

Rob Waldner

Head of Invesco Fixed Income Strategy and Macro Research

Turgut Kisinbay

Chief US Economist

IN THIS ISSUE:

- 1. Macro: The Fed moves decisively down the path to neutral**
Page 01
- 2. Interest rate outlook**
Page 3
- 3. Currency outlook**
Page 5
- 4. Credit: Strong supply and demand in credit markets**
Page 6
- 5. The bottom line: The case for equity options in fixed income portfolios**
Page 8

Global macro strategy

The Fed moves decisively down the path to neutral

Growth is close to potential in the US and inflation is now fully under control, in our view. That argues for the Federal Reserve (Fed) to start moving interest rates out of restrictive territory. Most estimates of the “neutral rate”, the interest rate at which the Fed is neither supporting nor holding back growth, are currently somewhere near 3.5% for the US economy. Determining the neutral rate is not an exact science, but clearly, rates above 5% should be a brake on the economy, and that level of rates is no longer appropriate.

Still, the 50 basis point rate cut that the Fed delivered on September 18 surprised markets. Typically, larger cuts come in the context of a growth slowdown or financial upset, and neither are the case here. In this case, the Fed is simply acknowledging that, in the current environment, they should be closer to neutral, and that they are a long way from neutral now.

The market reaction after the cut validates this view and upgrades the outlook for financial markets going forward. The US yield curve steepened, and credit and equity markets did well. A steeper curve and stronger risk asset prices are consistent with a macro view that implies less growth risk (less recession risk) and easy financial conditions. A soft landing with rates near neutral would likely be a very constructive outcome for markets. The chance of the Fed achieving such an outcome increases with this rate cut.

Risks tilted toward employment

The Fed is close to achieving its dual mandates. On the full employment mandate, the labor market remains strong,

with unemployment at historically low levels. The unemployment rate has ticked up recently, but this has mainly been due to increased labor supply, rather than weakening demand or widespread layoffs.

Despite labor market strengths, there is evidence that it is softening, changing the balance of risks for the Fed. A wide range of labor market indicators we monitor suggest that conditions are softer than they were just before the pandemic. The labor market is experiencing a “soft patch,” similar to what we saw in 2017-2018 when job growth temporarily slowed. Chair Powell also highlighted this in his recent press conference, emphasizing the Fed’s proactive stance to limit downside risks.

Inflation less of a concern

On the inflation front, the news is encouraging. As we’ve discussed in the past, inflation continues to decline, driven by falling goods prices, moderating (though still elevated) shelter costs, and slower wage growth, which has helped keep core services inflation (excluding shelter) in check. Inflation expectations are well-anchored - they are now back to pre-inflation levels and the feared wage-price spiral has been avoided.

While inflation has not yet reached the Fed’s 2% target, the Fed has made substantial progress. This suggests that the need to maintain an elevated policy rate, initially set to combat high inflation, has diminished.

The Fed outlook

We expect the Fed to continue cutting interest rates in the coming months. A rate cut at every meeting is likely for the foreseeable future. The Fed still needs to cut rates by around one and a half percentage points to get to the neutral target we believe they are shooting for. At 25 basis points a meeting, that would take six more meetings and bring us into the middle of next year.

Continued growth and easier policy in the US should also be constructive for non-US asset classes and currencies. Our base case forecasts the US dollar continuing to drift lower, easing financial conditions globally and supporting global and emerging markets.

Interestingly, some of these non-US markets have valuations that do not look as tight as US financial assets, where yields have rallied, credit spreads are tight and equity markets are at, or close to, their highs.

Bottom line, the Fed was able to deliver a larger than expected rate cut without creating concern that there are economic problems that normally drive larger than expected cuts. Markets have now aligned with the view that the Fed will remove monetary restriction and ease financial conditions, all while the economic outlook remains decent and inflation is under control - the makings of a potentially positive market environment.

Rob Waldner

Head of IFI Strategy and Macro Research

James Ong

Senior Portfolio Manager

Gareth Isaac

Head of Multi-Sector Portfolio Management

Tom Sartain

Senior Portfolio Manager

Michael Siviter

Senior Portfolio Manager

Yi Hu

Head of Asia Credit Research

Interest rate outlook

US: Neutral. We favor a neutral position in US Treasuries. Growth and inflation have slowed, as we anticipated earlier this year. The Fed has acknowledged slow growth by cutting interest rates more quickly than expected. This bigger than expected easing has caused the market to price a more aggressive path of interest rate cuts than we believe is warranted by our expected path of growth and inflation. Aggressive easing early in the cycle will likely result in less accommodation later in the cycle. In the near term, we see two-way risk in interest rate markets. However, we will be closely following the path of economic data to assess risk and reward in interest rate markets.

Europe: Overweight. We remain broadly positive on European rates but expect to see continued divergence between core countries, such as Germany, and more challenged markets, such as Italy and France. Although the European Central Bank (ECB) has begun to lower rates, our analysis indicates that they have waited too long to start cutting and will need to lower rates further than the market expects, to avoid a sharp economic slowdown in the region. Despite a sharp fall in inflation, some ECB members have remained determined to keep rates higher than necessary, exacerbating pressures on heavily indebted countries such as Italy, and, more worryingly, France. France is expected to announce a deterioration in its fiscal deficit this year and, with an unstable government in place, tax hikes or spending cuts required to address the situation are unlikely. France is heavily dependent on foreign investors to fund its deficit and, as we saw with Liz Truss in the UK, foreign investor confidence can disappear very quickly in a crisis.

China: Neutral. We expect the Chinese onshore interest rate environment to remain accommodative in the near and medium term, and should see curve steepening, as we expect short-term rates to outperform long-term rates. Various easing measures in the coming months may bring periodic volatility to the onshore rates market. We expect more proactive guidance from the central bank through its open market operations and window guidance for the long-term segment of the bond market. Further room for downward yield moves is likely to be influenced by the US rate cutting cycle, US presidential election and trade and financial policies under a

new administration, given their potential ramifications for the US dollar/renminbi exchange rate.

Japan: Underweight. Japanese government bond (JGB) yields have been dragged lower by the decline in US Treasury yields and concerns that the yen's appreciation will derail the Bank of Japan's (BoJ) hiking cycle. However, at current valuations, the market is pricing only a modest increase in rates over the next 12 months. Although BoJ Governor Ueda acknowledged that the yen's appreciation reduced the upside risk to inflation, the BoJ appears to be increasingly confident that underlying inflation pressures are picking up, as wage growth accelerates and growth recovers to an above-trend pace. Recent data have shown a sharp reacceleration of core inflation momentum. If price increases continue, further interest rate normalization beyond current market pricing is likely. The timing of the next rate hike is probably in January, with the BoJ keen to see the impact of annual rises in services prices in October and the conclusion of Liberal Democratic Party elections.

UK: Neutral. UK 10-year gilt yields are little changed over the last month, reflecting the Bank of England's (BoE) unwillingness to accelerate its cutting cycle against a mixed backdrop of domestic growth, labor market and inflation data. Unlike the Fed, which has pivoted toward focusing on the labor market, the BoE remains more focused on quashing inflation. Overall data are consistent with policymakers' expectations of further deceleration in underlying inflation. However, these expectations are already reflected in market pricing. The re-pricing of short-term rates, combined with fears around fiscal slippage ahead of the October Budget, has resulted in a steepening of the yield curve and an underperformance of the long end relative to US Treasuries. This underperformance of long-term UK forward rates now looks relatively stretched, in our view. If UK inflation continues to converge with US and European levels, it seems likely that UK rate pricing can converge with US and European levels.

Australia: Neutral. Australian bond yields are little changed over the last month on an outright basis but have underperformed US Treasuries. The underperformance reflects the tightening

of short-term interest rate differentials, as the market has priced a faster Fed rate cutting cycle while the Reserve Bank of Australia (RBA) has pushed back on expectations of rate cuts this year. The market is currently pricing Australian short-term rates to exceed similar US rates by 40 basis points by the middle of next year.¹ The RBA's near-term focus on bringing down inflation in contrast to the Fed's focus on supporting the labor market raises the risk that the spread between them could widen further, but the extent of further widening is likely to be limited. Furthermore, the underperformance of Australian interest rates looks less valid further out the curve, given Australia's lackluster growth rate and relatively benign wage movements. The hawkishness of the RBA should result in curve flattening in Australia relative to the US, which should cap the underperformance of Australian forwards. Furthermore, the steepness of the Australian curve offers attractive currency hedged-yields to US dollar-based investors, in our view.

1. Source for all data: Bloomberg L.P. Data as of Aug. 27, 2024.

Rob Waldner

Head of IFI Strategy and Macro Research

James Ong

Senior Portfolio Manager

Gareth Isaac

Head of Multi-Sector Portfolio Management

Tom Sartain

Senior Portfolio Manager

Michael Siviter

Senior Portfolio Manager

Yi Hu

Head of Asia Credit Research

Currency outlook

USD: Underweight. We remain underweight the US dollar as we expect the Fed to lower interest rates substantially over the next 12 months. We also expect the US economy to slow further ahead of the election. Risk markets have remained buoyant and the US dollar has fallen slightly in recent months, despite the clear event risk of the November US election and the potential for market-negative policies under the new administration. Although we are currently underweight, we will review our position after the election, once we have a clearer idea of the political landscape and likely global trade environment.

EUR: Overweight. We remain positive on the euro versus the US dollar as we expect the Fed to deliver on the rate cuts priced in by markets, and despite the continued headwinds to the European economy. We expect the euro to fare less well against other currencies, such as the yen and British pound. An anaemic economy, restrictive monetary policy and weak global trade environment is a perfect storm for the euro, in our view. Ultimately, the ECB will likely need to cut rates aggressively at some point in 2025, once they realize how far behind the curve they are, further reducing demand for the currency. The euro area's increasingly fractious political landscape will likely remain a headwind to the euro over the medium term, as closer financial alignment between the member states becomes less likely.

RMB: Overweight. We remain overweight the renminbi, as we expect it to be resilient relative to peers amid market volatility, as shown by the market moves in early August. Our view is also driven by the changing direction of interest rates in the US and China, with the US entering a rate-cutting cycle while China is limiting further downward yield moves. We note the recent below-average conversion rate of Chinese exporters' trade surplus, which could open the door to a catchup, if exporter sentiment shifts.

JPY: Neutral. The narrowing interest rate differential between Japan and other developed economies should be supportive of the yen. Although speculative short yen positions have been reduced, longer-term Japanese investors continue to run very low hedge ratios on their large foreign asset holdings. There will likely be an increased incentive for these investors to either hedge foreign asset exposures

or repatriate proceeds to Japan, as interest rate levels abroad converge with the yields on Japanese government bonds and foreign yield curves steepen, reducing the cost of currency hedging bond positions.

GBP: Neutral. The BoE's willingness to lag the Fed cutting cycle, and relatively resilient UK growth, support the British pound. However, valuations are now relatively stretched, in our view, with the trade-weighted index close to its post-Brexit referendum highs. Given that the UK has had higher inflation than elsewhere, the real exchange rate is even more richly valued, in our view. If UK inflation slows toward levels in the US and eurozone, interest rate differentials will likely become less favorable going forward for the pound. In addition, positioning now appears relatively long, although merger and acquisition-related inflows have bounced since the UK election.

AUD: Overweight. The divergence between policies at the RBA and other central banks, such as the Fed and Bank of Canada, has shifted interest rate differentials in the Australian dollar's favor. The Australian dollar is likely to be the highest yielding developed market currency by mid-2025. Although sticky Australian inflation means real interest rate differentials are less favorable than nominal rate differentials, interest rate dynamics should now be a tailwind for the Australian dollar. The terms of trade and risk sentiment, particularly in Asia, remain headwinds at present. However, a stabilization of commodities and better Chinese growth sentiment will likely drive up the Australian dollar. In the short term, we believe the Australian dollar can outperform relative to other commodity currencies and Asian partners, such as the Canadian dollar, the New Zealand dollar and the Chinese renminbi.

This section highlights the views of Invesco Fixed Income's credit analysts across a broad range of fixed income assets managed by Invesco.

Global credit strategy

Strong supply and demand in credit markets

Credit supply on track for a bumper year

The US and European corporate sectors got back to business in September, and we are now heading for one of the busiest new issue years for credit markets in a long time.

European investment grade is set for a record level of gross supply in 2024, based on annualized data, with net issuance close to its 2019 peak. The US investment grade market may not beat its 2020 total but should see one of its biggest years ever.

Following elevated issuance in 2020 and 2021, net high yield supply dipped below zero in both the US and Europe in the higher rate markets of 2022 and 2023. But both markets have recovered strongly this year. Europe could see its second highest year of high yield supply since 2010.²

Demand is solid

Investor demand has held up throughout the year and the heavy September supply has been absorbed without forcing secondary spreads wider. For the 62 investment grade deals that came to the euro market in the first two weeks of September (combined size EUR38.5

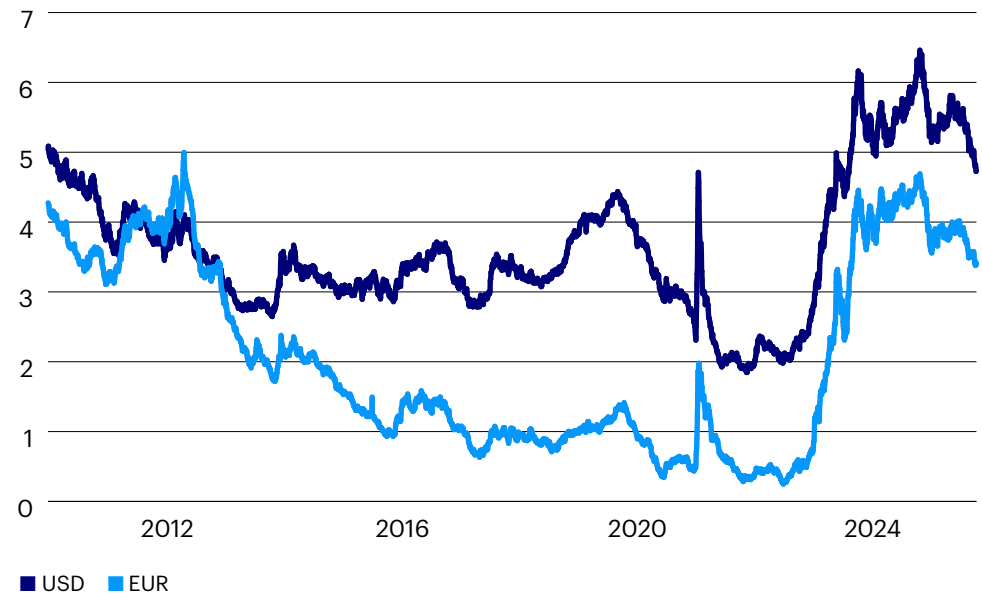
billion), investor demand averaged 3.6 times the issue size.³ Pricing across deals has tightened an average of 37 basis points, between the original price talk and the final deal.⁴

What's driving this? One factor is earnings. As Head of US Investment Grade Research, Paul English, set out in our last edition, corporate earnings have continued to grow above expectations. This earnings outcome underpins metrics of creditworthiness. According to the latest data from Barclays, gross and net leverage ticked up marginally in the second quarter, but both are lower than in 2021 and interest coverage is comfortably within its historic range, despite the rise in interest rates.⁵

Yields still look attractive

At the same time, yields remain attractive. Credit spreads have tightened - to an extent that we feel there is little room for further compression in certain areas - but the yield on US dollar denominated investment grade is in the ballpark of its post-global financial crisis highs. European yields are still comparable to levels seen in the eurozone crisis of 2011-12.

Figure 1: Investment grade yield-to-maturity (%)



2. Source: Barclays Research, Bloomberg L.P. Data from Dec. 1, 2010 to Aug. 31, 2024.

3. Source: Invesco. Data from Sept. 1, 2024 to Sept. 14, 2024.

4. Source: Invesco. Data from Sept. 1, 2024 to Sept. 14, 2024.

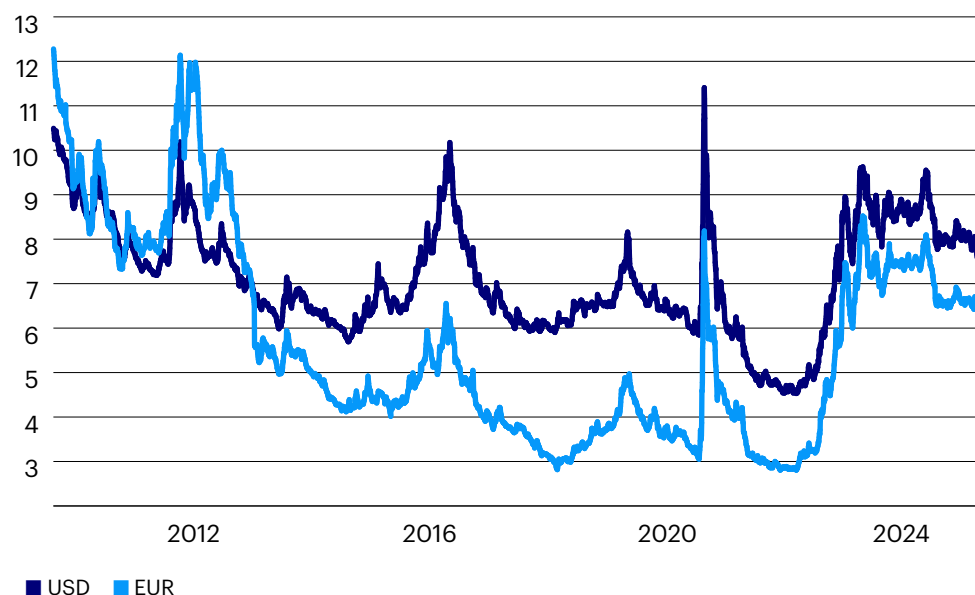
5. Source: Barclays, US Investment Grade Credit Metrics. Data as of Sept.9, 2024.

Source: ICE BofAML, Euro Corporate Index. ICE BofAML, US Corporate Index. Data from Sept. 17, 2009 to Sept. 17, 2024.

The story is slightly different in high yield. Yields there have been higher at several points in the last decade. But those periods – for example the turn of 2015-16

and the initial COVID spike in March 2020 - were associated with greater credit worries than are suggested by today's fundamentals.

Figure 2: High yield yield-to-maturity (%)



Source: ICE BofAML, Euro High Yield Index, ICE BofAML US High Yield Index. Data from Sept. 17, 2009 to Sept. 17, 2024.

Technicals are supportive

Another source of support is investor flows. Money came into investment grade funds throughout 2023 and has continued to do so. Tracking euro-denominated funds, net flows are near €30 billion year-to-date, well above the €20 billion level for the whole of last year.⁶ In high yield, where flows were mixed in 2023, they have been steadily positive year-to-date.

One interesting final feature of this year's markets is that Barclays' data show a preference for active funds among investors in both investment grade and high yield. This is a marked change from last year and previous years. Perhaps investors see the benefits of careful bond selection in a market that has come so far.

6. Source: Barclays, European corporate credit fund flows. Data as of Sept. 13, 2024.

7. Source: Barclays, European corporate credit fund flows. Data as of Sept. 13, 2024.

Panelists



Robert Young
Head of Institutional
Convertibles



James Ong
Senior Portfolio Manager



Niklas Nordenfelt
Head of High Yield

The bottom line: The case for equity options in fixed income portfolios

The asset management industry is always innovating to meet clients' investment objectives, improve risk-return profiles and increase diversification. Depending on clients' risk tolerance, fixed income managers tap different types of assets to meet these goals, including high yield corporate bonds, emerging market bonds and bank loans. But equities also provide an interesting alternative to help boost returns and improve diversification. Moreover, adding equity options instead of traditional equities can offer unique advantages. We speak with three Invesco portfolio managers about the case for equities and equity options in traditional fixed income portfolios.

Q: What is the case for adding equities to fixed income portfolios?

Rob: The benefits of adding equities to traditional fixed income portfolios have been supported by the past 30 years of capital market returns in which equities have significantly outperformed fixed income.⁸ As a result, fixed income managers who included even a small equity allocation in their portfolios were compensated with higher returns. The degree of equity exposure would depend on the client's investment objectives and sensitivity to risk.

At one end of the spectrum are strategies with less risk tolerance, such as investment grade bond portfolios, which might utilize a more conservative 99% fixed income/1% equity allocation. Strategies at the higher end of the risk spectrum, like multi-sector or high yield portfolios, might use a more aggressive 90% fixed income/10% traditional equity blend.

Q: When it comes to high yield, are there advantages to adding equities?

Niklas: In high yield, we add equities, in small size, in a couple of ways. In each case, the position is tied to a credit view or existing position. For one, we like to purchase equity options on bond issuers we feel are on a credit improvement trend, but the price of the bond may have reached its target high. This has the effect of creating convexity by essentially using a little of the income the bond generates to create a (synthetic) convertible bond. That way we participate in the continued improvement in the credit while limiting our downside risk considerably.

Another way is an outright equity position in an issuer where the stock price may be pricing in a high probability of default, but

we see the possibility of a turnaround in the credit where it can either avoid bankruptcy or is a potential acquisition target.

We occasionally buy equities as a hedge to a liability management exercise (LME). Often, the beneficiary of an LME is the equity since the company typically can lower its debt burden and also push out its maturities. Finally, equity exposure is often an effective proxy for lower quality high yield bonds. The correlation between the stock market and CCC bonds, for example, tends to be high. We have added equity exposure to express a bullish view by boosting our overall beta or hedge an underweight to CCC bonds.

Q: What is the downside of adding equities to fixed income portfolios?

James: A valid concern about equity inclusion is that higher equity returns have been associated with higher levels of volatility. Equities have consistently demonstrated greater volatility than bonds over the past 30 years, which may discourage some fixed income managers from including equity investments in their portfolios.⁹

Also, equity markets have occasionally experienced large total return drawdowns. This can make including equities in fixed income portfolios unattractive due to the negative short-term performance impact, despite equities' potential longer-term performance benefits.

Q: What role can equity options play in addressing the concerns around traditional equities?

Rob: An alternative to adding traditional equities is an options-based approach. A compelling advantage of adding equity options is that they offer an attractive asymmetrical return profile that is unavailable with traditional equity investments.

For example, let's start with a traditional fixed income portfolio with no equity exposure. The manager may use some or all of the portfolio's income to pay for equity exposure. In this example, (Figure 1), we start with a 6% coupon portfolio (dark blue line) and use one percentage point of the coupon to buy S&P 500 Index options, leaving a 5% coupon portfolio with equity options (light blue line). In general, the amount of portfolio coupon used can vary depending on the manager's equity sensitivity objectives - the more coupon deployed, the higher the level of equity sensitivity.

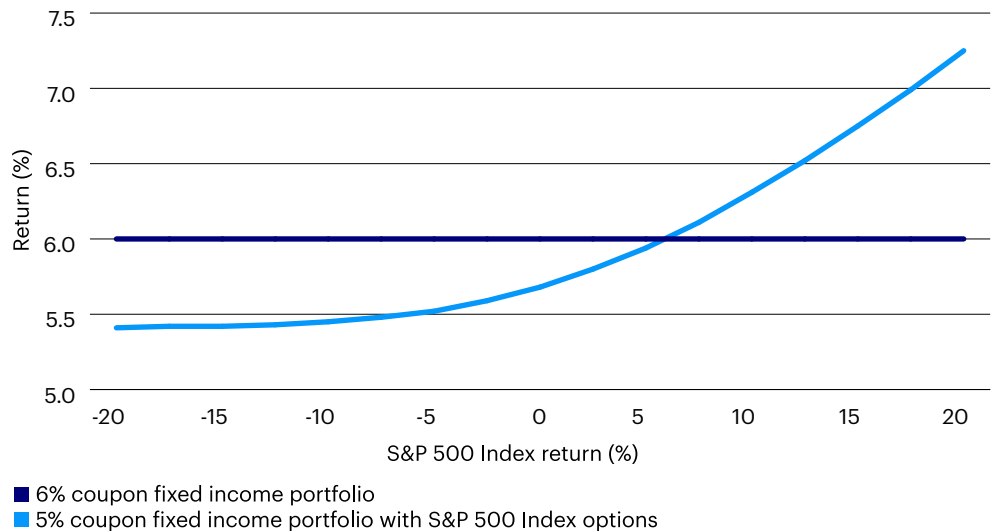
8. Source: Bloomberg L.P. Data as of June 30, 2024.

9. Source: Bloomberg L.P. Data as of June 30, 2024.

The maximum loss for this strategy is fixed at the amount of coupon used, no matter how much the equity markets fall. However, upside equity participation is completely unrestrained, which creates an appealing risk-return tradeoff: constrained downside, but unconstrained upside.

This contrasts to a traditional equity allocation, which has a much wider range of downside outcomes. Figure 1 illustrates the expected outcome of this strategy over a one-year period.

Figure 1: Traditional fixed income portfolio vs. fixed income portfolio with equity options



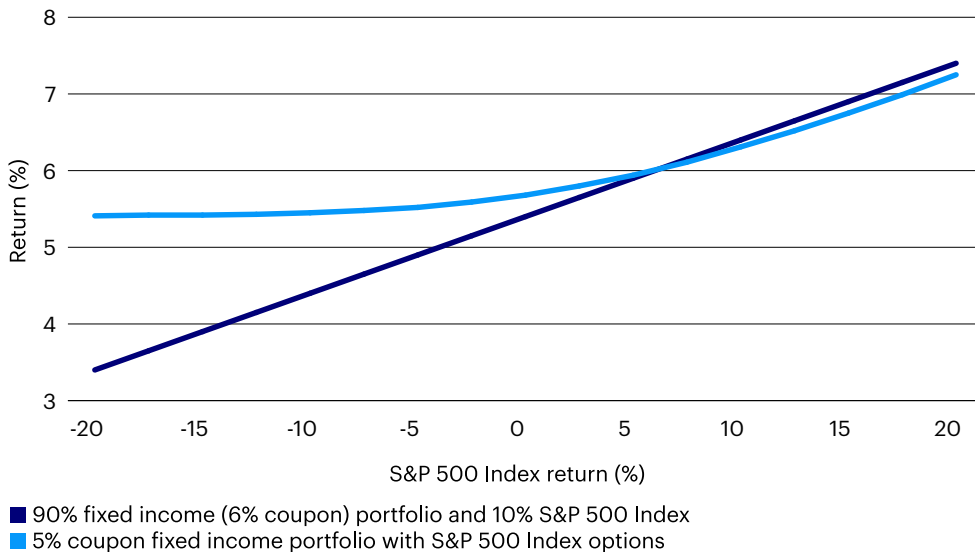
Source: Bloomberg L.P. Data as of June, 2024. The “5% coupon fixed income portfolio with S&P 500 Index options” line illustrates the expected value (mean return) of the strategy over a one year time period. The actual return could be higher or lower than this expected value line depending on actual returns in the market. **For illustrative purposes only.**

Q: How can managers who already have equity exposure adopt an options-based approach and what could their return profile look like?

James: Managers who have already allocated to traditional equities can create the same option-based portfolio as above by simply replacing their existing traditional equity positions with equity options. We consider a fixed income manager who has already allocated 10% to traditional equities. To approximate the 90% fixed income/10% equity portfolio

exposures using an options-based approach, the manager would simply sell the 10% equity position, reinvest the proceeds into traditional bonds, and use one percentage point of the portfolio’s coupon to purchase equity options. In this example, the redesigned portfolio retains a high equity participation rate, and importantly, offers the potential for greater downside protection than the original portfolio when equity markets fall (Figure 2).

Figure 2: Fixed income portfolio with traditional equities vs. fixed income portfolio with equity options



Source: Bloomberg L.P. Data as of June, 2024. The “5% coupon fixed income portfolio with S&P 500 Index options” line illustrates the expected value (mean return) of the strategy over a one year time period. The actual return could be higher or lower than this expected value line depending on actual returns in the market. **For illustrative purposes only.**

Rob: This options-based strategy is flexible - it can be attractive for fixed income managers who would like to add a degree of equity exposure to their portfolios or for managers who already have equity exposure and would like to

remove some of the downside risk of traditional equities. In each case, equity options have the potential to improve the risk-return characteristics of fixed income portfolios.

Team contributors

Senior Editor — Ann Ginsburg

Atlanta

Robert Waldner

Head of IFI Strategy and Macro Research
+1 404 439 4844
robert.waldner@invesco.com

James Ong

Senior Portfolio Manager
+1 404 439 4762
james.ong@invesco.com

Niklas Nordenfelt

Head of High Yield
niklas.nordenfelt@invesco.com

Ann Ginsburg

Head of Thought Leadership Fixed Income
+1 404 439 4860
ann.ginsburg@invesco.com

New York

Turgut Kisinbay

Chief US Economist
+1 212 323 0460
turgut.kisinbay@invesco.com

Robert Young

Head of Institutional Convertibles
+1 212 278 9222
robert.young@invesco.com

London

Gareth Isaac

Head of Multi-Sector Portfolio Management
+44 20 7959 1699
gareth.isaac@invesco.com

Tom Sartain

Senior Portfolio Manager
+44 20 7034 3827
thomas.sartain@invesco.com

Michael Siviter

Senior Portfolio Manager
+44 20 7959 1698
michael.siviter@invesco.com

Henley-on-Thames, UK

Lewis Aubrey-Johnson

Head of Fixed Income Products
+44 14 9141 7523
lewis.aubrey-johnson@invesco.com

Hong Kong

Yi Hu

Head of Asia Credit Research
+852 3128 6815
yi.hu@invesco.com

Investment risks

The value of investments and any income will fluctuate (this may partly be the result of exchange rate fluctuations) and investors may not get back the full amount invested.

Fixed-income investments are subject to credit risk of the issuer and the effects of changing interest rates. Interest rate risk refers to the risk that bond prices generally fall as interest rates rise and vice versa. An issuer may be unable to meet interest and/or principal payments, thereby causing its instruments to decrease in value and lowering the issuer's credit rating.

Non-investment grade bonds, also called high yield bonds or junk bonds, pay higher yields but also carry more risk and a lower credit rating than an investment grade bond.

The risks of investing in securities of foreign issuers, including emerging market issuers, can include fluctuations in foreign currencies, political and economic instability, and foreign taxation issues.

The performance of an investment concentrated in issuers of a certain region or country is expected to be closely tied to conditions within that region and to be more volatile than more geographically diversified investments.

A decision as to whether, when and how to use options involves the exercise of skill and judgment and even a well conceived option transaction may be unsuccessful because of market behavior or unexpected events. The prices of options can be highly volatile and the use of options can lower total returns.

Important information

By accepting this document, you consent to communicate with us in English, unless you inform us otherwise.

All information is sourced from Invesco, unless otherwise stated.

All data as of September 25, 2024, unless otherwise stated. All data is USD, unless otherwise stated.

This document is intended only for professional investors in Hong Kong, for Institutional Investors and/or Accredited Investors in Singapore, for certain specific sovereign wealth funds and/or Qualified Domestic Institutional Investors approved by local regulators only in the People's Republic of China, for certain specific Qualified Institutions and/or Sophisticated Investors only in Taiwan, for Qualified Professional Investors in Korea, for certain specific institutional investors in Brunei, for Qualified Institutional Investors and/or certain specific institutional investors in Thailand, for certain specific institutional investors in Malaysia upon request, for certain specific institutional investors in Indonesia and for qualified buyers in Philippines for informational purposes only. This document is not an offering of a financial product and should not be distributed to retail clients who are resident in jurisdiction where its distribution is not authorized or is unlawful. Circulation, disclosure, or dissemination of all or any part of this document to any unauthorized person is prohibited.

This document may contain statements that are not purely historical in nature but are "forward-looking statements," which are based on certain assumptions of future events. Forward-looking statements are based on information available on the date hereof, and Invesco does not assume any duty to update any forward-looking statement. Actual events may differ from those assumed. There can be no assurance that forward-looking statements, including any projected returns, will materialize or that actual market conditions and/or performance results will not be materially different or worse than those presented.

All material presented is compiled from sources believed to be reliable and current, but accuracy cannot be guaranteed. Investment involves risk. Please review all financial material carefully before investing. The opinions expressed are based on current market conditions and are subject to change without notice. These opinions may differ from those of other Invesco investment professionals.

The distribution and offering of this document in certain jurisdictions may be restricted by law. Persons into whose possession this marketing material may come are required to inform themselves about and to comply with any relevant restrictions. This does not constitute an offer or solicitation by anyone in any jurisdiction in which such an offer is not authorised or to any person to whom it is unlawful to make such an offer or solicitation.

This document is issued in the following countries:

- in Hong Kong by Invesco Hong Kong Limited 景順投資管理有限公司, 45/F, Jardine House, 1 Connaught Place, Central, Hong Kong.
- in Singapore by Invesco Asset Management Singapore Ltd, 9 Raffles Place, #18-01 Republic Plaza, Singapore 048619.
- in Taiwan by Invesco Taiwan Limited, 22F, No.1, Songzhi Road, Taipei 11047, Taiwan (0800-045-066). **Invesco Taiwan Limited is operated and managed independently.**