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Credit market outlook:
Spread decompression continues, driven
by solid fundamentals and robust demand

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Apollo Global Management

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Unless otherwise noted, information as of May 2024.

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Key themes for credit investors

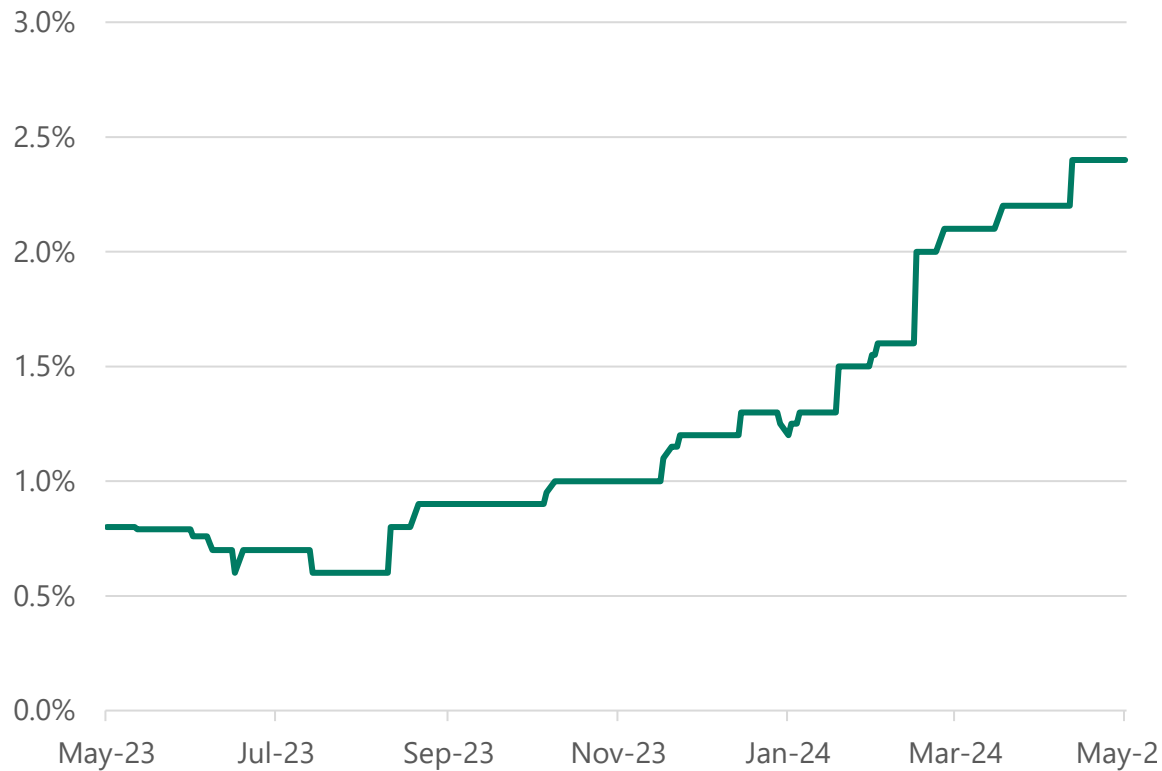
- **Credit all-in yields remain attractive and should continue to attract insurance and pension flows.** Robust technicals and a strong macroeconomic backdrop should support valuations even though credit spreads are near the tight end of recent trading ranges.
- **But the pick-up in interest rate volatility and negative total returns in April could weigh on performance near-term.** Mutual fund flows tend to follow total returns with a lag, and a further sell-off in Treasury yields could drive fund outflows.
- **Higher-for-longer rates pose risk for funding-cost sensitive parts of the credit market.** Companies with low interest coverage ratios, especially those with loan-heavy capital structures and/or near-term maturity walls, could come under pressure, as could the CRE market. Technical and fundamentals point to IG/BB outperformance while valuations of weaker credits could remain challenged.
- **Liquidity risk premia in public credit markets has declined, especially in high yield.** Investors should allocate away from illiquid parts of public credit to either liquid public credit or private markets, which still offer elevated liquidity premia.

Overview

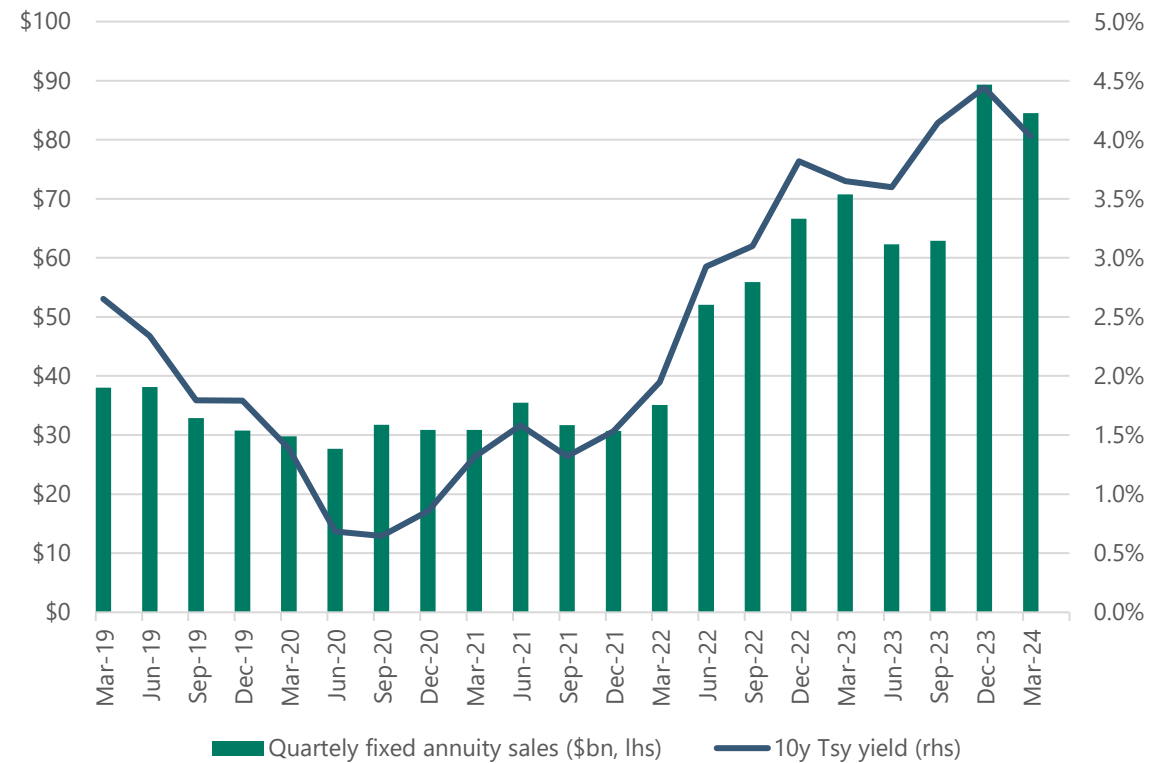


Robust economic growth and rising all-in yields continue to be supportive of credit valuations

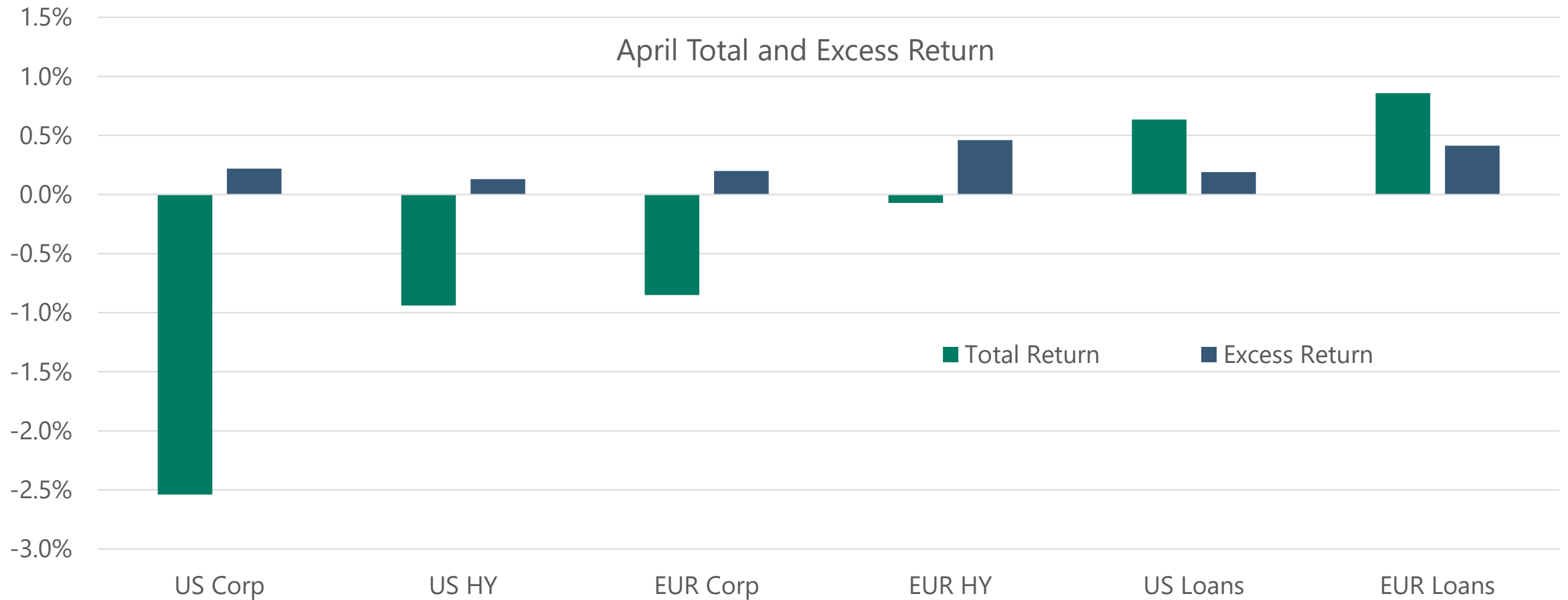
US GDP Forecast



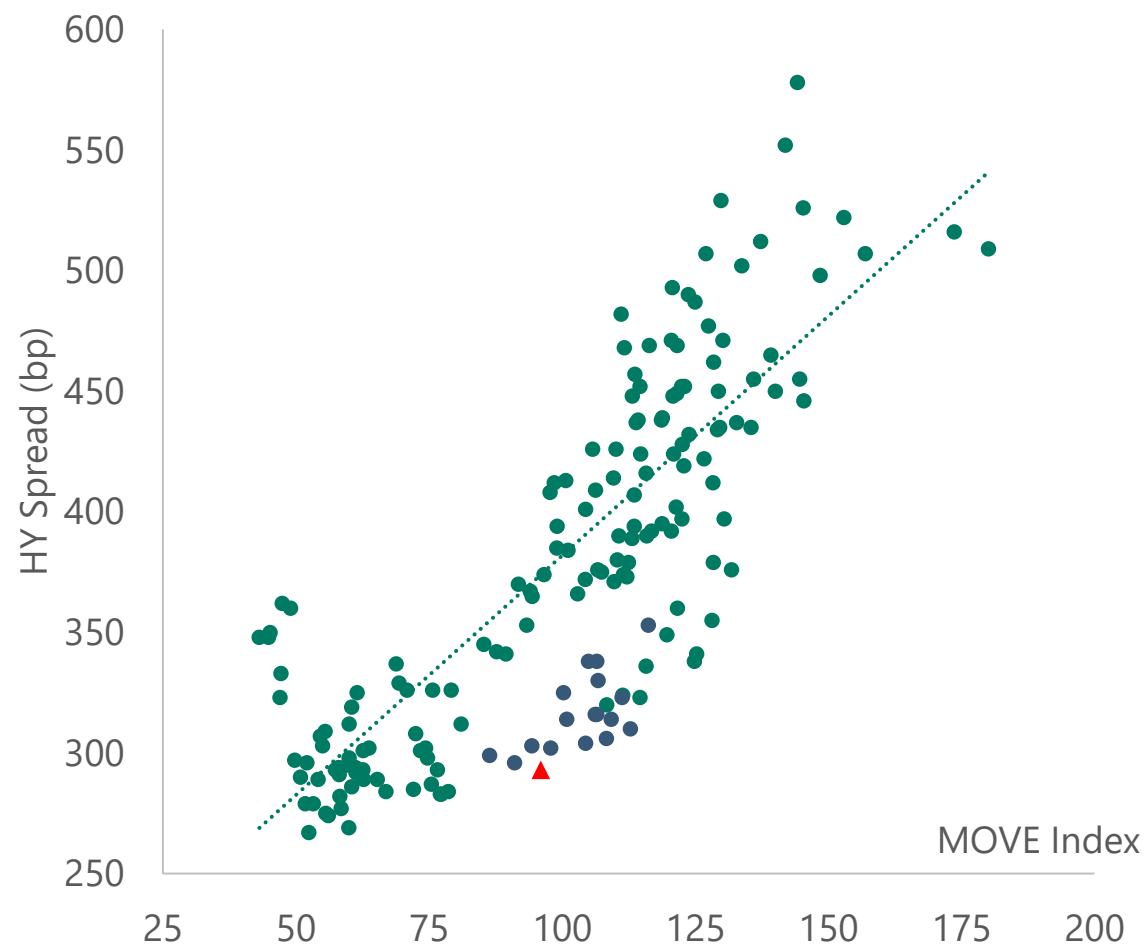
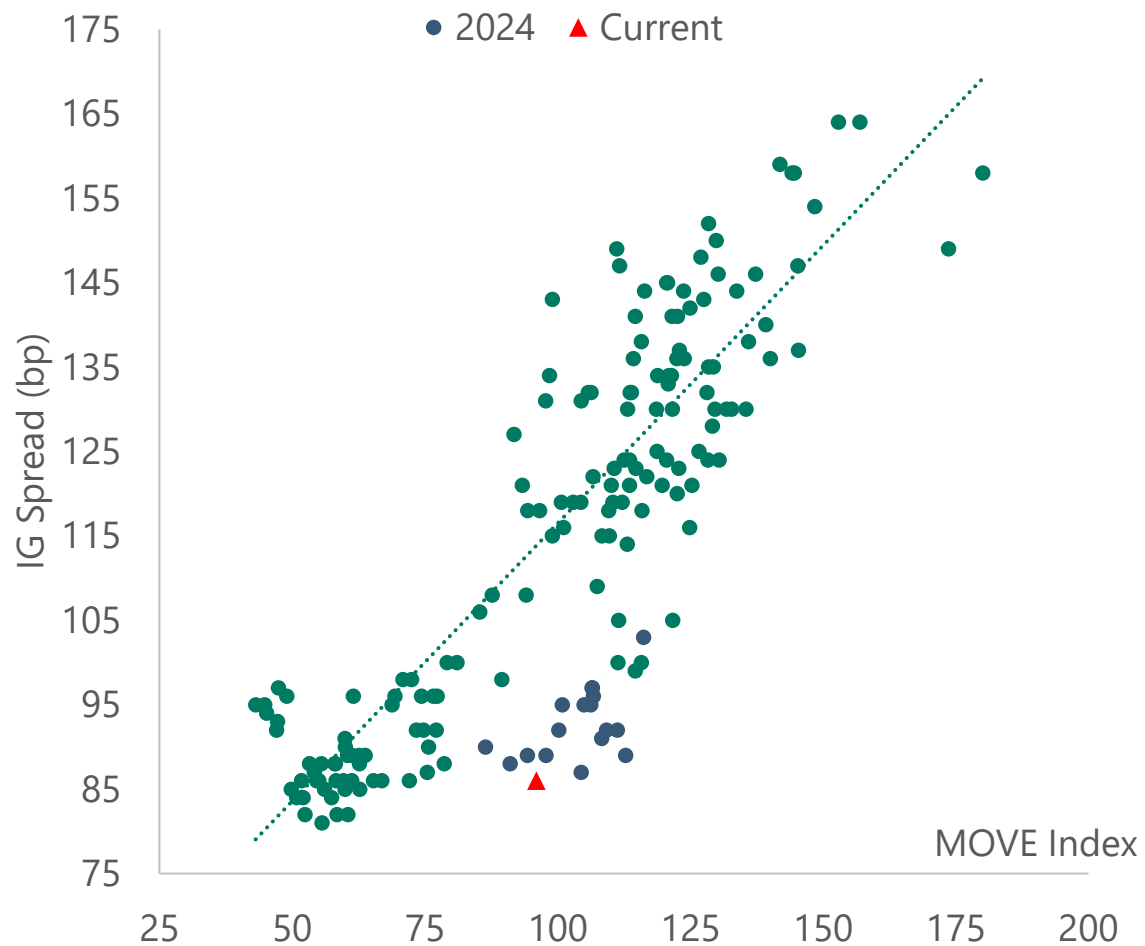
Annuity sales remained strong in Q1-24



Credit markets generated positive excess returns in April, but total returns were negative due to the move higher in Treasury yields

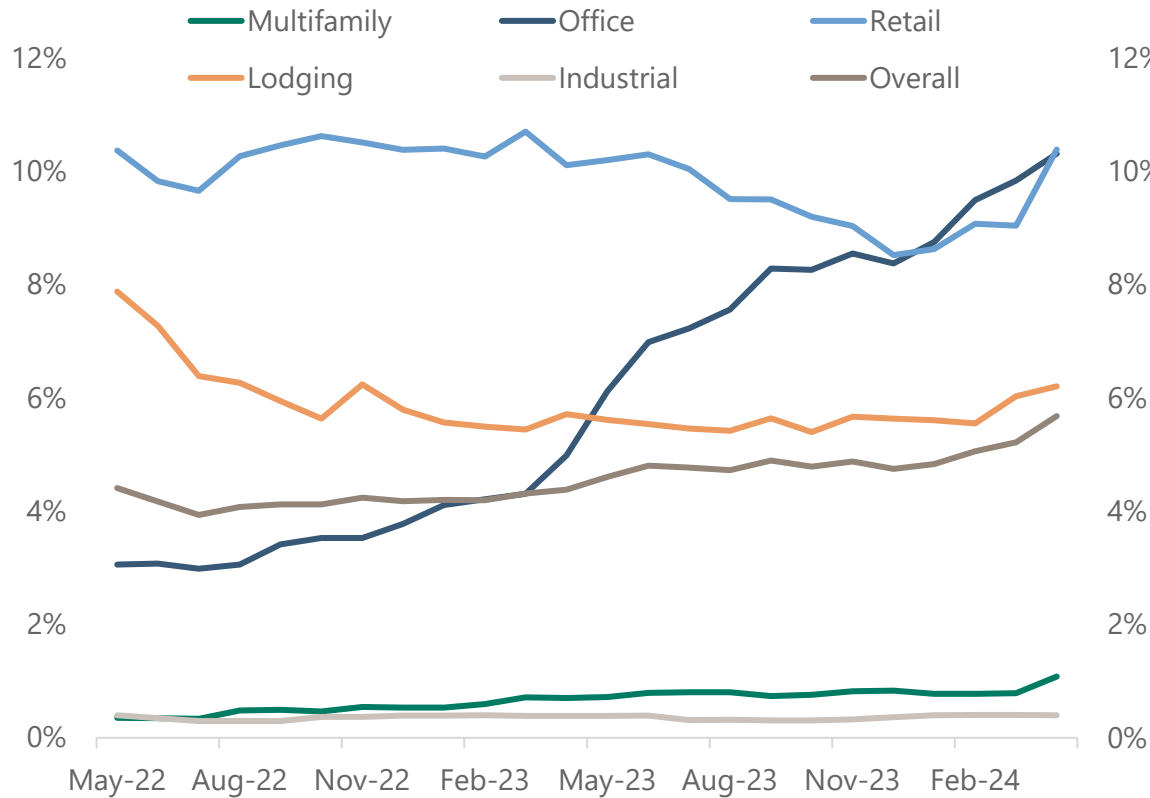


The pick-up in interest rate volatility could weigh on credit spreads in the near-term

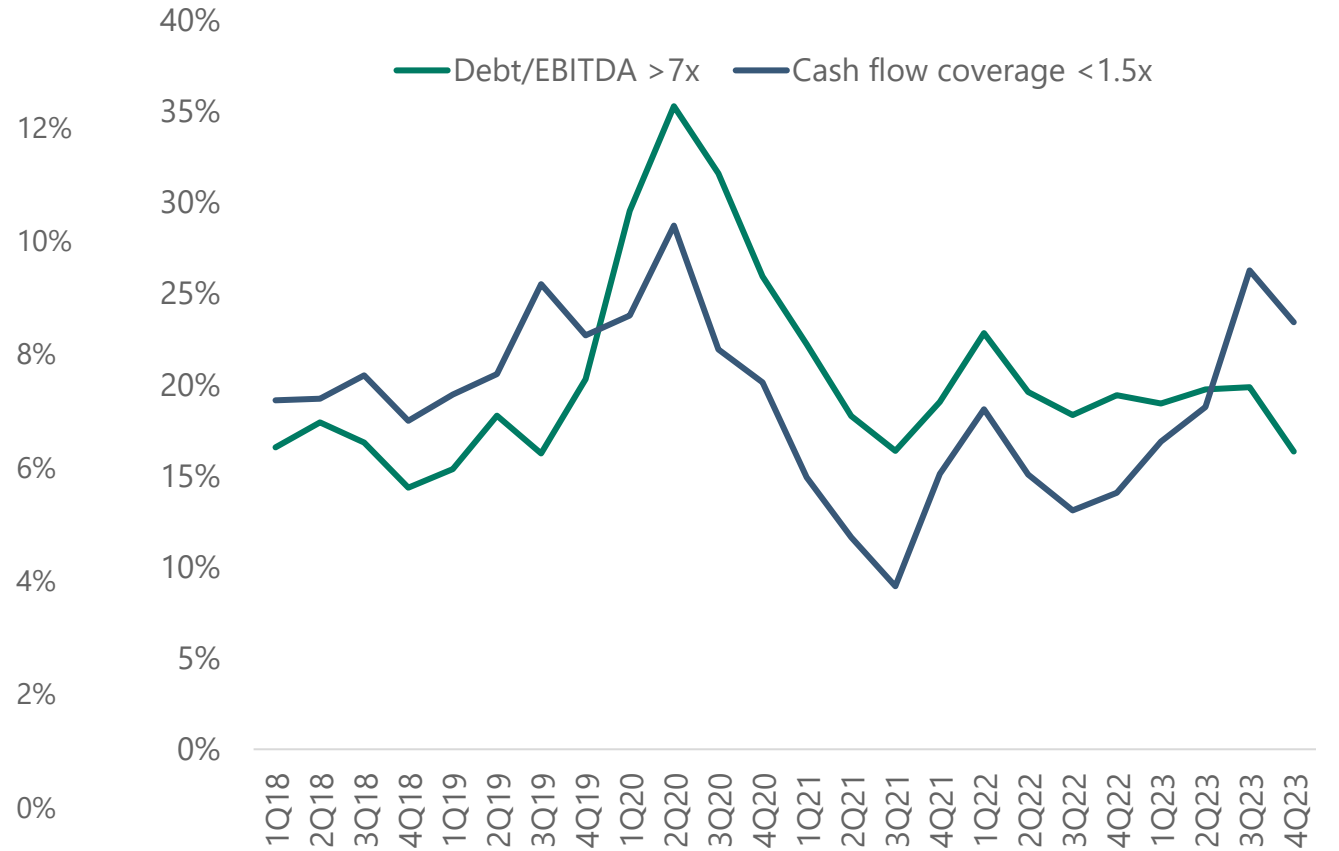


Higher-for-longer rates could pressure more funding-cost sensitive parts of the market

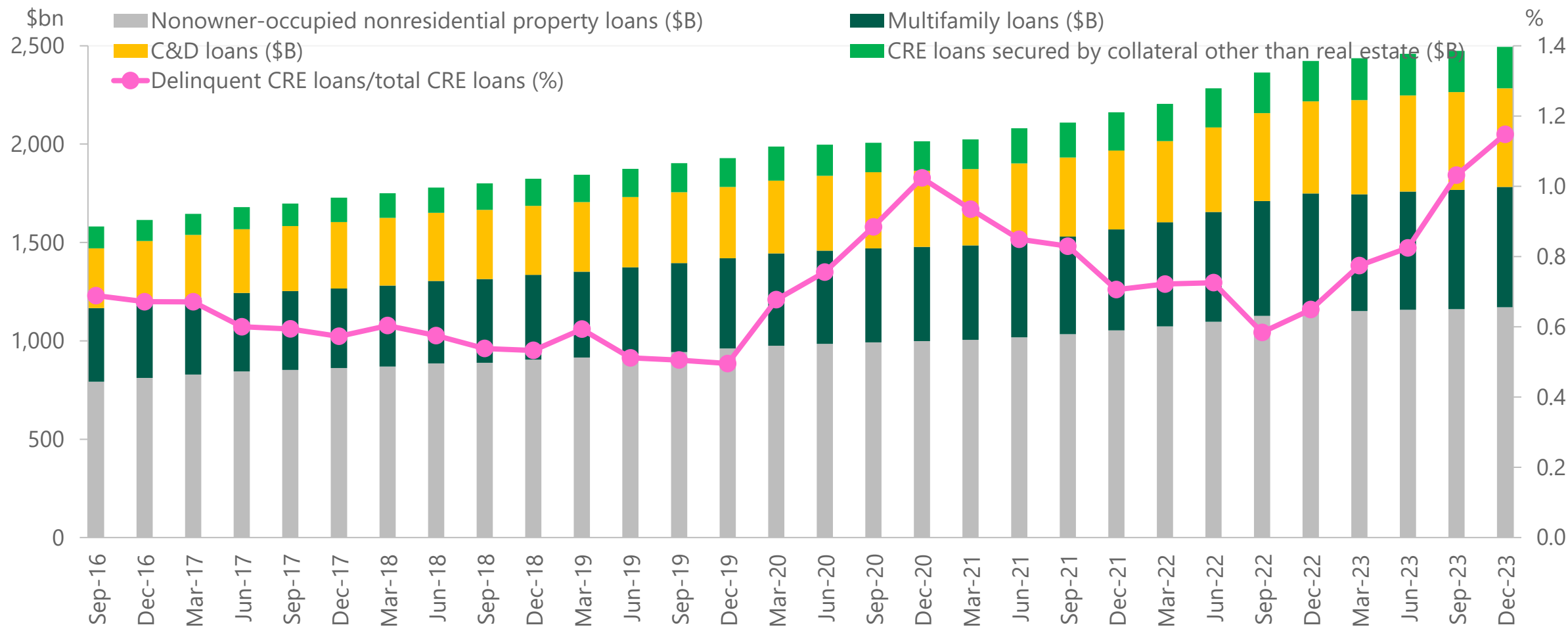
CMBS - United States: Percentage of Loans in Special Servicing by Property Type



US leveraged loans

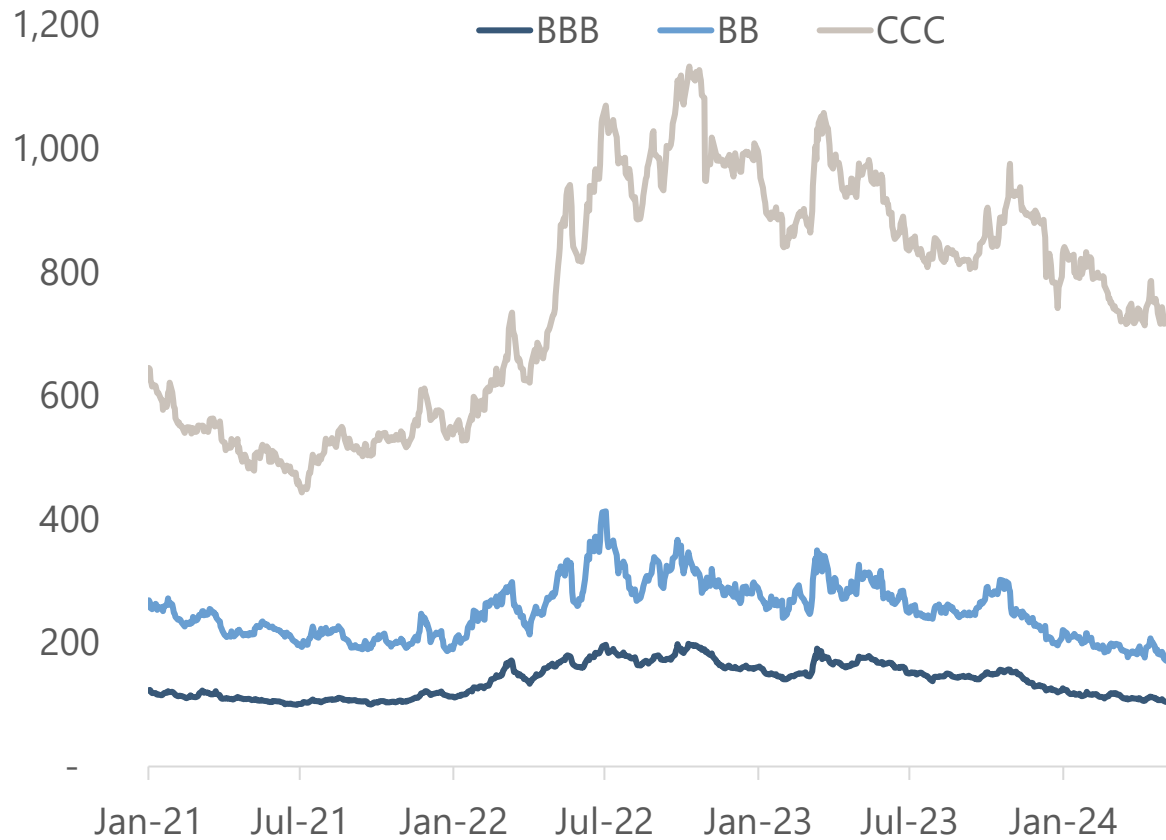


CRE composition and delinquency at US banks

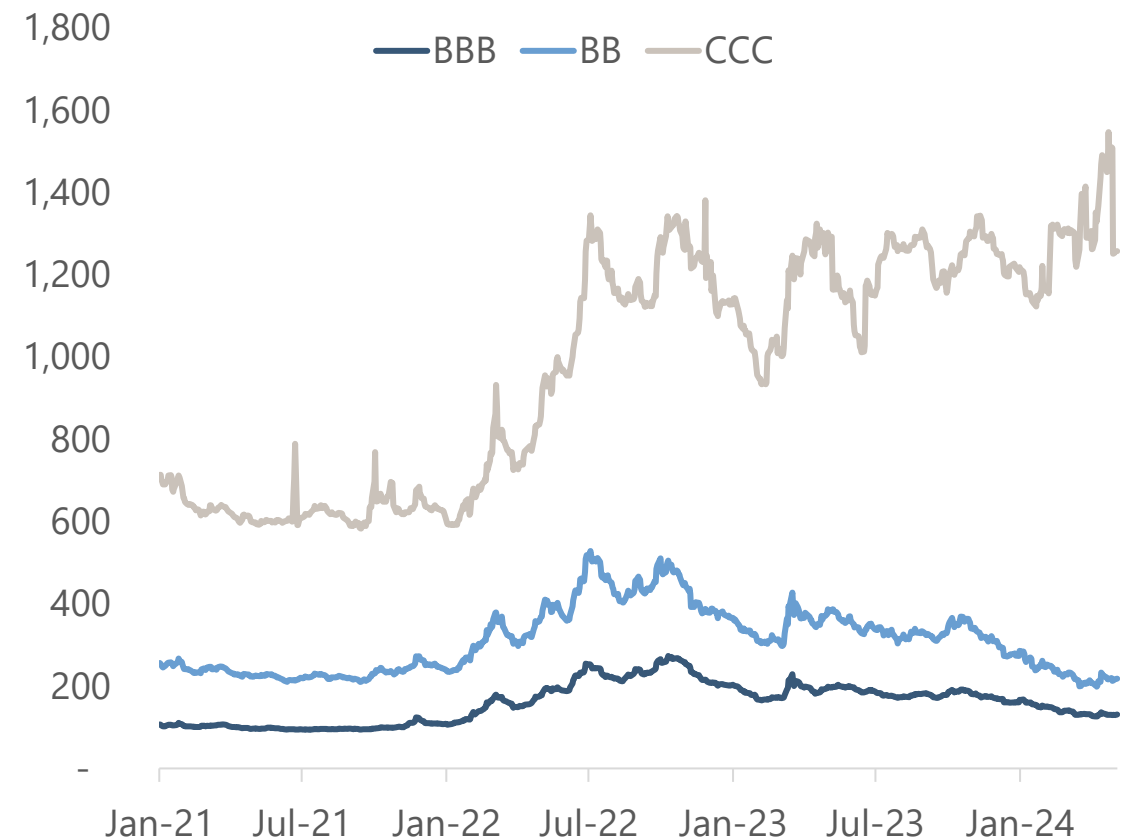


Technical and fundamentals point to IG/BB outperformance while weaker credits come under incremental pressure

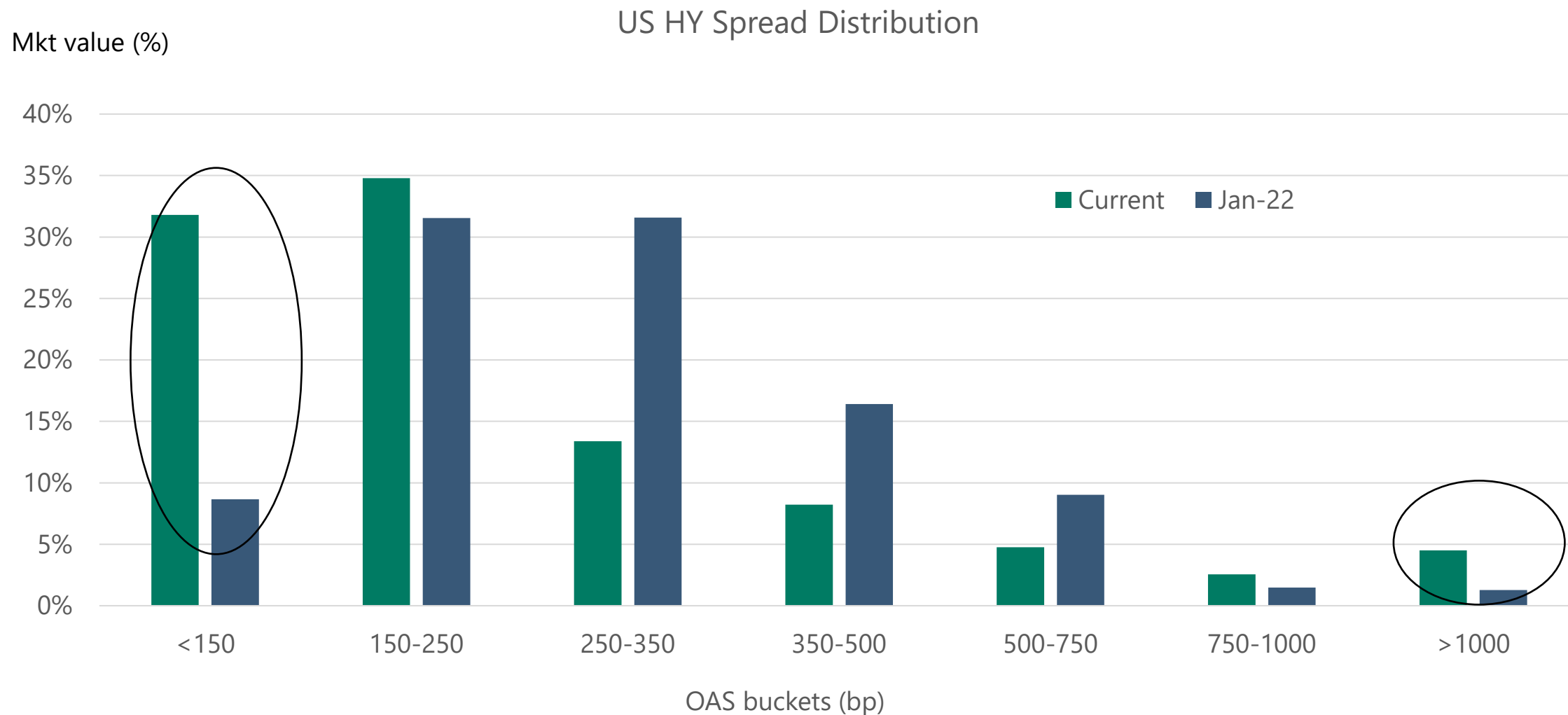
US Corporate Spreads (bp)



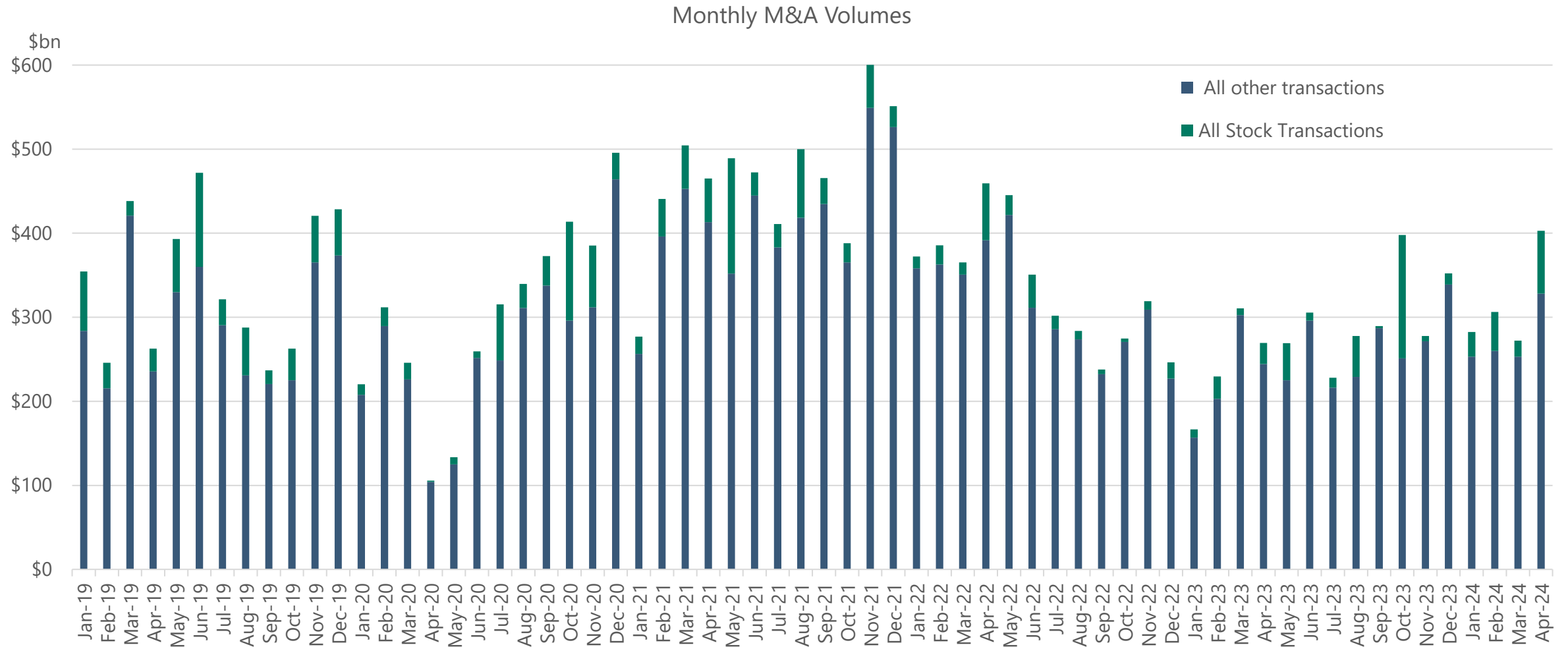
European Credit Spreads (bp)



Dispersion in HY is high and should remain elevated



M&A volumes should increase amid improving macro backdrop, elevated private equity dry powder and near-record cash on IG corporate balance sheets



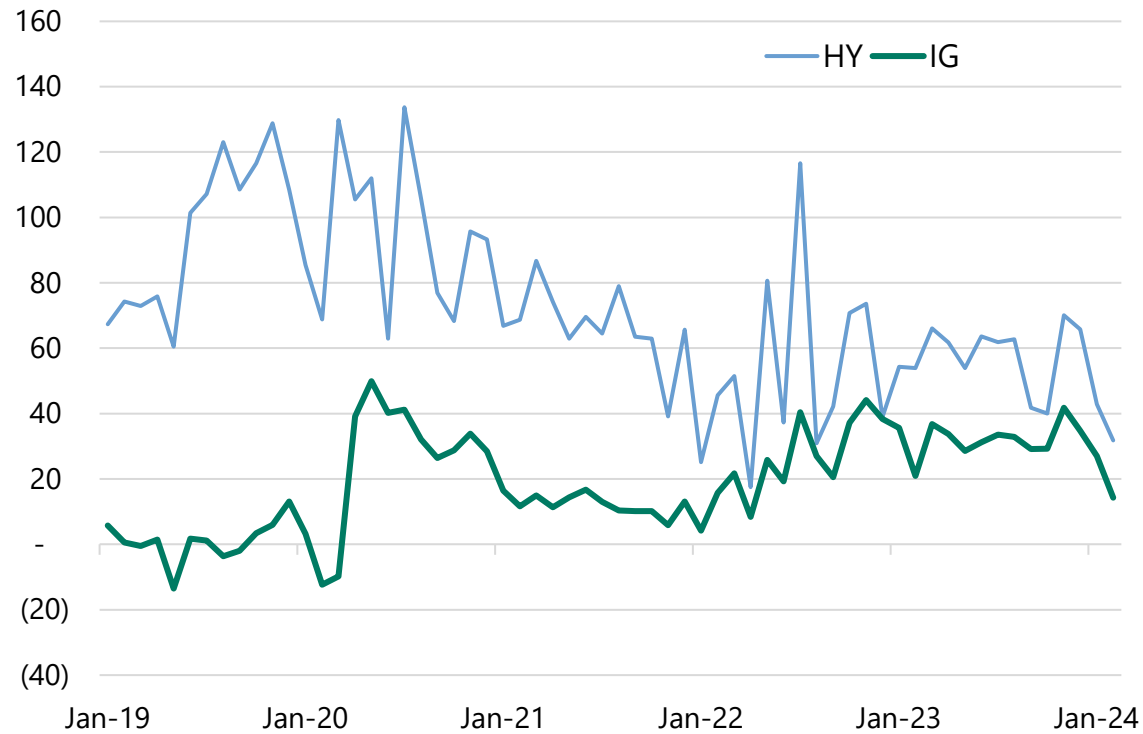
1) Liquidity Premium in Public
Credit Has Declined
Significantly



Liquidity premium has declined in US corporates recently, especially in HY markets where it's at or near five-year lows

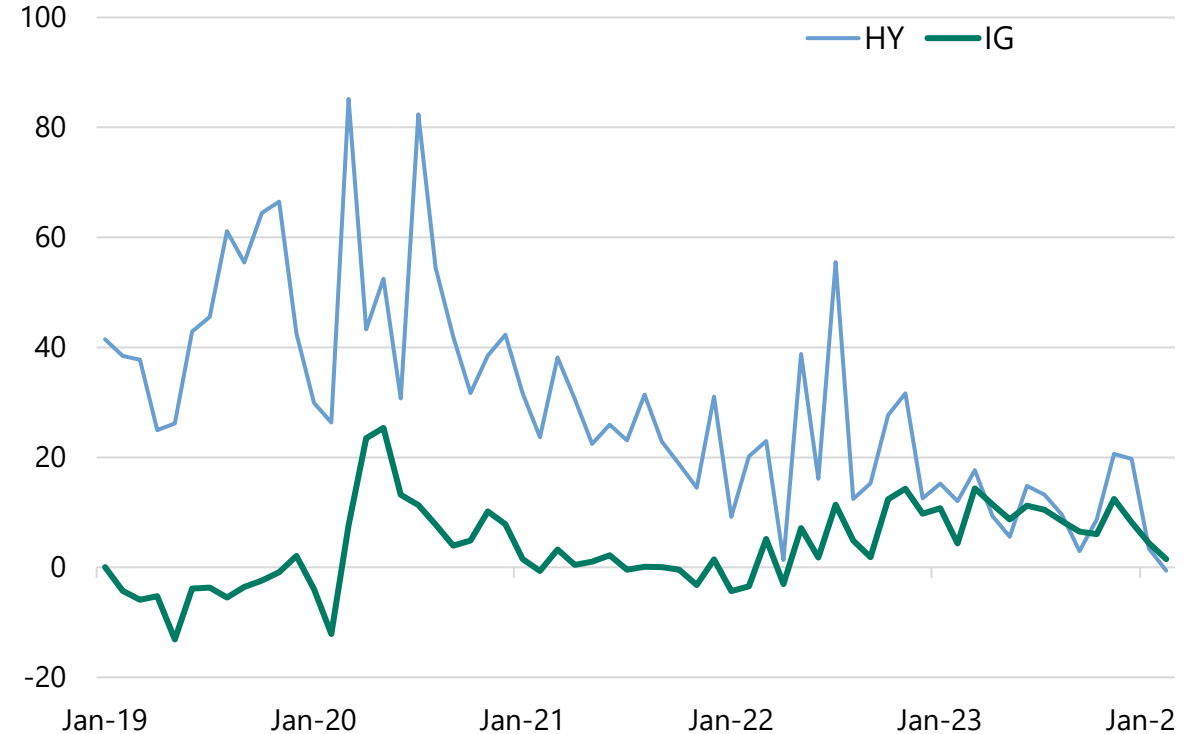
Spread difference between Small and Large Issuers*

Spread basis adjusted for rating/duration difference (bp)



Spread Difference between Small and Large Bonds*

Spread basis adjusted for rating/duration difference (bp)

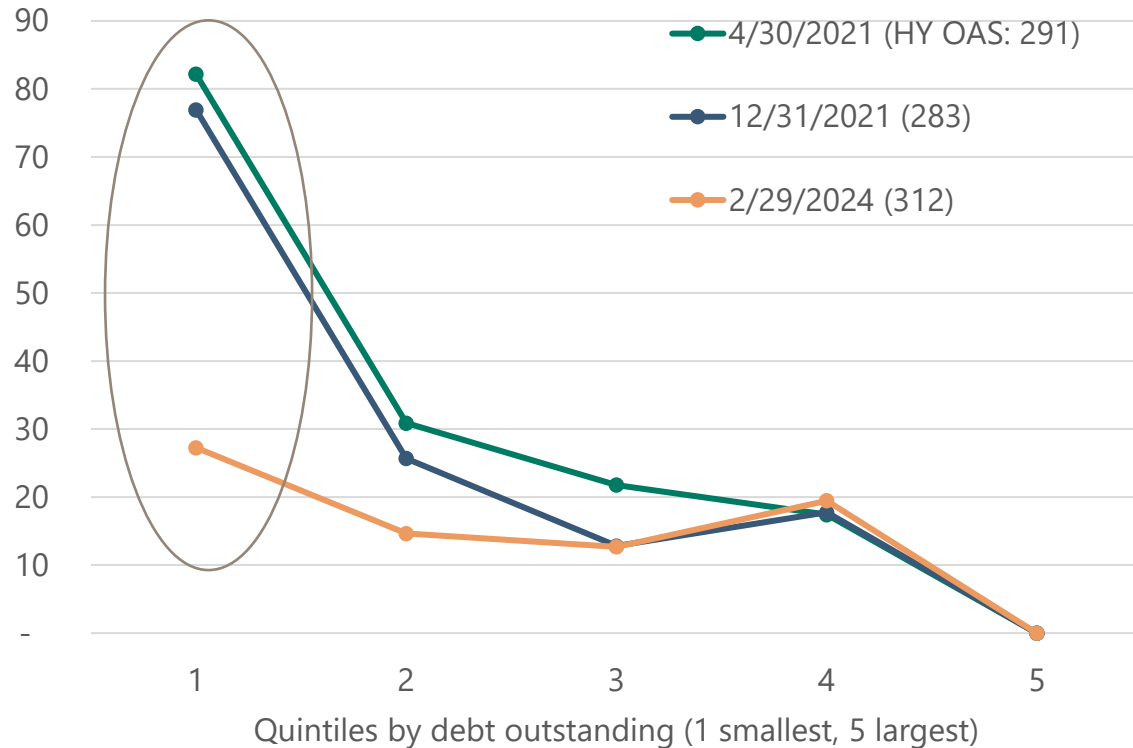


Spread difference based on excess spread, i.e. OAS not explained by spread and duration. IG: For industrial issuers only. For BB and B issuers only in HY. Issuer Size for IG: Small (<\$2bn debt outstanding) vs Large (>\$10bn). HY: Small (<\$500mn) vs Large (>\$2bn). Deal size for IG: Small (<=\$750mn), Large (>\$750mn). HY: Small (<=\$500mn), Large (>\$500mn). Source: BofA indices, Apollo.

The broader rally partly explains the compression in liquidity premium but the sharp move in smallest HY issuers suggests structural factors are at play as well

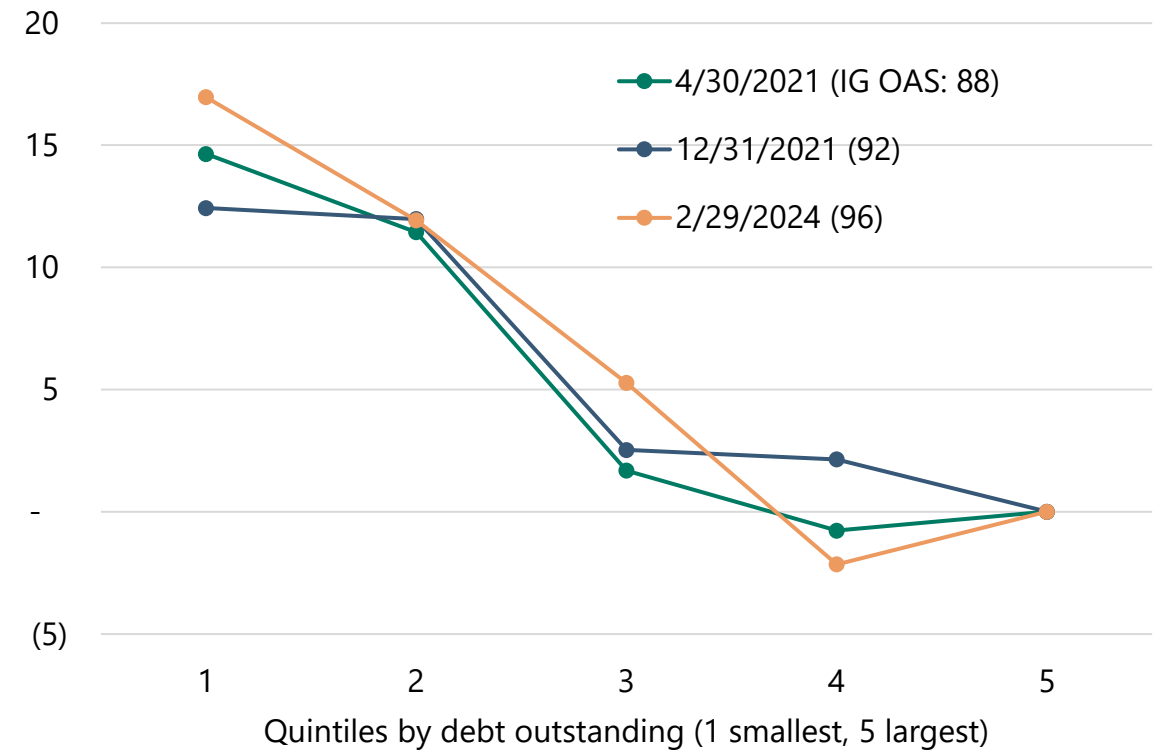
Smallest HY Issuers offer 50bp less liquidity premia than in the past

Spread basis adjusted for rating/duration difference (bp)



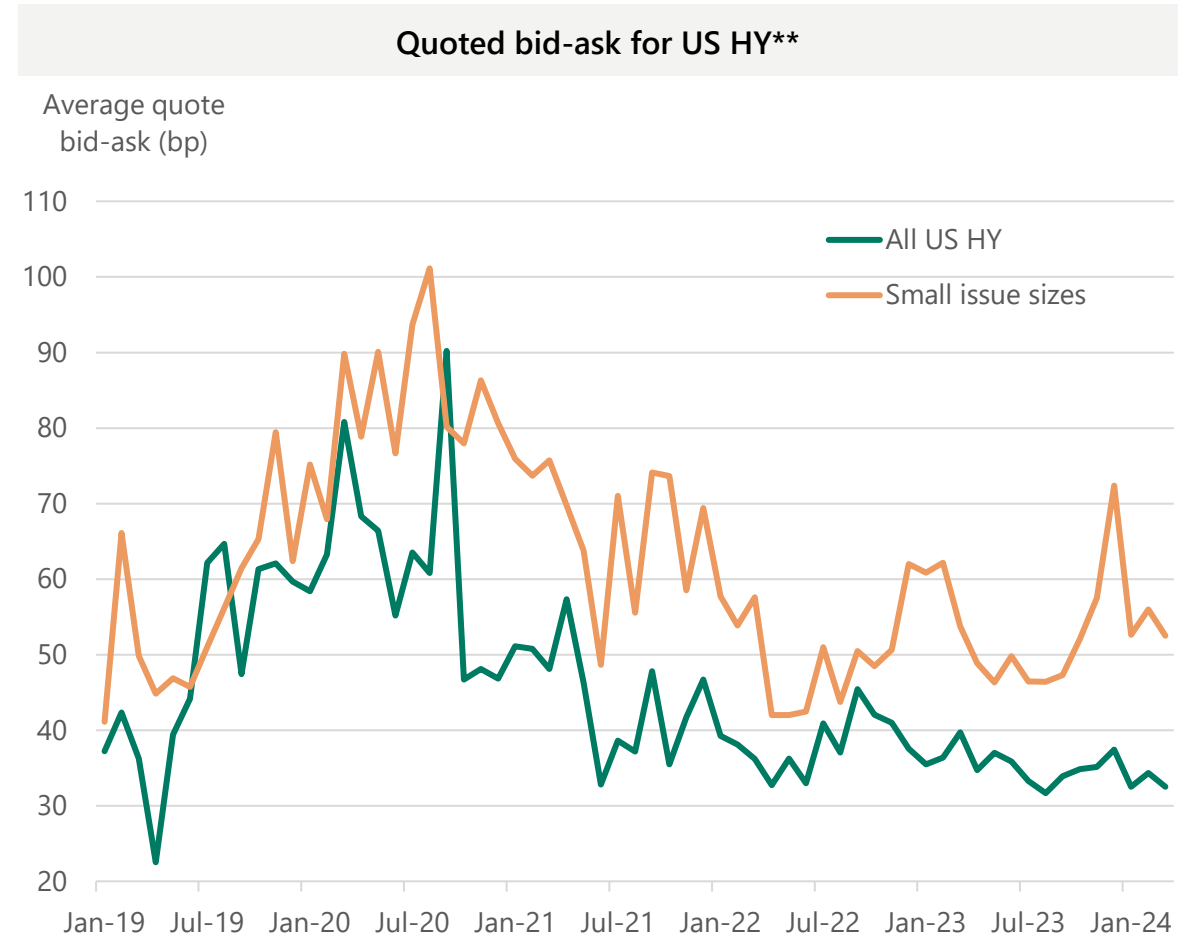
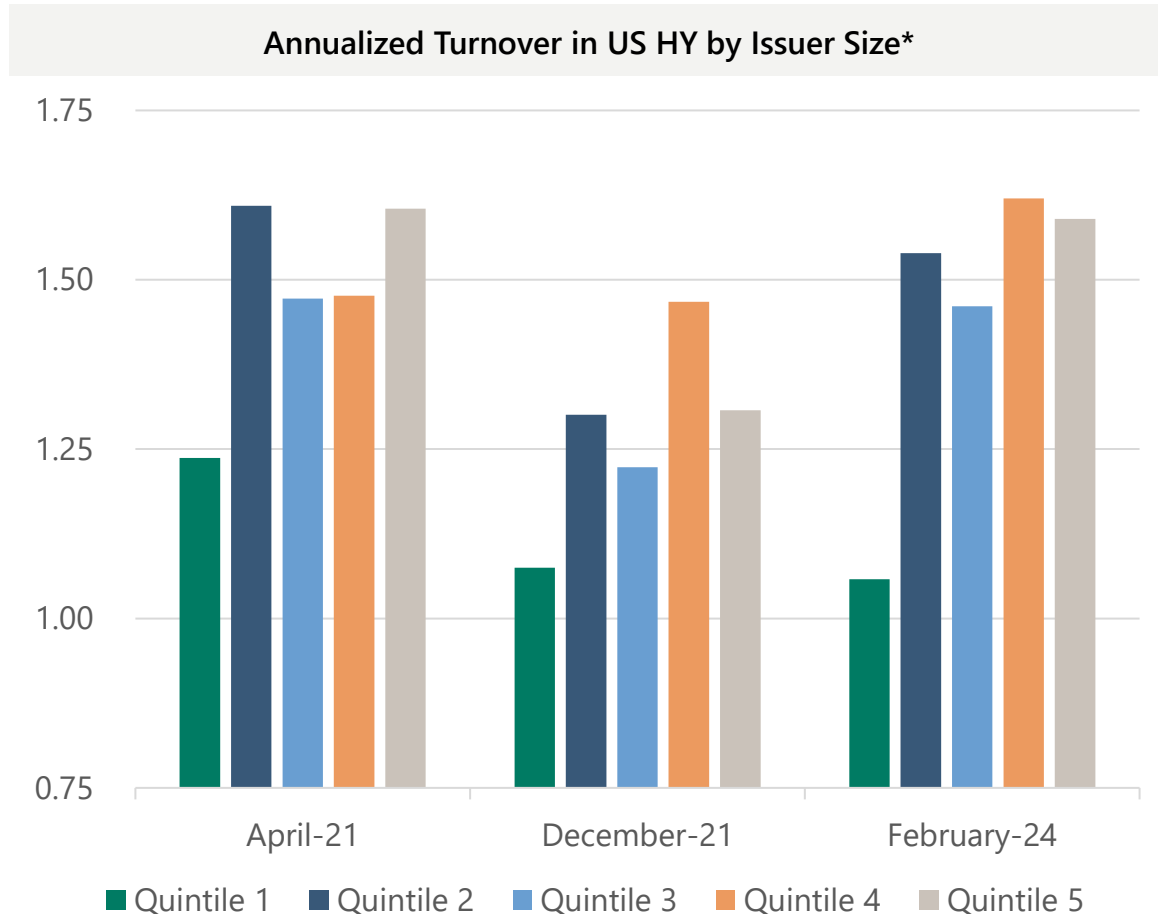
IG relationship in line with historical levels

Spread basis adjusted for rating/duration difference (bp)



Spread difference based on excess spread, i.e. OAS not explained by spread and duration. IG: For industrial issuers only. For BB and B issuers only in HY. Source: BofA Indices, Apollo

Turnover and bid-ask for smallest HY issuers/deal sizes have not improved, implying the decline in liquidity premium is not driven by better liquidity



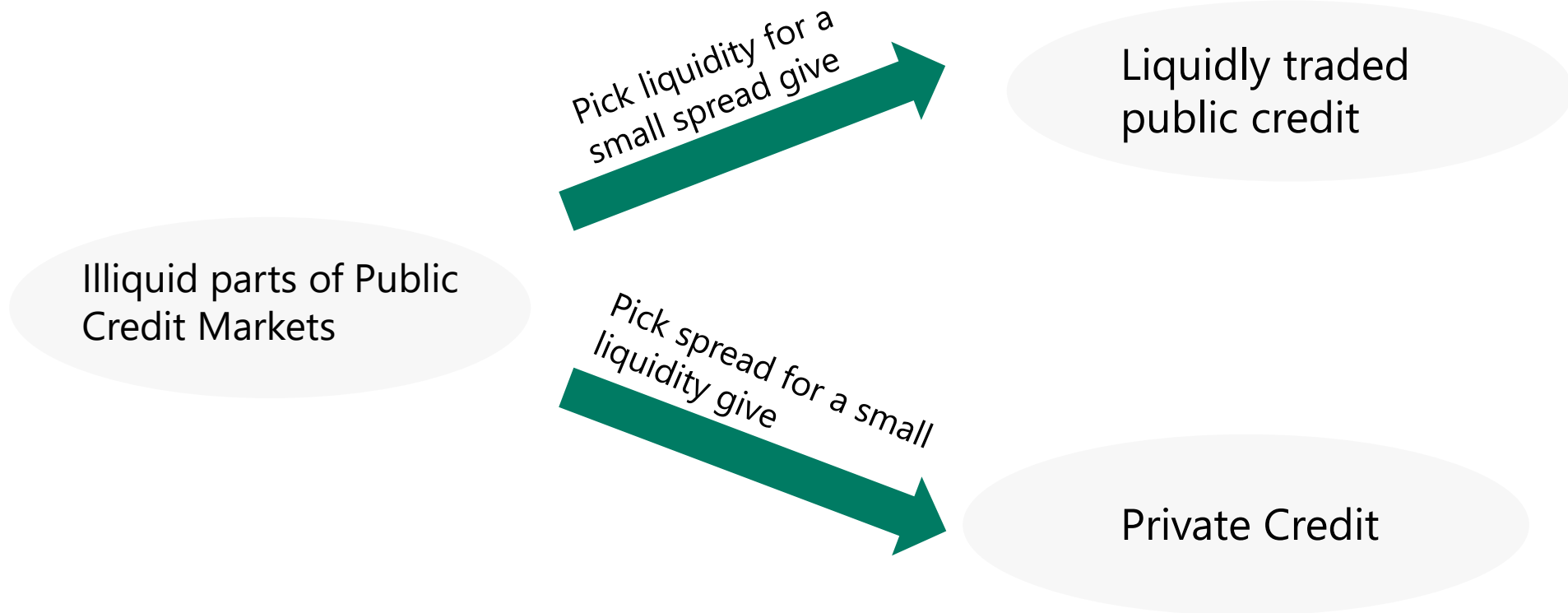
*Turnover defined as trading volume/amount outstanding. Annualized based on prior 6-month volumes for each date shown. Includes BB and B bonds, and only securities outstanding for at least 3 months.

** Based on quoted bid-ask. Excludes bond with less than 1yr duration. Small issue sizes data based on bonds up to \$350mn in outstanding amount.

Source: BofA Indices, Trace, Apollo

Lower investor liquidity needs are driving a decline in liquidity premia, in our view: inflows from buy-and-hold investors in the IG market are increasing; use of HY ETFs has reduced reliance on underlying corporate bonds for liquidity

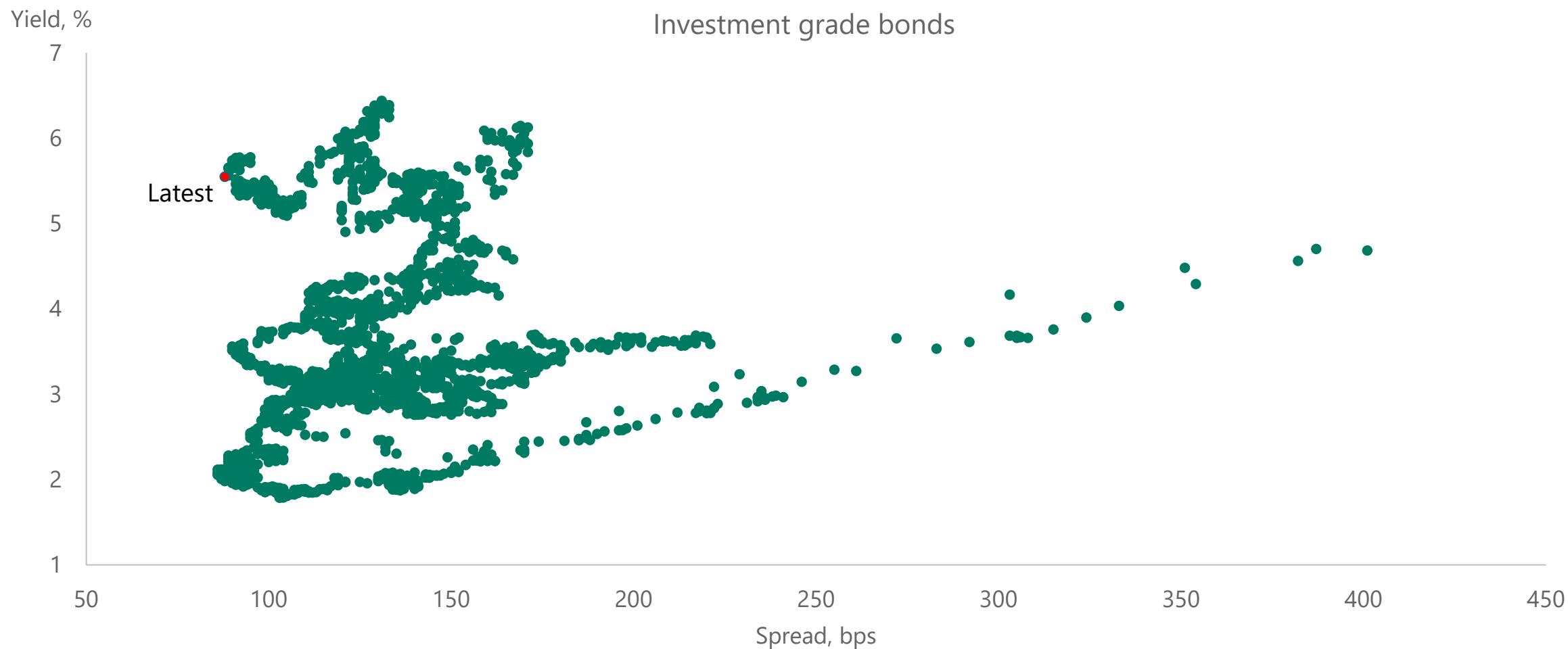
Portfolio Implication: Allocate away from illiquid parts of public credit to either liquid public credit or private markets, which still offer elevated liquidity premia



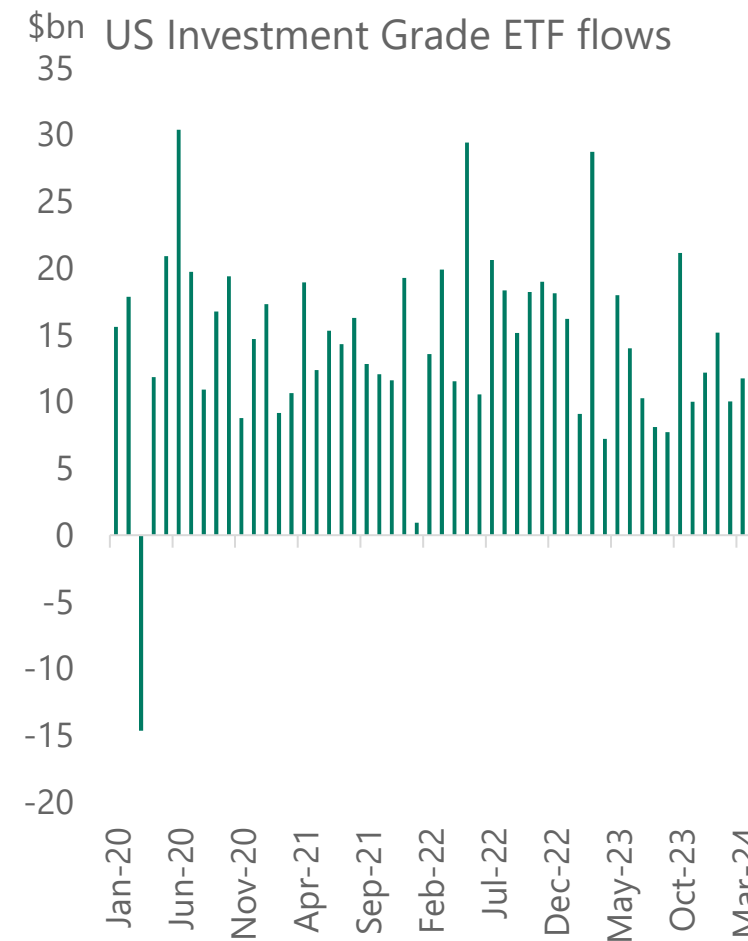
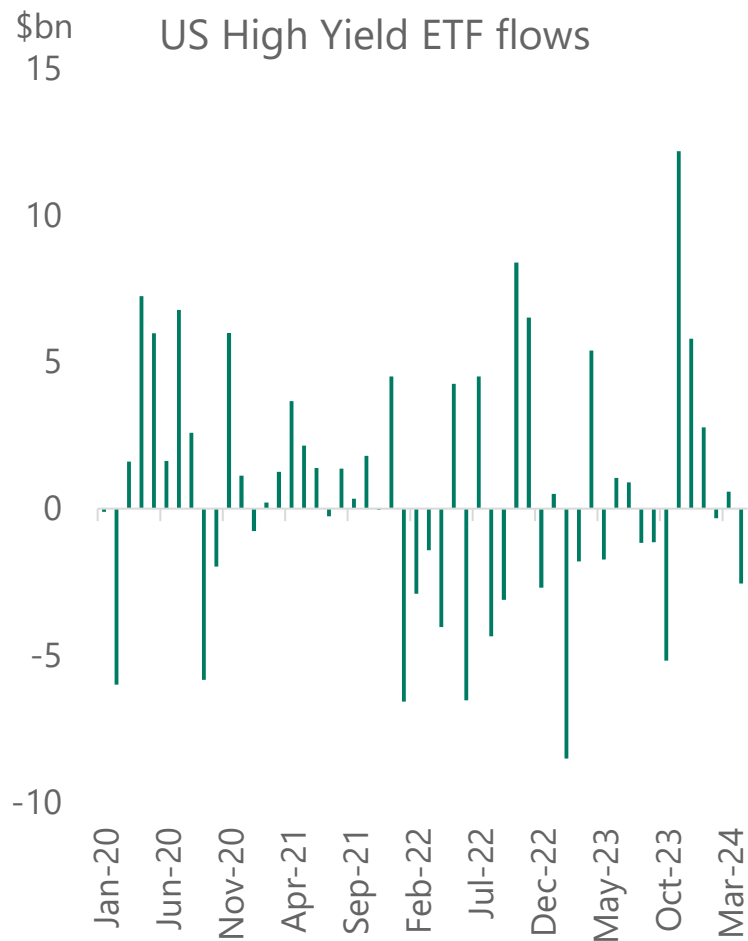
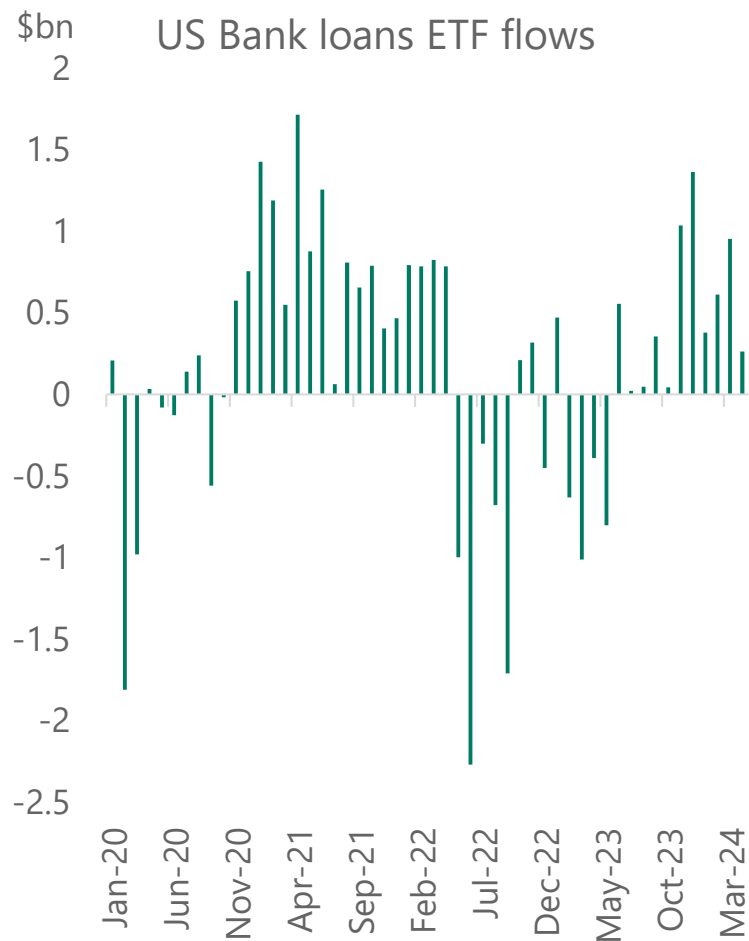
2) Technical backdrop for credit is robust as all-in yields remain attractive



While spreads are tight, all-in yields are attractive

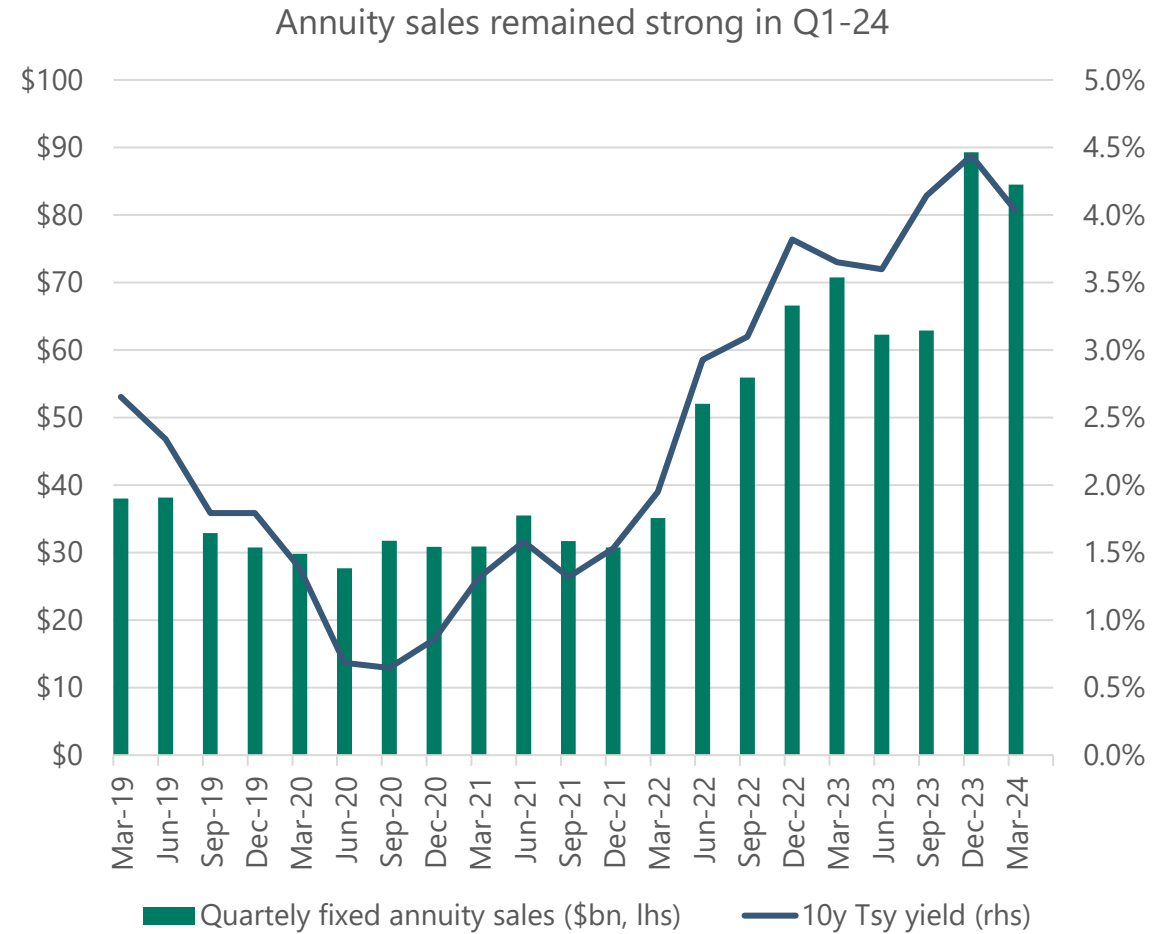
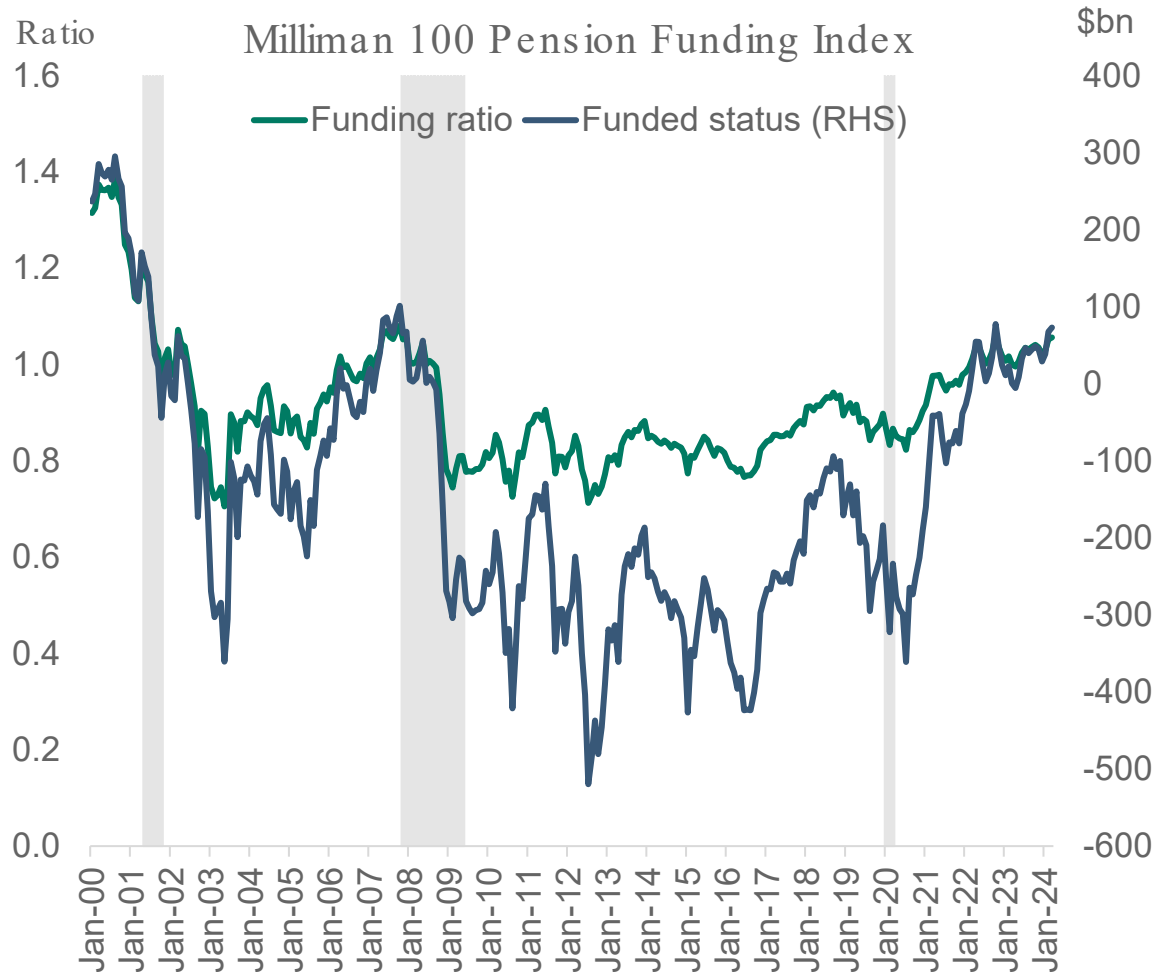


IG and Loan ETF Inflows have remained strong

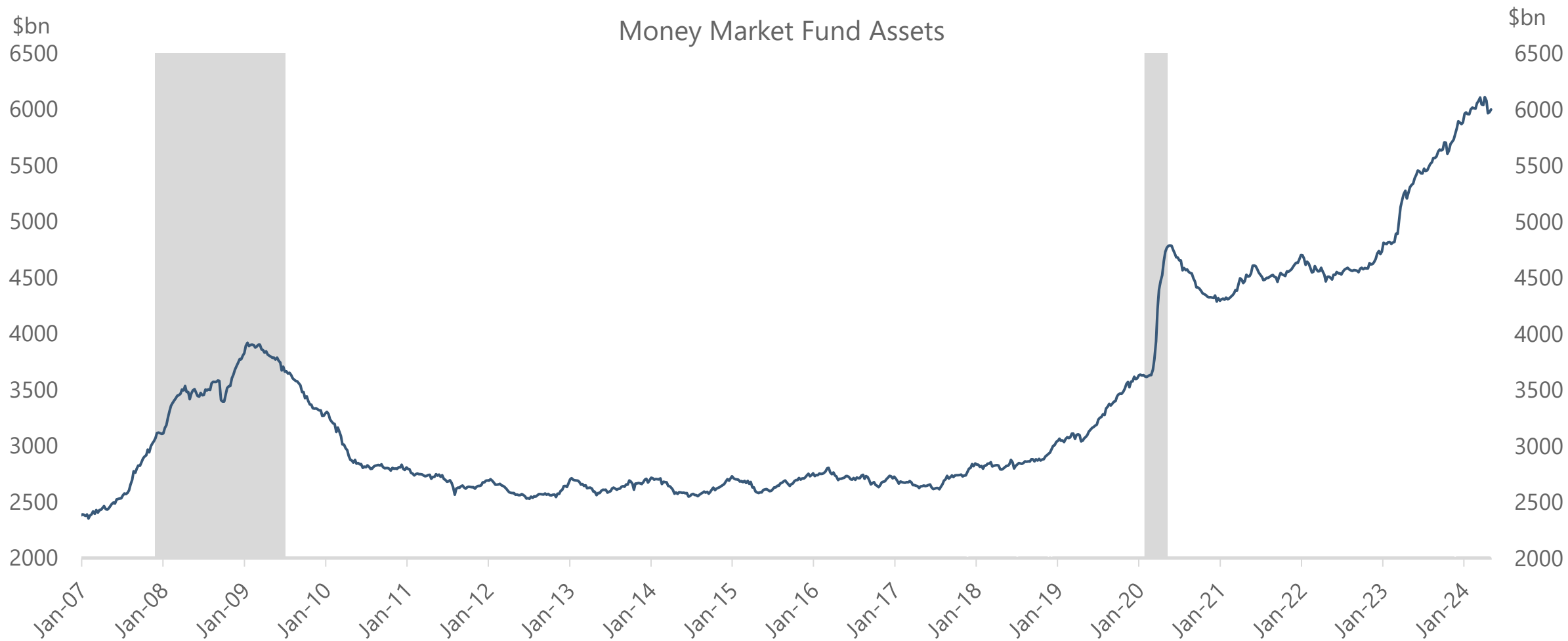


Source: Bloomberg, Apollo Chief Economist (Note: BFFUEBK Index: US Bank loans ETF flows, BFFUEHY Index: HY ETF flows; BFFUEIG Index: US IG ETF flows)

Demand from insurance and pensions should remain elevated



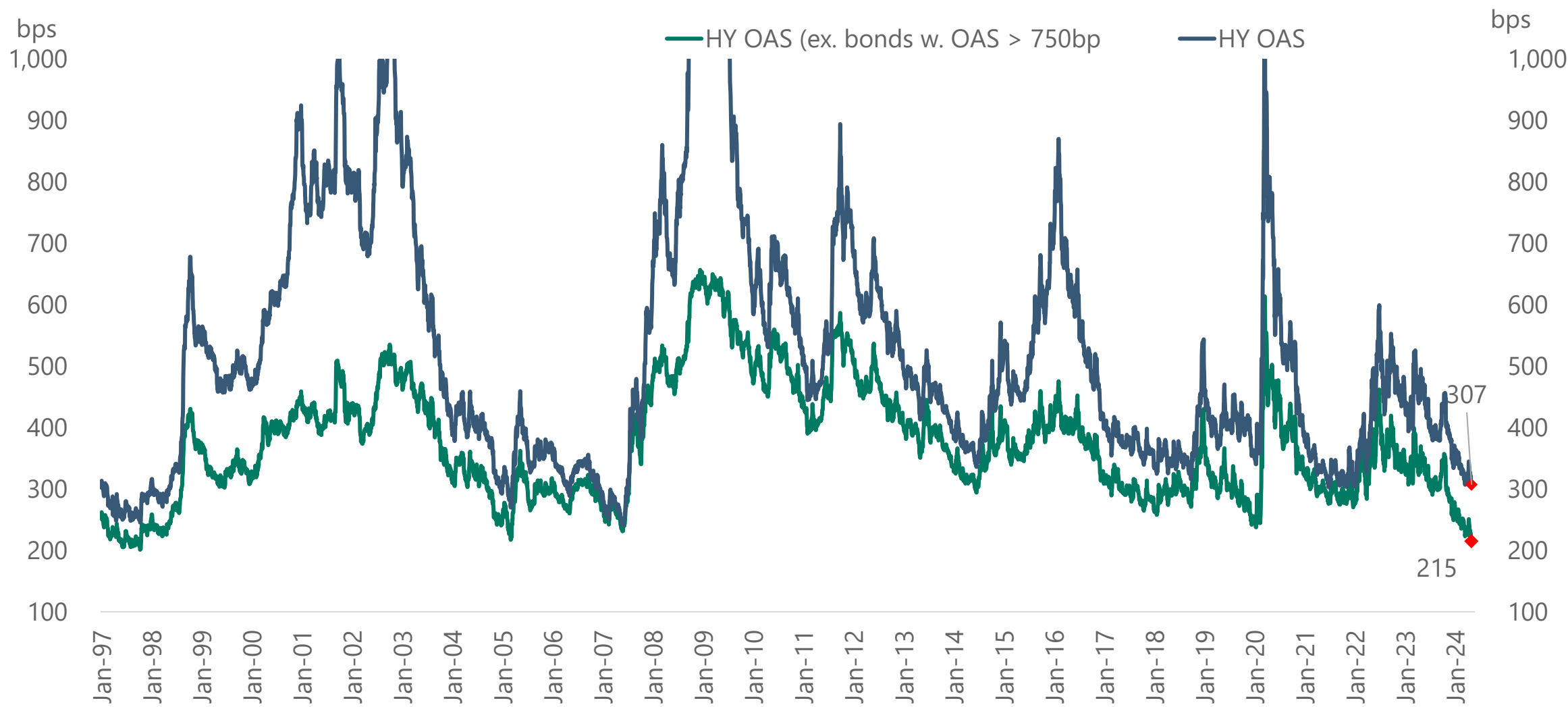
Money market fund assets at all-time high \$6trn



3) Relative value within credit



US HY credit spreads (ex. the right tail) are near 25y tights

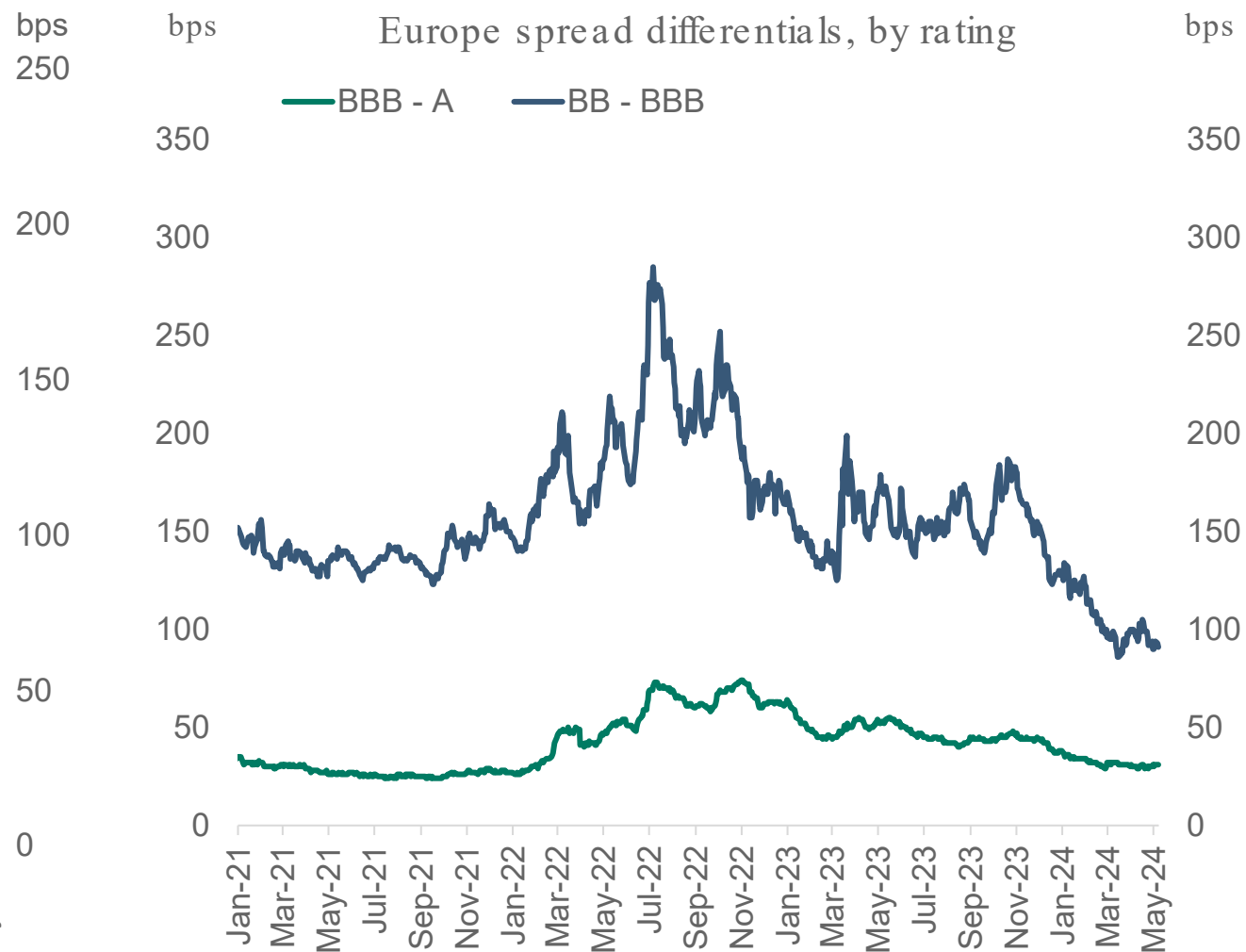
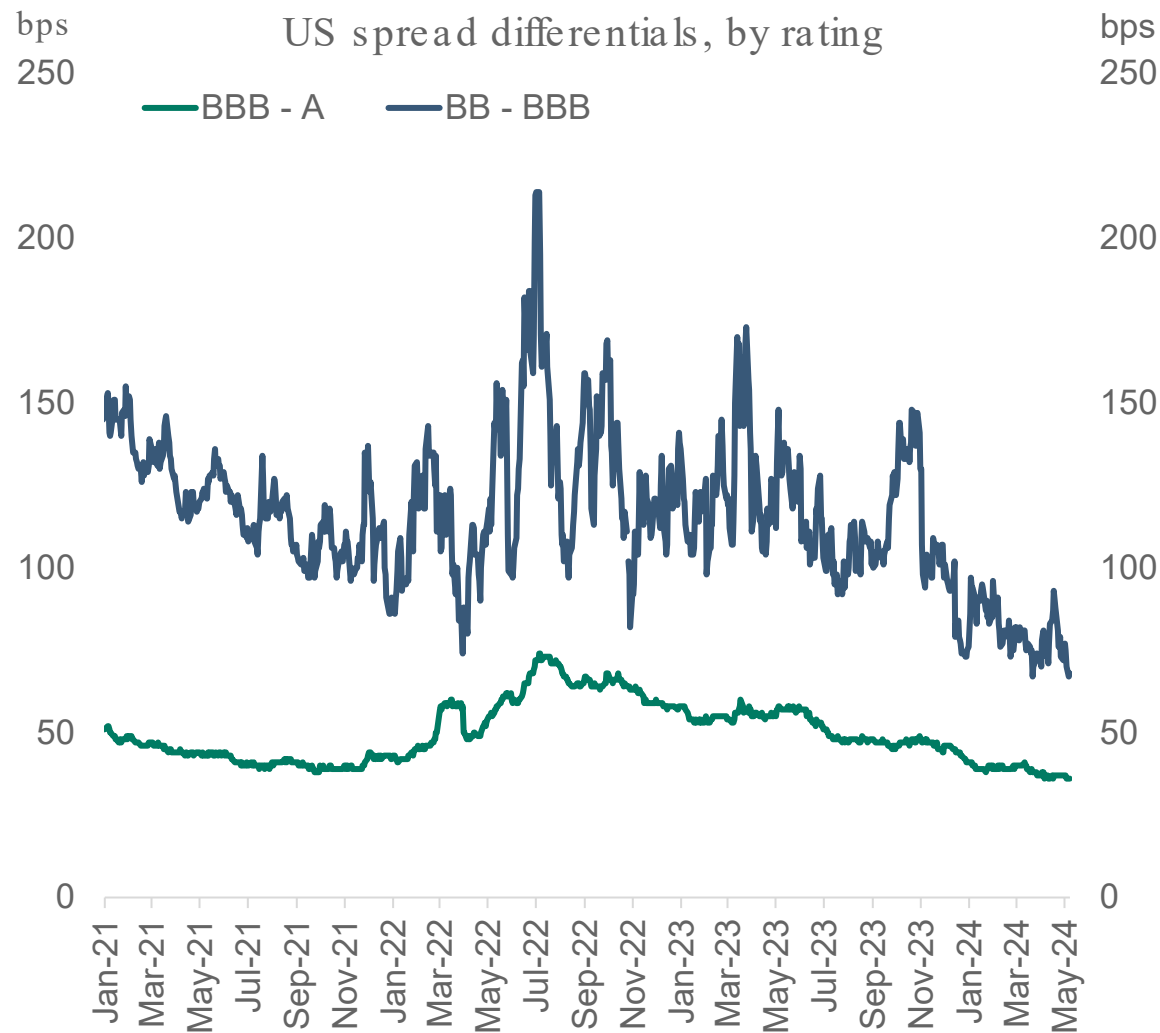


Nearly 75% of the US LL market trades over \$99



Source: Bloomberg, Apollo Chief Economist

Beta compression across IG and high quality HY continues



Divergence between and US and Europe lower rated junk bond spreads



Financial – industrial basis has compressed sharply this year, and is almost back to 2021 levels in Europe

Financial Industrial Basis

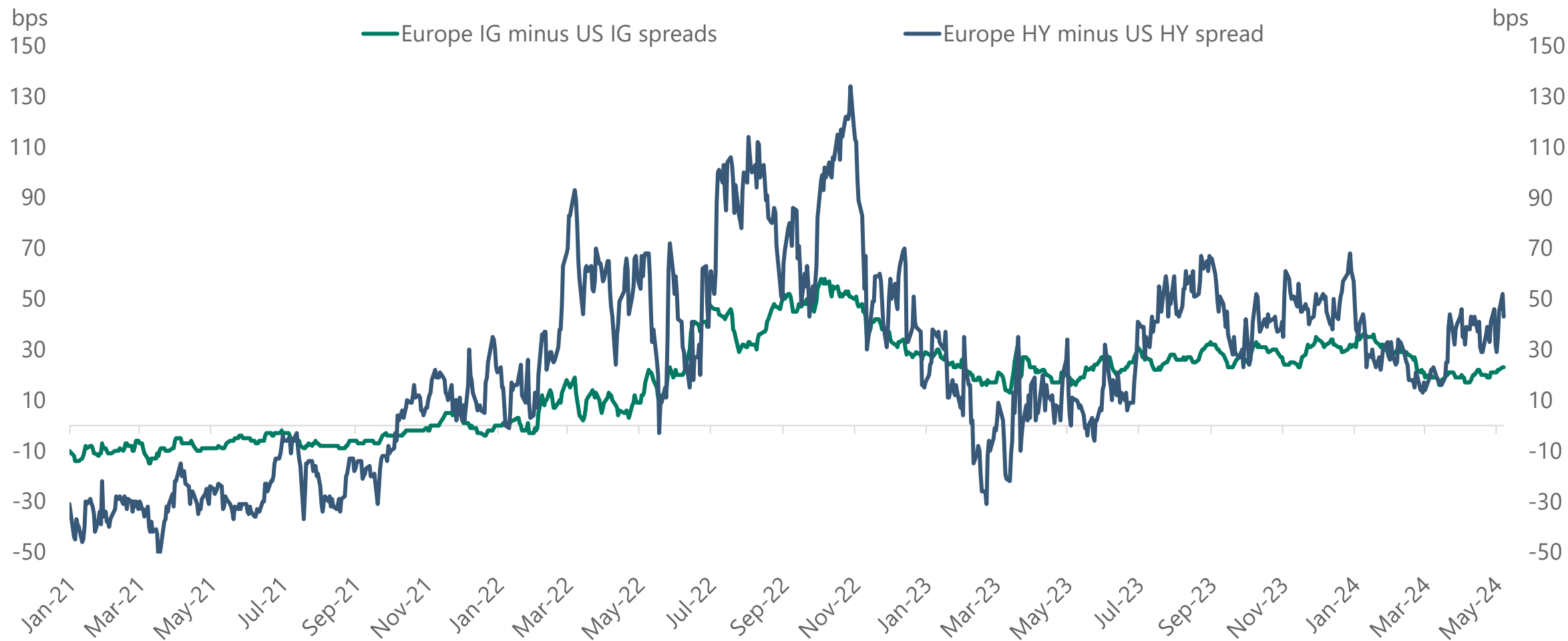


10s30s credit spread curves have steepened but remain flat relative to historical levels

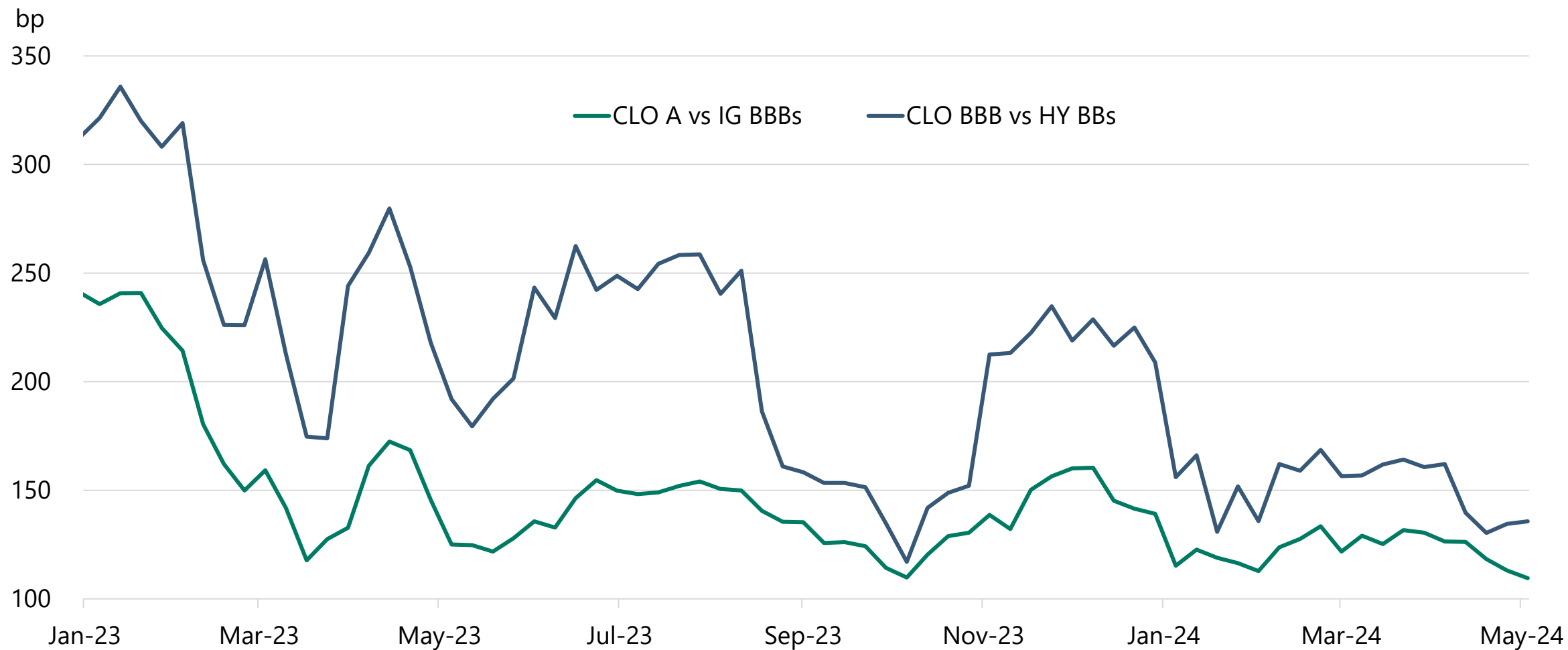
US Industrials Credit Curves



European credit has compressed to US this year, especially in investment grade credit



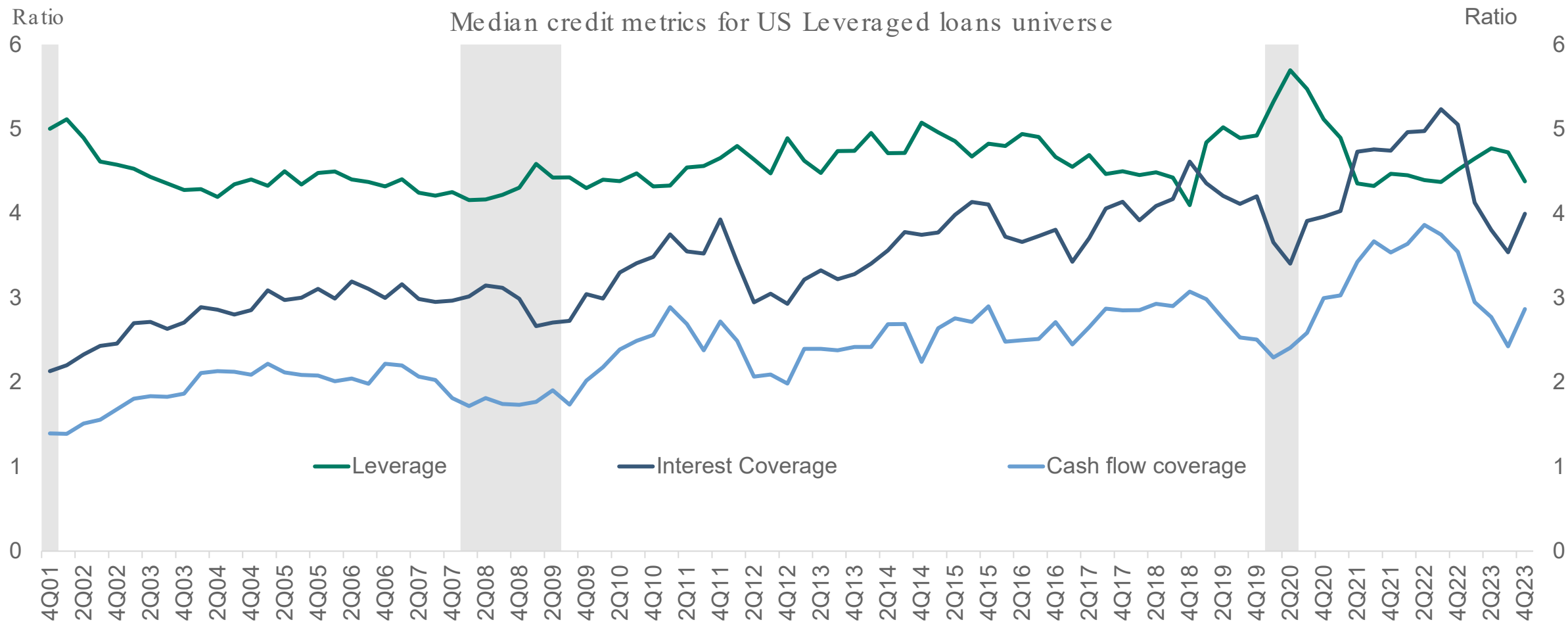
CLOs continue to tighten relative to corporates



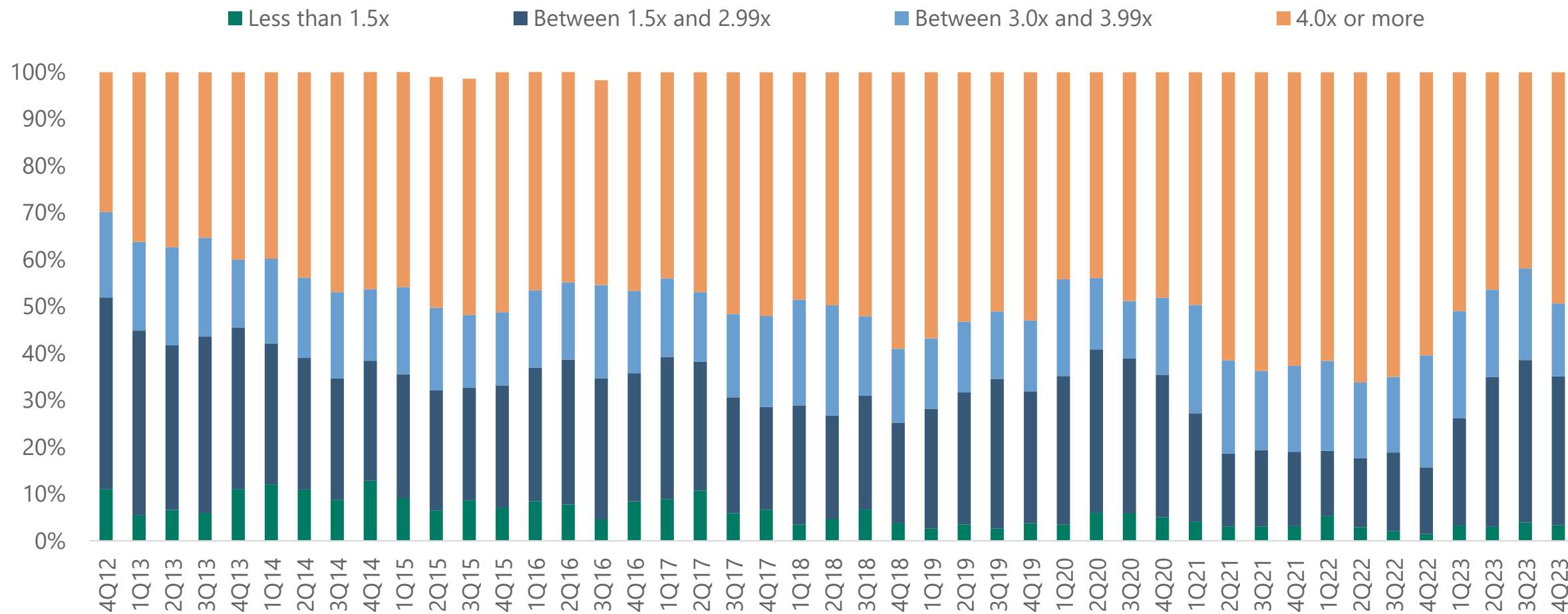
4) Corporate fundamentals remain stable but higher for longer rates could pressure companies with higher floating rate liabilities and/or near-term maturities



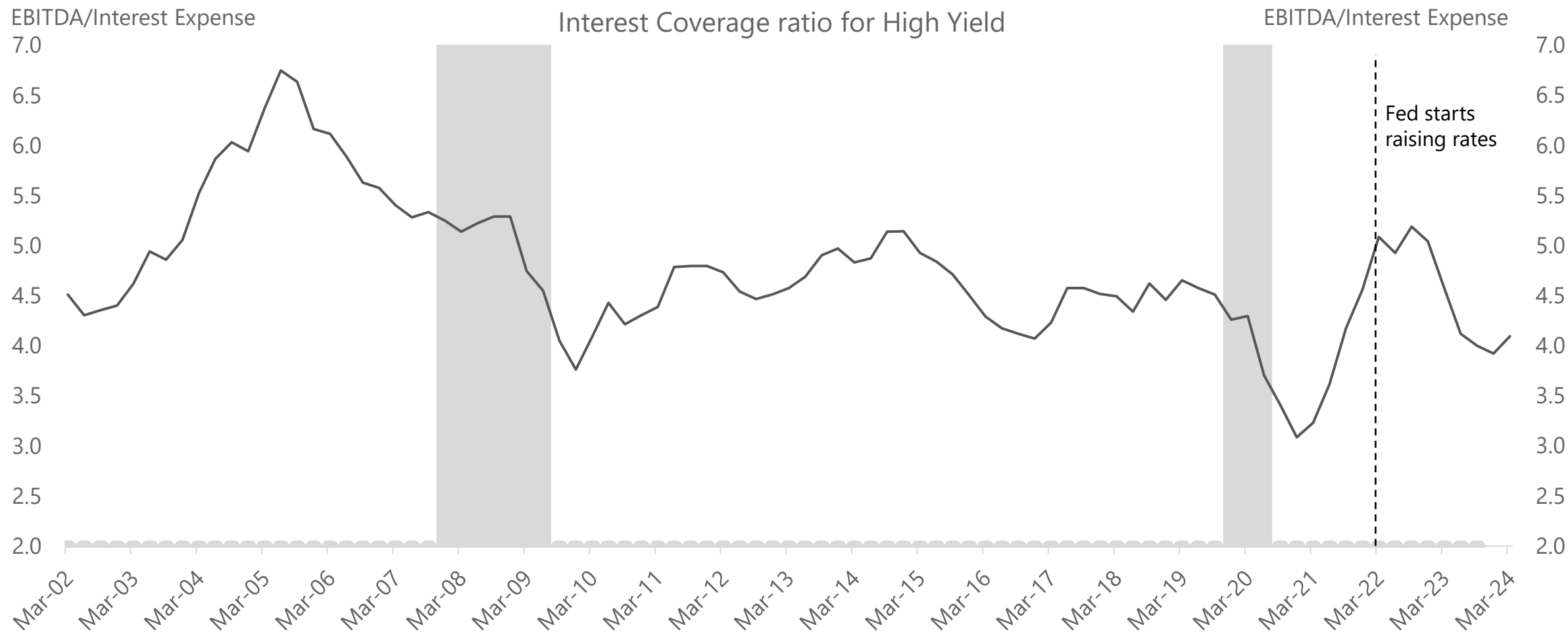
Credit metrics for leveraged loan deals



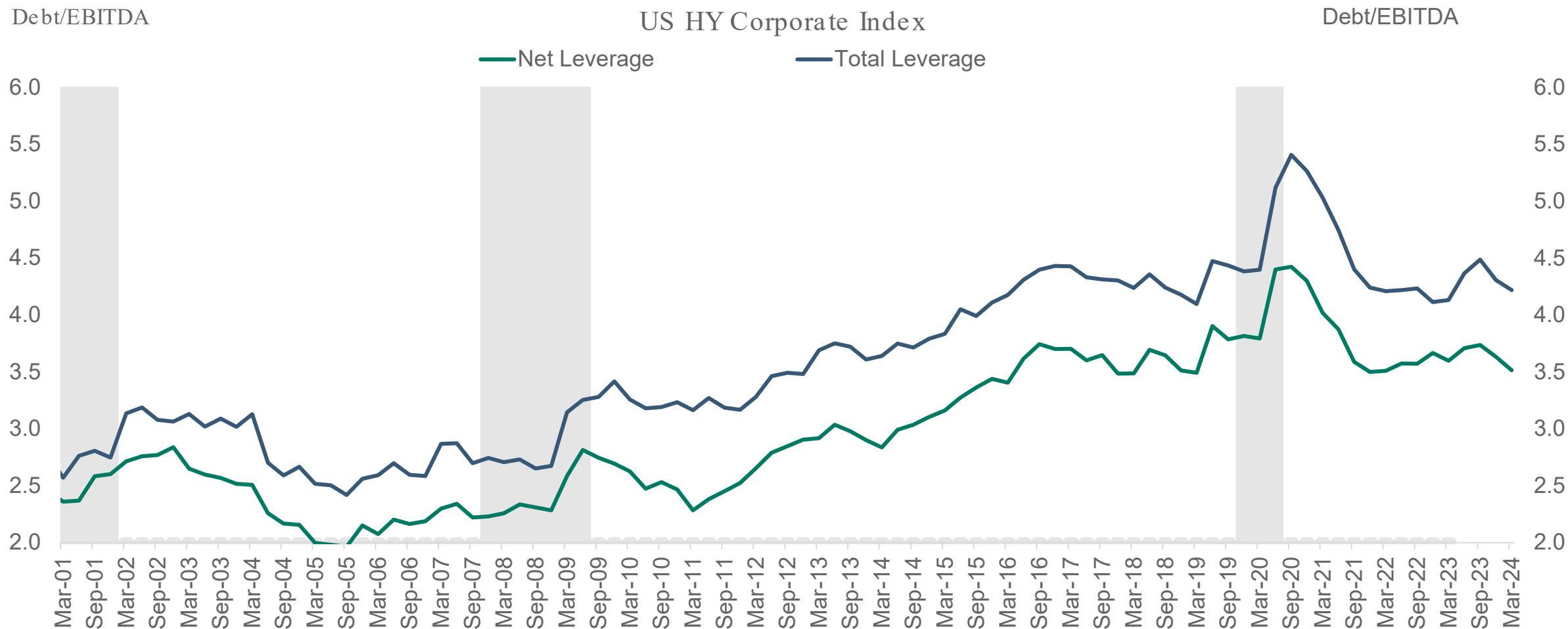
Interest coverage ratio for leveraged loans



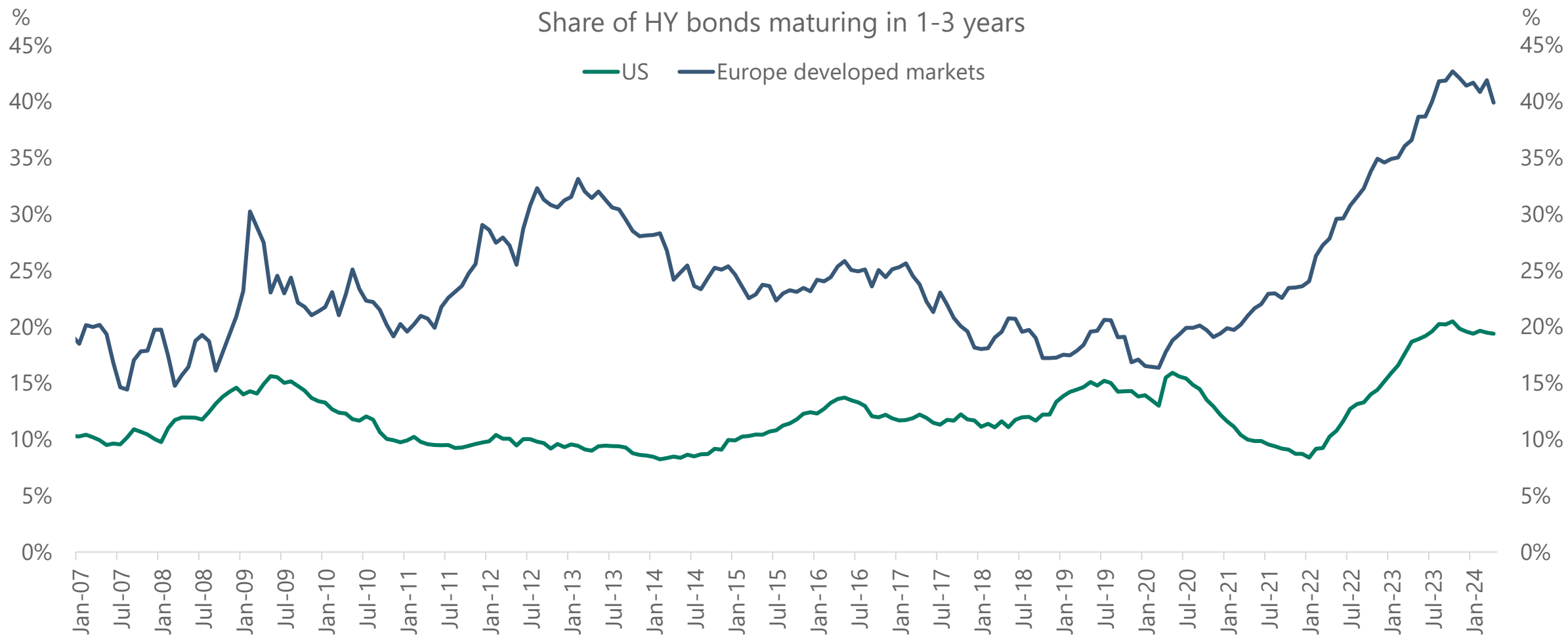
Interest Coverage Ratio for HY issuers remains under pressure ...



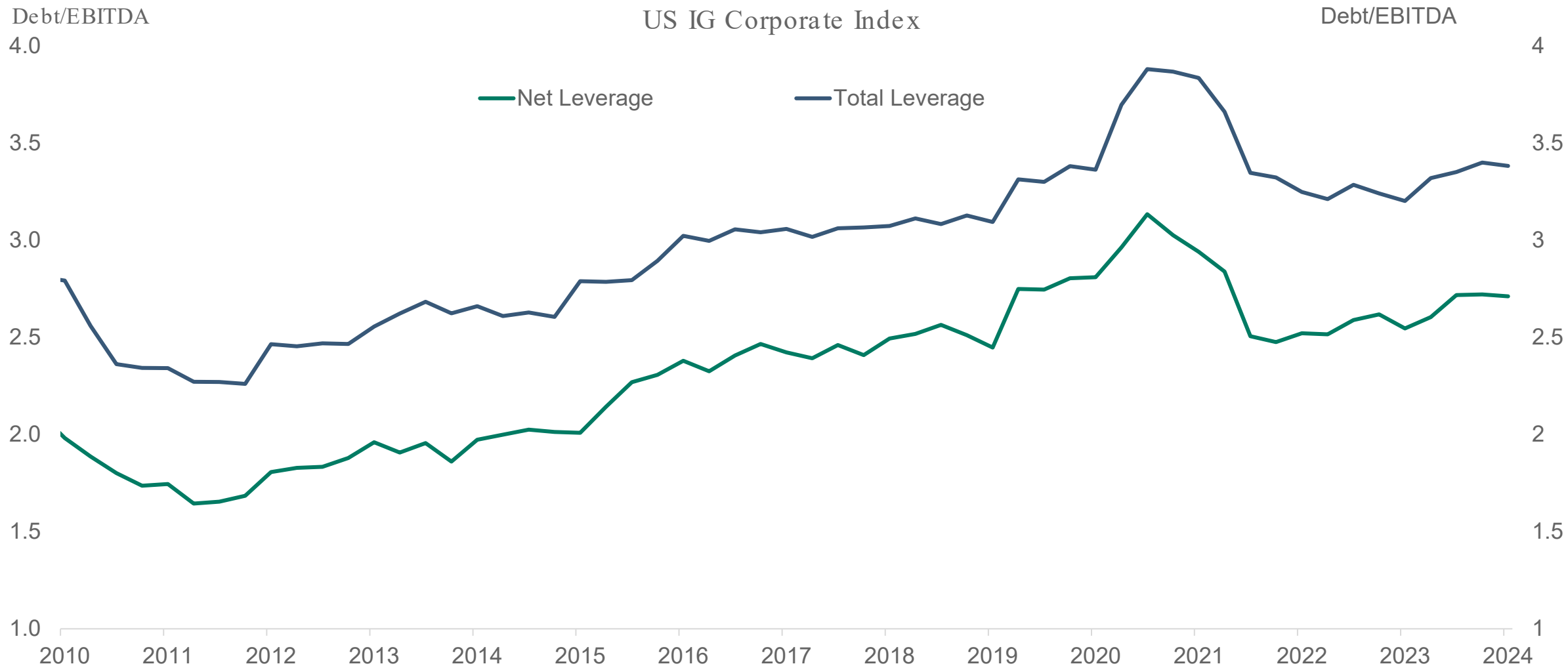
... but net leverage has been more stable



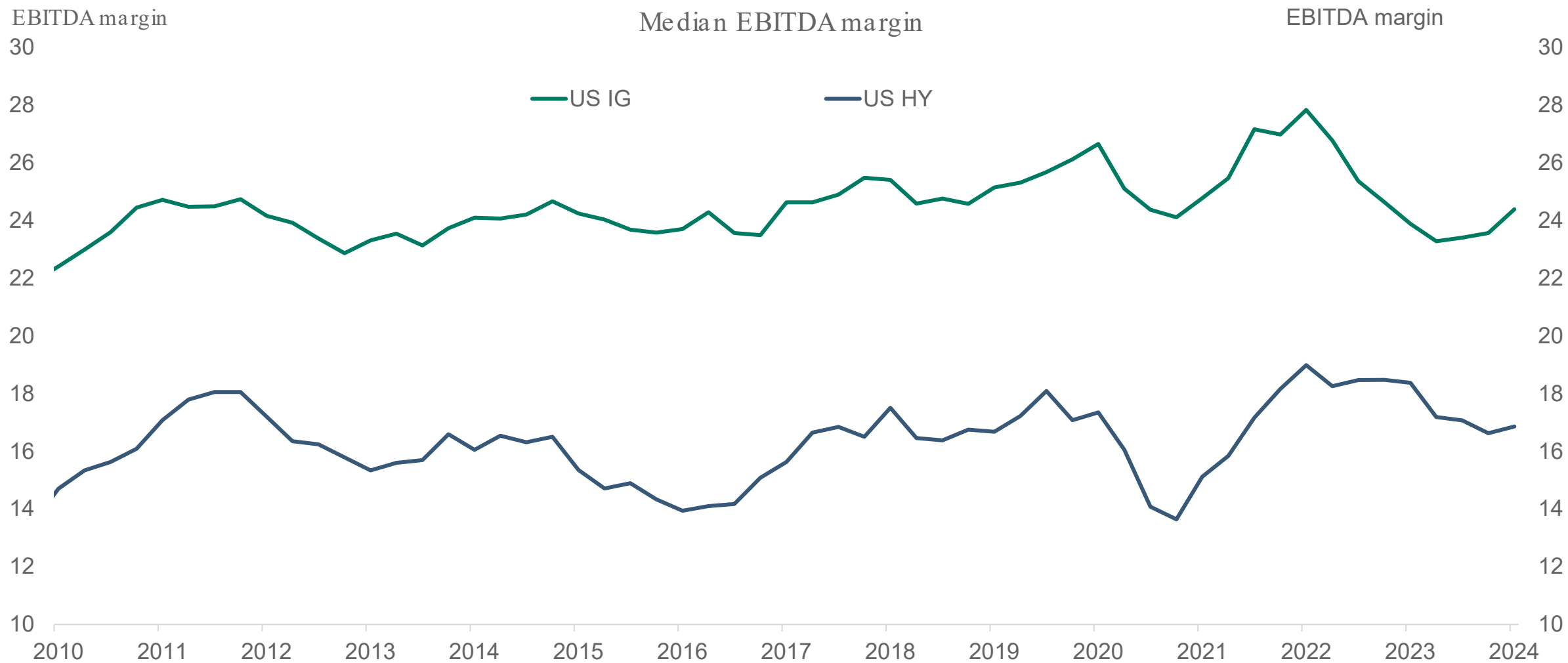
HY: Europe hitting the maturity wall before the US



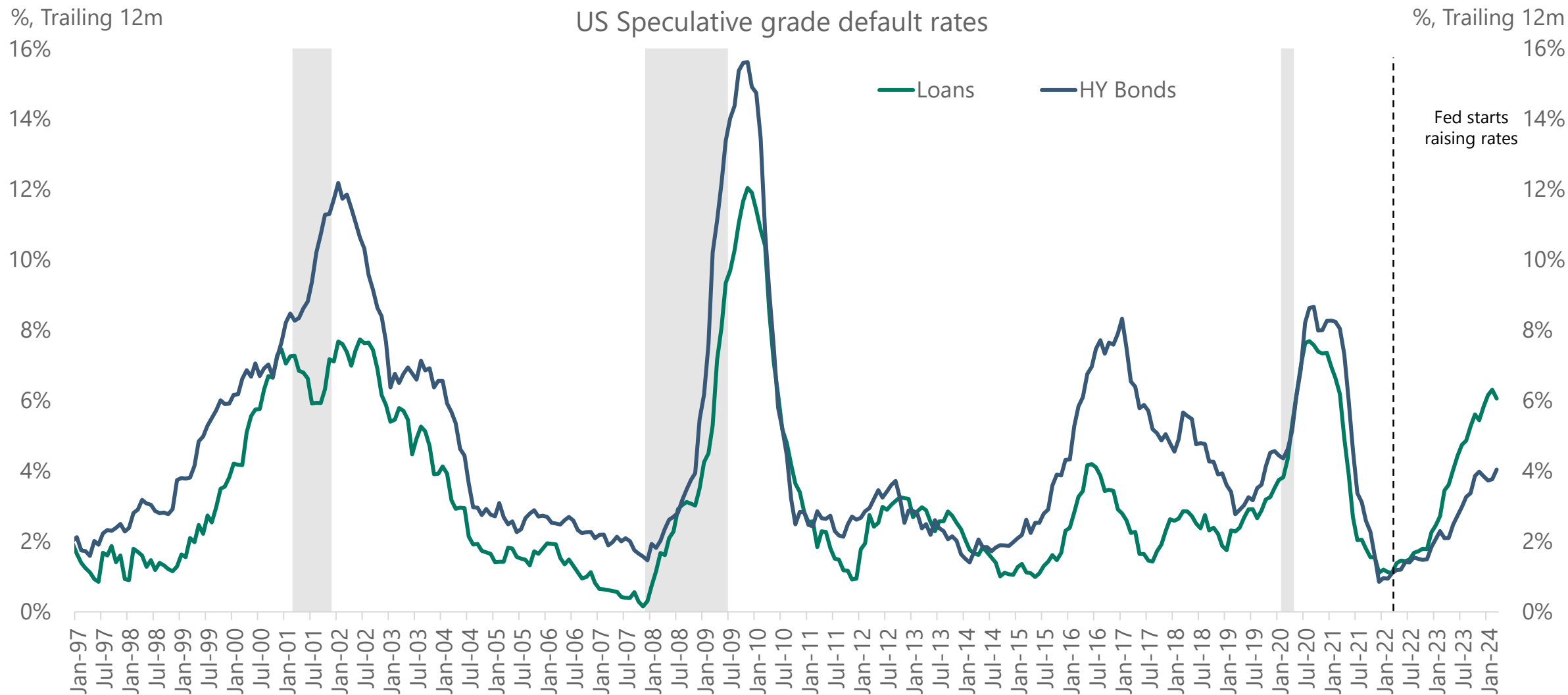
Leverage for investment grade companies is also stable



EBITDA margins for HY falling



A default cycle has started and higher for longer rates could weigh on lowest quality issuers

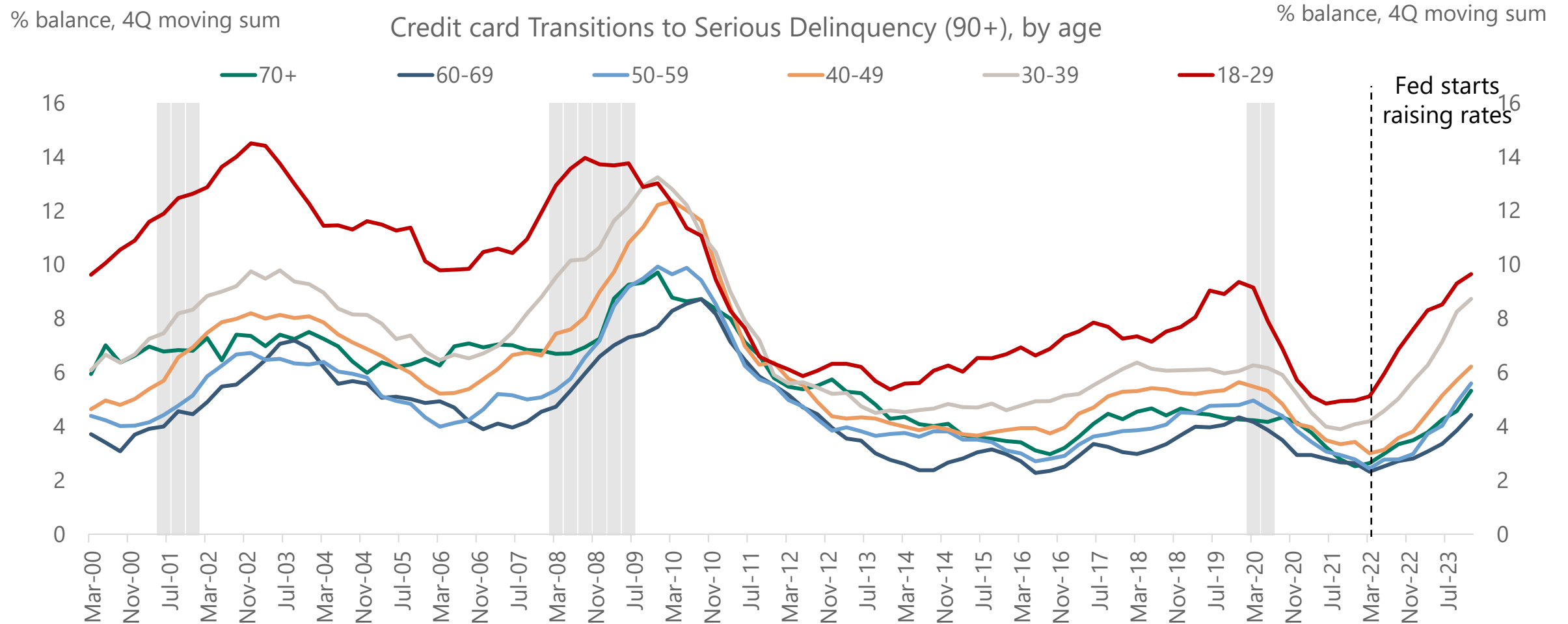


Source: Moody's Analytics, Apollo Chief Economist

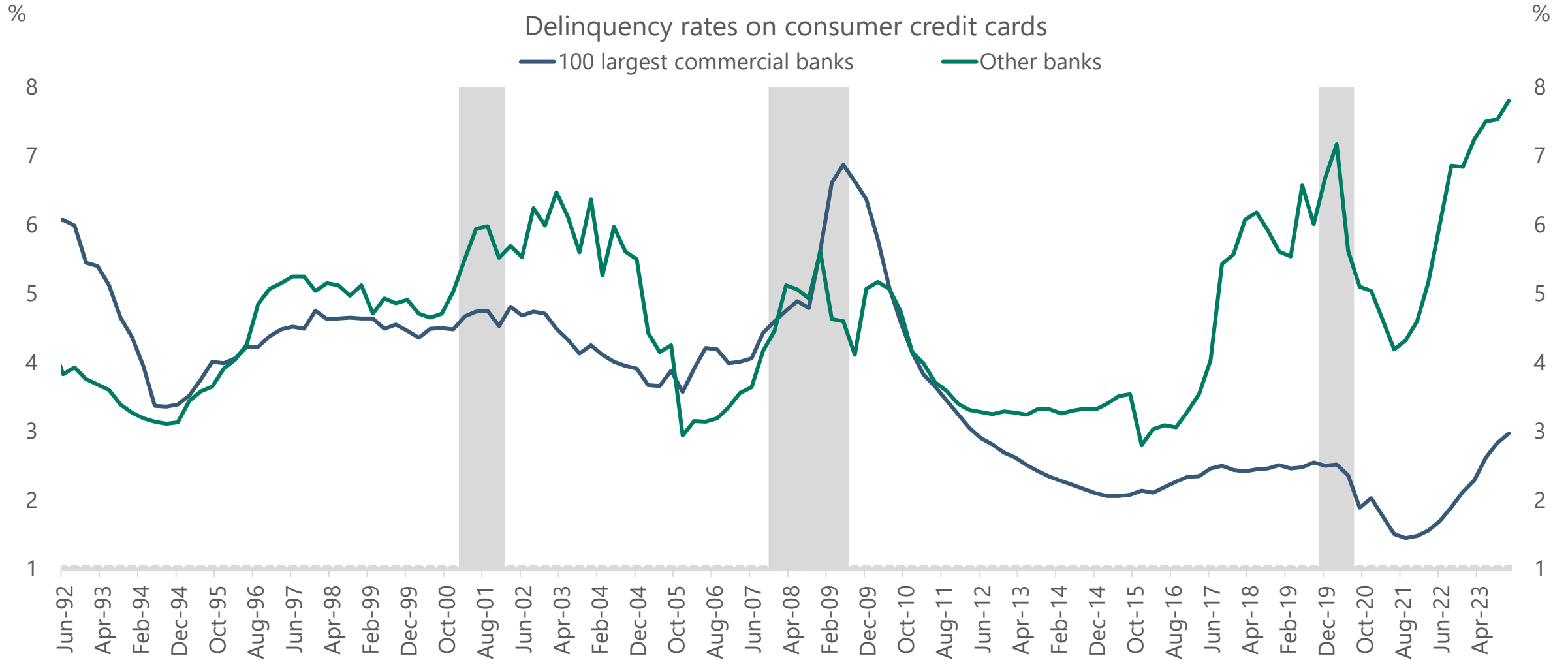
5) Consumer Fundamentals



Credit card delinquency rates rising



Credit card delinquency rates at small banks are higher than at large banks

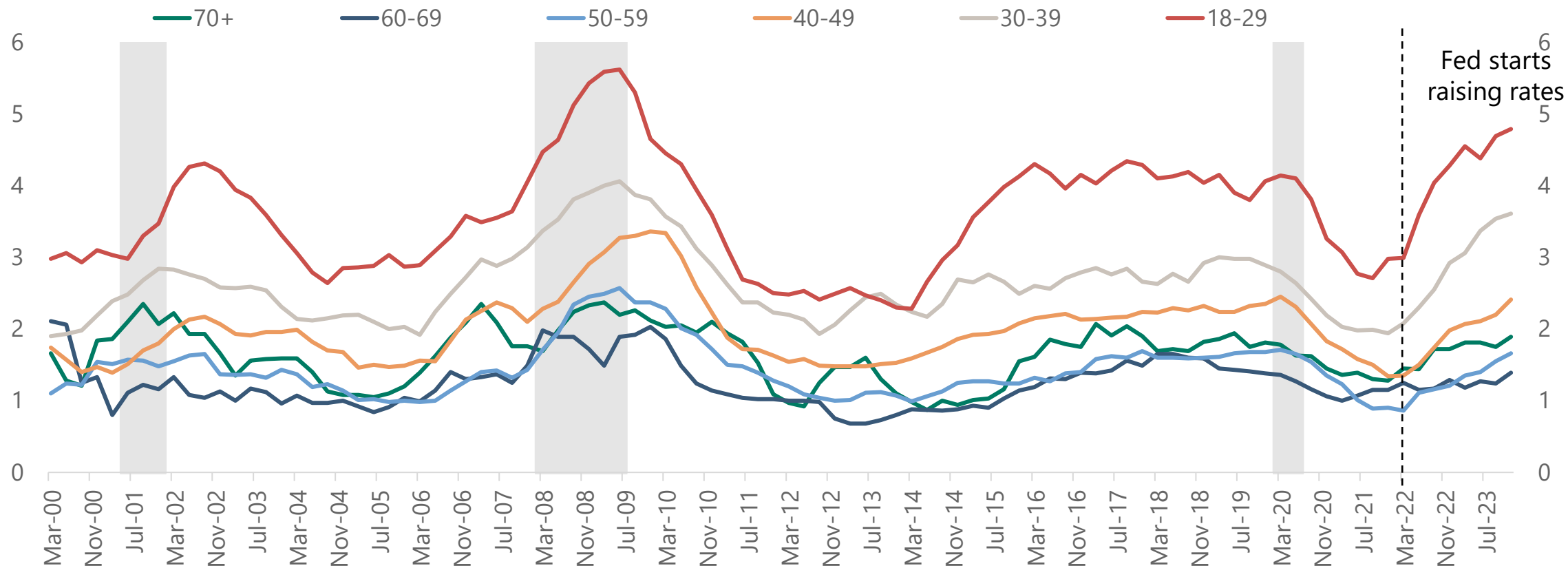


Auto loan delinquency rates rising

% balance, 4Q moving sum

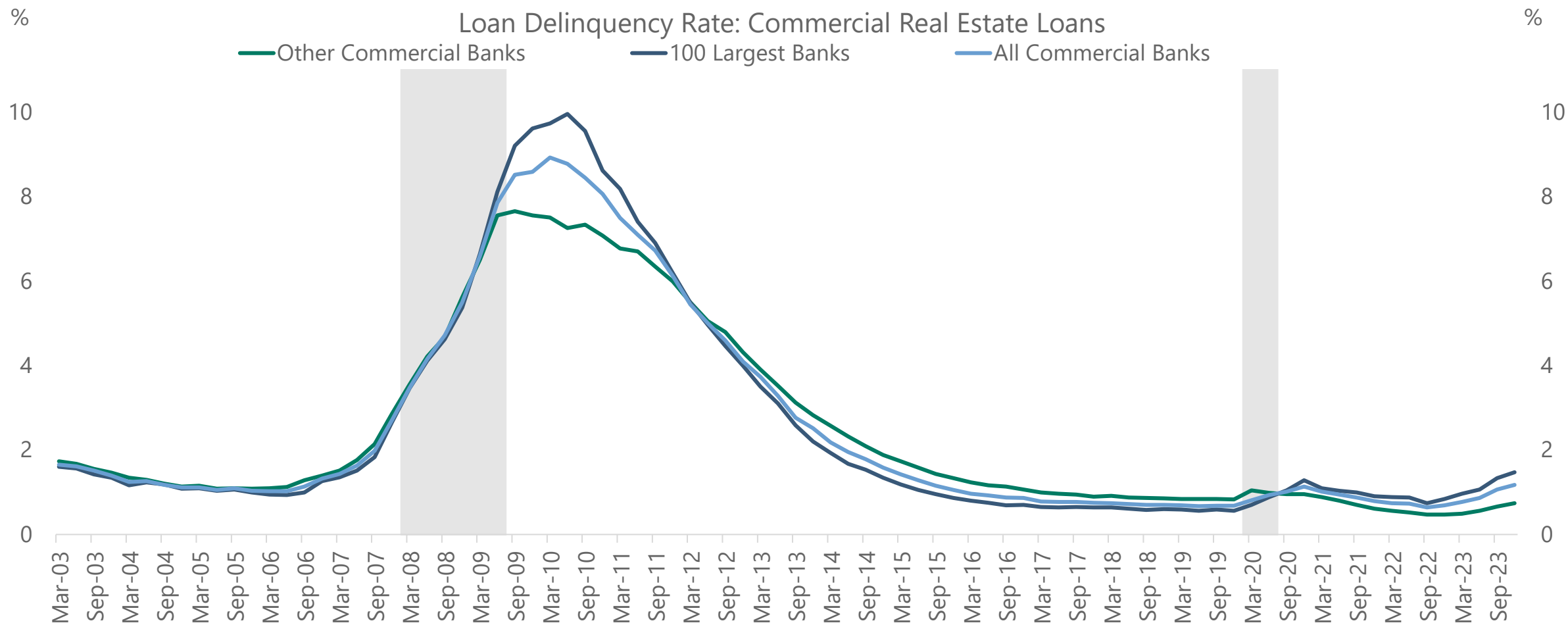
Auto Loan Transitions to Serious Delinquency (90+), by age

% balance, 4Q moving sum

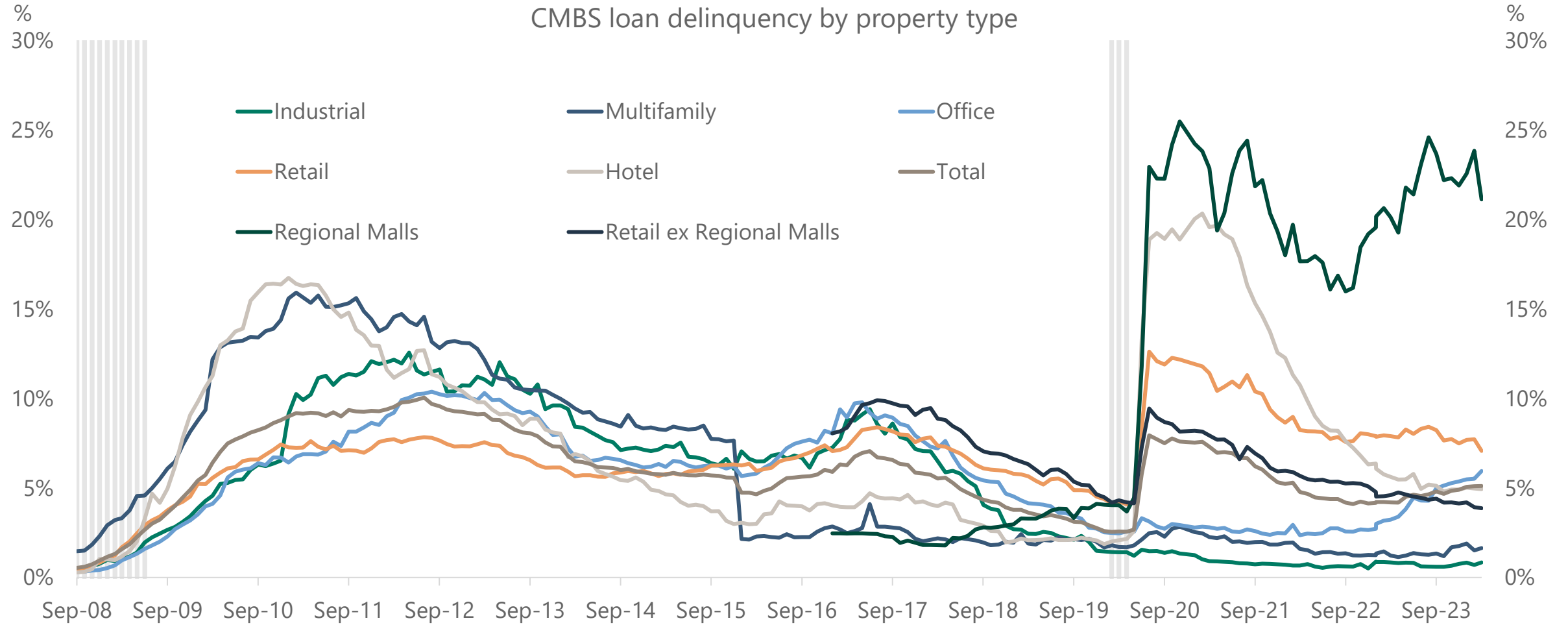


Source: FRBNY Consumer Credit Panel, Equifax, Haver Analytics, Apollo Chief Economist

CRE delinquency rate



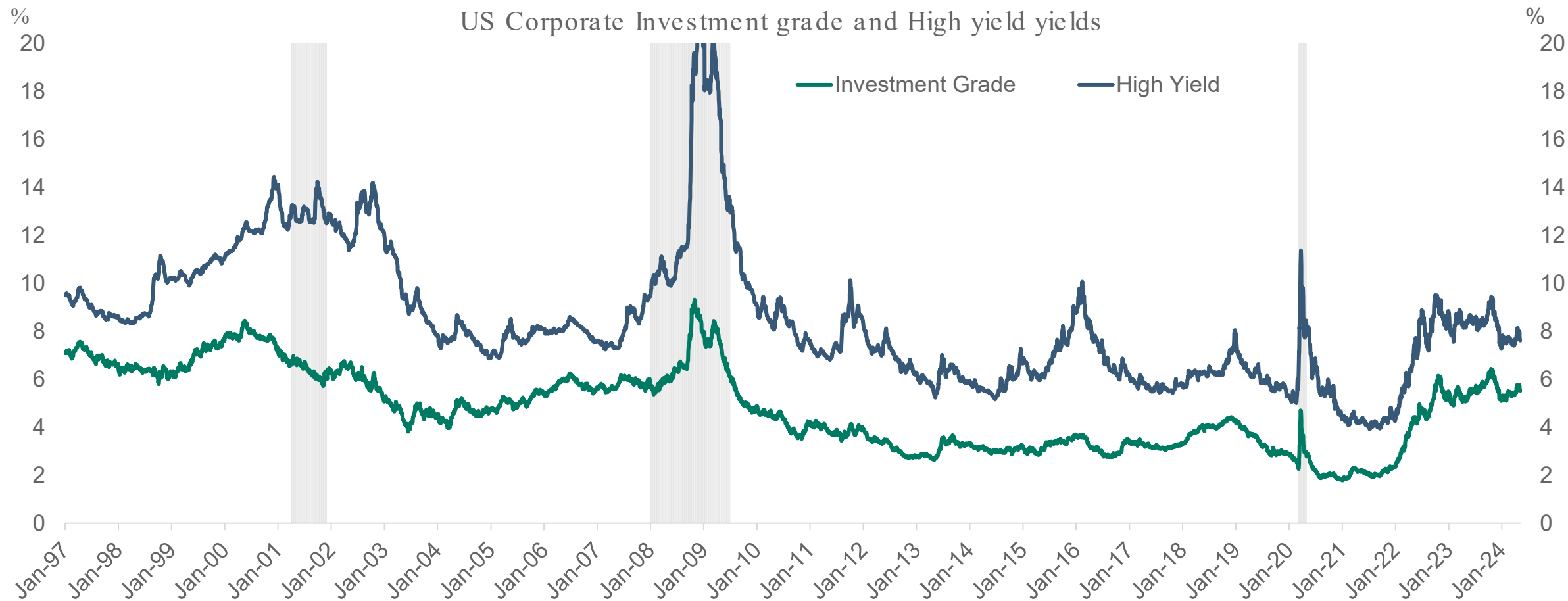
Delinquency rates rising for multifamily



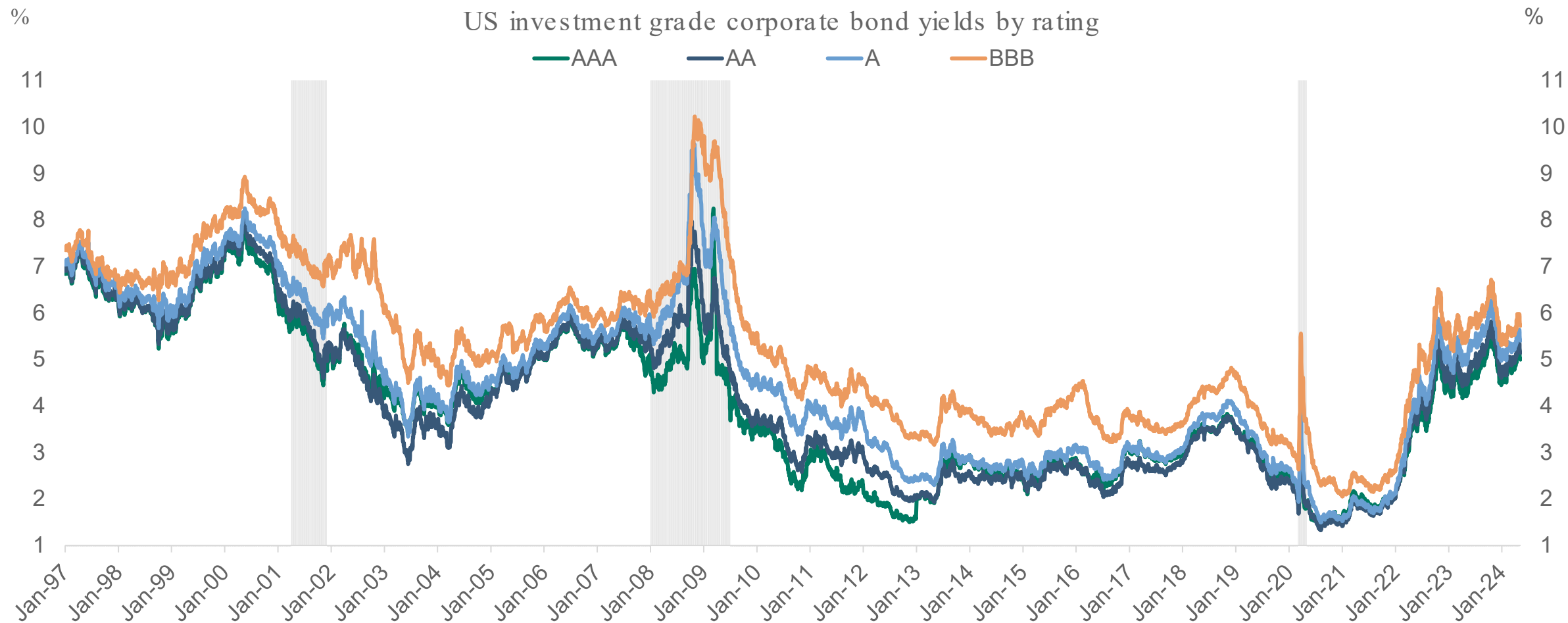
Yield levels



US IG yield around 5.5% and HY yield around 7.6%



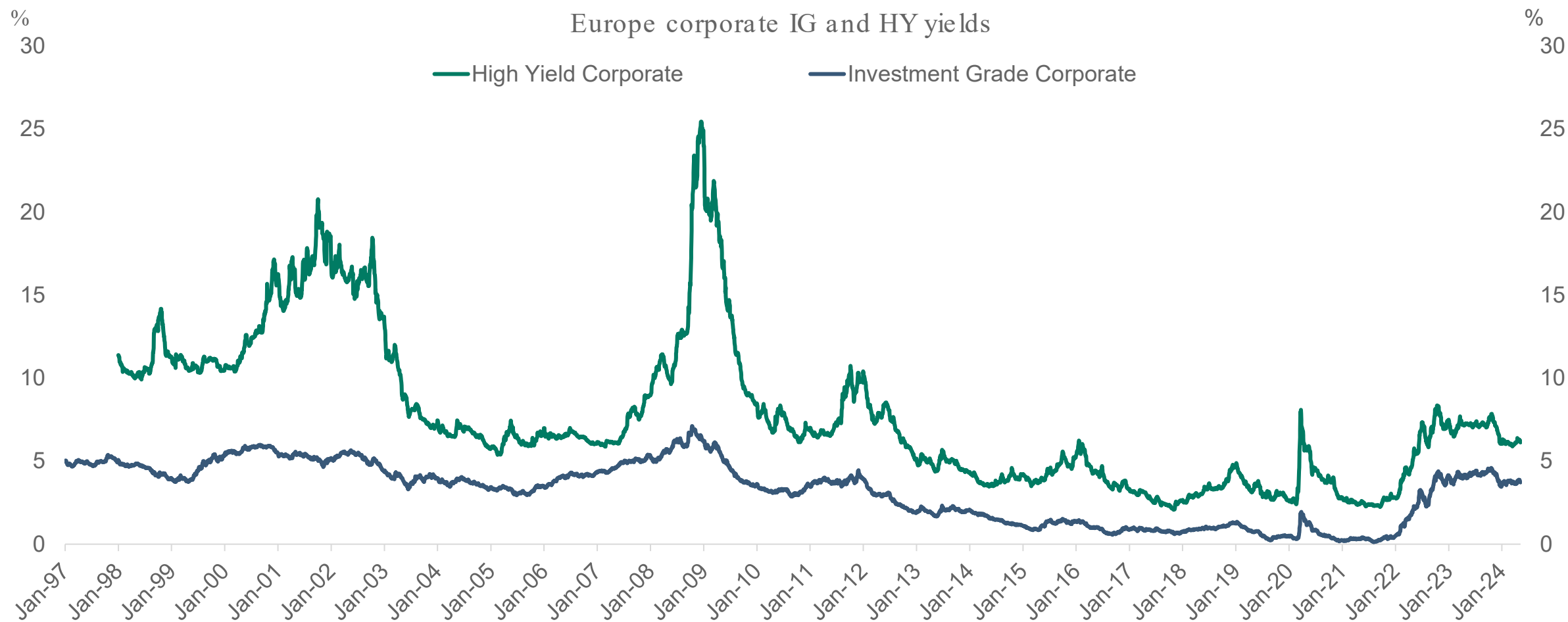
US IG yield levels, by rating



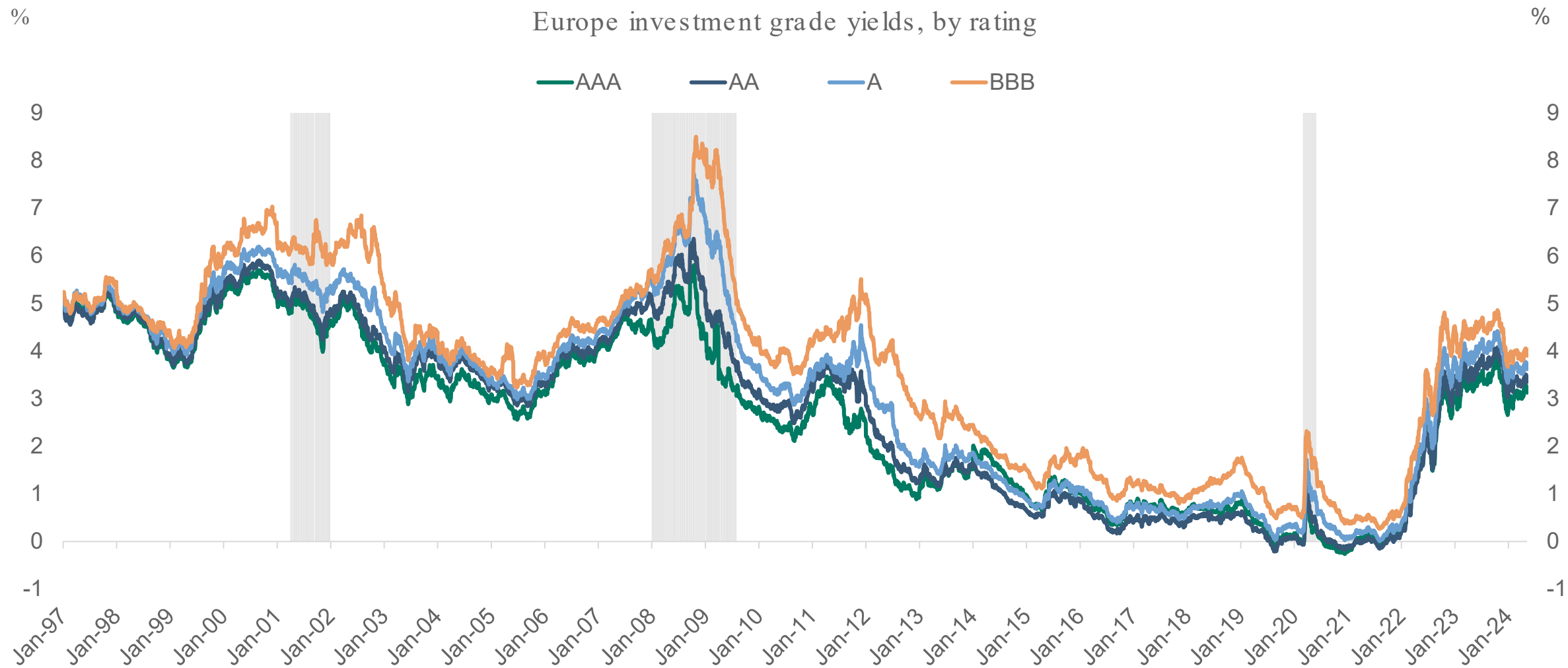
US HY yield levels, by rating



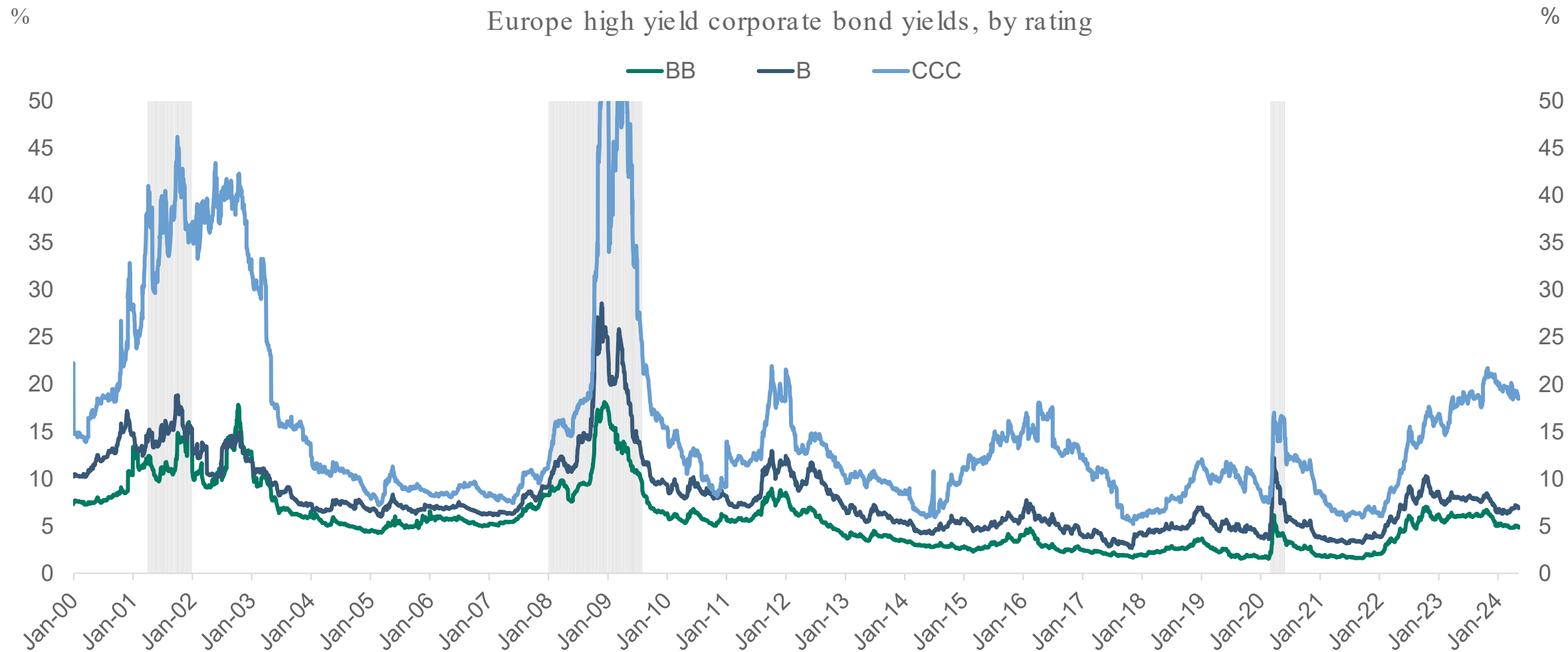
European corporate IG and HY yields



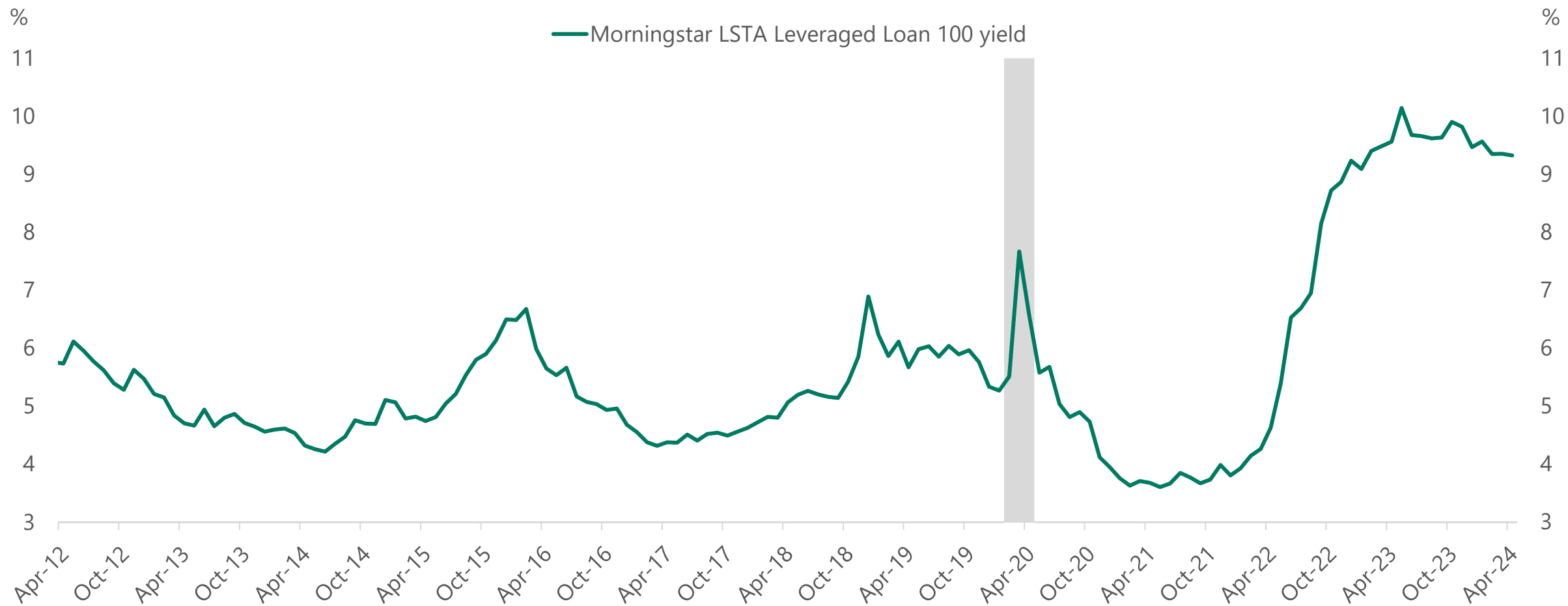
European IG yield levels, by rating



European HY yield levels, by rating



Yield for the leveraged loan index: 9.3%



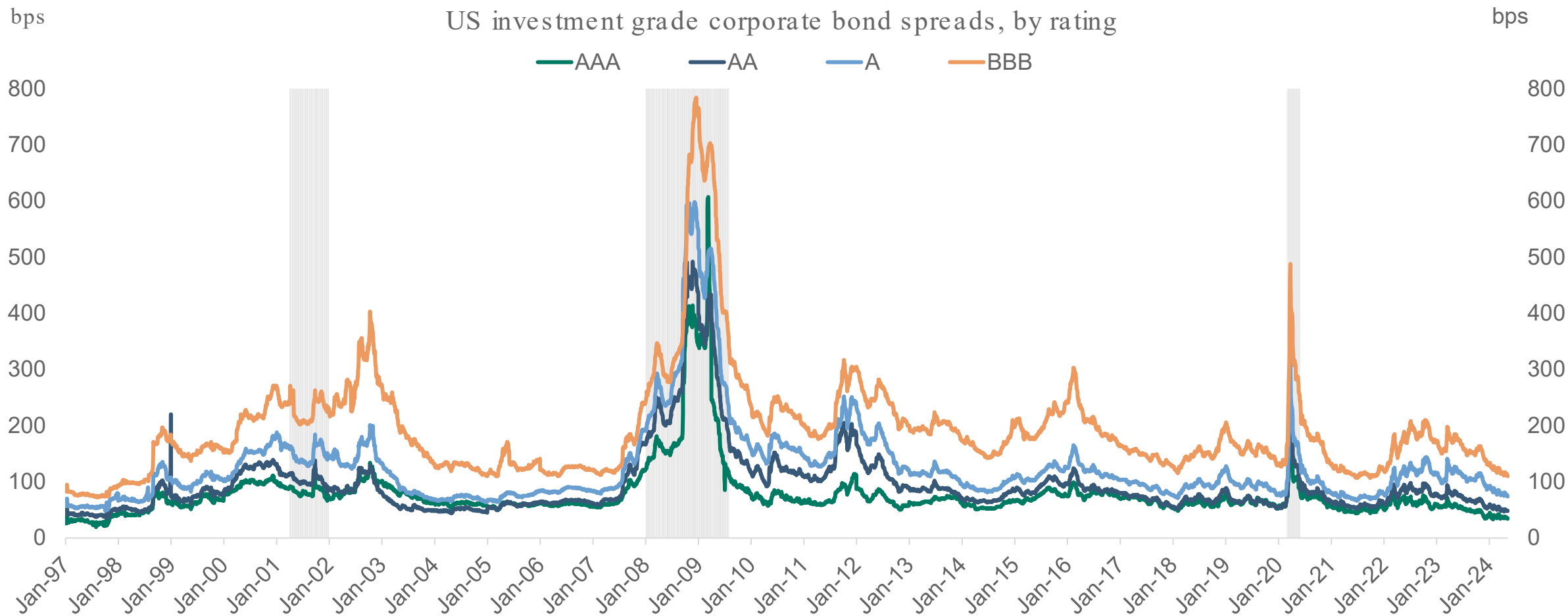
Spread levels



Credit spreads continue to tighten



IG spreads by rating

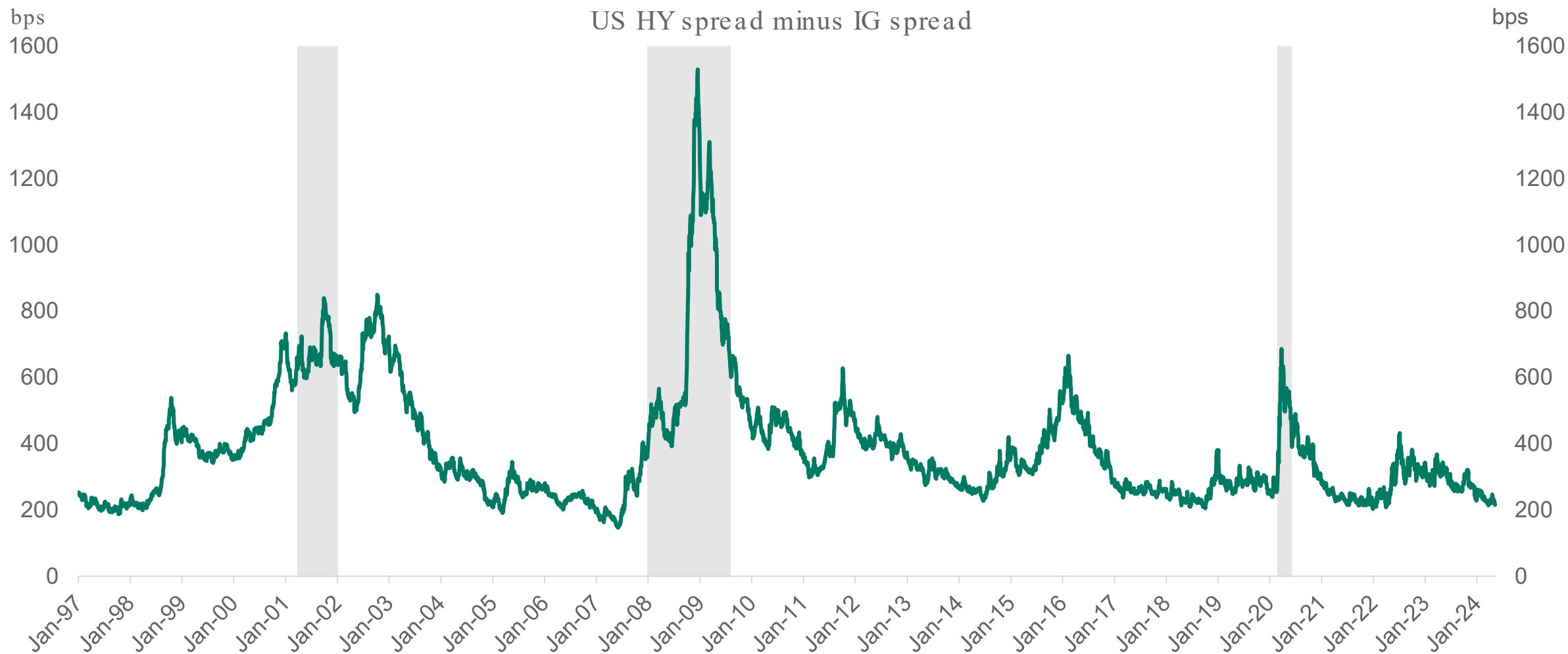


Source: ICE BofA, Bloomberg, Apollo Chief Economist

HY spreads by rating

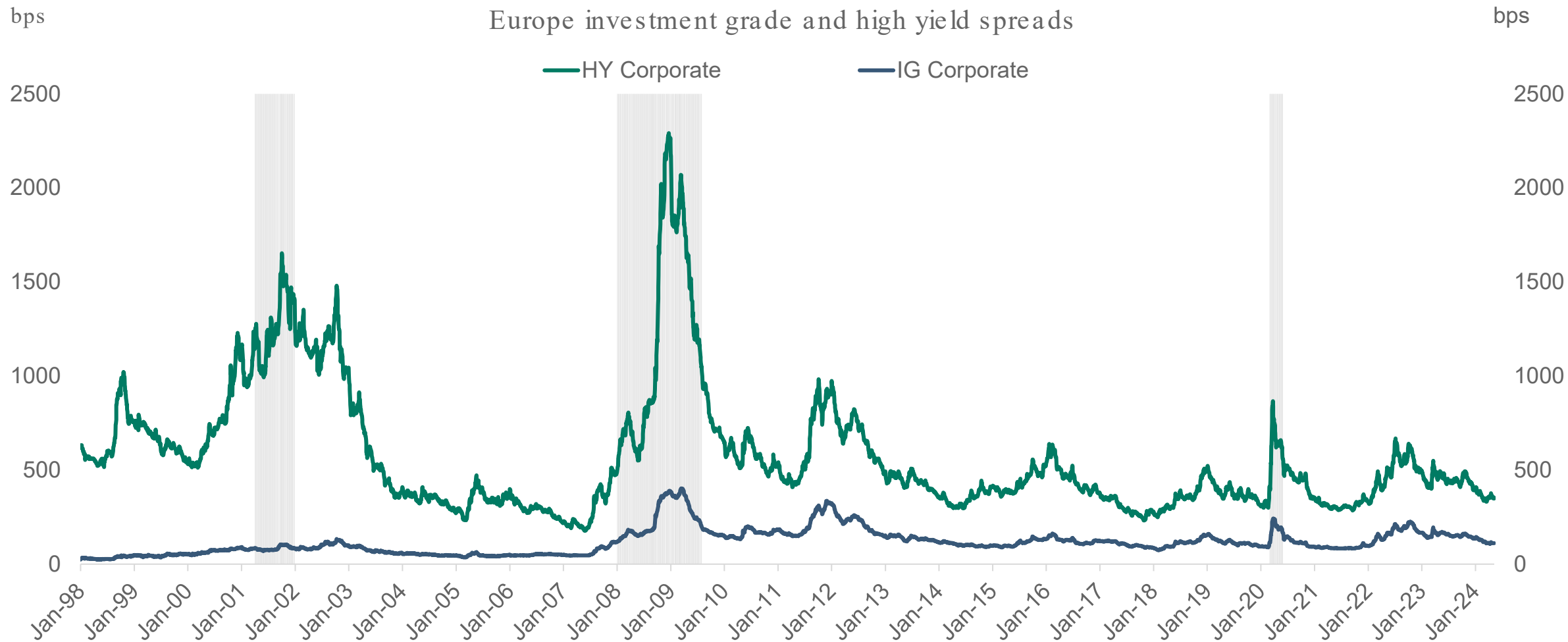


US HY spread minus IG spread



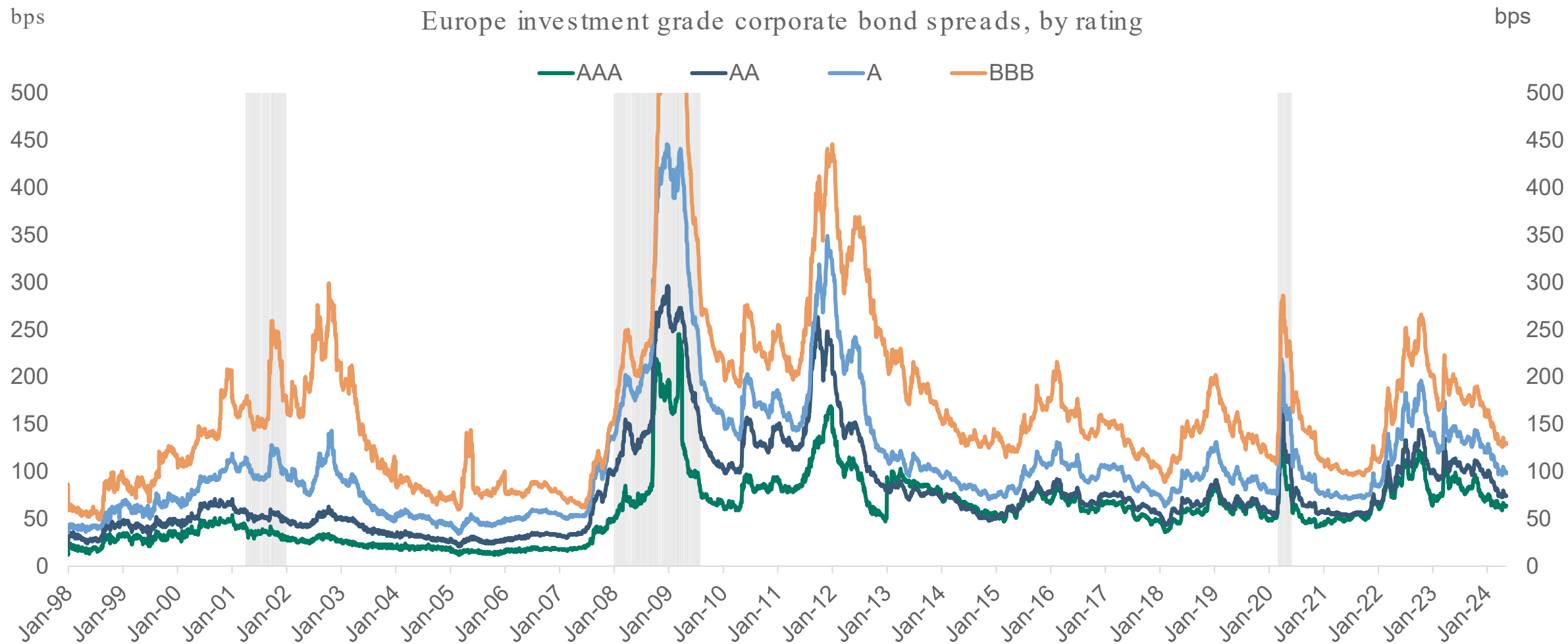
Source: ICE BofA, Bloomberg, Apollo Chief Economist. Note: Bloomberg Index used COA0 Index and H0A0 Index

European IG and HY spreads



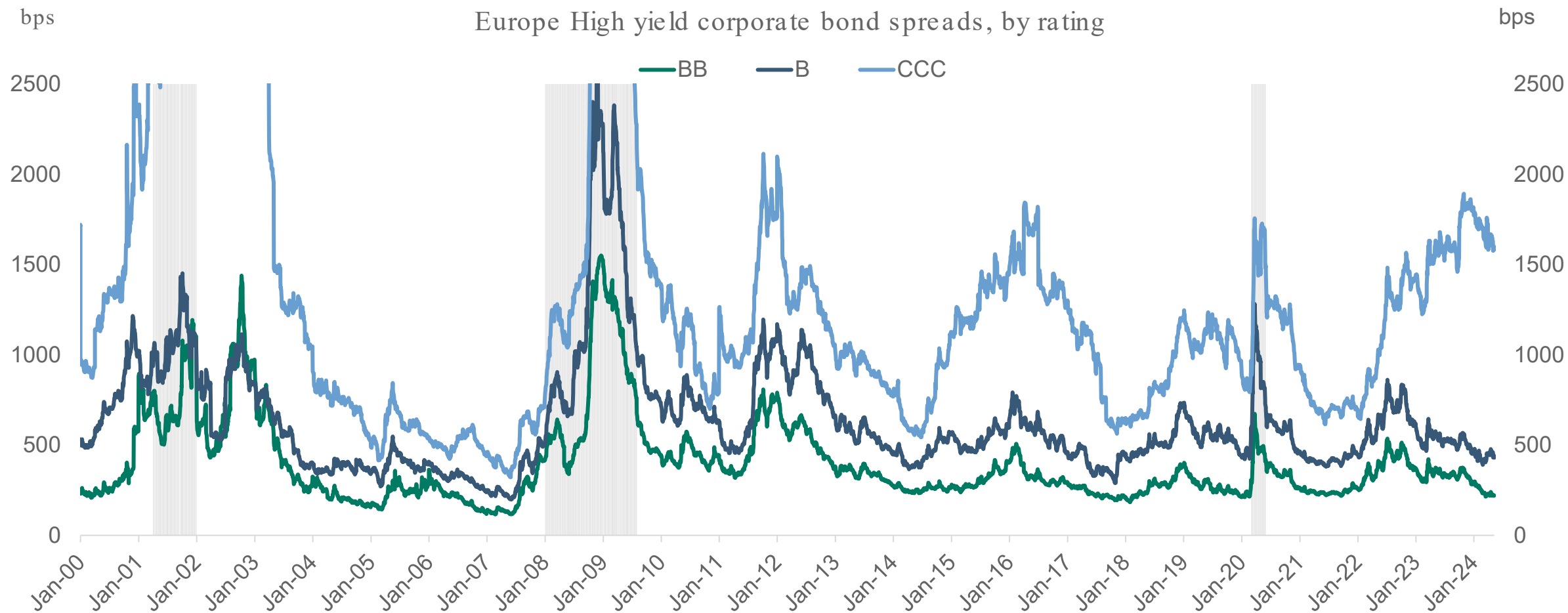
Source: ICE BofA, Bloomberg, Apollo Chief Economist. Note: Ticker used HE00 Index and ER00 Index.

European IG spreads by rating



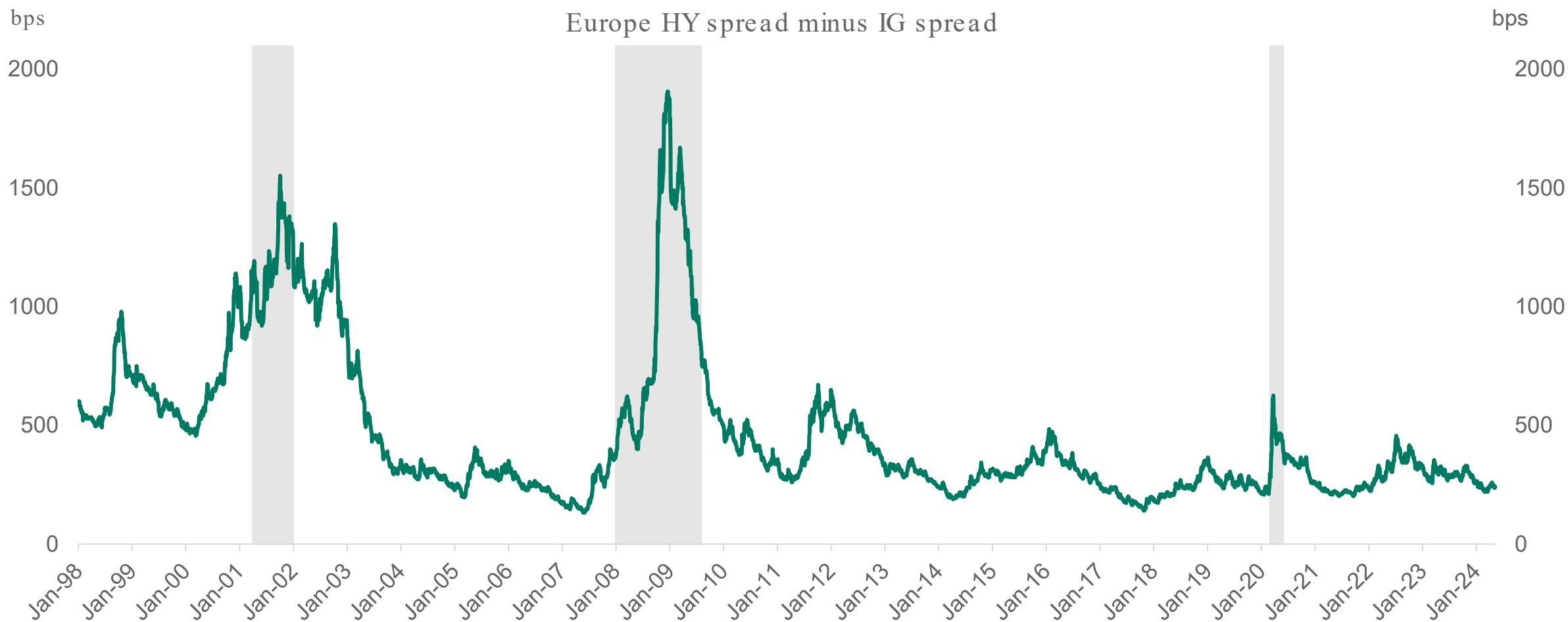
Source: ICE BofA, Bloomberg, Apollo Chief Economist.

European HY spreads by rating



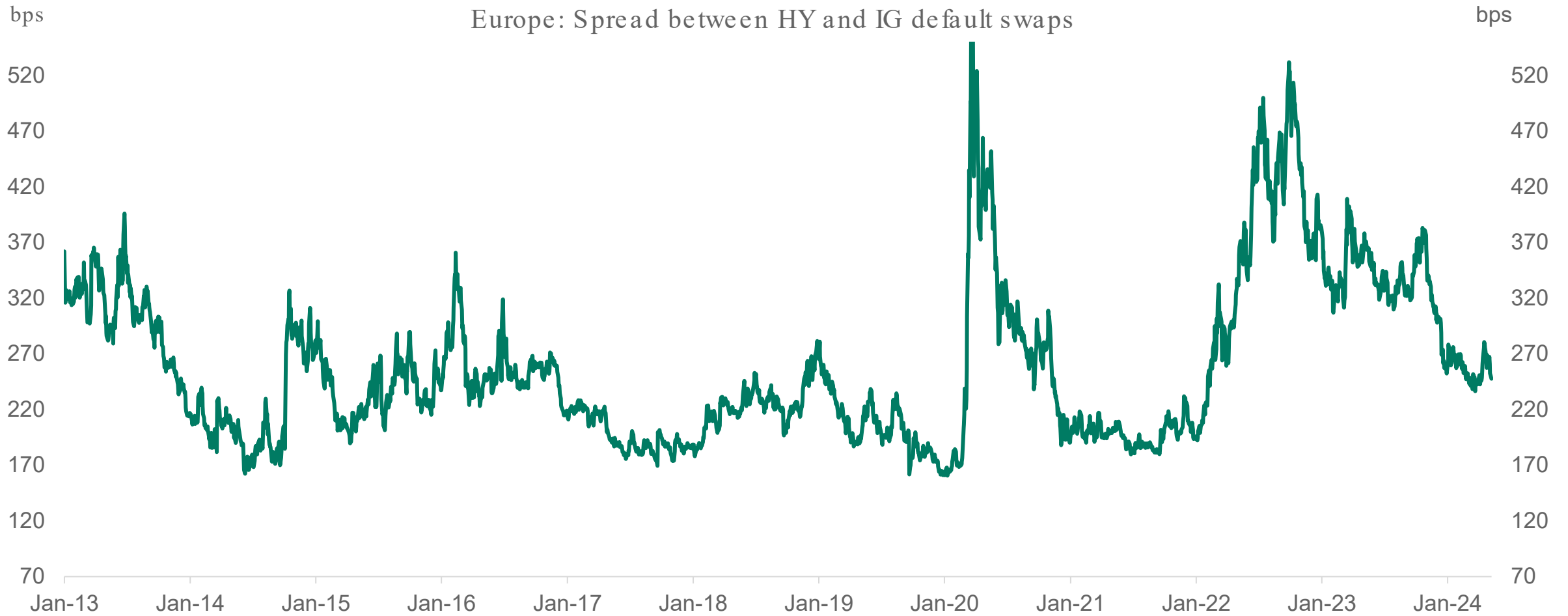
Source: ICE BofA, Bloomberg, Apollo Chief Economist.

European HY spread minus IG spread



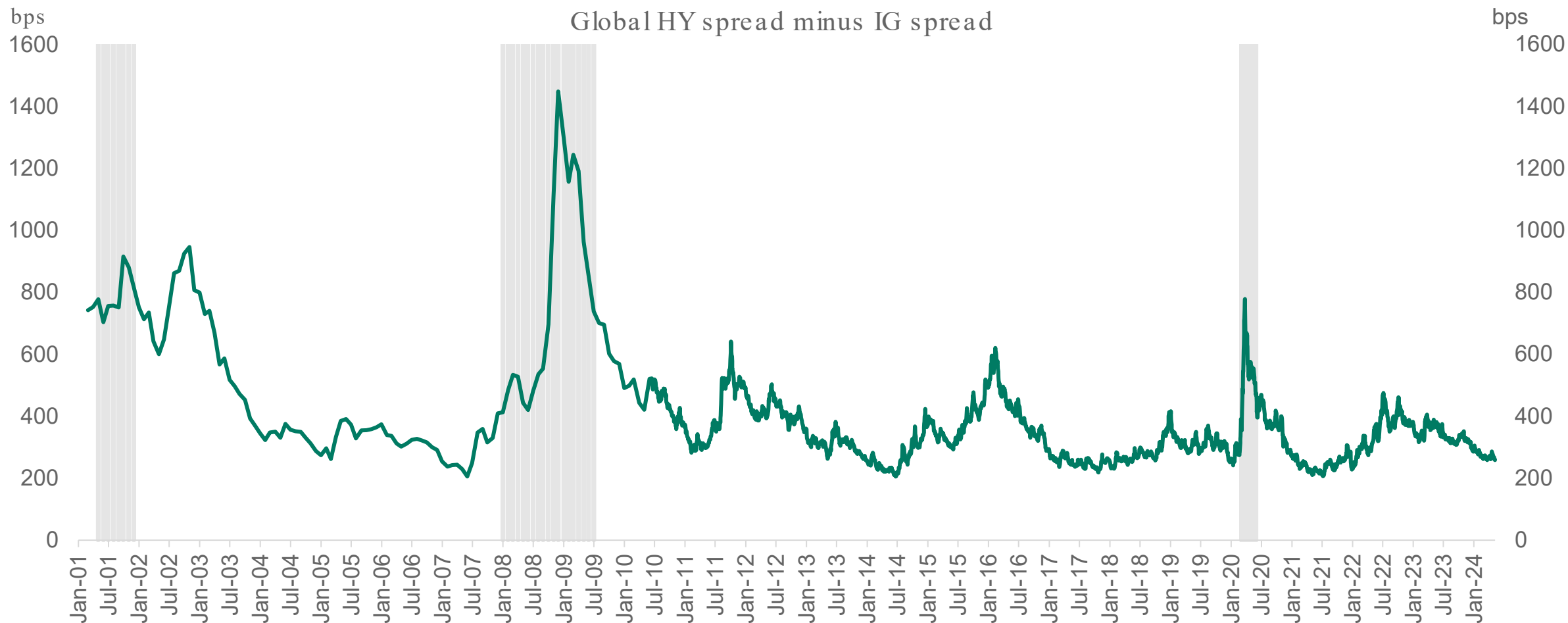
Source: ICE BofA, Bloomberg, Apollo Chief Economist. Note: Ticker used HE00 Index and ER00 Index.

Spread between Europe HY and IG default swaps



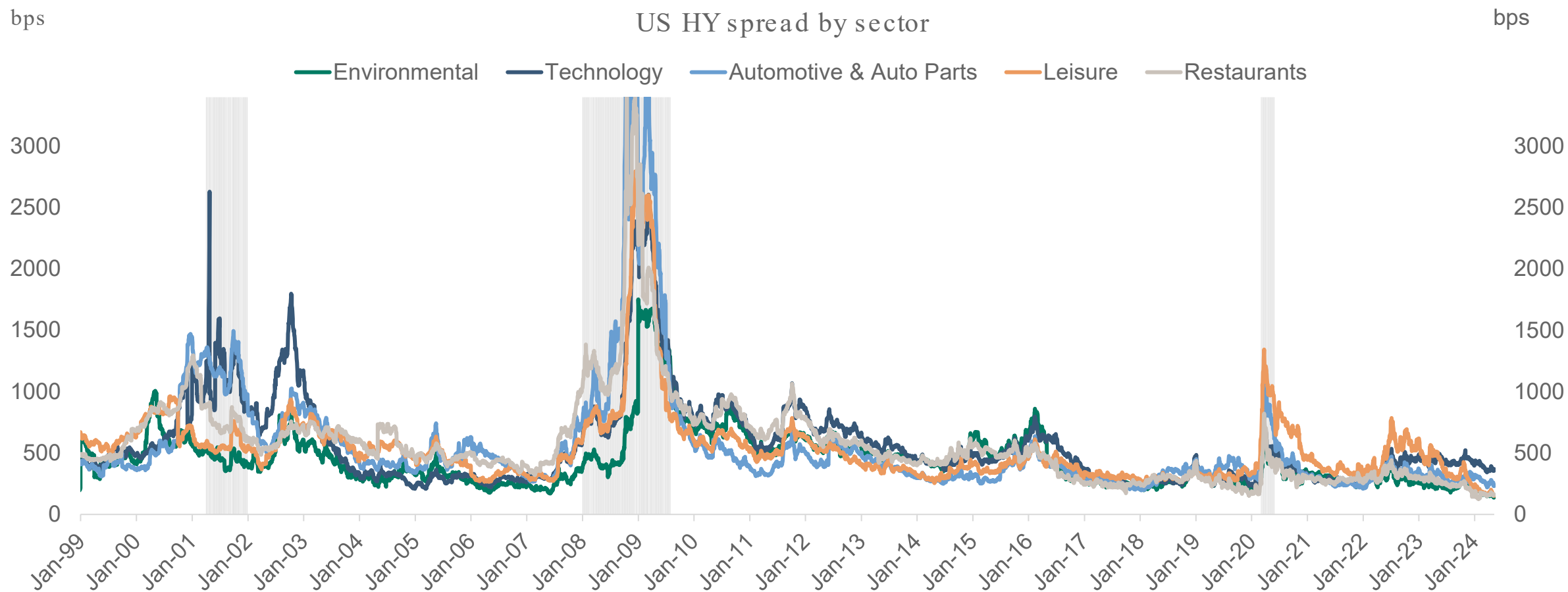
Source: Bloomberg, Apollo Chief Economist. Note: Tickers used ITRXEXE CBBT Curncy and ITRXEBE CBBT Curncy

Global HY spread minus global IG spread

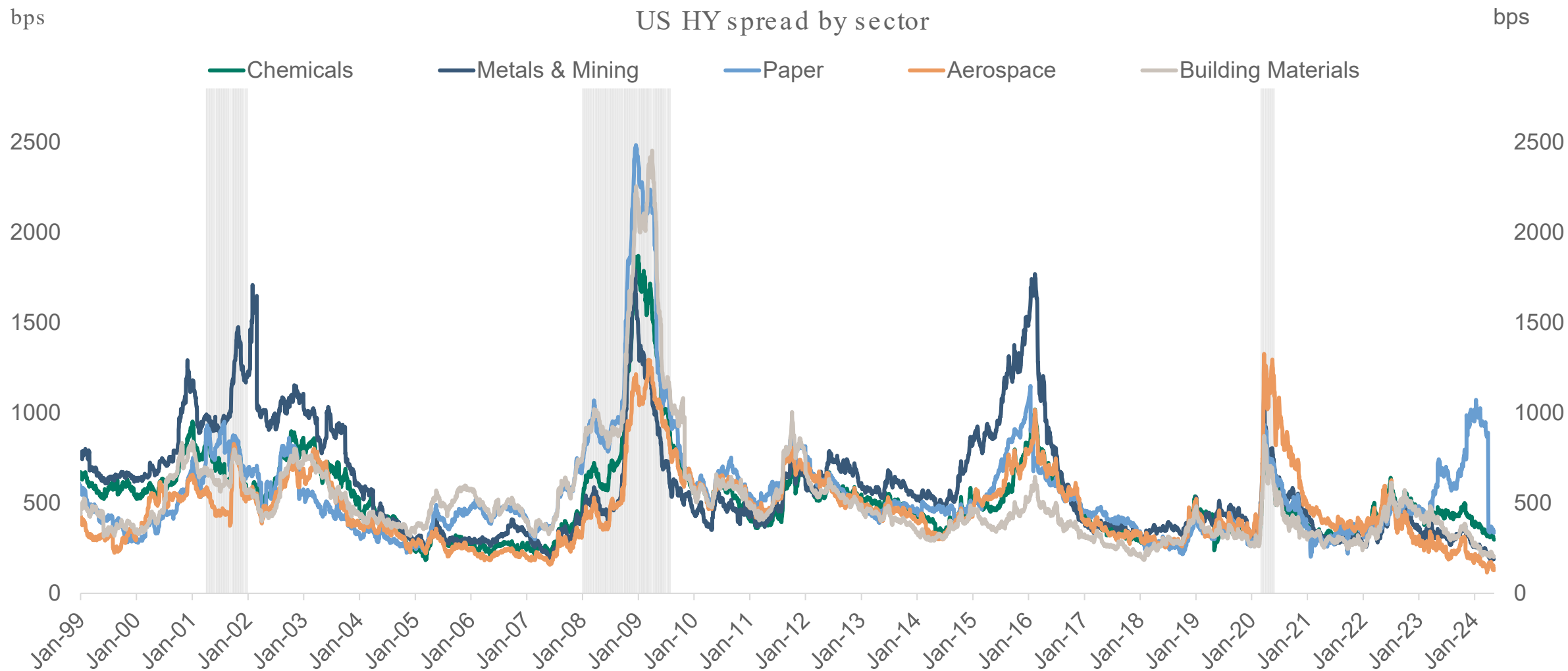


Source: Bloomberg, Apollo Chief Economist. Note: Bloomberg Index used BGLCTRUU index and LG50TRUU Index

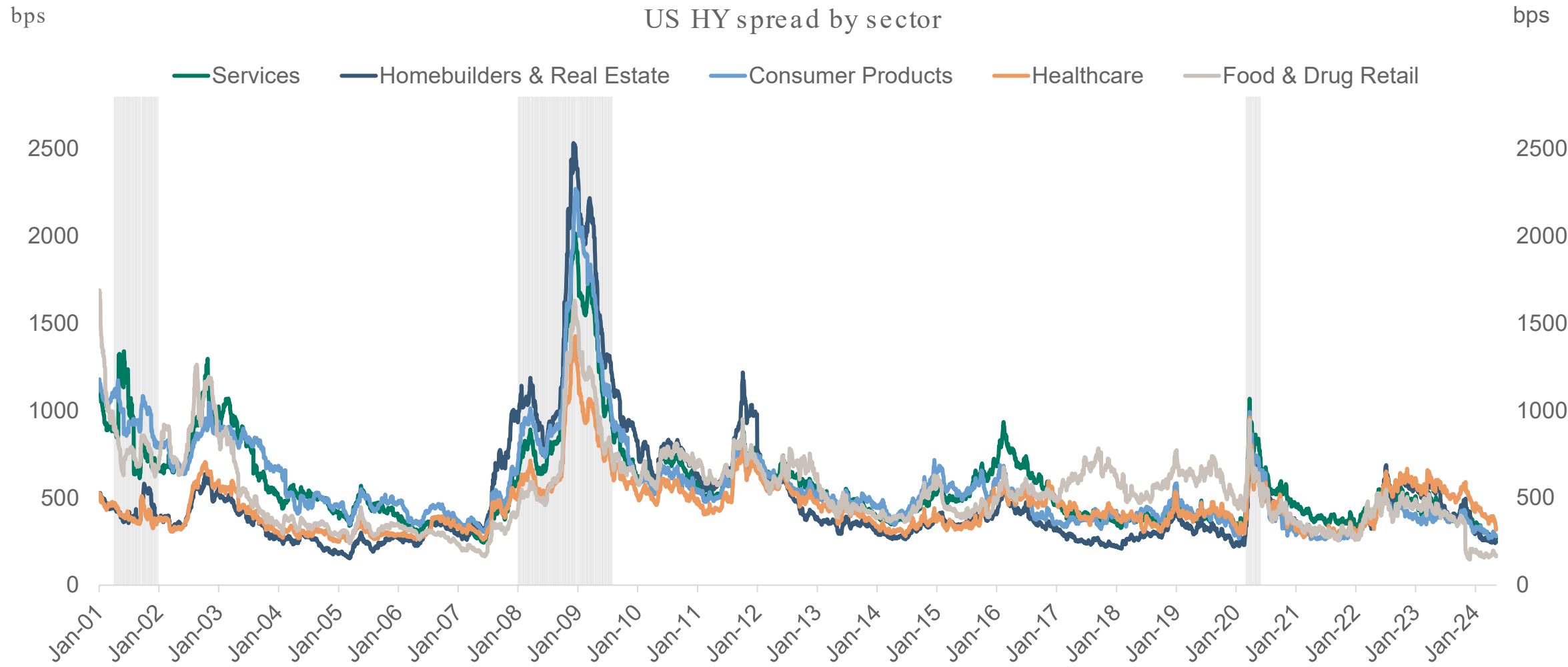
HY spreads by sector: Spread for tech remains wider



HY spreads by sector: Spread for paper has widened

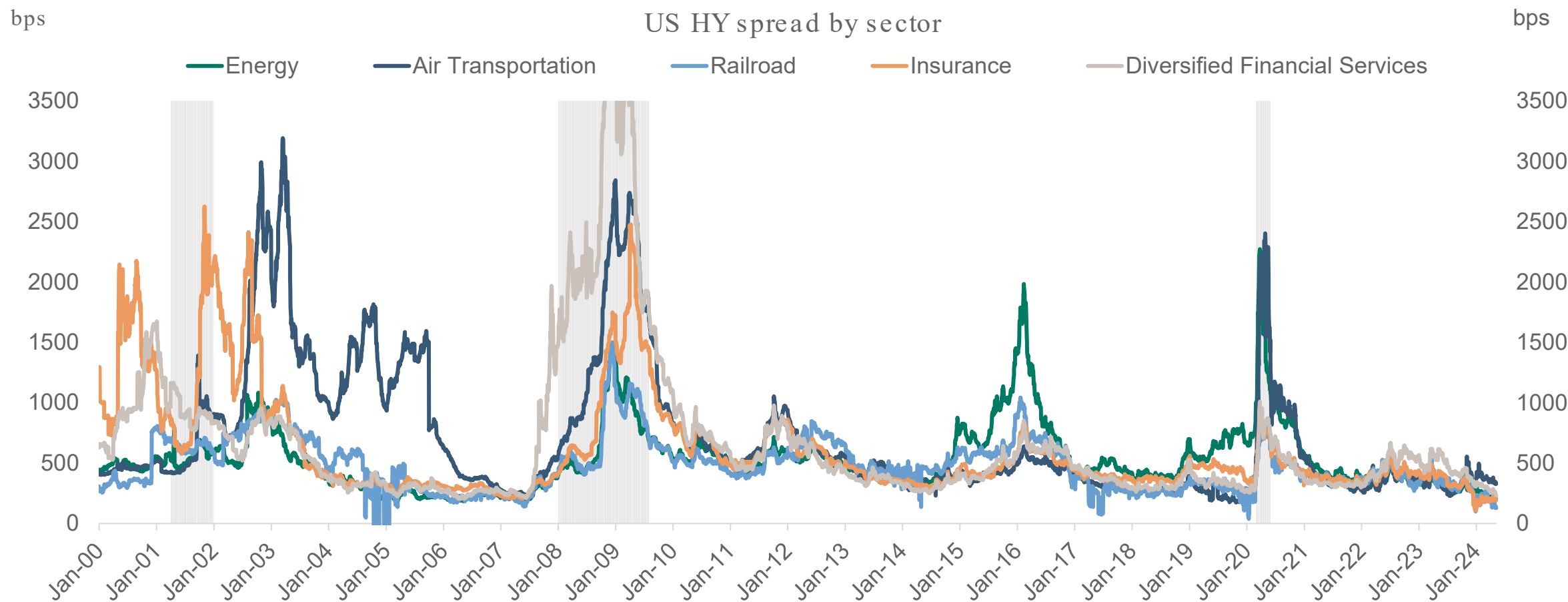


HY spreads by sector



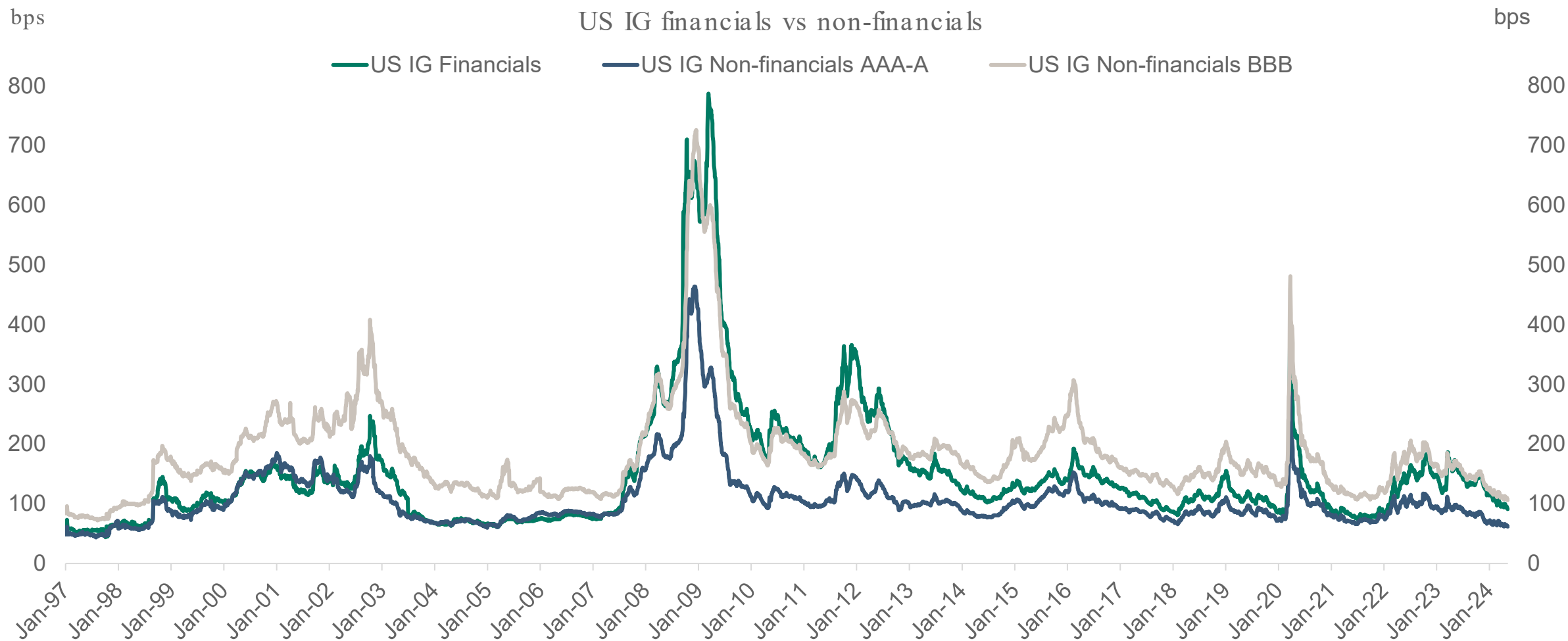
Source: ICE BofA, Bloomberg, Apollo Chief Economist

HY spreads by sector



Source: ICE BofA, Bloomberg, Apollo Chief Economist

IG spreads for financials and non-financials



Source: ICE BofA, Bloomberg, Apollo Chief Economist

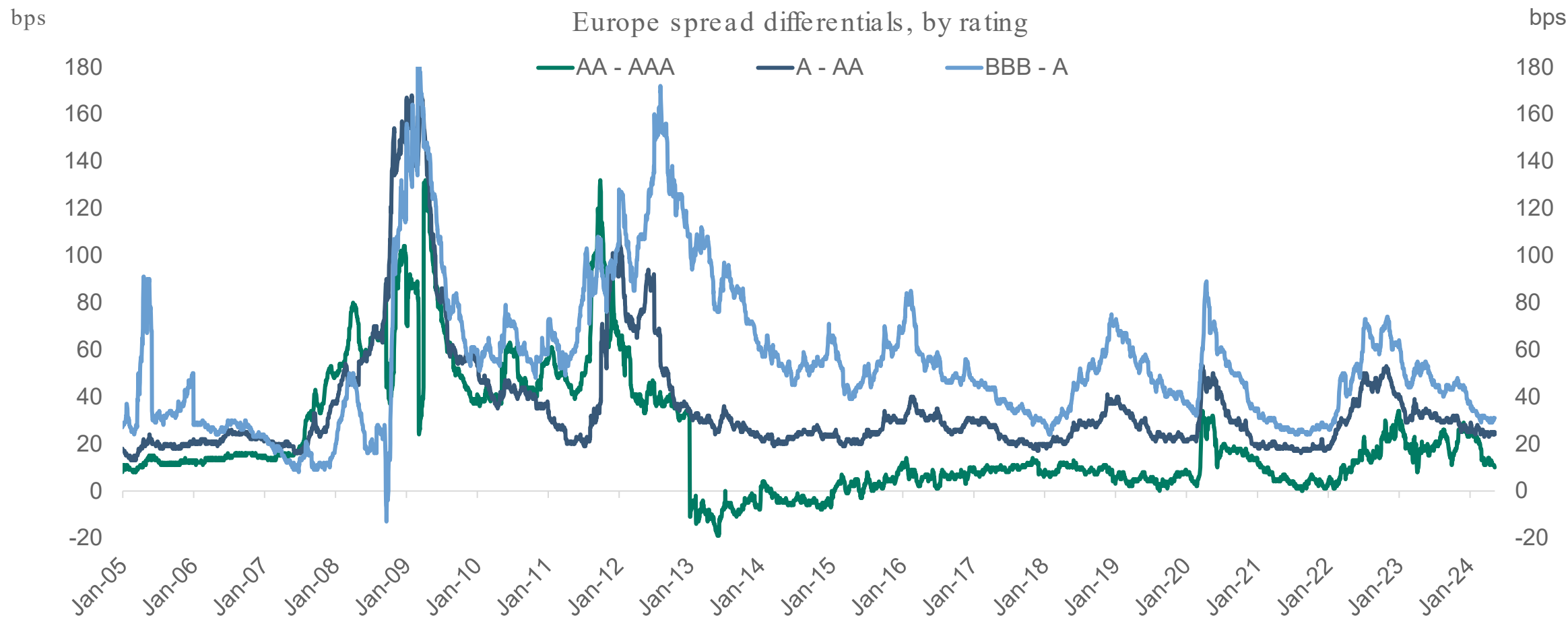
IG quality spreads, some differentiation between BBB and single-A



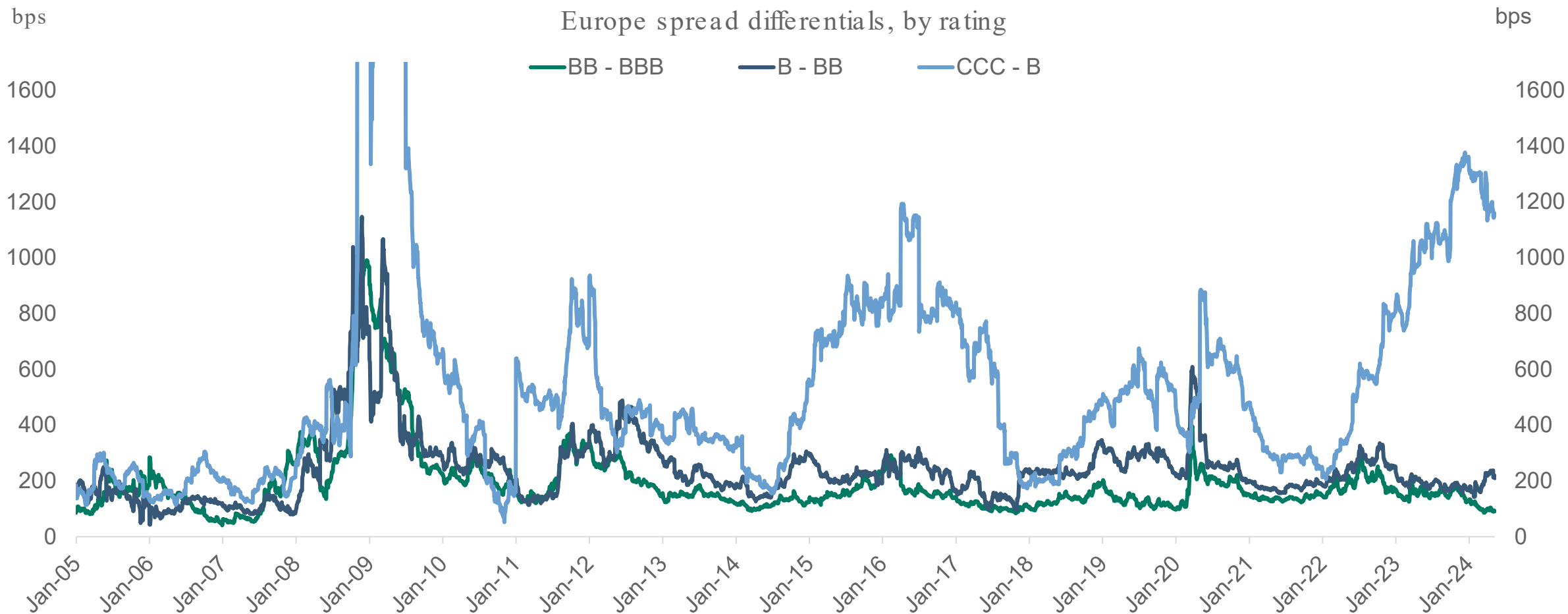
HY quality spreads, more differentiation between CCC and single-B



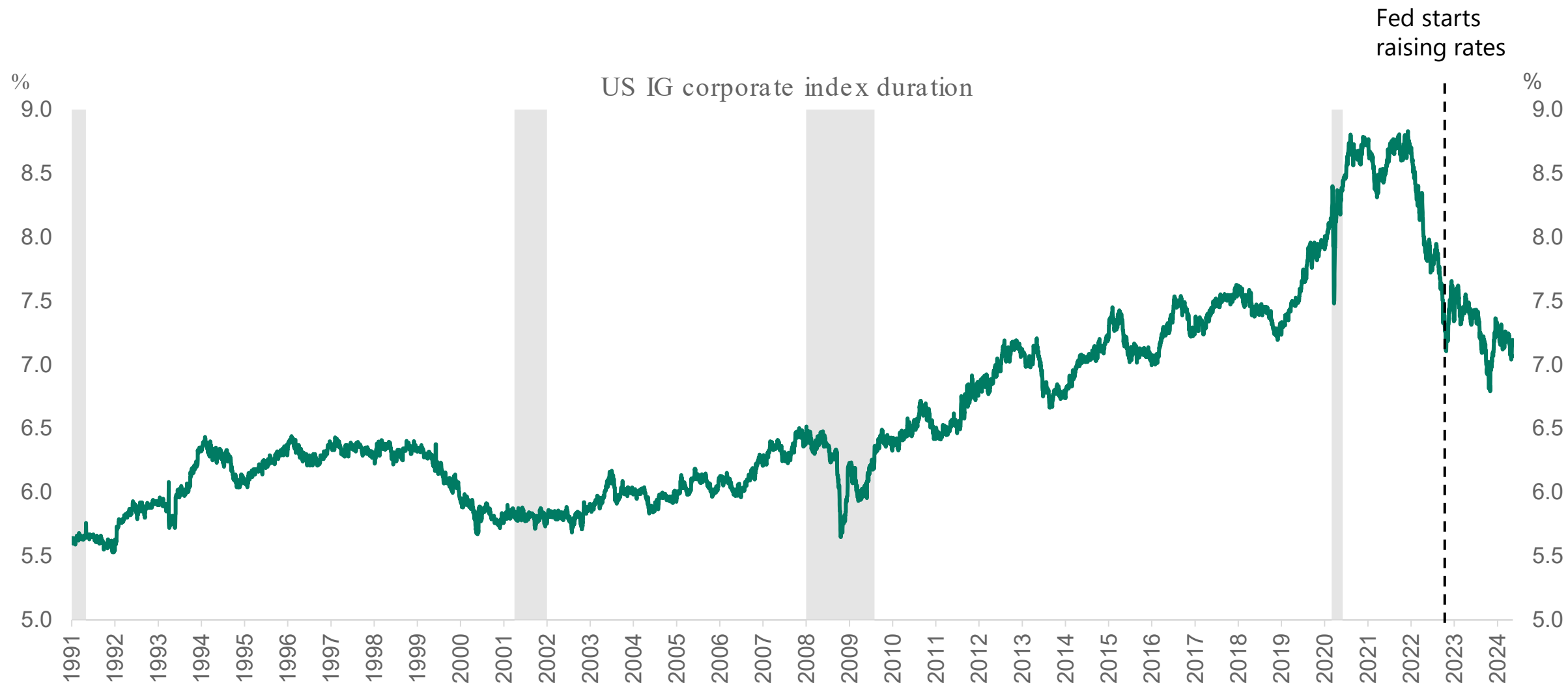
Europe IG quality spreads



Europe HY quality spreads, significant differentiation between CCC and single-B

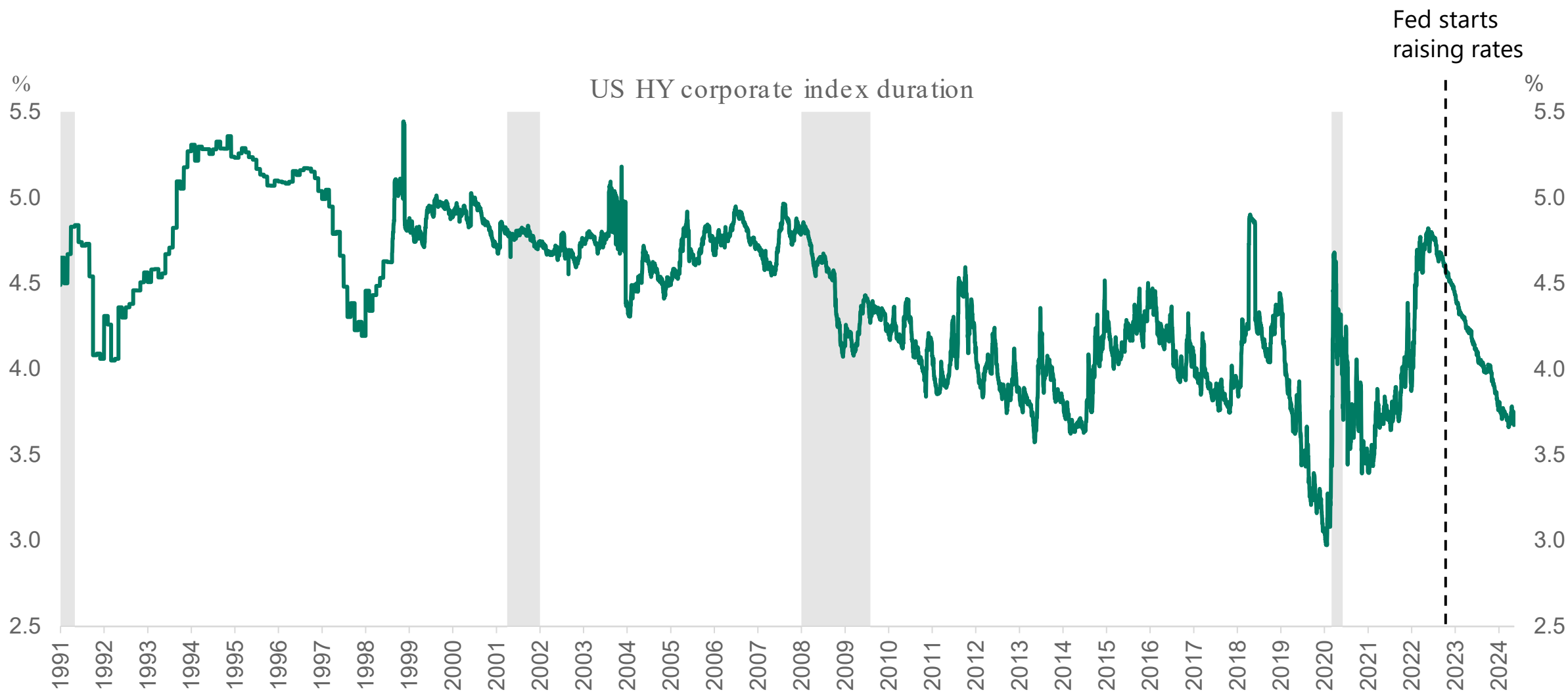


IG index duration



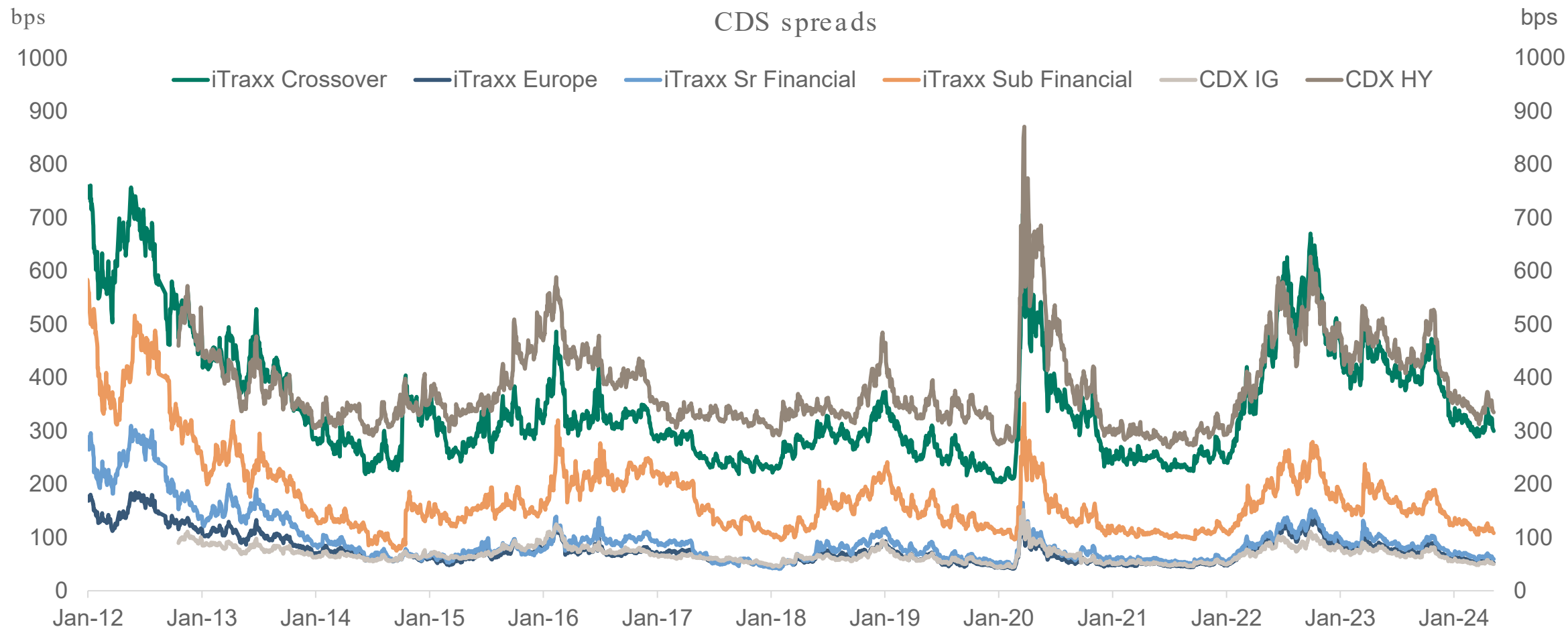
Source: Bloomberg, Apollo Chief Economist. Note: The measure used is modified duration, which measures the expected change in a bond's price to a 1% change in interest rates.

HY index duration continues to decline

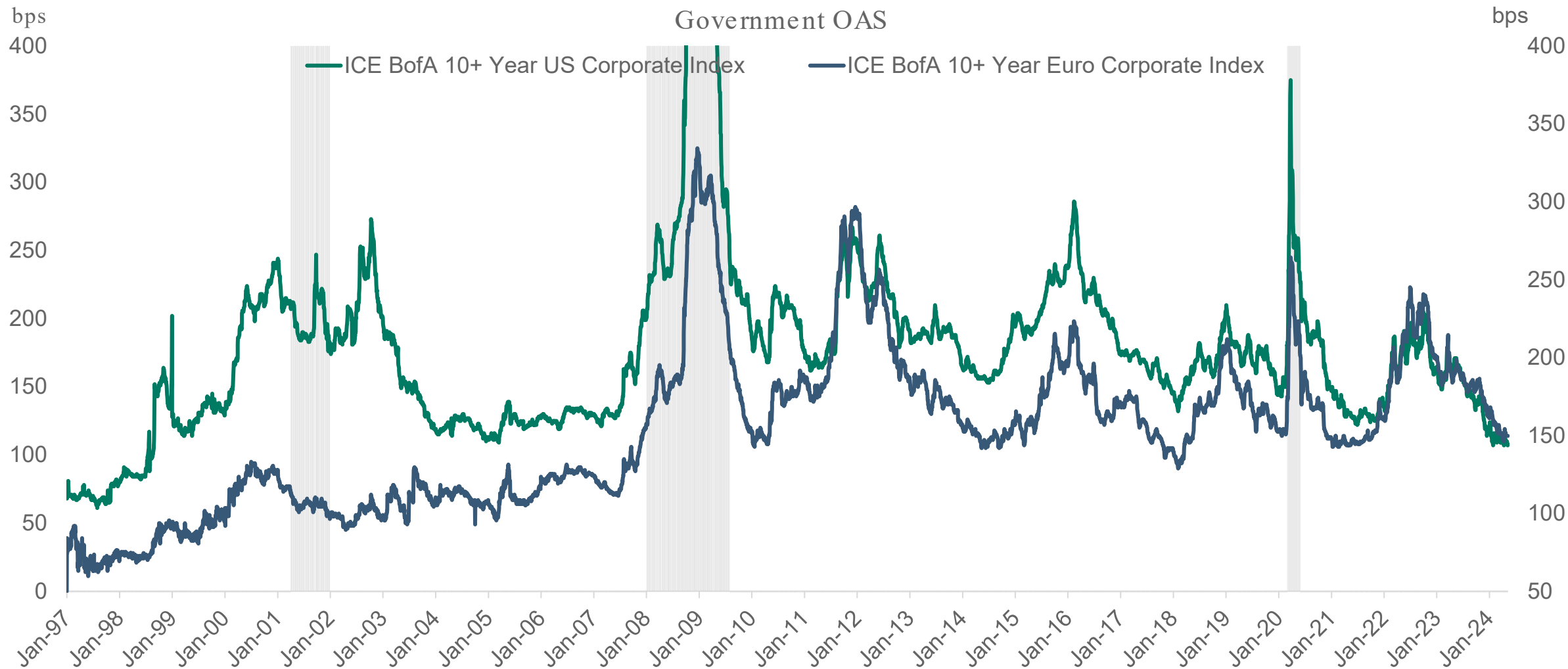


Source: Bloomberg, Apollo Chief Economist. Note: The measure used is modified duration, which measures the expected change in a bond's price to a 1% change in interest rates.

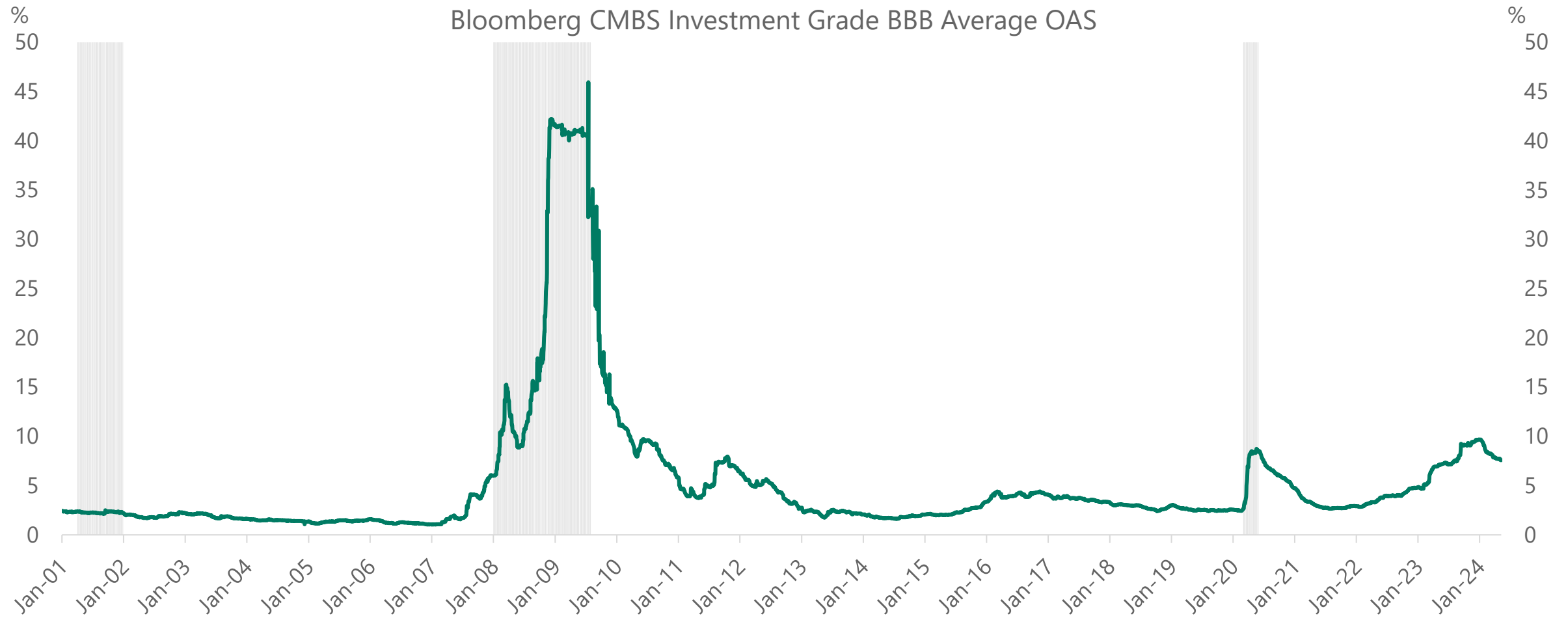
CDS spreads



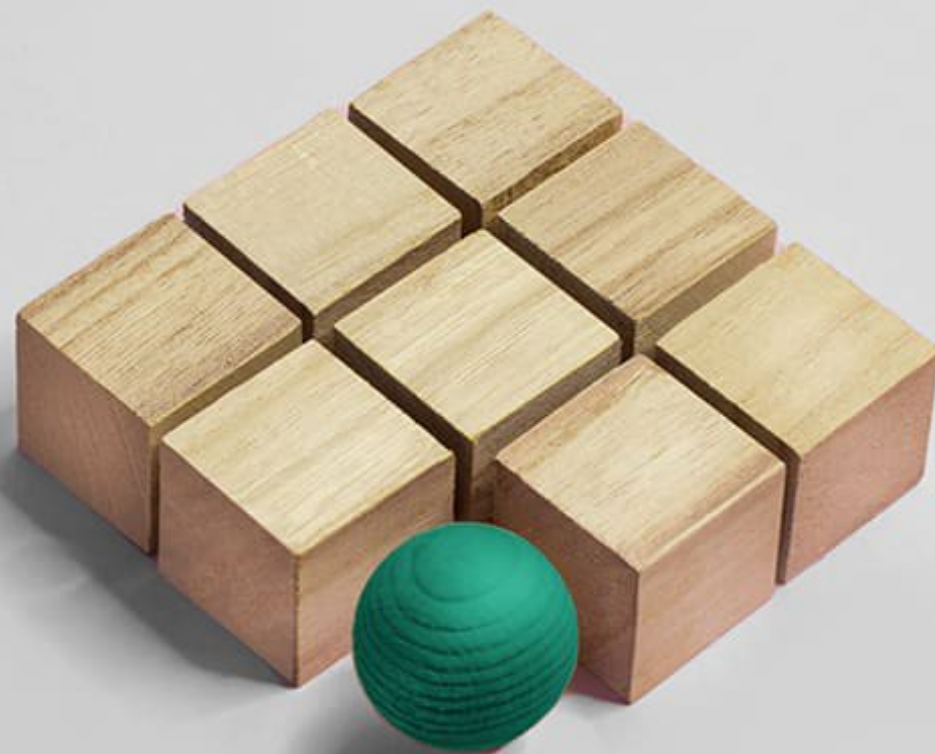
Long-duration IG spreads in US and Europe



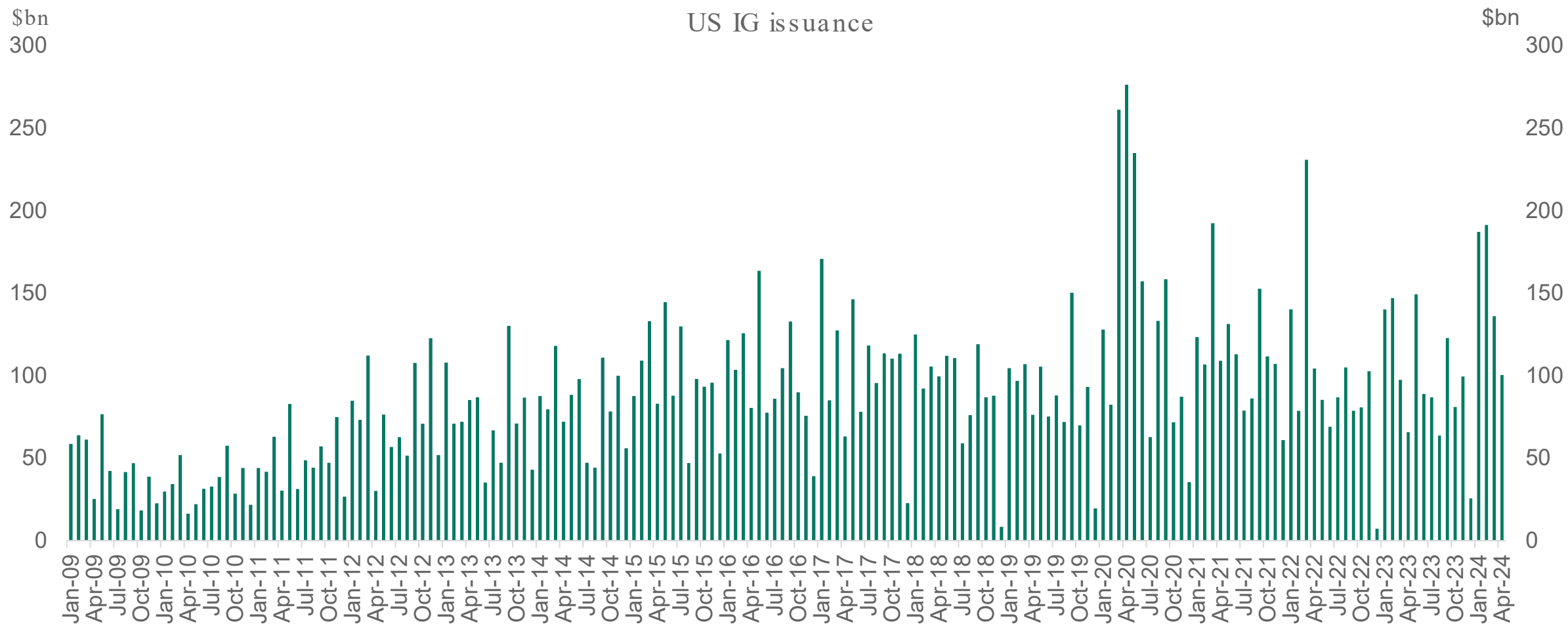
CMBS BBB spreads



New issuance

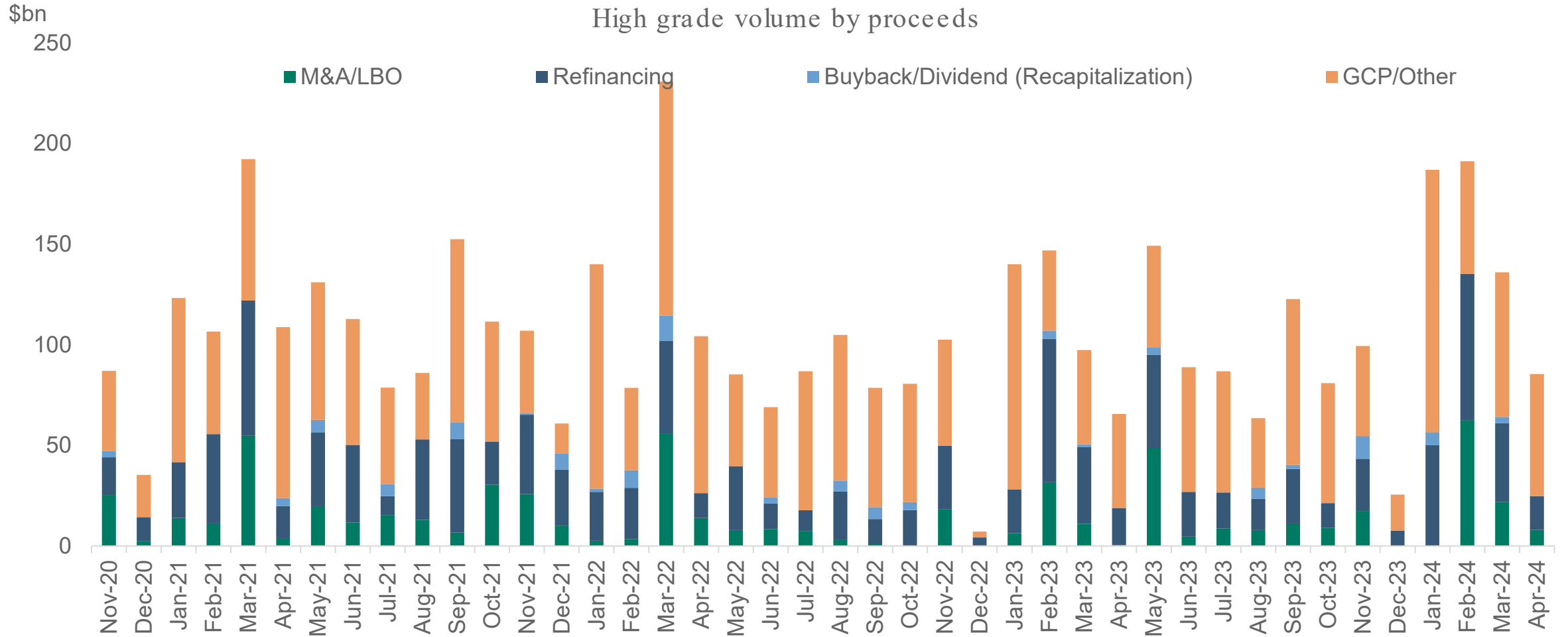


US IG issuance



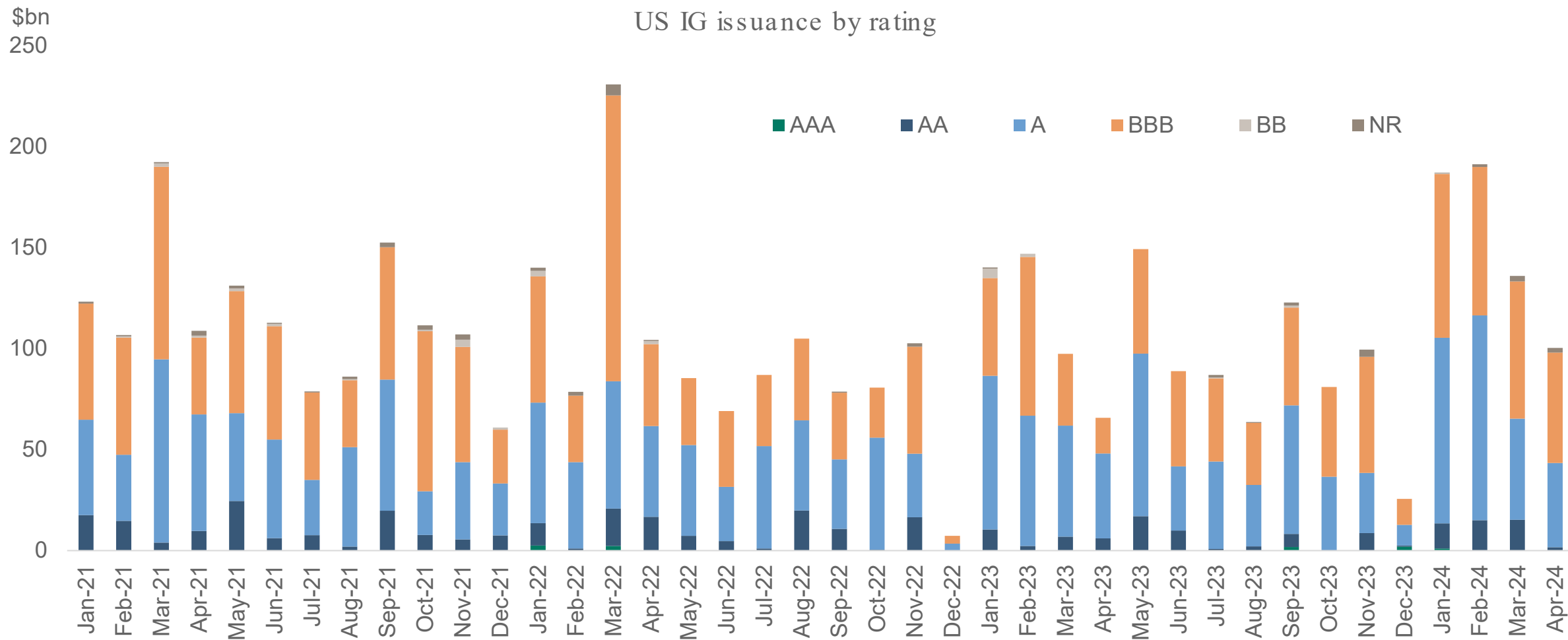
Source: PitchBook LCD, Apollo Chief Economist

High grade volume by proceeds



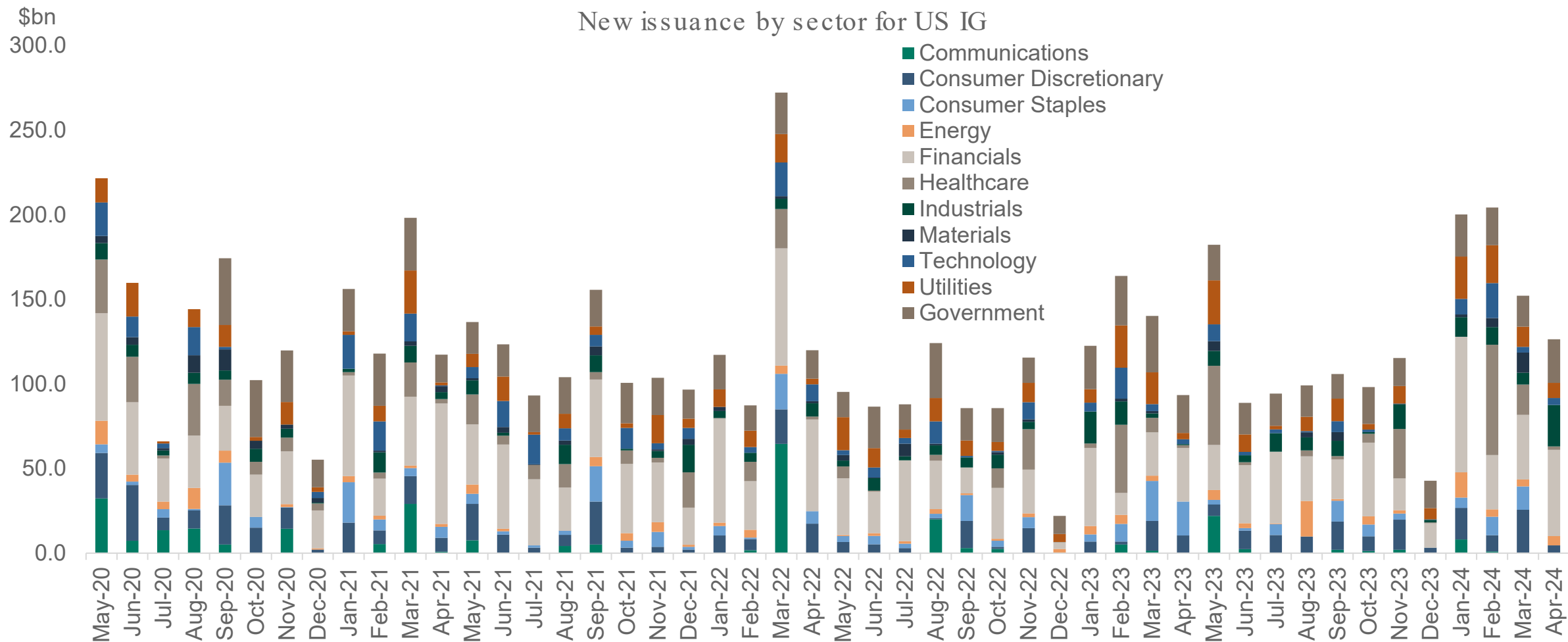
Source: PitchBook LCD, Apollo Chief Economist. Note: GCP means General Corporate Purpose, which means making or financing any payment for working capital, capital expenditures or any other general corporate purpose.

IG issuance by rating



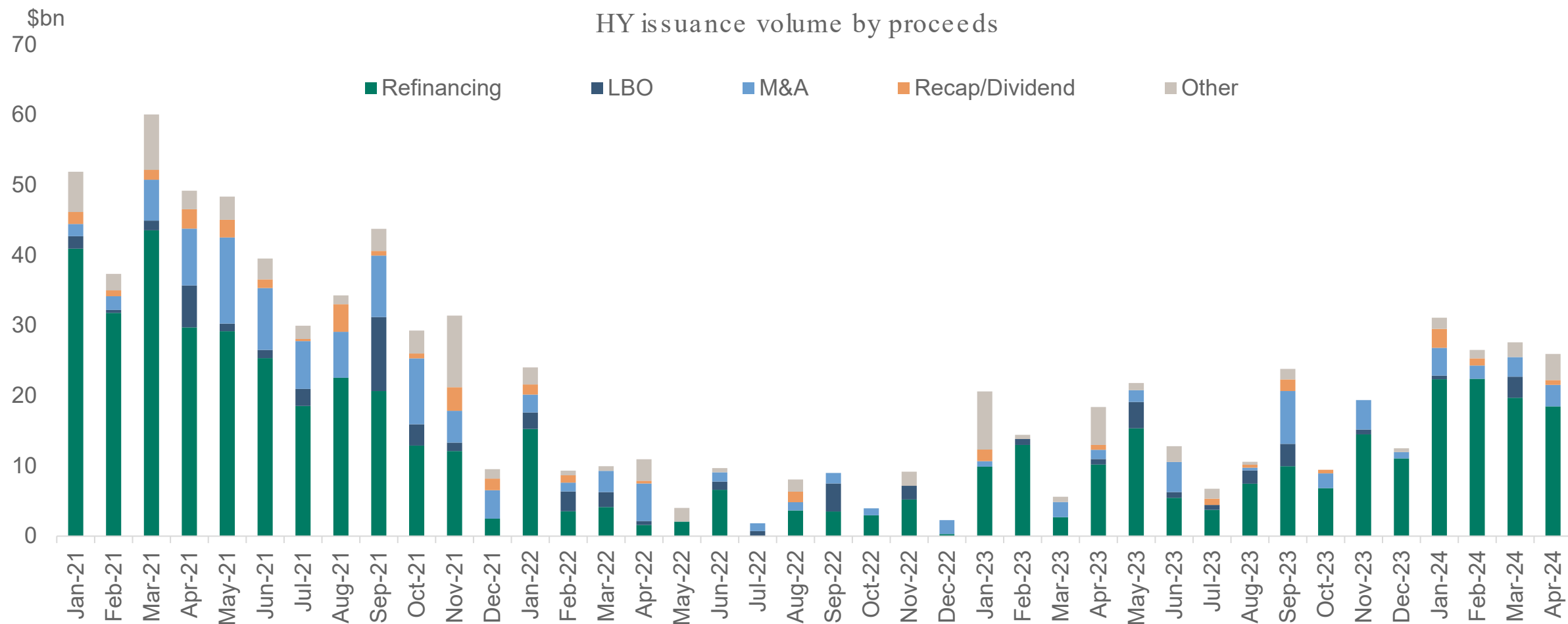
Source: PitchBook LCD, Apollo Chief Economist.

Sector distribution of new IG issuance



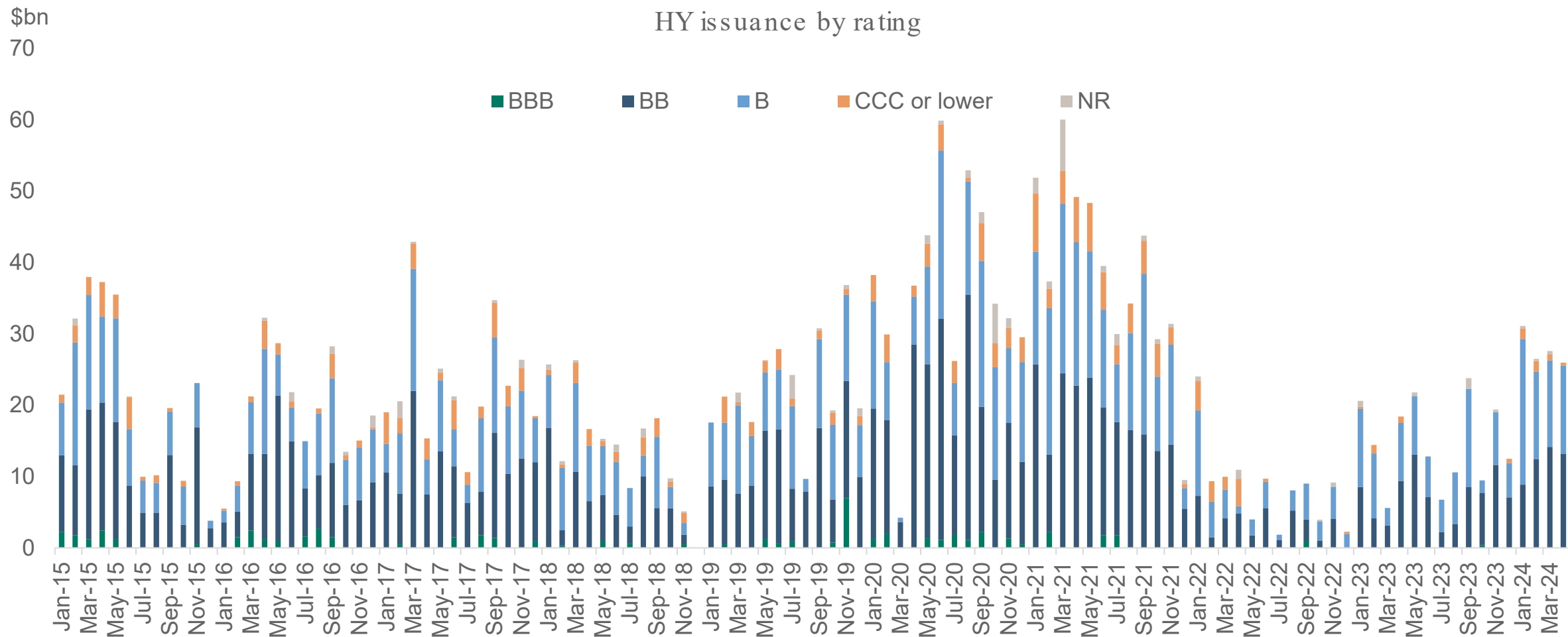
Source: Bloomberg, Apollo Chief Economist. Note: Issuance includes bonds, loans, leveraged loans, and preferred.

High yield volumes by proceeds



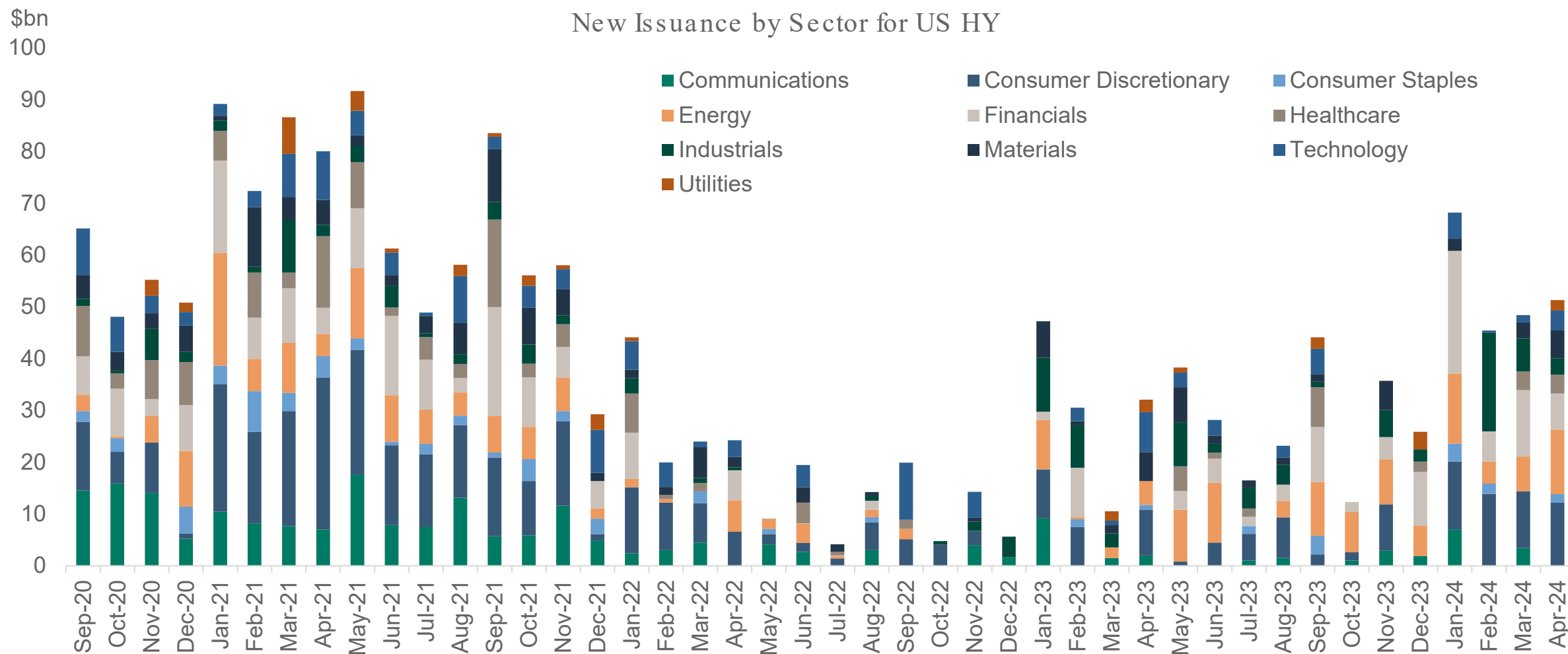
Source: PitchBook LCD, Apollo Chief Economist

HY issuance by rating



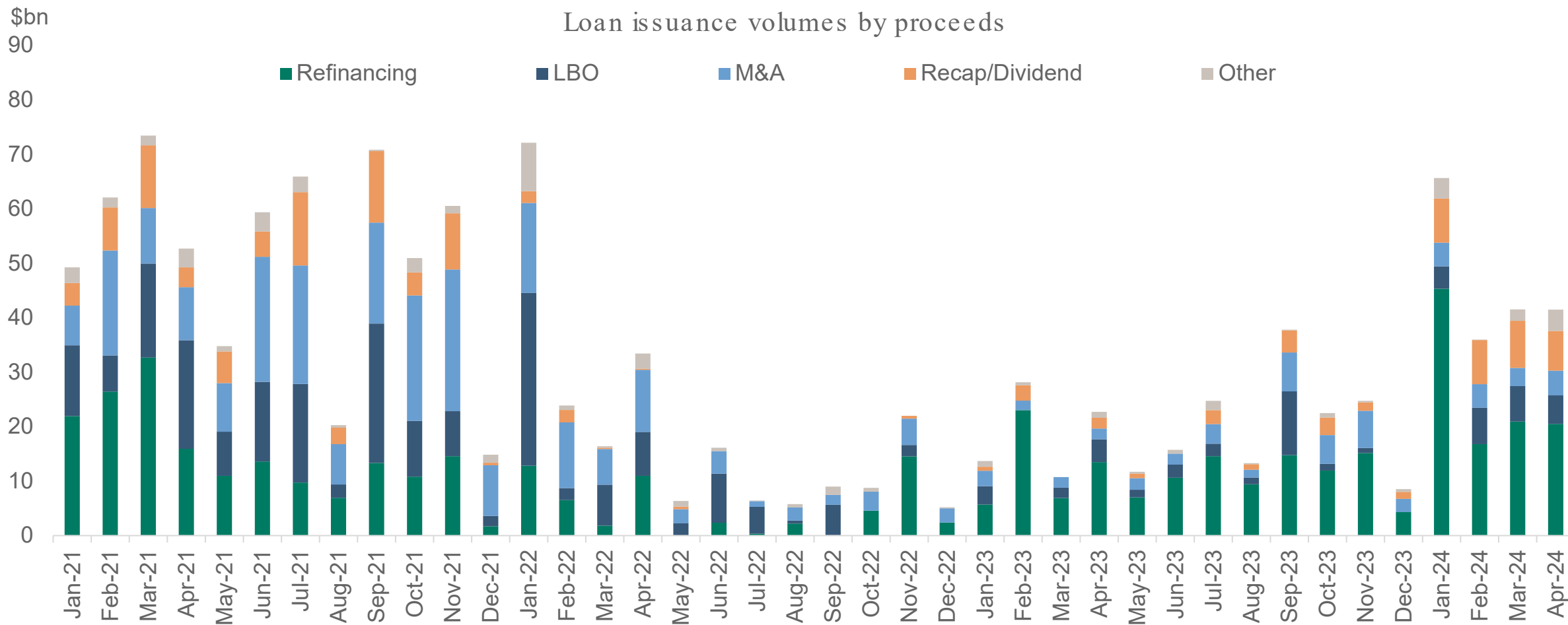
Source: PitchBook LCD, Apollo Chief Economist.

Sector distribution of new HY issuance

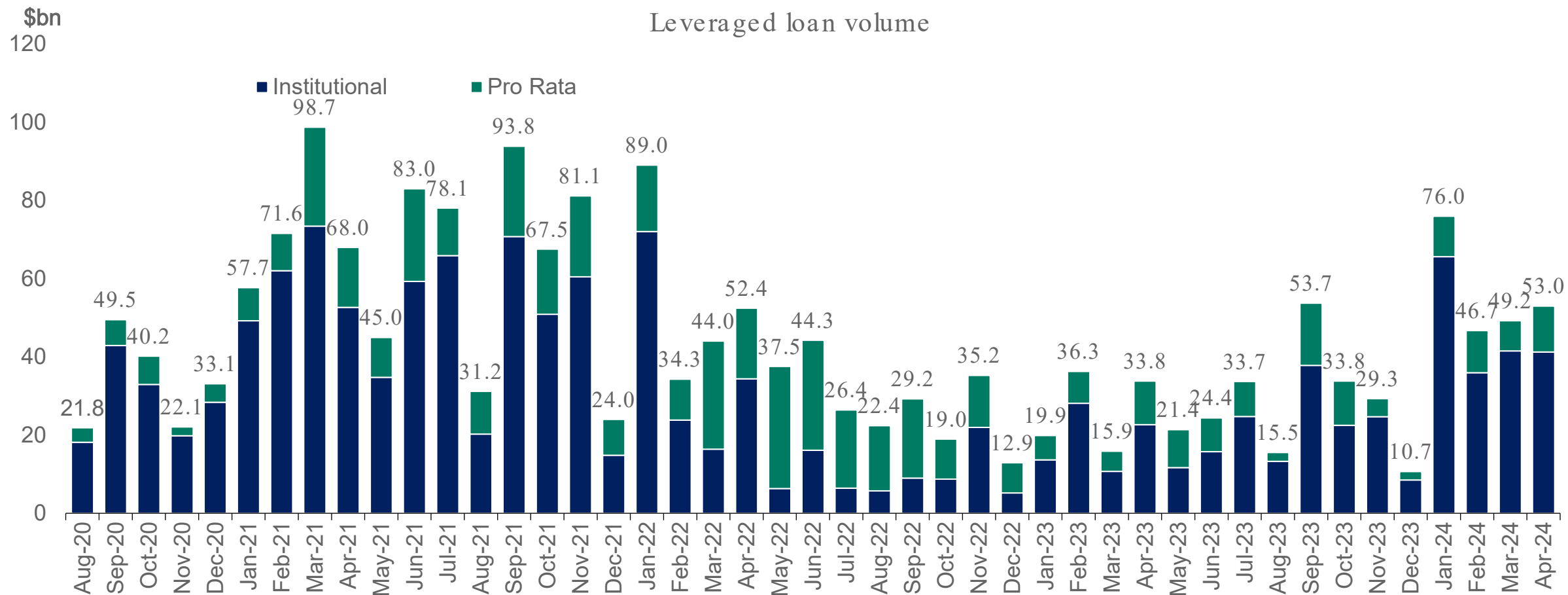


Source: Bloomberg, Apollo Chief Economist. Note: Issuance includes bonds, loans, leveraged loans and preferred.

Loan volumes by proceeds

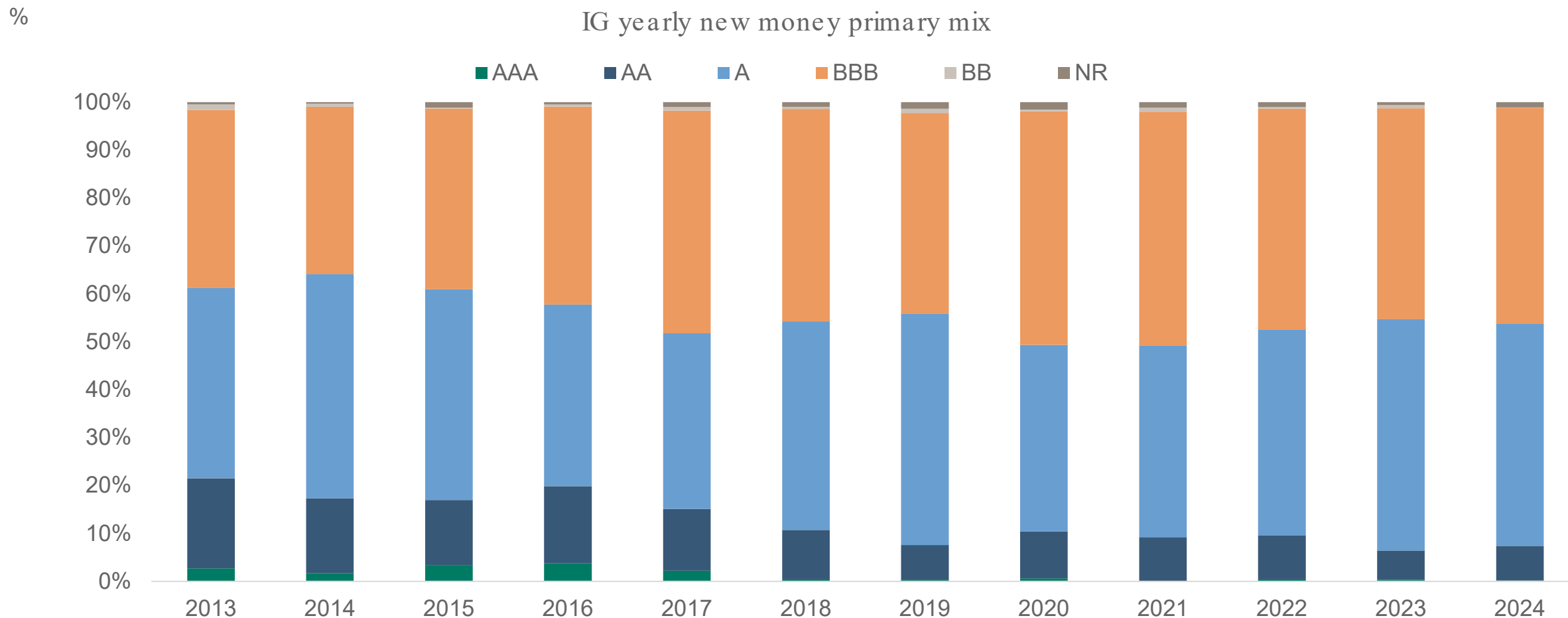


Leveraged loan volume



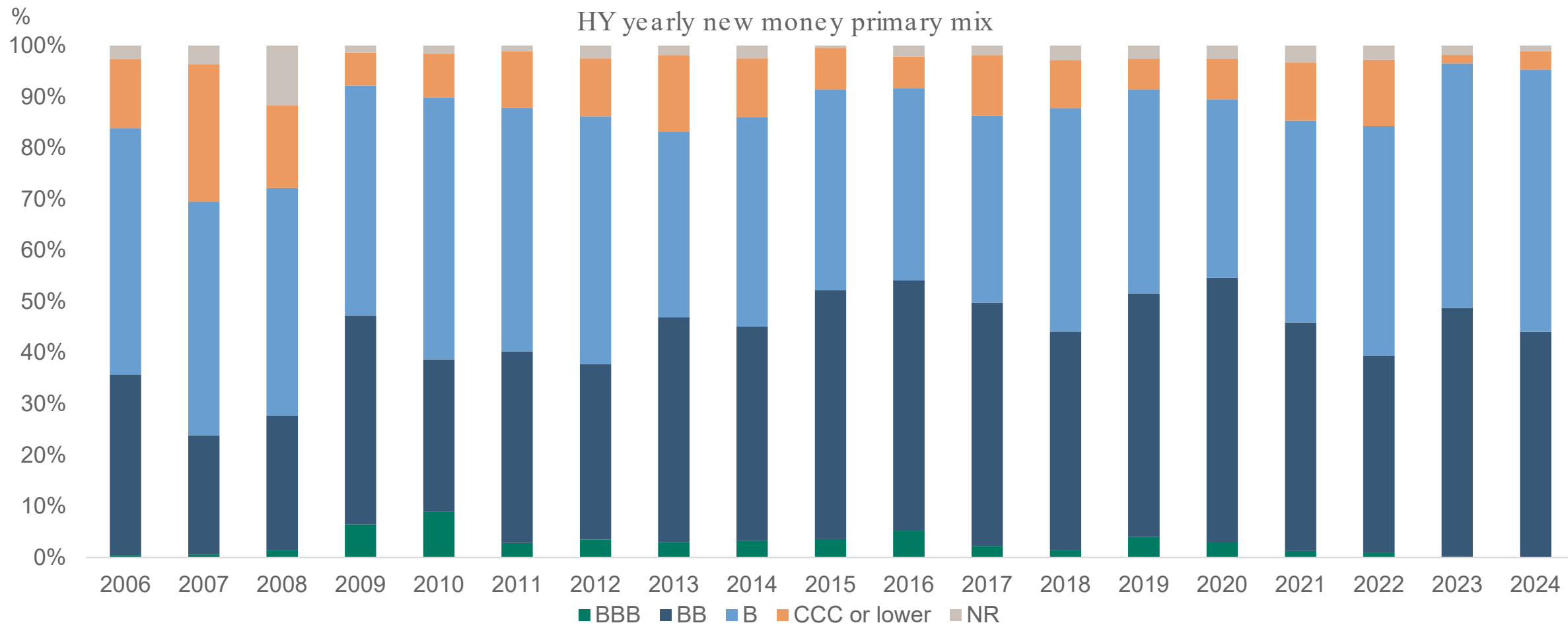
Source: PitchBook LCD, Apollo Chief Economist.

IG new money primary mix



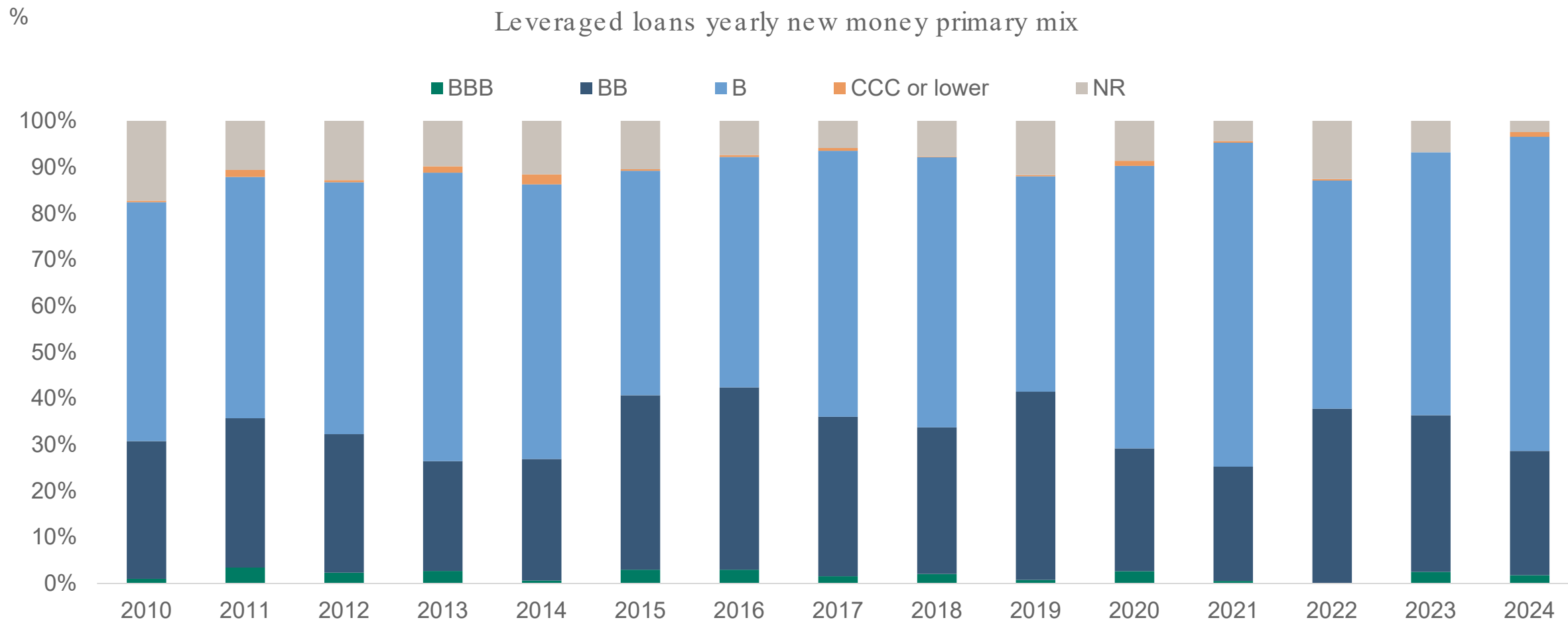
Source: PitchBook LCD, Apollo Chief Economist. Note: Data as of 30th April 2024.

HY new money primary mix



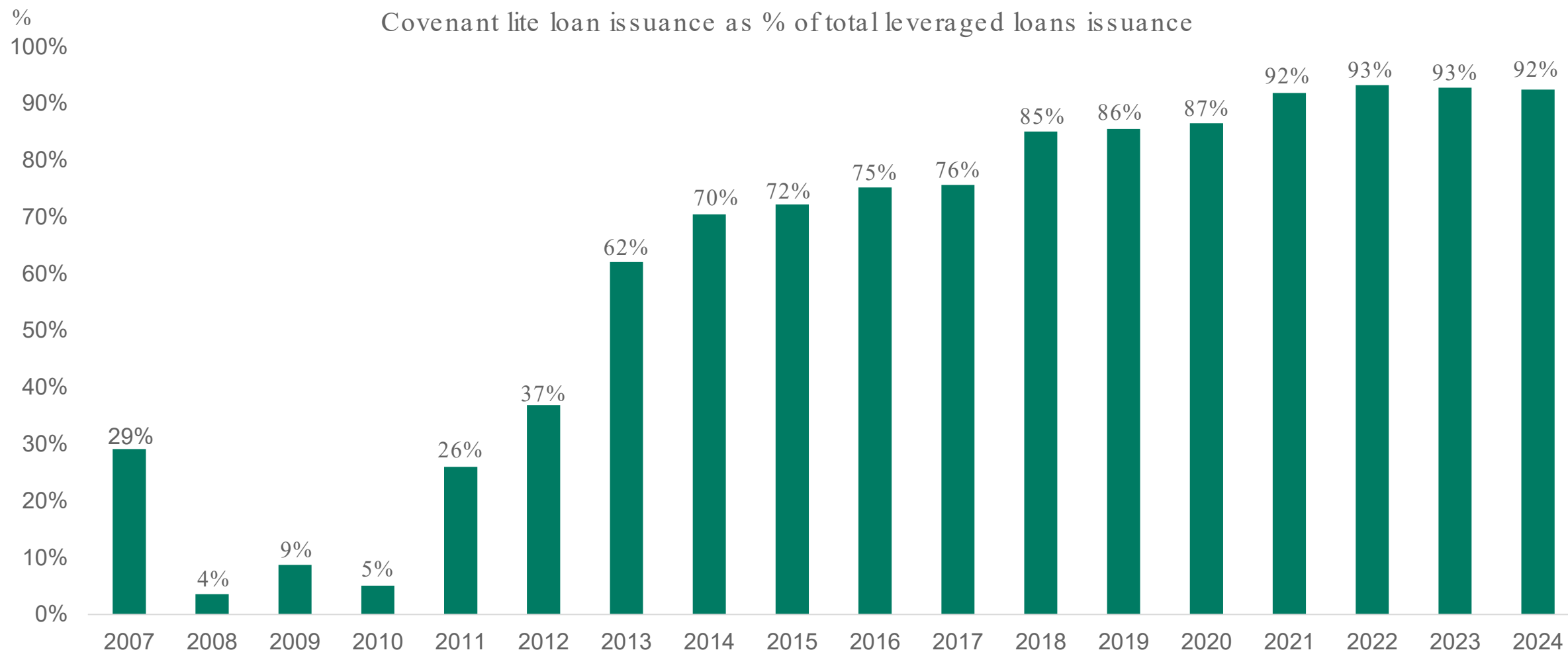
Source: PitchBook LCD, Apollo Chief Economist. Note: Data as of 30th April 2024..

Loans new money primary mix



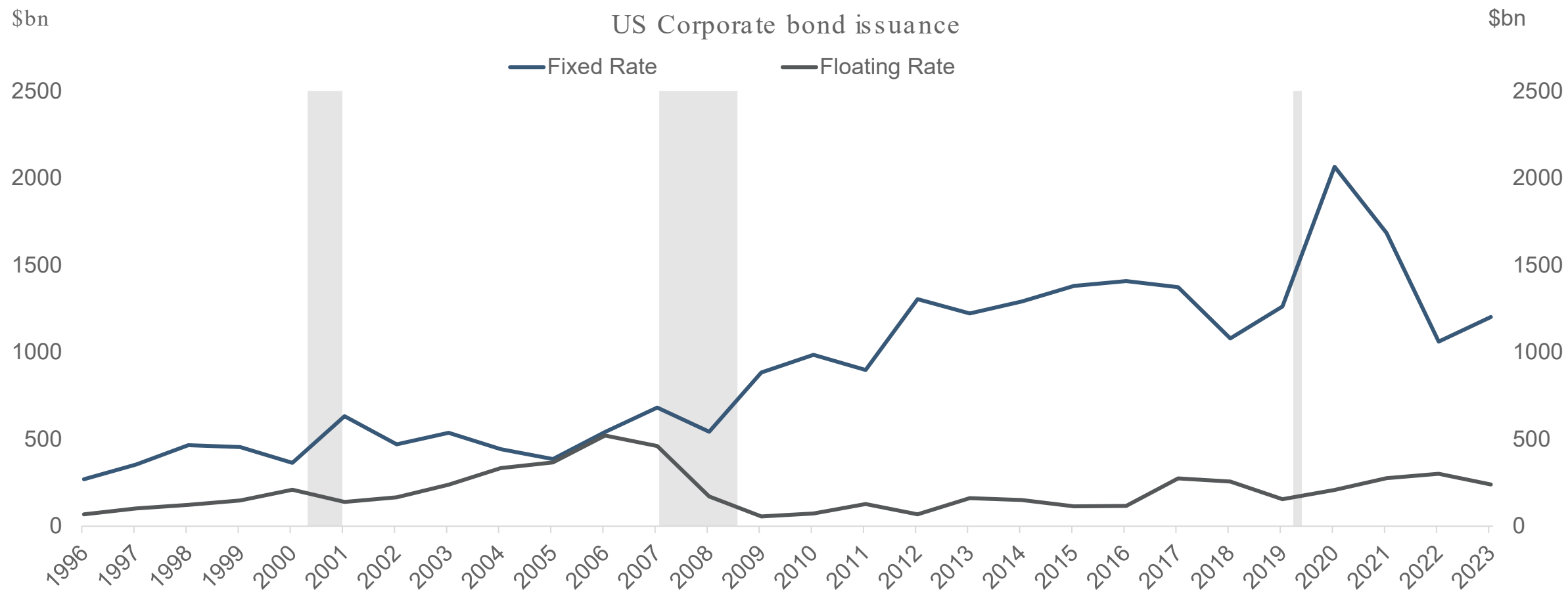
Source: PitchBook LCD, Apollo Chief Economist. Note: Data as of 30th April 2024.

Covenant lite loan issuance

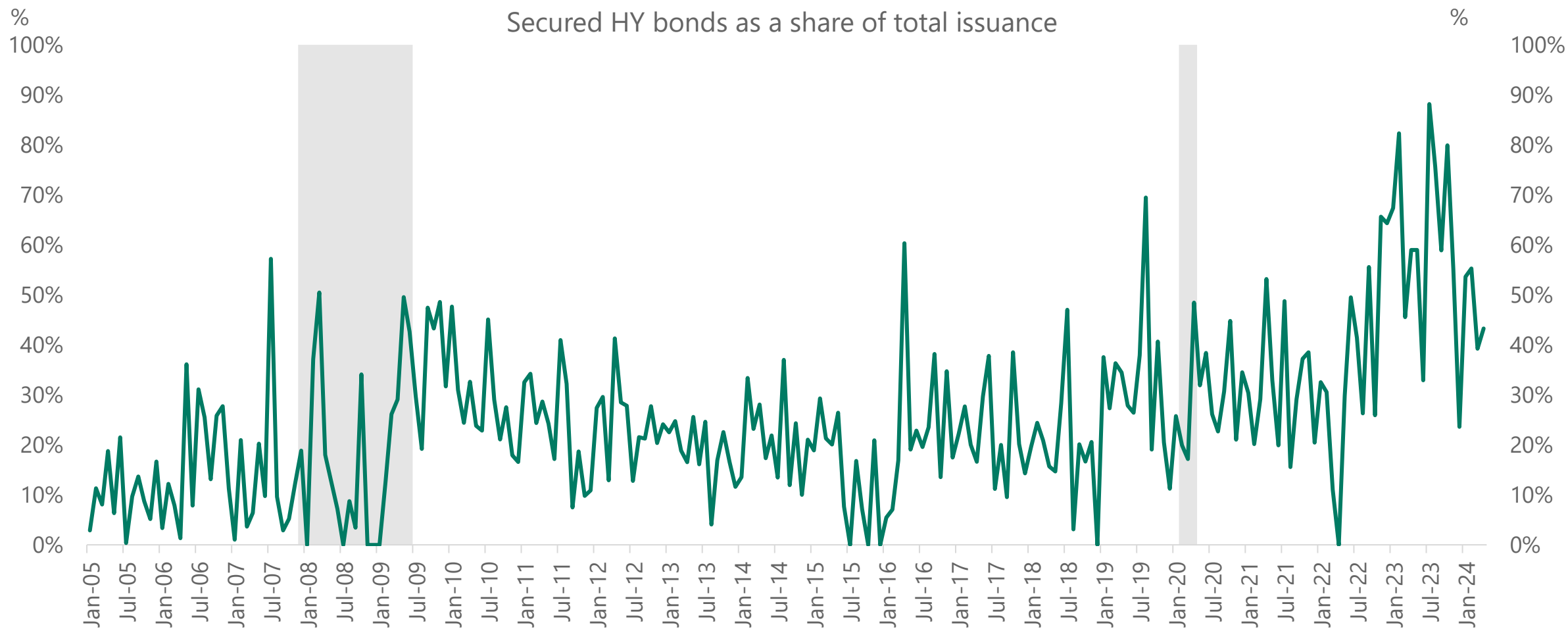


Source: PitchBook LCD, Apollo Chief Economist.. Note: A covenant-lite loan is a type of financing with fewer restrictions on the borrower and fewer protections for the lender, often used in leveraged buyouts. Data as of 29th February 2024.

Corporate bond issuance, floating rate and fixed rate

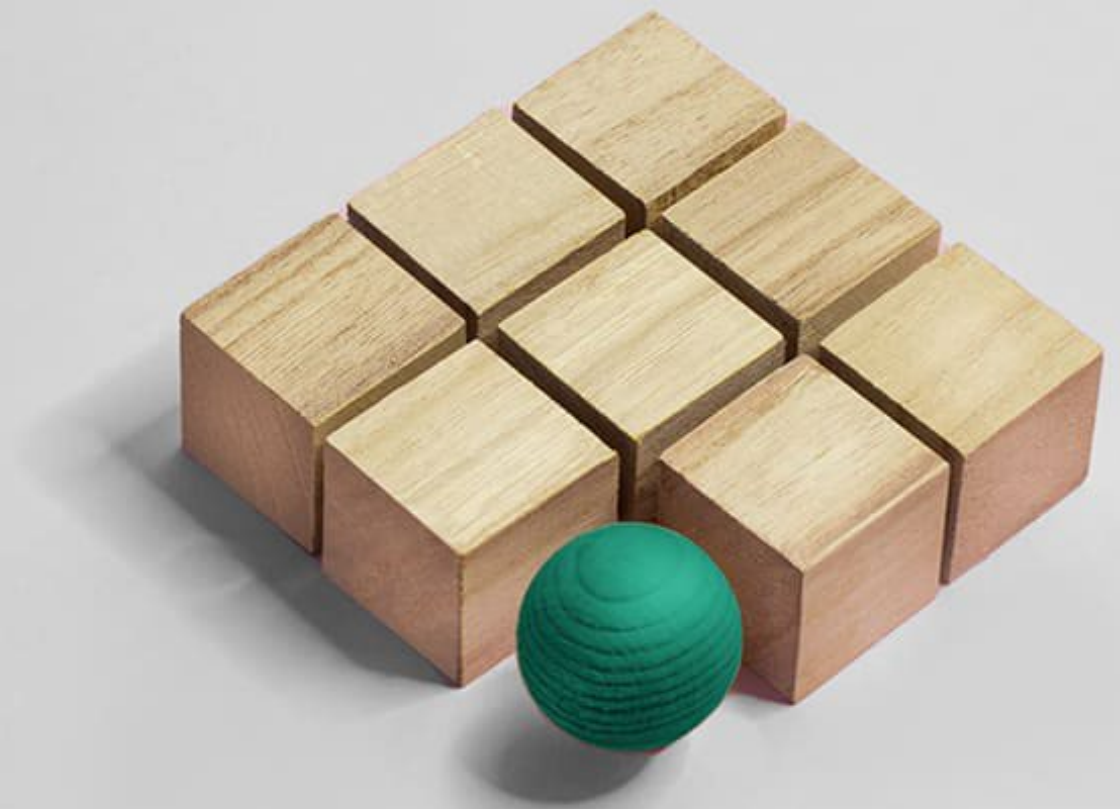


Secured HY bond issuance volume

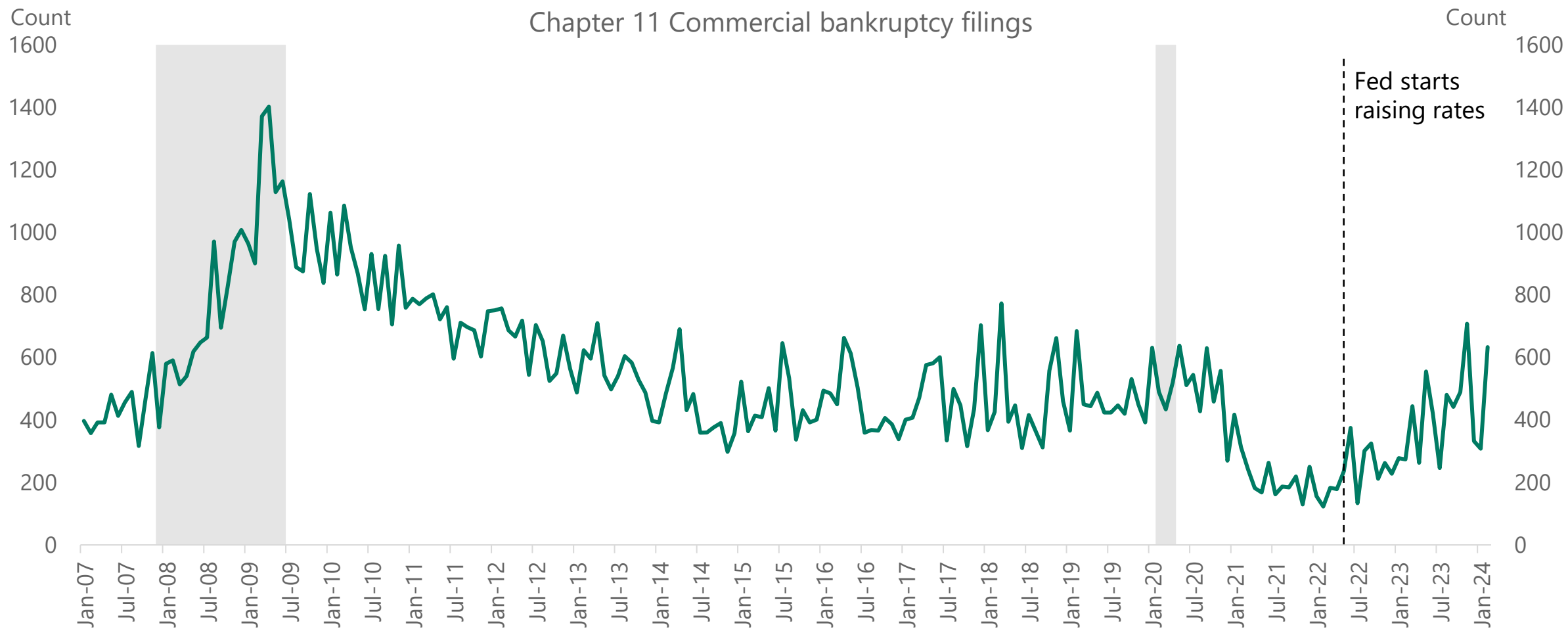


Source: PitchBook LCD, Apollo Chief Economist. Note: A secured bond is the bond issued with the collateral as a security for the bond

Credit fundamentals

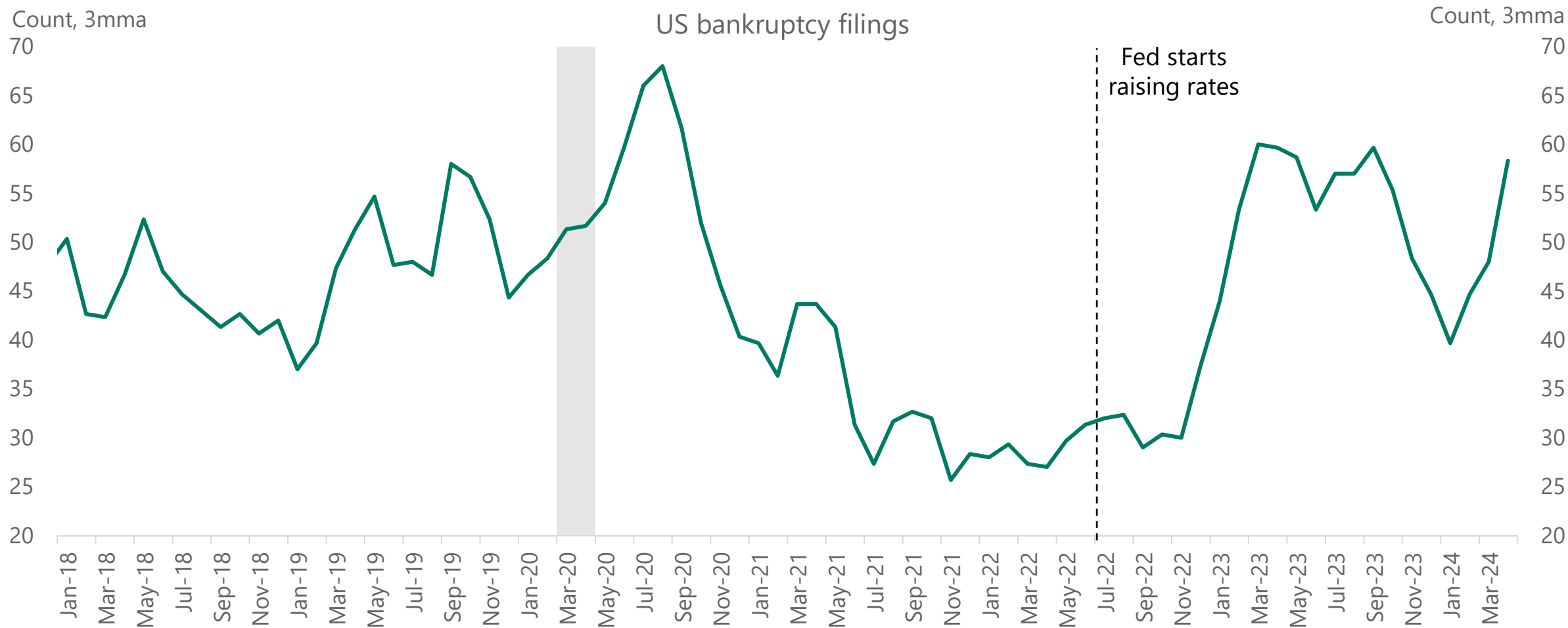


Chapter 11 bankruptcy filings rose in February



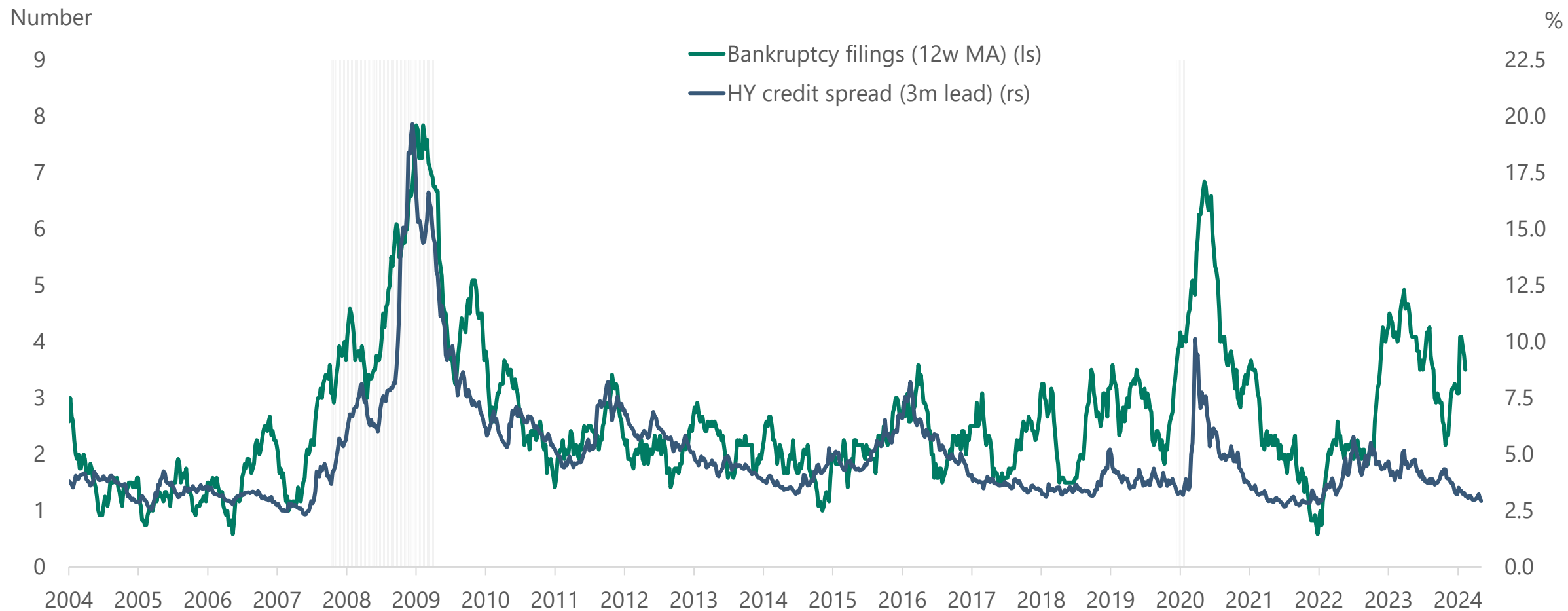
Source: Epiq bankruptcy, Apollo Chief Economist

Fed hikes pushed bankruptcy filings higher

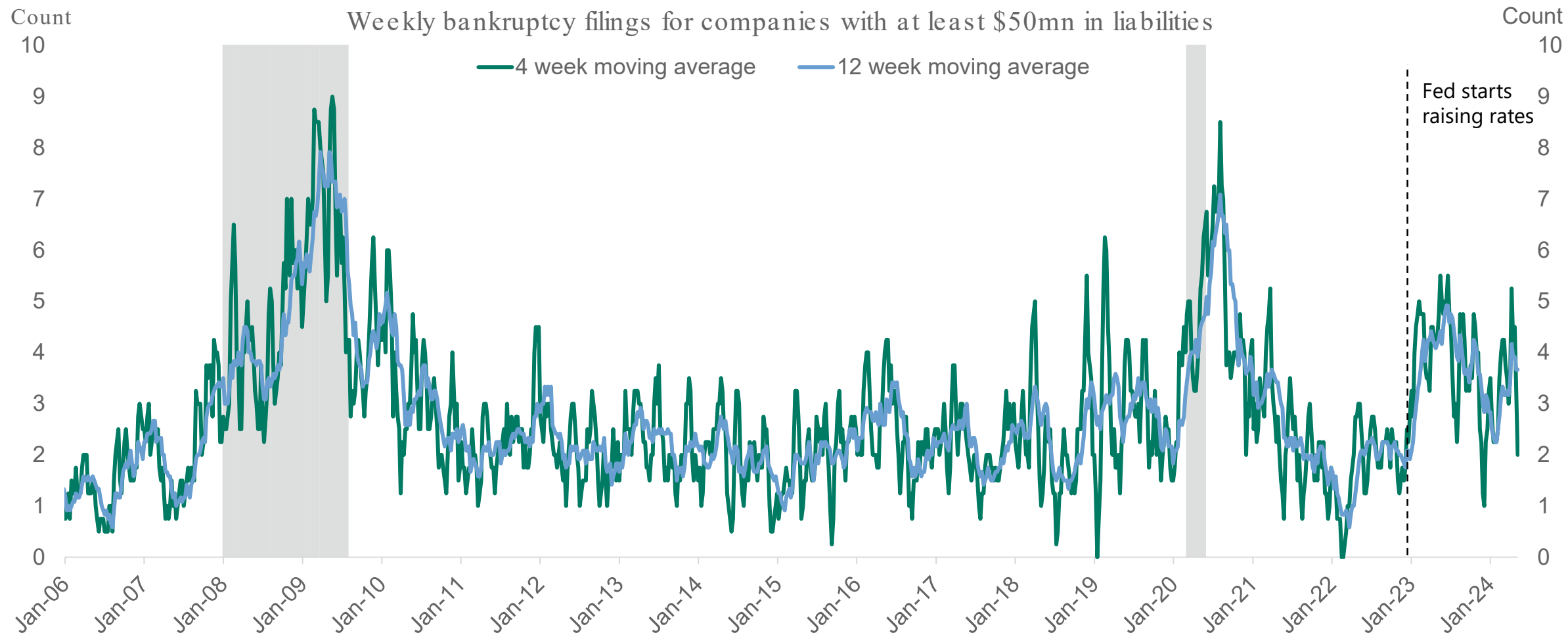


Source: S&P Capital IQ, Bloomberg, Apollo Chief Economist. Note: Bankruptcy figures include public companies or private companies with public debt with a minimum of \$2 million in assets or liabilities at the time of filing, in addition to private companies with at least \$10 million in assets or liabilities.

Bankruptcy filings and credit spreads

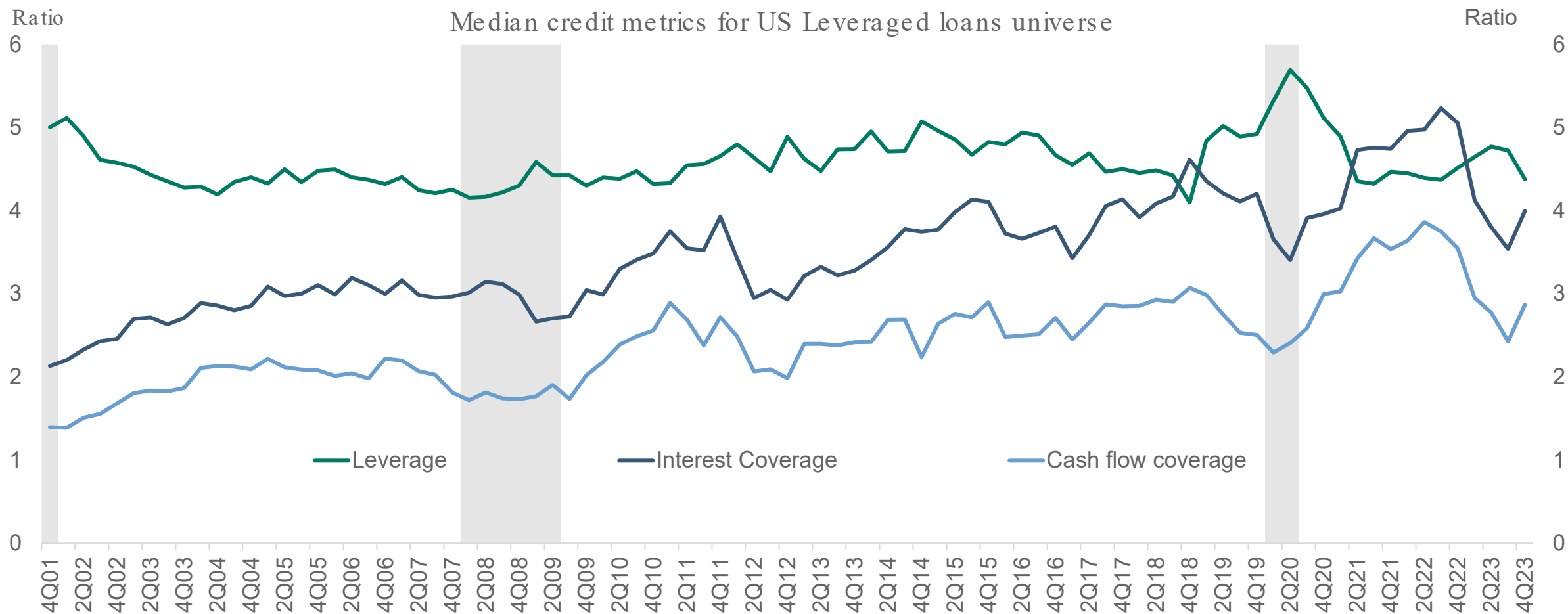


Bankruptcy filings for companies with more than \$50mn in liabilities

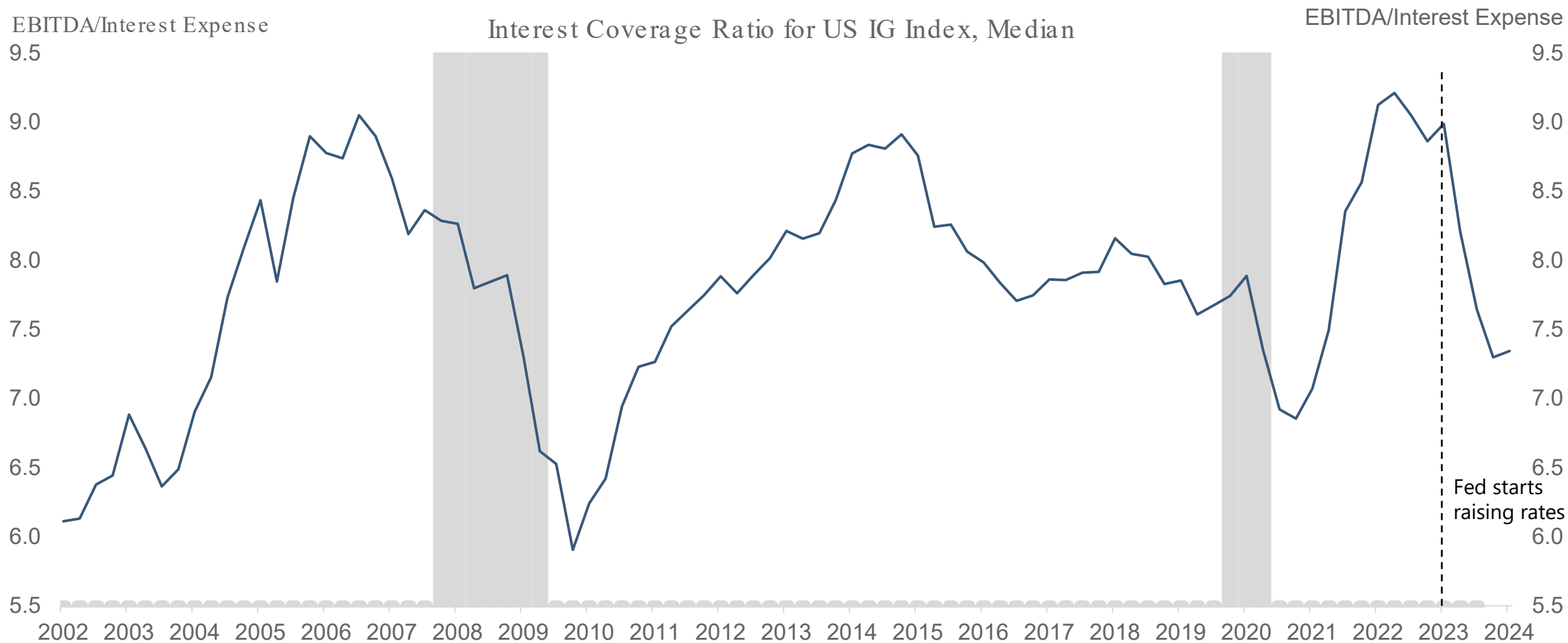


Source: Bloomberg, Apollo Chief Economist. Note: Filings are for companies with more than \$50mn in liabilities. For week ending on February 28, 2024.

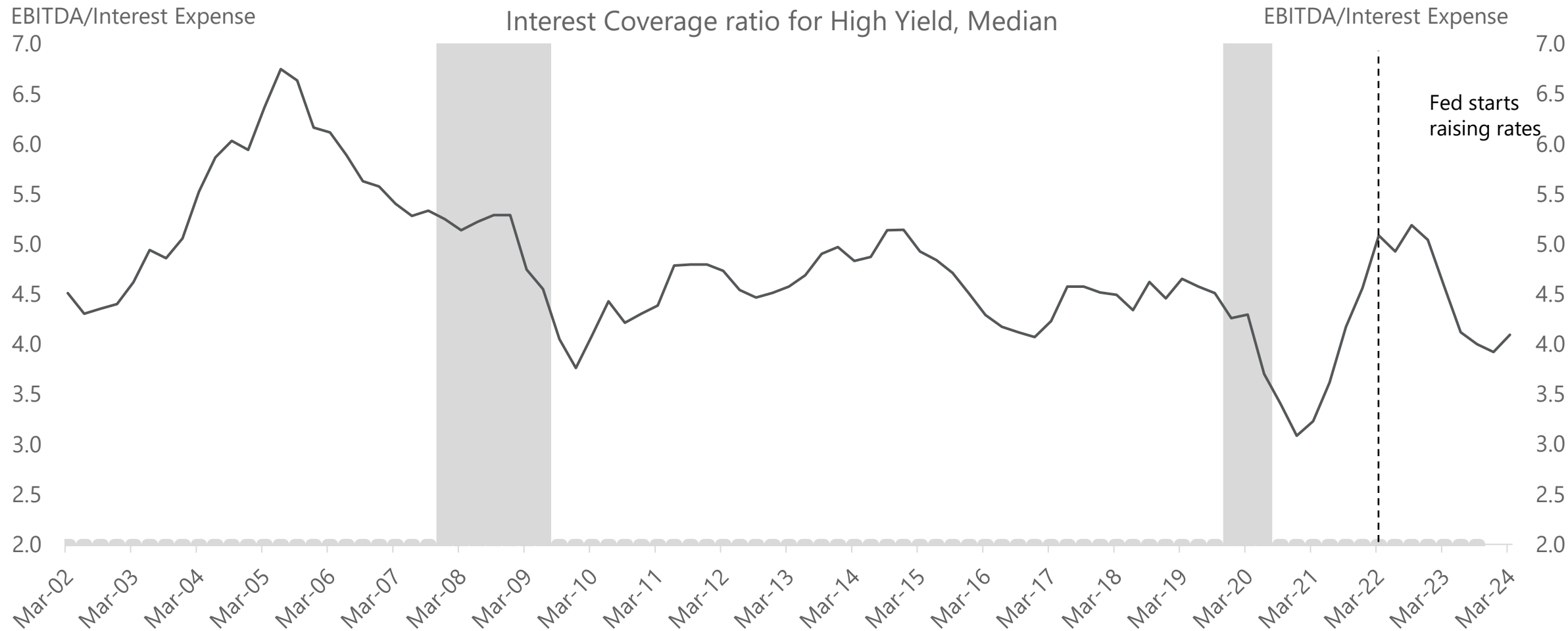
Credit metrics for leveraged loan deals



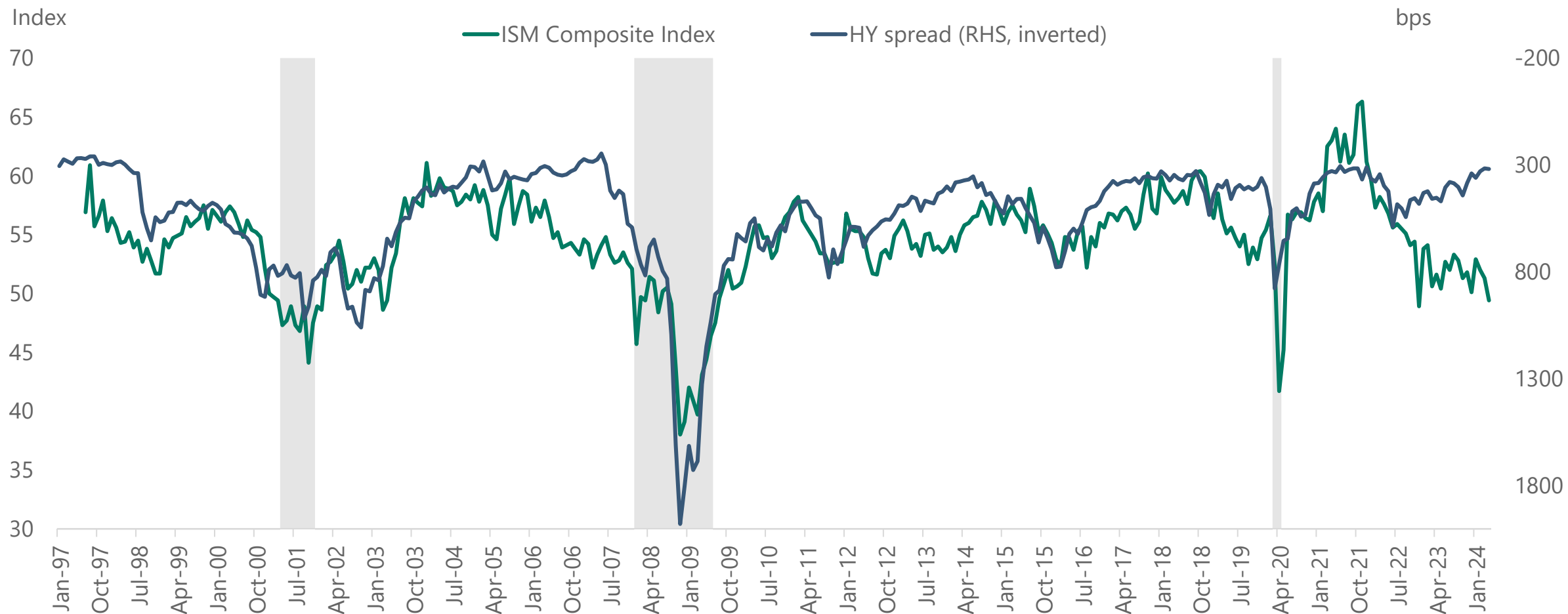
IG ICR rebounding



HY ICR rebounding

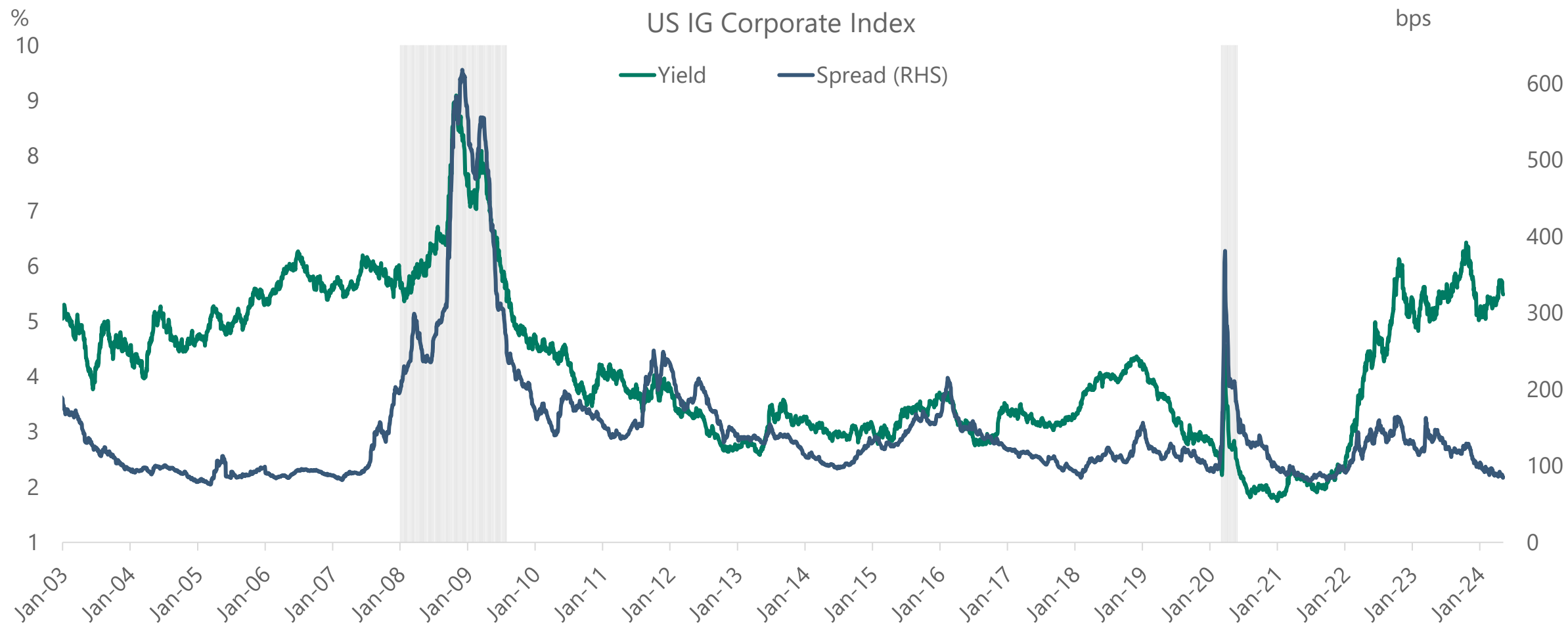


Disconnect between spreads and economic activity



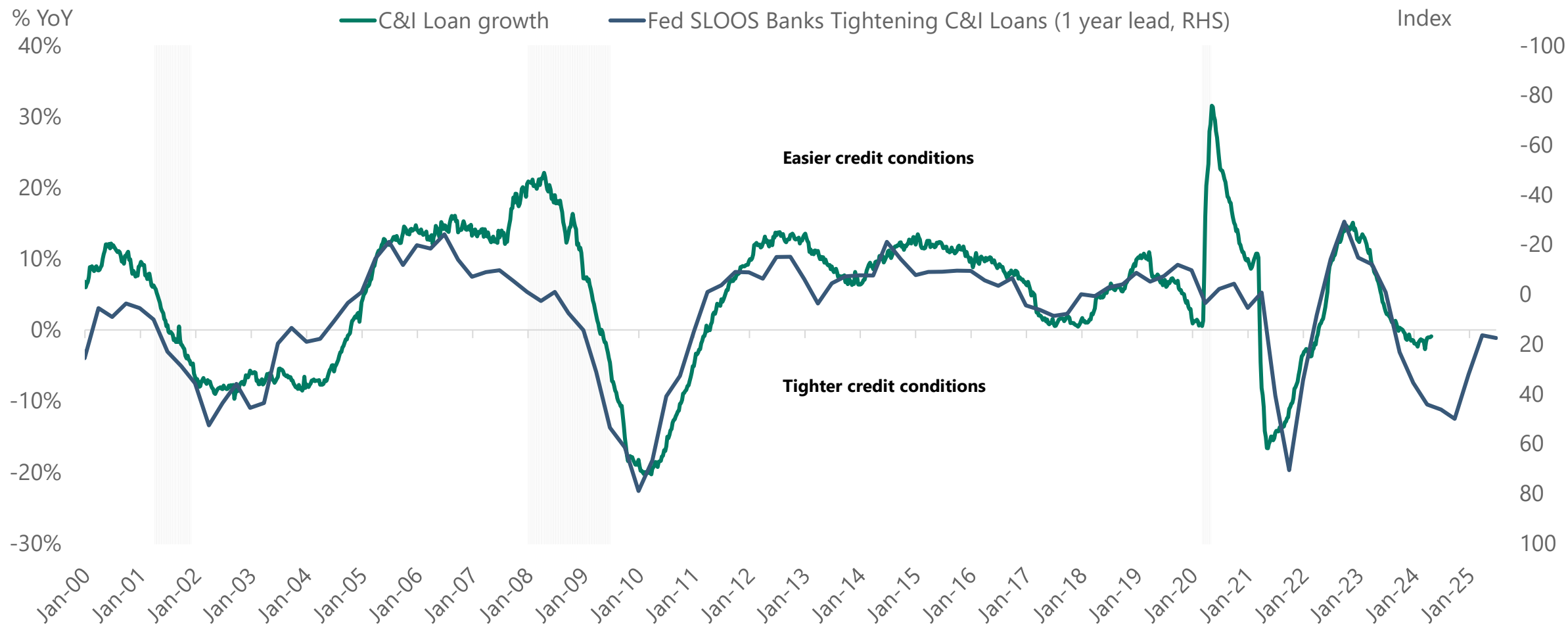
Source: ISM, ICE BofA, Haver Analytics, Apollo Chief Economist

Disconnect between yield and spreads

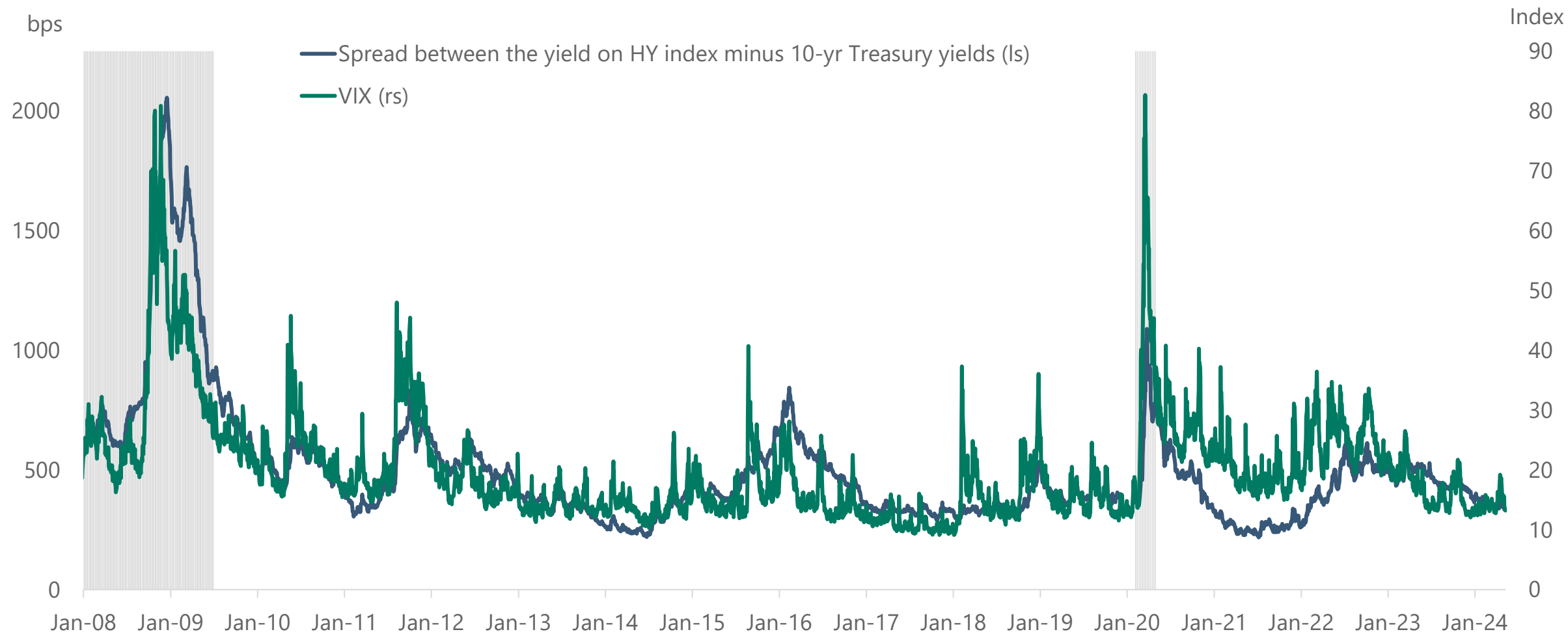


Source: Bloomberg, Apollo Chief Economist. Note: Index used LUACTRUU Index

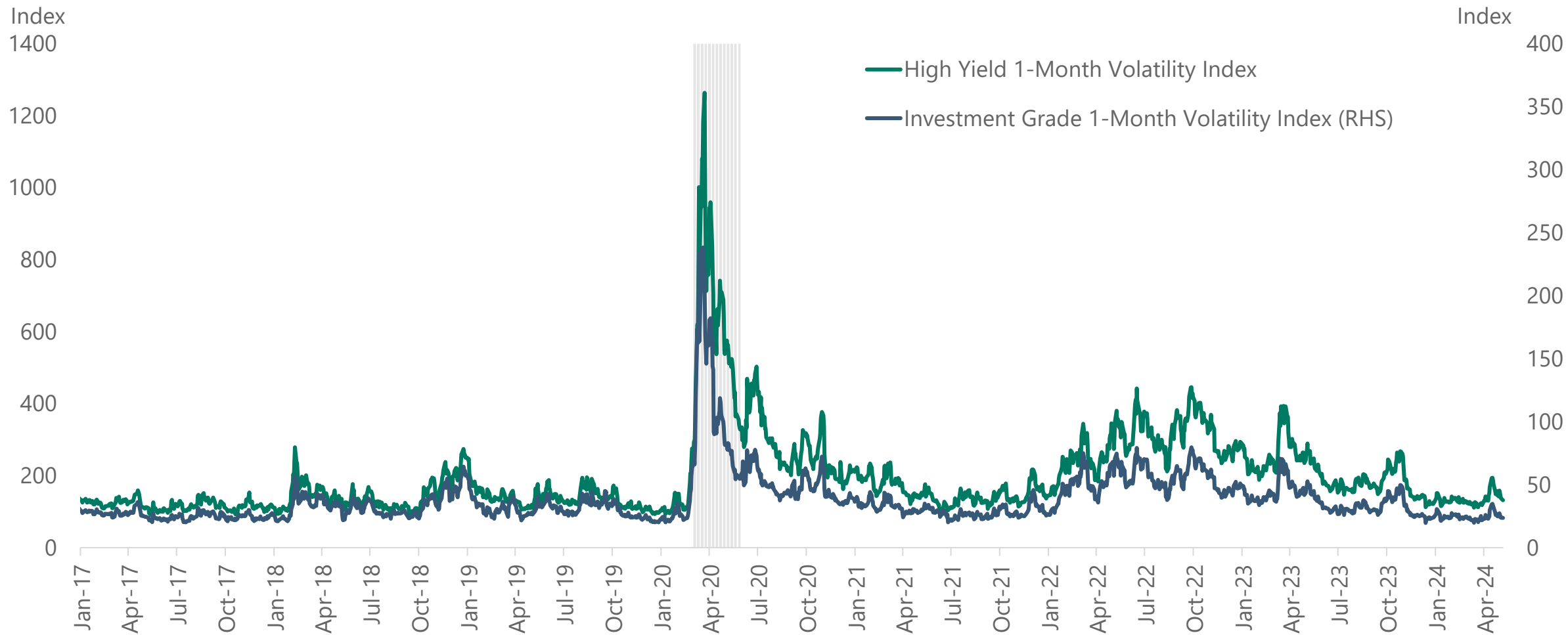
Bank lending and lending conditions



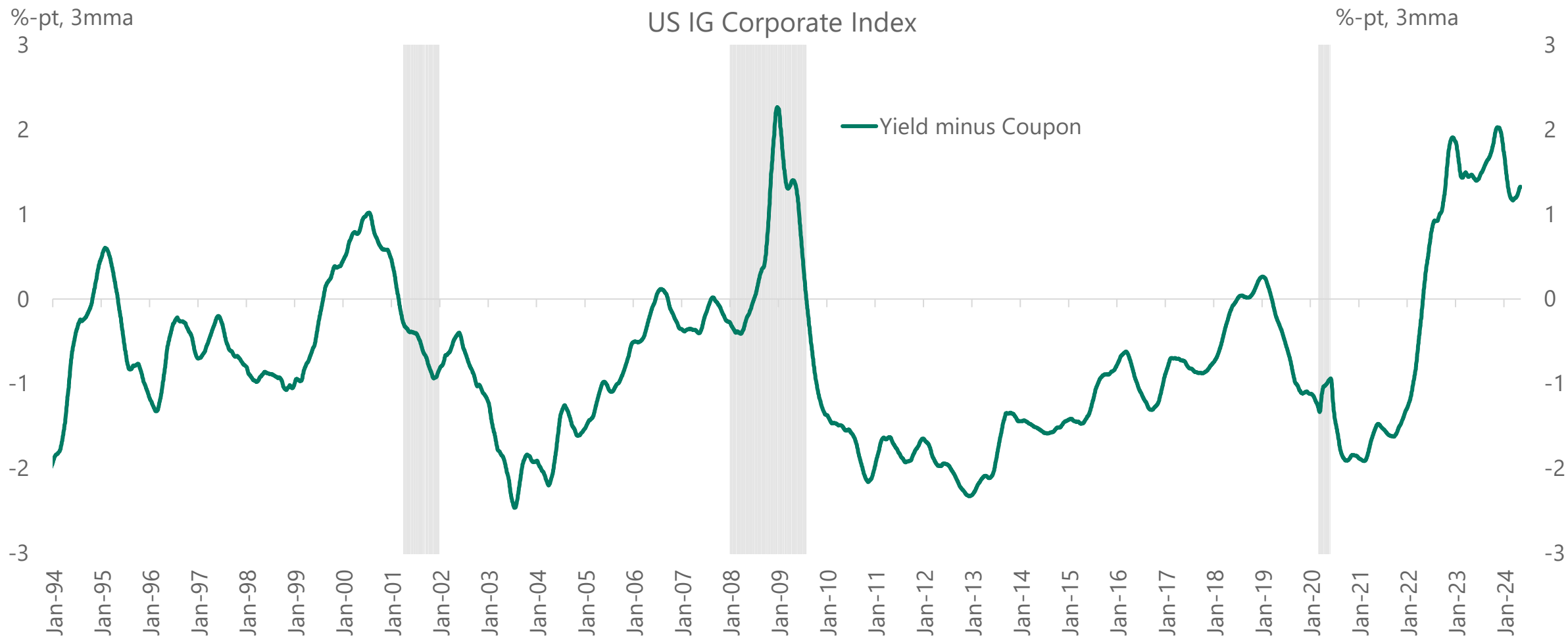
HY credit spreads and VIX tend to move closely together



HY and IG implied volatility

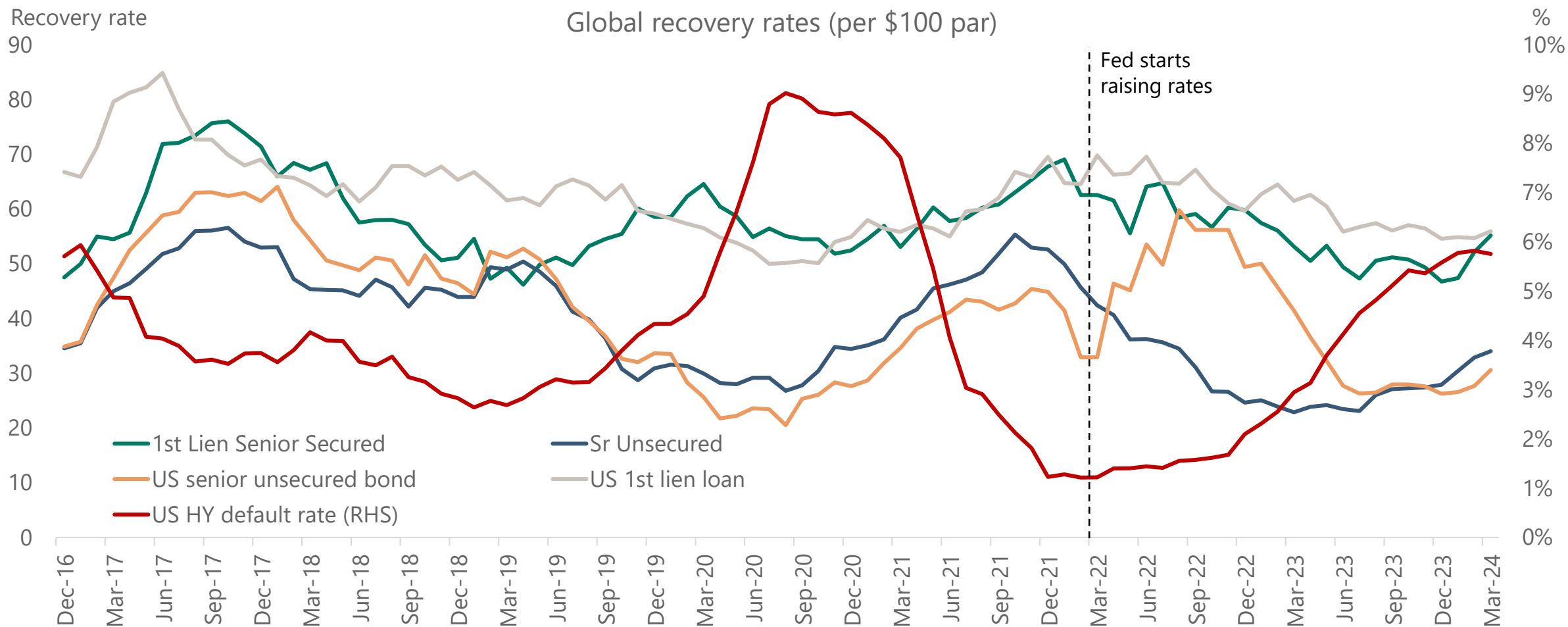


The yield on the IG corporate bond index is 1.3%-point higher than coupon

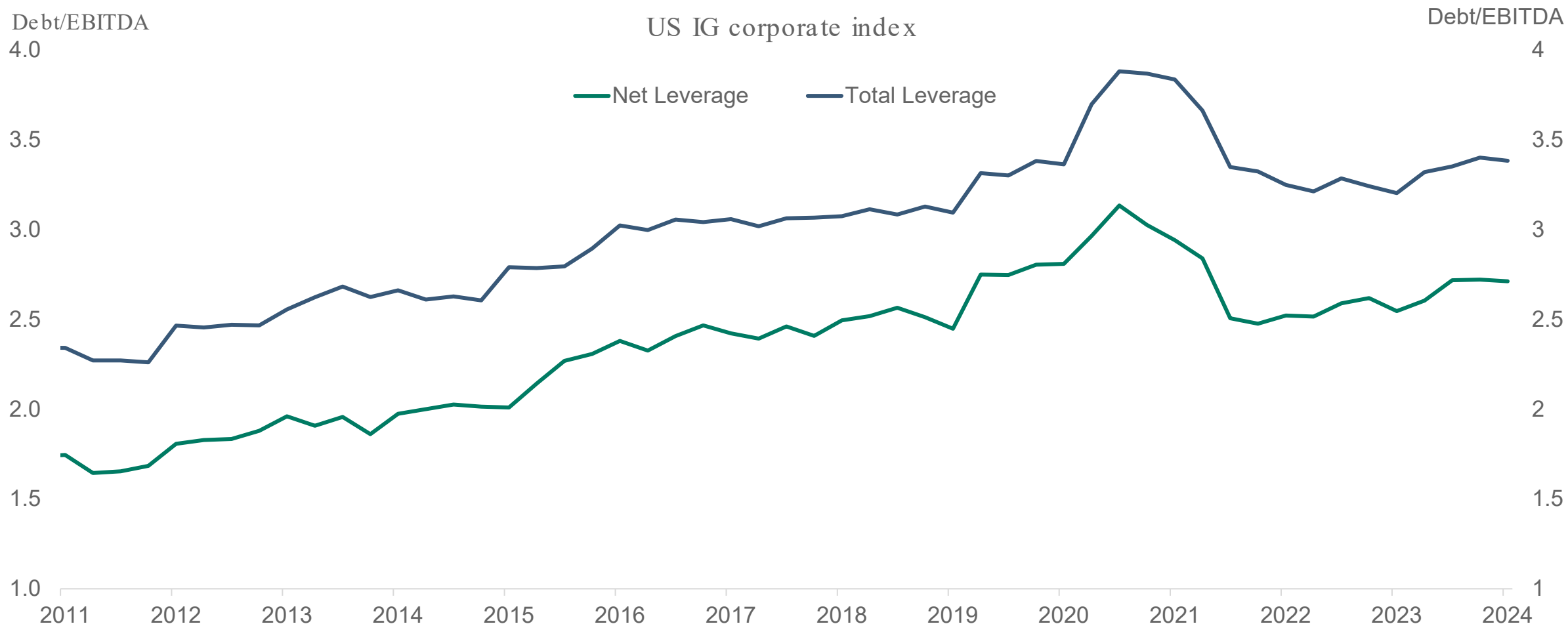


Source: Bloomberg, Apollo Chief Economist. Note: Index used LUACTRUU Index

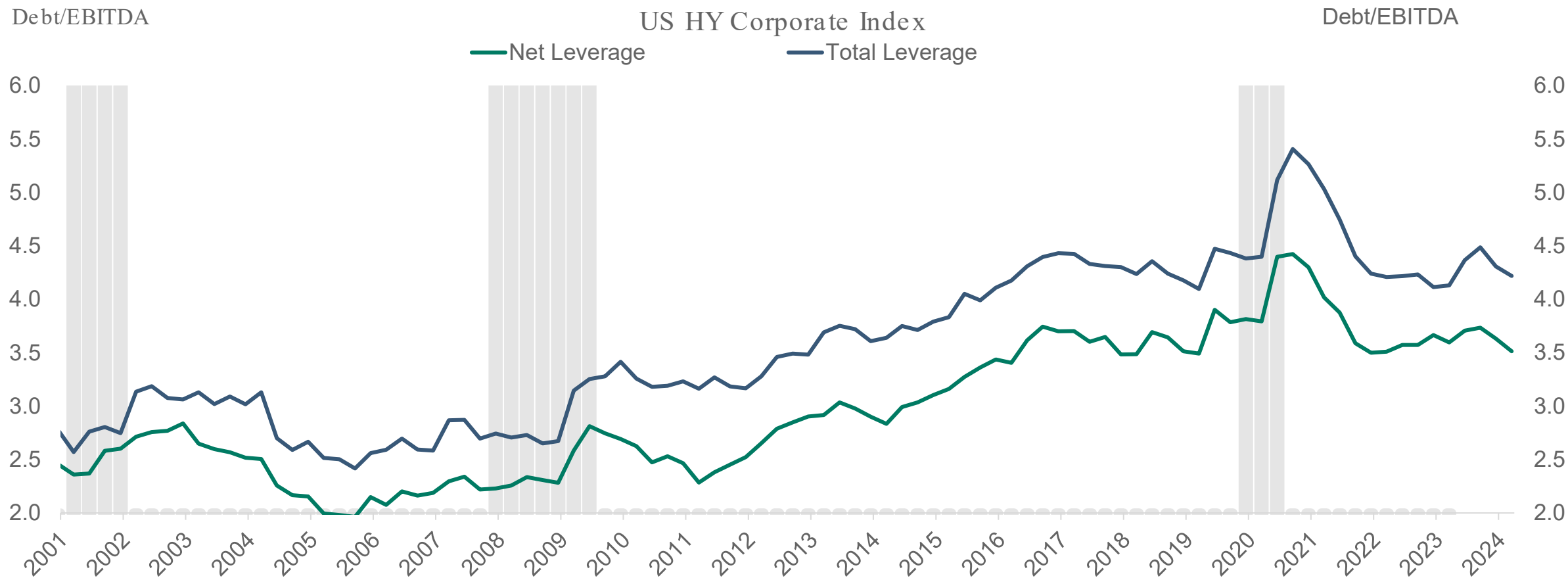
Recovery rates



IG leverage

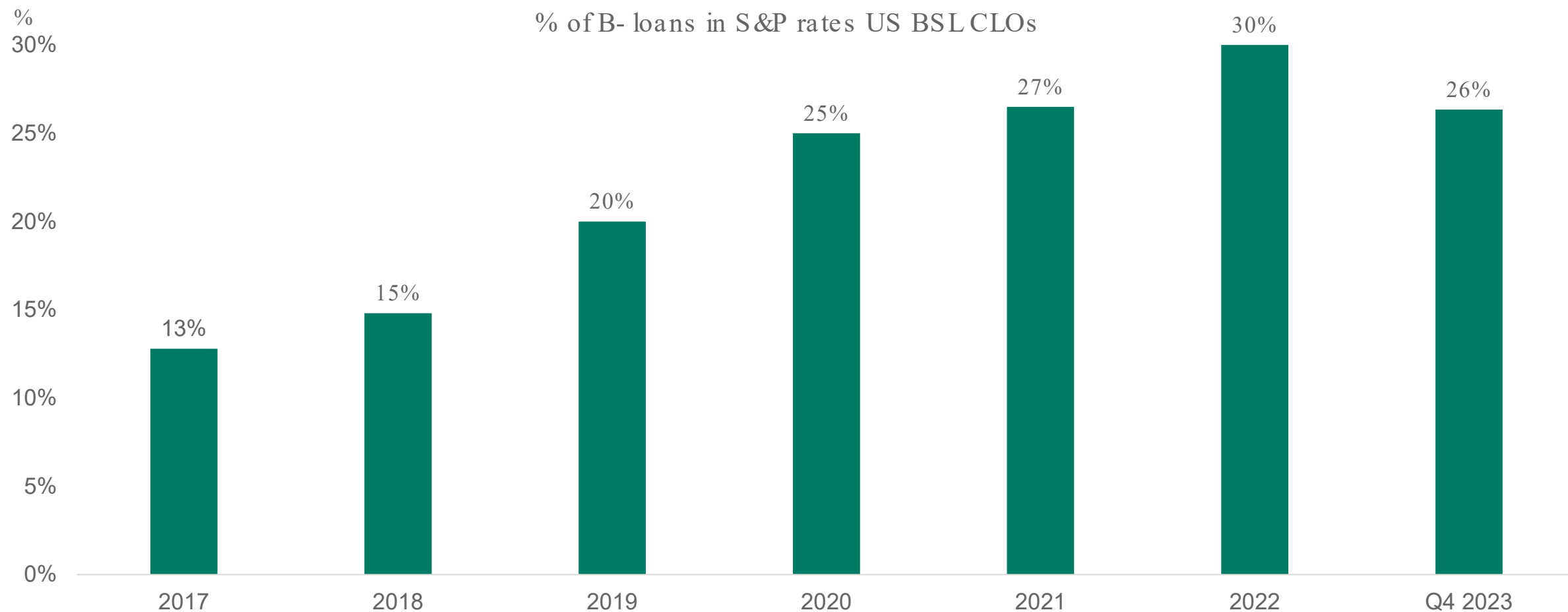


High yield leverage

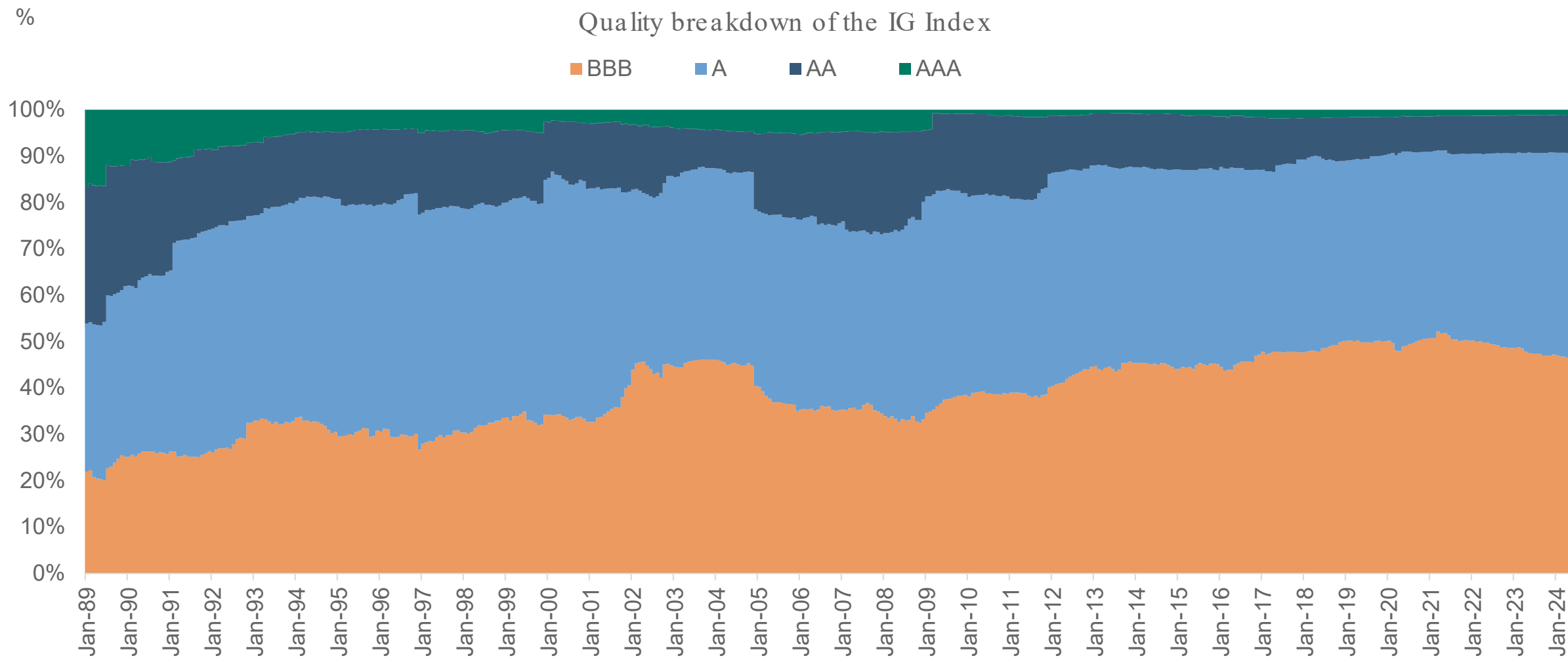


Source: Bloomberg, Apollo Chief Economist. Note: Median leverage for the bonds in H0A0 index

26% of the loans in the Morningstar LSTA Leveraged Loan Index are rated B-

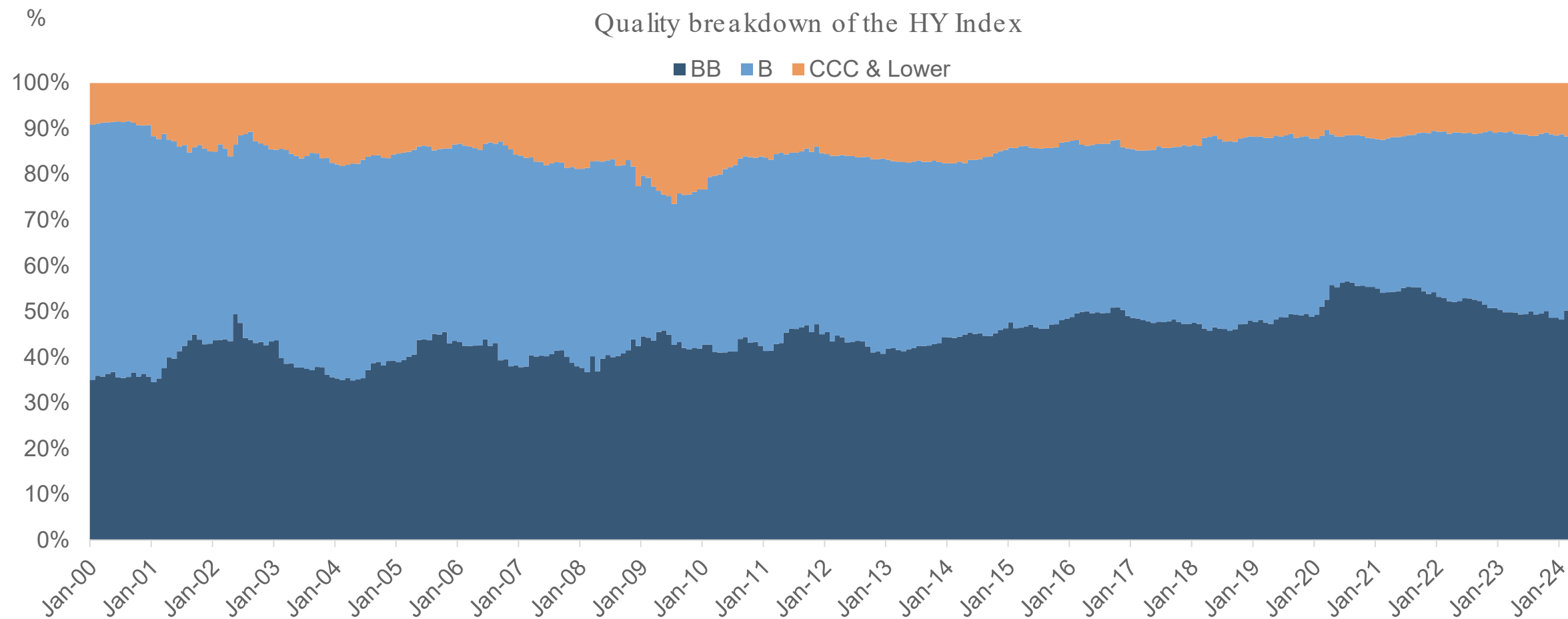


Quality composition of the IG Index



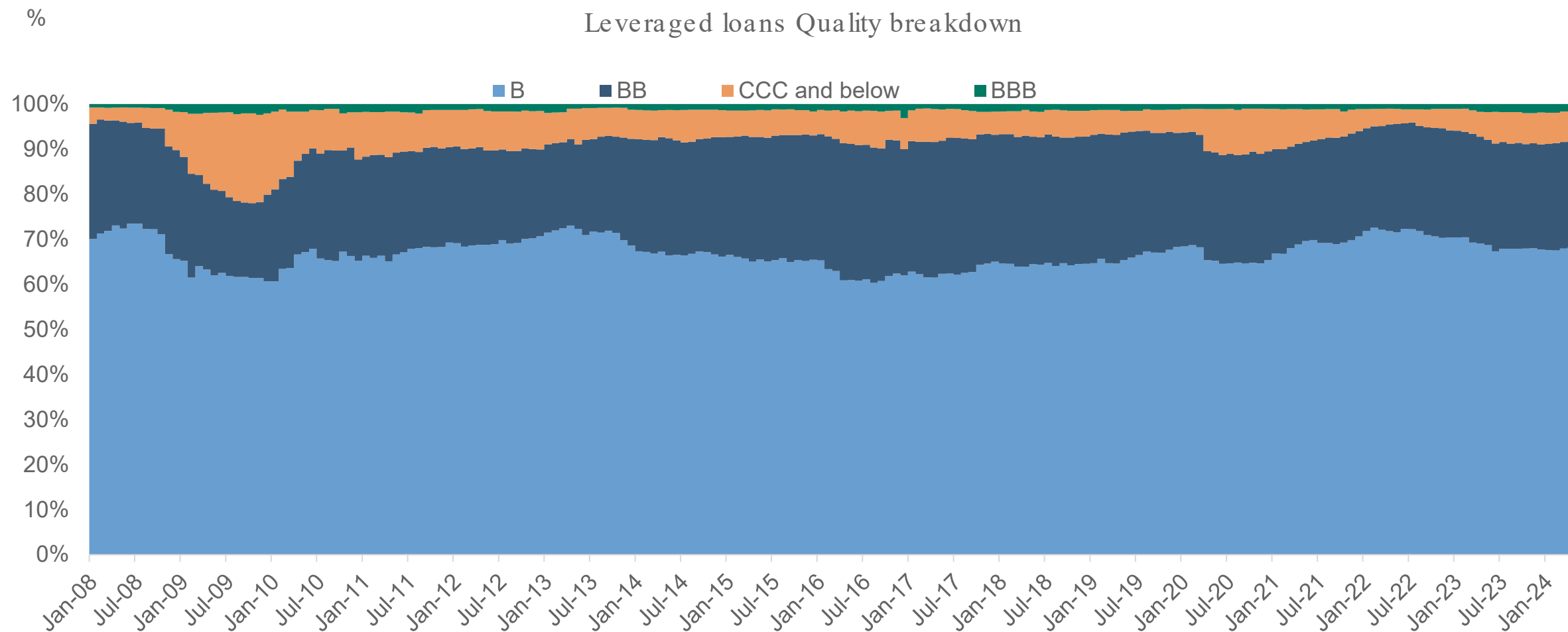
Source: ICE BofA, Bloomberg, Apollo Chief Economist. Note: Breakdown by market value. Data as of 30th April 2024

Quality composition of the HY Index

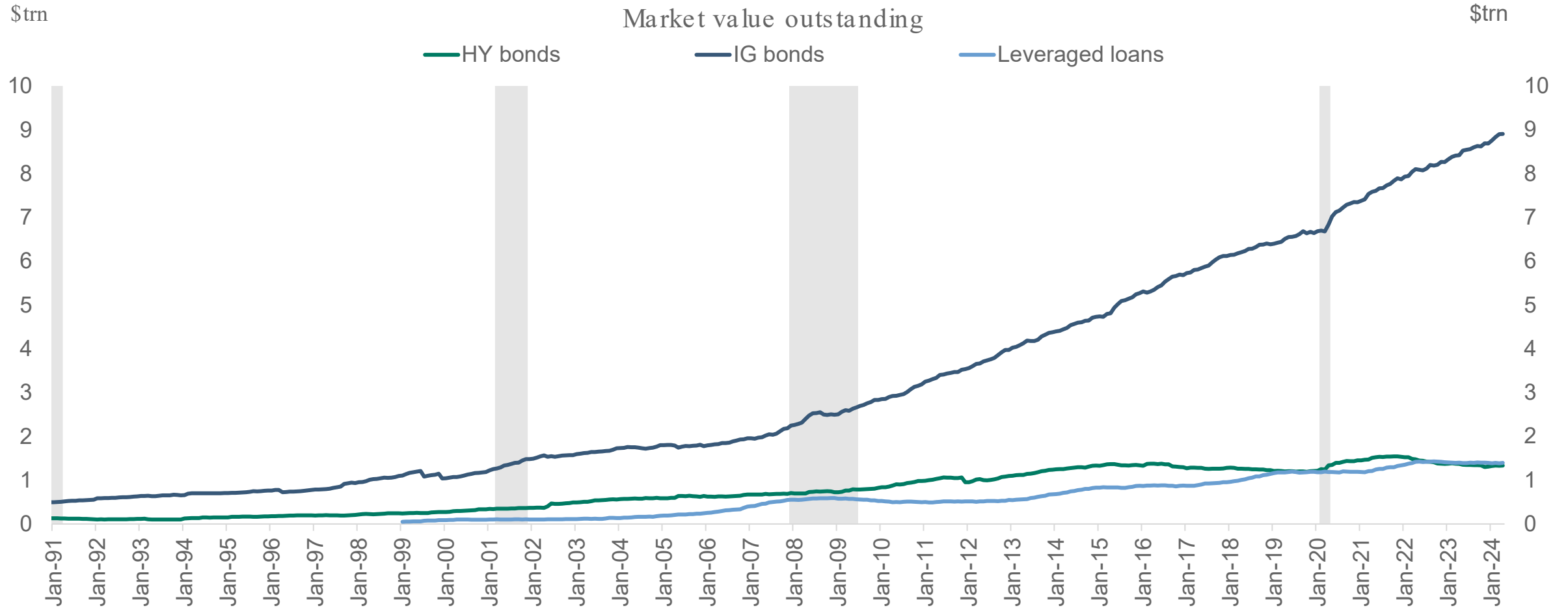


Source: ICE BofA, Bloomberg, Apollo Chief Economist. Note: Breakdown by market value. Data as of 30th April 2024

Quality composition of the leveraged loans index

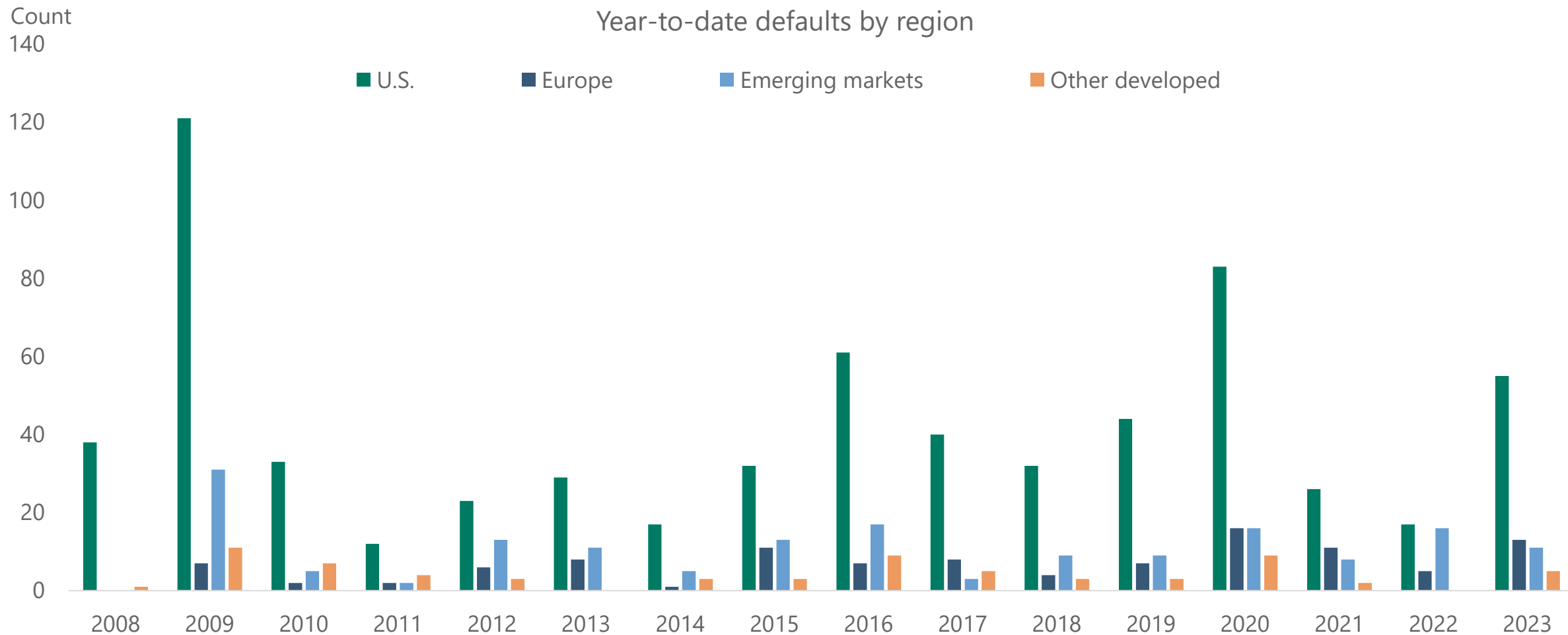


IG market is nine times bigger than HY and nine times bigger than the loan market



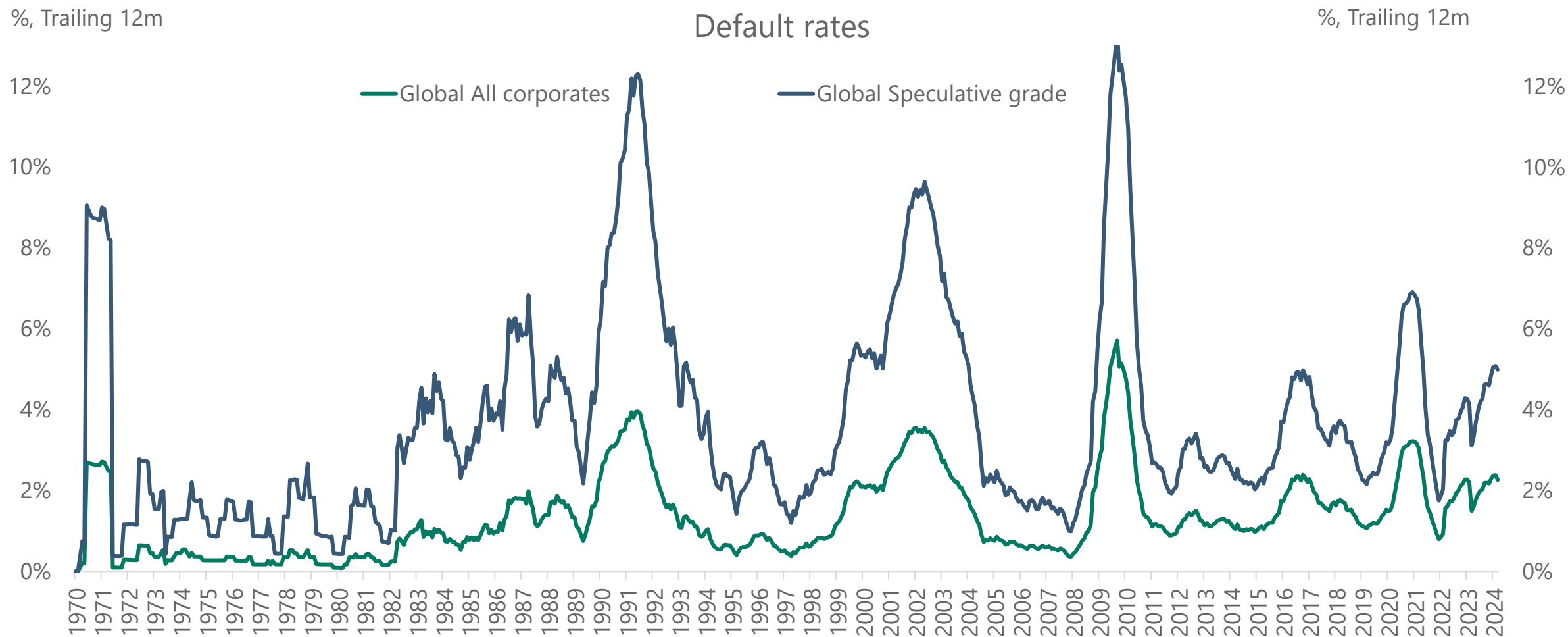
Source: ICE BofA, Bloomberg, PitchBook LCD, Apollo Chief Economist. Note: Ticker used for HY is H0A0 Index and for IG it is C0A0 Index and for Loans it is SPBDALB Index.

Default rates by region

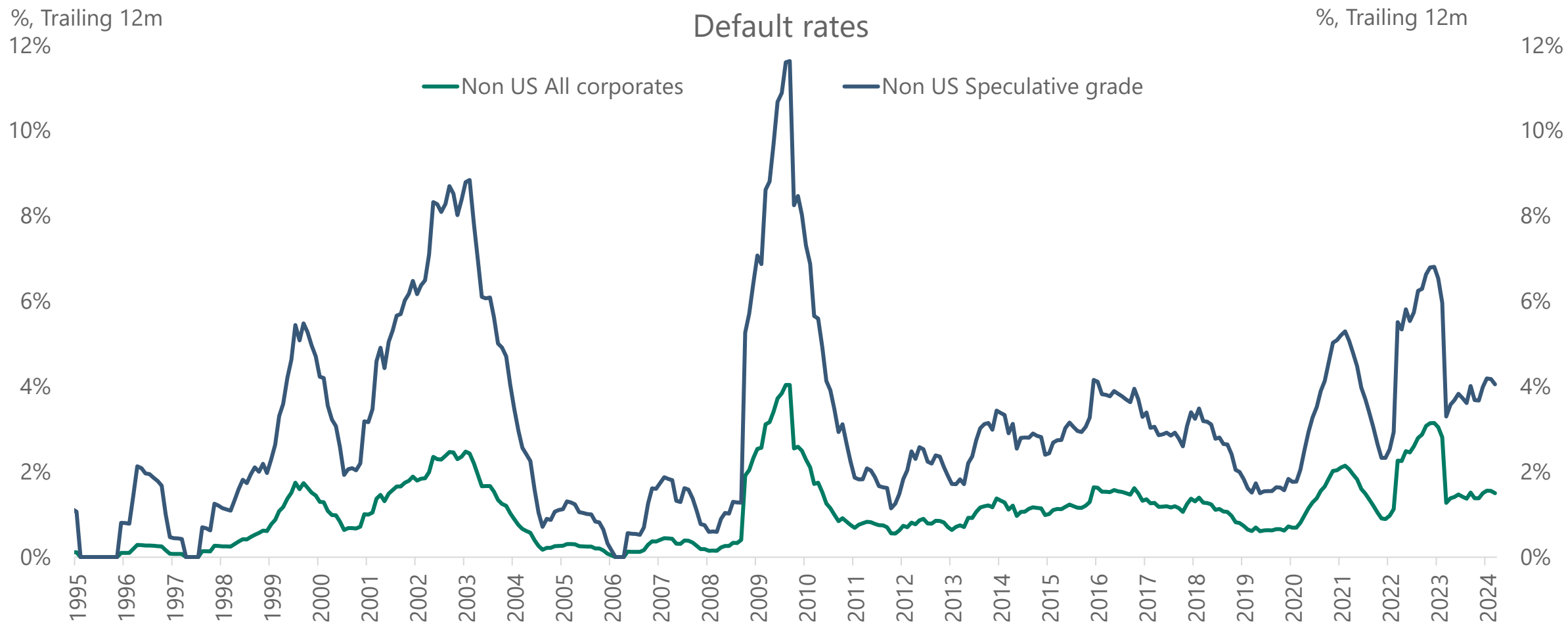


Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®, Apollo Chief Economist. Note: Data as of 30th June 2023

Global corporate default rates

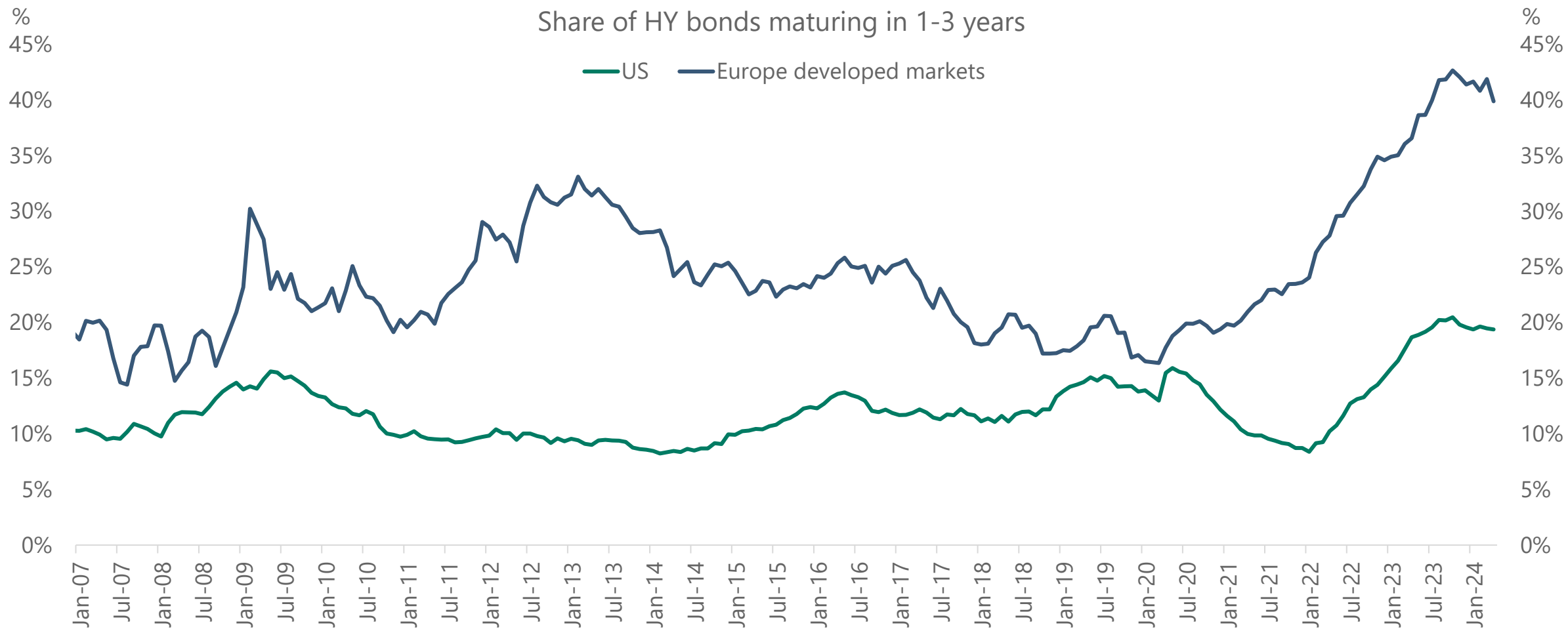


Non-US corporate default rates

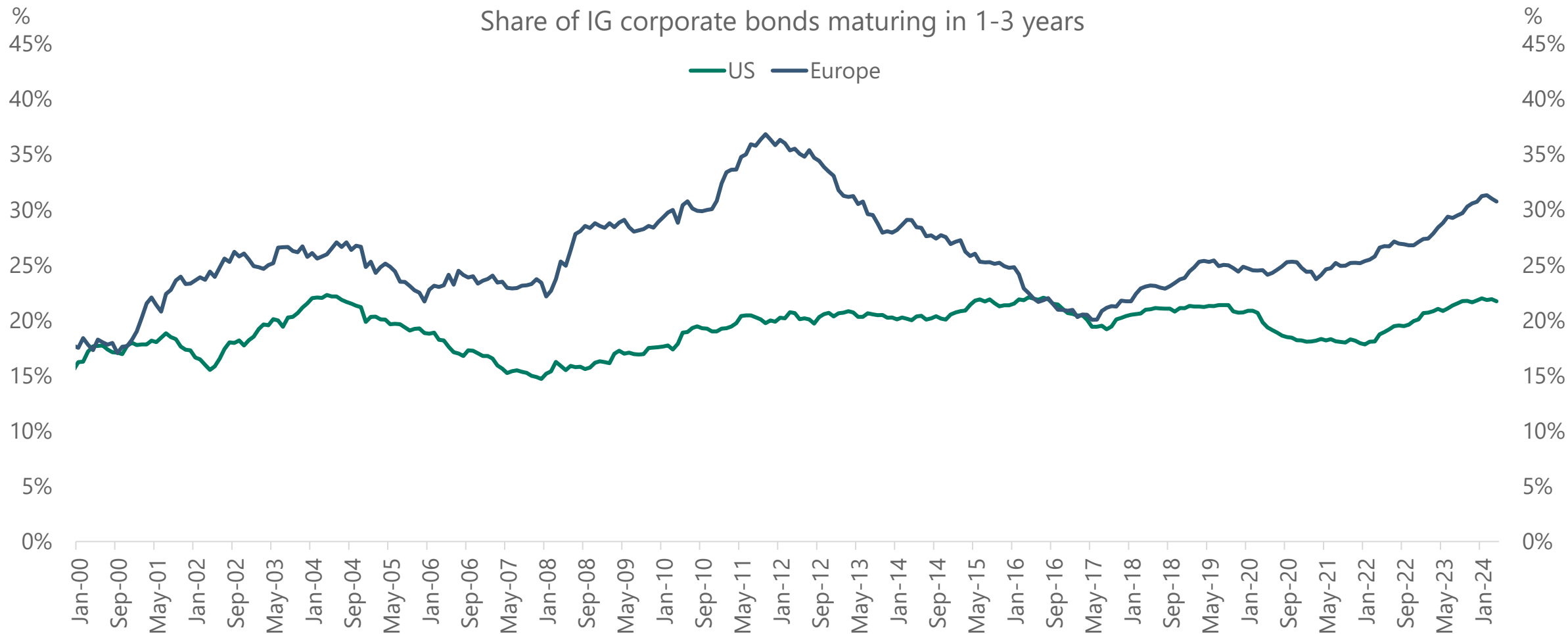


Source: Moody's Analytics, Apollo Chief Economist

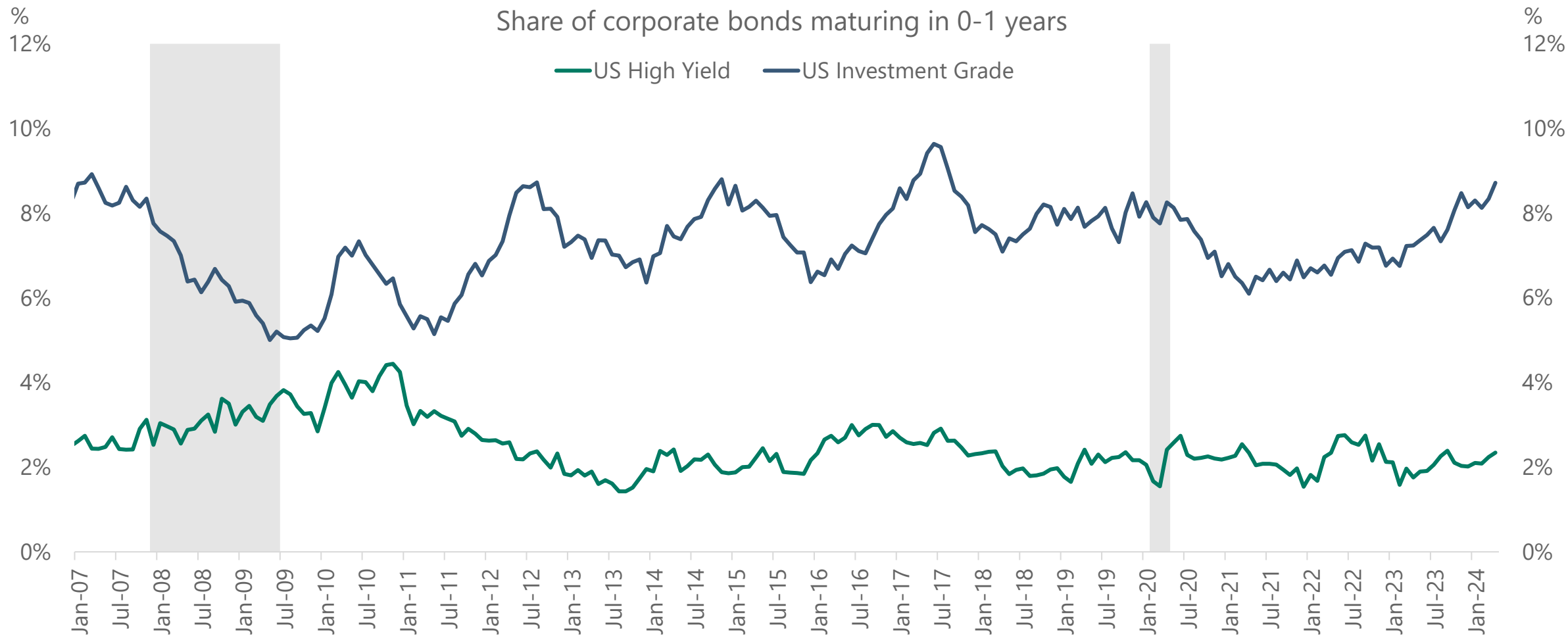
HY: Europe hitting the maturity wall before the US



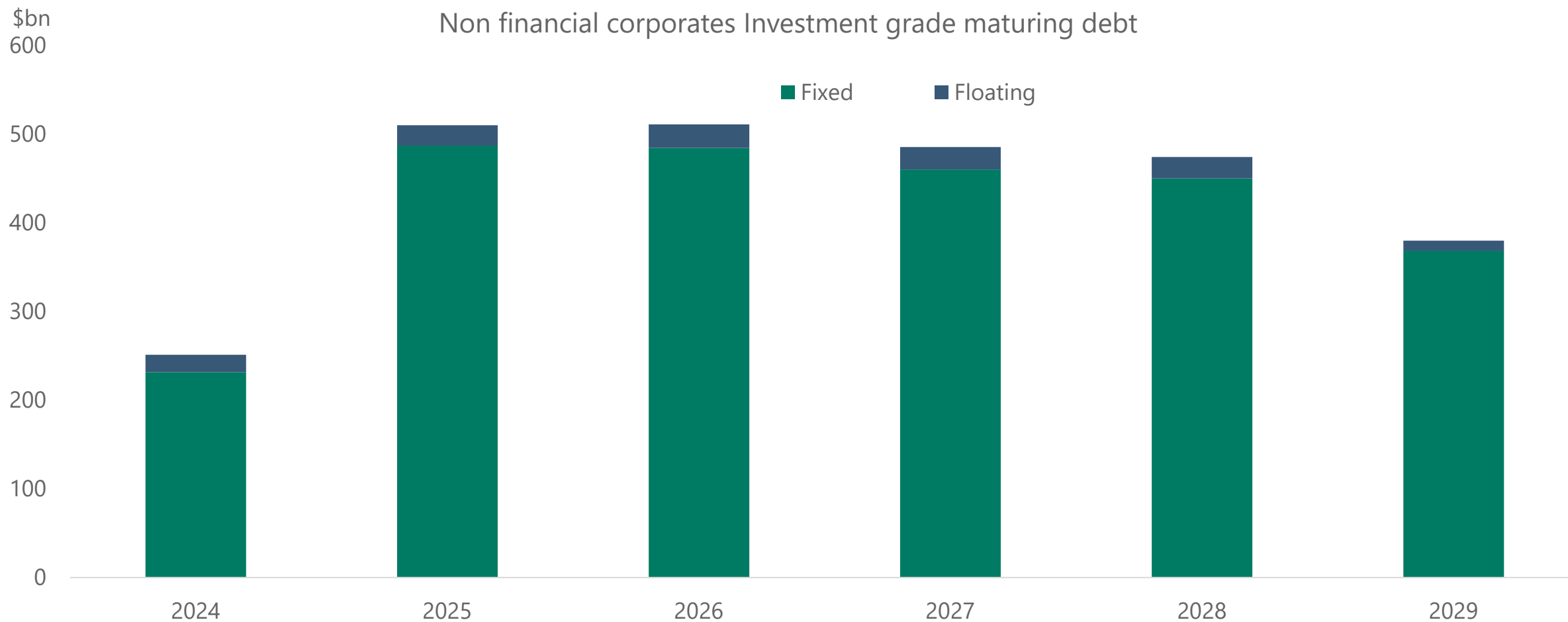
IG: Europe hitting the maturity wall before the US



The share of IG and HY bonds maturing within a year

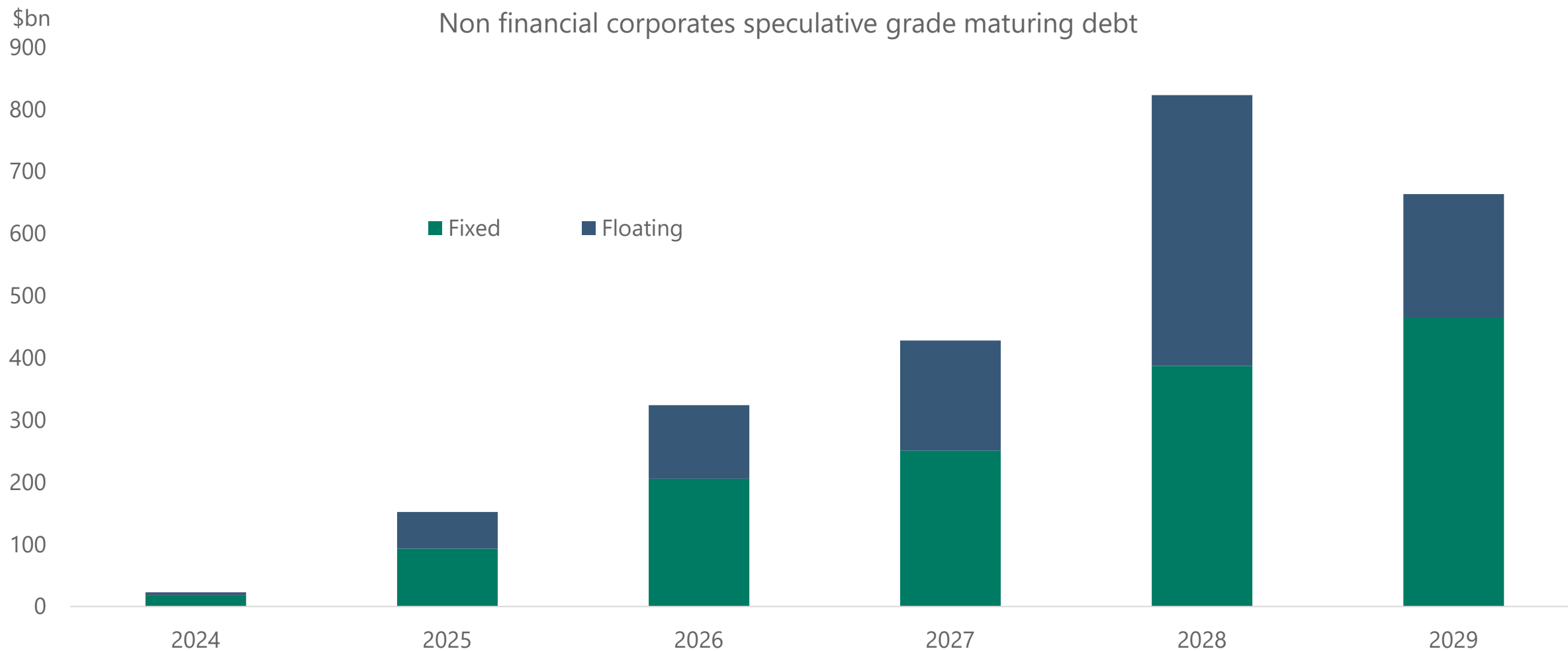


Investment grade maturity wall



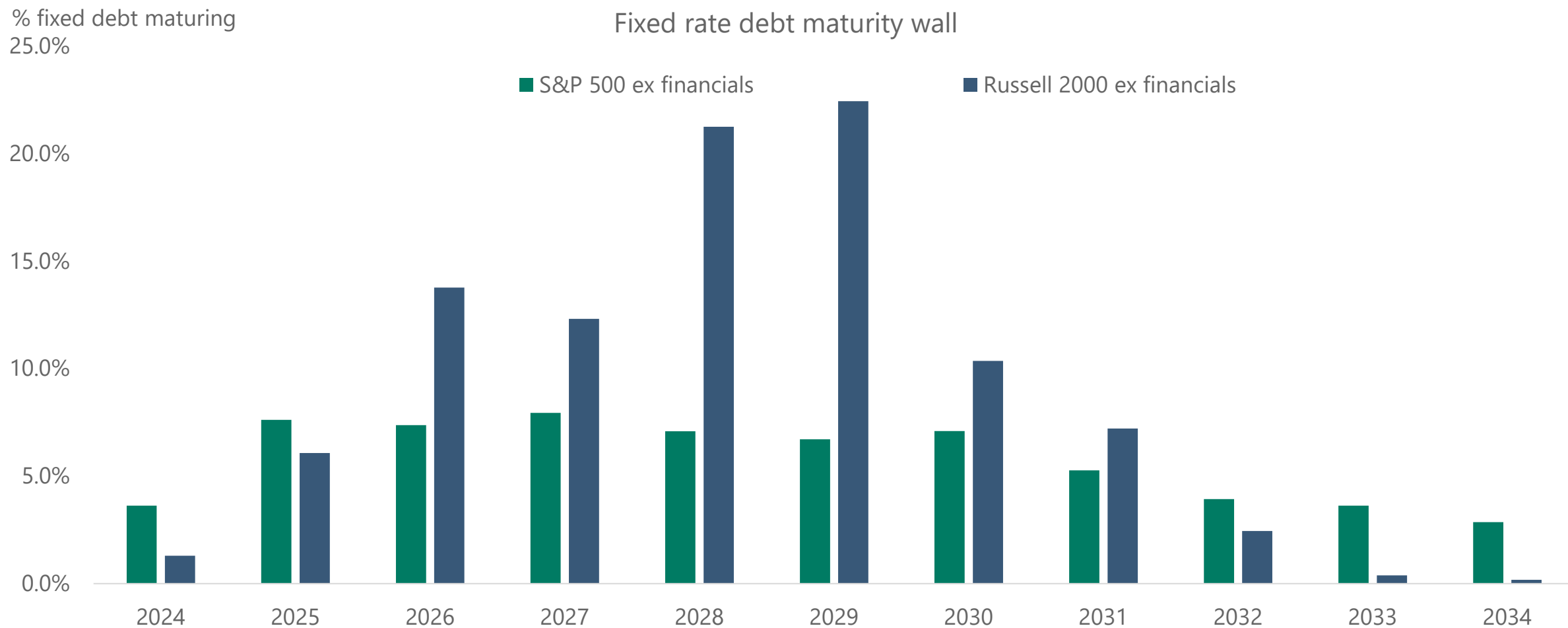
Source: Bloomberg, Apollo Chief Economist. Note: Data as of May 2024, using SRCH <GO> function on Bloomberg and includes corporate bonds and loan (tranches)

High yield maturity wall



Source: Bloomberg, Apollo Chief Economist. Note: Data as of May 2024, using SRCH <GO> function on Bloomberg and includes corporate bonds and loan (tranches)

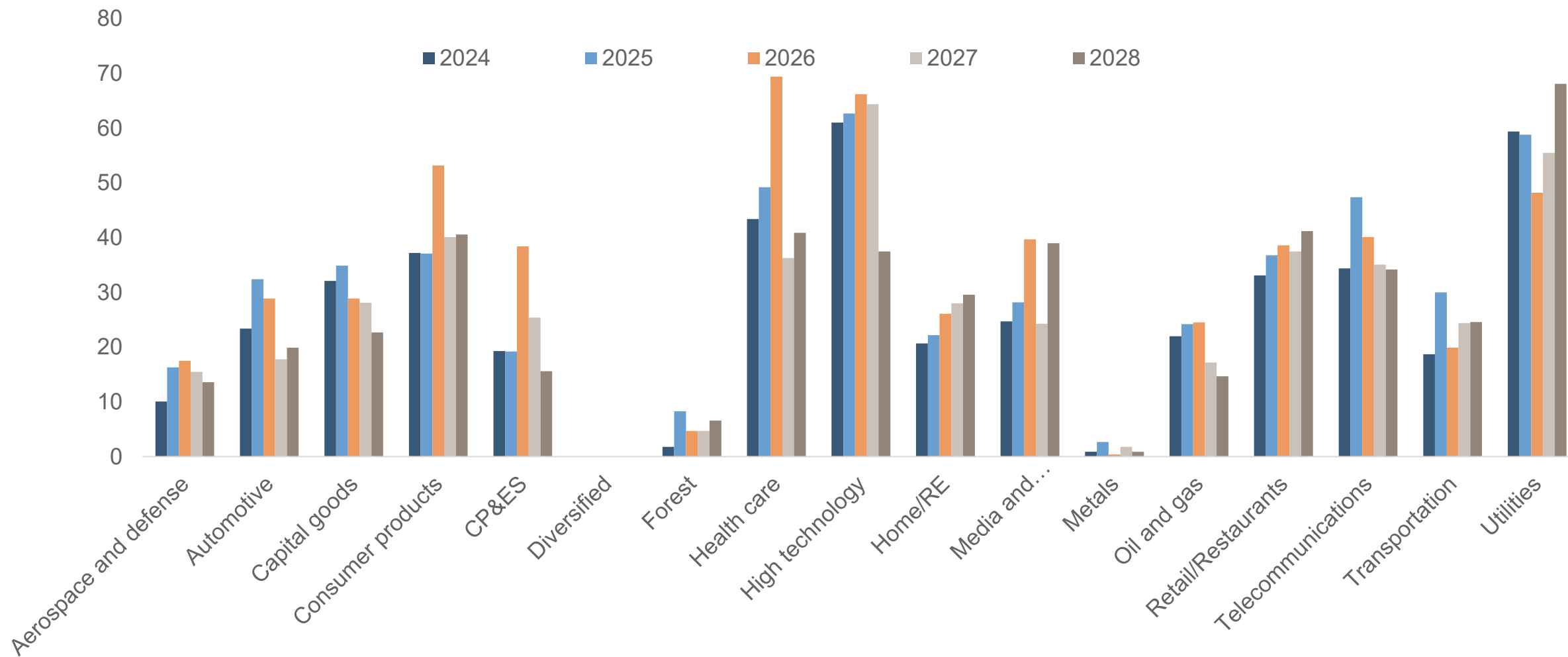
Fixed rate maturity for small vs large companies



IG: US Non financials maturity wall

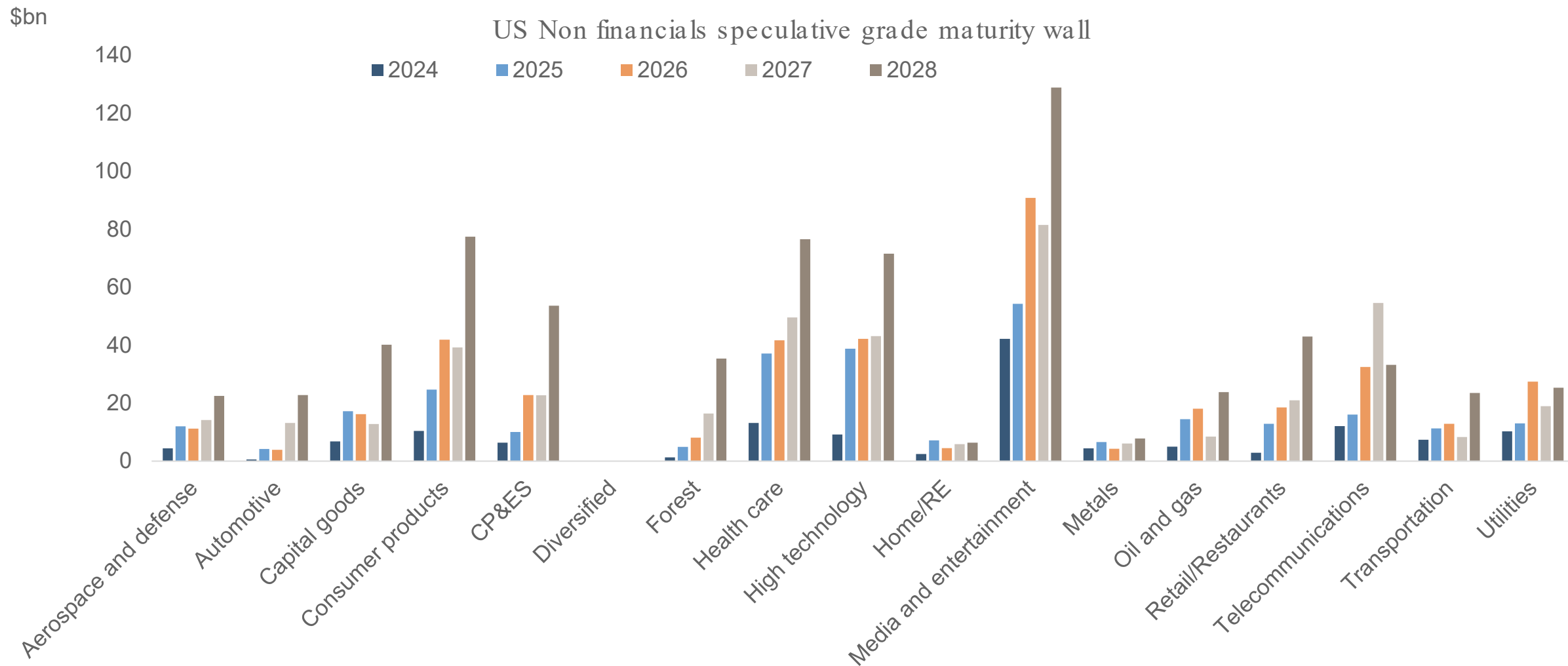
\$bn

US Non financials Investment Grade maturity wall



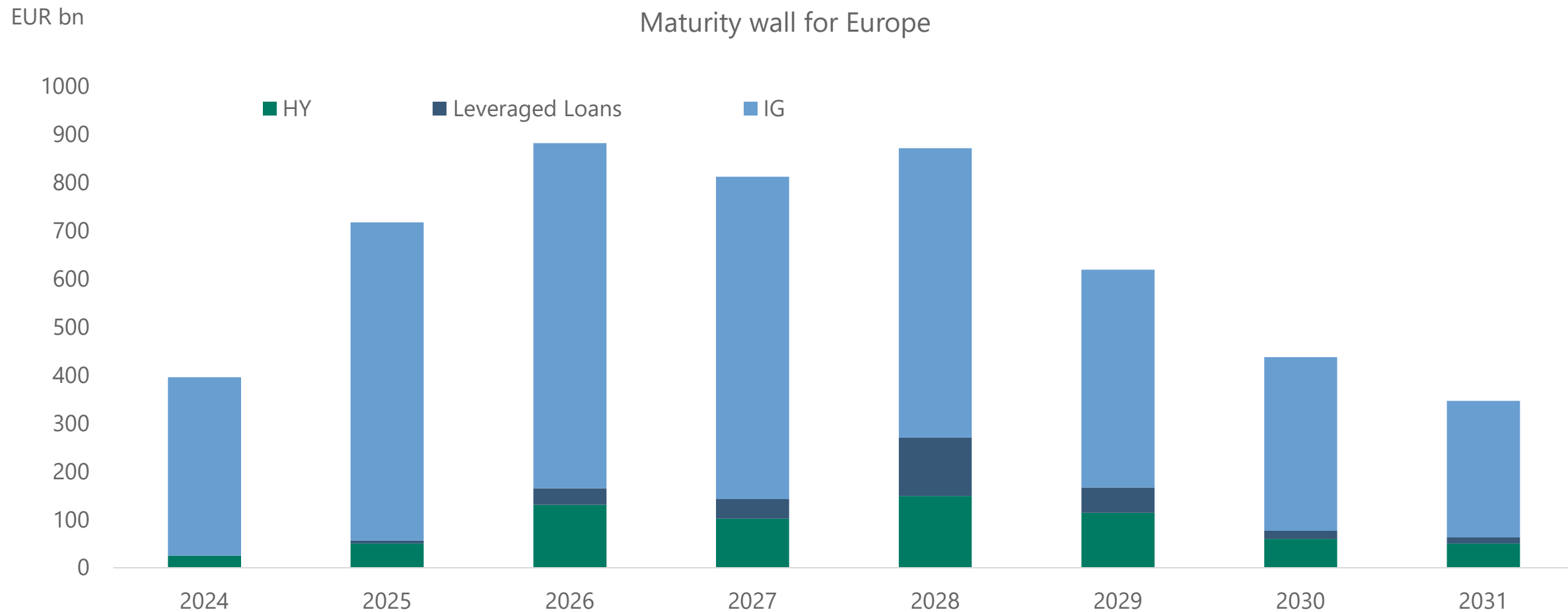
Source: S&P, Apollo Chief Economist. Note: CP&ES--Chemicals, packaging, and environmental services. FP&BM--Forest products and building materials. Media and entertainment includes the leisure sector. Includes bonds, loans, and revolving credit facilities that are rated by S&P Global Ratings. Data as of Jan 1, 2024.

HY: US Non financials maturity wall



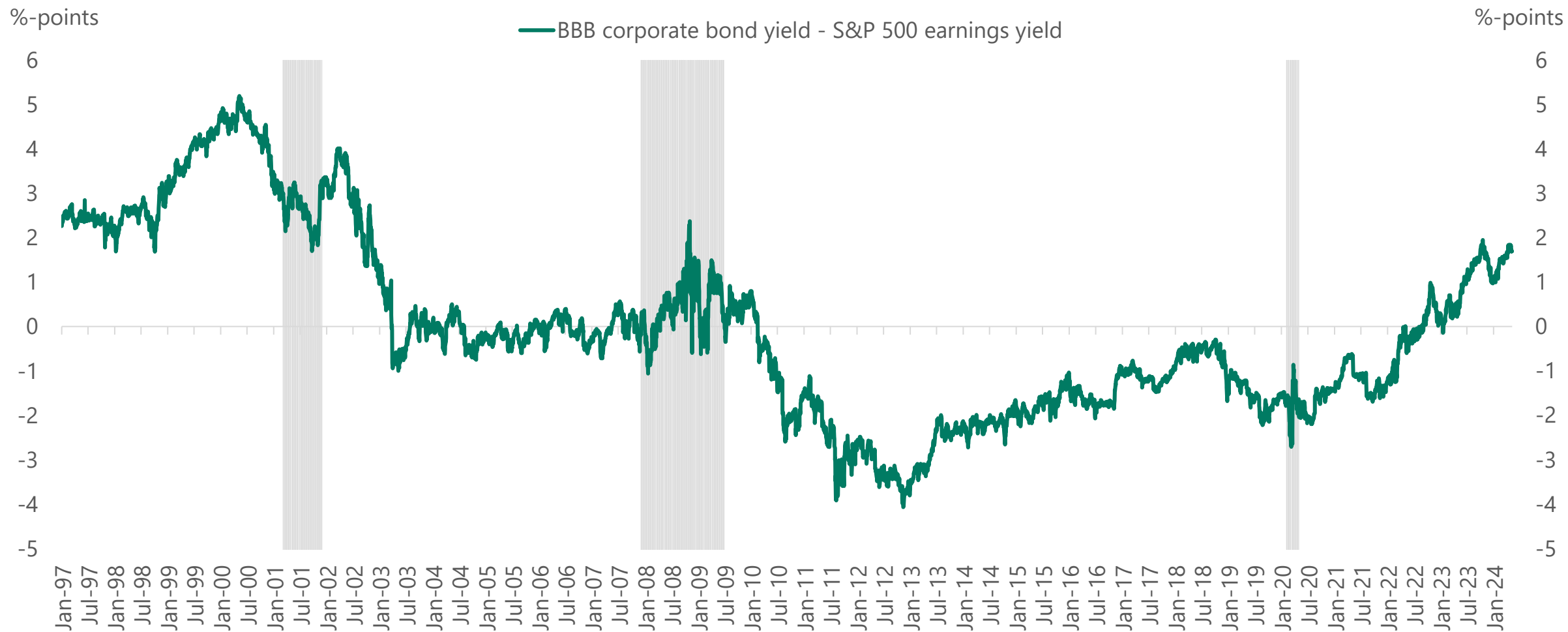
Source: S&P, Apollo Chief Economist. Note: CP&ES--Chemicals, packaging, and environmental services. FP&BM--Forest products and building materials. Media and entertainment includes the leisure sector. Includes bonds, loans, and revolving credit facilities that are rated by S&P Global Ratings. Data as of Jan 1, 2024.

Europe maturity wall

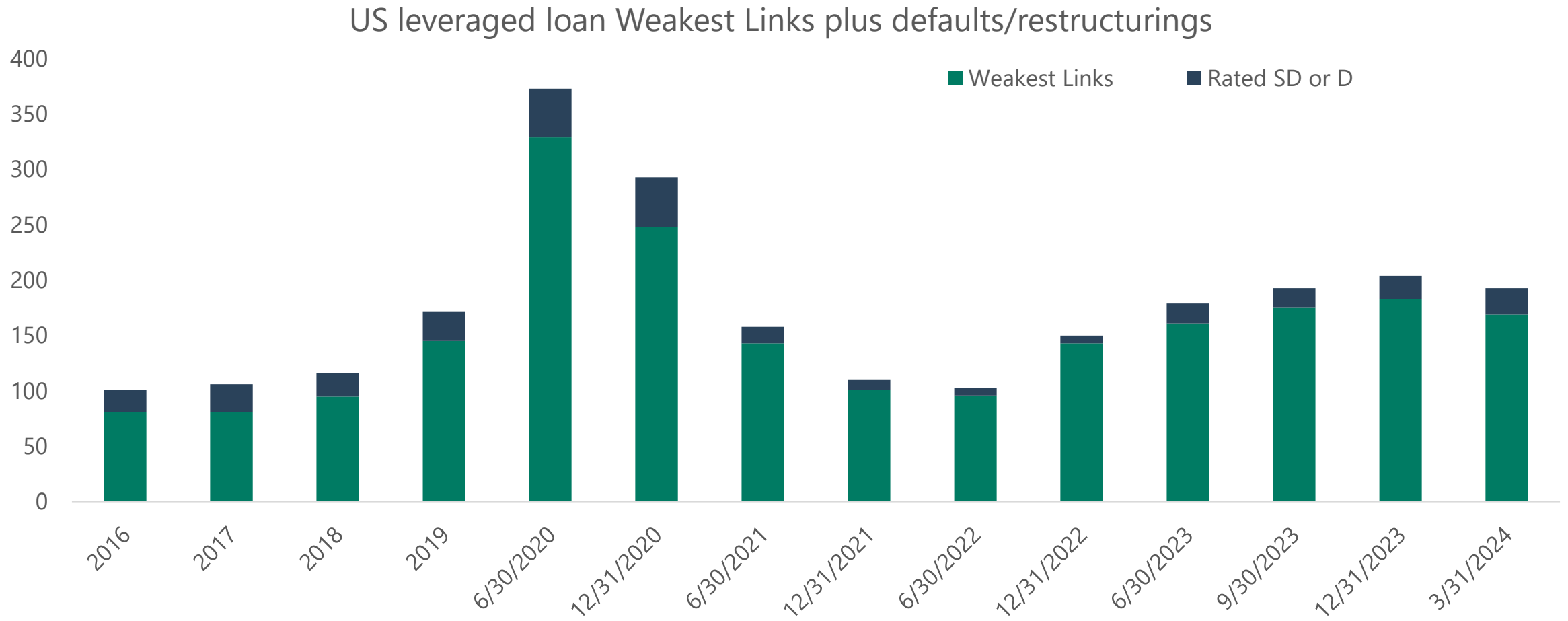


Source: PitchBook LCD, Bloomberg, Apollo Chief Economist. Note: Maturity wall for HY and IG bonds from SRCH <GO> function on Bloomberg.

Bonds more attractive than equities



US: Leveraged loan weakest links decrease in Q1

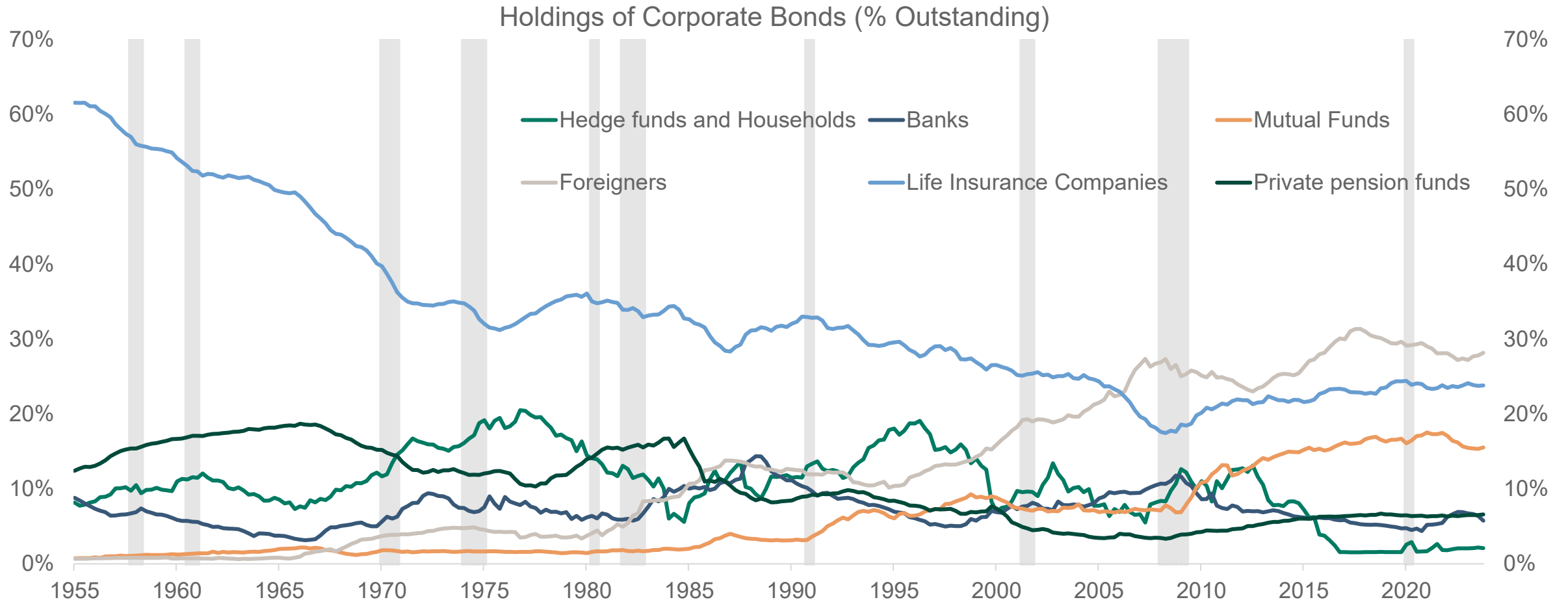


Source: Pitchbook, LCD; Morningstar LSTA US Leveraged Loan Index, Apollo Chief Economist (Data through June 30, 2023) (SD and D - An obligor rated 'SD' (Selective Default) or 'D' has failed to pay one or more of its financial obligations (rated or unrated) when it came due. A 'D' rating is assigned when Standard & Poor's believes that the default will be a general default and that the obligor will fail to pay all or substantially all of its obligations as they come due. An 'SD' rating is assigned when Standard & Poor's believes that the obligor has selectively defaulted on a specific issue or class of obligations, but it will continue to meet its payment obligations on other issues or classes of obligations in a timely manner.)

Corporate bond holdings



Who owns US credit? Since 2020 foreigners and mutual funds have been lowering their shares. Banks and life insurance have been increasing their shares.

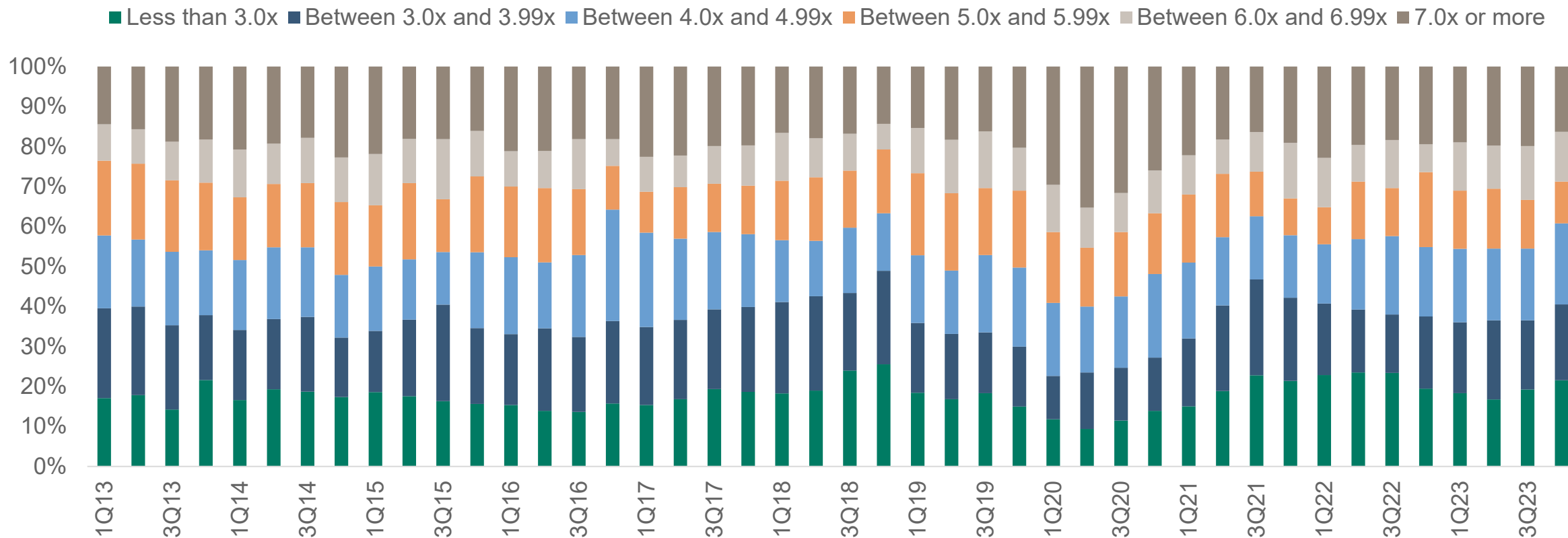


Loans/CLOs



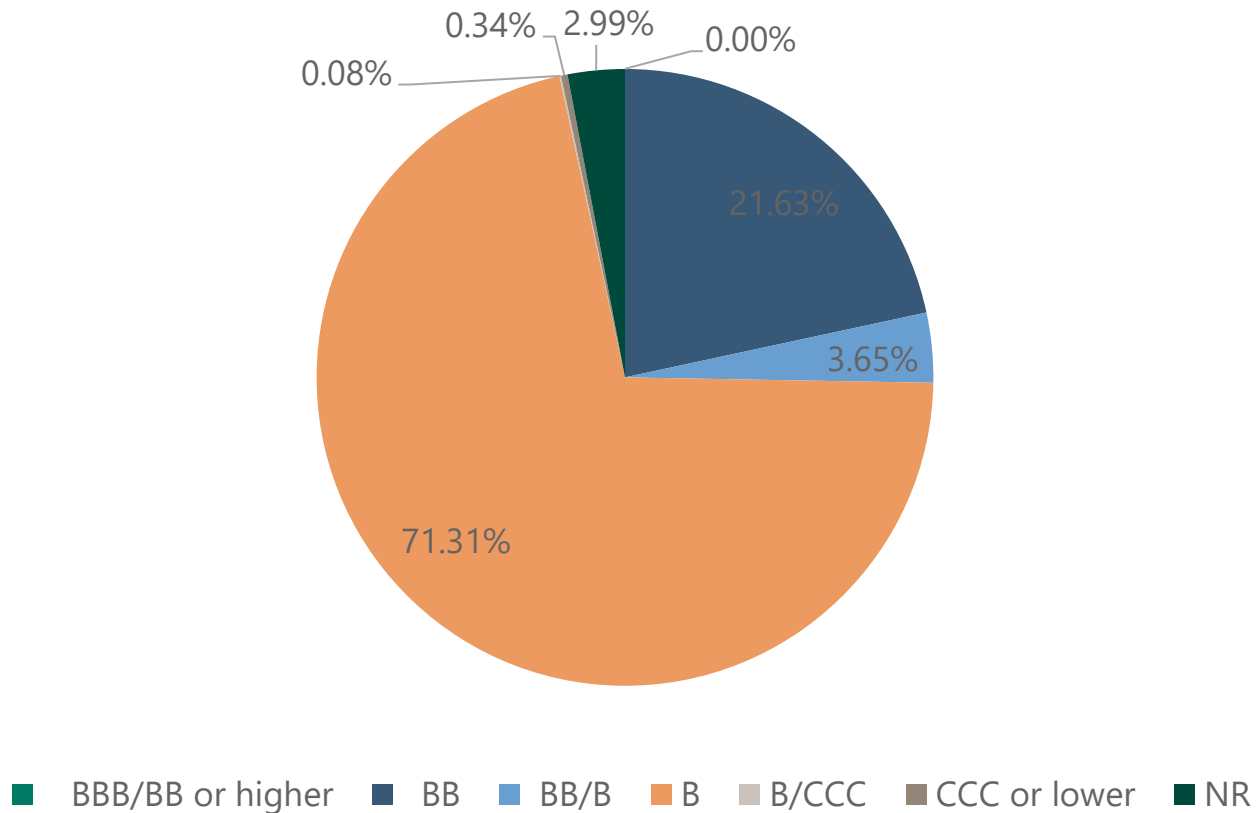
Leveraged loan deals, by multiple

Share of leveraged deals



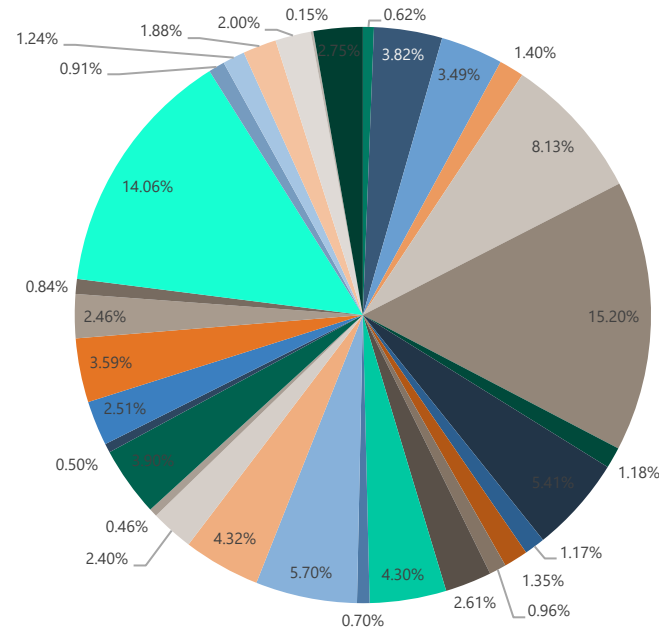
Leveraged loans rating distribution, 2024Q2

US leveraged loan rating distribution



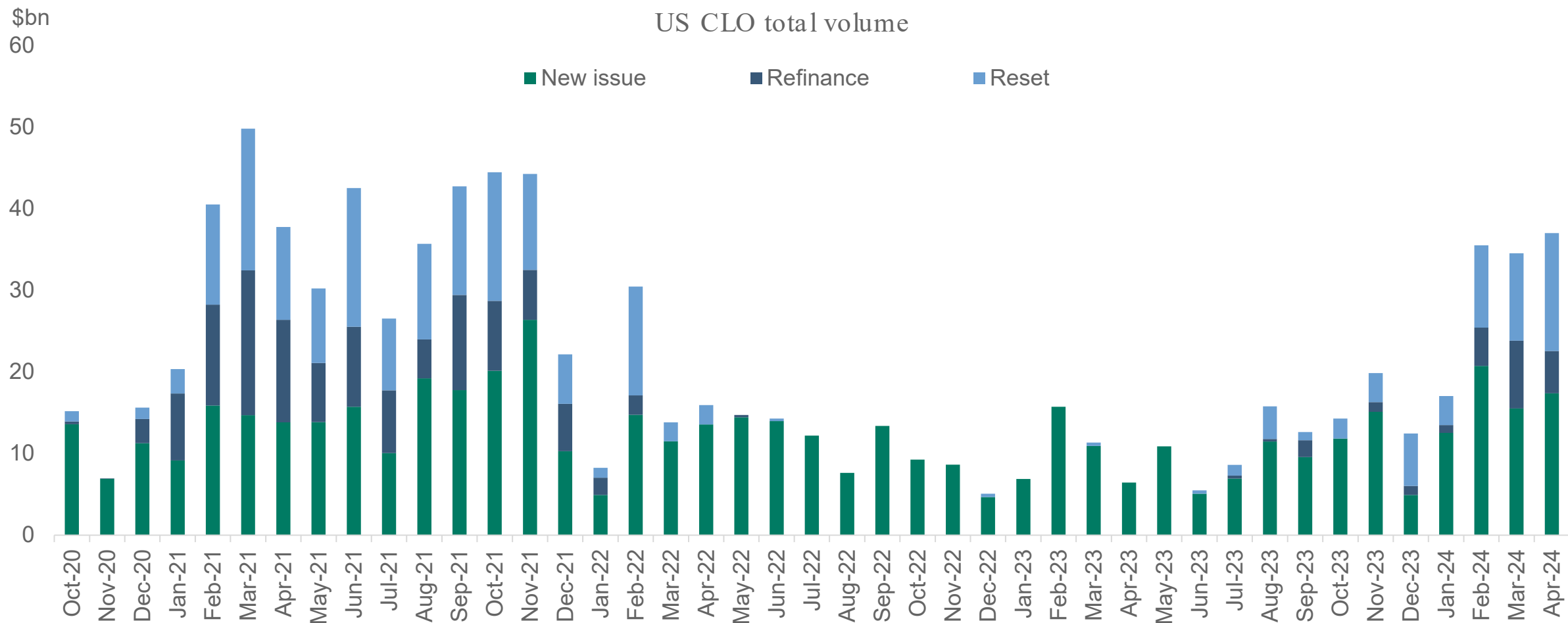
Leveraged loans distribution, by industry, 2024Q2

US leveraged loan industry distribution



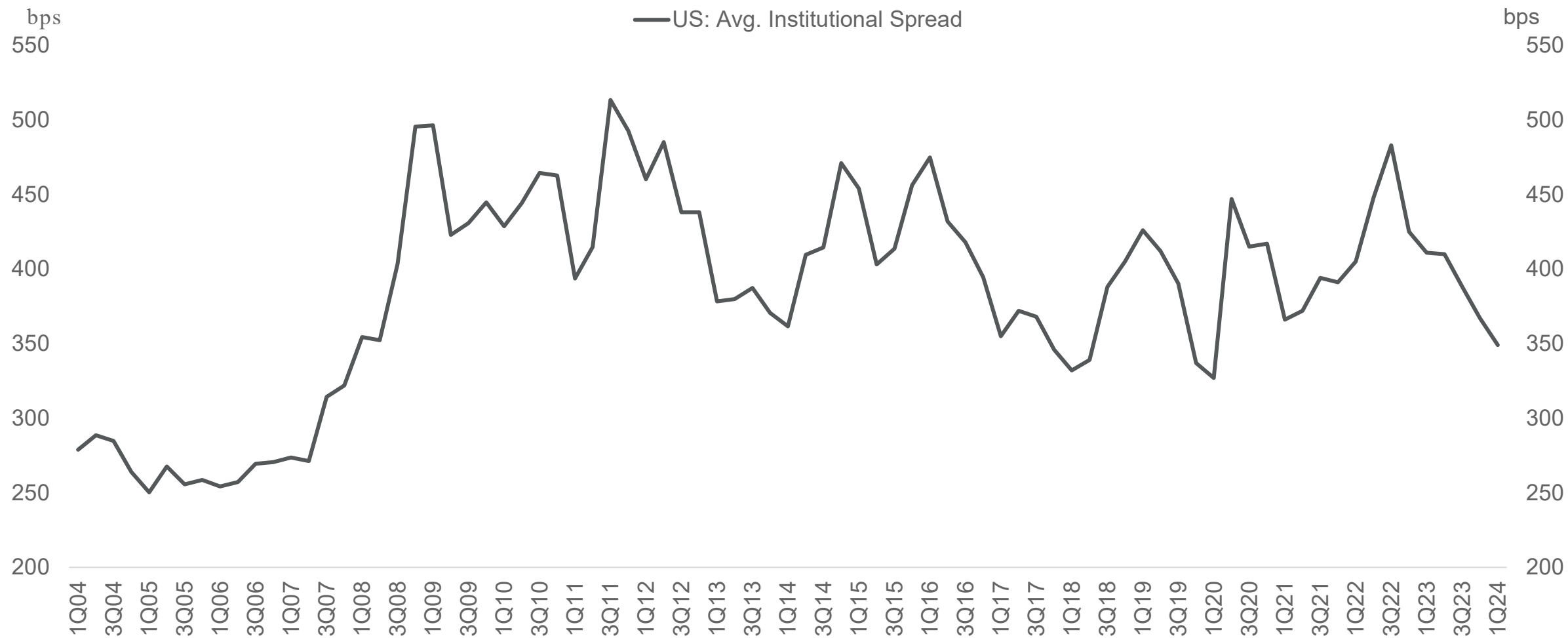
- Aerospace & Defense
- Automotive
- Building Materials
- Cable
- Chemicals
- Computers & Electronics
- Consumer Nondurables
- Entertainment & Leisure
- Environmental
- Food & Beverage
- Forest Product
- Gaming & Hotel
- Healthcare
- Home Furnishings
- Insurance
- Manufacturing & Machinery
- Metals & Mining
- Not for Profit
- Oil & Gas
- Printing & Publishing
- Real Estate
- Restaurants
- Retail
- Retail Food & Drug
- Services & Leasing
- Telecom
- Telecom Equipment
- Textile & Apparel
- Transportation
- TV
- Utilities

US CLO total volume



Source: PitchBook LCD, Apollo Chief Economist.

Loans: Institutional spread relative to bespoke loans

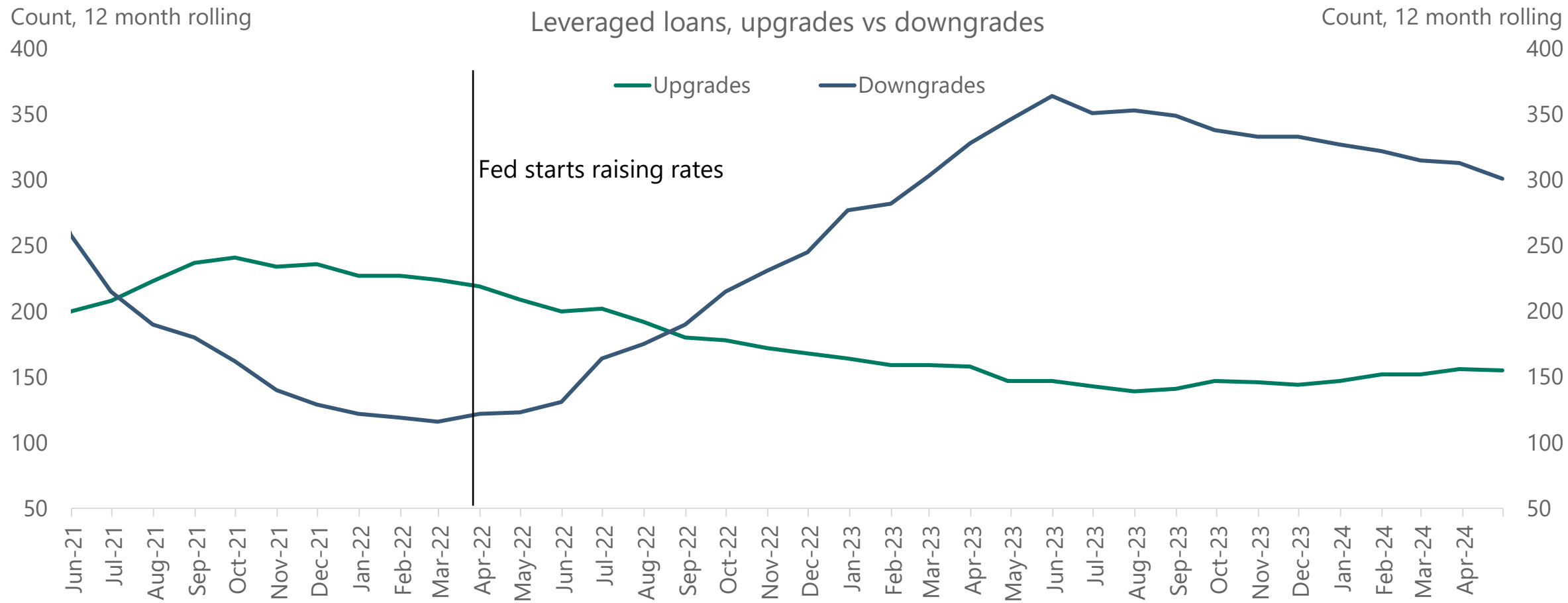


Distressed ratio for leveraged loans remains elevated



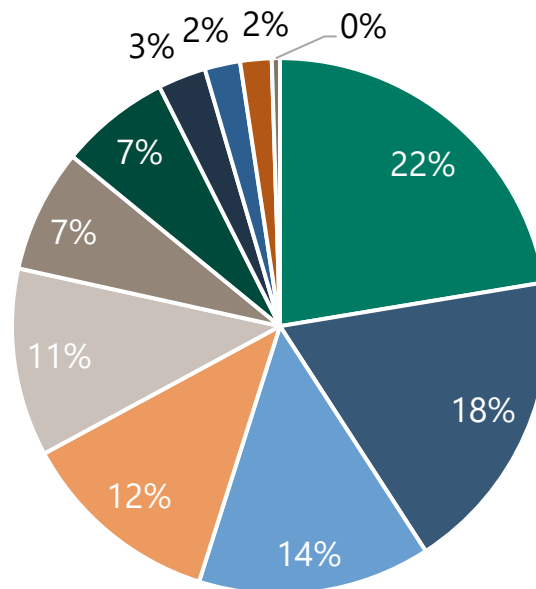
Source: PitchBook LCD, Apollo Chief Economist. Note: For percent loans priced below 80

More downgrades than upgrades after the Fed started hiking



Leveraged loans index weights

Morningstar leveraged loans index weights



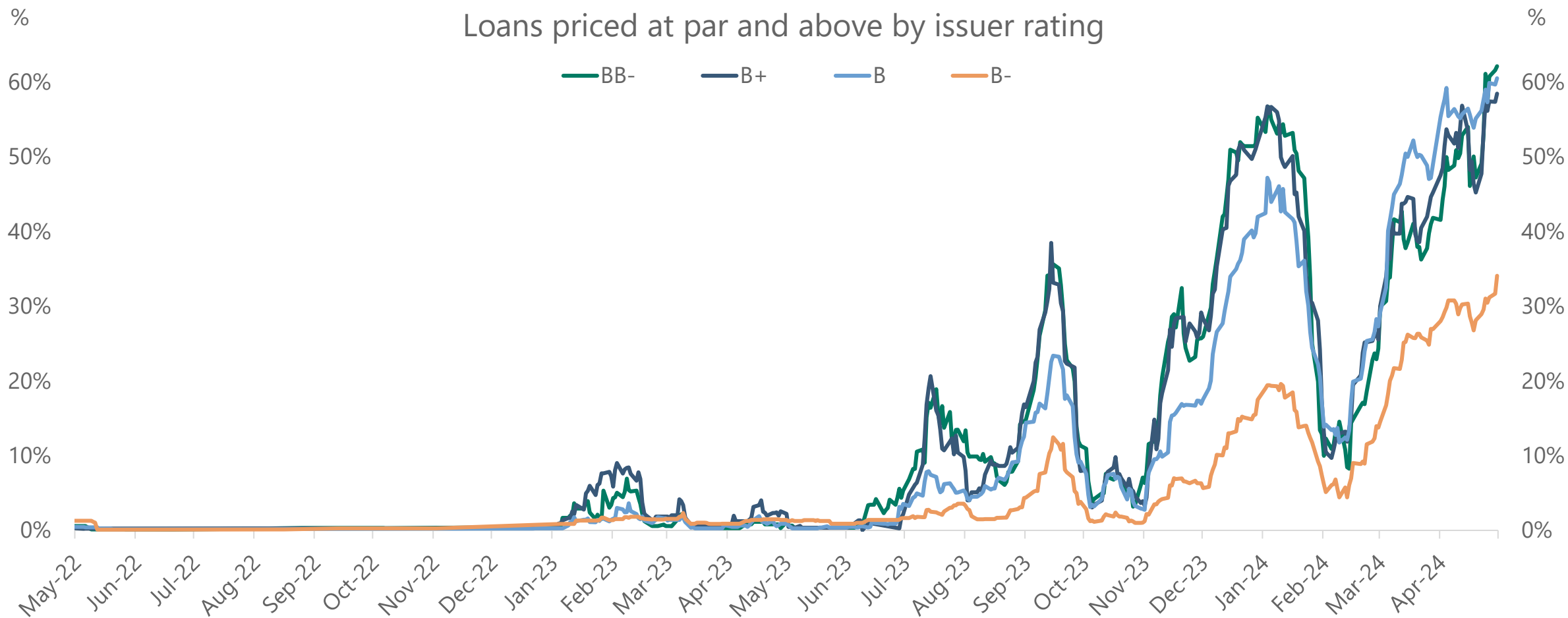
- Industrials
- Information Technology
- Consumer Discretionary
- Health Care
- Communication Services
- Materials
- Financials
- Consumer Staples
- Utilities
- Energy
- Real Estate

Loans priced at par and above rising

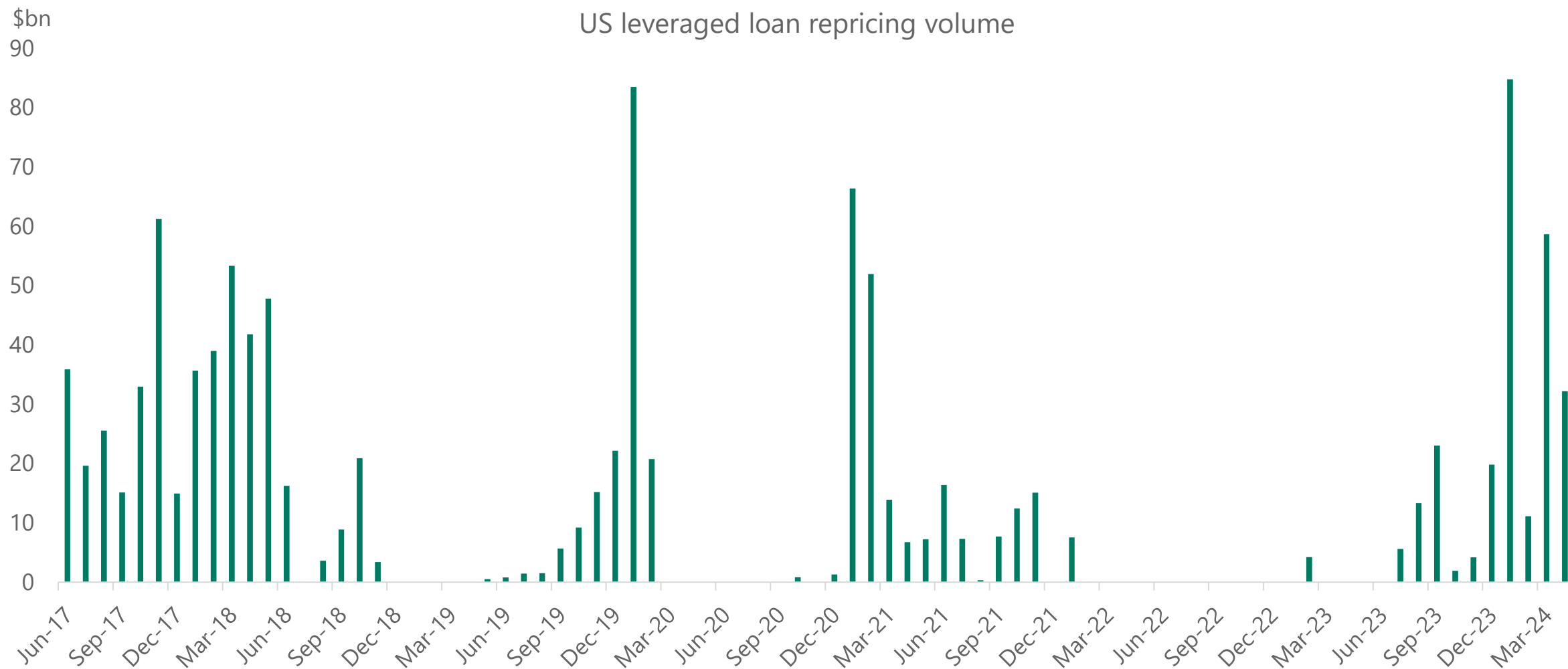


Loans priced at par and above, by rating

Loans priced at par and above by issuer rating



Leveraged loan repricing volume

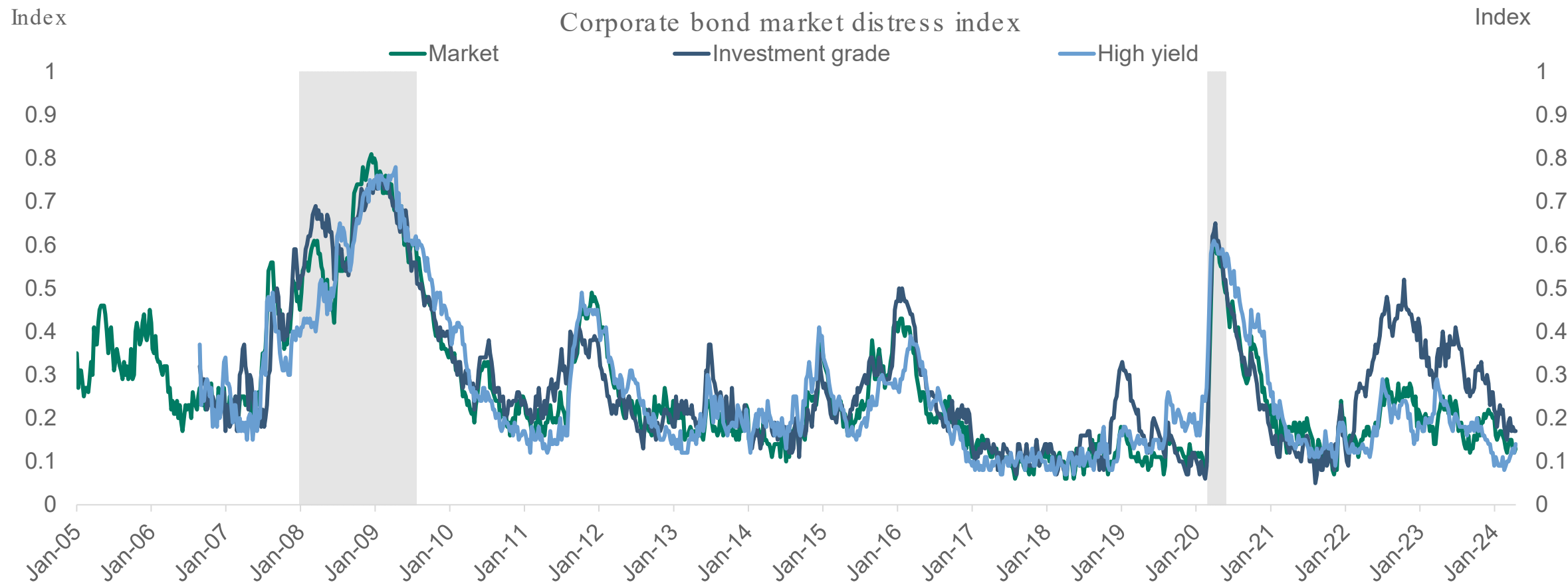


Source: PitchBook LCD, Apollo Chief Economist

Liquidity in US credit markets

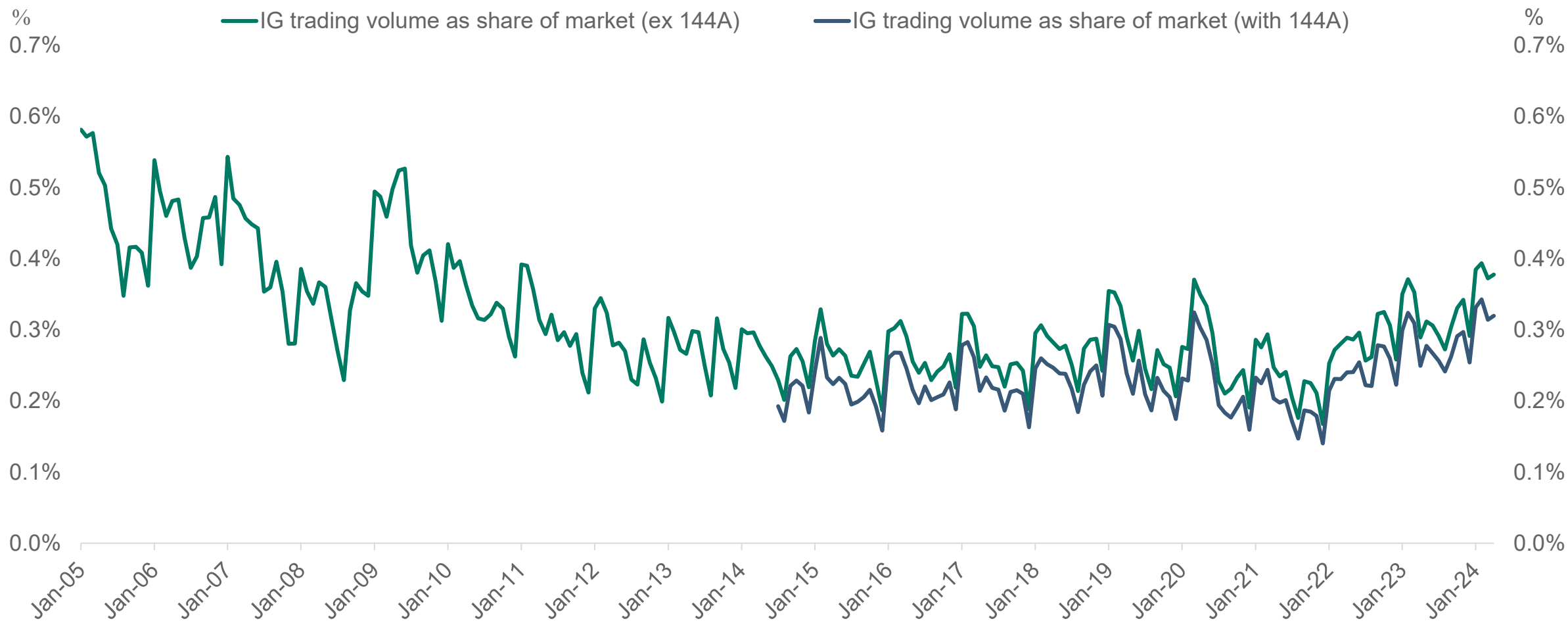


NY Fed measure of corporate bond market functioning

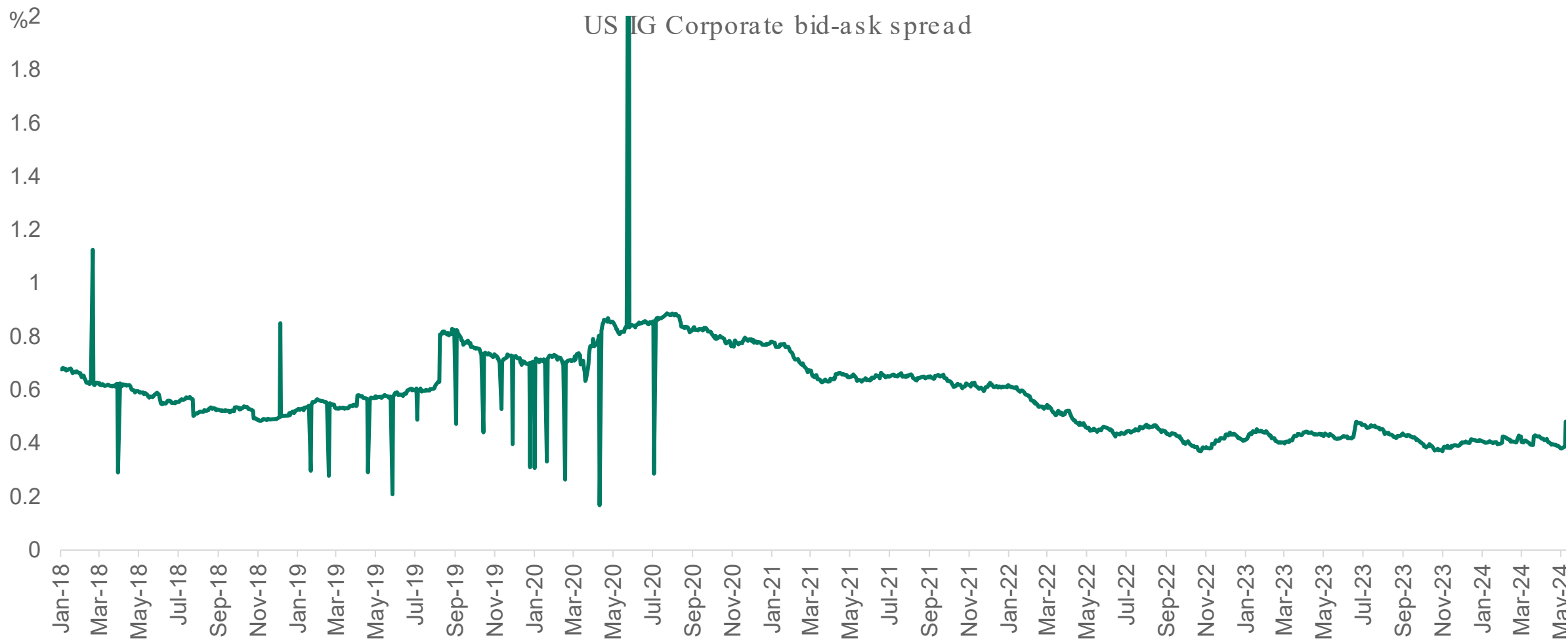


Source: FRB of New York, Apollo Chief Economist (Note: Corporate bonds are a key source of funding for U.S. non-financial corporations and a key investment security for insurance companies, pension funds, and mutual funds. Distress in the corporate bond market can thus both impair access to credit for corporate borrowers and reduce investment opportunities for key financial sub-sectors. CMDI offers a single measure to quantify joint dislocations in the primary and secondary corporate bond markets. Ranging from 0 to 1, a higher level of CMDI corresponds with historically extreme levels of dislocation. CMDI links bond market functioning to future economic activity through a new measure.

IG trading liquidity

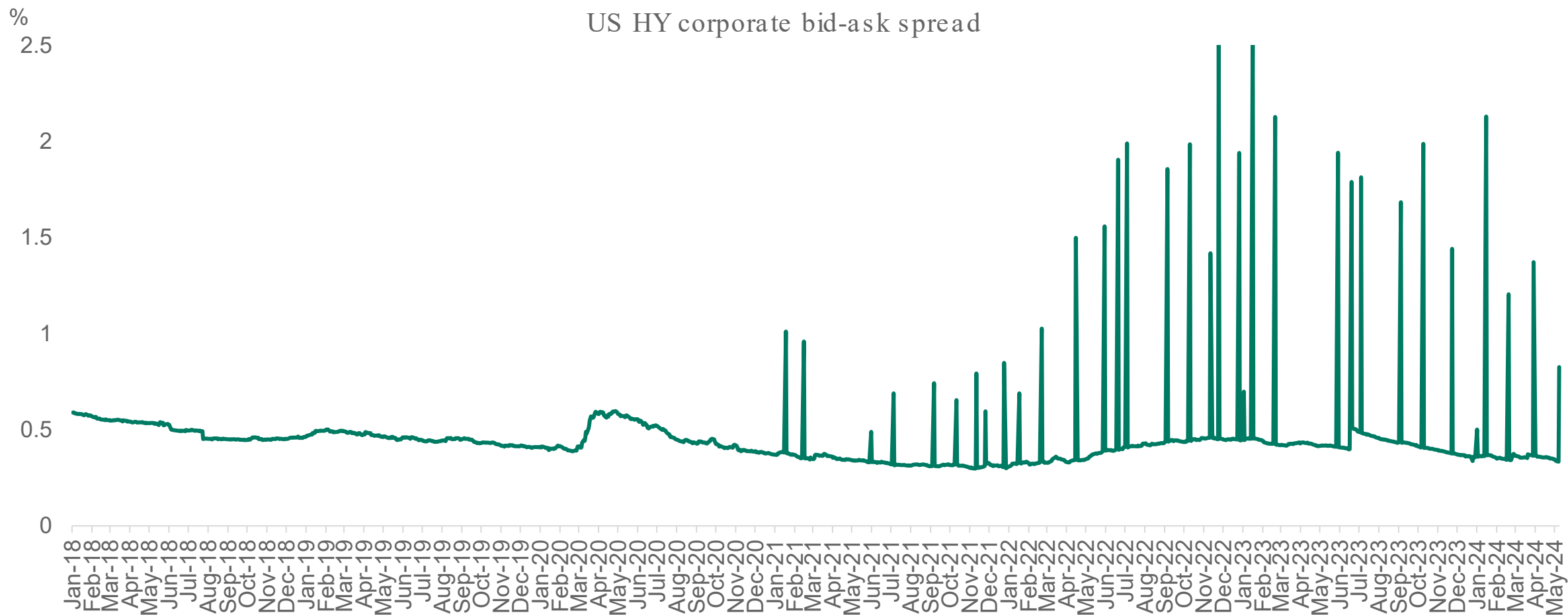


Bid-ask spread for US IG



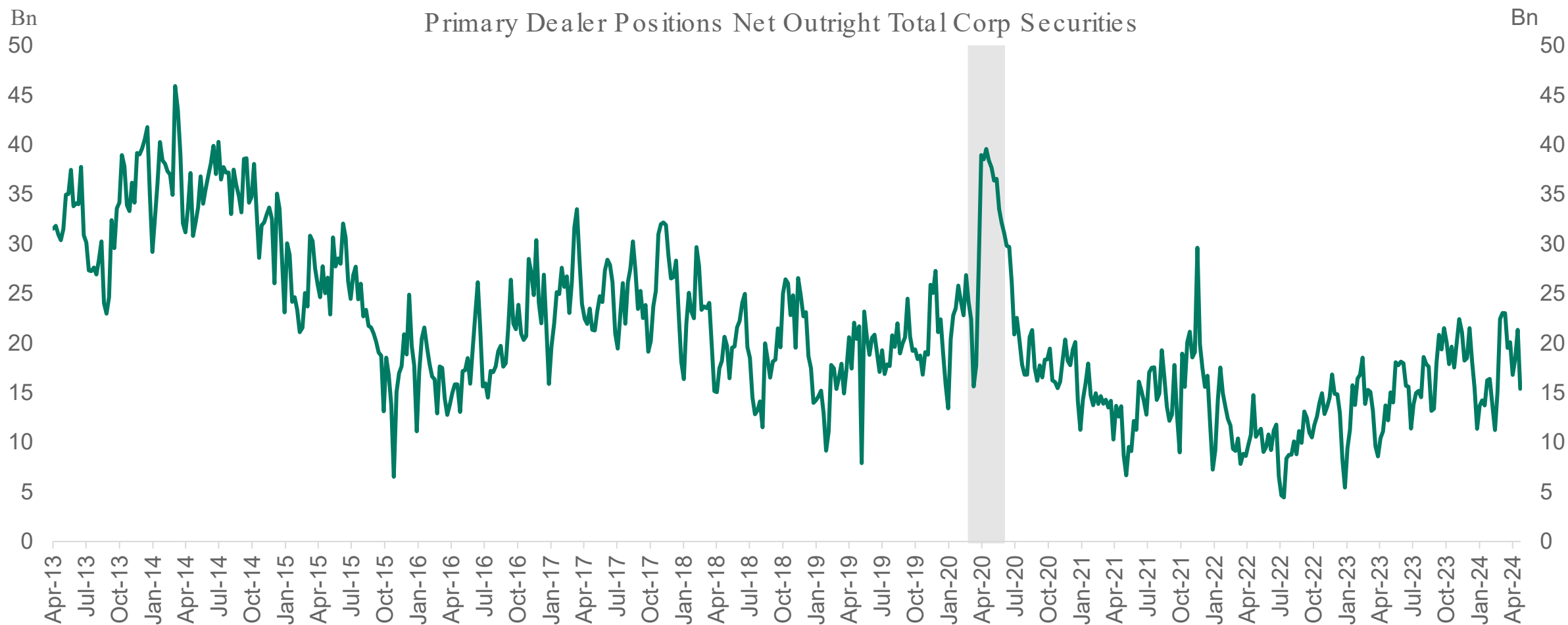
Source: Bloomberg, Apollo Chief Economist. Note: The bid-ask spread is the weighted average bid-ask spread for the Bloomberg Barclays US IG Index.

Bid-ask spread for US HY

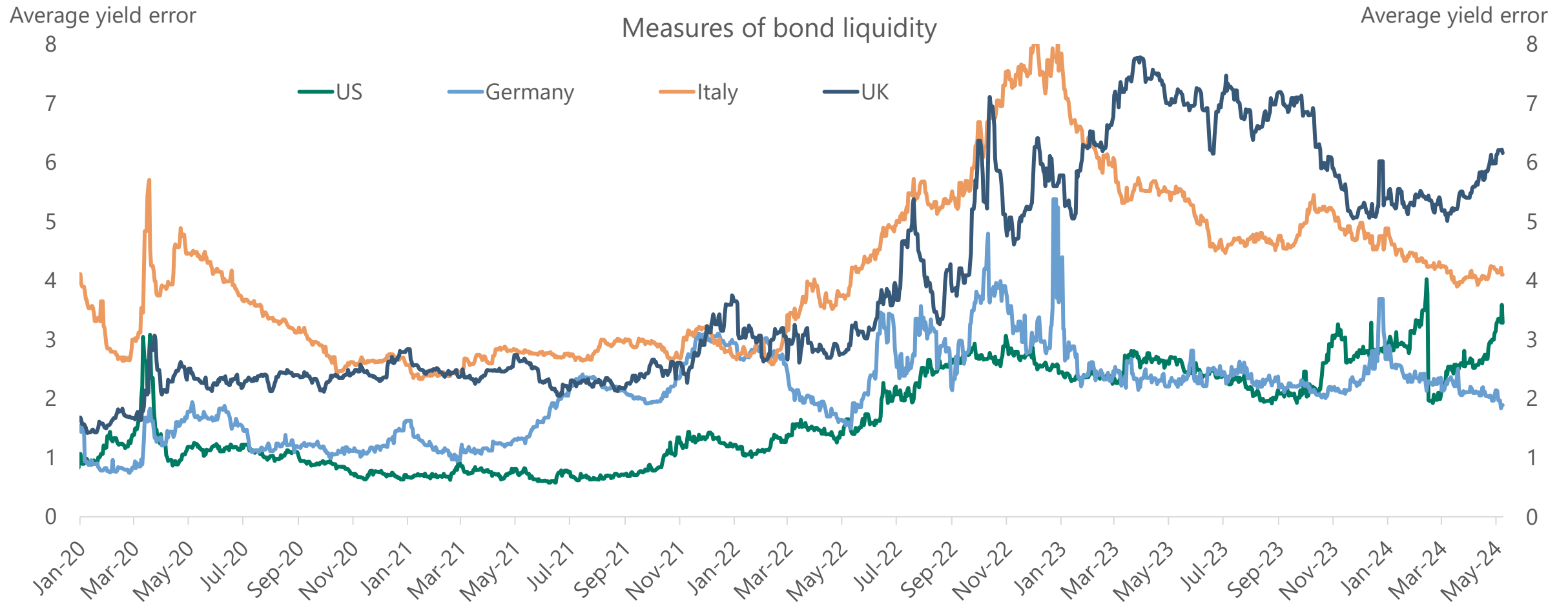


Source: Bloomberg, Apollo Chief Economist. Note: The bid-ask spread is the weighted average bid-ask spread for Bloomberg Barclays US HY Index.

Dealer inventory of corporate bonds (IG+HY)

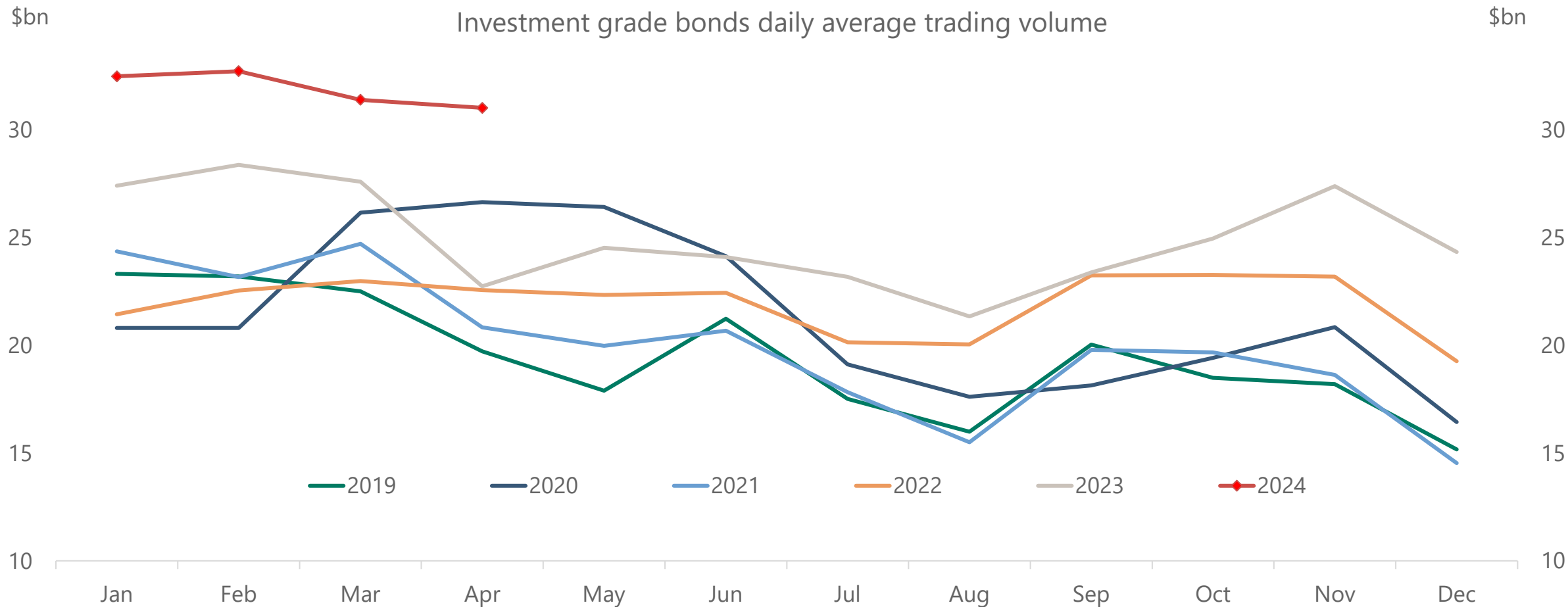


Worse liquidity in the UK and Italian bond market



Source: Bloomberg, Apollo Chief Economist. Note: The index displays the average yield error across the universe of government notes and bonds with remaining maturity 1-year or greater, based off the intra-day Bloomberg relative value curve fitter. When liquidity conditions are favorable the average yield errors are small as any dislocations from fair values are normalized within a short time frame. Average yield error is defined as an aggregate measure for dislocations in Treasury securities across the curve.

IG trading volumes are higher than previous years



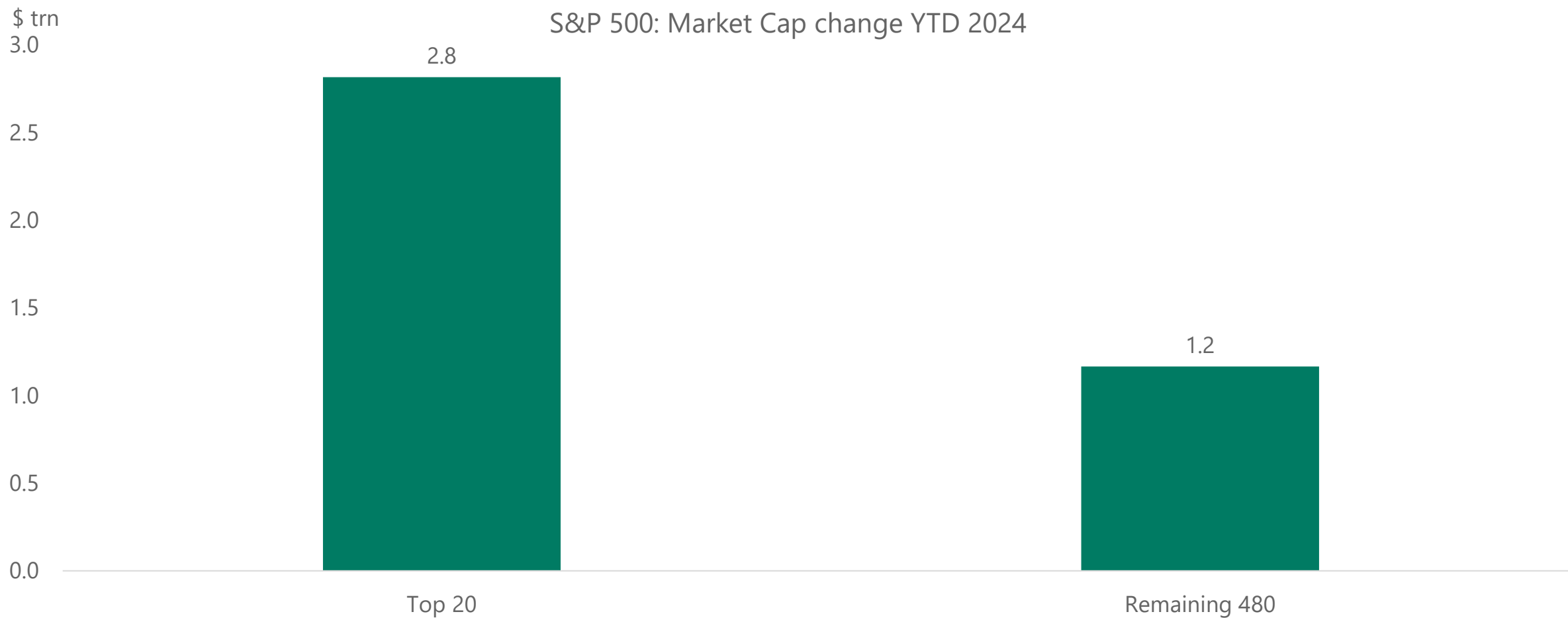
Market technicals



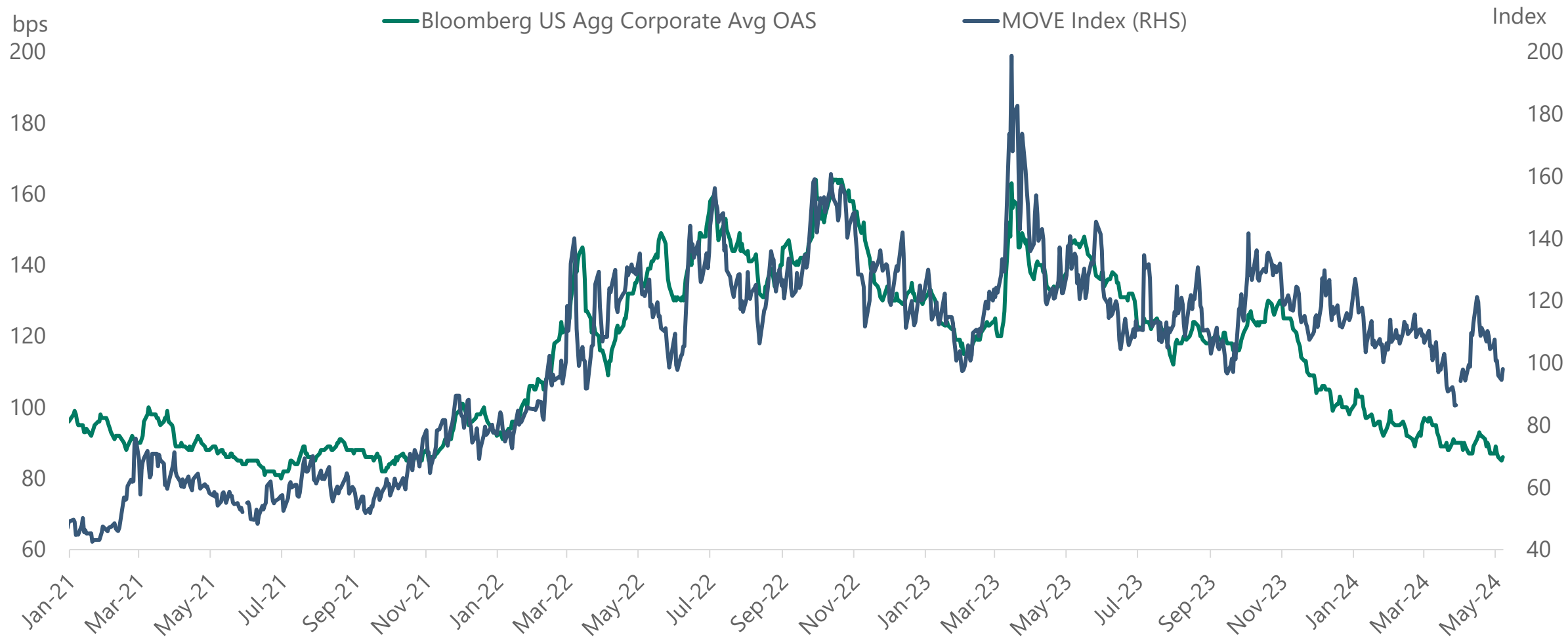
2023: Not a broad-based rally in the S&P500



2024: Not a broad-based rally in the S&P500



US IG spread highly correlated with implied rates vol

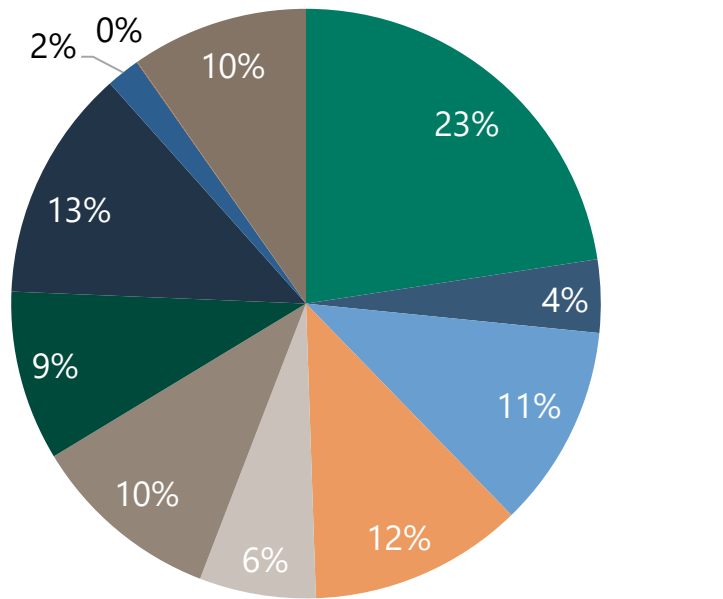


Regional banks



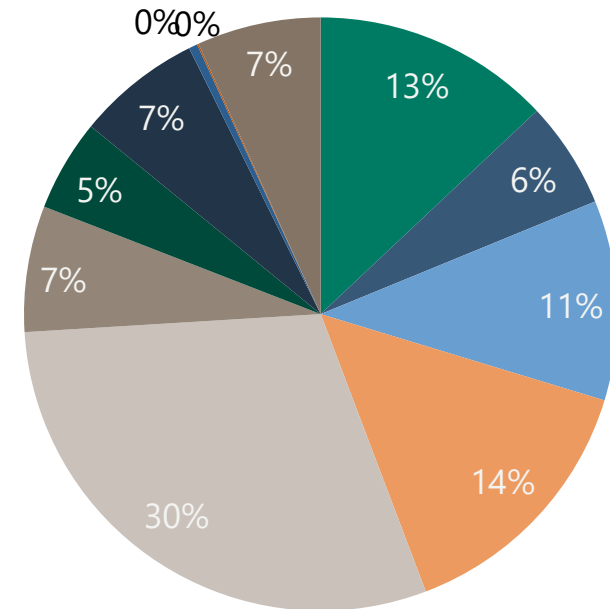
Small bank and large bank balance sheets are very different

Composition of large domestically chartered commercial bank assets



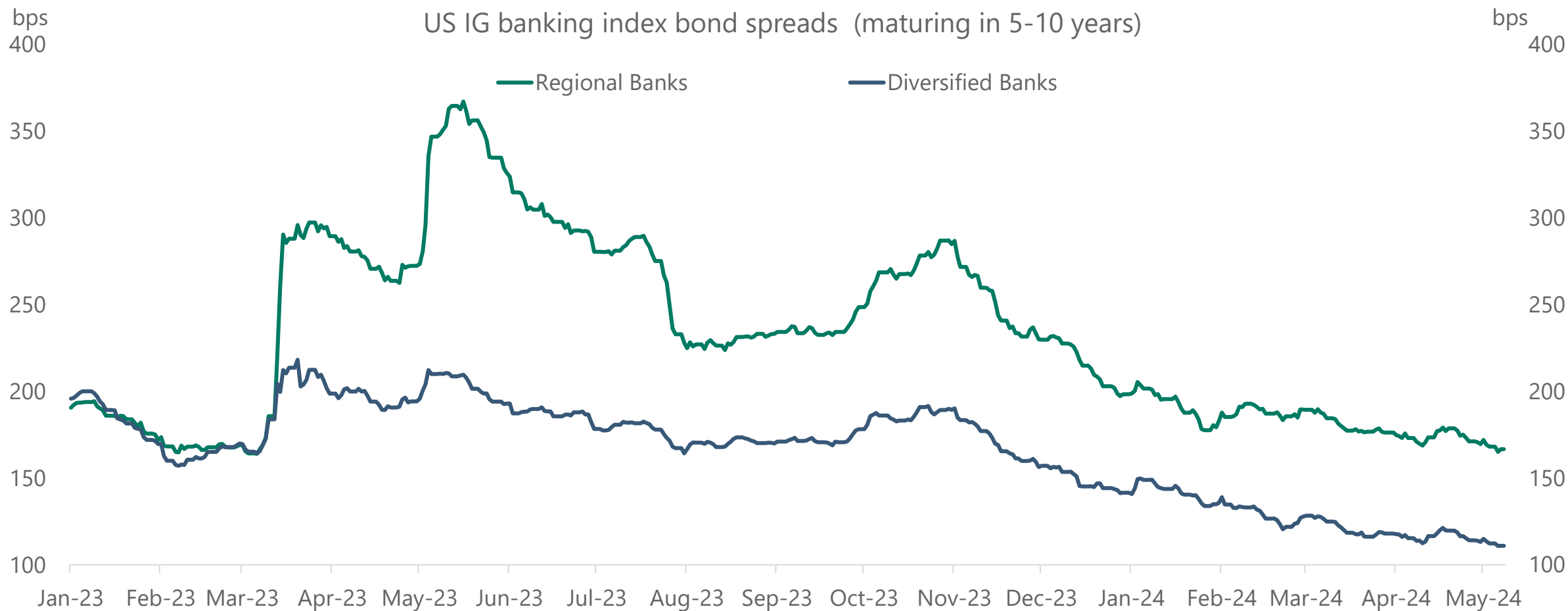
- Treasury and agency securities
- C & I Loans
- Commercial Real Estate Loans
- All Other Loans
- Fed Funds & RRP
- Other Assets including trading assets
- Other Securities
- Residential Real Estate Loans
- Consumer Loans
- Cash Assets
- Interbank Loans

Composition of small domestically chartered commercial bank assets



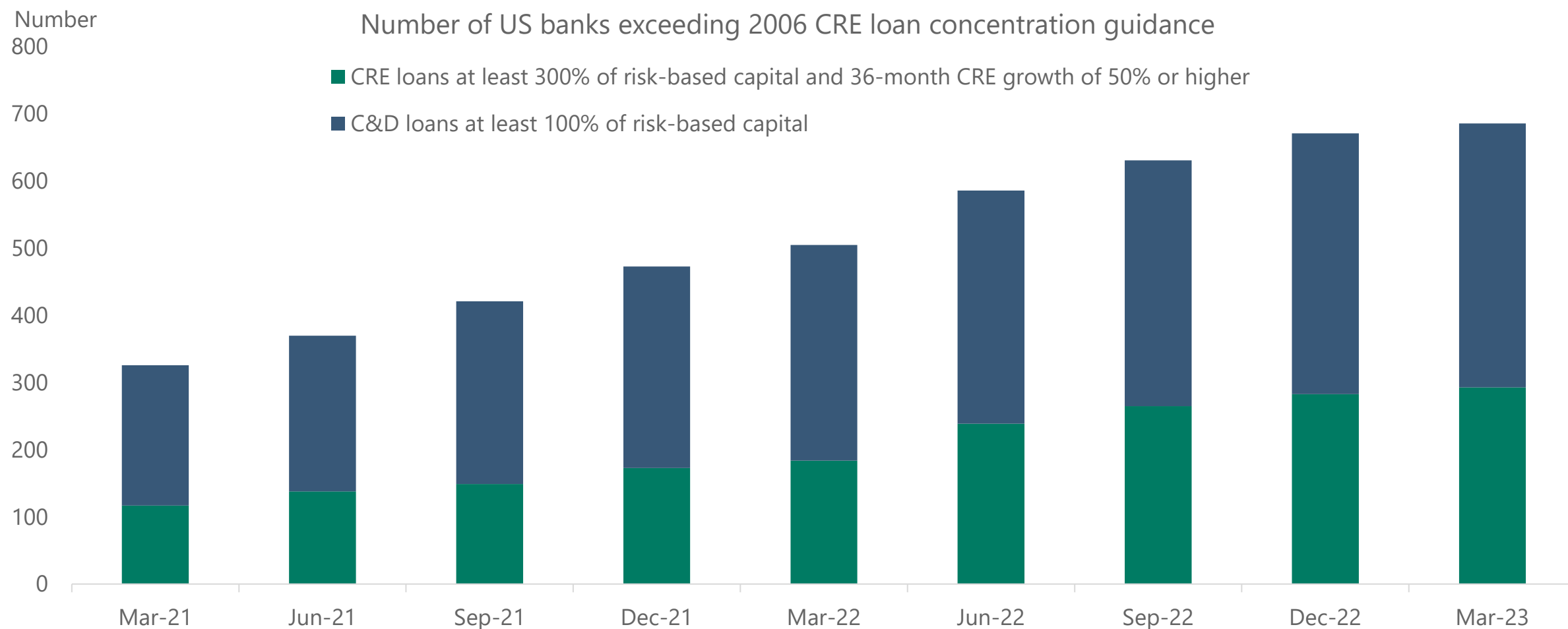
- Treasury and agency securities
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- Fed Funds & RRP
- Other Assets including trading assets
- Other Securities
- Residential Real Estate Loans
- Consumer Loans
- Cash Assets
- Interbank Loans

Regional bank spreads remain wide

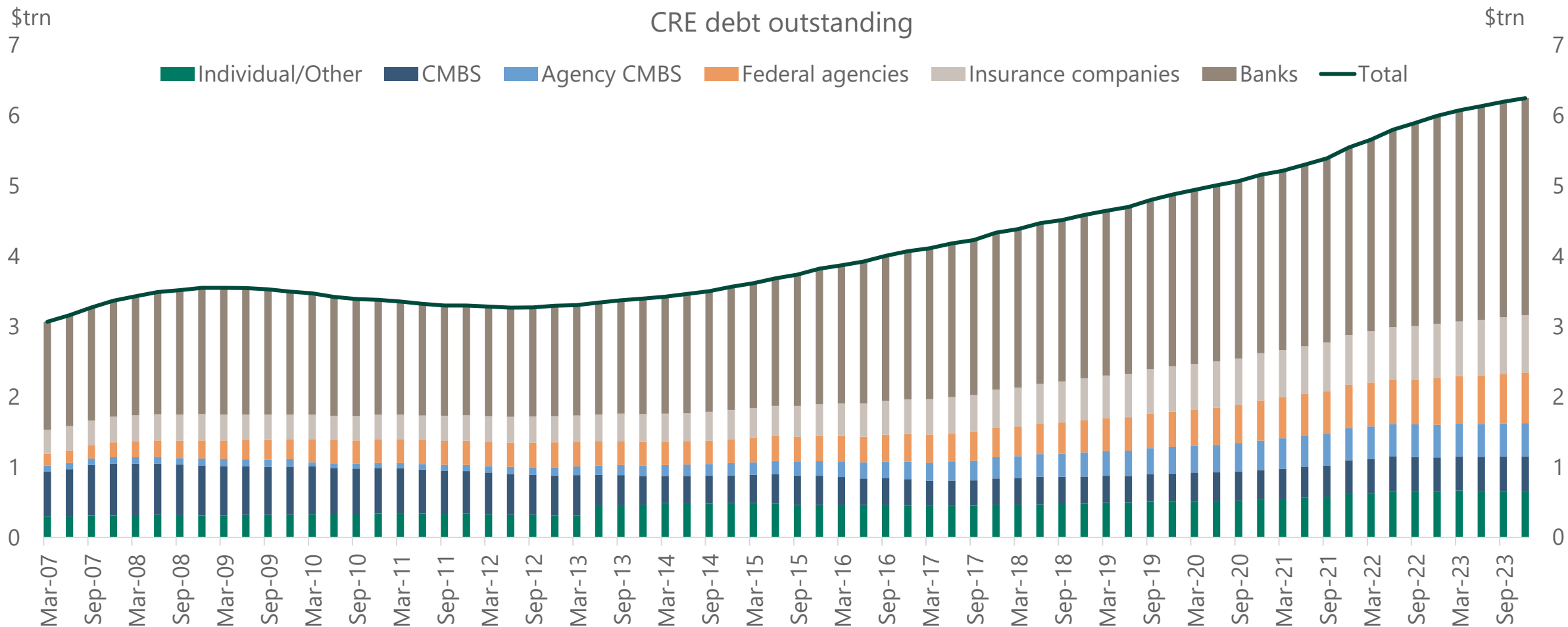


Source: ICE BofA, Bloomberg, Apollo Chief Economist. Note: Unweighted average spreads of bonds from ICE 5-10 Year US Banking Index, C6PX Index for bonds issued before 1st Jan 2023. There are 8 banks in the Regional index and 41 banks in the Diversified index, and Regional banks include BankUnited Inc, Citizens Financial Group, Huntington Bancshares Incorporated, Regions Financial Corporation, Truist Financial Corporation, Webster Financial Corp, Wintrust Financial Corp, Zions, and Diversified banks includes JP Morgan, Citibank, Bank of America, etc

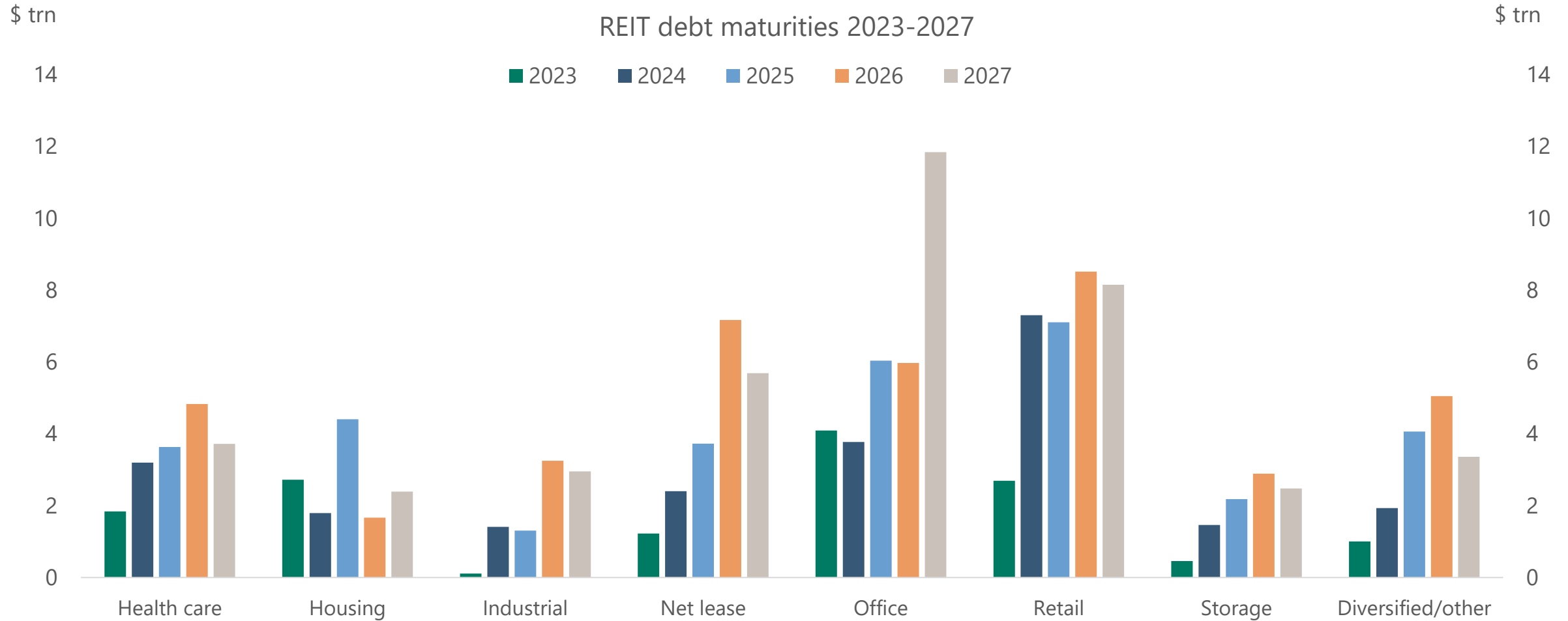
Almost 700 US banks exceed the 2006 CRE loan concentration guidance



Banks hold half of CRE debt outstanding

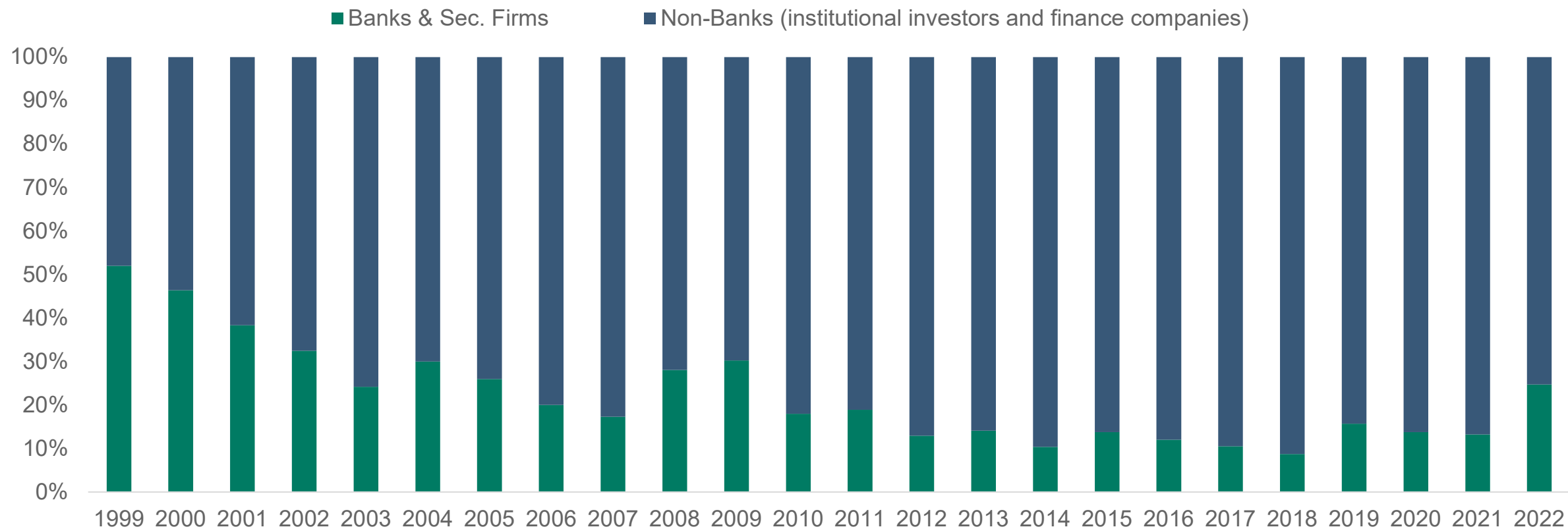


U.S. REITs hold approximately \$14 billion of debt maturing this year



More leveraged loans are held by banks

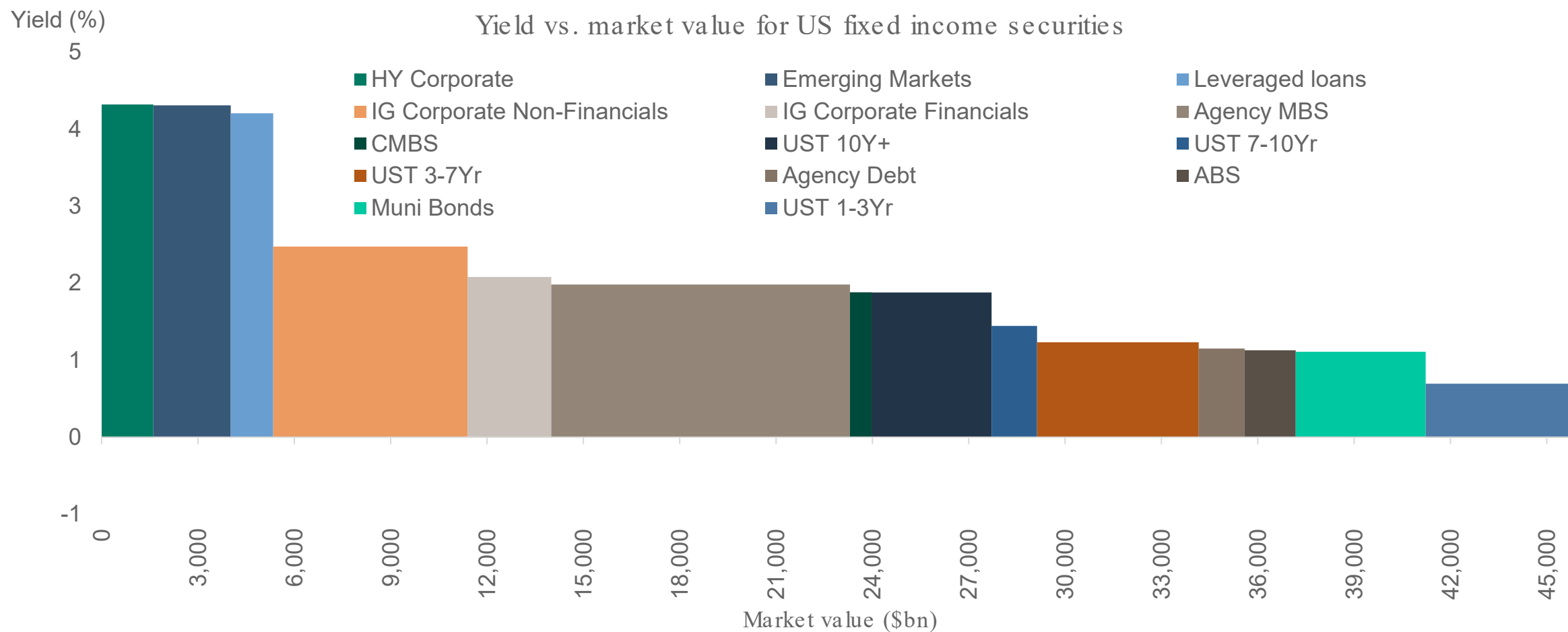
Primary investor market: leveraged loans



Credit markets in a
broader perspective

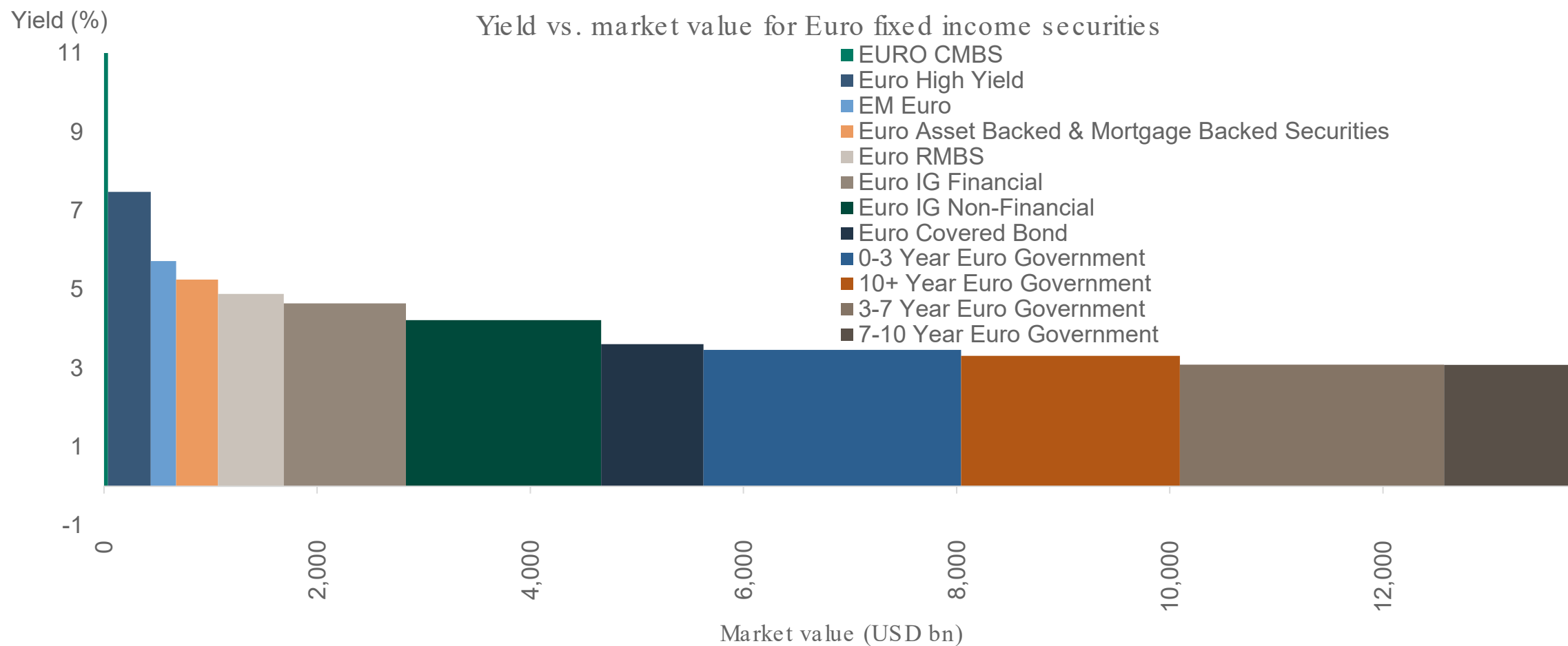


US fixed income markets by yield and size

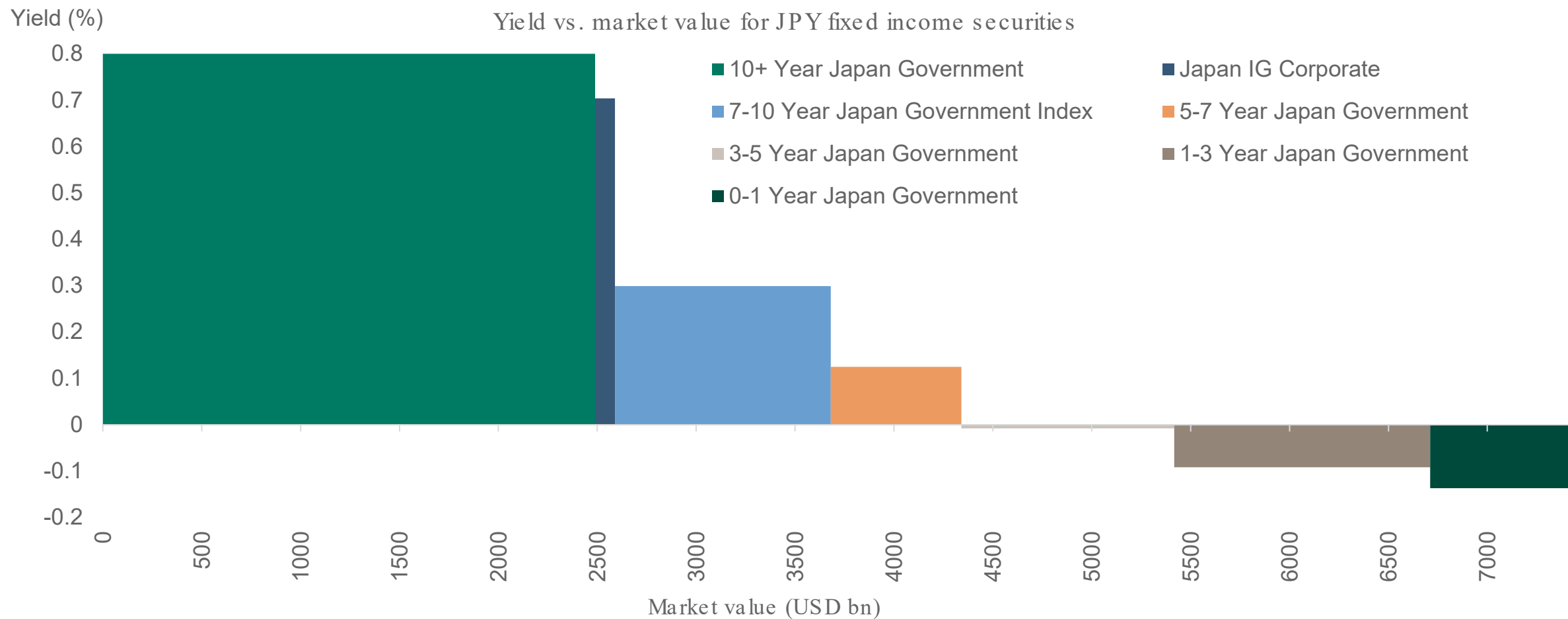


Source: Bloomberg Barclays, SIFMA, ICE BofA, PitchBook LCD, Bloomberg, Apollo Chief Economist. Note: data as of 4Q21

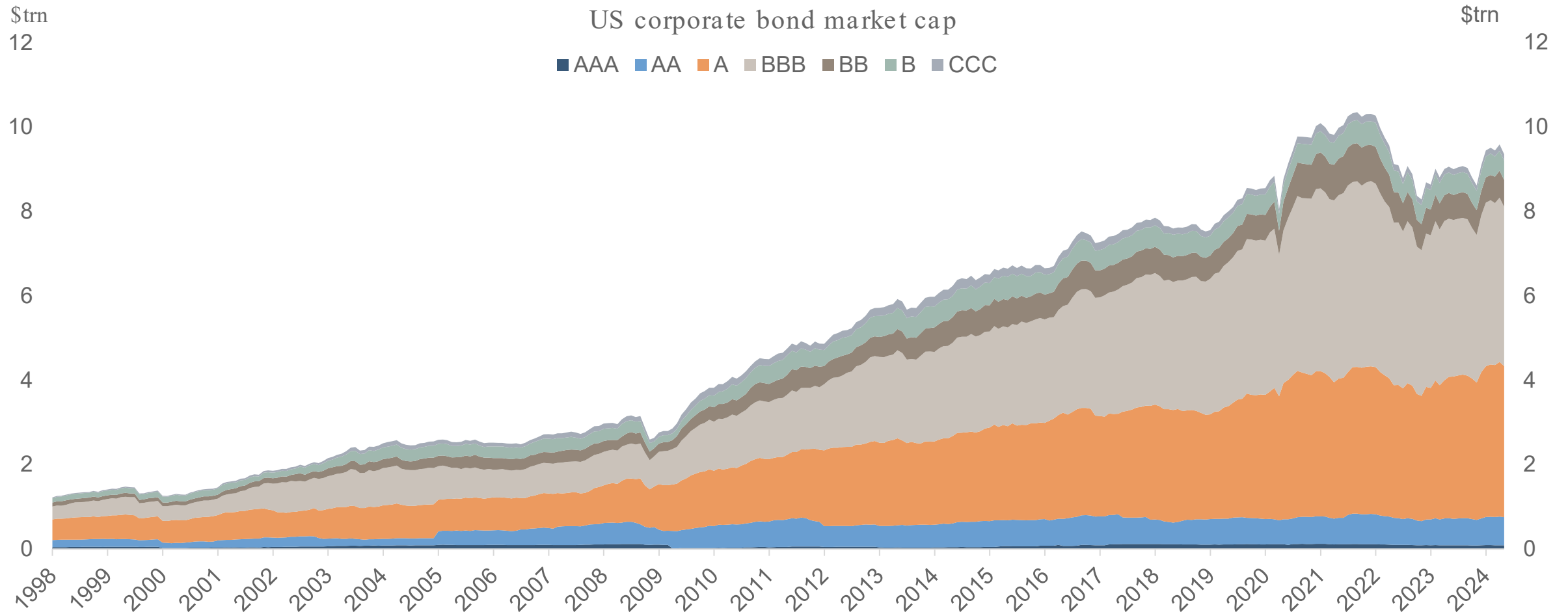
European fixed income markets by yield and size



Japanese fixed income markets by yield and size



Total market cap of US corporate bond markets: \$10trn

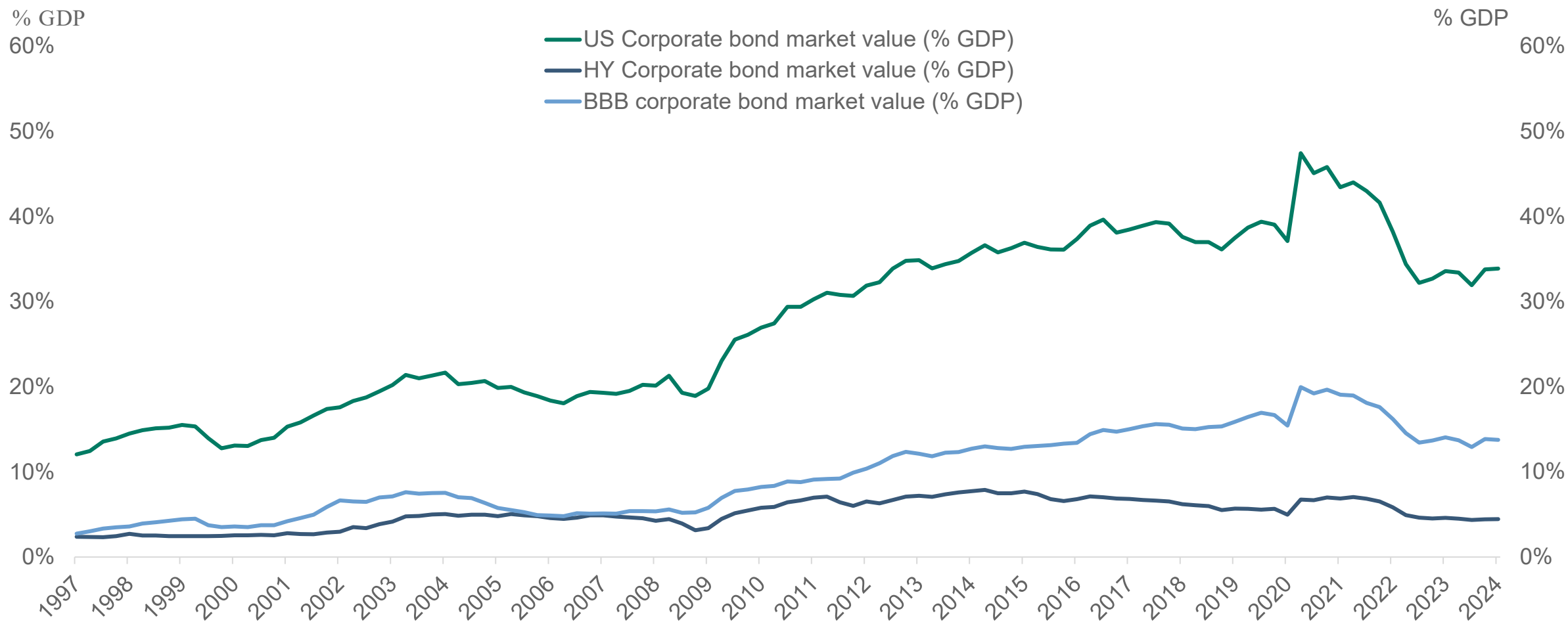


Source: ICE BofA, Bloomberg, Apollo Chief Economist.

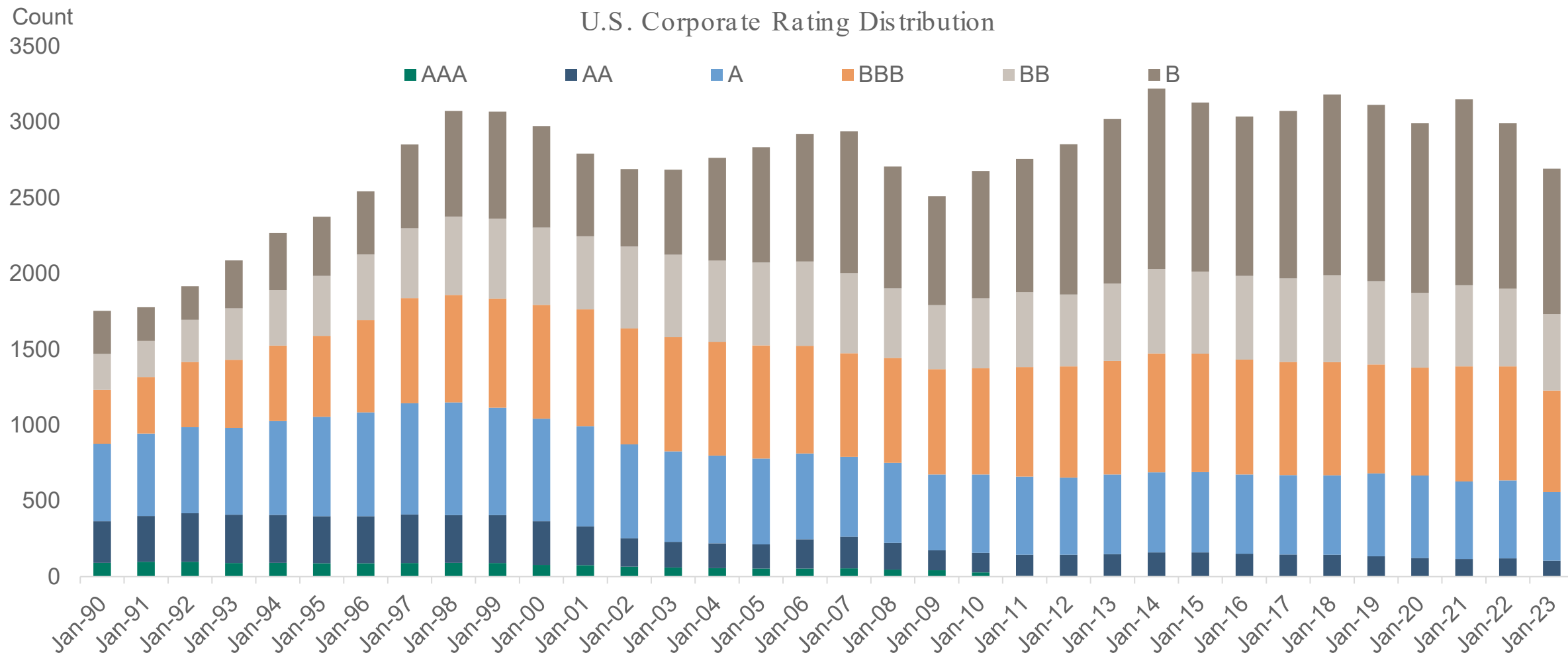
Most corporate bonds outstanding are rated either BBB or single-A



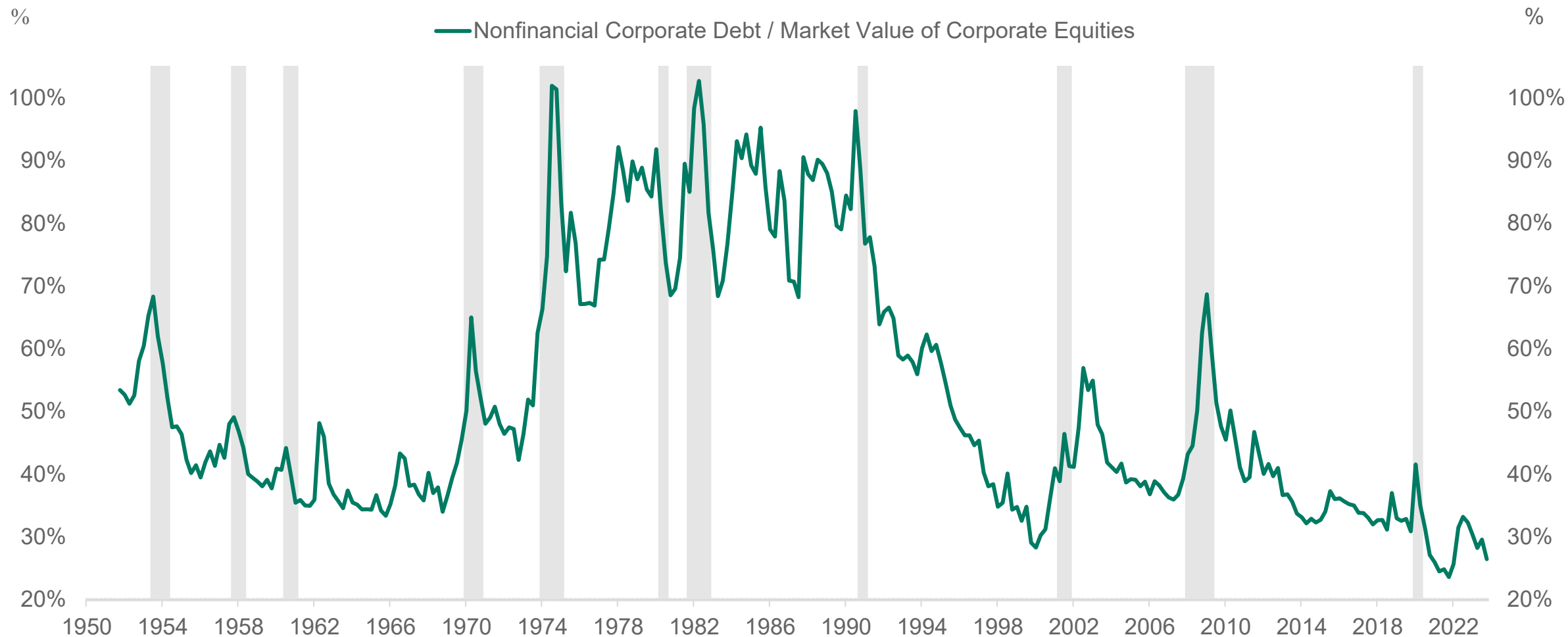
US corporate bond markets as a share of GDP



Distribution of corporate credit ratings

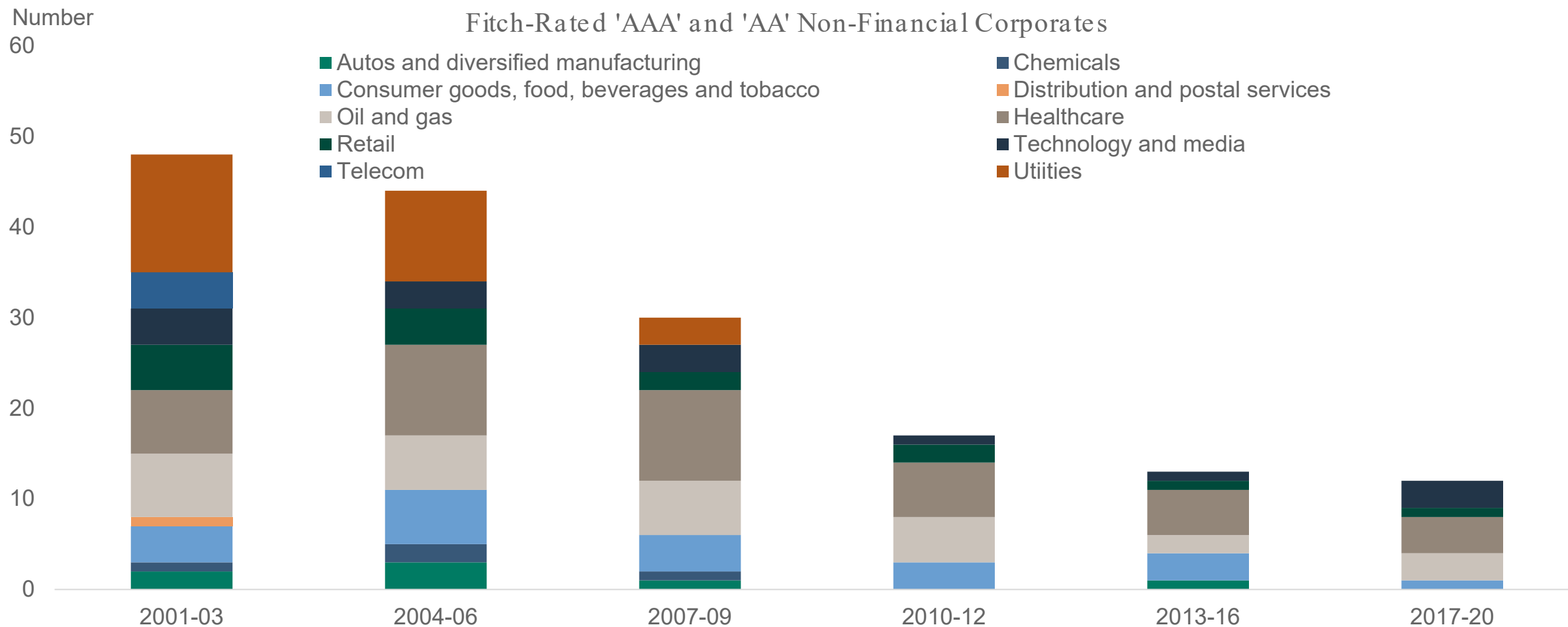


Debt-to-equity ratio is low for corporate America



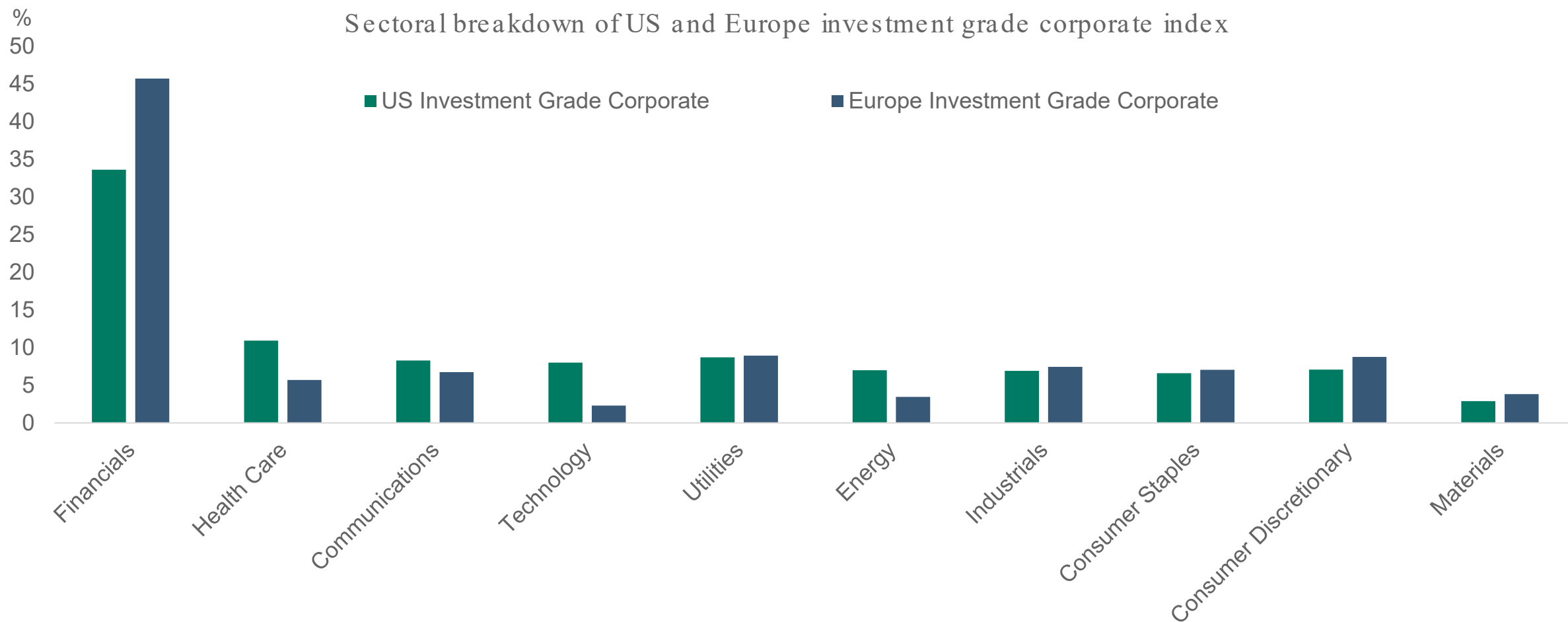
Source: FRB, Haver Analytics, Apollo Chief Economist.

Fewer and fewer corporate bonds are rated AAA and AA

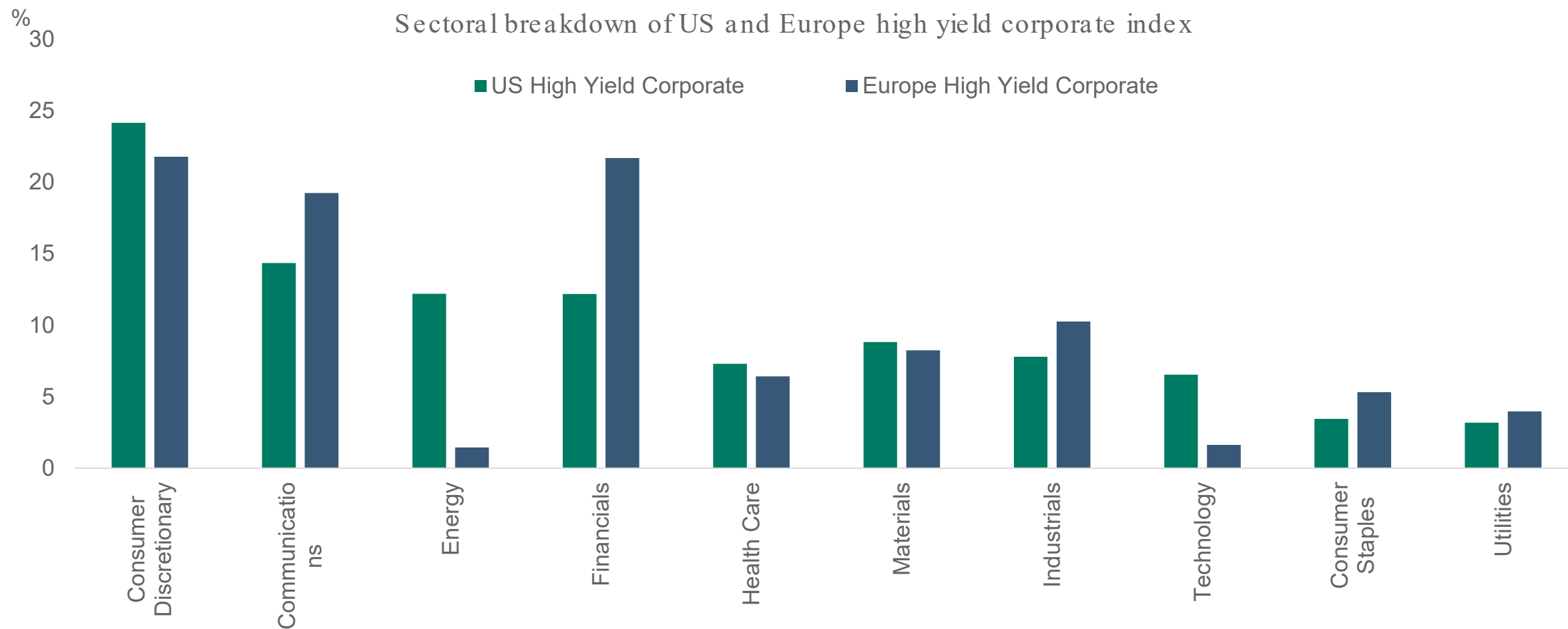


Source: Fitch Ratings, Apollo Chief Economist. Note: Including state-linked issuers with Standalone Credit Profiles in the 'AA' category. Data cover issuers that have been rated for at least six years or at end-2020.

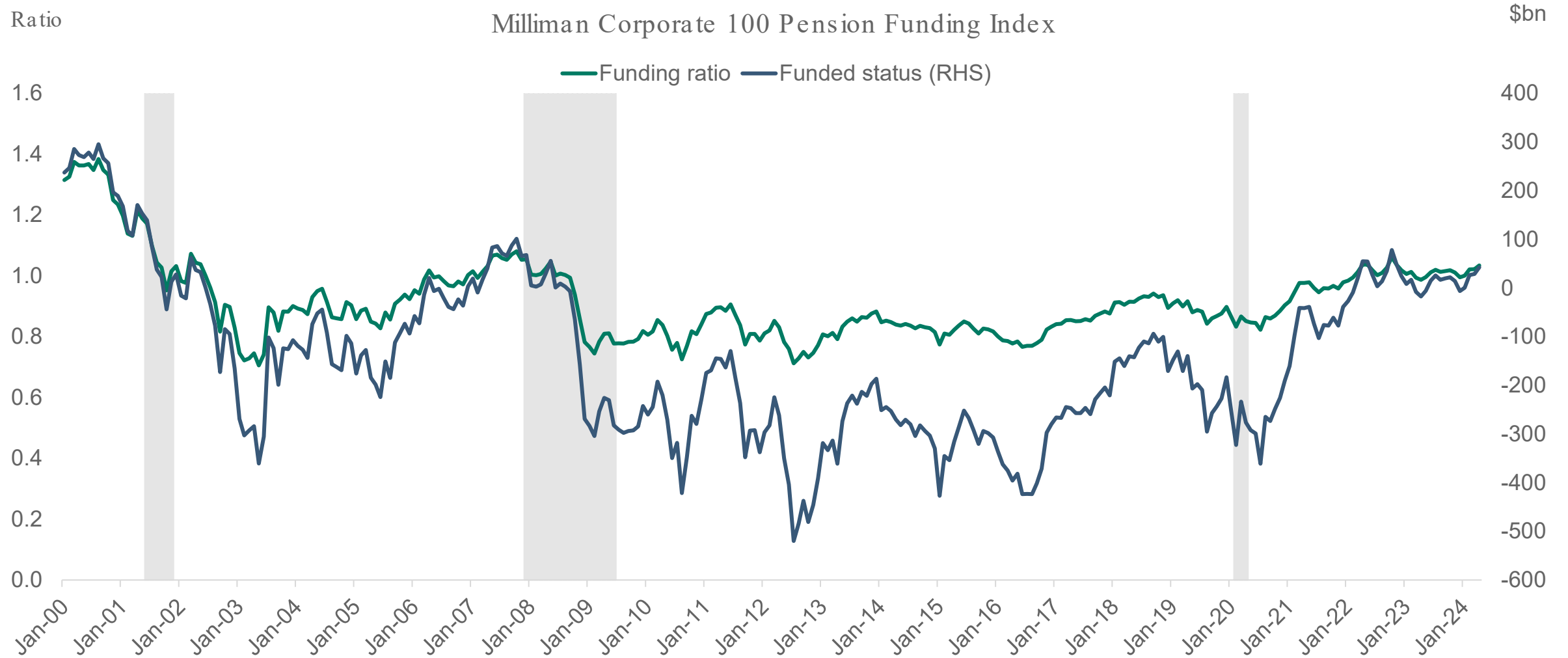
Comparing the US IG index with the EU IG index



Comparing the US HY index with the EU HY index

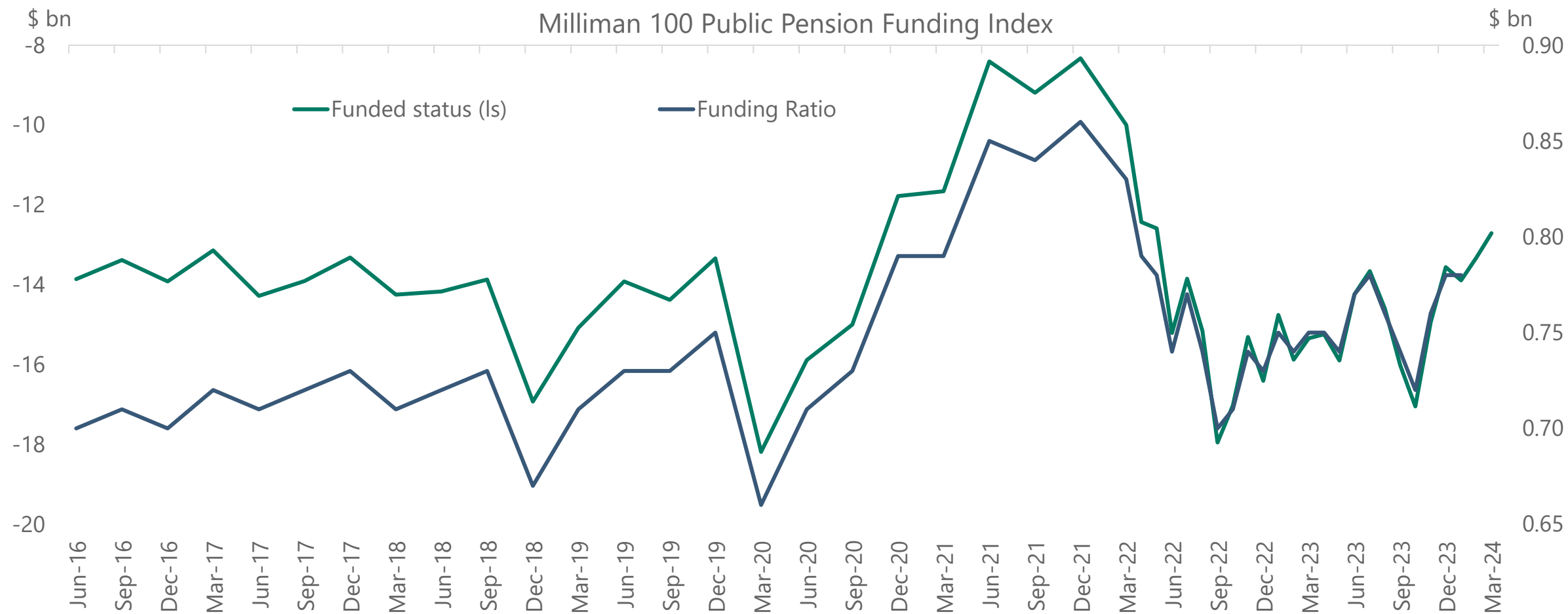


Corporate pension funding status has improved



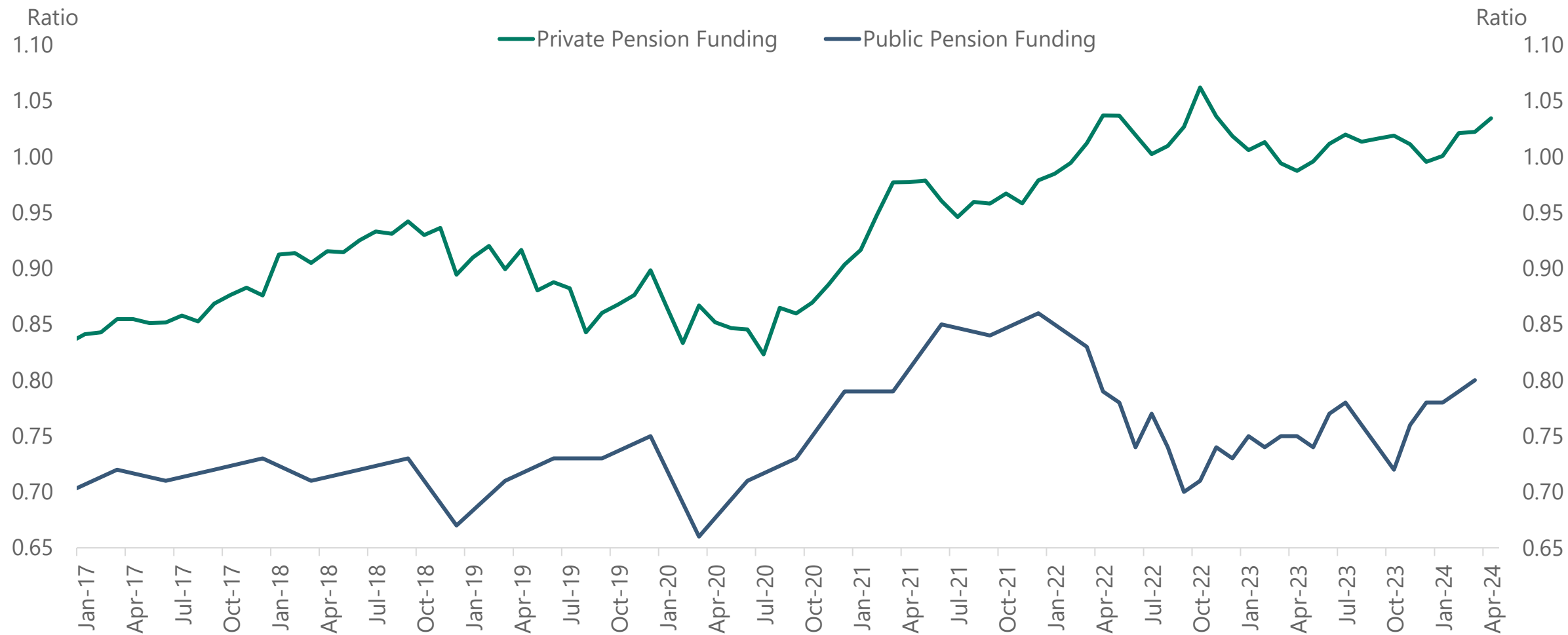
Source: Milliman, Bloomberg, Apollo Chief Economist. Note: Funded status measures planned assets minus projected benefit obligation

Public pension funding status has improved



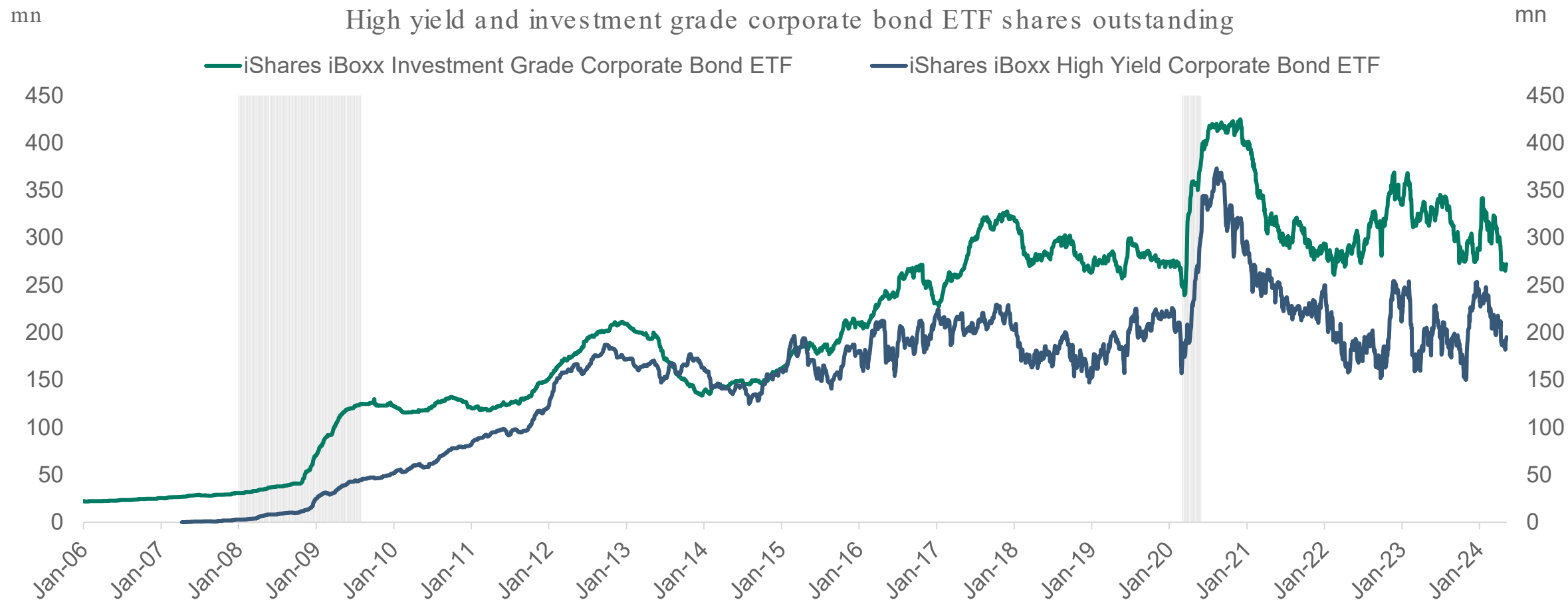
Source: Milliman, Bloomberg, Apollo Chief Economist.

Private vs public pension funding



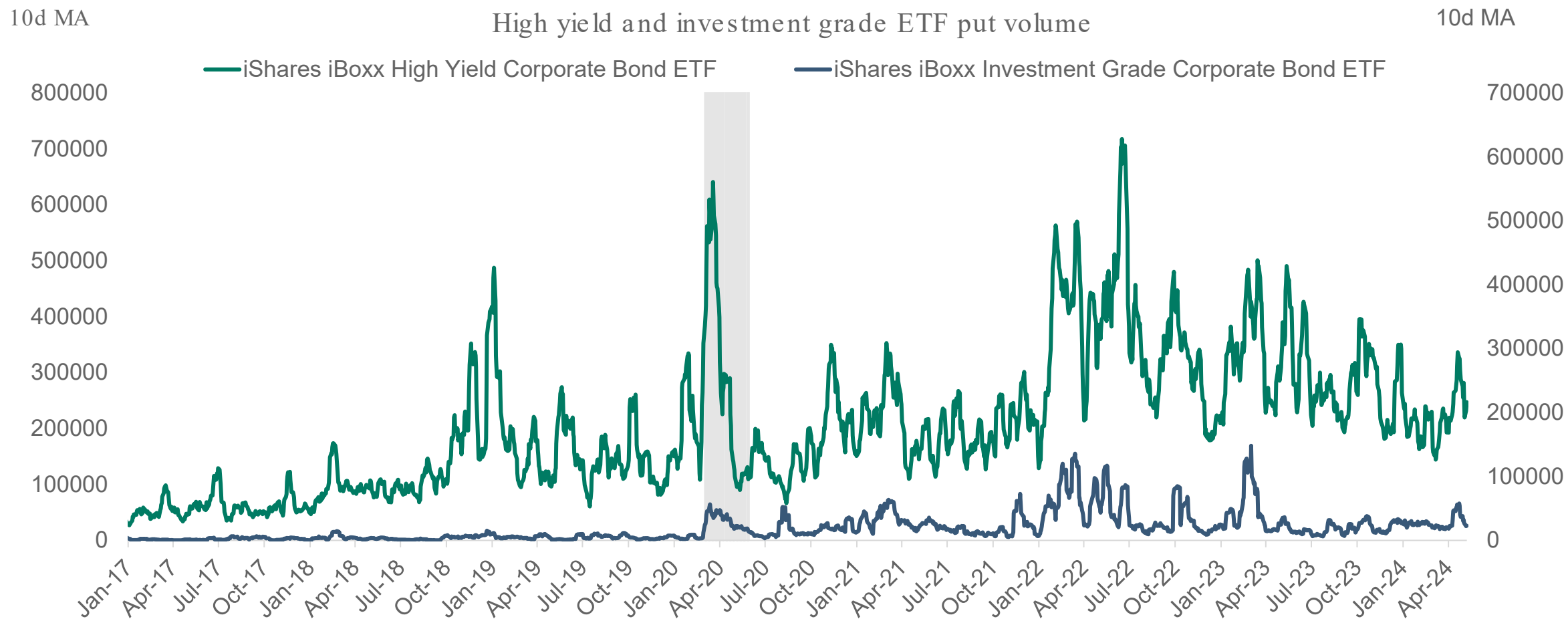
Source: Milliman, Bloomberg, Apollo Chief Economist.

Retail investor activity in IG and HY



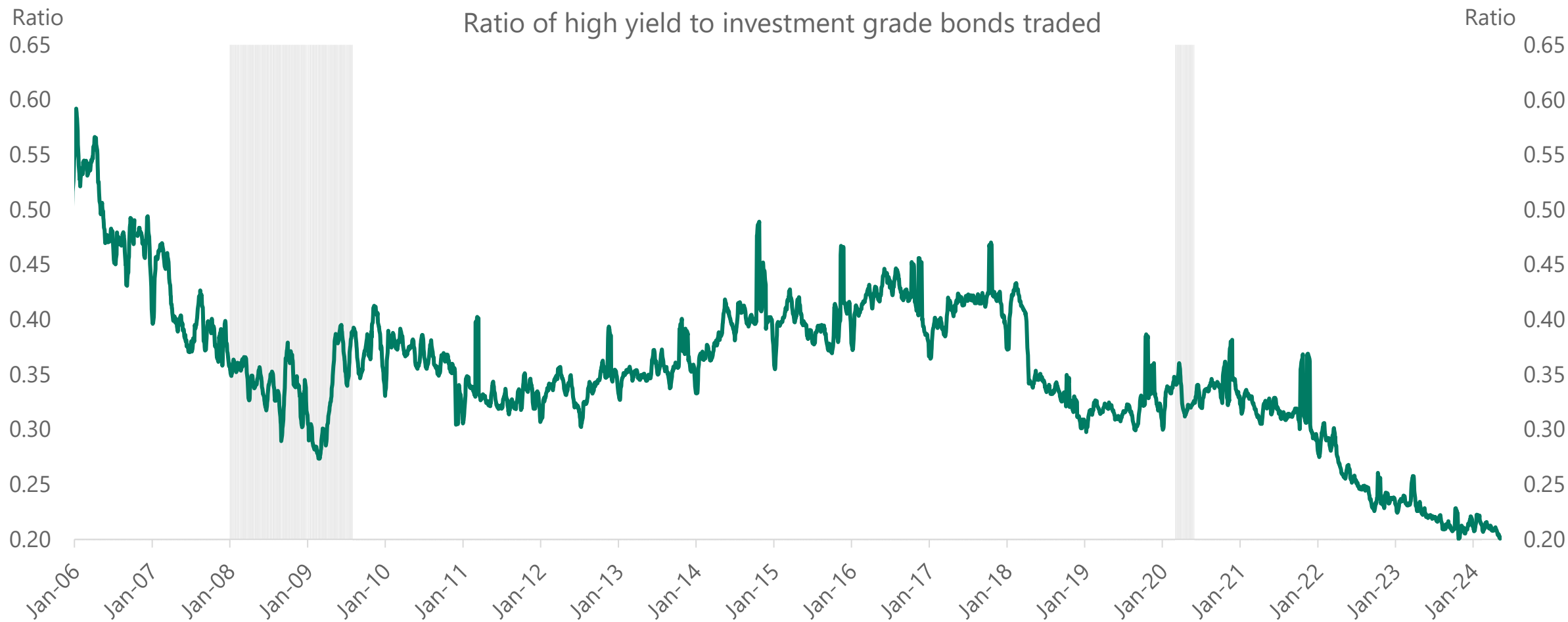
Source: Bloomberg, Apollo Chief Economist. Note: Tickers used HYG US Equity and LQD US Equity

Put volumes for IG and HY ETF

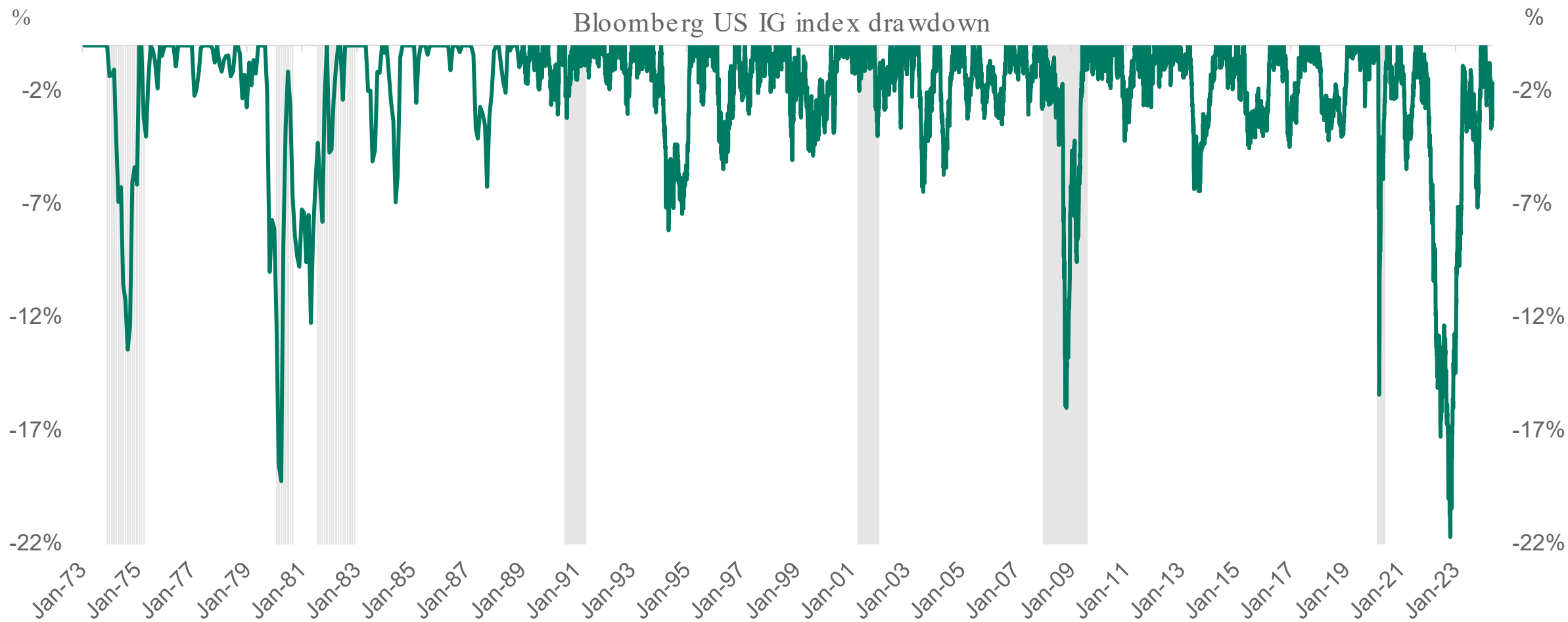


Fewer high yield bonds being traded

Ratio of high yield to investment grade bonds traded



IG index drawdown



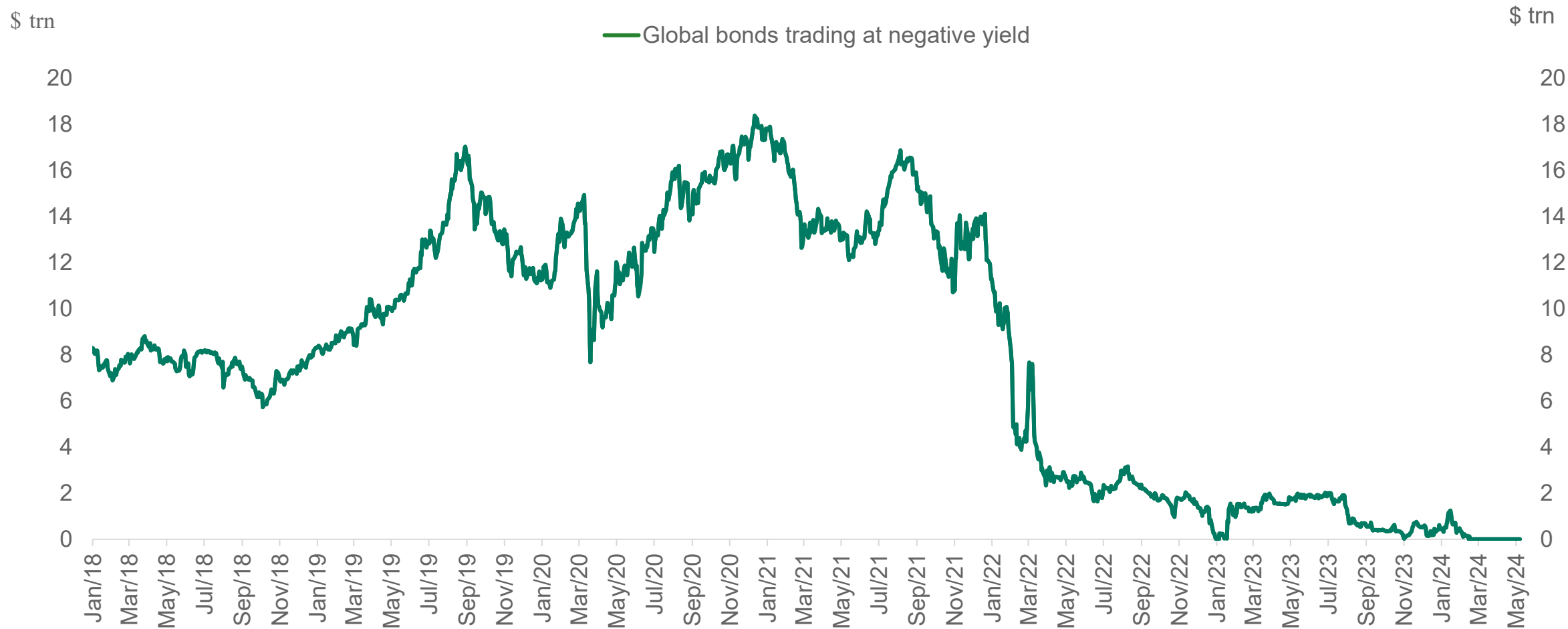
Source: Bloomberg, Apollo Chief Economist. Note: Index used LUACTRUU Index

Bonds outstanding trading at negative interest rates



Source: Bloomberg, Apollo Chief Economist

The total value of negative yielding debt in the world

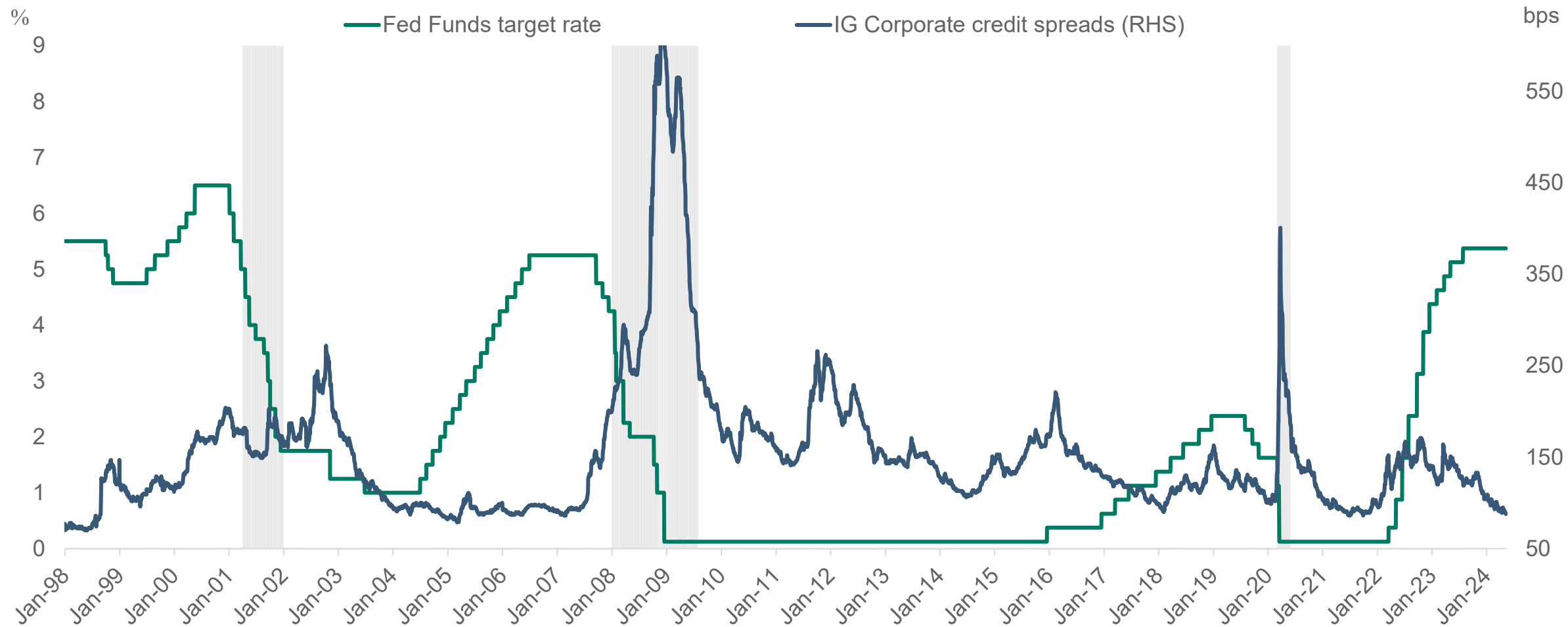


Source: Bloomberg, Apollo Chief Economist

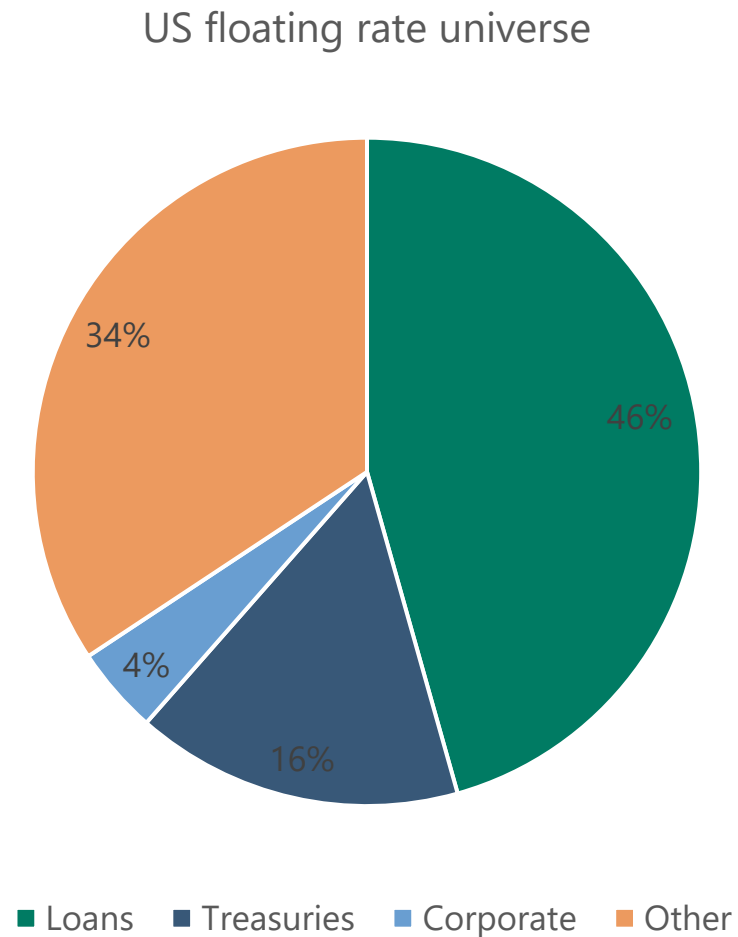
All corporate bonds now have positive yields



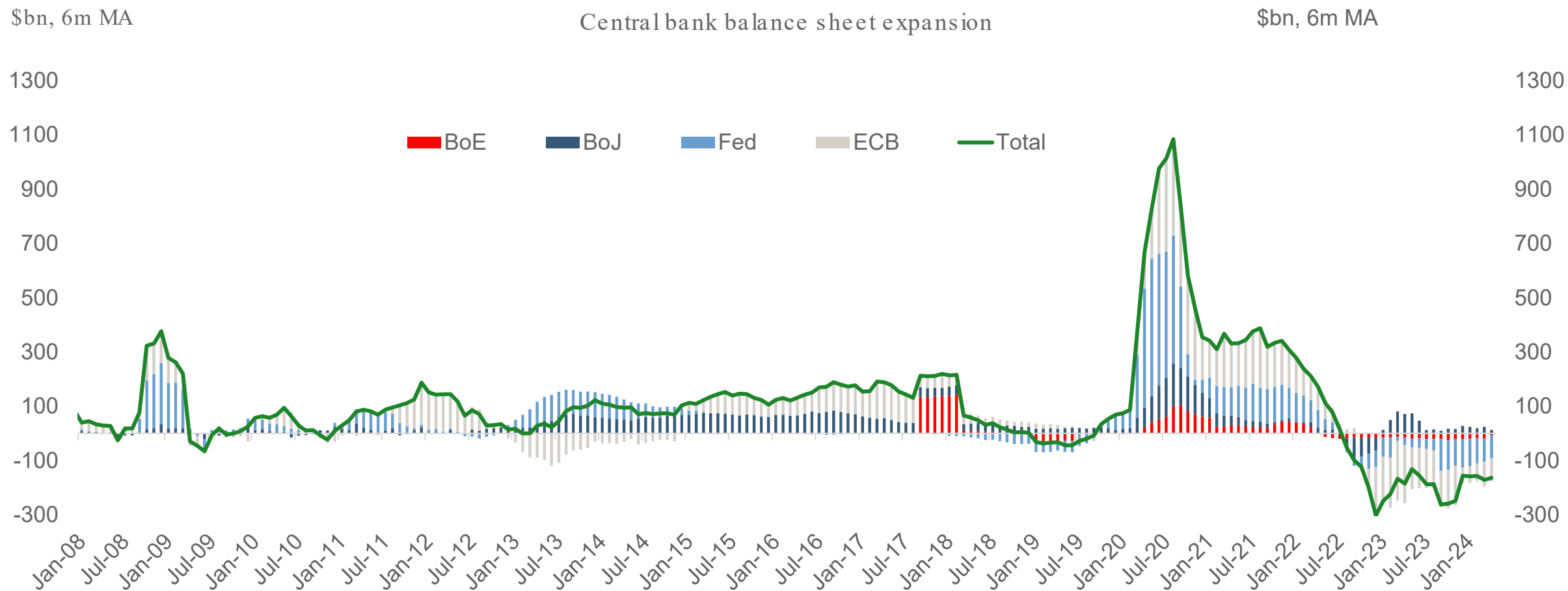
Credit spreads normally widen when the Fed is hiking



US: Floating rate bonds outstanding, May 2024

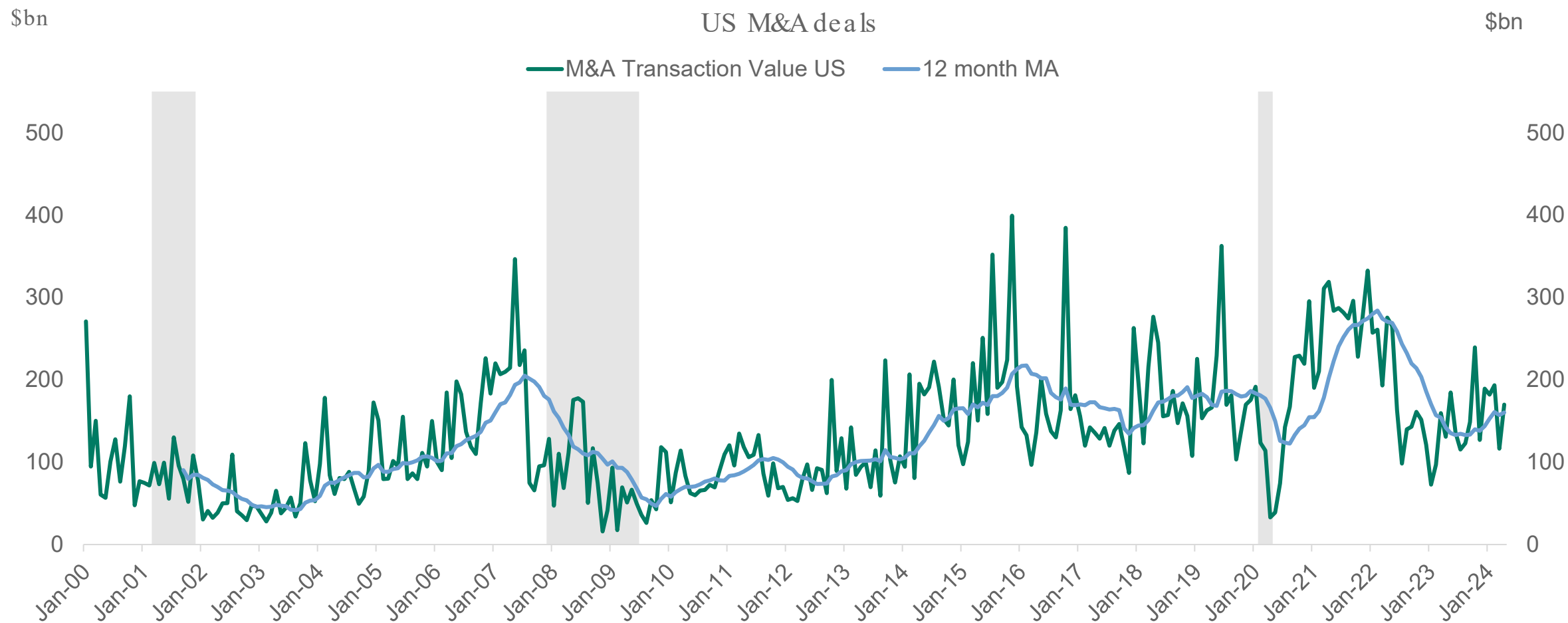


From QE to QT



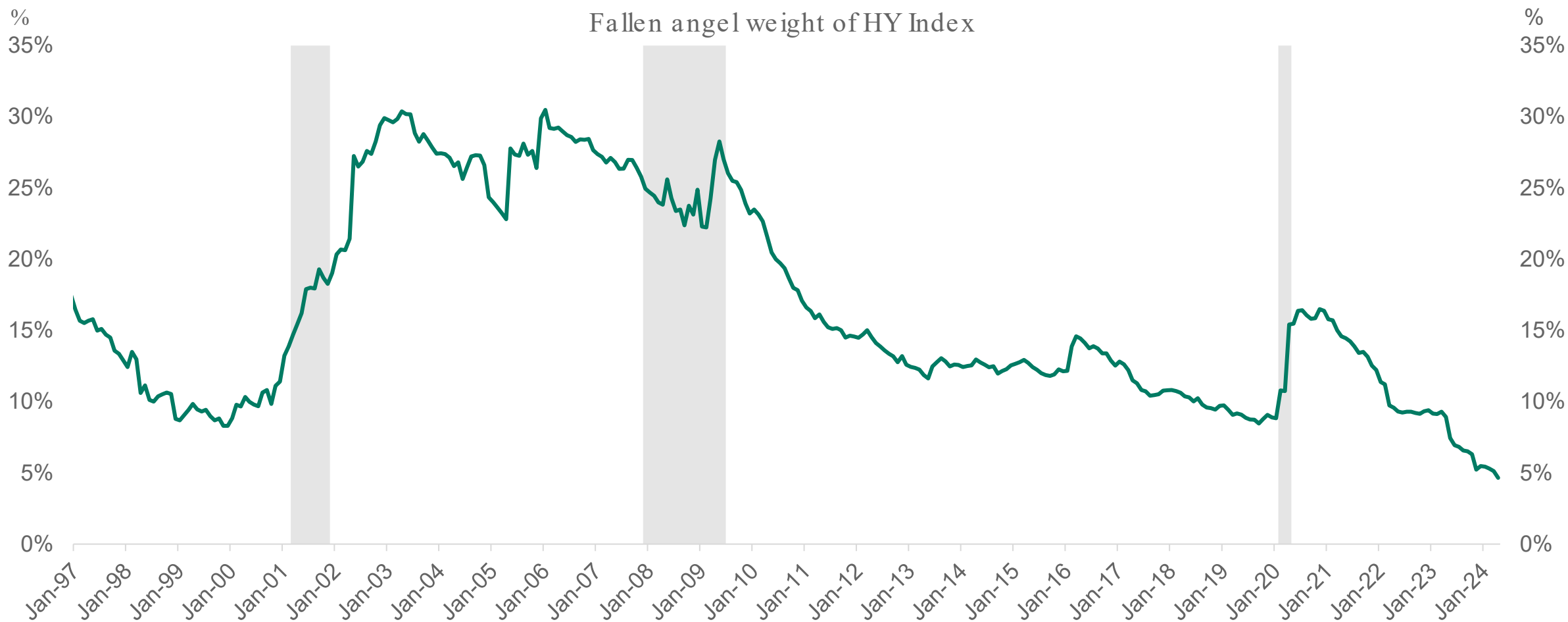
Source: Bloomberg, Apollo Chief Economist.

M&A activity



Source: Bloomberg, Apollo Chief Economist. Note: Ticker used is MAATUS Index

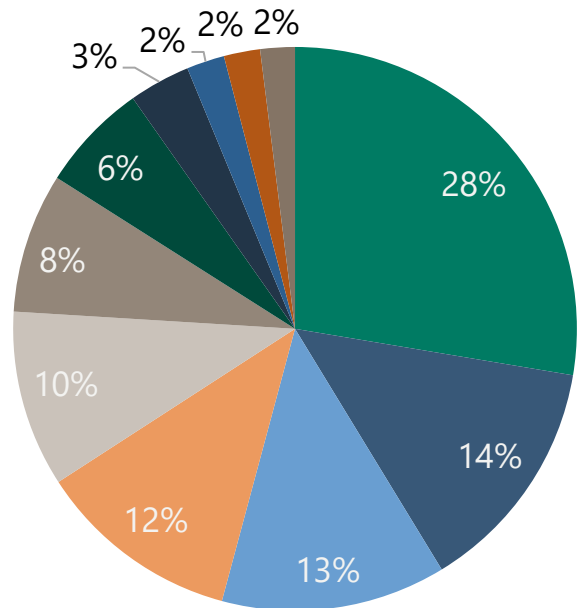
Declining share of fallen angels in the HY index



Source: ICE BofA, Bloomberg, Apollo Chief Economist. Note: Tickers used H0A0 Index and H0FA Index

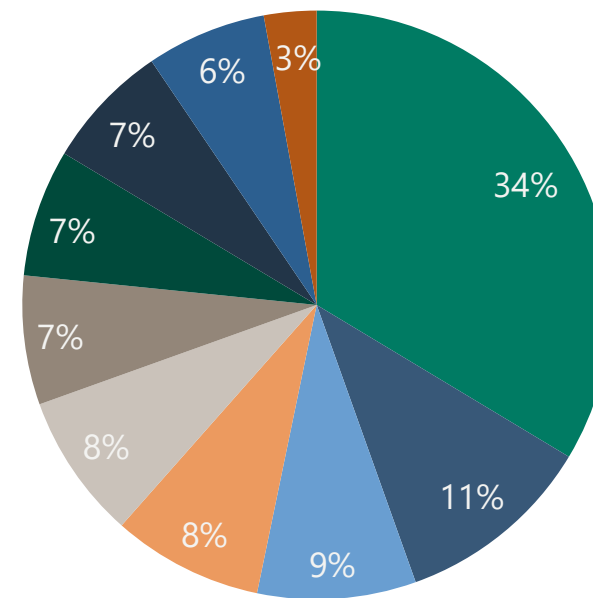
Big differences between weights in the S&P500 and the IG index

S&P 500 Index weight by market cap



- Information Technology
- Financials
- Consumer Discretionary
- Consumer Staples
- Real Estate
- Communication Services
- Health Care
- Industrials
- Energy
- Materials

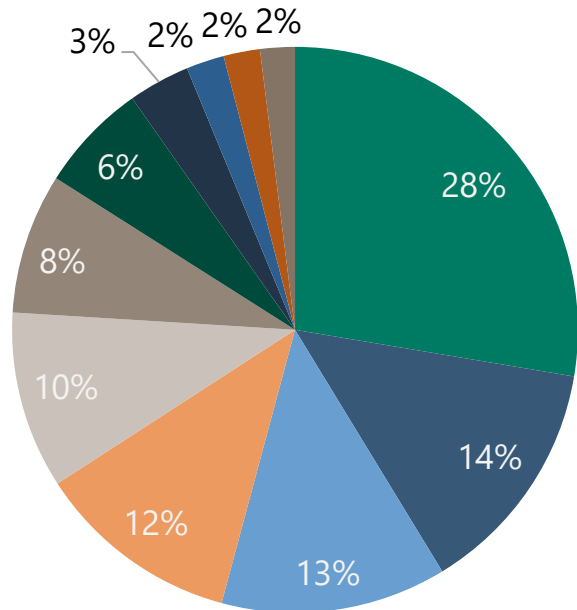
Barclays corporate IG index weights by market cap



- Financials
- Utilities
- Technology
- Energy
- Consumer Staples
- Health Care
- Communications
- Consumer Discretionary
- Industrials
- Materials

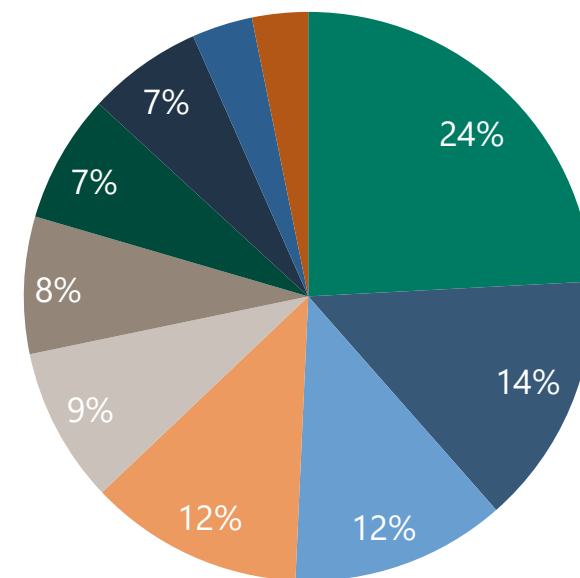
Big differences between weights in the S&P500 and the HY index

S&P 500 index weight by market cap



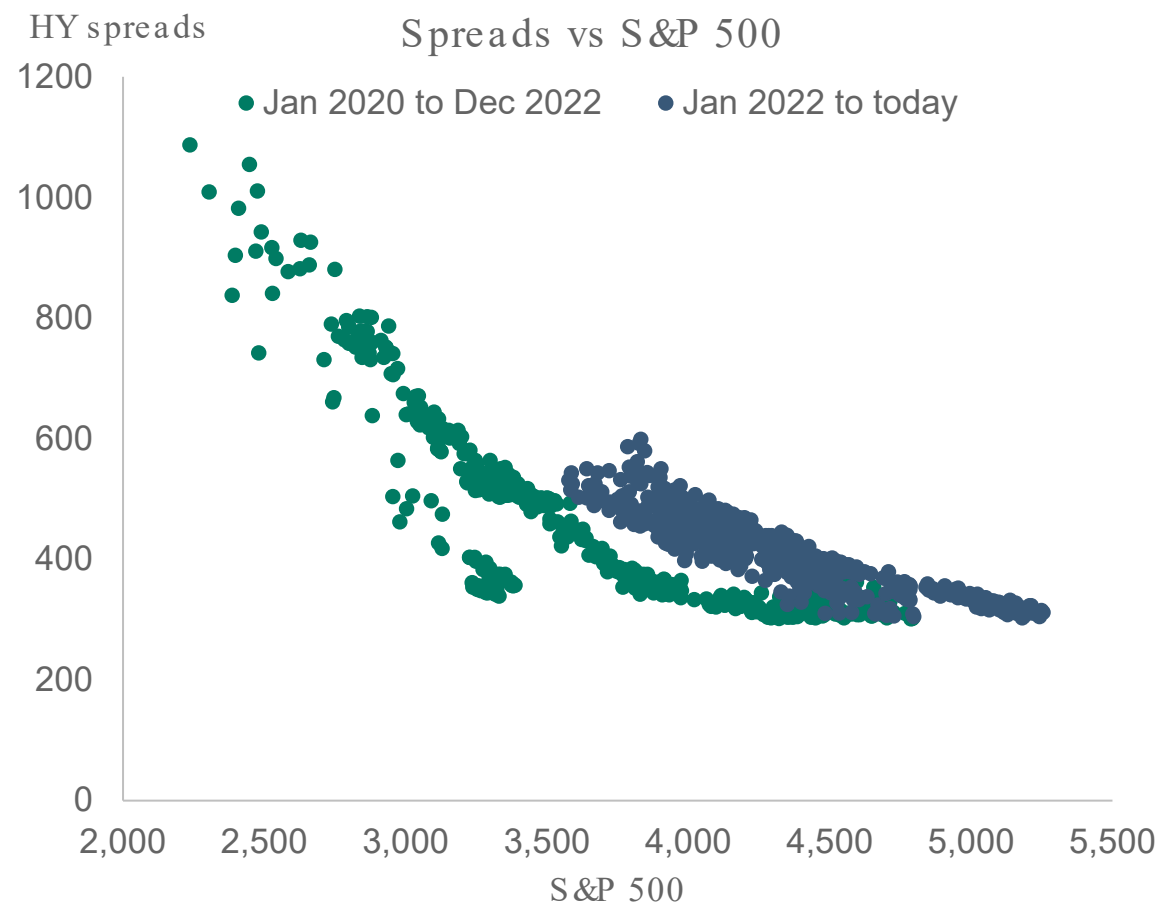
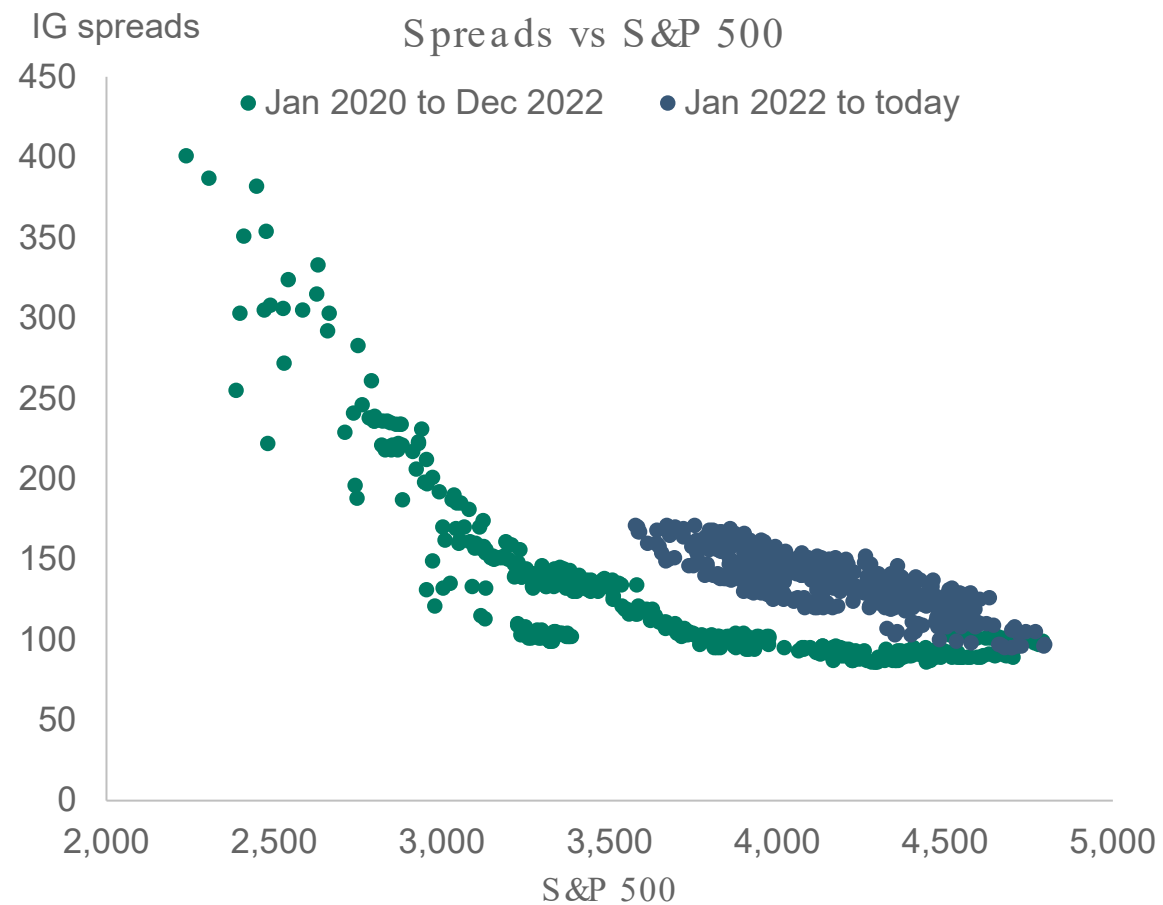
- Information Technology
- Communication Services
- Financials
- Health Care
- Consumer Discretionary
- Industrials
- Consumer Staples
- Energy
- Real Estate
- Materials

Bloomberg Barclays HY index weights by mkt cap

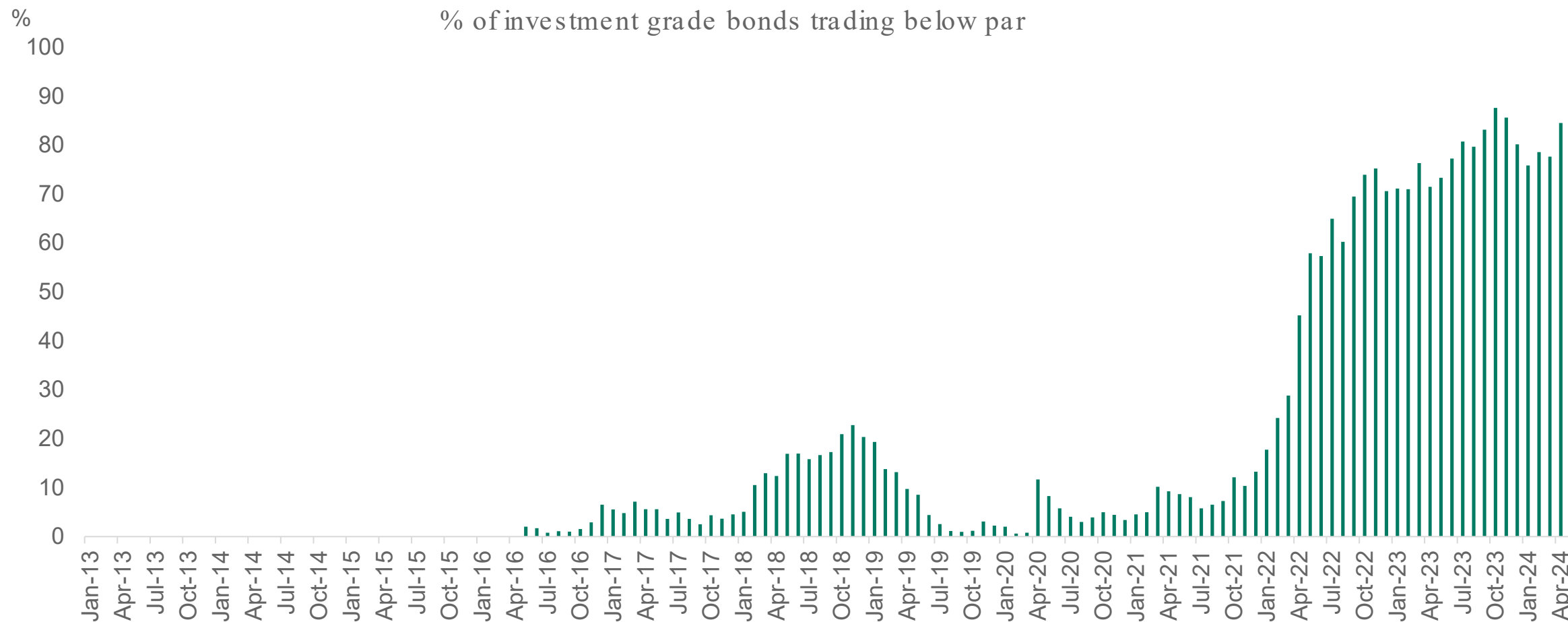


- Consumer Discretionary
- Communications
- Energy
- Financials
- Materials
- Industrials
- Health Care
- Technology
- Consumer Staples
- Utilities

Valuation of credit versus equities

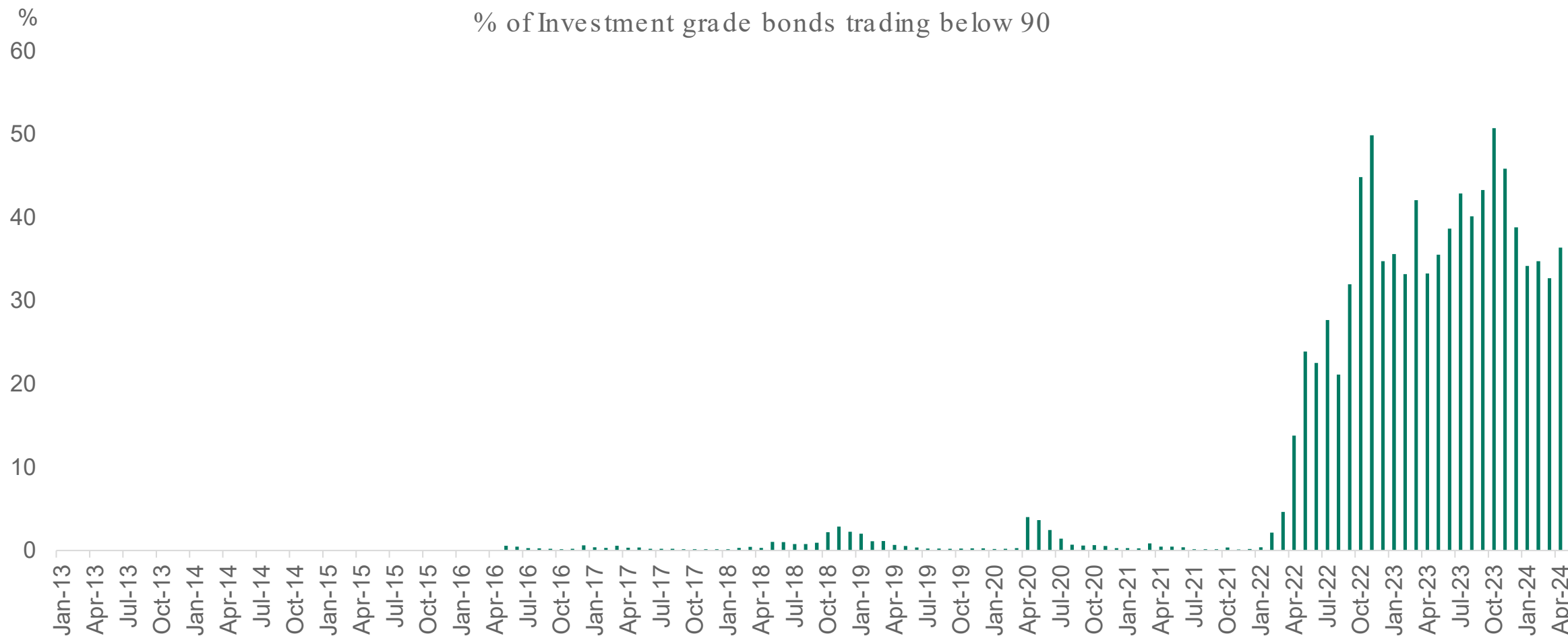


85% of the US IG market trading below par



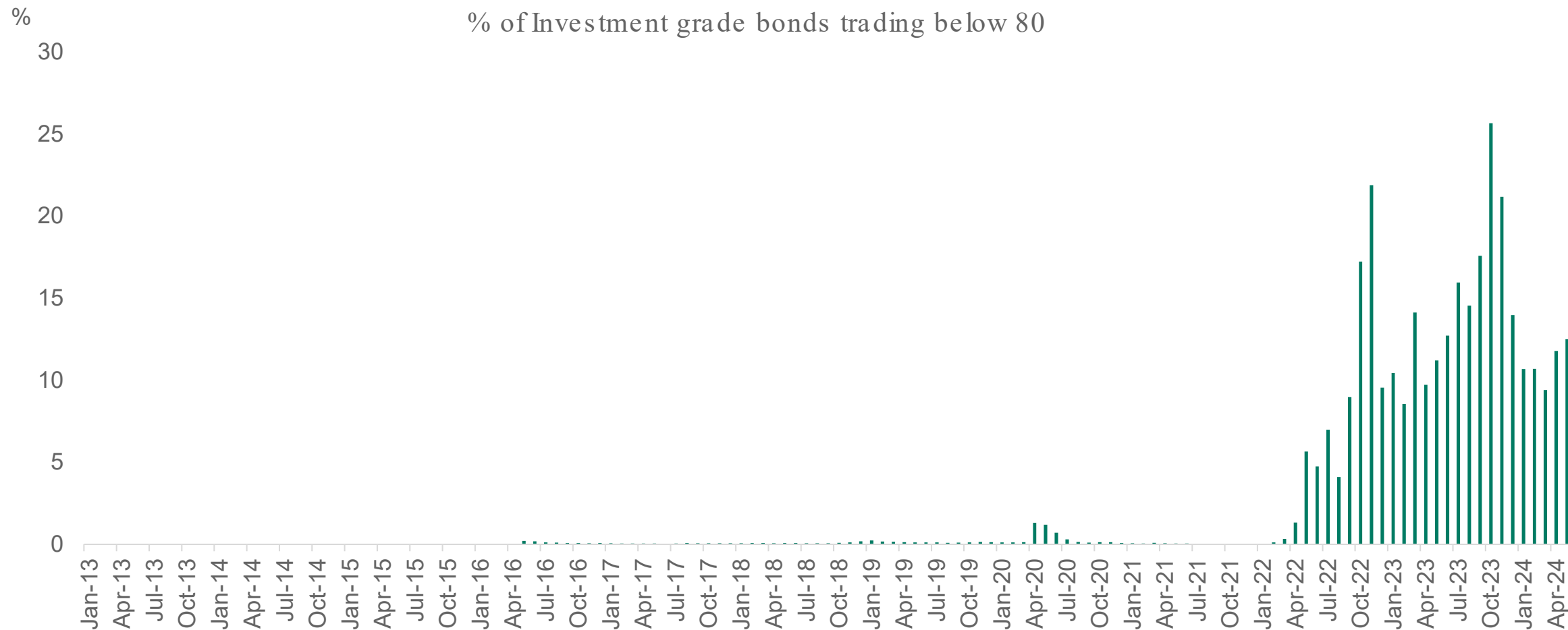
Source: Bloomberg, Apollo Chief Economist. Note: Data used for members in the LBUSTRUU Index.

36% of the US IG market trading below 90



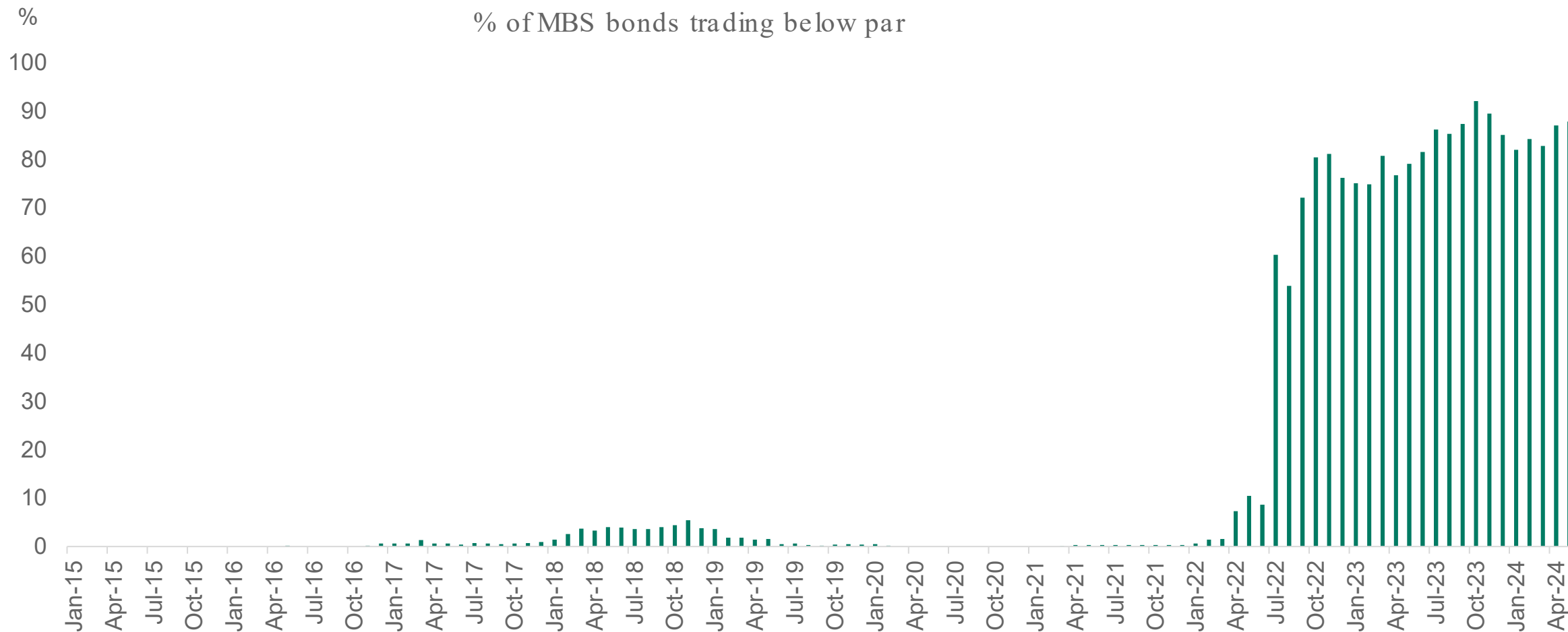
Source: Bloomberg, Apollo Chief Economist. Note: Data used for members in the LBUSTRUU Index.

12% of the US IG market trading below 80



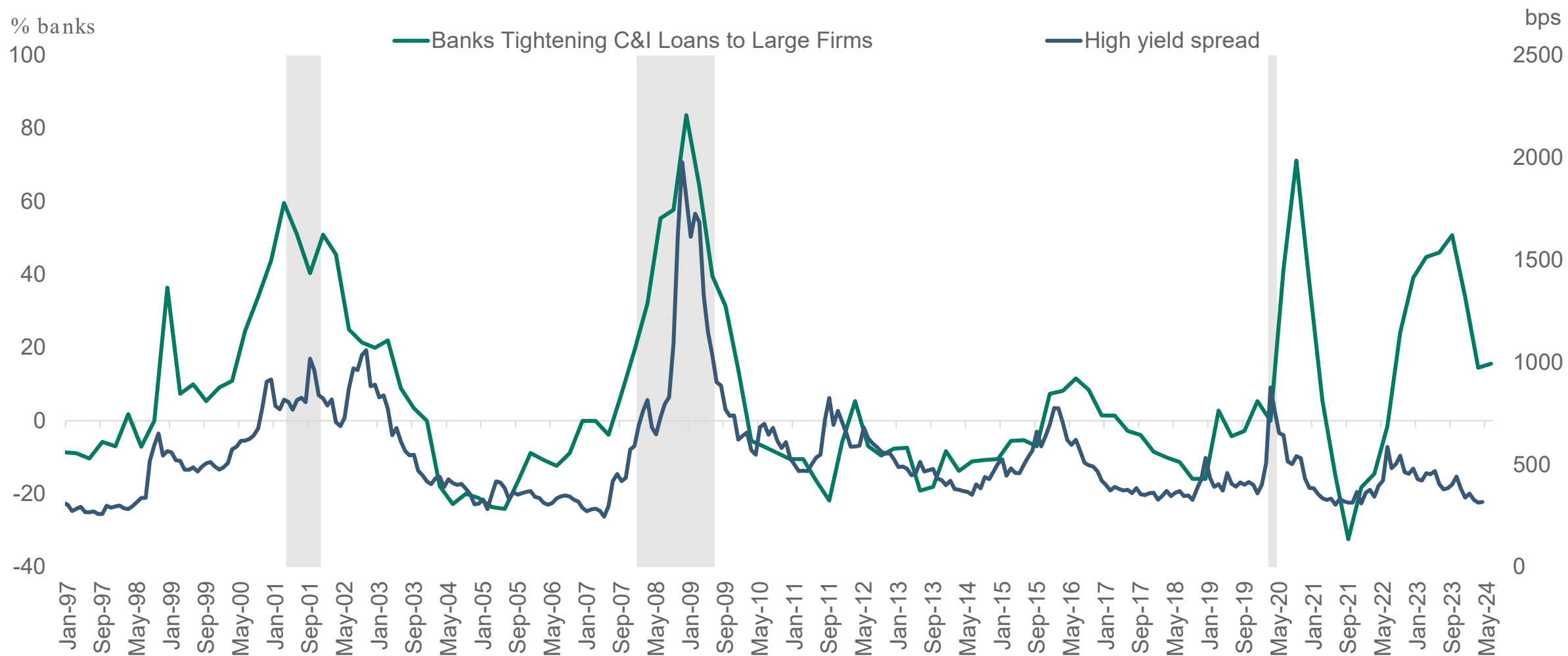
Source: Bloomberg, Apollo Chief Economist. Note: Data used for members in the LBUSTRUU Index.

87% of the US MBS market trading below par

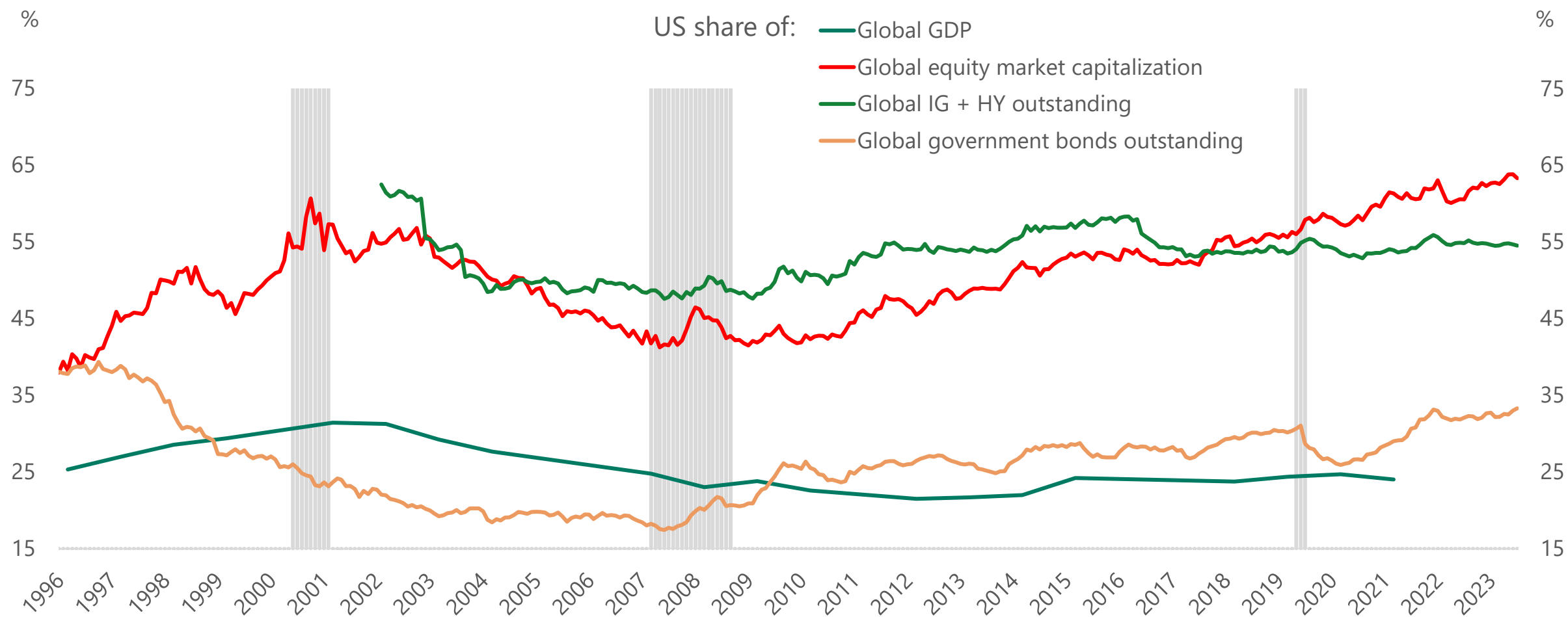


Source: Bloomberg, Apollo Chief Economist. Note: Data used for members in the LD10TRUU Index.

Banks tightening credit conditions, HY spread not signalling distress

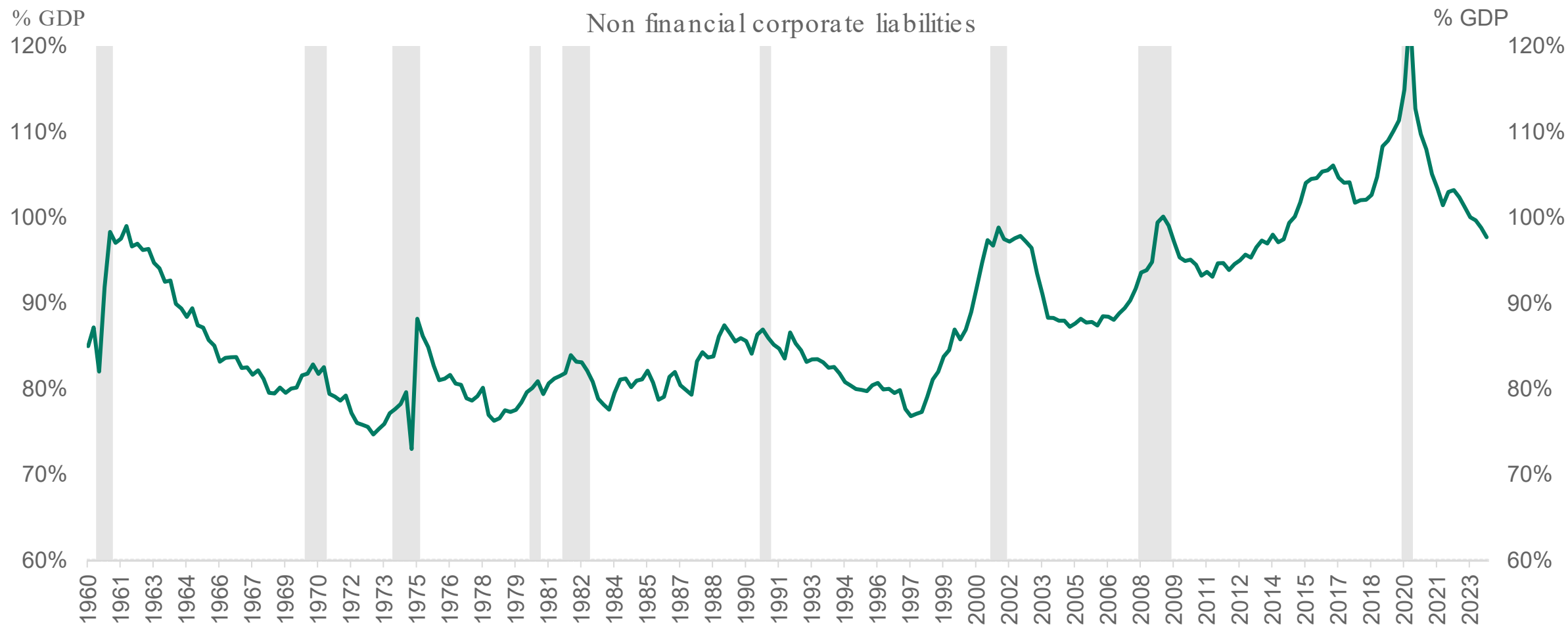


US share of the world economy and global financial markets



Source: Bloomberg, Haver, Apollo Chief Economist (Note: Bloomberg tickers: MXUS Index, MXWD Index, LUATTRUU Index, BTSYTRUU Index, LF98TRUU Index, LG30TRUU index, LUACTRUU Index, I09805US index)

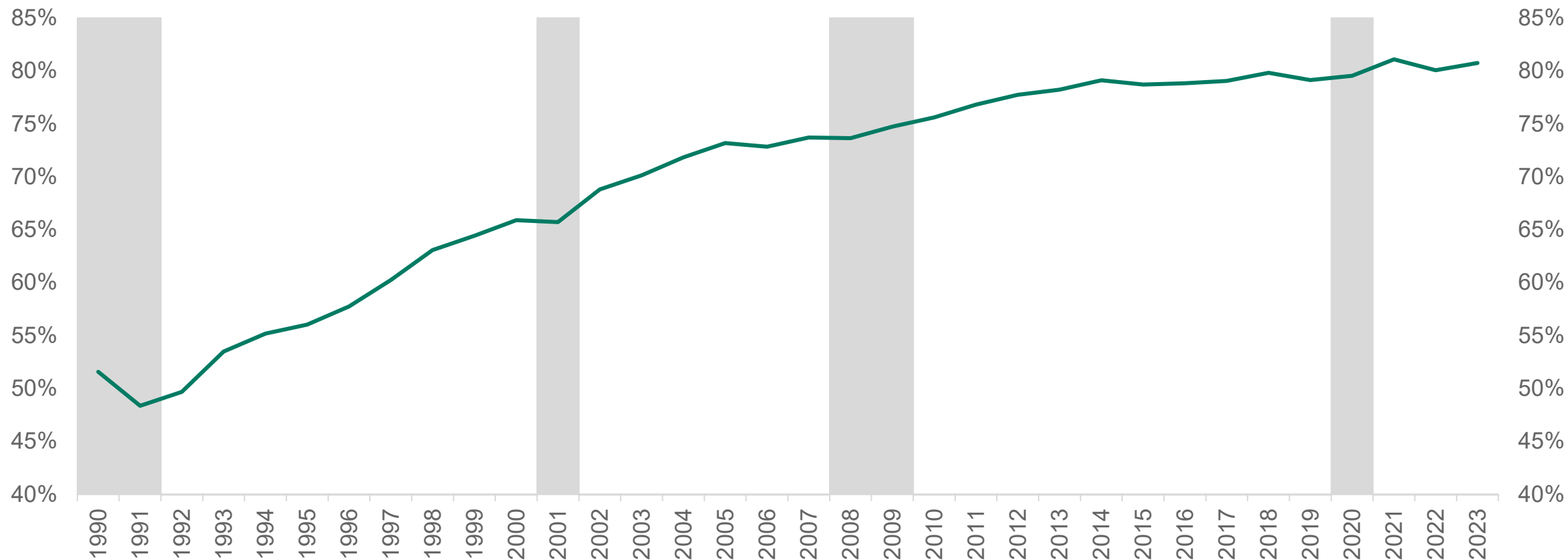
Corporate debt is coming down as a share of GDP



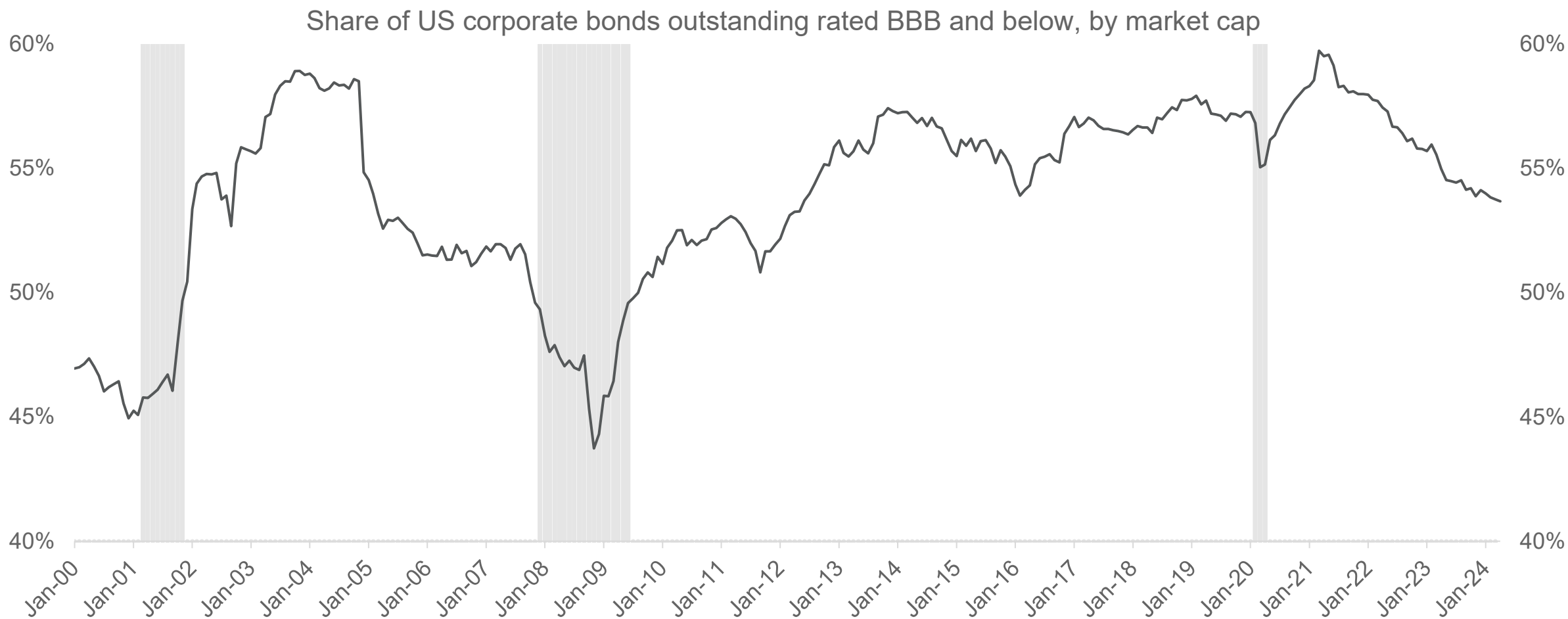
Source: FRB, Haver Analytics, Apollo Chief Economist

Lower-rated firms are by definition more vulnerable to rising interest rates

Share of corporate bonds rated BBB and below

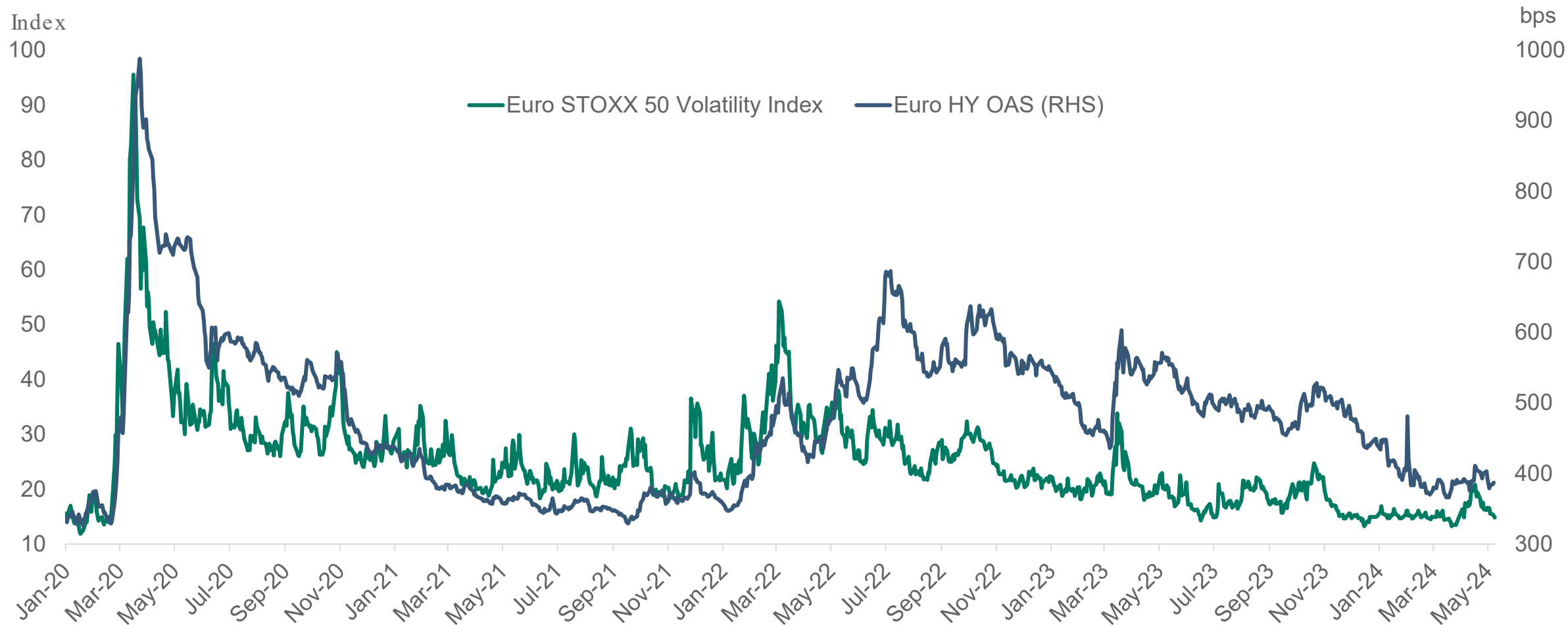


Share of corporate bond market value outstanding rated BBB and below



Source: ICE BofA, Bloomberg, Apollo Chief Economist. Data as of 29th February 2024

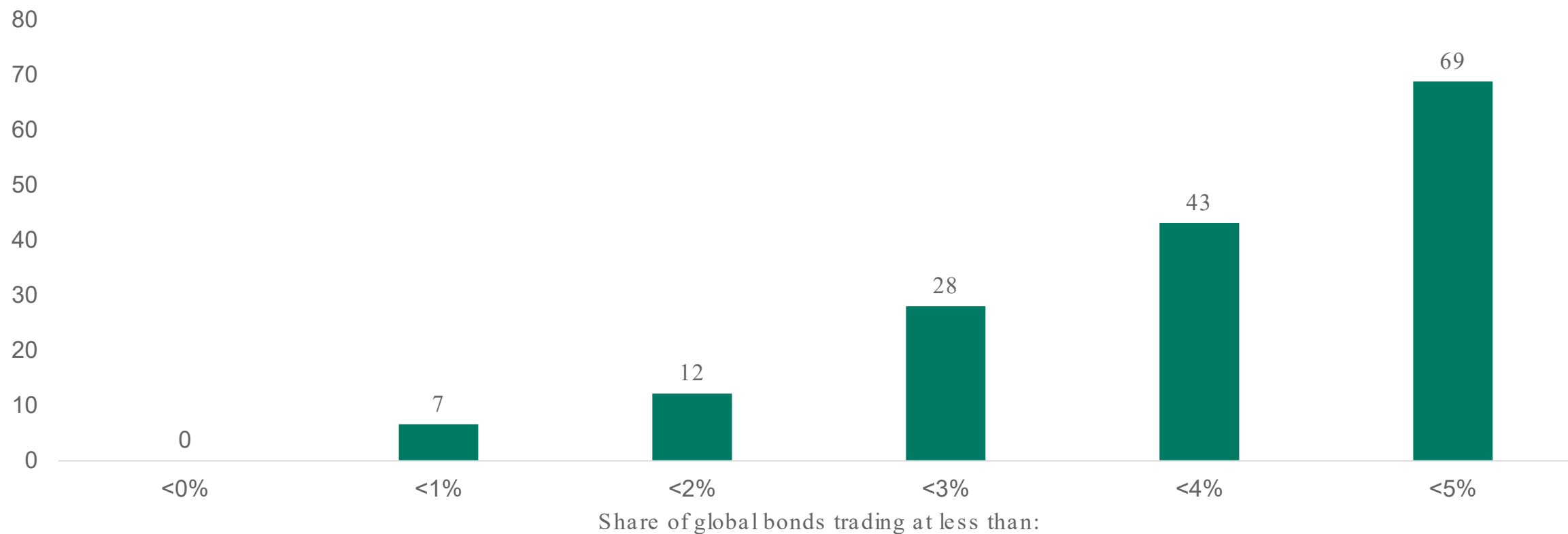
Convergence between EU equity vol and EU HY spreads



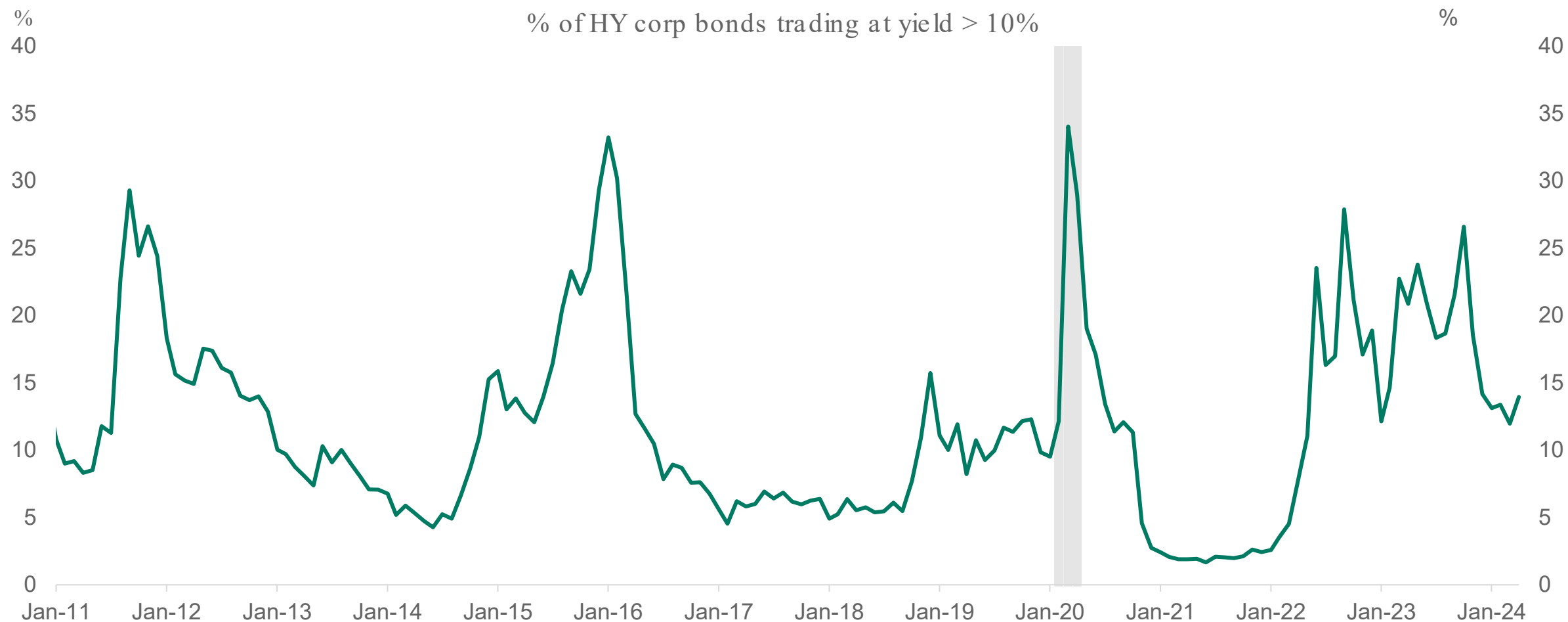
Source: Bloomberg, Apollo Chief Economist. Note: Tickers used are V2X Index and LP01OAS Index

69% of bonds in the world trading at less than 5% yield

% global bonds outstanding

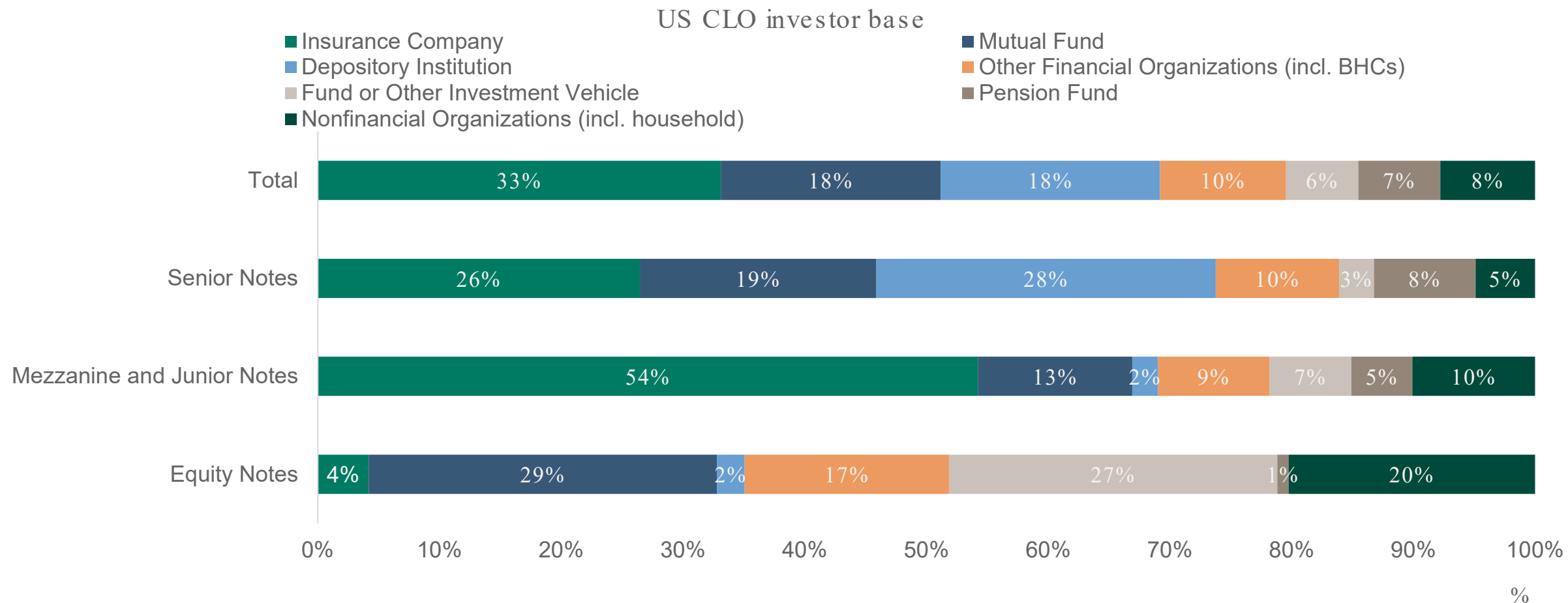


13% of bonds in the HY index are trading with a yield higher than 10%

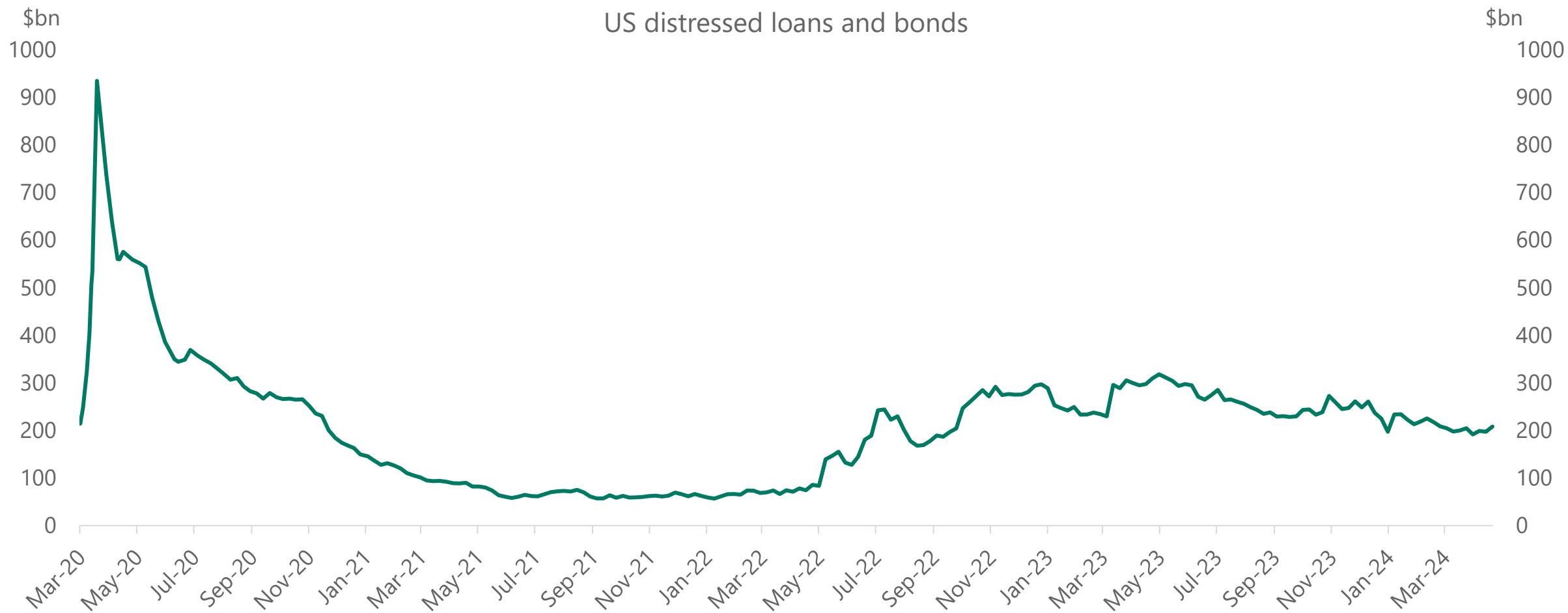


Source: Bloomberg, Apollo Chief Economist. Note: HY bond universe is H0A0 Index

US CLO investor base by tranche

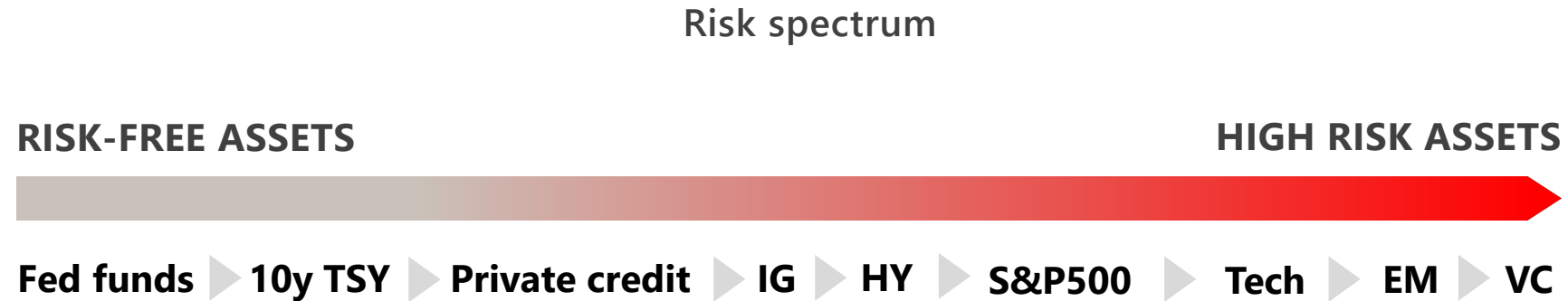


Distressed debt outstanding

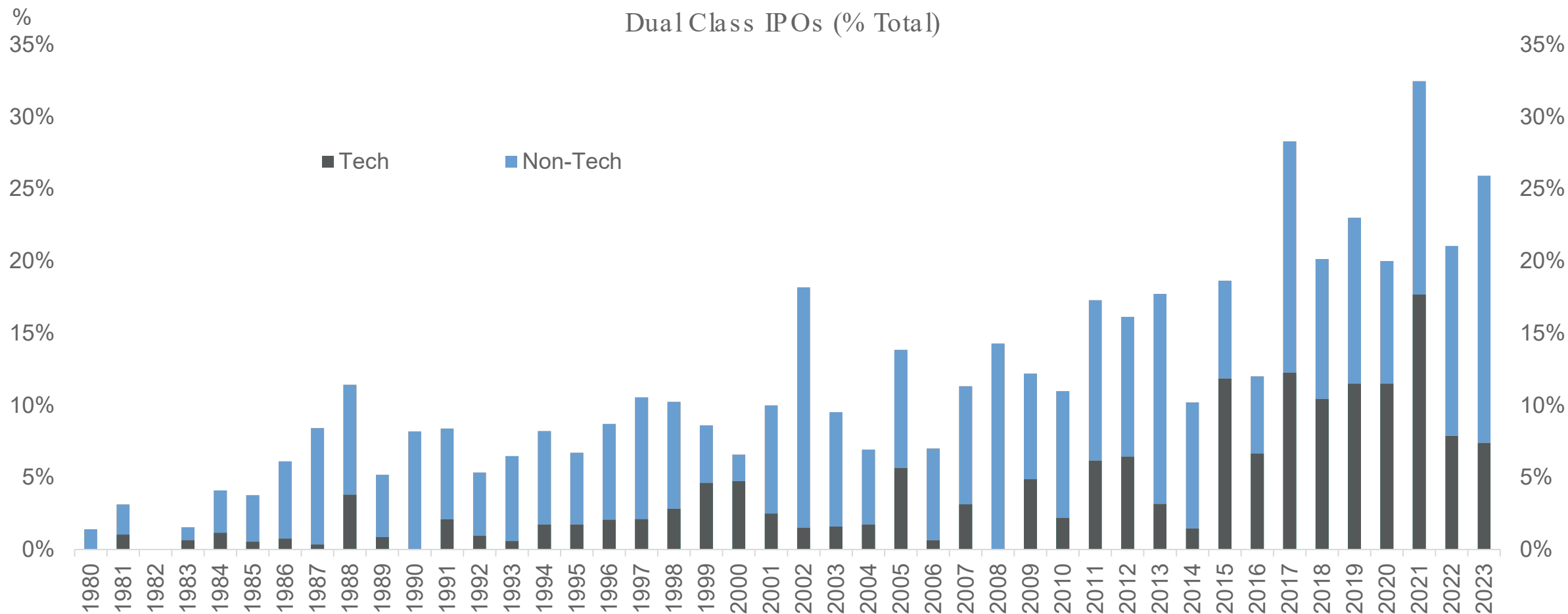


Source: Bloomberg, Apollo Chief Economist. Note: Distressed bonds are Corporate Bonds in Americas with spreads > 1,000 bps and distressed loans defined as USD Loans trading at or below 80 in Americas

Fed signaling lower risk-free interest rates is bringing back the hunt for yield

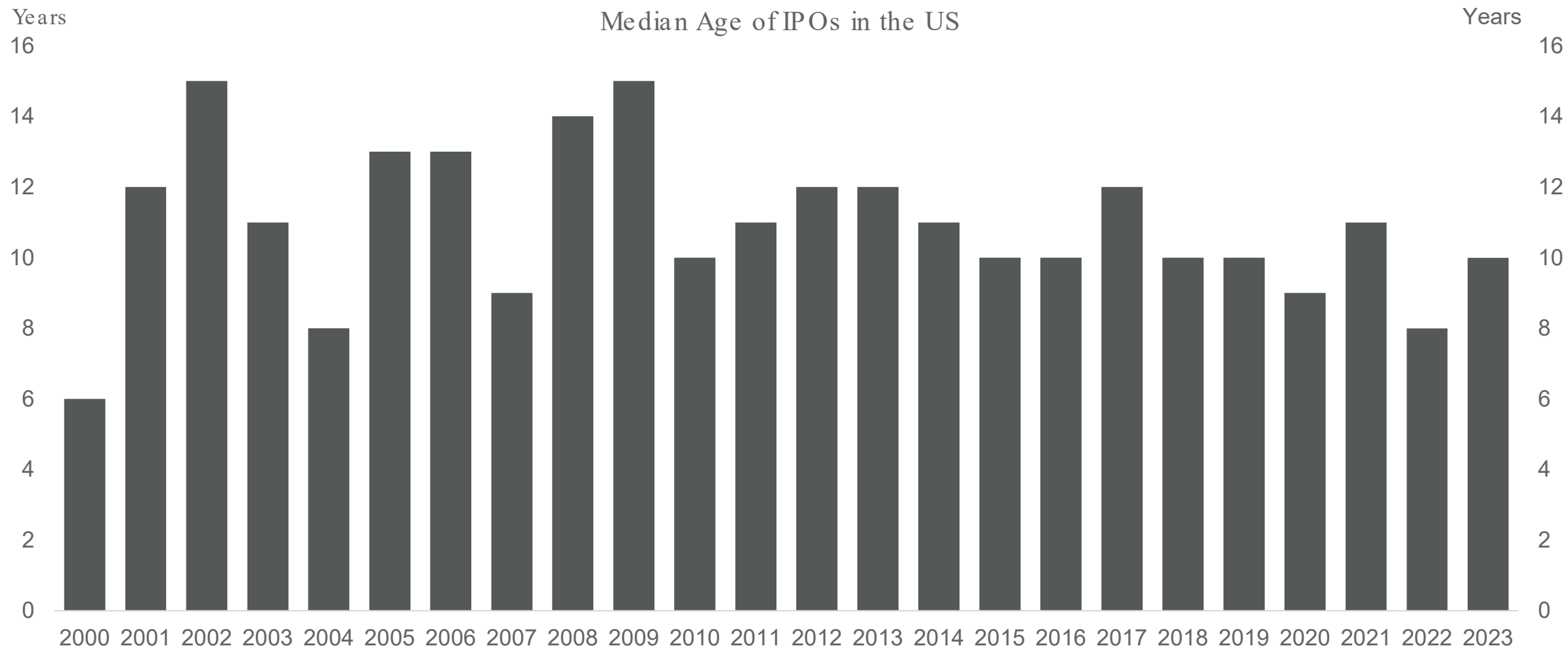


Dual class IPOs, driven by non-tech



Source: Jay Ritter, Apollo Chief Economist

Median age of IPOs



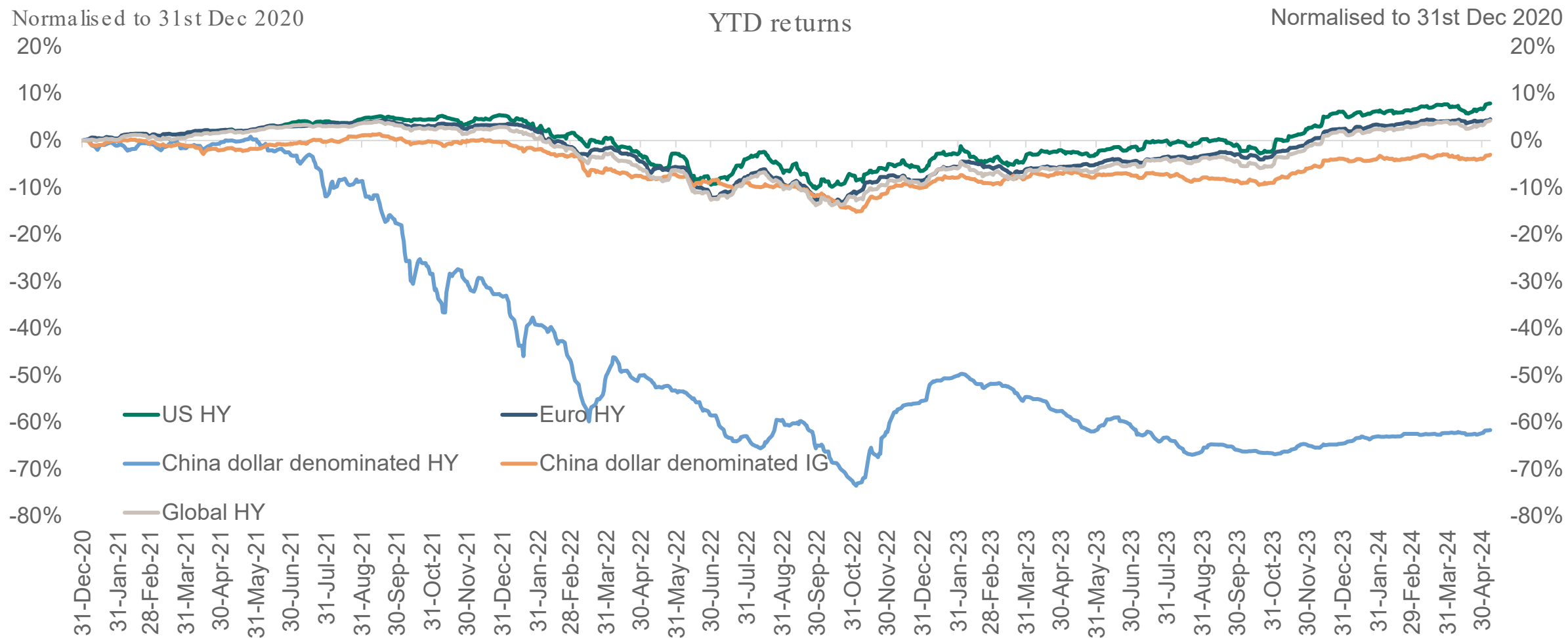
China HY



The yield on China HY is now at 11%



Little contagion from China HY to US and EU credit markets



China property crisis intensifying



China real state sector performance compared to its peers



Top issuer names



Top issuer names for IG and HY

	Top 50 Investment Grade corporate bond issuers	Top 50 High Yield corporate bond issuers
1	Bank of America Corp.	CCO Holdings LLC/ CCO Holdings Capital Corp.
2	JPMorgan Chase & Co.	CSC Holdings LLC
3	Morgan Stanley	TransDigm Inc.
4	Wells Fargo & Co.	Tenet Healthcare Corporation
5	Goldman Sachs Group Inc.	Bausch Health Companies Inc.
6	Citigroup Inc.	Community Health Systems Incorporated
7	AT&T Inc	Carnival Corporation
8	Apple Inc.	DISH DBS Corporation
9	Comcast Corporation	Venture Global LNG Inc.
10	Verizon Communications Inc.	Sirius Xm Radio Inc
11	HSBC Holdings PLC	Level 3 Financing Inc.
12	Oracle Corp.	Royal Caribbean Group
13	UnitedHealth Group Inc.	Altice France S.A
14	T-Mobile USA Inc.	Iron Mountain Inc.
15	UBS Group AG	Vistra Operations Co LLC
16	AbbVie Inc.	Medline Borrower LP
17	Amazon.com Inc.	OneMain Financial Corporation
18	Amgen Inc.	Caesars Entertainment Inc New
19	CVS Health Corp	Equitrans Midstream Corporation
20	Intel Corporation	Albertsons Cos Inc / Safeway Inc / New Albertsons LP / Albertsons LLC / (Albertsons Safeway LLC)
21	Barclays PLC	Hilton Domestic Operating Co Inc.
22	Bristol-Myers Squibb Company	United Rentals (North America) Inc.
23	Microsoft Corporation	1011778 B.C. Unlimited Liability Company / New Red Finance Inc.
24	The Boeing Company	HUB International Ltd.
25	Charter Communications Operating LLC/Charter Communications Operating Capital Corp.	GFL Environmental Inc.
26	Sumitomo Mitsui Financial Group Inc.	Rakuten Group Inc.
27	Home Depot Inc	Post Holdings Inc.
28	Energy Transfer LP	Calpine Corporation
29	Mitsubishi UFJ Financial Group Inc.	Bombardier Inc.
30	Pacific Gas and Electric Company	AAdvantage Loyalty IP Ltd/ American Airlines Inc
31	BNP Paribas SA	Alliant Holdings Intermediate LLC/Alliant Holdings Co-Issuer Inc
32	RTX Corp.	Uniti Group LP/Uniti Fiber Holdings Inc/Uniti Group Finance 2019 Inc/CSL Capital LLC
33	Broadcom Inc	Clear Channel Outdoor Holdings Inc New
34	General Motors Financial Company Inc	Univision Communications Inc.
35	Walt Disney Company	Goodyear Tire & Rubber Co. The
36	Ford Motor Credit Company LLC	Icahn Enterprises L.P. / Icahn Enterprises Finance Corporation
37	Lowe's Companies Inc.	Venture Global Calcasieu Pass LLC
38	HCA Inc.	Service Properties Trust
39	Philip Morris International Inc.	Sunoco LP / Sunoco Finance Corp
40	Walmart Inc	Wesco Distribution Inc.
41	Pfizer Investment Enterprises Pte Ltd.	Newell Brands Inc.
42	Banco Santander S.A.	Standard Buildings Solutions Inc.
43	International Business Machines Corporation	YUM Brands Inc
44	U.S. Bancorp.	Navient Corporation
45	Union Pacific Corporation	Transocean Inc.
46	Anheuser-Busch InBev Worldwide Inc.	Vodafone Group PLC
47	BP Capital Markets America Inc.	Directv Financing LLC/Directv Financing Co-Obligor Inc.
48	The Cigna Group	Carvana Co
49	Merck & Co. Inc	NCL Corporation Ltd.
50	Shell International Finance B.V.	LifePoint Health Inc



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Torsten Slok joined Apollo in August 2020 as Chief Economist and he leads Apollo's macroeconomic and market analysis across the platform.

Prior to joining, Mr. Slok worked for 15 years as Chief Economist at Deutsche Bank where his team was top ranked in the annual Institutional Investor survey for a decade. Prior to joining Deutsche Bank Mr. Slok worked at the IMF in Washington, DC and at the OECD in Paris.

Mr. Slok has a Ph.D in Economics and has studied at the University of Copenhagen and Princeton University.



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Shobhit Gupta joined Apollo in January 2024 as the Head of Multi-Credit Strategy and is responsible for identifying key themes and opportunities across global credit.

Prior to joining Apollo, Mr. Gupta spent 15 years at Barclays as the head of US credit strategy, covering investment grade, high yield, loans, credit derivatives and securitized products. He also worked at Citadel for two years focusing on opportunities in subordinated capital securities.

Mr. Gupta has a PhD in Operations Research from MIT, and a Bachelor's degree in Mechanical Engineering from IIT Bombay.