



CIO Viewpoint Fixed Income

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Authors:

Dr. Konrad Aigner
Senior Investment Officer Europe

Ahmed Khalid
Investment Strategist Europe

Andreas Umsonst
Investment Officer Europe

Meenakshi Singh
Investment Officer

Bond markets caught between monetary and fiscal policies

Key takeaways

- Central banks have successfully brought down inflation rates close to target levels and pivoted monetary policy towards a rate cut cycle.
- European elections and the upcoming U.S. presidential election, however, have shifted attention to budgetary issues and tariff risks that may drive up inflation rates.
- Bond yields currently seem to be caught between these two competing forces. We would therefore favour a defensive stance and avoid going longer than market duration.

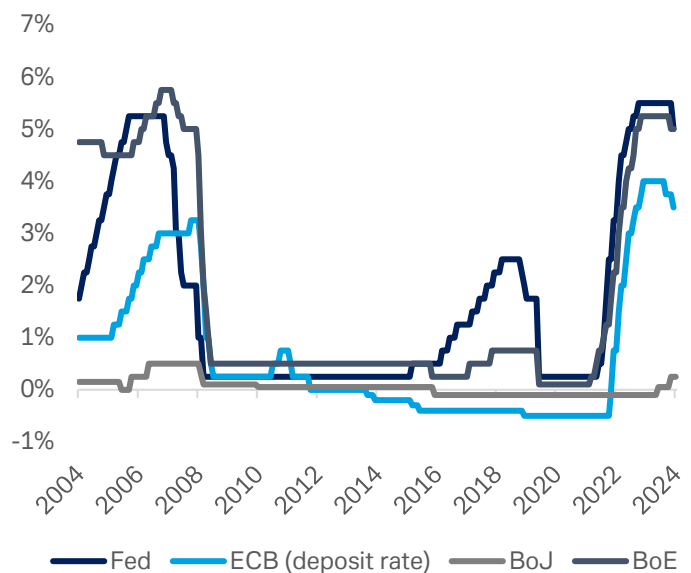
Introduction

Bond market participants are still occupied with the repercussions of the pandemic. The strong inflation increases after production losses and disruptions of supply chains have been successfully tackled by central banks. Inflation rates are down close to central banks' target levels and ECB, Fed and BoE were able to start rate cut cycles. With elections in Europe and the U.S., however, budget and public debt issues as well as inflation fears have moved to the fore again. Costly fiscal policy measures during the pandemic had driven up deficit and debt levels. Where public finances seem at risk of worsening, bond yields tend to rise, and bond market participants now appear to be acting "bond vigilantes" once again.

Monetary policy – Rate cut cycle of major central banks, except Japan

The Fed had waited for fundamental economic data to support a view that inflation rates are on a sustainable trend towards its target rates. Within their dual mandate they now seem to concentrate more on developments on the labour market. The level of lay-offs are still low, a sign for the resilience of the labour market. However, job openings – a proxy for labour demand – are clearly on a declining trend, an early sign for the weakening of conditions on the labour market. Given the signs for a less tight labour market, the Fed had started the rate cut cycle in September with a strong rate cut of 50 bps. Alongside the decision to cut rates, the Fed also published its updated Summary of Economic Projections (SEP), indicating two further 25 bps rate cuts by the end of 2024. However, the dispersion of the forecasts amongst the FOMC participants highlights a slight uncertainty about the future path of inflation.

Figure 1: Key interest rates of selected central banks



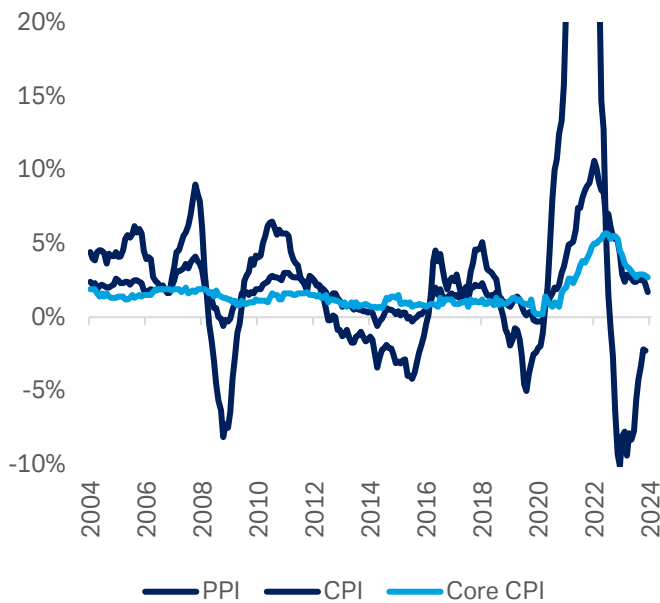
Source: Deutsche Bank AG, LSEG Datastream; Data as of October 25, 2024.

In Europe, inflation rates stayed stubbornly elevated for some time, but seemed to start declining again since August (see chart 2). Given sluggish economic growth in the Eurozone, the ECB lowered its key interest rates again in October by 25 bps, with the deposit facility rate at 3.25%. ECB President Lagarde, however, confirmed, that rate cut decisions, will be made following a meeting-by-meeting approach.

In order to support the domestic economy, the Bank of Japan had been in a negative rate regime since 2016. During this extended period many investors had embarked on carry trades, i.e. investments into higher yielding instruments like equities or treasuries in other countries, which were financed in Japanese yen. The yield spread of these investments are declining with other central banks to lower rates and the BoJ starting to hike its policy rate. The BoJ started to hike in March 2024 and decided a second hike end of July. The end of July rate hike surprised market participants and caused strong market reactions of carry trade investors.



Figure 2: Eurozone inflation rates (YoY)



Source: Deutsche Bank AG, LSEG Datastream; Data as of October 25, 2024.

Although the focus of central banks is on adequate monetary policies for their domestic economies, they cannot fully neglect the international context. Via foreign exchange rates and their influences on goods prices, there are interdependences and repercussions between the respective economies. Market reactions after the July BoJ rate hike were an example for such interdependencies. Given the persistently low interest rates in Japan, investors used this situation to finance investments in other countries, the so-called Yen carry trades. Market participants such as hedge funds, institutional investors, corporates, or high net-worth investors (HNIs) borrowed in Yen and invested the received funds in assets of other higher yielding markets in order to benefit from the yield difference. Carry trades tend to result in a depreciation of the borrowing currency and appreciation of the investing currency. Conversely, unwinding of carry trades causes appreciation of the borrowing currency. Given the surprising July rate hike of the BoJ and at the same time rising expectations for a Fed rate cut, market participants decided to reduce Yen carry trade positions, which caused a significant strengthening of the JPY/USD exchange rate. As strong and hefty market reactions could pose a risk for financial market stability, central banks usually try to communicate their prospective monetary policy steps in advance in order to avoid unintended side effects.

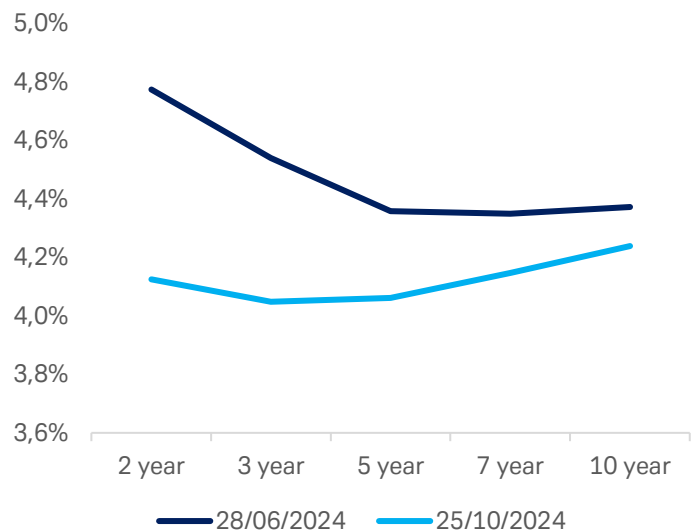
U.S. Government bonds: Normalization of the yield curve

The Fed kicked off its widely anticipated rate cuts on September 18. The anticipation regarding the magnitude of the move had been hotly debated since the growth scare that had gripped the markets in early August. In the end, the Fed took a leap of faith and opted for 50 bps. In the run-up to this move we ultimately saw the longest yield curve inversion in history,

amounting to 793 days, come to an end. Since the end of June, the curve has bull steepened with 2-year yields falling by 65 bps to around 4.1% and 10-year yields declining by 13 bps to about 4.2%. The 2Y10Y yield differential now stands close to +11 bps.

The merits of a 50 bps cut versus a 25 bps cut can be hotly debated, even more so after the strong September jobs report. However, one thing that is certain is that by choosing the more aggressive option, the central bankers have made it clear that they are now strongly focused on the full employment component of their dual mandate. With this step, the risk of "behind the curve" arguments gaining strength has been largely subdued, which would have warranted larger and quicker cuts later in the cycle and possibly put further pressure on the terminal rate pricing, and thus also on longer end yields.

Figure 3: U.S. Government bond yield curve 2-10 years



Source: Deutsche Bank AG, LSEG Datastream; Data as of October 25, 2024.

With the Fed's focus on the labour market, coupled with an already resilient economy, further steepening can be largely expected. In the near term, we may even see some twist steepening as shorter-end rates continue to remain under pressure due to the debate around the magnitude of the upcoming cuts while longer-end rates steepen. Stronger Fed support now paves the way for a meaningful reacceleration from any slowdown in the next 1-2 quarters, which could reignite inflation risks in the future. We have already seen reduction in the dovishness priced by the market which is now expecting less than 6 cuts by the end of next year compared to almost 8 before the September payrolls data. The current pricing is largely in line with the median estimate of 6 more cuts during this time horizon according to the FOMC summary of economic projections.

In the near term, elevated rates volatility must be expected as we are approaching the U.S. election date. Although, we see no significant difference in the post-election outcomes in the event of a split congress, this volatility is likely to be a result of investors parking their money in and out of the Treasury



markets as they employ a “wait and see” approach to avoid the risk of policy surprises, especially in case of a sweep by either party. In the medium-term, whichever candidate takes the White House, we see risks to the longer end skewed towards higher rates as none of them is likely to embark on a fiscal prudence programme. Large fiscal deficits financed by debt are largely a given, supporting our tilt towards higher longer-end yields and possible bear steepening.

The current lack of term premium also fosters our bias towards higher yields at the long end. The widely used estimate based on the ACM (Adrian, Crump and Moench) model, favoured by the New York Fed, suggests a non-existent term premium currently. This is in stark contrast to around 1.4% it averaged during the medium-high inflation period of 1998-2014.

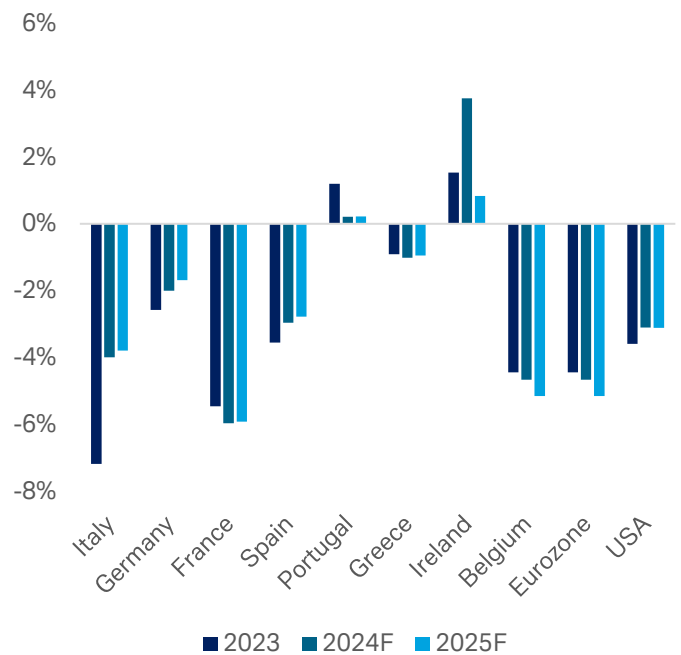
Given our scepticism of the longer-end yields, we avoid going longer than the market duration. In our view, the shorter end remains well priced, though, given the strong dovishness priced by the markets and its vulnerability to upside inflation surprises. Therefore, intermediate duration closer to the belly of the curve is preferred. In the near term, we continue to see value in steeper trades as there is room for the 2Y10Y yield differential to widen further.

EUR government bonds: Twist of the yield curve

Solid economic growth rates, vigorous wage increases and sticky inflation rates had driven Eurozone short- and long-term government bond yields higher in the first half of the year. Although the European Central Bank (ECB) had started a rate cut cycle at the beginning of June and lowered its key interest rates by 25 basis points for the first time since 2019, little effects could initially be seen on bond markets. Uncertainties about the future course of monetary policy, uncertainties from import tariffs on electric vehicles from China and political uncertainties after EU parliamentary elections as well as the ensuing early elections in France kept government bond yields elevated. In July, with somewhat lower inflation data and weaker economic indicators, bond yields started to decline. Given the weaker economic data, rate cut expectations increased and short-term bond yields declined faster than longer term bond yields, which resulted in a steepening of the yield curve. Going forward, we expect the ECB to cut the deposit facility rate to 2,25% by the end of Q3 2025, which should also be the final rate of the current easing cycle. We project a twist steepening of the yield curve, i.e., a gradual decline of yields at the shorter end of the curve and a certain rise at the longer end - underpinning our long-standing “high for longer” rate call. Specifically, we expect the 2-year Bund yield to gradually fall to 2.00% over the next four quarters, and the 10-year and 30-year yields to rise to 2.25% and 2.50%, respectively.

Government bond investors, often also called bond vigilantes, react sensitively to changes of public finances and inflation risks. With a clear divergence of the development of public finances between the countries of the Eurozone, the relative development of government bond yields started to diverge.

Figure 4: Government budget balances of selected countries and regions (in % of GDP)



Source: Deutsche Bank AG, LSEG Datastream; Data as of October 25, 2024.

The results of France’s snap parliamentary elections in June/July were not able to remove uncertainties among government bond investors. The spread of 10-year French government bond yields vs. respective bond yields in Germany of around 50 bps at the start of June started to rise toward levels of above 60 bps at the start of October. (see Chart 5) Apart from the political uncertainty, the EU recently has put France under scrutiny as they stated an excessive deficit not complying with the EU’s deficit criterion. Recent warnings from the French finance ministry that higher spending and lower-than-expected tax revenues might cause the budget deficit to widen to about 6% of GDP, if no extra savings measures were introduced, added to such worries and contributed to the widening of the yield spreads. In mid-October, the Scope Ratings Agency lowered the country’s credit rating from AA to AA-. It is thus on a par with the ratings of Belgium and the Czech Republic. Moody’s kept the rating unchanged at Aa2, but lowered the outlook to negative from stable over uncertainties, that the government will be able to curb budget deficits. Meanwhile the French Government has presented a long-term plan to control public finances. The budget deficit of 6.1% in 2024 is to be reduced to 2.8% of economic output by 2029. The targets are based on GDP growth assumptions of 1.1% next year, 1.4% in 2026 and 1.5% in 2027. Thus, the government wants to get the budget deficit into line with the EU budget rules over time. All in all, tough budget discipline is necessary for the French government going forward. As the path towards a sustainable French budget consolidation is challenging, risks for negative news are substantial and yield spreads vs. Germany are likely to remain elevated. Although short-term spread movements in Italy and Spain had been similar to France, the spreads of these countries now show a declining trend. Obviously, market participants seem more



optimistic that Italy and Spain are able to achieve a decline in public deficits. Economic growth in the Spanish economy surprised positively and the European Commission seems optimistic, that the public deficit can fall to close to 3% of GDP this year. Italy, on the other hand is under the Excessive Deficit Procedure, but on a positive trend. Fitch has recently raised Italy's rating outlook to "positive", citing the recent strengthening of fiscal performance and Rome's commitment to EU budgetary rules. This signals "a possible reduction in medium-term budgetary and financing risks stemming from Italy's exceptionally high level of debt." Although negative surprises on the way to consolidation cannot be excluded, we think that the higher yields in Italy are still interesting in order to attract inflows and limit the widening of spreads.

Figure 5: 10-year bond yield spreads vs. Germany (bps)



Source: Deutsche Bank AG, LSEG Datastream; Data as of October 25, 2024.

USD credit: More of the same!

With the growth scare that caused a jump in credit spreads in early August now seen as rather a kneejerk and temporary reaction by the markets, it is time to take stock of the outlook for the USD credit markets. Will the recession fears materialise or are they just reading too much into what is a manageable slowing of the U.S. economy?

We find more weight in the second assessment. Admittedly, the data has eased with the labour market slowing enough to trigger the famed Sahm rule. But this rule doesn't consider the overheated levels the labour market is coming from, or how immigration has caused an increase in job seekers. There aren't mass layoffs, and job growth is still positive. In essence, what we see is a normalization of the U.S labour market rather than an outright deterioration, a view that was just recently confirmed by a much stronger than expected September labour

market report. Therefore, we aren't as concerned about the economy as some others might be.

We expect a couple of quarters with declining growth before a reacceleration next year, an environment that is likely to remain supportive for credit markets.

This outlook isn't much different to our previous expectations and doesn't change our long-held take on the USD credit markets. Both USD IG (Bloomberg U.S. corporate investment grade index) and USD HY (Bloomberg U.S. corporate high yield index) continue to trade at significantly tight levels of 84bps and 319bps, respectively. We maintain our view of the last few months that, at these spread levels, we don't see much of a compression return going forward, but we don't see material widening risks either. We think, USD credit markets remain attractive in terms of the carry-driven total return potential.

Over January-August 2024, around USD 1.15tn of IG gross supply has come to the market, the highest for this period since 2020. The same trends are true for net issuance. Nevertheless, the fact that spreads have been largely able to trade at sub-100bps levels YTD, despite significant supply and a 100 bps yield decline since April, is a testament of the strong underlying demand for USD IG. Fund flows remain strong with no single month of net outflows this year so far until August. Additionally, the high credit quality of the IG market is likely to appeal to investors during likely future periods of concern around economic growth.

Figure 6: Spreads to U.S.-Government bonds



Source: Deutsche Bank AG, LSEG Datastream; Data as of October 25, 2024.



With the Fed embarking on rate cuts, at least some rotation is expected out of the U.S. money market funds, which have seen their assets rise by USD 1.5tn since the beginning of 2023. Some of this money is likely to be deployed in higher duration asset classes such as the USD IG. Demand from insurance funds is likely to stay elevated, despite the decline in yields to fund annuities that have seen strong inflows since Covid.

Fundamentally, the IG market remains in decent shape with every month in 2024 seeing a net ratings upgrade in the IG segment. Net leverage has largely moved sideways over the past few quarters albeit at the higher levels that it has settled into since 2020. Although the interest coverage ratio has continued to weaken, it is not at levels that will cause significant concerns for the USD IG investors. The weakening of the debt servicing capacity has been a bigger concern for the HY space, however results from the recent quarter suggest a slight improvement in this ratio while the net leverage for HY issuers remained stable close to its lows of the past 10 years. Nonetheless, margins continued to compress for HY firms. The August issuer-weighted trailing 12-month HY default rate fell to 2.5%, the lowest since April 2023. Additionally, rate cuts should ease refinancing conditions for stressed issuers to some extent. A yield of 7.3% has drawn strong inflows into HY funds so far this year. While the all-in yield seems highly attractive in absolute terms, we have concerns about the spread on offer. Risks may have come down, but they have not declined enough to justify a compensation of 320 bps above similar maturity Treasuries.

EUR credit: Attractive despite subdued economy!

Like USD credit markets, recovery in the EUR credit markets has been underway since the sell-off in early August. The spread on the EUR IG (ICE BofA EUR Corporate Index) has recovered to 102bps compared to 111bps before the sell-off and the high of 127bps during the sell-off. Similarly, EUR HY (ICE BofA Euro Non-Financial High Yield Constrained Index) stands at 324bps compared to 369 bps at the beginning of August and the peak of 413bps during the turmoil. While many were focused on this recovery, EUR IG crossed 500 days of bull market. This has happened despite it weathering the ripple effects of not just the growth scare of early August but also the French election-induced volatility and Eurozone growth concerns. On the economic front, multiple challenges remain. Chinese growth concerns always find their way into European business sentiment, the European manufacturing sector is significantly subdued and inflation (especially at the wage level) remains sticky.

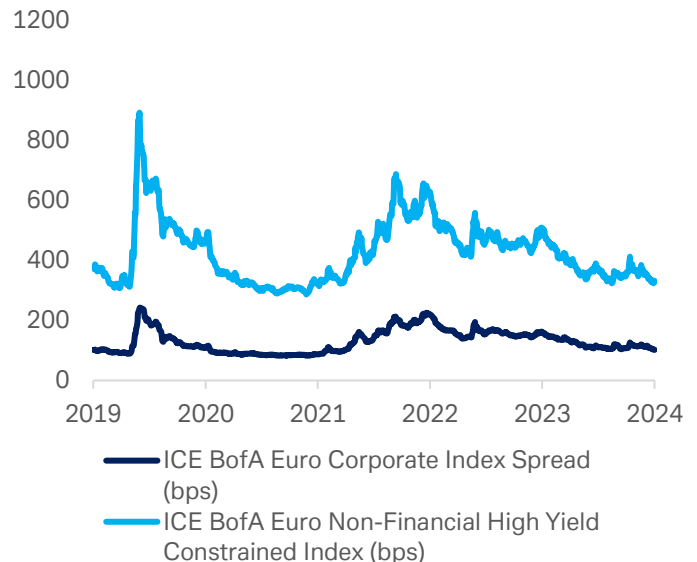
However, the lack of eye-catching economic growth numbers is not a pre-requisite for credit markets to perform. This should be evident from the fact that the EUR credit markets have produced slightly higher excess returns over similar-maturity government bonds than have their USD counterparts in local currency terms this year. Rather, a benign economic growth environment, like the one we expect, should be good enough to attract strong demand. There is a significant percentage of bonds that yield lower than the ECB deposit rate. ECB rate cuts and the accompanying steepening of the Bund yield curve should therefore support demand for yield across the IG markets.

Income statement fundamentals were positive in the Q2 earnings season for EUR IG. Revenue growth turned positive after three quarters in negative territory while EBITDA grew for a second straight quarter. Similarly, balance sheet fundamentals showed improvement. Cash holdings increased for a second straight quarter while there was little change in net leverage. Credit upgrades are running at three times that of downgrades.

Gross supply over January-August was running ahead of the last year's levels by around 15%. Demand for this supply is also strong with a book coverage ratio of close to 3x. Strong YTD inflows have been recorded in EUR IG funds, approximating to around 10.5% of AuM at the beginning of the year, with not a single month of outflows over the past 12 months. We expect inflows to continue as the attractive carry continues to dominate the EUR credit markets, much like their counterparts across the Atlantic.

There is similarly a strong carry potential in the HY market. In addition, rate cuts provide further support for HY, by easing the financial distress for troubled firms. However, there are several factors that could widen spreads. Some of the new issues carry weak covenant protection which is not really reflected in tight current spread levels. Also, the lower-rated issuers are still struggling under the weight of higher rates, with CCC as a proportion of EUR HY market at its highest in more than 10 years. Default rates are likely to remain elevated as some of these issuers are unable to refinance. Rate cuts will also not reverse the damage already caused by high rates and weak profitability over the past few quarters. Therefore, current spread levels need to rise to reflect the risks still prevalent.

Figure 7: Spreads to Eurozone government bonds



Source: Deutsche Bank AG, LSEG Datastream; Data as of October 25, 2024.



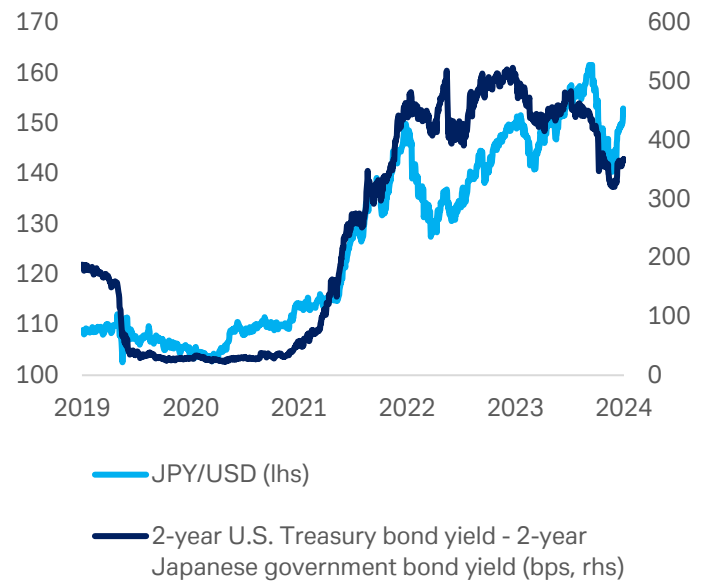
Japanese bonds: Slow and steady

2024 has seen Japan end an historic era of negative interest rates with its first rate hike in 17 years. Short-term interest rates were increased to 0.1% in March and 0.25% in July. The appreciation of JPY against USD due to July's interest rate hike by the BoJ, along with the expectation of rate cuts in U.S. over recession fears, amplified market turbulence. Investors who had borrowed in JPY and invested these funds in higher yield assets in other currencies, liquidated these trades given the adverse price movements. The liquidation of these positions caused some short-term dislocations in various markets.

On September 27, Shigeru Ishiba was elected as Japan's new Prime Minister. He surprised the markets by stating that "the economy wasn't ready for further rate hikes" but later clarified that he would not interfere in the BoJ's decisions. Political uncertainty in Japan also intensified after the new PM announced that he would dissolve the lower house of the Parliament and declared a snap election. In the election, Japan's ruling Liberal Democratic Party (LDP) lost its majority and needs to form a coalition government. The outcome raises uncertainty on policies and BoJ rate hikes due to power sharing with smaller parties. The USD/JPY crossed the 150 mark and is likely to remain under pressure from the widening interest rate differential with the U.S.

Bank of Japan Governor Kazuo Ueda, at his last MPC meeting (in September) kept the policy rate unchanged at 0.25%. During the meeting he highlighted that private consumption – which accounts for more than half of the Japanese economy – has improved from 'resilient' to a 'moderate increasing trend' (0.9% vs. -0.6% QoQ) despite the impact of price rises, but also spoke about some concerns due to uncertainty about overseas economy activity (especially U.S. and Chinese), developments in commodity prices and political uncertainties. Japan's GDP grew by an annualised 2.9% in Q2 from -2.3% in the previous quarter due to strong trends in wages and expenditure (personal and corporate). Inflation in Japan decreased to 2.5% in September from 3.0% in August along with a core inflation (excluding fresh food) slowdown to 2.4% in September – after hitting a six-month peak of 2.8% in August – which was mostly due to a rollout of energy subsidies. We expect medium-to long-term inflation expectations to rise, given a virtuous cycle between wage growth and price increases. In 2025, we expect inflation and GDP growth to average 2.0% and 1.2% respectively. Given the BoJ's dovish stance our 12-month targets (September 2025) for 2-year and 10-year JGB yields are 0.70% and 1.4% respectively.

Figure 8: Yield spread and Japanese Yen vs. U.S.-Dollar



Source: Deutsche Bank AG, LSEG Datastream; Data as of October 25, 2024.

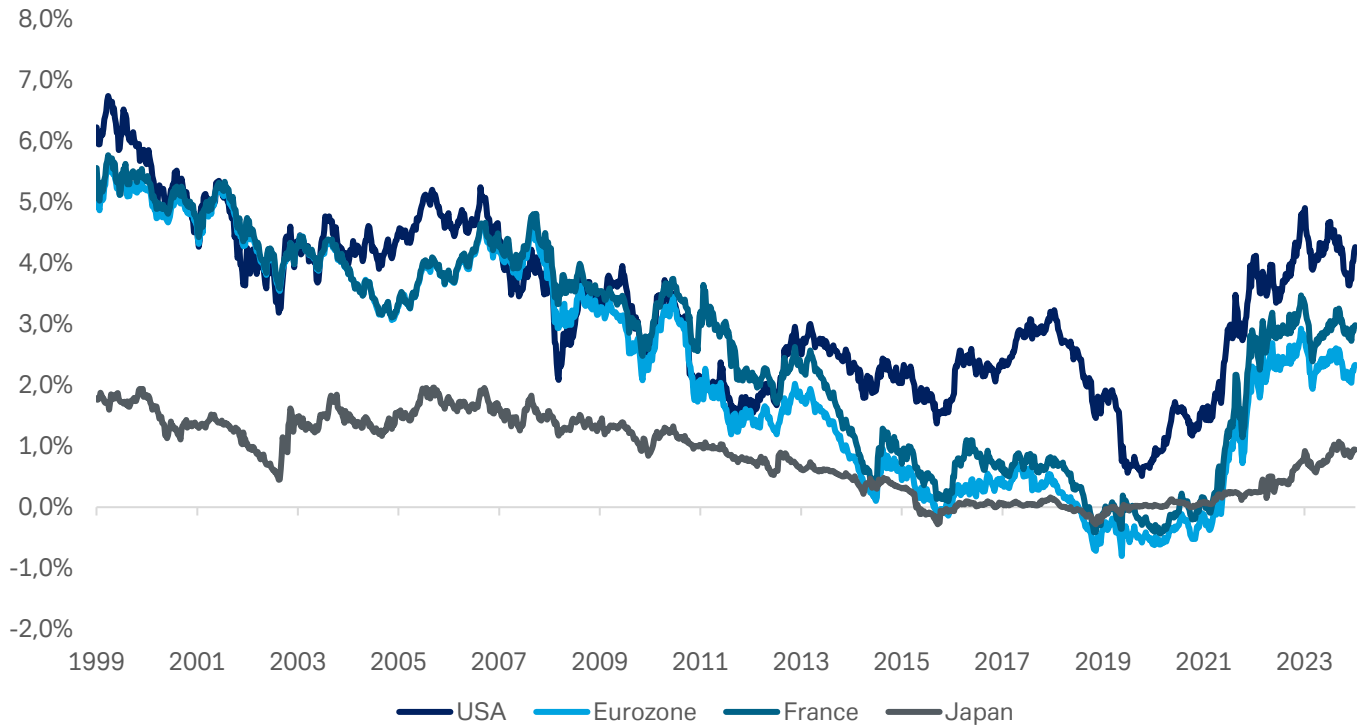
Conclusion

After the external shocks caused by the pandemic and the Russian invasion of the Ukraine, central banks have successfully brought down inflation rates. Central banks now have scope for rate cuts at their disposal. Bond markets reacted to slower economic growth and lower inflation rates with government bond yields falling.

However, given the fiscal policy responses to prevent economies from falling into recession, the external shocks had some longer-term effects on government finances. Public deficits increased and debt levels rose. The climate crisis, energy transformation and many other necessary structural reforms require additional funding. This year's elections with changes of government increase uncertainties and doubts about whether the new governments will be able and willing to adopt disciplined expenditure approaches required to prevent public finances from worsening further. In this environment, government bond investors stay cautious and react sensitively to any changes in inflation rates or public finances. Volatility on bond markets seems likely to stay elevated. Risk-averse investors therefore should avoid bond investments in longer term maturities and concentrate on the short to medium term segments of the yield curve.



Figure 9: Yield on 10-year government bonds (%) over the past 25 years



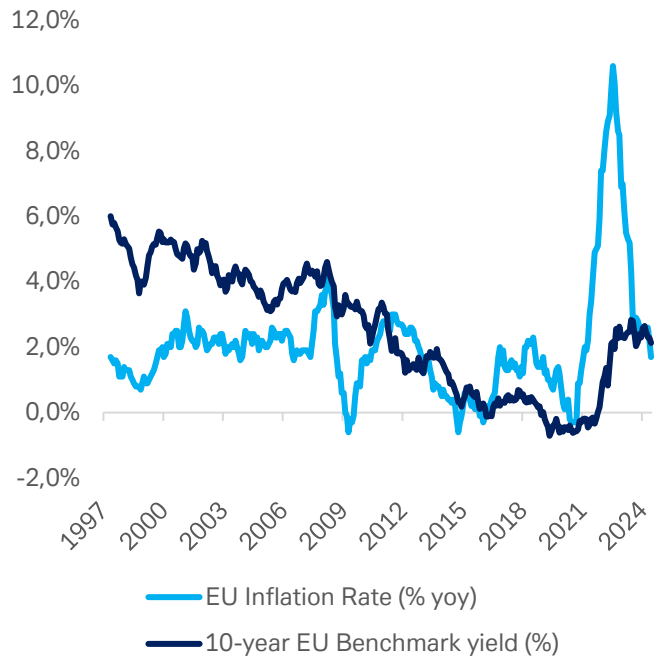
Source: Deutsche Bank AG, LSEG Datastream; Data as of October 25, 2024.

Figure 10: Yield on 10-year US Treasury bonds and inflation rate



Source: Deutsche Bank AG, LSEG Datastream; Data as of October 25, 2024.

Figure 11: Yield on 10-year Eurozone government bonds and inflation rate



Source: Deutsche Bank AG, LSEG Datastream; Data as of October 25, 2024.



Performance over the past 5 years

| Performance | 25.10.2019 - 25.10.2020 | 25.10.2020 - 25.10.2021 | 25.10.2021 - 25.10.2022 | 25.10.2022 - 25.10.2023 | 25.10.2023 - 25.10.2024 |
|---|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|
| 10 year U.S. Government Bonds | 12,1% | -4,5% | -17,7% | -2,9% | 9,9% |
| 2 year U.S. Government Bonds | 3,3% | -0,2% | -4,2% | 2,2% | 6,0% |
| 10 year EMU Benchmark Bonds | 2,2% | -4,0% | -17,7% | -2,9% | 7,6% |
| 2 year EMU Benchmark Bonds | -0,5% | -0,9% | -3,7% | 0,8% | 3,4% |
| 10 year U.K. Government Bonds | 4,2% | -6,5% | -17,4% | -5,0% | 8,4% |
| 2 year U.K. Government Bonds | 0,8% | -0,7% | -4,4% | 1,2% | 5,1% |
| 10 year Japanese Government Bonds | -1,5% | -0,1% | -0,7% | -1,8% | 0,8% |
| 2 year Japanese Government Bonds | -0,3% | -0,1% | -0,2% | -0,1% | -0,2% |
| 10 year German Government Bonds | 2,2% | -4,0% | -17,7% | -2,9% | 7,6% |
| 2 year German Government Bonds | -0,5% | -0,9% | -3,7% | 0,8% | 3,4% |
| ICE BofA Euro Corporate Index | 1,4% | 0,3% | -15,4% | 3,8% | 10,0% |
| ICE BofA Euro Non-Financial High Yield Constrained Index | 0,8% | 7,1% | -15,2% | 10,3% | 14,0% |
| ICE BofA Euro Financial Index | 1,1% | 0,6% | -13,6% | 4,3% | 10,1% |
| ICE BofA Euro Non-Financial Index | 1,5% | 0,1% | -16,5% | 3,4% | 10,0% |
| Bloomberg U.S. Corporate IG Index | 8,3% | 1,2% | -20,0% | 3,2% | 14,5% |
| Bloomberg U.S. Corporate HY Index | 4,5% | 9,7% | -13,3% | 7,5% | 17,6% |
| Japanese Yen to U.S.-Dollar (JPY/USD) | -3,6% | 8,6% | 30,1% | 1,6% | 1,4% |

Source: Deutsche Bank AG, LSEG Datastream; Date as of October 25, 2024.



Glossary

A **basispoint (bp)** corresponds to 1/100 percent.

Bunds are federal bonds, i.e. German government bonds.

The **U.S. Congressional Budget Office** is a federal agency that provides budget expertise and forecasts to Congress.

The **consumer price index (CPI)** measures the price of a basket of products and services that is based on the typical consumption of a private household.

Core or underlying inflation refers to a measure of inflation which excludes some volatile components (e.g. energy). These excluded components can vary country by country.

Duration measures show the sensitivity of the price of a bond to a change in interest rates, expressed in the number of years that a bond takes to be repaid through its internal cash flows.

The **European Central Bank (ECB)** is the central bank for the Eurozone.

The **European Commission (EC)** is the executive body of the European Union (EU) representing the interests of the European Union as a whole.

The **Eurozone** is formed of 20 European Union member states that have adopted the euro as their common currency and sole legal tender.

The **Federal Reserve (Fed)** is the central bank of the United States. Its Federal Open Market Committee (FOMC) meets to determine interest rate policy.

In a **Goldilocks scenario**, there is steady economic growth that prevents a recession, but not growth so strong that inflation rises sharply. A Goldilocks condition is ideal for investing because stocks perform well while companies grow and achieve positive earnings growth.

Gross domestic product (GDP) is the monetary value of all the finished goods and services produced within a country's borders in a specific time period.

High yield (HY) bonds are higher-yielding bonds with a lower credit rating than investment-grade corporate bonds, Treasury bonds and municipal bonds.

ICE BofA Euro Corporate Index and **ICE BofA Euro High Yield Index** are comprehensive and representative bond indices that track the development of investment grade and high-yield bonds denominated in EUR. To be included in the indices, a bond must have a fixed coupon, a remaining term of at least one year and a minimum volume of EUR 100 million.

An **investment grade (IG)** rating by a rating agency such as Standard & Poor's indicates that a bond is seen as having a relatively low risk of default.

OATs – in full, **Obligation assimilable du Trésor** – are French government bonds.

The ECB's **Pandemic Emergency Purchase Programme (PEPP)** is a temporary asset purchase programme introduced in March 2020 of private and public sector securities in order to counter the serious risks to the monetary policy transmission mechanism and the outlook for the euro area posed by COVID-19 outbreak

Personal Consumption Expenditure (PCE) is a price index for goods and services, particularly relevant in the context of U.S. GDP.

Risk premium refers to the return in excess of the risk-free rate of return that an investment is expected to yield. It is a form of compensation for investors who tolerate the extra risk.

Quantitative tightening (QT) is the progressive removal of monetary support through the reduction of a central bank's balance sheet.

The **S&P 500 Index** includes 500 leading U.S. companies capturing approximately 80% coverage of available U.S. market capitalization.

The **S&P U.S. Aggregate Bond Index** measures the performance of publicly issued U.S. dollar denominated investment-grade debt.

Spread on bond markets is in general the difference of the yield of two bonds with similar maturity. It can be interpreted as a risk premium.

Treasuries are bonds issued by the U.S. government.

U.S. is the United States.

USD is the currency code for the U.S. Dollar.

The **VIX Index** is a measure of equity market volatility implied by S&P 500 Index options.

Volatility measures the degree of variation of a trading-price series over time.

The **yield curve** shows the different rates for bonds of differing maturities but the same credit quality.

Yield curve inversion is a situation where longer-term bonds have a lower yield than short-term bonds.



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