Janus Henderson INVESTORS

MARKET GPS

FIXED INCOME PERSPECTIVES

APRIL 2022

Featuring the latest quarterly insights from our investment teams:

- Opposing forces
- Caution merited in an increasingly uncertain market
- I'll have one of everything, please: the case for a more diversified fixed income portfolio
- Five questions fixed income investors are asking in 2022

OUR FIXED INCOME CAPABILITIES

Janus Henderson Fixed Income provides active asset management solutions to help clients meet their investment objectives. Over the past four decades, our global investment teams have developed a wide range of product solutions to address clients' varied and evolving needs. From core and multi-sector investing to more focused mandates, we offer innovative and differentiated techniques expressly designed to support our clients as they navigate each unique economic cycle. The capabilities of these teams are available through individual strategies or combined in custom-blended solutions.

While shared knowledge across teams and regions encourages collaboration and the debate of investment ideas, each team retains a defined level of flexibility within a disciplined construct. Environmental, Social and Governance (ESG) considerations, for example, are a key element of our credit research process and integrated within each team's investment approach. Our portfolio construction processes are governed by a rigorous risk management framework with the intent of delivering stronger risk-adjusted returns. Further, we believe transparency is the foundation of true client partnerships; we seek to earn and maintain our clients' confidence by delivering robust and repeatable investment processes and by providing firsthand insights from our investment professionals.

The Janus Henderson Fixed Income platform comprises 109 investment professionals situated in the UK, US and Australia. The teams are responsible for US$79.6 billion* in client assets.

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*As of 31 December 2021.

OPPOSING FORCES

Jim Cielinski
Global Head of Fixed Income

Jim Cielinski, Global Head of Fixed Income, considers potential scenarios for the economy, as central banks seek to maintain growth while stamping on inflation.

Key takeaways

- Inflation, Inflation, Inflation: central banks, having made a policy mistake, are now fixated on getting inflation under control.
- Growth will likely slow as weakening real disposable incomes curtail spending, but policymakers will welcome this development.
- Markets are moving to more ‘late cycle’ mentality, but low defaults should underpin credit markets.

> "The test of a first-rate intelligence is the ability to hold two opposed ideas in mind at the same time and still retain the ability to function."
>
> **F Scott Fitzgerald**

Such is the conundrum facing central banks as they seek to rein in inflation without choking off economic growth.

Having retired the word 'transitory,' the US Federal Reserve (Fed) has performed a 180-degree turn and now worries about the elevated headline inflation levels becoming ingrained in people's expectations. In the press conference following the March Fed policy meeting, Fed Chair Jerome Powell stated, "basically across the economy, we'd like to slow demand so that it's better aligned with supply." This is a firebrand comment from a Fed chair, and suggests he is prepared to aggressively tighten policy to defeat inflation. Supply chain problems are acknowledged but the Fed seems prepared to address the imbalance between supply and demand through the demand side of the equation.

War is inflationary

The initial expectation of markets was that the Russia-Ukraine conflict might drive investors towards the so-called 'safe-haven' of developed market government bonds. Instead, there seems to have been a reappraisal of what such a conflict means for inflation. Disruption to supply and diversion of materials bids up prices. What's more, the 'war' against COVID which fractured traditional consumer demand patterns has echoes of the 1946-48 period when consumption revived after peace returned following the Second World War. Back then, supply was constrained because it took time for industry to reorientate away from military production back to producing normal economic goods, so the Fed sought to dampen demand by directly controlling the growth of bank credit. This time, interest rates and quantitative tightening are the preferred tools.

One way track … for now

Inflation should recede as the Fed appears determined to follow its new path. Over the coming months it is hard to see it performing yet another U-turn without losing credibility. Like a guided bus, the Fed is unable to depart from the current track until it reaches a key junction. That junction point may be when alarm bells start sounding around the strength of growth. Just as it is hard not to raise rates when headline inflation is elevated, it may become equally hard to carry on raising them when economic participants are suffering and this is showing up in data such as declining purchasing manager indices, weaker retail sales, and downward earnings revisions. We expect that to be the case later this year as businesses slow their inventory build, the inflation 'tax' begins to weigh on consumer spending, and corporate profit margins take a hit from higher input costs that they find increasingly hard to pass on. This is tomorrow's story, however, and central banks are firmly fixated on inflation today. Growth will need to roll over convincingly to evoke a retreat.

So, we are presented with four potential scenarios for the global economy over the coming year, as depicted in Figure 1.

The danger is that having been in the Optimist quadrant as recently as six months ago, the global economy moves rapidly through the Conformist quadrant into the Pessimist quadrant, particularly if the Fed remains determined to tighten financial conditions.

Reaction function or new pain threshold

The Fed has already indicated that it wants to take the policy rate above the neutral rate (the March dot plot had rates at 2.8% in 2023, above the 2.4% long-term rate). Powell is convinced that the labour market in the US is hot and has firmly planted the Fed's flag in one of the left-hand quadrants. It was odd that the neutral rate was moved down from 2.5% to 2.4%, perhaps a recognition of the growing weight of debt in the economy making it more sensitive to rate hikes.

Regardless, financial conditions look set to tighten further because, in Powell's own words, "all the signs are that this is a strong economy... and one that will be able to flourish... in the face of less accommodative monetary policy." By tighter financial conditions we mean the degree of difficulty (tightness) that the private sector experiences when trying to secure sources of finance. Tighter financial

Figure 1: Growth versus central bank policy

Improving economic growth

Conformist

Growth improves, central banks hawkish

Global economy and trade recovers but monetary policy remains focused on fighting inflation.

- Relief rally in risk assets but fades as policy tightening persists
- Fixed income becomes more attractive over time after bond yields rise
- Spread widening plateaus

Optimist

Growth improves, central banks dovish

Geopolitical tensions lessen and declining commodity prices and healing supply chains take pressure off inflation, allowing central banks to pause/step off tightening.

- Transitory inflation narrative resurrected
- Credit spreads narrow, bond yields stabilise/fall
- Rates, credit and equities all benefit

Pessimist

Growth worsens, central banks hawkish

Monetary policy remains focused on fighting stubborn inflation, even in the face of weakening economic data. Geopolitical tensions remain.

- Inversion of yield curve
- Tackling inflation aggressively provokes a hard landing
- Risk assets underperform but bonds offer poor protection

Pragmatist

Growth worsens, central banks dovish

Growth falters, wary of provoking a recession central banks row back on tightening rhetoric.

- Yields fall and curves dis-invert
- Risk assets underperform in the lead-up
- Central bank panic over growth is a cue to step back into risk assets

Looser monetary policy

Source: Janus Henderson Investors. Hawkish describes central banks when favouring tighter monetary policy (eg, higher interest rates), dovish describes when they favour looser policy. For illustrative purposes only. Scenarios and outcomes are not guaranteed.

conditions can be expressed through wider credit spreads or higher real yields (more expensive to raise debt finance) weaker share prices (more expensive to raise equity capital), or higher mortgage rates (more expensive to finance real estate purchases). We have already seen some rapid market moves, as shown in Figure 2.

This has led to tighter financial conditions and not just in the US. More hawkish comments from the European Central Bank and market responses are seeing a similar tightening of financial conditions in Europe, although still some way off the levels reached in the Eurozone debt crisis.

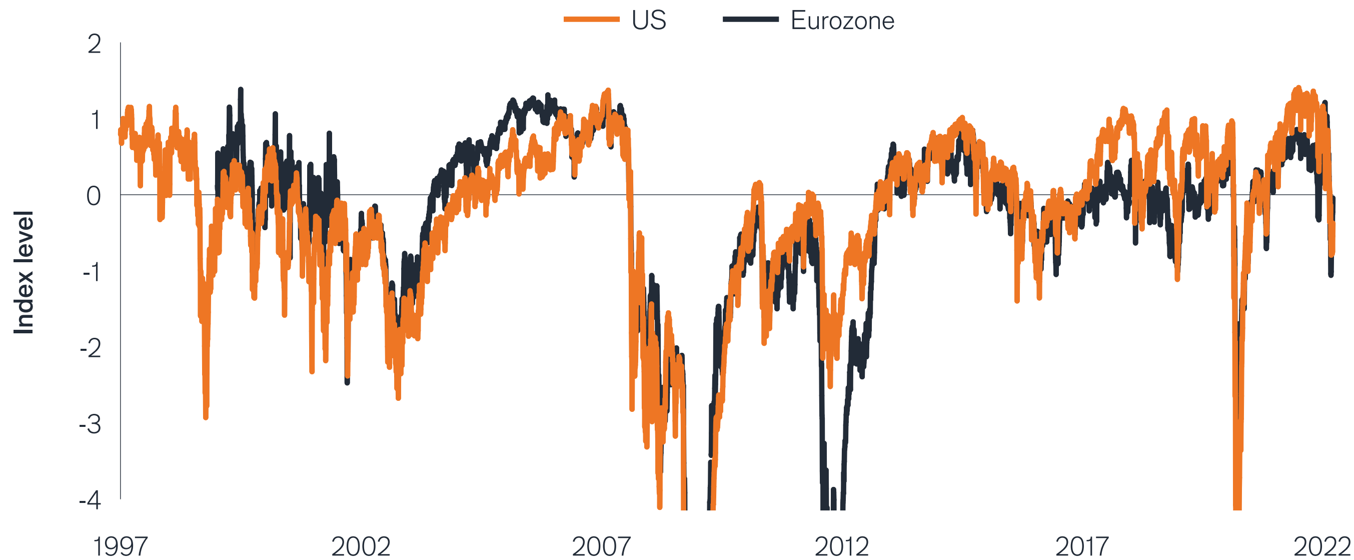
Figure 2: Market reflecting tighter financial conditions

Index	30 Jun 2021	31 Dec 2021	31 March 2022
2-year US Treasury yield (%)	0.25	0.73	2.34
10-year US Treasury yield (%)	1.47	1.51	2.34
30-year US mortgage interest rate (%)	3.02	3.11	4.67
Credit spread BBB rated US Corp (bps)	107	121	149
Credit spread BB rated US Corp (bps)	234	262	315

Source: Bloomberg, Generic 2-year and 10-year US government bond yields; Refinitiv Datastream, Freddie Mac 30-year mortgage rate; ICE BofA US BBB Corporate Index and ICE BofA US BB High Yield Index, credit spread = option-adjusted spread over government (Govt OAS) in basis points, at 31 March 2022. Basis point (bp) equals 1/100 of a percentage point. 1 bp = 0.01%, 100 bps = 1%.

Figure 3: Financial conditions set to tighten further

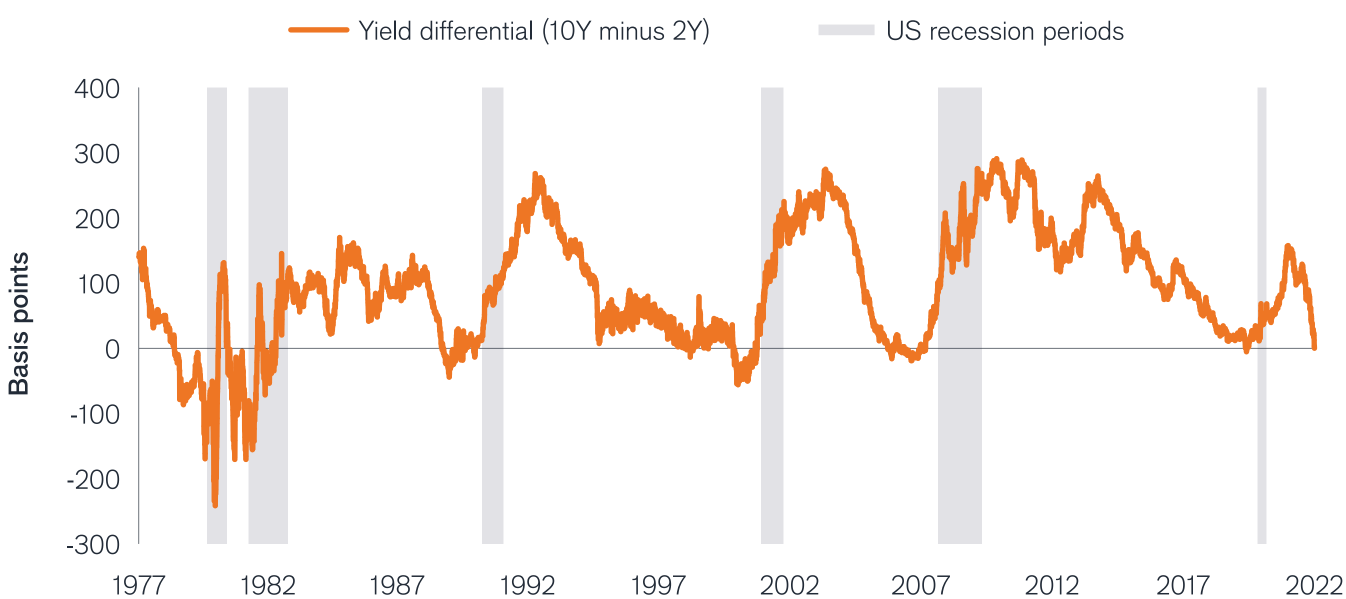
Bloomberg US and Eurozone financial conditions indices



Source: Bloomberg, 31 March 1997 to 31 March 2022. Bloomberg US Financial Conditions Index and Bloomberg Eurozone Financial Conditions Index. A positive figure indicates more accommodative financial conditions and a negative figure indicates tighter conditions. The index reflects standard deviations from historical normal (pre-crisis) levels.

Figure 4: Inversion of 2-year and 10-year yield is reached

Differential in yield between US 10-year and 2-year government bond



Source: Bloomberg, 31 March 1977 to 31 March 2022. The shaded area represents US recession periods from NBER.

Don't fight the Fed

Having laid out its tightening intentions, the prospect that we face an inverted yield curve (where shorter-dated debt yields more than debt with longer maturities), has grown substantially. In fact, inversion of yields on the widely followed 2-year and 10-year US government bonds – the so-called 2s10s – occurred at the end of March/beginning of April. When the gap turns negative it has historically heralded a recession, although there have been a few false signals where it has been overly early. It has, however, inverted in front of every post WW2 recession.

That said, there are reasons to believe that its reliability may be less potent in an age of less conventional monetary policy. The longer end of the yield curve has likely been distorted to produce a decline in the term premium. The yield on longer-dated bonds can be thought of as being in two parts – expected average short-term rates over the duration of the bond plus a term premium. This term premium is essentially the additional yield that an investor receives for locking away their money for the longer period.

Economists at the Federal Reserve Bank of New York did some research into estimating the term premium on US government bonds. We can see the result of their work in the chart below for the 10-year US government bond.

Bank of America pointed out that the 10-year term premium has averaged about 1.5 percent (or 150 bps) over the post-war period. Hence, in the past it took a very tight Fed and high fears of recession to trigger a yield curve inversion. Specifically, the market had to expect the future fed funds rate to average 150 bp below the current funds rate to invert. The Fed only cuts that much in a recession. No wonder inversion was a good predictor of recessions.[1]

The term premium has declined partly because asset purchases by the central bank (QE) have depressed long-term yields and relatively low rates and bond yields outside the US have encouraged overseas buyers to buy US bonds, again depressing yields. Significant buying from pension funds and more recently the flight to quality caused by the Russia-Ukraine conflict have also contributed.[2]

It is possible to surmise that yield curve inversion may be less of an omen than it once was. This is particularly important for credit, which given its sensitivity to corporate conditions, has a particular interest in economic indicators.

A peculiar feature of the current rate tightening episode is that credit spreads have already widened quite significantly in recent months. This is unusual so early in a rate tightening episode (typically rising rates coincide with a strong economy and therefore amenable conditions for credit). What might be behind it?

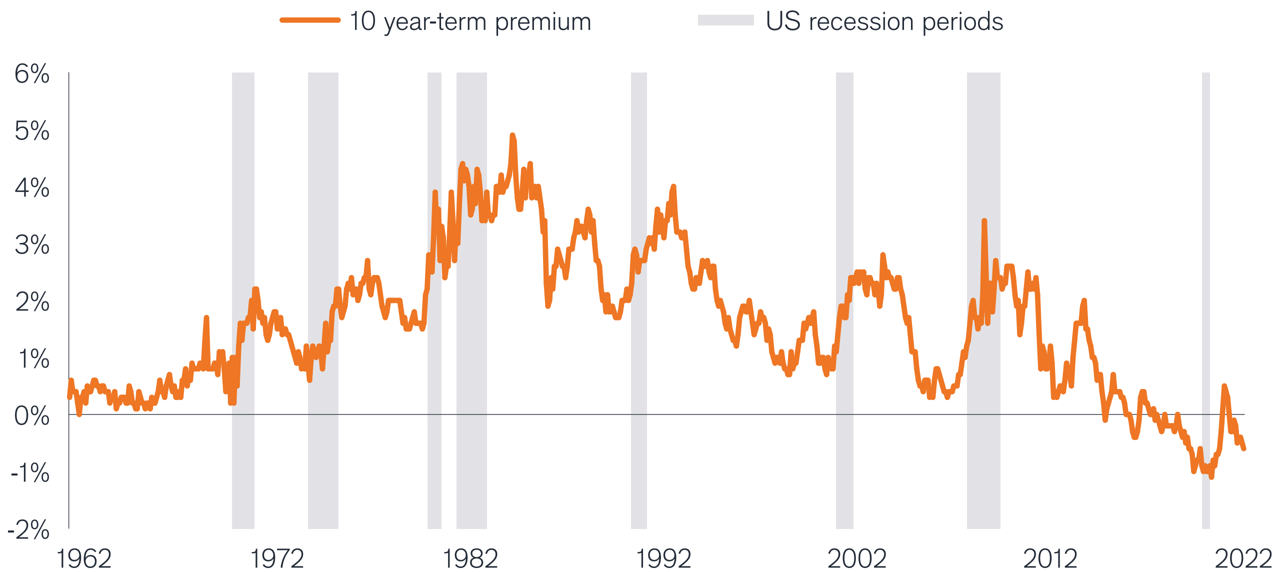
- **Declining risk appetite.** Spreads widen when risk appetite declines and investors demand more compensation – the additional uncertainty surrounding the Russia-Ukraine conflict on the global economy is a factor, as are ongoing concerns around COVID in Asia.
- **Policy uncertainty.** The Fed pivot has been astonishing. Within a month the Fed has gone from actively expanding its balance sheet to discussing contracting it.
- **Fear of policy error** as the pace of hikes may stall economic growth.
- **Possible proxy rates effect?** The rapid jump in inflation causes investors to demand more yield, particularly at the short end where high yield is dominant, so spreads gap wider.

The credit markets seem to be acknowledging the potential for a growth slowdown, but corporate fundamentals remain robust, with cash flows strong and leverage ratios (debt as a proportion of earnings) well below their peaks. So, are we close to pricing in a recession? Bank of America points out that there are four stages to pricing a recession in credit. First, the cost of hedging rises. We have seen evidence of this as the cost of credit default swaps rises. Second, the primary market stalls. There has been no primary issuance in US CCC bonds in the last six weeks. So far, this has been viewed as a positive technical (low supply is supportive for bond prices) but if it continues it could indicate companies are reticent or finding it hard to raise capital at attractive levels. Third, dispersion widens. There has been a small amount of this but not much (bond prices typically move apart when people start selling physical bonds to de-risk rather than using hedges), nothing in the order you would expect ahead of a recession. Fourth, distress rises. As Figure 6 demonstrates, we seem to be a long way from distress on that score. Rates of default are expected to remain low given the robust fundamentals.

Taken together, we think that investors should brace for a growth shock as the pressures of tighter monetary conditions and the inflation 'tax' combine to depress activity. Central bankers will be hard pressed to move off the tightening path near term given their determination to make policy more restrictive. We doubt that the terminal rates suggested by market pricing will be reached, but an inflection point is upon us, and higher volatility and increasing stress appear here to stay.

Figure 5: The term premium has shrunk, notably since QE

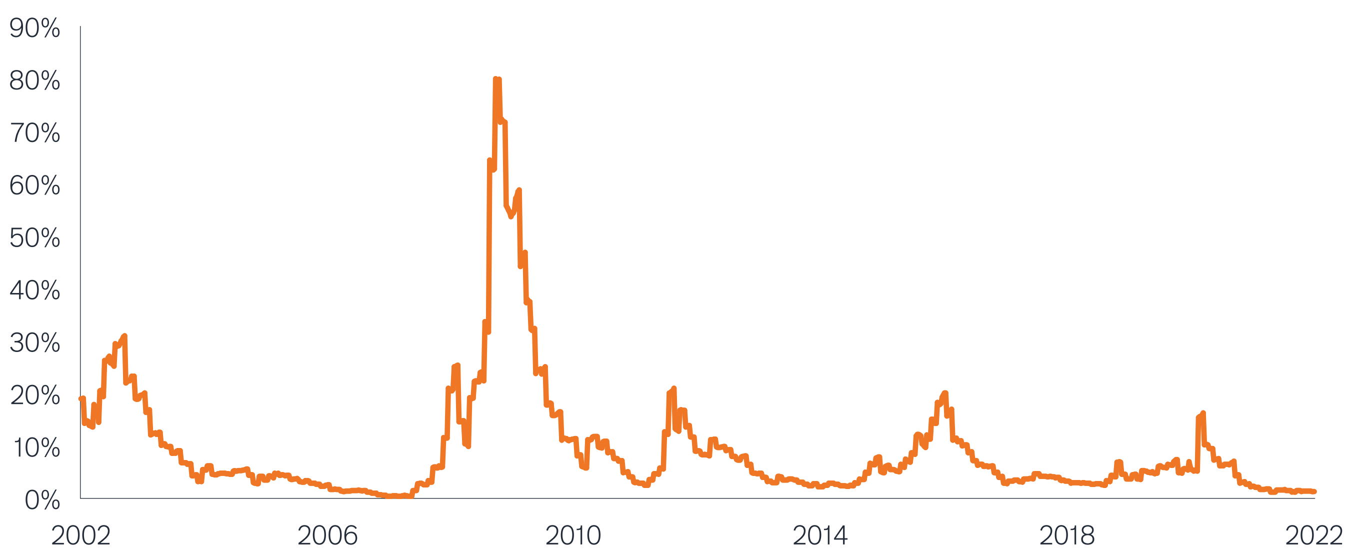
US 10-year term premium (ACM)



Source: Federal Reserve Bank (FRB) of New York, March 1962 to March 2022. The Treasury term premia are estimates derived by New York Fed economists Tobias Adrian, Richard Crump and Emanuel Moench (or "ACM") and are not official estimates of the FRB of New York. The shaded area represents US recession periods from NBER.

Figure 6: We seem to be a long way from distress

Percentage of bonds in US high yield index with OAS > 1000 basis points



Source: Bloomberg, 31 March 2002 to 31 March 2022. ICE BofA US Distressed High Yield Index as part of BofA US High Yield Index. Option-adjusted spread over government (Govt OAS) in basis points.

[1] Source: Bank of America, US Economic Weekly, 18 February 2022.

[2] Source: Morgan Stanley, 'Living with yield curve inversion', 17 March 2022.

Glossary

Credit Spread: The difference in yield between securities with similar maturity but different credit quality. Widening spreads generally indicate deteriorating creditworthiness of corporate borrowers, and narrowing indicate improving.

Default: The failure of a debtor (such as a bond issuer) to pay interest or to return an original amount loaned when due. The default rate is a measure of defaults over a set period as a proportion of debt originally issued.

Inflation: The rate at which the prices of goods and services are rising in an economy. Headline inflation includes inflation in a basket of goods that includes commodities like food and energy, while core inflation excludes those buckets.

Monetary policy/monetary tightening: The policies of a central bank, aimed at influencing the level of inflation and growth in an economy. It includes controlling interest rates and the supply of money. Monetary tightening refers to central bank activity aimed at curbing inflation and slowing down growth in the economy by raising interest rates and reducing the supply of money.

Neutral rate: The theoretical federal funds rate at which the stance of Federal Reserve monetary policy is neither accommodative nor restrictive. It is the short-term real interest rate consistent with the economy maintaining full employment with associated price stability.

CAUTION MERITED IN AN INCREASINGLY UNCERTAIN MARKET

Jason England

Daniel Siluk

With inflation reaching multi-decade highs, Portfolio Managers Jason England and Dan Siluk believe that the path for central banks has become perilously narrow, thus increasing the chances of a policy error catching investors by surprise.

Key takeaways

- Accelerating inflation has forced central banks to pull forward policy normalization plans, with rate increases now expected across most developed market economies this year.
- The combination of higher inflation and geopolitical events has increased the risk of policy error, with excessive tightening potentially hurting growth while inaction could result in higher inflation expectations becoming embedded.
- Policy uncertainty translates to potentially higher volatility in mid- to longer-dated bonds, while the front end of the curve appears more stable as the market has likely overestimated the number of rate hikes we'll ultimately see in 2022.

For fixed income investors, 2022 was supposed to follow a predictable script, although one not without challenges. Continued economic reopening should have allowed global central banks to remove extraordinary policy measures, including stepping away from zero-percent interest rate policy (ZIRP). While higher rates can present a headwind for bond valuations, the uneven nature of economic reopening meant that nimble portfolios could increase allocations to regions less pressed to raise rates in the near term.

This outlook has changed in recent weeks. An already worrisome pace of inflation has only increased, as seen by the U.S. headline and core Consumer Price Indices rising 7.9% and 6.4%, respectively, in February. Exacerbating inflation has been the rise in commodities prices related to the conflict in Ukraine. With many Russian exports being shunned, prices of several industrial inputs have skyrocketed. Year to date though March 18, Brent crude futures have returned 39% and those of nickel roughly 78%. Such dislocations across the commodities complex have compounded what was already a supply shock reverberating through the global economy. Much of the past year's acceleration in inflation has been owed to shortages of semiconductor chips, labor and other key economic ingredients.

These developments amplify our concerns about the potential for monetary policy error. Policymakers must perform a perilous balancing act. Should they overtighten, the global economy could slip into recession. If they fall behind the curve and higher inflation expectations become embedded, bond valuations could come under pressure as higher discounts are commanded to compensate for the diminished value of future cash flows.

Given the presence of these risks, we believe that fixed income investors should consider prioritizing capital preservation and minimizing volatility over the next several months rather than seek potentially risky ways to maximize income in what has again become an uncertain economic and market backdrop.

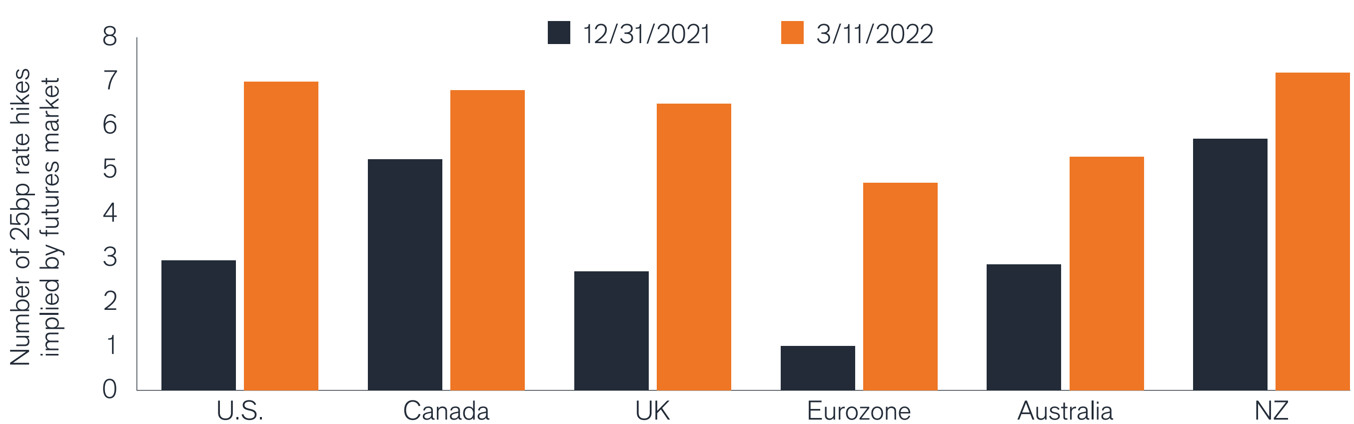
Converging policy

We've long stated that all regions of the global economy rode the same elevator down at the onset of the pandemic. Since then, we have expected individual countries to take different escalators on the way up, with the speed and steepness of the trip dictated by their degree of economic reopening and accompanying levels of inflation. Varying cadences of economic recovery would prove favorable for bonds as some countries remaining accommodative longer than others could provide refuge from the risks posed by rising policy rates.

The last few months, however, have seen a rush toward a single escalator – one faster and steeper than nearly anyone had expected. Rather than lowering the level of accommodation, the path of monetary policy can now be characterized as one of tightening. Driving this is months of accelerating inflation, with February's data the latest proof point. Market-based expectations provide little solace as the five- and 10-year inflation averages implied in the U.S. TIPS market are 3.60% and 2.95%, respectively – both well above the Federal Reserve's (Fed) heretofore red line of 2.0%. The outlook for sticky prices is similar in most other developed (and many emerging) markets.

Figure 1: Change in market expectations for policy rate hikes in major regions during 2022

Accelerating inflation has resulted in futures and swaps markets pricing in a considerably higher number of rate hikes in 2022.



Source: Bloomberg, data as of 11 March 2022. Past performance is no guarantee of future results.

Countries have responded with an acceleration of their normalization programs, a development evidenced in the dramatic increase in the market's expectations for the number of rate hikes to occur across major economies over the remainder of the year. A synchronous upward move in rates would reduce bond investors' ability to seek out jurisdictions less susceptible to imminent interest rate risk.

Despite the acknowledgement by central bankers that rates must move higher, the risk exists that the medicine might not fit the ailment. The blunt instrument of higher rates tends to be less effective at combating inflation fueled by supply dislocations than it is for demand-driven price acceleration. But with inflation at a multi-decade high, central banks will have to react. Fed Chairman Jerome Powell recently stated he's committed to meeting the challenge of a "Volker Moment" with respect to taming the pace of inflation. It is this incongruency between the source of inflation and potential prescription that we believe has heightened the risk of policy error.

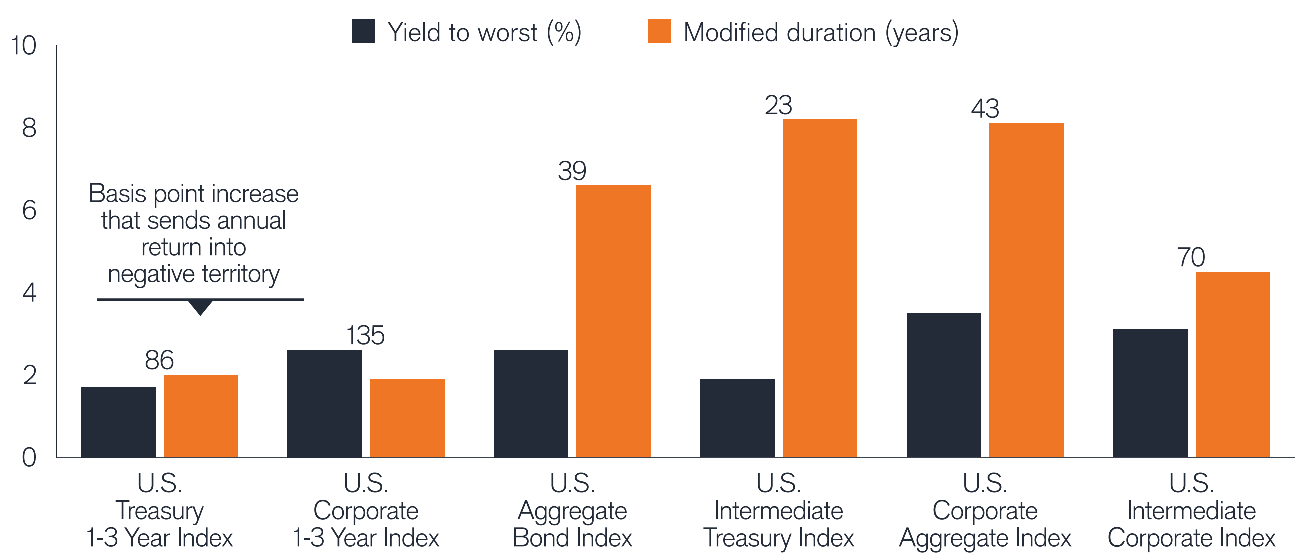
Deciphering a flatter curve

With increased geopolitical uncertainty and the rising risk of policy error, any prediction of the shape of the yield curve in coming months has a strong chance of missing the mark. With respect to the two outcomes that concern us, we don't believe the global economy will tip into recession – despite the recent inversion between yields on 2-year and 10-year Treasuries. The most likely spark for recession would be policy rates increasing too rapidly – again, a scenario we view as unlikely. Such tightening would lead to price gains on longer-dated Treasury securities as flatter – and possibly a more sustained inversion on – yield curves reflect a weakening economy. While incremental tightening could tap brakes on economic growth and support prices for longer-dated bonds, we do not believe the math justifies increasing allocations to this part of the curve. In our view, after years of accommodative policy, the mismatch between duration and yield has resulted in the incremental reward of reaching for yield in longer-dated maturities not being worth the considerably higher interest rate – or duration – risk embedded in these securities.

As illustrated in Figure 2, this mismatch between duration and yield exposes longer-dated bonds to having a year's worth of returns overwhelmed by even a slight rise in interest rates. With central banks' history of falling behind the curve and the risk of higher inflation expectations becoming embedded, the allure of harvesting only modestly higher yields on longer-dated bonds, in our view, is not worth the accompanying – and material – duration risk.

Figure 2: Shorter-dated securities less vulnerable to yield/duration mismatch

The recent increase in shorter-dated yields has resulted in the associated securities being better positioned to withstand any additional rise in interest rates.



Source: Bloomberg, data as of 11 March 2022. Past performance is no guarantee of future results.

For much of the past two years, the risk profile of shorter-dated bonds wasn't much better. That, however, has changed as this segment of the yield curve has responded to central bank guidance about the imminence of a rate "liftoff." Yields on bonds in the one- to three-year range have risen to such a degree that they can better withstand an additional uptick in rates. Importantly, we believe that front-end rates are unlikely to climb higher as the number of hikes already priced into the market is, in our view, the maximum that we will see. In fact, we believe that compositional changes within the Fed's voting members will result in the U.S. central bank taking a more dovish path than many anticipate.

As a consequence, we think the pressures that have acutely buffeted the front end of yield curves over much of the past year don't have much more room to run and these maturities are likely to exhibit lower levels of volatility than longer-dated bonds in the months to come. We believe this lower volatility combined with yield levels that were unavailable only months ago makes the front end of the curve an attractive destination for allocating capital during this period of uncertainty.

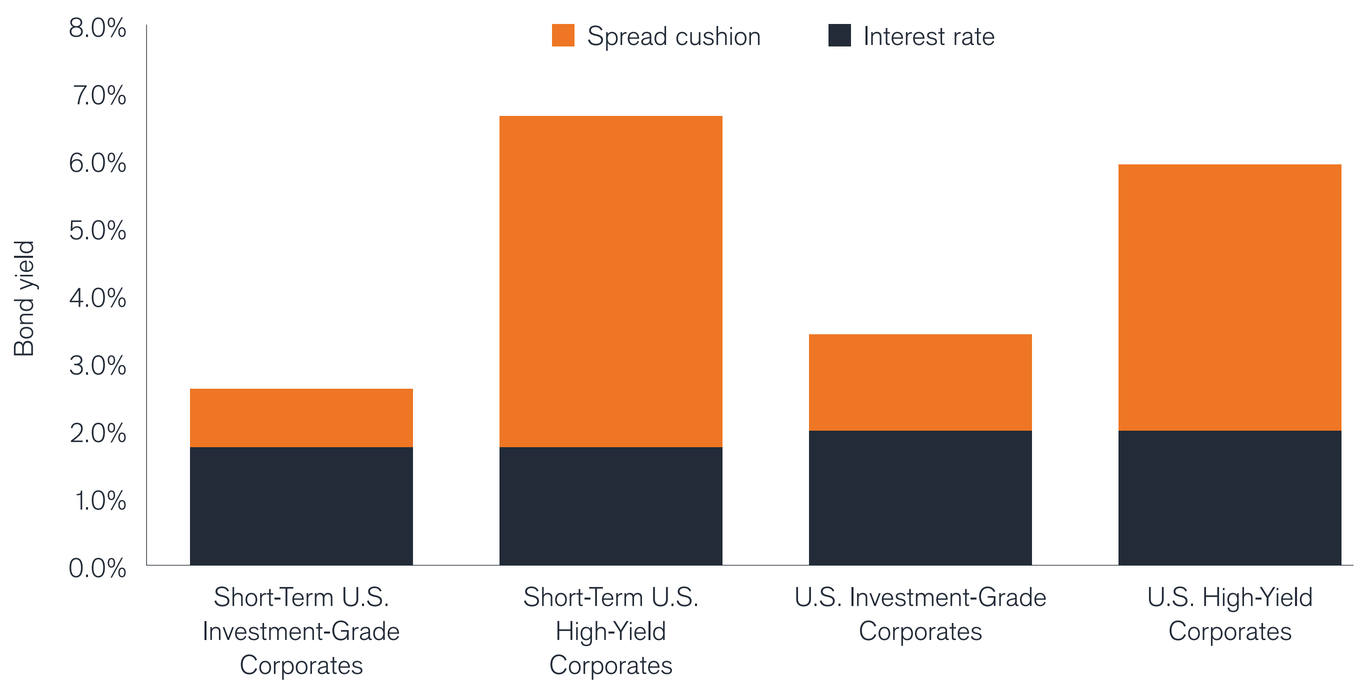
A tactical credit allocation

An allocation toward shorter-dated bonds does not have to consign investors to paltry returns. While shorter-dated Treasuries (out to 10-year maturities) presently yield less than 2.20%, this is considerably higher than only a few months ago. And even when concentrating on this "safer" segment of the curve, investors can take steps to optimize returns. One tactic is to increase an allocation to corporate credit, including securities of lower-rated – but still investment-grade – issuers that offer more attractive yields than those of higher-rated peers.

For example, two-year corporate bonds with BBB ratings yield 2.7% (as of 14 March 2022). In order to achieve the same yield in the AA segment, investors must extend out to five-year maturities. For three-year BBB securities, their 3.05% yield is roughly equivalent to nine-year AA issuance. Hand in hand with longer maturities is higher duration exposure. Despite their lower rating, the shorter tenor on BBB securities allows for greater visibility into their payment streams as they near maturity, which should translate to lower volatility. This is especially

Figure 3: Yield composition for different rating segments on U.S. corporates

Investment-grade corporate credits with lower ratings and high-yield issuance possess larger "spread cushion" for absorbing an upward move in interest rates.



Source: Bloomberg, data as of 11 March 2022. Past performance is no guarantee of future results.

relevant as higher-rated corporates tend to have greater sensitivity to the type of interest rate swings that we think are possible farther out along the curve.

Put another way, lower-rated credits possess a larger "cushion" to absorb changes in interest rates. As illustrated in Figure 3, both AAA and AA rated corporate credits have very little spread cushion – the difference between their yield and that of their risk-free benchmark – to absorb changes in interest rates. Lower-rated corporates, including high-yield issuance, have a greater ability to withstand an additional bump in interest rates. And given our concerns of elevated inflation expectations becoming embedded in consumers' minds, this is a consideration that we believe cannot be ignored.

Prudence merited

In summary, higher-than-expected inflation, the rising risk of policy error and geopolitical concerns have clouded the mid-term outlook for the bond market. With the future path of interest rates uncertain, we believe taking on additional duration risk should be avoided. That said, with the market likely more hawkish than what the Fed will ultimately do, yields on shorter-dated bonds have likely hit a plateau, and thus should be considered attractive candidates for increased allocations. And although yields are still low in historical terms, the potential for lower volatility and moderately higher income generation in these securities – especially for corporate credits – compared to a few months ago means this segment of the bond market can again act as a capital preservation ballast for a broader fixed income allocation.

Glossary

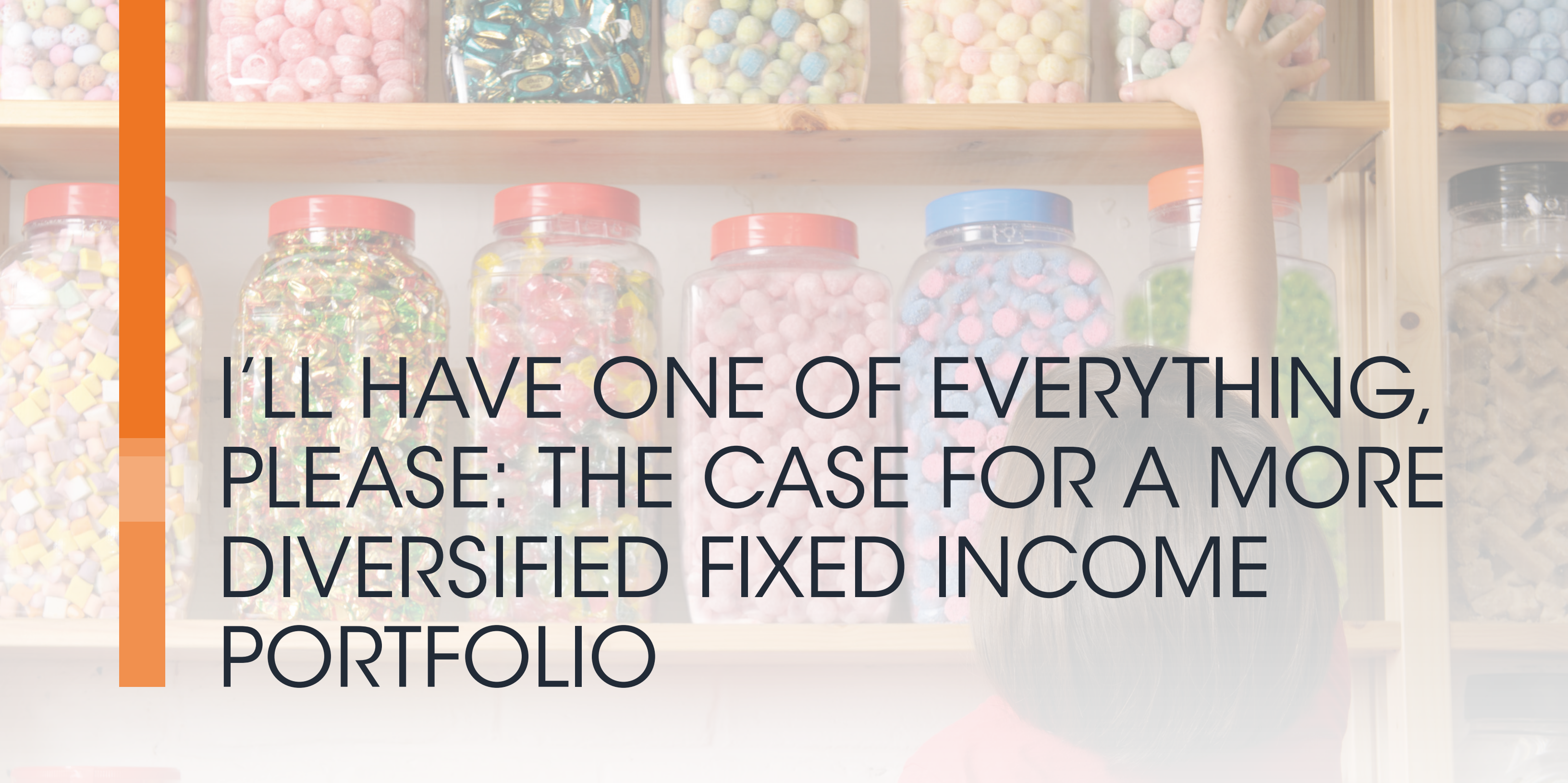
Central bank policy/monetary policy/monetary tightening: The policies of a central bank, aimed at influencing the level of inflation and growth in an economy. It includes controlling interest rates and the supply of money. Monetary stimulus refers to a central bank increasing the supply of money and lowering borrowing costs. Monetary tightening refers to central bank activity aimed at curbing inflation and slowing down growth in the economy by raising interest rates and reducing the supply of money.

Duration: Measurement of a bond price's sensitivity to changes in interest rates. The longer a bond's duration, the higher its sensitivity to changes in interest rates and vice versa.

Inflation: The rate at which the prices of goods and services are rising in an economy. The CPI and RPI are two common measures.

US consumer price index (CPI): An unmanaged index representing the rate of inflation of the U.S. consumer prices as determined by the U.S. Department of Labor Statistics.

Yield to worst (YTW) is the lowest yield a bond can achieve provided the issuer does not default, such as if a bond has a call feature (ie, the issuer can call the bond back at a date specified in advance).



I'LL HAVE ONE OF EVERYTHING, PLEASE: THE CASE FOR A MORE DIVERSIFIED FIXED INCOME PORTFOLIO

Helen Anthony
Portfolio Manager

Fixed income assets have had a tumultuous start to the year. Portfolio Manager Helen Anthony discusses where we go from here and how investors should think about asset allocation when there are so many risks.

Key takeaways

- While the US Federal Reserve finally made their 'transitory inflation' term redundant, we believe it could be resurrected in the second half of 2022, given that core personal consumption expenditures (PCE) inflation is set to fall towards the end of the year and into 2023.
- Stagflation, and memories of the episode in the 1970s, are top of mind these days but arguably, we are not at that stage. Among other reasons, back then we had high inflation, low growth *but also high unemployment*.
- Within fixed income markets, by our measures, given the tough time across the fixed income spectrum at the start of this year, the majority of these asset classes now stand to offer reasonable value. In such an environment, we believe the best course of action is diversification.

What a start to the year we have had. It has been the worst on record for fixed income asset classes across investment grade, high yield and "safe haven" bonds (such as US Treasuries) in the last 20 years. But where do we go from here, and how should we think about asset allocation when there are so many risks impacting fixed income returns across the spectrum? To illustrate, since the start of the year, global government bonds are down 4.1%, global high yield is down 7.5% and emerging market debt stands at -10.1%[1].

Bottlenecks: are they fading yet? Inflation: is it starting to fall? How will The Russia/Ukraine conflict progress? What happens to growth?

The picture coming into the year

2021 brought with it multiple events; the last quarter saw the peak in growth in the US. 2022 is forecast to reveal a downtrend (quarter-on-quarter), but the full year growth rate should be pretty strong with median expectations (in real terms) at 3.6%[2].

As for inflation, last year the US Federal Reserve (Fed) finally made its 'transitory' term redundant for 2022. Inflation is expected to stay high in the first half of the year, but we believe this is where 'transitory' can come into play. Even with a prolonged period of higher inflation due to the fallout of the Russia/Ukraine conflict, core personal consumption expenditures (PCE) inflation is forecast to fall towards the end of the year. We caveat this with the fact that inflation projections have risen and core PCE is expected to be approximately 3% year from now, which is around 0.7% higher than what was expected when we entered the year[3].

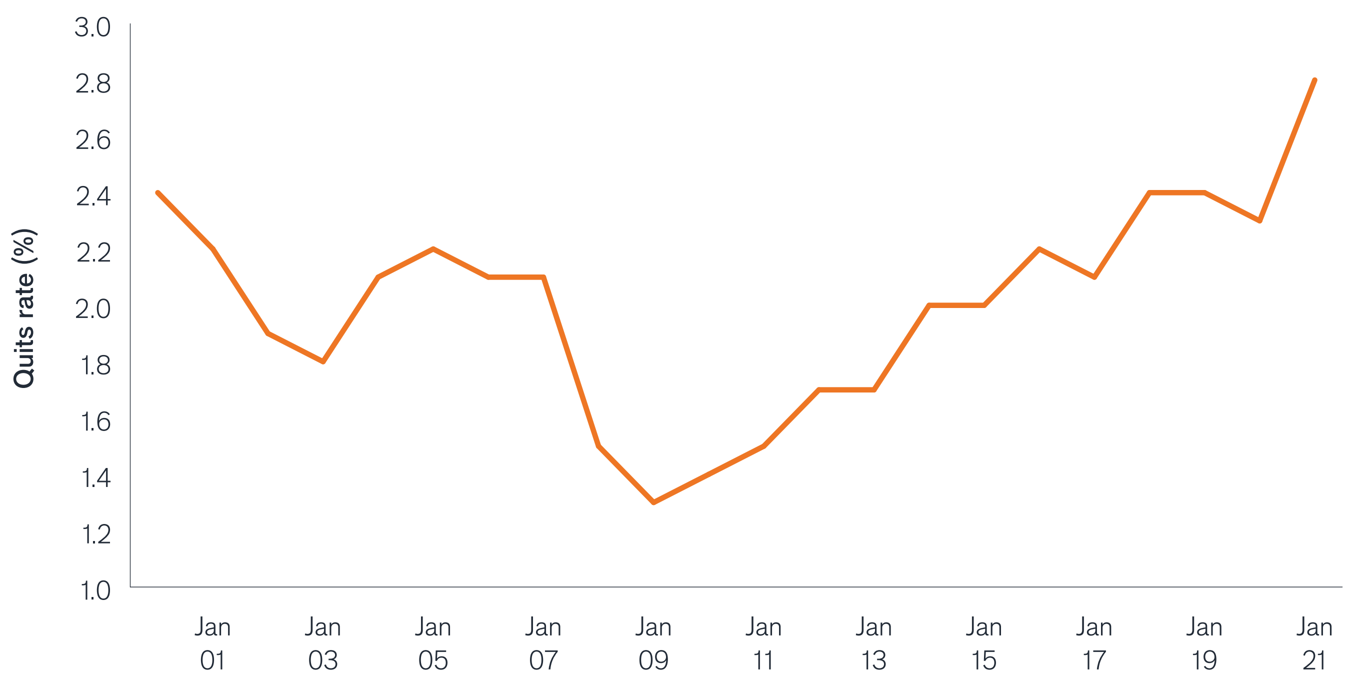
So, we have a period of high inflation while growth is set to fall. Is this stagflation?

If transitory was 2021's buzzword, then 2022's buzzword (so far) is stagflation. What does this mean in the context of the outlook for growth, why does it matter for central banks and how should portfolios be set up to maximise this?

What is stagflation and why is it an issue for central banks?

Stagflation can be defined in multiple ways. However, typical conditions for stagflation would be rising inflation, stagnating growth and *rising unemployment.*

Figure 1: JOLTs job quits at highs



Source: US Bureau of Labor Statistics, Janus Henderson Investors, as at 10 March 2022.

Note: the 'quits rate' is the number of quits during the entire month as a percentage of total employment. The January 2022 figure is preliminary.

Policymakers generally struggle in these periods, given they have the choice of bringing down inflation (by raising rates, which also exacerbates the growth impact by slowing down credit growth) or tackling the low growth environment directly by cutting rates. Regardless of which path they follow, either inflation or growth will suffer.

Why isn't this the 'stagflationary' period of the 70s?

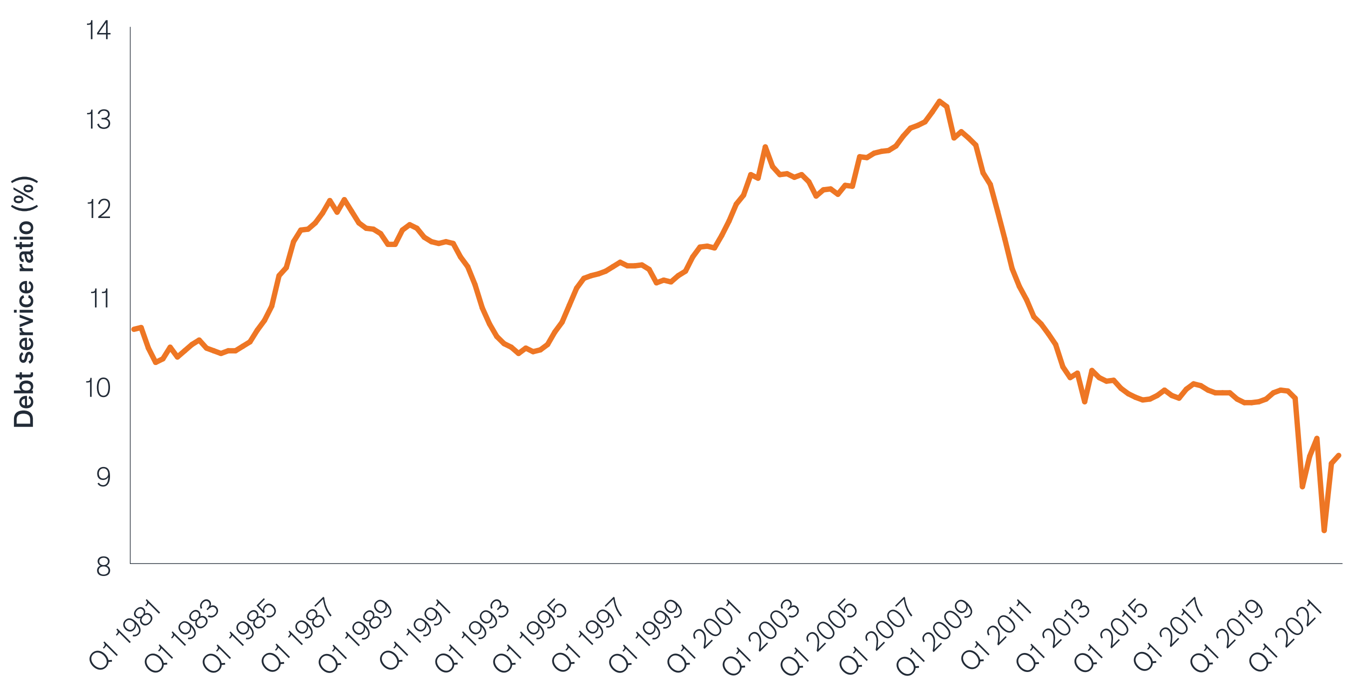
The environment that we saw in the 1970s was one of high inflation and low growth but also *high unemployment*. While today we have divergent growth and inflation due to supply shocks, the US labour market looks extremely solid and some of the more forward-looking indicators such as the Job Openings and Labor Turnover Survey (JOLTS)'s quit numbers, still suggest that this is set to continue (Figure 1). Let us not forget, we are coming out of one of the sharpest recessions in history (the cycle has been particularly short), but with the fiscal stimulus that we saw in 2020, the consumer is in a much healthier starting point than may have otherwise been the case.

Even allowing for oil shocks, where economists estimate that every 10% rise in the price of oil takes roughly 0.1% off the US growth rate, when you look at the starting point for growth relative to recent history, real growth is predicted to be extremely strong. Since 2015, real gross domestic product (GDP) growth in the US has hovered in a range of 1.7-2.9% but is predicted to be 3.6% for 2022, despite falling to -3.4% in the pandemic. This means that while inflation is high, nominal growth is set to be even better and outpace inflation.

Further, as mentioned earlier, consumers are starting from a much better place. During the pandemic, they were forced to save more of their income given the lockdown measures that took hold, which drastically reduced the ability to spend. Thus, we believe that the consumer (in aggregate) should be able to handle the increase in energy costs in the short term. Figure 2 shows how the debt service ratio (ie, the ratio of household debt payments to disposal income) is very low relative to history.

Finally, lower wage workers across the US and other developed markets have seen some of the largest increases in salary, which should go some way towards

Figure 2: Debt service ratio is at its lowest in over 40 years



Source: Board of Governors of the Federal Reserve System (US), Janus Henderson Investors, as at 7 January 2022.
Note: household debt service payments as a percentage of disposable personal income, seasonally adjusted.

helping to negate the impact of rising prices. Thus, while we are not forecasting much higher growth, we expect some relative containment in terms of how far growth could fall. Growth expectations in the US, while declining in 2022, were still pretty good as a starting point coming into the year. Even a one percentage point reduction from the expected growth (in an aggressive scenario) should still leave us with positive real growth and an environment where the Fed can continue to raise interest rates.

It is worth noting that the US may stand alone from this perspective. Europe and the UK may suffer much more due to their reliance on oil and the fact they are net importers of the commodity. Nevertheless, the true fallout from the rise in oil prices is yet to be determined, since the situation is extremely fluid at present.

Given our central expectation is not a recession, particularly in the US, where now for investment opportunities?

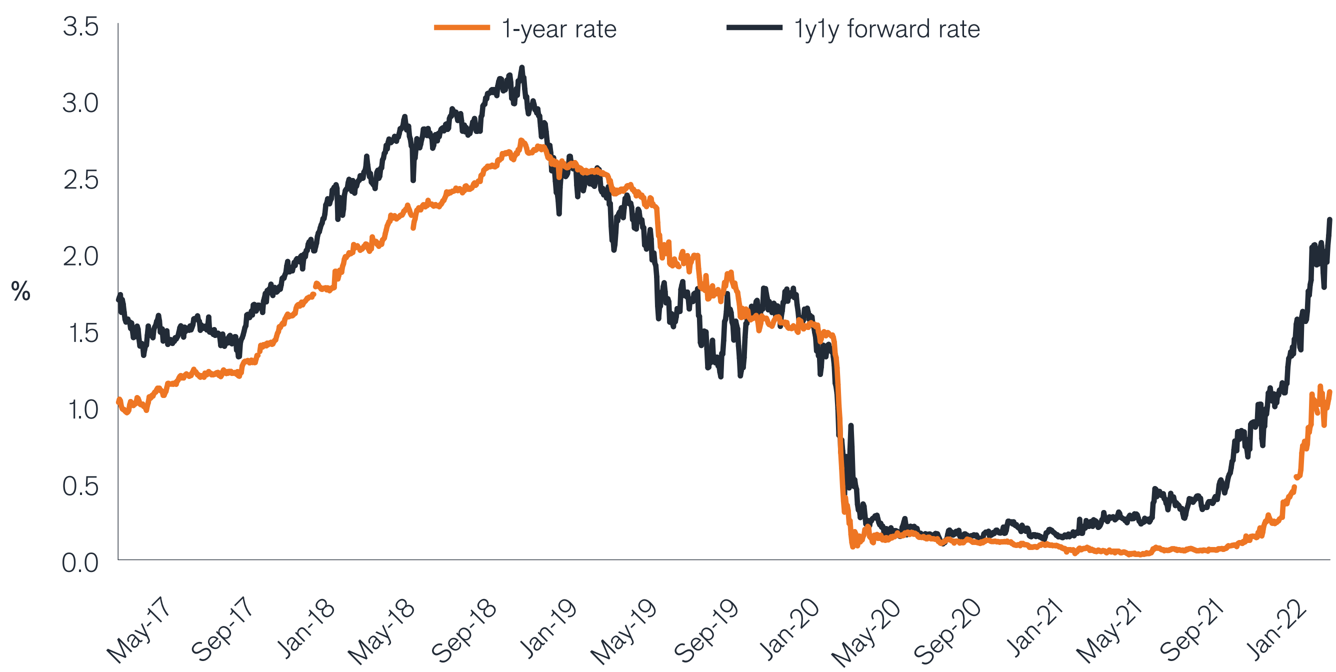
Based on our internal models, fixed income assets – across the board – have experienced somewhat of an aggressive repricing over the last few months. High yield corporate bond spreads have widened significantly (even before the Russia/Ukraine situation). Investment grade spreads widened too, but the asset class also suffered negative total returns as a result of the aggressive moves higher in interest rates since the latter half of last year. However, unlike the last year and a half, government bonds have repriced to be more optimistic (ie, pricing in interest rate hikes) and to some extent are also pricing in a higher inflationary scenario.

What are government bond (rates) markets pricing?

It has been suggested that it is somewhat of a surprise that rates have not fallen more during the Russia/Ukraine conflict. It is worth noting that monetary policy arguably has been too loose leading up to this period, and inflation will take longer to fall back. But we have gone from market expectations for six and a half interest rate hikes to four this year, and back up to six hikes more recently. The Fed has limited reason to ignore the markets and be aggressively dovish given where growth, inflation and unemployment is – even allowing for some downgrades to expectations.

If we look at 1-year government bond rates in the US (Figure 3), you would be forgiven for thinking rates have lots more room to move higher. That is where forward

Figure 3: 1-year rates have come a long way since mid-2021



Source: Bloomberg, Janus Henderson Investors, as at 9 March 2022.

(yield) curves come into play, where they are currently pricing the 1-year rate in one year's time at around 2%. Figure 3 shows that we have come a long way since mid 2021. Hence, asset classes that offer "safe haven" could be described as having some value in a more risk off climate or, should inflation and growth prove to be not as strong as expected over the longer run.

What are corporate bond (credit) markets pricing?

Credit has gone through an aggressive repricing. It was the market that led the way post the COVID correction (where bond spreads tightened steadily as conditions improved) but where now, given that high yield bond spreads are currently trading at around 500 basis points (bps)?

Despite the widening in spreads, there has been limited – if any – increase in default rate expectations. Default rates in the US and Europe were near record lows in 2021 and it is widely expected that this is set to remain in 2022. One way to examine default rates is to extract the rate implied by current bond spreads. The table in Figure 4 is a simplistic scenario, doing just that.

Using this simplistic view of credit spreads, a default rate of 4% is implied for the European high yield market. To put this into some context, there has only been one period over the last 15 years where defaults have been higher than this, which was 2009 (see Figure 5) – including most recently during the pandemic, where entire economies were shut down around the globe. Moreover, and helpfully, while spreads could continue to move wider, there is a coupon on offer within credit, which should be factored in when investing with a longer-term horizon.

A final observation

With credit already pricing a much weaker outlook (as evidenced by the wider spreads), and rates having repriced (higher yields) to reflect a higher inflationary scenario, where to now?

In our view, there is currently no single asset class that stands out as being particularly mispriced. Hence, a diversified portfolio of fixed income assets might be beneficial at this point in the economic cycle. Given that correlations between different assets are rarely one (ie, a perfectly positive relationship between two assets and their price moves), there is typically a diversification benefit in owning multiple asset classes, which can offer higher risk-adjusted returns. The benefit of this approach to asset allocation is that it provides the ability to be more nimble, if and when, certain fixed income sectors look mispriced in the future. Furthermore, given the repricing that has been evident in rates markets, there is now more protection on offer should we approach an end of cycle scenario much more quickly than originally assumed.

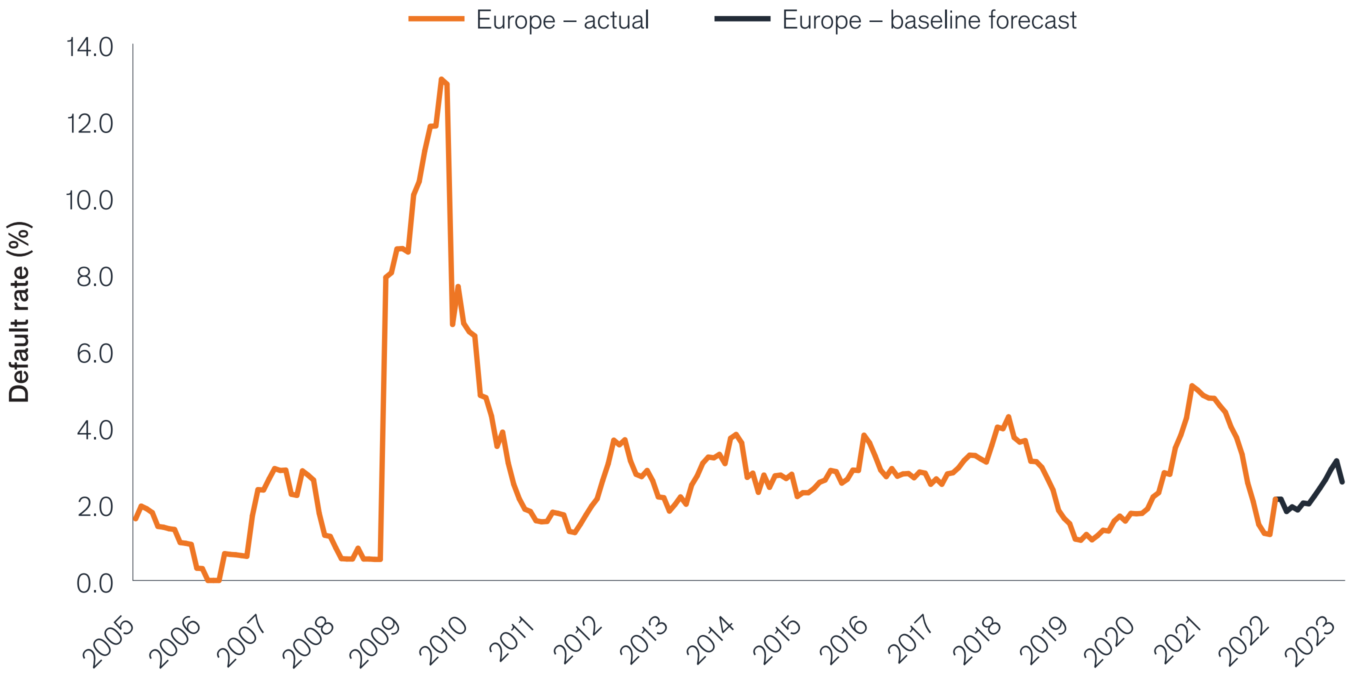
Figure 4: Default rate implied by current euro high yield bond spreads

Euro high yield spreads	500 bps	Option-adjusted spread over equivalent government bond comprised of:
Median excess spreads	*300 bps*	*'Credit spread', the extra premium for being a high yield issuer*
Losses priced in	*200 bps*	*Extra premium priced in by the market to compensate for losses due to current risks (geopolitics, inflation, policy mistake)*
Assumed recovery rate	50%	Assuming a 50% recovery scenario
Implied default rate	4%	Calculated by dividing the 200 bps by 50% (200/0.5) = 400 bps or 4%

Source: Janus Henderson Investors, as at 15 March 2022.

Note: Figures in the table are for illustrative purposes only. The option adjusted spread on the ICE BofA Euro High Yield index was 474bp on 15 March 2022.
There is no guarantee that past trends will continue, or forecasts will be realised.

Figure 5: Default rates and expectations for European high yield markets



Source: Moody's, Janus Henderson Investors, as at 28 February 2022.
Note: Issuer weighted annual default rates.

[1] ICE BofA indices, Bloomberg, as at 15 March 2022.

[2] US real gross domestic product (GDP) growth, Bloomberg, as at 17 March 2022.

[3] Bloomberg, as of 17 March 2022.

Glossary

Basis point (bp) equals 1/100 of a percentage point. 1 bp = 0.01%, 100 bps = 1%.

Correlation measures the degree to which two variables move in relation to each other. A value of 1.0 implies movement in parallel, -1.0 implies movement in opposite directions, and 0.0 implies no relationship.

Core PCE: the "core" PCE price index is defined as personal consumption expenditures (PCE) prices excluding food and energy prices. This is used by the US Federal Reserve as its main measure of inflation.

Fiscal policy/Fiscal stimulus: Government policy relating to setting tax rates and spending levels. It is separate from monetary policy, which is typically set by a central bank. Fiscal austerity refers to raising taxes and/or cutting spending in an attempt to reduce government debt. Fiscal expansion (or 'stimulus') refers to an increase in government spending and/or a reduction in taxes.

Forward yield curve: this is the market's best guess at future interest rates. The forward curve includes the rates implied for the future. As an example, by looking at the rates for one year and two years, we can imply where the market expects 1-year rate to be in a year's time.

Inflation: The rate at which the prices of goods and services are rising in an economy.

Mean reversion: the theory that returns tend to revert to their long-term averages over time; in other words, large deviations in any direction tend to reverse over time.

Monetary policy: The policies of a central bank, aimed at influencing the level of inflation and growth in an economy. It includes controlling interest rates and the supply of money. Monetary stimulus (or looser, more dovish policy) refers to a central bank increasing the supply of money and lowering borrowing costs. Monetary tightening refers to central bank activity aimed at curbing inflation and slowing down growth in the economy by raising interest rates and reducing the supply of money.

Spreads/Credit Spreads: The difference in yield between securities with similar maturity but different credit quality. Widening spreads generally indicate deteriorating creditworthiness of corporate borrowers, and narrowing indicate improving.

FIVE QUESTIONS FIXED INCOME INVESTORS ARE ASKING IN 2022

Central bank policy is a focus for markets this year as the narrative has shifted towards tightening. Our fixed income teams consider the conundrums facing investors and where, outside of policy, there are opportunities and risks in the bond markets.

Key questions

- Is there risk of a central bank policy error in 2022? What are the implications for investors?
- How can investors navigate central bank policy divergence?
- How does the recent spike in commodity prices impact our outlook for inflation?
- How can fixed income be used to navigate a rising rate environment?
- Where are the market risks and opportunities outside of the policy narrative?
  - Elevated activity in LBOs and M&A
  - Geopolitical tensions and their influence on EM risk premia
  - Balancing improving fortunes in energy with the sector's high carbon profile

1. Is there risk of a central bank policy error in 2022? What are the implications for investors?

John Pattullo, Co-Head of Strategic Fixed Income

Central banks' current interest rate policy dilemma is akin to landing a jumbo jet on an aircraft carrier. History suggests soft landings are hard to engineer and even more difficult, in our view, given the deteriorating backdrop. It is not easy coming from behind the curve, compounded by the knee-jerk, stop-start nature of the economy due to COVID shutdowns and subsequent extraordinary fiscal and monetary stimulus. The chance of an economic hard landing is materially higher given the Russia/Ukraine conflict, especially for Europe which is a large energy importer with a weakening currency. It may give cause for the European Central Bank to backtrack on the path of rate rises, but the US has committed to stay the course, for now at least. We remain sceptical about how many rate hikes the US Federal Reserve (Fed) will achieve before altering course, again!

Overall, we believe there will be a shift to the downside for growth this year as high energy prices literally destroy demand. Central banks are tightening as economic data is deteriorating. Inventory builds that helped support the pandemic recovery could now be a further drag on growth, given that significant goods demand was dragged forward via fiscal stimulus during lockdowns. We will also come up against the high base effects in economic data given the prior surge in growth and inflation last year.

We therefore see potential for a policy error from central banks hiking at the peak of an economic cycle. reacting to the actual 'level' of growth and inflation. The bond market, in contrast, has more foresight in that it shifts to the rate of change in the data – whether it is accelerating or decelerating. This is the real driver of government bond yields which will price in lower inflation and growth. This creates an opportunity for good cyclical duration – or interest rate sensitivity – management. Our long-communicated conviction of the value of increasing duration in 2022 remains. However, the outlook for credit is less clear given the heightened geopolitical uncertainty manifesting itself via an energy 'tax'.

2. How can investors navigate central bank policy divergence?

Andy Mulliner, Head of Global Aggregate Strategies

The simultaneous move higher in interest rate expectations and the widening of credit spreads has created a complicated task for central banks. From a regional perspective, there is some limit in the degree to which monetary policy can diverge without weakening the exchange rates of the laggards and compounding domestic inflation through the channel of higher import costs. We will likely see a tightening from all major central banks (excluding China), but this misses the bigger picture that certain regions and countries will be required to tighten policy faster than others given their initial economic conditions as they recover from the pandemic and their relative sensitivity to the commodity shock now in train.

2022 GDP impact of oil and gas shock (%)

	US	China	Euro Area
Oil*	-0.3	-0.3	-0.6
Gas**	0	0	-0.6
Total	-0.3	-0.3	-1.2

Source: Goldman Sachs Global Investment Research (GIR), as at 6 March 2022. **Past performance does not predict future returns.**

*Assuming sustained US$ 20/barrel shock.

**The figures above assume best-case scenario (existing disruptions scenario), but GIR's base case assumes flow disruptions to Russia's gas exports through Ukraine.

In particular, many European countries will suffer from the combined forces of risk aversion, a rising energy import bill, and a real income squeeze. European growth will be hit much harder by the conflict between Russia and Ukraine not only due to its regional proximity to the conflict, but also due to its energy dependence on Russia. On the other hand, the US economy looks relatively more insulated as a producer of both oil and gas domestically, and recent communications from US Fed chair Powell signal that he doesn't see a major impact from the conflict on the hiking cycle.

Navigating this environment requires a careful balance between generating income from the higher credit spreads on offer, as well as using government bond duration as a counterbalance. While we are in a rising rate environment, it is important to consider how much has been priced into government yield curves (which indicate market expectations for rates) – short-term rates significantly up, but terminal rates very low. We believe that the path of rates indicated by market pricing is highly unlikely to be delivered and this rate hiking cycle is likely to be shorter than many anticipate as well as sharper than we have experienced in recent periods.

3. How does the recent spike in commodity prices impact our outlook for inflation?

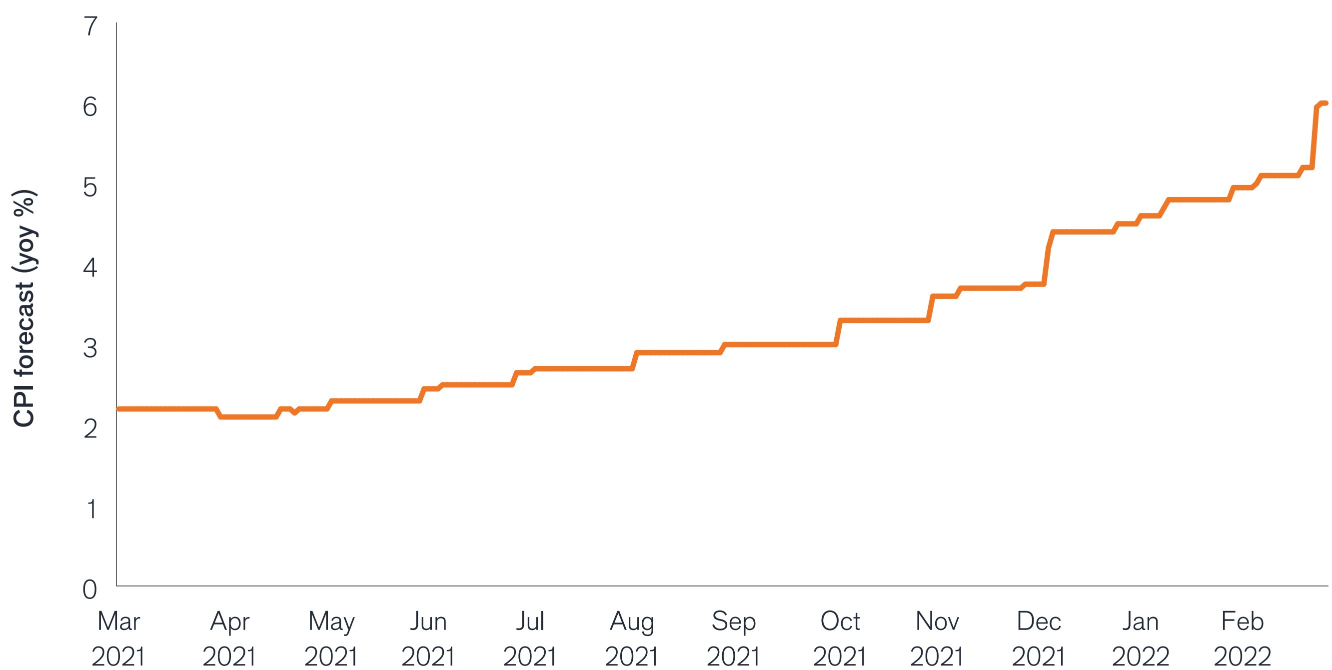
Greg Wilensky, Head of US Fixed Income

While the US is less dependent on commodities than other economies, a sharp jump in commodity prices will still have material effect. According to our calculations, the 35% increase in oil prices in the first quarter will contribute a further 1.4% to CPI by itself[1]. Even as high base effects and the unwinding of COVID-driven supply bottlenecks will bring inflation down, the impact of the Ukraine invasion will push in the other direction. Europe could fare worse than the US, as oil prices are generally set by global factors while natural gas prices are more regional.

While the short-term impact is clear, assessing the longer-term one is trickier. Inflation could continue to drift higher, as higher commodity prices generate knock-on inflation in other goods which filters through to some upward wage pressure that pushes up service costs. Conversely, higher commodity prices will act as a 'tax' on consumers and reduce real economic growth and real income, pushing down demand and, possibly, inflation. This makes the challenge for central banks of orchestrating a soft landing for their economies even more difficult.

Not surprisingly, as energy prices have spiked, the inflation forecast for 2022 is now much higher than at the start of the year with a significant uptick factored in. For 2023, the TIPS market is pricing inflation in the mid 3% area[2]. This looks high to us as we believe downward pressure from this new 'tax' will be playing out even if commodity prices stay at their elevated levels. Given this view, guarding against inflation through TIPS is no longer attractive unless you expect oil prices to continue to march higher.

US CPI inflation forecast for 2022 (% yoy)



Source: Bloomberg, as of 11 March 2022. CPI = Consumer Price Index.

4. How can fixed income be used to navigate a rising rate environment?

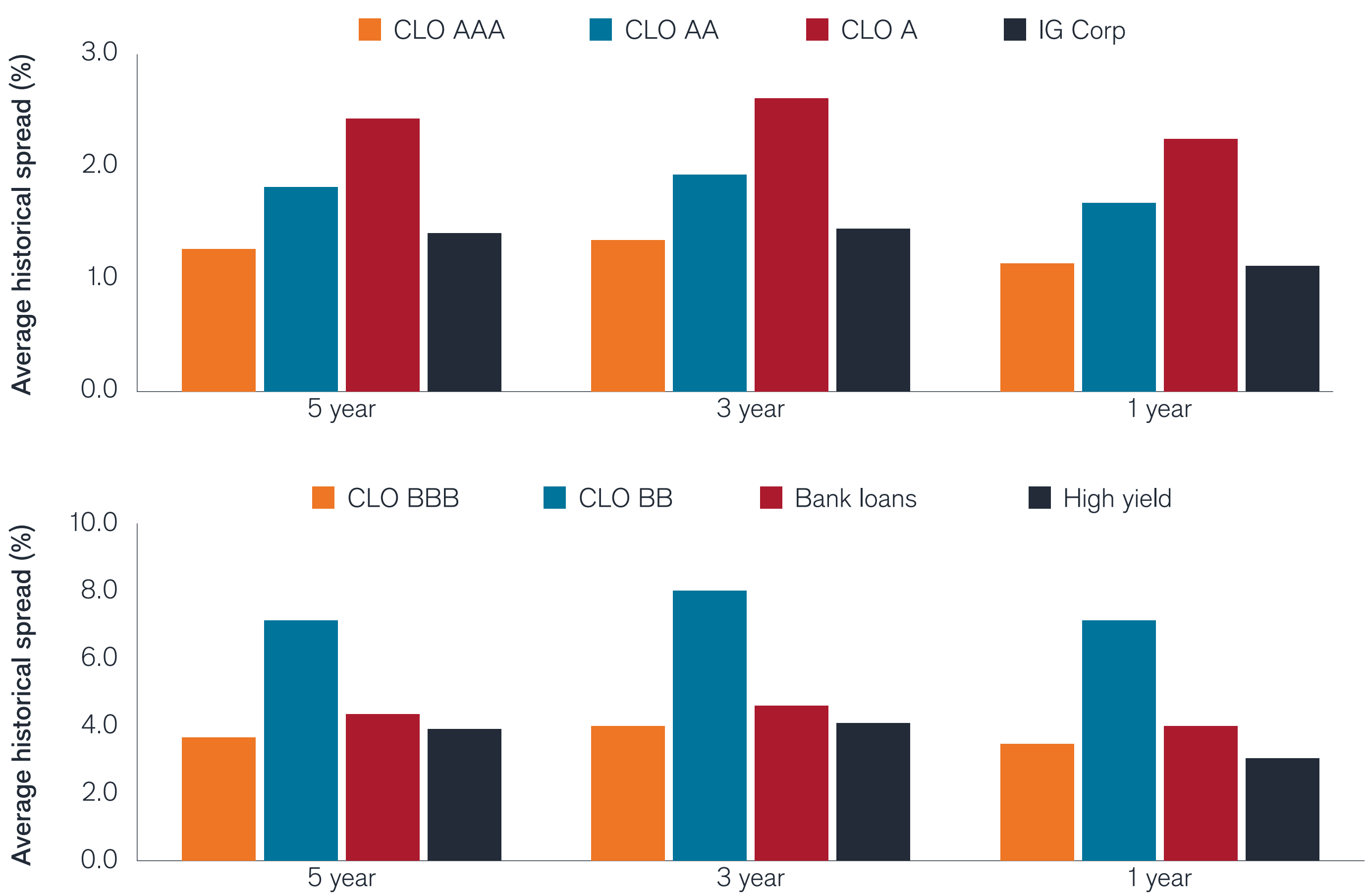
John Kerschner, Head of US Securitized Products

Rotating portfolio exposure toward investments that can be resilient during a rate hike cycle seems prudent. Namely, sectors and securities that are less sensitive to interest rate moves and of a fundamental strength that can hold up during economic weakness. For example, the bank loan market could be a fertile hunting ground for investors comfortable with high yielding sub-investment grade risk. Another option that investors could consider is securitised assets which pay floating rate coupons that rise in tandem with a benchmark interest rate. Securitised assets also often have the added benefit of an amortising structure where the principal is periodically paid over time, resulting in a shorter weighted average life and less sensitivity to interest rates.

The expansive universe of securitised investments allows investors to not only diversify risk factors within portfolios, but also dial risk up and down by investing in different parts of the capital structure. With collaterised loan obligations (CLOs) – where loans are pooled or securitised to create different tranches of credit quality – investors can access floating-rate exposure across the investment-grade rating spectrum. Despite being rated higher quality, BBB rated CLOs have historically offered yields closer to the bank loan and high yield corporate bond markets.

The relative attractiveness of investment-grade CLO yields is maintained as you move up the rating spectrum. CLOs with AAA ratings offer spreads comparable to corporate bonds, and AA and A rated CLOs offer a premium over investment-grade corporates. It is also worth noting that the previous lows in CLO spreads (higher prices) were achieved during a Fed hiking period. CLOs also performed better during the last Fed hiking cycle than other similarly rated US government and US aggregate indices.

The spread advantage: CLO vs corporate spreads



Source: Janus Henderson, JP Morgan, Bloomberg, as of 31 December 2021. CLO spreads are calculated using discount margin (DM) and compared to option-adjusted spread for corporates and high yield. Corporate and high yield are spread off treasuries while bank loans are off LIBOR. JPMorgan JULI Indices used for corporate credit, and CLOIE for CLO.

5. Where are the market risks and opportunities outside of the policy narrative?

Elevated activity in LBOs and M&A

James Briggs, Portfolio Manager

2021 was a record year for activity in the leveraged finance market, mainly led by private equity driven mergers and acquisitions (M&A) and leveraged buyouts (LBOs)[3]. There is the view that 2022 could see similar or higher levels of activity as large amounts of cash enable private equity investors to pursue bigger deals and enhanced returns, while companies look for complementary businesses to secure growth. ESG will likely drive some deal activity too as CEOs look to move companies to more sustainable business models.

However, 2022 may see less M&A activity than 2021 due to macroeconomic concerns, higher inflation and rate rises making the level companies can borrow at to fund acquisitions less attractive. One concern is that more LBO supply will contribute to wider spreads that are already facing headwinds from central banks tightening policy. We expect the loan market – which has seen strong investor demand – to absorb a lot of that supply. As corporate cash balances have fallen to average levels[4] and earnings growth slows, acquisition financing through debt reflects a renewed focus from companies on shareholder returns and solidifying market positions as they face intense competition and rising costs.

This is where bond investors could benefit in participating in big transformational acquisitions, but when purchasing debt related to M&A, investors need to pay attention to fundamentals, valuations and any sector specific themes or market dynamics. Identifying which camp M&A falls into is key for investors. M&A pursued by market leaders with superior technologies, brands and or operating models – which see the benefit of increasing scale to improve their route to market or geographic reach – often have the management expertise to integrate acquisitions successfully. In the other camp, M&A is undertaken by companies experiencing competitive threats, and without clear mitigation strategies; instead they often use debt-fuelled acquisitions in an attempt to offset (or cover up) disappointing organic growth.

Geopolitical tensions and their influence on EM risk premia

Hervé Biancotto, Portfolio Manager

Geopolitical tensions are sadly nothing new for emerging market (EM) countries. Previous bouts of such events tend to get compartmentalised by investors even without a speedy resolution. That is because the market is not homogenous – indeed, there are 59 countries in the JPM Corporate Emerging Market Bond Index (CEMBI) and 69 in the JPM Emerging Market Bond Index (EMBI). With such a wide array of opportunities, there have always been winners to compensate for the losers.

Contagion from the Russia/Ukraine conflict is likely to be minimised for technical reasons. Russia's weighting in the CEMBI and EMBI was already small prior to the tensions at ~3-4%[5] and has been excluded altogether since the end of March. This has resulted in the re-weighting of other countries within indices slightly higher, while also removing some price volatility stemming from Russian bonds. Russia's prominence in international financial markets waned after sanctions were introduced in 2014 following the annexation of Crimea. Consequently, it was a small part of indices and investors' portfolios. All of this suggests that the conflict should have limited broader contagion to the rest of EM over time.

EM credit started off the year on a weak footing, and unsurprisingly had a knee-jerk reaction to recent tensions. CEMBI and EMBI spreads have seen significant widening since the start of the year[6], reflecting the paradox of expected tighter monetary conditions coupled with forecasts of persistently high inflation owing to a supply shock due to the conflict. While there is risk premia at current spread levels, it is not as high as it was during the height of the pandemic in 2020, most likely reflecting the lack of broad-based contagion fears. As investors have adjusted to the reality that the current tensions may take longer than expected to resolve, EMBI spreads have already started to retrace from the recent wides, particularly in high yield sovereigns[6] as investors look to add back risk. With most of the bad news (sanctions, index exclusion, default, etc) priced in, we believe that sentiment can shift rapidly, rendering the current high risk premia temporary.

Balancing improving fortunes in energy with the sector's high carbon profile

Portfolio Managers Tom Ross and Brent Olson

Even prior to the latest price spike, the energy sector has benefitted from higher oil and commodity prices in the post-pandemic recovery, and with the recent restrictions on Russia, any energy producers outside of Russia are at an advantage. For many large industries, energy is required for production and rising input costs will be a headwind for profits. Higher energy prices could also impede global economic growth, and inflation is already squeezing consumers' real incomes. In light of such challenges, there aren't many sectors where there is significant visibility going forward, except for energy as a beneficiary of higher prices. Nevertheless, risks exist given the herculean task for high-emission sectors to transition their businesses to a low carbon economy. However, some of the European oil majors have come up with a credible transition plan.

When evaluating companies' future transition potential, we weigh them up on an individual basis using fundamental research. Combining both proprietary analysis and third-party data, such as the Transition Pathway Initiative (TPI) scoring, enables us to focus on ESG trajectories and company action plans to address risks and progress. We believe channelling more capital into clean energy and new technologies is needed as well as helping high-emission and harder-to-abate sectors – that are vital to economic growth – to decarbonise, such as through engagement. This is likely to have a more authentic impact on decarbonising the real economy.

[1] Janus Henderson, as of 31 March 2022.
[2] Barclays, as of 31 March 2022.
[3] Baker McKenzie, 2022.
[4] BNP Paribas, as at 18 February 2022.
[5] JP Morgan, as at 31 December 2021.
[6] Source: Bloomberg, as at 31 March 2022.

Glossary

Central bank policy/monetary policy/monetary stimulus/monetary tightening: The policies of a central bank, aimed at influencing the level of inflation and growth in an economy. It includes controlling interest rates and the supply of money. Monetary stimulus refers to a central bank increasing the supply of money and lowering borrowing costs. Monetary tightening refers to central bank activity aimed at curbing inflation and slowing down growth in the economy by raising interest rates and reducing the supply of money.

Credit Spread: The difference in yield between securities with similar maturity but different credit quality. Widening spreads generally indicate deteriorating creditworthiness of corporate borrowers, and narrowing indicate improving.

Duration: Measurement of a bond price's sensitivity to changes in interest rates. The longer a bond's duration, the higher its sensitivity to changes in interest rates and vice versa.

ESG: Environmental, social and governance are three key criteria used to evaluate a company's ethical impact and sustainable practices.

Fiscal policy/fiscal stimulus: Government policy relating to setting tax rates and spending levels. It is separate from monetary policy, which is typically set by a central bank. Fiscal austerity refers to raising taxes and/or cutting spending in an attempt to reduce government debt. Fiscal expansion (or 'stimulus') refers to an increase in government spending and/or a reduction in taxes.

Inflation: The rate at which the prices of goods and services are rising in an economy.

J.P.Morgan Corporate Emerging Market Bond Index (CEMBI): A benchmark index for measuring the total return performance of corporate bonds issued by emerging market entities.

J.P.Morgan Emerging Market Bond Index (EMBI): A benchmark index for measuring the total return performance of international government and corporate bonds issued by emerging market countries.

J.P.Morgan US CLO Index (CLOIE) measures the performance of the investment-grade rated components of the USD-denominated, broadly syndicated CLO market.

J.P.Morgan US Liquid Index (JULI) measures the performance of the investment grade dollar-denominated corporate bond market.

Leveraged buyout (LBO): The acquisition of another company using a significant amount of borrowed money (bonds or loans) to meet the cost of acquisition.

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Credit quality ratings are measured on a scale that generally ranges from AAA (highest) to D (lowest).

Investing involves risk, including the possible loss of principal and fluctuation of value.

Absolute return strategies cannot ensure a profit or eliminate the risk of loss. An absolute return strategy may result in underperformance during a bull market.

Actively managed portfolios may fail to produce the intended results. No investment strategy can ensure a profit or eliminate the risk of loss.

Bank loans often involve borrowers with low credit ratings whose financial conditions are troubled or uncertain, including companies that are highly leveraged or in bankruptcy proceedings.

Collateralized Loan Obligations (CLOs) are debt securities issued in different tranches, with varying degrees of risk, and backed by an underlying portfolio consisting primarily of below investment grade corporate loans. The return of principal is not guaranteed, and prices may decline if payments are not made timely or credit strength weakens. CLOs are subject to liquidity risk, interest rate risk, credit risk, call risk and the risk of default of the underlying assets.

Consumer Price Index (CPI) is an unmanaged index representing the rate of inflation of the U.S. consumer prices as determined by the U.S. Department of Labor Statistics.

Credit Spread is the difference in yield between securities with similar maturity but different credit quality. Widening spreads generally indicate deteriorating creditworthiness of corporate borrowers, and narrowing indicate improving.

Derivatives can be more volatile and sensitive to economic or market changes than other investments, which could result in losses exceeding the original investment and magnified by leverage.

Diversification neither assures a profit nor eliminates the risk of experiencing investment losses.

Energy industries can be significantly affected by fluctuations in energy prices and supply and demand of fuels, conservation, the success of exploration projects, and tax and other government regulations.

Environmental, Social and Governance (ESG) or sustainable investing considers factors beyond traditional financial analysis. This may limit available investments and cause performance and exposures to differ from, and potentially be more concentrated in certain areas than, the broader market.

Fixed income securities are subject to interest rate, inflation, credit and default risk. The bond market is volatile. As interest rates rise, bond prices usually fall, and vice versa. The return of principal is not guaranteed, and prices may decline if an issuer fails to make timely payments or its credit strength weakens.

Foreign securities are subject to additional risks including currency fluctuations, political and economic uncertainty, increased volatility, lower liquidity and differing financial and information reporting standards, all of which are magnified in emerging markets.

High-yield or "junk" bonds involve a greater risk of default and price volatility and can experience sudden and sharp price swings.

Increased portfolio turnover may result in higher expenses and potentially higher net taxable gains or losses.

LIBOR (London Interbank Offered Rate) is a short-term interest rate that banks offer one another and generally represents current cash rates.

Option-Adjusted Spread (OAS) measures the spread between a fixed-income security rate and the risk-free rate of return, which is adjusted to take into account an embedded option.

Quantitative Easing (QE) is a government monetary policy occasionally used to increase the money supply by buying government securities or other securities from the market

Volatility measures risk using the dispersion of returns for a given investment.

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