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Unfollowing the crowd

How our rates investors seek to avoid the pitfalls of prediction in actively managed government bonds

Executive summary

- Macroeconomic projections are generally poorly calibrated, with large margins of error, and their record in predicting recessions is poor.
- Nonetheless, many investors put great emphasis on their forecasts when determining investment strategies
- We believe that active investors in global government bond markets are likely to be better served by building an investment process around looking for and exploiting other market participants' overconfidence
- We have based our investment process on these insights:
  - We try to identify the limits of what is knowable. Where we find evidence of market overconfidence beyond those limits, we believe we could profit by taking the other side of such arguments
  - We think we can find opportunities for potential alpha generation on our understanding of the behaviour of rules-based investors, which can lead to exaggerated market moves
  - We try to minimise our own biases by insisting every trade has a clear and documented rationale. We also define in advance the events necessary to convince us our original view was not correct

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The value of an investment and any income taken from it is not guaranteed and can go down as well as up, and the investor may get back less than the original amount invested.

LGIM

Introduction

Any forecaster tries to balance the risks of sounding false alarms and failing to signal a possible event that subsequently materialises. When we assess professional economic forecasters relative to these two objectives, it is hard to avoid the conclusion many are simply not very good.

The International Monetary Fund (IMF) is one of the most respected macroeconomic institutions on the planet. It has a staff of over 3,000 (including over 1,000 economists) and spends over $100 million per annum on 'macrofinancial surveillance'[1]. If their record in economic forecasting is flawed, it doesn't bode well for anyone else.

Let's look at the evidence

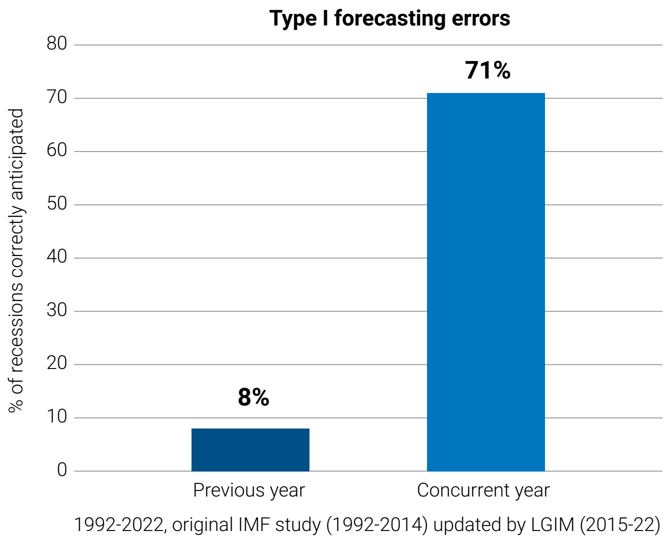
In 2018, the IMF published a working paper taking a critical look at its own forecasting record[2]. Because the data in this report only covered the period 1992-2014, we brought it up to date with our own research.

Taking the full 30 years between 1992 and 2022 into consideration, we found only 8% of recessions had been forecast by the IMF's economists the year before they started (see the left-hand chart below). That rose to 71% for the years during which the recessions took place.

In other words, the IMF finds it easier to open the window and realise that is it raining than to anticipate when the clouds will break.

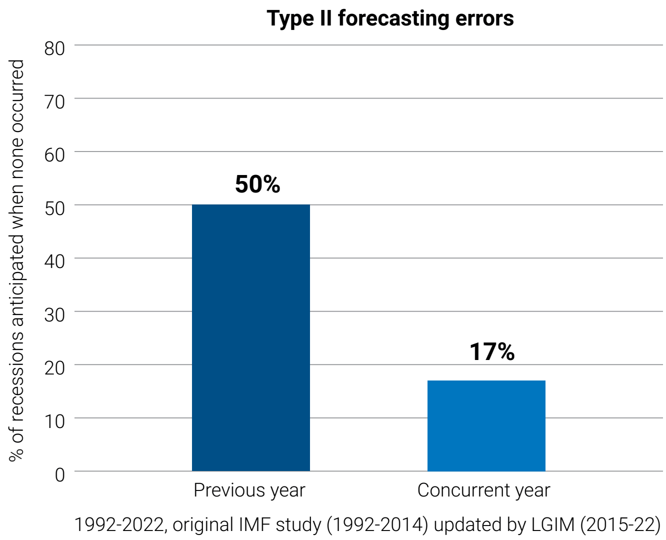
This failure does not stem from an institutional overoptimism. False alarms are also worryingly common. 50% of the IMF's recession forecasts have not materialised (see the right-hand chart below).

Probability of predicting recessions correctly



Source: "How well do economists forecast recession?", IMF (2018), LGIM. "Previous" and "concurrent" years are the average of error rates from the April and October forecasting rounds in year t-1 and year t respectively.

Probability of false alarm



Source: "How well do economists forecast recession?", IMF (2018), LGIM. "Previous" and "concurrent" years are the average of error rates from the April and October forecasting rounds in year t-1 and year t respectively.

1. https://www.imf.org/en/News/Articles/2024/05/09/pr-24150-imf-approves-fy25-to-fy27-medium-term-budget
2. https://www.imf.org/en/Publications/WP/Issues/2018/03/05/How-Well-Do-Economists-Forecast-Recessions-45672

That patchy track record is not unique to the IMF. In the same working paper, the authors concluded that "forecasts of the private sector and the official sector are virtually identical; thus, both are equally good at missing recessions".

How should we respond to this? In theory, one way to alleviate this problem would be to develop superior forecasting techniques.

The first thing to note is that there are already a lot of people building a lot of expensive mousetraps. There are an estimated[3] 17,500 non-academic economists in the US, with a median pay of $115,000. Not all of these people are engaged in macroeconomic forecasting, but it is hard to argue that this is an under-resourced area of research.

Secondly, we know that a diverse range of forecasting techniques have historically demonstrated similar shortcomings. This failing has been hiding in plain sight for decades. Economist Victor Zarnowitz (1989)[4] examined a wide taxonomy of approaches: "individual and collective judgements, informal and formal techniques, small and large models … all of these are well represented". Nonetheless, he concluded it was "difficult to detect systematic differences in accuracy".

If forecasts are so inaccurate, why are they so popular?

Prakash Loungani (2000)[5] put it best: "Forecasts are only part of the product offered… often the 'story' being told to explain the outlook and the attendant risks can be more important".

The US Federal Reserve's Statement of Economic Projections captures error ranges gathered from various forecasters across the private and public sectors, calibrated on historical forecast errors between 2003 and 2022. Taken in aggregate, the record suggests there is about a 70% probability that real-world GDP and inflation data will fall somewhere in a range 1.8% above or below the consensus forecast[6].

The language used to express these forecasts matters for how those stories are understood.

Compare these two quotes:

1. "We expect inflation to be somewhat above target at 2.3% next year"

2. "We can only be 70% confident that inflation will fall between 0.5% and 4.1% next year"

In our view, the first quote is the message of an institution that knows what it is talking about and is confident in its outlook. It conveys authority and insight. It tells a good story.

But we think economic forecasts would be considered in a more appropriate light if the second quote was used instead. The first statement could be said to project undue confidence; the second accurately conveys the chronic uncertainty inherent in the outlook.

3.6% margin of error around consensus GDP and inflation forecasts[6]

3. https://www.bls.gov/ooh/life-physical-and-social-science/economists.htm
4. https://www.nber.org/system/files/working_papers/w2099/w2099.pdf
5. https://www.imf.org/en/Publications/WP/Issues/2016/12/30/How-Accurate-Are-Private-Sector-Forecasts-Cross-Country-Evidence-From-Consensus-Forecasts-of-3543
6. Federal Reserve (2023): Summary of Economic Projections, December 13, 2023 (federalreserve.gov)

Breaking down our investment philosophy

Investors can be led astray when they forget that economic forecasts are primarily storytelling devices. In our view, they can really regret it if they start to treat them as gospel truth.

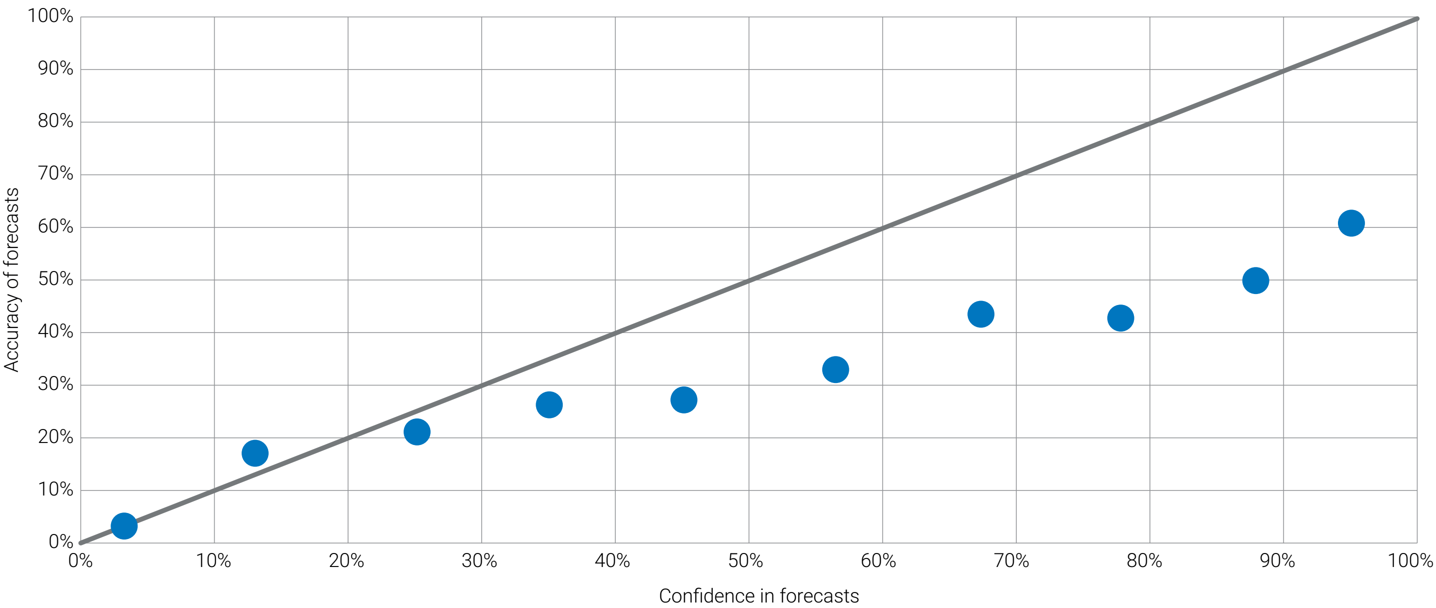
The core of our investment philosophy is that we seek to identify when our investment peers are overconfident in their collective outlook. This is not a straightforward task. When we find such pockets of unsustainable overconfidence, particularly when the consensus can be easily disproven by subsequent events, we position against it.

The validation for this approach comes in the chart below. It looks at range forecasts for key US economic variables provided over six decades. Participants in the survey were asked to calibrate their level of confidence that unemployment, inflation and growth would fall within certain ranges.

Forecasters are reasonably good at identifying what they don't know. In the bottom left-hand corner, the observations are close to the 45-degree line. Events which were expected to happen 20% of the time subsequently happened around 20% of the time.

But forecasters came unstuck with the when their confidence outpaces their predictive capability. Forecasts made with 90-100% confidence turned out to be correct only six times out of 10. Forecasts made with 80-90% confidence were wrong as often as they were right.

55 years of overconfidence



Our investment philosophy is based on finding opportunities to exploit such overconfidence in other investors. We believe that this can be well rewarded when others have not taken enough uncertainty into account.

Forecasts with 90-100% confidence are correct only **6 times out of 10**[7]

7. Source: Campbell and Moore (2004), Overprecision in the Survey of Professional Forecasters, Collabra: Psychology, LGIM. The research examined >32,000 predictions of key economic indicators (unemployment, inflation, growth) from 1968 – 2023.

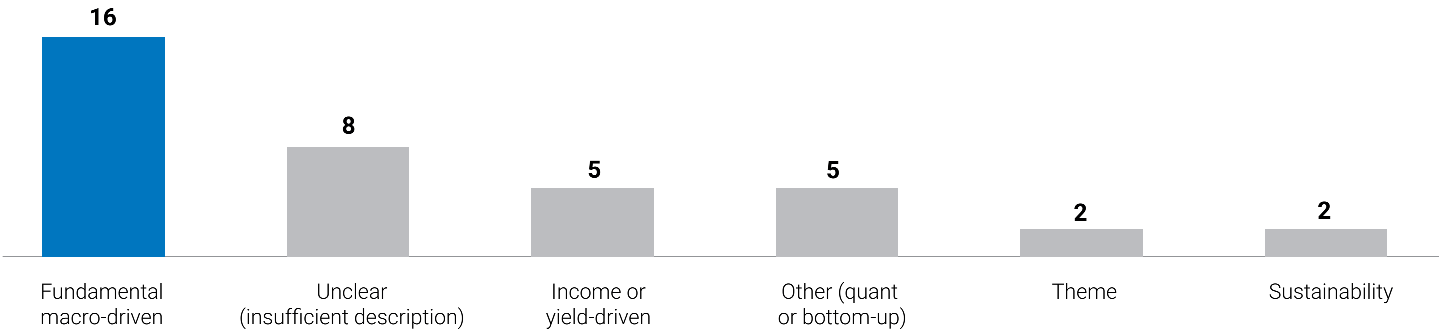
How do rates experts seek to generate alpha?

Any investment is to some degree a bet on an uncertain future. This puts investors in an insecure position. It's natural, then, that they want to mitigate this uncertainty by taking on as much information as possible before making an allocation. But have investment professionals become overreliant on forecasts and fundamental research?

To find out, we conducted our own research on the global government bond strategies managed by our peers. We extracted all the investment philosophy wording provided by asset managers in the eVestment Global Government Fixed Income product group – 60% of which are fundamental or macro-driven strategies.

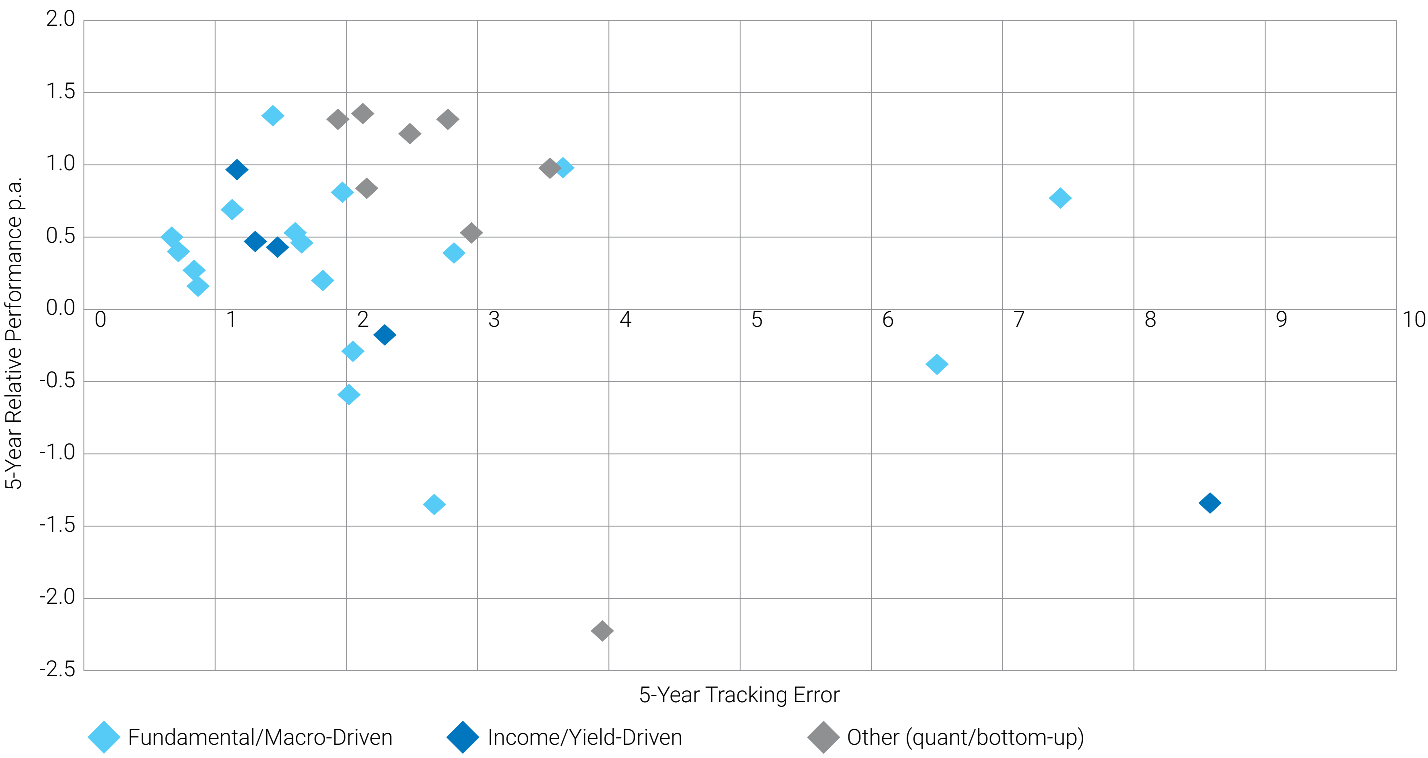
Out of 49 managers in this group, 38 provide detailed information on their approaches.

Of these 38 firms, 16 of them (about 42%) explicitly mention strategies based on fundamental research or macroeconomic outlooks. One peer even refers to relying on 'expert forecasters' in its decision-making process.



Source: LGIM research, 2024

Where data was available, we extracted five-year relative performance and tracking errors for these strategies. This data suggested that strategies based on fundamental research appear to have slightly lower performance and tracking errors compared to strategies based on income or yield generation.



Source: eVestment as at 30 June 2024. **Past performance is not a guide to the future. The value of an investment and any income taken from it is not guaranteed and can go down as well as up, and the investor may get back less than the original amount invested.**

The average five-year information ratio for the period to 30 June 2024 was:

- **0.15** for strategies based on fundamental research
- **0.32** for income/yield-driven strategies
- **0.25** for quantitative/bottom-up strategies.

In other words, strategies based on fundamental research tend to achieve less appealing risk-adjusted performance, regardless of the detail and richness of the forecasts the managers consulted.

How can we account for this?
First, this is not a new phenomenon. Anyone with a passing acquaintance with economic history will recognise that John Maynard Keynes was an intellectual giant of his era. But, recent research suggest that he was a mediocre currency strategist. The track record of his discretionary and fundamental investment process in the 1920s and 1930s comes up well short relative to a disciplined factor-based approach[8].

Second, it is a truism that our educations and backgrounds tend to condition how we see the world. Rates and inflation portfolio managers very often have backgrounds in economics. This training encourages the belief that it is both possible to produce an accurate forecast of the future, and to do it better than others.

Third, it is reputationally better to fail conventionally than to attempt to succeed unconventionally and fail. The risk of groupthink (or, less generously, a herd mentality) pervades those adopting a conventional forecasting approach.

As we mentioned above, the fundamentals that matter for rates markets are mostly big macroeconomic datapoints and central bank reactions to these. It's extremely challenging to gain an edge this way. It's inherently very difficult to forecast large multifaceted systems and it's hard to believe that one has an edge when there are many thousands of highly trained people trying to do the same thing with the same public information.

However, our analysis of the eVestment data suggests that many investors find it difficult to resist the temptation of falling back on the security of a forecast, regardless of how inaccurate it may be.

We also believe that other investors' overconfidence and resulting herding behaviours can create opportunities for us. In short, the more other investors get it wrong, the more we benefit when we get it right.

An additional benefit of this approach is the creation of diversification benefits. Our strategies are not contrarian in the traditional sense, but in pursuing another path than that of the consensus, many of our trades are intended to offer diversification of returns within broader portfolios.

What does this mean for our investment process?

a) The fundamentals that matter most are those that are under-analysed
With 17,500 economists in the US alone[9], our forecast for next month's non-farm payrolls is unlikely to be more accurate than other people's. We can't expect to get much of an edge by consistently doing the same thing as thousands of other economic and market analysts. Instead, we focus on what we believe are overlooked themes we think have the potential to become dominant market drivers.

Analysing these overlooked fundamentals is difficult, and can lead to opaque and obscure conclusions. However, it does helps us think about what potential market drivers are being overlooked by the mainstream analytical frameworks.

Examples include the strong growth in monetary aggregates in the immediate aftermath of the Covid-19 pandemic, the impact of profligate fiscal policy on LDI strategies in the UK in 2022, and the surprising interest rate insensitivity in the US private and public sectors in 2023.

We think of such under-analysed fundamentals as analytical blindspots. However, they don't tend to come up very frequently and have typically represented 20-30% of our active rates trades.

8. The returns to currency speculation: Evidence from Keynes the trader | CEPR
9. https://www.bls.gov/ooh/life-physical-and-social-science/economists.htm

b) The rules that matter most are those which constrain other investors

In rates markets, there are a number of actors whose goal is not to maximise profits, and this group is big enough to create market distortions. In the private sector, these are the heavily regulated investors: banks, insurers and pension funds. In the public sector, they're central banks and reserve managers who are trying to achieve policy goals.

A large portion of fixed income investors are heavily regulated and are constrained by rule-based frameworks. Examples of rules-based behaviour that can create opportunities include window-dressing of duration positions at month or quarter-end, index extensions, regulatory changes, FX intervention, and both quantitative easing and tightening.

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In our experience, we can access considerable opportunities for potential alpha generation by understanding rules-based investors' behaviours, as they tend to lead to exaggerated market moves. We combine our understanding of these investors and the macroeconomic environment to pursue short, medium and longer-term investment themes we think should generate returns.

Trades based on the understanding of structural dynamics that drive rates markets represent another 20-30% of our active positioning.

c) Overconfidence is pervasive

We have already established that:

- Most of our peers in the investment management community base their investment approaches on fundamental research and macroeconomic forecasts
- Those macroeconomic forecasts have such wide error bands that they are better understood, in our view, as a vehicle for telling market stories

Because we think investors are poor at identifying the limits of their knowledge, we look for pockets of overconfidence, and places where those stories have been repeated so often that they become accepted as truth.

We want to know when investors are taking views based on implicit or explicit assumptions for which there is little empirical support. We can see what assumptions, data and models the arguments rely on. We then analyse the same information, trying to identify the limits of what we can be confident in – and what we think nobody else can reasonably be confident in.

We believe that we could profit by taking the other side of such arguments. Being systematically contrarian is not inherently a worthy approach – but scepticism is healthy.

In this type of trade, the main behavioural biases we look to exploit are overconfidence and narrative extrapolation.

Over short time horizons, financial markets are characterised by herd-like behaviour. This manifests itself in short-term price momentum, punctuated by abrupt reversals. This herding is sustained by building market narratives. We try to anticipate potential inflection points by focussing on the vulnerabilities in these narratives.

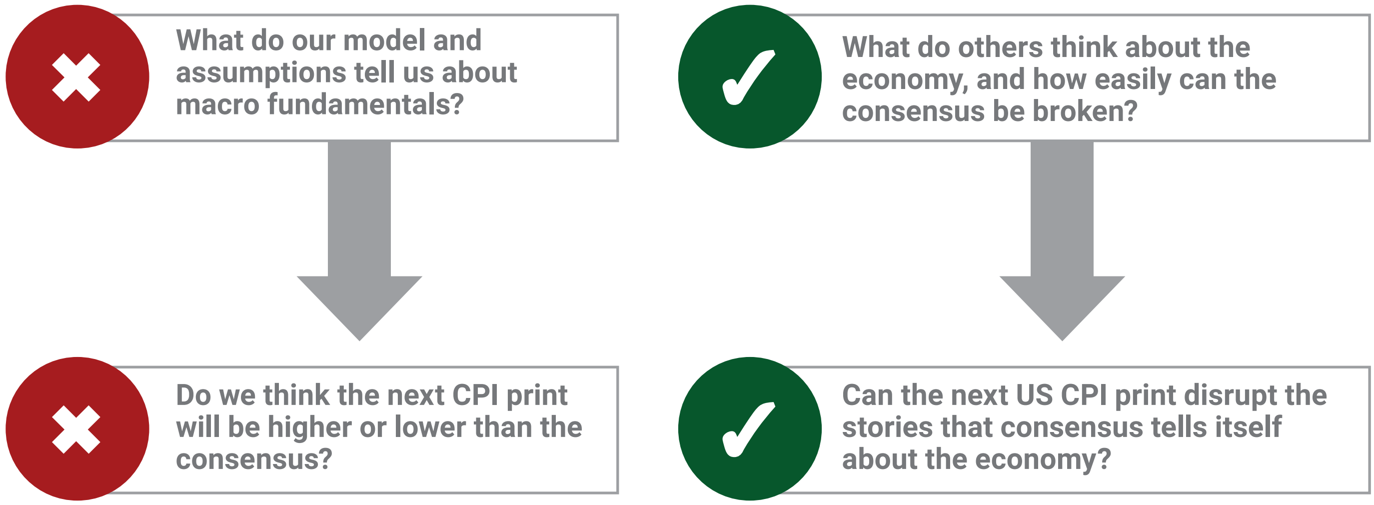
We do this by asking:

- Are market participants expressing undue confidence in something – should we take the other side?
- What do others think? Are those views vulnerable to known calendar events?

When we believe that market participants are expressing unwarranted confidence in a particular outcome, we may position on the other side if we believe that the consensus is fragile enough.

These trades have historically represented around 40-60% of our book of active positions.

2. Asking the right questions



Case study of a narrative-based trade: Japanese inflation

At the end of July 2024, the Bank of Japan (BoJ) hiked interest rates for only the second time in 17 years – moving them from around 0% to 0.25%.

Prior to this, we saw a consensus developing among economists that inflation would return to Japan after decades of deflation. This may have proven accurate , or it may have proven wrong. We didn't know. But we strongly believed that no-one could have reasonably claimed to have foresight on the future trajectory of Japanese inflation over multiple years when forecasting several months ahead is an impossible task.

However, we saw the broader market pricing in this narrative. The forecasts reflected, and reinforced, a story.

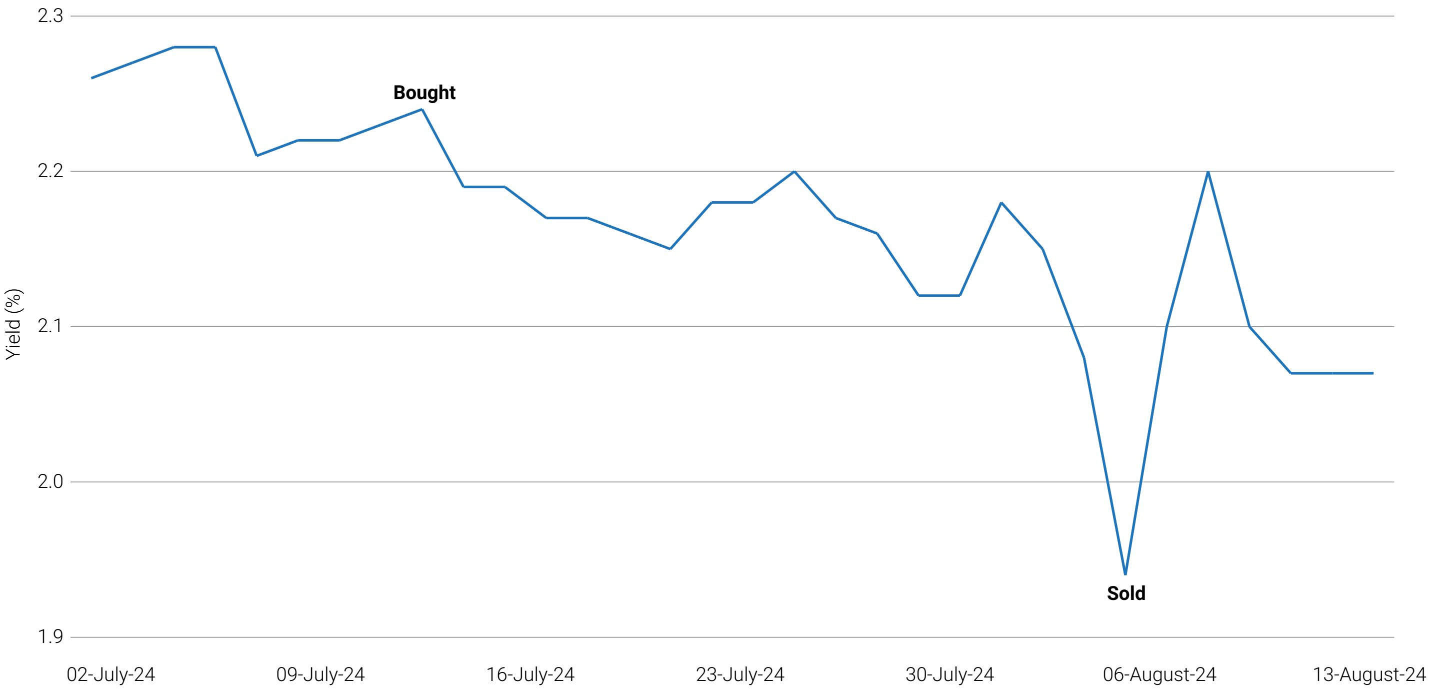
This consensus was very strong, but also easy to disprove with only a few data points of either mediocre wage growth or dissipating price pressure. The story was also vulnerable to an interruption to the strong depreciation path of the Japanese yen.

Believing we had identified a pocket of narrative overconfidence, we bought 30-year Japanese government bonds in July 2024 when the consensus trade was to sell them.

Case study shown for illustrative purposes only. The above information does not constitute a recommendation to buy or sell any security.

Premise: There was a strong consensus that the Bank of Japan would be forced to hike interest rates by more than the market had priced in after big moves in the Japanese economy led to higher inflation.

30-year Japanese government bond yield



Opportunity: Seeing a lack of sustained evidence that the shift would happen, we positioned against the widespread market consensus by buying Japanese government bonds when the market was short.

Source: LGIM, Bloomberg as at 30 August 2024. **Past performance is not a guide to the future. The value of an investment and any income taken from it is not guaranteed and can go down as well as up, and the investor may get back less than the original amount invested. Case study shown for illustrative purposes only. The above information does not constitute a recommendation to buy or sell any security.**

Yields on these bonds fell and prices rose amid a repricing of global growth and inflation expectations. The market didn't need much new information to challenge that which was previously unquestioned. The worst day on the Japanese equity market in several decades was the trigger for a reappraisal from both the BoJ and bond investors. After a short, sharp rally in Japanese bonds we took profit on the position.

d) Minimising our own biases
For every trade, we insist on:

- A clear rationale: what is the idea behind the trade? We are specific about the trade's drivers, and clear on what we think our edge is
- Statement of our level of conviction: to help with trade sizing, we need clarity on how confident we are, how we could become more confident, and what would justify it.
- Non-price stops: we state in advance what events would make us change our minds about a trade or convince us that our original view was wrong

The most important part of this process is that we attempt to assess what would make us wrong before it happens. Knowing in advance the threshold for abandoning a certain scenario makes it easy to quit the trade if the original rationale has been invalidated, and prevents mission creep.

Critically, we are likely to reach these 'non-price stops' before the trade has generated significant losses. Embedding this into our process and ensuring we don't take any significant risks without a strong sense of what would prove us wrong are the most important parts of our risk management process.

Conclusion

Decades of forecasting and endemic herd mentalities have led many active rates managers to allow their risk-taking to be determined by fundamental analysis. However, research repeatedly demonstrates how difficult this is to get right.

This creates asymmetric dynamics in rates markets. Everyone has access to the same information, driving many investors to adopt the same consensus approach.

Our response is not to try to out-forecast the consensus, but to question the premise on which that approach is built. We believe that there are regular, exploitable opportunities for active rates and inflation managers to find opportunities in areas neglected by other investors, to take advantage of the constraints imposed on other market participants and, most importantly, to position themselves against pockets of groupthink.

We believe that pursuing this strategy for potential alpha generation in government bond markets can play a pivotal role in constructing diversified portfolios.

Contact us

For further information about LGIM, please visit lgim.com or contact your usual LGIM representative

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