

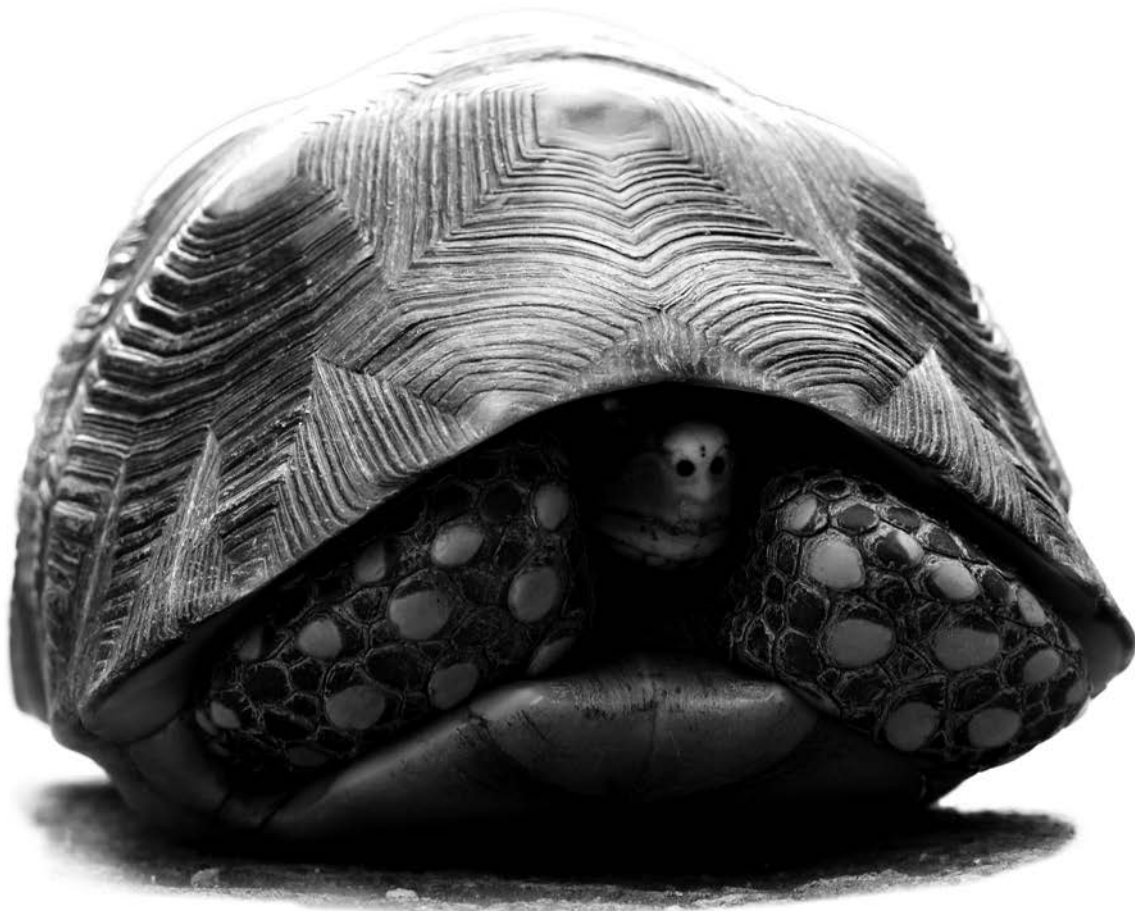
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Vantage Point

Q4. 2022

Defensive playbook





Introduction

Welcome to another edition of Vantage Point, the quarterly economic outlook from the Global Economics and Investment Analysis team.

The world economy is in a precarious situation. There are a number of pressing issues but three stand out. First, there is the ongoing energy crisis, triggered by Russia's invasion of Ukraine, which leaves natural gas and electricity prices high going into the northern hemisphere winter. Second, there is the ongoing challenge of high core inflation, driven by tight labour markets and high wage inflation. And third, there is the situation in China, where property deflation plus zero Covid health policy threaten that economy. These three issues threaten the world economy, but each affects the major economic regions differently. The energy crisis is primarily a European problem – that is where gas dependency is highest and Europe is a large net energy importer (unlike the US). Core inflation looks stickiest and most difficult to deal with in the US, where the Federal Reserve remains in catch-up mode. And finally, China's travails are felt mostly at home and in its neighbourhood, though global supply chains remain vulnerable to a really severe downturn.

So can the world economy avoid a recession in 2023? Possibly, but a lot has to go right for that to happen. One of our scenarios, 'Softish Landing', paints that picture, but we have assigned it just a [30%] probability. The US is key and can avoid recession if: (i) US inflation and inflation expectations fall relatively quickly – and remember, we are past the peak of energy and core goods inflation; (ii) the labour market softens in a benign way, with wage inflation falling back as a result of job openings falling, rather than jobs themselves; and (iii) the Federal Reserve recognises this and calls a halt to sharp rate increases early in 2023. Perhaps the strongest argument in favour of a soft landing is that household balance sheets are so strong. Elsewhere, we'd

need to see some combination of a reversal in war fortunes, a mild winter and government intervention to soften the blow of high gas prices to see Europe through. We would also have to avoid a sharp rise in Covid cases in China or elsewhere.

Delivering all of those things looks unlikely, hence our relative pessimism about the economic outlook. Our 'Global Recession' scenario carries a probability of [60%], though in reality it looks more of a done deal in some regions than others. The European economy is probably already in recession and the question now is what kinds of government policies could ameliorate it?

The UK has maybe led the way here, putting together a large fiscal package¹ (amounting to 7.5% of GDP or so) directed at freezing gas prices, with future taxpayers (and to some degree future energy consumers) bearing the costs. The interesting thing is what this means for monetary policy. My own view is that such intervention frees up the central bank to focus on getting core inflation down, by being more aggressive with rates. In other words, while the overall stance of policy might be broadly unchanged, the mix could be very different, with fiscal supporting incomes while monetary targets inflation.

Of course, markets reacted very negatively to news of a 2% of GDP² permanent reduction in taxes, the pound falling sharply and UK gilt yields rising very sharply. The Bank of England was forced to step in to stabilize the gilt market, postponing sales and resuming long-dated gilt purchases for financial stability reasons. Of course, this could have monetary policy repercussions – inducing the Monetary Policy Committee (MPC) to raise rates further, faster and earlier than they otherwise might have. Ironically, a lower currency and higher interest rates may be just what the UK economy needs. What is currently missing is a credible plan to bring the ratio of public debt to GDP down over the longer term.

¹ "The Growth Plan 2022". H.M. Treasury, 23rd September 2022.

² Own estimate based on announced figures.

Without that, the gilt market could remain vulnerable to further losses of confidence and runs, putting enormous pressure on the central bank, when in reality it is clarity of government policy the market requires.

Meanwhile, the Fed continues to talk tough, and will probably back this up with significant hikes continuing through end-2022 and into 2023. Our US Fed Funds fan chart shows a central forecast of rates peaking at 4.5% or above, with the risks to the upside. At the time of writing, the market has caught up with that view, having had a peak of only just over 3% as recently as early August. Our sense is the Fed will have to generate a material loosening of the labour market – not just vacancies falling, but unemployment rising significantly – in order to get wage inflation back to levels consistent with the 2% inflation target. That said, the ‘good’ news is that any recession should be relatively mild and short, since the so-called ‘sacrifice’ ratio looks a lot lower today than it was in the 1970s, 80s and 90s.

Meanwhile, there are lots of accidents waiting to happen out there. Some of these are related to the three issues I outlined above. A really sharp US monetary tightening could trigger sell-offs in a variety of leveraged products both domestically and internationally. The property market looks vulnerable in a number of countries, not just China. A deep recession could uncover some nasty default surprises amongst so-called ‘zombie’ companies. Emerging market debt and equities look vulnerable to rising US rates and a stronger dollar. European peripheral debt markets could enter another ‘doom loop’ if the European Central Bank (ECB) proves too aggressive. All of these are ‘tail risks’ we lump together into a single scenario, ‘Something Breaks’ (10%), in which one or more of these happen and intensify the world downturn.

So far, so gloomy. But the interesting thing is, even as markets converge on the likelihood of recession, they

also begin to look through it. We aren’t quite ready to call an equity market bottom, but it may not be far away. We would expect to see the yield curve invert further and then fall, while equities may have to take another leg down before they begin their recovery, usually near the time monetary policy pivots and leading activity indicators trough. Market timing is always difficult, but we’re firmly moving into the more positive camp and monitoring signs of widespread capitulation before we advise going back in fully invested.

Let me end on a personal note. I write this from a pleasant but anonymous hotel room in the United States just as an important funeral begins. I was born in 1963, and arrived in the United Kingdom as a truculent 1-year old in May 1964. It was the height of Beatlemania but Queen Elizabeth II had, with rather less fanfare, just entered her second decade as monarch. She could easily have become an adversarial figure and the monarchy a symbol of irrelevance and decline. But thanks to her service to every British citizen, her dignity, humour and clear commitment to the Commonwealth, that never looked likely. Lloyd George visited her as a baby; Gandhi sent her a wedding present; her first Prime Minister, Churchill, was born 100 years before her last, Liz Truss; she visited over 100 countries and met 13 out of the last 14 US presidents, including Harry Truman while still Princess Elizabeth. As living history, Elizabeth II represented something more than her country alone. She also embodied that most British of attitudes – keep calm and carry on. Perhaps investors could take note.



A stylized, handwritten signature in black ink, appearing to read 'S Dhar'.

SHAMIK DHAR
CHIEF ECONOMIST

Vantage Point summary

As in the last edition of Vantage Point, we summarize our analysis in a new simple, yet powerful, way.

We start by showing a summary of our outlook over the 12 months in terms of the level for GDP growth, inflation and monetary policy support.

We then highlight how our fan charts and market expectations differ – in terms of average expectations for the variables considered, and uncertainty around such expectations. Broadly, the idea is that a significant share of moves in financial market can be explained by the 3 macro factors considered – growth, inflation and monetary policy -, that macro-driven tactical investment opportunities arise when there is a substantial discrepancy between our own views and what is priced in by the market, and that conviction around our tactical investment views is highest the lower the uncertainty around our forecast.

TABLE 1: SUMMARY OF OUR OUTLOOK

How to read the heatmap. **Green** indicates above trend growth, below target inflation, greater policy accommodation and lower-than-average levels of uncertainty. **Grey** indicates economic growth in line with trend, inflation in line with target, a neutral policy stance, and average levels of uncertainty. **Red** indicates below trend growth, above target inflation, a tight policy stance, and higher-than-average levels of uncertainty.

		Growth	Inflation	Policy	Takeaway
Summary of our outlook	Average expectations	Red	Red	Red	Growth is weak over the next 12 months, inflation is still above target and policy moves rapidly to tight levels.
	Uncertainty	Red	Red	Red	Uncertainty is high given the geopolitical landscape, and the policy reaction to slow growth and high inflation.

TABLE 2: OUR FORECAST VS THE MARKET

How to read the heatmap. **Green** indicates better than expected (relative to the market) growth, lower than expected inflation and greater than expected policy accommodation. Green also indicates that uncertainty around our macro expectations is lower than what signaled by the market. **Grey** indicates that expectations (or uncertainty around expectations) for economic growth, inflation and policy are broadly in line with the market. **Red** indicates worse than expected growth, greater than expected inflation and a tighter than expected policy stance. Red also indicates that uncertainty around our macro expectations is higher than what signaled by the market.

		Growth	Inflation	Policy	Takeaway
Vantage Point vs the market	Average expectations	Red	Red	Grey	We see growth disappointing, inflation surprising to the upside and policy to tighten in line with expectations.
	Uncertainty	Grey	Grey	Grey	Us, like the market, recognise the sheer amount of uncertainty over the outlook.

TABLE 3: SUMMARY OF 12 MONTH INVESTMENT CONCLUSIONS

How to read the heatmap. **Green** indicates overweight. **Grey** indicates neutral. **Red** indicates underweight. Polarized possible outcomes for the economy mean this is an environment to tighten risk budgets and not make bold directional bets.

Asset class	Q3 '22	Q4 '22	Conviction	Rationale
Cash	Green	Green	High	Benefits from higher policy and slower growth. Suffers inflation.
Fixed Income	Red	Grey	Medium	Suffers from policy and inflation, benefits from slower growth and the likely recession.
Equities	Red	Red	Medium	Suffers from slower growth and tight policy, ambiguous for inflation.
Credit	Red	Red	High	Suffers from slower growth, higher inflation and tight policy.
Alternatives	Green	Green	Medium	Assets that benefit from higher inflation, but are less sensitive to growth and policy.

Executive Summary

OUR NEW SCENARIOS IN BRIEF

30%

PROBABILITY

Scenario 1 – Global ‘Softish’ Landing

SCENARIO

- Global financial conditions tighten only gradually as rate hikes slow, policy divergence cools, USD strengthening wanes, market liquidity stabilizes
- Disinflationary stars align perfectly for major economies, led by supply-side improvements
- Tight U.S. labor markets loosen with reduced job offers, but no significant jump in unemployment
- Europe imposes price-caps on gas and rapidly substitutes away from Russian energy supply and the ECB acknowledges underlying weaknesses and slows its pace of rate hikes
- Wage increases subside, inflation expectations normalize in the U.S. and in Europe
- China eases Zero-Covid policies and effectively backstops the property sector
- Ukraine conflict is contained, which accords with continuing reduction in food and commodity prices

A downshift in global growth after sustained tightening in policy and the impact of energy shocks is inevitable, but relatively painless. A ‘softish’ landing scenario with continuing disinflation results from a constellation of favorable supply-side developments in major economies. These include loosening of U.S. labor markets led by lower job vacancies, higher labor supply, but no material reduction in employment. It also includes a fortuitously mild winter in Europe, well executed price caps on retail energy bills as well as a rapid substitution away from Russian gas supply. Further, the Russo-Ukrainian conflict does not escalate. Meanwhile, China eases its Zero-Covid stringency and does a better job of backstopping its softening property sector, thereby forestalling any recurrence of supply-chain disruption or a large-scale collapse in domestic demand. As such, food, fertilizer, and a range of commodity prices stay on a downward keel. A more orderly reduction in excess demand in U.S. and Europe follows with a lag. The European Central Bank slows its pace of hikes, with euro rates peaking lower than in the US. As global growth risks ease, the Bank of Japan begins to reduce policy accommodation. Waning policy divergence, in turn, slows the rise of the USD, softens the pace of global financial tightening, and rapidly improves market sentiment by early next year.

60%

PROBABILITY

Scenario 2 – Global Recession

SCENARIO

- Europe slumps into a recession due to a deepening energy shock– made worse by a bad winter and a messy energy and fiscal policy response as well as aggressive monetary tightening
- U.S. labor markets crack and unemployment rises steeply on more than expected Fed tightening
- China's Zero-Covid stringency does not ebb even after the mid-October 20th Party Congress, and authorities struggle to keep the property sector afloat and domestic demand from crumbling
- Interest rates stay higher for longer, and any dovish pivot in monetary policy is pushed out to 2024

Europe slumps into an outright recession by year-end on its massive terms-of-trade shock. Conditions are made worse by a bad winter, poorly implemented retail price caps (which fuel more electricity demand), and messy fiscal interventions (which fail to anchor investor confidence in peripheral countries in the Eurozone). Moreover, the European Central Bank (ECB) continues hiking aggressively. The U.S. experiences a material weakening of its labor markets on a very hawkish Fed policy response, and its economy slides into a more protracted period of below trend growth. China's insistence on a stringent Zero-Covid stance undermines domestic sentiment, labor markets and activity. Beijing crafts incrementally larger quasi-fiscal stimulus packages but struggles to keep property activity from slumping. The conjoint slowdown in Europe and China starts to weigh more egregiously on global demand and corporate earnings. Meanwhile, the ongoing conflict in Ukraine widens global political rifts. For instance, efforts by the G-7 group of countries to impose "price caps" on Russian oil sets off deeper supply cuts and proves counterproductive. In a worsening supply-side and geopolitical environment, higher and more prolonged increases in interest rates become inevitable to counteract broad-based inflation pressure and risk of second round impacts.

10%

PROBABILITY

Scenario 3 – Something breaks

SCENARIO

- Hawkish policy tightening by the Fed materially weakens the US labor market and exposes heretofore unforeseen vulnerabilities in the US and global economies
- Aggressive ECB tightening triggers a European debt crisis
- China encounters a banking crisis as domestic demand and confidence is undermined by inadequate countercyclical policies and structural adjustment
- Russia-Ukraine war escalates, energy prices spike much higher on threat of nuclear conflict
- Aggressive developed market (DM) policy-tightening or geopolitical crisis expose global economic and financial vulnerabilities. These could include:
 - disruptions in U.S. credit or housing, distress in the less liquid private equity market
 - sovereign debt distress in peripheral countries of the Eurozone
 - emerging market (EM) sovereign or corporate distress on sustained USD strength
 - a Chinese banking crisis, and rising FX pressure, on a deep slump in the property sector, plummeting consumer sentiment and investor confidence

This is the tail-risk scenario in which over-tightening by the world’s major central banks, sub-par policy response in China, extreme policy divergence, and conflict escalation imparts an even larger shock to sentiment and activity. In other words, things keep getting worse until something breaks. For instance, it precipitates a crisis-like widening of credit spreads in the U.S. and globally, or a steep downshift in U.S. housing or in its (not so liquid) private equity sector. Parts of the crypto market crack too. It could also precipitate a European-debt-crisis like widening of sovereign credit spreads in Europe’s periphery. In this scenario, Chinese authorities are unable to ring-fence (let alone, offset) the spill-over from its property sector to its broader economy. That could prompt a bigger downshift in sentiment and confidence which exposes more widespread insolvencies and a freeze-up across its banking sector, or prompt larger FX pressures. Finally, net commodity importing emerging markets could see a run on their currency or credit --as many such economies have rigid exchange rate regimes, narrow economic bases, thin policy and liquidity buffers and large USD liabilities.

INVESTMENT CONCLUSIONS

Summary

- In an environment of slowing global growth and declining inflation, the “slowdown playbook” advises tilting to lower risk exposure. However, the nature of this deceleration is challenging given the potential for the US to “softish land” the economy, which would likely result in a strong rebound in growth-sensitive risk assets, such as equities. Patience may be the best advice right now, given the uncertainty of the outlook, but also because higher yields on US dollar cash effectively reduce the “cost” of being so. Ideally, there is more clarity in the coming months on the economy that would provide better signals as to the direction of various asset classes and guide the de-risk versus re-risk debate. For now, given the balance of risks laid out in our fan chart forecasts, we advise “light” positioning (i.e., limit large directional bets) and lean toward de-risking (i.e., preference for assets that better weather economic slowdowns) as a means of preserving capital and achieve higher expected returns. This argues for a balanced defensive approach with moderate preference for fixed income (primarily sovereign bonds) over equities that are more sensitive to economic growth. The US is the favoured market globally, despite risks stemming from aggressive Fed tightening, because it is positioned to benefit most strongly from a “softish landing” where growth returns to trend sooner. Within equities, we continue to favour less rate-sensitive parts of the market, such as value over growth, given the possibility of rates remaining higher for longer. Across broad equities, we have a strong preference for profitability and higher quality given recession risks. Should we enter a recession, even a “mild” one, profitability/quality will become prized and those companies across the equity spectrum are likely to be relative outperformers.

What We Think

SECTION 1



SECTION 1

What we think: Forecast summary

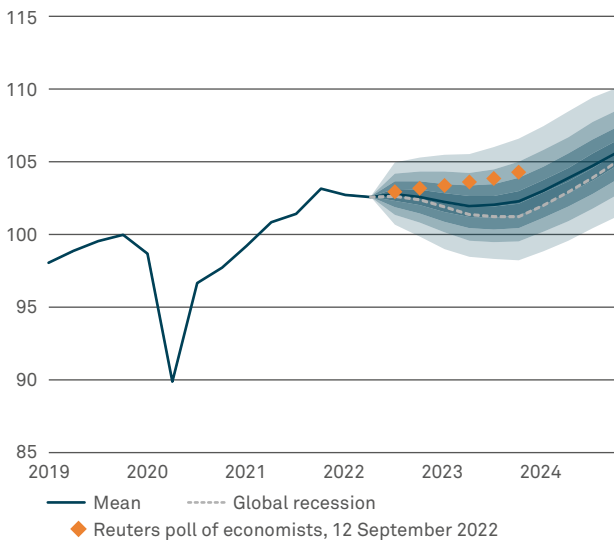
Talk of recession has intensified over the past three months. Whether due to a deterioration in the terms of trade manifesting itself in a 'cost-of-living crisis' in Europe, a rapid tightening of monetary policy in the US, or on/off lockdowns related to a zero-COVID policy combining with an increasingly weak housing market outlook in China, much of the global economy appears vulnerable. The payrolls data, which are often the first to confirm a period of recession, suggest that the US economy continued to expand through the summer. Timely, high-frequency macroeconomic data for Europe are harder to come by. Nevertheless, in our judgment both the euro area and the UK probably entered recession at some point during the third quarter. China's economy is likely to have expanded, after a period of government-mandated lockdowns in Q2, though by how much at this stage is unclear.

The first three fan charts below summarise our views about the distribution of possible outcomes for economic activity in the US, the euro area and China. In our single most likely

scenario 'Global recession' all three regions experience a period where growth is below trend, and materially so in the euro area. The risks around this fairly pessimistic outlook lie to the upside. The greatest risk of outright contraction over the next four quarters lies in the euro area, with a 90% probability. The odds for the US are 60% and for China 10%.

Inflation is probably at or close to a peak in most major economies. The pace at which inflation falls from here will depend in part on the magnitude of the economic slowdown, but also on the extent to which the initial price shocks, associated with sharp increases in the prices of many globally traded goods as economies reopened early last year, and more recently with spiralling energy costs, affect wage and price setting more broadly. There is considerable uncertainty about the magnitude of these so-called second-round effects, and that is one reason why the US and euro area CPI fan charts are unusually wide. Our single most likely scenario sees inflation fall quite sharply through next year, particularly in the euro

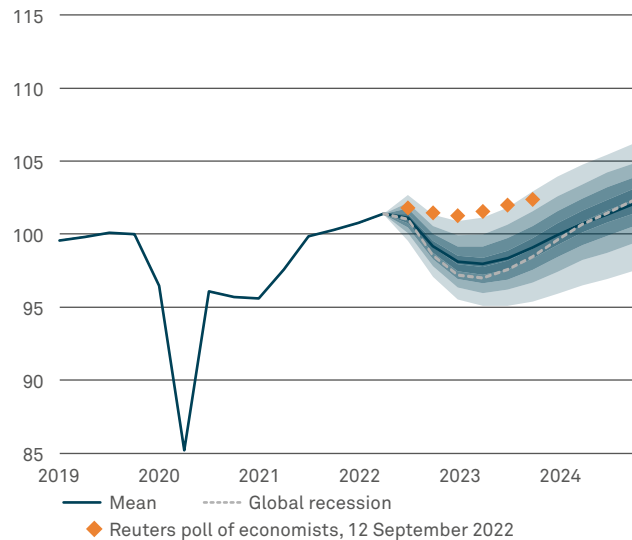
CHART 1: US GDP INDEX, Q4 2019=100.



Source: Refinitiv Datastream/Fathom Consulting. Data as of 20 September 2022.

Key takeaway: US GDP growth is set to soften, with a recession more likely than not, in 2023 on 'higher for longer' monetary tightening. The consensus has yet to adjust lower.

CHART 2: EURO AREA GDP INDEX, Q4 2019=100.



Source: Refinitiv Datastream/Fathom Consulting. Data as of 20 September 2022.

Key takeaway: Euro Area growth likely to slump sooner than in the U.S. on the sheer scale of energy price shocks and ongoing monetary tightening. Consensus also expects a slowdown but is more optimistic at the upper-end of our risk distribution.

Forecasts begin in Q3 2022 and were calculated as of September 20, 2022 Source: BNY Mellon Investment Management and Fathom Consulting. The dotted line shows the global recession scenario mode and the solid line is the mean or probability-weighted average forecast across all three scenarios. Markings show survey and market implied pricing expectations. 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 80% 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, this shows the balance of risks lies to the downside.

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

area. By the end of next year, we see a 60% chance that euro area inflation is below the 2% target, and a 30% chance that the single currency bloc is in outright deflation. Corresponding figures for the US are 20% and 10% respectively.

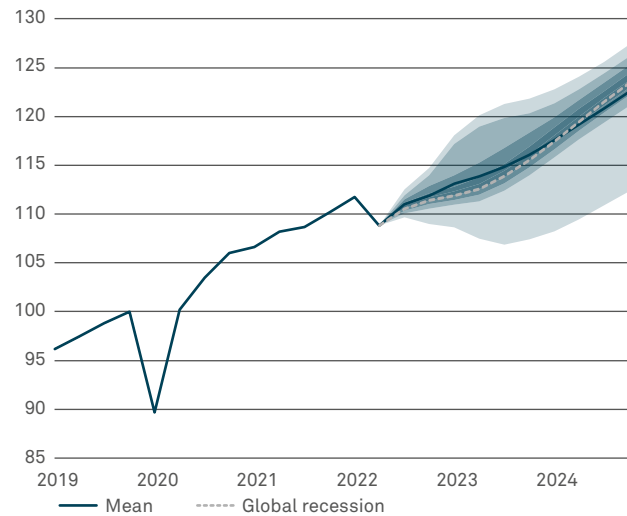
Our single most likely scenario, 'Global recession', sees the US federal funds rate track market pricing very closely for the next year or so. Thereafter, it sees the policy rate falling more sharply than is currently priced in as the FOMC begins to put more weight on the employment component of its mandate. Risks around our central path for the US federal funds rate are skewed to the downside in the near term and to the upside further out. This reflects the nature of our more positive scenario, 'Softish landing', which sees actual inflation fall more rapidly as inflation expectations return quickly to target, moderating wage claims. The flip side is that, while the peak in

the policy rate is lower here, with the US avoiding recession it falls back towards neutral more slowly.

In our single most likely scenario, US ten-year government yields rise further from here, peaking around the turn of the year, before falling steadily for the remainder of the forecast horizon, back towards neutral. As with the policy rate, risks are skewed to the downside in the near-term and to the upside further out, with the reasoning as we have set out above. Taken together, our fan charts for long- and short-term interest rates suggest that the US yield curve is likely to become further inverted, with the downward slope most pronounced around the middle of next year.

Our fan chart for the S&P 500 shows that, on balance, US equities are likely to fall further from here, with a global recession taking place in two of our three scenarios, which

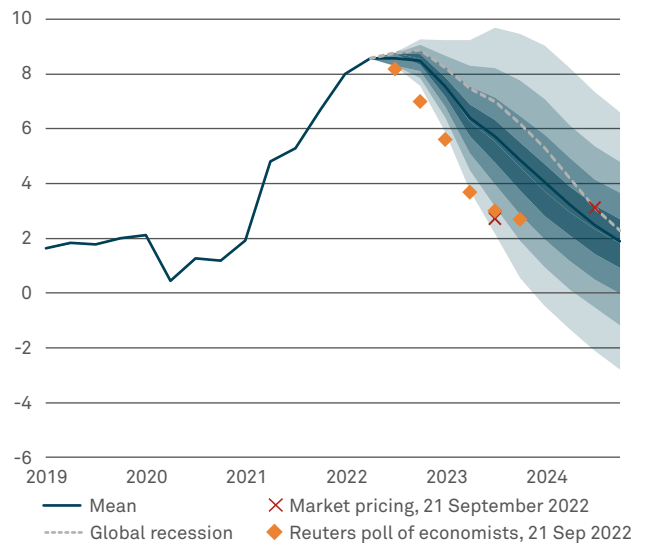
CHART 3: CHINA GDP INDEX, Q4 2019=100.



Source: Fathom Consulting. Data as of 20 September 2022.

Key takeaway: Chinese GDP to slow on property and zero-covid, before picking up in early-to-mid 2023. Still low probability but large downside risks are emerging if property woes spill over into widespread banking problems.

CHART 4: US CPI – FOUR-QUARTER PERCENTAGE CHANGES.



Source: Refinitiv Datastream/Fathom Consulting. Data as of 20 September 2022.

Key takeaway: US inflation is peaking, but is likely to fall more slowly than economists are predicting. Moreover, the risks are skewed to the upside.

Forecasts begin in Q3 2022 and were calculated as of September 20, 2022 Source: BNY Mellon Investment Management and Fathom Consulting. The dotted line shows the global recession scenario mode and the solid line is the mean or probability-weighted average forecast across all three scenarios. Markings show survey and market implied pricing expectations. 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 80% 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, this shows the balance of risks lies to the downside.

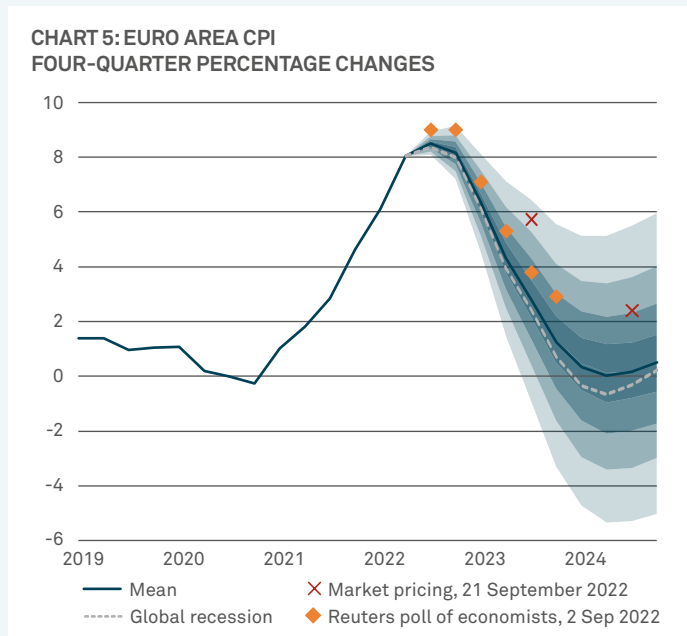
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together have a weight of 70%. In our more positive ‘Softish landing’ scenario, the S&P 500 stages a strong recovery before the year is out, and that accounts for the significant positive skew in the fan chart. We see a 30% chance that the S&P 500 is above 4,000 at the end of next year, and a 10% chance that it is above 5,000.

Crude oil prices are likely to soften further, in a global recession scenario, to around \$50 per barrel. Tight supplies and, especially, uncertainty around the flow Russian oil, imply a price recovery by late 2023-24. The mean of scenarios imply oil prices track \$15-20 higher than what they would if the global economy slips into a recession.

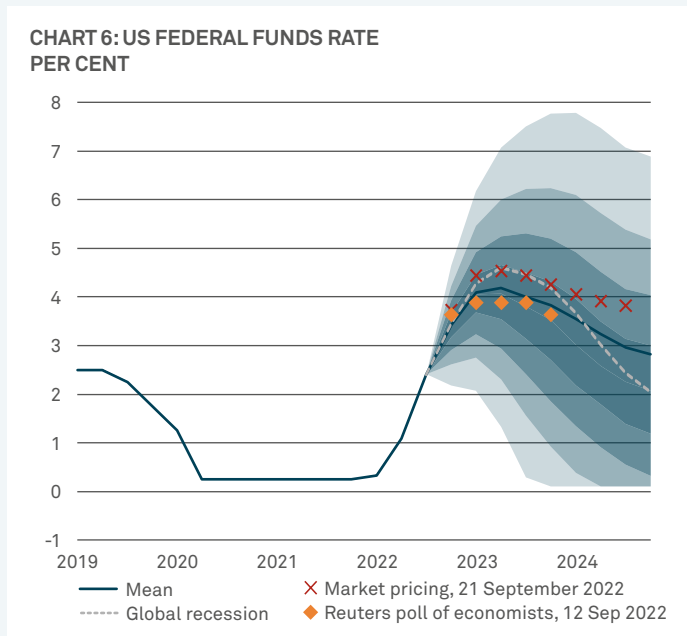
Over the past year the US dollar has risen in value by some 20% against a basket of major currencies, with much of the appreciation occurring in 2022. The USD’s recent strength

likely reflects several factors, including: strong US consumer demand; strong demand for US energy exports; an expectation that US monetary policy will be tightened more rapidly, and to a greater extent, on net, than monetary policy in other major economies; and a general risk-off environment, which tends to favour the dollar and other safe-haven currencies. In both “Global recession” and “Something breaks” the dollar strengthens further, though less rapidly than we have seen of late, as equity prices fall and investors scale back risk exposure still further. In “Softish landing” an increase in risk appetite causes the dollar to fall back somewhat. These alternative scenarios are reflected in our fan chart, with the single most likely.



Source: Refinitiv Datastream/Fathom Consulting. Data as of 20 September 2022.

Key takeaway: Euro area inflation likely to rollover and fall faster in late 2023 on a deeper recession. Consensus is more cautious about rapid price declines.

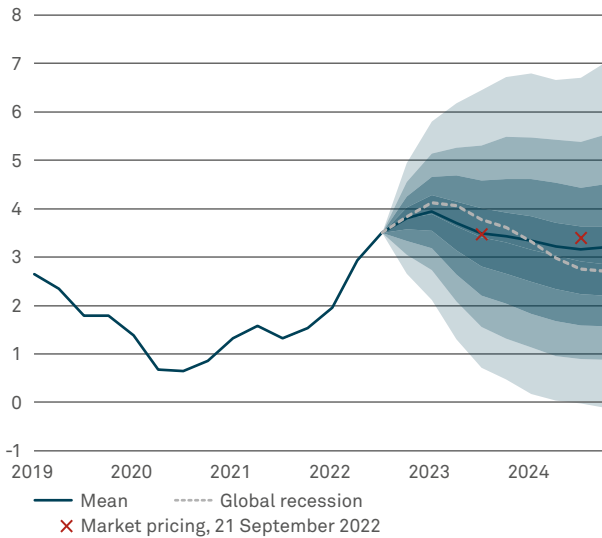


Source: Refinitiv Datastream/Fathom Consulting. Data as of 20 September 2022.

Key takeaway: Policy needs to tighten, even in a “global recession scenario” for the Fed to get inflation down. Our mean of scenarios path is broadly in line with market consensus.

Forecasts begin in Q3 2022 and were calculated as of September 20, 2022 Source: BNY Mellon Investment Management and Fathom Consulting. The dotted line shows the global recession scenario mode and the solid line is the mean or probability-weighted average forecast across all three scenarios. Markings show survey and market implied pricing expectations. 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 80% 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, this shows the balance of risks lies to the downside.

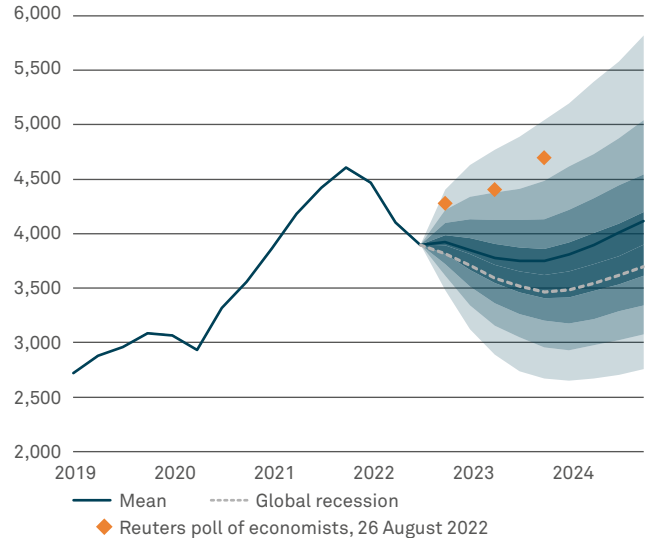
CHART 7: US TEN-YEAR GOVERNMENT BOND YIELDS PER CENT



Source: Refinitiv Datastream/ Fathom Consulting. Data as of 20 September 2022.

Key takeaway: US 10-year yield likely to go a bit higher, breach 4% in our “global recession” scenario, but not stay high as inflation eases with a lag. Market pricing is largely in line with our mean of scenarios path.

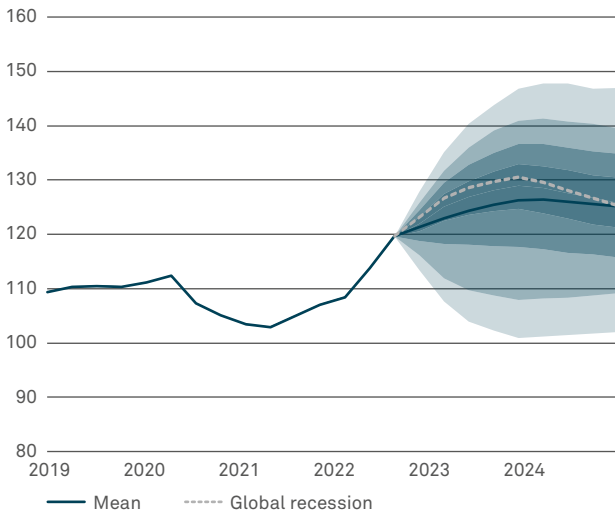
CHART 8: US S&P 500 INDEX.



Source: Refinitiv Datastream/Fathom Consulting. Data as of 20 September 2022.

Key takeaway: Near term outlook skewed to the downside in a “global recession” and well below consensus, but the mean scenario path has a flattish return profile.

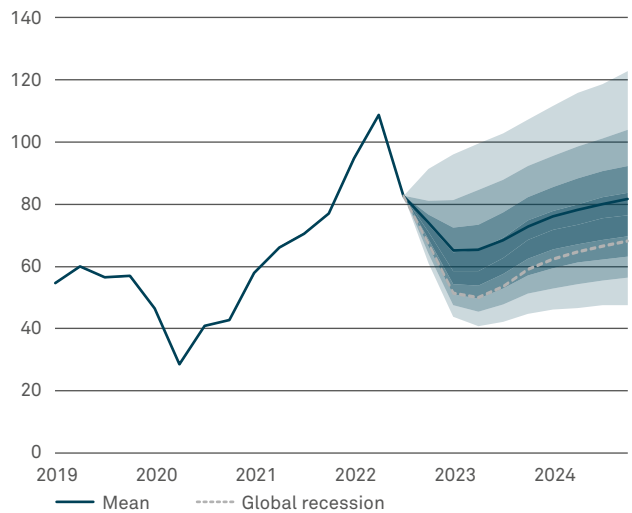
CHART 9: USD ERI AGAINST MAJOR CURRENCIES INDEX, JANUARY 2006=100



Source: Fathom Consulting. Data as of 20 September 2022.

Key takeaway: US Dollar is likely to keep rising against major crosses due to aggressive hikes and haven demand as global growth softens. Downside risks are larger in event of a “softish landing”.

CHART 10: OIL PRICES USD PER BARREL.



Source: Fathom Consulting. Data as of 20 September 2022.

Key takeaway: oil prices are skewed lower in the near-term on slowing growth and higher global recession risk. But tight supply to re-assert upward pressure in the medium-term.

Forecasts begin in Q3 2022 and were calculated as of September 20, 2022 Source: BNY Mellon Investment Management and Fathom Consulting. The dotted line shows the global recession scenario mode and the solid line is the mean or probability-weighted average forecast across all three scenarios. Markings show survey and market implied pricing expectations. 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 80% 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, this shows the balance of risks lies to the downside.

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What the Market Thinks

SECTION 2



SECTION 2A

What's priced in

Overview: In the latest quarter, broadly speaking, market pricing came a little closer to what can be described as the central bankers' outlook of the world: a relatively tight policy stance will generate low growth but no major recession, leading inflation to fall sharply over the next few years. The discount factor rose but cash flow/earnings expectations held up, particularly in the US, leading equities (which suffer from the former, like bonds, but benefit from the latter, while bonds don't) outperforming bonds. Overall, the market-implied probability of recession remains elevated. The combination of a breathtakingly rapid tightening in global monetary policy, a data-dependent and backward-looking policy reaction function that makes central banks inherently slow to change their policy course, and the slowdown in the global economy that was already taking place regardless of the policy tightening, makes it hard, as judged by the market, to achieve a soft landing. The uncertainty around current market pricing, particularly around the outlook for short term interest rates, remains high, and options markets point to elevated downside risks to equities and upside risks to rates. Towards the end of

the quarter, a rout in UK bonds markets on the back of news about a major fiscal stimulus at a time of elevated inflation, spilled over globally, putting upward pressure on global bond yields. At the time of writing, communication and market intervention from the Bank of England to limit risks to financial stability appeared to have restored sentiment and more orderly trading conditions, but the situation remains fluid.

The turmoil comes as a timely reminder that a historically rapid pace of policy tightening after more than a decade of rock-bottom interest rates may unearth vulnerabilities in the system, and quickly lead to unintended consequences.

Market-based growth expectations: Market-based expectations for global growth improved somewhat over the summer as underscored by the positive performance of asset classes and strategies strongly correlated with global growth expectations. Under the surface, there was some divergence across geographies, with expectations turning more positive for advanced economies, and deteriorating for emerging markets. Looking ahead, market pricing remains consistent

Summary of market pricing

TABLE 1: THE MARKET IS EXPECTING GROWTH TO SLOW, AT TARGET INFLATION AND POLICY TIGHTENING, BUT UNCERTAINTY AROUND THIS VIEW IS ELEVATED.

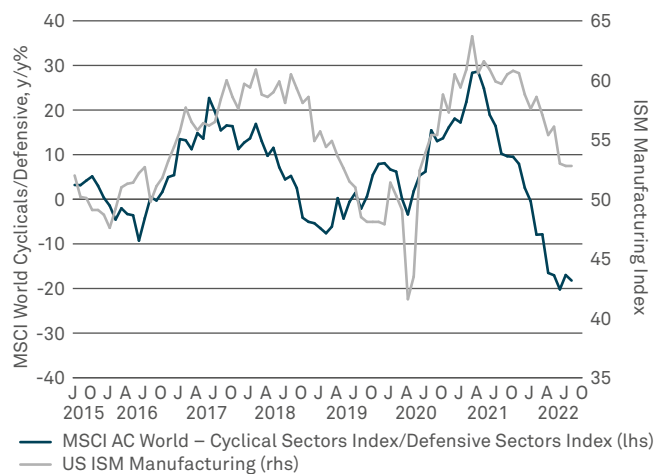
Market pricing	Growth	Inflation	Policy
Expectations at end Q3			
Expectations – current			

Green indicates above trend growth, below target inflation and policy accommodation. **Grey** indicates economic growth in line with trend, inflation in line with target and a neutral policy stance. **Red** indicates below trend growth, above target inflation and a tight policy stance.

Source: BNY Mellon Investment Management. Data as of 22 September 2022.

US ISM Manufacturing and MSCI AC World Cyclical sectors Index/Defensive sectors Index

CHART 11: THE PERFORMANCE OF CYCLICAL ASSETS AND STRATEGIES, WHICH TRACKED THE GROWTH SLOWDOWN SINCE 2021, HAS STABILISED RECENTLY.



Source: BNY Mellon Investment Management, Macrobond. Data as of 22 September 2022.

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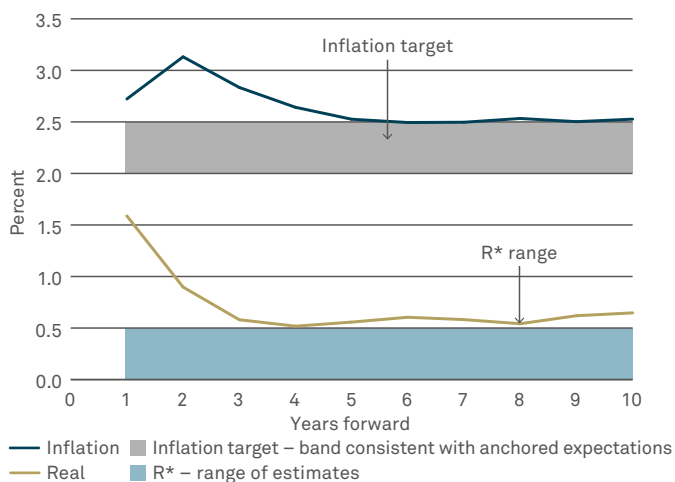
with slow growth, and a high chance of recession in the coming years. The market-implied probability of a recession in the US in the next 12 months stands at 50-60% – more than double the unconditional probability of recession over the same horizon.

Market-based Inflation expectations: Near-term US traded inflation expectations dropped sharply in recent months and are now broadly consistent with headline inflation averaging just above 2% over the next year. US inflation expectations further out remain healthy, and in line with target. In the euro area, the spike higher in European gas energy prices was the major driver behind a temporary surge in near term inflation expectations, with 1-year traded-inflation moving to 8.5% in late August before roundtripping back to ~5.5% in late September. Further out, inflation is expected to hover around the ECB 2% target. In the UK, inflation is anticipated to remain sticky and above target for years to come, likely reflecting structural supply-side challenges to the economy and a view that the expected tightening in monetary policy won't be enough to contain inflation in the coming years.

Market-based monetary policy expectations: Markets expect the current global monetary policy hiking cycle to approach an end soon, with global policy rate expectations peaking in just two/three quarters from now. In the US, where policy rates moved from near zero to 3-3.25% in just over six months, the Fed is expected to raise rates to a peak of ~4.5% in Q1 2023 (+~125-150 bp from current levels) and then to lower the Fed funds rate gradually to ~3% over subsequent years. That is somewhat in contrast to what is priced in for the euro area, where the ECB is expected to hike throughout the course of 2023 (by an additional ~200 bp). US expected real rates remain in restrictive territory across the curve – positive and above the FOMC's 0.5% implied estimate for the neutral real interest rate. Inflation is seen as remaining healthy but falling much closer to 2% over the course of next year. At last, market pricing appears to be broadly in line with traditional policy rules that suggests raising real interest rates above “neutral” in order to bring inflation down to 2%. In other DMs, the story is not too dissimilar, with real rates in the euro area spiking higher, and reaching levels broadly in line with estimates of neutral in 1 year from now.

Real vs Inflation decomposition of 1 year forward US rates

CHART 12: THE MARKET INDICATES THAT A RESTRICTIVE POLICY STANCE WILL GRADUALLY ACHIEVE A MAJOR FALL IN INFLATION TO TARGET.



Source: BNY Mellon Investment Management, Macrobond. Data as of 22 September 2022.

S&P 500 outcomes in 1 year

CHART 13: RELATIVE TO WHAT PRICED IN BY THE MARKET FOR EQUITY PRICES, WE EXPECT GREATER DOWNSIDE RISK AND SMALLER UPSIDE RISK.

S&P 500 Outcomes in 1 year		
Percent	Market	Own forecast
P(S&P 500 < -10%)	37	43
P(-10% <= S&P 500 < -5%)	6	9
P(-5% <= S&P 500 < 0%)	7	8
P(0% <= S&P 500 < 5%)	7	9
P(5% <= S&P 500 < 10%)	11	7
P(S&P 500 > 10%)	12	25

Source: BNY Mellon Investment Management, Bloomberg. Data as of 22 September 2022.

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SECTION 2B

Market Sentiment

After appearing to reach a nadir during the previous quarter, during the summer months, market sentiment attempted to “bounce off the floor,” only to end much where it started, at low and very bearish levels by most measures.

Entering a bear market in mid-June (i.e., closing more than 20% below the last peak achieved on January 3rd), the S&P 500 staged a notable summer bounce that soon proved to be a fleeting “bear market rally” rather than the beginning of an enduring bull market. Understandably, sentiment improved as equities rose and were encouraged by July’s cooler-than-expected US inflation report and false hopes of an imminent dovish pivot from the Fed. Meanwhile, yields pushed higher on expectations of further policy tightening. Late August, Chair Powell delivered an unequivocally hawkish speech at Jackson Hole, which was soon followed by August’s hotter-than-expected inflation report that sent stocks lower.

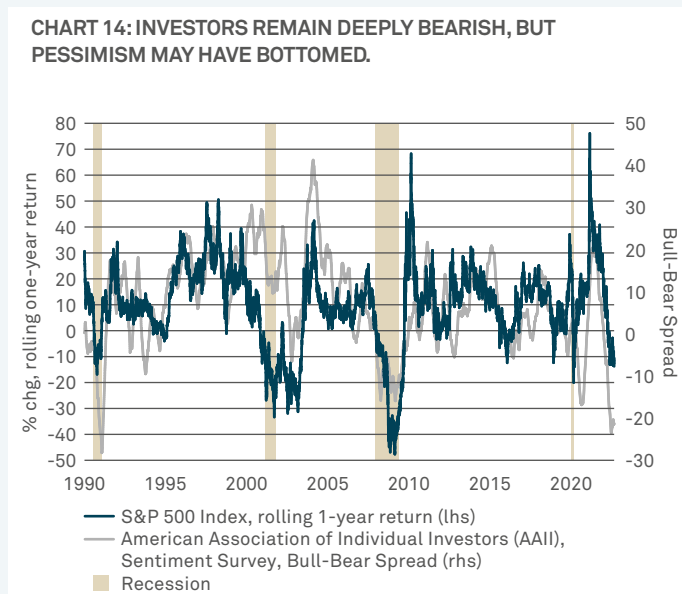
These developments sapped what nascent risk-on optimism may have been seeping into markets and returned equities to levels near the June lows.

Last quarter, we advised caution due our view that the market was not fully pricing in tightening or the risk of recession. In fact, we cautioned against just the type of bear market rally we witnessed in July to mid-August. Today, our views remain largely unchanged due to the unfortunate reality that more of the risk lies ahead than behind us (for now).

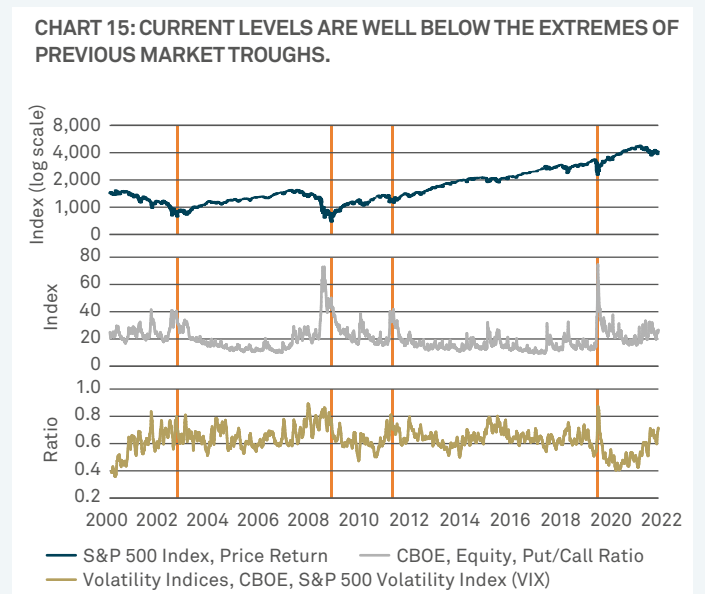
Although the prospect of recession is nearer and somewhat clearer (particularly in Europe), we think it is premature to re-risk on the expectation that equities will “see through the recession” and begin a steady climb from here. While our “softish landing” scenario incorporates a strong near-term rebound in risk assets, its lower probability should be fully appreciated. Instead, a lower risk, defensive positioning makes sense given the probability-weighted outlook.

Further, a combination of indicators supports this view and suggest that risk assets such as equities face further pressure in the near-term. First, volatility and positioning indicators are not at extremes that have in the past coincided with market lows. That doesn’t preclude a recovery in equities, but given

S&P 500 Returns and Investor Sentiment



S&P 500, Volatility Index, and Put/Call Ratio



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

stiff macro headwinds, it seems more likely the signals will flash in the months ahead, rather than not signal at all.

Second, the market’s earnings outlook fails to appreciate the risk of recession and the likely impact on earnings. Bottom-up earnings forecasts for the S&P 500 sees positive growth in 2023. If past is a guide, earnings always contract in recessions. Which suggests that a recession must be avoided for the current earnings outlook to be correct. Further, CEO pessimism doesn’t bode well for earnings (see chart).

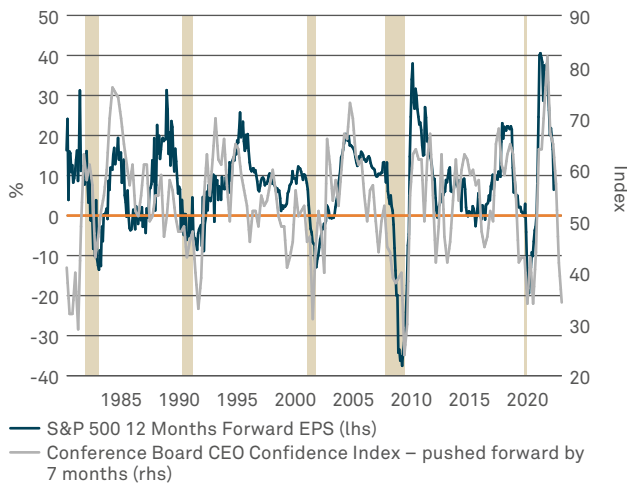
Lastly, because timing is always extremely difficult, it’s generally advisable to avoid trying to be too precise. Erring on

the side of being too early than too late given the speed by which the market can move. Keeping this in mind, it’s important to acknowledge that historically bull markets start during recessions and after monetary policy pivots. Neither of these have occurred. The takeaway is that the time to re-risk is not yet here, but as it approaches (which could be soon if a “softish landing” starts to be believable) the aim is to jump the gun.

Pulling it all together: our scenarios, the market’s expectations, and where our views differ, the final section of the report describes, in our view, the preferred assets in what remains a market plagued by deeply bearish sentiment.

CEO Confidence and Forward Earnings

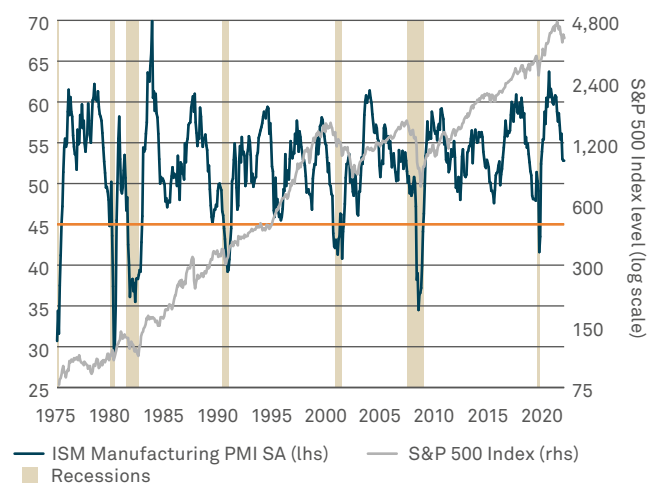
CHART 16: WANING CEO CONFIDENCE SIGNALS WEAKER EARNINGS AHEAD (THEY SHOULD KNOW).



Source: Macrobond, BNY Mellon Investment Management, Conference Board, S&P Global. Data as of 21 September 2022.

S&P 500 and ISM PMI Leading Indicator

CHART 17: NO RECESSION YET, EQUITIES TROUGH DURING RECESSIONS BUT NORMALLY NOT BEFORE ISM<45.

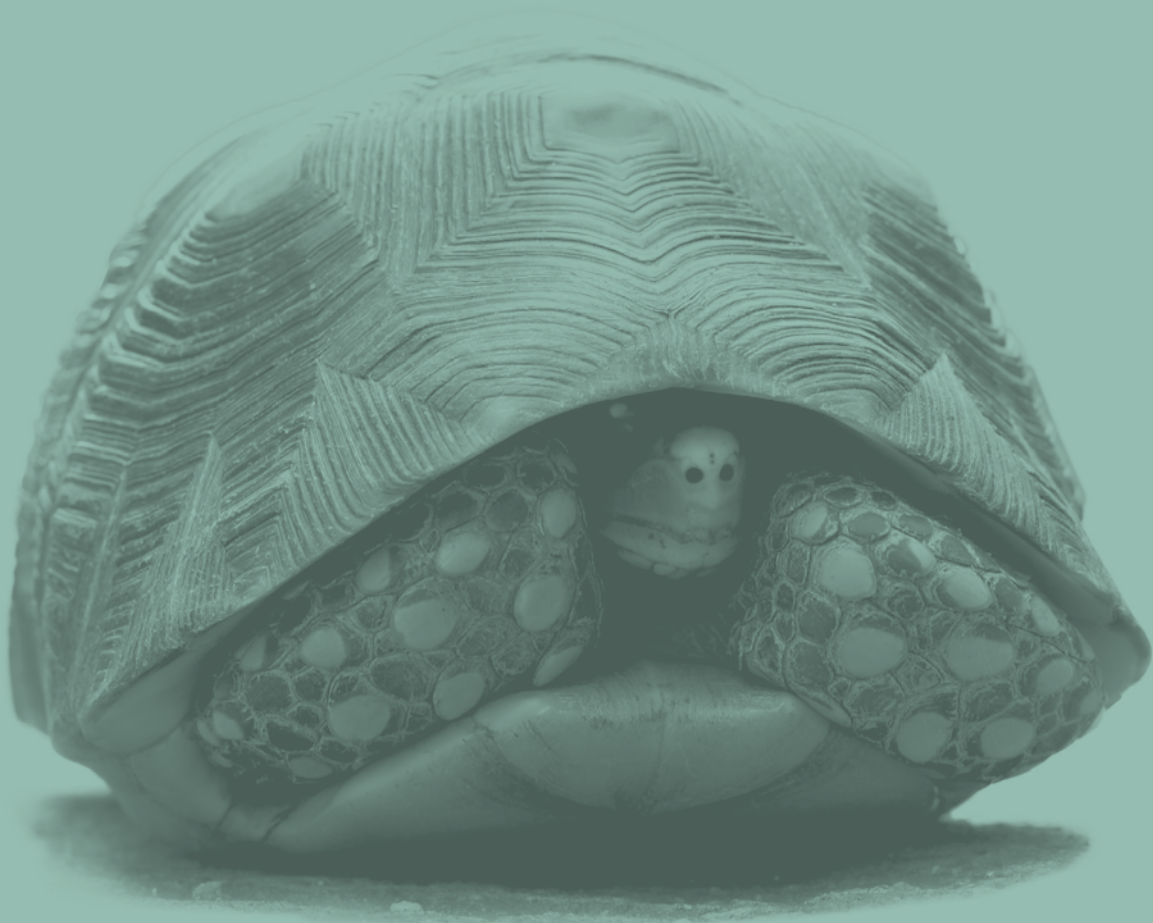


Source: Macrobond, BNY Mellon Investment Management, NBER (National Bureau of Economic Research). Data as of 21 September 2022.

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Investment Conclusions

SECTION 3



Investment Conclusions

EQUITIES

US Equities: While our scenario analysis indicates that there remains material downside risk to US equities, on a relative basis, we continue to favour US equity over International and EM equity markets. This preference stems primarily from the possibility of a “softish landing,” which would energize US equities more so than other markets. Further, a study of US bear market history going back to 1929 suggests that in most instances the S&P records a positive return in the next year after entering a bear market.¹ Admittedly, volatility is high in this study as one should expect given that most bear markets are associated with recessions. However, we believe this market statistic is important to keep in mind in the face of a challenging outlook as it helps one avoid being overly pessimistic on equities. Overall, US equities are now trading much closer to longer-term valuations and appear more attractive than earlier in the year. However, earnings remain at risk of downward revisions and historically recessions result in contracting earnings, sending equity prices lower (see previous section). Moreover, so long as uncertainty remains high around the Fed Funds terminal rate, there is risk of further multiple compression as real yields rise and higher discount rates are incorporated into valuation models. As such, market volatility remains subject to spikes if rate expectations suddenly re-price higher (as we’ve seen repeatedly in 2022). In the short-to-medium term, our fan chart forecasts suggest risks are skewed to the downside and paint a more bearish picture compared to expectations derived from a recent survey of economists. For this reason, we remain cautiously underweight equity due to the sensitivity to GDP growth slowdowns. Within equities, we continue to prefer income equities (equities of companies that return cash to shareholders either through dividends or share buybacks) to non-income paying stocks. Similarly, value stocks are favoured to growth due to their lower duration in a (yes, still) rising rate environment and when multiples are at risk of compressing further. Finally, given our scenarios’ implications for the business cycle, it is prudent to trim cyclical exposures and position more defensively on a sector basis, favouring sectors such as consumer staples and healthcare.

International Developed Equities: European equities are likely to remain under pressure given the high probability of recession in the region, uncertainty around the path of policy, and the depth and duration of the recession. Although more of the pain may already be priced in compared to other markets (as viewed through much cheaper relative valuations), this discount may be reasonable given the outlook. Indeed, the trough in activity is likely ahead as winter hits and the uncertainty of recovery is likely to drag on shares for some time. Earnings could contract severely if the worst fears regarding the energy crisis become reality. Like our US equity forecasts, compared with a recent survey of economists, our expectations are shaded more negative. Elsewhere, we are becoming less positive on Japanese equities than previously as the Yen weakness subsides (less boost to future earnings). Either a Bank of Japan policy pivot or a global recessionary environment could materially slow the pace of further Yen depreciation and prove a headwind for equities going forward.

Emerging Markets (EM) Equities: The macro environment for Emerging Markets remains fraught. We continue to believe that the impact of the very strong dollar and slowing growth present significant risks to EM. However, for the largest EM, China, we prefer to stay neutral and tilt towards infrastructure, technology, and consumer staples. Covid lockdowns and the property market downturn have delayed, but not derailed, the sequential recovery. Easing lockdowns (eventually) and a lagging pick-up in government spending will provide the impulse needed to lift China out of its slump and carry some momentum into 2023. Chinese equities present limited valuation downside after the past year’s slide. But the economy clearly faces a growing list of medium-term headwinds. As such, we refrain from going overweight.

¹ 1-year forward price return from the date the S&P 500 first closed more than 20% below the prior peak. Source: BNY Mellon Investment Management, Bloomberg; Data as of 29 June 2022. For additional information, please see “Bear Markets: More Pain, Then Gain” on the Market Insights page of the BNY Mellon Investment Management public website.

FX

US Dollar and Foreign Exchange (FX): US Dollar continues to have upside, albeit more moderate than we had previously forecast. Still favourable interest rate differentials, a more resilient growth outlook, and entrenched safe haven properties provides the strengthening trend in the USD with further room to run. The euro, constituting a major proportion of the dollar index, continues to face downward pressure from the combination of higher recession risk stemming from the energy crisis, lagging policy tightening, and fragmentation concerns (i.e., periphery bond spreads). The Japanese Yen is also poised to weaken further, on its ultra-low yield and worsening external position. The outlook for sterling depends on whether the UK government can present a credible plan for reducing the public debt-to-GDP ratio in the longer term. If they can, then there may be some upside for the pound.

FIXED INCOME

Developed Market Sovereign Debt: As the global economy slows further and, quite likely, moves closer to a recession in 2023, we recommend further increasing allocations to sovereign fixed income, moving from a slight underweight to neutral levels. With policy rates expected to reach near, and in some cases (e.g., the US), above 'neutral', yields have finally moved to levels that are more consistent with returning inflation to the 2% target and are now providing investors a relatively good source of income returns. And with a global recession likely approaching in 2023, the peak in rates may not be far in the future. But we see a sizeable risk of stickier-than-expected inflation and, as such, a concrete possibility of an increases in market rates above what has already been priced in by the market. Ongoing quantitative tightening in the U.S. and the cessation of the asset purchase program in Europe could further reinforce the tightening stance of the Fed and ECB. Our neutral allocation recommendation is also supported by our fan chart for US 10-year Treasury yields, which shows our probability-weighted mean forecast to be broadly in line with market pricing, suggesting no major tactical opportunity over the next 12-months for this asset. With curves that remain flat (or inverted) across most DMs, except Japan, and the global growth slowdown that isn't clearly about to turn into a recession, risk-reward considerations still favour shorter duration bonds relative to longer duration bonds. But the time to meaningfully increase exposure to long duration sovereign fixed income is likely to come in 2023, as economic conditions deteriorate further, and the Fed and other major central banks are forced to reassess their policy stance. Given the proximity of recession in Europe (in fact, Europe may already be in one), European sovereign bonds could be seen as more attractive. But the ECB's aggressive tightening and rhetoric, and lower yields that dampen income returns, make us wary of recommending relative overweights for the time being. European peripheral bonds may also come under pressure from the twin shock of negative economic growth on the back of sky-high energy prices and the rapid tightening monetary policy. The ECB's emerging framework to counter unwarranted, disorderly moves in sovereign bond markets may stanch periphery sovereign-credit pressures. But uncertainties around the exact functioning of the new tool abound. A fall in energy prices and a less impatient ECB would provide greater reassurance to overweight European sovereign bonds. Elsewhere, Japanese government bond yields remain anchored by the Bank of Japan's yield curve control framework (which caps 10-year JGBs at 0.25%), providing little price and income returns for investors, and the continued divergence in yields and balance sheets with other major central banks may continue fuelling Yen weakness.

Emerging Market Sovereign Debt: We stay underweight EM hard currency debt. Our fan charts indicate imminent recession in Europe, a slow recovery in China (with sizable downside tails) and a (moderately) strengthening trend in the USD. These keep us fundamentally wary on EMs. We need at least two out of these three headwinds to ease, before turning more optimistic. Moreover, valuations look unattractive as the summer bounce in risk has left investment-grade rated EM hard currency debt spreads too tight versus their US IG counterparts. We steer clear of sub-investment rated EMs. While net commodity exporters remain a key exception, a widening group of Frontier EMs are grappling with food price shocks, rising inflation and severe currency market pressure, and heightened odds of debt distress. We suggest neutral local duration, with a preference for select LatAm and Asian EMs over Central and Eastern Europe. The former group of countries are further away from the Ukraine conflict and less exposed to large-scale energy price shocks. They are also further along in their required amount of policy normalization. We would, however, partially hedge local currency exposure on our expectation of continuing, USD strength. We stick with our tactically neutral recommendation on Chinese Government Bonds (CGBs). There will be plenty of medium-term opportunity to resume structural longs. But in the near-term, the delayed cyclical recovery, underpinned by further infrastructure-led stimulus related issuance, will keep yields on a stable-to-slightly-widening path. We doubt if Chinese monetary authorities will ease much further. Or any additional easing will be incremental and highly targeted.

Global Investment Grade Credit (IG): We maintain our underweight recommendation for both US and Europe IG corporates. We expect further widening in IG credit spreads given they have not yet reached levels consistent with the slowdown/recession we expect, rising debt servicing cost, the removal of the policy support backstop, persistently high energy prices impacting profitability, even as pricing power holds (for now), and the uncertain geopolitical environment.

Global High Yield Credit (HY): Recent spread widening reflects rising borrowing costs amid intensifying hawkishness at central banks and slowing economic growth. If, as we expect, activity slows further (and meaningfully so), tightening financial conditions alongside slowing revenue, worsening operating margins, and eroding cash buffers will weigh on interest-coverage ratios, market liquidity and refinancing ability. This will especially hurt highly-levered firms that lack pricing power. We have long been concerned that extraordinary fiscal and monetary intervention during the pandemic may have hidden or delayed bankruptcies or defaults among the more marginal companies. The latest shocks threaten to unearth more of these. In this environment, we emphasize the importance of active issuer selection. European HY is relatively less attractive given income returns provide a thinner cushion against the negative price returns we expect over the whole forecast period. For both US and European HY we favour short duration exposures.

Past performance is no guarantee of future results.

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.

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Small and midsize 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 US Corporate High Yield:** covers the universe of fixed-rate, non-investment grade corporate debt in the US. **Bloomberg 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.

OTHER

QE: quantitative easing. **Fed:** US Federal Reserve. **ECB:** European Central Bank. **BOJ:** Bank of Japan. **BOE:** Bank of England.

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