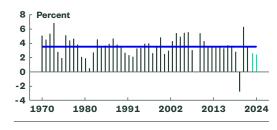
Forecast

Market Outlooks

Q3 2023

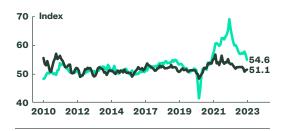
Forecasts Third Quarter, 2023

Global Economic Outlook



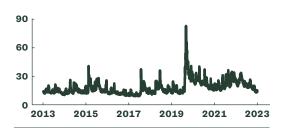
Source: IMF, WEO, State Street Global Advisors, as at June 30, 2023. The above forecast is an estimate based on certain assumptions and analysis made by the State Street Global Advisors Economics Team. There is no guarantee that the estimates will be achieved.

Emerging Markets Outlook



Source: Macrobond, State Street Global Advisors Economics, S&P Global as of July 2023.

Global Capital Markets



Source: State Street Global Advisors, FactSet, as of June 30, 2023. Past performance is not a reliable indicator of future performance.

STATE STREET GLOBAL ADVISORS

- Notwithstanding the risks facing equity markets, we continue to see sufficiently supportive factors to warrant an equity overweight — even in light of the strong performance year-to-date.
- Over the intermediate term, we think there is good value in bonds, but choppy inflation and economic data continue to pose risks to outsize duration positions in the short term.

Simona Mocuta

Chief Economist, Global Macro and Research Page 2

Figure 1 Global Growth Stuck Below Trend



World, Real World GDP, State Street Global Advisors Forecast

Long Term Average Growth (3.5%)

Simona Mocuta

Chief Economist,

Global Macro and Research Page 8

Figure 2 Composite PMI Output Price Signals

World, Emerging, Composite PMI Output Prices Index

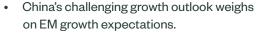
World, Developed, Composite PMI Output Prices Index

Jerry Holly, CFA

Senior Portfolio Manager, Investment Solutions Group Page 9

Figure 3 Equity Volatility Turns Even Lower

CBOE Market Volatility Index — Price Index



Major central banks continue to send

hawkish messages amid above-target

inflation and macro resilience.

But resilience is not immunity.

The demand-dampening impact of

Chinese recovery, and deteriorating

high borrowing costs, the disappointing

credit quality are vulnerabilities to watch.

As disinflation broadens, central banks start positioning for calibrating policy rates lower.

Global Economic Outlook

Simona Mocuta

Chief Economist, Global Macro and Research

The global economy has dodged a couple of bullets since our last quarterly update. The banking turmoil that had enveloped the US in March and then spread to Europe was contained with surprisingly little visible side effects so far. The US debt ceiling debacle, which had tested investors' nerves and had the potential to unfold in a materially severe manner, was similarly sidestepped.

Emboldened by the macro resilience, and frustrated that inflation isn't subsiding fast enough, major central banks have continued with the monetary tightening exercise, in some cases coming back to it after a brief hiatus. For now, the tone remains decidedly hawkish. Somewhat ironically, though, the tide of inflation surprises has recently turned in a much more favorable direction, so expect more twists and turns here before the year is over.

Despite this welcome resilience, not all is well. Admittedly, our global growth forecast has ticked up a tenth since March, but this is an insignificant improvement that does not alter the far more salient point that growth has slid well below trend. China's disappointing recent performance may have garnered the lion's share of attention in regard to growth vulnerabilities, but businesses and consumers everywhere are being increasingly constrained by the high cost of borrowing. Demand is not collapsing, but it is slowing. Most importantly, it will continue to slow in the months ahead even as disinflation offers a welcome support to real incomes. Debt servicing costs are bound to increase in coming months as robust cash cushions only delay but do not cancel the impending refinancing wave. The next chapter in the story has to do with a deterioration in credit quality. This need not be dramatic. Big variations in the starting point for household indebtedness and business leverage also mean that the story unfolds at different speeds across geographies and sectors, but the direction of travel is broadly shared and is one of deterioration.

This awareness leaves us uneasy, especially in light of the March banking turmoil episode. It is not enough for things to look good in the aggregate: no crisis starts in the aggregate, but rather it is always ignited by a weak link. And as pressures grow from the rising cost of capital, those weak links get tested. And so, we would consider it a surprise if by the time of our next update we won't have some new "surprising" development to report on.

 Disinflation Trend Intact Disinflation remains our highest conviction macro view; so far, despite the noise and market overreaction to every data print, inflation data has actually come in close to our expectations. The 4.0% 2023 average headline inflation forecast from March remains unchanged. Late last year, we called for a sub-3.0% print on headline CPI inflation by the end of 2023; that still looks achievable. Although core CPI inflation remains elevated at 4.8% y/y as of June. we are sanguine on the trajectory from here. We do not believe goods disinflation has fully run its course, we anticipate material disinflation in shelter inflation in coming months, and we already see signs of disinflation in non-housing services. The latter has long been highlighted by the US Federal Reserve (Fed) as an area of sticky inflation due to elevated wage inflation in the space. But the Fed may be too worried about wage inflation. One of the biggest questions for economists, investors, and policy makers alike, is whether it is possible to bring wage inflation down without a sharp increase in unemployment. Historically, the latter has been needed to accomplish the former. We have long argued that it might be possible to accomplish this now thanks to a broad process of normalization post-COVID. The experience of the past year is supportive in this regard — at least if one uses average hourly earnings as a measure of wage inflation back to target. This is indeed an area where data evidence has been shifting massively with revisions. Figure 4 shows the last four iterations of unit labor cost stimes for the United States. The swings have been extremel The last data suggest labor cost growth is approaching a range consistent with a 2.0% inflation target — but will the signal persist through the next update? Figure 4 Unit Labor Costs (reb 2.2023)<	United States: Time to Reassess	The first half of 2023 has already delivered more than a year's worth of dramatic twists and turns for the US economy and markets. The data flow over the past few months can only be described as contradictory and confusing, the sense of directionless augmented by unprecedented data revisions. This is not typically a discussion topic vis-à-vis the US economy, but the breadth and magnitude of data revisions this year puts them front and center in any cogent debate about the outlook. It all adds up to a message of caution for economists and investors alike: take every data release with more than the usual grain of salt, be prepared for the data to change, and avoid big bets. Identify the trends that have staying power and anchor your macro narrative and investment views on those.
 Figure 4 Us Unit Labor Costs (Feb 2, 2023) Unit Labor Costs (March 2, 2023) 	Disinflation Trend Intact	overreaction to every data print, inflation data has actually come in close to our expectations. The 4.0% 2023 average headline inflation forecast from March remains unchanged. Late last year, we called for a sub-3.0% print on headline CPI inflation by the end of 2023; that still looks achievable. Although core CPI inflation remains elevated at 4.8% y/y as of June. we are sanguine on the trajectory from here. We do not believe goods disinflation has fully run its course, we anticipate material disinflation in shelter inflation in coming months, and we already see signs of disinflation in non-housing services. The latter has long been highlighted by the US Federal Reserve (Fed) as an area of sticky inflation due to elevated wage inflation in the space. But the
US Unit Labor Cost Revisions Have Policy Implications Unit Labor Costs (Feb 2, 2023) Unit Labor Costs (March 2, 2023) 2		possible to bring wage inflation down without a sharp increase in unemployment. Historically, the latter has been needed to accomplish the former. We have long argued that it might be possible to accomplish this now thanks to a broad process of normalization post-COVID. The experience of the past year is supportive in this regard — at least if one uses average hourly earnings as a measure of wage inflation. What remains unclear is whether enough wage disinflation can be accomplished this way to bring inflation back to target. This is indeed an area where data evidence has been shifting massively with revisions. Figure 4 shows the last four iterations of unit labor cost estimates for the United States. The swings have been extreme! The last data suggest labor cost growth is approaching
(Feb 2, 2023) 3.81 Unit Labor Costs (March 2, 2023) 2	US Unit Labor Cost Revisions Have	7 6 5.78
	(Feb 2, 2023) Unit Labor Costs	
Unit Labor Costs (May 4, 2023) 1 Unit Labor Costs (June 1, 2023) 0 Q1 Q2 Q3 Q4 Q1 Q2 Q3	Unit Labor Costs	

Source: Macrobond, State Street Global Advisors Economics Team, US Bureau of Labor Statistics.

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We likely are more hopeful than most on this question, but nonetheless believe that some labor market slackening is needed to bring about sufficient wage disinflation. And herein lies the irony: the latest summary of economic projection from the Fed represents the ultimate soft-landing scenario. Despite an even higher Fed Funds pathway, the unemployment rate ticks up a mere four tenths in 2024 to 4.5%. That's lower than our assessment, with fewer hikes this year and more cuts in 2024! That does not seem internally consistent. Which is not a fundamental flaw but rather, the reflection of the compilation process for the "median" view. It should, however, be understood for what it is and taken with caution.

Recession Risks Up, But Fed Still Hawkish

Recession risks have risen, but recession is not a high conviction view for us. Our readers will recall that it was the banking turmoil that marked the turning point and finally tipped our estimated odds of recession over the next 12–18 months to above 50% in March. But because of the labor market resilience, the attempted bottoming out of residential investment, pent-up motor vehicle demand, and the delayed trickle of fiscal support from previously-approved packages (CHIPS Act, IRA), we consistently stressed that, absent a systemic risk event, recession was not an imminent scenario but rather something we worried about for late 2023 and in 2024. As things stand today, a recession still feels like no more than a 50/50 probability, primarily because two typically cyclical sectors (housing and autos) have the capacity to behave counter-cyclically and reduce, rather than amplify, economic volatility over the next 18 months.

The banking turmoil had the potential to become systemic but was contained quickly; the debt ceiling had the potential to become a genuine disaster but turned out rather benign. As such, the short-term outlook is slightly brighter than three months ago and we have raised the 2023 growth forecast by three tenths to 1.2%. However, we lowered the 2024 forecast by two tenths to 0.5%. Why? Because the broad slowdown story remains very much in play. While the acute phase of the banking crisis may be over, its impact on the economy lives on in the form of tighter credit conditions. Even more importantly, the cost of credit has risen to restrictive levels for both businesses and consumers. It is not a coincidence that real equipment fixed investment in the GDP accounts is now marginally contracting on a y/y basis and that small business loan demand is collapsing. While moderating inflation will prop up real incomes, we do anticipate an uptick in the unemployment rate to a little over 4.0% by the end of this year (in line with the Fed) and reaching close to 5.0% by end-2024 (higher than the Fed).

We are of the view that the Fed has done enough and that the hiking cycle should be over (indeed, that it should have ended in March!). However, the signals from the June meeting were very hawkish as the additional 50 basis points worth of hikes embedded in the new dot plot considerably raise the risks that the Fed will end up hiking again. Given the Committee's hawkish inclinations, we do expect a hike in July. We do, however, see that as the last hike in this cycle.

With attention so focused on the near-term hiking trajectory, the discussion about how quickly the first cut happens has been put on the back burner. But that is the more important debate and the next big chapter around policy rates globally. For a very long time, we had pinned the first cut at the end of 2023; markets have now essentially priced that out entirely and pushed the first cut into March 2024. We suspect the expectations sands will shift again as better inflation data crystalizes; we see good reason for the Fed to actually move at the late-January meeting. We also expect rate cuts over the course of 2024 to involve larger than 25 basis point moves, so that a total of 200 basis points worth of cuts are delivered over the course of next year.

Eurozone: ECB Not Done Yet	The string of upside GDP surprises in the eurozone, so dominant in 2022, has finally buckled. Revised estimates show the regional economy shrank 0.1% on a quarter-over-quarter basis (q/q) in the first quarter, which was two tenths less than previously estimated. In reality, the change from 0.1% to -0.1% has primarily symbolic significance as it now puts the eurozone in the feeblest of technical recessions: two consecutive quarters of negative GDP growth and, in this case, two consecutive -0.1% prints.
	There is no denying that the pace of growth is decelerating, but we think that the underperformance in the first quarter was made considerably worse by a big drag from inventories and a big decline in government consumption. Neither are likely to present similar headwinds consistently. Instead, we would highlight the 1.1% q/q growth in fixed investment, and the 0.3% q/q gain in household consumption. In total, small adjustments in different directions for the member countries resulted in the same 0.7% forecasted growth rate for 2023 that we put forth in March. Germany is a little worse — indeed, we once again anticipate an incremental GDP contraction — but Italian growth has been revised higher on buoyant investment and support from service industries.
	The inflation picture is also little changed. Estimates for both this year and next ticked up by an insignificant one tenth to 5.8% and 2.4%, respectively. Headline inflation is well off October's 10.6% year-over-year (y/y) peak and dropped to 5.5% y/y in June. Core inflation has been slower to descend but it too is now putting in a top and is in the process of gradual normalization. However, with the banking sector well contained, the ECB, which had hiked both in March and in May, is likely not yet done. We have long argued that at these levels, interest rates become genuinely restrictive for both businesses and consumers. However, the constraints may not become immediately apparent because of households' steady labor incomes, low levels of indebtedness, and still robust savings. As such, we pencilled in another hike for July and see material odds of one more in September.
United Kingdom: The Cost of Resilience	We had made a significant upgrade to our 2023 growth forecast for the UK last quarter, noting the welcome resilience demonstrated by high-frequency data at the start of the year. This quarter, there is little change to the growth forecast (merely a one tenth upgrade to 0.4%), a slightly larger one to the inflation forecast (up four tenths to 7.2%), but a more consequential one to the policy interest rate path. What we saw as welcome resilience three months ago may be "too much" resilience insofar as it comes hand in hand with persistently elevated wage growth and inflation. In other words, resilience comes at a cost: more hikes by the Bank of England (BoE).
	Of all developed market central banks, it is the Bank of England where policy expectations have perhaps fluctuated most dramatically in recent weeks. A one-two punch of bad inflation surprises in April and May — when core inflation accelerated sharply — triggered a 50 basis point rate hike in June. From the middle of May to early July, market expectations for the December 2023 Bank Rate surged some 150 basis points to almost 6.5%. By the time of this writing (July 19), they had retreated to about 5.75%. Even this is a lot given challenges to growth, the lagged effects of earlier tightening, and the delayed adjustment to declining imported inflation. For all the resilience that we discussed above, GDP growth has averaged a mere 0.1% q/q over the past year and household consumption has been essentially flat over that same period. This was highlighted in a recent speech by Governor Baily, who noted that the UK's failure to return to its pre-pandemic GDP peak "sets the United Kingdom apart from other advanced economies. Both the euro

area and especially the United States have more than recovered the economic ground lost in

the pandemic."

The combined impact of high inflation and higher borrowing costs has weighed on domestic activity and loan demand. Net new lending secured by dwellings actually declined outright in both March and April. Aside from July 2021, when loan demand was normalizing following a tax incentive-induced spike, there had been no monthly declines in this series since late 2010. Given the elevated level of household indebtedness, rising debt servicing costs will continue to weigh on consumption. Meanwhile, it is true that fixed investment has done well, but the pace of gains seems likely to slow as the cost of capital rises and the competitive advantage conferred by a previously depreciating currency wanes.

Jobs Market in Focus

That leaves the labor market as the most important determining factor in respect to the persistence of inflation and the extent of needed additional tightening. Several recent speeches by BoE officials have recently highlighted the tension between lagged moderation in prices as input cost inflation eases, and risks of "second round effects" as workers seek to rebuild purchasing power by pursuing higher labor income. In a sense, the UK can be thought of as having experienced the worst of both worlds on inflation as it has — in the words of Jonathan Haskel — "a US-style tight labor market, and a European-style tight energy market".

Signs that the labor market is losing some momentum are there, but they are still rather incipient. Perhaps the most convincing one so far has been the steady decline in vacancies, now down for 13 straight months and nearly 270,000 lower than in May of 2022. Even so, the unemployed per vacancy rate has only ticked up minimally, from an average of 1.0 in 2022 to 1.2 in the latest reading — the pre-COVID norm was close to 2.0. Employment gains remain robust, although a shift toward more part-time jobs adds to the message that underlying labor demand is diminishing at the margin. Meanwhile, the participation rate has ticked up to now stand at the highest level since May 2020, suggesting some improvement in labor supply. It is unclear whether this is driven by increased immigration or a higher participation rate among existing workers, perhaps reflecting a need to boost real disposable incomes. Either way, it helps. However, it is not helping fast enough because wage inflation has so far failed to show any convincing and sustained downshift. In fact, average weekly earnings (regular pay, excluding bonuses) grew 7.3% y/y at the last count, matching the high reached in the spring of 2021. This is why the BoE has little choice but to lean harder against inflation.

Japan: Growth Prospects Looking up

In a world of rapidly changing macroeconomic landscapes, our bright assessment of Japan's economy remains in place. The monetary policy outlook remains a key question for investors; our expectations for Yield Curve Control (YCC) adjustments in the next few months remain firm. Our base case now shifts to the July meeting, as the Bank of Japan (BoJ) maintained its policy stance in June.

On the economic front, we expect household consumption to continue driving growth, in part supported by better wage outcomes from the shunto wage negotiations. The recovery in household consumption continues; we expect it to grow 2.1% y/y in 2023, higher than the historical average of 1.5%, and then cool to 0.9% in 2024. The recovery in Japanese consumption is underappreciated; on a relative basis, Japan has recently outperformed both Germany and the UK on this front. Exports will face headwinds as global demand cools, but we still think they will rise 2.4% y/y in 2023, below the historic average of 4.4%, and then slow to 1.5% in 2024. Capital expenditures are expected to remain firm and help business investments support GDP. All this means a modest upward revision of one-tenth percentage point to our 2023 growth forecast, which is now at 1.5%, while 2024 growth remains unchanged at 1.1%.

Inflation Dynamics Shift Policy Rate Narrative

We are more confident that inflation dynamics in Japan have shifted to a higher equilibrium and will remain elevated through the next two years. Hence, we have upgraded our CPI forecasts for 2023 and 2024 to 2.8% and 1.8%, respectively. On the demand side, higher wage growth is expected to drive inflation in staple items in the consumption basket. Also, returning tourists are likely to drive services inflation, such as accommodation and transport. On the supply side, we expect gas and electricity prices to rise from June on the phasing out of price controls.

In its June 16 meeting, the BoJ left its policy unchanged. The Bank noted "extremely high uncertainties" and left the door open for future policy revisions. We have already noted the Bank's increased confidence in inflation and price pass-through within the economy.

Nonetheless, the YCC amendments are still a matter of time, and we expect them during the July meeting. Given that this is also the consensus, we may expect market pressures to intensify in the days leading to the meeting. Governor Ueda hinted at the possibility of these adjustments to come as a surprise and noted that "positive signs were emerging from corporates' price, wage setting behavior." As such, many life insurance companies started increasing their JGB holdings.

As GDP remains resilient to an external slowdown and inflation remains sustainably elevated, we expect the BoJ to exit negative interest rate policy in 2024. However, the unhurried nature of monetary policy underscores the fact that the BoJ can afford to tolerate above target inflation for a longer period than other central banks. We do not expect that inflation gets out of control in Japan, but key risks to the outlook remain external in nature.

Emerging Markets Outlook

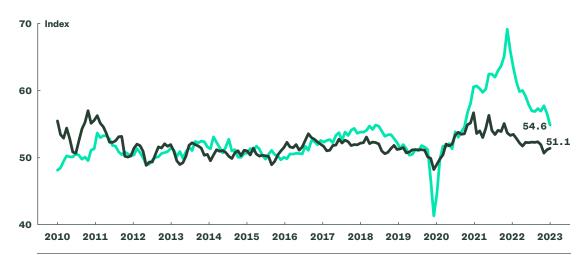
Simona Mocuta

Chief Economist, Global Macro and Research

As was the case three months ago, the two key themes around emerging markets (EM) remain the performance of China, on one hand, and the evolution of inflation and association monetary policy response, on the other. The former remains disappointing; the latter is encouraging.

We had already highlighted the fact that, despite an initial "re-opening" bounce that seemed to proceed surprisingly fast at the start of the year, we had not upgraded our 2023 China growth forecast back in March. However, we have now downgraded that projection marginally in June (to 4.9%). China continues to struggle with three main headwinds. On the domestic front, it is difficult to incentivize household spending when consumers lack confidence in the prospects for their most significant savings vehicle — housing. Related to this, high leverage limits the ability to deploy significant stimulus to speed up the recovery, in housing and beyond. Thirdly, global demand for manufactured exports has softened following the earlier surge. Across the spectrum then, China is facing considerable headwinds to growth. A weaker currency helps, but does dramatically alter the picture.

Inflation is retreating fairly rapidly across many emerging market economies. Headline CPI inflation printed at 3.2% y/y in Brazil, 5.1% in Mexico, 4.8% in India, 3.5% in Indonesia, and 0.2% in Thailand. But it was still over 11.0% in Poland and 10.0% in Romania. The war against high inflation hasn't been won yet, but many individual battles have. And just as they moved before their developed-market counterparts, EM central banks are likely to start cutting rates before them too.



Source: Macrobond, State Street Global Advisors Economics, S&P Global as of July 2023.

Figure 5 Composite PMI Output Price Signals

- World, Emerging, Composite PMI Output Prices Index
- World, Developed, Composite PMI Output Prices Index

Global Capital Markets Outlook

Jerry Holly, CFA

Senior Portfolio Manager Investment Solutions Group

There are a lot of important risks confronting global equity markets at the moment, but immediate downside catalysts are not clear and we continue to see sufficiently supportive factors to warrant an equity overweight — even in light of the strong performance generated on a year-to-date basis. Over the intermediate term, we think there is good value in bonds, but choppy inflation and economic data continue to pose risks to outsize duration positions in the short term.

What or When?

In our active asset allocation portfolios, we've been bullishly positioned throughout all of 2023. From conversations with clients it appears that we've been a bit of an outlier in that regard. Many have asked if we are not worried about the various risks facing global economies and capital markets — inflation, monetary tightening, valuations and idiosyncratic blow-up risks along the lines of what occurred with regional banks. How could we possibly hold a significant overweight to stocks when faced with these types of near-certain headwinds? The short answer is that we're as concerned about these risks as anyone else, even if our analytical demeanor is relatively dispassionate.

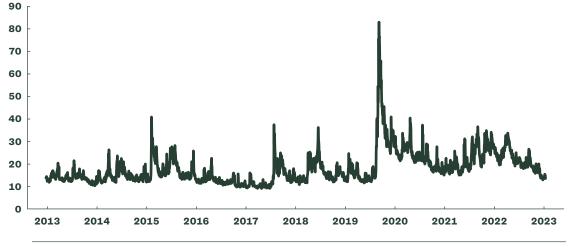
But concern doesn't mean defense is necessarily the right answer. On that topic I was having a sidebar conversation with the CIO of the Investment Solutions Group. We were discussing our allocations — a broad-based equity overweight stance but with some diversifying allocations to longer-term government bonds and an underweight to commodity markets, among other positions. Your author was outlining any number of ways that this equity rally might start to fall apart, damaging our investments in the process. And we generally agreed that inflation risks still had the ability to knock markets down a notch, that the cumulative effects of tight monetary policy were by no means in the rear-view mirror, that volatility might well be too low in light of that backdrop. But he also posed a question: "when are those risks going to materialize?"

The question reminded me of a book with the simple title of *When*. In this book, Daniel Pink takes great care to distinguish between "what" questions and "when" questions. In his words, "we often search for solutions in the realm of *what*...But, more frequently than we realize, the most potent answers lurk in the realm of *when*."¹

The "what" questions are not a bad place to start, but without emphasis on the "when" one could easily miss out on those potent answers or insights. When emphasizing the temporal aspects of these risks, I think we arrive at more practical investment implications. Sure, inflation and monetary tightening are still a major concern, but a significant proportion of those risks have already manifested in market pricing. With respect to banks, the earnings season that just got underway could be the catalyst for a leg down, but the sector looks well capitalized and earnings expectations are already diminished, so why would we use that as justification to shed equity risk today? Low levels of volatility may be more of a concern, but this can also persist for extended periods of time. The VIX won't stay at 13 forever, but that doesn't mean it has to spike next week.



CBOE Market Volatility Index — Price Index



Source: State Street Global Advisors, FactSet, as of 12 July 2023. Past performance is not a reliable indicator of future performance.

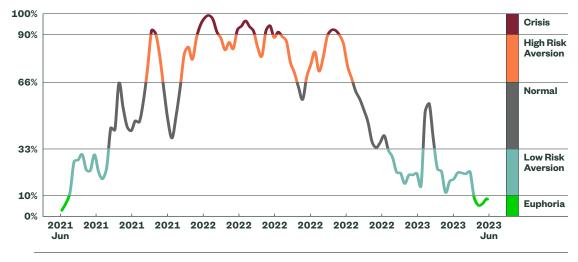
Not all aspects of our process and modeling are geared to day-to-day or month-to-month timing of our positions. But as we walk through our current thinking, we'll highlight those parts of our process that are more heavily tailored to shorter-term timing and "when" questions. Front and center in that regard is our Market Regime Indicator (MRI).¹

Some Complacency Signs in Sentiment

Perhaps more than any other part of our investment process, the MRI shapes our portfolios by emphasizing what is, or isn't, being priced in the markets using a regime-aware approach. The MRI is not as supportive of equity risk as it was earlier in the year, but it is by no means sending out a panic or de-risk signal either. All of the components of the MRI, spanning implied volatility in equity markets, implied volatility in foreign exchange and credit spreads have fallen sharply and pushed MRI to the border of what we consider low risk aversion and euphoria. At the margin, this does suggest a degree of complacency might be building.

But to turn meaningfully negative on equities we would look for more dramatic moves in the MRI. And it has been some time since we've passed through those more fragile risk environments (high risk aversion). In fact, the last time the markets registered high risk aversion was in November 2022 — roughly 35 weeks ago. That might suggest that, along with other sentiment indicators, this low volatility environment could be a little long in the tooth. However, prior to the turbulence experienced in 2022, the MRI had avoided high risk aversion regimes for over a full year. And that regime occurred during the pandemic, which shows how these types of market environments may persist even in the face of serious risks.

Figure 7 MRI Evolution 5-Day Moving Average, 2Y Rolling (Jun 2021–Jun 2023)



Source: State Street Global Advisors Investment Solutions Group as of June 30, 2023. The data displayed is not indicative of the past or future performance of any SSGA product. All data shown above does not represent the results of actual trading, and in fact, actual results could differ substantially, and there is the potential for loss as well as profit. The Market Regime Indicator (MRI) is a quantitative framework that attempts to identify the current market risk environment based on forward looking market indicators. We believe the factors used, equity implied volatility, currency pairs implied volatility and bond spreads, are good indicators of the current risk environment as they are responsive to real time market impacts and in theory should include all current and forward views of those markets. These factors are combined to create a single measure and used to identify one of five risk regimes: Euphoria, Low Risk, Normal, High Risk, and Crisis.

Equities: More Room to Run

Although the MRI plays an important role in determining the "when" as it relates to our equity positioning, it does not paint the full picture. Our underlying equity models and fundamental assessment of the markets are also important in determining both how much we allocate to equities and where we see the best opportunities across equity markets.

Fundamentally, caution has been raised for a number of legitimate reasons. A tenuous macroeconomic backdrop, narrow market breadth and lofty valuations given the uncertainty have given investors pause. At times, we have backed off of our risk exposure due to some of the macroeconomic uncertainty, but that backdrop is improving and equities continue to display resilience even in the face of higher interest rates.² Technical indicators and breadth measures are often used for timing purposes but narrow breadth, in and of itself, is not a large concern for us. A top heavy market may not be conducive for longer-term stock market health, but we see little empirical evidence that concentrated leadership leads to weaker near-term returns. In fact, the evidence would largely suggest the opposite.³ And on the valuation front, although we also see that price/earnings (P/E) multiples (however measured) show some degree of richness, they aren't so high as to warrant a defensive stance. Further, other broad market valuation metrics such as free cash flow yields actually look compelling, and they are arguably more important in an environment of high interest rates. In any event, none of these valuation metrics are at extremes (rich or cheap) which is when we find them to be particularly favorable for long-term investors.

This leaves us with a still positive view of equity markets overall. And our tilts within equity markets lean towards US and European equities, while we have upgraded emerging markets to a neutral position and remain underweight Pacific shares. The timing of the strength of our US equity signal has been reasonably durable and supported by both relatively strong earnings and sales expectations as well as attributes that make US stocks more resilient in the face of macro uncertainty. European equities have lagged as the rally in technology shares led markets higher, but continental equities still look attractive across all factor families with the exception of earnings sentiment. In emerging markets, much of the late 2022 outperformance that occurred on optimism surrounding the Chinese economic reopening has by now reversed course and we're starting to see signs that slower moving indicators like valuations and quality are more

supportive of the region. In Pacific markets, Japanese shares have been on a tear in local terms, but the depreciation of the yen has offset most of that benefit for unhedged investors. On a go-forward basis, though we see a relatively firm domestic economic setup in Japan, the stock market setup appears a bit shakier given internal market dynamics including low stock-level dispersion as well as lingering risks associated with adjustments to yield curve control policies.

Fixed Income: Intermediate Term Value in Bonds

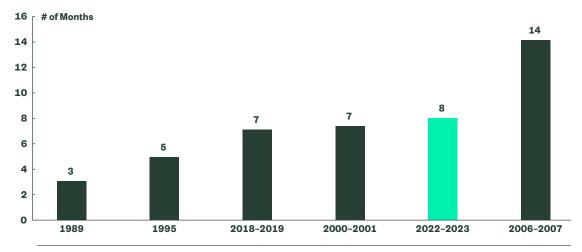
Though our equity outlook is favorable, our view on the riskier assets within the fixed income universe is a bit more circumspect. Above-average valuations in the equity world limit upside to a much lesser degree than lean credit spreads do in fixed income markets. And while we expect ongoing improvement in the inflation landscape, the question of "when" to adopt more meaningful exposures to duration will invariably encounter some crosscurrents throughout the second half of the year.

To be fair, within the credit space — whether investment grade or high yield — we don't anticipate significant spread widening, which would be at odds with a favorable outlook on equities. Rather, the total return outlook associated with roughly stable credit spreads doesn't warrant an outsized allocation. Credit spreads might well continue to grind back down toward the mid-2021 post-pandemic tights, but with poor seasonal trends, weak short-term momentum and relatively asymmetric downside risks — we'd prefer to take out beta risk in equities for the time being.

With respect to rates markets, what is our positioning and outlook? From a total portfolio perspective, we carry a decent underweight to duration overall, but that is largely to fund our overweight position in equity. If we think in terms of fixed income in isolation, our quantitative signals are not quite on board with a "coast-is-clear" type messaging in terms of taking on a more pro-duration stance due to still high nominal growth rates and the potential for rate reversals amidst otherwise encouraging inflation data.

When might our position change? We think that market pricing for the path of the federal funds rate seems about right — both given the current circumstances as well as in relation to prior easing cycles. As of the time of writing, the implied probability that the Federal Reserve would increase its target on the federal funds rate in late July was roughly 90%. On the flip side, market expectations (depending on the day) put the first interest rate cut around March 2024. To the extent that July forecast comes true and it represents the peak federal funds rate for this cycle, then we can see how that stacks up relative to prior monetary easing transitions. Compared to prior easing cycles going back to the late 1980s, that would be just about average in terms of the amount of time that the federal funds rate would spend at its peak rate for a given cycle (see Figure 8). One could argue that, given the heightened inflation risks this time around, perhaps they'll hold a bit longer. But with 500 basis points of tightening already in the bank, there may not be as much appetite to keep policy restrictive if lagged effects show up in a more pronounced way.





Source: FactSet. Data for 2022–2023 Cycle represent market expectations as priced by Federal Funds Futures as of July 13, 2023.

To the extent we'd take issue with either Fed or market expectations for interest rates, the most relevant question may not be the when, but by how much. Our economics team anticipates more aggressive easing in 2024, which makes sense to us and is supported by our modeling that shows support for curve steepening, and that doesn't appear to be changing anytime soon. Should this dynamic unfold, then that would likely flatter fixed income returns over the medium term — but it may be too soon to position for that outcome right now.

Commodities: Macro Forces Dent Potential Upside Risks From Supply

In keeping with our selective investments in 'growthier' asset classes, the risk/reward in commodities does not look as compelling to us. On balance, our outlook for commodities is favorable over the medium term, but in the near term a number of headwinds limit our enthusiasm. In energy markets, oil prices remain range bound as we haven't seen much change to the broader market narrative as investors are still balancing recession fears, lower sentiment, and softer data out of China against tighter OPEC+ policy and limited response from US producers. Macroeconomic worries have weighed on prices, and Strategic Petroleum Reserve (SPR) releases and unexpected supply has brought more balance to the markets, moving the near-term contracts into slight contango. However, demand continues to run above expectations, and the US has started to replenish their dangerously low SPRs. Looking forward, OPEC's supply control should move the markets back into deficit, and over the back half of the year there appears to be upside risk for tighter OPEC+ policy which would support the sector, but we're not there yet.

For metals, a lot of bad news has been priced in as metals have struggled since rolling over again in January. The longer-term fundamentals should help provide some floor, but prospects for USD support, slower growth, and lower-than-expected stimulus in China will likely be a headwind for metals in the near term. Gold is a bright spot in our outlook for commodities. All of our technical indicators suggest gold remains in a positive trend and, to the extent easing inflation starts to nudge real interest rates lower in the months ahead, we may even see support from economic and fundamental factors.

Time to Conclude

As has been covered, there are plenty of potential answers to the question "what is going to cause this market to slow down?" It could be sticky inflation, higher-for-longer Fed policy, a recession, or some other, as of now, exogenous risk factor. But not all of these risk factors represent inevitable realities. And for those that do ultimately emerge, I'd like to think we're more attuned to the question of timing and the importance of "when" questions than sociological studies might suggest for the broader population. But biases are bound to form — especially in an environment where the cyclical trends may be at a turning point. Having the systematic signals from our quantitative research supplemented with fundamental debate of market conditions helps us to find a good balance between the "what" and the "when." And we do that every day.

Sources: Bloomberg, FactSet, J.P. Morgan, Barclays, MSCI, Morgan Stanley and The Economist, as of June 30, 2023.

Endnotes

- 1 Pink, Daniel H. When *The Scientific Secrets of Perfect Timing*. Riverhead Books, 2018, Page 89.
- 2 Some of the best-performing days for the S&P 500 Index during the 2nd quarter occurred when the 2 Year Treasury Yield jumped by more than 15 basis points (May 5, May 25 and June 2 as some examples).
- 3 Source: Strategas Investment Strategy Report for June 5, 2023. The report shows that when S&P 500 market breadth is narrow (as measured by the percent of stocks outperforming the index) it is historically a bullish signal for the market over the next 6-month period.

State Street Global Advisors Forecasts as of 30 June 2023

	2023 (%)	2024 (%)		30 June 2023 (%)	30 June 2024 (%)		
Real GDP Growth			Central Bank Rates				
Global	2.6	2.4	US (upper bound)	5.25	4.00		
US	1.2	1.5	Australia	4.10	4.00		
Australia	1.2	1.6	Canada	4.75	4.00		
Canada	1.0	0.6	Euro	4.00	4.00		
Eurozone	0.7	1.1	UK	5.00	5.50		
France	0.6	1.0	Japan	-0.10	-0.10		
Germany	-0.1	1.3	Brazil	13.75	9.00		
Italy	1.5	1.1	China	4.35	4.25		
UK	0.4	1.1	India	6.50	5.50		
Japan	1.5	1.1	Mexico	11.25	8.25		
Brazil	2.3	1.7	South Africa	8.25	7.00		
China	4.9	4.6	South Korea	3.50	2.75		
India	6.0	6.0	10-Year Bond Yields				
Mexico	2.5	2.0	US	3.81	3.31		
South Africa	0.6	1.9	Australia	4.02	3.92		
South Korea	1.3	2.0	Canada	3.26	2.86		
Taiwan	0.8	2.5	Germany	2.41	2.39		
Inflation			UK	4.41	4.60		
Developed Economies	5.1	2.6	Japan	0.39	0.50		
US	4.0	2.3	Exchange Rates	0.00	0.00		
Australia	4.0	2.5	Australian Dollar (A\$/\$)	0.67	0.76		
Canada	4.1	2.5	British Pound (£/\$)	1.27	1.35		
Eurozone	5.8	2.4	Canadian Dollar (\$/C\$)	1.32	1.00		
France	5.0	2.5	Euro (€/\$)	1.09	1.15		
Germany	6.0	2.4	Japanese Yen (\$/¥)	144.54	120.00		
Italy	6.3	2.3	Swiss Franc (\$/SFr)	0.89	120.00		
UK	7.2	2.9					
Japan	2.8	1.8	Chinese Yuan (\$/¥)	7.26	6.75		
China	1.0	2.0					

One-Year Return Forecasts	USD (%)	EUR (%)	GBP (%)	JPY (%)	AUD (%)	CAD (%)
S&P 500	6.5	1.0	0.3	-11.6	-6.7	-1.8
Russell 2000	7.2	1.7	1.0	-11.0	-6.1	-1.2
MSCI EAFE	7.1	1.6	0.9	-11.1	-6.2	-1.3
MSCI EM	7.8	2.3	1.5	-10.5	-5.6	-0.6
Barclays Capital Aggregate Bond Index	4.8	-0.6	-1.3	-13.0	-8.2	-3.4
Citigroup World Government Bond Index	3.0	-2.3	-3.0	-14.5	-9.8	-5.0
Goldman Sachs Commodities Index	2.7	-2.6	-3.3	-14.7	-10.0	-5.3
Dow Jones US Select REIT Index	5.7	0.3	-0.5	-12.2	-7.4	-2.5

State Street Global Advisors Forecasts, as of June 30, 2023.

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^{*} Pensions & Investments Research Center, as of December 31, 2022.

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