

Global Macroeconomic Outlook
June 2021

Global Economic Outlook

After a lock-down of the global economy to slow the spread of the COVID-19 pandemic; the advent of vaccines has led the IMF to upgrade its economic forecasts for 2021.

- The IMF forecasts final global GDP to come in at 6.0% in 2021 and 4.9% in 2022; well above the past ten-year average of 2.9%.
- In advanced economies, GDP is projected to rise by 5.6% in 2021 and 4.4% in 2022, as economies re-open and vaccination progress is made. The US is expected to fare better this year, with a forecasted strong economic recovery of 7.0%. The euro-area is expected to grow by 4.6% in 2021 and 4.3% in 2022, while the Japanese economy is expected to grow 2.8% in 2021 and 3.0% in 2022.
- Growth projections have also been revised higher by the IMF for emerging markets, with 2021 at 6.3% and 5.2% in 2022. China is expected to see significant growth in 2021 of 8.1% and 5.7% in 2022.
- Globally, inflation is projected to be slightly above long-term averages in 2021, consistent with rising economic activity. Inflation in most developed economies is forecasted to be below 2.0%, however, strong growth in the US is expected to be accompanied with inflation in 2021 and 2022 higher than longer-term averages.

	Real GDP (%) ¹			Inflation (%) ¹		
	IMF 2021 Forecast	IMF 2022 Forecast	Actual 10 Year Average	IMF 2021 Forecast	IMF 2022 Forecast	Actual 10 Year Average
World	6.0	4.9	2.9	3.5	3.2	3.4
Advanced Economies	5.6	4.4	1.2	1.6	1.7	1.4
US	7.0	4.9	1.7	2.3	2.4	1.7
Euro Area	4.6	4.3	0.5	1.4	1.2	1.2
Japan	2.8	3.0	0.5	0.1	0.7	0.6
Emerging Economies	6.3	5.2	4.1	4.9	4.4	5.1
China	8.1	5.7	6.8	1.2	1.9	2.3

¹ Source: IMF World Economic Outlook. GDP Data from July 2021 update. Inflation data from April 2021. "Actual 10 Year Average" represents data from 2011 to 2020.

Global Economic Outlook (continued)

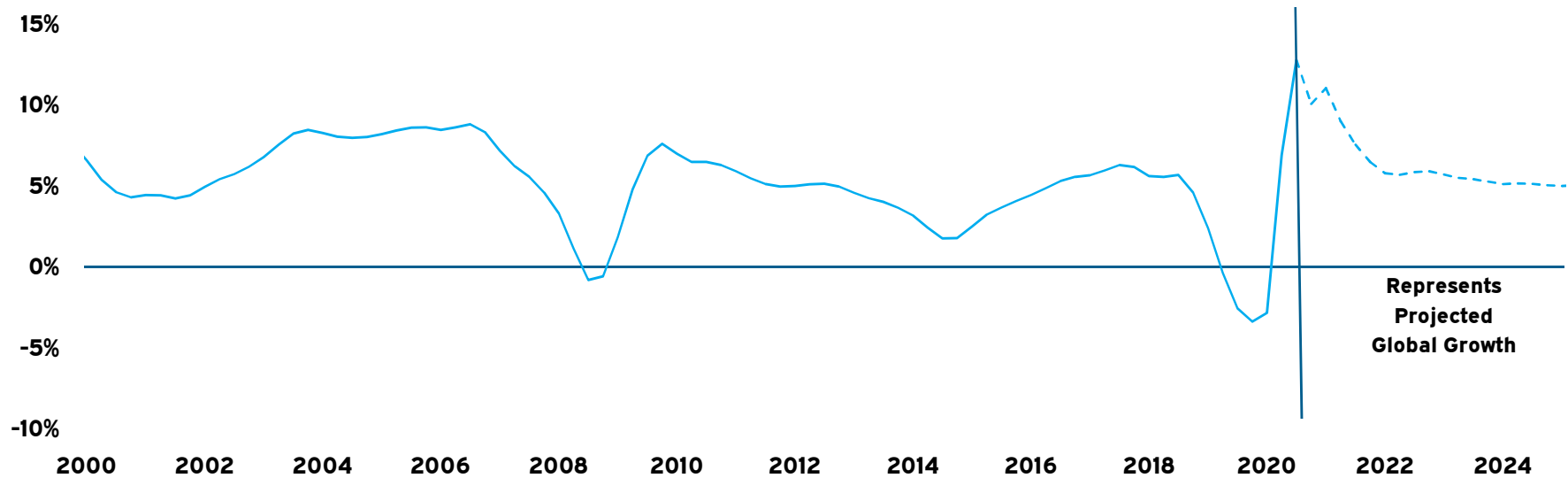
In an effort to stem the expected significant declines in economic activity, fiscal and monetary authorities across the globe responded with immediate and aggressive stimulus measures.

- US fiscal and monetary responses have been unprecedented. Fiscal authorities released over \$3.5 trillion in directed stimulus in 2020. The Biden administration immediately implemented another COVID-19 response of \$1.9 trillion in additional spending and support for unemployment and vaccination efforts. The new administration has an ambitious spending plan that they are proposing to be partially funded by comprehensive corporate tax reforms and income tax changes; the proposals are the Infrastructure Investment & Jobs Act (~\$1.0T)¹, and a yet unnamed social infrastructure budget outline (~\$3.5T) to address childcare, climate change, and other social goals. The scale of these proposals and reforms may undergo significant legislative changes. Monetary policymakers are actively considering the removal of accommodative measures, including the termination of the quantitative easing program, and the raising of policy rates in early 2023 should conditions continue to improve.
- While not all countries have sufficient space to launch ambitious fiscal countercyclical spending programs like the US, the monetary policy in advanced economies remains exceptionally accommodative as central banks engage in targeted quantitative easing and maintaining near-zero bound policy interest rates. A substantial portion of European and Japanese sovereign debt continues to offer lower yields than US debt, with many tenors pricing in negative nominal and real yields.
- Substantial upward growth revisions for the US economy and rising inflation expectations have put pressure on emerging market monetary policy makers who must navigate between supporting domestic economic recoveries and risking currency depreciation as US interest rates rise. In some emerging market economies, policy makers have been raising policy rates to combat regional inflationary risks.

We acknowledge the wide breadth of new concerns presented by the pandemic, and among those we are considering are the following: 1) Economies may not achieve herd (vaccination) immunity, resulting in weaker growth and potentially a need to re-deploy lockdown policies. 2) Consumers permanently, or for an extended period, changing economic behavior; 3) Persistently high unemployment due to a significant number of companies not surviving the economic downturn and childcare and school openings uncertainty, 4) Virus-related fears and supply chain disruptions affecting the future of globalization, and 5) The potential for policy errors including the risk of removing support measures too quickly or maintaining them too long.

¹ As of this writing the infrastructure package passed the Senate and is awaiting review by the House.

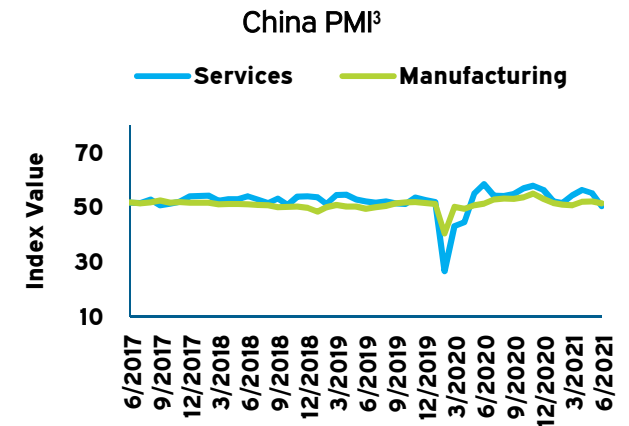
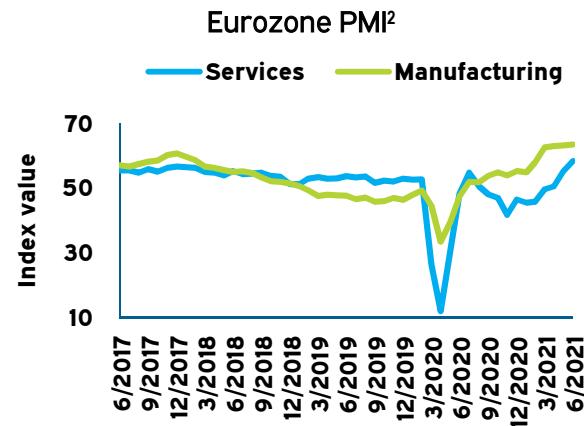
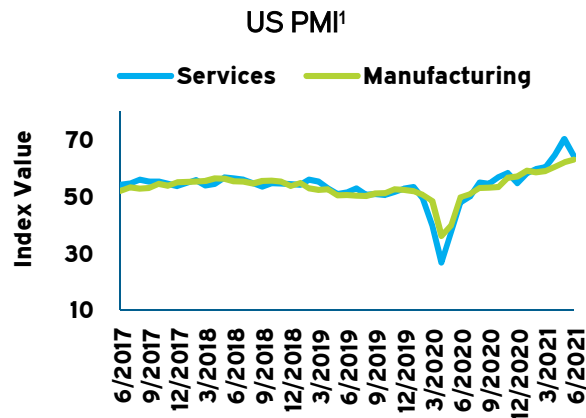
Global Nominal Gross Domestic Product (GDP) Growth¹



- Global GDP experienced a historic decline in the second quarter of 2020 due to the COVID-19 pandemic and the severe economic restrictions to stem the spread.
- With the development and distribution of a vaccine, along with the corresponding reopening optimism, a historic recovery started in Q3 2020 and continued through Q2 2021 for many countries.
- Looking forward, the impact of new variants, the ability for some countries to increase vaccination rates, and the longevity of the reopening impact will all be key issues.

¹ Source: Oxford Economics (World GDP, US\$ prices & PPP exchange rate, nominal, % change YoY). Updated June 2021.

Global PMIs

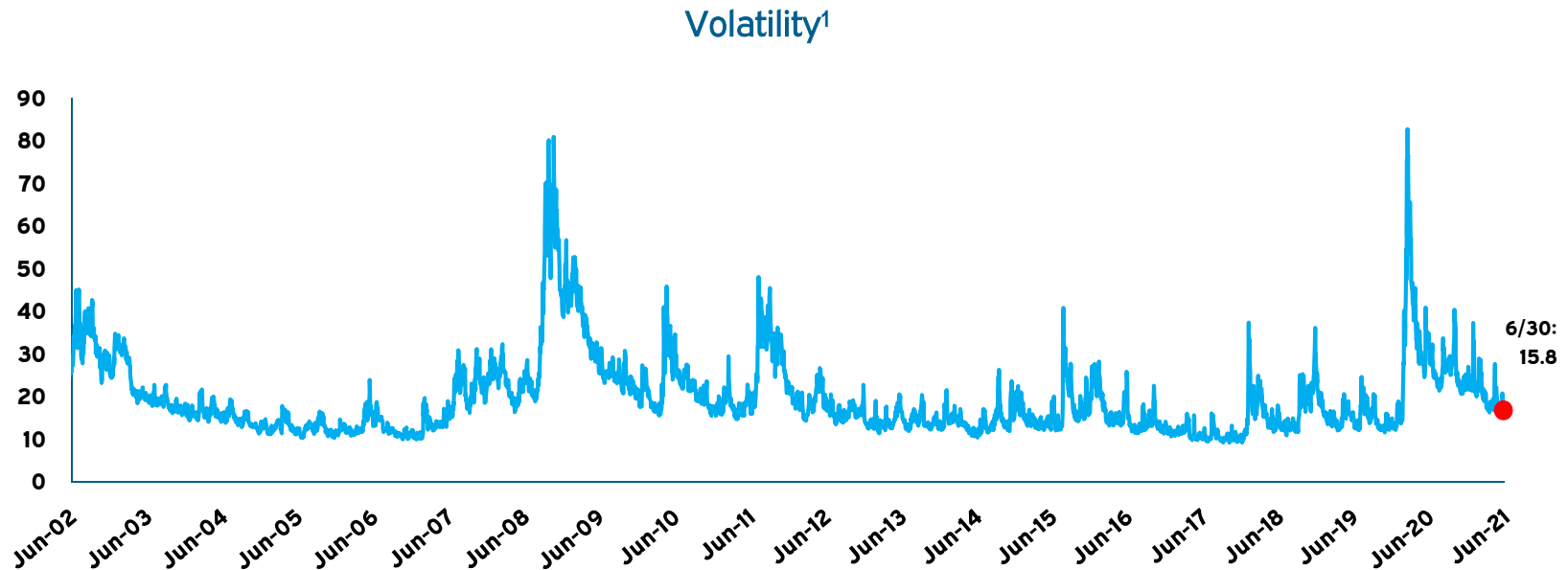


- Purchasing Managers Indices (PMI), based on surveys of private sector companies, initially collapsed across the world to record lows, as closed economies depressed output, new orders, production, and employment.
- Readings below 50 represent contractions across underlying components and are a leading indicator of economic activity, including the future paths of GDP, employment, and industrial production.
- After a period of underperformance, US services and manufacturing continued to accelerate to levels above pre-pandemic levels. In Europe, similar to the US, conditions continue to improve but have also shown signs of weakness over the last few months. After a notable return to full economic activity in the second half of 2020, the Chinese economy has begun to show signs of slowing, nearing contraction levels.

¹ Source: Bloomberg. US Markit Services and Manufacturing PMI. Data is as of June 2021.

² Source: Bloomberg. Eurozone Markit Services and Manufacturing PMI. Data is as of June 2021.

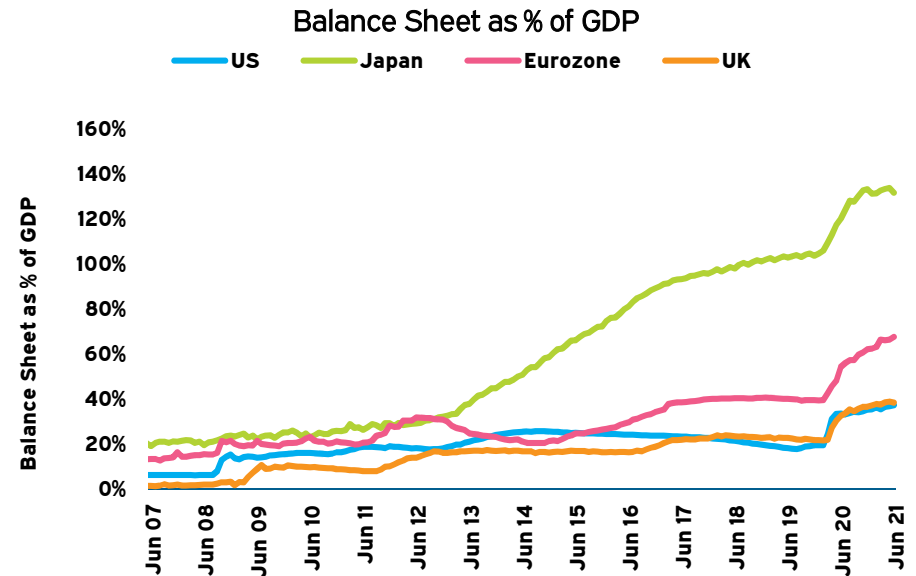
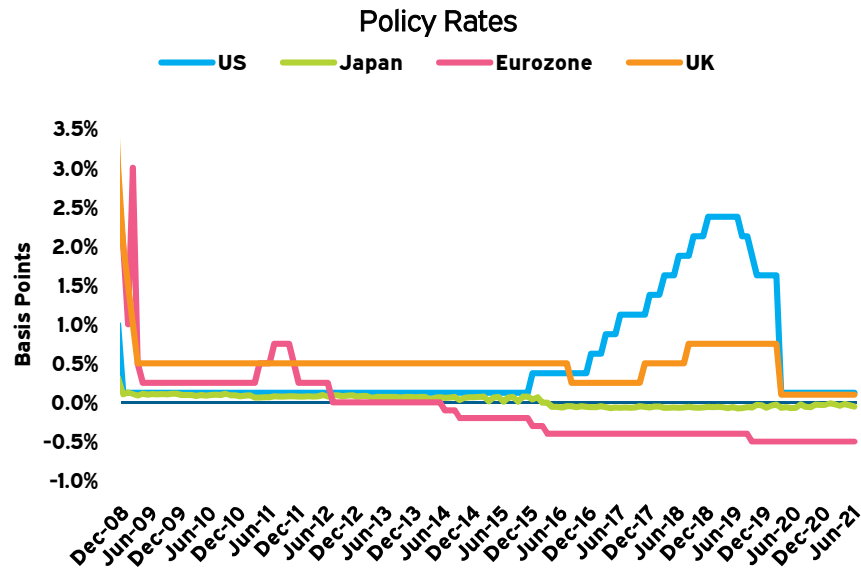
³ Source: Bloomberg. Caixin Services and Manufacturing PMI. Data is as of June 2021.



- With the fiscal and monetary support and corresponding improvement in investor risk sentiment, expectations of short-term volatility, as measured by the VIX index, declined relatively quickly from record levels.
- At the recent height, the VIX index reached 82.7, surpassing the pinnacle of volatility during the GFC, showing the magnitude of the crisis, and of investor fear.
- The continued vaccine distribution, waning inflationary fears, along with the continued backdrop of monetary and fiscal support, has led volatility expectations to continue to decline.
- The Delta variant of COVID-19 and its potential impact could disrupt the market calm going forward.

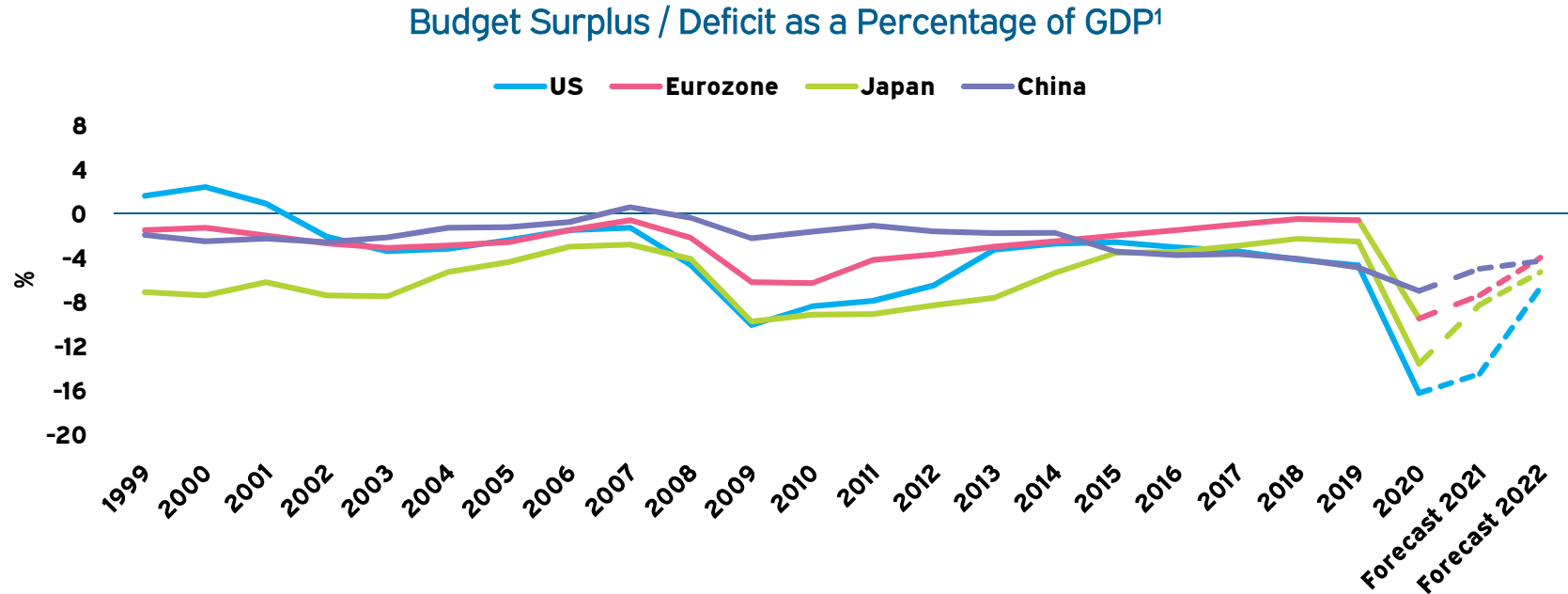
¹ Bloomberg. Represents daily VIX data and is as of June 30, 2021.

Central Banks Response¹



- Global central banks took aggressive policy actions as signs of economic deterioration emerged due to the restrictions put in place to stop the spread of COVID-19.
- Measures included the cutting of policy rates, deploying emergency stimulus through expanded quantitative easing, liquidity programs to support funding markets, targeted refinancing operations, and outcome-based forward guidance commitments to keep monetary policy accommodative until the pandemic is thoroughly under control.
- Now, with the widespread distribution of vaccines and improvements in growth, the key question is how central banks will remove support with the risk of policy errors.

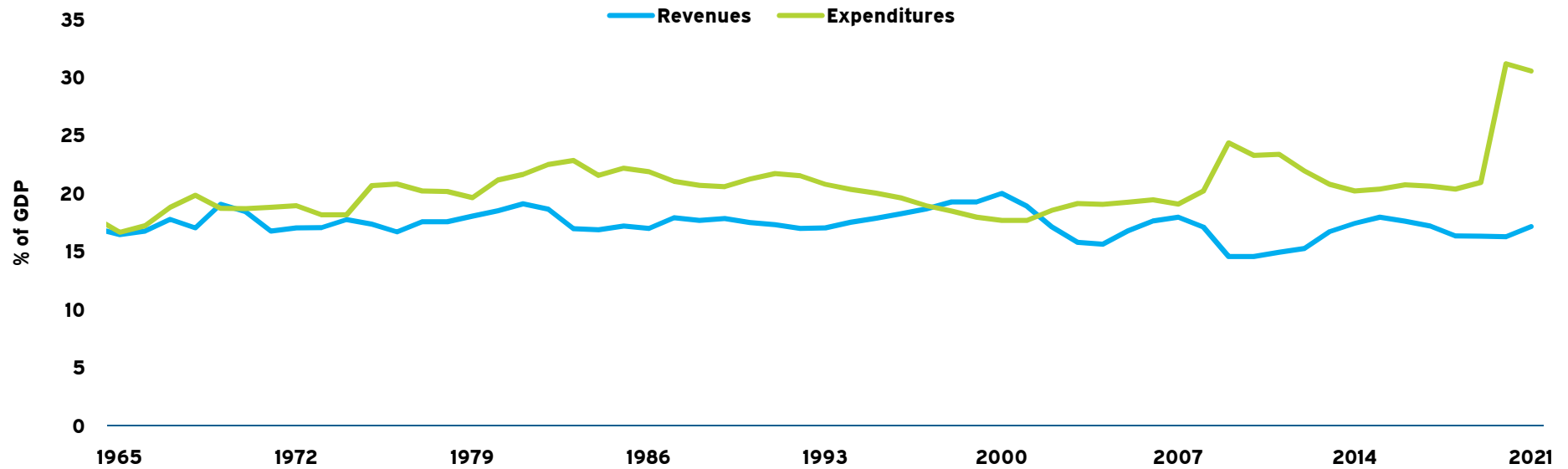
¹ Source: Bloomberg. Data is as of June 30, 2021.



- Budget deficits as a percentage of GDP are meaningfully growing for the major world economies due to the massive fiscal support and the severe economic contraction's effect on tax revenue.
- Thus far, fiscal and monetary policy stimulus measures have supported the recovery of asset prices, but the question remains whether they will be effective in generating real economic growth sufficient to increase employment and government revenues over the long-term.
- Deficits are forecasted to improve going forward as economies reopen, but if policy efforts fail to produce sufficient growth, they could remain historically high and require additional sovereign debt issuance.

¹ Source: Bloomberg. Data is as of December 31, 2020. Projections via Bloomberg Forecasts June 30, 2021. China sovereign debt to GDP excludes municipal debt and social financing.

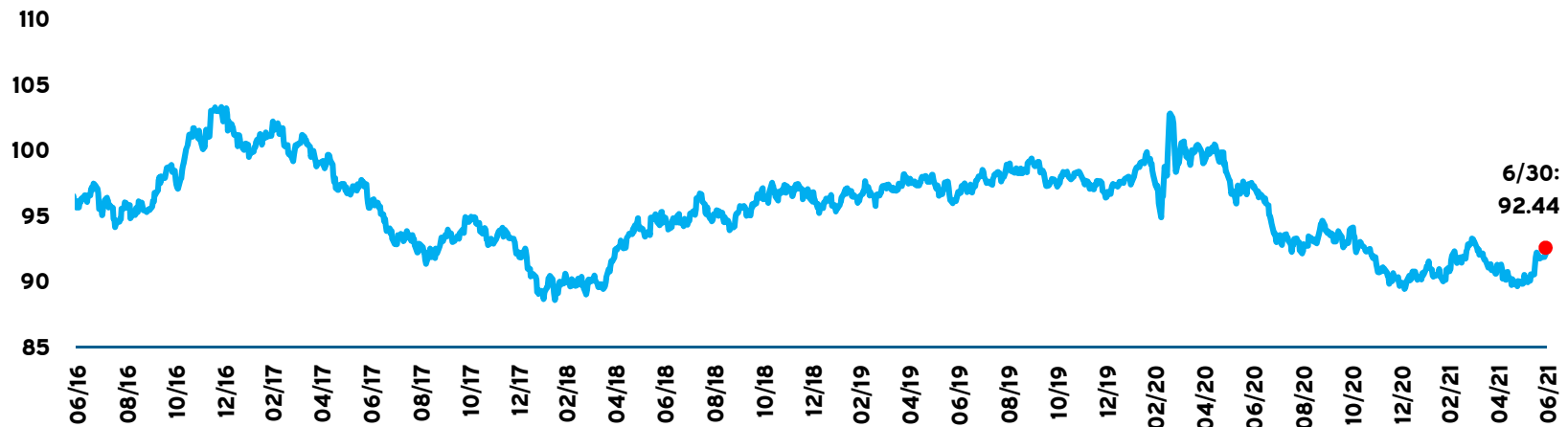
US Fiscal Stimulus so far in Context¹



- The spread between federal spending and receipts was relatively narrow from the 1960s until the Global Financial Crisis.
- With a few exceptions, the US government has spent more than it has taken in.
- The pandemic pushed expenditures as a percentage of GDP to above 30%, far exceeding revenues.
- Going forward, the pace of economic growth and potential changes to US tax policy will likely impact the degree to which this issue becomes a long-term risk for US borrowing costs.

¹ Source: Congressional Budget Office. Data is as of June 30, 2021.

US Dollar versus Broad Currencies¹

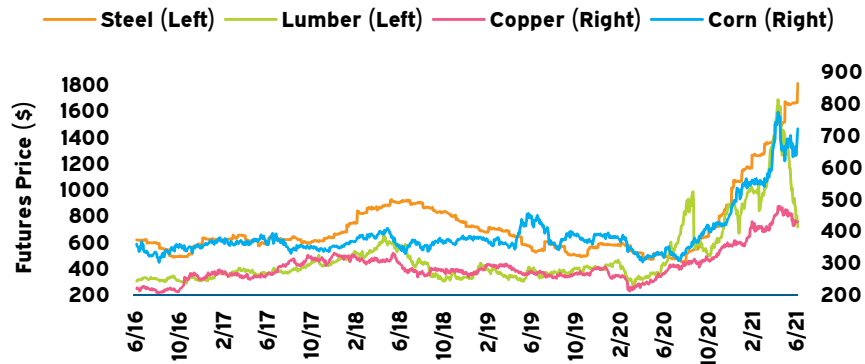


- For most of the early pandemic, investors looked to the safety of holding US dollars and highly liquid, short-term securities like US Treasury bills.
- From there, the dollar weakened through the second half of 2020, influenced by policy support and higher COVID-19 cases at that time.
- In 2021, the trade-weighted dollar found support in the first quarter based on improving economic conditions given the vaccine rollout and higher interest rates. The second quarter started with a decline in the value of the dollar as rates fell on declining economic growth expectations and finished with some strength likely given safe haven flows.

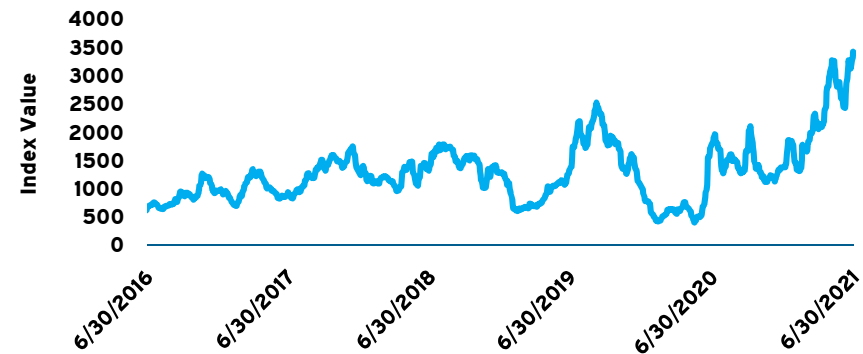
¹ Source: Bloomberg. Represents the DXY Index. Data is as of June 30, 2021.

The prices of raw materials are soaring, and supply chains are backlogged

Commodity Futures¹



Baltic Exchange Dry Index²

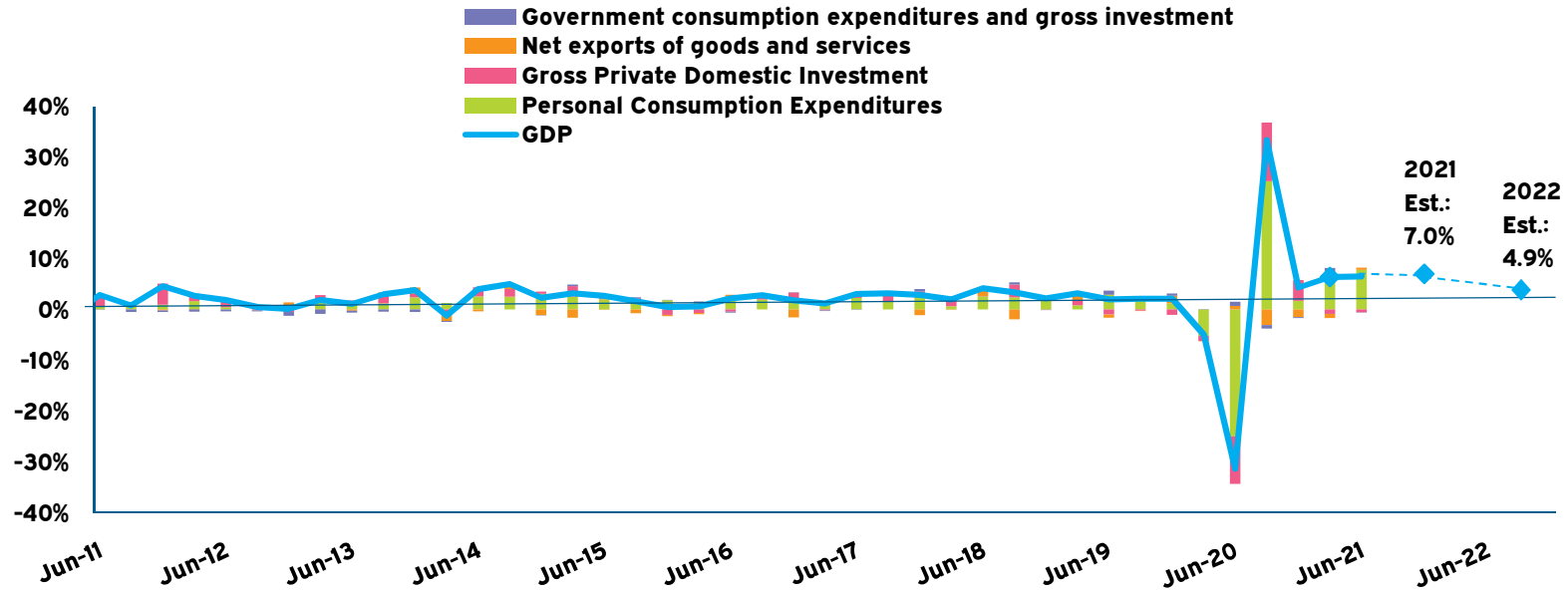


- The price of many raw materials like copper (14%), steel (34%), corn (17%), and lumber (16%) rose sharply in the first quarter, with significant increases continuing in the second quarter for steel. Lumber sharply declined recently as demand for building supplies fell, while corn and copper remained relatively flat. Price pressures have been driven by the pandemic's impact on supply and increasing demand as economies reopen. After quarter-end, many commodities dropped sharply as short-term bottlenecks began to subside and demand fears fell with the spread of the Delta variant; Steel remained flat.
- Increased demand, considerable port-container shipping congestion, and COVID-19 supply chain disruptions are driving up transportation costs for raw and finished goods (Baltic Exchange Dry Index).
- Many companies cited these rising costs in recent earnings calls, however, robust earnings growth for the quarter suggests that companies may have significant pricing power and that many plan to pass higher costs to consumers, contributing to inflationary fears.

¹ Represents the first futures contract for each respective commodity. As of June 30, 2021.

² Baltic Exchange Dry index represents time charter averages to the BDI are as follows: 40% Capesize, 30% Panamax, and 30% Supramax. As of June 30, 2021.

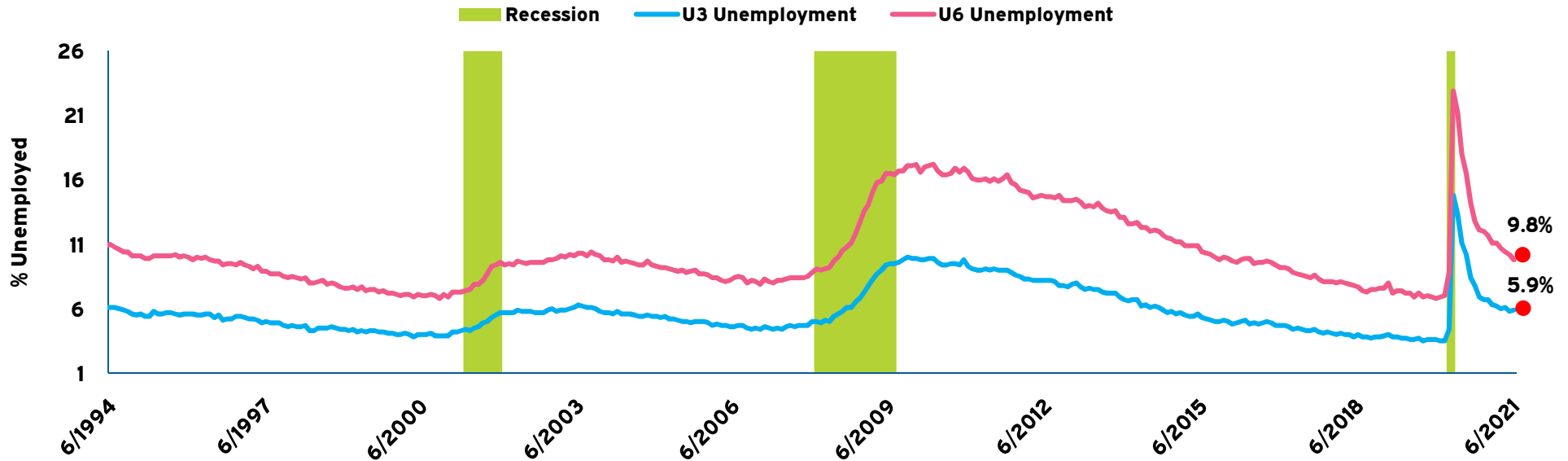
US Real Gross Domestic Product (GDP) Growth¹



- After a record decline in GDP during the second quarter (-31.4% annualized), the US economy recovered in the third (+33.4 annualized) and fourth (+4.3%) quarters of 2020 as the economy slowly reopened.
- For the first quarter of 2021, real GDP rose by 6.4% annualized driven by consumption supported by an acceleration in the pace of vaccinations. This progress continued with 6.5% growth in the second quarter.
- US growth is forecasted to rebound by 7.0% in 2021, as the economy normalizes, but start moving toward long-term growth trends in 2022 as post-pandemic spending likely slows.

¹ Source: US Bureau of Economic Analysis. Data is as of the second quarter of 2021 and represents the first estimate. Annual projection for 2021 and 2022 via IMF World Economic Outlook July 2021.

US Unemployment¹

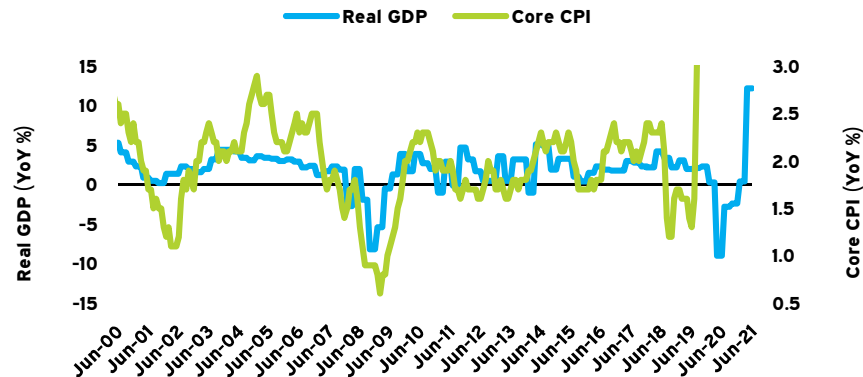


- In June, the unemployment rate (U3) continued its decline from the April 14.7% peak, falling to 5.9%. This trend also continued after quarter-end with the July unemployment rate coming in at 5.4%.
- The broader measure of unemployment (U6) that includes discouraged and underemployed workers is much higher at 9.8%, showing further evidence of the slack in the labor market, though that number also continues to decline
- Despite recent improvements, unemployment levels remain above pre-virus readings and are likely higher than reported, as the total labor force participation rate remains below pre-COVID levels.
- The track of the labor market will be a key issue going forward as the Federal Reserve considers reducing its policy support.

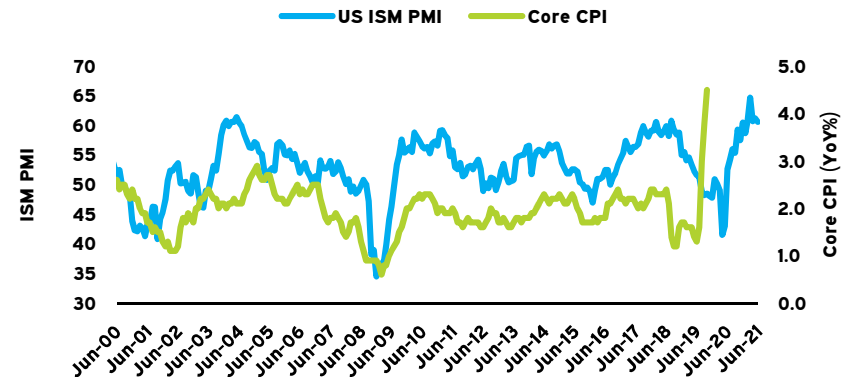
¹ Source: Bloomberg. Data is as of June 30, 2021. Bars represent recessions as observed by the National Bureau of Economic Research.

US Inflation^{1, 2}

Real GDP vs. Core CPI (Lagged 28 Months)



ISM PMI vs. Core CPI (Lagged 21 Months)

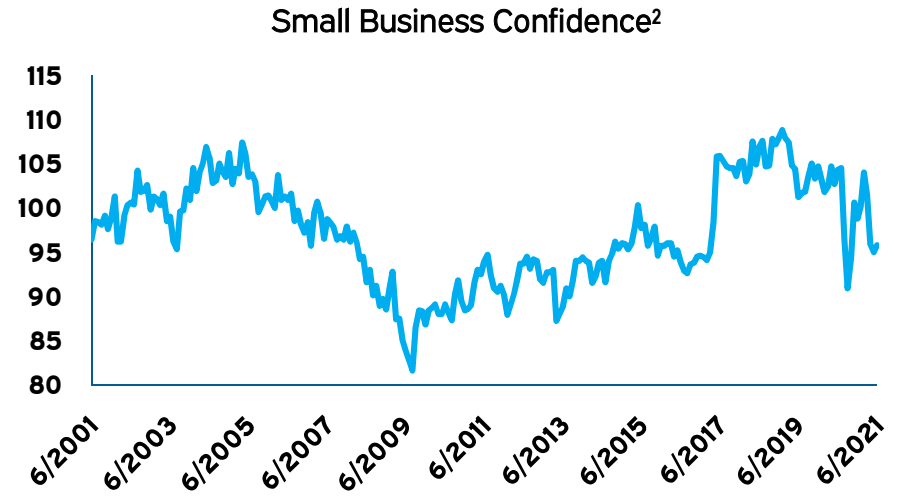
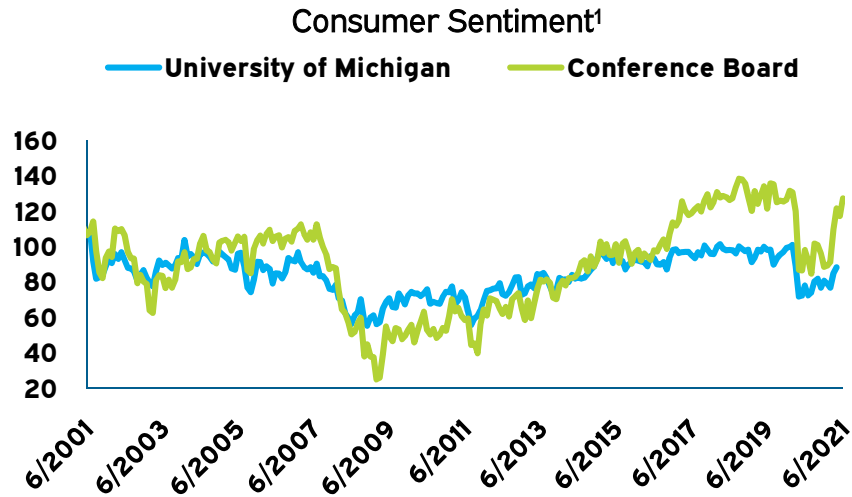


- Inflation is considered a lagging indicator, reflecting past economic conditions.
- This leads to today's economic conditions being a means of forecasting future inflation levels.
- Real GDP and manufacturing indicators, like the ISM Purchasing Managers' Index, have historically been useful indicators of future inflation.
- Initially, manufacturing data and GDP declined dramatically from their peaks. This led to aggressive fiscal and monetary responses in the US (and globally) to help mitigate the impact of the pandemic on the global economy. This resulted in improvements in the data and subsequently significant increases in inflation.
- Given that growth improved quickly due to the vaccine rollout leading to forecasts declining going forward, along with continued slack in the labor market, inflationary pressures could slow going forward, and particularly so as supply disruptions get resolved.

¹ Source: Bloomberg. Data is monthly and as of June 30, 2021 for Core CPI. Data for US Real GDP is annual and as of the second quarter (first estimate). It is compared to each monthly CPI data point for the respective quarter for illustrative purposes.

² The last data point for ISM PMI and Core CPI represents the June 30, 2021 values.

Sentiment Indicators



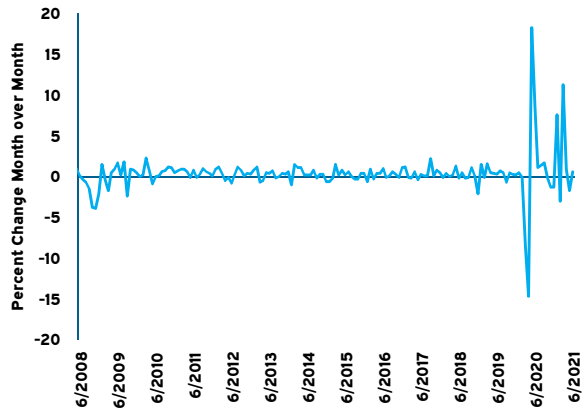
- The attitudes of businesses and consumers are useful predictors of future economic activity.
- Consumer spending comprises close to 70% of US GDP, making the attitudes of consumers an important driver of economic growth. Additionally, small businesses generate around half of US GDP, making sentiment in that segment important too.
- Consumer sentiment has improved as the economy re-opens, while small business optimism recently declined given supply issues and difficulties in hiring.
- Increasing cases, including from new variants, could weigh on sentiment going forward.

¹ Source: Bloomberg. University of Michigan Consumer Sentiment Index and Conference Board Consumer Confidence Index. Data is as of June 30, 2021.

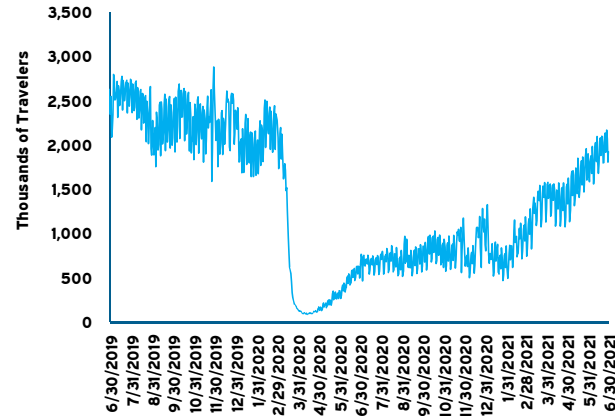
² Source: Bloomberg. NFIB Small Business Optimism Index. Data is as of June 30, 2021.

US Consumers are beginning to venture out again

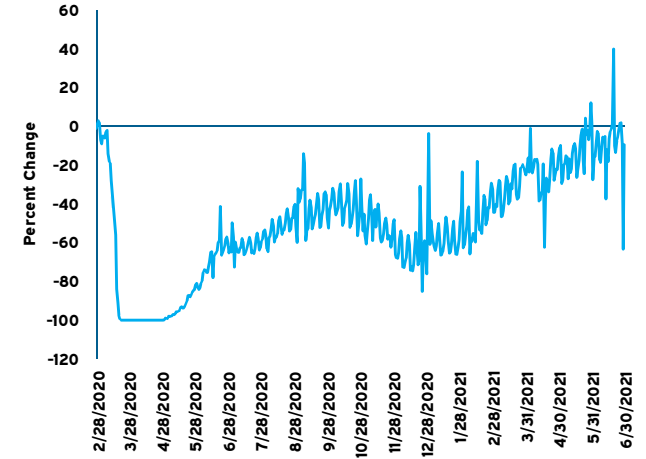
Retail Sales¹



US TSA Checkpoint Travelers²



OpenTable Seated Diners YoY % Change³



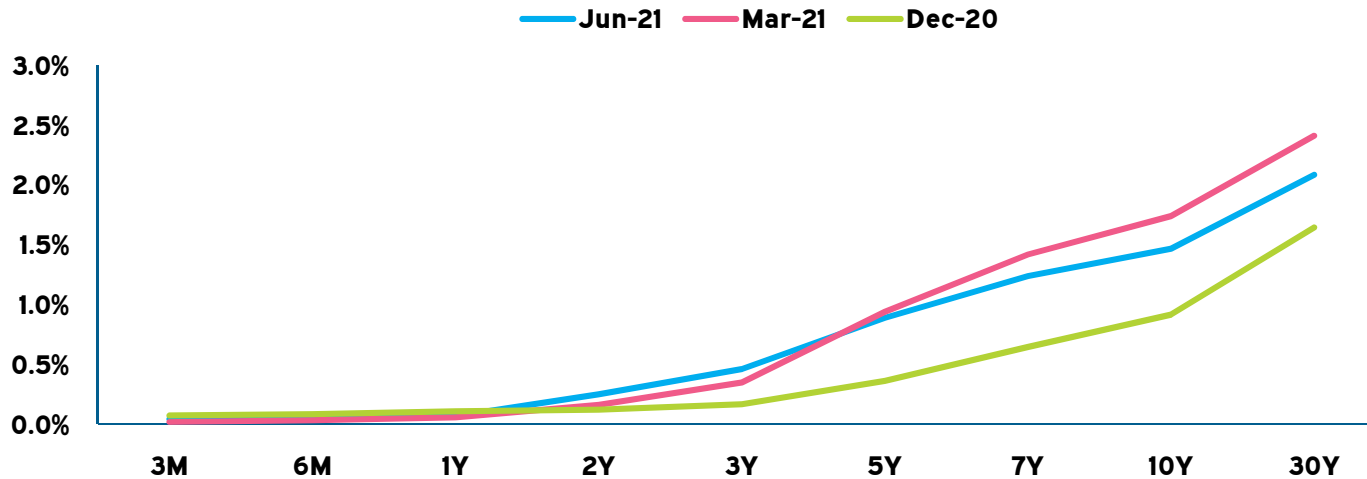
- There have been improvements in high frequency data as more people become vaccinated, but risks remain as COVID-19 cases surge in certain areas.
- Consumer activity in stores has increased as restrictions eased and stores reopened, but figures have been volatile since late-2020 with the stimulus payments being rapidly spent.
- Travelers have slowly returned to the skies, returning to almost pre-pandemic levels.
- Restaurants saw initial improvements before declining with the fall spike in cases and rising again after the holidays. Many areas have eliminated restrictions on in-store dining, driving activity close to pre-pandemic averages in some regions, while others have been impacted by the recent spike in cases from the Delta variant.

¹ Source: Bloomberg. Data is as of June 30, 2021 and represents the US Retail Sales SA MoM%.

² Source: Bloomberg. Data is as of June 30, 2021 and represents TSA checkpoint daily travel numbers.

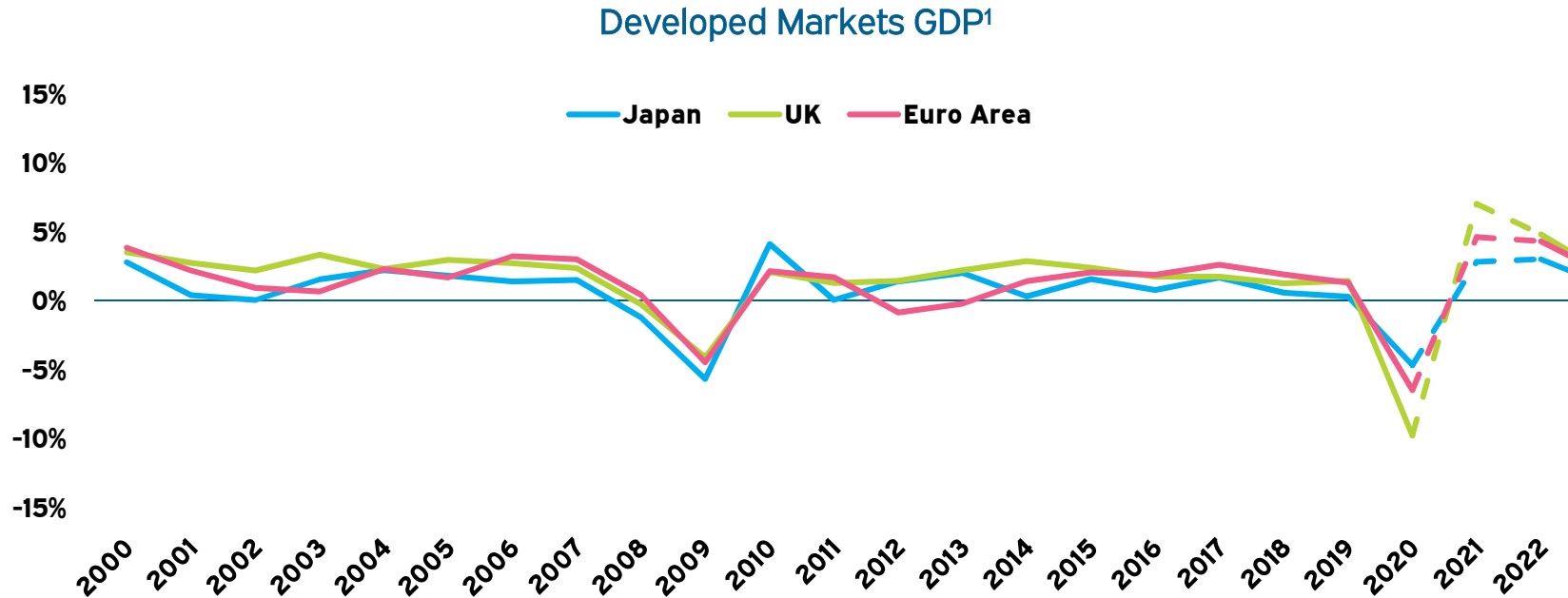
³ Source: Bloomberg. This data shows year-over-year seated diners at restaurants on the OpenTable network across all channels: online reservations, phone reservations, and walk-ins. Only states or cities with 50+ restaurants in the sample are included. All such restaurants on the OpenTable network in either period are included. Data is as of June 30, 2021. Index start date 2/28/20.

US Yield Curve Steepens in Q1 then flattens on Delta Variant Concerns¹



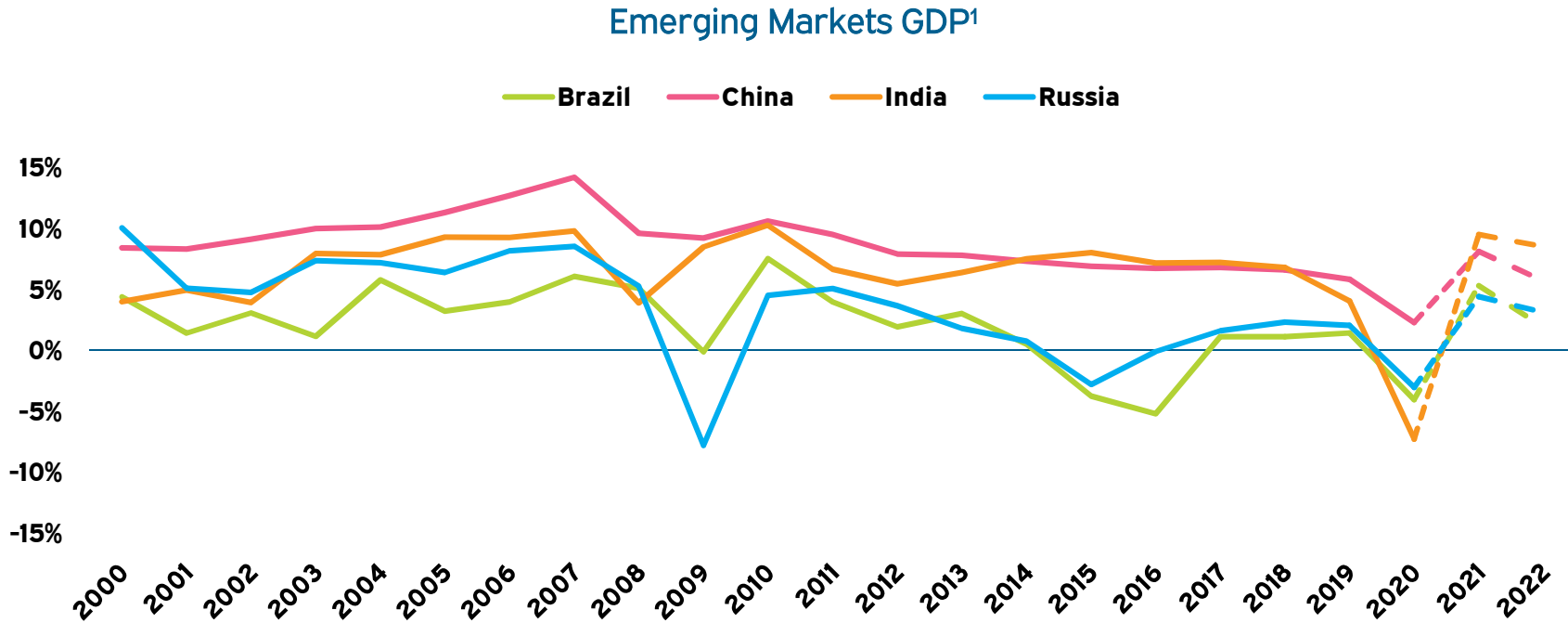
- The US Treasury yield curve declined materially during 2020, driven by safe-haven demand, Federal Reserve policies (policy rate cuts and the quantitative easing program), and weak US economic fundamentals.
- In Q1 and early Q2, the yield curve steepened on gradual signs of economic improvement, inflationary fears, vaccine developments, and expectations for longer-dated Treasury issuance to support additional fiscal stimulus in the coming months.
- Recently, the Delta variant of COVID-19 and a potential peak in growth drove longer dates yields lower.

¹ Source: Bloomberg. Data is as of June 30, 2021.



- Like the US, other developed countries fell at historic rates in the second quarter of last year and posted recoveries after, with negative full year results ranging from -9.9% in the UK to -4.8% in Japan. Economic activity in the euro area declined 6.6% in 2020.
- Looking ahead, growth recoveries are also expected, although at lower levels than the US, as some countries continue to struggle with containing the virus and vaccine distributions.

¹ Source: IMF. World Economic Outlook. July 2021 update. Estimates start after 2020.



- Emerging markets, broadly, are expected to see economic recoveries in 2021 but containment of the virus and access to vaccines and treatments remain key concerns.
- India and Brazil recently experienced a devastating next wave of the virus. With many developed countries further along in the vaccination process and the supply of vaccines increasing, support may be diverted to harder hit areas.
- By contrast, China's economy reaccelerated in the second half of 2020 leading the global economic recovery, but looking forward growth is expected to moderate to sub-6% GDP in 2022 from the close to 10% level in 2020.

¹ Source: IMF. World Economic Outlook. July 2021 update. Estimates start after 2020.

Summary

Several issues are of primary concern going forward:

- 1) **Economies may not achieve herd (vaccination) immunity, resulting in weaker growth and potentially a need to re-deploy lockdown policies.**
 - Vaccination rates have picked up in many countries, but supply challenges remain as well as concerns over taking the vaccine. New COVID-19 variants and breakthrough cases could also work to prevent herd immunity.
 - Renewed lock-downs and vaccine passports could interrupt reopening economic momentum.

- 2) **Consumers permanently, or for an extended period, changing economic behavior.**
 - The COVID-19 pandemic resulted in an immediate change to societal norms that could last beyond the actual virus, particularly if vaccination rates do not reach critical levels. Consumer spending was also supported by various government programs that are set to expire.
 - The eviction moratorium that was recently extended could again expire in October with an estimated 15 million Americans facing eviction, leading to significant economic damage and virus concerns.
 - As enhanced unemployment benefits are set to expire soon, US consumer savings rates are falling limiting potential pent-up demand.

- 3) **Persistently high unemployment due to a significant number of companies not surviving the economic downturn and childcare and school openings uncertainty.**
 - Persistently high unemployment due to the failure of companies (and potentially entire sectors) and changing consumer preferences could hurt the growth of economies.
 - Virus related fears including increasing cases due to variants, childcare issues, and a mismatch of skills between those that have lost jobs with available jobs could also weigh on the labor market.
- 4) **Virus-related fears and supply chain disruptions affecting the future of globalization.**
 - Appetite for globalization was waning before the pandemic, as seen in the increase in populist and anti-trade sentiment over the last few years. This has been perhaps most evident in the trade wars initiated by the prior US administration against several trading partners, including China and Europe.
 - Fears about future viruses and pandemics will likely further increase this risk as governments consider measures to mitigate the possibility.
- 5) **The potential for policy errors including the risk of removing support measures too quickly or maintaining them too long.**
 - Both fiscal and monetary authorities have increasingly been discussing the potential to remove or allow the expiration of emergency measures taken to support consumers and the economy.
 - With economic uncertainty still elevated, government institutions run the risk of tightening financial conditions too quickly and negatively impacting the still fragile economic recovery. On the other side, maintaining accommodative stances too long could lead to higher, and potentially persistent, inflation.

Disclaimer

These materials are intended solely for the recipient and may contain information that is not suitable for all investors. This presentation is provided by Meketa Investment Group (“Meketa”) for informational purposes only and no statement is to be construed as a solicitation or offer to buy or sell a security, or the rendering of personalized investment advice. There is no agreement or understanding that Meketa will provide individual advice to any advisory client in receipt of this document. There can be no assurance the views and opinions expressed herein will come to pass. Any data and/or graphics presented herein is obtained from what are considered reliable sources; however, its delivery does not warrant that the information contained is correct. Any reference to a market index is included for illustrative purposes only, as an index is not a security in which an investment can be made and are provided for informational purposes only. For additional information about Meketa, please consult the Firm’s Form ADV disclosure documents, the most recent versions of which are available on the SEC’s Investment Adviser Public Disclosure website (www.adviserinfo.sec.gov) and may otherwise be made available upon written request.