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Vantage Point

Q4. 2021

Air Pocket

Introduction

Welcome to the latest edition of Vantage Point, the quarterly economic and market outlook from the Global Economics and Investment Analysis team at BNY Mellon Investment Management.

The worldwide economic recovery from the pandemic has been extraordinary. It is worth dwelling on this since good news is often lost in the maelstrom of pessimism that dominates the media. By the middle of 2021, world GDP had not only surpassed its pre-crisis level of economic activity, it was now within a few percentage points of the pre-crisis trend – the level of economic activity we might have expected to be at by now had the pandemic never struck. It is worth remembering that the economic consensus as recently as the first quarter of this year – echoed by institutions like the IMF and OECD – was that world economic activity wouldn't get back to pre-crisis levels (let alone the pre-crisis trend) until 2022.

That positive economic surprise vindicates to a large degree the optimism of equity markets during 2020 and the first half of this year. It seems markets have done a better job of predicting the economy than most economic forecasters. The S&P 500 has undoubtedly had a really good run, it is 29% above its immediate pre-crisis level and 31% above the post-GFC, pre-Covid-19 trend.

Despite that bright background, attention is once again shifting towards the challenges ahead. While the world economy has done well, there has been enormous variation between countries, with Asia and the US generally ahead of Europe and some emerging economies. Countries that have suppressed the virus effectively, either through social restriction or widespread vaccine rollout have generally done better, though going forward it is likely to be those that vaccinate their populations that do best. Moreover, growth appears to have slowed significantly coming into Q3. Concern about the spread of the delta variant has undoubtedly contributed to this, not because it is intrinsically more dangerous or vaccine-resistant, but because it is more contagious, leaving base infection levels high and households cautious.

On top of that, global goods supply chains have been put under enormous pressure as supply infrastructure in shipping, haulage and air transport has struggled to keep up with booming demand. The result has been high-profile shortages and backlogs in a number of goods-producing industries, while inventory levels have fallen sharply. At the same time, labour markets have struggled to meet the redeployment of resources required by huge shifts in relative demand – leaving some key service sectors such as hospitality short of workers despite relatively high unemployment rates.

Meanwhile, inflation continues to surprise to the upside in a number of countries. To a large extent this reflects rising goods prices, which result from the supply disruption and strong demand described above. Rising prices are less of an issue in the service sectors, except perhaps in the US. To some extent then, higher inflation is a statistical artefact of big relative price changes in the wake of a huge shock that affects the aggregate price level for a year or so. This is the sense in which it might be transitory: once the price level adjustment drops out of the year-on-year inflation calculation next year inflation will fall back to target levels. Markets – notably fixed income markets – seem to be more convinced of this argument than they were three months ago, in part because central banks have been communicating more effectively. But we still think inflationary pressure and/or higher interest rates remain a real risk – and a higher risk than markets seem to be pricing in.

Finally, the slowdown in China is grabbing the markets' attention. It is becoming increasingly clear that the strong Chinese recovery, following its greater success in effective virus control, was led by exports and production, while consumption lagged somewhat. Now that inventories have built up (in contrast to many other countries), output is beginning to slow again, back to an underlying growth trend that is lower than we saw pre-pandemic. There are a number of reasons for this, but key amongst them is the Chinese authorities' relative unwillingness to loosen fiscal policy or reverse the credit tightening we saw earlier this year. The authorities remain focused on rebalancing and deleveraging so have been less keen to indulge in credit-driven fiscal pump-priming than they have in the past.

The Chinese property market looks increasingly vulnerable too, as tighter credit settings and stricter regulations have begun to weaken property sales and

prices. This in turn threatens the financial viability of over-leveraged property developers, most notably Evergrande. We doubt if this will spiral into a full-blown financial stability crisis – Evergrande shareholders will bear most of the cost of its bankruptcy, while Chinese banks (and, ultimately depositors and taxpayers) may be asked to bail out pre-paying customers and other key creditors (at a relatively low cost). However, in the absence of a credible intervention framework, markets will remain volatile, and contagion could spread quickly. A box on page 29 explains the situation in more detail.

With the focus shifting towards faltering growth in the second half of the year, markets are jittery, and we may see some volatility in the next few months. Our scenarios cover all the issues raised above and more. They haven't changed much since we last published, nor have the probabilities we attach to them, but there are two important innovations we want readers to be aware of.

First, the return of the world economy close to the pre-crisis trend has so far been driven by the return of savings to normal levels as a proportion of incomes. We haven't yet seen any significant drawdown of the 'excess saving' built up during the pandemic lockdowns which, if spent, would drive saving ratios below normal for a while. These assets remain huge: around 15% of personal income on average across the major economies with the bulk held in cash. We now think they represent a large upside risk to aggregate demand once fears about delta and supply chains have dissipated. Both our inflationary scenarios incorporate a significant drawdown in these 'buffer-stock' assets, pushing aggregate demand well above the pre-crisis trend. By contrast, in our single-most-likely 'good recovery' scenario, they remain largely idle, or are used to pay down debt or buy other assets instead. Another key feature of the 'good recovery' scenario is that 2021H2 is significantly weaker than it was three months ago – an 'air pocket' in which fear and uncertainty combine to hold spending back, though it recovers strongly in 2022.

Second, we debated long and hard whether to incorporate China slowdown as a new, separate scenario. We have chosen not to this time, but will monitor events closely and could well move in that direction come the end of the year. For now, a meaningful China growth disappointment in China forms a key part of our 'bad recovery' scenario.

We retain our two inflation scenarios which, as before, are distinguished not by what happens to inflationary pressure, but by what central banks decide to do about it. In both scenarios, aggregate demand, driven by a drawdown in excess savings, runs well ahead of economies' capacity to supply, both in goods and labor markets. In other words, firms find it hard to source sufficient inputs, inventory and labor to meet demand in both goods and service sectors. As a result, they have to raise prices. In the 'tight money' scenario, persistently high and rising inflation causes central banks to tighten monetary policy – tapering, raising interest rates and selling assets – much sooner than markets currently expect and inflation falls back towards the end of our forecast horizon. By contrast, under 'overheating' central banks allow the economy and inflation to run hot for a while before realizing they have to slam on the brakes even harder.

I mentioned above that our scenario probabilities haven't changed much: we retain a 40% probability for our single-most-likely, consensus-like 'good recovery' scenario. The two inflation scenarios, 'tight money' and 'overheating' get 25% each, while the 'bad recovery' scenario gets 10%. Our fan chart forecasts for growth are a little less downward skewed than they were three months ago and the central paths still show robust recovery, though delayed slightly into 2022. The inflation fan charts remain skewed to the upside, most notably in the US. And while monetary policy is likely to remain loose for some time, our forecasts suggest there is a reasonable probability of tightening much sooner than the markets currently expect.

The implications for asset performance are pretty straightforward. 1- and 2-year equity returns remain positive in our central cases, but risks are skewed to the downside and uncertainty is high. We could see a lot of volatility in H2 as markets try to work out how long-lasting the slowdown is. Sovereign fixed income continues to play a useful hedging role in portfolios until or unless markets are surprised by an early monetary tightening. Credit looks more vulnerable than equities, especially if the recovery is marked by an unusually high level of defaults once support is removed. Alternatives and good active security/manager selection play a larger role than normal in ensuring portfolio robustness. Interest rate protection is likely to be as important as the inflation hedge.

I hope you enjoy reading the rest of the document and, as ever, we are grateful for any feedback.

SHAMIK DHAR
CHIEF ECONOMIST

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Executive Summary

WHAT WE THINK – ECONOMIC SCENARIOS

40%

Good Recovery

Vaccines remain effective and are rolled out around the world. Despite the spread of delta, economies are resilient and learn to live with Covid. Global herd immunity is reached over the next year. While pent-up demand and the lagged impact of stimulus remain substantial, growth is slower through early-2022 compared with our last report but resumes momentum once delta fears subside. Excess savings remain largely unspent as consumers hold onto their cash, invest, or use them to pay down debt. Growth is stronger in countries with rapid and widespread vaccine roll out and the recoveries in Europe and emerging markets gain momentum. Frictions in labor markets, particularly in services such as hospitality, and supply-chains begin to unwind. Labor is deployed to areas where demand is the strongest. Order backlogs and delayed deliveries for goods fade as inventories are gradually rebuilt. Inflationary pressure matches market and Fed estimates and cools during 2022. The Fed begins to taper in November, but rate hikes remain on hold until late '22. Risk assets progress steadily with some pockets of volatility and small but brief corrections and bond yields drift higher. China contagion is contained and while growth momentum remains skewed to the downside, the rest of EM stays resilient given strengthening domestic recoveries and an easy Fed.

25%

Overheating

Stronger growth than 'good recovery' largely due to the drawdown in excess savings particularly in the US. The lagged effects of fiscal and monetary stimulus are large and boost an already booming economy. Supply is unable to keep up with demand as jobs are not well matched with available workers, while supply-side bottlenecks last longer than expected. Inflation remains high and the Fed begins tapering in Q4 but delays rate hikes thanks to its average inflation targeting framework and unemployment targets. With strong demand, restricted supply, easy policy, and the substantial boost from stimulus and savings, the US economy "overheats." Inflation expectations begin to destabilize in the first half of 2022 driving yields higher. Volatility picks up but the Fed reinforces its "strategic patience", stabilizing sentiment. Price pressures build further, and high inflation turns out to be "stickier" than expected. The Fed is eventually forced to react. It raises rates aggressively starting in Q1 '23 and triggers a market correction. Yields rise sharply and the USD strengthens, causing carry trades to unwind, notably dollar-denominated emerging market debt.

PROBABILITY*

SCENARIO

25%

Tight Money

Economic recovery and inflationary pressures build just as in ‘overheating’. However, in this scenario, the Fed tightens monetary policy much sooner than markets currently expect. The Fed surprises the market with rate hikes in the first half of ’22 and allows balance sheet to start shrinking in the latter half of ’22, immediately after tapering is over. A version of the “taper tantrum” ensues as yields climb steeply. The Fed tightens at a lower trailing average rate of inflation and higher level of unemployment than under ‘overheating’. Ultimately, the hit to markets and the economy is negative but smaller than in overheating. This is because the Fed has to adjust less to bring down and re-anchor inflation expectations. Growth stabilizes and picks up again in the second half of ’22 while inflation moderates.

10%

Bad Recovery

In this scenario, ‘bad news’ dominates ‘good.’ Governments in advanced economies focus on cases, rather than hospitalizations, and some restrictions are reimposed in Autumn/Winter ‘21/’22 as the delta variant continues to circulate, even in highly vaccinated countries. Although the macro impact is less severe than earlier shutdowns, global economy nevertheless takes a hit. This also magnifies the divergence between countries. The delta variant surges in many EMs (including China) with further restrictions and lockdowns required. COVID-19 remains an issue in many EMs in 2022 and 2023. China’s sequential growth outlook worsens sharply as authorities focus on rebalancing and deleveraging and are less willing to ease fiscal and monetary policy. Overall global growth remains sluggish, and inflation is low as global recovery is de-synchronised. Monetary and fiscal policy remain accommodative. Market risk premia remain elevated in face of rising uncertainty and volatility. Credit markets weaken, especially high yield. Bond yields trend lower and remain depressed. Fixed income performs well relative to equities in this scenario.

CAPITAL MARKET PRICING – WHAT THE MARKETS THINK

SUMMARY

Financial market moves over the review period were consistent with a narrative of strong, but slowing growth, and continued, but decelerating, policy accommodation: long term yields fell, driven by lower term premia and a lower real component. The market continues to signal that inflation is expected to be high in the short run, but to fall back gradually over the next few years. Equity market performance remained positive in the review period, despite the selloff seen in late September. Equity returns are still primarily driven by strong earnings rather than a rise in valuation. Multiples remain high by historical standards, although they have continued to decline over Q3. As we move towards the end of the year, the market will continue to watch closely events in China, the potential repercussions for global growth as well as Fed communications.

Short Rates

- The market is pricing a gradual rise in interest rates across major economies over the next few years. In the US, market expectations are broadly aligned to the Fed dots, with the first rate hike priced in for the end of 2022 and a total of three rate rises priced in by the end of 2023. With central bank policy gradually becoming less easy, markets see rates becoming more divergent, with the UK expected to tighten policy ahead of the US, and the US ahead of the euro area. Our outlook for policy rates is more aggressive than the markets' one, as our inflation forecast is stronger than the market's and we see significant risks of a hawkish turn in monetary policy over our forecast horizon.

Equities

- Equity markets performance remained positive in the review period overall. Sectoral equity leadership was consistent with a narrative of strong, but slowing growth, and continued, but decelerating, policy accommodation. Sectors benefitting from the "reflation trade" fell and longer duration sectors benefitting from lower long term interest rates, such as tech, rose. Equity market performance continues to be driven by an improvement in corporate profitability rather than an expansion in valuation. High multiples remain broadly supportive of equity prices, although they have continued to decline over Q3, and digging beneath the surface, they indicate a degree of caution in the market.

Fixed Income

- Government bond yields remain low across jurisdictions. Over the summer, yields fell as some of the higher growth/higher inflation expectations were priced out from US interest rates markets, thanks to a reassessment of the FOMC's reaction function and the spread of the Delta variant. The fall in long term yields was driven by a lower term premium (the compensation that investors demand for holding the risk that longer term interest rates may turn out higher than expected), with the component driven by short term interest rate expectations remaining low well into the future. Overall, there remains a discrepancy between what the market thinks about long-term future US monetary policy and what the Fed is signaling, with the market expecting inflation to fall back to the Fed's target (consistent with Fed expectations), but real rates to settle at a significantly lower level than the Fed's long-run dot would suggest.

Inflation

- While inflation expectations at the shorter end of the curve remain elevated, longer term measures are still around levels consistent with the inflation target in the US and the UK, while they are below it in the euro area. Option markets are pricing a 40% (risk-neutral) probability of CPI averaging more than 3% over the next 5 years. Real interest rates fell further into negative territory in major advanced economies over the summer, although they have unwound some of the earlier falls in recent weeks. Taken together, the moves in inflation and real interest rate curves seen over the first part of the summer are consistent with markets pricing a worsening of the trade-off between growth and inflation (and thus a harder policy choice for central bankers).

Credit

- Over the summer, corporate bond spreads widened for the first time since the peak of the pandemic, although most of the move was retraced in late August/early September. Credit spreads are still close to historical lows across the quality spectrum, aside from the lowest-grade high yields credits where they remain somewhat higher. Default rates remain relatively low in most countries compared with the size of the hit to earnings seen in 2020 and previous recessions. In line with the low and declining actual default rates, a decomposition of a broad measure of US corporate bond credit spreads shows a continued fall in the component associated with expected defaults.

FX

- Prospect for exchange rates continue to be tightly linked to views on relative growth differentials, policy stances and risk premia. With relatively stronger domestic growth and the gradual start of US monetary policy normalization, the US dollar is up year to date, although it remains broadly flat since the summer. Looking ahead, with the Fed signaling a gradually tighter policy, and break-evens fully priced for Fed credibility, option prices signal a more favorable balance of risk for the dollar.

INVESTMENT CONCLUSIONS

Equities

- Overall, equities still remain the most attractive option in risk assets. We are still closer to the beginning of the economic recovery than the end and equities will be supported by real growth. That said, risk temperature has increased compared with Q3. Markets appear to be more concerned than they were about a growth deceleration and persistent supply-side bottlenecks, while a growing number of uncertainties (China, Covid, debt ceiling) combine with elevated multiples to add to nervousness. This is a good environment for active asset allocation, characterized by increased sector and stock selection. We still favor, materials, energy and financials but with a more selective approach compared with Q3. Given that international equities such as Europe are currently more levered to a cyclical recovery, we expect them to have potential for a strong Q4.

Fixed Income

- Consolidation of yields in Q2, particularly in the US, was followed by a range-bound slight pick-up in Q3 where the US 10-year yield is currently (as of end-September) stuck in the 1.20%-1.50% range. We still expect the rise in inflation expectations globally to put pressure on DM sovereign bond prices through Q4 2021 and into 2022. US TIPS could offer opportunities in a rising inflation environment.

Alternatives

- As markets navigate the risk of increased volatility and higher inflation (our inflationary scenarios have a combined 50% probability, up 5% points since our last report), we believe alternatives offer volatility and inflation hedging protection. Interest rate hedges will be increasingly important too.

FX

- Compared with Q3, we have increased the upside risk to the USD since the higher probability we attach to inflationary outcomes could mean the Fed tightens earlier than the markets currently expect and earlier than other major countries. Lately, Evergrande contagion risks have raised market financial stability concerns. Given the USD acts as a barometer of global financial health (appreciating when stresses arise), this may add fuel to the current strengthening USD trend. Hence, we expect EM FX to come under pressure with increased volatility expected especially in high beta crosses.

Economics

SECTION 1

SECTION 1A

Economic Scenarios

40% (Probability)

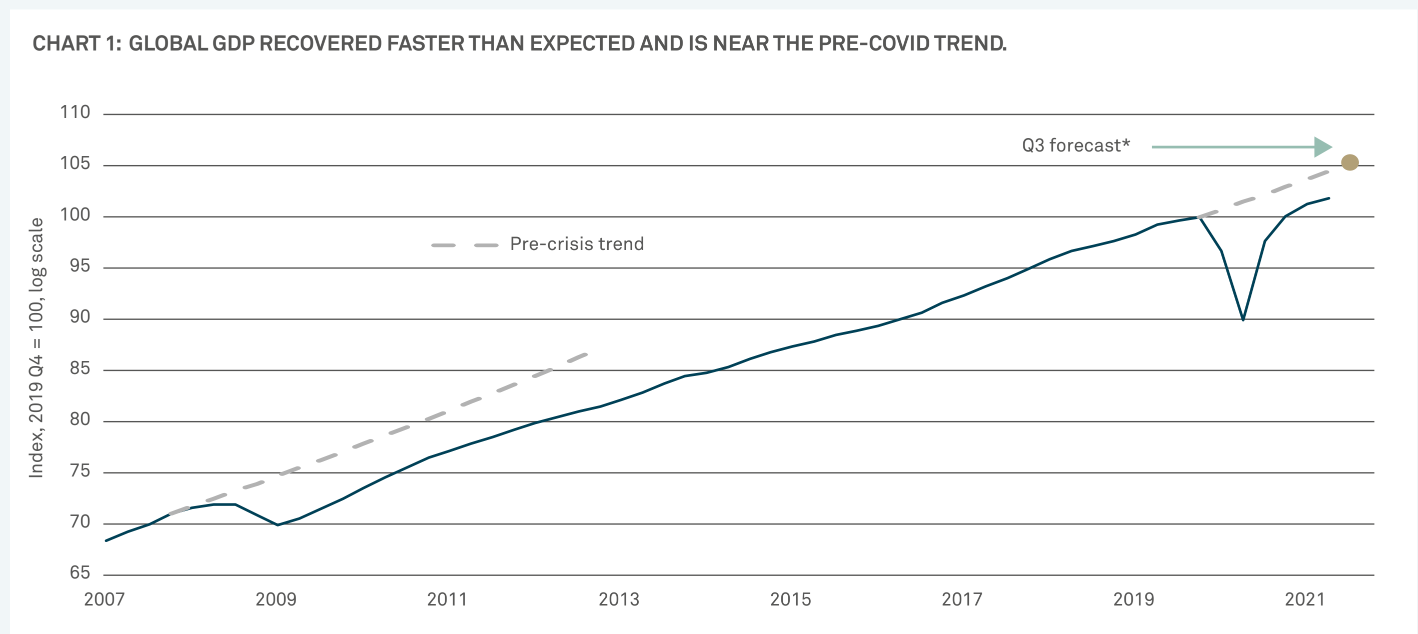
Scenario #1: Good Recovery

The 'Good Recovery' story we have had since the beginning of the pandemic remains intact at a slightly lower probability than our last edition. It remains closely aligned with current market pricing too. The global recovery has been decisively V-shaped and stronger than most commentators predicted, but there are signs that it has waned a little recently, thanks in part to the spread of delta. We expect growth in most economies to be a little weaker in H2 than we previously thought, but pent-up demand, healthy consumer and corporate balance sheets, easy monetary policy, and the lagged impact of stimulus, allow it to pick up again in 2022. Crucially, vaccines remain effective, while the world approaches herd immunity during 2022.

Two key elements distinguish our base-case scenario. First, while household and corporate saving continues to fall as a share of incomes, driving a strong recovery in aggregate demand, 'excess saving' built up during the pandemic is left largely unspent. As a result, economies move pretty quickly back towards the pre-crisis trend but do not move significantly above it. The second key feature is that supply-side disruption in goods and labor markets proves temporary, and aggregate supply moves up to match aggregate demand. Essentially, supply chains and logistic operations reform, while workers redeploy to areas where demand is the strongest and additional supply is needed. Order backlogs and delayed deliveries for goods moderate and output picks up in order to rebuild inventories. The upshot is that cost pressures subside and inflation proves to be 'transitory', falling back towards target during 2022.

Growth is slower through 2021H2 and early-2022 compared with our last report but picks up again once delta fears subside. Countries that vaccinate the largest numbers of people are likely to outperform, and the pickup in Europe and some emerging markets gains momentum. While there are sharp changes in relative wages and prices, particularly in sectors where the supply and demand imbalances are greatest, the

World GDP Index*



Data as of Q2 2021. *Based on a sample of 24 major economies accounting for 74% of global GDP weighted by share of global GDP. Source: Refinitiv Datastream, Fathom Consulting, and IMF.

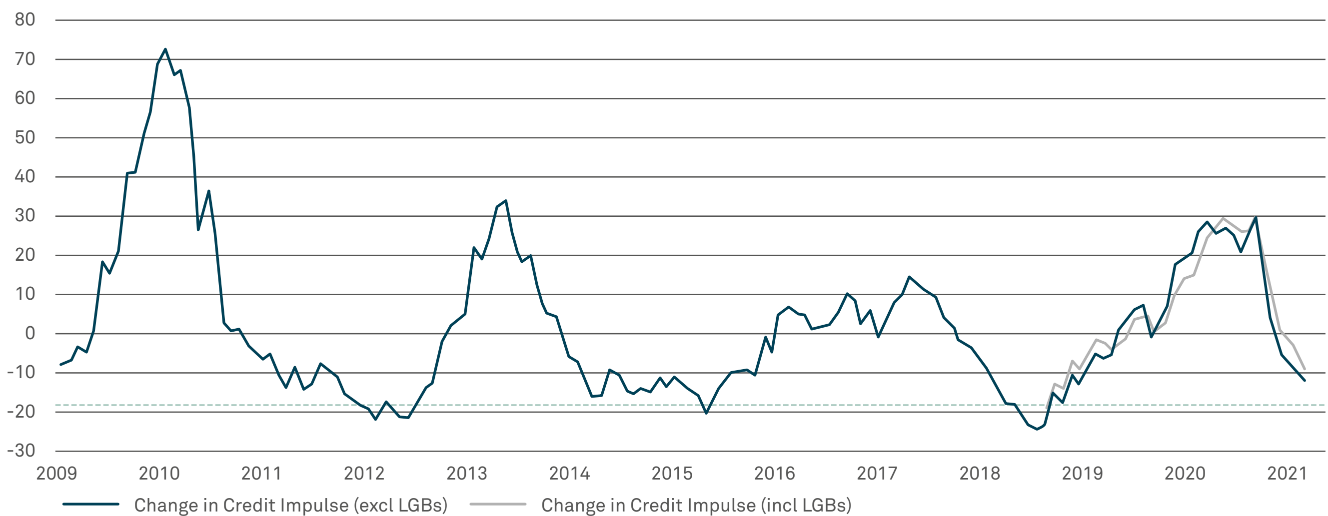
Charts are provided for illustrative purposes and are not indicative of the past or future performance of any BNY Mellon product.

impact on aggregate wage and price levels is minimal. Inflationary pressure matches market and Fed estimates and cools during 2022. The Fed begins to gradually taper in November but rate hikes remain on hold until Q1 2023. They and other central banks can afford to be "strategically patient" and focus on returning the labor market to pre-Covid strength.

Risk assets progress steadily though at a slower pace than year to date with some pockets of volatility and small but brief corrections. Bond yields drift higher but remain capped on expectations that major central bank policy will stay easy for some time. Quality and growth stocks outperform until delta fears subside, when cyclicals start to look attractive again. The performance gap between the US and the rest of world narrows. Contagion from the Chinese slowdown is limited and emerging economies prove resilient thanks to strengthening domestic recoveries and an easy Fed.

Change in China Credit Impulse*

CHART 2: INCREASED REGULATORY PRESSURE AND SLOWING CREDIT GROWTH IN CHINA HAS WEAKENED ACTIVITY AND SENTIMENT.



Data as of July 2021. LGBs: local government bonds. Source: Macrobond, People's Bank of China, and China National Bureau of Statistics.

Charts are provided for illustrative purposes and are not indicative of the past or future performance of any BNY Mellon product. Past performance is no guarantee of future results.

25%
(Probability)

Scenario #2 – Overheating

Pent-up demand and the lagged impact of stimulus combine to generate much stronger growth than in the 'good recovery' scenario. Crucially, households begin to spend significant amounts of the 'excess cash savings' built up during the pandemic. However, unlike in the good recovery scenario, supply struggles to keep up with demand. In particular, labor shortages and the mismatch between workers and jobs persist, generating wage and price pressure. Supply bottlenecks, in the form of order backlogs and long delivery times, also continue.

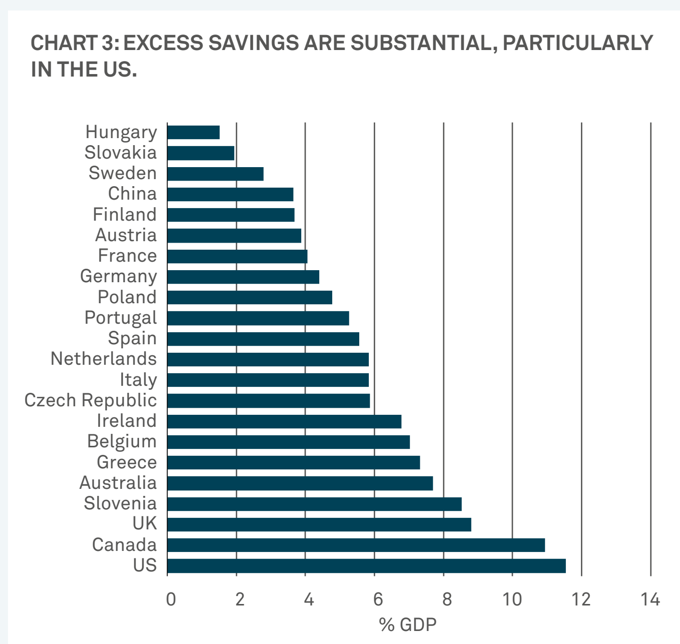
Given the size of fiscal stimulus and a reluctant Fed, price pressures build most quickly in the US. Despite high and rising inflation, the Fed sees the price shock as temporary and remains committed to targeting full employment under its average inflation targeting framework. Because policy remains loose, the economy begins to 'overheat'. By early 2022 inflation expectations shift higher, and wages accelerate, driving bond yields up. There is volatility initially in equities and credit, but markets soon realise the Fed isn't going to move straight away. The yield curve steepens.

Equities then rise for several more quarters as the Fed's inflation tolerance lowers real yields and boosts nominal earnings. Inflation is a bigger issue in the US than anywhere else, though other countries see some pickup too. Ultimately, a combination of easy policy with strong demand growth and supply side constraints translate to persistently high inflation in the US. Eventually, the Fed is forced to react once it is clear inflation expectations are destabilizing and inflation levels are notably above target. The Fed hikes rates sharply when the two-year trailing average of core PCE (personal consumption expenditure) inflation surpasses 5.5% which is not until around Q1 2023. Since the Fed is late, it eventually has to tighten by more in order to stabilize expectations.

By the end of 2022, a sharp sell-off in risk assets ensues, leading to a higher USD, and spills over internationally particularly to dollar-financed emerging markets. The market correction and economic downturn are the worst amongst all of our scenarios. Inflation-linked bonds outperform initially but underperform once tighter policy is priced in by financial markets. Conventional fixed income declines significantly.

Global Excess Savings % of GDP*

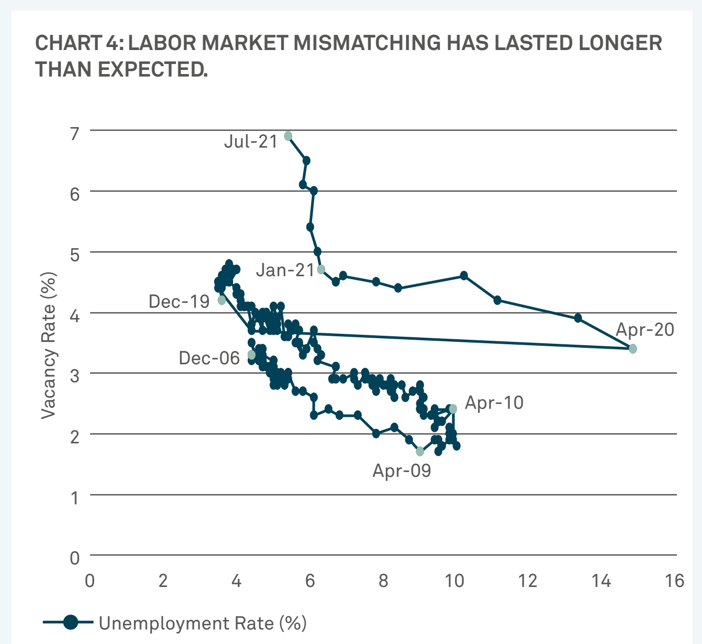
CHART 3: EXCESS SAVINGS ARE SUBSTANTIAL, PARTICULARLY IN THE US.



*Latest available as of September 2021 and calculated using 2019 GDP.
Source: Fathom Consulting.

US Labor Market Mismatch via the Beveridge Curve – Vacancy vs. Unemployment Rates (%)

CHART 4: LABOR MARKET MISMATCHING HAS LASTED LONGER THAN EXPECTED.



Data as of September 2021. Source: Refinitiv Datastream and Fathom Consulting.

Charts are provided for illustrative purposes and are not indicative of the past or future performance of any BNY Mellon product.

25% (Probability)

Scenario #3: Tight Money

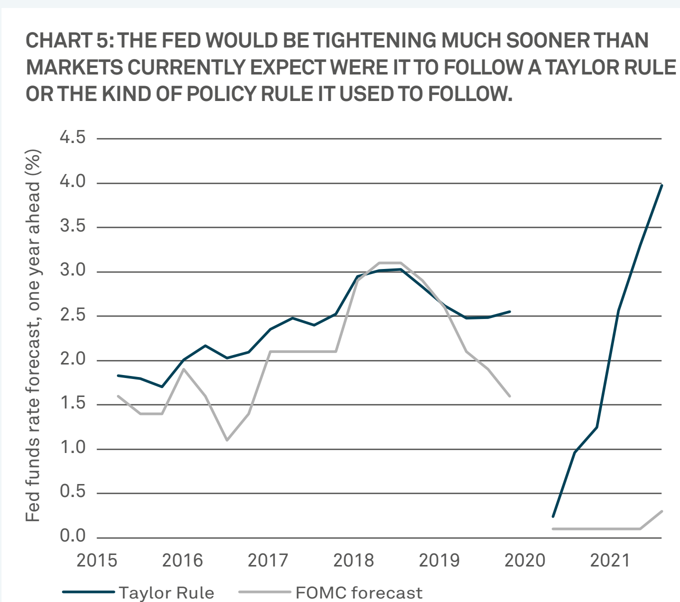
As with the 'overheating' scenario, demand gets a significant boost from the drawdown in excess savings most notably in the US. Supply constraints mean input costs, wages, and prices continue to rise. And again, like overheating, inflationary pressures rise further. However, unlike overheating, the Fed worries that inflation has been too high for too long and signals it will tighten much earlier. In this case when the trailing 2-year average of PCE inflation reaches just 3% which occurs in Q1 2022. Similar reactions occur at other central banks around the world, though the timing and pace may differ slightly.

The Fed begins to taper in November 2021 reducing purchases by $15 billion per month but believes it will not be sufficient to bring inflation under control. In a surprise, the FOMC raises the Fed funds rate by 25 basis points in March and June 2022 vs. current pricing of a first hike later in Q4. Yields climb steeply through the first half of next year, peaking at 2.7% in 2022 Q2, before starting to fall back.

A mini taper tantrum ensues given the unexpected and sharp policy adjustment. Markets recalibrate to the new framework leading to higher real yields, volatility, and risk premia. Growth and momentum equities, which have led the rally and outperformed since Q2, lead the sell-off. Historically low risk pricing in credit reverses and financial conditions tighten. Credit defaults pick up, particularly in high yield and USD denominated EM debt. Higher rate differentials and risk-off drive the dollar higher causing carry trades to reverse sharply.

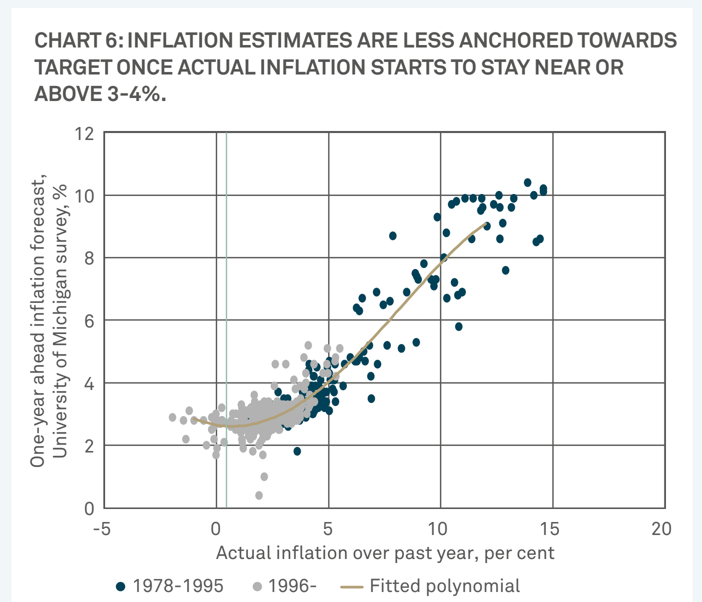
Although the recovery is less strong in developed markets outside the US, other central banks also tighten early given their more 'traditional' strategy. Since central banks respond sooner, there is ultimately less tightening than in 'overheating' and the economic and market impact is smaller. A short slowdown is followed by a resumption of growth. Equity markets and other risk assets sell off in late 2021 and early 2022, as the yield curve flattens and inverts. But markets soon discount a short, sharp economic downturn and begin to recover again by mid-2022.

The Fed's Rate Forecast vs. Implied via the Taylor Rule



Data as of September 2021. Source: Fathom Consulting and Federal Reserve.

US household inflation expectations vs. actual inflation



Data as of September 2021. Source: Refinity/Fathom Consulting.

Charts are provided for illustrative purposes and are not indicative of the past or future performance of any BNY Mellon product.

10% (Probability)

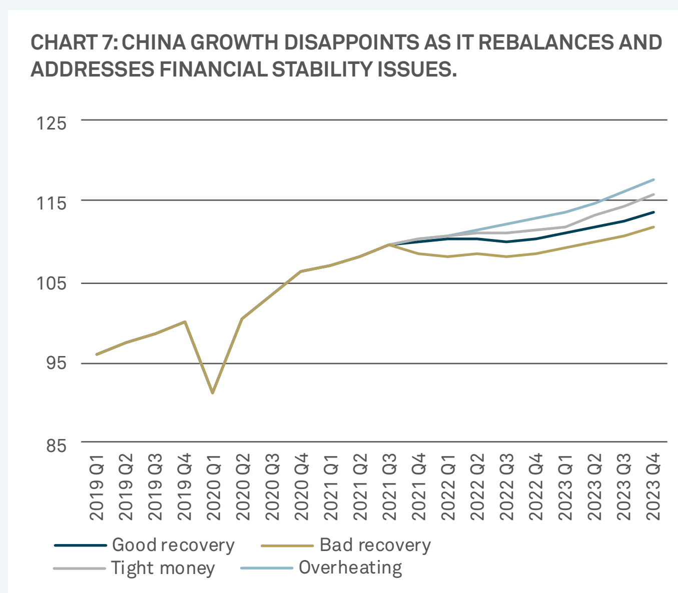
Scenario #4: Bad Recovery

In this scenario, new variants disrupt the re-opening of economies as authorities try to stem increased number of cases. Social restrictions are re-introduced in a number of countries in Q4 2021 and Q1 2022. Under-vaccinated countries are hit worse, magnifying their growth divergence from richer countries. Overall, global growth is sluggish, and inflation is low as global recovery is de-synchronised.

Advanced economies end up re-introducing social restrictions in the 'northern hemisphere winter' because of variants and still significant numbers of un-vaccinated. Restrictions and their economic impact are less severe than in Q4'20/Q1'21 as economies have adapted. Nevertheless, global growth takes a hit. Many EMs face even bigger problems. Populous, under-vaccinated countries are exposed to more contagious variants where lack of policy space exacerbates the blow to the real economy from additional rounds of lockdowns. China rebalances and addresses financial stability issues which leads to a meaningful growth slowdown. World trade is hit hard, most notably Asian suppliers and commodity producers. The US and Europe are affected by supply-side constraints owing to lockdowns in major EMs, but inflation falls too as risk averse behavior from both consumers and businesses constrain aggregate demand. Despite the ability to draw down on still-elevated savings, consumers hold back on spending as negative news coverage keeps consumers cautious. Business investment stays weak due to heightened global uncertainty.

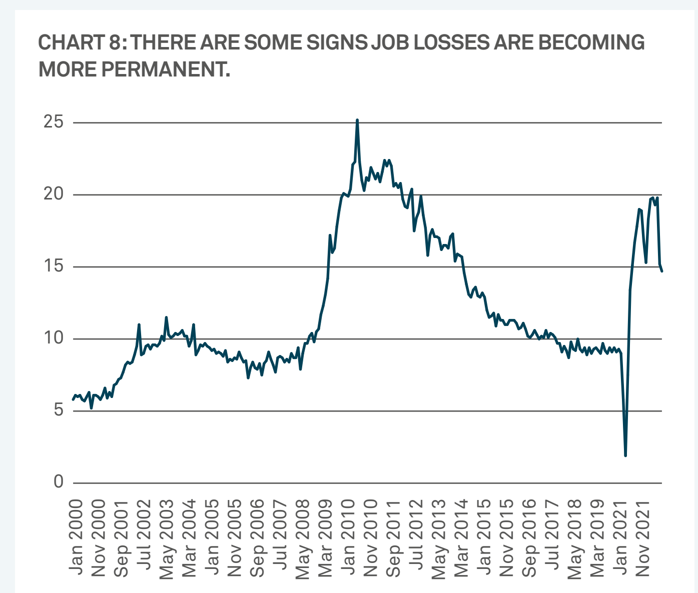
Monetary and fiscal policy remain supportive. Inflation is not an issue at all – if anything it tends to fall. In markets, risk premia remain high although central banks do counter some of the rise in uncertainty. A generalized flight from risky to risk-free assets ensues. Compared with end-Q3 2021, the S&P 500 is down by 10-15% by end-Q1 2022. Although markets march higher afterwards, returns are subdued for several months. Bond yields remain depressed. Fixed income performs well relative to equities in this scenario.

China GDP forecast under different scenarios



Forecasts as of end-September. Source: GEIA team and Fathom Consulting.

US Unemployment Duration Median (weeks)



Data as of September 27, 2021. Source: Bloomberg.

The following corresponds to all charts in section 1B. The information in our scenarios contains projections or other forward-looking statements regarding future events, targets or expectations, and is only current as of the date indicated. There is no assurance that such events or expectations will be achieved, and actual results may be significantly different from that shown here. The information in this presentation is based on current market conditions, which will fluctuate and may be superseded by subsequent market events or for other reasons.

SECTION 1B

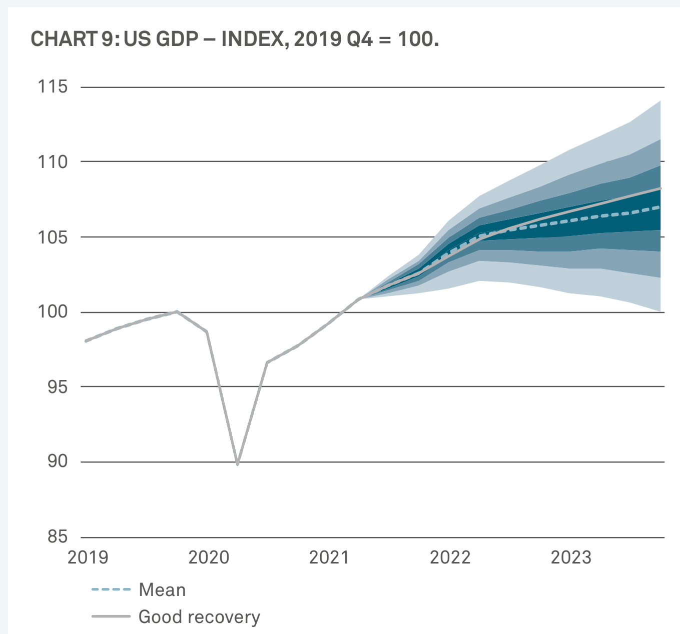
Economic Forecasts

Over the past three months we have received little new information about Sars-COV-2 that is likely to have a bearing on the macroeconomic or financial market outlook. It is now close to a year since the highly transmissible Delta strain was first identified in India, and almost six months since it was declared a variant of concern by the World Health Organisation. Although other variants are being closely monitored, none have challenged the dominance of Delta, which accounts for close to 100% of new infections in those countries where virus sequencing is widespread. And while there is some evidence that the ability of the vaccines to prevent symptomatic infections has declined, whether through a mutation of the virus or waning immunity within individuals, efficacy against severe disease remains extremely high. Alongside doubts about the near-term growth outlook for China, perhaps the greatest uncertainty at present is the duration of the inflation overshoot in the major economies, and the response of policymakers should this overshoot become problematic.

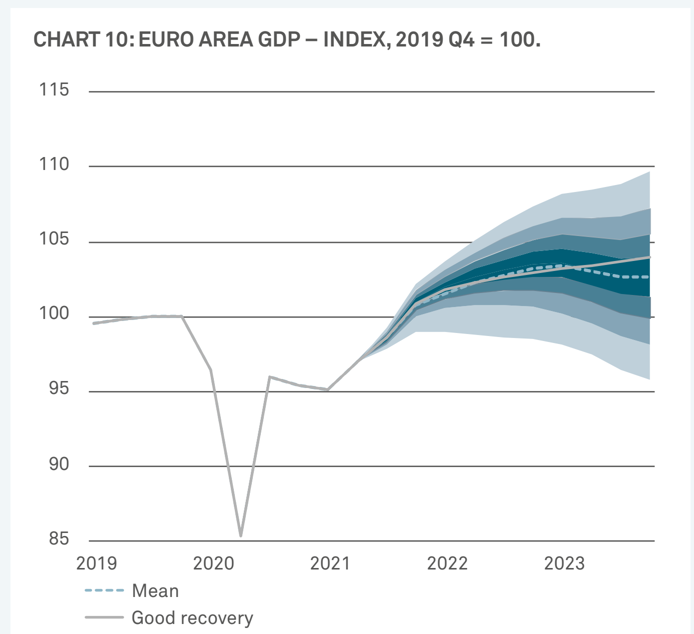
Economic activity in most major economies continues to approach its pre-COVID trend; if sustained, that would be a remarkable achievement. And yet these above-trend rates of growth have been achieved despite an apparent reluctance on the part of households to dip into their pandemic savings pots. In the US, for example, with only modest and largely offsetting moves into equities and out of fixed income, and little new investment in housing, more or less all of the additional household savings, worth more than 10% of pre-pandemic GDP, have found their way into cash and short-term deposits.

Chart 9 shows the outlook for US GDP. In our 'Good Recovery' scenario, steady progress towards the pre-COVID trend

The solid line shows the good recovery upside scenario mode and the dashed line is the mean or probability-weighted average forecast across all four scenarios. The darker bands towards the center of the fan chart show the more likely outcomes, while the lighter bands show progressively less likely outcomes covering 90% of the forecast distribution. The width of the fan chart shows the level of uncertainty and when the bands below the central forecast are wider than those above shows the balance of risks lies to the downside. Forecasts begin in Q3 2021 and were calculated as of September 20, 2021. Source: BNY Mellon GEIA and Fathom Consulting.



Source: BNY Mellon GEIA and Fathom Consulting.



Source: BNY Mellon GEIA and Fathom Consulting.

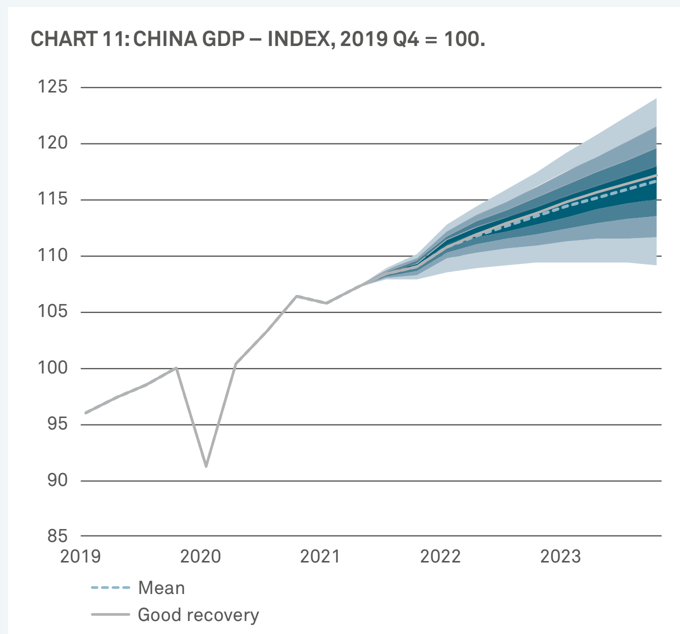
Charts are provided for illustrative purposes and are not indicative of the past or future performance of any BNY Mellon product.

continues, but households spend something close to the annuity value of their new-found wealth, and there is no material cyclical overshoot. In the 'Tighter Money' and 'Overheating' scenarios, a greater portion of the build-up in savings is spent, driving consumption higher and economic activity above its pre-COVD trend. This risk is balanced in the near term by the small (10%) chance of a 'Bad Recovery' and a sharp slowdown around the year end. The downside skew to US GDP towards the end of our forecast horizon reflects the fact that only in our single most likely 'Good Recovery' scenario is a sharp slowdown in growth avoided, whether that is a consequence of the virus and its impact on global supply chains, or through tighter monetary policy at some horizon. The risks to euro area GDP (chart 10) are qualitatively similar, though with more modest pandemic savings as a result of less generous fiscal support packages, they are on a smaller scale.

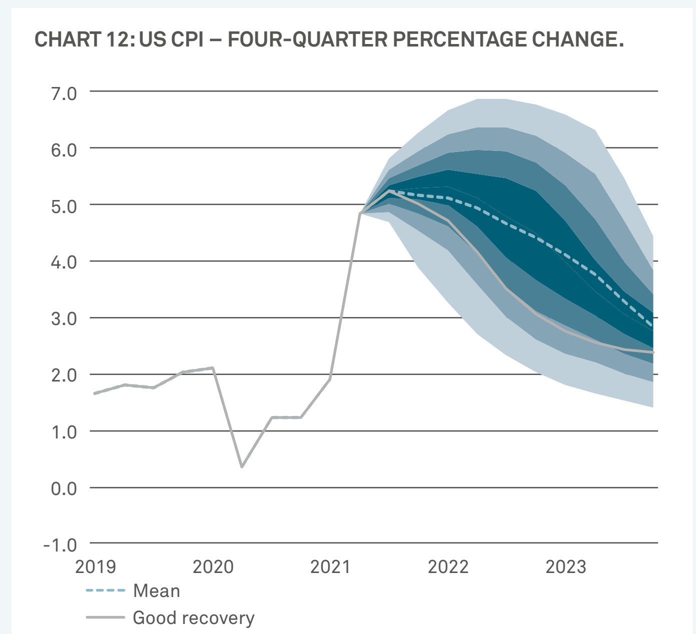
China's economy looks to have slowed during the third quarter, perhaps significantly so. In all but our 'Bad recovery' scenario, growth picks up again through the early part of next year, in response to a combination of domestic policy stimulus, and global demand, which remains strong. Nevertheless, although China will almost inevitably exceed its 6% growth target this year, in the absence of a reversal of policies put in place to cool the property market, we judge that the odds of China's economy growing by 6% or more next year are just 1-in-5 (chart 11).

Headline measures of inflation have risen sharply this year, most dramatically in the US but in other major economies too, including much of Europe. Base effects have played a part, with some prices, including energy prices, unusually low this time last year. But much of the pick-up reflects the fact that demand has recovered more rapidly than supply as economies

The solid line shows the good recovery upside scenario mode and the dashed line is the mean or probability-weighted average forecast across all four scenarios. The darker bands towards the center of the fan chart show the more likely outcomes, while the lighter bands show progressively less likely outcomes covering 90% of the forecast distribution. The width of the fan chart shows the level of uncertainty and when the bands below the central forecast are wider than those above shows the balance of risks lies to the downside. Forecasts begin in Q3 2021 and were calculated as of September 20, 2021. Source: BNY Mellon GEIA and Fathom Consulting.



Source: BNY Mellon GEIA and Fathom Consulting.



Source: BNY Mellon GEIA and Fathom Consulting.

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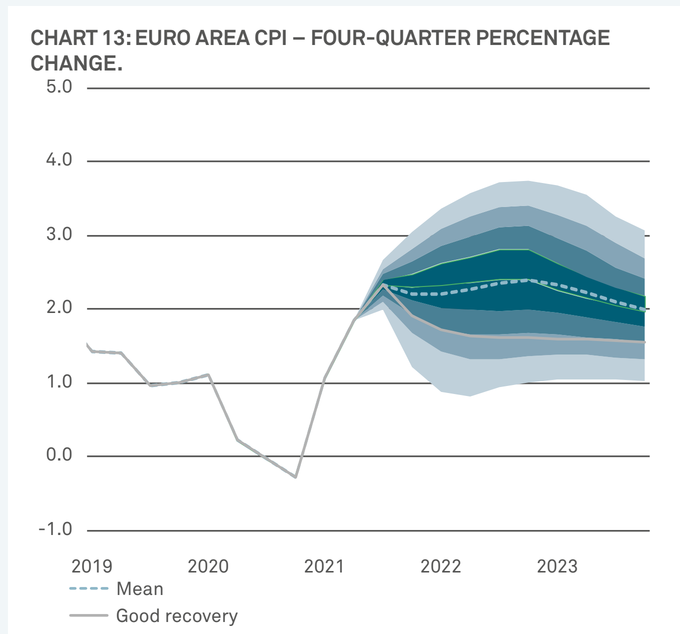
have reopened. As chart 12 makes clear, the near-term outlook for US inflation is both unusually uncertain, and heavily skewed to the upside. The skew to inflation is more dramatic than the skew to activity because our forecast addresses the possibility that there has been a deterioration in the output-inflation tradeoff. In our two scenarios where the pick-up in inflation is sustained, which together account for 50% of possible outcomes, not only are a greater portion of the pandemic savings spent, putting upward pressure on demand, but labour market rigidities currently evident in some of the major economies persist, leading to a weaker supply response. Implicitly, our US CPI fan chart suggests we are a little more certain about US inflation through 2023 than we are through 2022. That is because, whether the recent pick-up inflation turns out to be temporary or sustained, we assume that ultimately the Fed will do what it takes to bring it back towards target.

Since our previous Vantage Point, following remarks by Chair Powell at the Jackson Hole conference, supported by subsequent discussions at the September FOMC meeting, the point at which the Fed is expected to taper its asset purchases has been brought forward to this year. Our fan chart for the Fed balance sheet shows that the stock of asset purchases is likely approaching its peak. The significant downward skew to the distribution of outcomes for the size of the Fed balance sheet (chart 14) reflects the possibility of outright sales, which take place towards the end of our forecast horizon in the 'Overheating' scenario, to which we attach a higher weight now than three months previously.

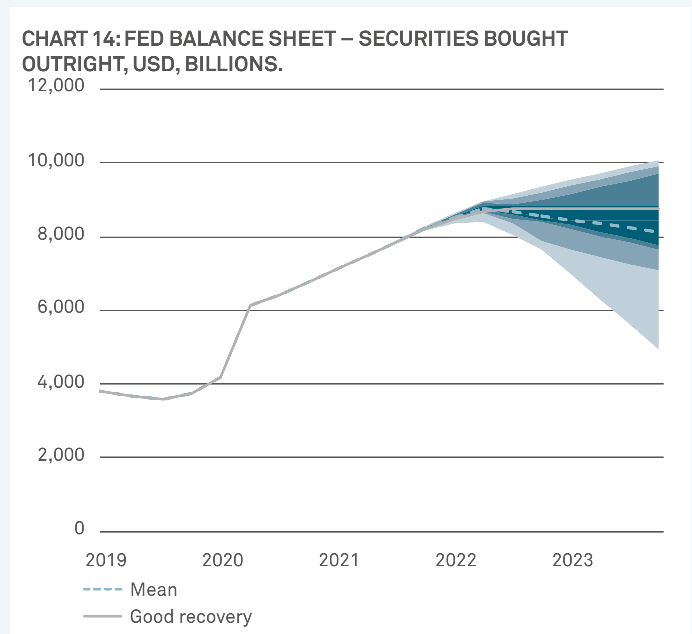
The solid line shows the good recovery upside scenario mode and the dashed line is the mean or probability-weighted average forecast across all four scenarios. The darker bands towards the center of the fan chart show the more likely outcomes, while the lighter bands show progressively less likely outcomes covering 90% of the forecast distribution. The width of the fan chart shows the level of uncertainty and when the bands below the central forecast are wider than those above shows the balance of risks lies to the downside. Forecasts begin in Q3 2021 and were calculated as of September 20, 2021. Source: BNY Mellon GEIA and Fathom Consulting.

CHART 13: EURO AREA CPI – FOUR-QUARTER PERCENTAGE CHANGE.



Source: BNY Mellon GEIA and Fathom Consulting.

CHART 14: FED BALANCE SHEET – SECURITIES BOUGHT OUTRIGHT, USD, BILLIONS.



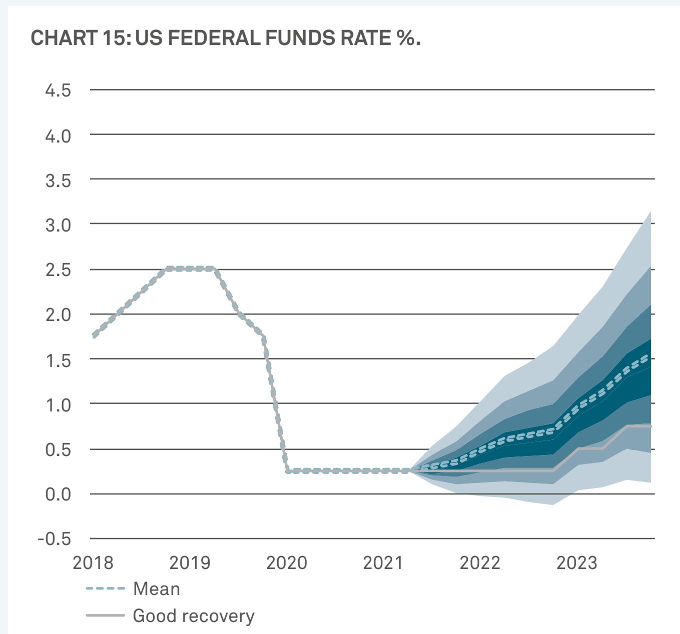
Source: BNY Mellon GEIA and Fathom Consulting.

Charts are provided for illustrative purposes and are not indicative of the past or future performance of any BNY Mellon product.

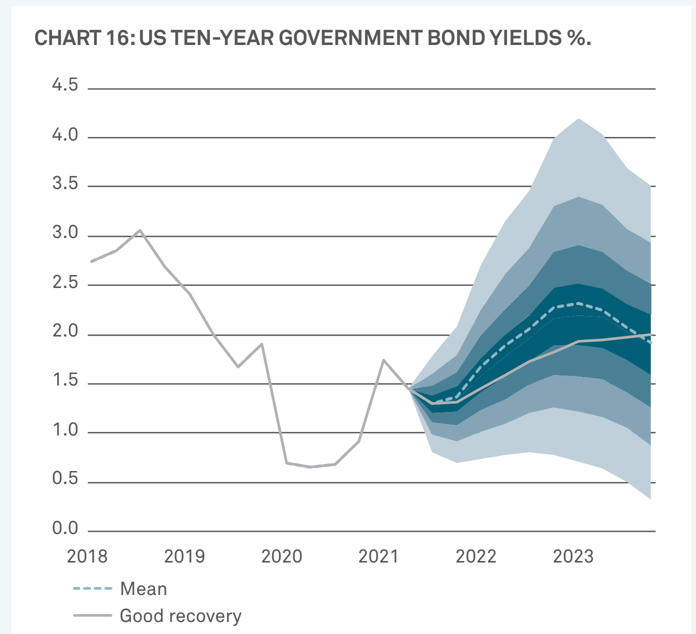
Our single most likely scenario, that of the 'Good recovery', now incorporates a sequence of very gradual increases in the federal funds rate beginning in 2023. In 'Tighter money' the policy rate increases sooner, and in 'Overheating' it increases faster, giving a marked upward skew to the federal funds rate fan chart (chart 15). To a degree, this is mirrored in the outlook for US Treasury yields (chart 16), though towards the end of our forecast, the skew turns negative, reflecting the probability of a 'bear flattening' in the 'Overheating' scenario.

In our 'Good Recovery' scenario, the S&P 500 rises a little further from here, before flattening off around the turn of the year. In the near-term, risks are broadly balanced with the sizeable chance of some further upward momentum as pandemic savings are spent (in 'Tighter money' and 'Overheating') offset by the small chance of a sudden correction in a world where the path of the pandemic significantly disrupts global supply chains ('Bad Recovery'). Further ahead, risks are to the downside mirroring the upside risks to US Treasury yields, and with that the discount rate (chart 17).

The solid line shows the good recovery upside scenario mode and the dashed line is the mean or probability-weighted average forecast across all four scenarios. The darker bands towards the center of the fan chart show the more likely outcomes, while the lighter bands show progressively less likely outcomes covering 90% of the forecast distribution. The width of the fan chart shows the level of uncertainty and when the bands below the central forecast are wider than those above shows the balance of risks lies to the downside. Forecasts begin in Q3 2021 and were calculated as of September 20, 2021. Source: BNY Mellon GEIA and Fathom Consulting.



Source: BNY Mellon GEIA and Fathom Consulting.



Source: BNY Mellon GEIA and Fathom Consulting.

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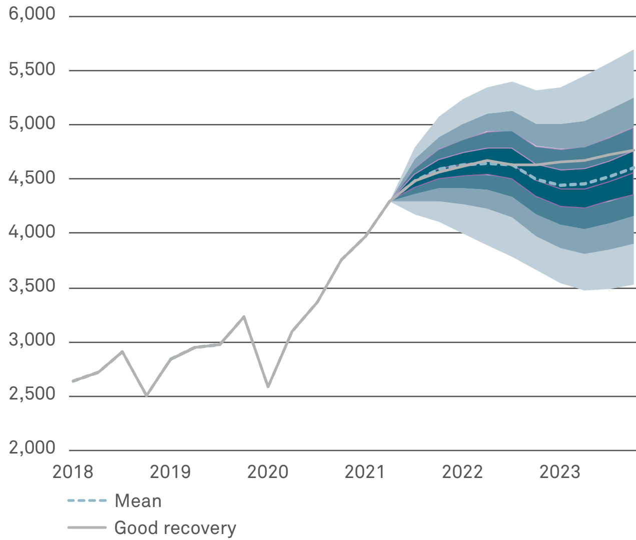
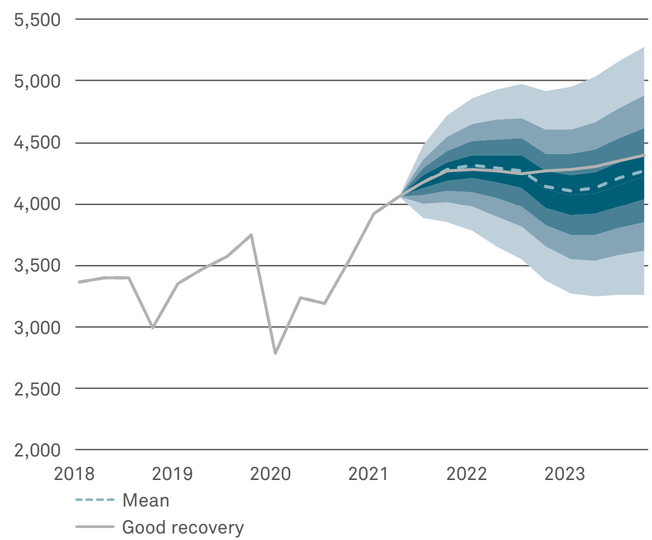
CHART 17: S&P 500 – INDEX.



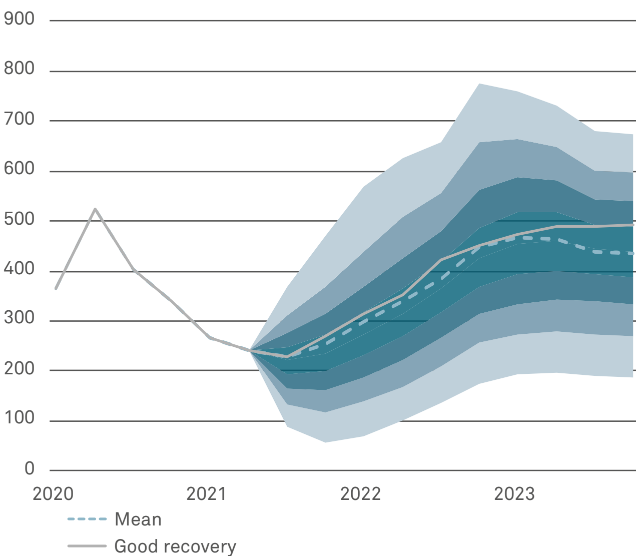
Source: BNY Mellon GEIA and Fathom Consulting.

CHART 18: EURO STOXX 50 – INDEX.



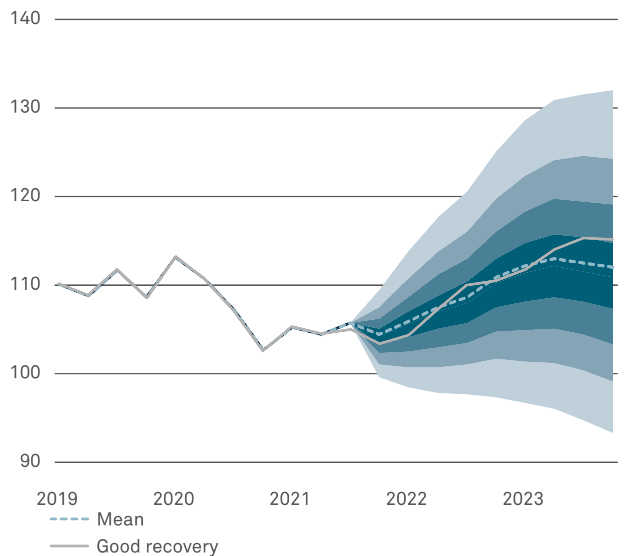
Source: BNY Mellon GEIA and Fathom Consulting.

CHART 19: US HY–IG SPREAD BASIS POINTS.



Source: BNY Mellon GEIA and Fathom Consulting.

CHART 20: USD ERI AGAINST MAJOR CURRENCIES INDEX, JANUARY 2006 = 100.



Source: BNY Mellon GEIA and Fathom Consulting.

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SECTION 2

SECTION 2A

Capital Market Pricing – What is Priced In?*

OVERVIEW

Over the quarter as a whole, price action in financial markets was consistent with a narrative of strong, but slowing growth, and continued, but decelerating, policy accommodation. Long term yields fell, mostly driven by lower term premia and a lower real component. Real rates remain at very low levels relative to history, even accounting for a possible fall in their long run equilibrium level. The market continues to signal that inflation is expected to be high in the short run, but to fall back gradually over the next few years. Equity market performance remained positive in the review period, despite the selloff seen in late September. US equity market performance continued to be driven by an improvement in corporate profitability rather than an expansion in valuation. High multiples have continued to decline over Q3. Going forward the market will continue to watch closely events in China and Fed communications. The market also remains focused on further labor market progress, whether consumers will spend a significant portion of the additional savings they have accumulated since the start of the pandemic, and, relatedly, whether higher inflation will be transitory as suggested by the Fed. With labor market 'slack' and transitory inflation, a slow pace of policy unwind is still possible. Without it, the Fed's mandate points to a faster removal of accommodation and possibly the need to engineer a slowdown in the economy. For now, the market still seems to be pricing the first outcome, but it remains nervous that an 'overheating' of the economy or the Fed wanting to prevent one, will eventually lead to significantly higher interest rates, and a fall in valuations and returns.

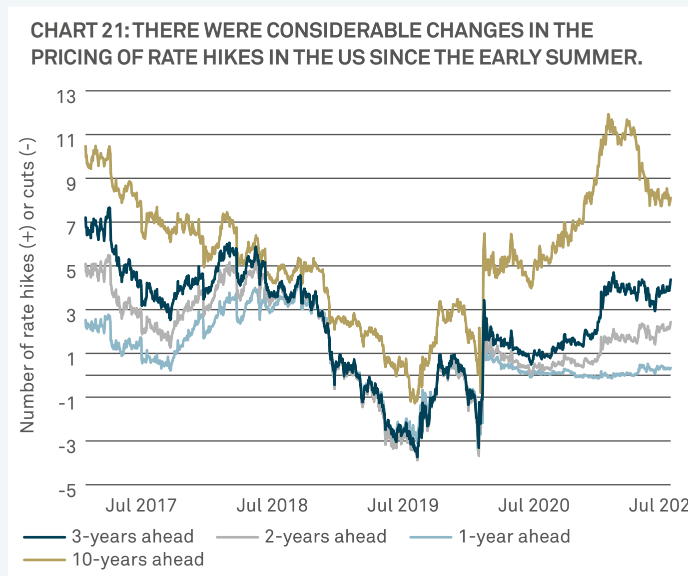
INTEREST RATES

Broadly, financial markets continue to price in a very gradual pace of interest rate hikes across most major economies.

In the US, the market expects the first rate hike by the end of 2022 and a total of three rate rises by the end of 2023 – one less than what is signaled by the FOMC dots, albeit a more aggressive pace than what priced in at the time of our previous Vantage Point publication.

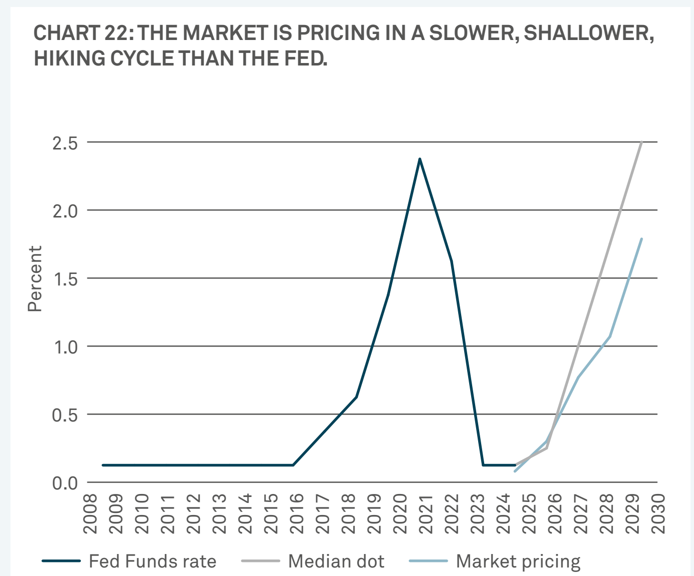
As central bank policy is expected to become less easy, rates are also expected to diverge more. The US is more likely to tighten policy earlier than the euro area and Japan, where secular stagnation and below-target inflation expectations remain key features of the economy. The UK instead is expected to hike ahead of the US (with two full rate hikes by end-2022), as the Bank of England retains a relatively more hawkish

Number of rate hikes/cuts as implied by the market



Source: GEIA, Macrobond. Data as of 17 September 2021.

FOMC Policy Dot Plot and market pricing



Note: Market pricing is based on Fed funds futures and forward interest rate swaps.
Source: GEIA, Macrobond, Bloomberg. Data as of 27 September 2021.

*As of September 27, 2021.

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reaction function compared to the Fed. Markets continue to expect a broad tightening of policy rates across emerging markets too.

Our outlook for US policy rates continues to be more aggressive than the markets' one, as our inflation forecast is stronger than what is currently priced into the market and we see significant risks of a hawkish turn in Fed policy over our forecast horizon. While our 'good recovery' scenario is one where policy rates remain at their effective lower bound until 2023 (in line with Fed expectations), our probability-weighted expectation is for 5-6 interest rate hikes by the end of 2023 (vs. around 2 priced in by the market).

GOVERNMENT BONDS

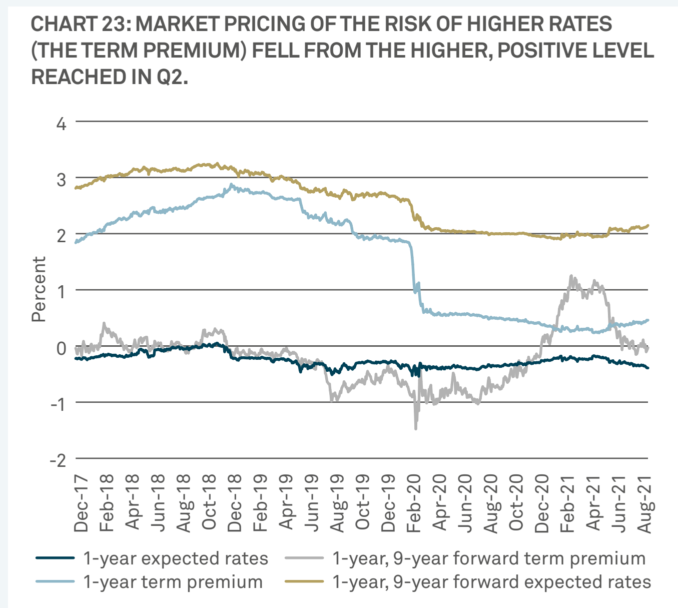
Government bond yields remain low across jurisdictions. Over the summer, yields fell as some of the higher growth/higher inflation expectations were priced out from US interest rates markets due to a reassessment of the FOMC's reaction function in more hawkish terms and the spread of the Delta variant. Beneath the surface, the fall in long term rates was driven by a lower term premium (the compensation that investors demand for holding the risk that longer term interest rates may turn out higher than expected), with the component driven by expectations for future short term interest rates remaining low well into the future.

Communications about a reduction in the pace of asset purchases in the US, the UK and in the Euro area, provided some occasional support for long term yields. The market expects US tapering to start in Q4 of this year. The ECB has already announced a slowdown in the pace of asset purchases over the coming months and the Bank of England will end QE purchases in December this year.

Yields remain lower than the post-Covid crisis highs reached at the end of Q1 2021 (in the US, by as much as 50bp). Long term US yields remain relatively higher than those of other major advanced economies and the US yield curve is also significantly steeper, signaling stronger longer-term prospects for the US economy.

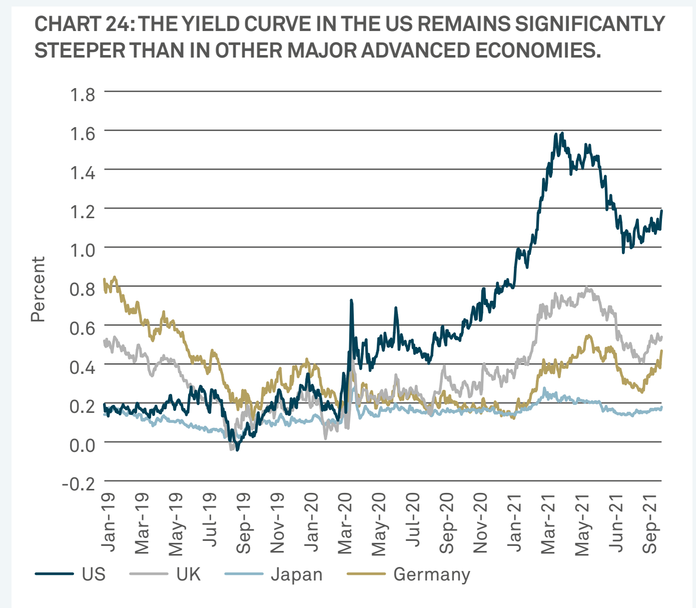
Overall, there remains a discrepancy between what the market thinks about the long-term future US monetary policy and what the Fed is signaling. with the market expecting inflation to fall back at the Fed's target (consistent with Fed

US nominal rates decomposed into expected short term rates and term premium



Data as of September 2021. Source: BNY Mellon and Federal Reserve Bank of New York.

US, UK and German and Japanese yield curves



Data as of September 2021. Source: BNY Mellon and Eikon / Datastream.

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expectations), but real rates to settle at a significantly lowerlevel than the Fed's long-run dot would suggest.

INFLATION

Traded inflation fell somewhat earlier in Q3 due to concerns over a slowdown in growth, but rose again towards the end of the summer, particularly at shorter term maturities. In the UK, short term traded inflation saw a meaningful rise, as inflation data continued to surprise to the upside.

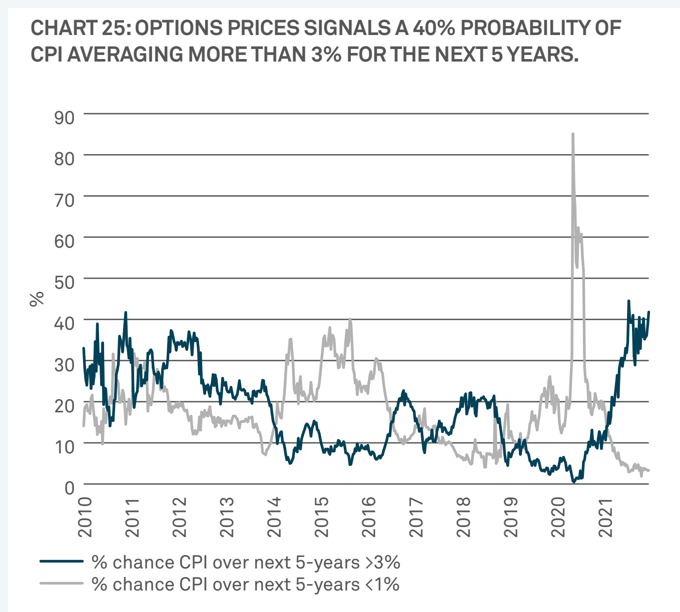
While inflation expectations at the shorter end of the curve are still elevated, longer term measures remain around levels consistent with the inflation target in the US and the UK, while they are below it in the euro area. As such, the market continues to signal that actual inflation is expected to be high in the short run, but to fall back gradually over the next few years. On average, the market's view of inflation is broadly consistent with our 'good recovery' scenario characterized by a healthy recovery, robust inflation falling to target, and a very gradual and limited unwind in monetary policy accommodation.

The market pricing of the risk of significantly higher inflation remains elevated, with option markets signaling a 40% (risk-neutral) probability of CPI averaging more than 3% for the next 5 years. If we look at the whole distribution of CPI inflation expectations over the next 5 years, it's interesting to note that today's expectations are not too dispersed around the mean (i.e., the standard deviation is relatively low) and that the pricing of extreme downside and upside inflationary outcomes is lower than in previous episodes of higher inflation (i.e., the kurtosis is lower). This suggests a higher degree of conviction in the market that inflation will remain above, but not too far above, target for a number of years to come.

Real interest rates fell further into negative territory in major advanced economies over the summer, although they have unwound some of the earlier falls in recent weeks. Real rates remain at very low levels relative to history, even once estimates of their long run equilibrium level is taken into account.[1] Indeed, the market may be signaling that equilibrium real interest rates have fallen further in advanced economies after the Covid crisis. Our view of longer-term real interest rates is more optimistic than the market's, as we expect longer term real interest rates to move back to positive territory over the next two/three years.

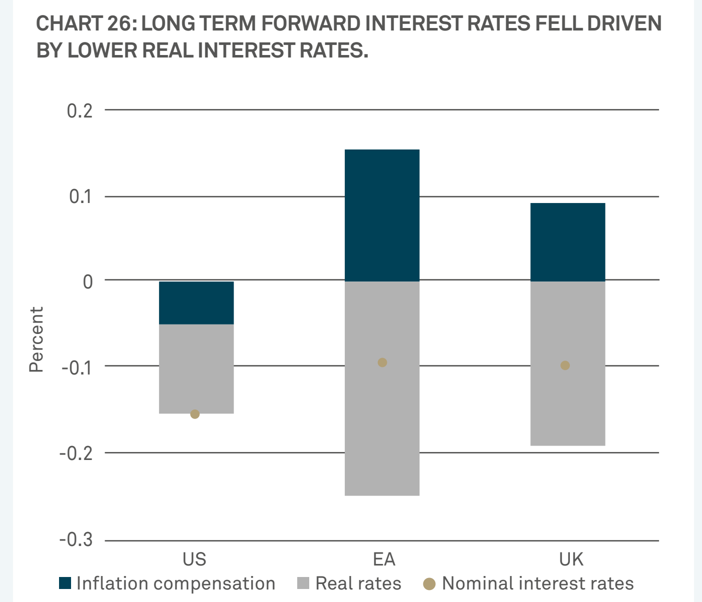
[1] This is known as R* and is defined as the real policy rate that, if allowed to prevail for several years, would place economic activity at its potential and keep inflation low and stable.

Option-implied probability of CPI inflation averaging >3% or <1% over the next 5 years



Data as of September 2021. Source: BNY Mellon and Federal Reserve Bank of Minneapolis.

Change in US, euro area and UK 1-year, 10-year forward interest rates, decomposed into inflation and real rate components



Data show change between 1 July and 17 September 2021. Source: BNY Mellon and Barclays live.

Charts are provided for illustrative purposes and are not indicative of the past or future performance of any BNY Mellon product.

Taken together, the moves in inflation and real interest rate curves seen over the first part of the summer are in line with what is usually observed when sentiment around growth falls and expectations for shorter term inflation rise. That is when the market prices in a worsening in the trade-off between growth and inflation (and thus a harder policy choice for central bankers).

EQUITIES

Equity markets performance remained positive in the review period, as the deterioration in sentiment due to slowing growth, an uptick in Covid cases, and higher inflation, was more than offset by continued accommodation by central banks and very strong levels of economic activity. US stocks rose for an eighth-straight month in August, the longest winning streak since January 2018, and outperformed other international and emerging markets equities. September was a more challenging month for global equity markets, with risks emanating from the property market in China and hawkish communications by a number of central banks leading to a deterioration in risk sentiment.

Sectoral equity leadership over the review period was consistent with a narrative of strong, but slowing growth, and continued, but decelerating, policy accommodation. Sectors benefitting from the "reflation trade" fell and longer duration sectors benefitting from lower long term interest rates, such as tech, rose. This sector differentiation in performance was broadly consistent across major equity markets.

In line with what was seen since the start of H2 2020, US equity market performance continues to be driven by an improvement in corporate profitability rather than an expansion in valuation. Multiples remain high by historical standards, although they have continued to decline over Q3. Digging beneath the surface, the market is showing a degree of caution in translating the fall in real interest rates seen over the past few quarters into higher equity index multiples.[2] A decomposition of the S&P 500 equity earnings yield into its underlying components (that is, a component explained by long term real interest rates, and a component driven by

[2] The price-to-earning multiple can be though as the inverse of the earnings yield (EY). That is, $p/e = 1 / EY$. In turn the earnings yield can be decomposed into what explained by real interest rates, what explained by expected real earnings growth expectations and what explained by the equity risk premia, such that $EY = r - E(g) + ERP$.

S&P 500 outcomes in 1 year

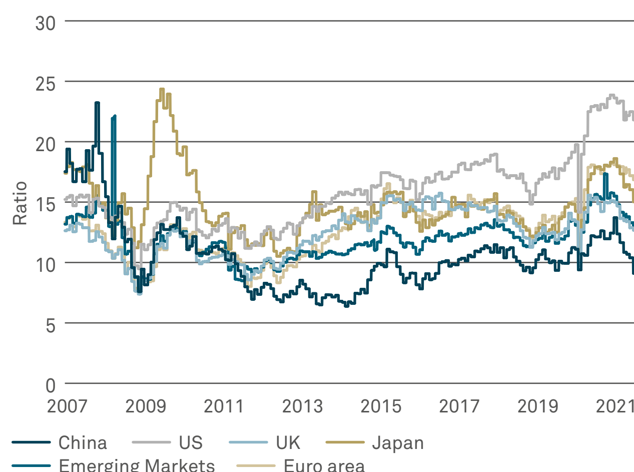
TABLE 1

S&P 500 OUTCOMES IN 1 YEAR		
Per cent	Market	Own forecast
P(S&P 500 < -10%)	40	14
P(-10% <= S&P 500 < -5%)	8	6
P(-5% <= S&P 500 < 0%)	10	11
P(0% <= S&P 500 < 5%)	10	13
P(5% <= S&P 500 < 10%)	10	14
P(S&P 500 > 10%)	22	42

Data as of 21 September 2021. Source: BNY Mellon and Fathom Consulting

Global Price-to-Earnings Multiples

CHART 27: EQUITY VALUATIONS HAVE FALLEN SOMEWHAT IN RECENT MONTHS.



Data as of September 2021. Source: BNY Mellon and Eikon / Datastream.

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earnings growth expectations and a risk premium – what we call the 'excess' earnings yield component), shows that the fall in real interest rates, which all else equal would lead to higher valuations, was instead accompanied by lower valuations (the earnings yield rose slightly). This implies that either earnings growth expectations have fallen, the equity risk premium rose, or both (as summarized by the rise in the 'excess' earnings yield component). With real interest rates at historic lows, the rate of economic growth starting to fall closer to trend, and risk premia already at moderate levels, the market is signaling a worsening in the balance of risk for equity markets.

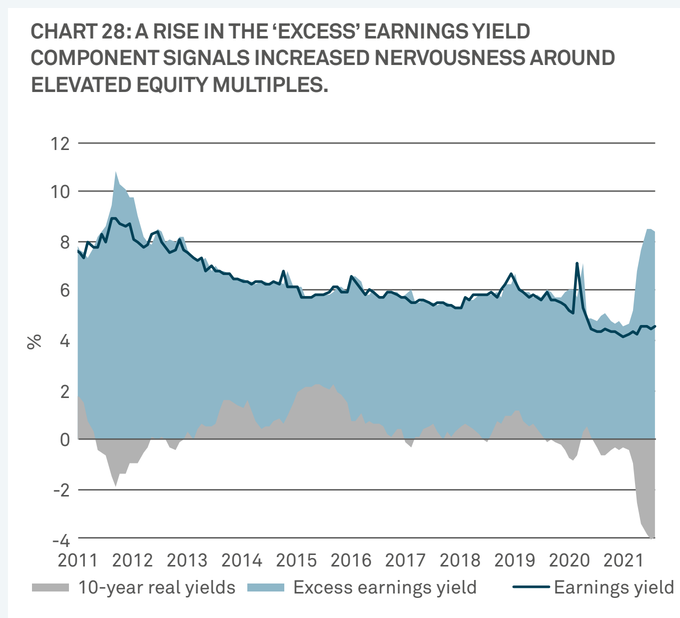
As usual, we compare the probability distribution of possible outcomes for the S&P 500 in one year from now as implied by the options market to that implied by our own fan charts (table 1). Option prices indicate significant, and rising, risks to the downside, with a noticeable 40% probability of outcomes more than 10% below current levels. The market pricing of returns greater than 10% in one years' time has also risen since our last Vantage Point, indicating a greater (risk-neutral) probability of extreme outcomes on either side. Our distribution assigns a significantly smaller probability to very negative outcomes reflecting our more balanced outlook for equities over the next 12-months than the market. We assign a ~69% probability to outcomes above current levels (vs a 42% probability priced in by the market), although we remain somewhat cautious over the outlook for equities further out.

CREDIT

Over the summer, corporate bond spreads widened for the first time since the peak of the pandemic, although most of the move was retraced in late August/early September. Credit spreads remain close to historic lows across the quality spectrum, aside from the lowest graded high yields credits where they remain somewhat higher. Default rates remain low in most countries compared with the size of the hit to earnings seen in 2020 and previous recessions. Trailing-12-month default rates for the US and European high yield bond markets are around 3%, close to pre-pandemic levels and falling.

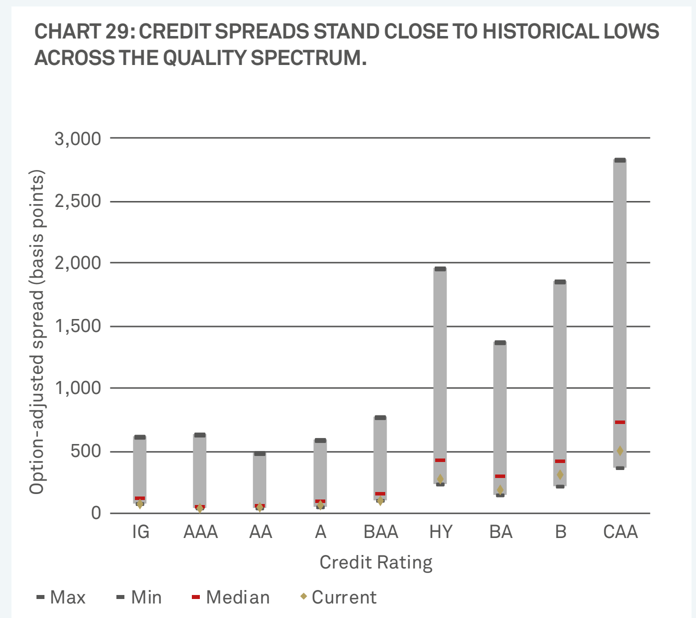
A decomposition of a broad measure of US corporate bond credit spreads shows that the component associated with expected defaults has increased slightly but remains relatively low. The

S&P 500 earnings yield, decomposed into real interest rates and an 'excess earning yield' component



Data as of September 2021. Source: BNY Mellon and Eikon / Datastream.

USD corporate credit spreads since 2000 (max, min, median and most recent)



Data as of September 2021. Source: BNY Mellon and Barclays live.

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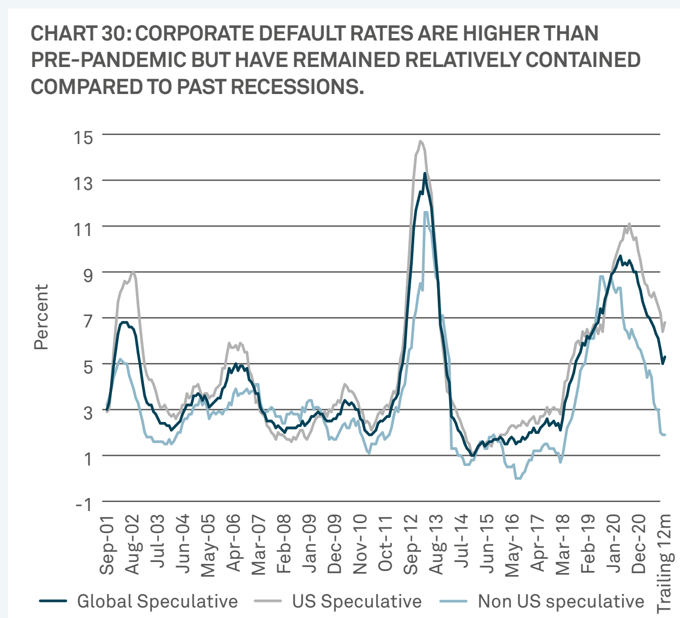
component of spreads explained by the risk premium component rose over the quarter but remains negative and close to historically-low levels. Looking at fundamentals, risks in the corporate sector remain, but have abated, risks in the corporate sector remain. For instance, in aggregate, US corporate gross leverage continued to fall on the back of a broad-based earnings recovery outpacing debt growth. Gross leverage in high yield credit recovered to pre-pandemic levels. Given healthy cash buffers (with cash/debt ratios remaining close to multiyear highs), net leverage has declined significantly and to around 2013-2014 levels. Interest coverage also has improved significantly with the recovery in EBITDA and the fall in interest expenses. But given how compressed risk premia are and our economic outlook pointing to higher interest rates, we remain watchful of signs of stress in pockets of the credit market.

EXCHANGE RATES

Prospects for exchange rates remain tightly linked to views on relative growth differentials, policy stances and risk premia. With relatively stronger domestic growth and the gradual start of US monetary policy normalization, the US dollar is up year to date, although it remains broadly flat since the summer. In line with the strong performance in commodity prices, so called 'commodity' currencies (such as the Canadian dollar, the Norwegian Krona and the Australian Dollar) continued to outperform other major currency pairs. The performance in EM FX, continued to be differentiated by 'carry', as yields have started to rise amid central bank hikes.

Looking ahead, the market's assessment of relative macro performance and policy response remain crucial to the FX outlook. With the Fed signaling a gradually tighter policy, and break-evens fully priced for Fed credibility (thus likely struggling to rise further from here), option prices signal a more favourable balance of risk for the dollar going forward. US dollar risk reversals (a measure of skewness in expectations derived from option prices) have become less negative and increased further above longer term average levels.

Global, US and Non US Speculative grade Corporate Debt Default rates



Data as of August 2021. Source: Moody's Investors Service.

3-month and 1-year USD risk reversals

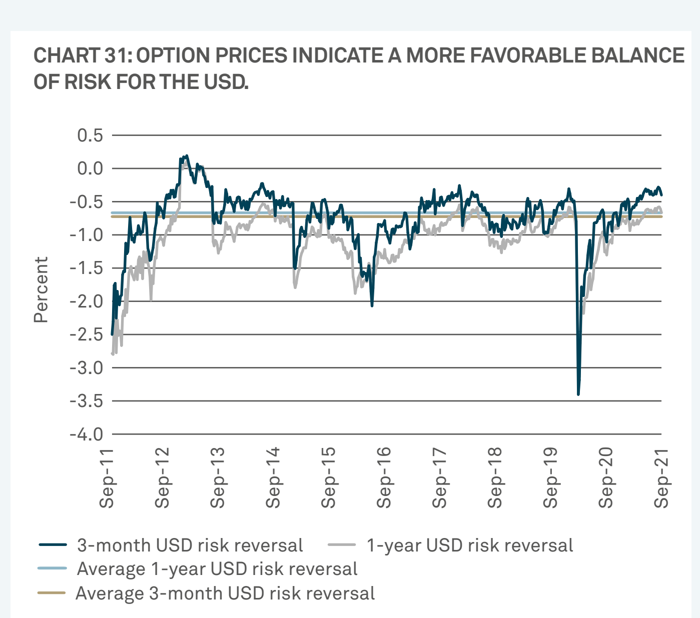


Chart shows a simple average of risk reversals of the USD vs AUD, EUR, GBP, JPY, NOK, CAD, SEK, NZD, CHF. Data as of September 2021. Source: BNY Mellon and Reuters Datastream.

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SECTION 2B

Market Sentiment

CAUTIOUSLY OPTIMISTIC

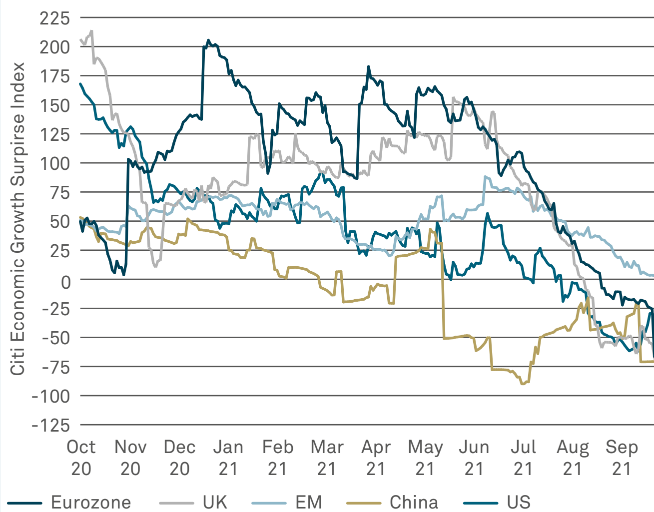
The global economy recovered faster than expected but was less synchronized across countries largely due to varying vaccine rollout success and policy support. While we expect the recovery to continue, momentum has slowed heading into Q4. Sentiment, however, has shifted lower as the boost from pent-up demand, stimulus, and reopening fade, Covid cases increased, positive earnings revisions peaked, and the Fed announced it will start tapering in Q4. Adding to the downward pressure is the weakening trend in Chinese activity and a sharp widening of its regulatory crackdown. Another headwind buffeting sentiment is higher inflation – whether it will be "transitory" and moderate in 2022 or stay high. While the Fed and the market still believe inflationary concerns are temporary, persistent disruption in supply chains and labor market mismatching has led to greater uncertainty.

As highlighted in our last report, to some extent this "peak everything moment" was inevitable. Typically, the market environment in the second year of a recovery is more challenging as investors assess whether slowing momentum is the beginning of a more sustained downturn or recalibration to a new growth level. Despite this shift, through most of the quarter, markets continued to suggest that easy policy, low rates, excess savings, and vaccine effectiveness were sufficient for the recovery to continue. However, there are signs that investors are taking a more cautious approach. Towards the end of the quarter, caution escalated to risk-off as Chinese contagion fears rose stemming from default concerns surrounding Evergrande, a major Chinese property developer.

Highlighting the outlook change during the quarter was the contrast between of lower growth and higher inflation (chart 32 and 33). Against this backdrop and the spread of the delta variant, the reflation trade continued to unwind. In the S&P 500, energy was the worst performing sector during the quarter followed by industrials and materials while communications, health care, and IT led (chart 34). Areas tilted to growth, quality, strong margins and balance sheets, and low vol outperformed both in the US and EAFE (chart 35). Breadth weakened as the percentage of companies in the S&P 500 above their 200-day moving average fell from a peak of 97% in April to 69%, the lowest in nearly a year. Similarly, in Europe breadth dipped to <70% and the lowest since

Citi Economic Growth Surprises

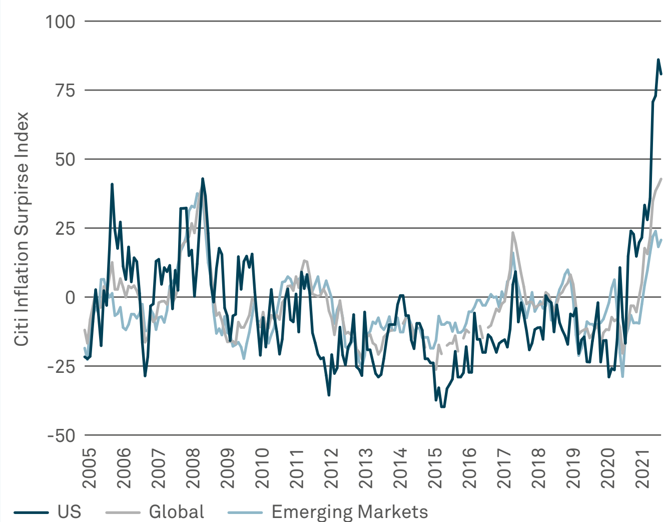
CHART 32: MEASURES OF ECONOMIC ACTIVITY HAVE CONTINUED TO MISS ESTIMATES ACROSS COUNTRIES.



Data as of September 24, 2021. Source: Bloomberg.

Citi Inflation Surprises

CHART 33: INCOMING INFLATION DATA CONTINUES TO BE MORE THAN EXPECTED.



Data as of September 17, 2021. Source: Bloomberg.

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last November. In EM ex-China, only 63% of companies are above their 200-day moving average – down from 83% in June.

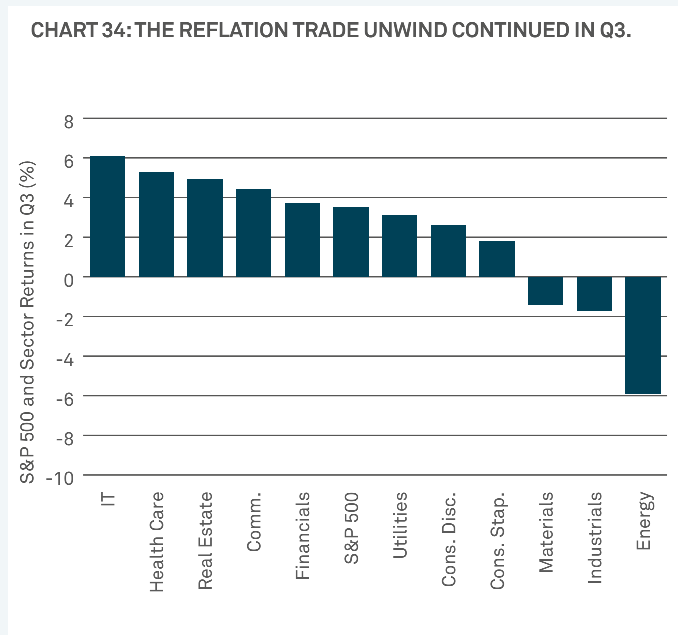
Despite lower breadth and up until Chinese contagion and US debt ceiling concerns risk-off, broader indices had remained resilient (chart 36). On the back of greater regulatory pressure and renewed Covid-led disruption, offshore Chinese equities were hit the hardest but other emerging markets were able to decouple given strengthening domestic recovery particularly in East Asia (chart 37). Flows into EM continued and CDS spreads along with implied vol were contained. While contagion fears have reversed this decoupling, if the US recovery persists, alongside accommodative Fed policies, and the Chinese government can stem the fallout from Evergrande, EM equity performance could improve.

China's downturn, even before Evergrande issues surfaced, had caused the market to price out PBOC rate hikes in the coming 6-12 months, from around +60 bps of tightening expected back in April. Further deterioration in fundamentals and sentiment could, in fact, lead to policy easing. With greater pressure to ease, Chinese government bond yields could remain resilient, or even rally, against any UST curve steepening in a US-led good recovery scenario. But lower yield differentials with the US, would likely put downward pressure on the CNY. Offshore Chinese equities, which have a heavier weight for the tech, education sector – than their onshore counterparts—have underperformed the S&P 500 YTD by 30%. The main onshore index (A-Share, Shanghai Composite) has done less badly – highlighting the importance of those sectors under greater regulatory scrutiny (chart 38).

With growth already slowing in China, a timely government response is needed to stabilize the sector and prevent a prolonged property market adjustment which would materially worsen the economic outlook. Our base case is that in the coming weeks, the Chinese government will take broader measures to socialize credit risks, and, in particular, refinance property developers.

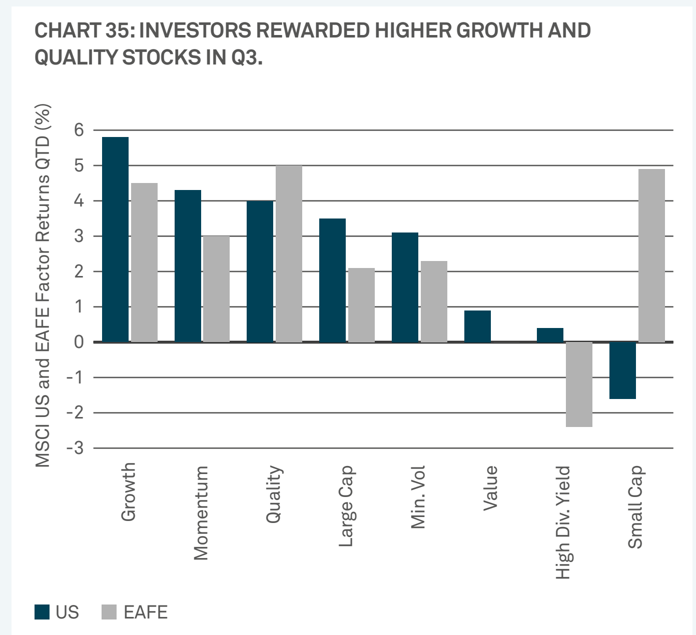
Throughout the quarter, sentiment towards Fed policy and inflation risk remained muted. The retreat in safe-haven government bond yields and market inflation expectations stabilized and ended the quarter rising slightly but were largely unchanged since the beginning of the quarter (charts 39 and 40).

S&P 500 Sector Returns in Q3 (%)



Data as of September 23, 2021. Source: FactSet.

MSCI US and EAFE Factor returns in Q3*



Data as of September 23, 2021. Source: FactSet.

Charts are provided for illustrative purposes and are not indicative of the past or future performance of any BNY Mellon product.

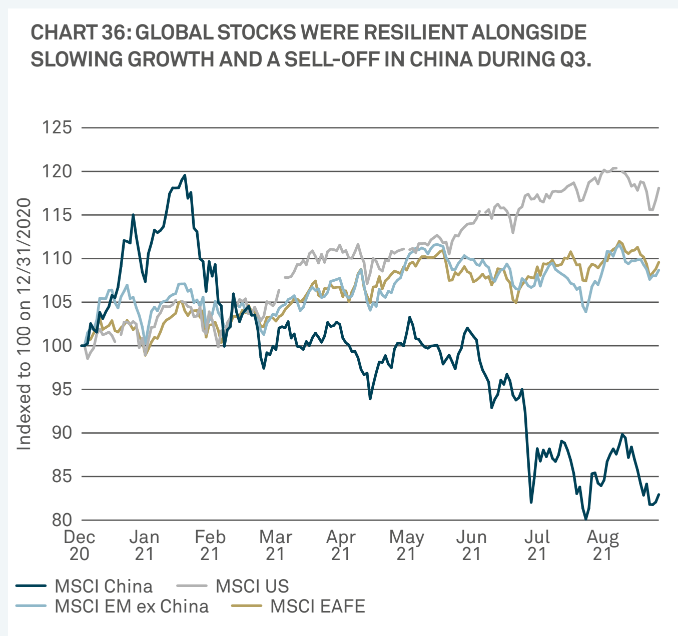
High-yield credit spreads in the US finished the quarter slightly higher but are trending lower and fell in Europe. Credit default swaps also are near YTD lows globally. S&P 500 realized and implied vol were range-bound at subdued levels.

Business, consumer, and investor surveys weakened during the quarter. The AAII Investor survey indicates the lowest number of bulls and highest number of bears in over a year (chart 41). The latest BofA Fund Manager survey had the lowest balance of respondents expecting better growth since the recovery started in April 2020 with the spread of Delta variant cited as the main reason. PMIs, notably in China, either fell or held steady with a slight tilt lower in most regions (chart 42). Consumer confidence in the US stalled and reversed course. Near-term inflation estimates among consumers reached the highest since mid-2008 and more longer-term (2.9% in next 5-10 years) have moved to the highest since 2014. CEO confidence is the lowest YTD and small businesses continue to have trouble finding labor while suggesting higher inflation is their biggest concern.

In conclusion, the easy gains are likely behind us. Up until China and US debt ceiling fears escalated, risk assets remained broadly resilient despite slowing growth. Given the sharp gains in equities YTD and historically low risk priced in credit markets, markets and the low vol backdrop were increasingly vulnerable to a shift in sentiment. While on balance risk has shifted lower over the near-term, we remain cautiously optimistic but expect more volatility. While greater uncertainty around China, the Fed, and inflation are real headwinds, significant excess savings represent a major upside risk, so we favor higher-quality companies and countries at the earlier stages of their recovery with less inflation risk and China exposure. Until the spread of delta subsides and some of uncertainty is moderated, cyclicals and value could continue to underperform. If cost pressures are sustained and inflation persists, companies with higher margins and earnings stability should do relatively well and we would maintain exposure to commodities and real assets. Growth stocks should continue to outperform if rates remain contained and inflation is temporary but are also equally vulnerable to sudden shifts in risk sentiment as seen starting in the latter part of September. Investors will continue to watch for signs of the pace and timing of policy and inflation normalization along with the Chinese government's ability to limit broader contagion from the property sector.

Global Equities YTD

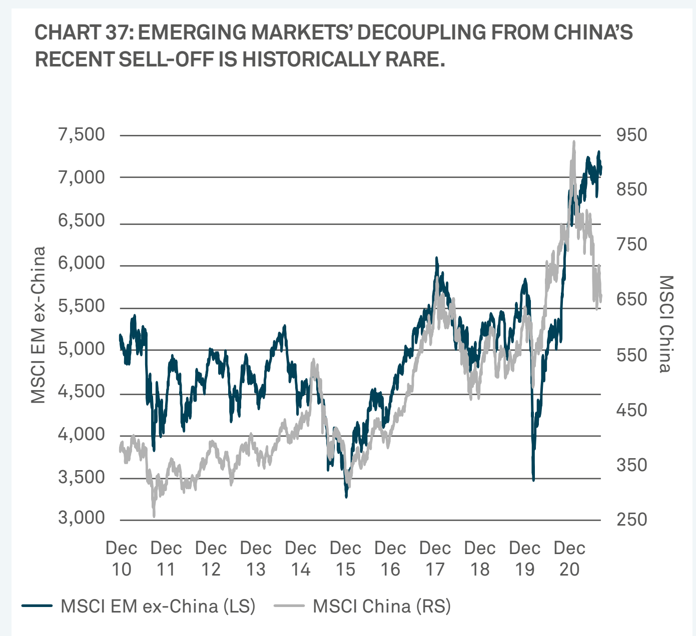
CHART 36: GLOBAL STOCKS WERE RESILIENT ALONGSIDE SLOWING GROWTH AND A SELL-OFF IN CHINA DURING Q3.



Data as of September 24, 2021. Source: Bloomberg.

MSCI China vs. MSCI EM ex-China

CHART 37: EMERGING MARKETS' DECOUPLING FROM CHINA'S RECENT SELL-OFF IS HISTORICALLY RARE.



Data as of September 23, 2021. Source: Bloomberg.

Charts are provided for illustrative purposes and are not indicative of the past or future performance of any BNY Mellon product.

EVERGRANDE FALLOUT TO INTENSIFY THE DRAG ON CHINA'S SLOWING ECONOMY

Evergrande's credit-crunch results from aggressive corporate expansion, set against the Chinese government's relentless deleveraging initiative. The property developer is privately owned, not seen as too big to fail and reeked of moral hazard. But it is also too important to liquidate and it operates in a sector which (broadly defined) accounts for as much as 29% of GDP. As such, the risk of potentially adverse financial as well as socio-economic implications are high and macro contagion could widen.

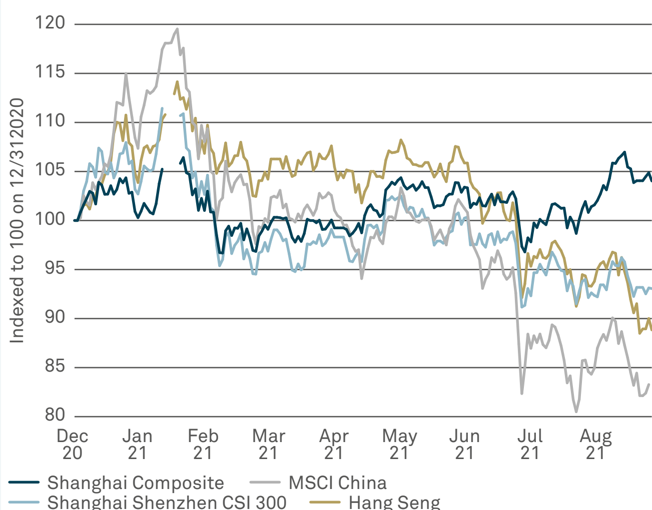
A broader government initiative, which goes beyond the central bank's short-term liquidity easing, is needed for ring-fencing Evergrande and stabilizing the broader sector. Such a response also needs to be timely and credible --conversely, a delayed, or excessively heterodox, approach could prolong China's property market adjustment and materially worsen its macro outlook.

It is also worth bearing in mind that even prior to the debt service difficulties of the property developers, China's macro momentum was weakening on account of: a sustained crackdown on shadow banking, curtailment of local government borrowing, and the broadening crackdown on tech sector companies. Moreover, the authorities' zero-covid policy had resulted in sporadic but sizable shutdowns across wide swathes of the country –thereby weakening retail and consumption activity. Additionally, recent power outages brought on by coal shortages and natural gas price spikes will throttle industrial output.

The bottomline is that China's sequential growth outlook is set to worsen sharply in the remainder of this year. The additional drag from Evergrande, and the over-leveraged property development sector, could become a structural drag on the economy over the long-term, if not tackled early-on or comprehensively.

China equities YTD onshore vs. offshore

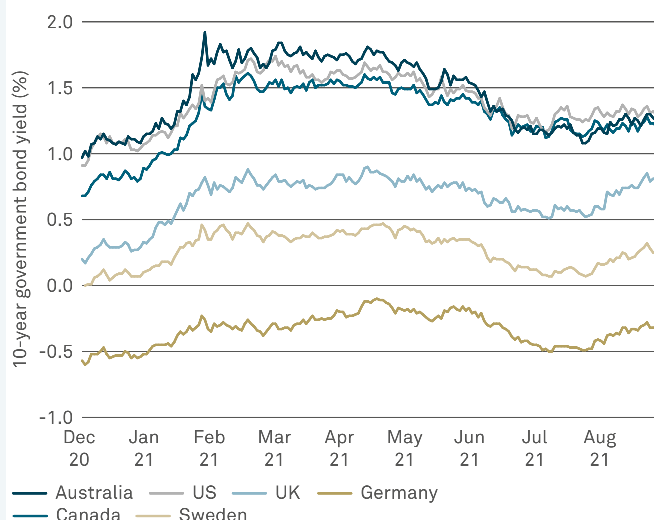
CHART 38: THE CHINESE SELL-OFF HAS BEEN FOCUSED ON INDUSTRIES AND COMPANIES UNDER INCREASED REGULATORY PRESSURE.



Data as of September 23, 2021. Source: Bloomberg.

Developed economies' government bond yields YTD

CHART 39: YIELD STABILIZED IN Q3 AND ENDED THE QUARTER LARGELY UNCHANGED BUT ON A SLIGHT UPTREND.



Data as of September 24, 2021. Source: Bloomberg.

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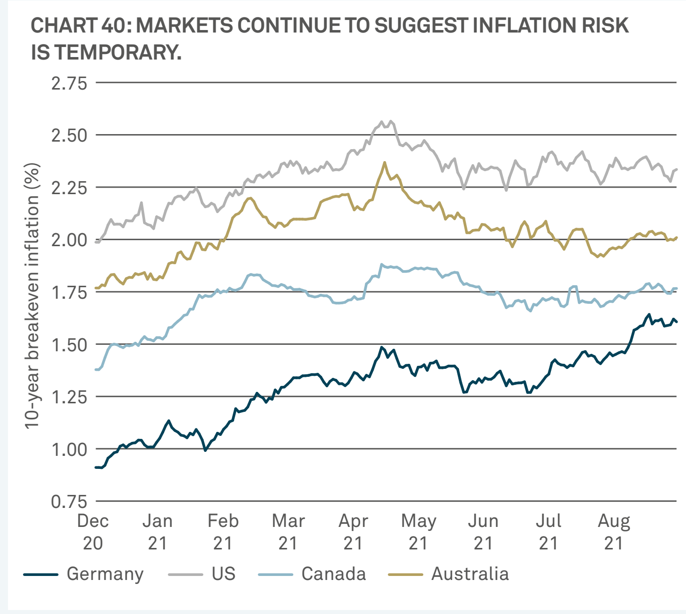
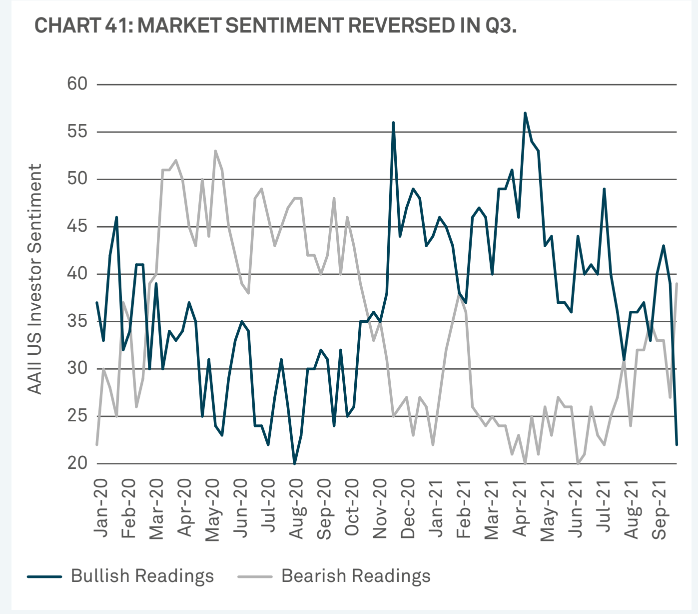
Developed economies' 10-year breakeven inflation rates (%)



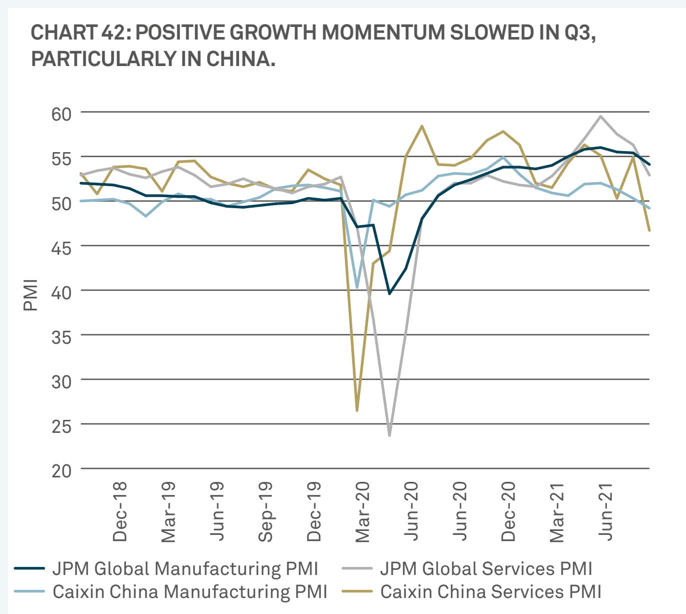
Data as of September 24, 2021. Source: Bloomberg.

Investor Sentiment – Bullish vs. Bearish



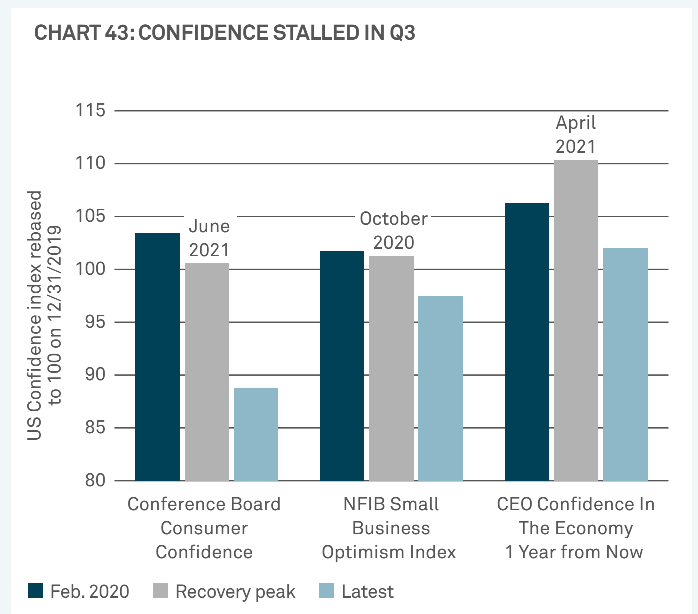
Data as of September 17, 2021. Source: Bloomberg.

JP Morgan Global PMIs



Data as of August 2021. Source: Bloomberg.

US Business and Consumer Confidence



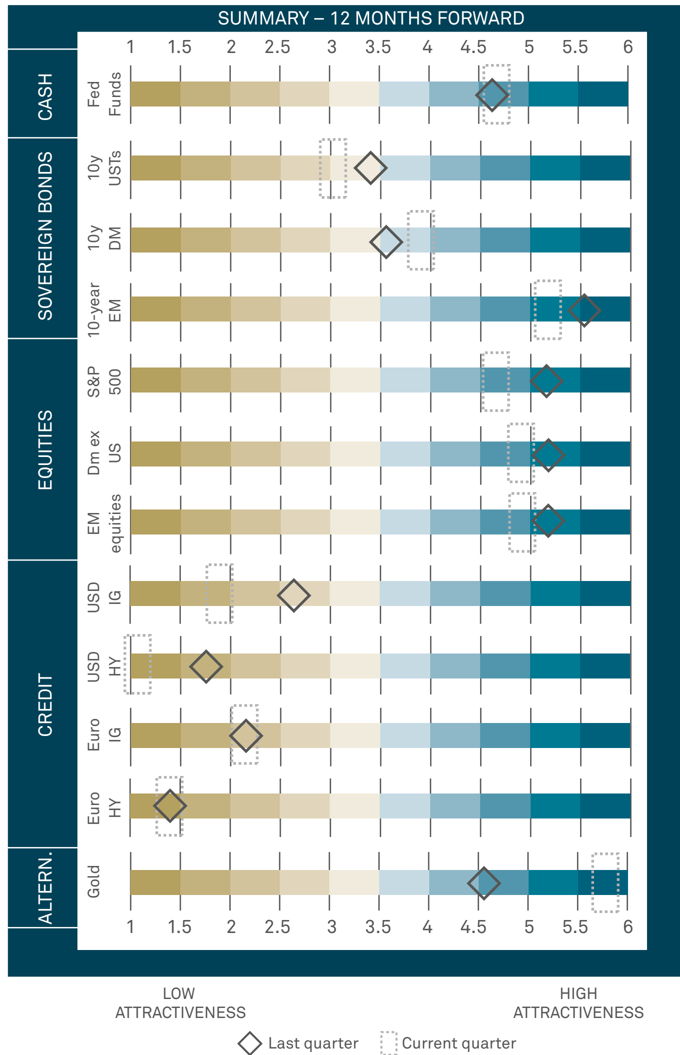
Data as of August 2021. Source: Bloomberg.

Charts are provided for illustrative purposes and are not indicative of the past or future performance of any BNY Mellon product.

Investment Conclusions

SECTION 3

In our asset class heat map the reader can more easily see the relative attractiveness of broad asset classes based on an array of variables we take into account. These variables include return expectations as they correspond to our economic scenarios, current market pricing, risks of major downside shocks, and hedging potential of certain asset classes against these shocks. As a reminder, this score represents our outlook for each group over a two-year investment horizon.

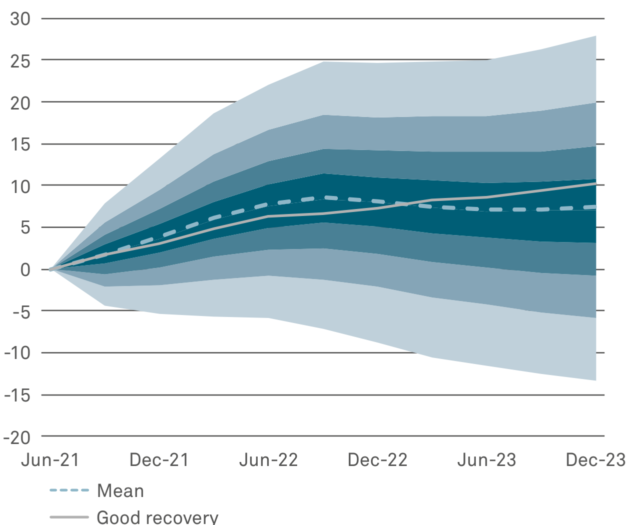


Forecasts were calculated as of September 21, 2021. Source: BNY Mellon GEIA. Footnote: In order to further formalize our investment conclusions, we are introducing a proprietary framework to better illustrate our views of the relative attractiveness of major asset classes. This approach takes into account a number of key variables including the total return expectations of each asset class as they correspond to our economic scenarios, current market pricing, measures of return over risk, risks of a major downside shock, and the hedging potential of certain asset classes against these shocks. The resulting heat map scales indicate where each asset class falls on the distribution of attractiveness scores from low to high (gold to teal) and represent our outlook for each group over a two-year investment horizon. This is not to indicate under/over/neutral weights in any particular asset class, but rather to give the reader a standardized and comparable view of the level of opportunity or risk we see in each category. The variables we use are constructed from the first four moments of the distribution of asset prices we forecast: mean (i.e. expected returns), standard deviation, skewness and kurtosis. We attribute a given score based on the outcome for each variable (for example, we attribute a low score when returns are expected to be lower than -10%, and a high score when returns are expected to be higher than 10%). Finally, we weight the scores for each variable to produce a summary score for each asset (one for US equities, one for EM equities, etc.), where the weights are based on what we consider to be consistent with the preferences of a prudent, total return-seeking investor. This information in this section contains projections or other forward-looking statements regarding future events, targets or expectations, and is only current as of the date indicated. There is no assurance that such events or expectations will be achieved, and actual results may be significantly different from that shown here. The information is based on current market conditions, which will fluctuate and may be superseded by subsequent market events or for other reasons

Portfolio Perspective

Our analysis indicates that Q4 2021 will show continued positive momentum for equities and we are optimistic that a more gradual and digestible rise in rates will ensure a friendly environment for diversified portfolios. As compared with Q3 2021, the shape of the fan chart for the expected outperformance of a risk bull portfolio (80% equities / 20% bonds) still looks attractive in the near-term, but the risks have a decidedly downward skew as we move towards the end of the forecast period. The uncertainty around the level of inflation and the speed of its rise, and perhaps more importantly, the central banks' reaction to it, presents possible headwinds to risk assets and traditional fixed income as outlined in our overheating and tight money scenarios.

CHART 44: 80:20 PORTFOLIO OUTPERFORMANCE %.



Forecasts begin in Q3 2021 and were calculated as of September 20, 2021. Source: BNY Mellon GEIA and Fathom Consulting.
The solid line shows the good recovery upside scenario mode and the dashed line is the mean or probability-weighted average forecast across all four scenarios. The darker bands towards the center of the fan chart show the more likely outcomes, while the lighter bands show progressively less likely outcomes covering 90% of the forecast distribution. The width of the fan chart shows the level of uncertainty and when the bands below the central forecast are wider than those above shows the balance of risks lies to the downside.

EQUITIES

US Equities: Overall, equities still remain the most attractive option in risk assets. We are still closer to the beginning of the economic recovery than the end and equities will be supported by real growth. Hence, this quarter's heat map keeps the attractive score for US equities. That said, risk temperature has increased compared with Q3. The market is increasingly pricing in lower growth amid longer-lasting supply bottlenecks. Moreover, there are growing number of uncertainties (China, Covid, debt ceiling) which come on top of elevated multiples. In our view, this is a very good environment for active asset allocation, characterized by sector and stock selection. We still think cylical stocks will outperform as growth worries dissipate towards the end of this year and into next year. We favor, materials, energy, and financials but with a more selective approach compared with Q3. Secular growth names are still supported by subdued yields but they may face some relative performance pressures as yields gradually rise. Expect further rate volatility if inflation data come in hot as the market has priced in mild inflation reads in the long term.

International Developed Equities: Given that international equities such as Europe are currently more levered to a cyclical recovery, we expect them to do well in Q4. Many of the tailwinds remain in place, including better valuations compared with US equities and an economy which benefits from trade. Upward earnings revisions are at elevated levels and Europe's 12-month forward EPS surged its pre-covid levels. For all these reasons, we underline the importance of this asset class for diversified portfolios.

Emerging Markets (EM) Equities: The pandemic appears to have peaked in most EMs:Covid cases are falling in 60% of EMs and vaccination rates have surged. We therefore believe that EM growth will pick up as economies adapt to living with Covid. From the markets' point of view, the pandemic has undoubtedly changed the risk-reward balance for EMs, and there is significant dispersion of regional and country outcomes. In other words, there is ample opportunity for active asset managers in EM equity space, especially in an *overall* benign USD environment. We are sanguine about countries such as India and Southeast Asian countries such as Indonesia which have probably seen the worst of the pandemic. Equity markets are likely to price in the regional recovery as consumers return and manufacturers recapture export share from China in Q4. Additionally, in LATAM, we expect countries such as Mexico to continue to benefit from high commodity prices and strong demand for real assets. As always, we suggest a more nuanced approach to EM investing and for investors to remain on top of idiosyncratic developments. More stressed EMs like Turkey and South Africa that have high dollar debt, external financing needs and current account deficits may come under severe pressure if there is a sustained tightening in global financial conditions.

FX

US Dollar and Foreign Exchange (FX): Compared with Q3, we have increased the upside risk to the USD since the higher probability we attach to inflationary outcomes could mean the Fed tightens earlier than the markets currently expect and earlier than other major countries. Lately, Evergrande contagion risks have raised market financial stability concerns. Given the USD acts as a barometer of global financial health (appreciating when stresses arise), this may add fuel to the current strengthening USD trend. Hence, we expect EM FX to come under pressure with increased volatility expected especially in high beta crosses.

ALTERNATIVES

Alternatives: As markets navigate the risk of greater volatility and higher inflation, we believe alternatives offer volatility and inflation hedging protection. Precious metals remain attractive in the face of higher inflation risk, and gold in particular continues to be a hedge against short-term drawdowns in the case of a market shock. Real assets such as real estate, infrastructure commodities outperform during inflationary upswings. With heightened inflation and rate risk, alternatives can provide uncorrelated exposure to traditional asset classes. Alternatives that are more robust to surprise rate hikes will play an important role too.

FIXED INCOME

Developed Sovereign Debt: Consolidation of yields in Q2, particularly in the US, was followed by a range-bound slight pick-up in Q3 where US 10-year yield is currently stuck in the 1.20%-1.50% range. We still expect the rise in inflation expectations globally to put pressure on DM sovereign bond prices through Q4 2021 and into 2022. That said, with the US outgrowing other DMs, Treasury yields remain more attractive than most international sovereigns on a relative basis. Nevertheless, we expect upside in sovereign yields as inflation prints globally reflect bottlenecks. US TIPS could offer opportunity in a rising inflation environment.

Global Investment Grade Credit (IG): This quarter, our outlook on the credit space has become more widely dispersed among scenarios and we remind the reader that the scores and attractiveness on our heat map are based on both price return potential, income potential and future hedging properties. The overall US IG remains on the less attractive side of the scale given the limited price return potential from here. As the forecast period moves forward into 2022, there is some risk of a widening in spreads while risk assets adjust to the slow removal of the policy support backstop. The same holds true for European investment grade credit, although policy support has been less aggressive and broad-sweeping and the region is likely to experience a delayed recovery.

Global High Yield Credit (HY): The score for US HY at the end of the forecast remains largely unchanged from last quarter as default risk has plummeted, but we recognize that the balance of risks has changed to reflect the possibility of downside price risk in 2022. A hawkish Fed, higher-than-expected inflation prints, and supply-side bottlenecks, rising yields could pose risks to the high yield space as the cost of borrowing rises. European HY carries a lower score given income returns are expected to provide less of a cushion to the negative price returns we expect over the whole forecast period. Both regions remain attractive as income generating instruments and investors must weigh their objectives accordingly.

Emerging Market Debt: Given expectations for higher US rate volatility, we suggest a diversified approach to allocation within EM local, HY and sovereign USD debt. Within sovereign debt, we favor countries such as Indonesia, Mexico, Colombia and Egypt and advise hedging against future US rate increases. Within corporates, from a macro standpoint, we prefer HY to IG thanks to their high beta to an ongoing cyclical recovery.

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Past performance is no guarantee of future results.

The companies and/or sectors indicated should not be construed as recommendations to buy or sell a security.

All investments involve risk, including the possible loss of principal. No investment strategy or risk management technique can guarantee returns or eliminate risk in any market environment.

FORECASTS
Projections or forecasts regarding future events, targets or expectations, are only current as of the date indicated. There is no assurance that such events or expectations will be achieved, and actual results may be significantly different.

RISKS
Equities are subject to market, market sector, market liquidity, issuer, and investment style risks, to varying degrees.
Bonds are subject to interest-rate, credit, liquidity, call and market risks, to varying degrees. Generally, all other factors being equal, bond prices are inversely related to interest-rate changes and rate increases can cause price declines. **Commodities** contain heightened risk, including market, political, regulatory, and natural conditions, and may not be appropriate for all investors. **High yield bonds** involve increased credit and liquidity risk than higher-rated bonds and are considered speculative in terms of the issuer's ability to pay interest and repay principal on a timely basis. Investing in **foreign denominated and/or domiciled securities** involves special risks, including changes in currency exchange rates, political, economic, and social instability, limited company information, differing auditing and legal standards, and less market liquidity. These risks generally are greater with emerging market countries. **Small and midsized company stocks** tend to be more volatile and less liquid than larger company stocks as these companies are less established and have more volatile earnings histories. **Currencies** are can decline in value relative to a local currency, or, in the case of hedged positions, the local currency will decline relative to the currency being hedged. These risks may increase volatility. **Alternative strategies** may involve a high degree of risk and prospective investors are advised that these strategies are appropriate only for persons of adequate financial means who have no need for liquidity with respect to their investment and who can bear the economic risk, including the possible complete loss, of their investment. The strategies may not be subject to the same regulatory requirements as registered investment vehicles. The strategies may be leveraged and may engage in speculative investment practices that may increase the risk of investment loss. Investors should consult their financial professional prior to making an investment decision.

INDEX DEFINITIONS
US **Consumer Prices (CPI) Index** measure of prices paid by consumers for a market basket of consumer goods and services. The yearly (or monthly) growth rate represents the inflation rate. The **10Y US Treasuries Average Yield** of a range of Treasury securities all adjusted to the equivalent of a ten-year maturity. The **CBOE VIX Index (VIX)** is an indicator of the implied volatility of S&P 500 Index as calculated by the Chicago Board Options Exchange (CBOE). The **Majors Dollar Index (USD)** measures the value of the US dollar relative to a basket of currencies of the most significant trading partners of the US including the euro, Japanese yen, Canadian dollar, British pound, Swedish krona, and Swiss franc. The **MSCI EM Index (Emerging Markets Equities)** tracks the total return performance of emerging market equities. The **S&P 500 Composite Index (S&P 500)** is designed to track the performance of the largest 500 US companies. **Europe STOXX 600** Index represents the performance of 600 large, mid and small capitalization companies across 18 countries in the European Union. **Bloomberg Barclays US Corporate High Yield:** covers the universe of fixed-rate, non-investment grade corporate debt in the US. **Bloomberg Barclays US Corporate Investment Grade:** designed to measure the performance of the investment grade corporate sector in the US **1-mth. 1-year forward swap:** the avg. interest rate for 1-mth. in 1-year forward. **GDP:** gross domestic product is the total monetary or market value of all the finished goods and services produced within a country's borders over a given time period. **Fed funds Rate:** the target interest rate for overnight lending and borrowing between banks. **Purchasing Managers Index (PMI):** An economic indicator derived from monthly surveys of private sector companies. A level above 50 indicates expansion compared to the prior month and below 50 contraction.

STATISTICAL TERMS

Skewness in statistics represents an imbalance and an asymmetry from the mean of a data distribution. In a normal data distribution with a symmetrical bell curve, the mean and median are the same. **Kurtosis** is a measure of whether the data are heavy-tailed or light-tailed relative to a normal distribution. That is, data sets with high/low kurtosis tend to have heavy/low tails, or outliers. **Probability-weighted mean** is similar to an ordinary arithmetic mean, except that instead of each of the data points contributing equally to the final average, data points are weighted by the statistical probability for a particular scenario outcome. **Duration** is a measure of a bond's interest-rate sensitivity, expressed in years. The higher the number, the greater the potential for volatility as interest rates change. **Z-score:** number of standard deviations from the mean a data point is.

OTHER

R: the number of people COVID-19 is transmitted to per person. **QE:** quantitative easing. **WTO:** World Trade Organization. **Synthetic credit:** non-cash assets that obtain exposure to a portfolio of fixed-income assets. **FOMC:** Federal Open Market Committee.

BNY Mellon Global Economics and Investment Analysis team

Shamik Dhar
Chief Economist

Aninda Mitra
Head of Asia Macro
& Investment Strategy

Lale Akoner
Market Strategist

Bryan Besecker, CFA, CAIA
Market Strategist

Sebastian Vismara
Financial Economist

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