



# EMEA Investment grade outlook, H2 2024

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## Executive summary

May and June saw the continuation of inflation finally beginning to come down in the US, the UK and Europe. This is expected to bring a dispersion in central bank action, with the European Central Bank making its first rate cut since 2019 in early June, taking the discount rate to 3.75%. The Bank of England is expected to follow suit but was unlikely to pull the trigger in the middle of a general election campaign.

Despite the better inflation news, the US Federal Reserve still estimates that it will only make one cut this year. At the start of the year the market expected the December Fed Funds rate to be sub-4% – that will no longer be the case.

Meanwhile, credit spreads seemed to remain immune to the volatility seen in government bonds/interest rate expectations, with investment grade (IG) spending much of the quarter in and around 100bps. In the primary market, issuance has remained robust and been met with strong demand as investors look to lock in elevated yields before the expected rate cuts later this year.

In terms of our IG outlook, we start by assessing where we are in the cycle focusing on Fundamentals (economic and corporate), Valuations, and Technicals (investor sentiment, demand and supply dynamics etc).

Historically, when several of these are headwinds to credit spreads it usually sets the pre-conditions for a spread widening environment. For example, tight monetary policy, deteriorating corporate fundamentals and tight credit spreads would set the stage for a credit spread widening environment. It doesn't mean spreads widen immediately, but it creates an environment in which wider credit spreads are more likely than not.

Currently monetary policy and valuations are not supportive, but importantly corporate fundamentals are.

We acknowledge that as liquidity is being taken out of the financial system (made more scarce/expensive) via higher interest rates and quantitative tightening, this can put pressure on the financial system. We saw signs of this with the events surrounding the regional banks in the US and with Credit Suisse/UBS, which highlighted some vulnerabilities on the liability side which have not been addressed by regulators. The majority of the regulatory changes since the global financial crisis (GFC) have been focused on the assets side of the balance sheet, ie capital requirements, but little has been done to improve the liability side of things. Additionally, we acknowledge a potential rebound in mergers and acquisition (M&A) activity after a slow 2023 as a risk to our stable credit fundamental outlook.

The combination of lower growth, an uncertain geo-political backdrop, restrictive monetary policies and rich valuations reduces the ability of the asset class to absorb external shocks or policy error.

Valuations have moved a long way since the wises in 2022, but it is important to note that credit spreads can spend an extended period of time below their long-run average and median levels.

Consequently, we have reduced the overall credit risk in our funds – close to neutral – but the solid supply/demand backdrop and corporate fundamentals keep us from having a more negative outlook.

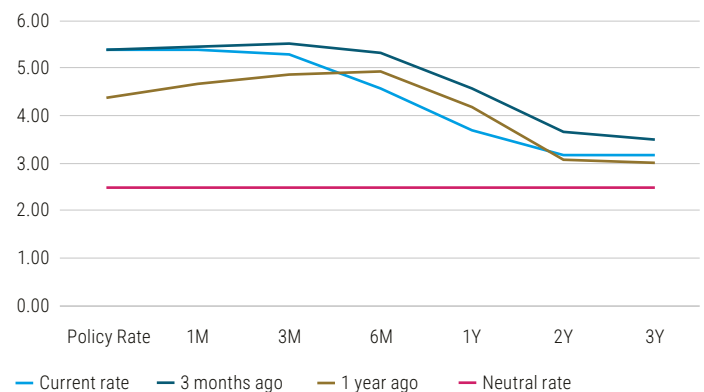
## Macro backdrop

### Monetary policy

Since 2022, central banks have taken monetary policy into restrictive territory in order to combat inflation after a decade of low interest rates and the reopening of the economy following the global Covid-19 pandemic.

Global financial markets are expecting cuts in 2024 (Figure 1). However, the timing and size of those cuts is heavily debated and has caused big swings in financial markets. Despite the short-term changes in expectation, the big picture remains that interest rates are elevated, economic activity is slowing and inflation is falling.

Figure 1: USD rate expectations

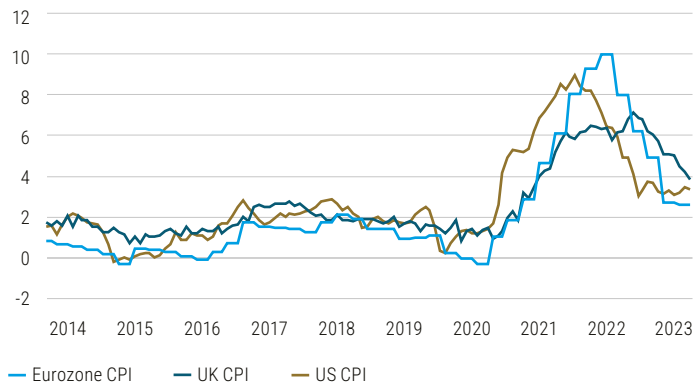


Source: Bloomberg and Columbia Threadneedle Investments, May 2024

Elevated interest rates also reduce money supply by making access to credit more expensive. Quantitative tightening (QT), the unwinding of quantitative easing, is also removing liquidity from the financial system. These conditions are aimed at bringing inflation back to the 2% target, and since late 2022 it has been falling (Figure 2).



Figure 2: Inflation



Source: Macrobond and Bloomberg, May 2024

By increasing interest rates, central banks pushed real yields (nominal interest rates minus inflation) above long-run averages from very depressed levels. As inflation started to show signs of falling, central banks were able to pause in their hiking cycle and monitor the effects on the economy. These impacts are not immediate and the lag changes over time.

As a result, real rates have stabilised at, or just above, their long-run averages of around 2% in the US and 0.25% in Europe.

If inflation continues to fade, central banks will likely be in a position to cut rates. This is because, if they keep rates unchanged real yields would actually drift higher into a slowing growth and falling inflation environment – pushing even harder on the brakes as the economy slows.

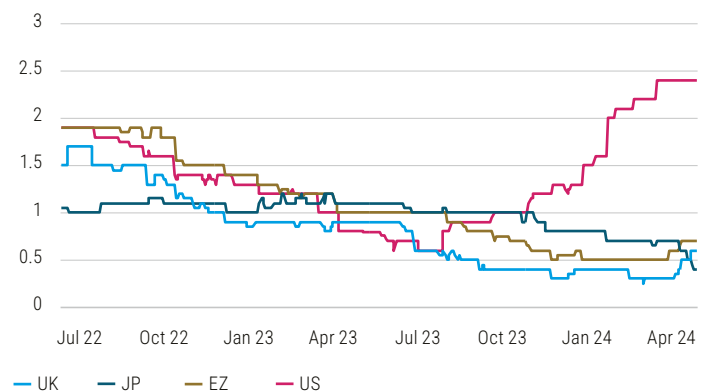
<sup>1</sup> Macrobond and Bloomberg, May 2024

In our opinion, higher rates, lower money supply and real yields at long-run averages mean monetary policy remains restrictive.

### Economic growth

Restrictive monetary policies have been a headwind to growth. Until Q4 2023, consensus was for a soft-landing in both Europe and the US with growth expected to be around 0.5%-1%. Following the surprise GDP print in that quarter, consensus for US growth has been pushed back up above 2% but in Europe and the UK remains around 0.5% (Figure 3).<sup>1</sup>

Figure 3: Growth expectations



Source: Macrobond and Bloomberg, May 2024

Despite this, consensus for 2025 is for a resumption of the slowdown in growth. Low, but positive, growth is OK for credit.

# Fundamentals

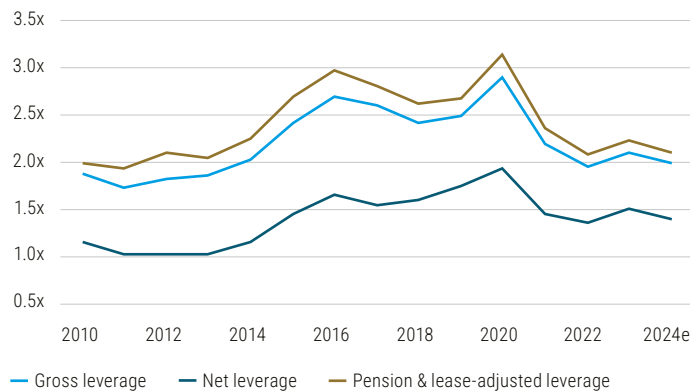
## Corporate fundamentals

We aggregate all our analysts' individual models to get an overall trend across our coverage universe – ie this is not based on an index, but rather our coverage and represents approximately 80% of the risk in EUR, GBP and Global IG indices.

Leverage is expected to be flat for European issuers, and to improve in the US. In both regions, we forecast leverage to remain around 10-year lows.

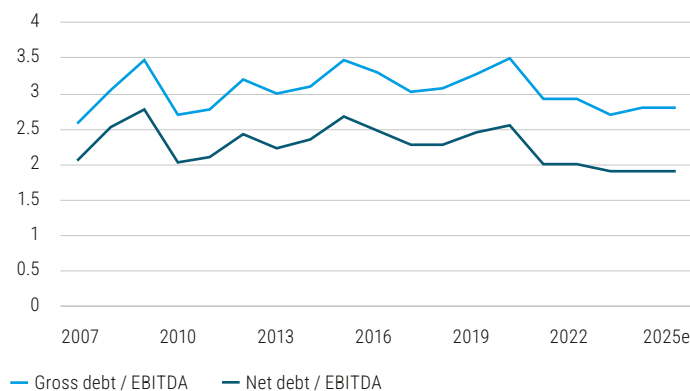
Q1 2024 results came in better than expected. In the US we forecast +2% revenue growth for this year and +3.4% for next year, taking leverage from 1.5x to 1.4x and 1.2x next year. In Europe, we also upgraded our revenue forecasts for this year from 0% to +1.8% and +2.4% next year. Leverage came in at 1.9x versus 2x expected, and we anticipate it will stay there for the next two years (Figures 4 and 5).

Figure 4: US coverage leverage



Source: Columbia Threadneedle Investments, May 2024

Figure 5: European coverage leverage



Source: Columbia Threadneedle Investments, May 2024

<sup>2</sup> Amgen, Amgen completes acquisition of Horizon Therapeutics PLC, 6 October 2023  
<sup>3</sup> Pfizer, Pfizer Completes Acquisition of Seagen, 14 December 2023

In 2023, interest coverage was around 11x in both US and Europe, down from 15x in 2021-22. It is expected to be flat in Europe and tick up to 13x in the US over next two years.

With leverage low and forecast to be flat to improving, and interest coverage remaining high, this is supportive for credit spreads.

### Here we drill down into what is driving this at a sector level:

#### Telecoms

The higher inflation environment has helped telcos to push through price increases – often phone and broadband contracts are linked to consumer price inflation (CPI). Better prices are driving improved margins. At the same time, the roll-out of fibre across Europe is moving closer to completion, which means future capex requirements will be lower.

Higher margins and lower capex mean better free cashflow, which we believe management teams will use to reduce leverage.

#### Healthcare

There has been a lot of M&A in big pharma recently. For example, Amgen's purchase of Horizon<sup>2</sup> and Pfizer buying Seagen<sup>3</sup>. These transactions included debt funding, which contributed to leverage at the sector level increasing from 1.2x at FY22 to 1.6x at FY23.

While there are still some pharma companies that need to supplement their product portfolios or pipelines, the sector is now in deleveraging mode. We expect leverage to fall by 0.6x to 1x by FY25.

#### Real estate

The real estate sector suffered throughout 2022 and 2023 as central banks increased interest rates. Property values declined and leverage increased sharply.

Now that the interest rate picture is more stable, the market for property transactions is reopening. Over the next two years we think European property companies will make disposals, which will improve cash balances and reduce leverage. We may also see companies continue to buy back debt – this is good for us as creditors.

Performance of real estate companies differs materially by country and property specialisation. We think bonds issued by German office and residential real estate companies are in a particular sweet spot here.



### Media

We like the stability and resilience of cashflows at the information service providers and advertising agencies. This sector is also well placed to unlock the benefits of artificial intelligence (AI). It should generate new revenue streams and enhance productivity.

We are not expecting the sector to deleverage but think management teams are committed to leverage targets.

### Industrials

Here the outlook is strong owing to secular trends like electrification and digitalisation as well as tailwinds from onshoring and massive infrastructure spending. We expect IG industrials under our coverage to deleverage from 1.9x at FY23 to 1.5x by FY25.

### Consumer goods, retail and autos

We are more cautious in these sectors. We are concerned about input costs remaining high and weaker consumer demand leading to margins trending flat to lower. What's more, many companies in these sectors are at target leverage levels, so we are not expecting further balance sheet improvement.

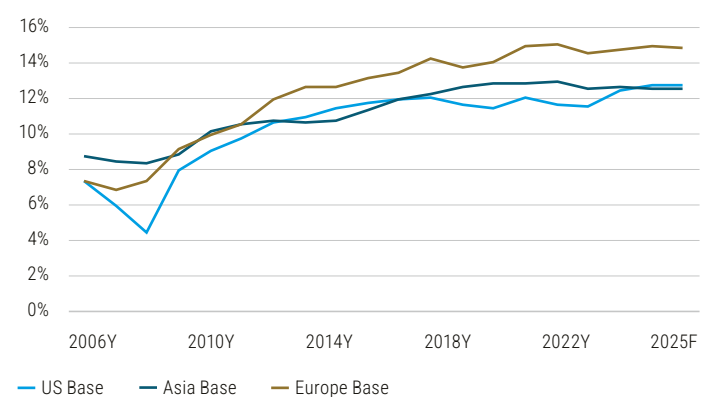
### Bank fundamentals

Banks account for about 35% of the risk in the credit index. Capital is plateauing at multi-decade highs, driven by regulation (Figure 6). European banks are around 400bps ahead of regulatory minimums and US banks are preparing for yet higher minimum standards.

Asset quality remains robust with cost-of-risk forecasts (a forward-looking measure of losses from lending) at normalised levels globally. The primary driver of future credit losses is unemployment. Labour markets are forecast to remain robust, so expectations of losses from bad lending are benign.

However, we are headed into an uncertain time for bank liquidity as QT continues. Quantitative easing (QE) pumped around \$10 trillion into the US, UK and eurozone systems over a decade. Central banks are now a year or so into withdrawing that liquidity. They are proceeding with caution but, given the problems at the US regional banks and Credit Suisse in 2023, we are keeping an eye on developments.

Figure 6: Bank CET1



Source: Columbia Threadneedle Investments, May 2024

### What about M&A?

M&A is often difficult to predict. As the interest rate picture becomes more stable, we are alert to the possibility of a cyclical upswing in M&A after a slow 2023. We have already seen activity this year in the banking and mining sectors.

To conclude on corporate fundamentals, while we acknowledge the potential for a rise in M&A and/or a liquidity hiccup for the banking sector, we think corporate fundamentals are strong. In

several sectors, balance sheets are improving. This was one of the main reasons we remained overweight credit beta in 2022 and 2023.

## Valuations

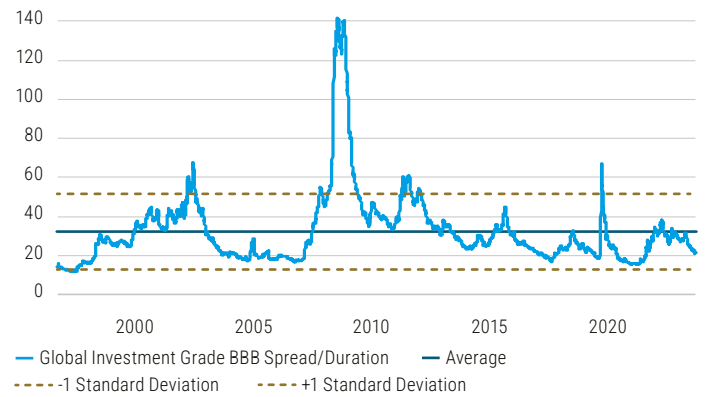
There are many ways to assess the relative value of credit spreads. Given the mean-reverting nature of the asset class, looking back through history is typically the starting point. We have 50 years of data from US dollar IG spreads (Figure 7). Over time global corporate credit spreads average around 125bps. However, note that spreads spend most of their time being a bit rich to that long-run average, with periods of aggressive widening (2008-09, 2011, 2015, 2020, 2022), which highlights the asymmetric nature of credit.

A better way to look at it, in our opinion, is to adjust for composition changes over time to take into account that credit quality and the duration of the index changes over time. One way to do this is to look at the spread per unit of duration on the BBB sub-segment of the index, which you can think of as the break-even spread that would cancel out the carry from investing in credit over government bonds (Figure 8).

On this metric, global IG is about 0.6 standard deviations rich, driven by USD IG spreads 0.7 standard deviations rich and EUR spreads about 0.3x rich. In 2022, the discrepancy between EUR and US dollar-denominated credit spreads reached rather stretched levels (see Credit themes) partly driven by an increase in systemic risk premium in Europe versus the US, and by the war in Ukraine and the subsequent natural gas crisis in Europe. This can be seen in the difference between the yield on swaps and German government bonds. The so-called swap-spread on a 5-year in EUR has ranged between 0.10% and 0.50% (the post-GFC lows are closer to 0.25%); during 2021 this differential rose to 1%.

The purest expression of corporate credit spreads is to look at asset-swap spreads (the yield differential between corporate bonds and swap rates) for the BBB sub-segment per unit of duration (Figure 8). On this basis, global corporate spreads are 0.4 standard deviations rich.

Figure 8: Global BBB spread / duration

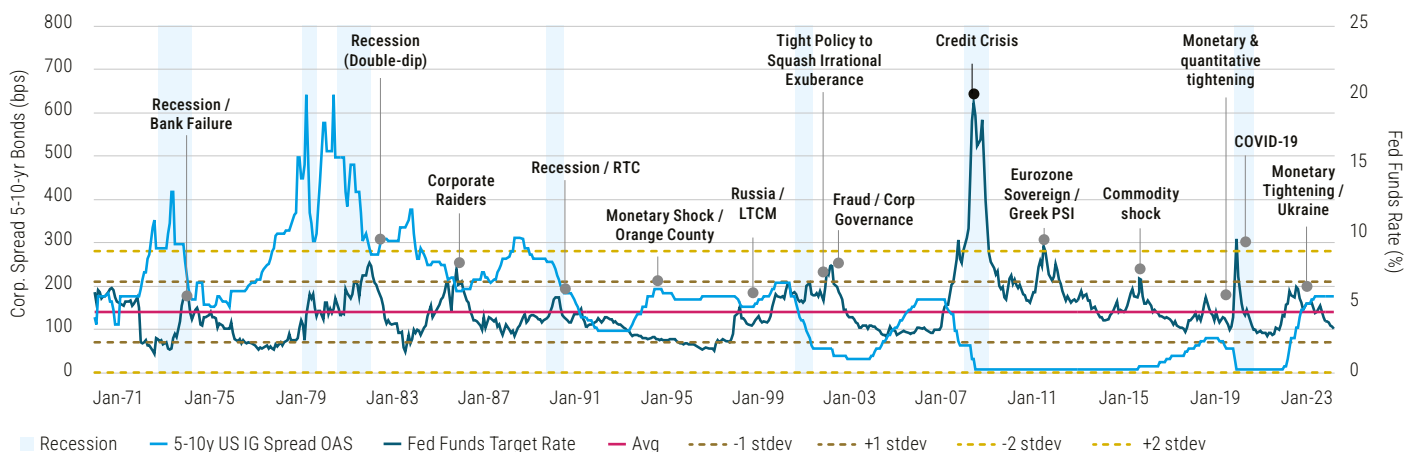


Source: : Macrobond, BofAML Indices and Columbia Threadneedle Investments, May 2024

In assessing the relative value we should also consider the distribution of credit spreads across various spread buckets – ie how much of the index is trading at various spread levels. Despite the overall index looking 0.4x rich, there is still a decent amount of dispersion, suggesting bottom-up opportunities remain with some sectors still screening as attractive (see Credit themes).

At an asset class level, spreads make up only part of the all-in-yield in IG. With the yield on Global IG around 5%, this is clearly more attractive than three years ago when it was 1.3%. These higher yields make it more likely the asset class can retake its role as a diversifier within multi-asset portfolios after a decade of low yields limiting that ability.

Figure 7: Long-term USD IG spread



Source: Bloomberg, Merrill Lynch, C6A0 index, May 2024

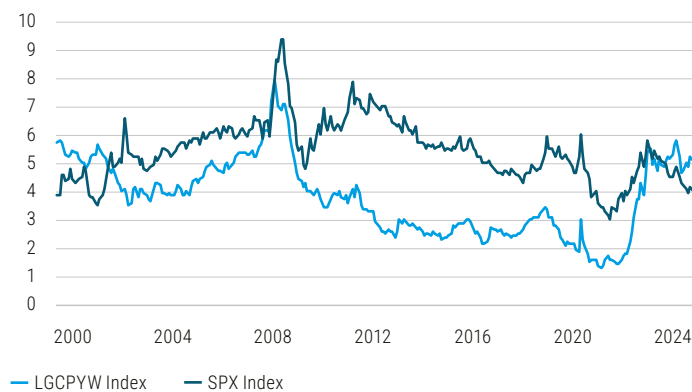
## Sentiment and technicals

### Supply/demand

A useful measure of the supply-demand balance is to look at net issuance of IG bonds in the primary market (as a measure of supply) minus fund flows into IG ETFs and mutual funds (a measure of demand). When European IG and HY flows are combined, on a rolling 60-day average basis over 10 years, things look good relative to history – albeit a little weaker recently.

Probably the most important metric to demonstrate the technical picture is the yield offered by IG credit relative to equities. The picture here is as good as it has been for 20 years! Yields on global credit are around 5% versus the earnings yield on the S&P 500 which is around 4% (Figure 9).

Figure 9: Global IG yield vs S&P500 earnings yield



Source: Bloomberg and Columbia Threadneedle Investments

Another useful measure is to look at demand for duration assets from pension funds. Figure 10 demonstrates that pension funds are now fully funded, with assets greater than liabilities. Managers will now want to lock-in that funding ratio. To do this, they either buy short-dated credit and receive fixed-on long-dated swaps, or they buy long-dated credit. This has the effect of making swaps and credit tighter relative to Treasuries – providing a strong technical support to IG.



Yields on global credit are around 5% versus the earnings yield on the S&P 500 which is around 4%

Figure 10: Pension fund funded status



Source: Bloomberg and Columbia Threadneedle Investments, May 2024

### Volatility indicators

We look at various volatility indicators to assess the premium investors are willing to pay for protection from adverse market movements and use this as a gauge of the broader investor risk appetite. This is also because owning a corporate bond can conceptually be seen as economically equivalent to owning a risk-free bond and having sold a put-option on the assets of that same company.

On this basis, we note that implied volatility in IG credit and equity markets are below their respective long-run averages and elevated in US Treasuries. This is likely because the outlook for interest rates remains uncertain – although still in line with levels before QE started. We view these conditions as indicative of a lower-than-average risk aversion and supportive for IG spreads. Note, that long periods of low volatility could be seen as a contrarian indicator that encourages leverage and more risk-seeking behaviour. We do not consider that a significant risk at this point.

## Credit themes

### EUR versus USD

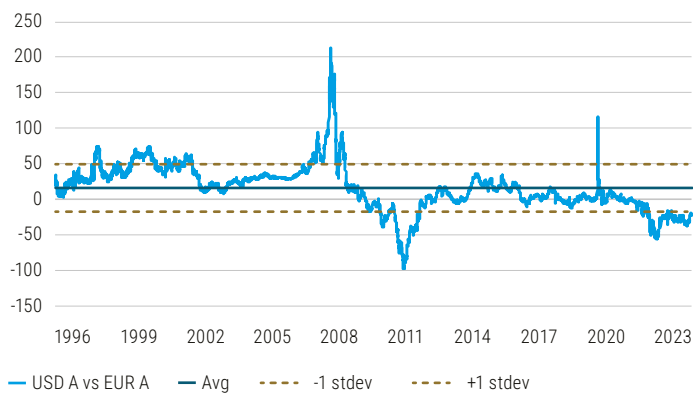
A big theme in IG in 2022 was the underperformance of EUR-denominated credit spreads versus those denominated in US dollars.

In June 2022, the USD single-A-rated index was about 2.3 standard deviations rich to EUR – the same as it was for BBB. You might have argued that with a war in Ukraine and a natural gas crisis the outlook for European growth was more challenged. Interestingly, however, high yield (HY) outperformed IG in Europe. Given HY is more sensitive to economic growth, this would suggest it wasn't driven by concern over economic growth; rather it was more likely driven by a combination of the way investors allocate to IG – rather than allocating globally, the majority of IG assets are invested locally – and a rise in systemic risk in Europe compared to the US. This did create attractive relative value opportunities – for example,



bonds from the same issuer were, in some cases, 100bps cheaper in EUR than in USD. Most of these cross-currency opportunities have since corrected, but at an index level EUR remains a bit cheap to USD IG credit spreads (Figure 11).

Figure 11: USD single-A credit spreads vs EUR



Source: Bloomberg, BofAML Indices and Columbia Threadneedle Investments, May 2024

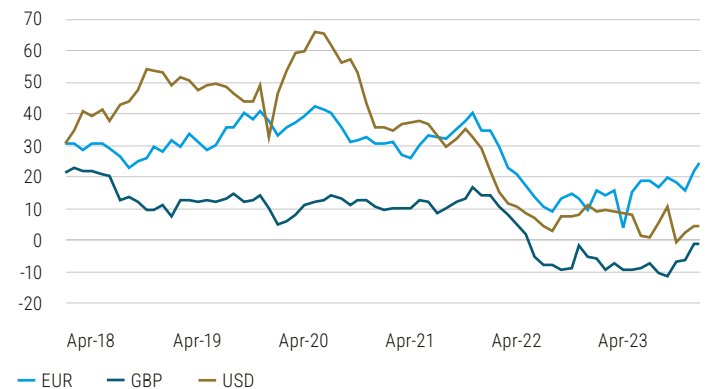
### Shape of credit spread curves

An interesting theme within IG has been the flattening of the credit curves – the spread differential between bonds of different maturities from the same issuer in the same currency. You would normally expect credit curves to be upward sloping to compensate for the additional uncertainty of investing in longer-dated bonds.

To measure and monitor this we have matched 10-year bonds with 20-year bonds from the same issuer and currency, and tracked the spread differential over time.

Part of this flattening is driven by corporate treasurers preferring to issue shorter-dated bonds to avoid locking-in elevated yields for longer and preferring to wait for yields to fall. The opposite is true of investors: we have noticed a desire to increase duration to capture higher yields for longer and a way to do that is to invest in longer-dated bonds. Moreover, following the rise in yields since these bonds were issued, a big portion of long-dated bonds now trade at much lower cash prices than the more recently issued short-dated bonds. All else being equal, investors would prefer a low cash price bond over one priced at par. This is because in the case of a default the loss-given-default is lower, and in bond-maths lower cash price bonds are more sensitive to changes in interest rates (higher convexity). As a result, we have seen demand for long-dated bonds outstrip supply. So far this year there have been tentative signs of that reversing (Figure 12) but curves remain flat.

Figure 12: 10s and 20s credit spread curves



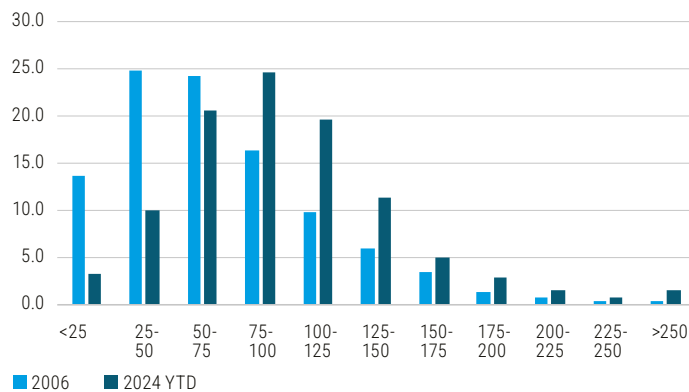
Source: Bloomberg, BofAML Indices and Columbia Threadneedle Investments, May 2024



## Banks versus corporates versus utilities

Even though credit spread indices look a bit rich versus their long-run averages, under the hood there is still a decent amount of dispersion (Figure 13).

Figure 13: Global IG spread distribution

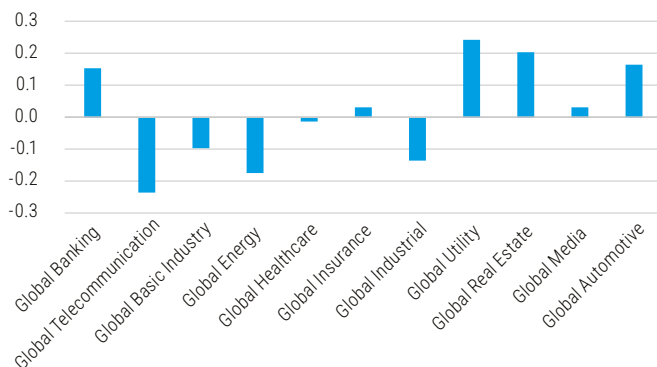


Source: Bloomberg, BofAML Indices and Columbia Threadneedle Investments, May 2024

This is supportive for bottom-up driven investment processes looking to capture alpha opportunities between sectors, issuers or even between bonds from the same issuer – without taking a top-down view on the direction of credit spreads.

If we zoom in one step further, we can see dispersion at a sector level as well with banking, utilities, real estate and automotive sectors 0.2 standard deviations cheap to the broad index (Figure 14). Clearly, corporate fundamentals in those sectors are different and expected to evolve differently, but just because IG spreads are trading a bit tight doesn't mean all sectors and all issuers within that are rich as well (see Sector thoughts).

Figure 14: Sector z-spread



Source: Bloomberg, BofAML Indices and Columbia Threadneedle Investments, May 2024

## Capital structure thoughts

Another source of alpha is exploiting differences between bonds of varying subordination (ie across the capital structure). This is most common within banks as they are required by regulation to build out layers of bonds of varying subordination. Most corporate issuers stick with senior unsecured bonds, but banks have senior preferred (SP), senior non-preferred (SNP), subordinated and junior subordinated bonds – the default probability and recovery rates vary greatly between these layers.

From 2016 to 2023, the banking sector was building out a layer of “bail-inable” debt. Typically, these bonds were SNP or senior holding company (SHC) debt. Over the eight-year period the sector added about €650 billion of these sorts of bonds to the capital structure. As SNP was being built out there was a negative technical effect due to the weight of net supply. Figure 15 (overleaf) shows how the ratio of the spread of SNP over the spread of SP has compressed over time, from 1.6x in 2018 to 1.2x now.

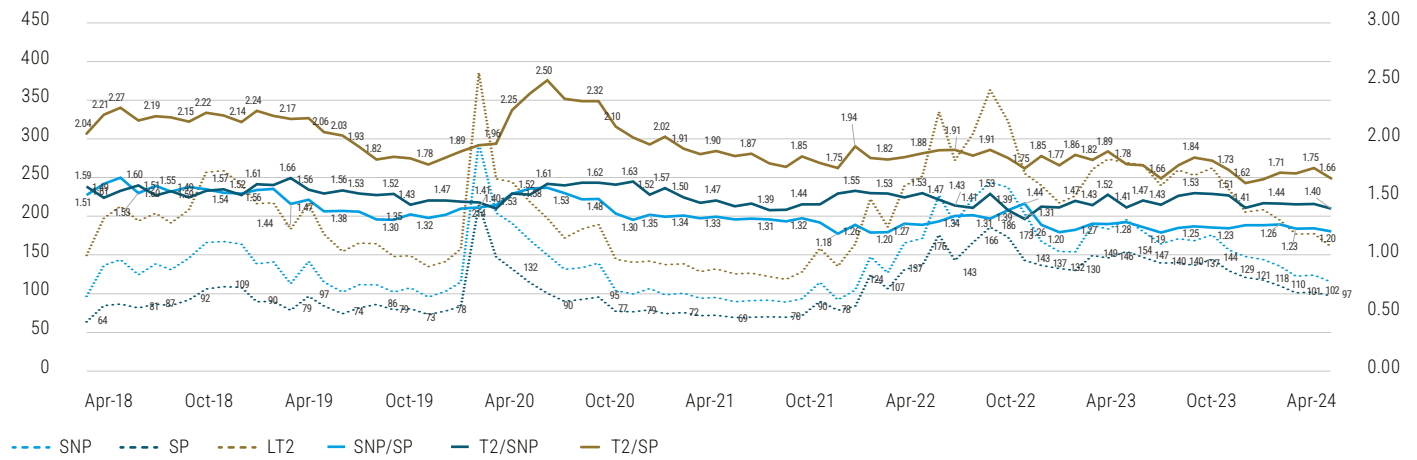
We believe bail-in buffers have now been fully built out and the negative technical effect is over. We therefore expect net supply at each layer of the capital to be low – but growing in line with nominal GDP growth.

Currently, we think the T2/SNP ratio is around fair value at 1.5x. We think fair value for the SNP/SP ratio is 1.3x, meaning the current ratio of around 1.2x indicates it is a little cheap. This is reflected in our portfolio construction.



Even though credit spread indices look a bit rich versus their long-run averages, under the hood there is still a decent amount of dispersion

Figure 15: Spread ratio across capital structure



Source: Bloomberg, BofAML Indices and Columbia Threadneedle Investments, May 2024

In terms of corporate hybrids, we assess their relative value by looking at the spread ratio to senior spreads. During the rally in the second half of 2023 that ratio compressed significantly from 4.3 to 3.3. This was due to the additional compensation demanded by investors to own subordinated corporate credit (relative to senior debt) falling sharply. We are now back at levels last seen before the Covid-19 pandemic and before the risk-off in late 2022 (see Figure 16).

## Sector thoughts

### Utilities

Partly driven by regulation, but also by the fundamental needs of society, utilities have more stable earnings and better cashflow visibility than unregulated corporations. This makes them more defensive (less cyclical). As a result, regulated utilities tend to

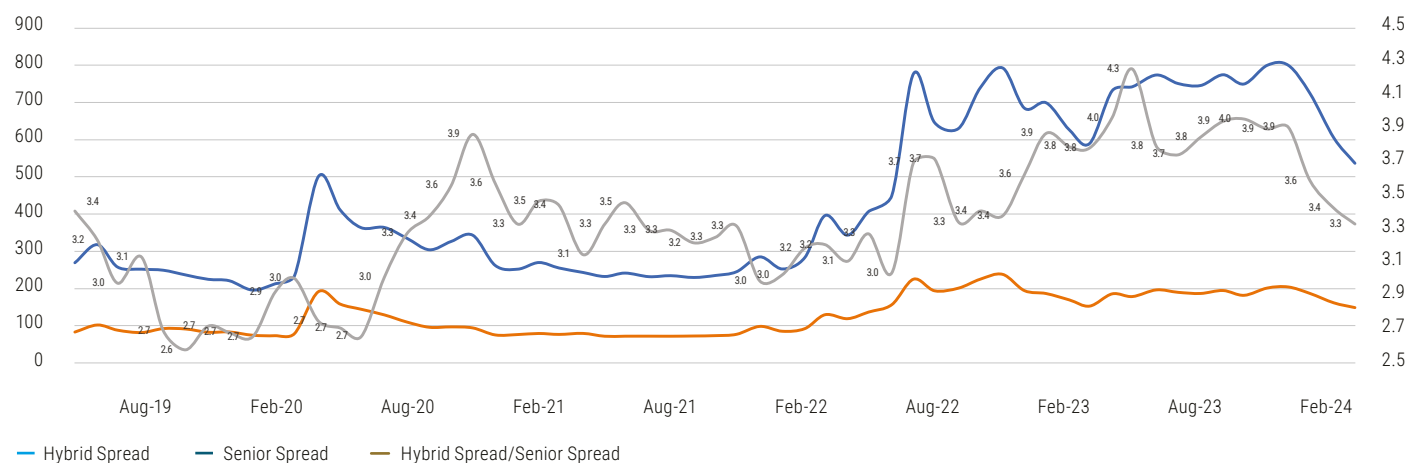
outperform the broader index in recessionary environments. Investors might be less confident about a luxury goods company's earnings or the number of new cars sold in a recession, but the demand for electricity, water and waste management is unlikely to materially change.

Figure 17 shows EUR utility spreads trading through the broad index in 2008-09, 2011, 2020 and in early 2023. Interestingly, utilities today trade cheap to their long-run average versus the broader index.

As we enter a period of lower growth, tight monetary policy and uncertain macro outlook, this is a sector we think is an attractive opportunity with which to add defensiveness to our funds.

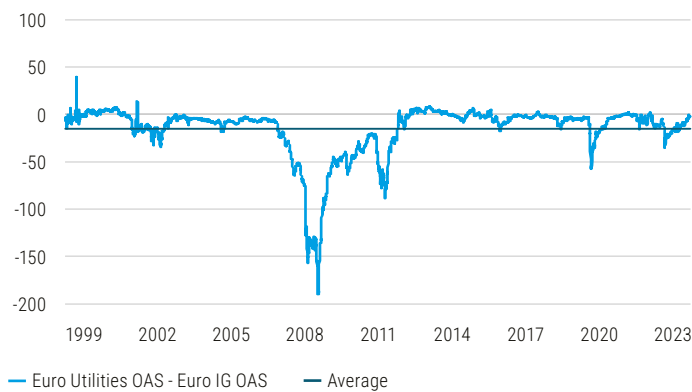
We want to own the right issuers, but to us it makes sense to also be overweight the sector.

Figure 16: Corporate hybrids



Source: Bloomberg, BofAML Indices and Columbia Threadneedle Investments, May 2024

Figure 17: EUR utilities minus EUR index



Source: Bloomberg, BofAML Indices and Columbia Threadneedle Investments, May 2024

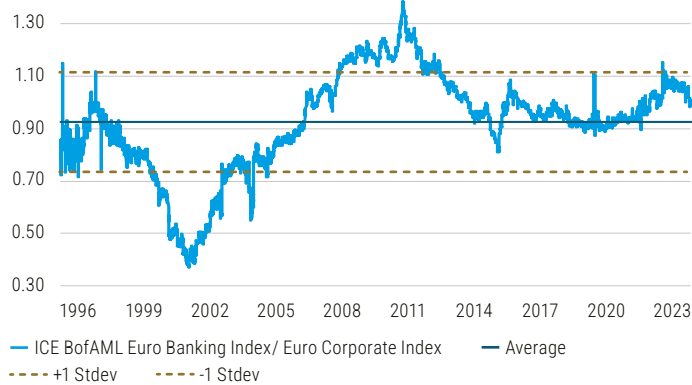
**Senior bank bonds**

Banks have traditionally been seen as cyclical – geared to the economy – but we think there are several reasons they should be less cyclical going forward.

The sector is now more regulated, boasts a stronger capital base, has stronger asset quality and better profitability supported by higher yields.

Despite this, bank bonds trade at a discount (0.5 standard deviations) to senior corporate bonds of similar external credit rating (Figure 18).

Figure 18: Banking index and corporate index



Source: Bloomberg, BofAML Indices and Columbia Threadneedle Investments, May 2024

**Real estate**

The real estate sector was the standout underperformer in 2022. Higher interest rates caused problems. Several business models were reliant on cheap debt to fund growth. Asset valuations needed to adjust. This caused profitability, leverage and liquidity to come under pressure.

In addition, several short-selling stories were published, there were question marks over banks’ willingness to extend lending, and governance was questioned. All of which added to the negative sentiment.

Although we care about all this as creditors, we care as much about rent collection and the ability of real estate companies to service their debt.

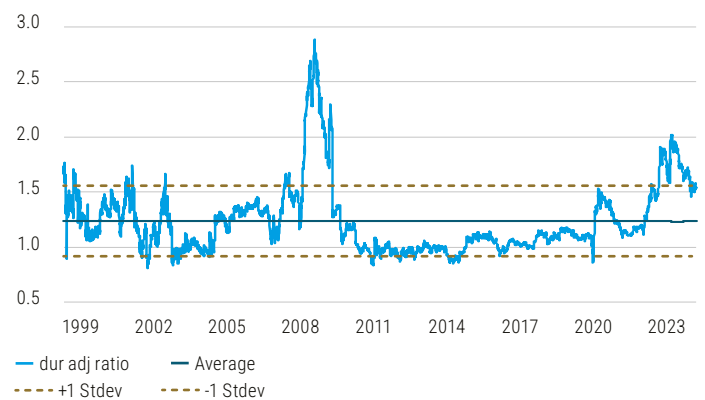
At a sector level, real estate peaked at 2.5 standard deviations cheap to overall EUR IG (Figure 19), with bonds in the 300bps-800bps range and depressed equity valuations with price-to-book ratios around 0.45.

However, it is not a homogenous sector. Some segments have good fundamentals and traded on attractive valuations.

We find attractive opportunities in the Northern European residential sector where tenants’ credit quality is linked to unemployment, which in turn is supported by strong fiscal support. Long leases mean we have good earnings and cashflow visibility and rental growth is linked to inflation. We also find attractive opportunities in logistics and data centres. Here tenants are corporations, and their credit quality is linked to their own fundamentals, which we forecast to remain healthy.

Demand for logistics facilities is supported by supply chain onshoring and shifting consumer preferences to e-commerce. Meanwhile, data centres are supported by strong growth in data usage: not only is IT infrastructure seen as “mission-critical” for any business, but the secular growth in data processing and storage requirements is a big tailwind. It is causing an imbalance in demand/supply which has allowed incumbents to regain pricing power and pass through inflation and energy costs to customers.

Figure 19: Real estate/EUR IG spread



Source: Bloomberg, BofAML Indices and Columbia Threadneedle Investments, May 2024

## Meet the Investment grade team

At Columbia Threadneedle Investments we pride ourselves on a robust investment process based on high-quality independent credit research. This is carried out by a large and experienced team of sector specialists dedicated to IG who work together to leverage more than 20 years of average experience. Our investment process embeds downside risk management at the outset, which is paramount in an asymmetrical asset class.


| Global Investment Grade Portfolio Management Team   | Investment Grade Research Team  |   |
|---|---|---|
| <p><b>Alasdair Ross, CFA</b>, Senior Portfolio Manager, Head of Investment Grade Credit, EMEA</p> <p><b>Ryan Staszewski, CFA</b>, Senior Portfolio Manager</p> <p><b>Christopher Hult, CFA</b>, Portfolio Manager</p> <p><b>John Dawson, CFA</b>, Portfolio Manager</p> <p><b>Tom Murphy, CFA</b>, Senior Portfolio Manager, Head of Investment Grade Credit, US</p> <p><b>James Phillips</b>, Portfolio Analyst</p> <p><b>Shannon Rinehart, CFA</b>, Portfolio Manager</p> <p><b>Royce Wilson, CFA</b>, Senior Portfolio Manager</p> <p><b>Sarah Kendrick</b>, Senior Trader</p> <p><b>James Lake</b>, Trader</p> <hr/> <p><b>David Oliphant</b>, Executive Director Fixed Income</p> <p><b>Charlotte Finch</b>, Client Portfolio Analyst</p> <p><b>Jake Lunness</b>, Client Portfolio Analyst</p> <p><b>Sarah McDougall</b>, Client Portfolio Analyst</p> | <p><b>Todd Czachor, CFA</b>, Senior Analyst and Head of Global Investment Grade Research Energy</p> <p><b>David Morgan, CFA</b>, Head of U.S. Investment Grade Research Healthcare/ Pharmaceuticals</p> <p><b>Jean-Baptiste Bouillaguet</b>, Analyst Consumer &amp; Retail</p> <p><b>Arabella Duckworth</b>, Senior Analyst Communications</p> <p><b>Travis Flint, CFA</b>, Analyst Environmental, Energy</p> <p><b>Guillaume Langellier, CFA</b>, Senior Analyst ABS, Property, Housing Associations, Universities</p> <p><b>Michael Laskin</b>, Senior Analyst Retail, Consumer</p> <p><b>Nate Liddle</b>, Senior Analyst Media, Technology, Cable, Telecoms</p> <p><b>Justin Ong</b>, Senior Analyst Asian Corporate Credit</p> <p><b>Tony Pederson</b>, Analyst Insurance</p> | <p><b>Jonathan Pitkanen</b>, Head of Investment Grade Credit Research, EMEA &amp; Asia Industrials, Insurance</p> <p><b>Rosalie Pinkney, CFA</b>, Senior Analyst Banks</p> <p><b>Claire Robbs, CFA</b>, Analyst Metals &amp; mining, Industrials, Transport</p> <p><b>Gregory Turnbull Schwartz</b>, Senior Analyst Chemicals, Conglomerates, Transportation, Aerospace/Defense</p> <p><b>Paul Smillie</b>, Senior Analyst Banks</p> <p><b>Amelia Sugiarto</b>, Analyst UK &amp; Australian Utilities</p> <p><b>Mary Titler, CFA</b>, Senior Analyst Utilities</p> <p><b>Sharon Vieten</b>, Senior Analyst European Utilities</p> |
| <p><b>21 years average experience</b></p>   | <p><b>20 years average experience</b></p>   |   |
| <p><b>14 professionals</b></p>  | <p><b>18 research professionals</b></p>   |   |

Source: Columbia Threadneedle Investments, as at 31 December 2023. Certain team members may be employees of affiliated companies acting under the Columbia Threadneedle Investment brand.

Feel free to contact us if you have any feedback or questions on the outlook or wish to understand more about our views or capabilities.

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