### Schroders



# Schroders Credit Lens

Perspective of GBP investor

Strategic Research Unit July 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 67

### Index

**Summary** (slides 4-11)

**Cross-credit analysis** (slides 12-25)

IG long vs short (slides 26-29)

Corporate credit: valuation (slides 30-32)

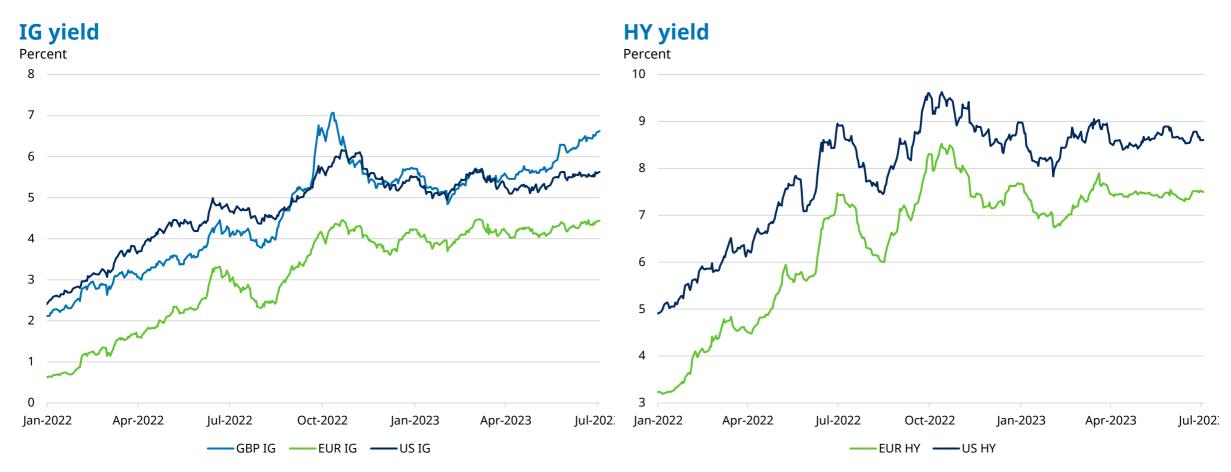
Corporate credit: fundamentals (slides 33-51)

Corporate credit: technicals (slides 52-66)

### **Summary**

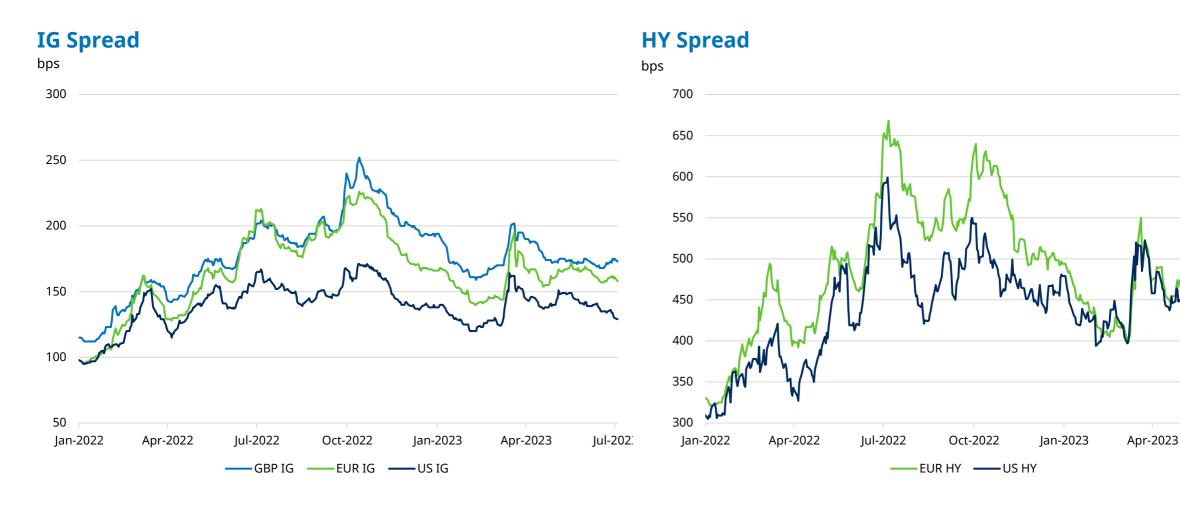
- Risk free rates continued to edge higher on the month, but corporate bond yields in many markets remained within recent ranges. The exception is in the GBP investment-grade market where yields moved closer to their Autumn 2022 peak levels
- Spreads were flat or slightly down in June, with USD high-yield around year-to-date lows. Spreads have been unusually stable in the face of the sharp tightening in Bank lending conditions this year. Historically spreads have widened a lot in such situations
- Credit curves continue to be very flat, with longer maturity bonds offering little or no yield pick-up over shorter maturity bonds
- Overall corporate fundamentals remained strong in Q1, but higher interest rates are starting to have an impact.
   Interest coverage ratios, whilst still elevated, have started to fall, reflecting a significant increase in interest expense
- Earnings growth and corporate margins are lower than the peak levels seen in recent years. Leverage continues to be lower than the pandemic era peaks, although the high-yield market saw a marginal uptick in Q1
- Default rates in US high-yield are rising. And more elevated distress ratios indicate that defaults could continue to increase
- US high-yield issuance has picked up from very low levels, with the secured proportion being unusually high

# Sterling IG yields are not far off Autumn 2022 levels, while other markets remain within recent ranges



Source: Refinitiv Datastream. Data as at 3 July 2023. Please see relevant disclaimers on page 68. Charts show local currency yields.

# Spreads were flat or slightly down on the month, with USD high-yield close to their 2023 low



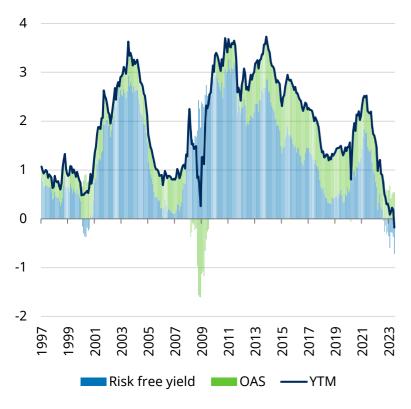
Source: Refinitiv Datastream. Data as at 3 July 2023. Please see relevant disclaimers on page 68.

Jul-202:

### Credit curves continue to be very flat

Longer maturity bonds offering little or no yield pick-up over shorter maturity bonds

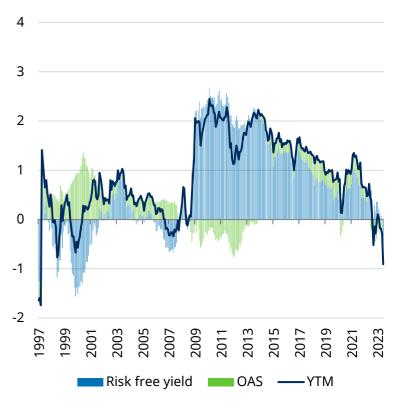
# IG USD 15+ minus 1-5 year index yield (%)



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



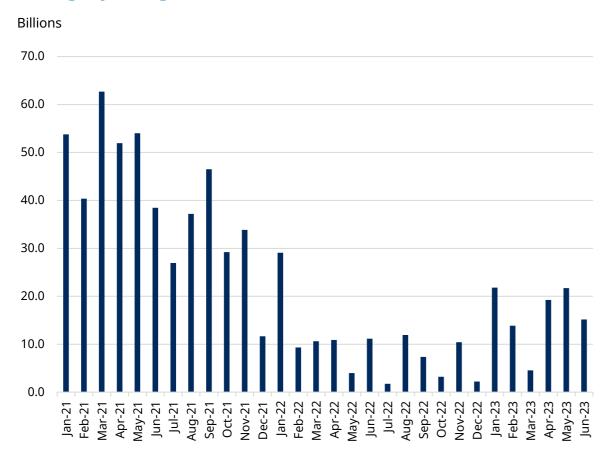
## IG GBP corporate 10+ minus 1-5 year index yield (%)



Source: Refinitiv Datastream. Data as at 30 June 2023. Please see relevant disclaimers on page 68.

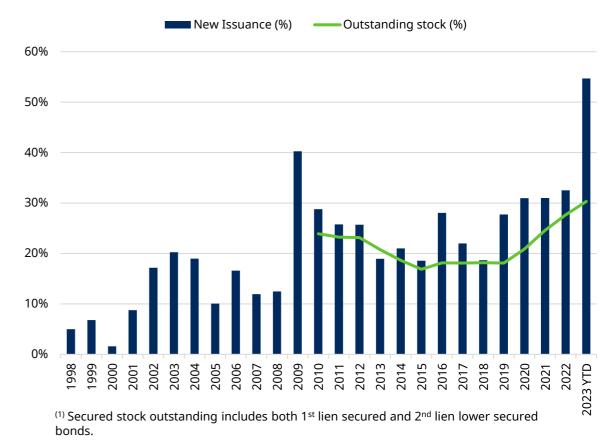
# US high-yield issuance has picked up from very low levels, with the secured proportion being unusually high

#### **US high-yield gross issuance**



Source: Sifma, BofA Global Research. Data as at 30 June 2023. Please see relevant disclaimers on page 68.

**USD** high-yield issuance: secured proportion<sup>(1)</sup>



### Summary table

#### Cross-credit overview

**Date: 30 June 2023** 

	IG GBP non- gilts	IG GBP corporates	IG Euro	IG USD	нү бвр	HY Euro	HY USD	Hard EMD	Local EMD	Corp. EMD
Yield to worst	6.3%	6.6%	4.4%	5.6%	10.7%	7.5%	8.6%	8.4%	6.3%	7.2%
Yield to worst (hedged to GBP) <sup>1</sup>	6.3%	6.6%	6.2%	5.5%	10.7%	9.2%	8.5%	8.3%	-	7.2%
Spread (bps)	146	175	161	130	558	446	405	432	221	309
Spread (percentile) <sup>2</sup>	69%	69%	74%	45%	61%	55%	40%	63%	4%	45%
Risk premium (bps) <sup>3</sup>	113	137	123	92	357	275	183	299	166	197
Duration	5.9	6.4	4.8	7.1	3.2	3.3	4.2	6.8	5.0	4.2
MV (billion \$)	746	557	2,979	7,825	52	402	1,218	637	1,466	501
Rating	A1	A3	A3	A3	BB3	BB3	B1	BB1	BBB2	BBB3
Nr. of issues/countries	1,326	1,120	4,171	10,020	99	729	1,870	66	20	1,890
Since Jan 1997 or inception										
Annualised return <sup>4</sup>	4.9%	5.1%	4.9%	5.2%	8.2%	5.8%	6.2%	6.9%	6.4%	5.9%
Annualised volatility	5.8%	6.5%	4.0%	5.9%	10.4%	11.4%	9.1%	10.7%	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	0.4	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.

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

<sup>&</sup>lt;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>&</sup>lt;sup>3</sup>Spread minus average historical default and downgrade losses (see slide 24).

<sup>&</sup>lt;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: 30 June 2023** 

	US Agency MBS	US ABS	US CMBS	US leveraged loans	EUR leveraged loans	Cat Bonds
Yield <sup>1</sup>	4.8%	6.2%	6.8%	10.3%	9.6%	-
Yield (hedged to GBP) <sup>2</sup>	4.7%	6.1%	6.7%	10.2%	11.3%	-
Spread (bps) <sup>3</sup>	67	122	271	581	595	-
Risk premium (bps)	-	-	-	-	-	-
Duration	6.0	2.2	3.9	0.0	0.0	-
Market size (billion \$)	7,264	409	436	1,370	273	-
Rating	AAA	AAA	AAA	-	-	-
Since Jan 1997 or inception						
Annualised return <sup>4</sup>	4.4%	3.9%	4.9%	5.1%	5.3%	7.3%
Annualised volatility	3.4%	2.3%	6.2%	5.8%	6.7%	4.3%
Return/volatility	1.3	1.7	0.8	0.9	0.8	1.7
Max drawdown	-16.9%	-8.1%	-26.0%	-29.9%	-30.7%	-8.8%
Correlation with FTSE All-share	0.0	0.1	0.2	0.5	0.5	0.1
Correlation with MSCI World £	0.0	0.0	0.2	0.4	0.4	0.1
Correlation with UK Gilts	0.6	0.3	0.3	-0.2	-0.1	0.2

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

Source: Schroders, Refinitiv Datastream, Bloomberg, Credit Suisse. Data as at 30 June 2023, Please see relevant disclaimers on page 68.

<sup>&</sup>lt;sup>1</sup>USD yield. Leveraged loans is yield (3-year life).

<sup>&</sup>lt;sup>2</sup>USD yield minus annualized 3-month hedging cost/return.

<sup>&</sup>lt;sup>3</sup>Leveraged loans spread is discount margin (3-year life).

<sup>&</sup>lt;sup>4</sup>All returns GBP hedged returns.

### Performance table

#### Cross-credit overview

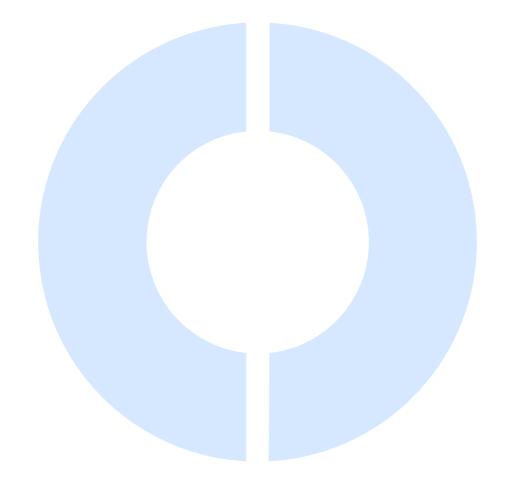
**Date: 30 June 2023** 

	IG GBP non- gilts	IG GBP corporates	IG Euro	IG USD	нү бвр	HY Euro	HY USD	Hard EMD	Local EMD	Corp. EMD
Return (local) <sup>1</sup>										
1 month return	-1.2%	-1.2%	-0.4%	0.3%	0.0%	0.5%	1.6%	2.2%	3.3%	1.1%
YTD return	-1.0%	-1.0%	2.0%	3.2%	4.5%	4.4%	5.4%	4.1%	7.8%	3.6%
1 year return	-7.1%	-7.1%	0.0%	1.4%	5.9%	8.8%	8.9%	7.4%	11.4%	5.7%
Return (GBP hedged) <sup>2</sup>										
1 month return	-1.2%	-1.2%	-0.3%	0.2%	0.0%	0.6%	1.5%	2.1%	0.7%	1.0%
YTD return	-1.0%	-1.0%	2.8%	2.6%	4.5%	5.1%	4.8%	3.5%	2.0%	3.1%
1 year return	-7.1%	-7.1%	1.3%	-0.2%	5.9%	10.2%	7.2%	5.7%	6.4%	4.3%
Spread										
1 month OAS change	1	0	-8	-12	-31	-37	-64	-45	-45	-38
YTD OAS change	-15	-19	-5	-8	-105	-48	-74	-20	-68	-13
1 year OAS change	-17	-26	-51	-34	-151	-195	-182	-110	-184	-80
Latest OAS	20	175	161	130	558	446	405	432	221	309

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

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

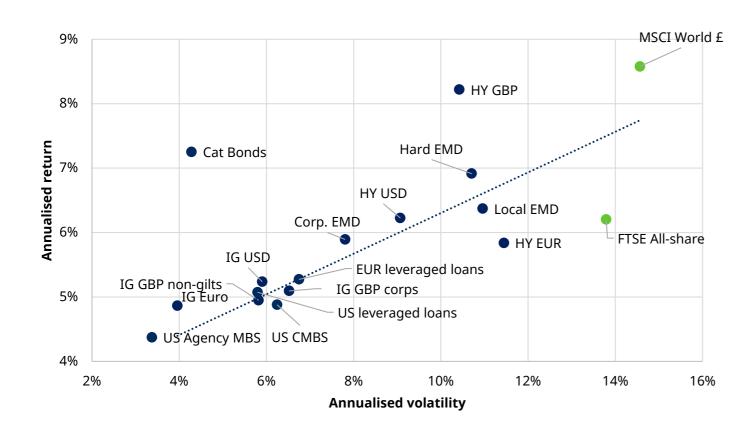
### **Schroders**



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

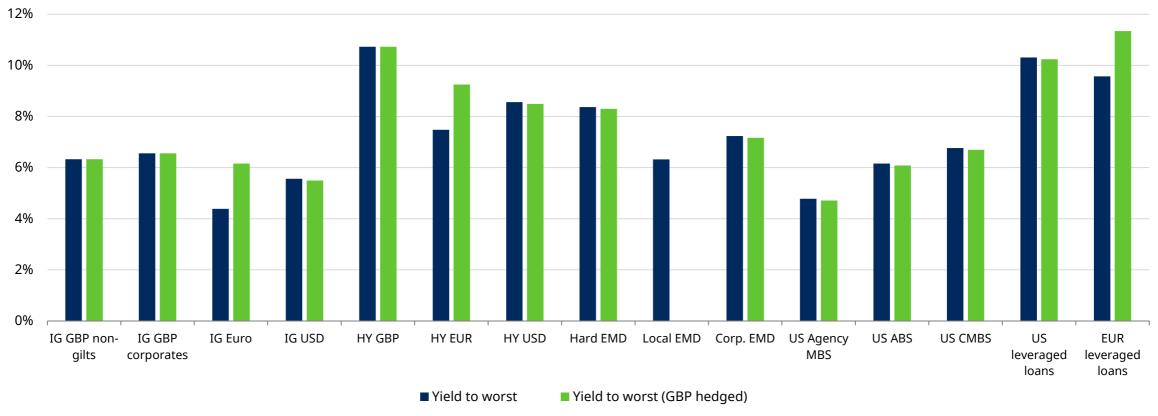
#### Past performance is not a guide to future performance and may not be repeated.

Source: Schroders, Refinitiv Datastream, ICE Data Indices, J.P. Morgan, Barclays, Credit Suisse. Data as at 30 June 2023. Please see relevant disclaimers on page 68. 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>



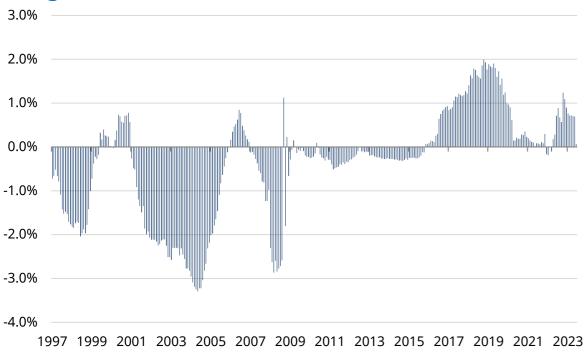
#### Currency-hedged USD corporates yield less than GBP and EUR equivalents

Source: Schroders, Refinitiv Datastream, ICE Data Indices, J.P. Morgan, Bloomberg, Credit Suisse. Data as at 30 June 2023. Please see relevant disclaimers on page 68. (1) Hedged yield is local currency yield minus annualised 3-month FX hedging cost/return (see next slide). Leveraged loans is yield (3-year life).

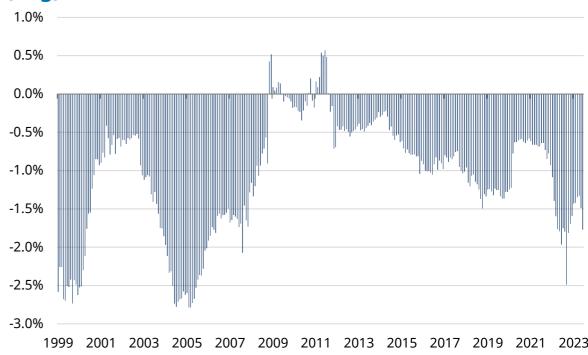
### FX hedging cost or return

### 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)

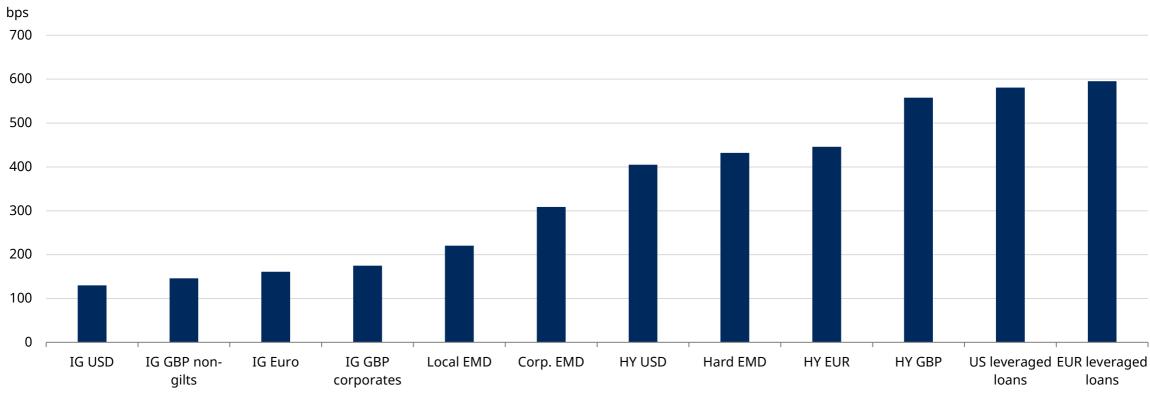


USD yields will be little different in GBP once hedging taken account EUR yields will be 1.8% higher in GBP once hedging taken account

Source: Refinitiv Datastream. Data as at 30 June 2023. Please see relevant disclaimers on page 68.

### Cross-credit spread

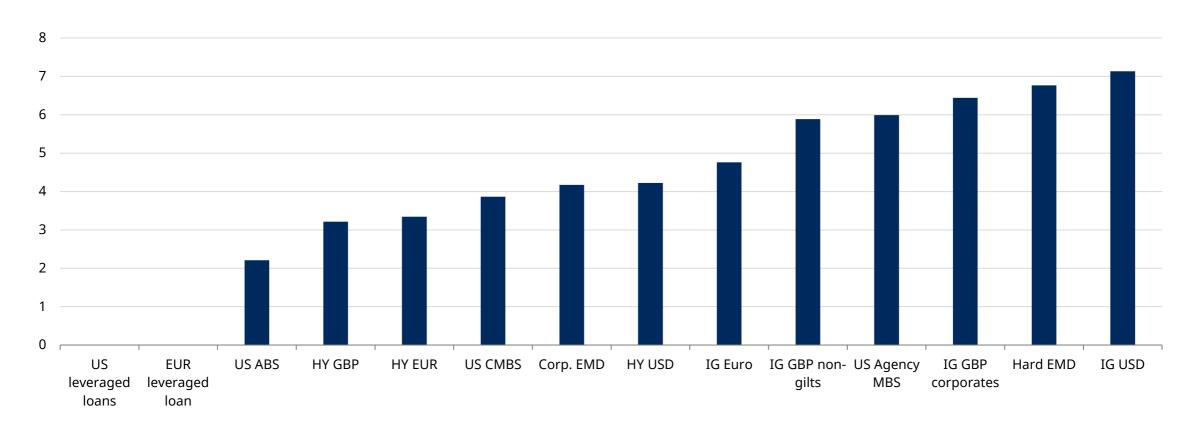
#### **Spread**



Source: Refinitiv Datastream, ICE Data Indices, J.P. Morgan, Bloomberg, Credit Suisse. Data as at 30 June 2023. Local EMD has been estimated as a spread over Treasuries of similar maturity. Leveraged loan spread is Discount Margin (3-year life).
Please see relevant disclaimers on page 68.

### **Cross-credit duration**

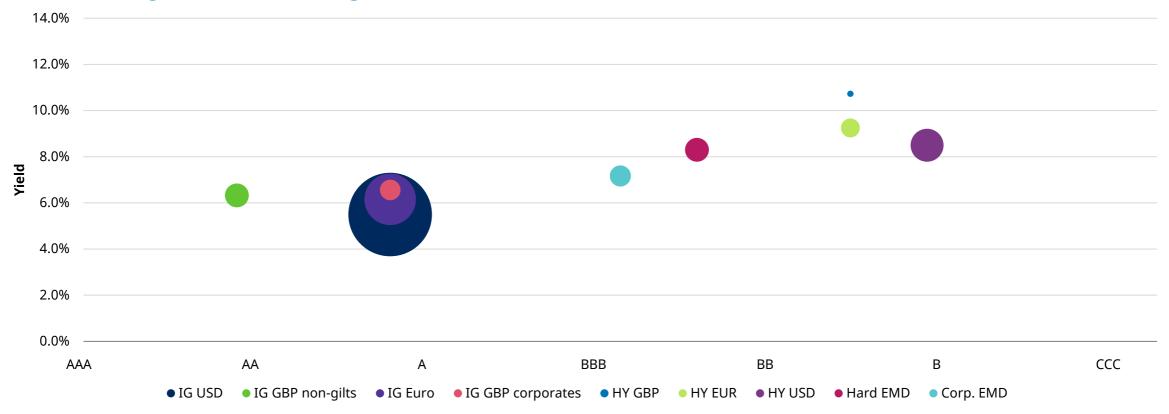
#### **Modified duration**



### Yield vs. credit rating vs. market size

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

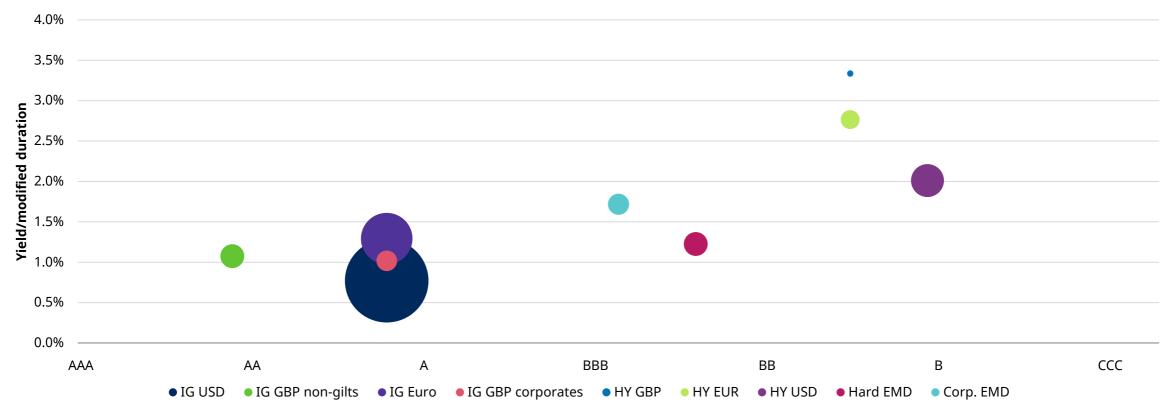
#### Yield (GBP hedged) vs credit rating vs market size



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

Vertical axis is yield divided by modified duration

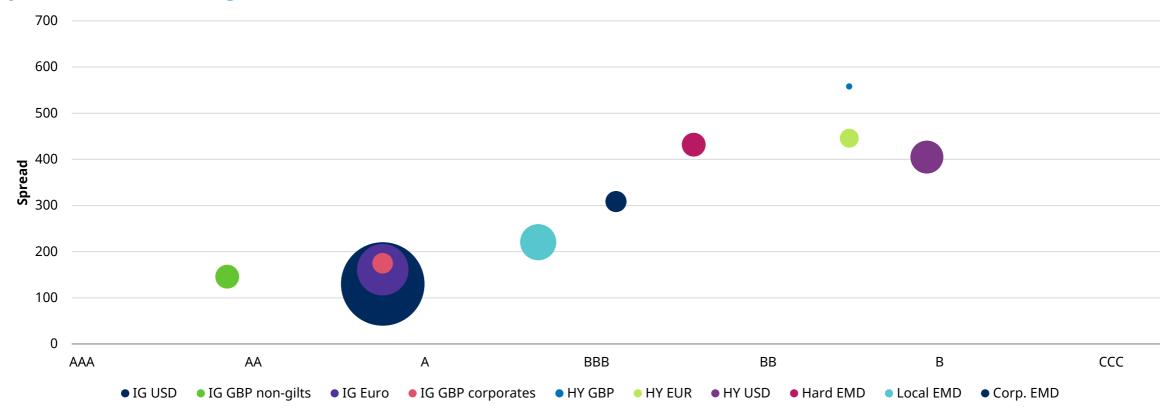
#### Yield (GBP hedged) per unit of duration vs credit rating vs market size



### Spread vs. credit rating vs. market size

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

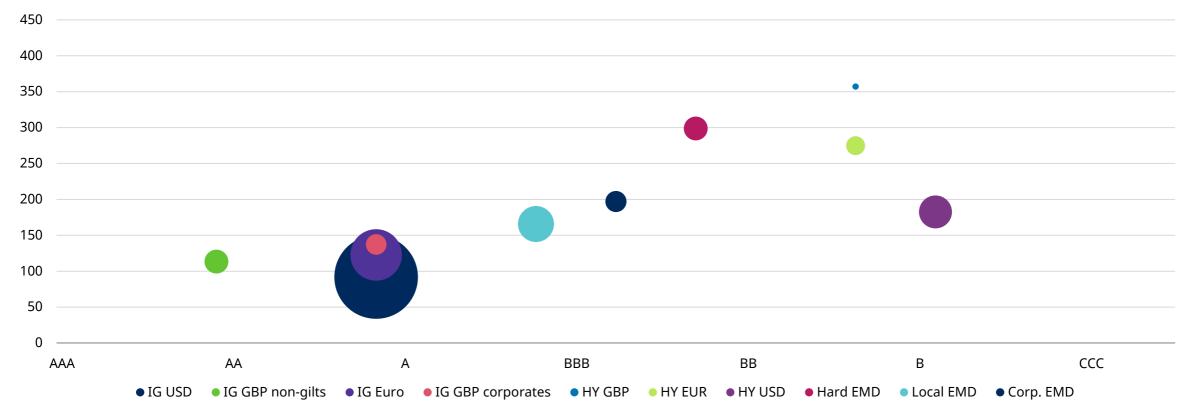
#### Spread vs credit rating vs market size



### Risk premium vs. credit rating vs. market size

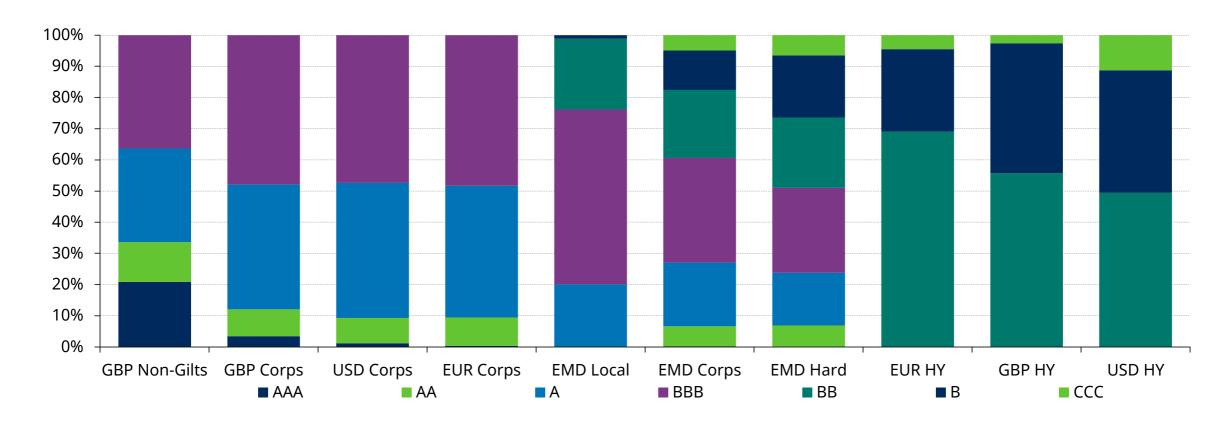
Risk premium = credit spread - long term default and downgrade losses

#### Risk premium vs credit rating vs market size



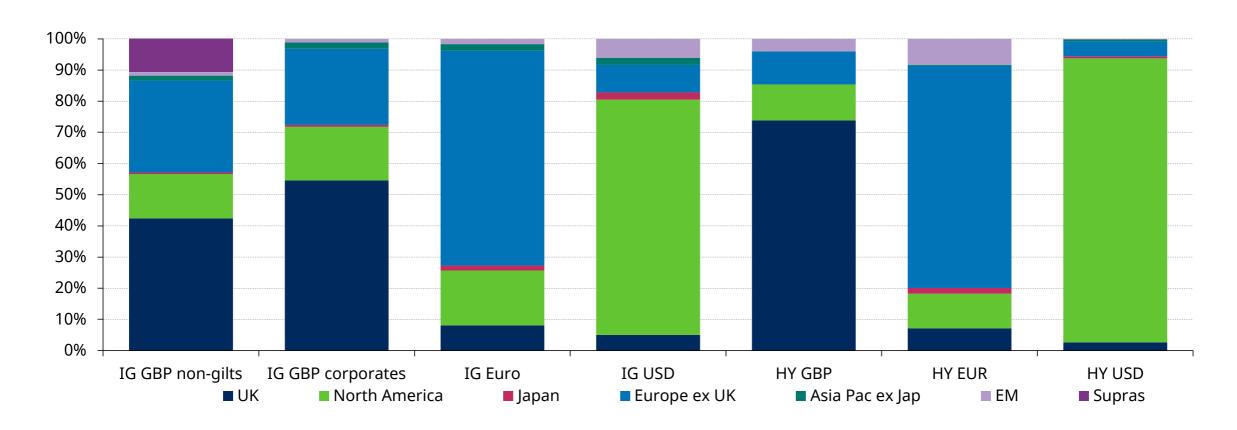
Source: Schroders, Refinitiv Datastream, ICE Data Indices, J.P. Morgan. Data as at 30 June 2023. Please see relevant disclaimers on page 68. Local EMD returns are driven by rates and currency movements rather than defaults

### Cross-credit ratings split



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

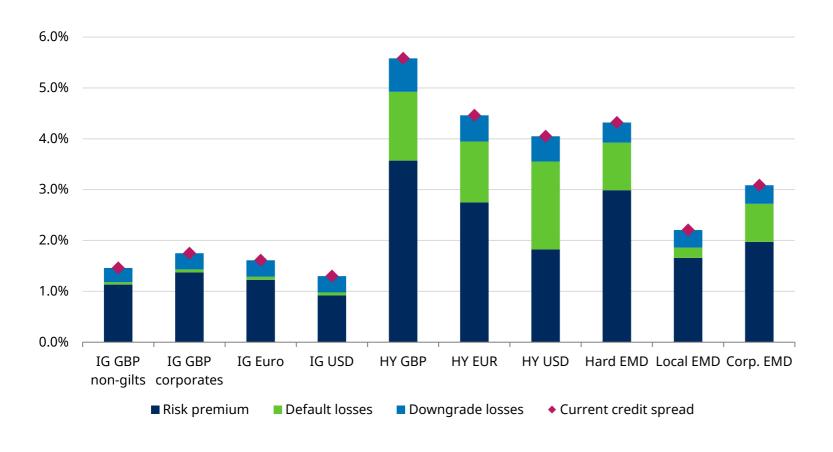
### Currency of issue vs country of issuer



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

### 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 30 June 2023. Please see relevant disclaimers on page 68.

### Risk premium

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

	Expected default rate <sup>1</sup>	Default losses²	Downgrade losses	Current credit spread	Risk premium³
IG GBP non-gilts	0.1%	0.0%	0.3%	1.5%	1.1%
IG GBP corporates	0.1%	0.1%	0.3%	1.8%	1.4%
IG Euro	0.1%	0.1%	0.3%	1.6%	1.2%
IG USD	0.1%	0.1%	0.3%	1.3%	0.9%
HY GBP	2.1%	1.4%	0.7%	5.6%	3.6%
HY EUR	1.8%	1.2%	0.5%	4.5%	2.7%
HY USD	2.7%	1.7%	0.5%	4.1%	1.8%
Hard EMD	1.4%	0.9%	0.4%	4.3%	3.0%
Local EMD	0.3%	0.2%	0.3%	2.2%	1.7%
Corp. EMD	1.1%	0.8%	0.4%	3.1%	2.0%

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

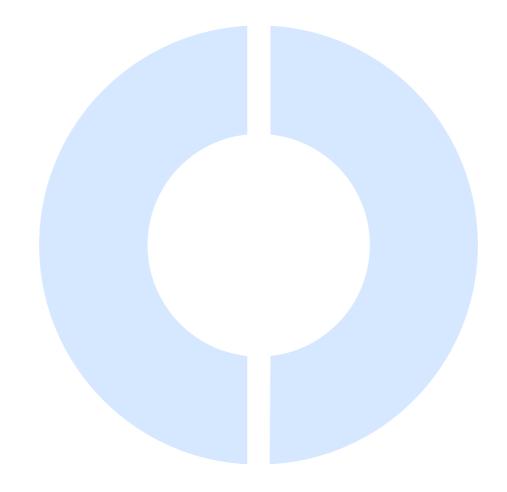
Source: Schroders, Moody's default and recovery study 2022, ICE Data Indices, J.P.Morgan. Data as at 30 June 2023. Please see relevant disclaimers on page 68.

<sup>&</sup>lt;sup>1</sup>Based on average historical default rate

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

<sup>&</sup>lt;sup>3</sup>Credit spread – default losses – downgrade losses

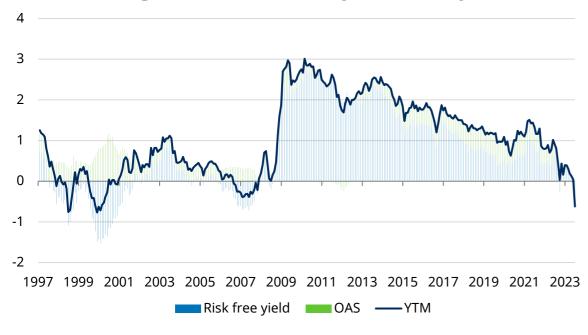
### **Schroders**



IG long vs short
Shape of the curve

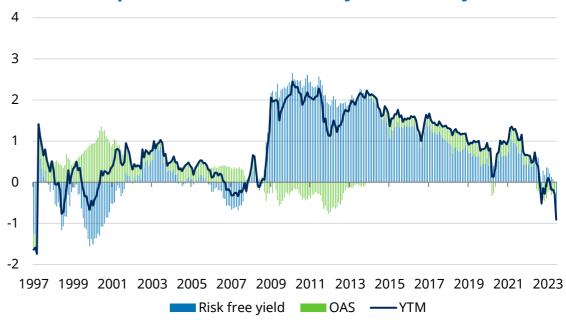
### Shape of GBP IG curves

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



	YTW	OAS	Duration
IG GBP non-gilts 1-5 year	6.6%	138	2.7
IG GBP non-gilts Index	6.3%	146	5.9
IG GBP non-gilts 10+	5.9%	142	11.5

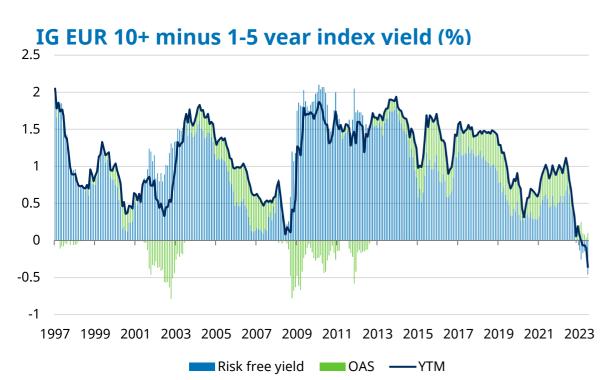
#### IG GBP corporate 10+ minus 1-5 year index yield (%)



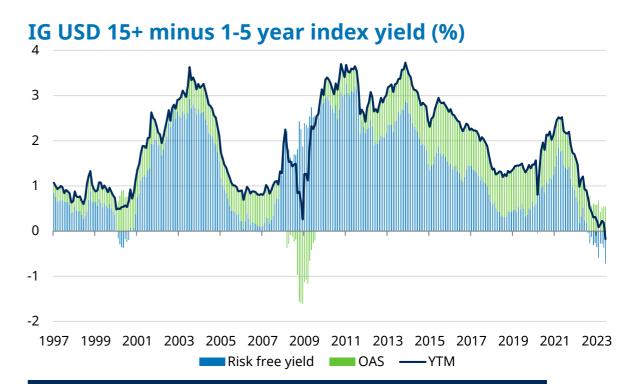
	YTW	OAS	Duration
IG GBP corporates 1-5 year	7.0%	183	2.8
IG GBP corporates Index	6.6%	175	6.4
IG GBP corporates 10+	6.1%	152	11.3

Source: Refinitiv Datastream. Data as at 30 June 2023. Please see relevant disclaimers on page 68.

### Shape of EUR and USD IG curves



	YTW	OAS	Duration
IG Euro 1-5 year	4.5%	150	2.9
IG Euro Index	4.4%	161	4.8
IG Euro 10+	4.1%	160	11.7

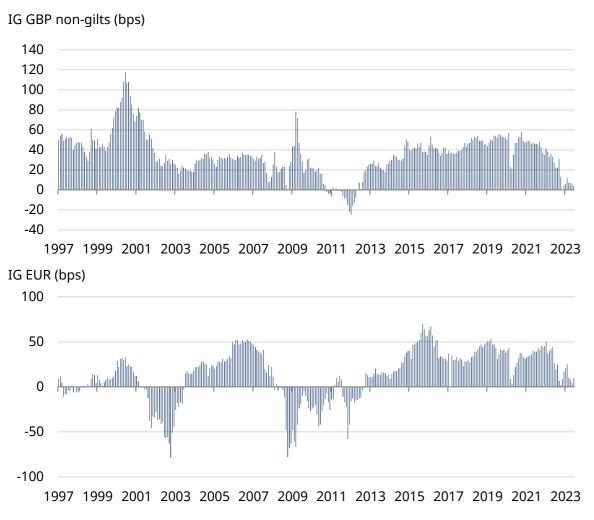


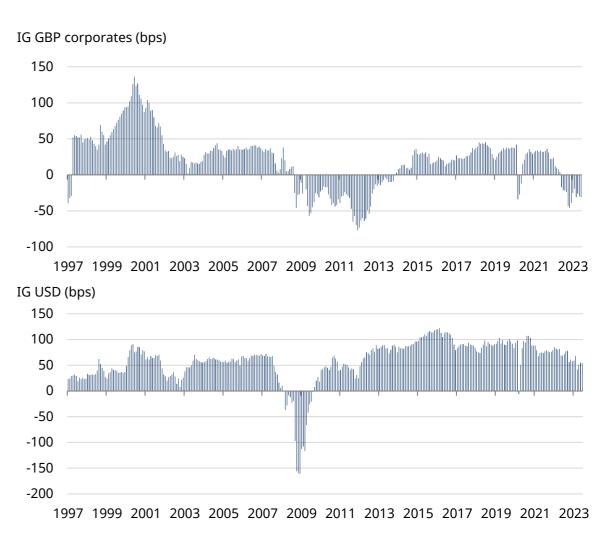
	YTW	OAS	Duration
IG USD 1-5 year	5.7%	98	2.8
IG USD Index	5.6%	130	7.1
IG USD 10+	5.5%	152	14.1

Source: Refinitiv Datastream. Data as at 30 June 2023. Please see relevant disclaimers on page 68.

### IG long vs short OAS

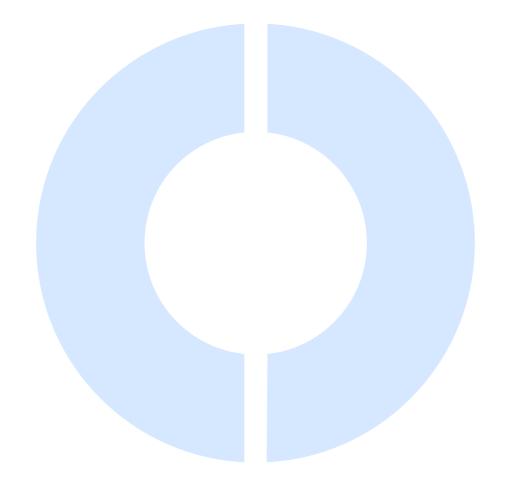
### Shape of spread curves





Source: Schroders, ICE Data Indices. Figures showing 10+ (15+ for IG USD) minus 1-5 year index spread. Data as at 30 June 2023. Please see relevant disclaimers on page 68.

### **Schroders**

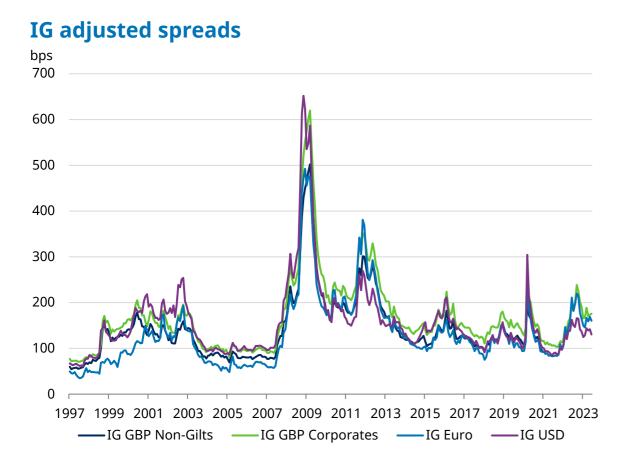


# Corporate credit

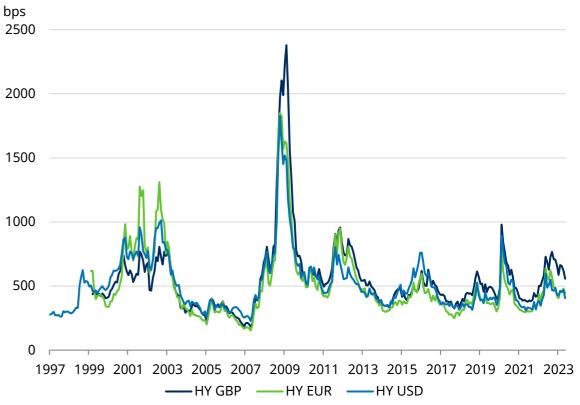
Valuation

### IG and HY valuation

#### Historical ratings-adjusted credit spreads



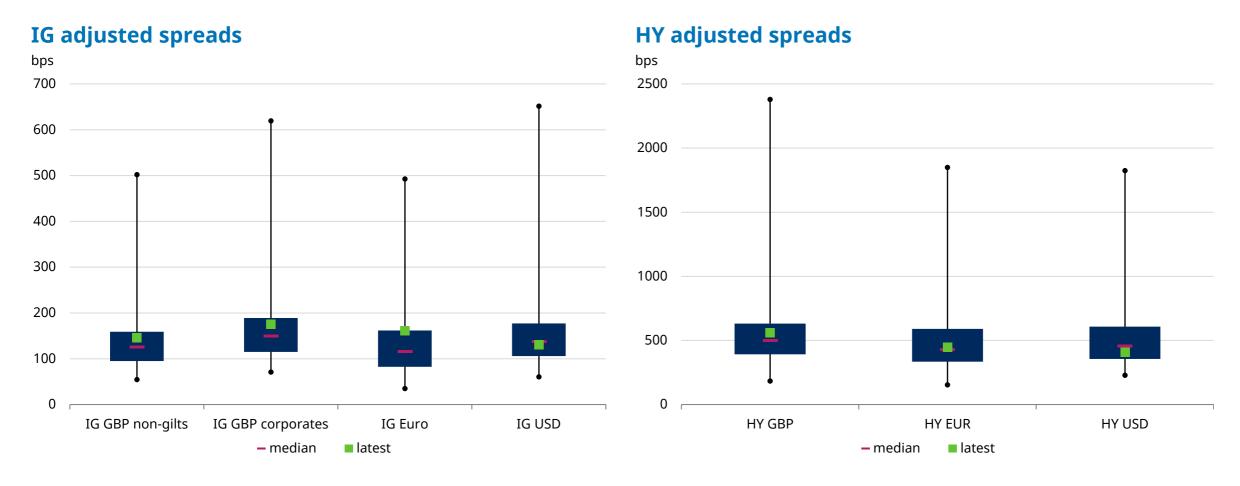
#### **HY adjusted spreads**



Source: Schroders, Refinitiv Datastream, ICE Data Indices, J.P. Morgan. Data as at 30 June 2023. Please see relevant disclaimers on page 68. Spreads are adjusted for changes in the distribution of credit ratings within each index over time.

### IG and HY valuation

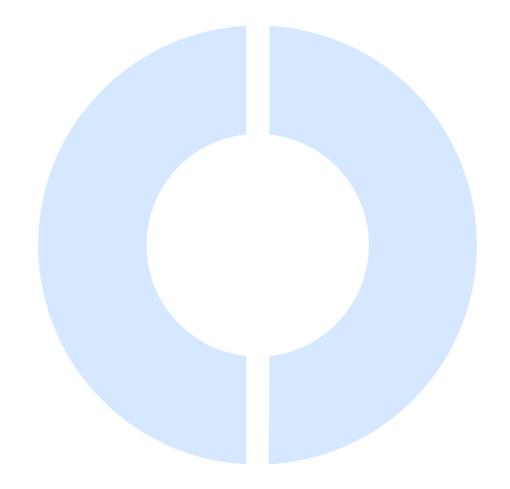
#### Spread percentiles<sup>1</sup>



Source: Schroders, Refinitiv Datastream, ICE Data Indices, J.P. Morgan. Data as at 30 June 2023. Spreads are adjusted for changes in the distribution of credit ratings within each index over time. Please see relevant disclaimers on page 68.

<sup>&</sup>lt;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

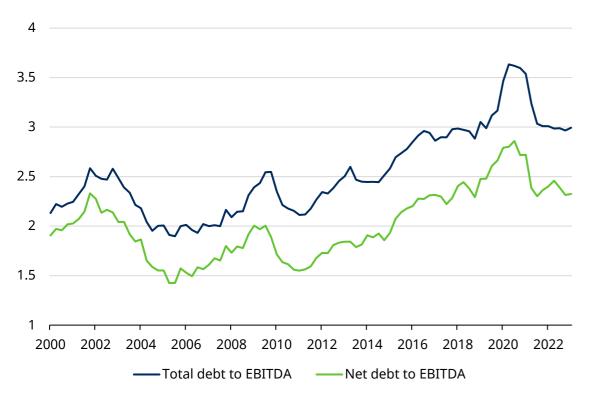
**Fundamentals** 

### **US IG leverage**

#### Leverage has been broadly stable in recent quarters

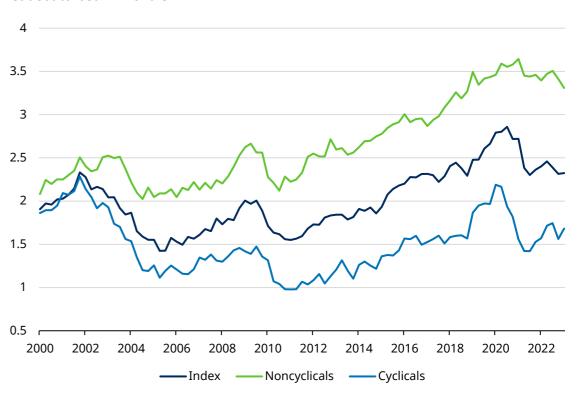
#### **US IG leverage**

Debt to last 12 months EBITDA



#### **US IG net leverage**

Net debt to last 12 months EBITDA



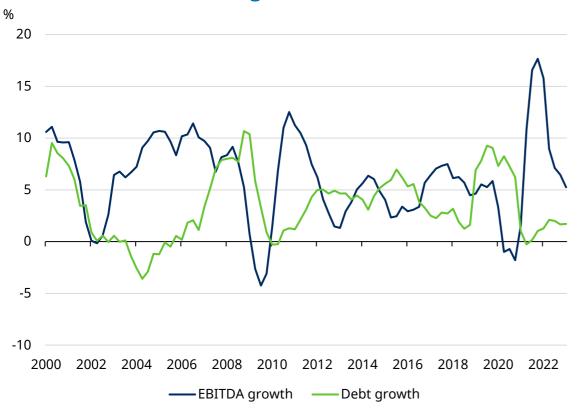
Source: Schroders, Bloomberg. Median issuer ex-Financials. Data as of Q1 2023. Please see relevant disclaimers on page 68. **Cyclical sectors:** Basic Materials, Consumer Discretionary, Industrials, Technology. **Noncyclical sectors:** Communications, Consumer Staples, Utility, Health Care.



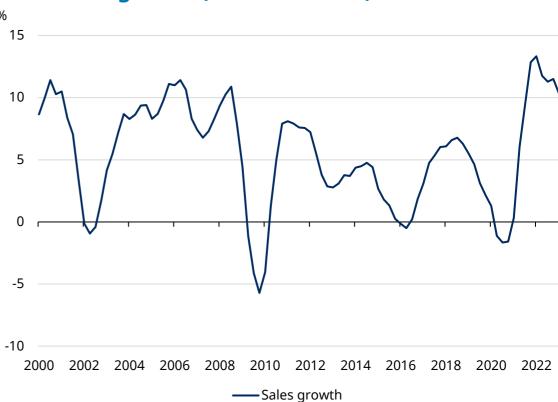
### US IG earnings, sales and debt growth

#### Earnings growth continued to slow in Q1

#### **US IG EBITDA** and debt growth (last 12 months)



#### **US IG sales growth (last 12 months)**



#### Sales growth also slowed but remains at very elevated levels

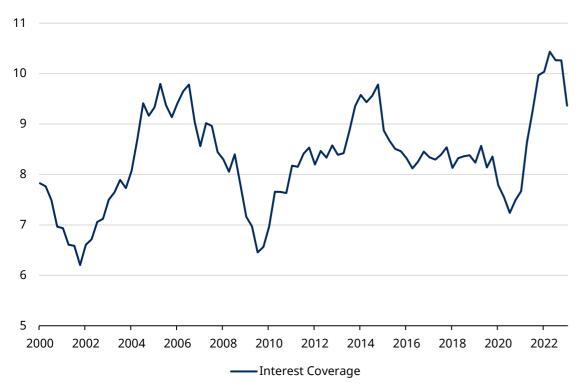
Source: Schroders, Bloomberg. Median issuer ex-Financials. Data as of Q1 2023. Please see relevant disclaimers on page 68.

### US IG interest coverage

#### Interest coverage has declined but remains elevated

#### **US IG interest coverage ratio**

Last 12 months EBITDA to interest expense



#### **US IG annual interest expense growth**



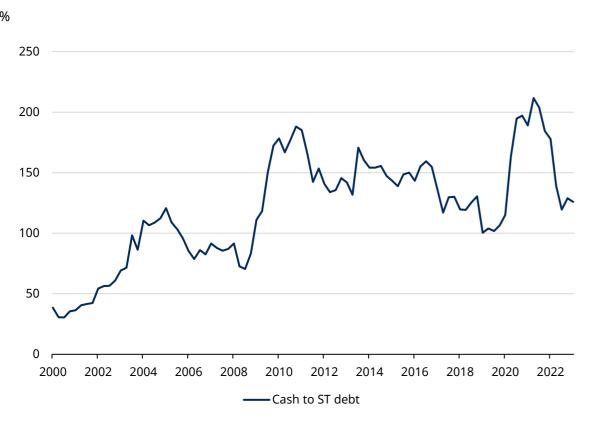
Interest expense growth is the highest since 2001 as higher interest rates are starting to have an impact

Source: Schroders, Bloomberg. Median issuer ex-Financials. Data as of Q1 2023. Please see relevant disclaimers on page 68.

## US IG cash balances

## Cash balances broadly stable in Q1

#### US IG cash to short term debt



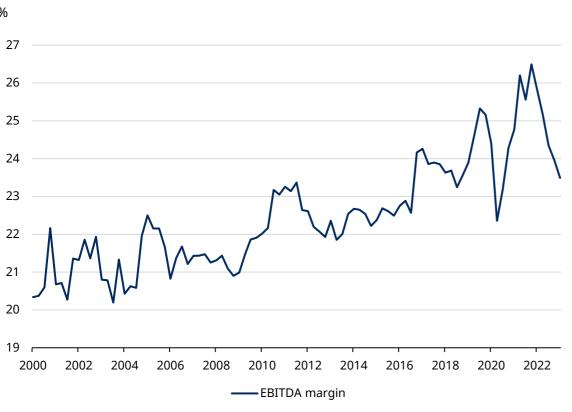
#### **US IG cash to assets**



## US IG corporate margins

## EBITDA margins continued to fall in Q1

### **US IG EBITDA margin**



### **US IG net profit margin**



## **US HY leverage**

## Leverage ticked up slightly in Q1 but remains well below pandemic era peaks

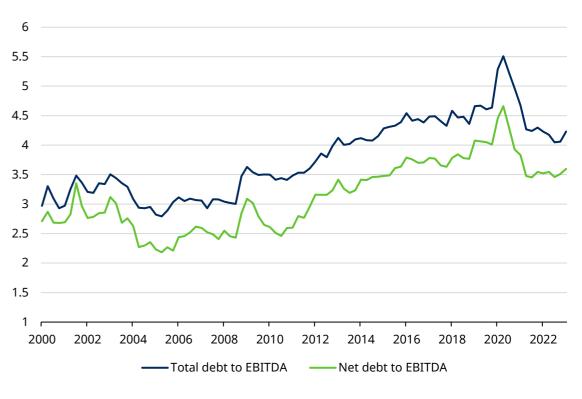
#### **US HY leverage**

Debt to last 12 months EBITDA



### **US HY ex-energy leverage**

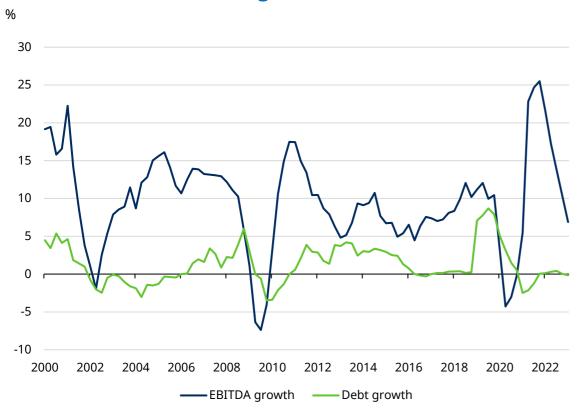
Debt to last 12 months EBITDA



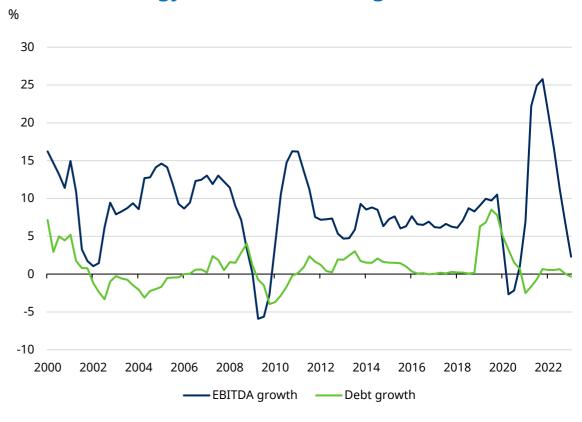
## US HY earnings and debt growth

EBITDA growth continued to cool in Q1, while debt growth remained close to zero

#### **US HY EBITDA and debt growth (last 12 months)**



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

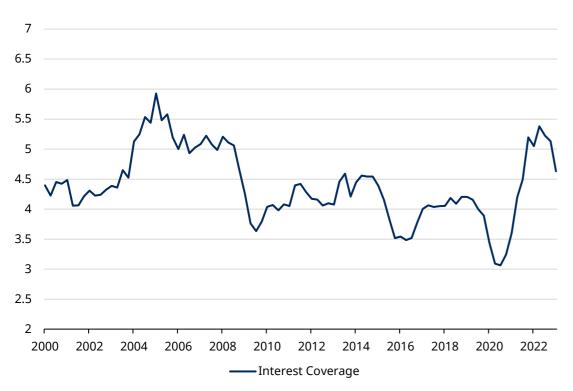


## **US HY interest coverage**

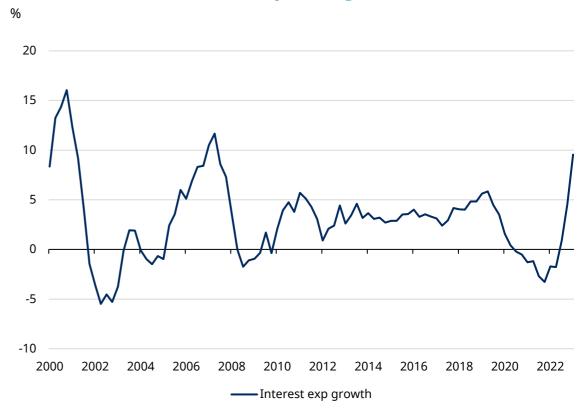
## Interest coverage has declined but remains elevated

### **US HY interest coverage ratio**

Last 12 months EBITDA to interest expense



### **US HY annual interest expense growth**

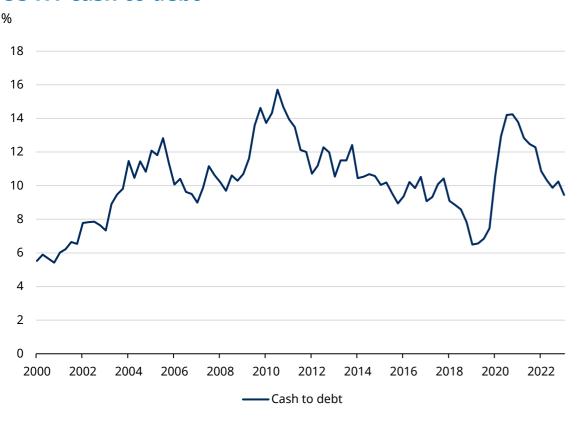


Interest expense growth is the highest since the global financial crisis as higher interest rates are starting to have an impact

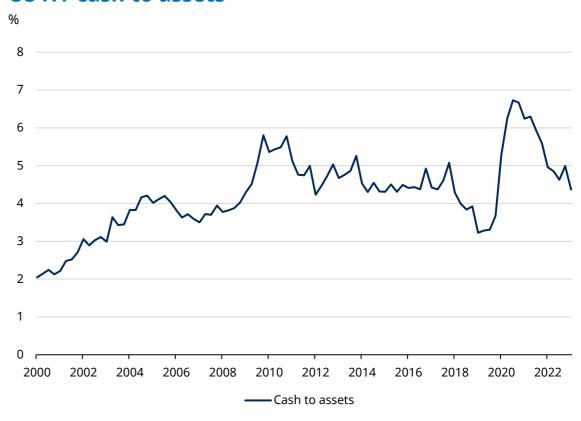
## **US HY cash levels**

## Cash balances slightly down in Q1

#### US HY cash to debt



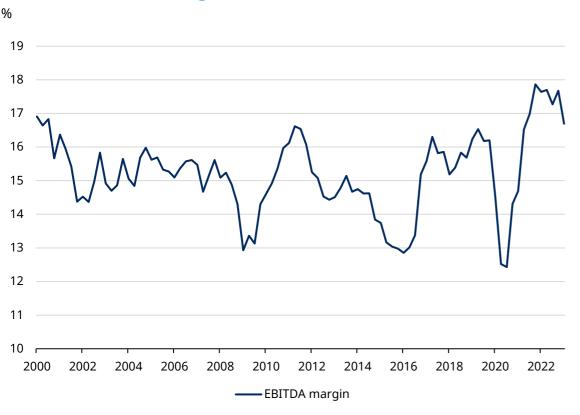
#### **US HY cash to assets**



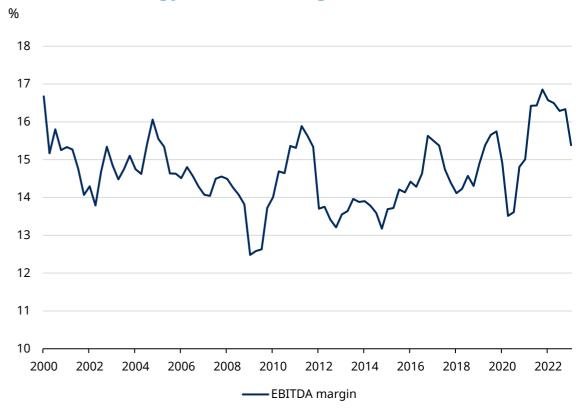
## **US HY corporate margins**

## EBITDA margins declined in Q1, albeit from high levels

### **US HY EBITDA margin**



### **US HY ex-energy EBITDA margin**



## Euro IG leverage, earnings and debt growth

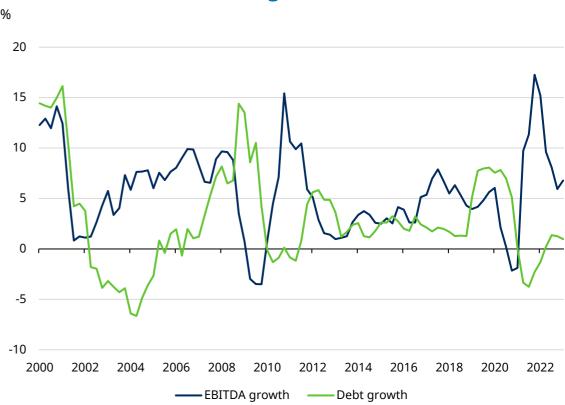
## Leverage has been broadly stable in recent quarters

#### **Euro IG leverage**

Debt to last 12 months EBITDA



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

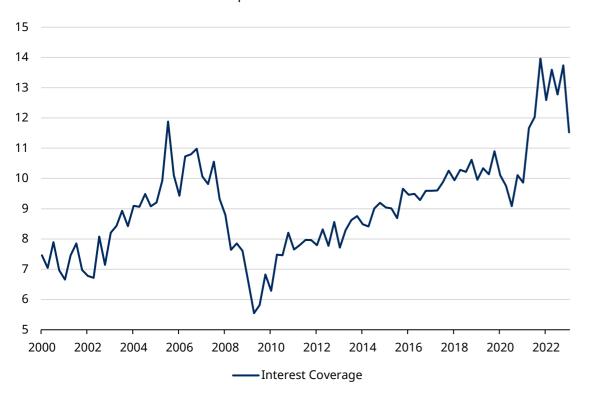


## Euro IG interest coverage

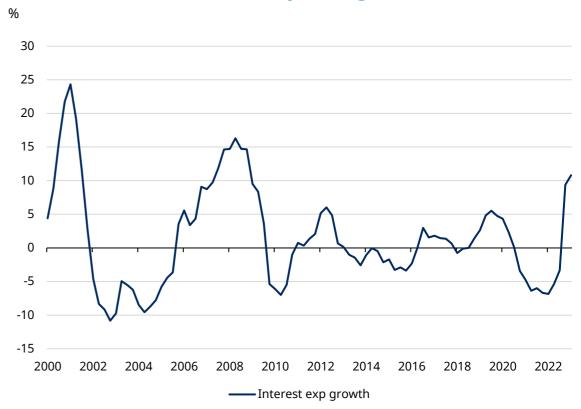
Interest coverage has declined but remains very elevated

#### **Euro IG interest coverage ratio**

Last 12 months EBITDA to interest expense



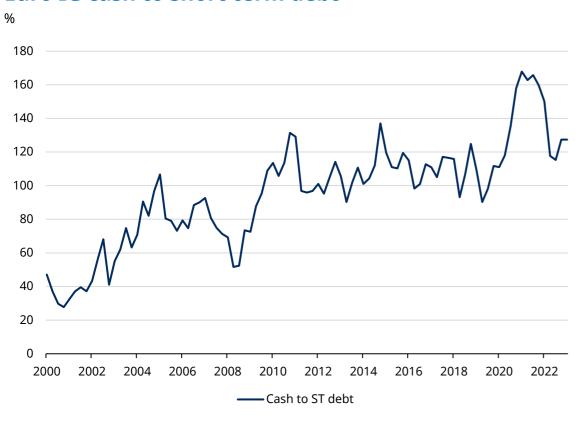
### **Euro IG annual interest expense growth**



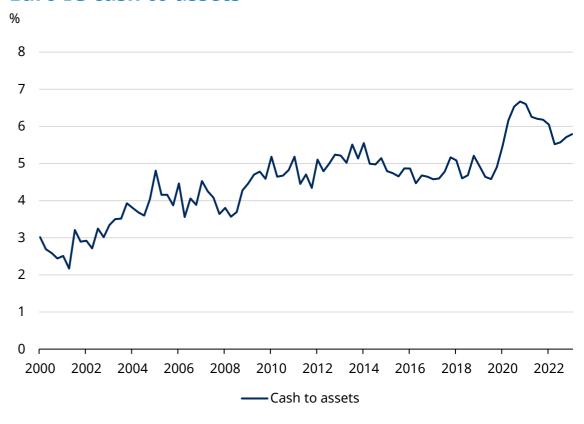
Interest expense growth is the highest since the global financial crisis as higher interest rates are starting to have an impact

## Euro IG cash levels

#### **Euro IG cash to short term debt**

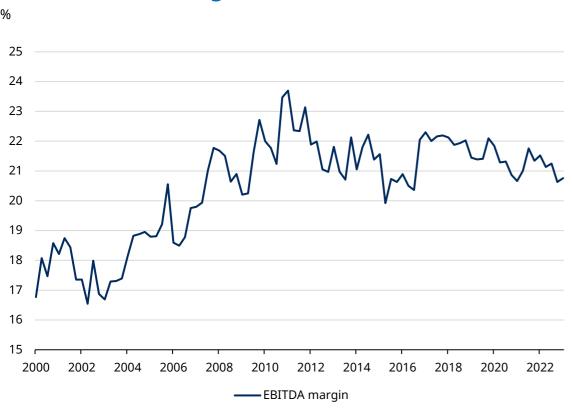


#### **Euro IG cash to assets**

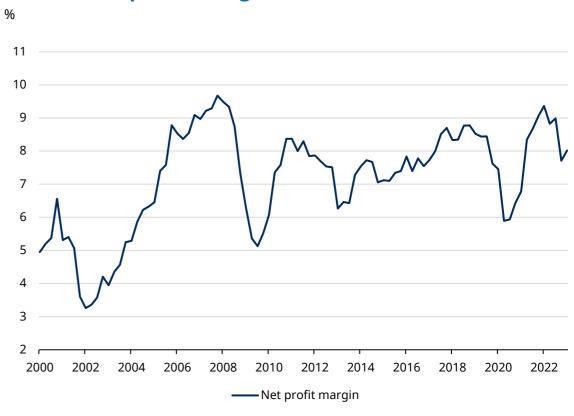


## Euro IG corporate margins

### **Euro IG EBITDA margin**



### **Euro IG net profit margin**

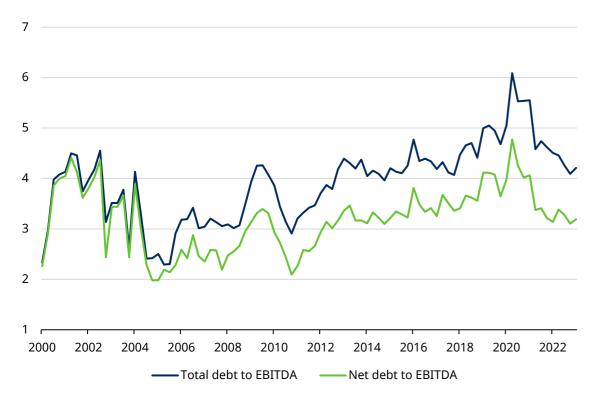


## **Euro HY leverage**

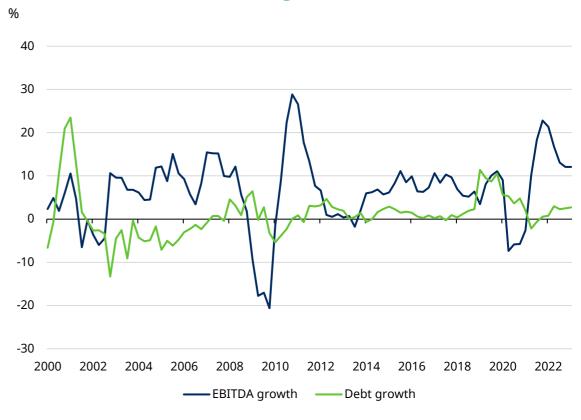
Leverage ticked up slightly in Q1 but remains well below pandemic era peaks

### **Euro HY leverage**

Debt to last 12 months EBITDA



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

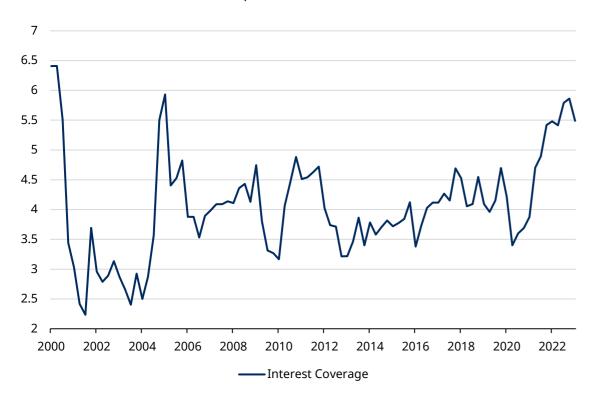


## Euro HY interest coverage

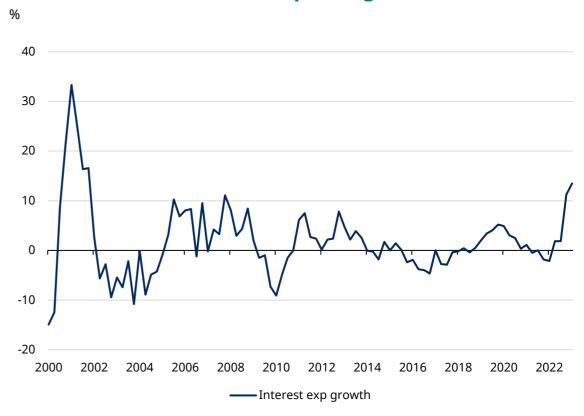
## Interest coverage has slightly declined but remains elevated

### **Euro HY interest coverage ratio**

Last 12 months EBITDA to interest expense

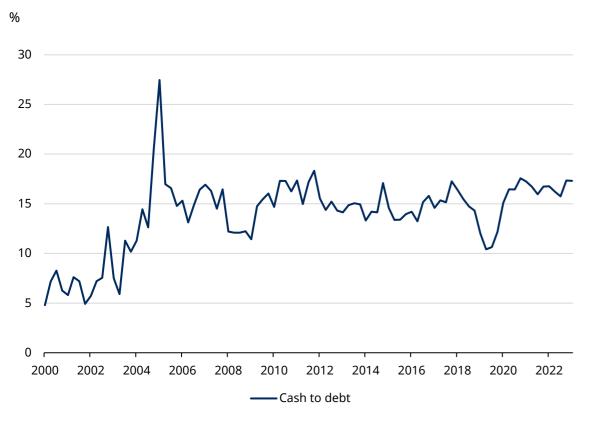


#### **Euro HY annual interest expense growth**

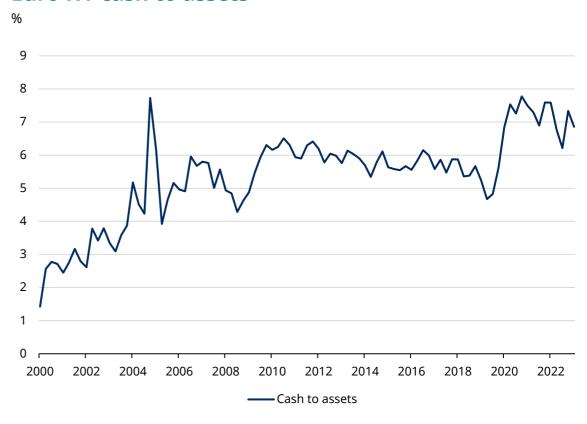


## Euro HY cash levels

#### **Euro HY cash to debt**



#### **Euro HY cash to assets**

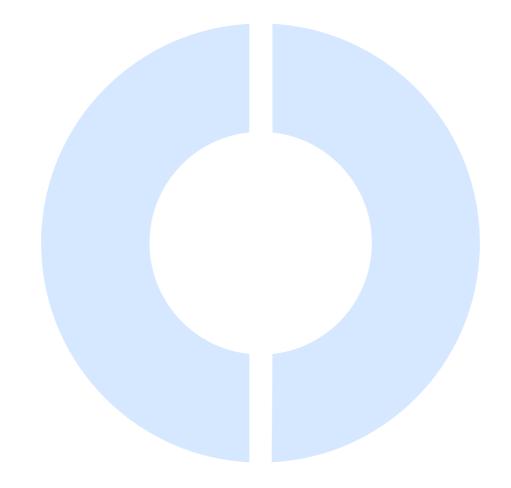


## Euro HY corporate margins

### **Euro HY EBITDA margin**



## **Schroders**



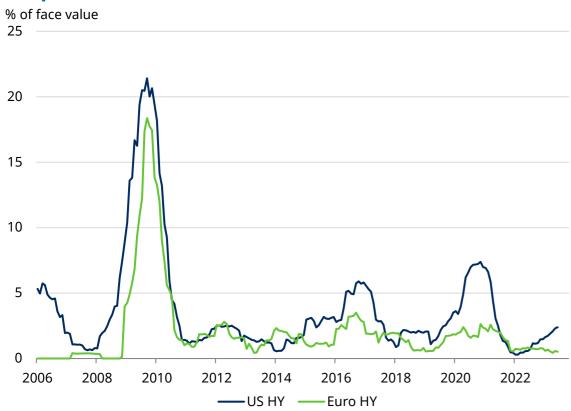
# Corporate credit

**Technicals** 

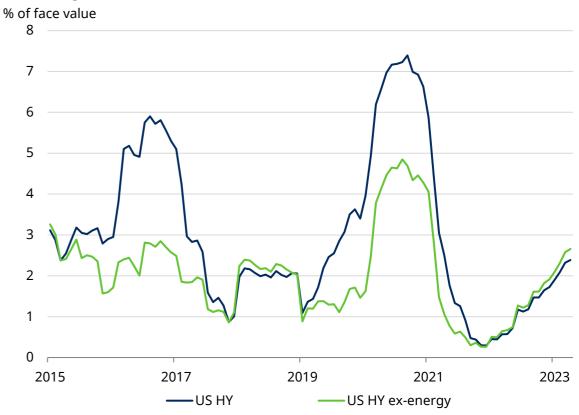
## HY default rates

## US HY default rates are rising

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



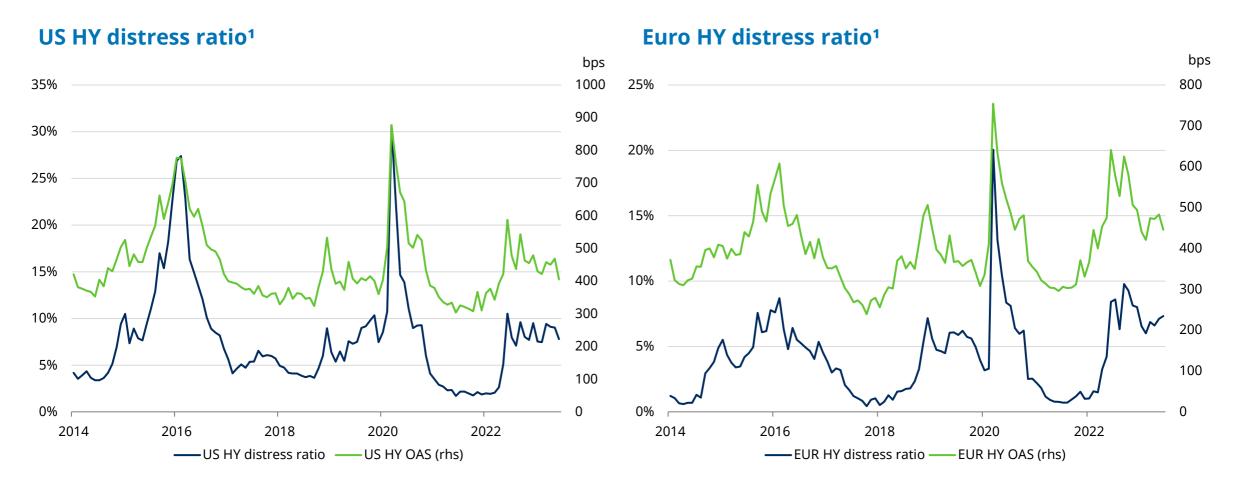
### **US HY par default rate (last twelve months)**



Source: Schroders, BofA Global Research, Moody's. Data as at 30 June 2023. Please see relevant disclaimers on page 68.

## HY distress ratios

## Higher distress is usually a harbinger of defaults

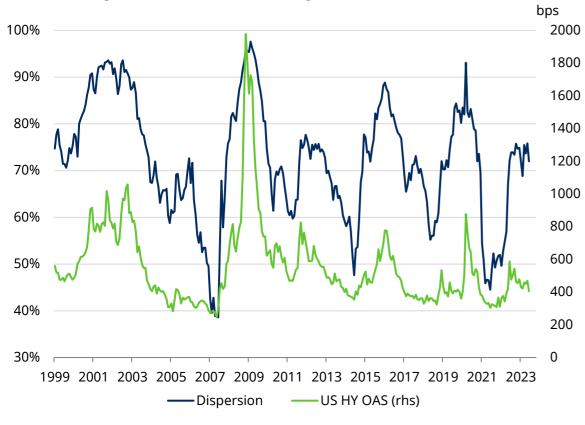


Source: Schroders, BofA Global Research, Moody's. Data as at 30 June 2023. ¹HY distress is defined as percentage of issues in the index trading with spreads > 1,000bp. Please see relevant disclaimers on page 68.

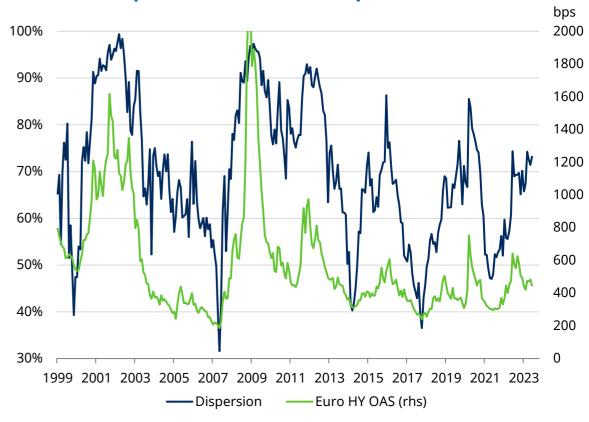


## HY spread dispersion

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



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

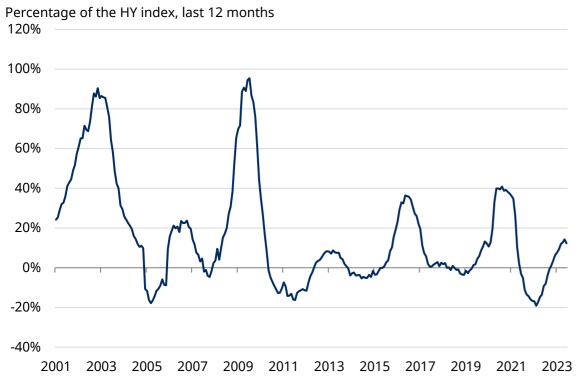


Source: Schroders, BofA Global Research. Data as at 30 June 2023. 1 Proportion of face value in index marked outside +/-100bps of overall index level. Please see relevant disclaimers on page 68.

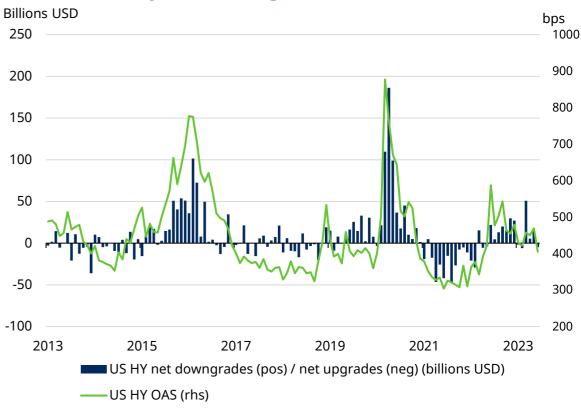
## US HY ratings migration (net downgrades)

## Indicator of changes in credit quality

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



### **US HY monthly net downgrades**



## Downgrades have been outpacing upgrades

Source: BofA Global Research, Refinitiv Datastream. Data as at 30 June 2023. Please see relevant disclaimers on page 68.

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

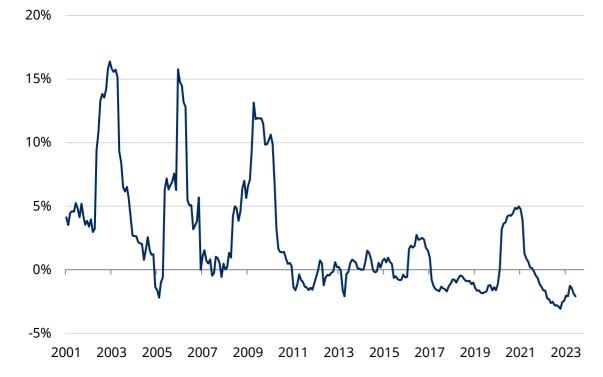


## US IG fallen angels/rising stars

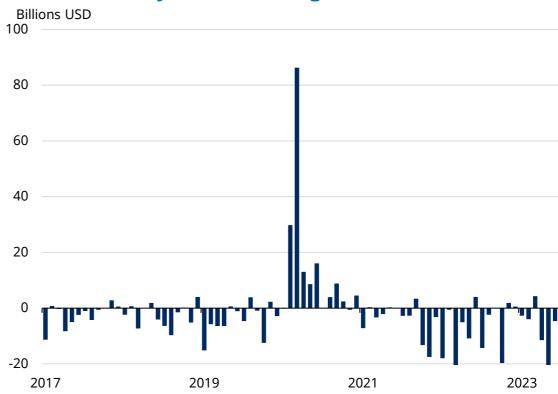
## Bonds downgraded from IG to HY

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

Percentage of the BBB index, last 12 months



### **US IG monthly net fallen angels**

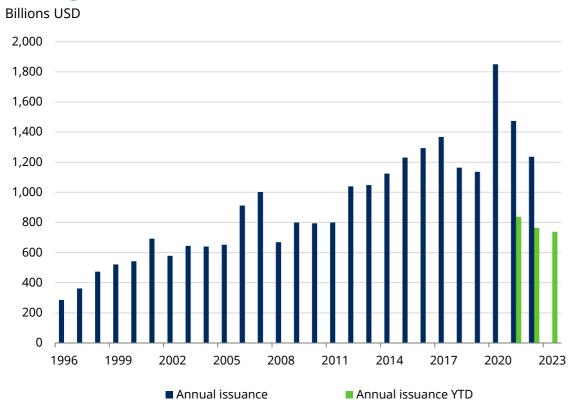


Source: BofA Global Research. Data as at 30 June 2023. Please see relevant disclaimers on page 68.

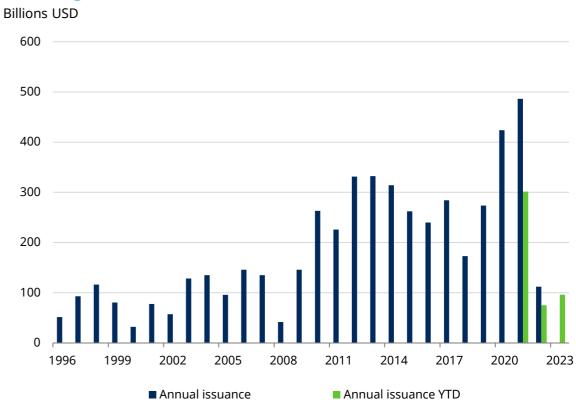
¹Face value of downgrades from IG to HY minus face value of upgrades from HY to IG, divided by face value of the BBB index

## US IG and HY gross issuance

### **US IG gross issuance**

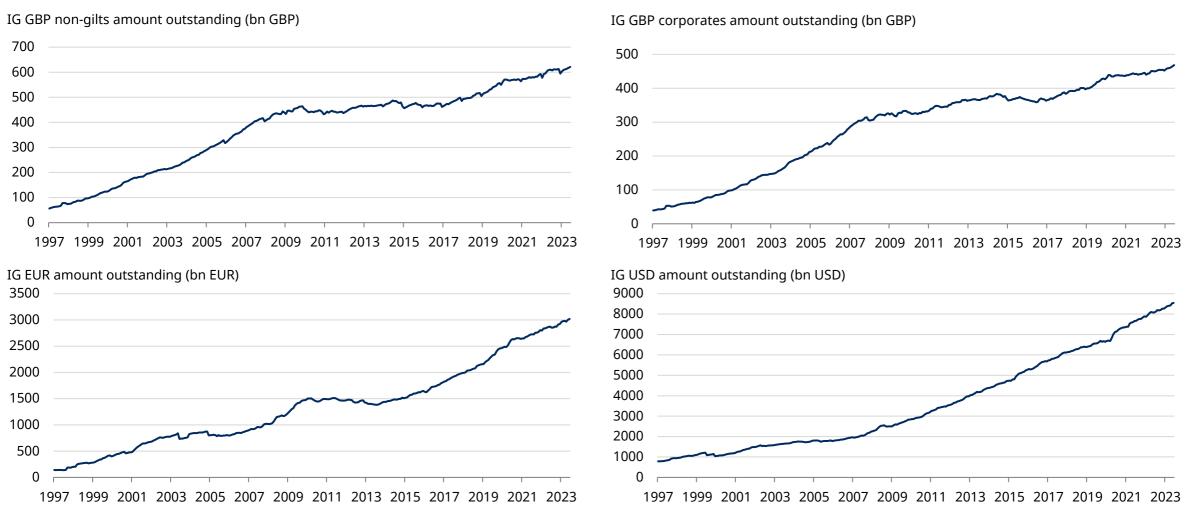


### **US HY gross issuance**



Source: Sifma. Data as at 30 June 2023. Please see relevant disclaimers on page 68.

## IG bonds outstanding



Source: Schroders, ICE Data Indices. Data as at 30 June 2023. Charts show face value of bond outstanding within relevant indices. Please see relevant disclaimers on page 68.



## HY bonds outstanding

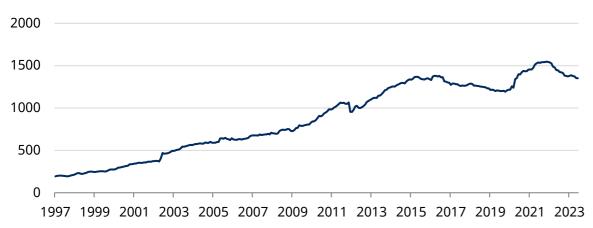
#### HY GBP amount outstanding (bn GBP)



#### HY EUR amount outstanding (bn EUR)



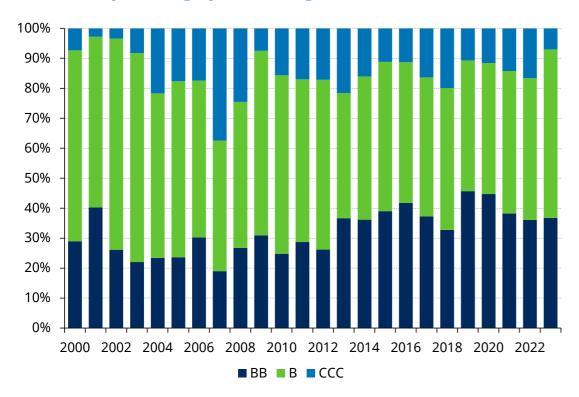
HY USD amount outstanding (bn USD)



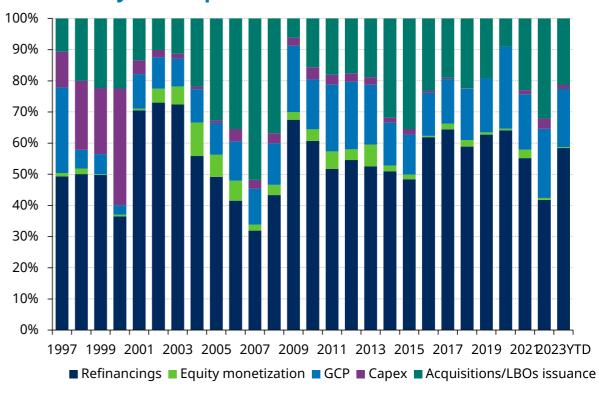
Source: Schroders, ICE Data Indices. Data as at 30 June 2023. Charts show face value of bond outstanding within relevant indices. Please see relevant disclaimers on page 68.

## Global HY issuance details

#### **Issuance by rating (percentage of issuance)**



### Issuance by use of proceeds(1)



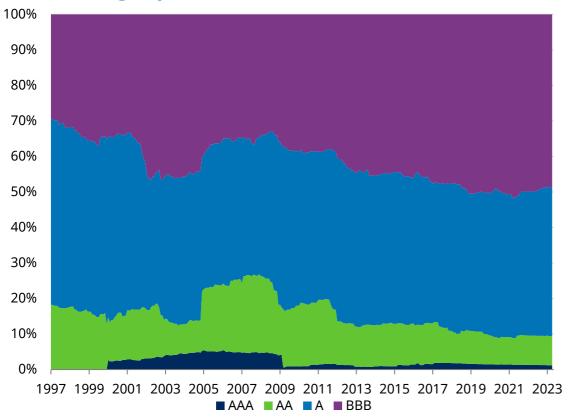
Source: Schroders, BofA Global Research, Moody's. Data as at 30 June 2023. Please see relevant disclaimers on page 68. (1) GCP is General Corporate Purposes; Equity monetization includes dividends and share repurchases



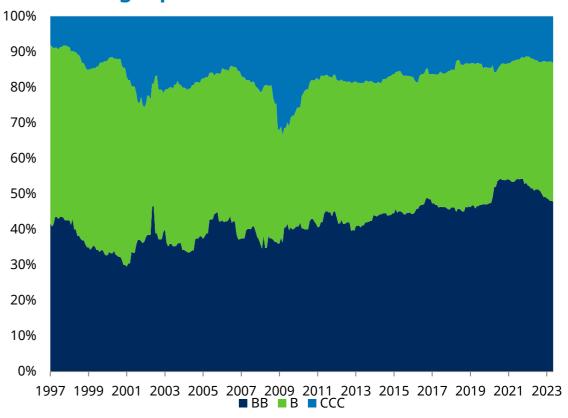
## US dollar credit historical ratings split

## Significant changes in credit quality over time

#### **US IG ratings split**



### **US HY ratings split**

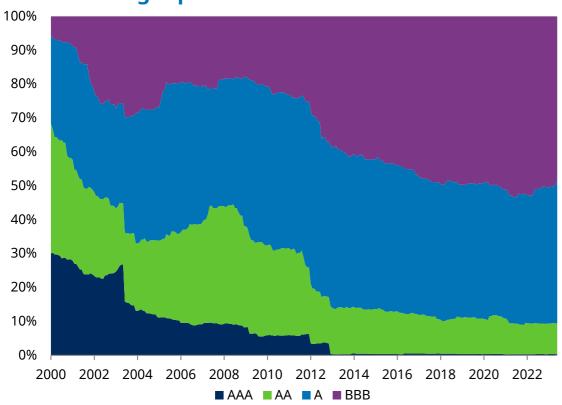


Source: Schroders, Refinitiv Datastream. Data as at 30 June 2023. Please see relevant disclaimers on page 68.

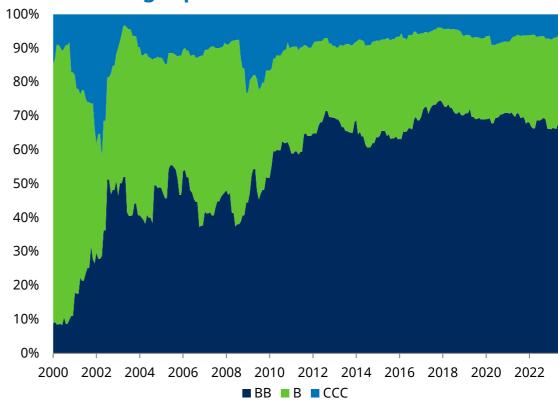
## Euro credit historical ratings split

## Significant changes in credit quality over time

### **Euro IG ratings split**



### **Euro HY ratings split**

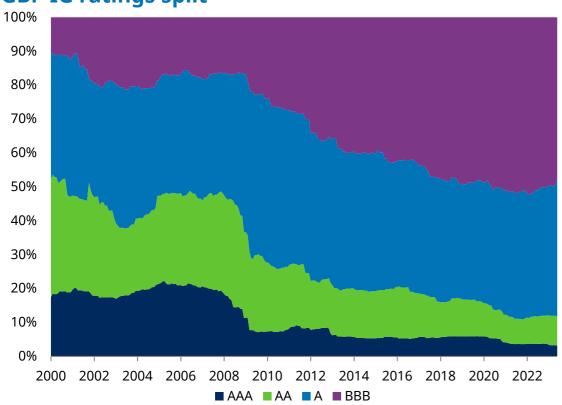


Source: Schroders, Refinitiv Datastream. Data as at 30 June 2023. Please see relevant disclaimers on page 68.

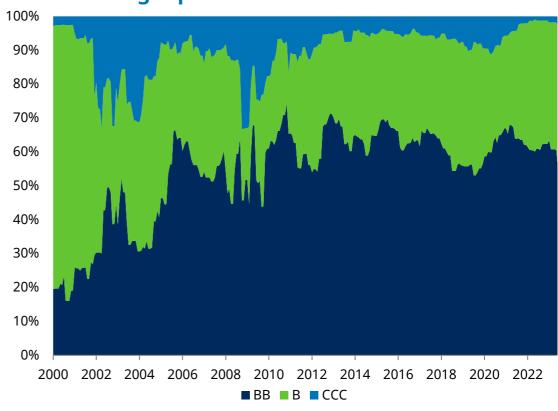
## Sterling credit historical ratings split

Significant changes in credit quality over time



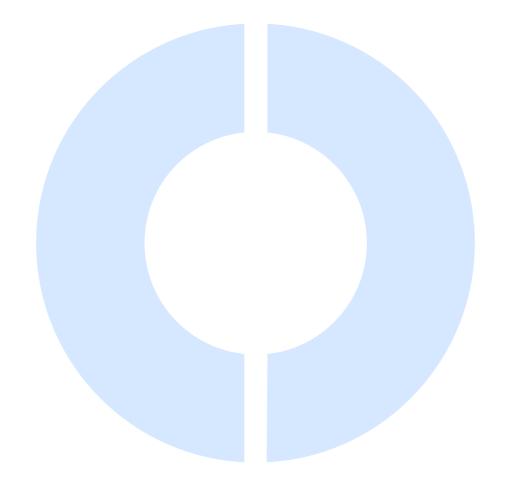


### **GBP HY ratings split**



Source: Schroders, Refinitiv Datastream. Data as at 30 June 2023. Please see relevant disclaimers on page 68.

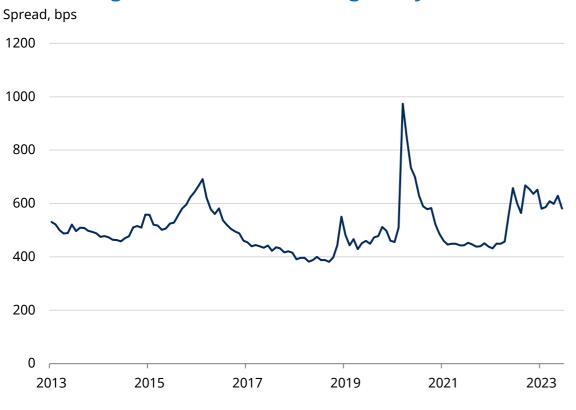
## **Schroders**



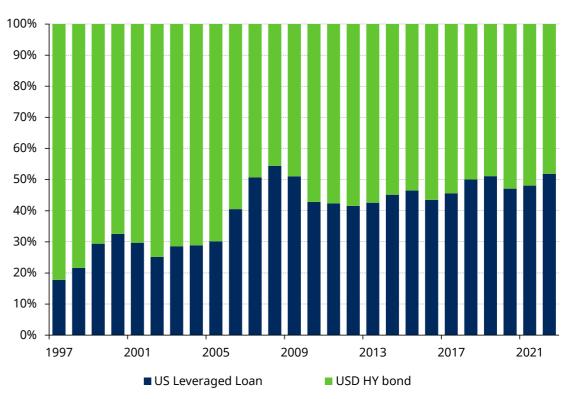
**Appendix: Alternatives** 

## 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 30 June 2023. Please see relevant disclaimers on page 68.

## 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 IPM 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
- EUR leveraged Loan Credit Suisse Leveraged Loans Index

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