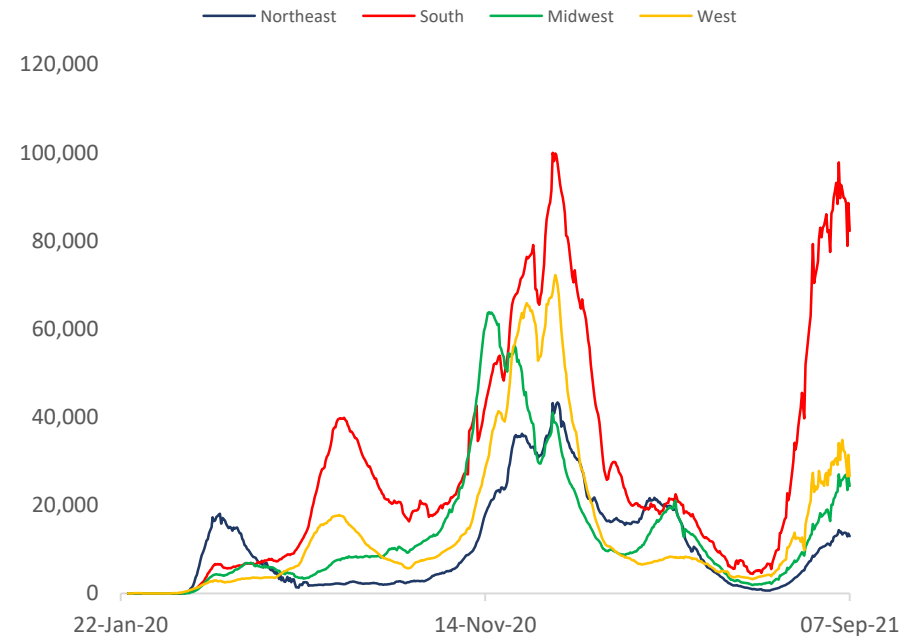
- Gradual slowdown in the Delta-driven, worldwide outbreak continued over the past week, though some uncertainty remains on whether this slowdown will continue. Average daily infections (603,511) are 6% lower compared to a week ago, and 8% lower compared to two weeks ago.

COVID-19 in the US

1. National Infections, Currently Hospitalized, and Fatalities (7DMA)



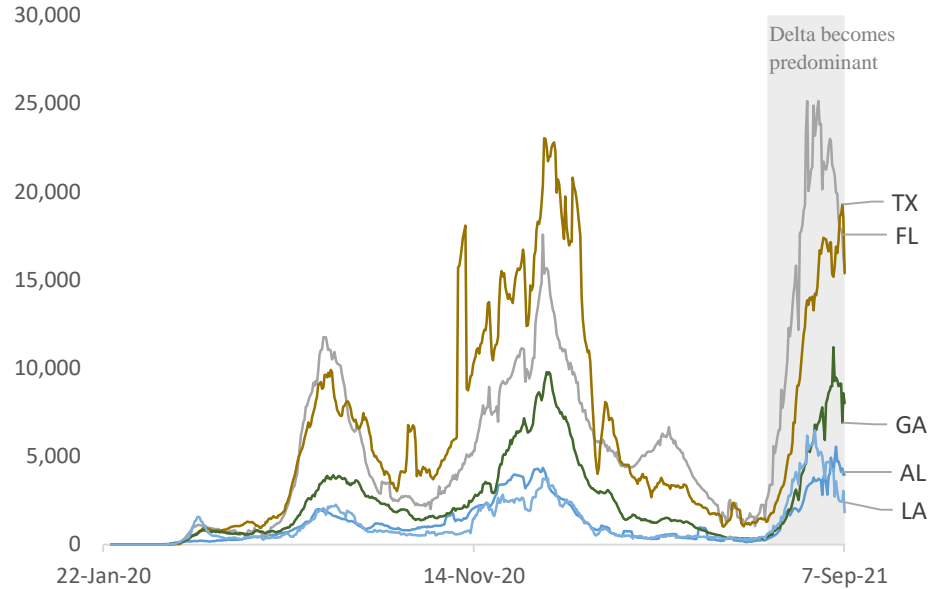
2. Regional Daily Infections (7DMA)



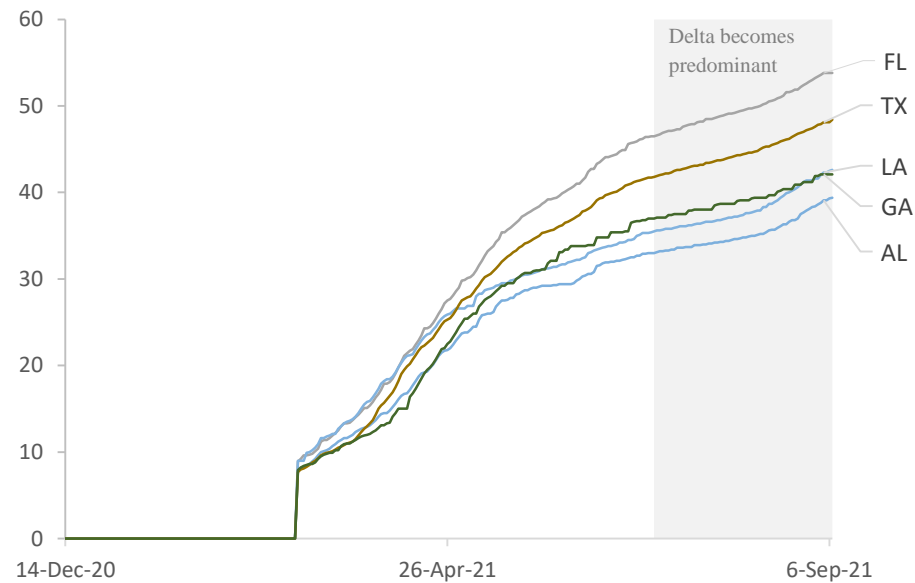
- Average daily infections and hospitalizations in the US remain elevated, despite a slowdown in select states in the South where Delta first gained a foothold. Recent infection numbers are somewhat distorted by lack of reporting over Labor Day weekend.
 - Average daily infections (154,553) are 4% lower compared to a week ago, though 2% higher compared to two weeks ago.
 - Average hospitalizations (101,261) are 1% lower compared to a week ago, though still 4% higher compared to two weeks ago.

As Delta Has Accelerated Infections, Vaccine Hesitancy Has Softened Somewhat

1. Daily Infections In Select Southern States (7DMA)



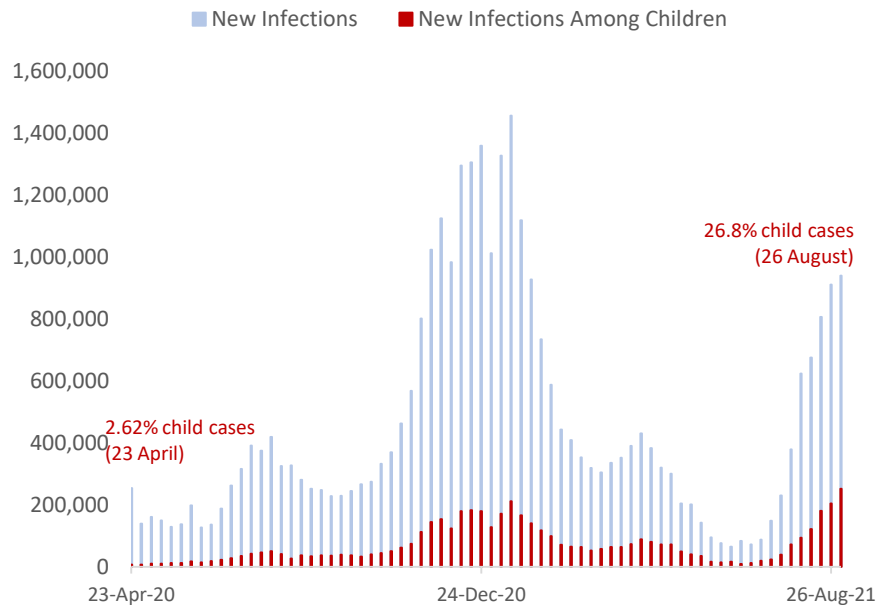
2. Share of Population Fully Vaccinated in Select Southern States



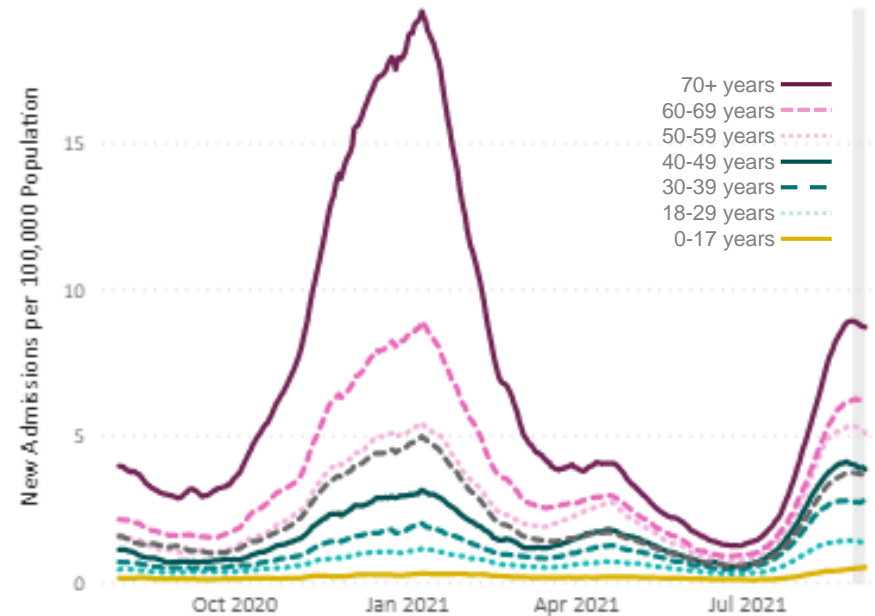
- Vaccination rates have picked up in select states that have experienced more acute levels of Delta-fueled outbreak.

How Will School Re-Openings Impact the Trajectory of the Pandemic?

1. New Weekly Infections Among US Adults and Children



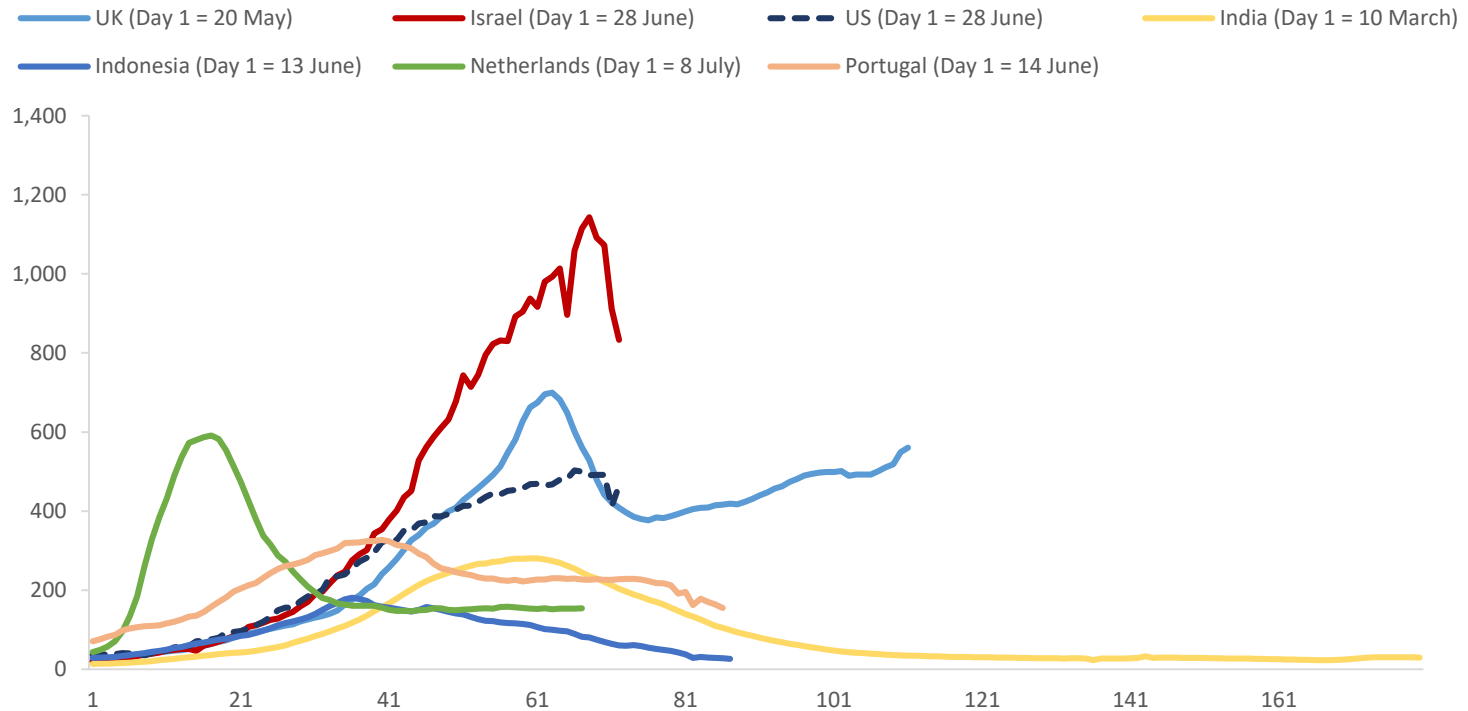
2. New Admissions of Patients with COVID-19 (per 100k by Age Group)



- For the week of August 27 – September 2, 2021, there were 251,782 new child COVID-19 cases reported in the US, the highest since the start of the pandemic, or 26.8% of all new weekly reported cases in the US. In contrast, at the beginning of the pandemic, infections among children constituted 2.62% of all new weekly cases.
- The rate of hospital admissions for age group 0-17 has increased significantly since week of 4 July (from 0.07 to 0.49 per 100k persons), though it still remains as the lowest of all age groups.

When Will the Delta Surge End?

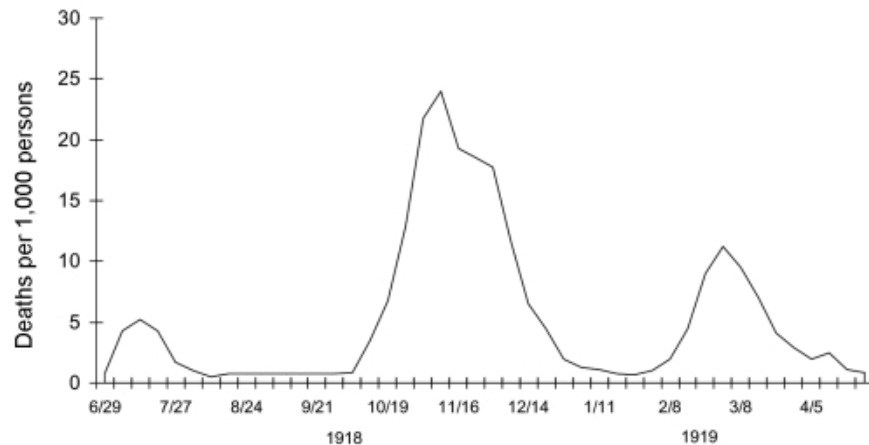
Daily Infections Indexed to An Estimated Start of the Delta Outbreak (per million people; 7DMA)



- Delta-fueled outbreaks around the world have varied in duration from as little as ~20 days to as long as over ~60 days.

Will There Be Additional Waves of COVID-19?

Three Waves of Spanish Flu: Weekly Mortality (United Kingdom, 1918–1919)



“

The 1918 pandemic began in the spring with an intermittent first wave no deadlier than ordinary influenza... A more contagious and more lethal variant caused the deadly second wave... In March 1919, another variant sparked a third wave much less deadly than the second wave but more lethal than seasonal influenza. First wave illness protected against the second wave, but neither first nor second wave infection protected against the third wave variant. Further mutations, combined with an improved ability of the immune system to respond, helped turn the virus into an ordinary seasonal influenza...

John M. Barry

Author of “The Great Influenza: The Story of the Deadliest Pandemic in History”

Washington Post, May 10, 2021

“

Based on what we know about the infectiousness of the virus, we would anticipate continued waves of infection.

Dr. Richard Hatchett

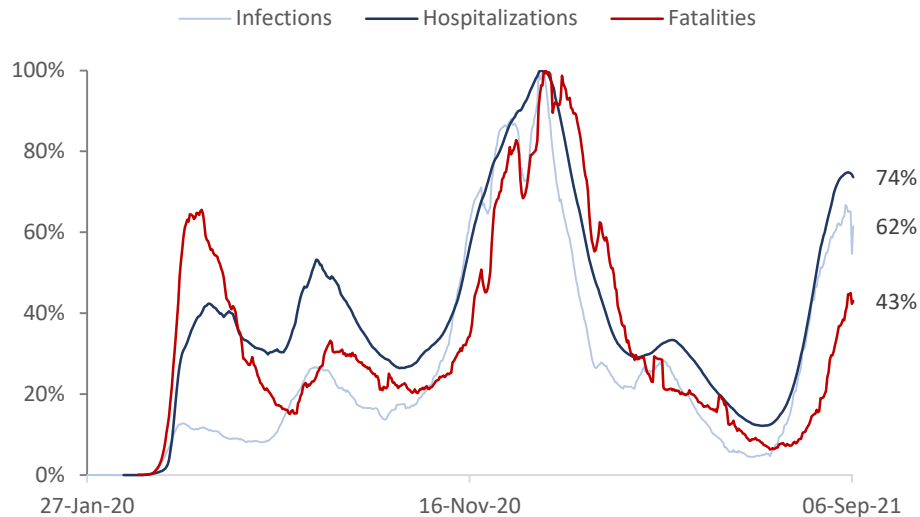
CEO of the Coalition for Epidemic Preparedness Innovations (CEPI)

ISG Client Call

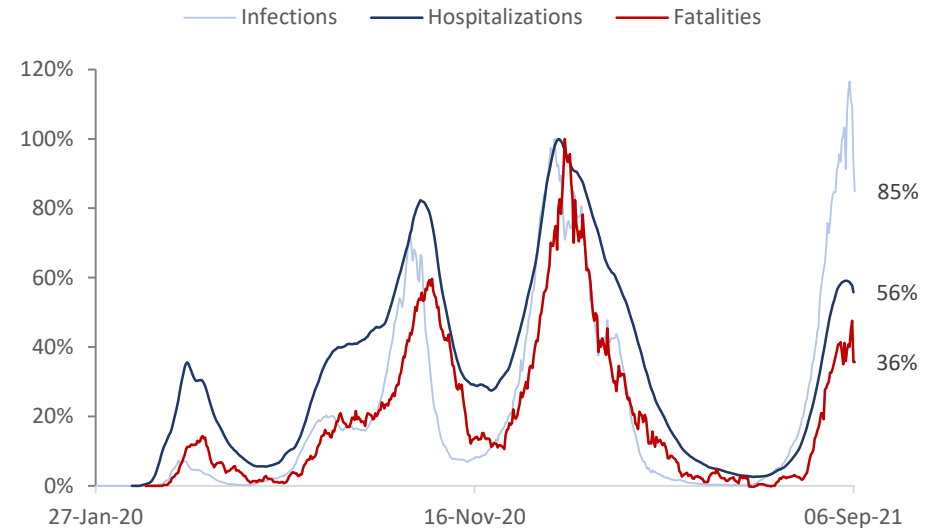
14 April 2020

Have Vaccines Weakened the Link Between Infections, Hospitalizations, and Fatalities?

1. US (100% = Pandemic Peak; 7DMA)



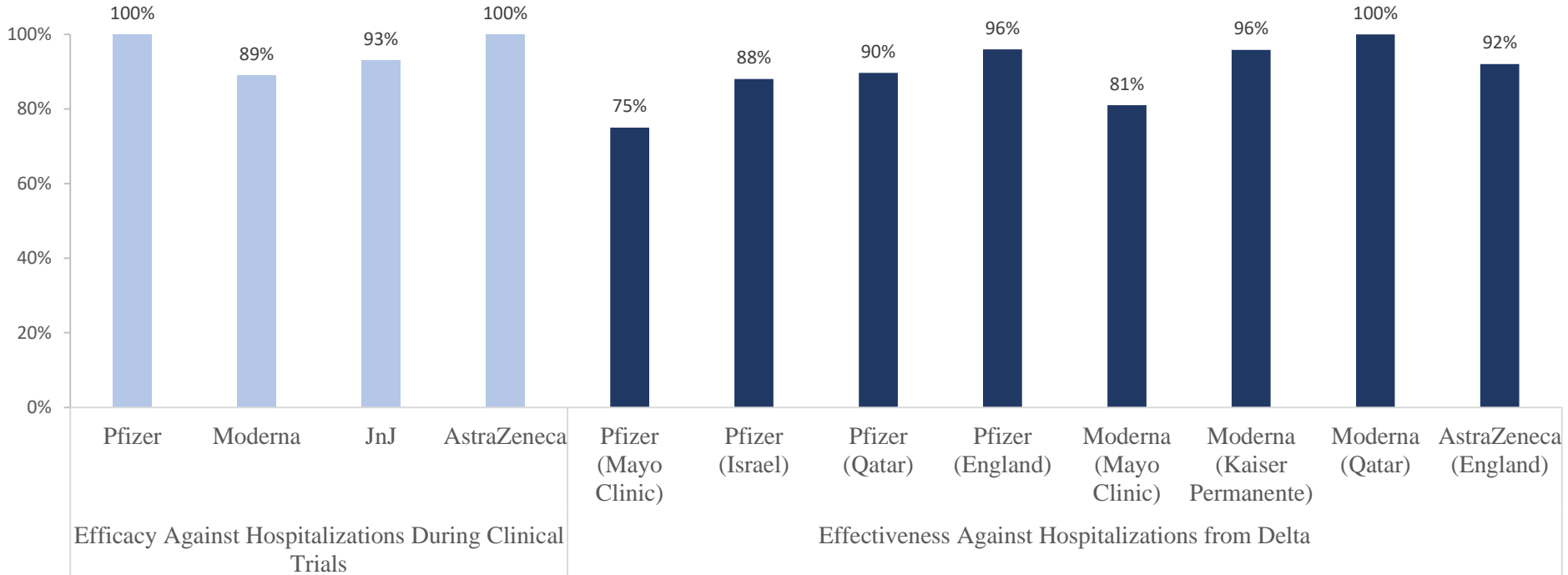
2. Israel (100% = Pandemic Peak; 7DMA)



- While the Delta variant is at least twice as transmissible as the next most transmissible variant (Alpha), vaccines appear to have weakened the link between infections, hospitalizations, and fatalities.
 - In the US, the number of currently hospitalized patients is at 74% of pandemic peak; daily fatalities are at 43% of pandemic peak.
 - In Israel, despite a more intense wave of infections, the number of currently hospitalized patients is at 56% of pandemic peak; daily fatalities are at 36% of pandemic peak.
 - In the UK, the number of currently hospitalized patients is at 20% of pandemic peak; daily fatalities are at 9% of pandemic peak.

Vaccine Effectiveness Against Symptomatic Infections from Delta Has Decreased Somewhat, but Remains Robust Against Severe Disease

Vaccine Effectiveness Against Hospitalizations in Clinical Trials and Against Delta



- To date, a series of studies have signaled that effectiveness of vaccines against infection from the Delta variant has decreased relative to the trial results from last year.
- However, vaccine effectiveness against severe disease and hospitalizations appears to be holding, even in countries where effectiveness against infections appears to have waned the most.

Breakthrough Infections Remain Uncommon, Particularly Those Resulting in Severe Disease or Death

1. Cases of Vaccine Breakthroughs Resulting in Deaths or Hospitalizations (as of August 30, 2021)

Fully Vaccinated	173,832,202			
	Deaths		Hospitalized, non-fatal	
	Count	%	Count	%
Breakthroughs	2,437	0.001%	10,471	0.006%
Females	1,082	44%	5,059	48%
People aged ≥65 years	2,124	87%	7,282	70%
Asymptomatic or not COVID-related*	480	21%	2,409	25%

*Patient had no symptoms of COVID-19 or their hospitalization or death was not COVID-related

2. Rates of Vaccine Breakthroughs Resulting in Infections

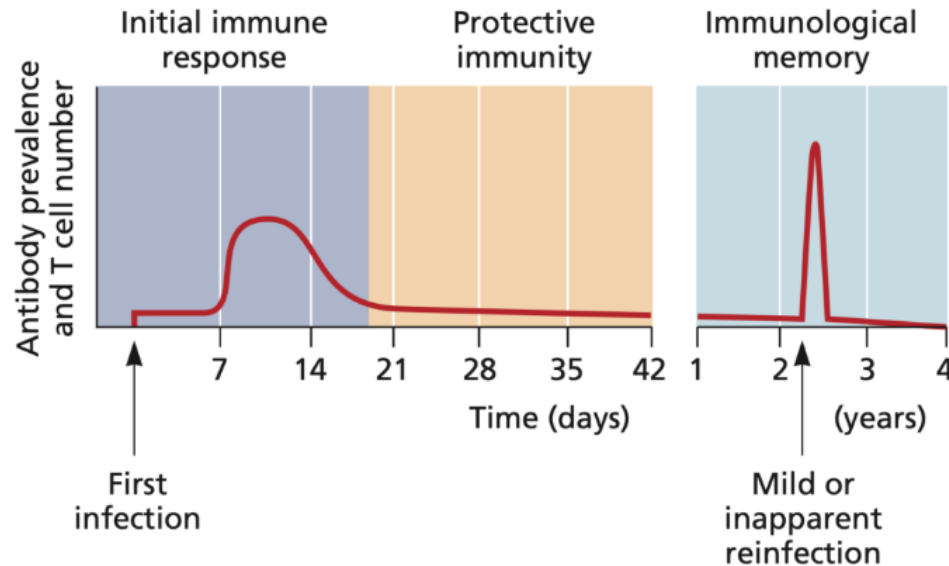
	All Breakthrough Infections
Kaiser Family Foundation (30 July)	0.01% - 0.54%
NBC News (30 July)	0.08%
Wall Street Journal (17 August)	0.10%

*Kaiser reviewed data from 25 states; NBC News from 38 states; and WSJ from 44 states.

- US CDC data indicate that vaccine breakthrough cases that result in deaths or hospitalizations remain extremely rare.
- Independent analysis of breakthrough cases that result in infections suggests that they also remain relatively uncommon, although a precise accounting remains uncertain due to lack of systematic data collection.

Are COVID-19 Vaccine Boosters Needed?

Relative Concentrations of Antibody and T Cells Over Time



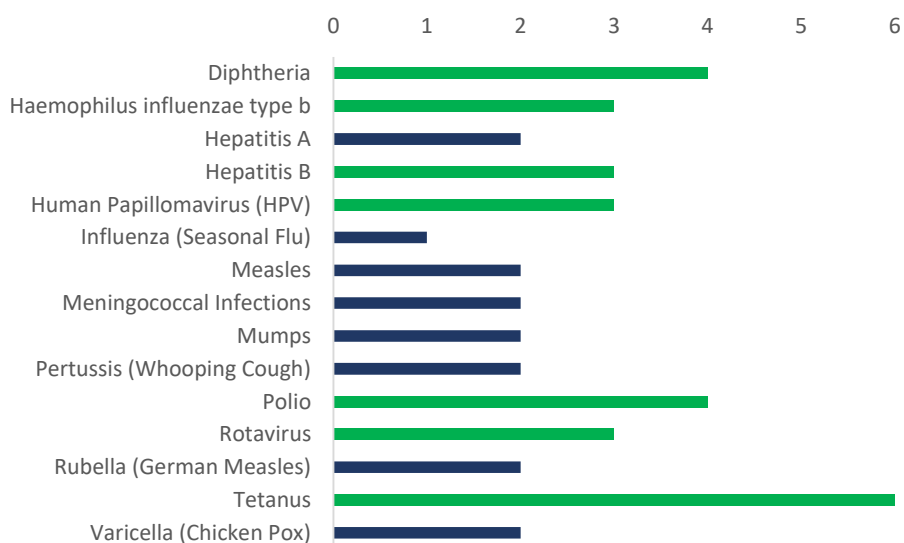
“

A review of the immune responses to infection will help explain why vaccine boosters are not needed... Antibody levels and numbers of activated T cells initially rise, then decline after the primary viral infection is cleared. Reinfections at later times (years later) are marked by a rapid immune response because of the reanimation of memory cells. The host is infected, but virus is cleared rapidly and severe disease is prevented.

Dr. Vincent Racaniello
Professor, Department of Microbiology and Immunology at
Columbia University
“Are COVID-19 vaccine boosters needed?”
Virology Blog
19 August 2021

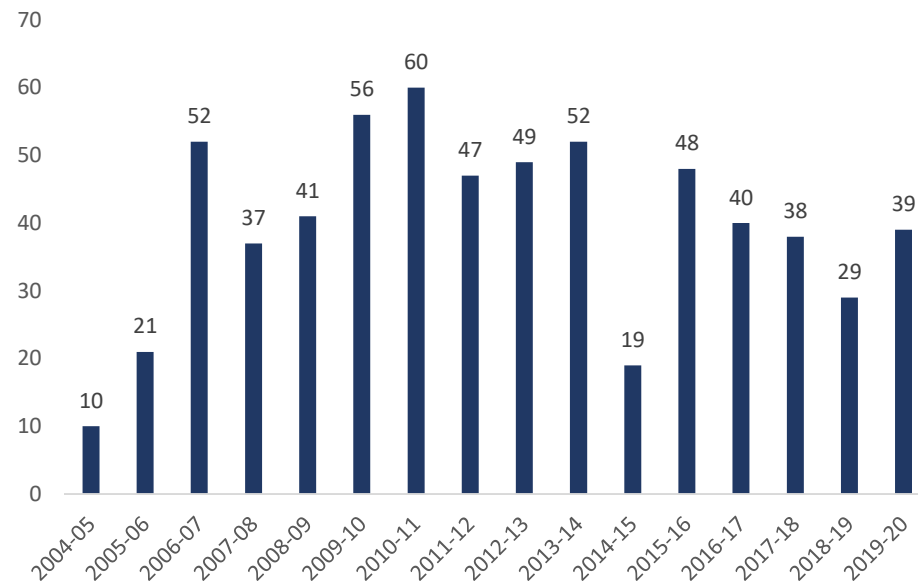
Some Context for Vaccine Boosters and Effectiveness

1. Key Vaccines and Recommended Dosage



Note: HPV and Rotavirus vaccines are administered in 2-3 doses

2. Estimated Effectiveness of Influenza Vaccine (%)



Note: 2020-2021 influenza vaccine effectiveness was not estimated due to low influenza virus circulation during the 2020-2021 influenza season.

- Seven out of 15 most commonly recommended vaccines are administered in at least 3 doses for enhanced protection.
- Over the past 15 years, the adjusted effectiveness of the influenza vaccine has ranged from 10% to 60% against any influenza illness.

Issues Surrounding Boosters

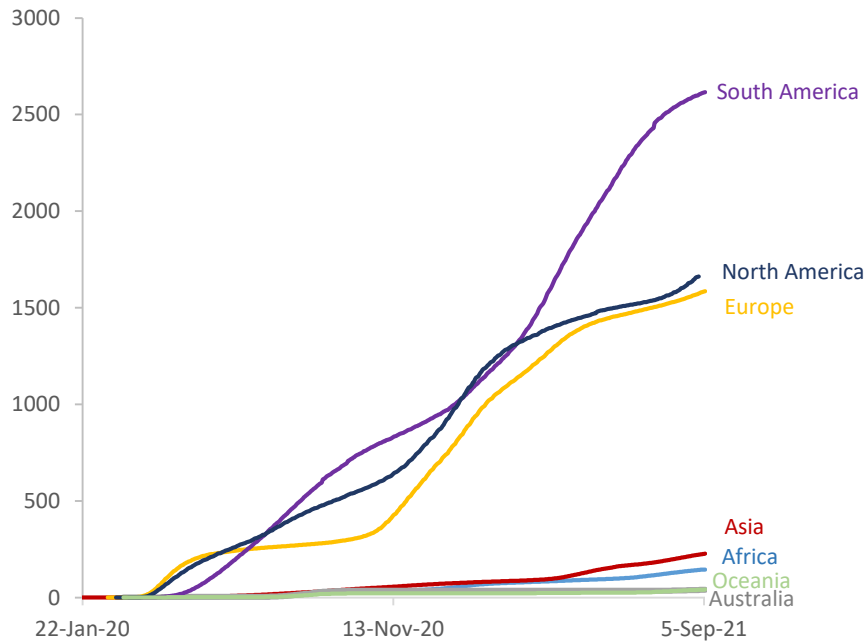
Select Unresolved Issues Around Boosters

Issues

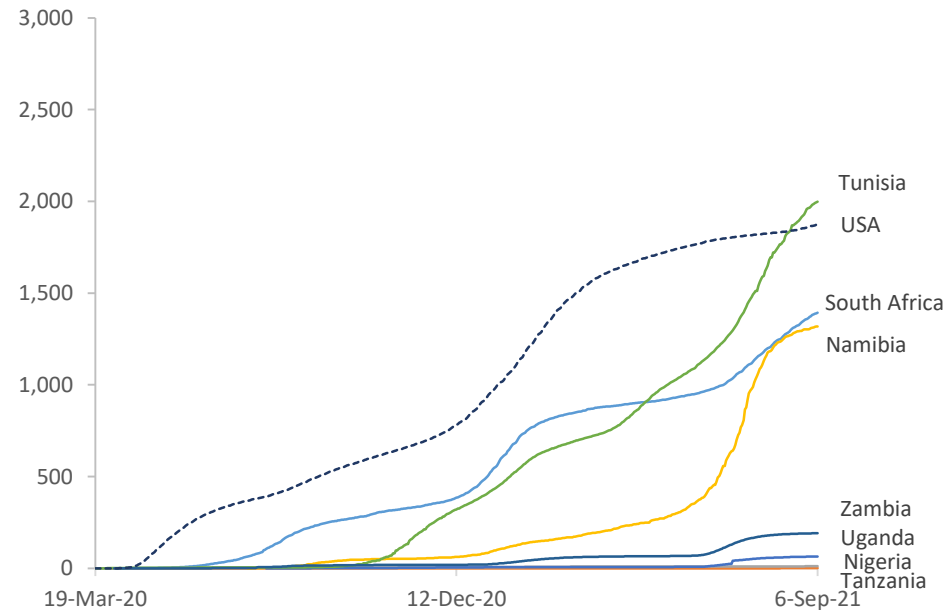
- Original Vaccine As an Additional Dose, Not Delta Specific
 - Limited Impact in Reducing Hospitalizations and Deaths
 - No Substitute for Primary Goal of Getting Maximum People Vaccinated
 - Unclear Durability of Impact and Frequency of Boosting
 - Uncertainty Over the Effect of Dose Size and Spacing of mRNA Vaccines
 - Depletion of Limited Global Supply of Vaccines Risking Emergence of New Variants
-
- Israel started a booster campaign on 30 July. Several other developed nations have stated their intent to start boosting this Fall.
 - The US has authorized booster vaccines for immunocompromised Americans. A broader booster campaign is expected to commence on 20 September, likely beginning with the recipients of the Pfizer vaccine.

Are Vaccines Being Distributed Equitably?

1. Cumulative Fatalities (per million person)



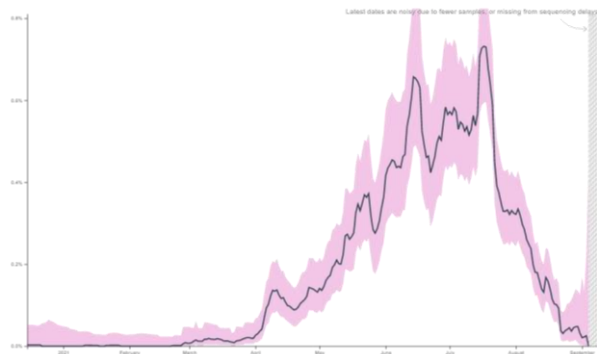
2. Cumulative Fatalities in Select African Nations and USA (per million people)



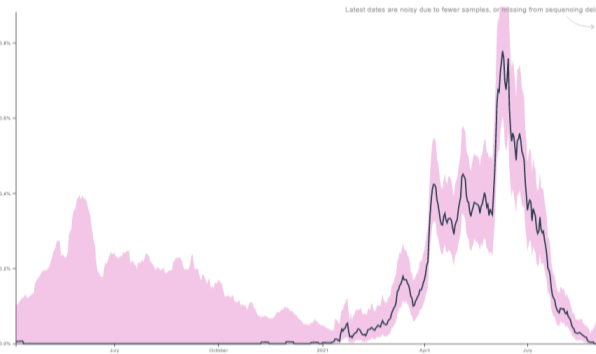
- COVID-19 fatalities, adjusted for population, have been concentrated primarily in South America, North America, and Europe.

Variants of Interest

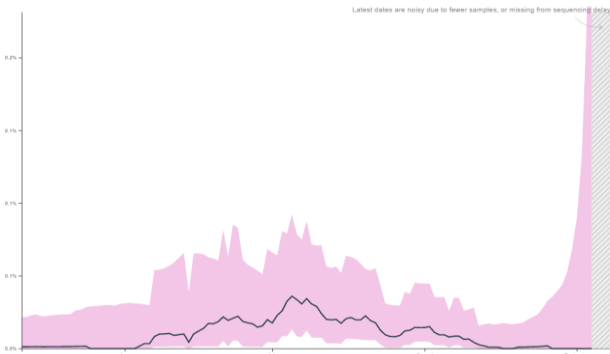
1. Mu (Colombia)



2. Lambda (Peru; Chile)



3. C.1.2 (South Africa)



— 7 day rolling average of percent of respective variant-positive sequences
■ 95% confidence interval
■ Missing recent data

- Three variants – Mu, Lambda, and C.1.2 – are currently being monitored due to preliminary data suggesting some immunity-evasive characteristics.
- To date, however, there are no indications that these three variants present a serious challenge to Delta.

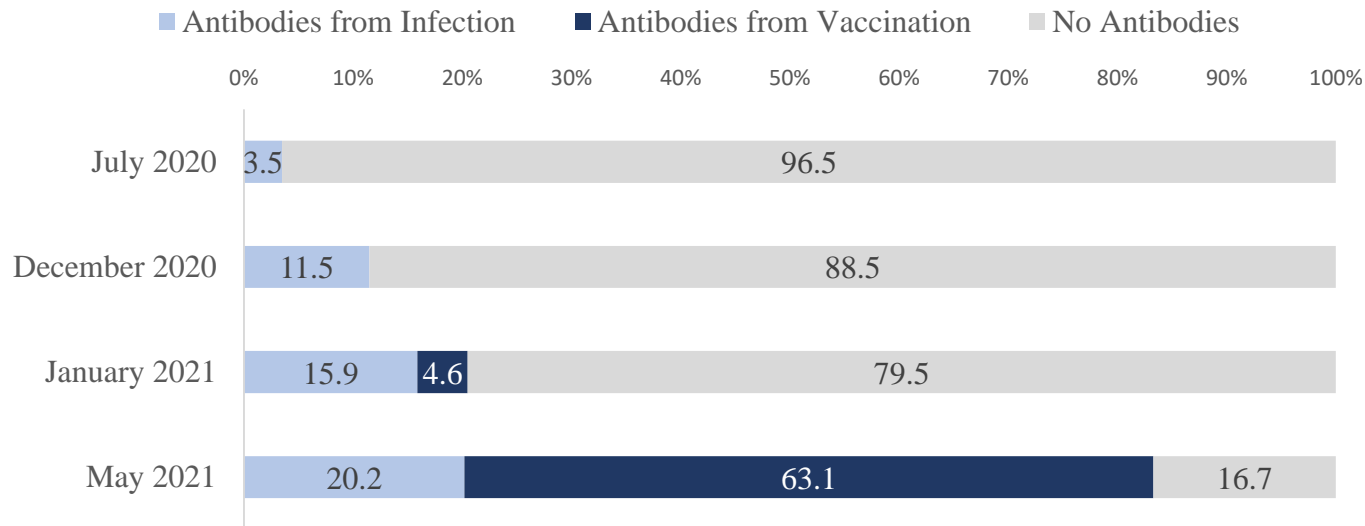
“

This is an area that is hotly debated. Historically, the fitness of the viruses is created by an increase in transmissibility more so than in evading immunity. There is some research that this virus is evolving as expected. It is unlikely that we will see a variant that completely evades the properties of the highly protective vaccines (especially the cellular immunity). But in biology, you can never say never.

Dr. Luciana Borio
14 July 2021 ISG Call
Venture Partner, Arch Venture Partners
Former Director for Medical & Biodefense Preparedness, White House
Former Acting Chief Scientist, Food and Drugs Administration

Can Herd Immunity Be Achieved for COVID-19?

Estimated US Infection- and Vaccine-Induced SARS-CoV-2 Seroprevalence



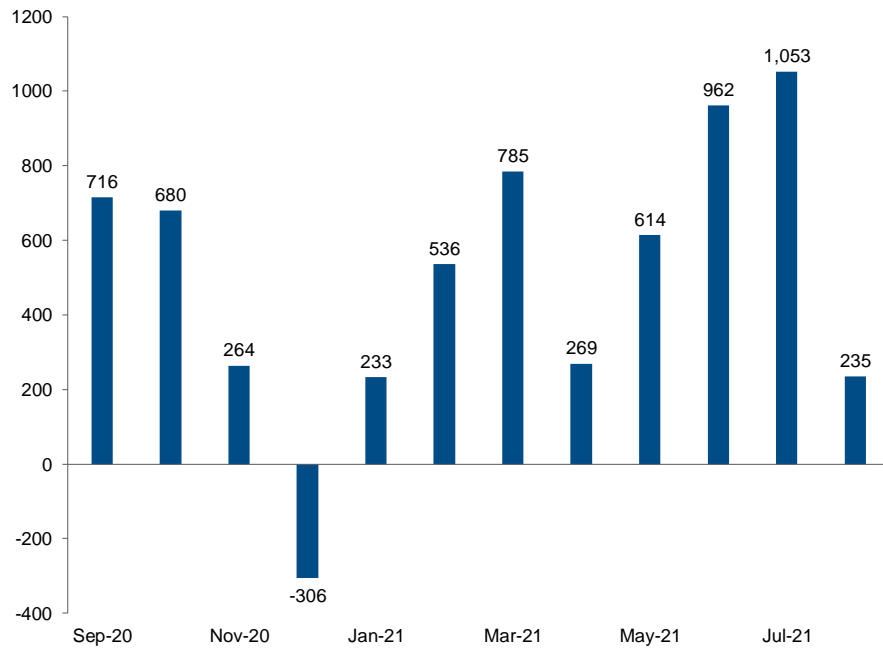
- Based on a sample of 1.4 million blood donation specimens collected in the US from July 2020 through May 2021, the Centers for Disease Control and Prevention estimates that the combined (infection- and vaccine-induced) SARS-CoV-2 seroprevalence in the US was at 83.3 percent.
- The level of seroprevalence has likely increased since the study was conducted as authors estimated that as of May 2021, there were 2.1 infections per each reported case. Since May 31, there have been some 7,012,409 additional reported infections in the US.

Note: The study covered an estimated 74% of the US population. A number of other biases that authors acknowledge could have resulted in overestimation or underestimation of US seroprevalence.

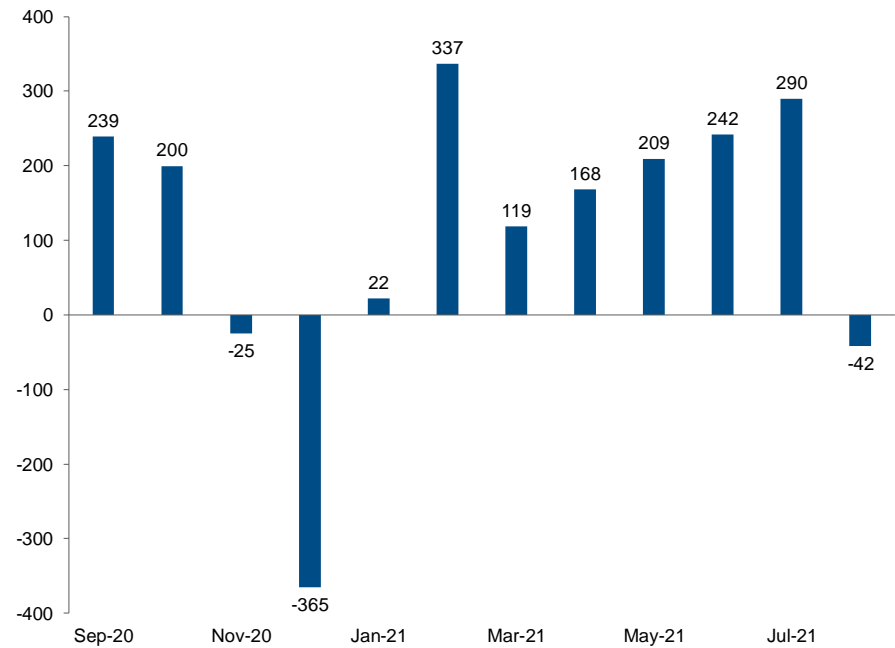
Source: Investment Strategy Group, JAMA Online; US CDC

The Recovery in Nonfarm Payrolls Lost Momentum in August

1. Nonfarm Payrolls, Monthly Change, Thousands

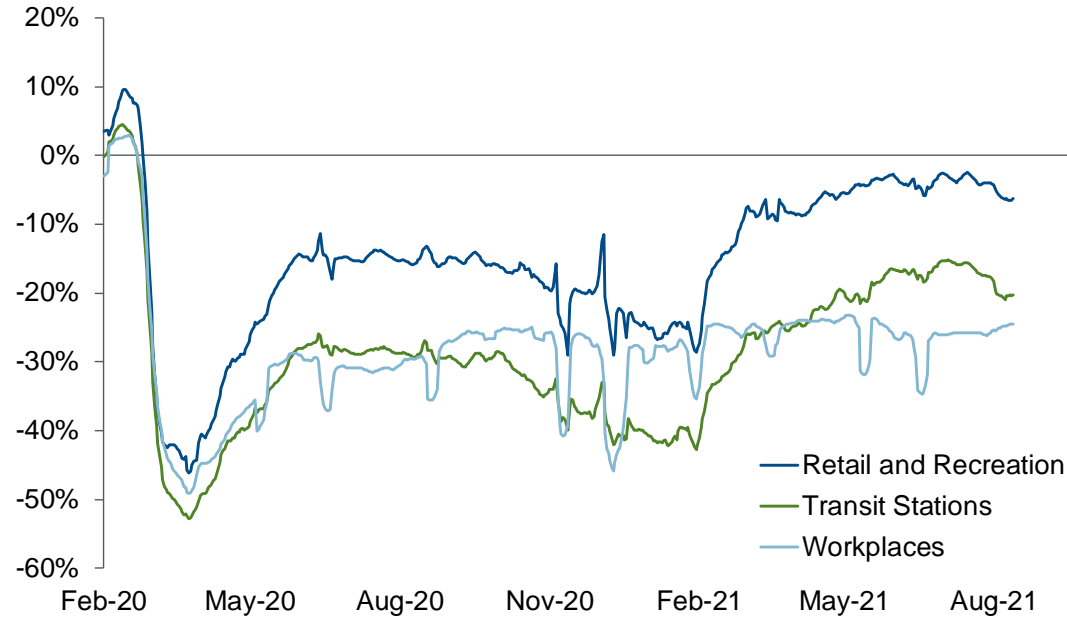


2. Nonfarm Payrolls, Food and Drinking Places, Monthly Change, Thousands



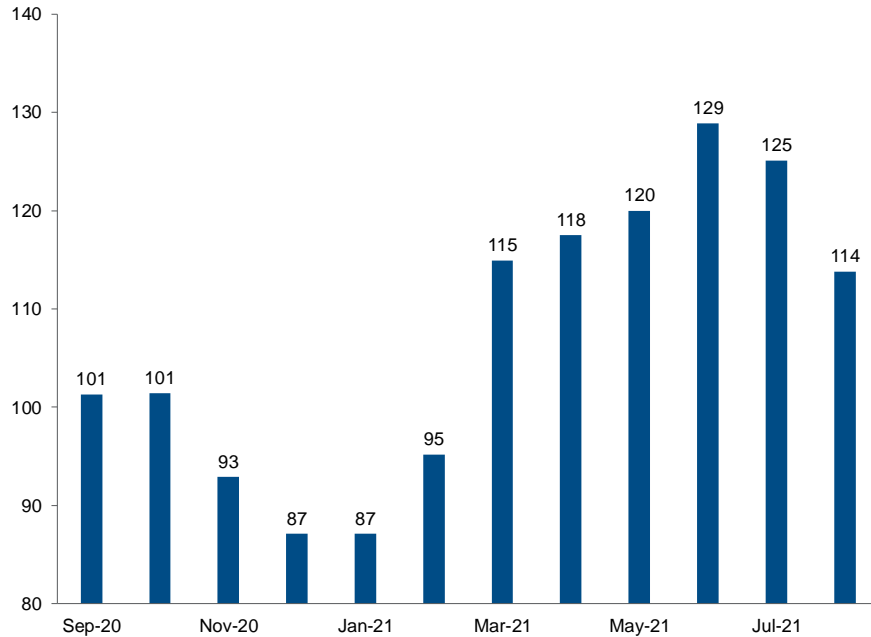
Mobility Edged Down in August

Google Mobility vs Jan 2020 Median, 7dma

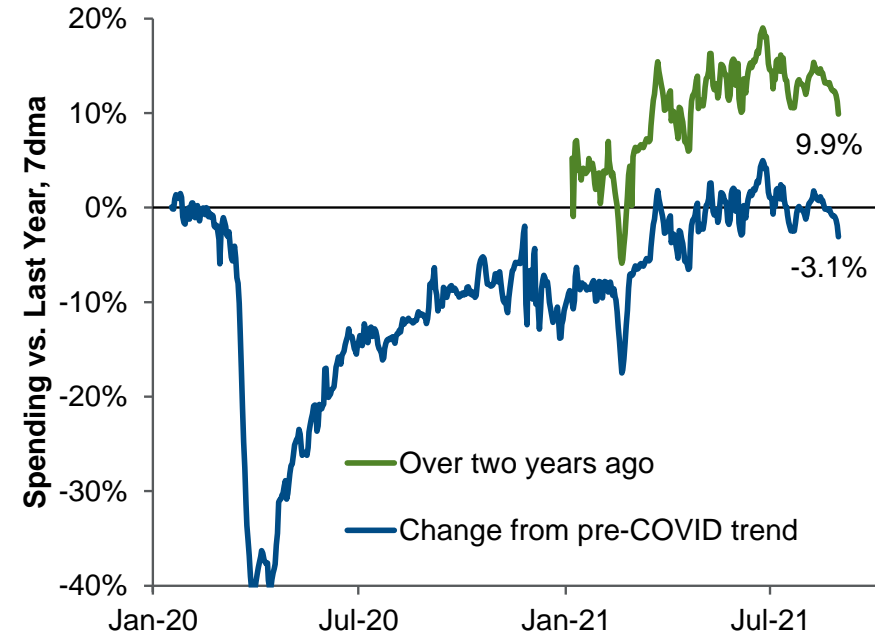


Consumer Confidence and Card Spending Have Softened

1. Conference Board Consumer Confidence Index

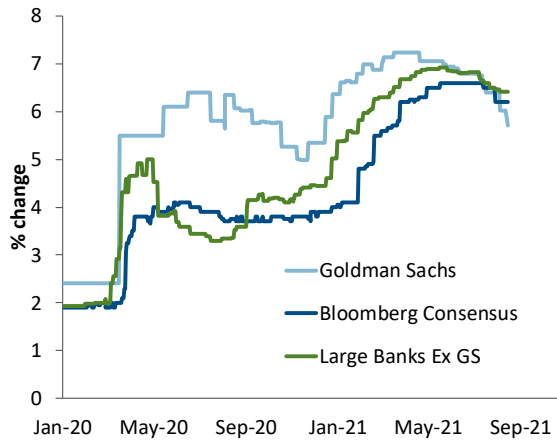


2. Chase Card Spending vs Last Year, 7dma

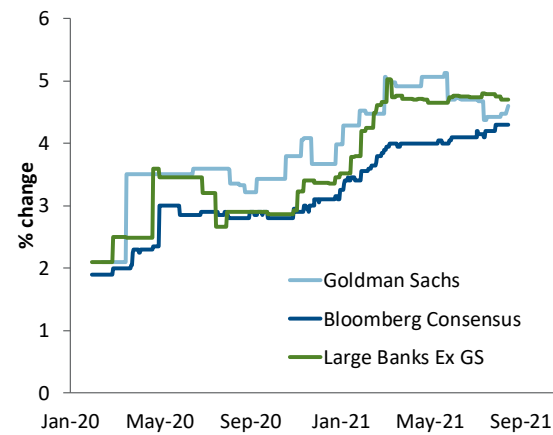


US GDP: GS vs. Other Forecasters

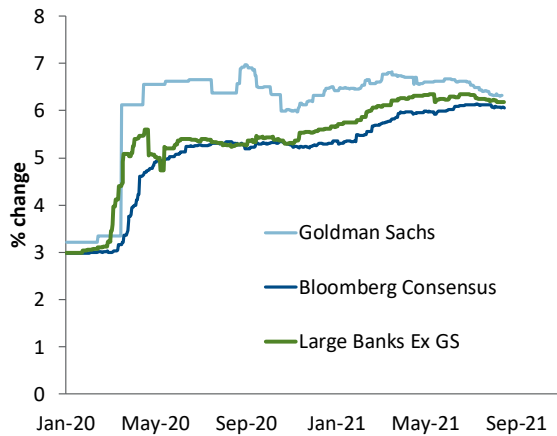
1. US 2021 Real GDP Growth



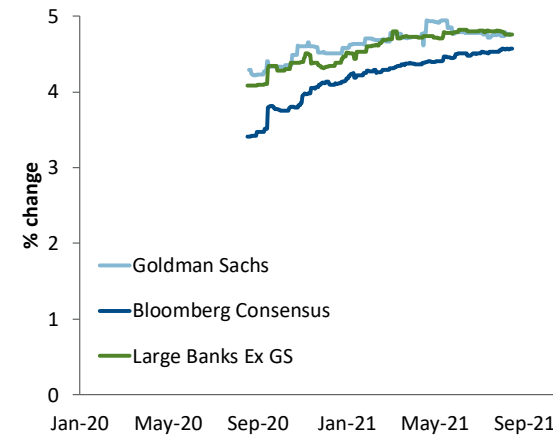
2. US 2022 Real GDP Growth



3. Global 2021 Real GDP Growth

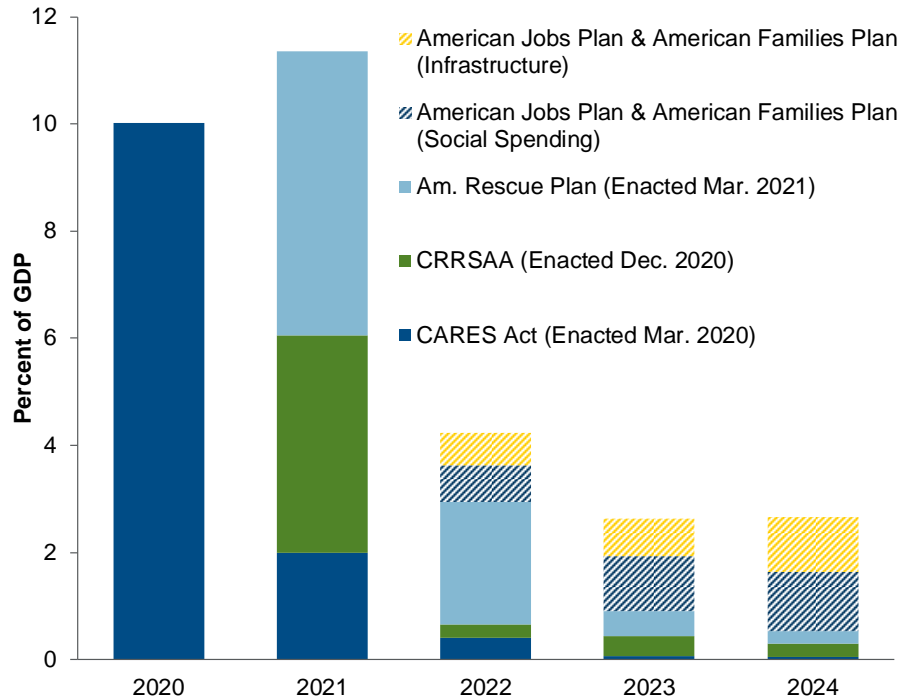


4. Global 2022 Real GDP Growth

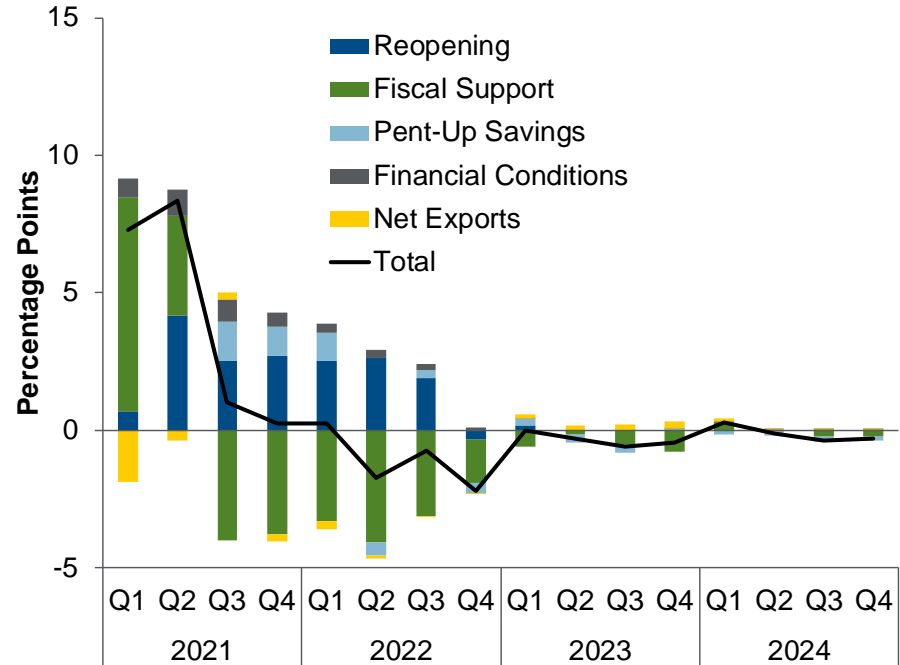


Fading Fiscal Support Is a Major Headwind for Growth

1. Federal Spending Programs (Enacted and GS Expected)

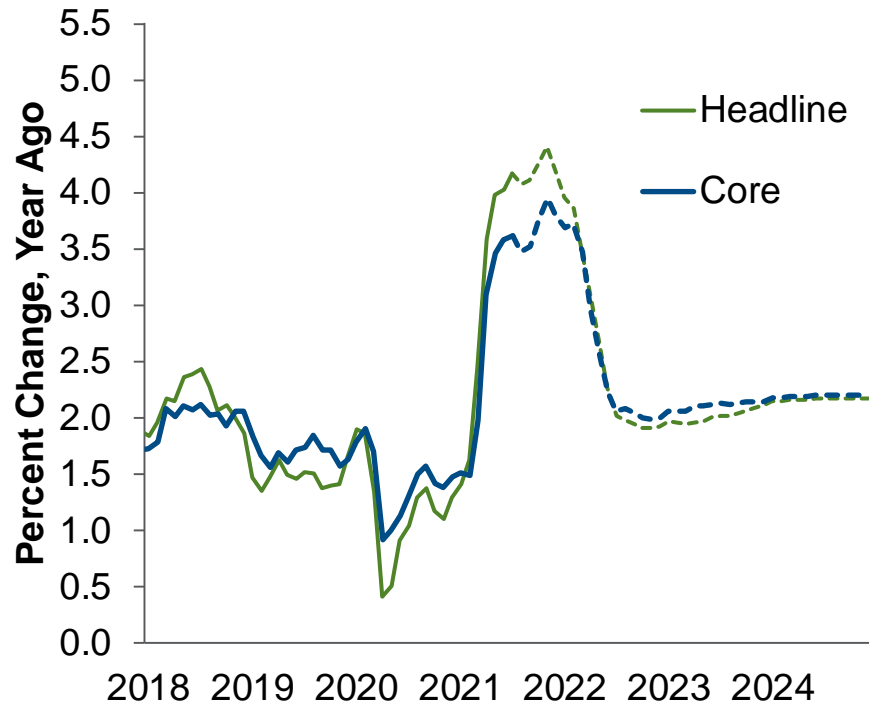


2. Contribution to Real Annualized GDP Growth

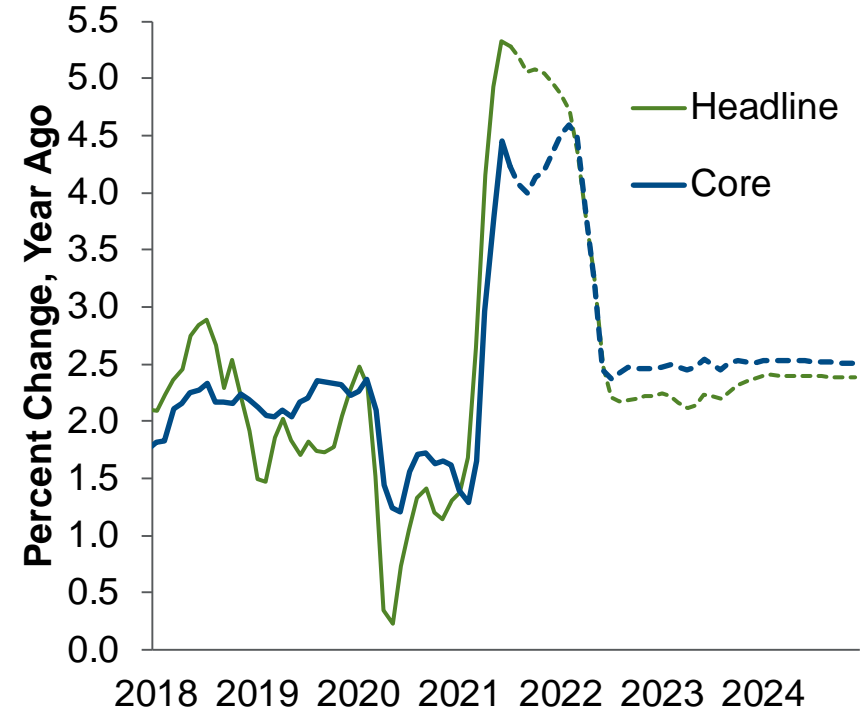


We Expect Inflation to Return to Around 2%

1. PCE Inflation

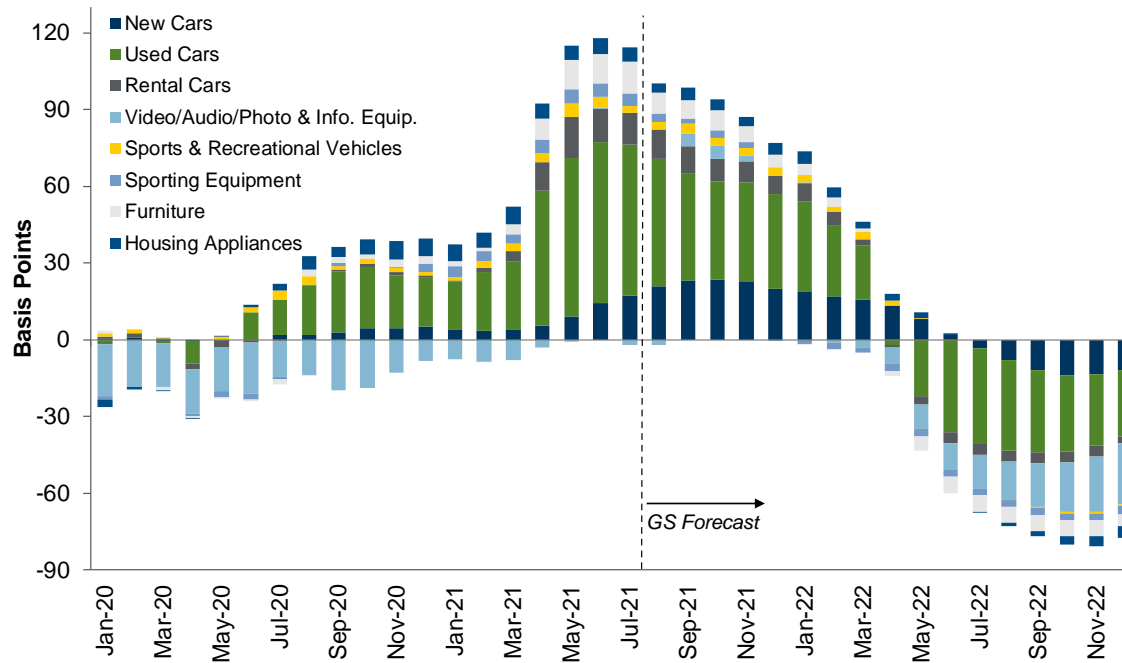


2. CPI Inflation

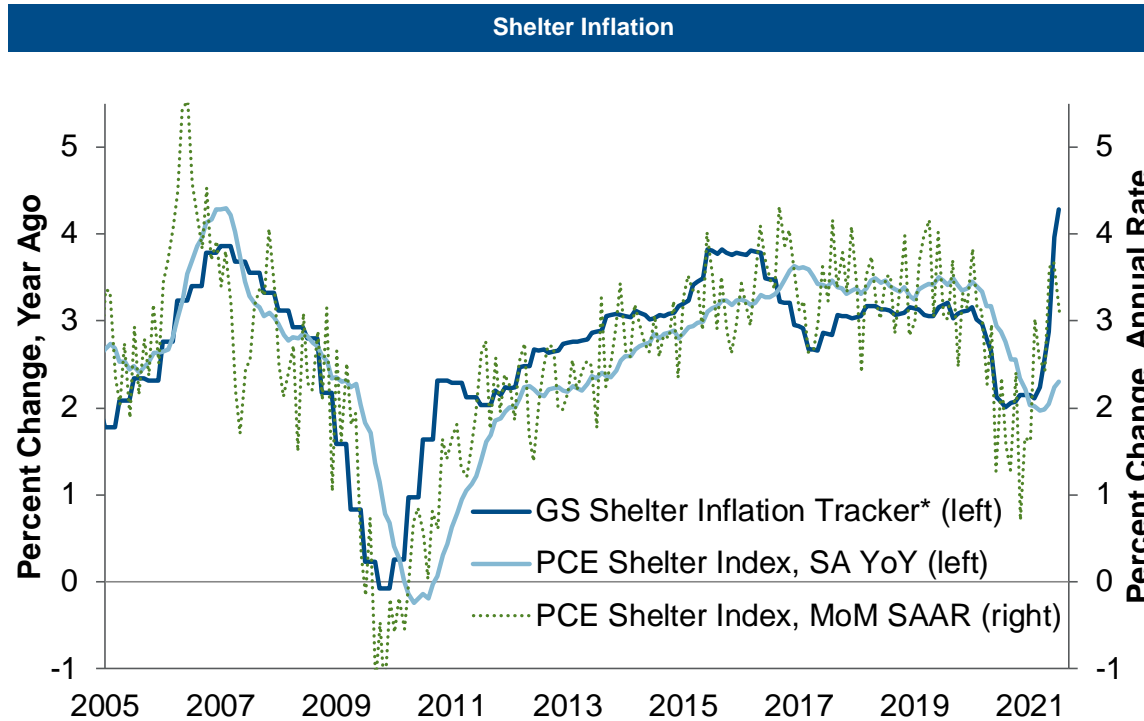


Outlier Driven Surge in 2021 Means Bigger Decline in 2022

Contributions to Year-on-Year Core PCE Inflation From Supply-Constrained Categories



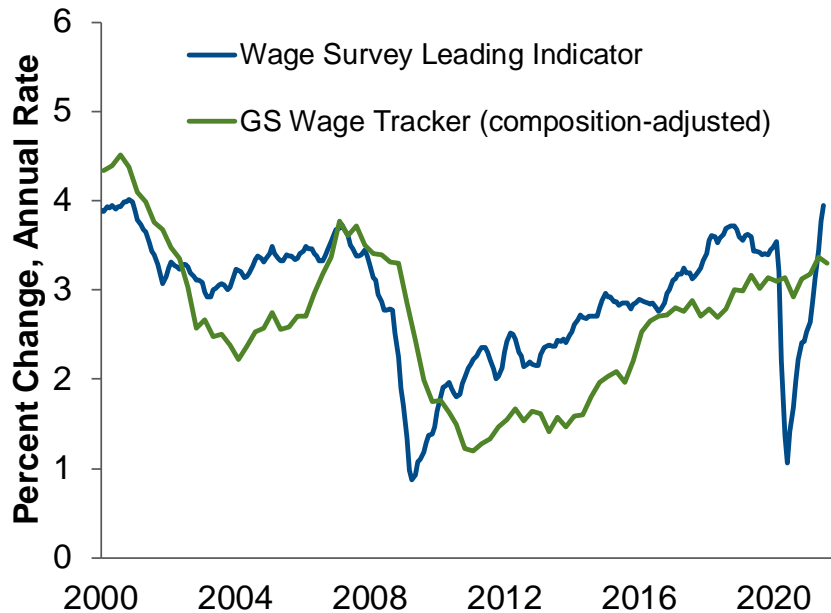
...Although Shelter Inflation Will Limit the Drop



* Weighted Average of Four Alternative Rent Measures: Zillow Rent Index; Costar National Asking Rent; REIS Effective Rent per Apartment; Census Vacant Multifamily Median Rent.

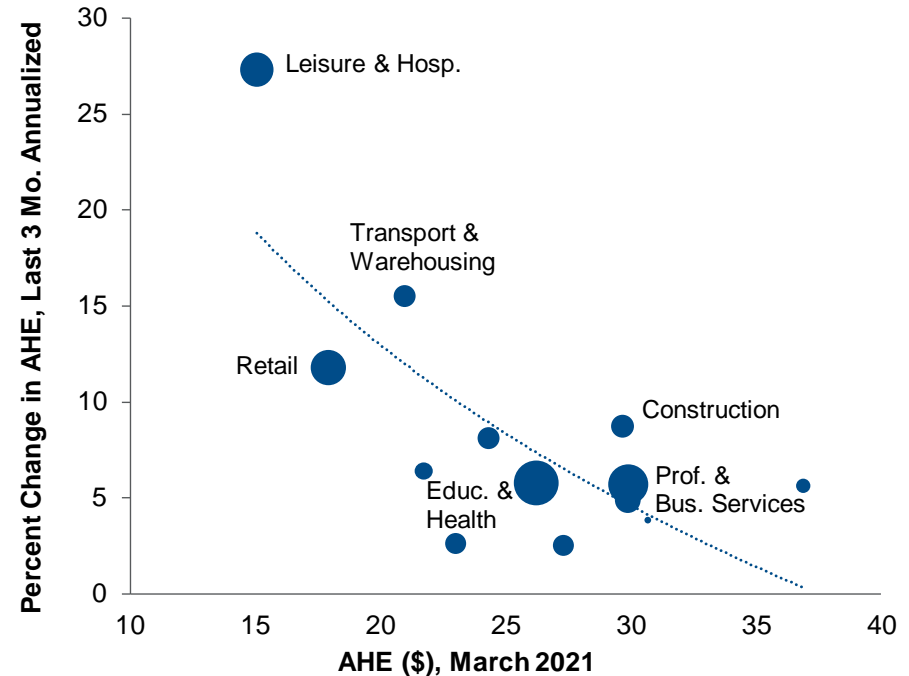
Wage Growth has Been Highest in Low-Wage Industries

1. GS Wage Tracker and Wage Survey Leading Indicator

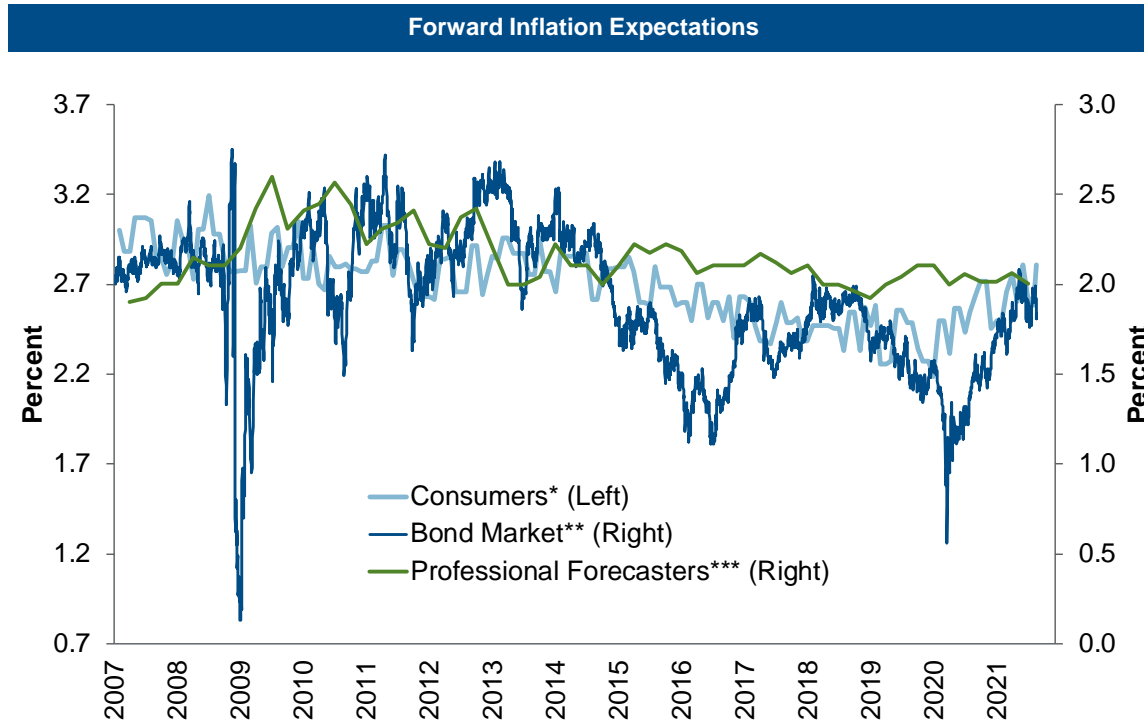


Note: The following series enter our leading indicator: Dallas Fed, Richmond Fed, and New York Fed manufacturing and service sector surveys, Bloomberg Consumer Comfort, NFIB survey, Conference Board and University of Michigan Household Income Expectations, Duke/CFO Business Outlook Survey

2. AHE Growth vs. AHE Level, Production and Non Supervisory Employees



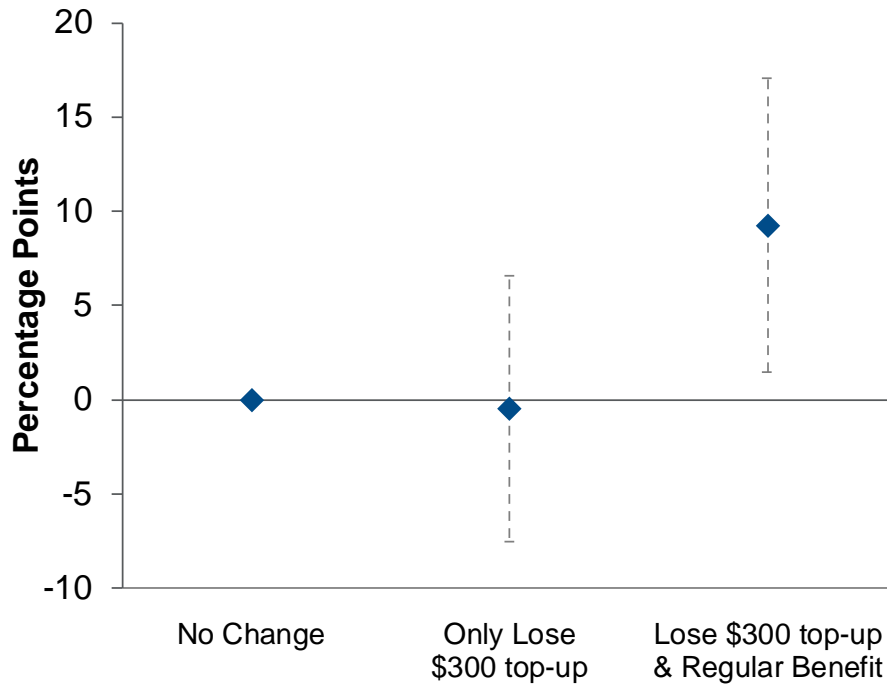
Inflation Expectations Consistent With 2% Target



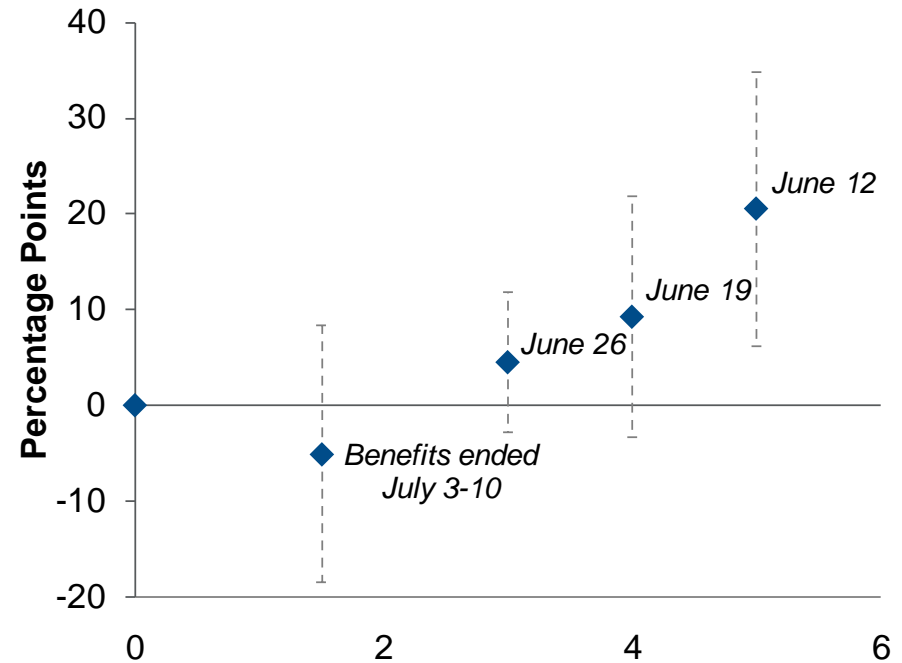
*UMich 6.5y1y inflation expectations. Computed from the UMich 1-year and 5-10-year inflation expectations measures
 **5y5y breakeven inflation. Subtracts 0.3pp (historical average CPI-PCE gap) for comparability with PCE inflation
 ***SPF 5y5y inflation expectations.

Micro Data Show Large Benefit Impact

1. Estimated Impact of Federal UI Benefit Expiration on Job Finding Probability in July by Loss of Benefits

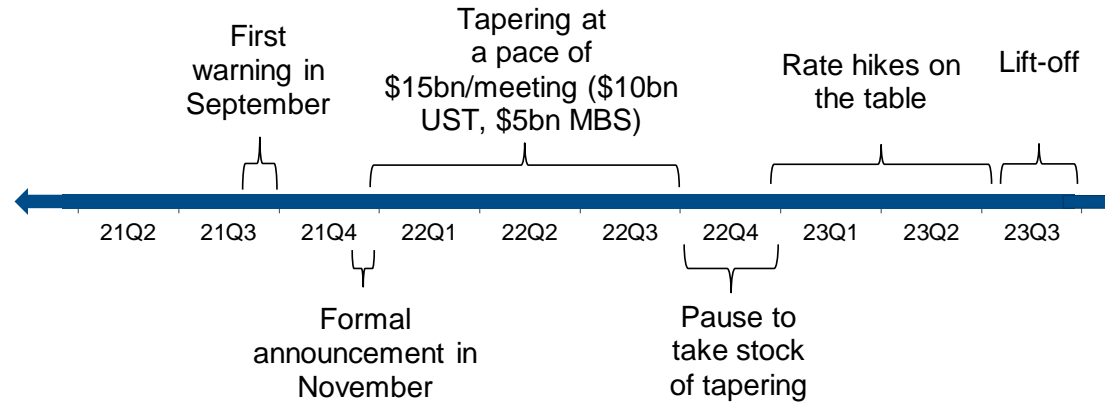


2. Estimated Impact of Federal UI Benefit Expiration on Job Finding Probability in July by Weeks Since Expiration

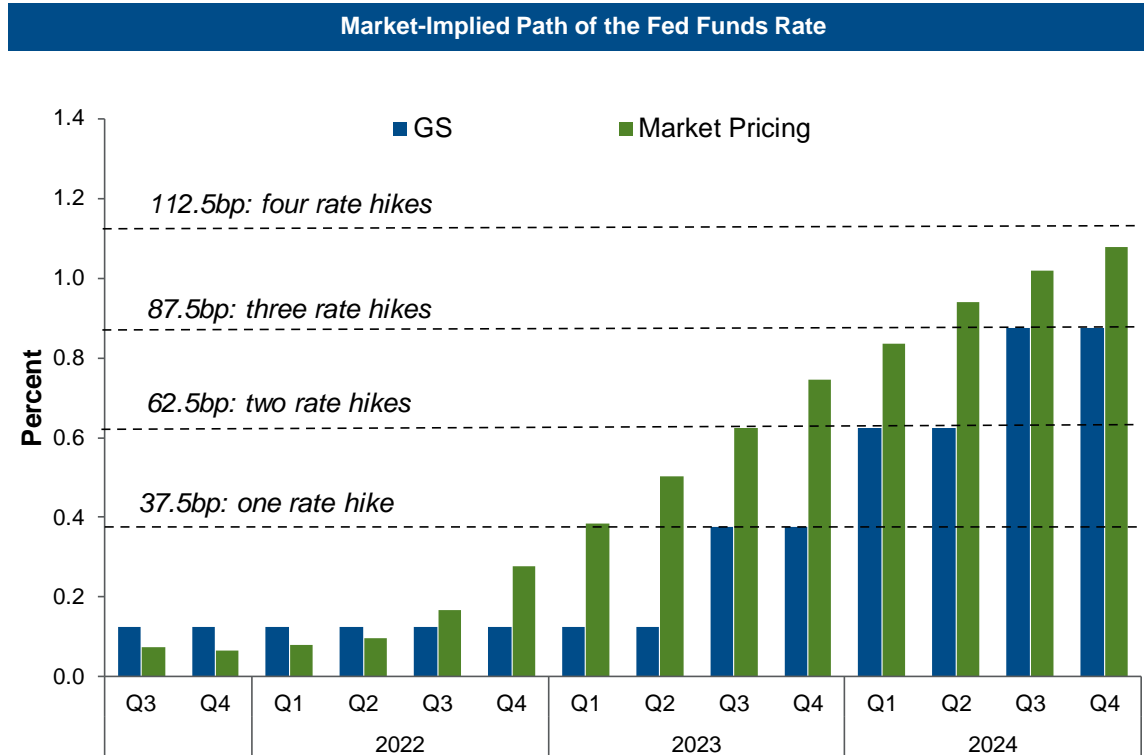


A Very Gradual FOMC Exit

Timeline for Tapering, GS Forecast



Market Pricing of Liftoff Still a Bit Too Aggressive



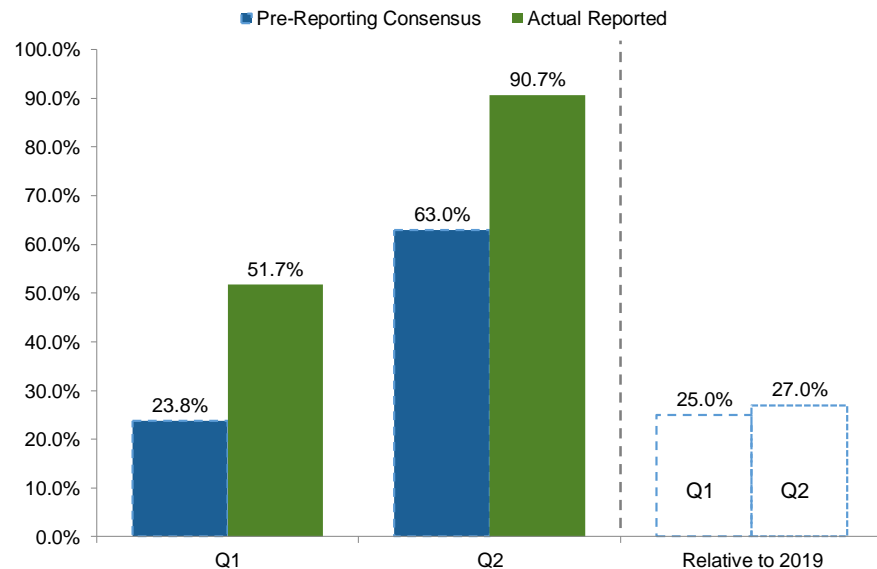
Global GDP: GS vs. Consensus

Real GDP Growth						
Percent Change yoy	2019	2020	2021 (f)		2022 (f)	
			GS	Consensus	GS	Consensus
US	2.3	-3.4	5.7	6.2	4.6	4.3
Euro Area	1.4	-6.5	5.3	4.8	4.6	4.4
Germany	1.1	-4.9	3.5	3.2	4.8	4.5
France	1.8	-8.0	6.5	6.0	4.5	4.0
Italy	0.3	-8.9	6.4	5.7	4.5	4.2
Spain	2.0	-10.8	7.0	6.1	6.5	5.7
Japan	0.0	-4.6	2.9	2.5	3.2	2.5
UK	1.4	-9.8	7.1	6.8	5.9	5.4
Canada	1.9	-5.3	5.0	6.2	3.9	4.2
China	6.0	2.3	8.2	8.4	5.6	5.6
India	4.8	-7.0	8.9	8.0	7.3	7.6
Brazil	1.4	-4.1	4.9	5.2	2.0	2.1
Russia	2.0	-3.0	4.3	3.7	3.7	2.5
World	3.0	-3.2	6.2	6.0	4.8	4.6

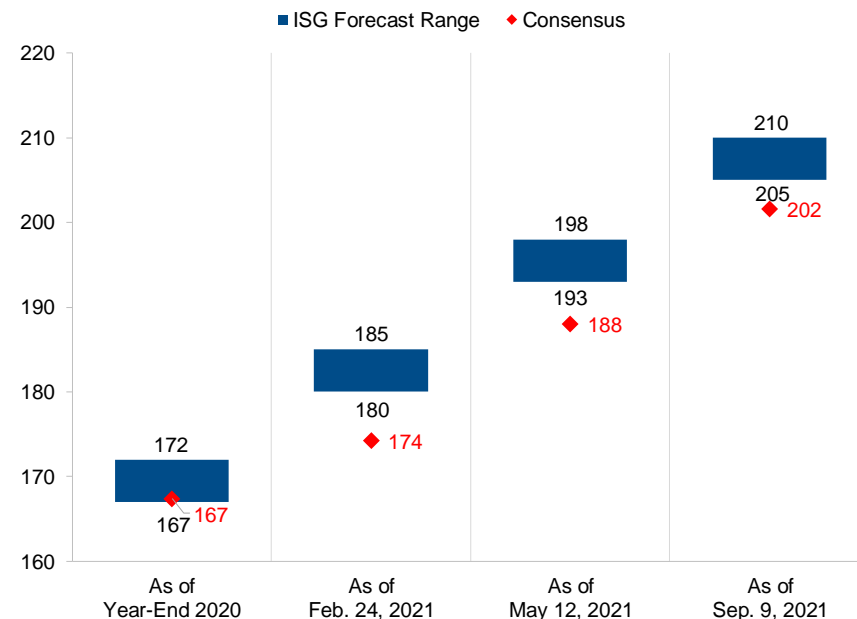
Note: All forecasts calculated on calendar year basis.

We are Revising up our S&P 500 Earnings Forecast. Earnings are Likely to Remain the Engine of Further Equity Gains

1. Growth in S&P 500 Earnings



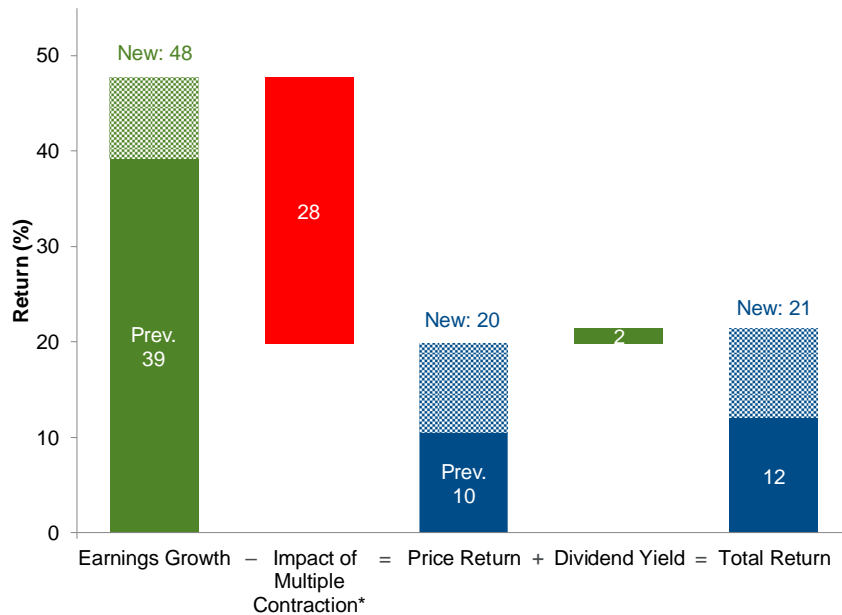
2. ISG vs. Consensus Forecasts for 2021 S&P 500 EPS



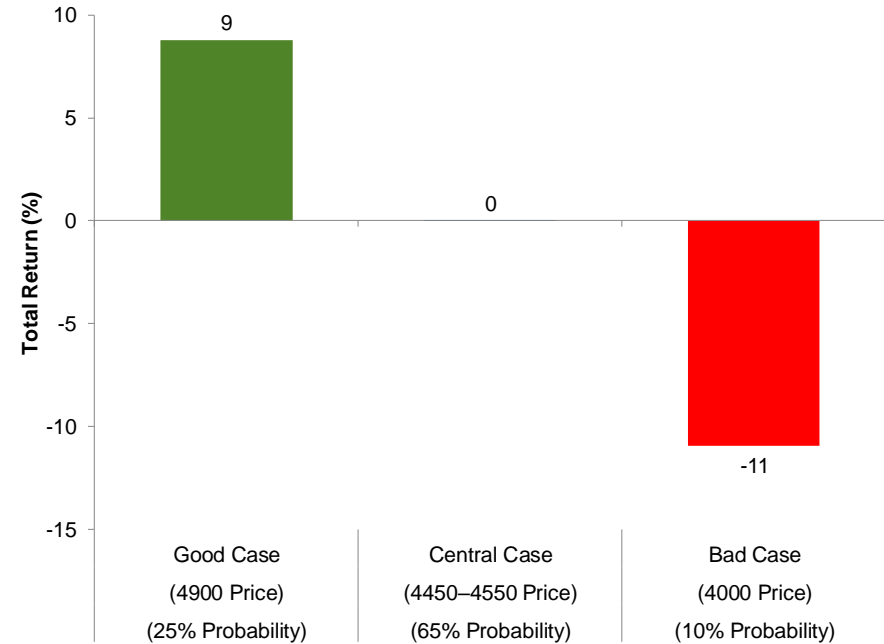
- Earnings growth in the first half of this year exceeded consensus expectations by a historic magnitude. The resulting level of first half earnings stands more than 25% above pre-pandemic results seen in 2019.
- We are again revising our EPS estimates for 2021 higher to \$205–210 (consensus is \$202), continuing a trend this year of our above-consensus forecasts ultimately being exceeded by continued upward profit revisions by analysts.
- The midpoint of our new range implies 48% earnings growth for 2021 vs. 39% previously. We expect 7-10% annualized earnings growth over the next several years, consistent with past economic expansions.
- Although tax changes could shave about 4-5% from the level of 2022 earnings based on sell-side estimates, our forecasts still suggest positive earnings growth in 2022 after these adjustments.

We are Revising up our S&P 500 Price Targets Given Higher Earnings and Lower Than Expected Interest Rates

1. Decomposition of ISG Central Case S&P 500 Return for the Year 2021



2. Revised ISG S&P 500 Total Return Forecast at Year-End 2021 (Returns are From the Close Price as of September 8, 2021)



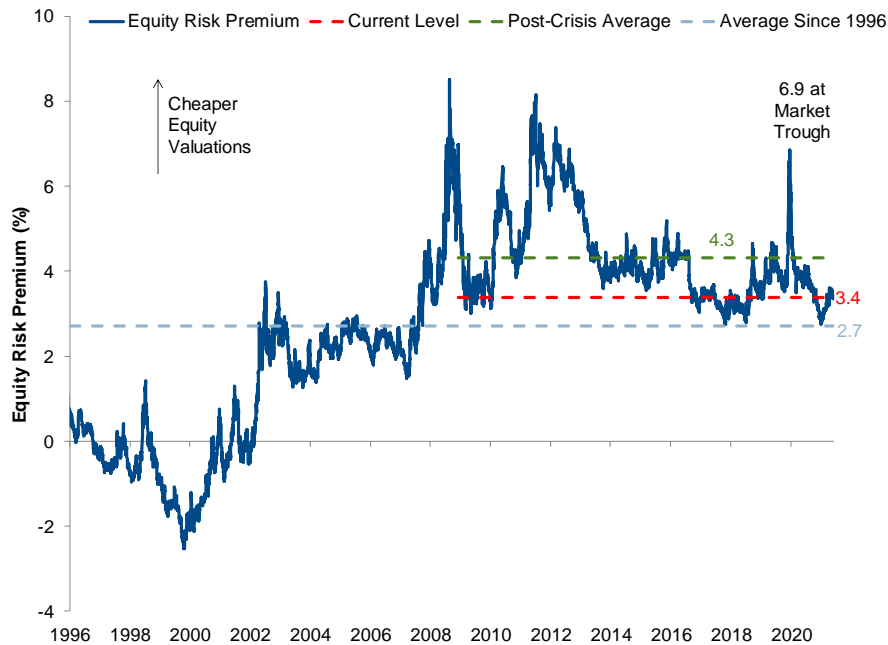
- We ascribed 30% odds in May 2021 to the S&P 500 reaching 4500 by year end. With earnings exceeding our forecasts and rates lower than we expected, this previous good case has become our base case.
- As a result, we are revising up our central case price target for the S&P 500 to 4450–4550 (midpoint 4500) from 4100–4200 previously (midpoint 4150), now implying a 21% total return for the full year.
- We are also increasing the price level of our good case to 4900 (with 25% odds) and our bad case scenario from 3500 to 4000. Taken together, our forecast implies 90% odds of the S&P 500 being around current levels or higher by year end.
- The evolution of the Delta variant remains the key driver of our forecasts, with our good case reflecting renewed re-opening momentum while our bad case contemplates a worse than expected fall/winter wave that slows growth further.

* Includes the compounding effect between earnings and multiples. Numbers may not add up due to compounding.

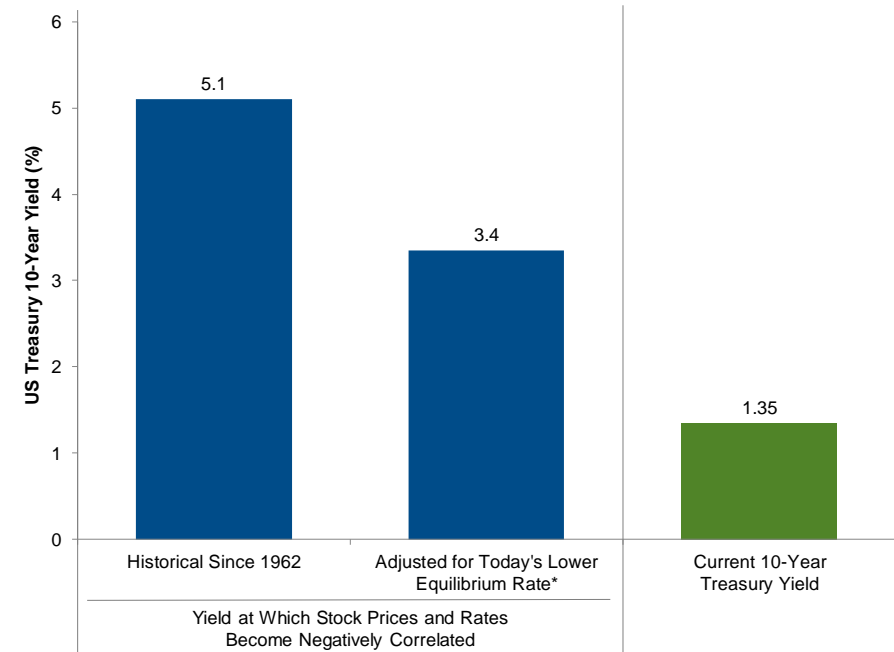
Source: Investment Strategy Group, Bloomberg.

Today's Low Interest Rates Support Higher Valuations and Have Room to Rise Before Being a Headwind for Equities

1. S&P 500 Implied Equity Risk Premium: Forward 12-Month Earnings Yield Less US Treasury 10Y Yield – As of September 8, 2021



2. Inflection Point for Negative Correlation Between Stock Prices and Bond Yields – As of September 8, 2021



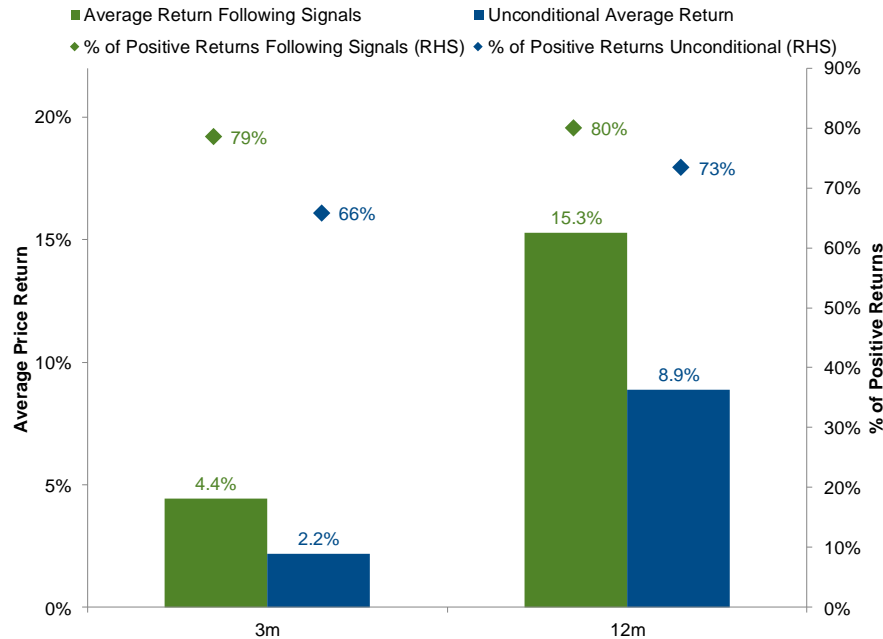
- Although absolute valuations have been higher than current levels less than 10% of the time, history teaches us that valuations should be viewed in the context of the macroeconomic backdrop.
- On this basis, relative valuations remain attractive. The implied equity risk premium (ERP)—the compensation for owning stocks instead of a risk-free Treasury bond—is still an above-average 3.4% despite strong equity gains YTD.
- An alternative measure of the implied equity risk premium by Professor Damodaran—a world-renowned valuation expert—also supports stocks' relative appeal, having been lower than current levels 67% of the time since 1960.
- Importantly, interest rates have room to rise in response to better real growth before jeopardizing this bull market.

* Adjusts for the reduction of 1.75 percentage points in the long-run equilibrium nominal rate, in line with the shift in Federal Reserve projections since 2012.

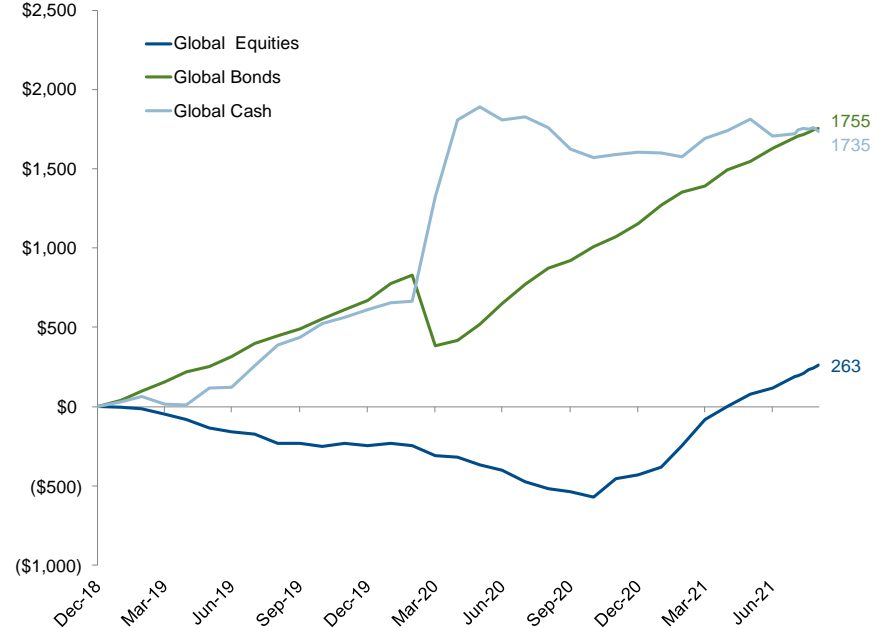
Source: Investment Strategy Group, FactSet, Bloomberg, Global Financial Data, Haver Analytics, Professor Aswath Damodaran of NYU Stern School

Recent Technical Signals and Broad Positioning Metrics Also Support Further Equity Upside

1. S&P 500 Returns and Batting Average After Three Consecutive Days When the Percent of Volume in Advancing Stocks Exceeds 75%, Since 1945



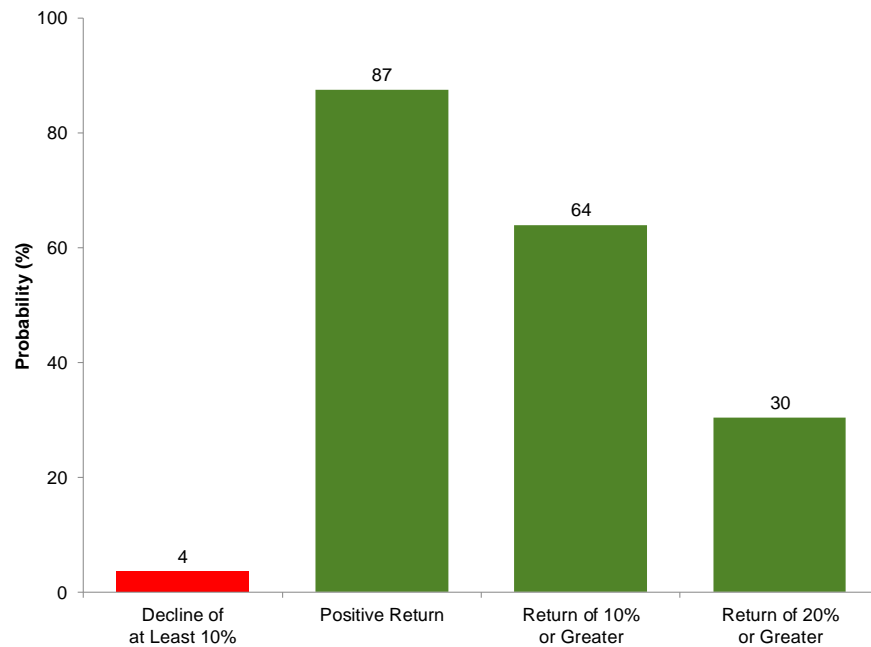
2. Cumulative Global Fund Flows Since Year-End 2018 (in \$bn) – Through September 1, 2021



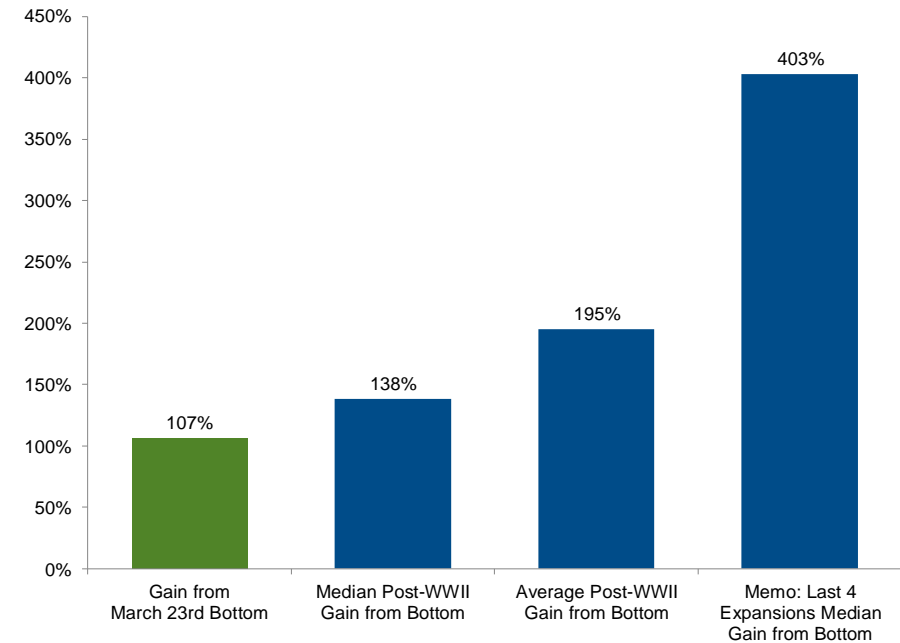
- Market peaks are typically preceded by fewer and fewer stocks participating in the rally. In contrast, the current backdrop still shows broad-based participation.
- Note late August saw three consecutive days where the volume of advancing stocks was more than 75% of total volume. Such “breadth thrusts” indicate strong investor demand that has preceded above-average returns in the past.
- We also see scope for further rebalancing into equities given the \$3.2 trillion difference between sizable cash/bond inflows and relatively small global equity inflows since the end of 2018.
- Corporations buying back their own shares is another source of equity demand. The GS buyback desk estimates that US companies will repurchase \$885 billion of stocks this year, an amount that ranks in the 95th percentile since 2000.

Equities are Likely to Deliver Attractive Returns During This Economic Expansion, as They Have in the Past

1. Odds of Various S&P 500 One-Year Total Returns During US Economic Expansions¹



2. S&P 500 Total Return from Equity Trough to Beginning of Next Recession² – As of September 8, 2021



- Our advice to clients remains to stay invested. Investors have enjoyed 87% odds of a positive return—and a much greater likelihood of large gains than of large losses—in years when the economy is expanding.
- In fact, nearly three-fourths of historical equity declines in excess of 20% occurred during US economic contractions.
- Past economic expansions have been associated with sizable cumulative equity gains, implying further upside despite the gains from last year's March low.
- Given these historical analogs and our fundamental views, we expect equities to deliver mid-single-digit annualized returns that we believe will be superior to cash and bonds for the foreseeable future.

(1) Based on data since 1945. (2) Recession start date is defined as the first date of the NBER business cycle peak month.

Consumer and Wealth Management

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Important Information

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Important Information

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The following table provides an example of the effect of management and incentive fees on returns. The magnitude of the difference between gross-of fee and net-of-fee returns will depend on a variety of factors, and the example has been simplified.

Period	Gross Return	Net Return	Differential
1 year	6.17%	4.61%	1.56%
2 years	12.72%	9.43%	3.29%
10 years	81.94%	56.89%	25.05%

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