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In focus

Regime shift: How exposed are corporate bond issuers to higher interest rates?

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Despite the significant rise in interest rates over the last year, corporate bond markets have been relatively calm. Notwithstanding benign conditions, issuers now face a higher cost of borrowing, so it's worthwhile assessing the implications for issuer credit fundamentals, and in turn what that might mean for investors.

This paper assesses both the refinancing requirements for corporate bond issuers and the starting point for interest expense affordability. We look globally across sectors for the investment-grade and high-yield markets.

We show that corporate bond investors can take some comfort from aggregate interest coverage ratios starting from a point of strength and corporate bond refinancing requirements being well spread out. But investors should not be complacent as there will be potholes. As the aggregate picture masks pockets of relative weakness, particularly in areas of the high-yield market where interest coverage ratios tend to be lower and refinancing requirements greater. It is a time for active investors to demonstrate their worth.

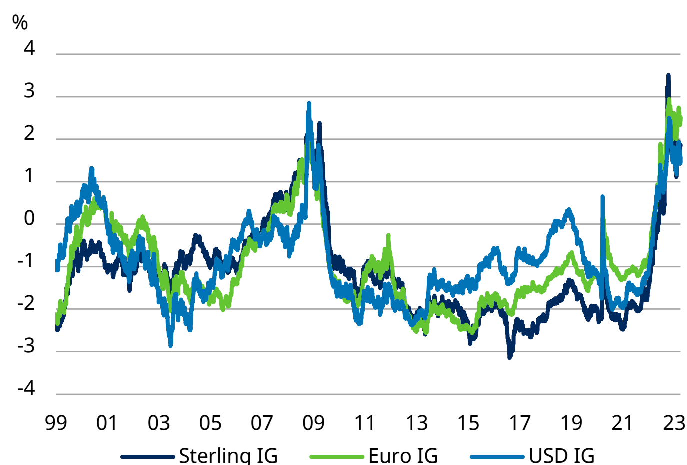
1. Considerations for assessing the impact of higher yields

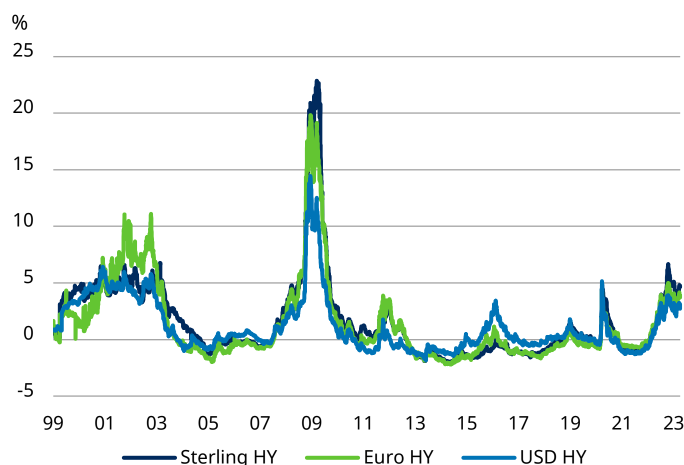
Corporate bond issuers are facing a higher cost of borrowing when refinancing...

Global interest rates have increased markedly since late 2021, and are much higher than average levels seen since the global financial crisis. This has increased the cost of borrowing for corporate bond issuers, with yields on newly issued bonds notably higher than the current coupons on existing bonds. For investment-grade issuers, where the risk free rate component is a larger share of their overall yield, this gap is around the highest since the financial crisis **(Chart 1)**. A similar picture is seen for high-yield issuers, albeit less starkly given credit spreads, which contribute a greater proportion of the overall yield, remain lower than past peaks **(Chart 2)**.

Chart 1: Issuers face notably higher financing costs relative to what they have been paying

Yield-to-maturity and coupon differential





Source: Refinitiv Datastream, and Schroders calculations. Data as at 31 March 2023.
Notes: Calculated as current yield-to-maturity minus existing bonds par weighted coupon. Indices shown include both financial and non-financial corporate issuers.

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With a shift to a higher interest rates regime, it raises the question of how such higher yields will feed through to the creditworthiness of issuers...

Many investors expect interest rates to stay at higher levels than those seen over the last decade. The question of how this could impact corporate bond issuers is complex. It will hinge on multiple factors **(Table 1)**, for which there are varying degrees of uncertainty, and each issuer will be impacted differently.

The macro factors are uncertain and interrelated. First, the length of time interest rates stay elevated and the strength of the broader economic outlook are closely linked. In a stagflation scenario of above target inflation and very weak economic growth, the level of interest rates would depend on a central banks' appetite for prioritising the inflation target over economic growth. Second, higher interest rates will impact all borrowers, not only those issuing bonds, so there could be channels by which economy-wide risks spill-over to corporate bond markets[1].

The issuer-specific factors are complicated by a lack of full data availability. Financial information for private companies is less readily available, so it is not possible to analyse all corporate bond issuers. Similarly, data for issuers other debt (non-corporate bond debt) and the extent of any related interest rate hedges is also limited.

In this paper, we focus our attention on the two of factors for which we have a greater degree of clarity: (i) how much corporate bond debt is maturing in the coming years; and (ii) the strength/weakness of issuers corporate fundamentals, such as interest cover[2].

Table 1: Selected factors when considering the impact of higher yields on issuers

	Factor	Intuitive impact of the higher yield environment
Macro	The persistence of higher interest rates	The longer that interest rates stay at elevated levels, the greater proportion of corporate bonds that will be refinanced at these levels and the bigger the increase on issuers' interest expenses.
	The economic growth outlook	The weaker the economic outlook the less scope for offsetting higher interest expense with improved earnings. And a weaker economic environment tends to be associated with higher credit spreads, further increasing the cost of borrowing.
Issuer-specific	The mix of floating and fixed rate debt	The greater proportion of (unhedged) floating rate debt the quicker the rise in interest rates feeds through to a higher interest expense.
	The maturity profile of fixed rate debt	The shorter the maturity profile the quicker the rise in interest rates feeds through to a higher interest expense.
	The current strength of issuers credit fundamentals	Issuers' with weak corporate fundamentals, such as low interest coverage and/or high leverage, could be more vulnerable to higher yields.
	The financial flexibility of issuers	Issuers with less ability to reduce gross leverage (for example by using cash, cutting dividends or capex spending, raising equity, or selling assets) will be exposed to a more expensive stock of debt.

Notes: These are the key factors considered here but there may be others.

[1]For example, higher default rates at firms that do not issue corporate bonds could feed into a wider economic slowdown, in turn impacting corporate bond issuer default rates and/or credit spreads.
[2]To better assess the direct implications for corporate bond investors, we focus only on non-financial firms that issue corporate bonds. Financial issuers such as banks are excluded from the analysis given the relative complexity of their funding structures.
[3]We make use of the ICE global bond indices to proxy to assess the maturity profile of all non-financial corporate bonds in issue. These widely used indices are a reasonable proxy of the bonds outstanding, even if they do not capture 100% of the universe.

2. How much corporate bond debt is maturing in the coming years?

Aggregate corporate bond maturities appear well spread over the next few years. But while there is no impending maturity wall, high-yield refinancing requirement three to five years ahead are elevated...

When assessed on an aggregate basis, some comfort is gained that only a small percentage of the existing stock of corporate bonds mature each year, which should give many issuers time to manage the transition to higher yields. For example, around 6–11% of corporate bonds are maturing each year for the next five years, leaving slightly over 50% maturing beyond that point (**Chart 2)**[3]**.**

But despite much commentary on issuers extending maturities during the extremely low rate environment of the pandemic years, on aggregate the current maturity profile is broadly similar to that seen before the global financial crisis **(Chart 3).**

In fact, for high-yield bonds, the average maturity has actually shortened over that period (from 7.3 to 5.3 years). So while there is not a significant near term '*maturity wall*' to overcome, if higher interest rates were to persist then high-yield borrowers will feel the effects sooner than they would have done in the past.

The proportion of the high-yield market which needs to be repaid or refinanced within a three to five year period has risen to its highest level since at least 2006 **(Chart 4)**. In 2007 around a third of the market needed refinancing within five years; today 54% does. That's mainly driven by the Euro high-yield market having a much higher than usual refinancing requirement over this time horizon, whereas the US dollar market – while also elevated – is more in line with past years.

The investment-grade market is a more reassuring story. There, three-year and five-year refinancing requirements of 23% and 40% respectively are slightly below levels seen in past years.

Chart 2: Aggregate corporate bond maturities are evenly spread out for the next five years

Current global non-financial corporate bond maturity

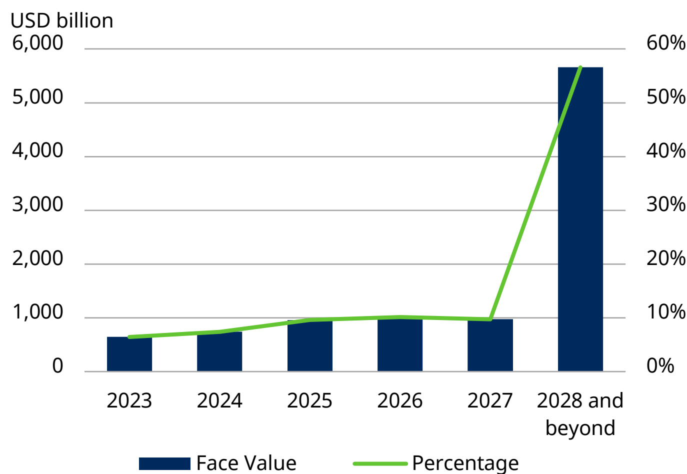
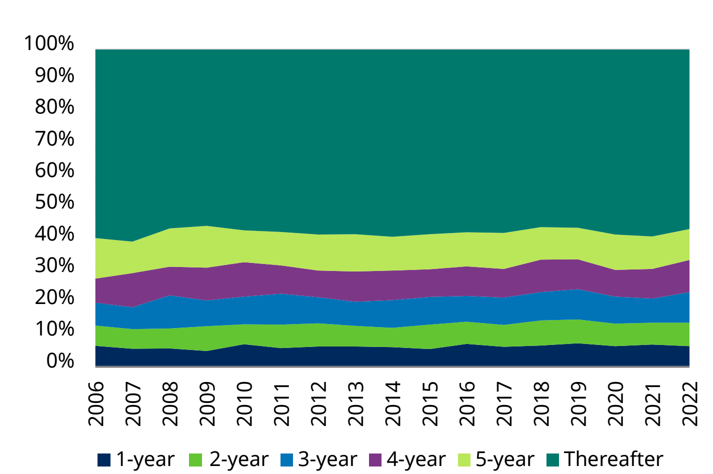


Chart 3: The aggregate maturity profile is broadly similar to that seen before the global financial crisis

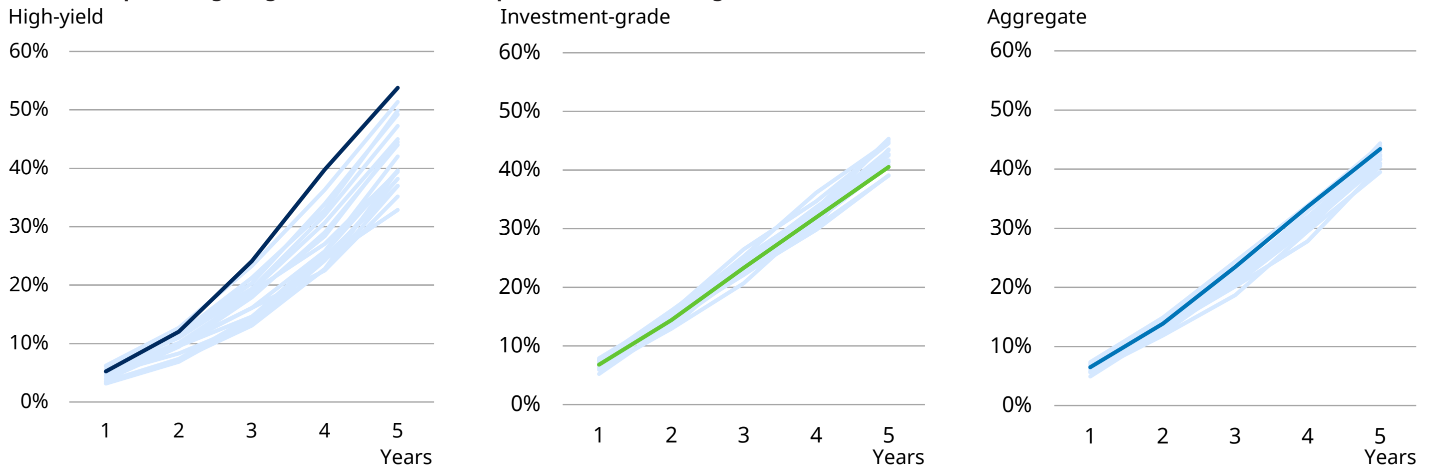
Historical global non-financial corporate bond maturity profile



Source: ICE Data Indices and Schroders calculations. Data as at 31 December 2022.
Notes: 2023 is an estimated figure as these indices do not capture debt maturing in the next 12 months, so we manually include 2023 maturities that were still outstanding as at December 2022. We assume no corporate bonds are issued with an initial maturity of less than 12 months. In chart 3 the 1-year bucket is proxied by using the 2-year bucket from the prior year.

Chart 4: While there is no impending maturity wall, high-yield refinancing requirement three to five years ahead are elevated...

Cumulative percentage of global non-financial corporate bonds maturing



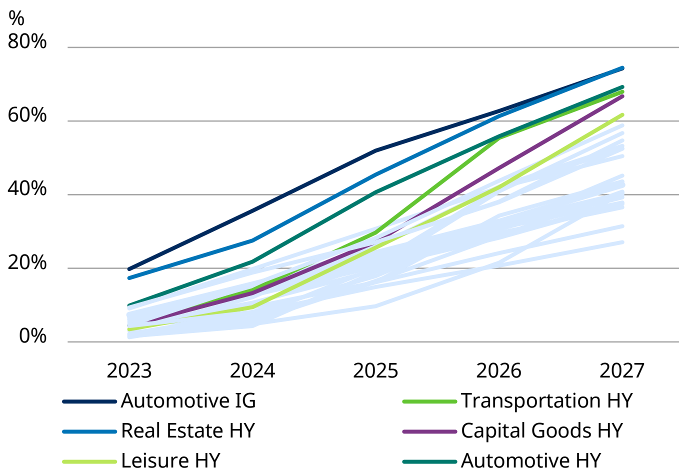
Source: ICE Data Indices and Schroders calculations. Data as at 31 December 2022. Dark lines are 2022 and lighter lines are previous years.
Notes: For 2022 the first year maturity is an estimated figure as these indices do not capture debt maturing in the next 12 months. We manually include 2023 maturities that were still outstanding as at December 2022 and assume no corporate bonds are issued with an initial maturity of less than 12 months. For all other years, the 1-year maturities are proxied for by using the 2-year maturities from the prior year. Analysis done at an individual bond level.

Some sectors face steeper refinancing requirements than others...

At a sectoral level, big differences emerge, with a number of sectors more exposed to refinancing at higher interest rates. **Chart 5** shows the proportion of bond issuance due to mature across all investment-grade and high-yield sectors of the global corporate bond market in the coming years. The more exposed sectors are highlighted.

Chart 5: Some sectors have higher bond refinancing requirements over the next three to five years

Current global non-financial corporate bond maturity by sector



Source: ICE Data Indices and Schroders calculations. Data as at 31 December 2022. Lighter lines are other sectors in the market.
Notes: Are as per Charts 3 and 4.

Over the next three years, over half of the face value of the **investment-grade automotive** sector will need refinancing/ repaying. This is much higher than the 24% for the investment-grade market overall. Around three quarters of the sector will be in this position by 2027.

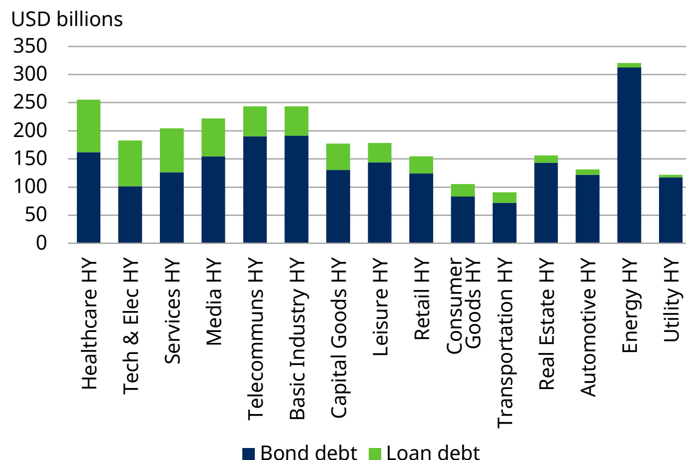
The **high-yield automotive and real estate** sectors are also exposed over the next three years. On a five year timescale, they are joined by **high-yield segments of transport, capital goods, and leisure**, all of which face relatively high refinancing requirements. Borrowers in these sectors may feel the effects of higher interest rates relatively quickly.

But, that does not mean borrowers in other sectors have nothing to worry about. The corporate bond market only captures a proportion of overall borrowings. In particular, some sectors have a significant amount of leveraged loan exposure. These floating rate loans to high-yield borrowers pay coupons which are mechanically linked to short-term interest rates. The pass through from higher rates happens almost immediately, raising the interest cost burden for borrowers (unless that floating rate is hedged).

For some sectors the amount of leveraged loan debt can be large relative to high-yield bond debt (in this analysis we only consider leveraged loan issuance which can be matched to high yield bond issuers i.e. we ignore loan-only issuance). The **high-yield segments of healthcare, technology, and services** sectors all stand out **(Chart 6)**.

Chart 6: Leverage loan debt is more significant for some sectors than others

Combined high-yield bond and leverage loan debt, face value by sector



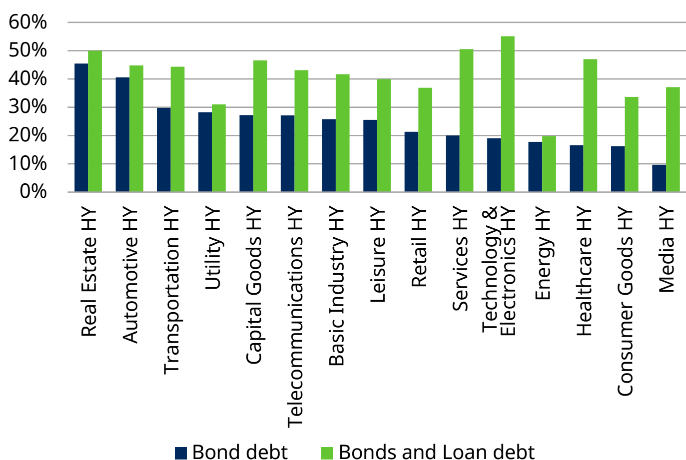
Source: ICE Data Indices, Credit Suisse, and Schroders calculations. Data as at 31 December 2022.
Notes: Only includes leverage loans for which there is a bond issued by the same company. Matching loan data to bond issuers is done on a best efforts basis and may not capture all instances.

Even though these high-yield sectors have low bond refinancing requirements, they are also exposed to rising rates through their leverage loan debt **(Chart 7)**.

When loans are added to the picture, ten high-yield sectors have more than 40% of their debt exposed to higher interest rates within the next three years. Only two are in this position when assessed on bonds alone.

Chart 7: Leverage loans debt considerably increase some sectors exposure to higher rates

Proportion of debt exposed to higher rates within the next three years



Source: ICE Data Indices, Credit Suisse, and Schroders calculations. Data as at 31 December 2022.
Notes: Only includes leverage loans for which there is a bond issued by the same company. Matching loan data to bond issuers is done on a best efforts basis and may not capture all instances.

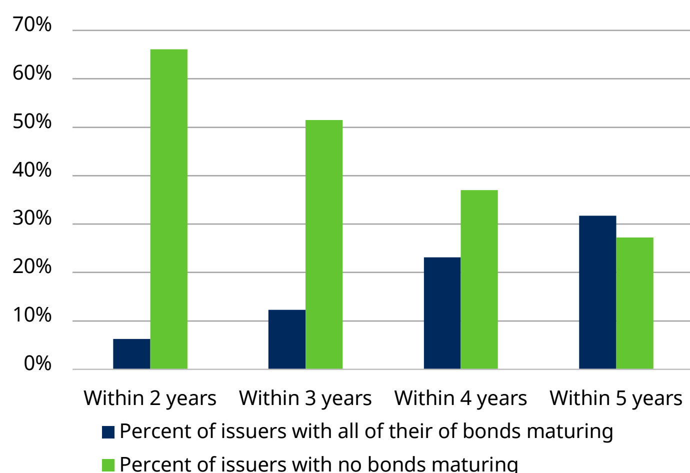
At an issuer-level, many issuers have limited bond maturities in the near term, although a few do have a large proportion of their bond debt coming due…

There is also significant variation in refinancing requirements between individual issuers **(Chart 8)**. While around two-thirds of issuers (c.66%) have no corporate bonds maturing over the next two years, a handful (c.6%) have all of their bonds maturing over this period, so will be more exposed to raised borrowing costs in the near-term.

Clearly, the longer that interest rates stay at higher levels, the more corporates that will be exposed to refinancing at higher yields. For example, over five years 32% of issuers have all of their bonds maturing while 27% have no bonds maturing.

Chart 8: The longer that higher rates persist the more issuers that will be impacted

Cumulative percent of issuers with either all or no corporate bond debt maturing



Source: ICE Data Indices, and Schroders calculations. Data as at 31 December 2022. Notes: Analysis done at an issuer level. Includes both investment-grade and high-yield issuers. Adjustment made to first year maturities. See Appendix 1 for details of issuer sample and its construction.

Aggregate calm does not tell the whole story when it comes to exposure to higher borrowing costs…

High level statistics on the bond market paint a picture of relative calm when it comes to how soon borrowers will have to face up to higher interest rates. But scratching beneath the surface shows some sectors face will face higher interest rates sooner than others, especially when loan exposure is taken into account.

3. How strong are current corporate fundamentals?

The analysis in this section is predominantly based on public non-financial corporate bond (investment-grade and high-yield) issuers, for reasons of data availability. Data on private companies is limited or unavailable. This analysis captures around half of issuers, worth nearly two-thirds of the face value of the global corporate bond market.

It is difficult to say with certainty how including private companies would change the analysis but, given they tend to be smaller than publicly listed companies, and given that smaller companies tend to have weaker interest coverage ratios (ICRs – a measure of how well interest payments are covered by earnings), it would be logical to think the starting point for ICRs might be somewhat weaker than shown here.

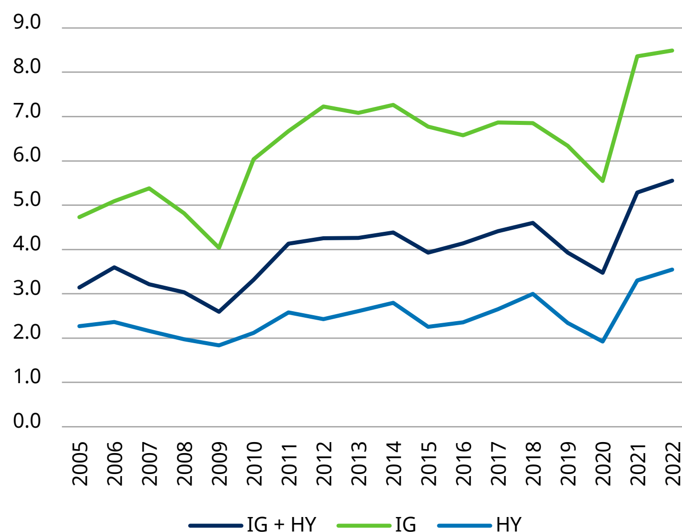
Interest coverage ratios (ICRs) are starting from a point of strength, albeit with pockets of relative weakness…

Those companies with high refinancing demands or floating rate debt will suffer higher borrowing costs sooner. If borrowers are already struggling to cover current interest payments then, once higher interest costs hit home, finances could become even more stretched.

Reassuring, at an aggregate level, median ICRs are healthy relative to historic levels. These have been helped by years of very low interest rates that left firms with a stock of cheap debt **(Chart 9)**.

Chart 9: Aggregate median ICRs are healthy relative to historic levels

Median ICR of corporate bond issuers



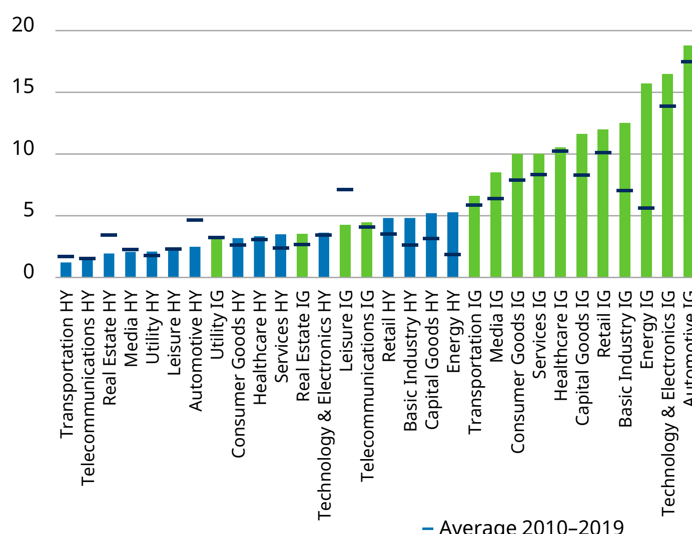
Source: Refinitiv Eikon, ICE Data Indices, and Schroders calculations. Data as at 13 April 2023. Notes: ICR = EBIT/interest expense. See appendix 1 for details of sample used. IG and HY split is done on a best endeavours basis given that some firms will have bonds in both rating segments. We assign the rating segment based on the rating of firms' majority bond debt.

But, as with corporate bond maturities outlined above, there are variances across sectors, particularly when investment-grade and high-yield segments are viewed separately **(Chart 10)**.

Most sectors have median ICRs that can be considered healthy[4], but the **high-yield segments of Transportation** (1.2x) and **Telecom** (1.4x) stand out as having lower coverage ratios. This is not a new occurrence for the Telecom sector, and its current level is broadly in line with its 2010–2019 average. The high-yield Transportation sector's low interest cover makes it a more pressing issue that it is one of the sectors facing elevated refinancing needs.

Chart 10: Median ICRs vary substantially across sectors and ratings

Current median ICR split by sector and credit rating

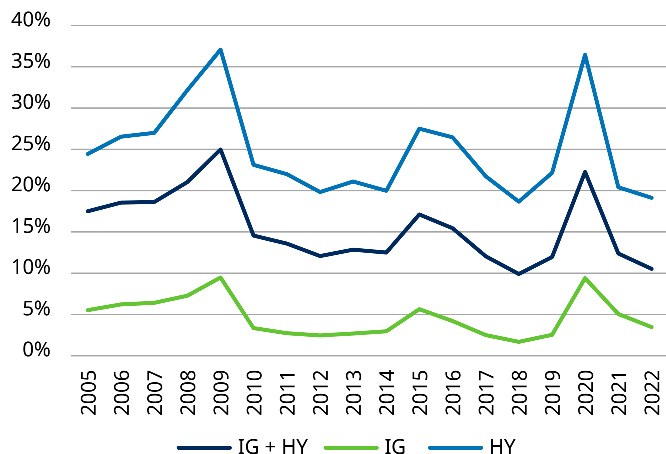


Source: Refinitiv Eikon, ICE Data Indices, and Schroders calculations. Data as at 13 April 2023. Notes: ICR = EBIT/interest expense. See appendix 1 for details of sample used. IG and HY split is done on a best endeavours basis given that some firms will have bonds in both rating segments. We assign the rating segment based on the rating of firms' majority bond debt. Leisure IG only has 7 issuers in this sample so caution should be taken on interpreting this number.

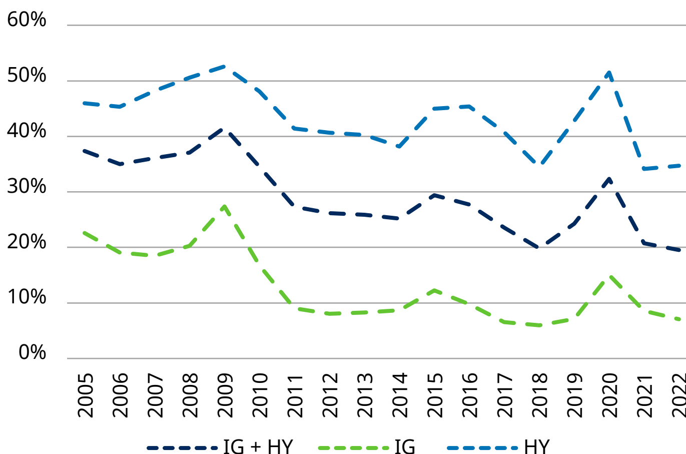
[4] Here we consider >2.0x as 'healthy', <2.0x as 'vulnerable' and <1.0x as 'weak'. There is no precise definition of a 'healthy'. And there is a range of ICR levels market commentators use to assess vulnerable or 'weak' firms. For example, analysis in the Bank of England Financial Stability Report defines firms with ICRs of less than 2.5x as being 'vulnerable', while analysis by the IMF GFSR references a level of 2.0x as being 'vulnerable' and 1.0x as being 'weak'.

Chart 11: The proportion of issuers with weak or vulnerable ICRs has fallen back to around pre-covid levels

Percentage of issuers with 'weak' ICRs (<1.0x)



Percentage of issuers with 'vulnerable' ICRs (<2.0x)



Source: Refinitiv Eikon, ICE Data Indices, and Schroders calculations. Data as at 13 April 2023.
Notes: ICR = EBIT/interest expense. See appendix 1 for details of sample used. IG and HY split is done on a best endeavours basis given that some firms will have bonds in both rating segments. We assign the rating segment based on the rating of firms' majority bond debt.

Those companies already not able to cover their interest expense are more vulnerable to higher yields…

Assessing median ICR levels is useful but it is important to look at the distribution of ICR across issuers. This too paints a relatively benign picture at the aggregate level. The percentage of issuers with interest cover of less than one is back to the low levels seen before the pandemic (11%, **Chart 11**). A greater proportion of high-yield borrowers also have interest cover of less than one but again, the proportion in this danger zone is also around the low levels seen in the last decade or more. Very few (3%) investment-grade issuers are unable to cover their interest with earnings. It's a similar story if issuers are assessed based on ICRs of less than two-times.

But as with the earlier analysis, some sectors have a much higher proportion of issuers with 'weak' or 'vulnerable' ICRs, particularly the **high-yield segments of the Transportation and Leisure sectors**. And these sectors also have a notable proportion of debt exposed to higher rates, even if not the highest **(Chart 12)**. In a scenario where the interest expense on leveraged loans and refinanced bonds doubled, this would leave all sectors with an even higher proportion of 'weak' issuers **(Chart 13** – Green bars). Yields on USD high-yield bonds were below 5% in 2021 and are around 8.5%%, so this is not an implausible assumption.

Within sectors, not all issuers are equal…

For high-yield sectoral analysis, a low number of firms means caution should be taken when interpreting percentages. And although certain sectors have high proportions of both weak issuers and debt exposed, within these sectors only a handful of issuers may suffer from this more worrying combination. For example, only two **high-yield transportation** issuers in our sample have both an ICR less than one and 60%+ of their debt exposed to higher rates in the next three years. Likewise in **high-yield leisure**, only one issuer in our sample has that same combination. Point being that sectoral analysis can only show so much. Individual issuer analysis is needed to identify those most vulnerable.

And credit fundamentals are much more than just interest coverage ratios…

ICRs are not only impacted by the interest expense element but also company earnings before interest and tax (EBIT), so how the earnings outlook evolves also matters. And ICRs are just one element in assessing corporate credit strength, for example metrics such as leverage can have a significant impact. This is reflected in a wide distribution of ICRs within each credit rating bucket. So a fall in interest coverage alone won't necessarily mean an issuer would downgraded. And it is even more complicated when assessing the implication for defaults, as the presence of covenants may trigger technical defaults before payment defaults.

And it is important to consider an issuers broader financial flexibility. Those issuers that have the ability to reduce gross leverage (for example by using cash, cutting dividends or capex spending, raising equity, or selling assets) will be better able to mitigate the impact of higher interest rates.

Chart 12: Some sectors have both a higher proportion of debt exposed and issuers with weak ICRs

Percentage of issuers with weak ICR and higher debt exposed

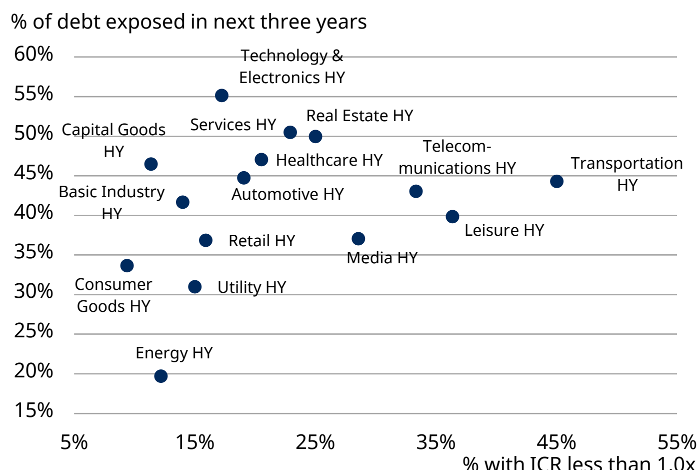
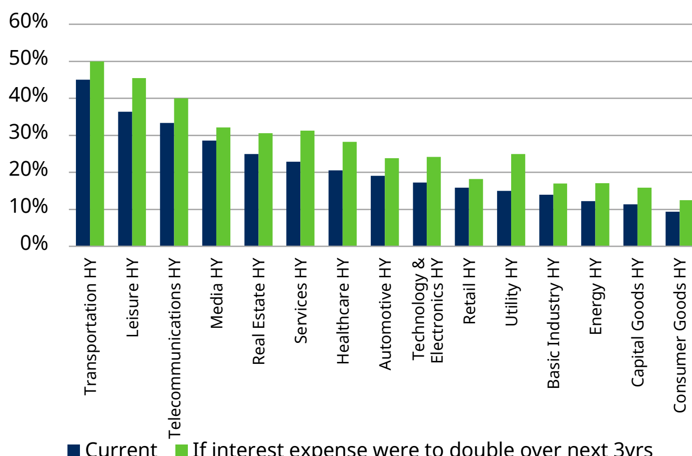


Chart 13: Some sectors within high-yield already have a large proportion of issuers with weak ICRs

Percentage of issuer with weak ICR if interest expense were to double from FY22 levels on leveraged loans and refinanced bonds



Source: Refinitiv Eikon, ICE Data Indices, and Schroders calculations. Data as at 13 April 2023.
Notes: ICR = EBIT/interest expense. Chart 13 is a stylized example and is not a forecast. It shows percentage of issuer with weak ICR if interest expense were to double from FY22 levels on leveraged loans and refinanced bonds.

Conclusions

- **Within investment-grade, corporate bond refinancing requirements are below average in the coming years, and issuers are starting from a position of relative financial strength. This may go some way to explaining why credit spreads are not wider in the face of high inflation, weak growth, and tight financial conditions.**
- **For high-yield issuers, it's a differnt story. Although there's no impending large maturity wall this year or next, a significant amount of bonds are due to mature in the two years which follow. The proportion of the high-yield market which needs to be repaid or refinanced within a three to five year period has risen to its highest level since at least 2006. This is when borrowers will most feel the pain if yields stay elevated. Some reassurance can be taken from the fact that, like investment-grade, the median borrower starts from a position of high interest cover. But not all sectors are in such strong shape – with Transportation and Leisure sectors standing out.**
- **This does not mean that a wave of defaults is coming, or that borrowers in others sectors have nothing to worry about. Individual company specifics always matter and high level sectoral analysis can only tell you so much. More expensive borrowing costs risk putting individual borrowers under pressure across all sectors. Now is the time when active management has the potential to make a big difference.**

Appendix 1: Summary of data used

Corporate bond data:

- We make use of the ICE global bond index (GFIM) as a proxy for all bonds in issue. This is a reasonable proxy of the bonds outstanding, even if not capturing 100% of the universe. We filter the data to only capture non-financial corporate bonds
- This data set consists of around 11,500 non-financial corporate bonds. These are issued by around 3,000 '*unique issuers*', which in turn map to around 2,690 '*unique parent*' companies (as more than one '*unique issuer*' will map to a '*unique parent*'). Note that '*unique parents*' are not necessarily the ***ultimate*** parent in the hierarchy of the organisational structure
- Because the indices do not automatically capture bonds maturing in the next 12 months, we make manual adjustments to include these maturities

Leverage loan data:

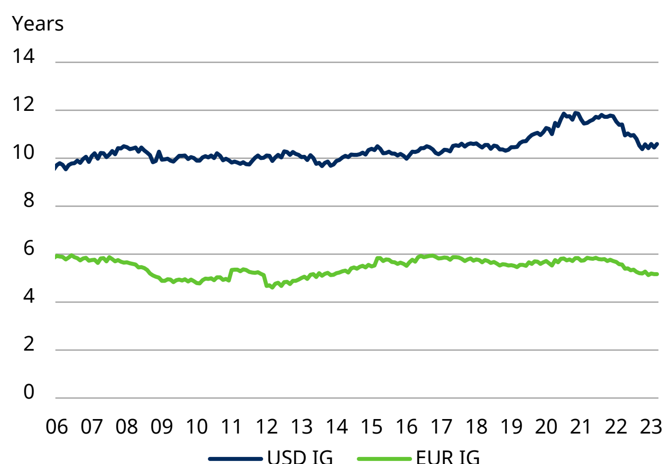
- We make use of the Credit Suisse data on US and European leverage loans. We match loans with those issuers that also have a corporate bond outstanding, this matching is done on a best efforts basis and may not capture all instances. Out of around 1,600 unique loan issuers we can identify around 330 issuers that have both loans and bonds. In other words, around 20% of the loan market comes from issuers who also have bond borrowings, with 80% from loan-only issuers
- Where a loan and bond match occur we then use the sector assigned to the ICE bond data

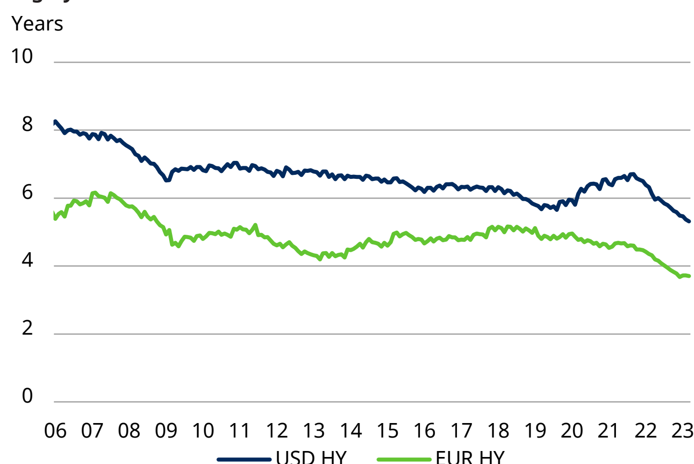
Interest coverage ratio data:

- Using the ICE global bond data for 2022, we take a subset of c.1,200 (c.50%) firms for which there is publicly available financial data to analysis an issuers ICR. The sample size is much lower mainly because many private companies do not make financial statement data available. And to a lesser extent the smaller sample size is because some of the 2,690 unique parents mentioned above will have mapped to the same ultimate parent
- We use interest coverage data provided by Refinitiv Eikon. Data is for fiscal year 22 for the latest observation and calendar year for historical data

Appendix 2: Average maturity of USD and EUR indices

Chart A: The average maturity of USD and EUR high-yield bond indices has shortened since the financial crisis





Source: Refinitiv Datastream
Data as at 31 March 2023.

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