

Schroders



# Schroders Credit Lens

Perspective of GBP investor

Strategic Research Unit

April 2023

Marketing material for professional investors or advisers only.

# Important information

- **These do not represent the investment views of Schroders' credit teams**
- Marketing material for professional investors and advisors only
- Past performance is not a guide to future performance and may not be repeated
- Yields and returns are shown hedged to GBP unless stated otherwise
- All credit spreads are option-adjusted spreads (OAS) unless stated otherwise
- Spreads are quoted in basis points (bps) where 100 basis points = 1%
- Full list on indices on page 66

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# Summary

- **After a period of narrowing, spreads widened in March back to around levels seen at the turn of the year. The increase reflected weaker risk sentiment following concerns for certain areas of the banking sector**
- Corporate bond yields were little changed on the month, as higher spreads were offset by lower risk-free yields. Risk-free yields fell as banking sector uncertainty led to a flight to safety and brought into question the likelihood of further monetary policy tightening, particularly in the US
- US treasury volatility briefly reached the highest levels since the global financial crisis, and the heightened uncertainty saw high-yield issuance volumes slow
- Default rates in high-yield have slowly started to rise. More elevated distress ratios indicate that defaults could continue to increase in 2023
- Corporate fundamentals remained strong in Q4. However, corporate margins are now clearly falling. If costs continue to rise faster than sales, margins will remain under pressure in 2023, and earnings growth could disappoint
- Interest coverage is very high, especially in IG, but is likely to deteriorate from here, as higher yields are now starting to meaningfully feed through to interest expense. Issuers with loans are seeing the most immediate impact

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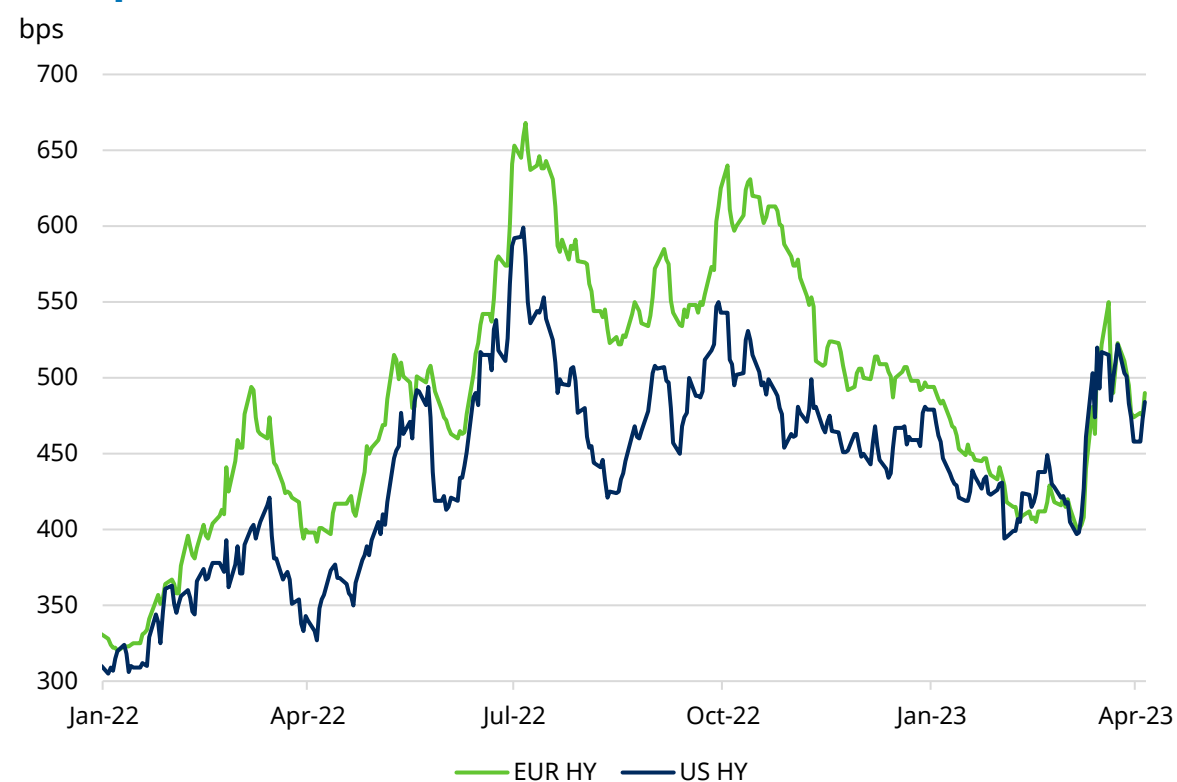
# After a period of significant tightening, spreads widened back to levels seen at the turn of the year

Spread moves were sharp but contained

## IG Spread



## HY Spread



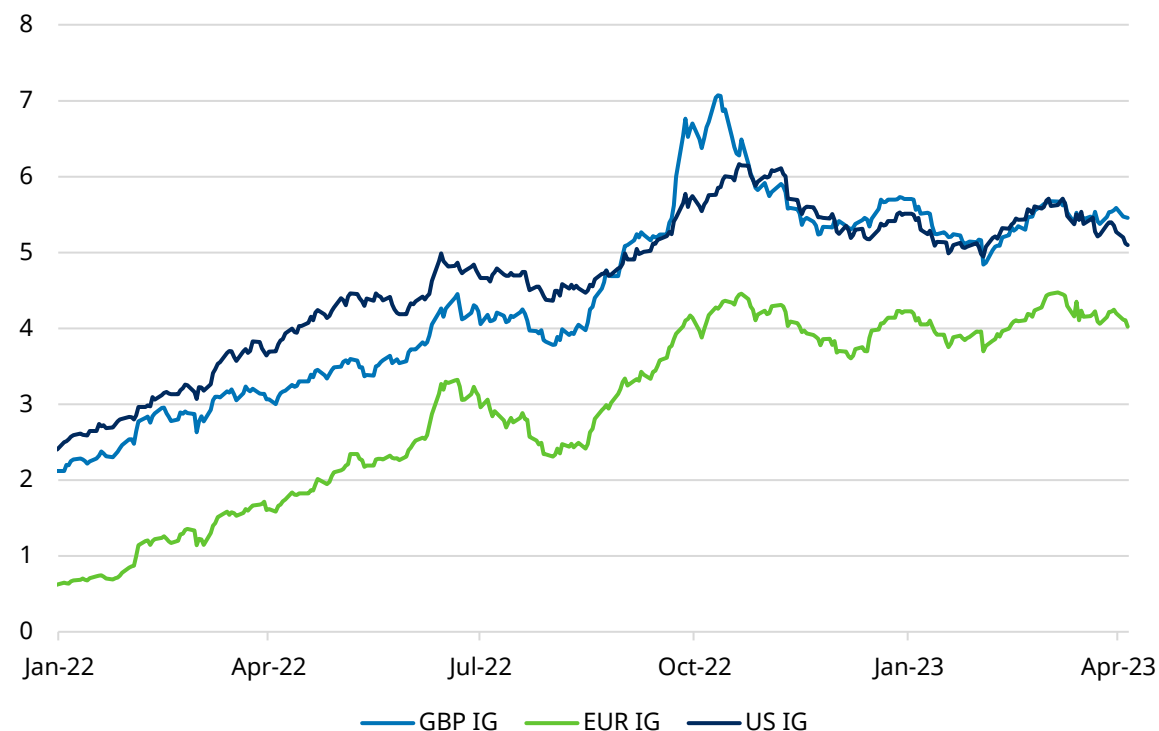
Source: Refinitiv Datastream. Data as at 5 April 2023. Please see relevant disclaimers on page 67.

# Corporate bond yields were little changed, as higher spreads were offset by lower risk-free yields

Yields remain close to the recent highs seen in 2022 Q4

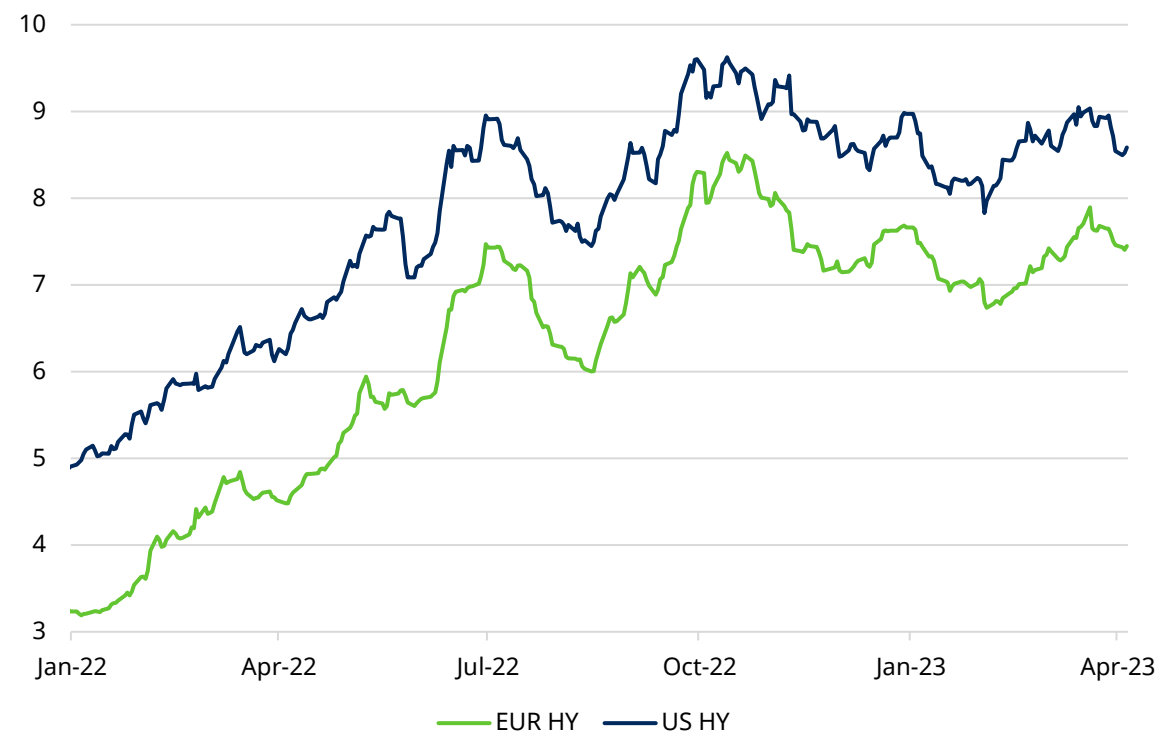
## IG yield

Percent



## HY yield

Percent

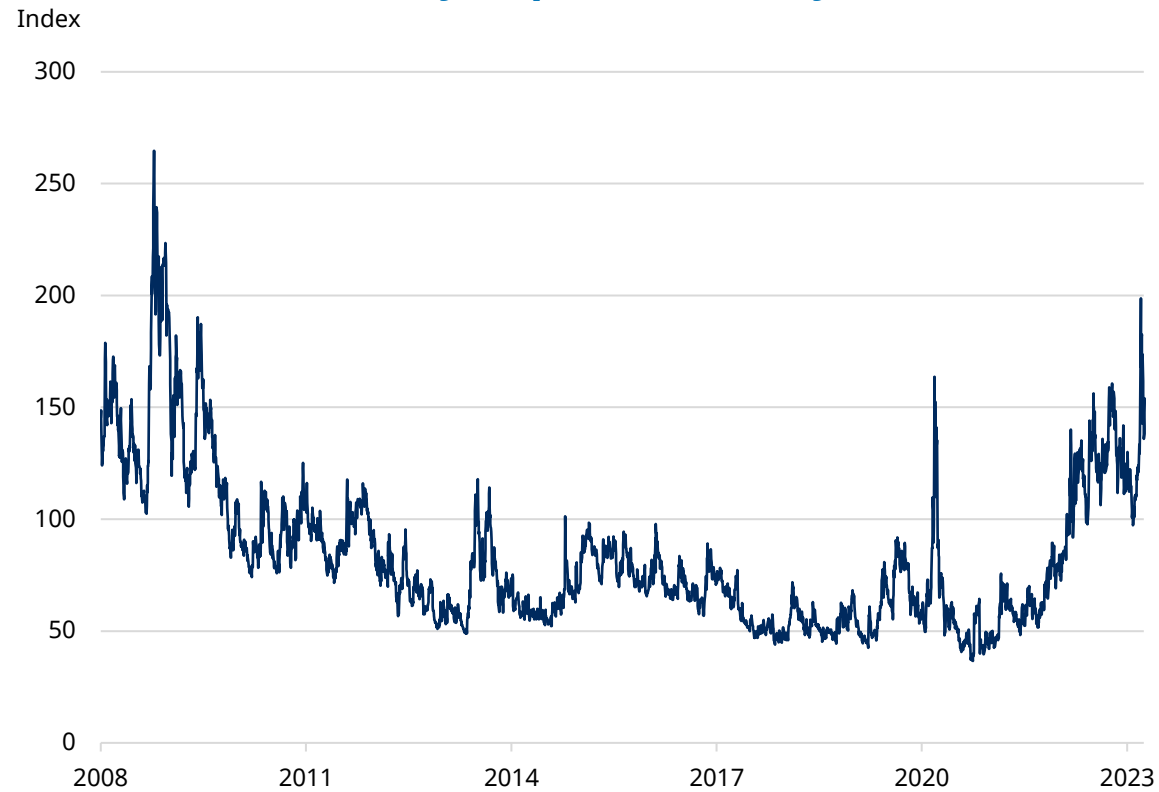


Source: Refinitiv Datastream. Data as at 5 April 2023. Please see relevant disclaimers on page 67. Charts show local currency yields.

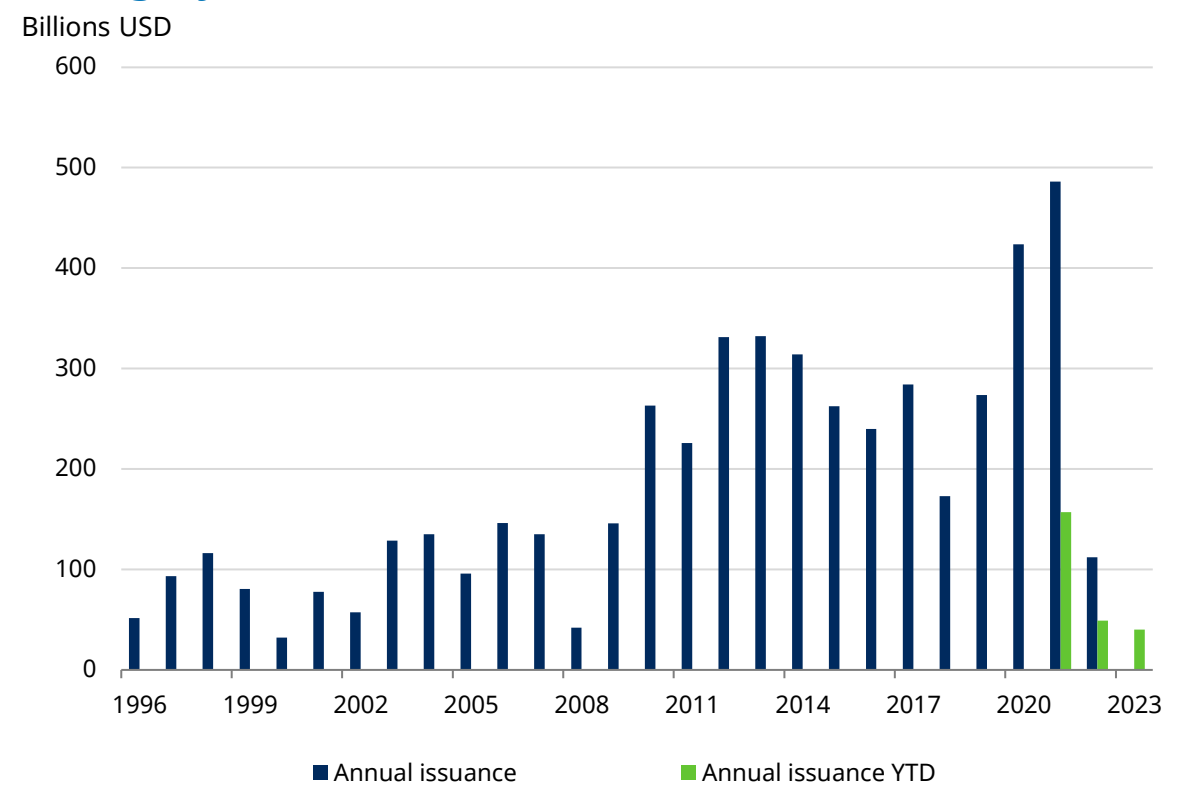
# US Treasury volatility briefly reached levels not seen since the global financial crisis

High-yield issuance slowed in the more volatile environment

## 1-month US Treasury implied volatility - Move index



## US high-yield issuance



Source: Refinitiv Datastream, Sifma. Data as at 31 March 2023. Please see relevant disclaimers on page 67.

# Summary table

## Cross-credit overview

Date: 31 March 2023

	IG GBP non-gilts	IG GBP corporates	IG Euro	IG USD	HY GBP	HY Euro	HY USD	Hard EMD	Local EMD	Corp. EMD
Yield to worst	5.3%	5.6%	4.2%	5.3%	10.0%	7.4%	8.5%	8.5%	6.6%	7.2%
Yield to worst (hedged to GBP) <sup>1</sup>	5.3%	5.6%	5.5%	4.5%	10.0%	8.8%	7.8%	7.8%	-	6.4%
Spread (bps)	159	190	168	145	631	474	458	484	297	347
Spread (percentile) <sup>2</sup>	74%	74%	76%	56%	79%	58%	51%	72%	16%	60%
Risk premium (bps) <sup>3</sup>	126	152	129	107	446	298	237	354	242	237
Duration	6.2	6.7	4.8	7.2	3.3	3.4	4.4	6.8	4.9	4.3
MV (billion \$)	765	570	2,920	7,770	52	410	1,234	616	1,356	504
Rating	A1	A3	A3	A3	BB3	BB3	B1	BBB3	BBB2	BBB3
Nr. of issues/countries	1,303	1,095	4,117	9,888	99	750	1,916	67	20	1,927

### Since Jan 1997 or inception

Annualised return <sup>4</sup>	5.1%	5.3%	4.9%	5.3%	8.3%	5.8%	6.2%	6.9%	6.5%	5.9%
Annualised volatility	5.8%	6.5%	4.0%	5.9%	10.5%	11.5%	9.1%	10.8%	11.0%	7.8%
Return/volatility	0.9	0.8	1.2	0.9	0.8	0.5	0.7	0.6	0.6	0.8
Max drawdown	-24.9%	-29.1%	-15.7%	-21.0%	-28.1%	-38.6%	-33.7%	-28.3%	-27.4%	-25.4%
Correlation with FTSE All-share	0.3	0.3	0.3	0.3	0.6	0.6	0.6	0.5	0.4	0.5
Correlation with MSCI World £	0.3	0.3	0.3	0.3	0.5	0.6	0.6	0.5	0.6	0.4
Correlation with UK Gilts	0.8	0.7	0.5	0.5	0.0	-0.1	0.0	0.2	0.3	0.2

**Past performance is not a guide to future performance and may not be repeated.**

Source: Schroders, Refinitiv Datastream, ICE Data Indices, J.P. Morgan. Data as at 31 March 2023. Please see relevant disclaimers on page 67.

<sup>1</sup>Local currency yield minus annualized 3-month hedging cost/return.

<sup>2</sup>Percentile shows where the current spread is relatively to the historical range of spreads, within a range of 0 to 100. The greater the percentile the higher the spread compared to history.

<sup>3</sup>Spread minus average historical default and downgrade losses (see slide 23).

<sup>4</sup>All returns GBP hedged returns, except EMD Local which is unhedged USD return in GBP.



# Summary table (alternatives)

## Cross-credit overview

Date: 31 March 2023

	US Agency MBS	US ABS	US CMBS	US leveraged loans	Cat Bonds
Yield <sup>1</sup>	4.5%	5.6%	6.2%	9.4%	-
Yield (hedged to GBP) <sup>2</sup>	3.8%	4.9%	5.5%	8.6%	-
Spread (bps) <sup>3</sup>	87	149	258	609	-
Risk premium (bps)	-	-	-	-	-
Duration	6.0	2.3	4.0	0.0	-
Market size (billion \$)	7,321	398	446	1,359	-
Rating	AAA	AAA	AAA	-	-

### Since Jan 1997 or inception

Annualised return <sup>4</sup>	4.5%	3.9%	5.0%	4.9%	6.8%
Annualised volatility	3.3%	2.3%	6.3%	6.4%	3.7%
Return/volatility	1.3	1.7	0.8	0.8	1.8
Max drawdown	-16.9%	-8.1%	-26.0%	-29.9%	-8.8%
Correlation with FTSE All-share	-0.1	0.1	0.2	0.5	0.2
Correlation with MSCI World £	-0.1	0.0	0.2	0.4	0.1
Correlation with UK Gilts	0.6	0.2	0.2	-0.3	0.1

**Past performance is not a guide to future performance and may not be repeated.**

Source: Schroders, Refinitiv Datastream, Bloomberg, Credit Suisse. Data as at 31 March 2023, Please see relevant disclaimers on page 67.

<sup>1</sup>USD yield. US leveraged loans is yield (3-year life)

<sup>2</sup>USD yield minus annualized 3-month hedging cost/return

<sup>3</sup>US leveraged loans spread is discount margin (3-year life)

<sup>4</sup>All returns GBP hedged returns

# Performance table

## Cross-credit overview

Date: 31 March 2023

	IG GBP non-gilts	IG GBP corporates	IG Euro	IG USD	HY GBP	HY Euro	HY USD	Hard EMD	Local EMD	Corp. EMD
<b>Return (local)<sup>1</sup></b>										
1 month return	1.1%	1.0%	1.0%	2.6%	-0.8%	-0.4%	1.1%	1.0%	4.1%	0.8%
YTD return	2.4%	2.5%	1.6%	3.5%	3.8%	2.7%	3.7%	1.9%	5.2%	2.2%
1 year return	-10.3%	-11.4%	-7.7%	-5.2%	-4.4%	-4.5%	-3.6%	-6.9%	-0.7%	-1.6%
<b>Return (GBP hedged)<sup>2</sup></b>										
1 month return	1.1%	1.0%	1.2%	2.5%	-0.8%	-0.2%	1.0%	0.9%	2.0%	0.8%
YTD return	2.4%	2.5%	2.0%	3.0%	3.8%	3.0%	3.4%	1.5%	2.3%	1.9%
1 year return	-10.3%	-11.4%	-6.6%	-6.8%	-4.4%	-3.3%	-5.2%	-8.7%	5.7%	-2.9%
<b>Spread</b>										
1 month OAS change	17	21	21	15	72	53	36	37	36	51
YTD OAS change	-2	-4	2	7	-32	-20	-21	32	8	25
1 year OAS change	39	45	39	23	168	74	115	84	-84	44
Latest OAS	20	190	168	145	631	474	458	484	297	347

**Past performance is not a guide to future performance and may not be repeated.**

Source: Schroders, Refinitiv Datastream, ICE Data Indices, J.P. Morgan. Data as at 31 March 2023. Please see relevant disclaimers on page 67.

<sup>1</sup>Local EMD is USD return.

<sup>2</sup>Local EMD is USD return in GBP.

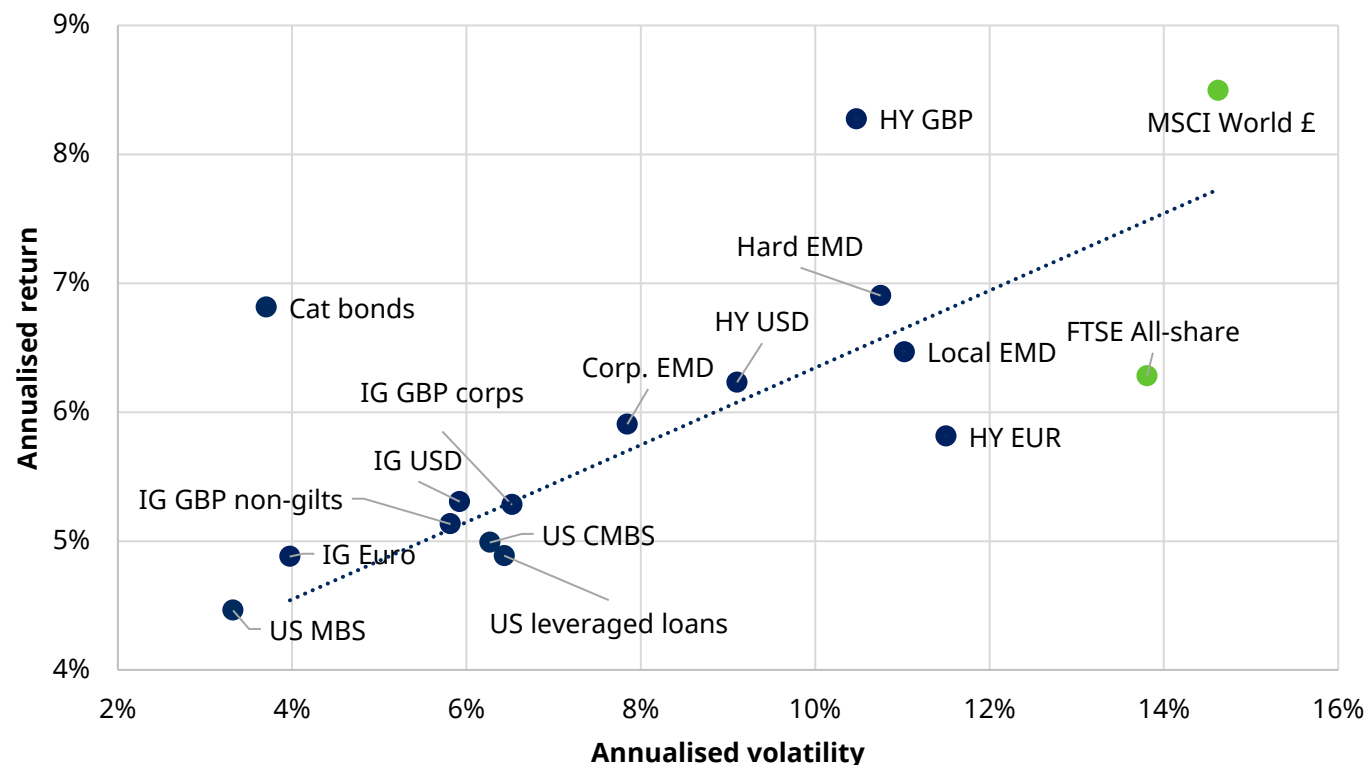
**Schroders**



**Cross-credit analysis**

# Cross-credit risk-return profile

Since Jan 1997 or inception



- Little difference in the risk/return characteristics of four IG indices
- The superior risk adjusted return of GBP HY index could be due to liquidity premium
- EMD has delivered higher risk-adjusted returns than DM credit

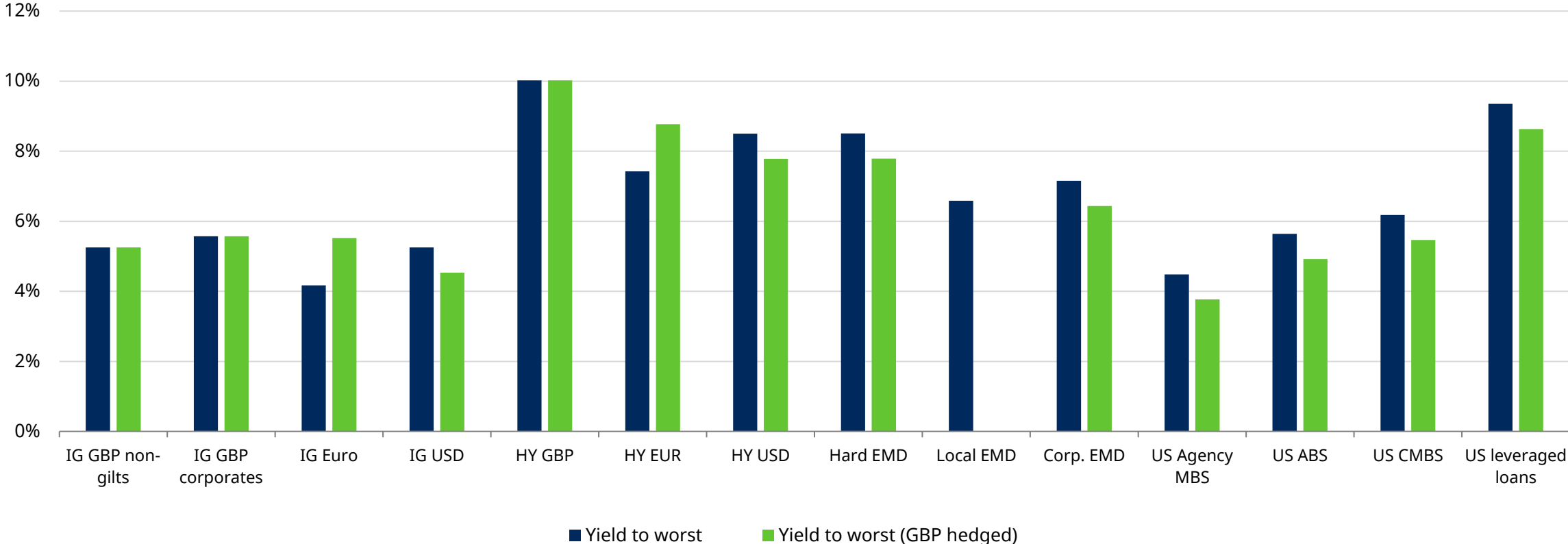
**Past performance is not a guide to future performance and may not be repeated.**

Source: Schroders, Refinitiv Datastream, ICE Data Indices, J.P. Morgan, Barclays, Credit Suisse. Data as at 31 March 2023. Please see relevant disclaimers on page 67.

All return and volatility figures shown as GBP hedged, except EMD Local and MSCI World which are unhedged returns in GBP.

# Cross-credit yield

## Yield to worst<sup>(1)</sup>



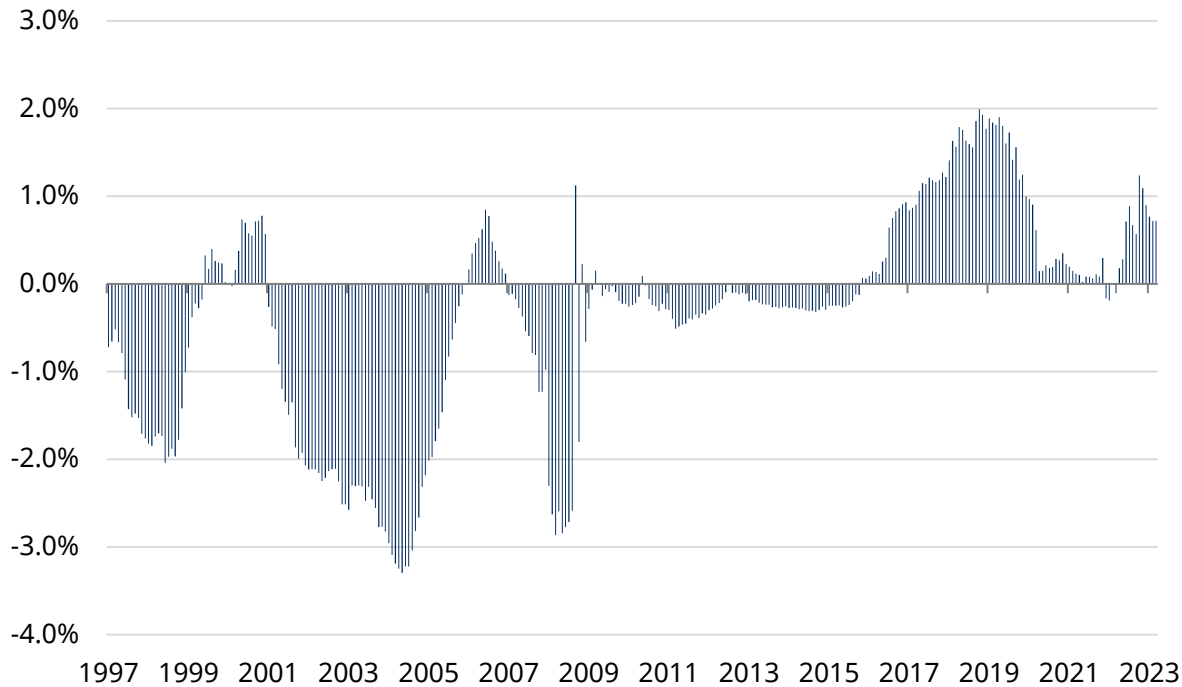
## Currency-hedged USD corporates yield less than GBP and EUR equivalents

Source: Schroders, Refinitiv Datastream, ICE Data Indices, J.P. Morgan, Bloomberg, Credit Suisse. Data as at 31 March 2023. Please see relevant disclaimers on page 67.  
 (1) Hedged yield is local currency yield minus annualised 3-month FX hedging cost/return (see next slide). US leveraged loans is yield (3-year life).

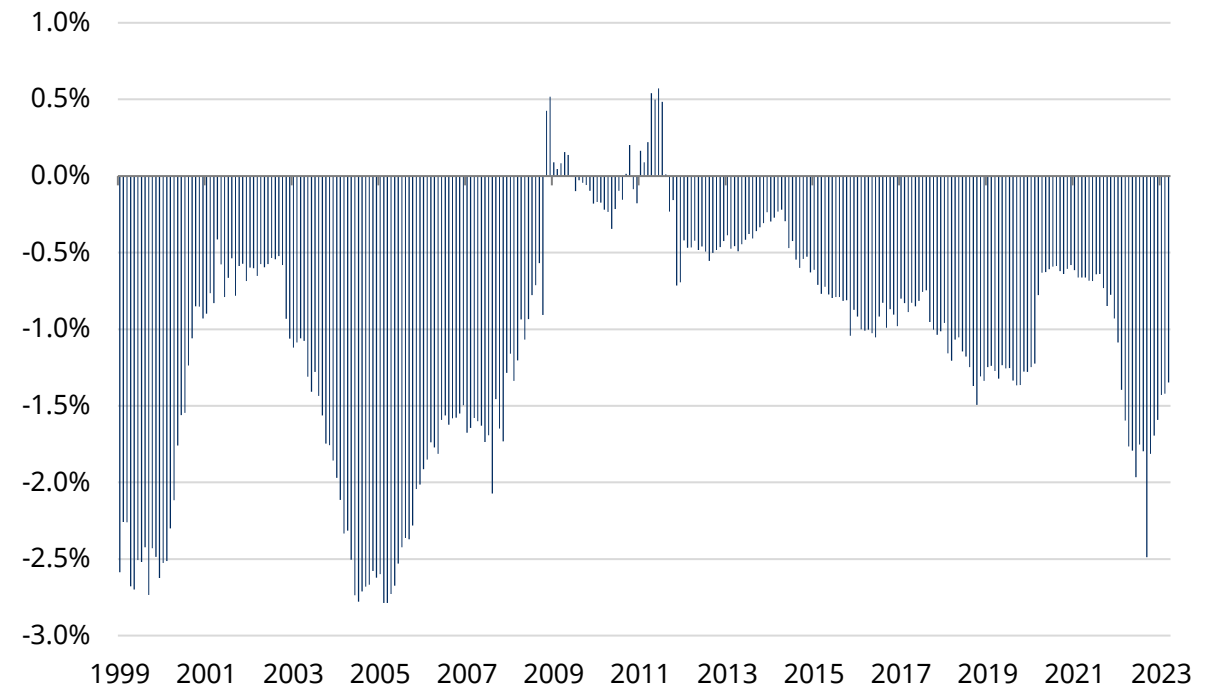
# FX hedging cost or return

Using 3-month FX forwards

Annualised USD to GBP hedging cost (pos) or return (neg)



Annualised EUR to GBP hedging cost (pos) or return (neg)

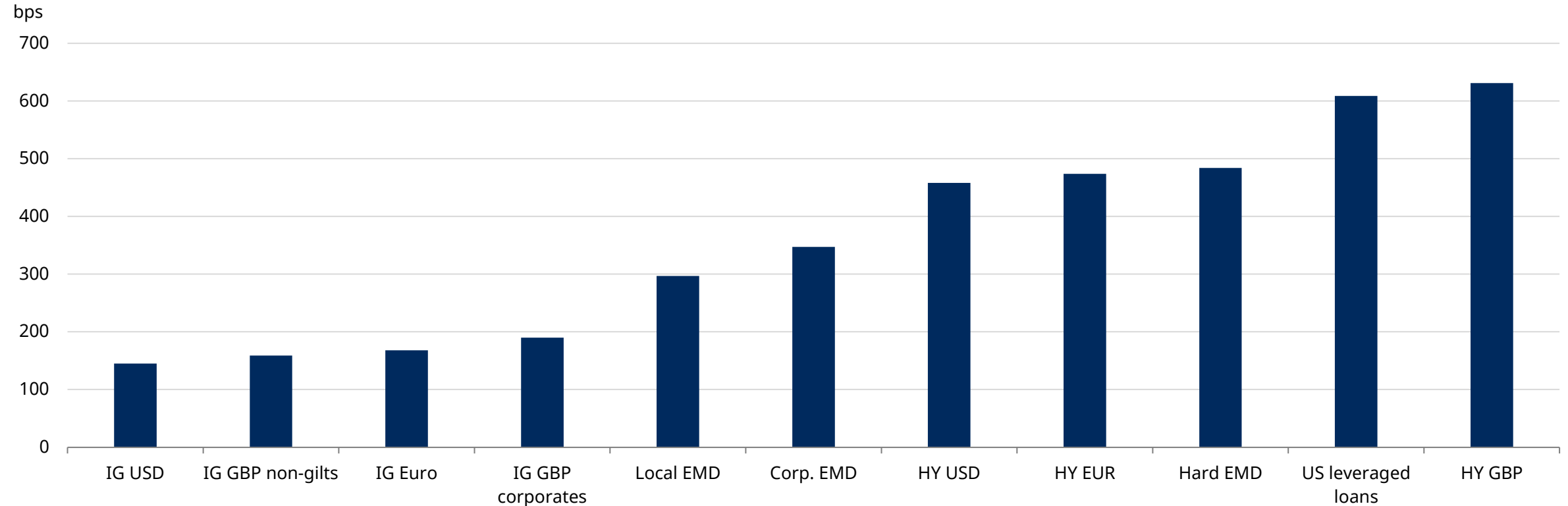


**USD yields will be 0.7% lower in GBP once hedging taken account**  
**EUR yields will be 1.3% higher in GBP once hedging taken account**

Source: Refinitiv Datastream. Data as at 31 March 2023. Please see relevant disclaimers on page 67.

# Cross-credit spread

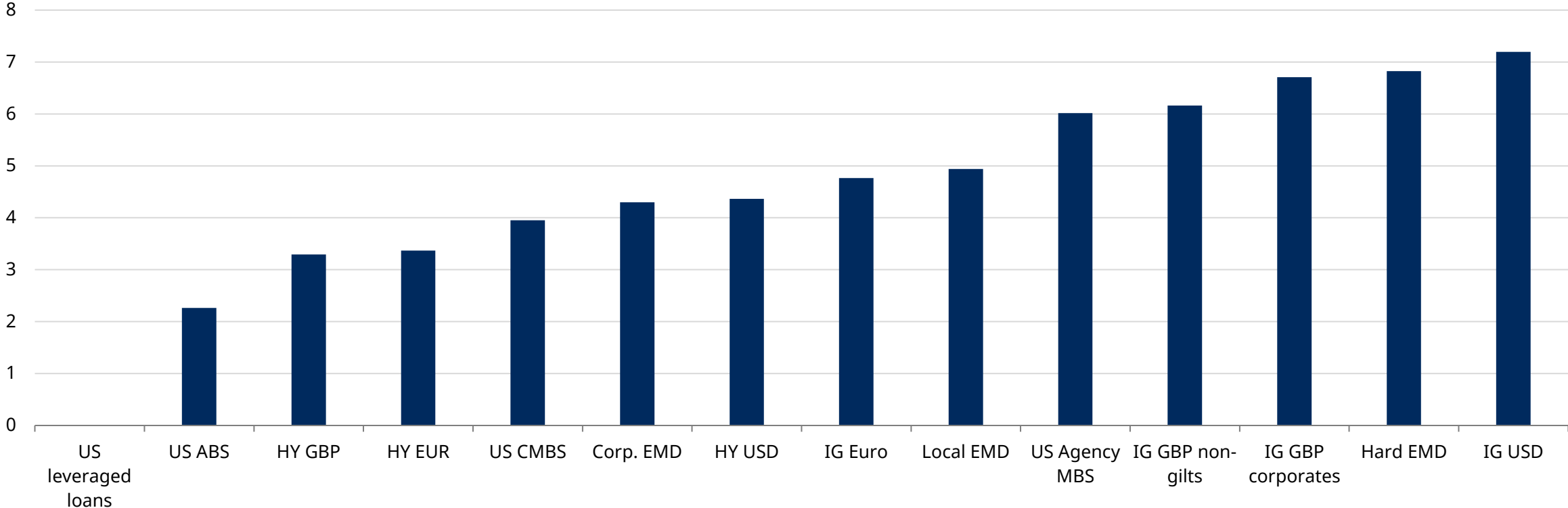
## Spread



Source: Refinitiv Datastream, ICE Data Indices, J.P. Morgan, Bloomberg, Credit Suisse. Data as at 31 March 2023. Local EMD has been estimated as a spread over Treasuries of similar maturity. US leveraged loan spread is Discount Margin (3-year life). Please see relevant disclaimers on page 67.

# Cross-credit duration

## Modified duration



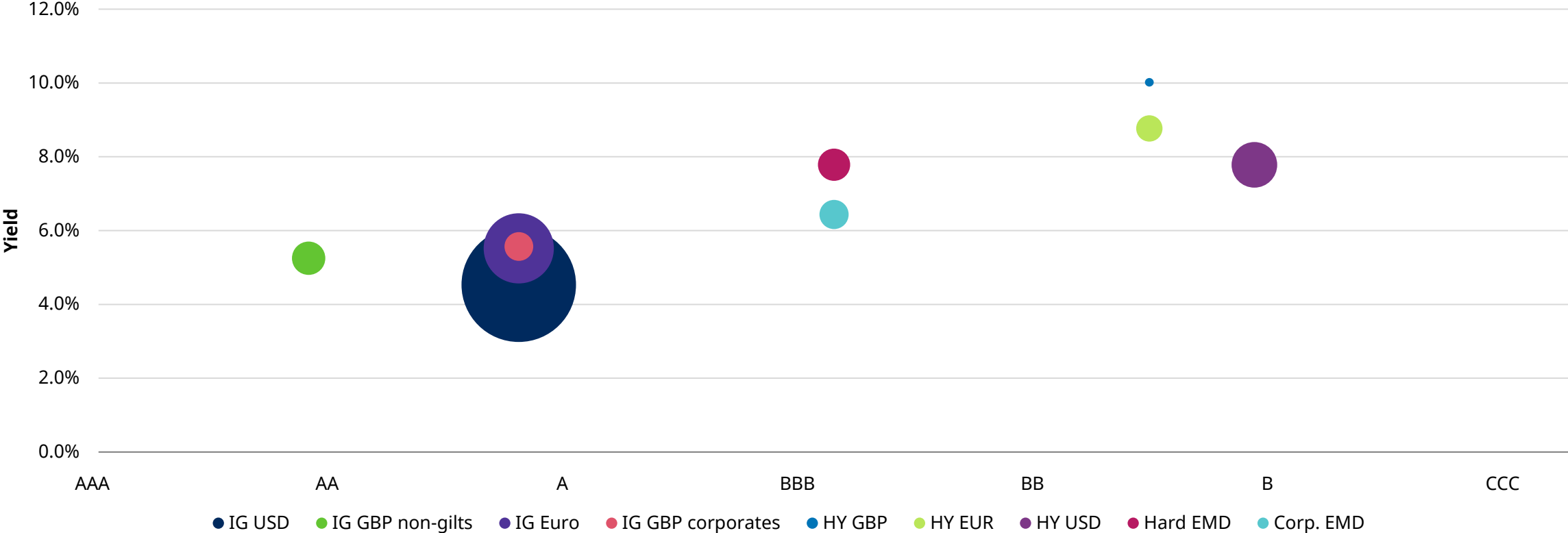
Source: Refinitiv Datastream, ICE Data Indices, J.P. Morgan, Bloomberg. Data as at 31 March 2023. Please see relevant disclaimers on page 67.



# Yield vs. credit rating vs. market size

The size of bubble is proportionate to the size of the market

### Yield (GBP hedged) vs credit rating vs market size

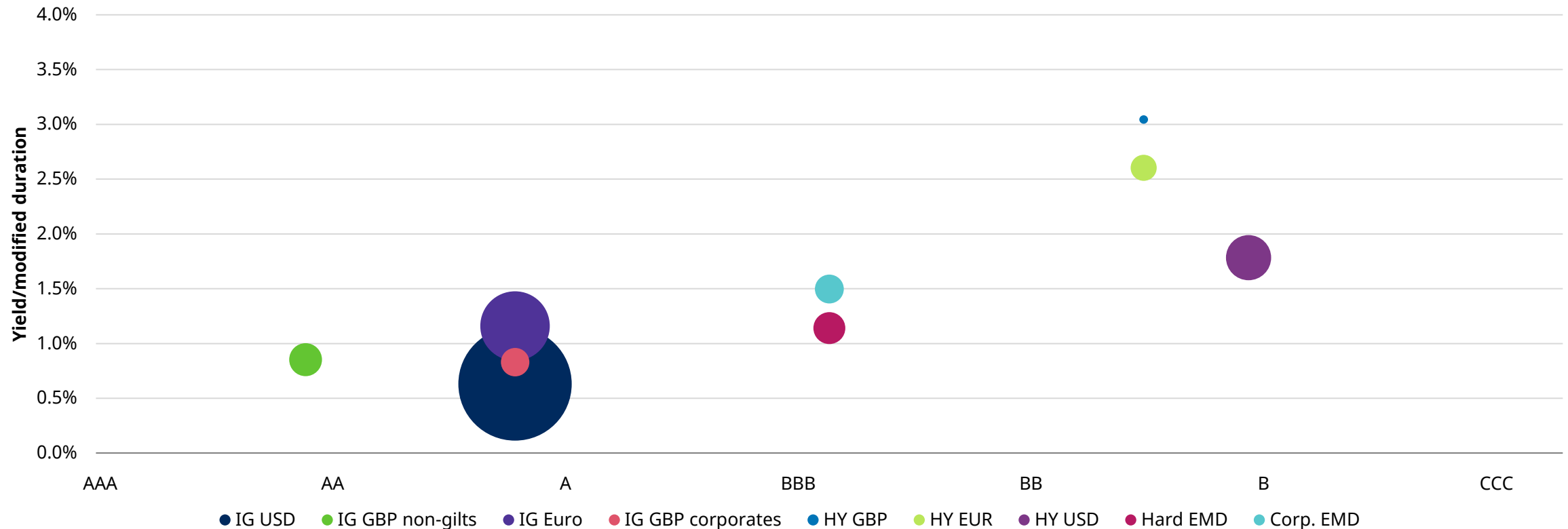


Source: Schroders, Refinitiv Datastream, ICE Data Indices, J.P. Morgan. Data as at 31 March 2023. Please see relevant disclaimers on page 67.

# Yield per unit of duration vs. credit rating vs. market size

Vertical axis is yield divided by modified duration

## Yield (GBP hedged) per unit of duration vs credit rating vs market size

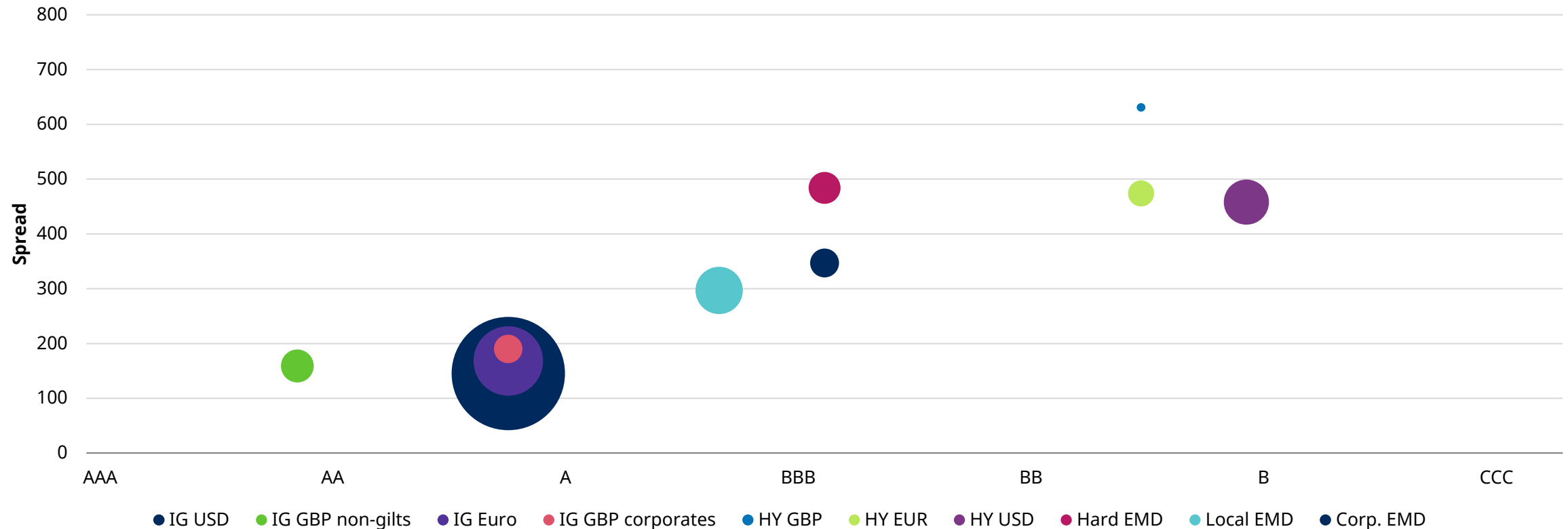


Source: Schroders, Refinitiv Datastream, ICE Data Indices, J.P. Morgan. Data as at 31 March 2023. Please see relevant disclaimers on page 67.

# Spread vs. credit rating vs. market size

The size of bubble is proportionate to the size of the market

## Spread vs credit rating vs market size

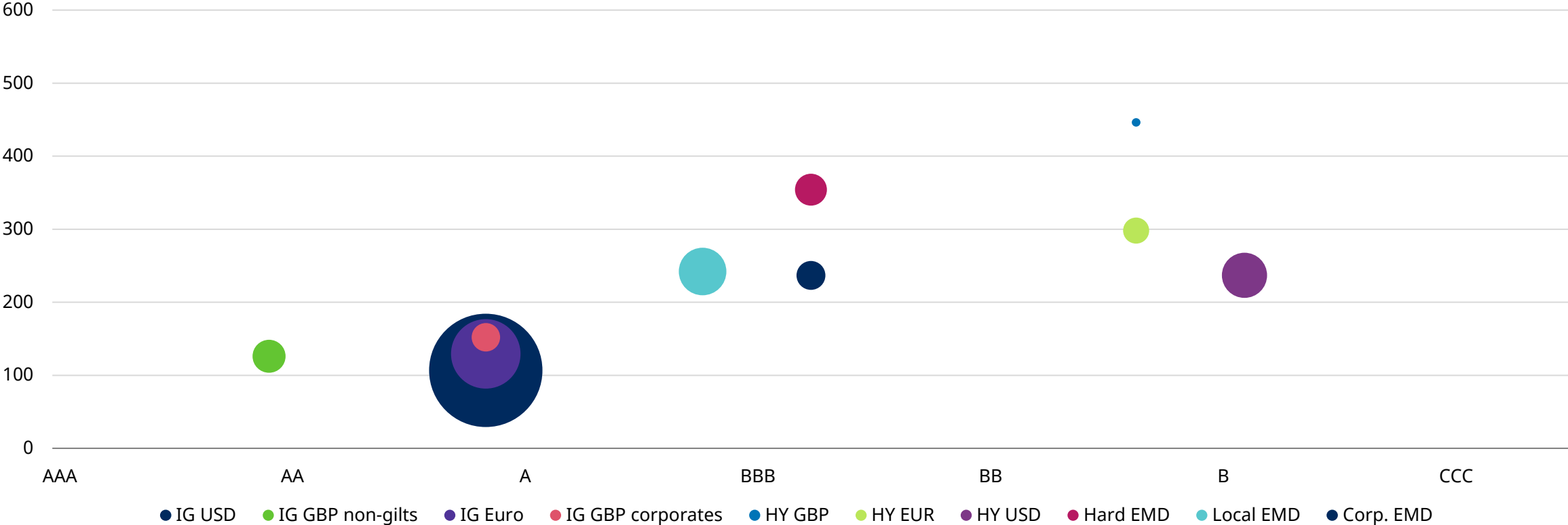


Source: Schroders, Refinitiv Datastream, ICE Data Indices, J.P. Morgan. Data as at 31 March 2023. Please see relevant disclaimers on page 67.

# Risk premium vs. credit rating vs. market size

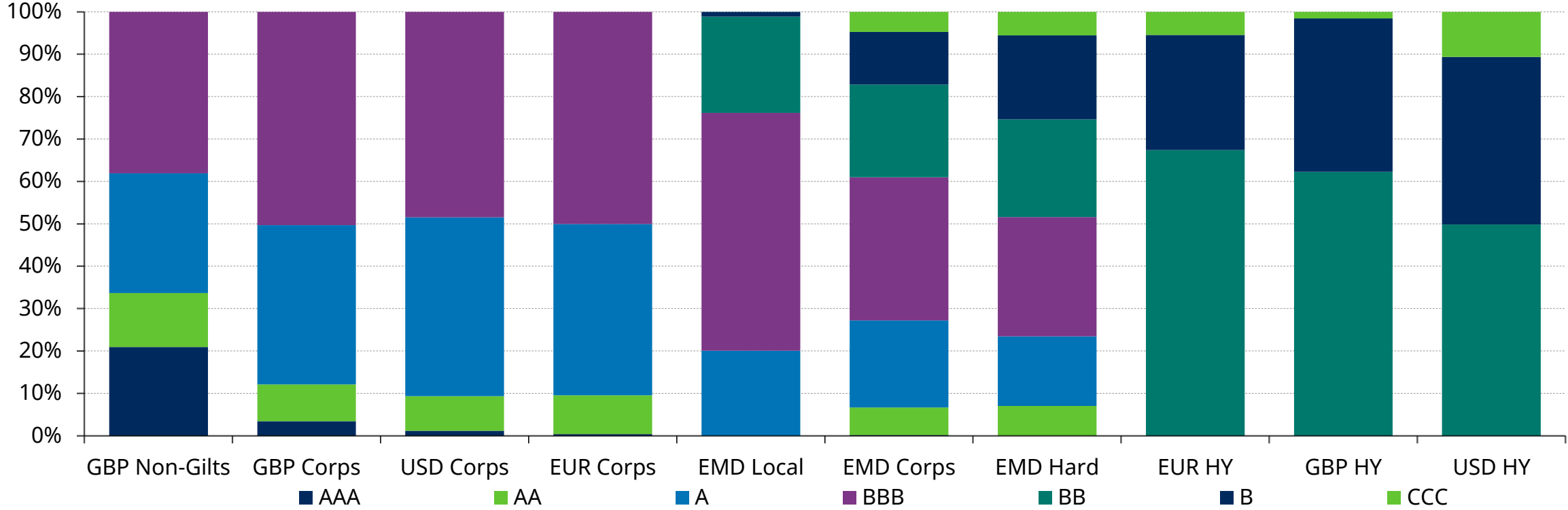
Risk premium = credit spread – long term default and downgrade losses

## Risk premium vs credit rating vs market size



Source: Schroders, Refinitiv Datastream, ICE Data Indices, J.P. Morgan. Data as at 31 March 2023. Please see relevant disclaimers on page 67. Local EMD returns are driven by rates and currency movements rather than defaults

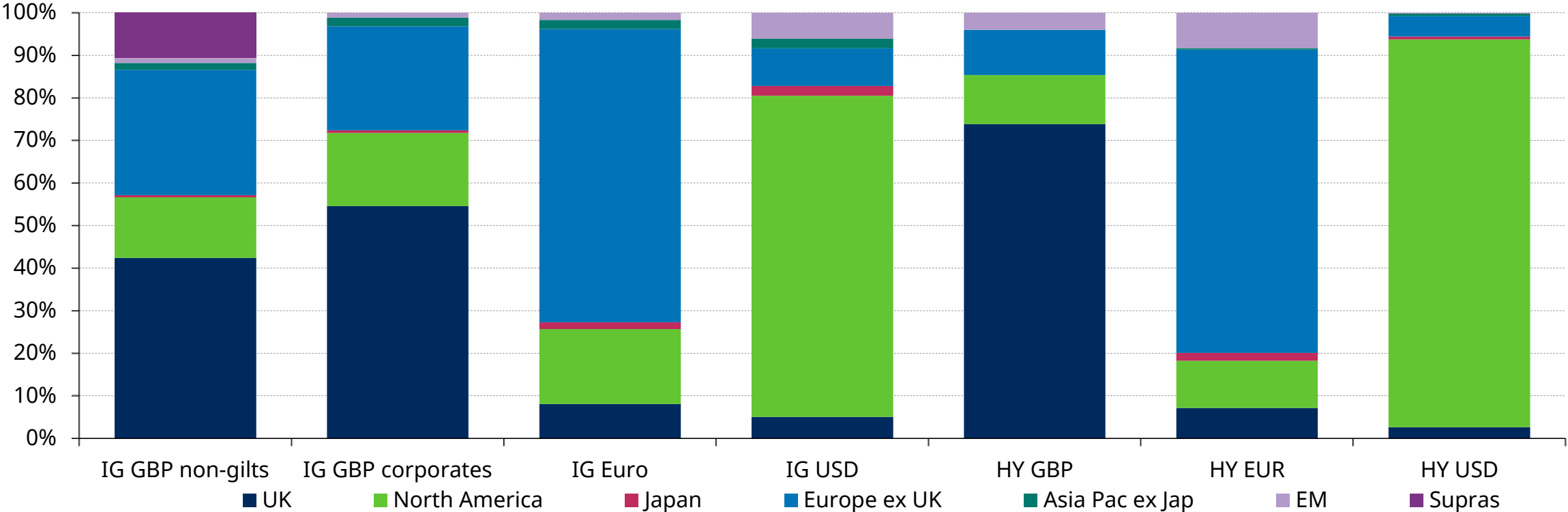
# Cross-credit ratings split



US HY lower quality than UK/EUR HY; IG larger share of EMD Corporates than EMD Hard

Source: Refinitiv Datastream, ICE Data Indices, J.P. Morgan. Data as at 31 March 2023. Please see relevant disclaimers on page 67.

# Currency of issue vs country of issuer

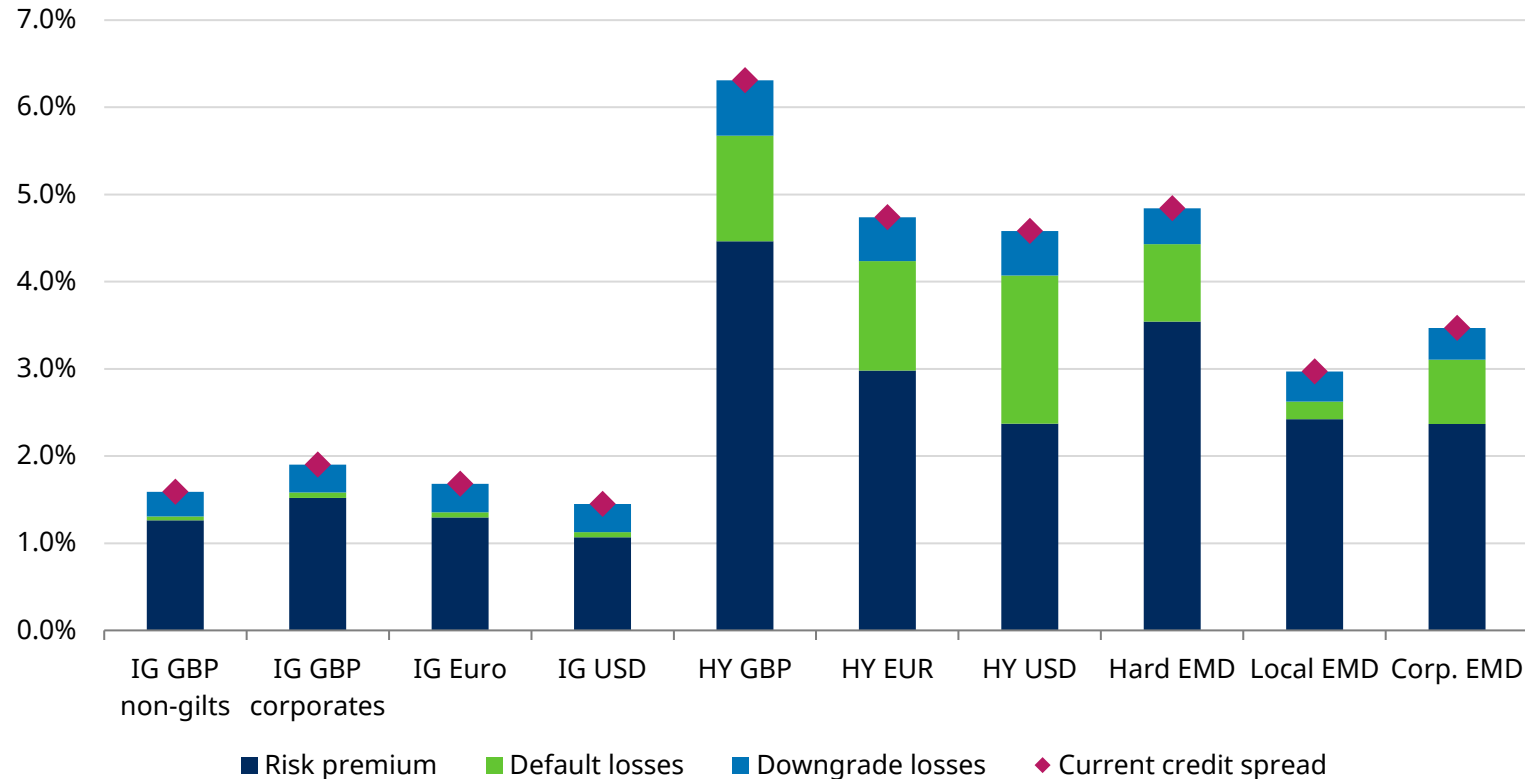


Almost half of GBP IG issuers are not based in the UK

Source: Refinitiv Datastream, ICE Data Indices, J.P. Morgan. Data as at 31 March 2023. Please see relevant disclaimers on page 67.

# Risk premium/net spread in credit

## Decomposition of credit spread into expected losses and expected risk premium



- IG is more exposed to **downgrade losses** (value of a bond falling after a downgrade), while **default losses** have been negligible
- Major losses in HY come from defaults that mostly happen in recessions
- Historically, investors have received a **risk premium** for having exposure to credit, as the average default and downgrade losses have been less than the average spread

Source: Schroders, Moody's default and recovery study 2019, ICE Data Indices, J.P.Morgan. Data as at 31 March 2023. Please see relevant disclaimers on page 67.

# Risk premium

Decomposition of credit spread into exp. losses and exp. risk premium

	Expected default rate <sup>1</sup>	Default losses <sup>2</sup>	Downgrade losses	Current credit spread	Risk premium <sup>3</sup>
IG GBP non-gilts	0.1%	0.0%	0.3%	1.6%	1.3%
IG GBP corporates	0.1%	0.1%	0.3%	1.9%	1.5%
IG Euro	0.1%	0.1%	0.3%	1.7%	1.3%
IG USD	0.1%	0.1%	0.3%	1.5%	1.1%
HY GBP	1.9%	1.2%	0.6%	6.3%	4.5%
HY EUR	1.9%	1.3%	0.5%	4.7%	3.0%
HY USD	2.6%	1.7%	0.5%	4.6%	2.4%
Hard EMD	1.4%	0.9%	0.4%	4.8%	3.5%
Local EMD	0.3%	0.2%	0.3%	3.0%	2.4%
Corp. EMD	1.1%	0.7%	0.4%	3.5%	2.4%

**Risk premium is expected annual return on top of risk-free rate over a full credit cycle, implied by current spreads**

Source: Schroders, Moody's default and recovery study 2022, ICE Data Indices, J.P.Morgan. Data as at 31 March 2023. Please see relevant disclaimers on page 67.

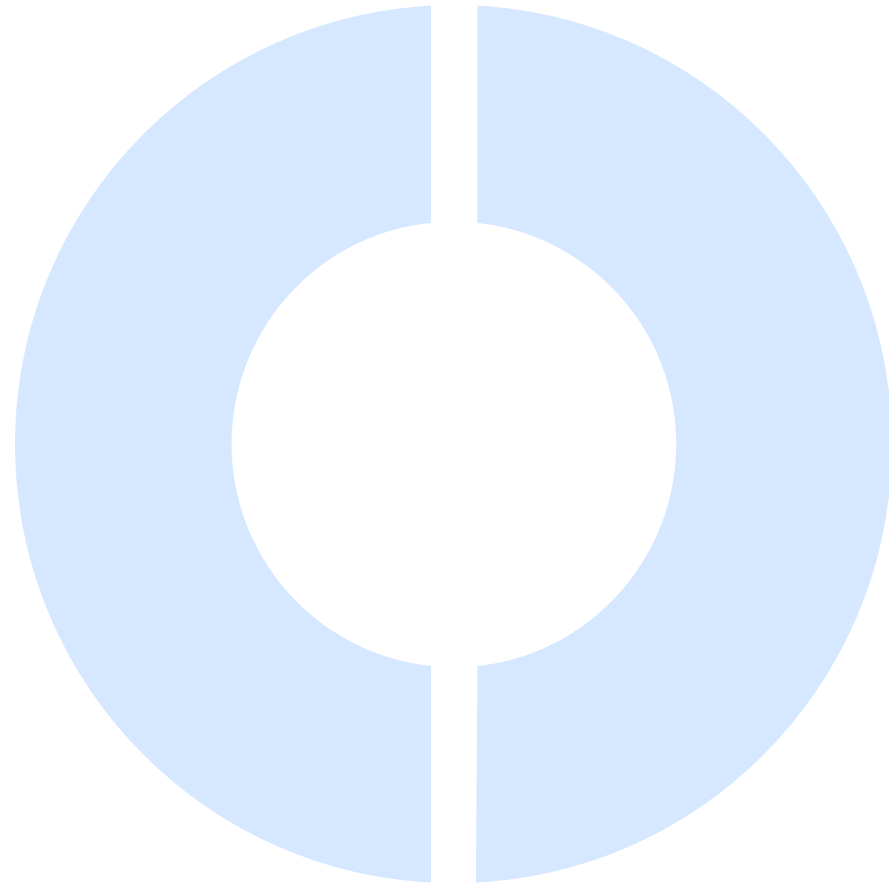
<sup>1</sup>Based on average historical default rate

<sup>2</sup>Default rate \* (1-recovery rate)

<sup>3</sup>Credit spread – default losses – downgrade losses



**Schroders**

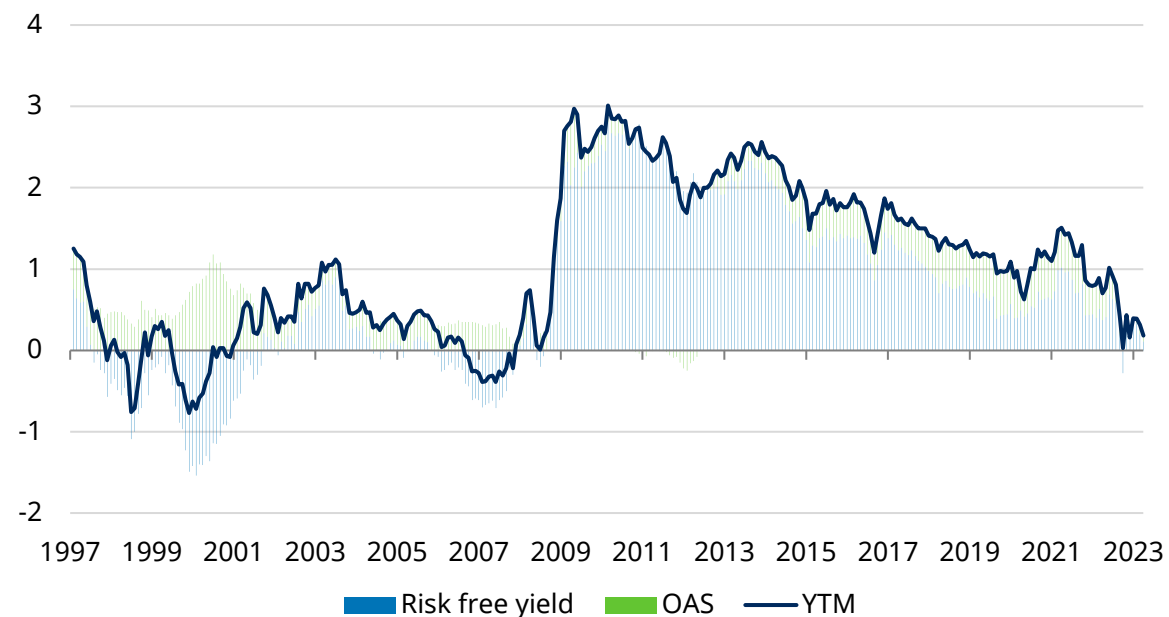


**IG long vs short**

Shape of the curve

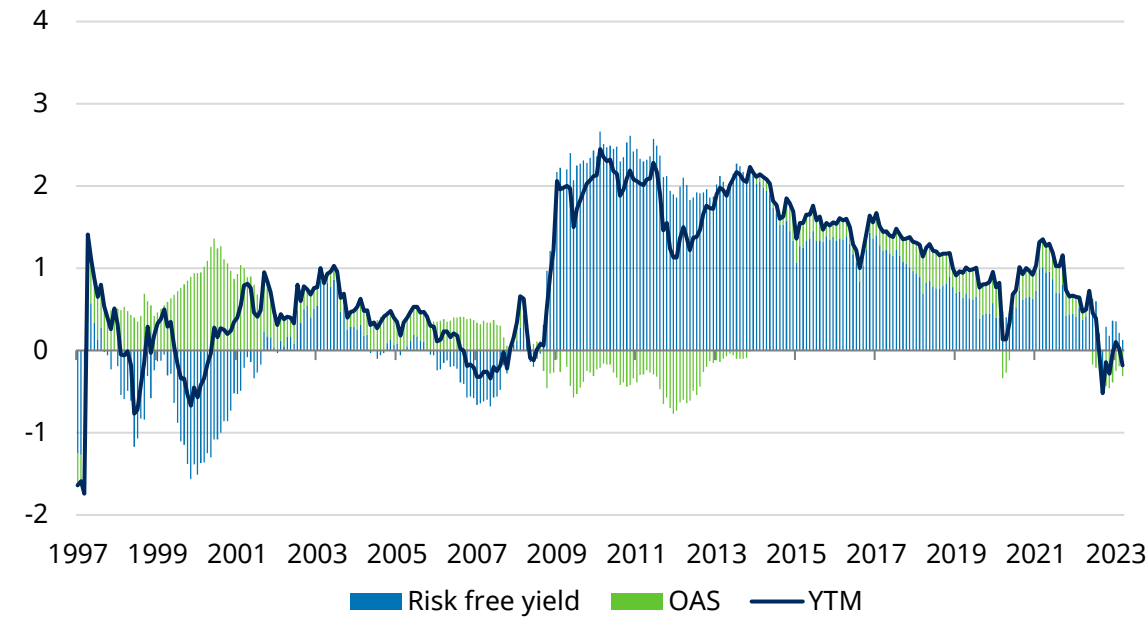
# Shape of GBP IG curves

## IG GBP non-gilts 10+ minus 1-5 year index yield (%)



	YTW	OAS	Duration
IG GBP non-gilts 1-5 year	5.2%	149	2.8
IG GBP non-gilts Index	5.3%	159	6.2
IG GBP non-gilts 10+	5.3%	156	11.8

## IG GBP corporate 10+ minus 1-5 year index yield (%)

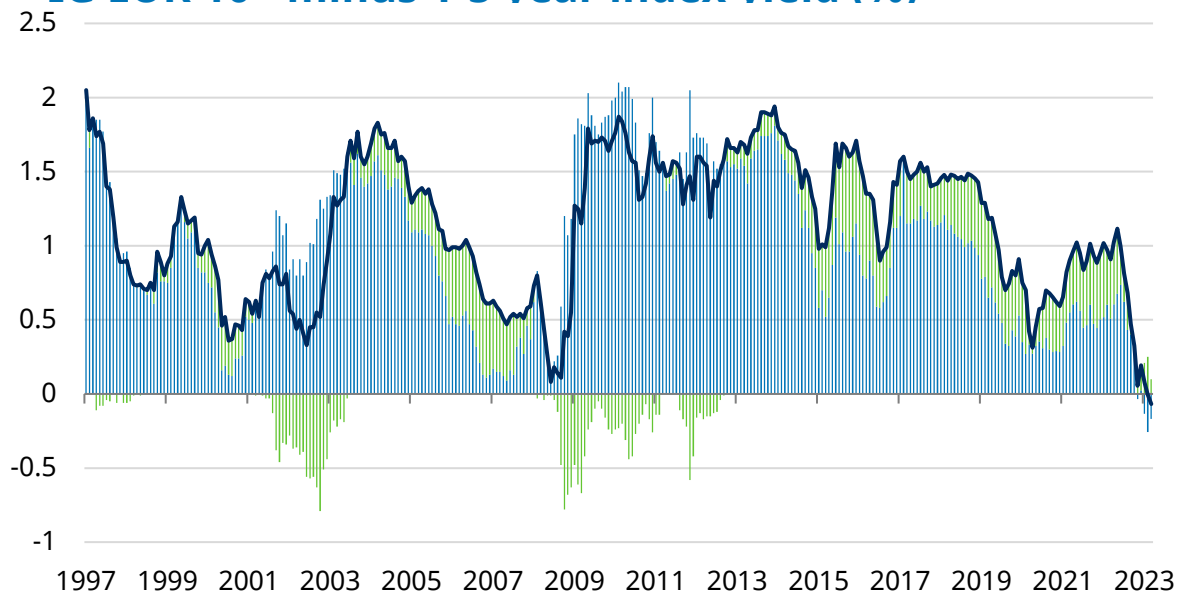


	YTW	OAS	Duration
IG GBP corporates 1-5 year	5.6%	198	2.9
IG GBP corporates Index	5.6%	190	6.7
IG GBP corporates 10+	5.5%	167	11.6

Source: Refinitiv Datastream. Data as at 31 March 2023. Please see relevant disclaimers on page 67.

# Shape of EUR and USD IG curves

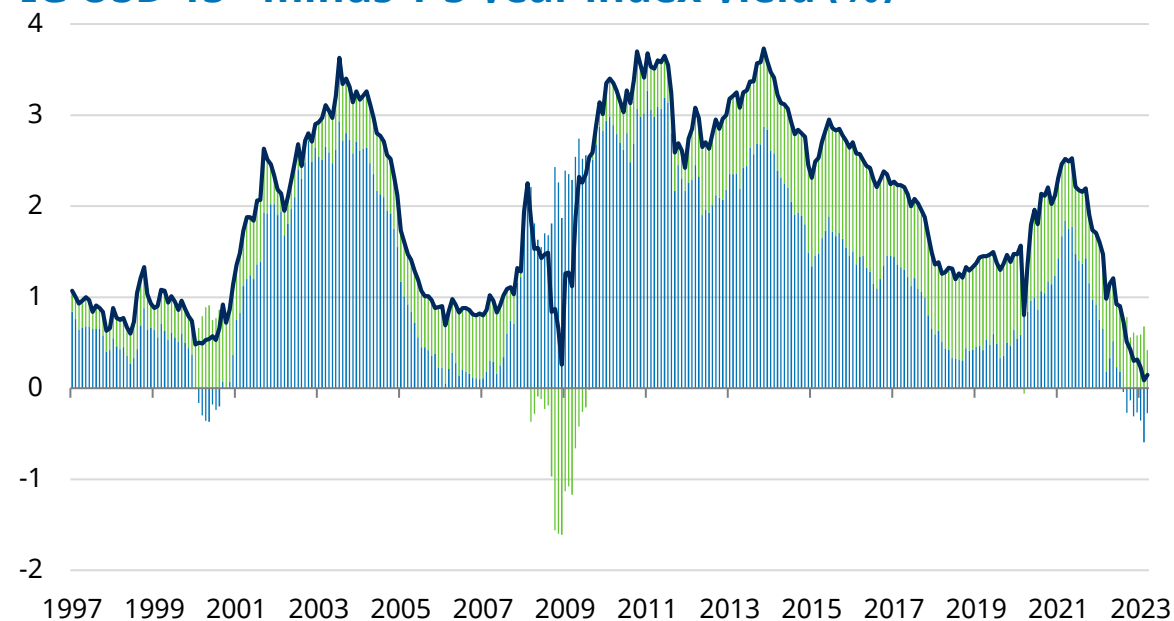
## IG EUR 10+ minus 1-5 year index yield (%)



■ Risk free yield ■ OAS — YTM

	YTW	OAS	Duration
IG Euro 1-5 year	4.2%	157	2.9
IG Euro Index	4.2%	168	4.8
IG Euro 10+	4.1%	167	11.8

## IG USD 15+ minus 1-5 year index yield (%)



■ Risk free yield ■ OAS — YTM

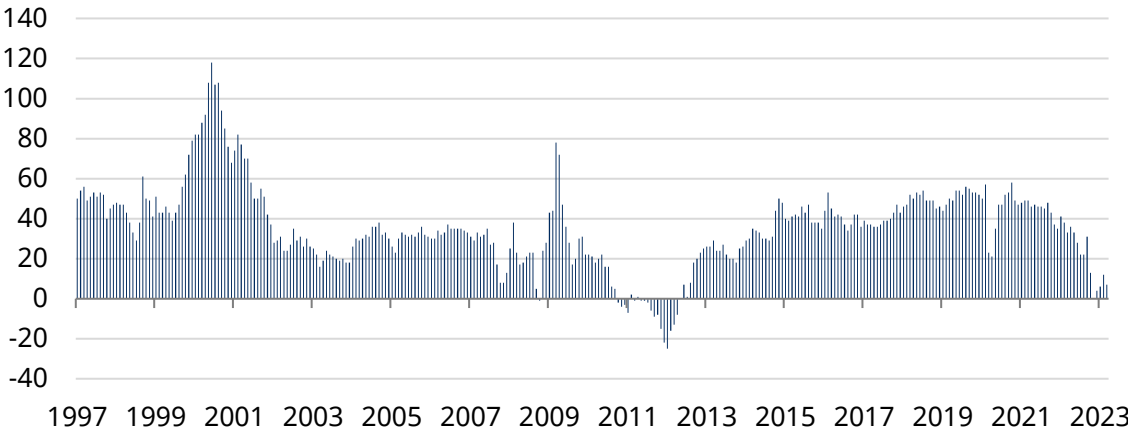
	YTW	OAS	Duration
IG USD 1-5 year	5.2%	119	2.8
IG USD Index	5.3%	145	7.2
IG USD 10+	5.4%	161	14.2

Source: Refinitiv Datastream. Data as at 31 March 2023. Please see relevant disclaimers on page 67.

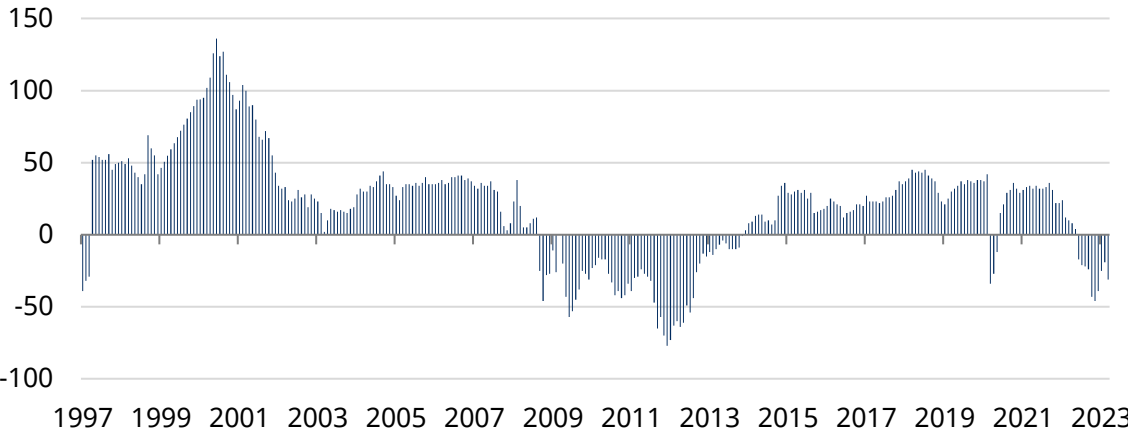
# IG long vs short OAS

## Shape of spread curves

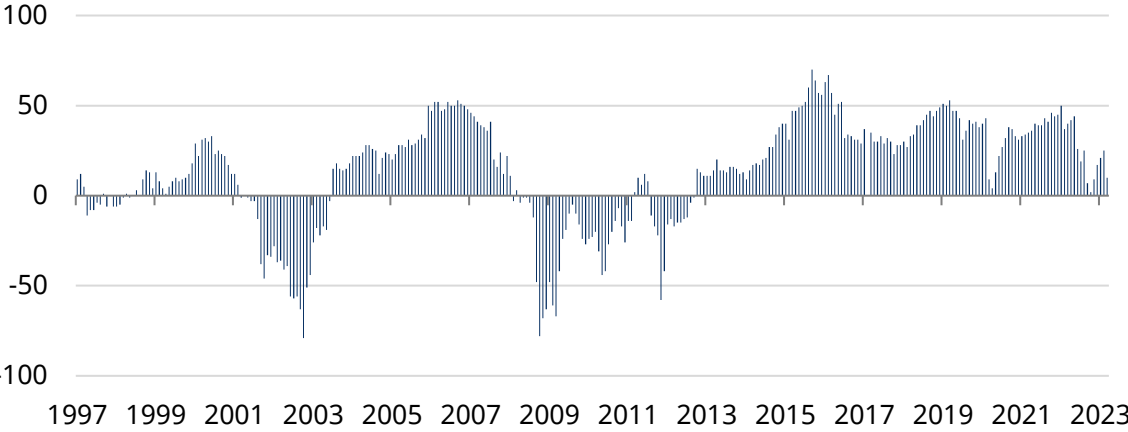
IG GBP non-gilts (bps)



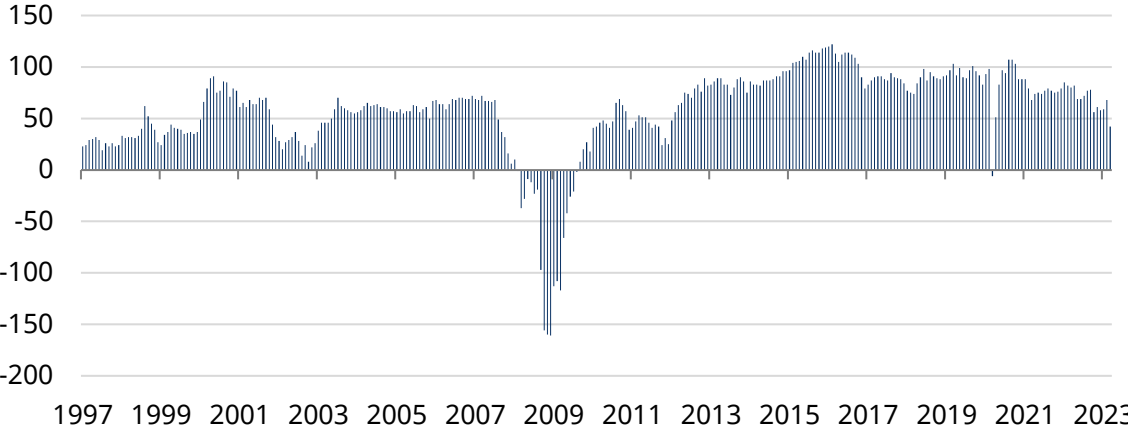
IG GBP corporates (bps)



IG EUR (bps)



IG USD (bps)



Source: Schroders, ICE Data Indices. Figures showing 10+ (15+ for IG USD) minus 1-5 year index spread. Data as at 31 March 2023. Please see relevant disclaimers on page 67.

**Schroders**

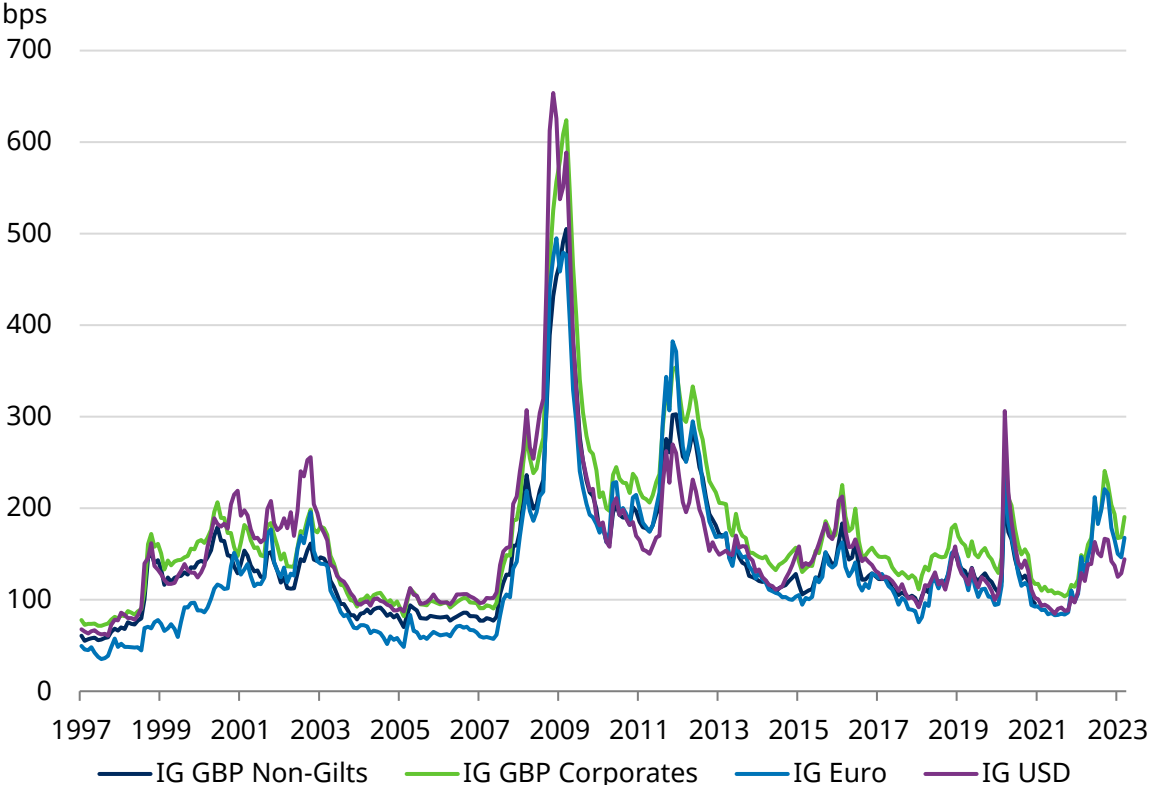


**Corporate credit**  
Valuation

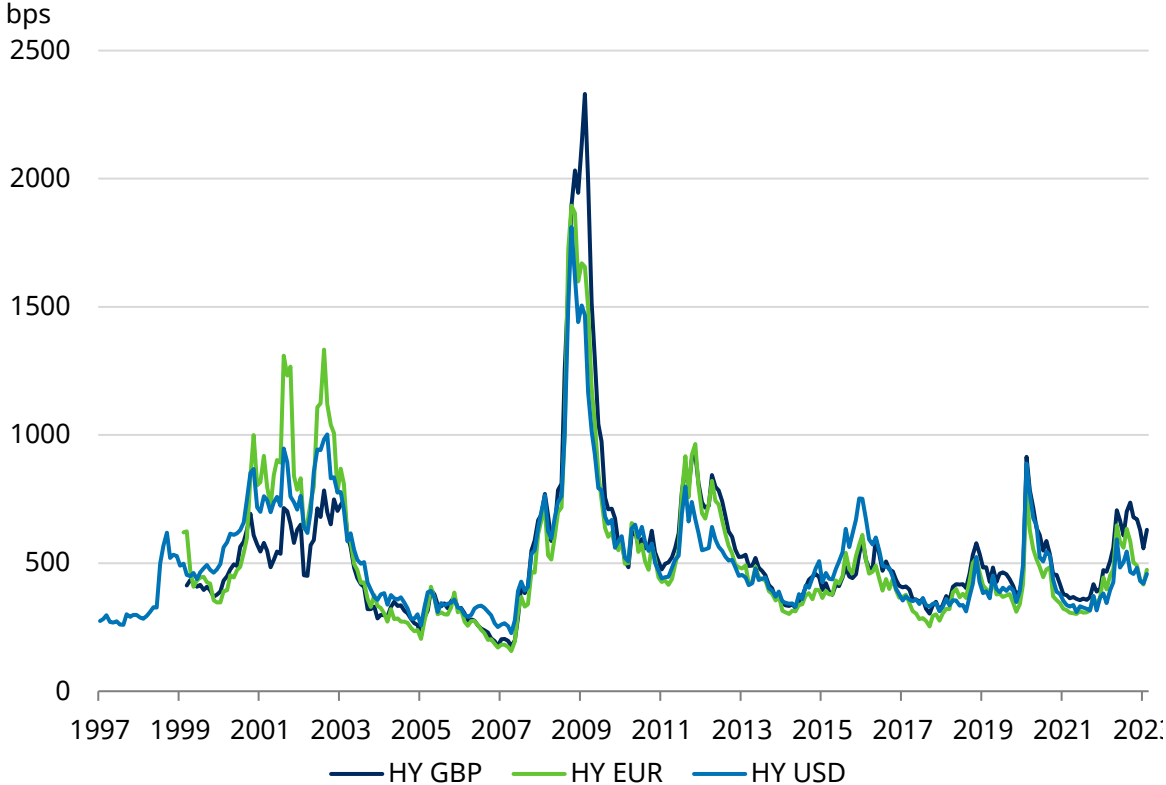
# IG and HY valuation

## Historical ratings-adjusted credit spreads

### IG adjusted spreads



### HY adjusted spreads

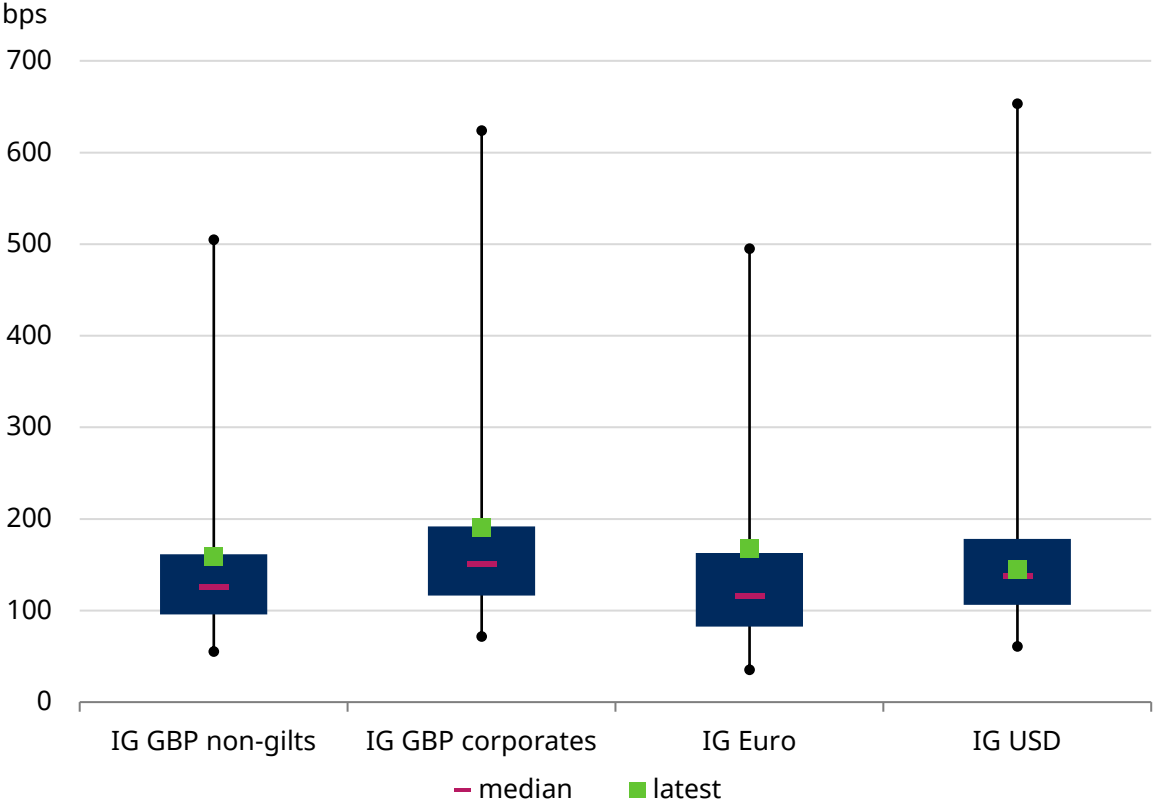


Source: Schroders, Refinitiv Datastream, ICE Data Indices, J.P. Morgan. Data as at 31 March 2023. Please see relevant disclaimers on page 67. Spreads are adjusted for changes in the distribution of credit ratings within each index over time.

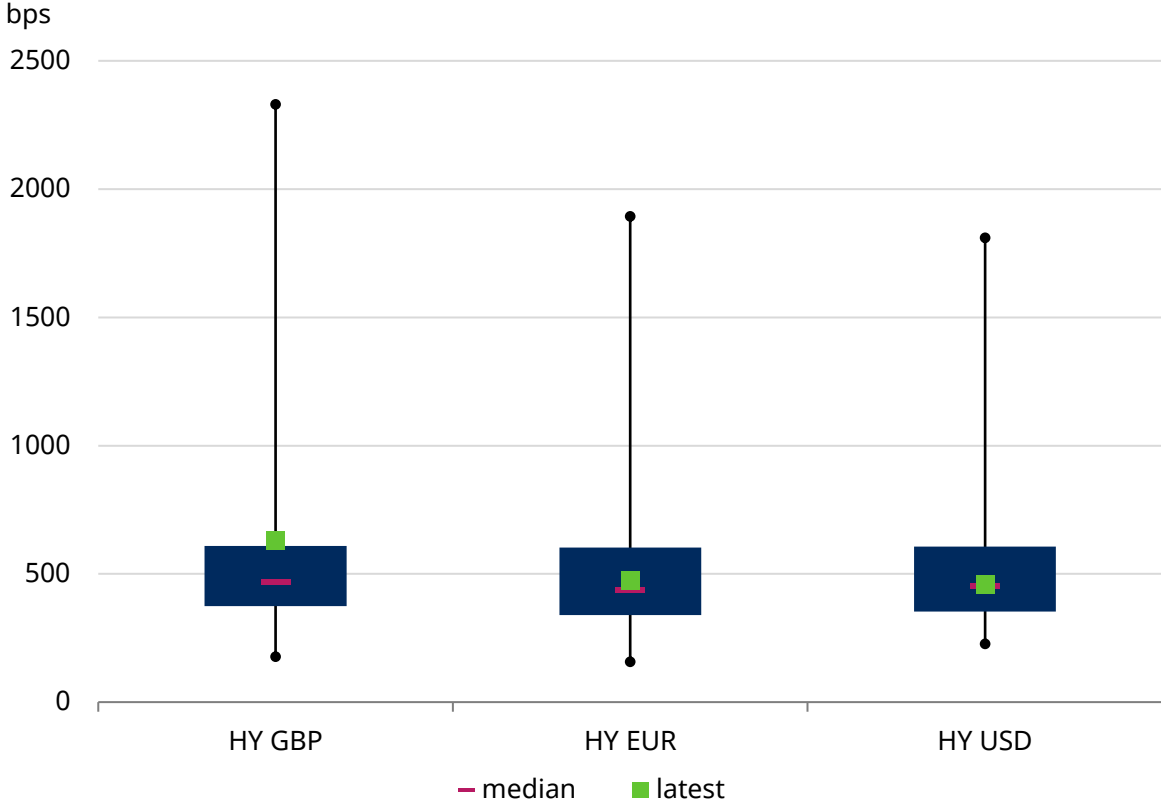
# IG and HY valuation

## Spread percentiles<sup>1</sup>

### IG adjusted spreads



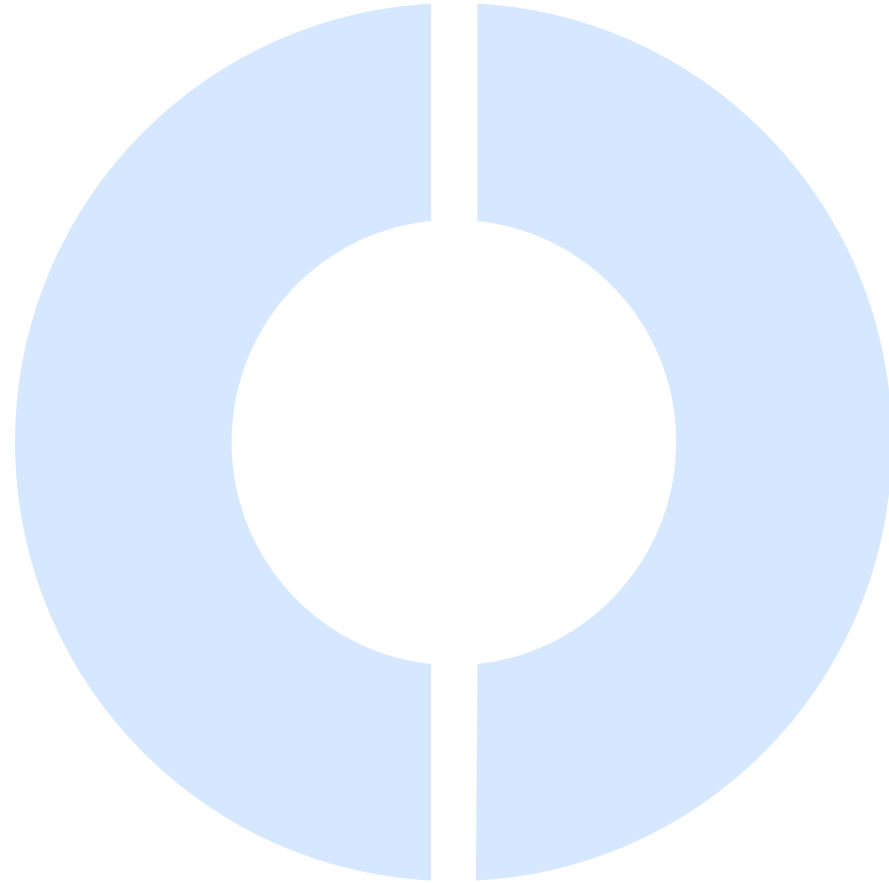
### HY adjusted spreads



Source: Schroders, Refinitiv Datastream, ICE Data Indices, J.P. Morgan. Data as at 31 March 2023. Spreads are adjusted for changes in the distribution of credit ratings within each index over time. Please see relevant disclaimers on page 67.

<sup>1</sup>Percentiles shows where the current spread is relatively to the historical range of spreads, within a range of 0 to 100. The greater the percentile the higher the spread compared to history.

**Schroders**



**Corporate credit**  
Fundamentals

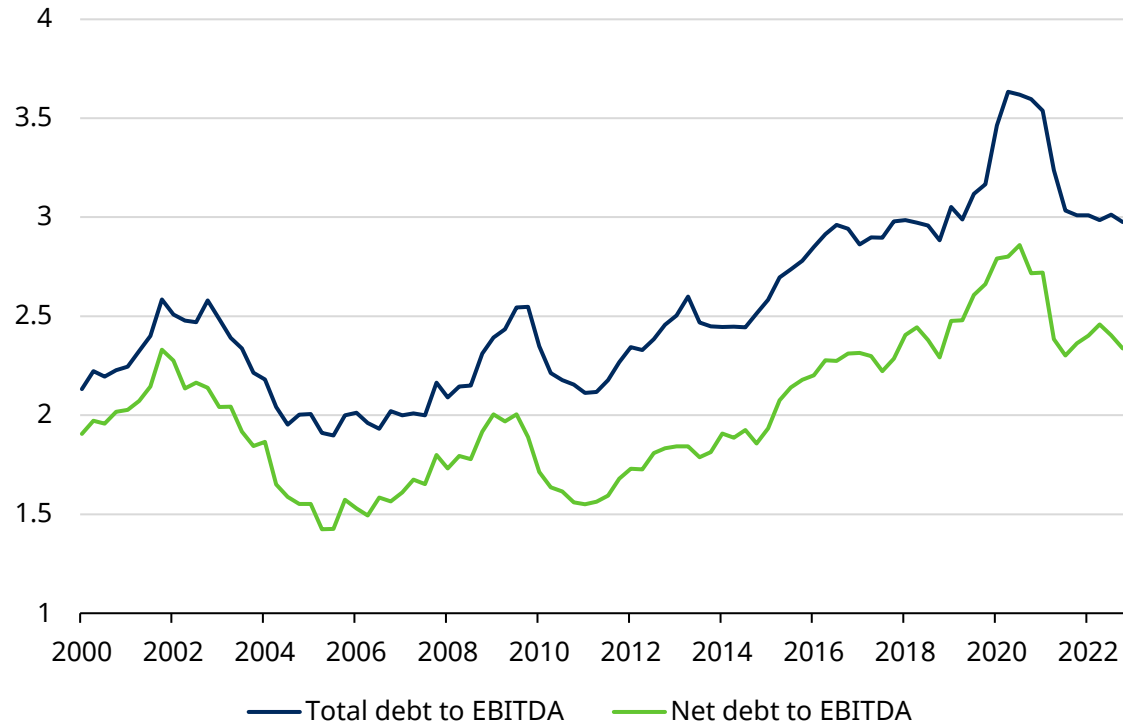


# US IG leverage

Leverage has been broadly stable in recent quarters

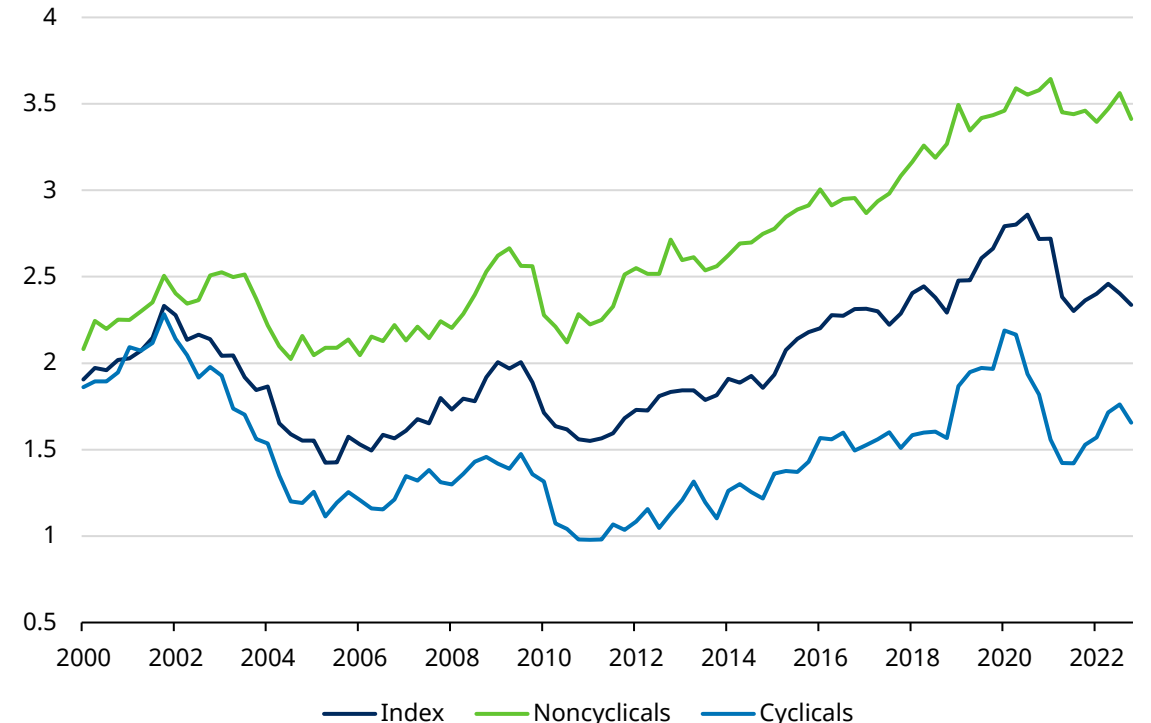
## US IG leverage

Debt to last 12 months EBITDA



## US IG net leverage

Net debt to last 12 months EBITDA



**An increase in cash balances led to a drop in net leverage in Q4**

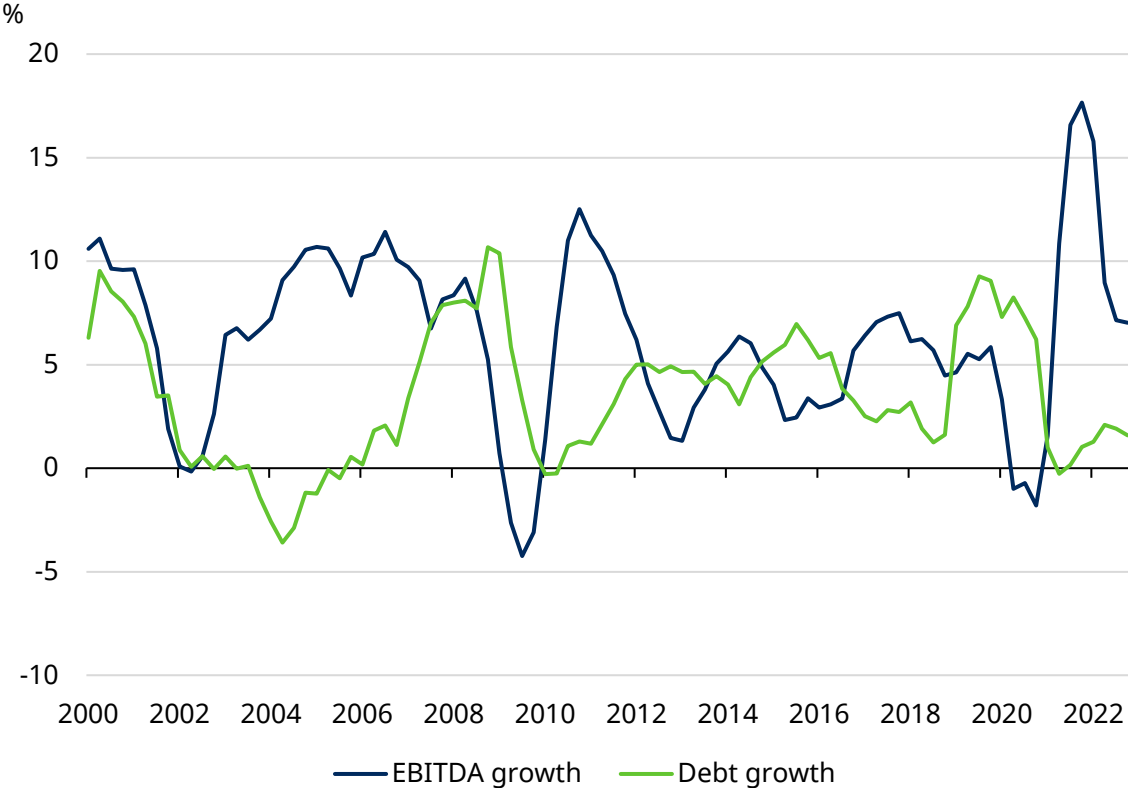
Source: Schroders, Bloomberg. Median issuer ex-Financials. Data as of Q4 2022. Please see relevant disclaimers on page 67.

**Cyclical sectors:** Basic Materials, Consumer Discretionary, Industrials, Technology. **Noncyclical sectors:** Communications, Consumer Staples, Utility, Health Care.

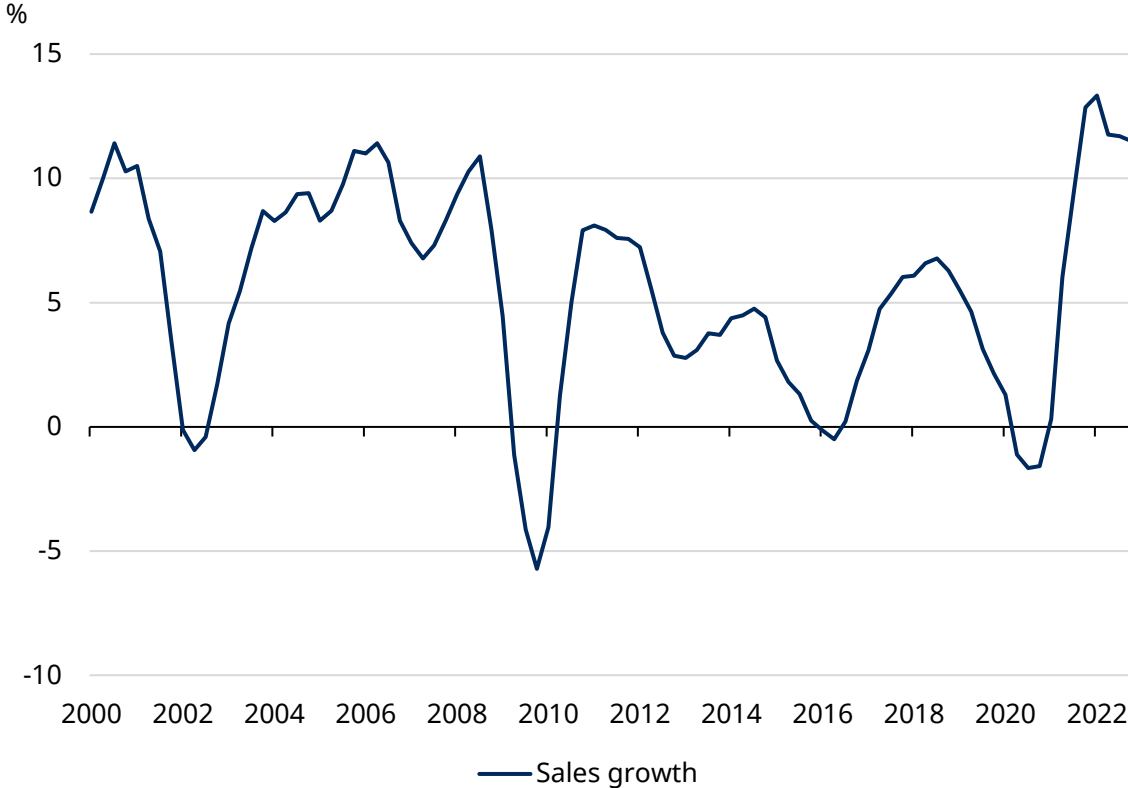
# US IG earnings, sales and debt growth

Sales and earnings growth is still strong, aided by high nominal growth and inflation

### US IG EBITDA and debt growth



### US IG sales growth



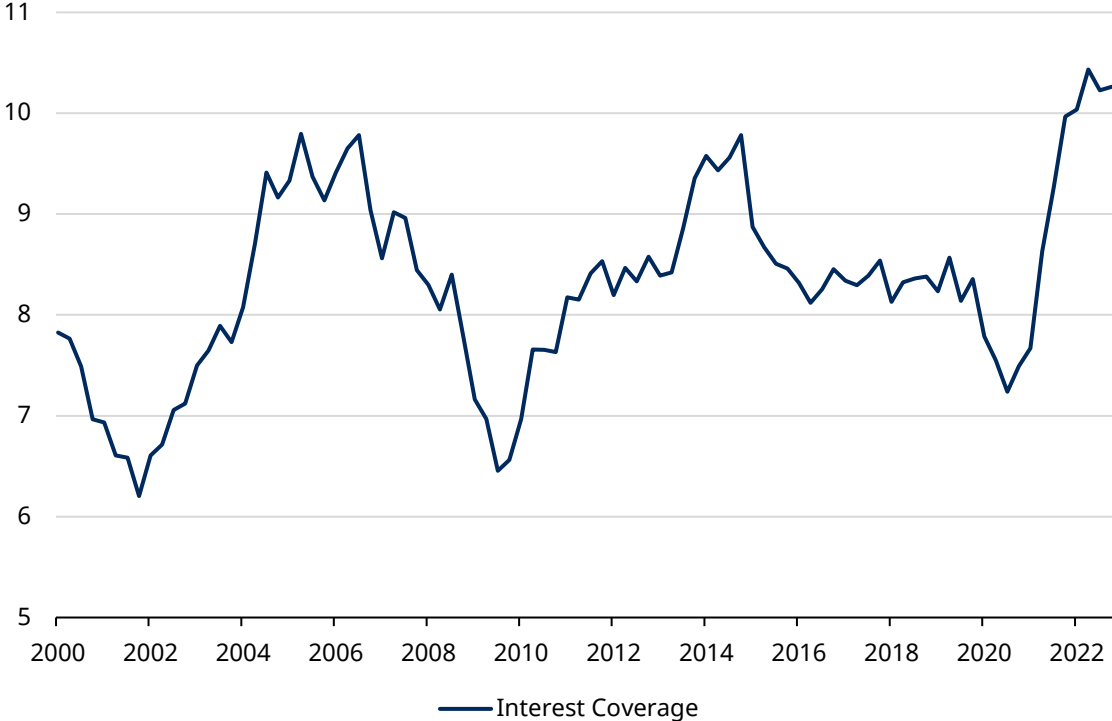
Source: Schroders, Bloomberg. Median issuer ex-Financials. Data as of Q4 2022. Please see relevant disclaimers on page 67.

# US IG interest coverage

Interest coverage remains very elevated

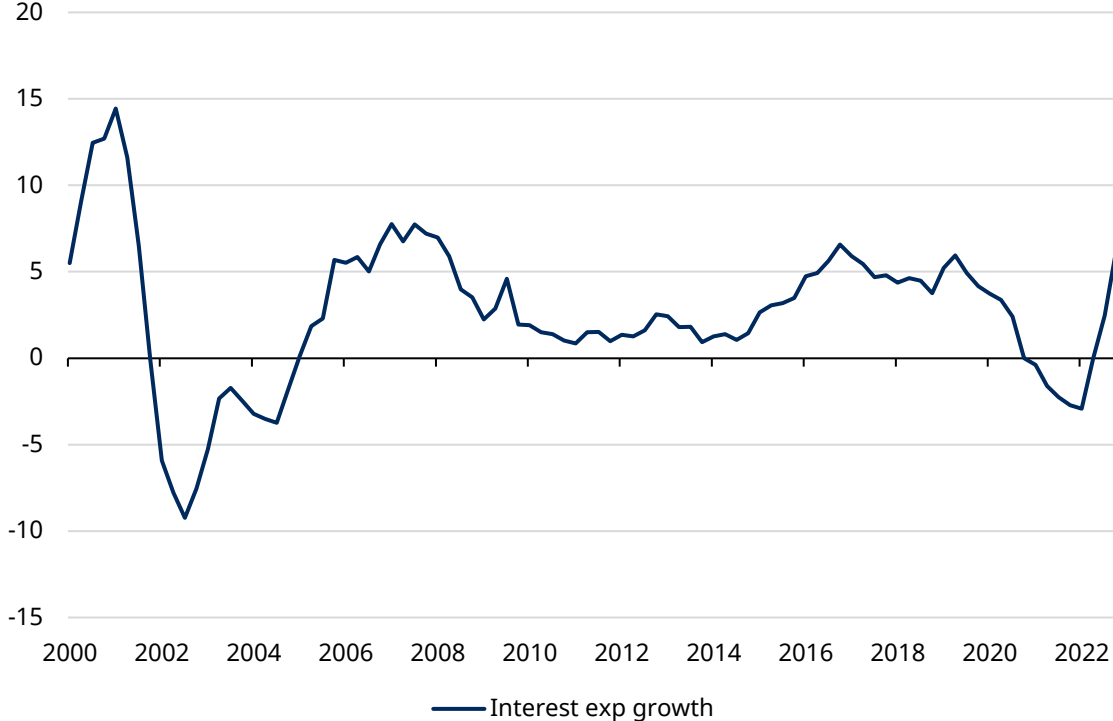
## US IG interest coverage ratio

Last 12 months EBITDA to interest expense



## US IG annual interest expense growth

%



**Interest expense growth is the highest since 2016 as higher bond yields are starting to have an impact**

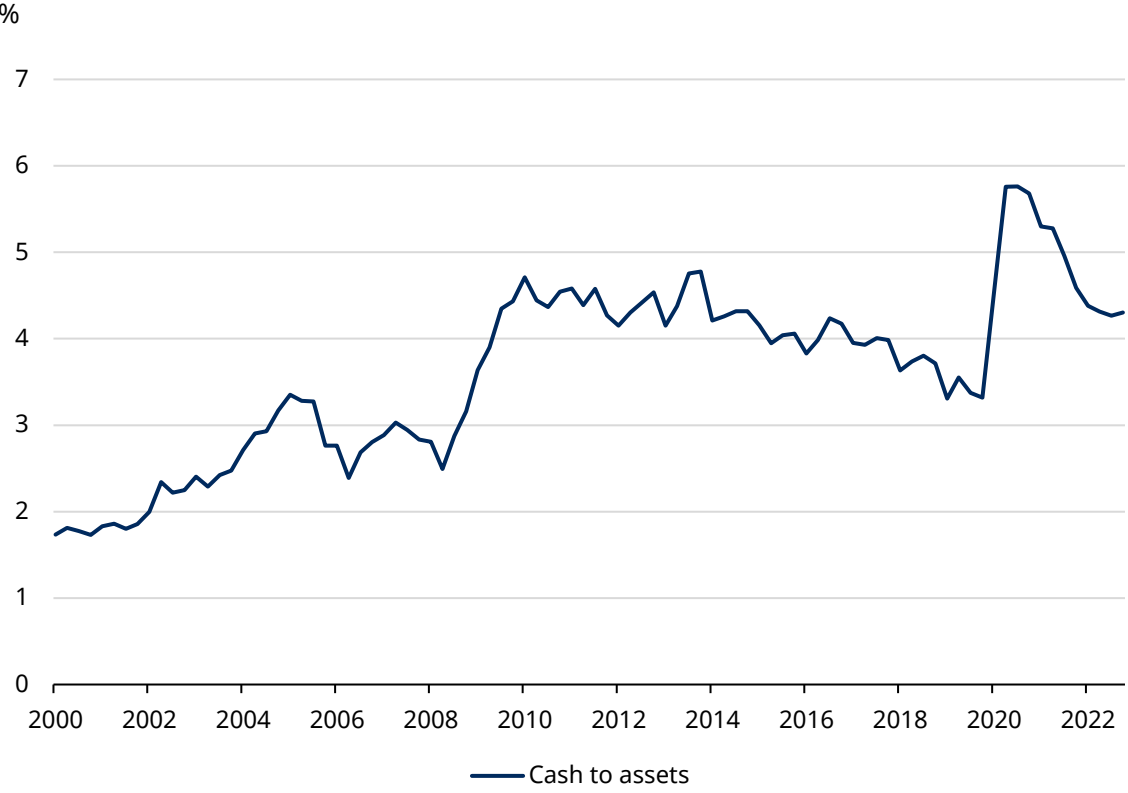
Source: Schroders, Bloomberg. Median issuer ex-Financials. Data as of Q4 2022. Please see relevant disclaimers on page 67.

# US IG cash balances slightly increased in Q4 for the first time since Q2 2020

### US IG cash to short term debt



### US IG cash to assets

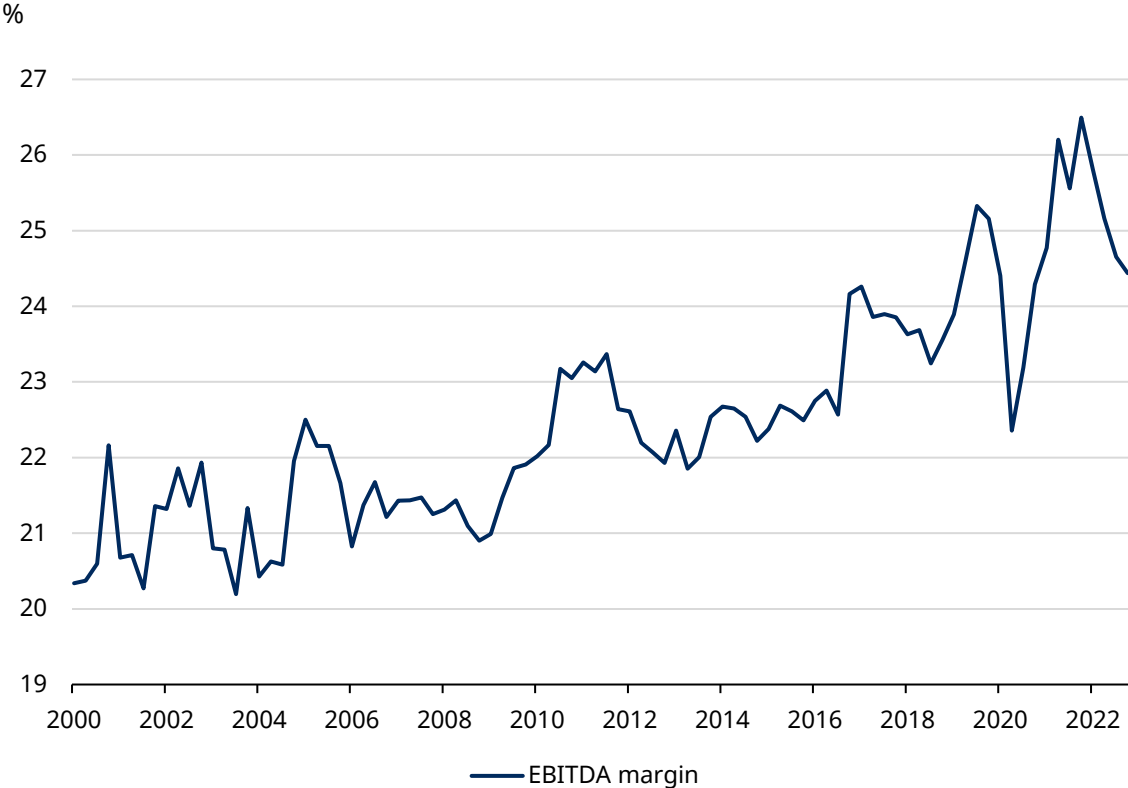


Source: Schroders, Bloomberg. Median issuer ex-Financials. Data as of Q4 2022. Please see relevant disclaimers on page 67.

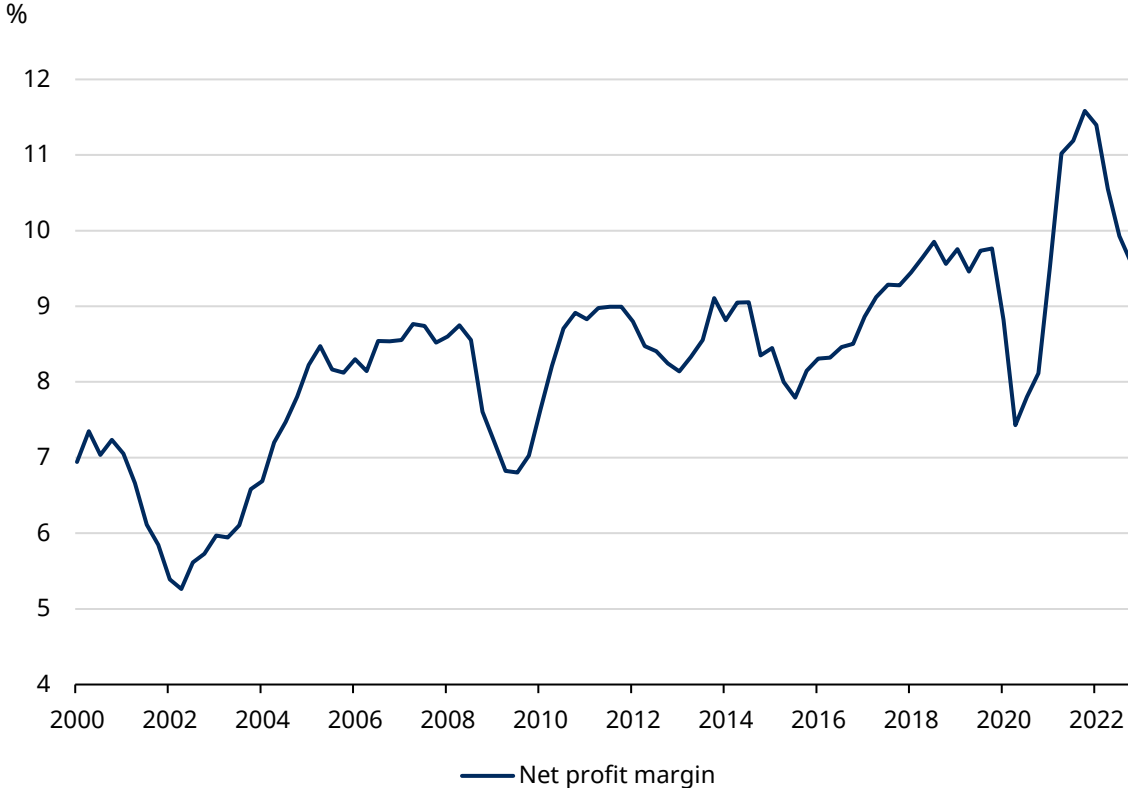
# US IG corporate margins

Margins have started to fall meaningfully from record high levels

### US IG EBITDA margin



### US IG net profit margin



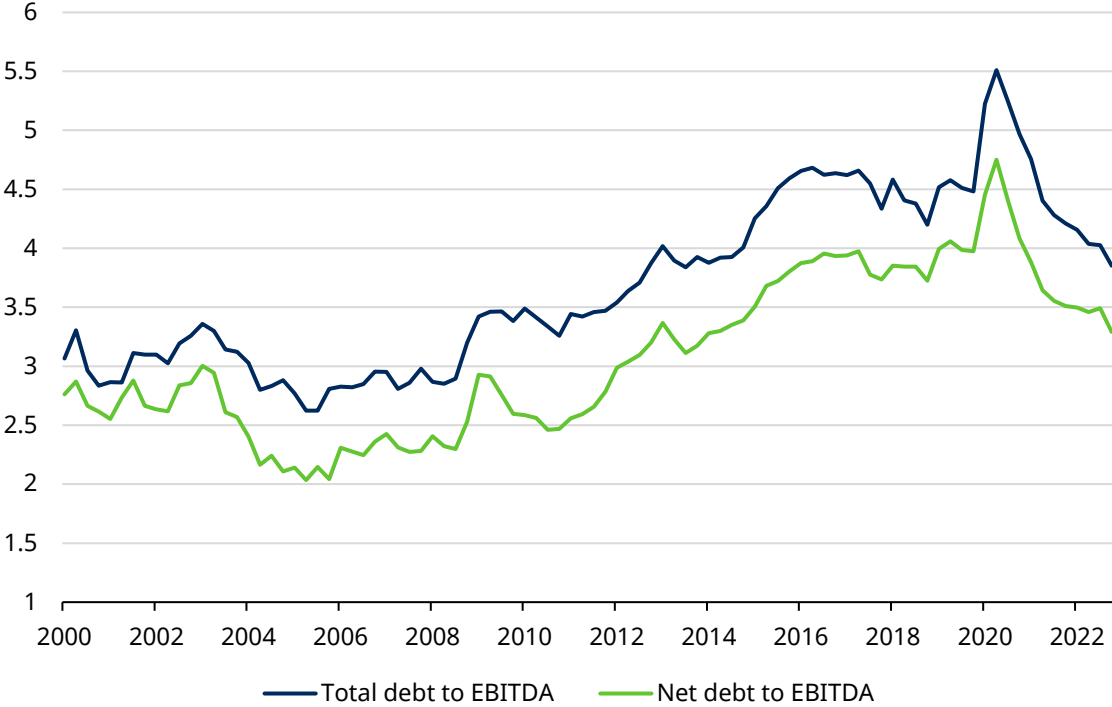
Source: Schroders, Bloomberg. Median issuer ex-Financials. Data as of Q4 2022. Please see relevant disclaimers on page 67.

# US HY gross leverage is still falling

Ex-energy leverage also fell in Q4

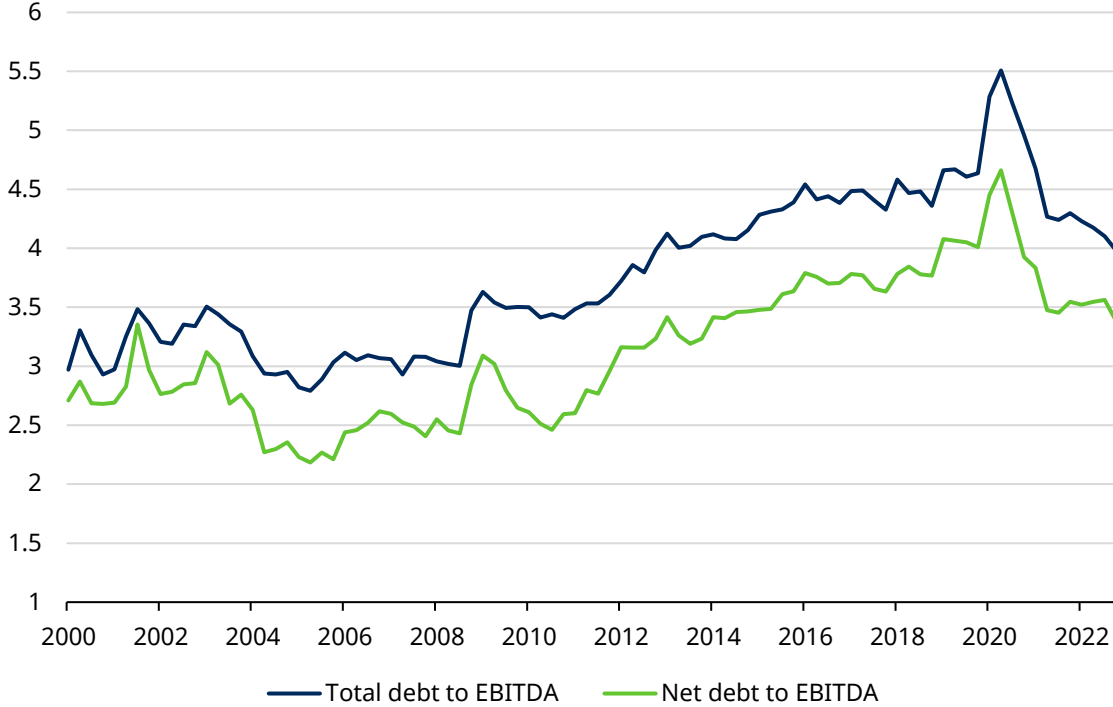
## US HY leverage

Debt to last 12 months EBITDA



## US HY ex-energy leverage

Debt to last 12 months EBITDA

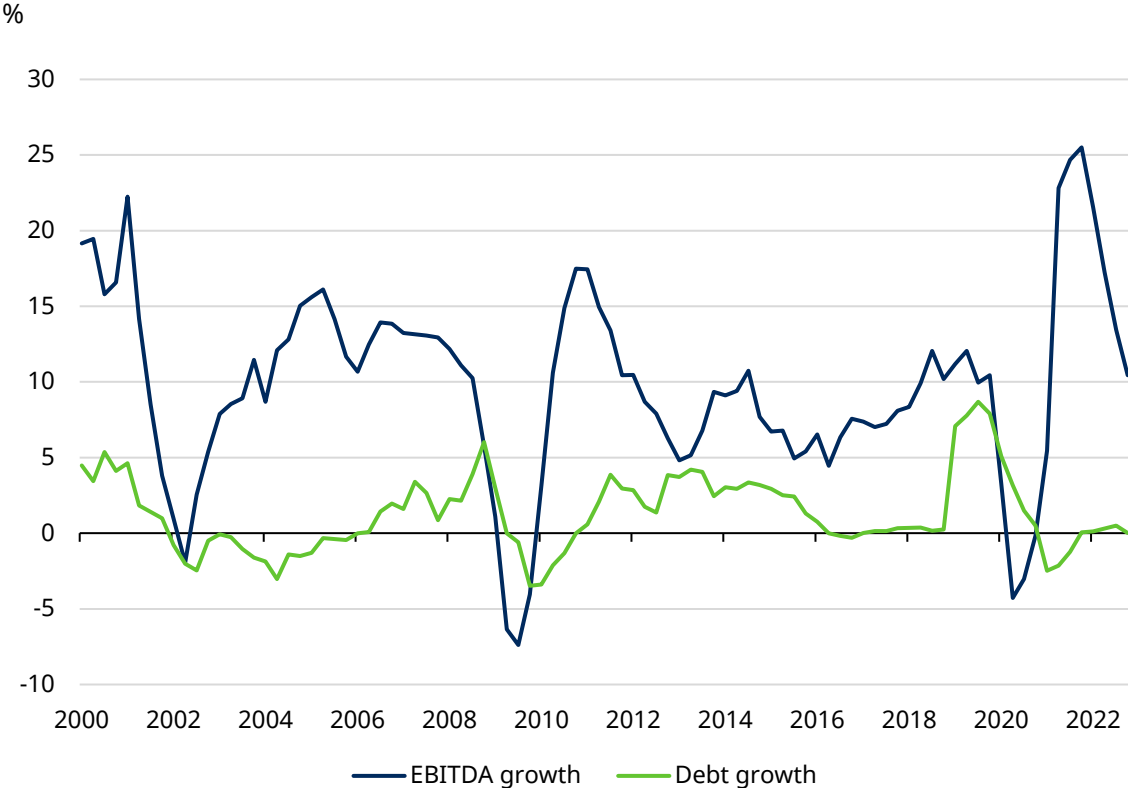


Source: Schroders, Bloomberg. Median issuer ex-Financials. Data as of Q4 2022. Please see relevant disclaimers on page 67.

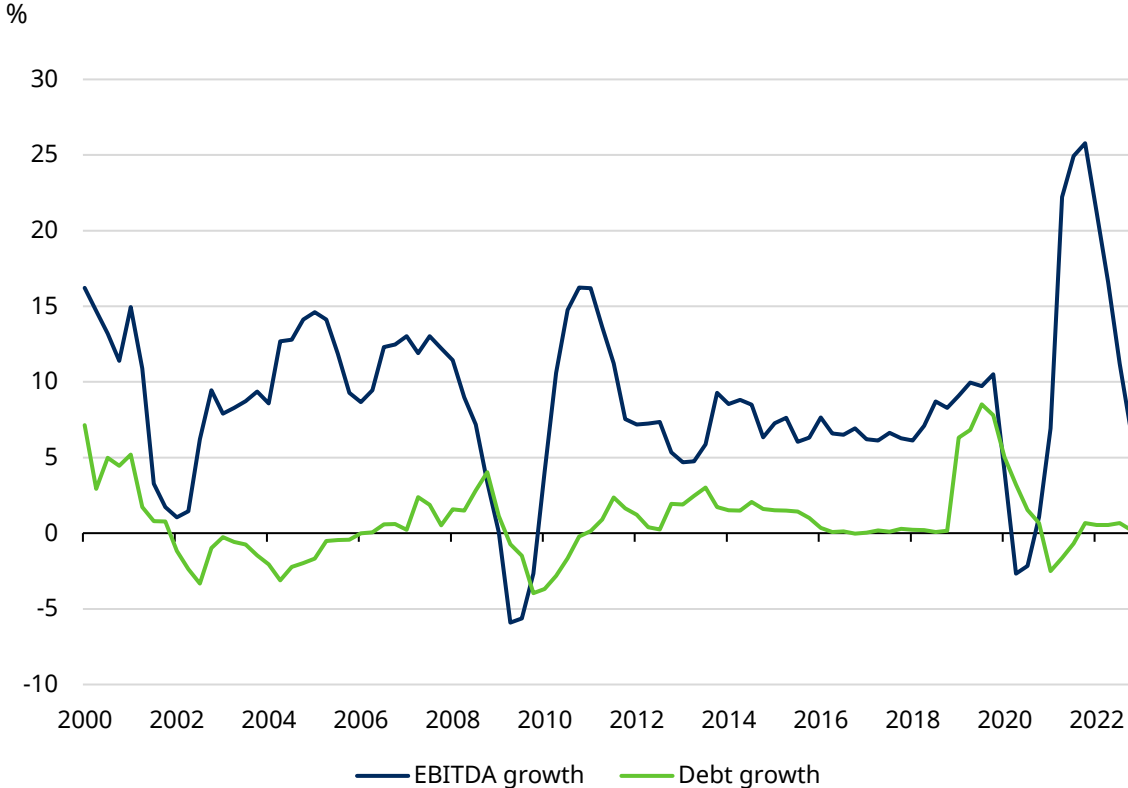
# US HY earnings and debt growth

EBITDA growth is cooling fast but debt growth is still close to zero

US HY EBITDA and debt growth (last 12 months)



US HY ex-energy EBITDA and debt growth (last 12m)



Source: Schroders, Bloomberg. Median issuer ex-Financials. Data as of Q4 2022. Please see relevant disclaimers on page 67.

# US HY interest coverage managed to make a new cyclical high despite rising interest expense growth

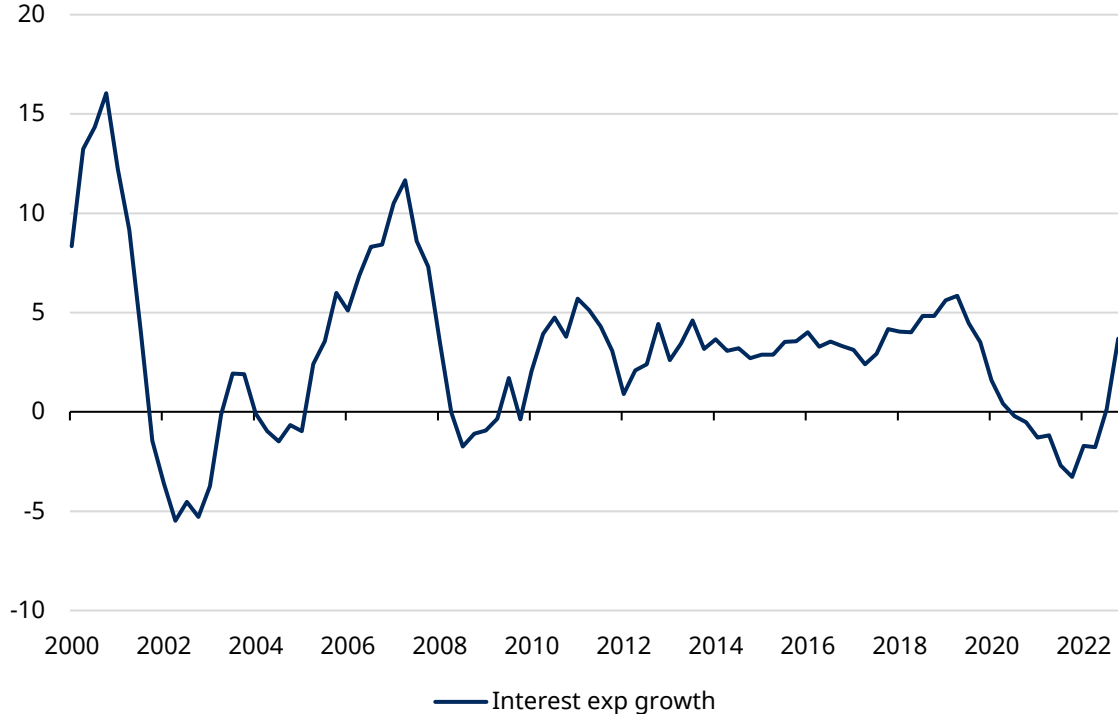
## US HY interest coverage ratio

Last 12 months EBITDA to interest expense



## US HY annual interest expense growth

%

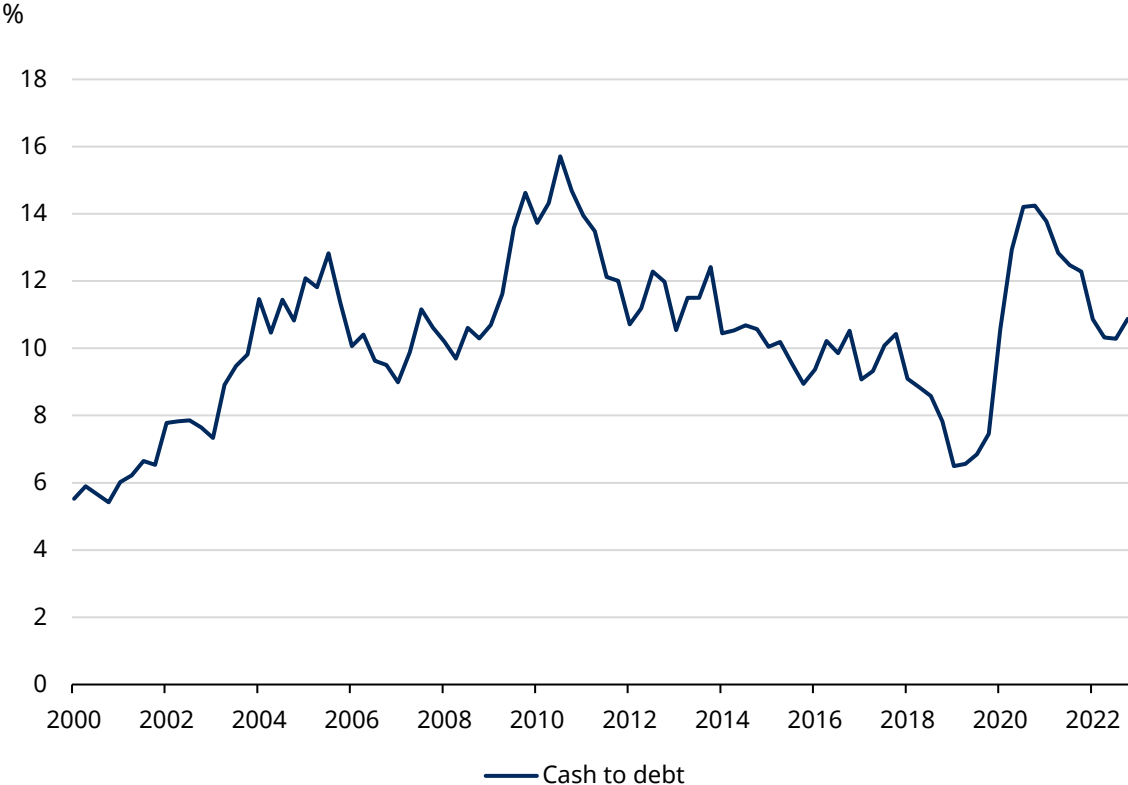


Source: Schroders, Bloomberg. Median issuer ex-Financials. Data as of Q4 2022. Please see relevant disclaimers on page 67.

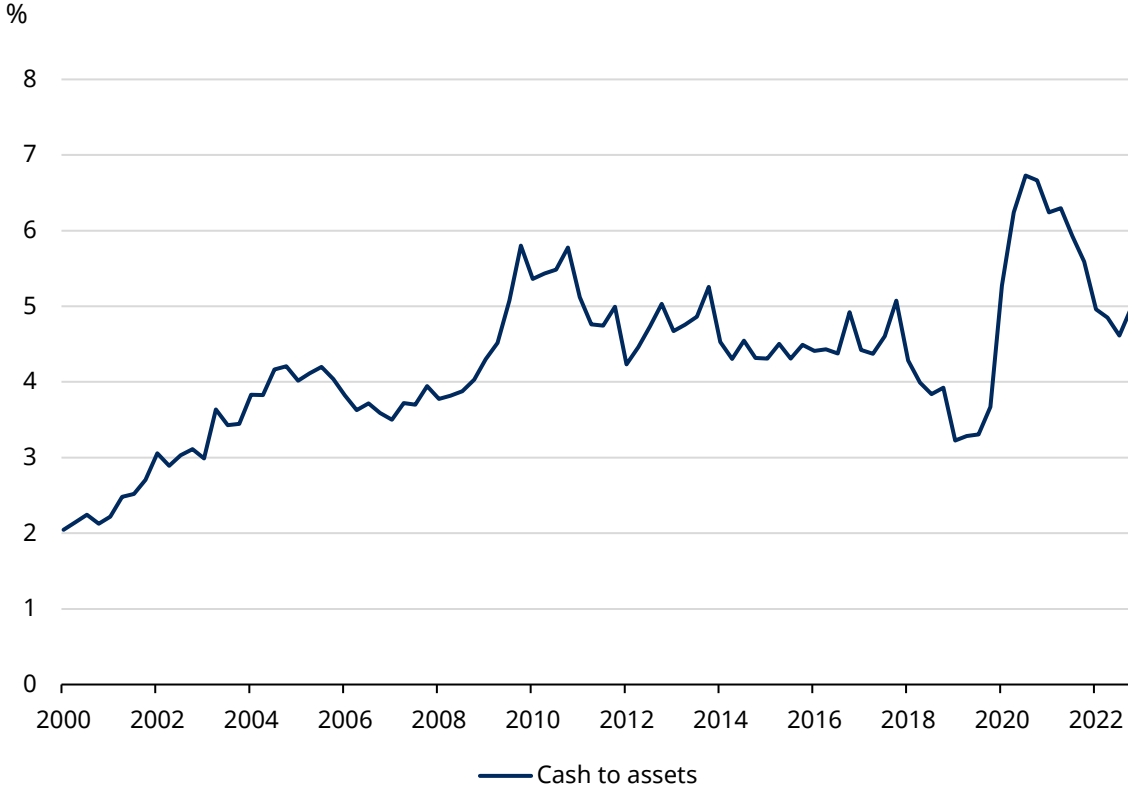


# US HY cash levels increased in Q4

### US HY cash to debt



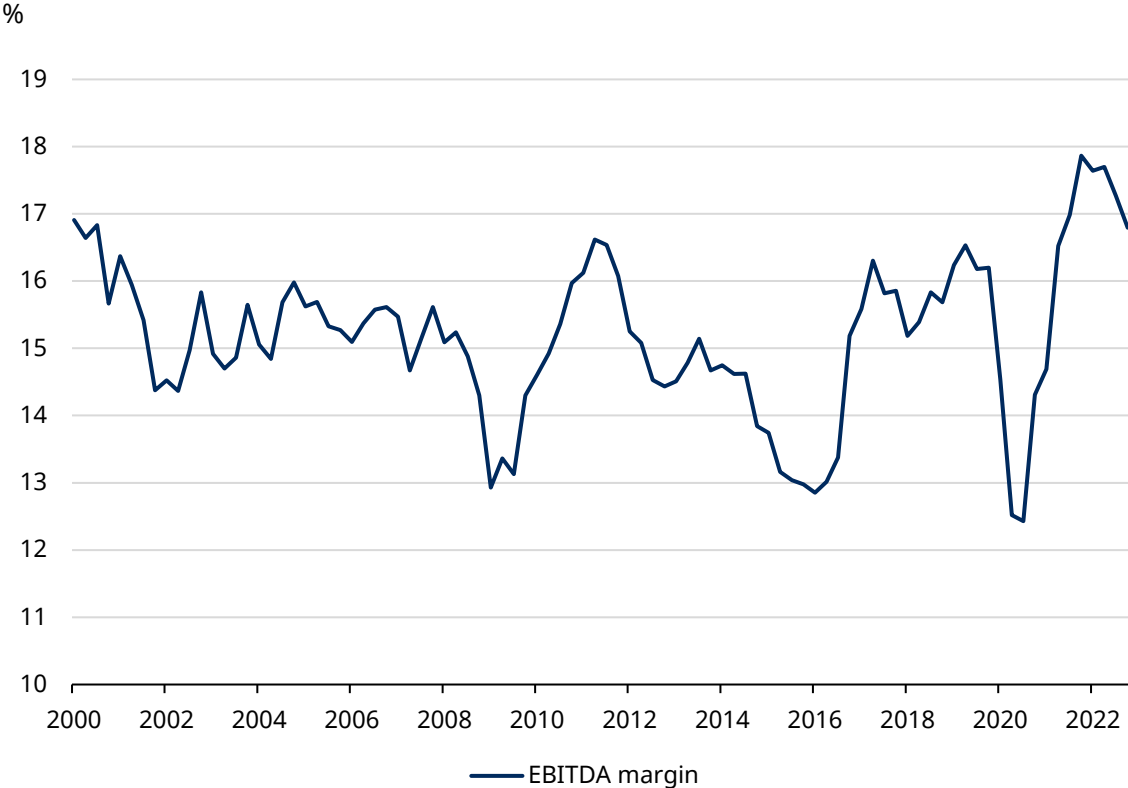
### US HY cash to assets



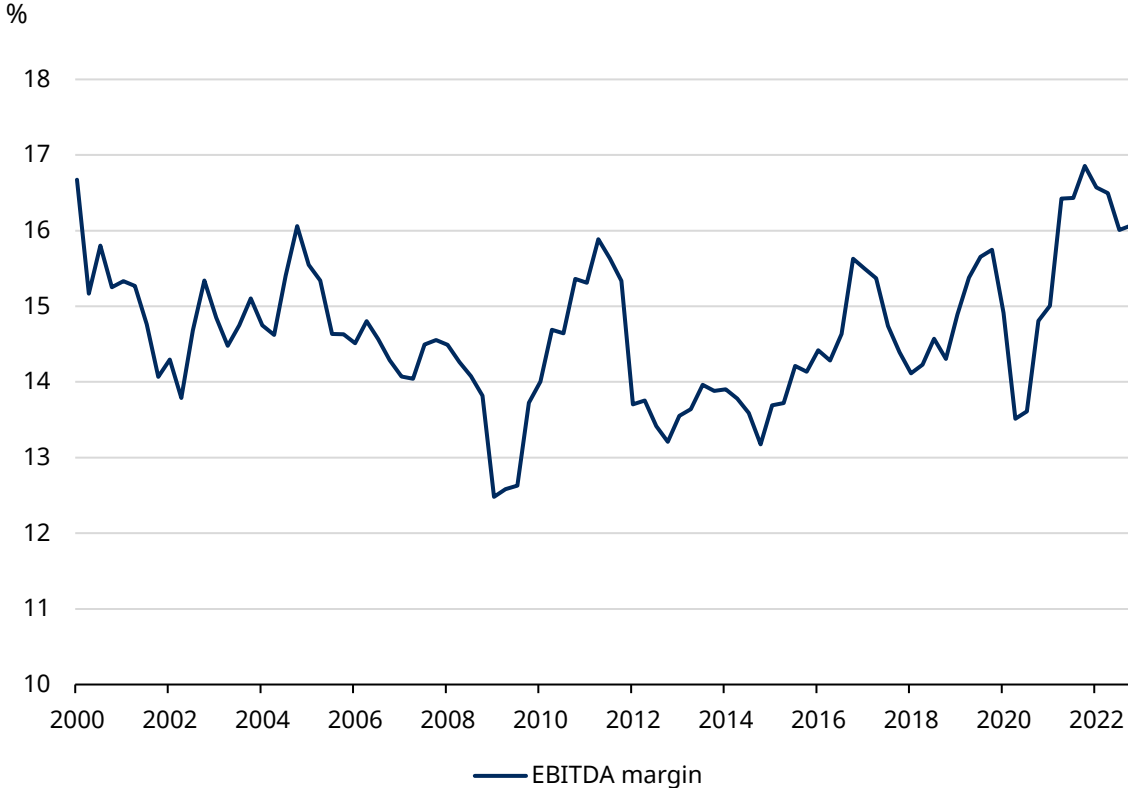
Source: Schroders, Bloomberg. Median issuer ex-Financials. Data as of Q4 2022. Please see relevant disclaimers on page 67.

# US HY corporate margins are coming off from record highs

### US HY EBITDA margin



### US HY ex-energy EBITDA margin

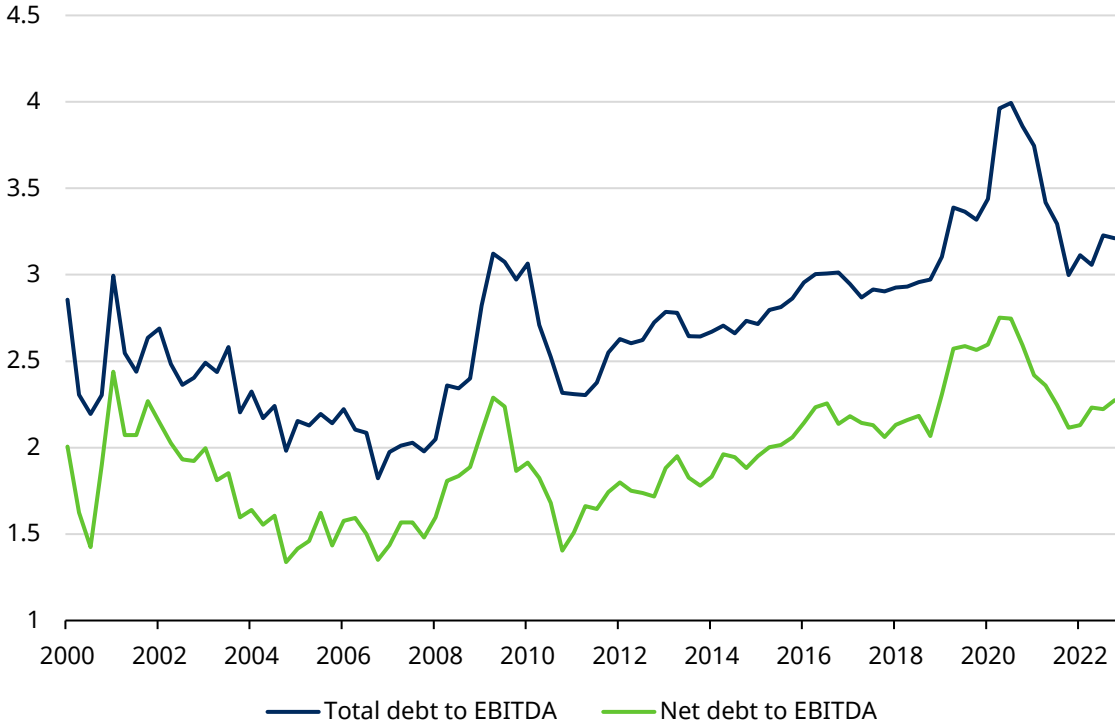


Source: Schroders, Bloomberg. Median issuer ex-Financials. Data as of Q4 2022. Please see relevant disclaimers on page 67.

# Euro IG leverage has increased slightly over the last four quarters

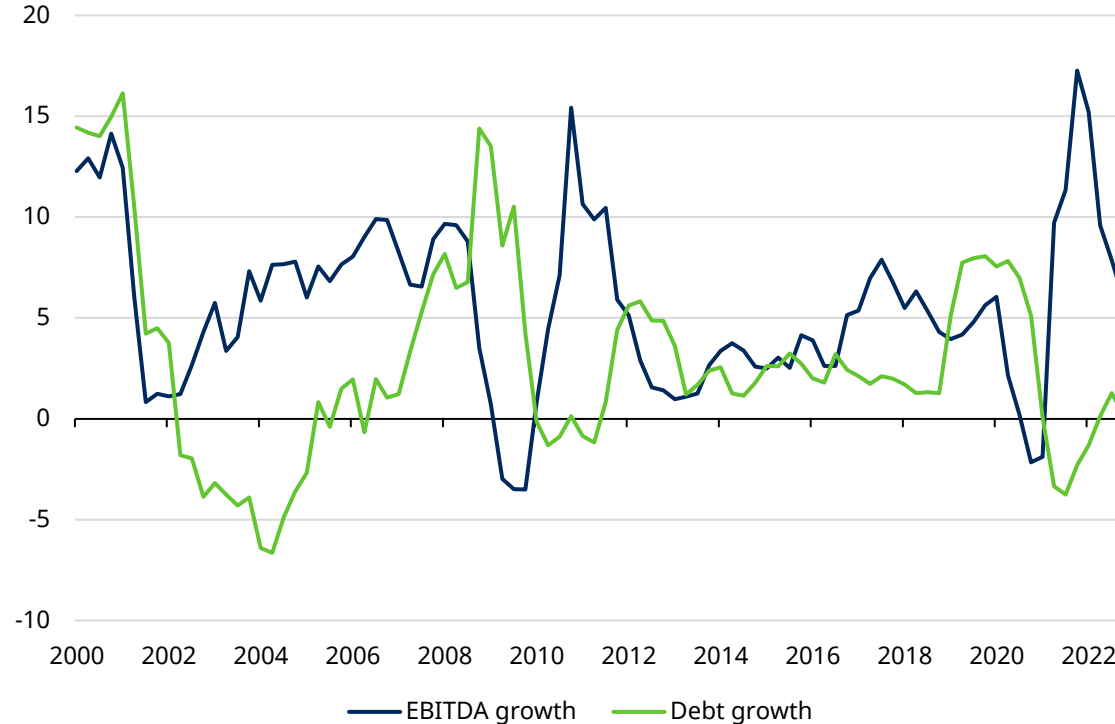
## Euro IG leverage

Debt to last 12 months EBITDA



## Euro IG EBITDA and debt growth (last 12 months)

%

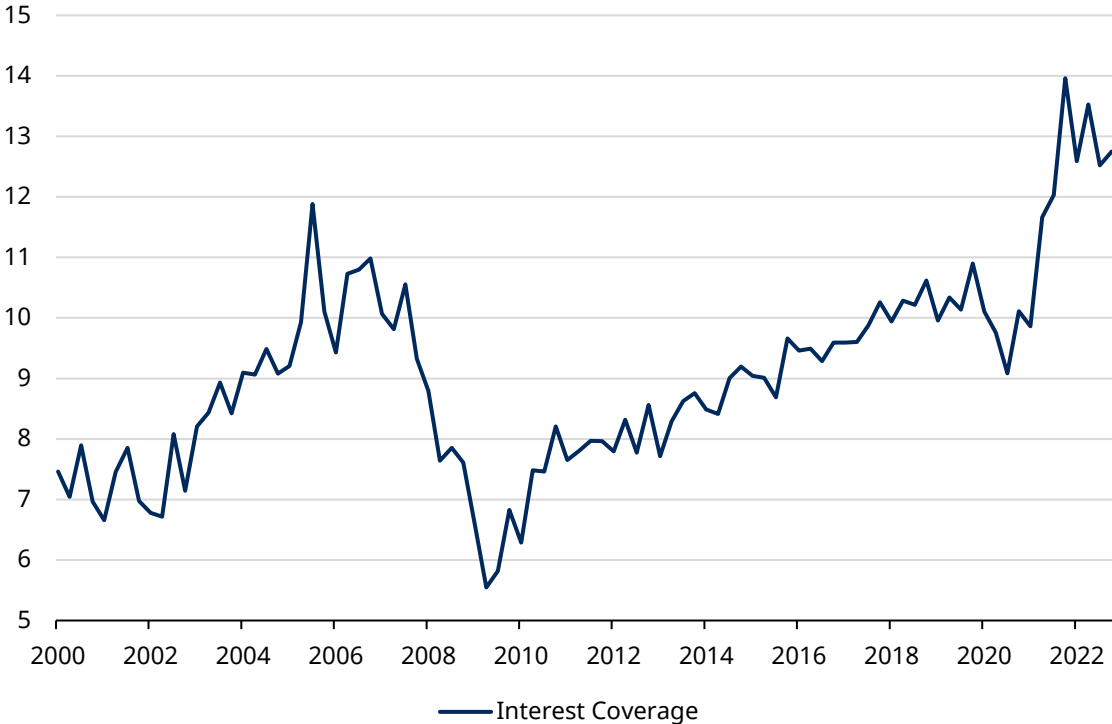


Source: Schroders, Bloomberg. Median issuer ex-Financials. Data as of Q4 2022. Please see relevant disclaimers on page 67.

# Euro IG interest coverage is very strong despite falling in 2022

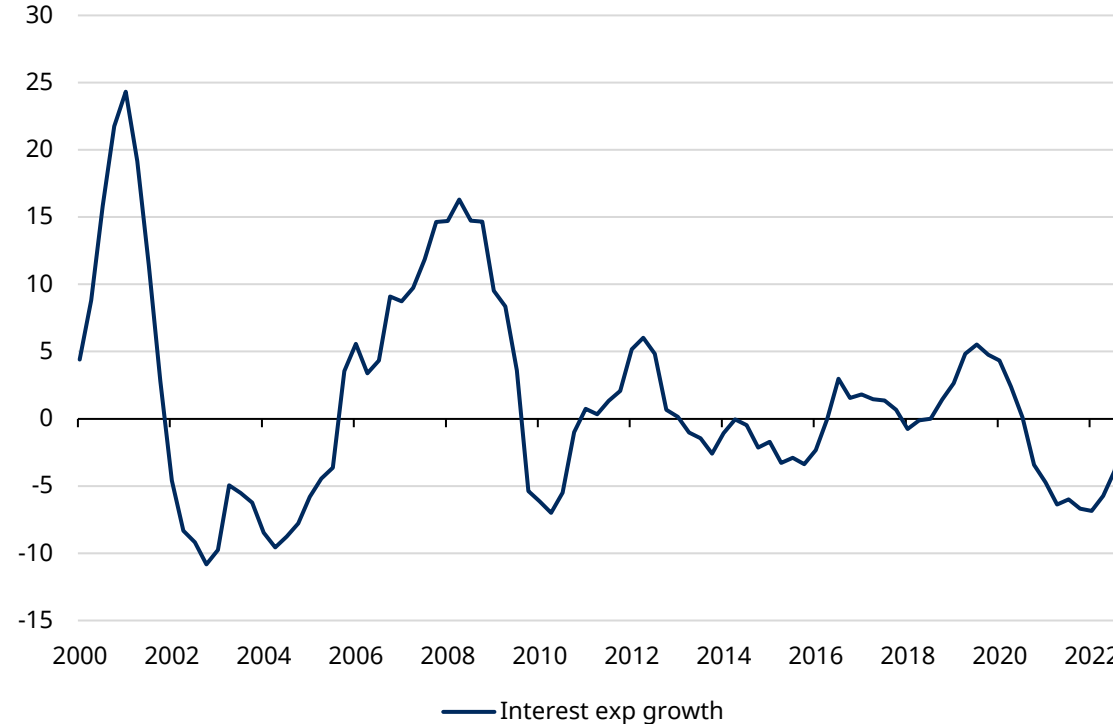
## Euro IG interest coverage ratio

Last 12 months EBITDA to interest expense



## Euro IG annual interest expense growth

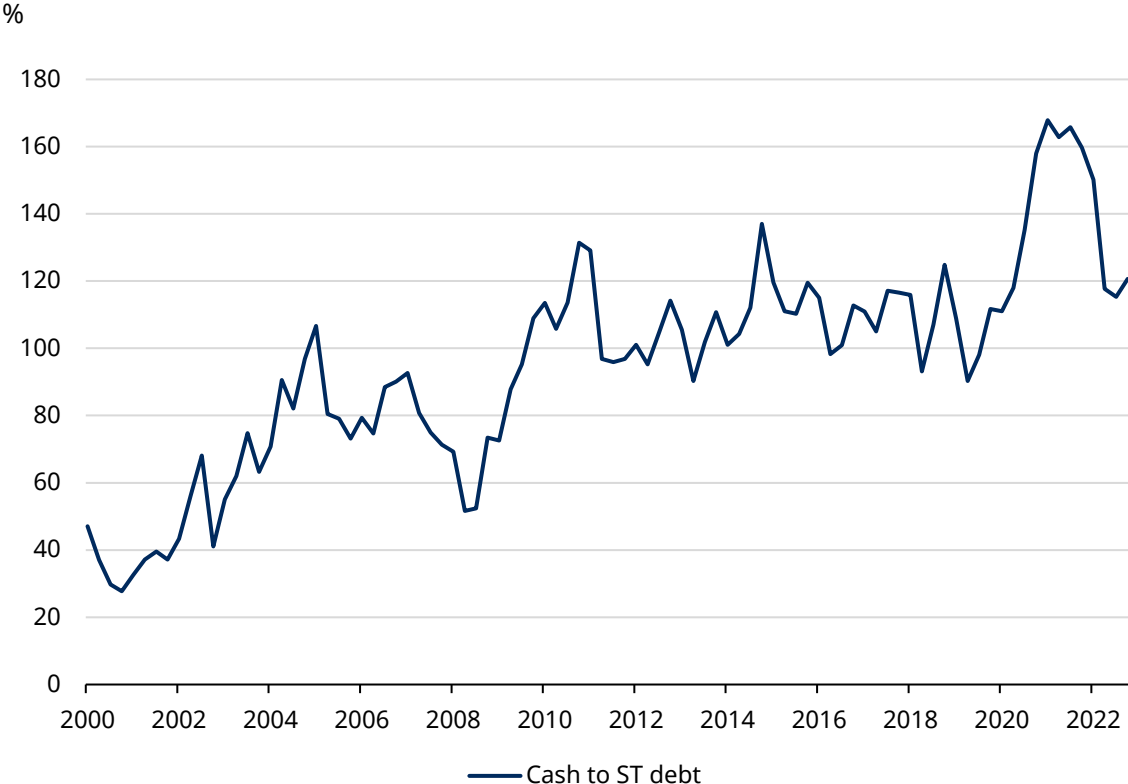
%



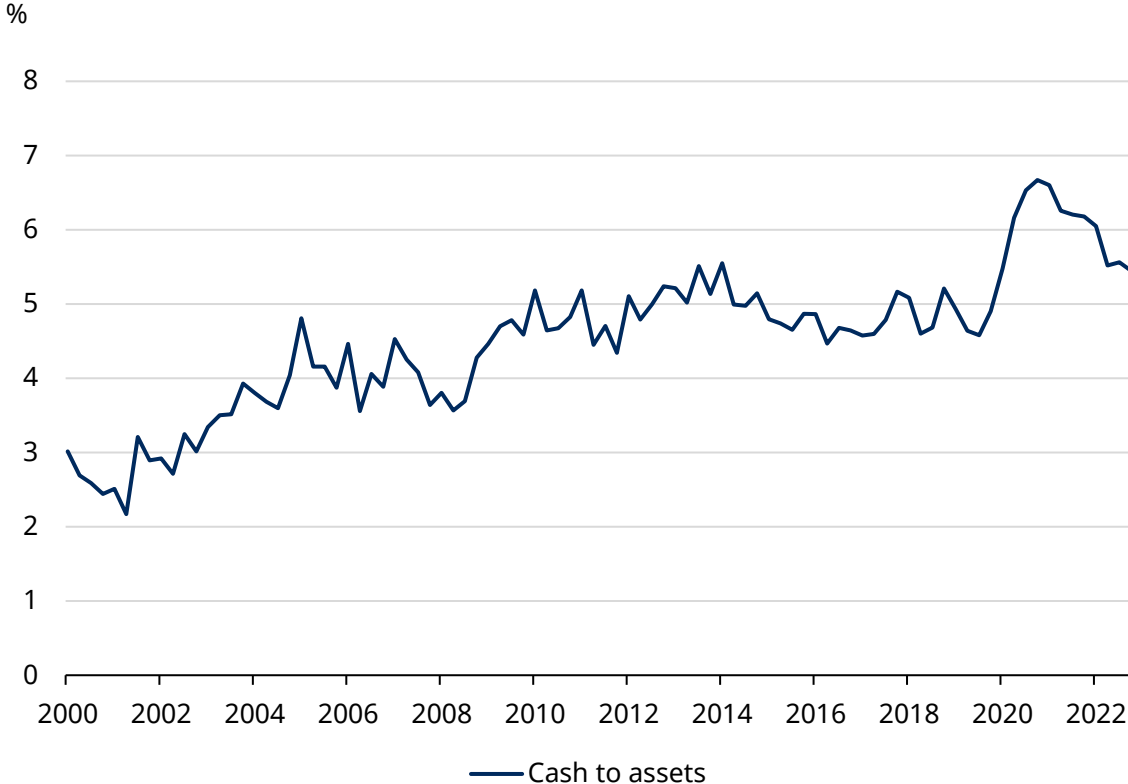
Source: Schroders, Bloomberg. Median issuer ex-Financials. Data as of Q4 2022. Please see relevant disclaimers on page 67.

# Euro IG cash levels

## Euro IG cash to short term debt



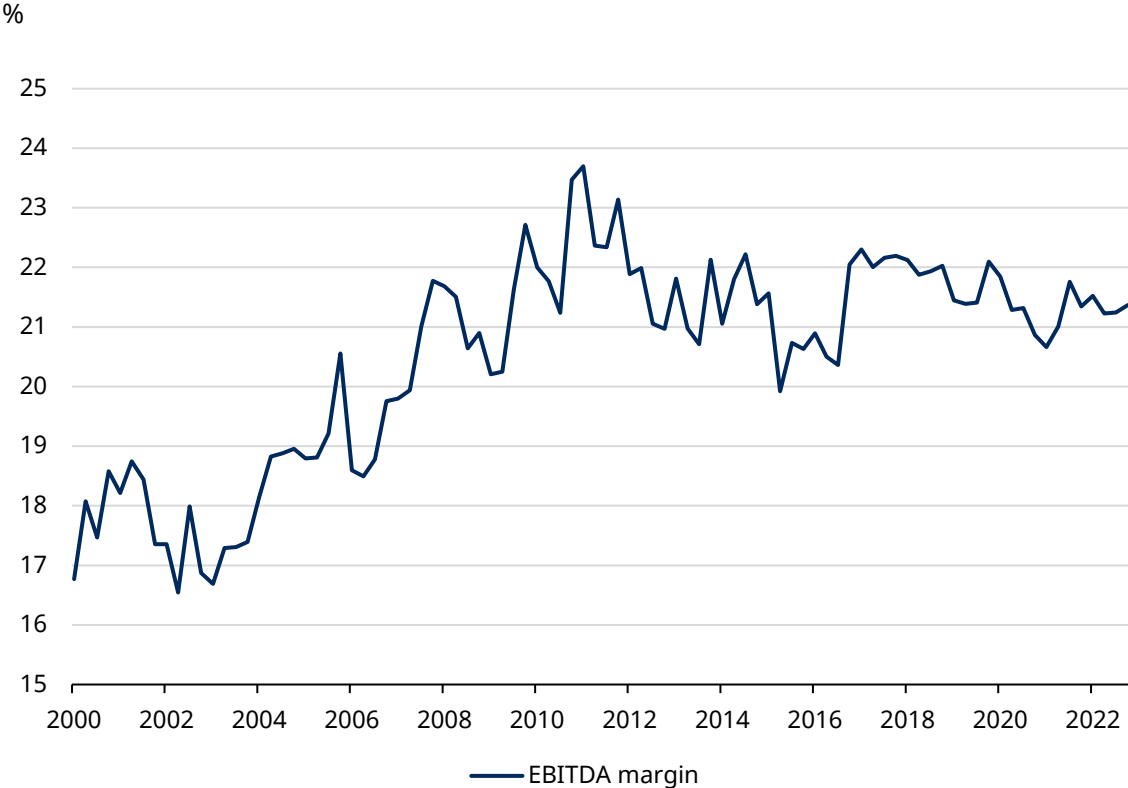
## Euro IG cash to assets



Source: Schroders, Bloomberg. Median issuer ex-Financials. Data as of Q4 2022. Please see relevant disclaimers on page 67.

# Euro IG corporate margins

## Euro IG EBITDA margin



## Euro IG net profit margin

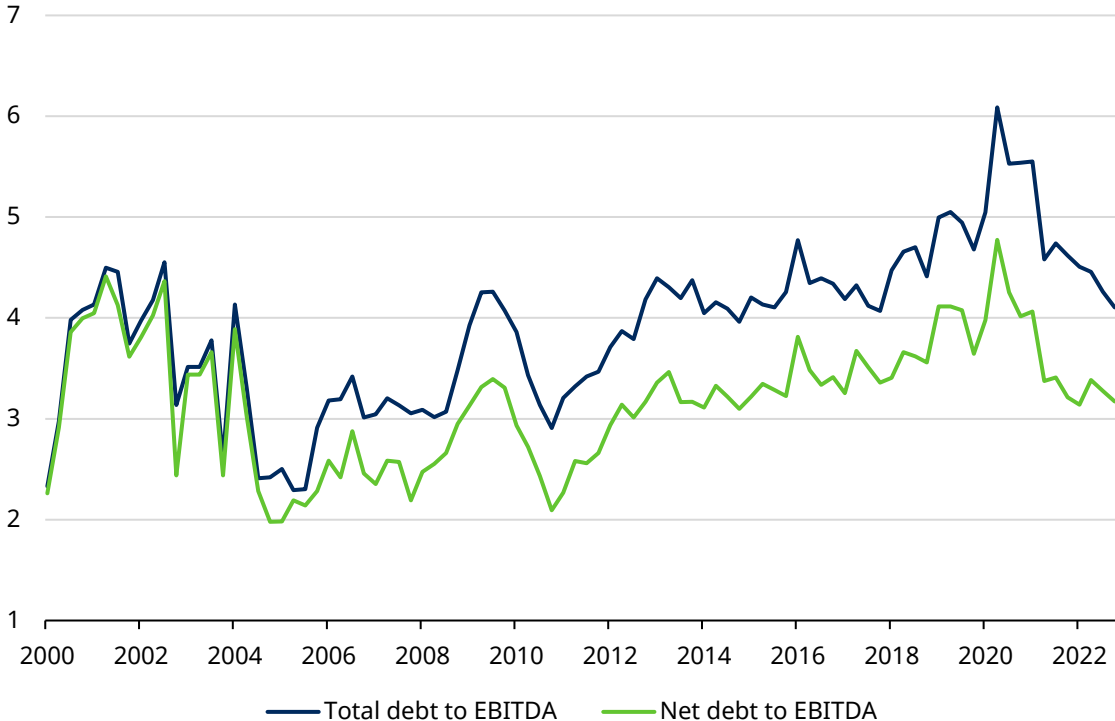


Source: Schroders, Bloomberg. Median issuer ex-Financials. Data as of Q4 2022. Please see relevant disclaimers on page 67.

# Euro HY leverage is still falling aided by strong EBITDA growth

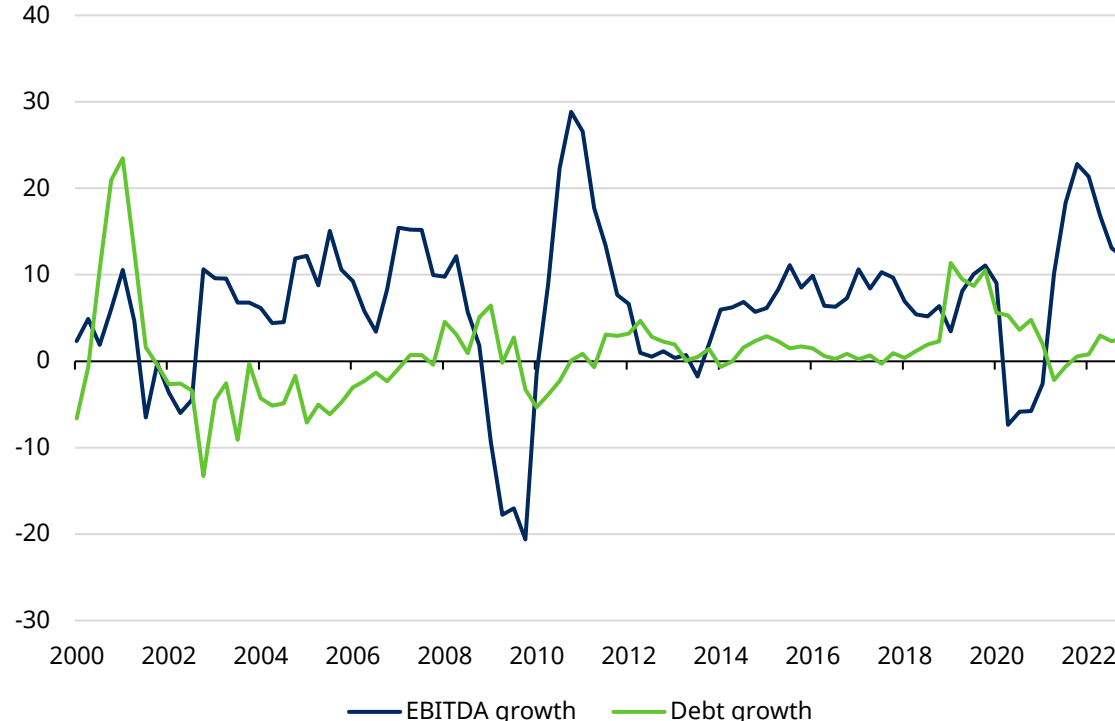
## Euro HY leverage

Debt to last 12 months EBITDA



## Euro HY EBITDA and debt growth (last 12 months)

%

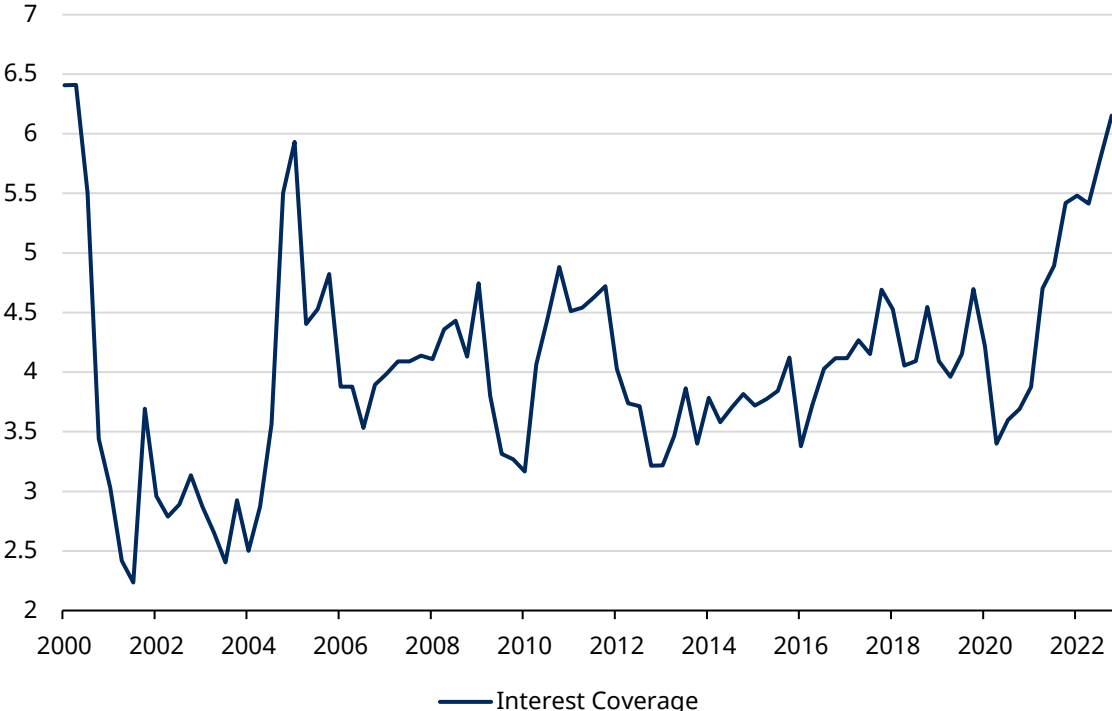


Source: Schroders, Bloomberg. Median issuer ex-Financials. Data as of Q4 2022. Please see relevant disclaimers on page 67.

# Euro HY interest coverage

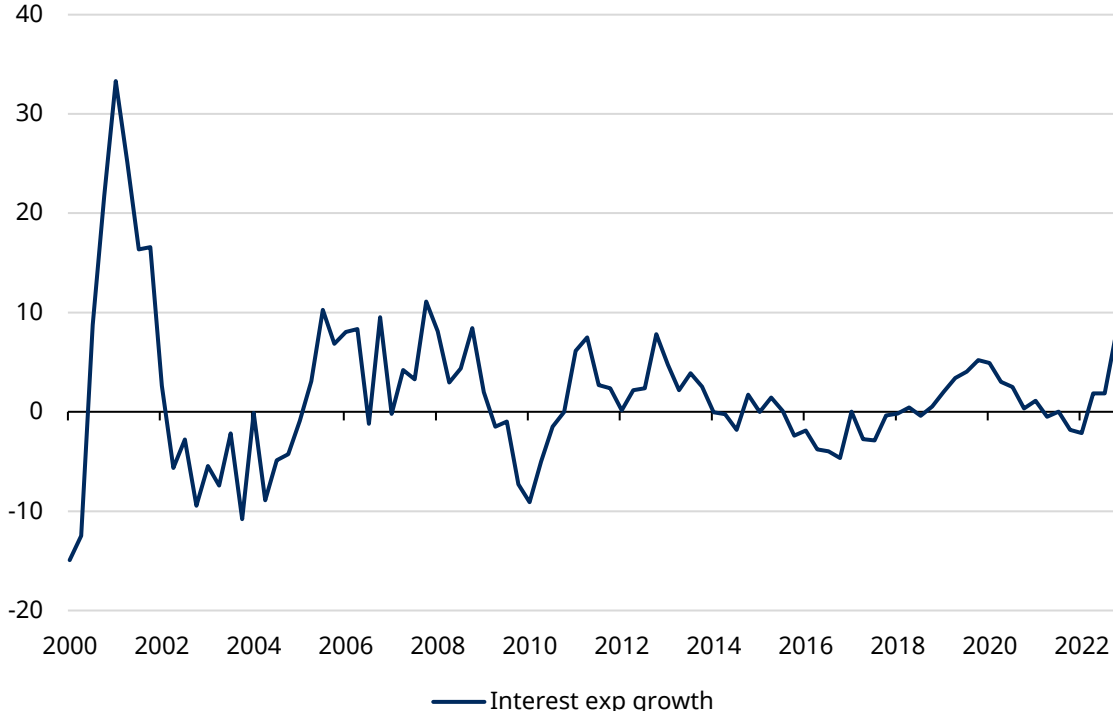
## Euro HY interest coverage ratio

Last 12 months EBITDA to interest expense



## Euro HY annual interest expense growth

%

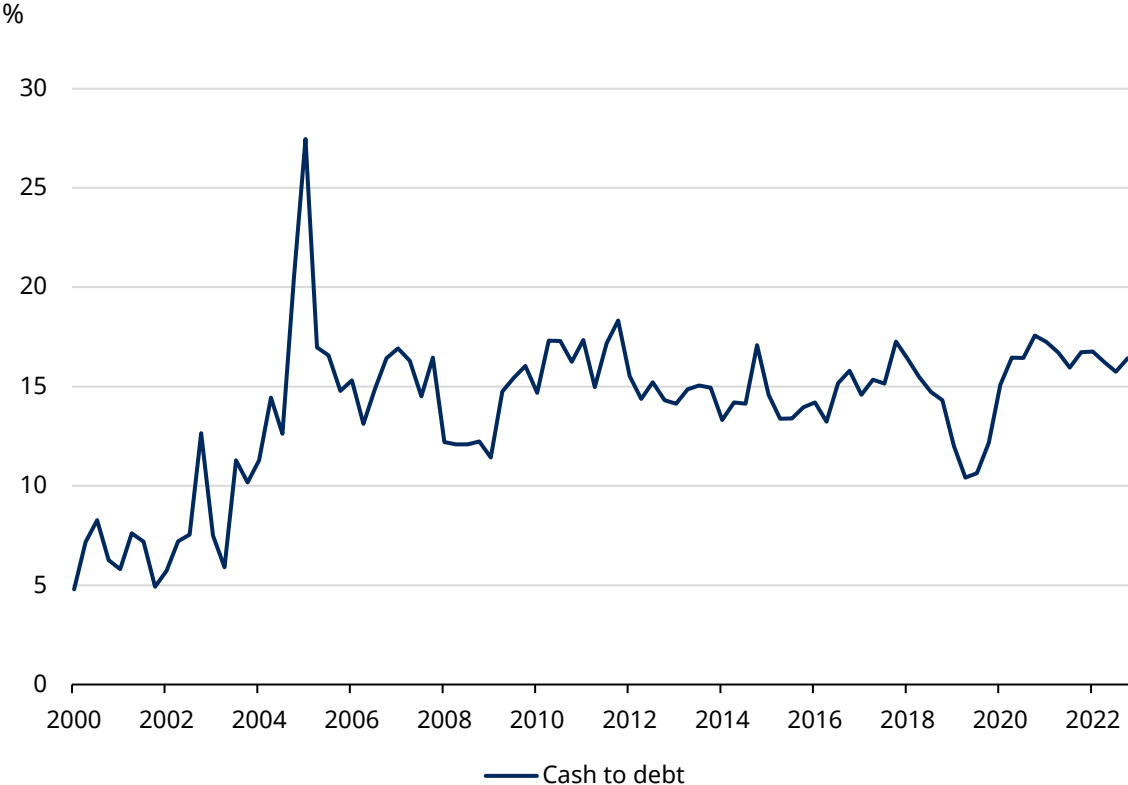


Source: Schroders, Bloomberg, Median issuer ex-Financials. Data as of Q4 2022. Please see relevant disclaimers on page 67.

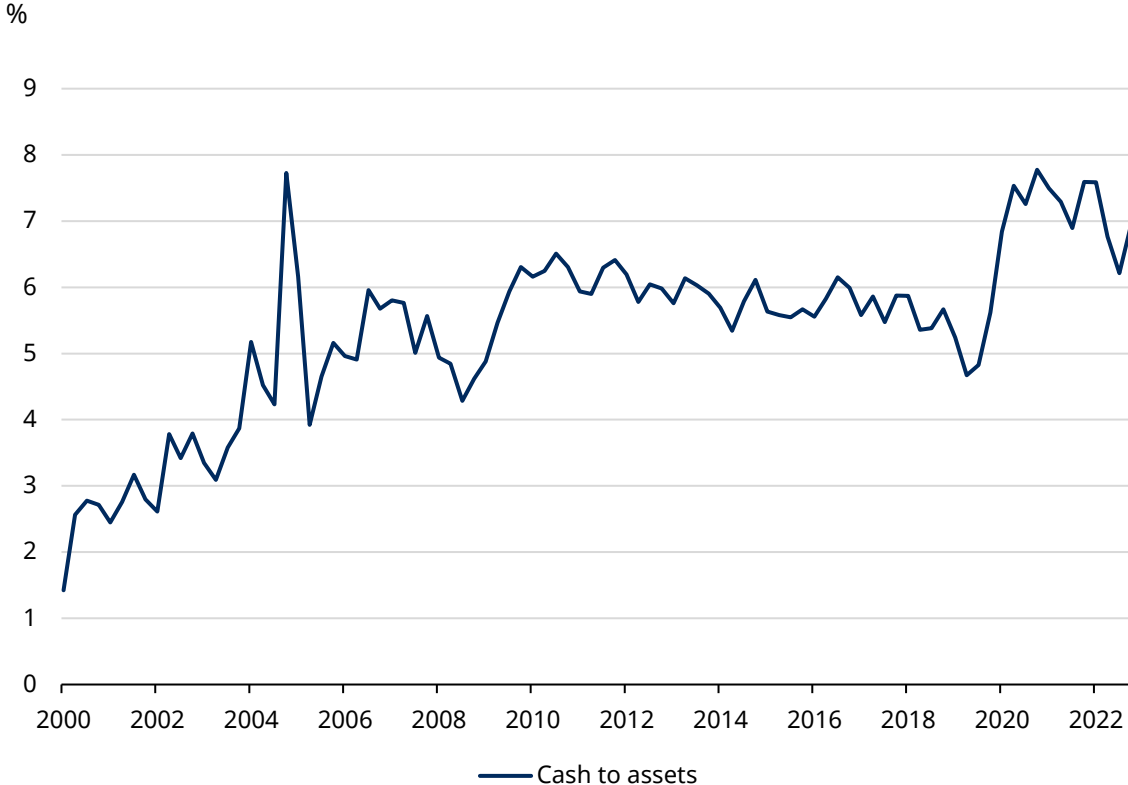


# Euro HY cash levels

## Euro HY cash to debt



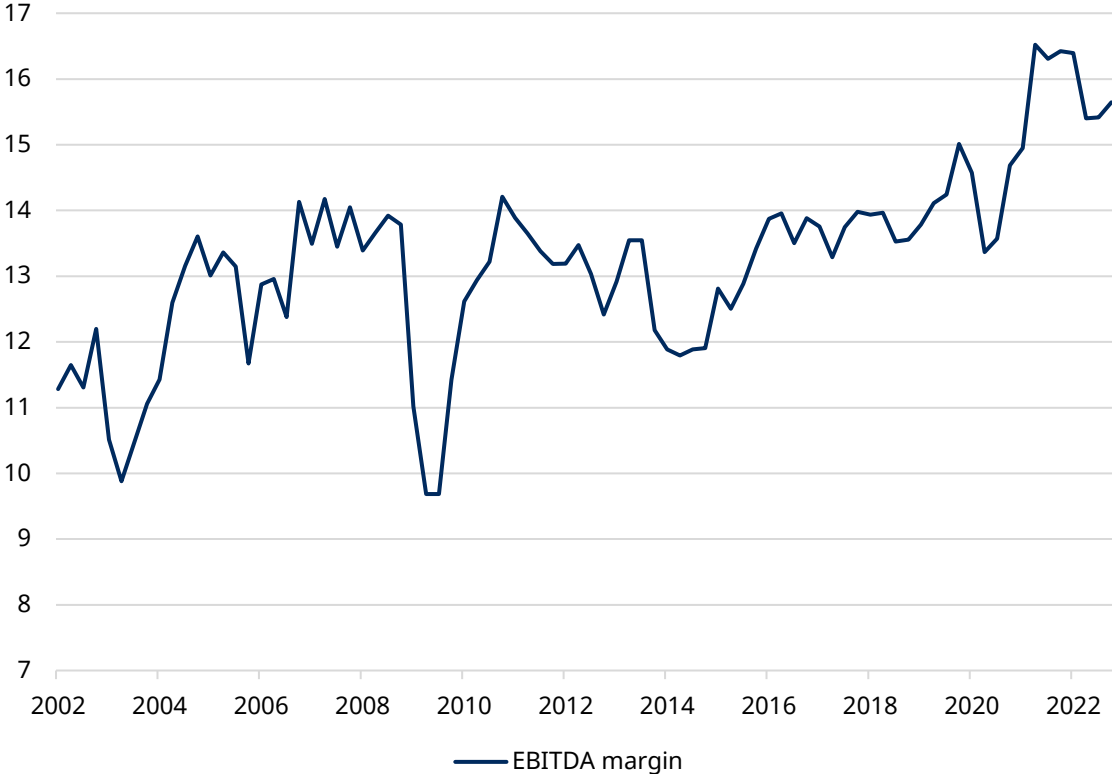
## Euro HY cash to assets



Source: Schroders, Bloomberg. Median issuer ex-Financials. Data as of Q4 2022. Please see relevant disclaimers on page 67.

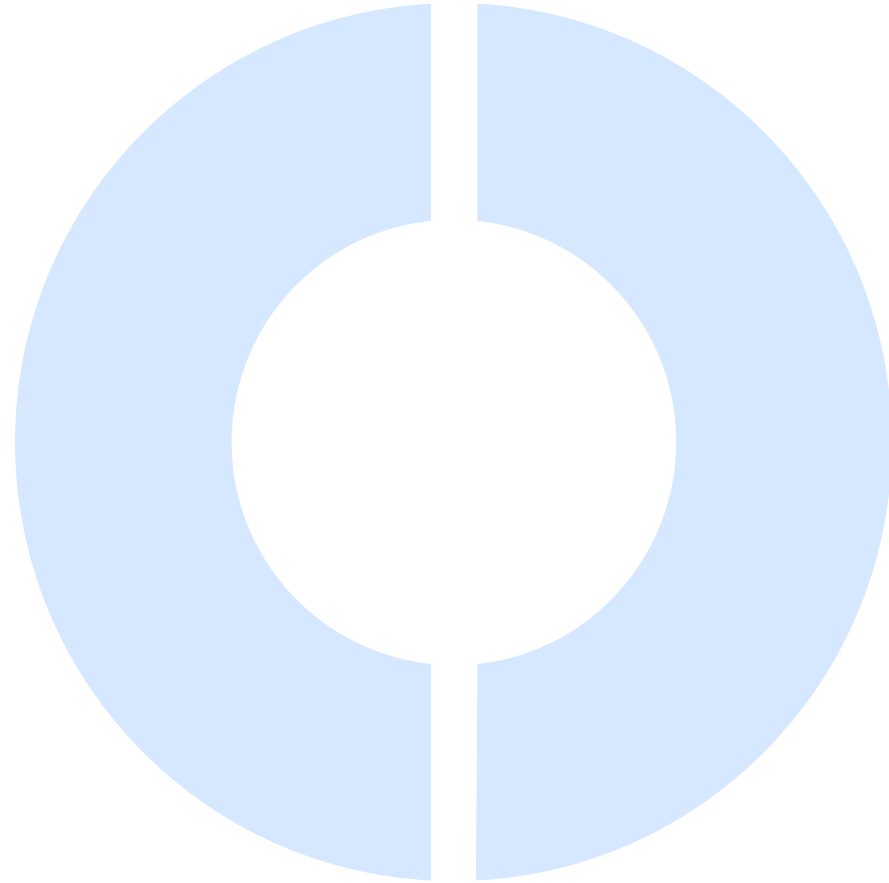
# Euro HY corporate margins

## Euro HY EBITDA margin



Source: Schroders, Bloomberg. Median issuer ex-Financials. Data as of Q4 2022. Please see relevant disclaimers on page 67.

**Schroders**



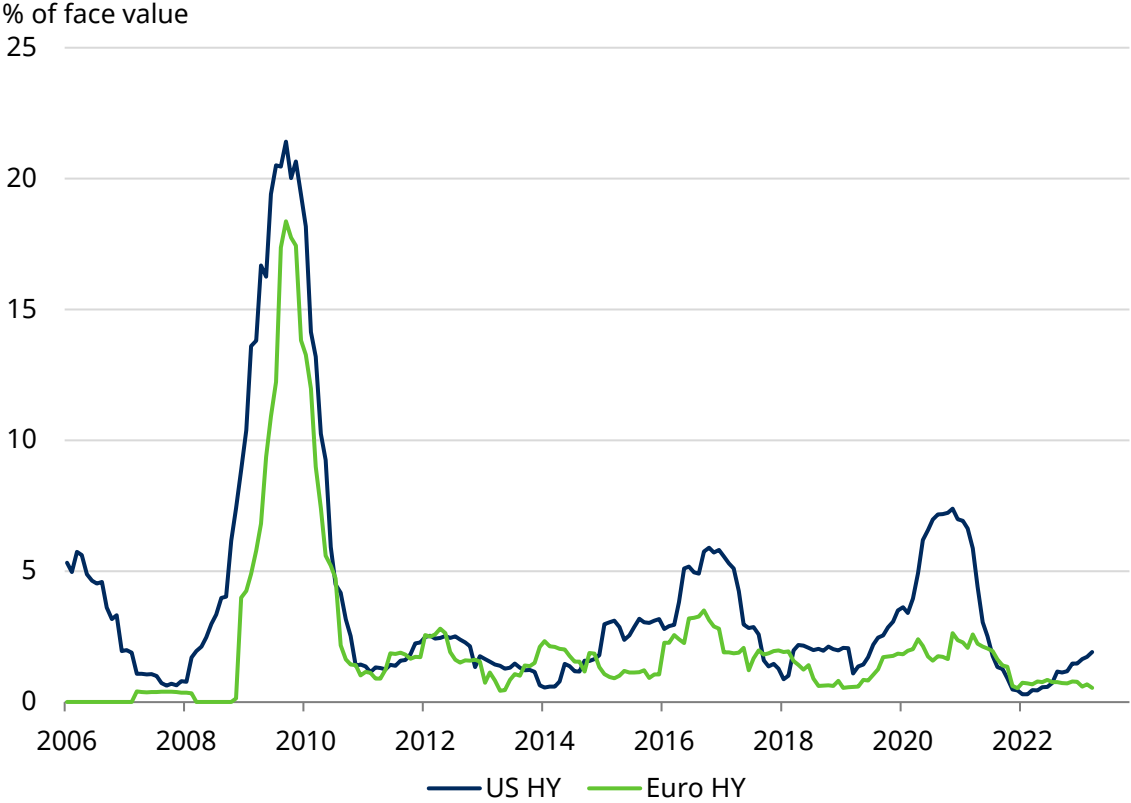
**Corporate credit**

Technicals

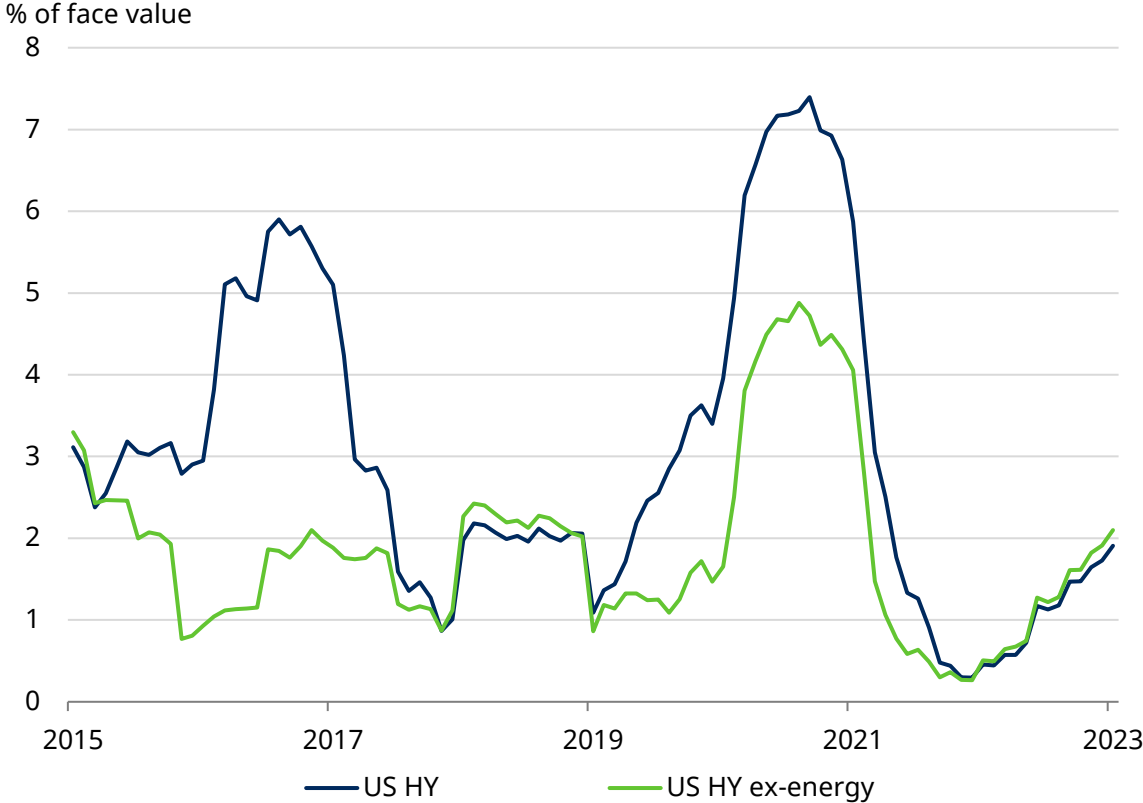
# HY default rates

US HY default rates are rising from low levels

### HY par default rate (last twelve months)



### US HY par default rate (last twelve months)

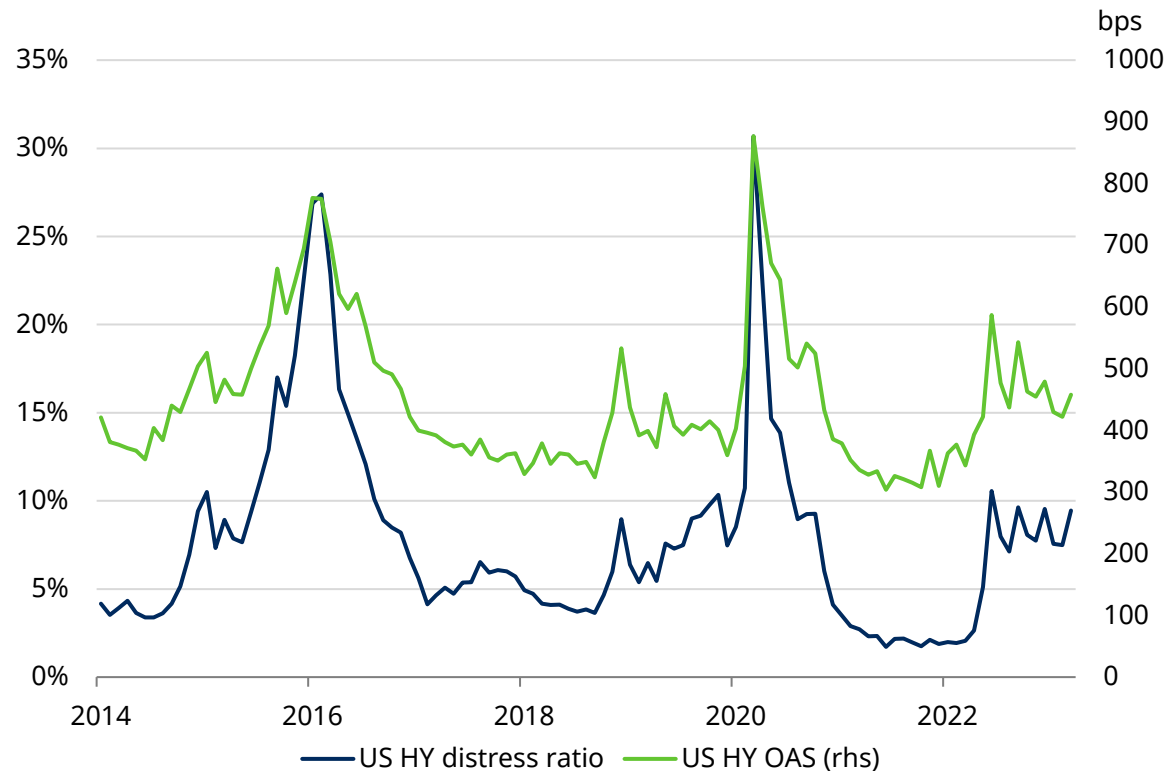


Source: Schroders, BofA Global Research, Moody's. Data as at 31 March 2023. Please see relevant disclaimers on page 67.

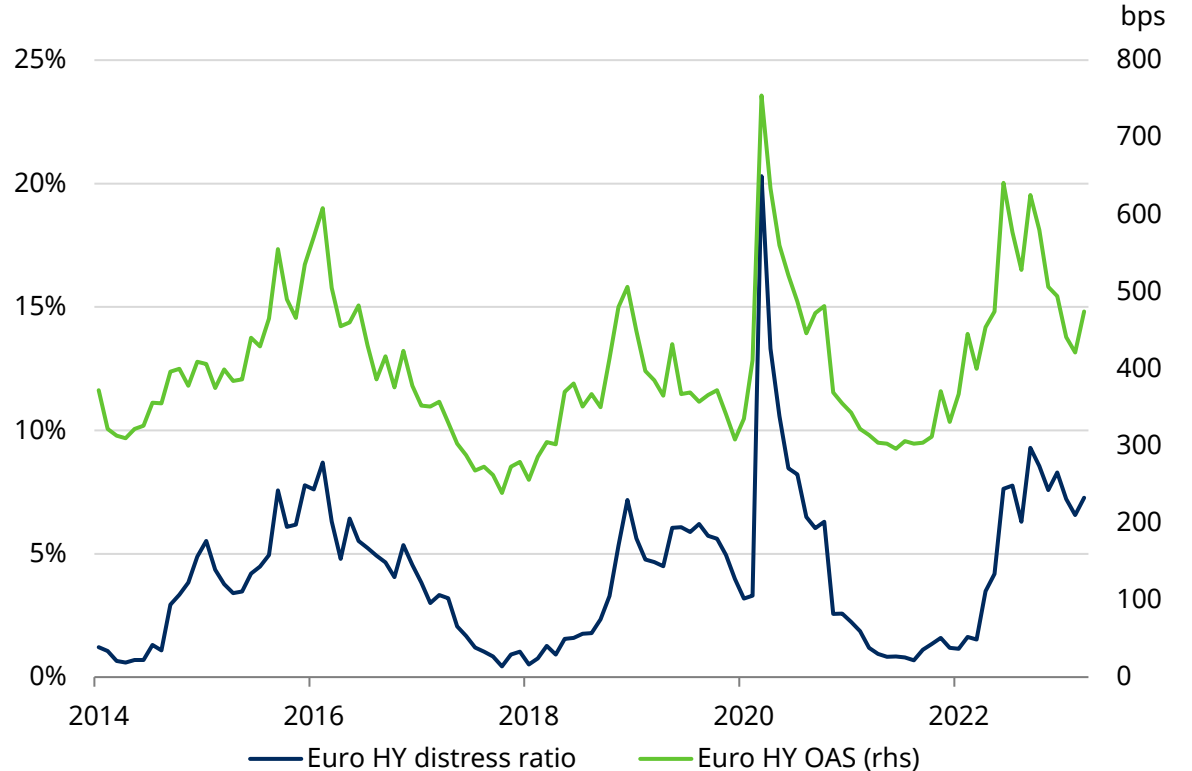
# HY distress ratios

Higher distress is usually a harbinger of defaults

## US HY distress ratio<sup>1</sup>



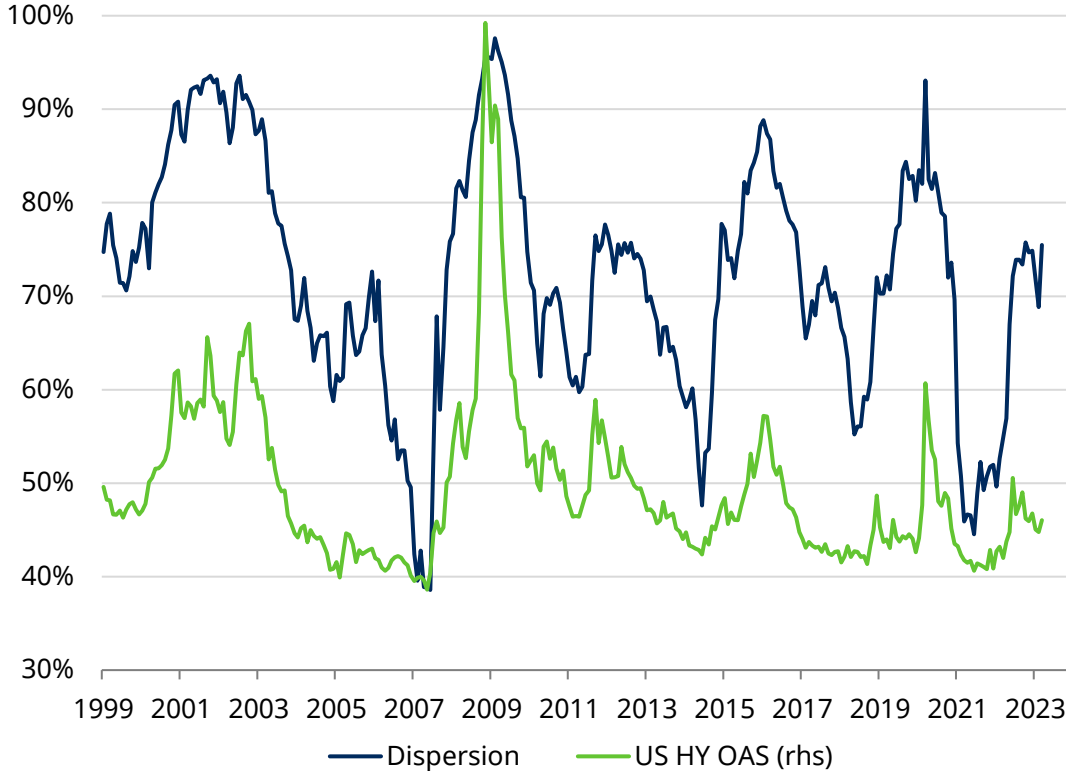
## Euro HY distress ratio<sup>1</sup>



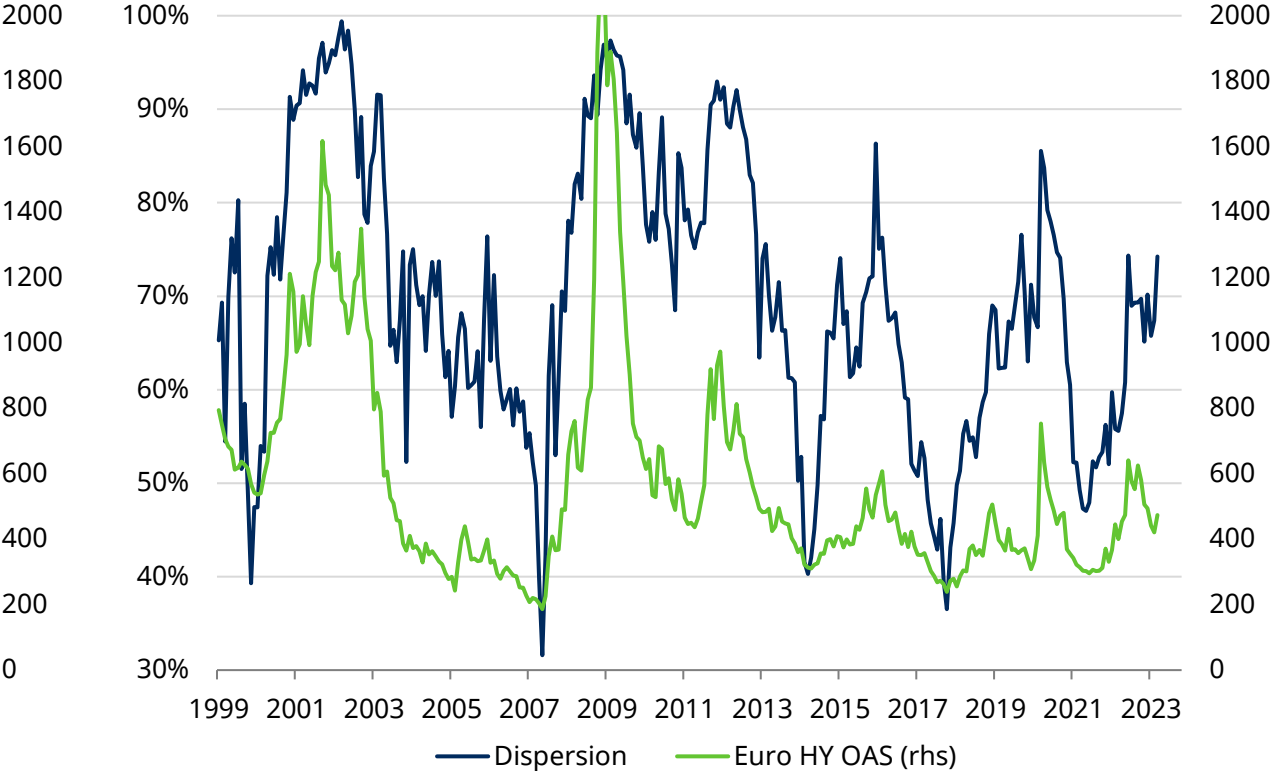
Source: Schroders, BofA Global Research, Moody's. Data as at 31 March 2023. <sup>1</sup>HY distress is defined as percentage of issues in the index trading with spreads > 1,000bp. Please see relevant disclaimers on page 67.

# HY spread dispersion

## US HY dispersion<sup>1</sup> vs US HY spread



## Euro HY dispersion<sup>1</sup> vs Euro HY spread



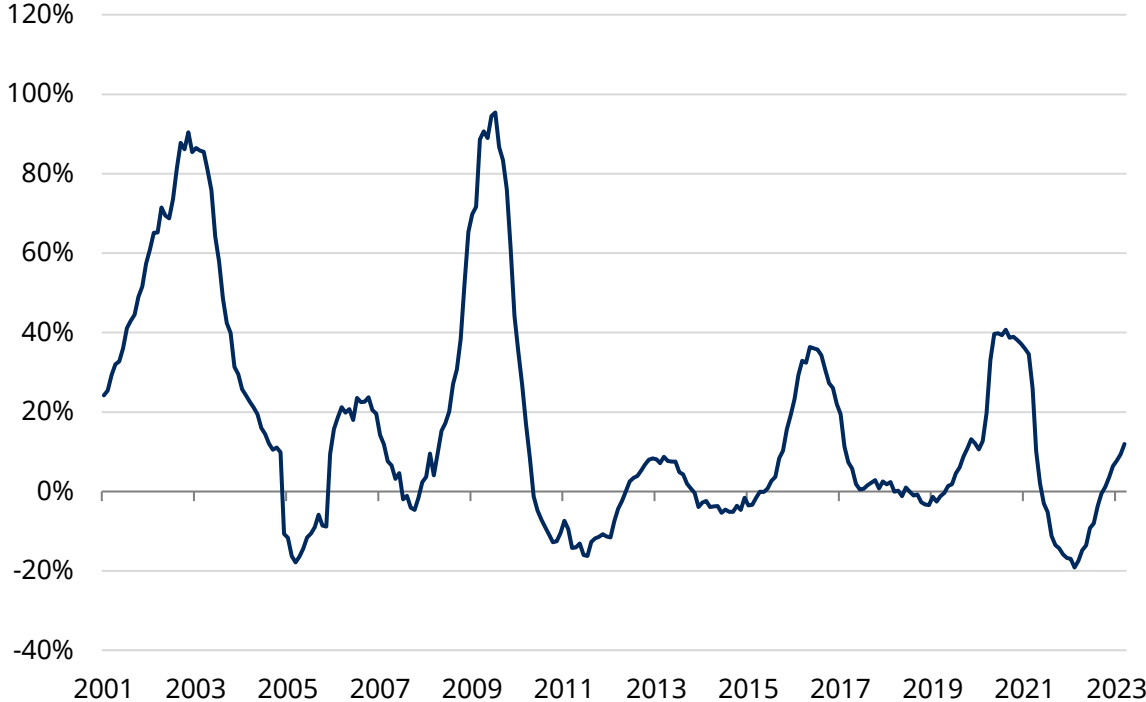
Source: Schroders, BofA Global Research. Data as at 31 March 2023. <sup>1</sup> Proportion of face value in index marked outside +/-100bps of overall index level. Please see relevant disclaimers on page 67.

# US HY ratings migration (net downgrades)

Indicator of changes in credit quality

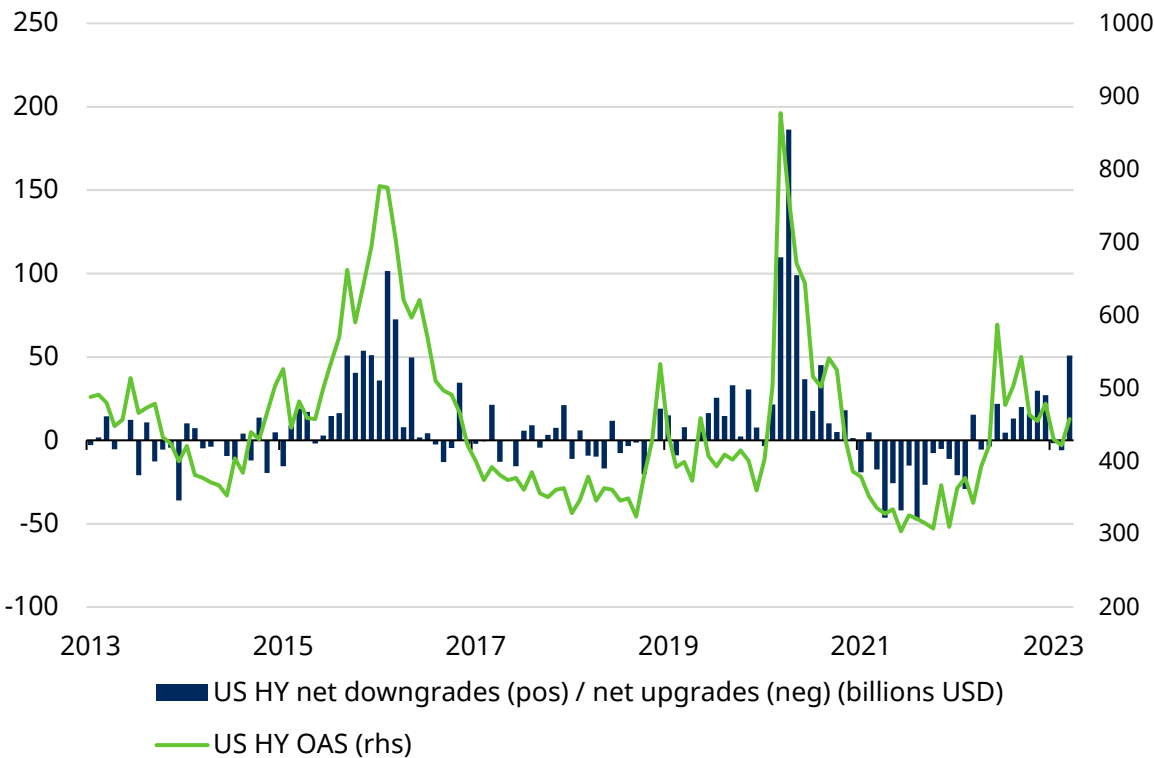
## US HY net downgrades<sup>1</sup>

Percentage of the HY index, last 12 months



## US HY monthly net downgrades

Billions USD



## Downgrades are outpacing upgrades

Source: BofA Global Research, Refinitiv Datastream. Data as at 31 March 2023. Please see relevant disclaimers on page 67.

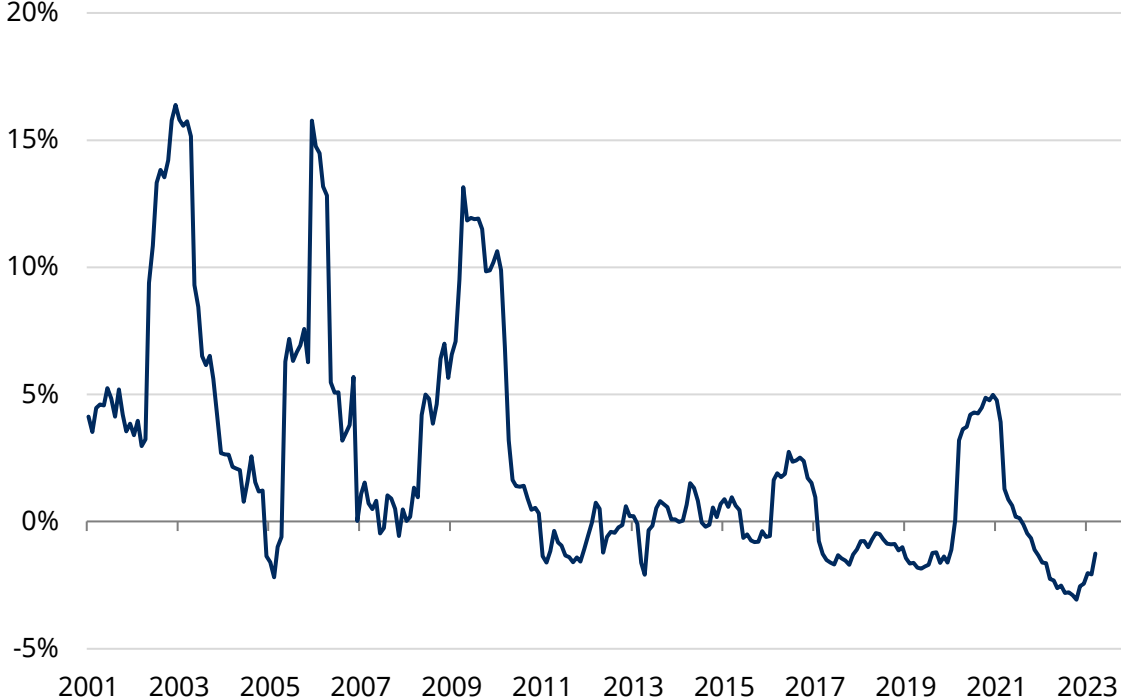
<sup>1</sup>Face value of downgraded HY bonds minus face value of upgraded bonds divided by face value of the index. Excludes upgrades from HY to IG.

# US IG fallen angels/rising stars

## Bonds downgraded from IG to HY

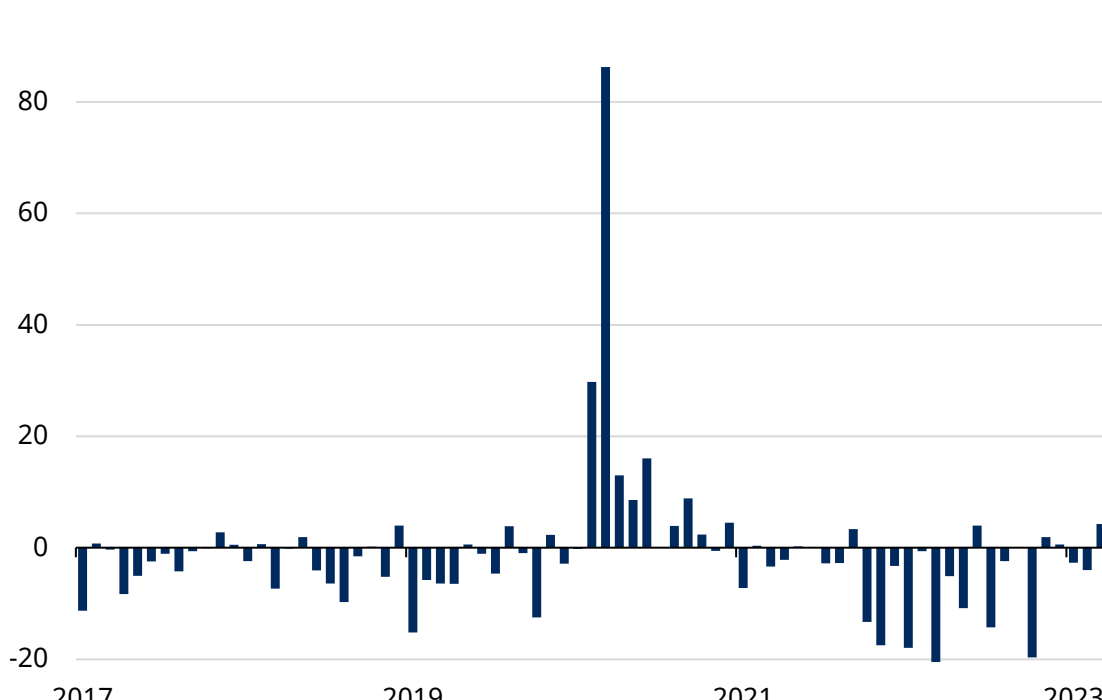
### US IG net fallen angels<sup>1</sup>

Percentage of the BBB index, last 12 months



### US IG monthly net fallen angels

Billions USD



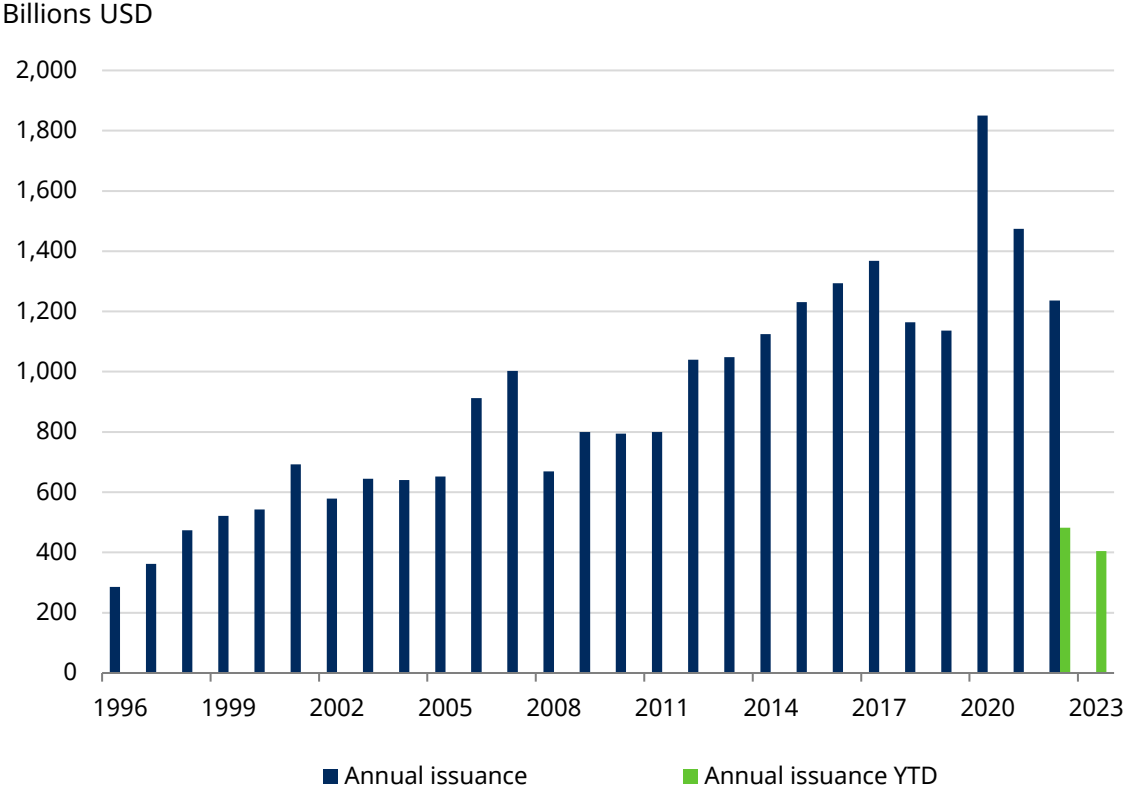
Source: BofA Global Research. Data as at 31 March 2023. Please see relevant disclaimers on page 67.

<sup>1</sup>Face value of downgrades from IG to HY minus face value of upgrades from HY to IG, divided by face value of the BBB index

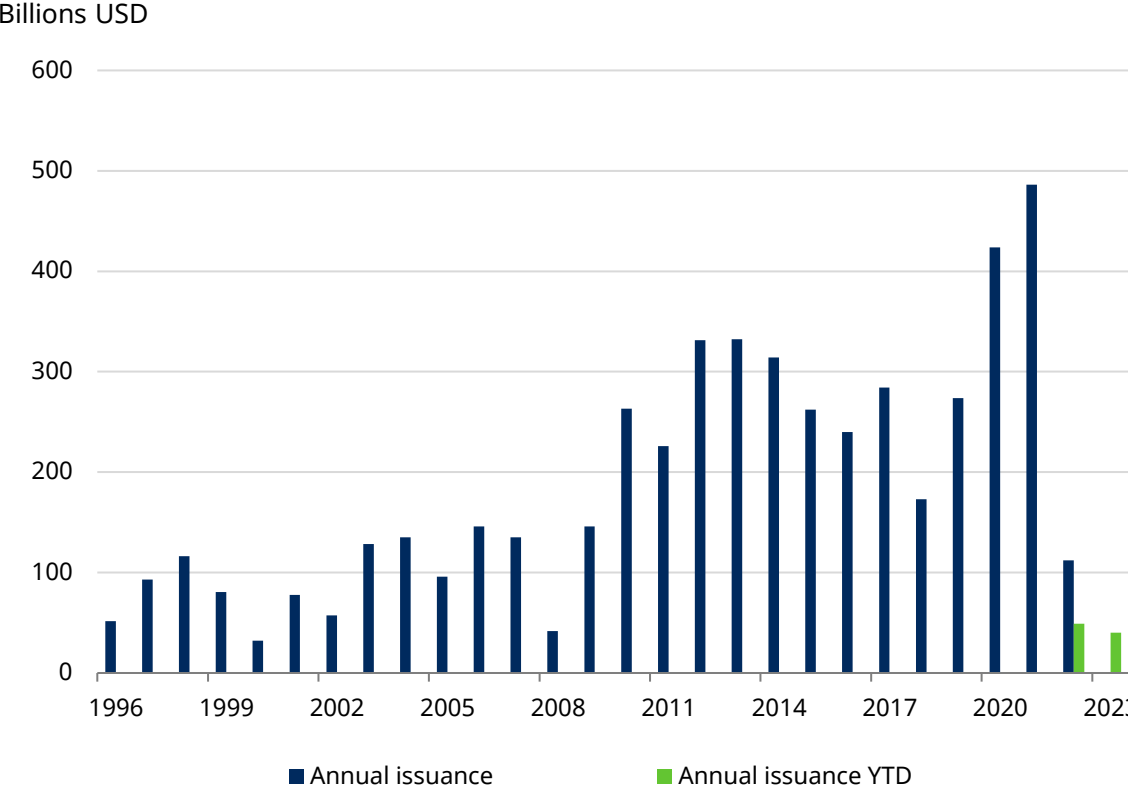


# US IG and HY gross issuance

## US IG gross issuance



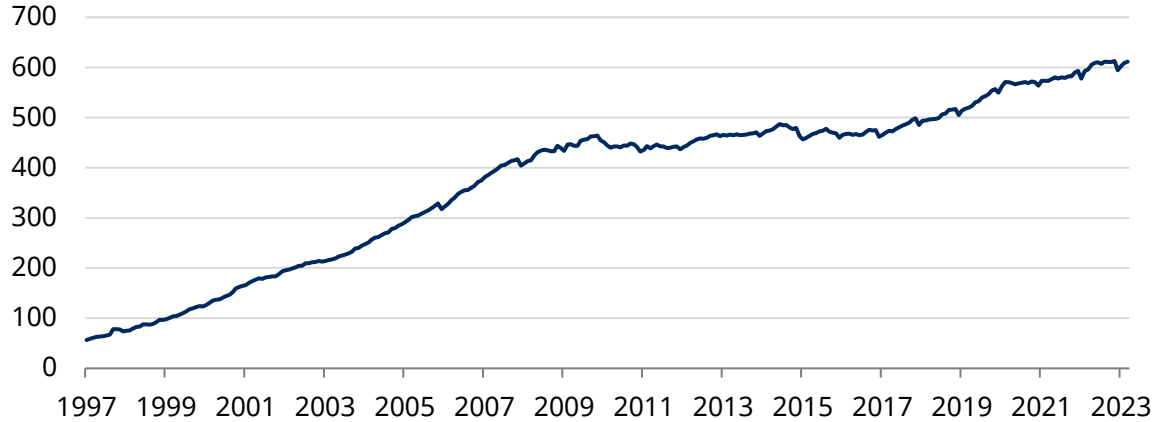
## US HY gross issuance



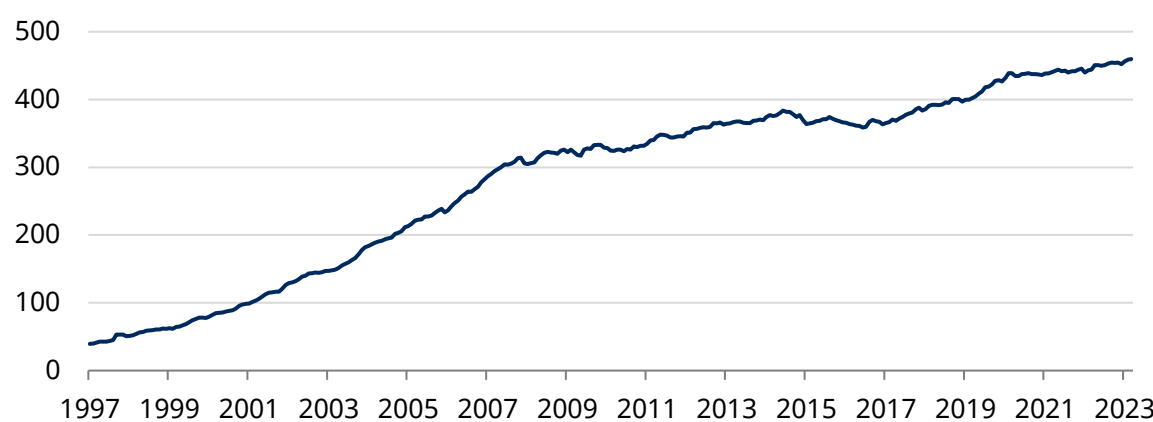
Source: Sifma. Data as at 31 March 2023. Please see relevant disclaimers on page 67.

# IG bonds outstanding

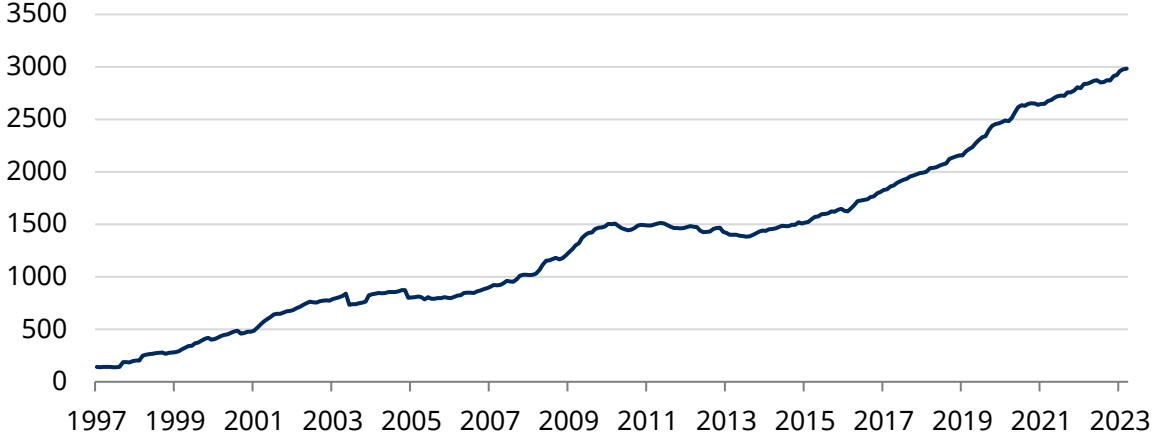
IG GBP non-gilts amount outstanding (bn GBP)



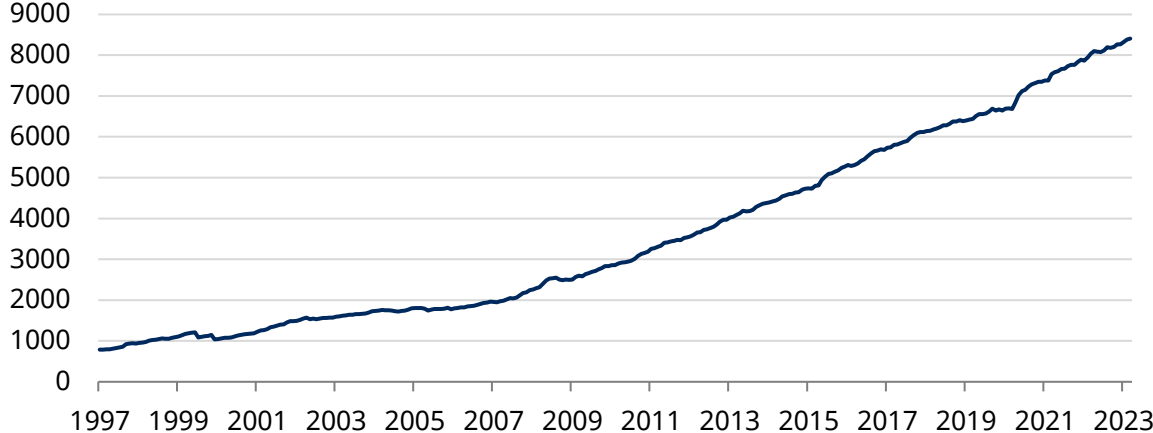
IG GBP corporates amount outstanding (bn GBP)



IG EUR amount outstanding (bn EUR)



IG USD amount outstanding (bn USD)



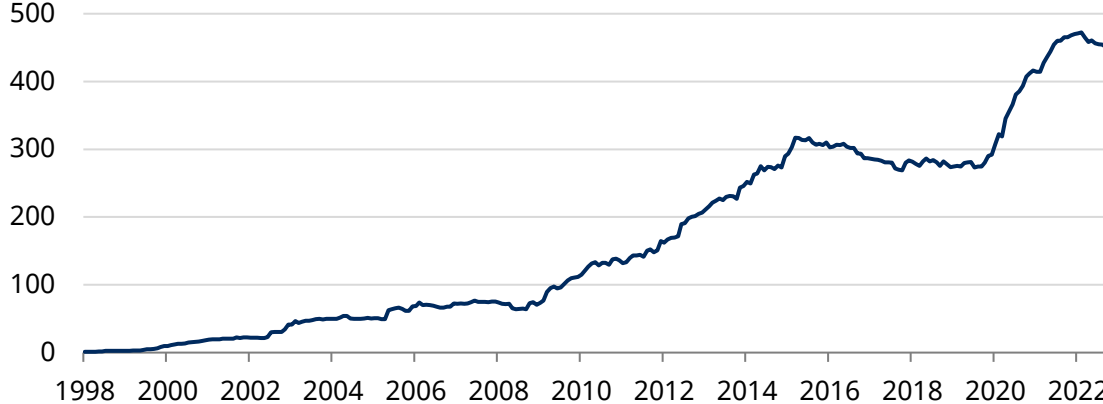
Source: Schroders, ICE Data Indices. Data as at 31 March 2023. Please see relevant disclaimers on page 67.

# HY bonds outstanding

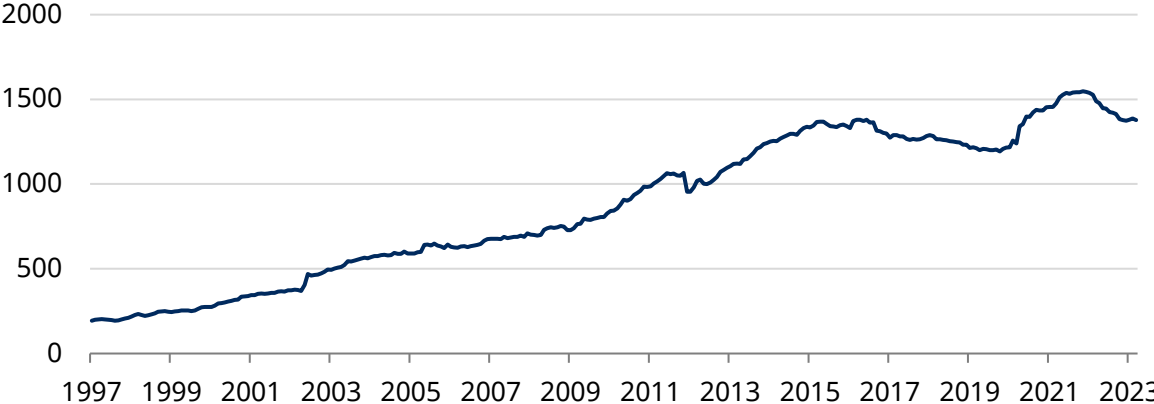
HY GBP amount outstanding (bn GBP)



HY EUR amount outstanding (bn EUR)



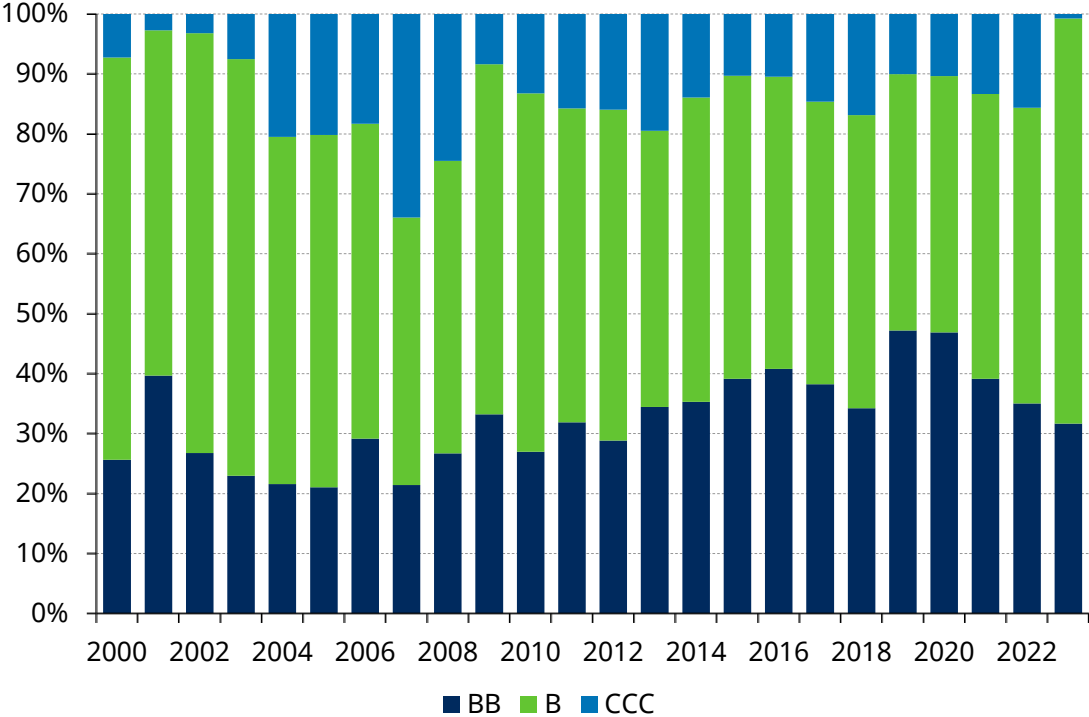
HY USD amount outstanding (bn USD)



Source: Schroders, ICE Data Indices. Data as at 31 March 2023. Please see relevant disclaimers on page 67.

# Global HY issuance details

## Issuance by rating (percentage of issuance)

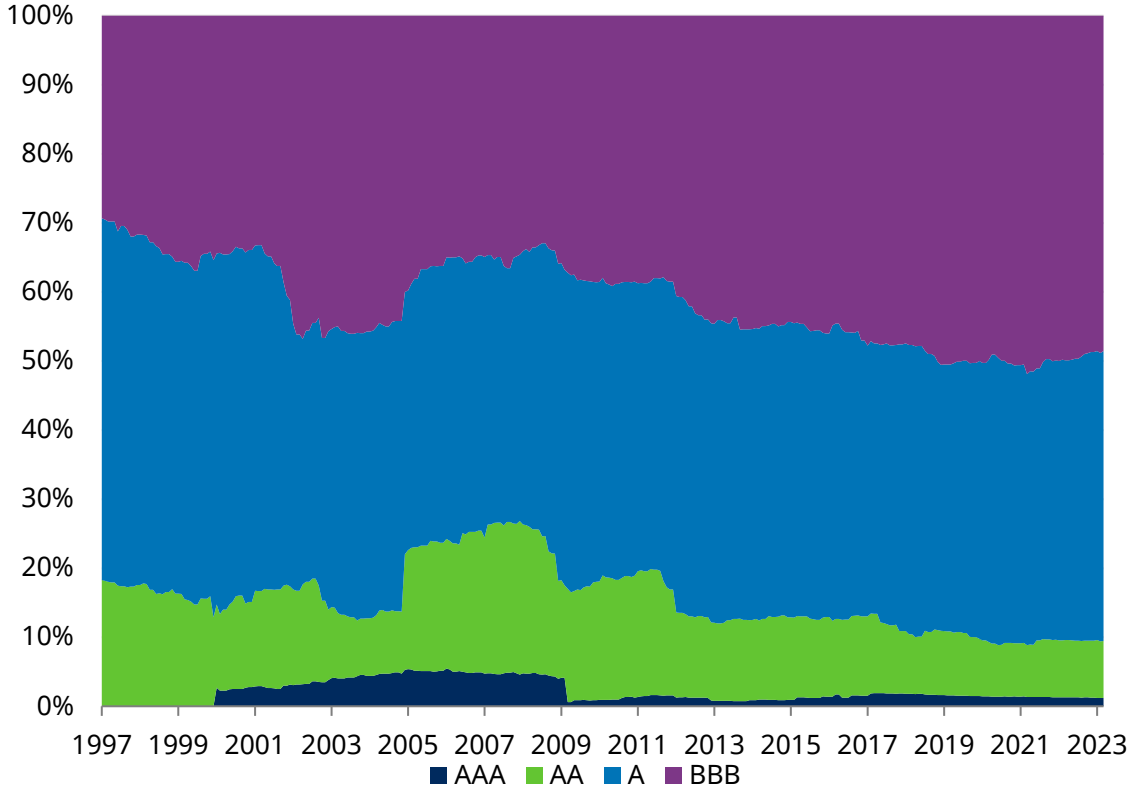


Source: Schroders, BofA Global Research, Moody's. Data as at 31 March 2023. Please see relevant disclaimers on page 67.

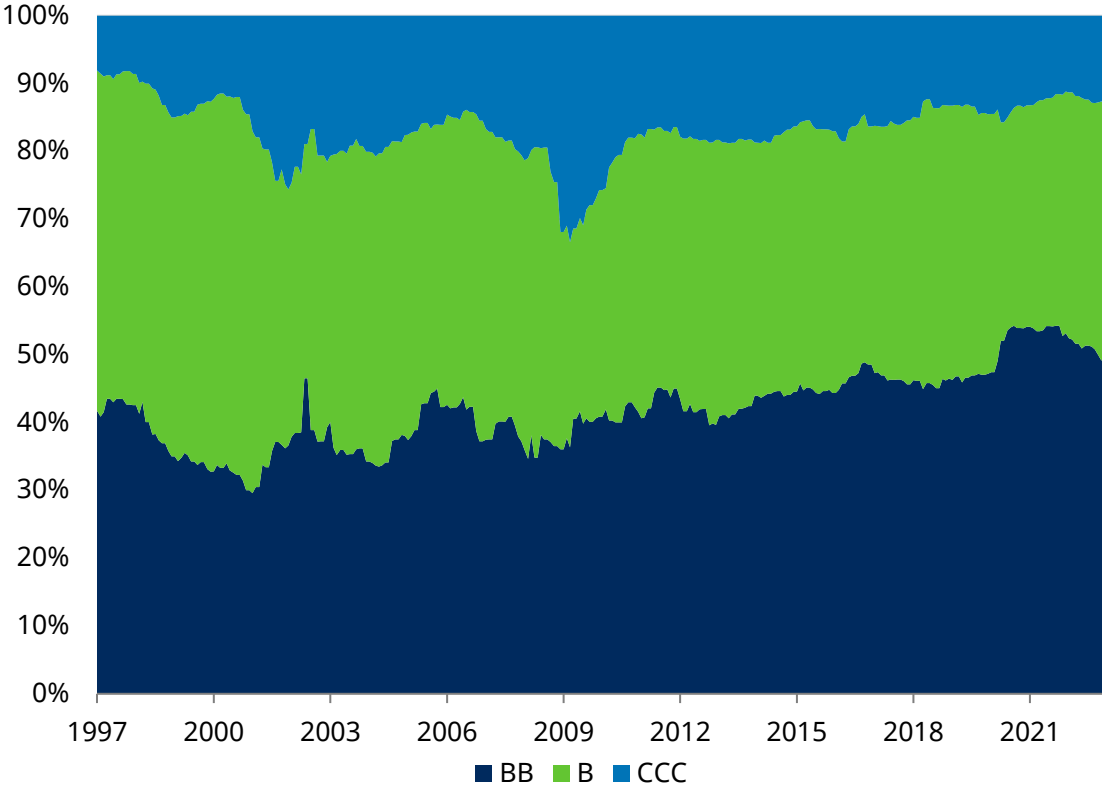
# US dollar credit historical ratings split

Significant changes in credit quality over time

### US IG ratings split



### US HY ratings split

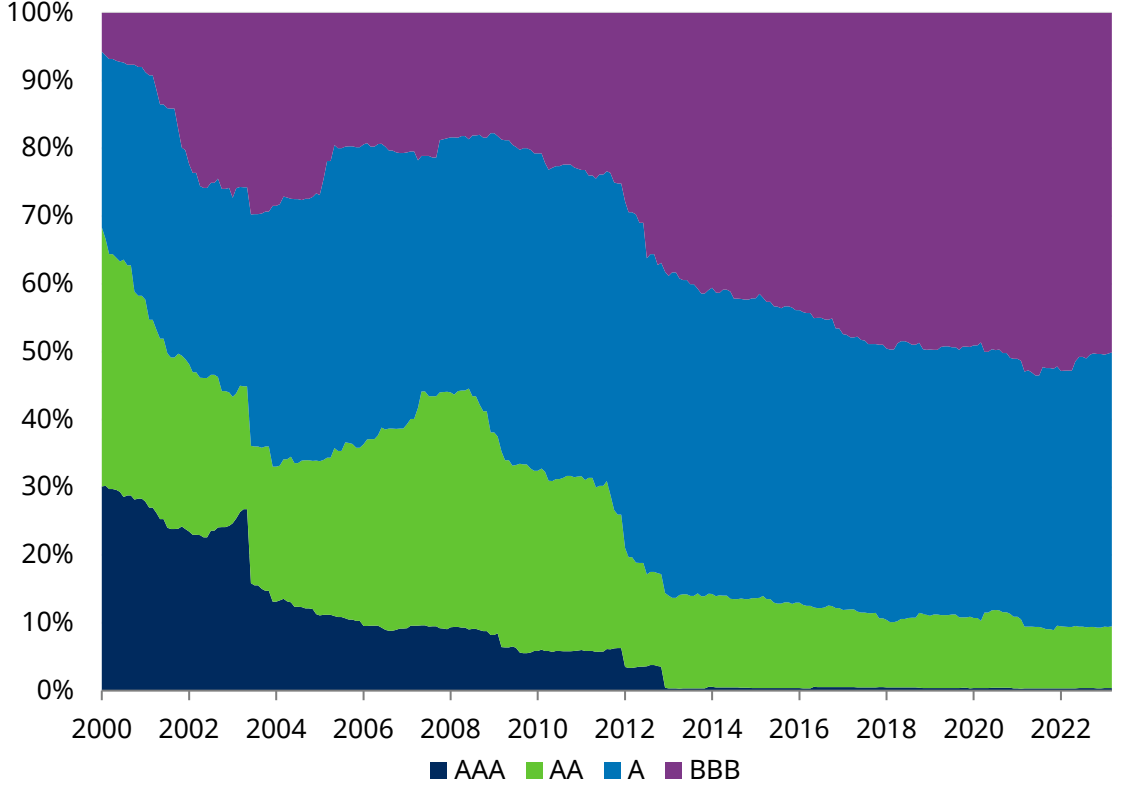


Source: Schroders, Refinitiv Datastream. Data as at 31 March 2023. Please see relevant disclaimers on page 67.

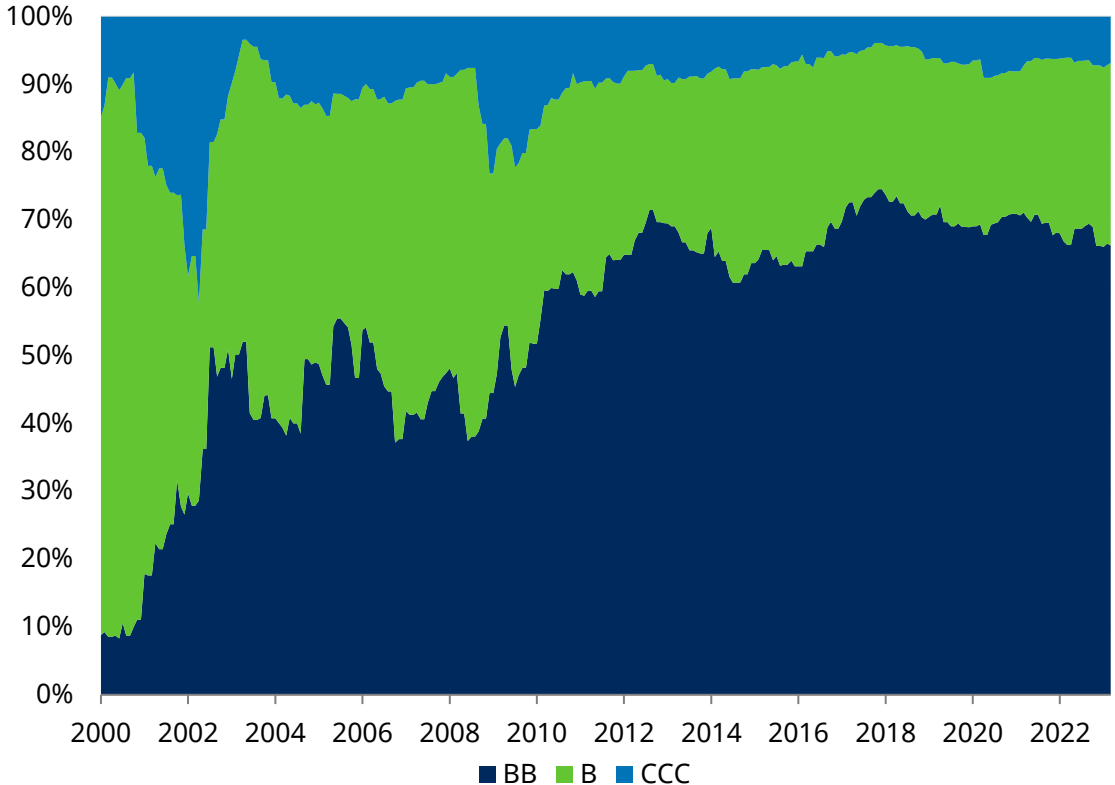
# Euro credit historical ratings split

Significant changes in credit quality over time

### Euro IG ratings split



### Euro HY ratings split

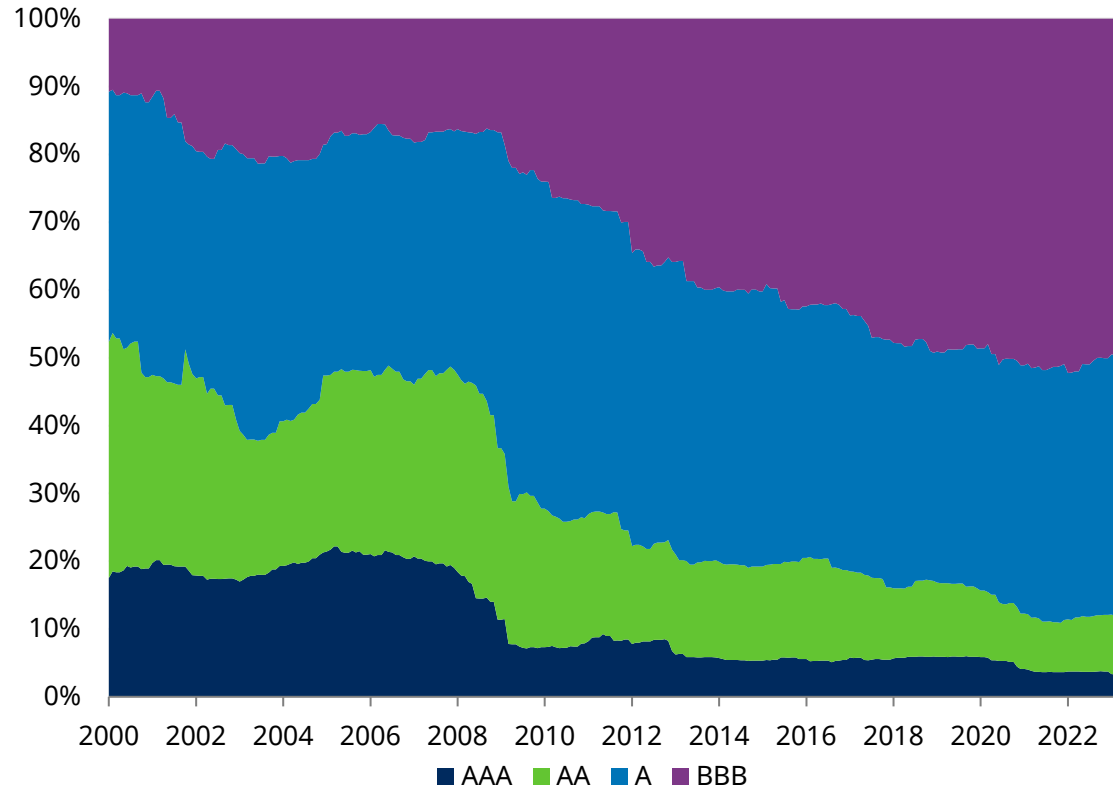


Source: Schroders, Refinitiv Datastream. Data as at 31 March 2023. Please see relevant disclaimers on page 67.

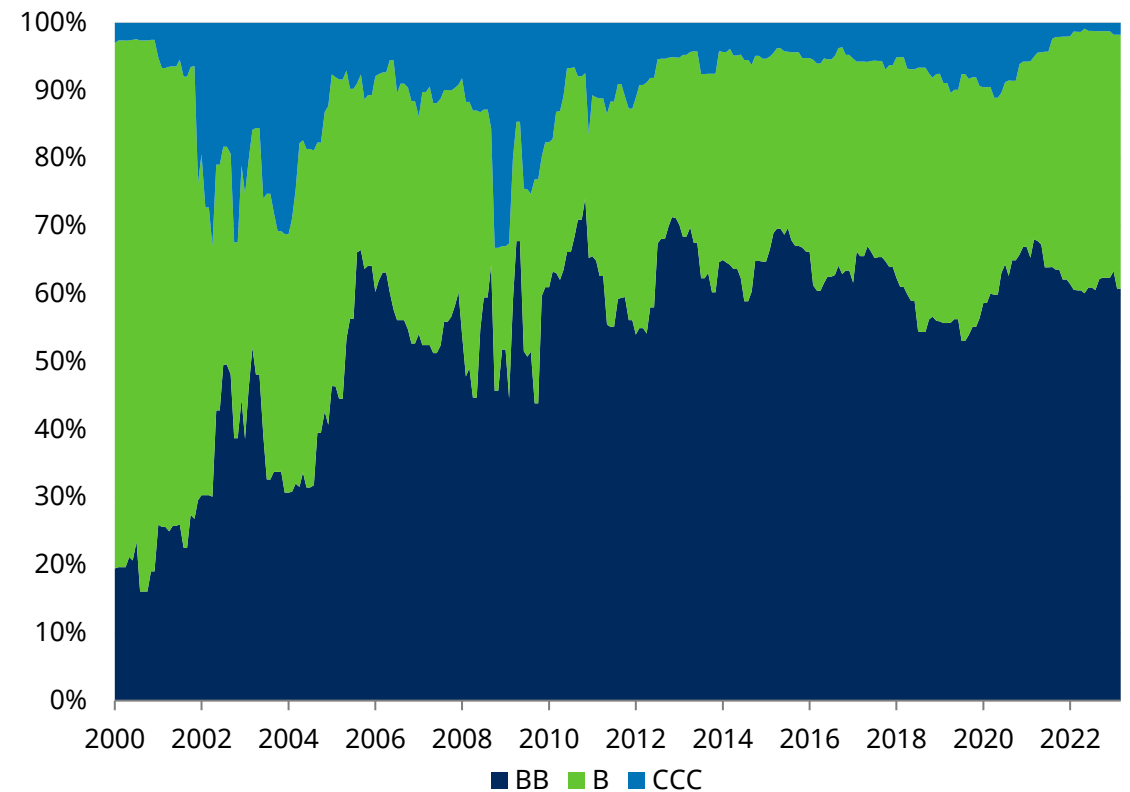
# Sterling credit historical ratings split

Significant changes in credit quality over time

## GBP IG ratings split



## GBP HY ratings split



Source: Schroders, Refinitiv Datastream. Data as at 31 March 2023. Please see relevant disclaimers on page 67.

**Schroders**

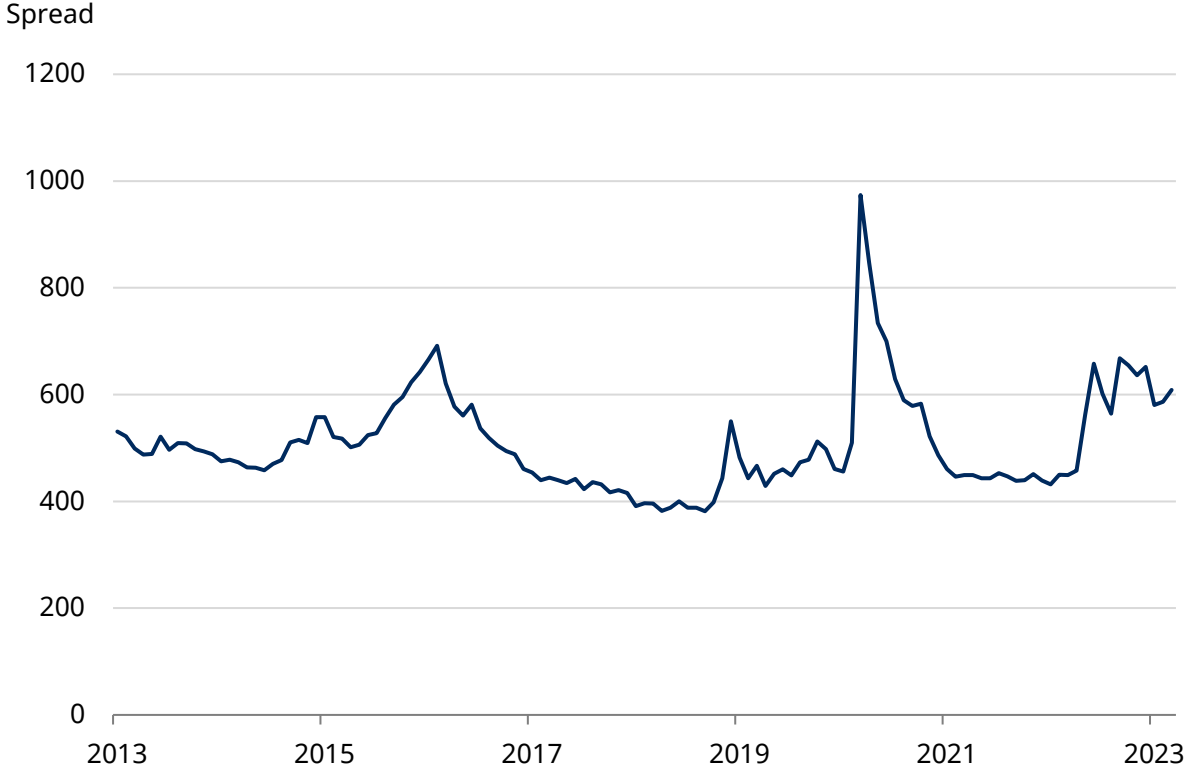


**Appendix: Alternatives**

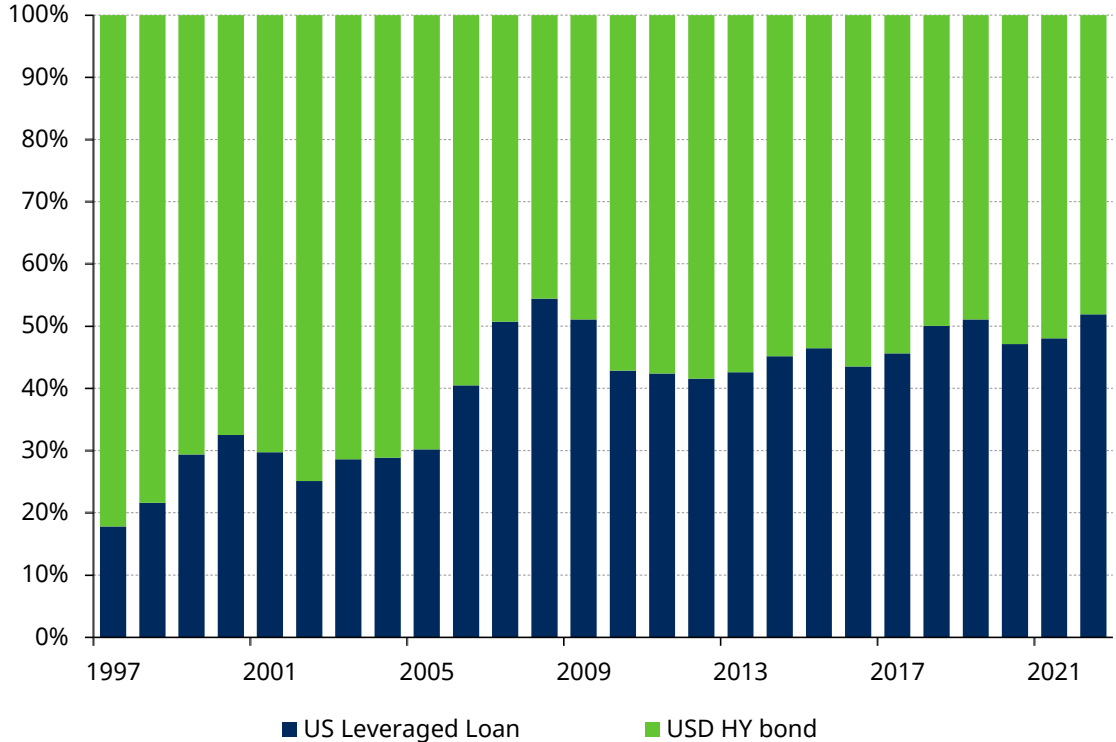


# US leveraged loans

## US leveraged loan discount margin (3-year life)



## Loans as a percentage of US leveraged finance market (Face Value)



Source: Schroders, BofA Global Research, Credit Suisse. Data as at 31 March 2023. Please see relevant disclaimers on page 67.

# List of indices

- **IG GBP non-gilts** - The ICE Data Indices Sterling Non-Gilt Index
- **IG GBP corporates** - The ICE Data Indices Sterling Corporate & Collateralized Index
- **IG Euro** - The ICE Data Indices Euro Corporate Index
- **IG USD** - The ICE Data Indices US Corporate Index
  
- **HY GBP** - The ICE Data Indices Sterling High Yield Index
- **HY Euro** - The ICE Data Indices Euro High Yield Index
- **HY USD** - The ICE Data Indices US High Yield Index
  
- **Hard EMD** - The JPM EMBI Global Diversified Index
- **Local EMD** - The JPM GBI-EM GLOBAL Divers Index
- **Corp. EMD** - The JPM CEMBI Broad Diversified Index
  
- **US leveraged Loan** - Credit Suisse Leveraged Loans Index

# Relevant Disclosures

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