SECOR ASSET MANAGEMENT

Q3 2023 Credit Outlook

25 July 2023

Performance

Fixed Income Market YTD Performance as of 30 Jun 2023

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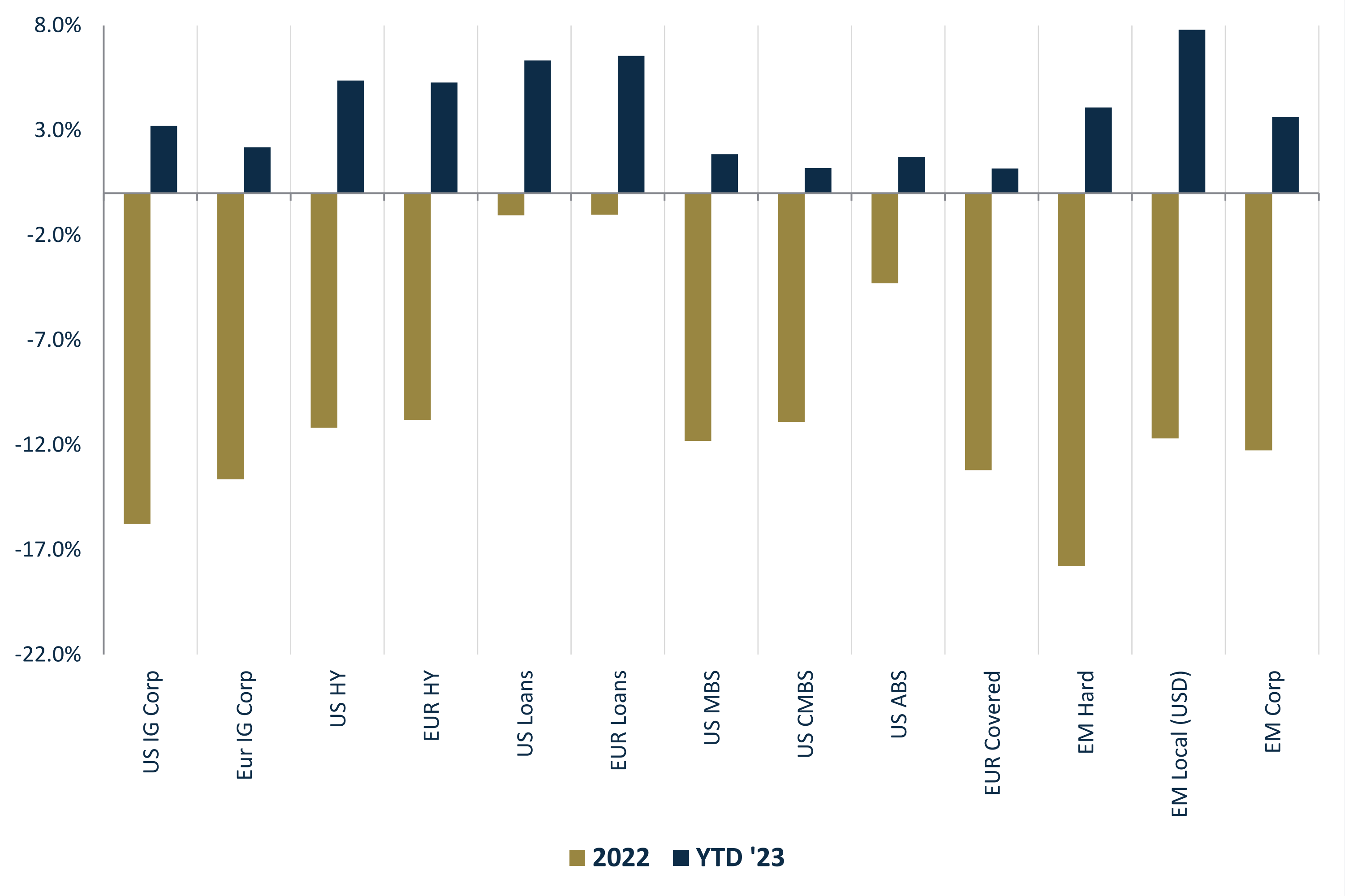
- Down-in-quality outperformed YTD 2023



Source: FTSE, BarCap, Credit Suisse and JP Morgan

YTD Performance By Quality Sector as of 30 Jun 2023

Credit Asset Class Returns by Quality Rating					
		2020	2021	2022	YTD '23
US Corp	Corporates	9.9%	-1.0%	-15.8%	3.2%
	AAA	12.3%	-2.3%	-20.3%	4.0%
	AA	9.0%	-1.5%	-17.3%	3.2%
	A	10.1%	-1.9%	-15.1%	2.9%
	BBB	9.9%	-0.2%	-15.9%	3.5%
US HY	High Yield	7.1%	5.3%	-11.2%	5.4%
	BB	10.2%	4.6%	-10.8%	4.4%
	B	4.6%	4.8%	-10.3%	5.4%
	CCC	2.3%	8.6%	-16.3%	9.3%
EMD Hard	EMD Hard	5.6%	-2.2%	-17.4%	3.6%
	EMD Hard IG	10.1%	-1.6%	-20.8%	3.0%
	EMD Hard HY	0.0%	-2.7%	-12.8%	4.4%
EMD Local	EMD Local	5.3%	-1.6%	-8.4%	1.7%
	EMD Local IG	7.5%	-0.8%	-9.5%	1.6%
	EMD Local HY	-9.4%	-10.8%	7.6%	3.0%
EM Corp	EMD Corp	7.4%	-1.1%	-13.6%	2.8%
	EMD Corp IG	5.9%	-0.2%	-14.4%	3.1%
	EMD Corp HY	10.0%	-3.2%	-11.6%	2.1%

Source: Barclays

Overview

Factors Driving Our Fixed Income / Private Credit Outlooks

- **Macroeconomic Environment**
  - Higher rates continue to degrade credit metrics; interest expense has grown, for Loan borrowers up 28% YoY
  - Expect increased credit market distress/stress but unlikely full-blown distressed cycle due to stronger corporate b/s versus pre-COVID
  - Post latest CPI print the market pivoted aggressively back risk-on, driving huge rally in Q2
- **Valuations & Relative Value**
  - YTD spreads narrowed versus YE 22, primarily in High Yield and Loans, less for IG
  - Nominal yield levels across Fixed Income remain very attractive entry points; percentile rank last 10 years over 90% for most asset classes
- **Credit Fundamentals**
  - Leverage coming down and interest coverage remains relatively high across IG, HY, and Loans
  - Defaults rates rising modestly and below long-term averages
  - Bonds/Loans pricing at distressed levels now represent over 8% of each market
- **Capital Markets**
  - Banks expect to continue tightening standards for the remainder of 2023
  - Doing so due to uncertain economic conditions, reduced risk tolerance, expected deterioration in credit quality of their loan portfolios, concerns about bank funding costs, bank liquidity positions and deposit outflows
- **Market Technicals**
  - YTD new supply across Fixed Income asset classes relatively muted
  - Fund flows continue to be negative in Loans but HY saw 2nd positive inflow in 7 months
  - Lackluster EMD fund flows YTD 2023, essentially flat: seeing EMD HC outflows, EMD LC inflows

Outlook for Risk Premia

- **Macroeconomic**
  - Base case is a mild recession
  - Rates will stabilize soon as central banks are nearing the end of the tightening cycle
  - EM countries began their hiking cycles well before DM countries; positioned to begin their easing cycles sooner than DMs
- **Credit Spreads** for some asset classes are rich relative to history, leaving little cushion for further compression as the economy slows down
  - Thus, expect widening rather than further narrowing in credit spreads
  - Credit fundamentals have been and continue to deteriorate, which will result in spread widening
  - However, corporations are starting from stronger balance sheets heading into this downturn and default rates are relatively low
  - In the short-term credit could trade range bound until Fed confirms when hiking will ultimately end
- **Capital Markets** will be the major headwind as banking community, in particular, regional banks in the U.S. continue tightening lending standards
  - Dampens transaction volumes, particularly in the Commercial Real Estate and Private Credit markets
  - But pullback of commercial banks will increase opportunities for alterative lenders, e.g., Direct Lending or Private Credit

Yields By Credit Asset Class –

Despite some softening YTD 2023, yields across all fixed income asset classes remain at very attractive entry points relative to history

Yields								
	Current	2022	2021	2020	2019	2018	2017	2016
US HY	8.50%	8.96%	4.21%	4.18%	5.19%	7.95%	5.72%	6.12%
US Loans	10.31%	10.76%	5.26%	5.10%	6.27%	8.09%	6.33%	6.30%
Eur HY	8.07%	8.27%	3.42%	3.79%	3.81%	6.05%	3.67%	4.65%
Eur Loans	8.13%	6.82%	3.82%	3.88%	4.14%	4.48%	4.11%	4.73%
EM Local	6.32%	6.86%	5.72%	4.22%	5.22%	6.46%	6.14%	6.79%
EM Hard	8.36%	8.55%	5.27%	4.53%	4.91%	6.86%	5.26%	5.79%
EM Corp	7.23%	7.28%	4.11%	3.42%	4.51%	6.14%	4.53%	5.05%
US IG Corp	5.48%	5.42%	2.33%	1.74%	2.84%	4.20%	3.25%	3.37%
Eur IG Corp	4.44%	4.32%	0.52%	0.24%	0.51%	1.30%	0.75%	0.87%
US MBS	4.78%	4.71%	1.98%	1.25%	2.54%	3.39%	2.91%	2.85%
US CMBS	5.69%	5.30%	1.88%	1.28%	2.48%	3.44%	2.87%	2.78%
US ABS	5.52%	5.14%	1.13%	0.45%	2.05%	3.06%	2.26%	1.86%

Corporate Yield Percentile Ranks as of 2Q23						
	US IG Corp	European IG	US HY	European HY	US Loans	EUR Loans
Current Yields	5.5%	4.4%	8.5%	8.1%	10.3%	8.1%
Last 20 Years	81.1%	85.3%	77.8%	77.8%	91.6%	94.5%
Last 15 Years	91.6%	90.5%	79.3%	80.4%	89.3%	96.0%
Last 10 Years	97.4%	100.0%	89.9%	94.9%	95.7%	100.0%

EMD Yield Percentile Ranks as of 2Q23			
	EMD HC	EMD Local	EM Corp
Current Yields	8.4%	6.3%	7.2%
Last 15 Years	90.5%	41.3%	89.3%
Last 10 Years	91.5%	47.8%	95.7%

Sources: BarCap, Credit Suisse, JP Morgan

Spreads as of 30 Jun 2023

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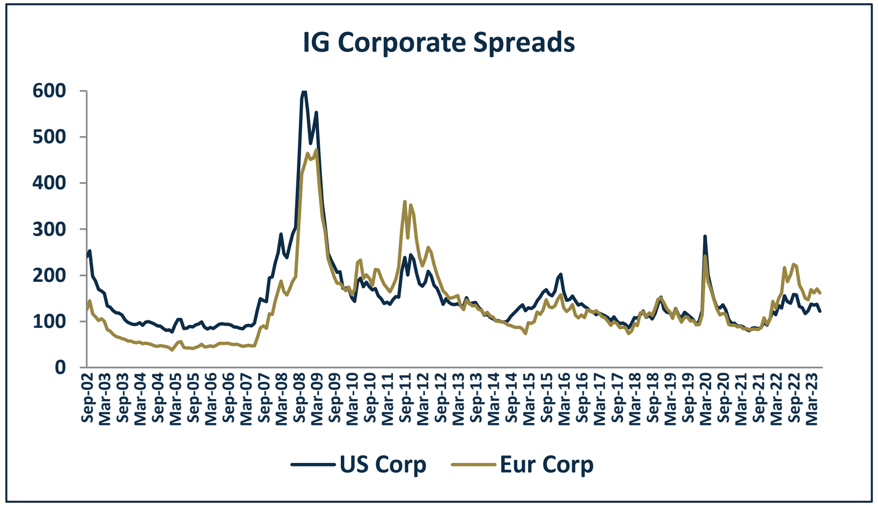
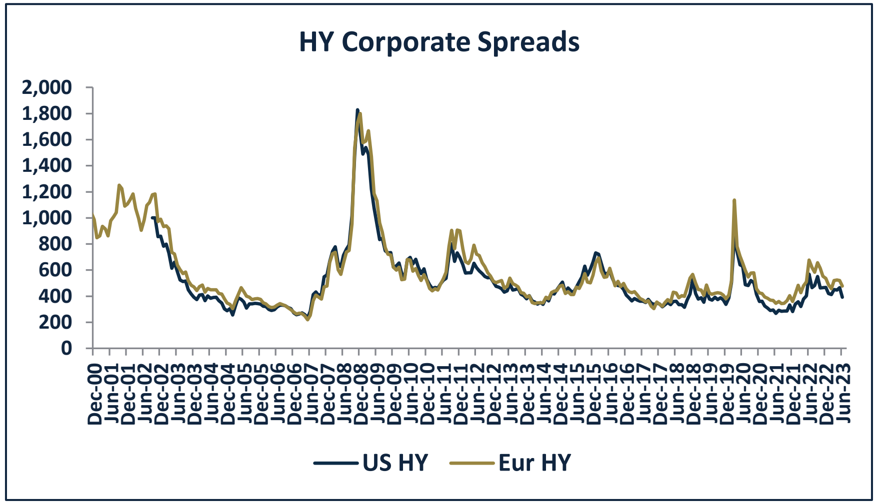
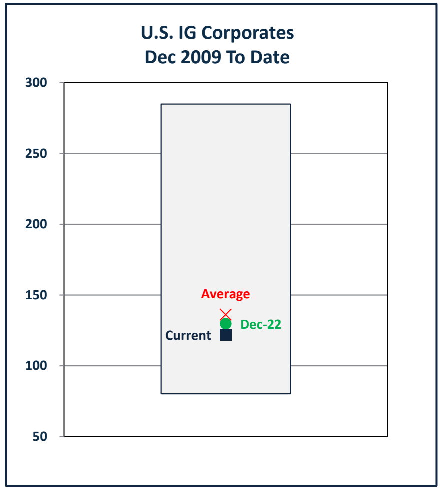
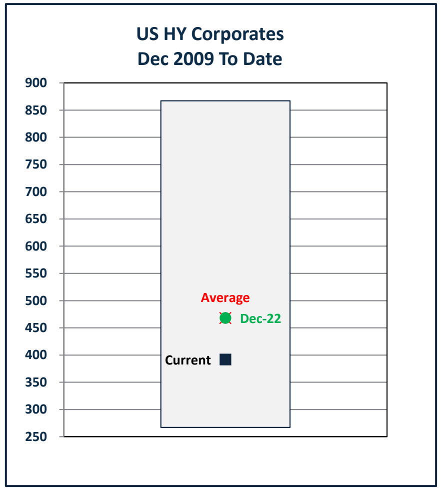


	Current	YTD Δ	YE '22	Post-GFC Avg	Pct Last 10 Yrs	% Rank last 15 Yrs
US Corp	122	(8)	130	136	51%	34%
Eur Corp	162	(5)	167	143	90%	65%



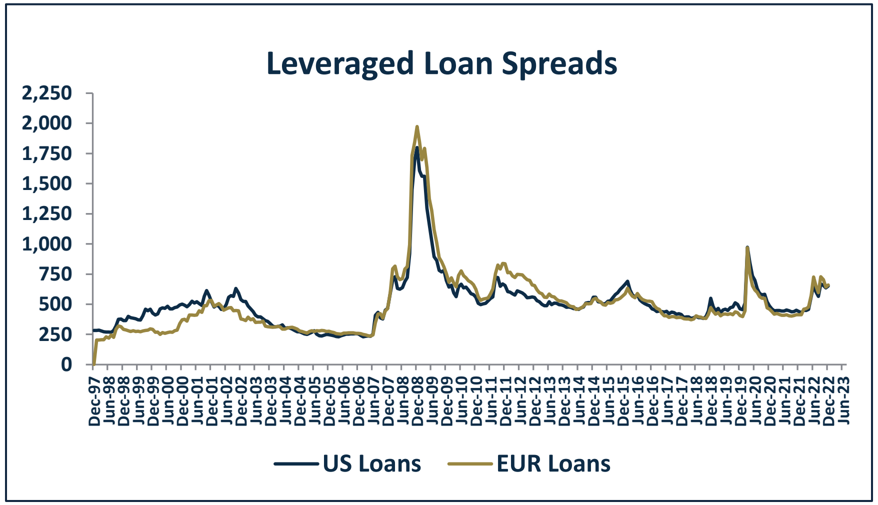
	Current	YTD Δ	YE '22	Post-GFC Avg	Pct Last 10 Yrs	% Rank last 15 Yrs
US HY	392	(76)	468	468	48%	32%
Eur HY	478	(59)	537	504	62%	45%

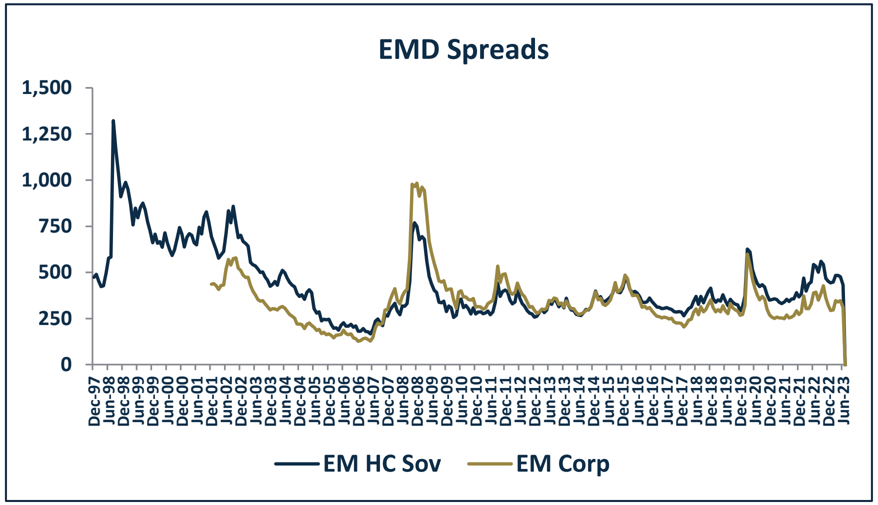




Sources: BarCap, Credit Suisse, JP Morgan

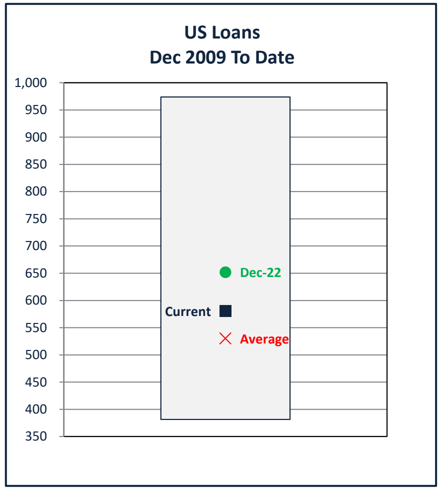
Spreads as of 30 Jun 2023

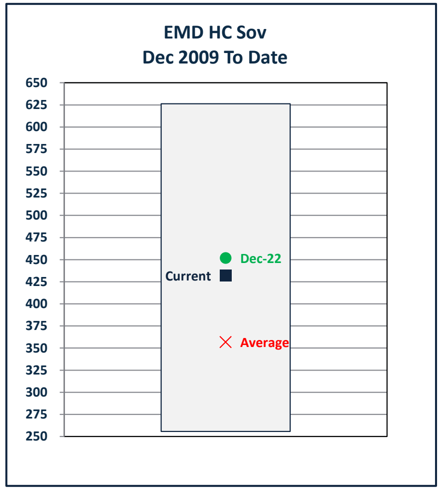




	Current	YTD Δ	YE '22	Post-GFC Avg	Pct Last 10 Yrs	% Rank last 15 Yrs
US Loans	581	(71)	652	530	79%	65%
EUR Loans	557	(104)	661	545	76%	54%

	Current	YTD Δ	YE '22	Post-GFC Avg	Pct Last 10 Yrs	% Rank last 15 Yrs
EM HC Sov	432	(20)	452	357	80%	80%
EM Corp	309	(13)	322	331	51%	39%

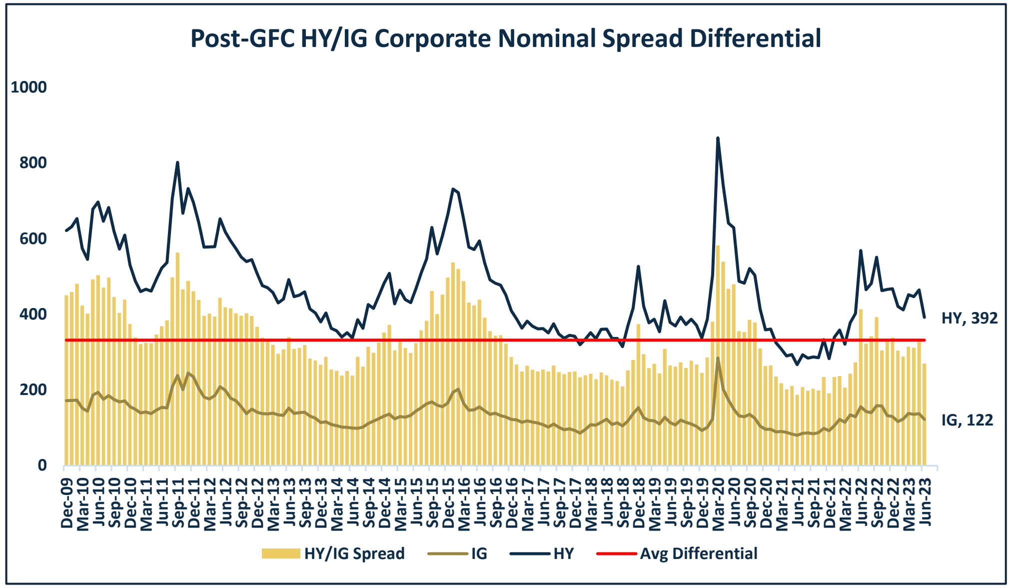


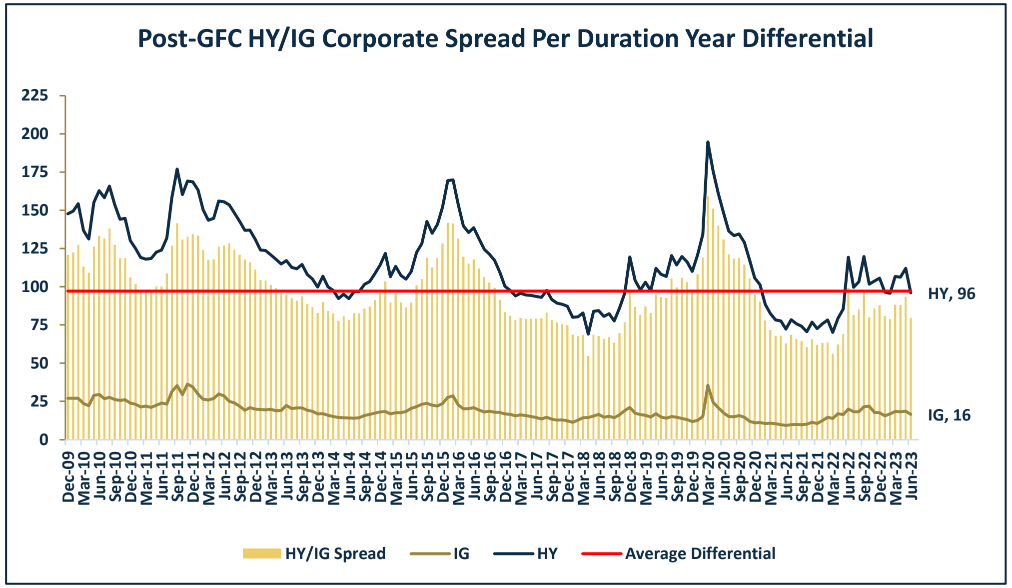


Sources: BarCap, Credit Suisse and JP Morgan

US HY vs US IG Corporates as of 30 Jun 2023

- Potential for investors to tilt toward higher quality credit because:
  - Lower quality rally after low CPI print may have been overdone on a nominal basis vis a vis higher quality credit
  - Continued deterioration in non-IG credit metrics as higher interest rates continue to be absorbed and the economy slows down; should result in widening of the spread differential, i.e., HY should widen relative to IG





Source: BarCap Indices

Catalysts That May Change Our Outlook and Why?

- Short-term maintain defensive bias because of
  - Still uncertain as to how long it will take current high interest rates to fully demonstrate the impact on corporations and consumers; but cracks are beginning to appear
  - Become even more defensive should another regional bank problem surfaces

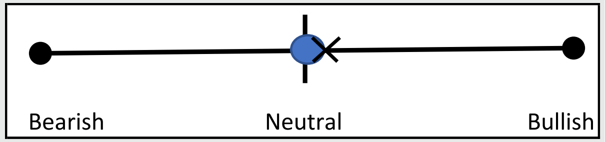
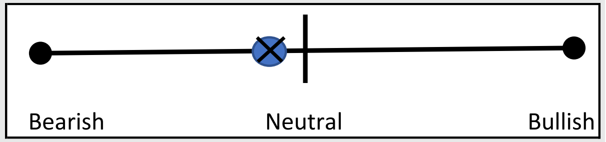
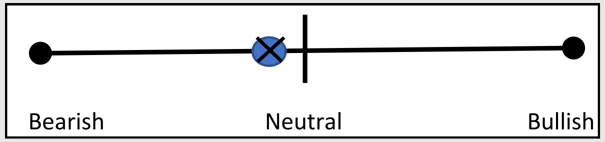
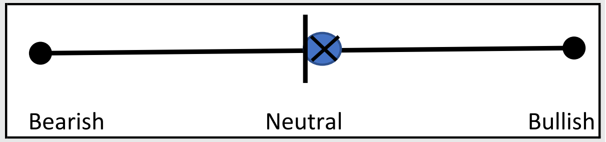
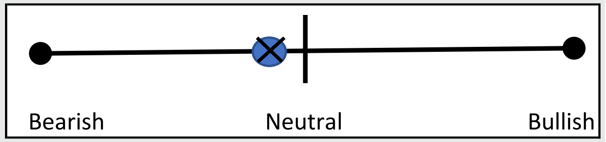
- Catalysts to change view?
  - Global economy doesn't go into a mild recession later this year but continues to be extremely resilient and global growth outperforms expectations

Tactical Recommendations

- Long EMD vs HY
- Neutral on duration
- Maintain up-in-quality bias
- Add to Private Credit – Direct Lending (both Middle Market and Large Cap), Liquid Opportunistic Credit and Special Situations, Asset-Based lending strategies

Outlook Summary

U.S. High Yield – Summary

Factors	Comments	Historical Range
Valuations	• bank retrenchment & tighter lending standards will continue through year end • Spreads have richened particularly in low quality, more likely to widen from here, while base rates could decline if there is a Fed pivot sooner than expected.	
Fundamentals	• While still relatively strong, credit metrics continue to deteriorate; in ST expect defaults rates go to 3-3.5%. • Given these conditions, spreads likely to widen.	
Technicals	• YTD flows more muted relative to 2022 in EMD, but still high outflows in leveraged finance asset classes, • Back-ended maturity wall in HY protects against near term refi risk; loans will experience higher refi risk relative to bonds.	
Macro Impact	• US hiking cycle expected to peak in this year. • Full impact of 200-300 bps rise in funding costs and reduced capital market access on corporate profitability still running through the economy.	
	9 – 12 Month View	

● Current Quarter

X Last Quarter

EMD – Summary - UPDATE

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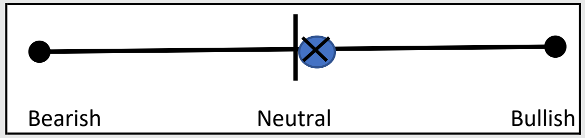
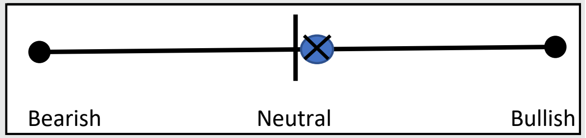
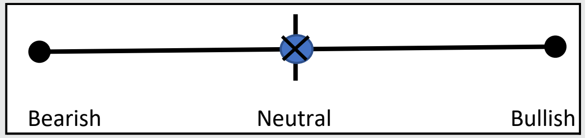
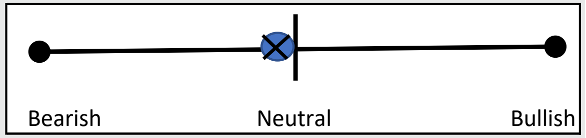
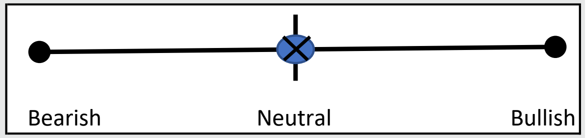
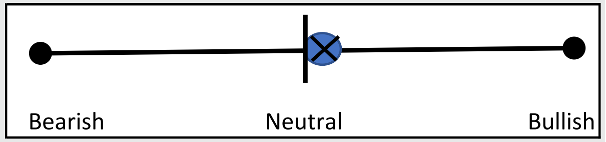
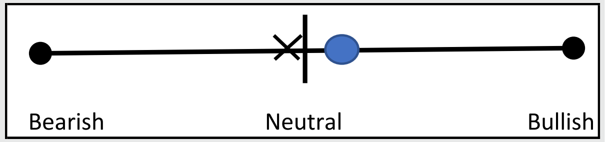
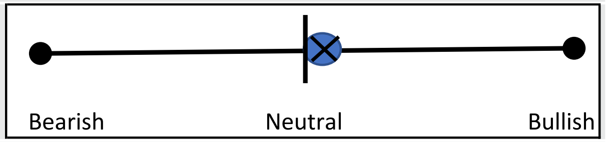
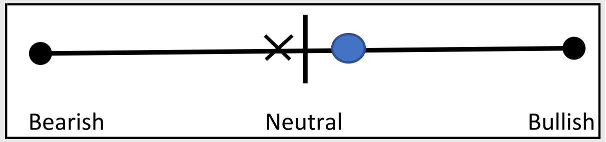
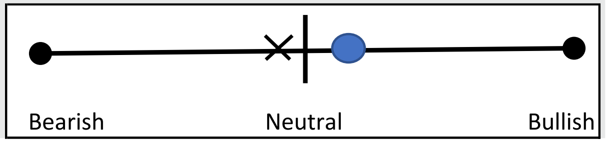
Factors	Comments	Historical Range
Valuations	• Absolute EMD HC absolute yields remain near peaks since the GFC, and although universe is 50% IG, are comparable to US High Yield's current 8.5% yield. • HY vs IG on absolute spread and spread/duration basis still wide versus history, but in risk off environment, expect scaling back of HY o/w's.	
Fundamentals	• EM growth, despite softness in China re-opening is still expected to outperform DM growth. • Inflation expected to trend lower due to lower commodity prices and continues to benefit oil importers.	
Technicals	• Despite strong returns in EM markets YTD 2023, fund flows moderated significantly, but on flip side outflows no longer a headwind to EMD • Recent USD weakening is also a positive for EM LC as is current risk-on environment, but that can change quickly.	
Macro Impact	• Slower global growth, tight financial conditions across the world and potential for global recession in 2023. • EM countries, esp. LatAm, acted earlier than DM to fight high inflation with rate hikes; potentially poised to ease rates earlier than DM as inflation rates, commodity prices have come down.	
	9 – 12 Month View	

● Current Quarter

X Last Quarter

Private Credit – Summary

Factors	Comments	Historical Range
Valuations	• As interest rates have taken effect across financial markets, PC valuations have fallen but forward-looking returns have repriced 400-500 bps higher and lower LTVs. • Particularly in real estate, debt with less leverage is pricing extremely attractive to equity returns.	
Fundamentals	• Credit fundamentals, while still relatively strong, continue to deteriorate; in ST expect defaults rates go to 3-3.5%. • Given these conditions, spreads likely to widen. Dispersion in leveraged finance markets should widen and opportunities for non-traditional direct lending, opportunistic credit, special situations should increase	
Technicals	• Bank retrenchment that has been a headwind to refinancing is a tailwind in private credit, particularly for direct lend or other non-traditional lending opportunities.	
Macro Impact	• As credit metrics deteriorate, stressed/distressed will provide increased recapitalization/restructuring opportunities in Private Credit • Expect next few years to be very good vintages in PC given today's entry points; buying at much lower bases than pre-2022.	
	9 – 12 Month View	

● Current Quarter

X Last Quarter

APPENDIX

Appendix - Performance

High Yield YTD Returns by Industry as of 30 Jun 2023

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	High Yield									
	US					W. Europe				
	2020	2021	2022	YTD '23	Last 3 Yrs	2020	2021	2022	YTD '23	Last 3 Yrs
Total Market	5.5%	5.5%	-10.6%	5.8%	3.6%	0.3%	6.2%	-10.8%	5.3%	2.2%
Aerospace	-4.2%	7.2%	-6.1%	4.5%	7.2%	-7.4%	9.7%	-6.3%	5.8%	6.1%
Chemicals	7.7%	5.9%	-11.4%	3.9%	2.5%	2.1%	4.9%	-13.9%	5.0%	-0.1%
Consumer Products	4.2%	3.9%	-13.2%	4.9%	1.0%	2.4%	5.4%	-11.0%	6.0%	2.4%
Energy	-5.2%	14.0%	-3.9%	5.6%	10.6%	-6.8%	11.3%	-9.3%	7.8%	5.4%
Financials	5.9%	7.0%	-10.7%	6.2%	4.0%	2.5%	6.3%	-13.3%	5.6%	1.8%
Food And Drug	17.1%	6.0%	-12.9%	6.5%	2.3%	-1.0%	5.2%	-15.3%	14.3%	3.1%
Food/Tobacco	6.8%	4.8%	-9.1%	5.3%	3.0%	3.4%	4.7%	-13.4%	5.7%	0.5%
Forest Prod/Containers	6.6%	2.9%	-7.2%	5.4%	2.6%	0.0%	3.6%	-8.9%	4.9%	1.2%
Gaming/Leisure	3.3%	4.5%	-7.6%	7.9%	6.3%	-2.7%	11.0%	-6.7%	10.1%	8.2%
Healthcare	9.1%	3.1%	-14.1%	5.6%	0.8%	1.7%	3.6%	-10.0%	3.9%	0.1%
Housing	7.7%	3.9%	-12.7%	7.6%	2.6%	0.5%	1.7%	-16.8%	4.8%	-1.6%
Info Technology	8.9%	4.0%	-13.3%	7.9%	1.7%	4.4%	6.4%	-6.5%	1.6%	2.0%
Manufacturing	9.4%	5.0%	-10.1%	9.2%	4.9%	1.1%	5.5%	-6.8%	6.2%	4.8%
Media/Telecom	5.7%	2.3%	-14.6%	3.6%	-0.2%	-1.5%	4.4%	-11.4%	3.4%	-0.4%
Metals/Minerals	7.4%	6.9%	-6.3%	6.2%	6.3%	-0.7%	10.9%	-11.6%	5.1%	3.4%
Retail	4.6%	5.9%	-14.4%	6.5%	4.2%	-3.0%	9.4%	-10.5%	4.8%	4.1%
Services	4.6%	6.8%	-9.5%	5.0%	3.5%	-0.9%	6.3%	-10.0%	6.1%	3.3%
Transportation	10.5%	5.2%	-10.6%	8.3%	4.4%	3.3%	10.3%	-8.9%	5.5%	5.1%
Utilities	9.3%	1.8%	-8.6%	4.1%	1.3%	-0.6%	5.2%	-8.5%	3.6%	1.2%

Sources: Credit Suisse Leveraged Finance indices

Leveraged Loans YTD Returns by Industry as of 30 Jun 2023

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	Leveraged Loans									
	US					W. Europe				
	2020	2021	2022	YTD '23	Last 3 Yrs	2020	2021	2022	YTD 23	Last 3 Yrs
Total Market	2.8%	5.4%	-1.1%	6.3%	6.2%	0.5%	7.1%	-1.0%	6.5%	5.7%
Aerospace	-0.1%	6.7%	3.5%	6.2%	9.5%	2.1%	9.2%	3.3%	6.2%	8.6%
Chemicals	4.6%	4.7%	0.1%	6.1%	5.8%	0.0%	7.6%	2.7%	5.1%	6.2%
Consumer Durables	0.9%	6.1%	-7.1%	7.5%	5.8%	5.0%	8.6%	-10.9%	8.1%	5.6%
Consumer Non-Durables	1.2%	7.3%	-1.7%	6.3%	8.2%	2.0%	8.7%	-0.4%	7.4%	7.6%
Energy	-7.3%	14.0%	6.3%	6.5%	13.3%	-8.8%	13.8%	13.0%	5.8%	14.9%
Financials	4.0%	4.2%	1.2%	6.6%	5.8%	1.4%	7.8%	2.0%	6.0%	6.5%
Food And Drug	17.6%	4.4%	4.0%	5.7%	7.0%	n/a	n/a	n/a	n/a	n/a
Food/Tobacco	3.6%	3.3%	0.9%	6.8%	6.2%	-1.0%	5.5%	-2.9%	9.4%	4.6%
Forest Prod/Containers	4.5%	4.7%	1.1%	7.1%	6.4%	4.7%	6.3%	-3.0%	6.8%	5.6%
Gaming/Leisure	1.5%	6.9%	-2.6%	8.2%	7.5%	-0.2%	10.1%	-9.5%	10.8%	6.4%
Healthcare	5.2%	4.9%	-3.9%	5.4%	4.7%	1.6%	5.6%	-1.2%	5.6%	4.7%
Housing	3.5%	4.4%	-1.1%	7.6%	5.9%	4.2%	4.5%	-7.2%	10.3%	4.6%
Info Technology	5.2%	5.3%	-3.2%	6.8%	5.3%	1.9%	7.6%	-2.6%	7.1%	5.7%
Manufacturing	3.9%	6.7%	-0.6%	7.1%	7.6%	-0.3%	8.5%	-0.4%	7.0%	6.9%
Media/Telecom	1.3%	4.1%	-1.9%	4.4%	4.4%	-4.3%	7.0%	3.6%	4.1%	5.2%
Metals/Minerals	1.8%	12.4%	-2.2%	6.7%	9.8%	-0.7%	5.4%	2.8%	5.8%	5.2%
Retail	-2.0%	5.5%	-1.6%	6.2%	6.7%	3.9%	9.9%	-3.4%	5.7%	6.2%
Service	2.6%	6.0%	0.5%	6.5%	6.9%	1.6%	6.6%	-0.6%	6.9%	6.4%
Transportation	4.1%	5.7%	0.1%	7.2%	7.4%	1.9%	6.5%	3.0%	5.5%	6.7%
Utility	1.4%	1.7%	4.8%	5.5%	5.3%	n/a	n/a	n/a	n/a	n/a

Sources: Credit Suisse Leveraged Finance indices

Appendix – Valuations

Spread Changes as of 30 Jun 2023

2023 Spread Changes

- After surprise US CPI number was released last month, re-igniting hopes of a soft landing, credit markets aggressively pivoted back to risk-on mode, compressing credit spreads
- Lower quality credit spreads rallied more in June as compared to high quality.

	Dec '22	Mar '23	Jun-23	QoQ Δ	YoY Δ
US IG Corp	130	138	122	-16	-8
Eur IG Corp	167	169	162	-7	-5
US HY	468	452	392	-60	-76
EUR HY	537	520	478	-42	-59
US Loans	652	609	581	-28	-71
Eur Loans	661	597	557	-40	-104
US MBS	51	63	51	-11	0
US CMBS	119	143	134	-9	15
US ABS	75	85	68	-17	-7
EUR Covered	84	88	87	-1	4
EM Hard	452	484	432	-52	-20
EM Corp	322	347	309	-38	-13

Sources: BarCap, Credit Suisse and JP Morgan

Appendix – Cross Sector Relative Value

Bonds vs Loans Relative Value

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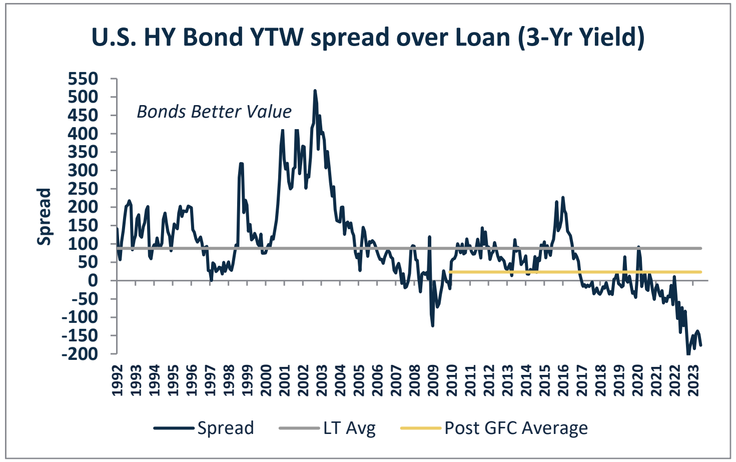
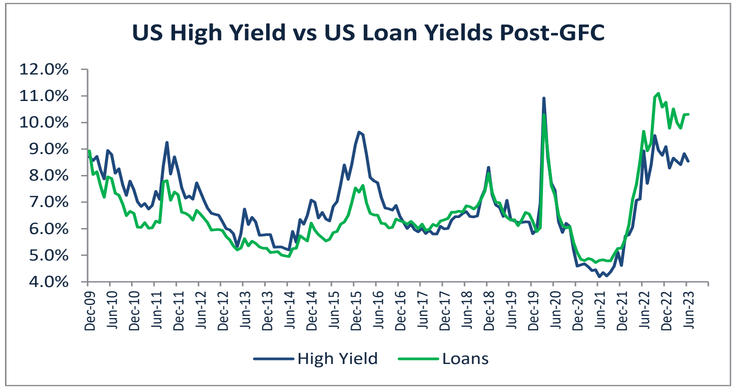
High Yield Bond versus Leveraged Loans

as of 30 Jun 2023

- Loans yielding 177 bps over bonds, screaming cheap from a long-term historical perspective (and even higher relative cheapness than during the GFC
- One could argue this is fair given potential recession and further stress on loan borrowers as high Fed policy rates continue to work through the system, hurting loan borrowers more than bond issuers



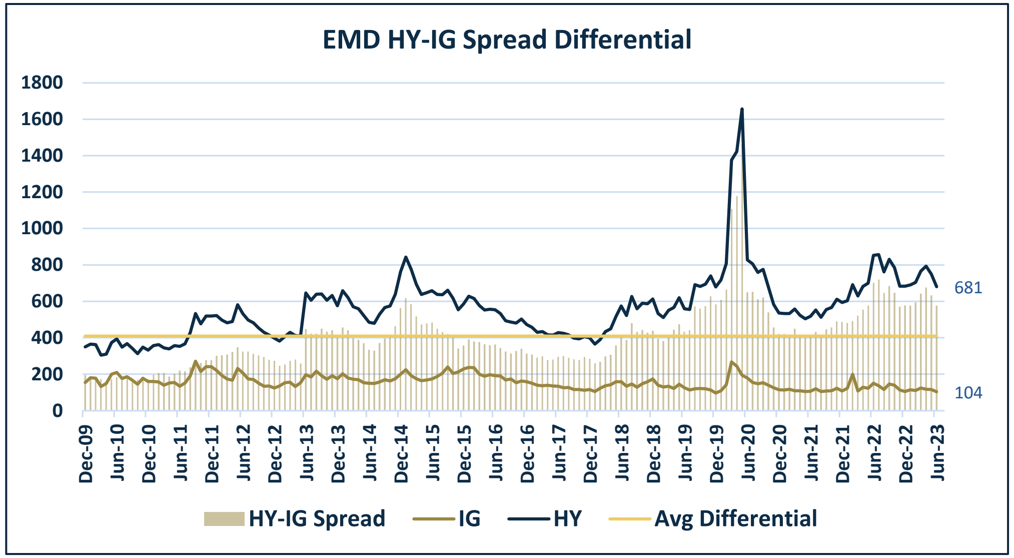
Current Spread	-177
LT Average	88
Post-GFC Average	23
Post-GFC Minimum	-214
Post-GFC Maximum	226
Post-GFC STDEV	80
Z-Score	(3.30)

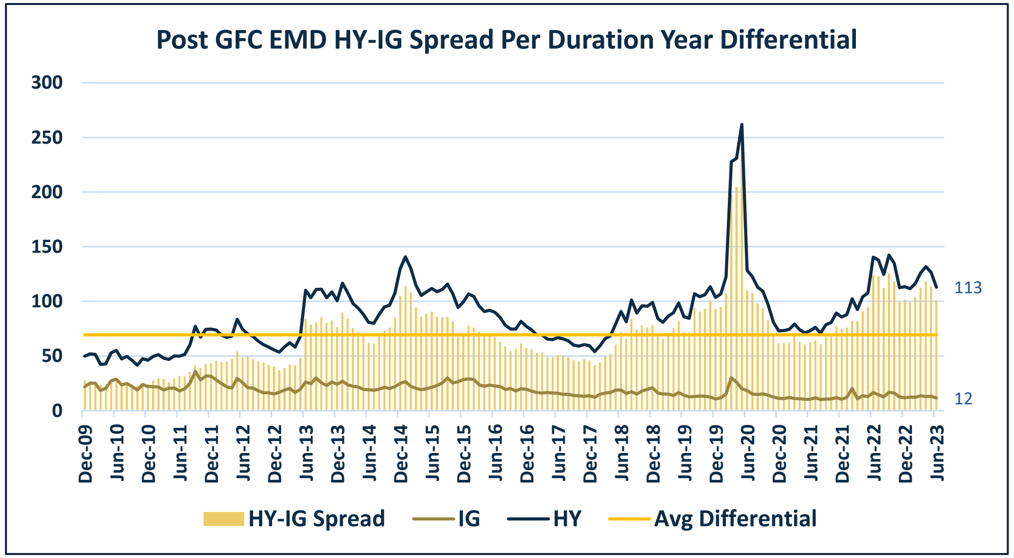


Loan yields have surpassed bond yields since the Fed began QT

EMD HY vs EMD IG Corporates as of 1Q23

- Risk off sentiment has led to widening of EMD HY and EMD IG spread differentials
  - On a nominal basis current spread of 577 bps is significantly higher than the historical average spread of 409 bps
- Adjusted for Duration, the EMD HY-IG relative value on a spread per duration year basis tells the same story
  - EMD HY remains attractive versus EMD IG at 100 bps of spread is much higher than historical average spread of 69bps
- Unlike the US markets, EMD HY Corporates appear to be priced appropriately





Source: Barclays Indices

Appendix – Credit Metrics

1Q23 IG Credit Metrics -- Revenues

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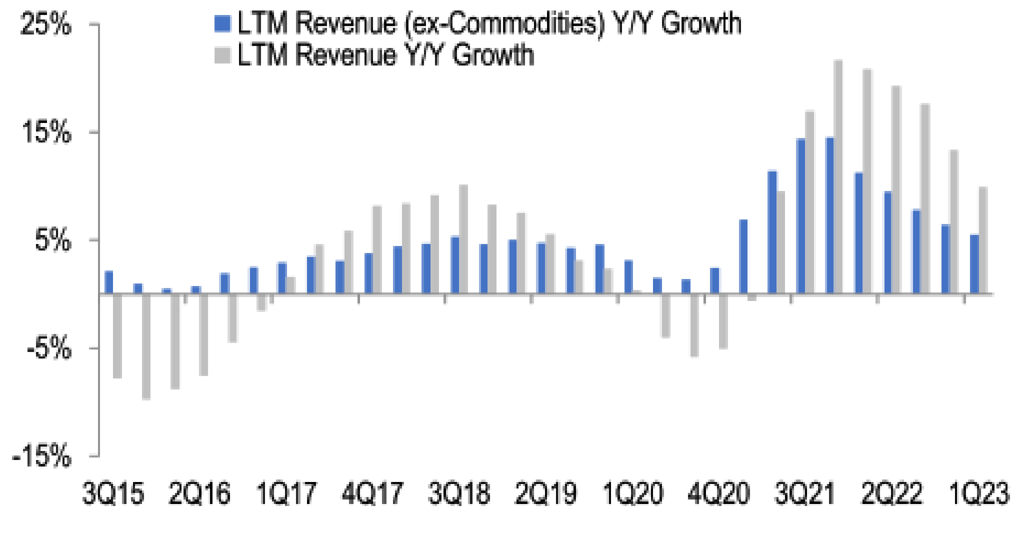
Revenue YoY growth continues to decelerate

- Overall strength continues to be led by commodities
- Revenue growth up 9.9% YoY; ex-commodities, up 5.5%



Source: J.P. Morgan.

Figure 4: Strongest to weakest Revenue growth by sector y/y

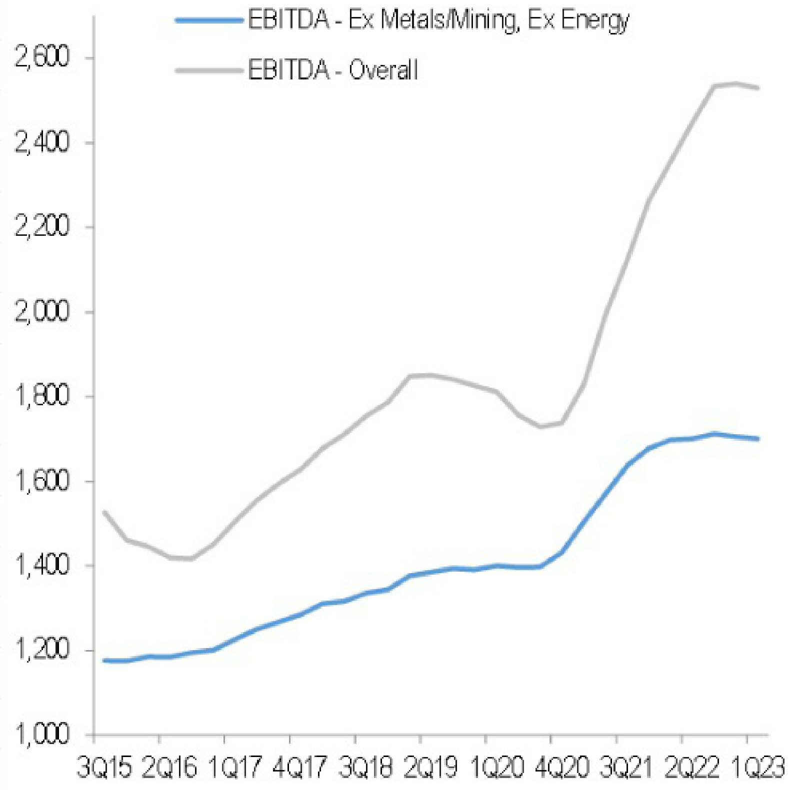
	1Q23	q/q chg	q/q % chg	y/y chg	y/y % chg
Energy	2,622.7	(25.5)	-1.0%	595.2	29.4%
Diversified Media	198.5	10.7	5.7%	42.2	27.0%
Automotive	256.2	8.1	3.3%	43.8	20.6%
Utilities	381.8	12.1	3.3%	37.5	10.9%
Food/Beverages	704.0	9.3	1.3%	56.9	8.8%
Healthcare/HMOs	1,665.6	38.4	2.4%	133.4	8.7%
Non-Food Retail	1,217.2	11.3	0.9%	75.9	6.7%
Capital Goods	667.7	16.5	2.5%	32.8	5.2%
Transportation	291.9	0.3	0.1%	13.8	5.0%
Metals/Mining	567.1	(6.9)	-1.2%	23.9	4.4%
Food/Drug Retail	339.0	4.2	1.3%	10.0	3.0%
Telecoms - Yankees	291.5	8.6	3.0%	8.0	2.8%
Cable/TV	174.6	(0.9)	-0.5%	2.0	1.2%
Consumer Products	206.2	0.5	0.2%	2.1	1.0%
Technology	972.2	(6.3)	-0.6%	9.7	1.0%
Chemicals	193.0	(7.7)	-3.8%	0.5	0.3%
Pharmaceuticals	757.5	(12.6)	-1.6%	(11.0)	-1.4%
Telecoms - Domestic	348.0	(0.5)	-0.1%	(6.5)	-1.8%
Overall	11,854.7	59.6	0.5%	1070.1	9.9%
Overall ex-Comm	8,664.9	92.0	1.1%	451.0	5.5%

Source: JP Morgan HG Credit Fundamentals

1Q23 IG Credit Metrics -- EBITDA

- EBITDA growth remains flat QoQ
- EBITDA growth up 7.2% YoY; ex-commodities, down 0.1%

Figure 7: EBITDA growth is showing signs of crack



Source: J.P. Morgan.

Figure 8: Strongest to weakest EBITDA growth by sector, y/y

	1Q23	q/q chg	q/q % chg	y/y chg	y/y % chg
Energy	679.5	0.1	0.0%	202.2	42.4%
Automotive	29.9	0.8	2.7%	3.9	14.9%
Capital Goods	101.9	4.7	4.8%	9.1	9.9%
Diversified Media	29.8	0.1	0.3%	2.4	8.7%
Utilities	135.1	5.3	4.1%	10.4	8.4%
Healthcare/HMOs	100.2	0.8	0.8%	6.1	6.5%
Food/Beverages	135.2	0.1	0.1%	5.1	3.9%
Cable/TV	58.0	0.4	0.7%	1.9	3.5%
Transportation	69.5	(0.9)	-1.2%	1.4	2.0%
Pharmaceuticals	283.2	(8.7)	-3.0%	2.0	0.7%
Technology	324.9	(6.9)	-2.1%	(12.3)	-3.7%
Food/Drug Retail	32.2	0.7	2.1%	(1.4)	-4.1%
Telecoms - Domestic	128.5	(1.3)	-1.0%	(6.2)	-4.6%
Telecoms - Yankees	104.5	2.5	2.5%	(5.9)	-5.3%
Non-Food Retail	88.7	(0.4)	-0.5%	(6.3)	-6.7%
Consumer Products	43.8	(0.3)	-0.8%	(3.5)	-7.4%
Metals/Mining	149.0	(6.3)	-4.1%	(31.1)	-17.3%
Chemicals	35.3	(3.8)	-9.8%	(8.1)	-18.6%
Overall	2,529.3	(13.3)	-0.5%	169.7	7.2%
Overall ex-Comm	1,700.9	(7.1)	-0.4%	(1.4)	-0.1%

Source: JP Morgan HG Credit Fundamentals

1Q23 IG Credit Metrics – EBITDA Margins

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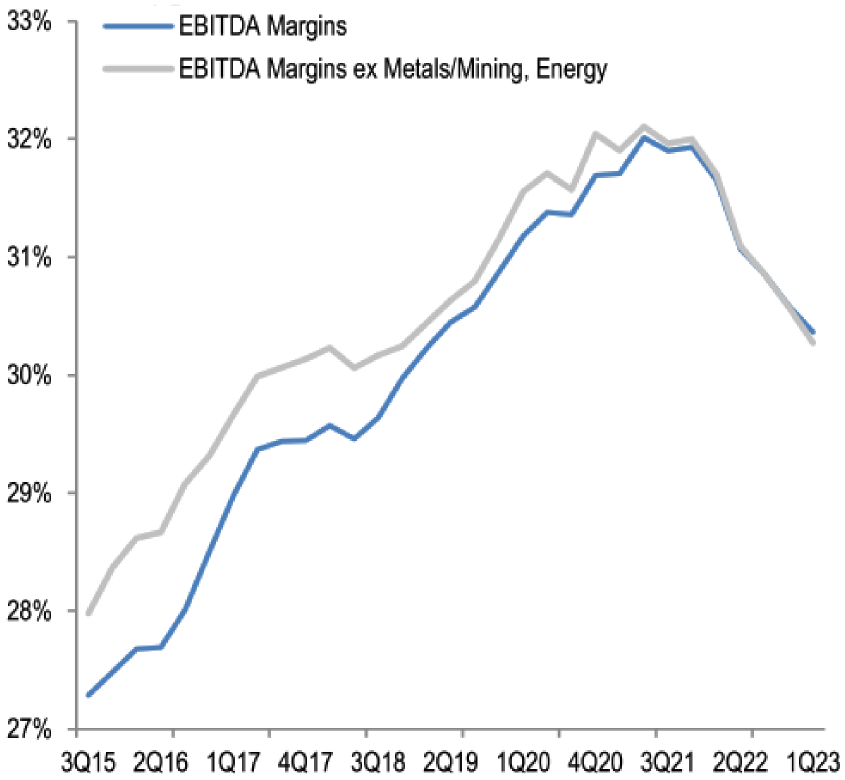
- EBITDA Margins at 30% continue to deteriorate from peak in 4Q21, down 1.3% YoY, ex Commodities down 1.4%

Figure 11: EBITDA margins deteriorated both q/q and y/y



Source: J.P. Morgan.

Figure 12: EBITDA margins by sector, sorted by best to worst y/y change

	1Q23	q/q chg	y/y chg
Pharmaceuticals	42.7%	-0.6%	1.3%
Capital Goods	18.4%	0.5%	1.2%
Cable/TV	33.2%	0.3%	0.6%
Food/Drug Retail	33.6%	0.4%	0.0%
Energy	30.6%	0.3%	0.0%
Healthcare/HMOs	8.4%	-0.3%	-0.2%
Food/Beverages	32.8%	-0.4%	-0.6%
Automotive	11.7%	-0.1%	-0.7%
Telecoms - Domestic	36.9%	-0.2%	-0.9%
Non-Food Retail	12.4%	-0.2%	-0.9%
Utilities	36.8%	0.3%	-1.7%
Consumer Products	21.9%	0.0%	-1.9%
Telecoms - Yankees	34.0%	-0.4%	-3.0%
Transportation	40.5%	-1.1%	-3.8%
Chemicals	19.4%	-1.2%	-4.1%
Technology	34.6%	-1.3%	-4.4%
Diversified Media	14.2%	-1.1%	-7.3%
Metals/Mining	35.2%	-1.4%	-8.8%
Overall	30.4%	-0.2%	-1.3%
Overall ex-comm	30.3%	-0.3%	-1.4%

Source: JP Morgan IG Credit Fundamentals

1Q23 IG Credit Metrics – Leverage

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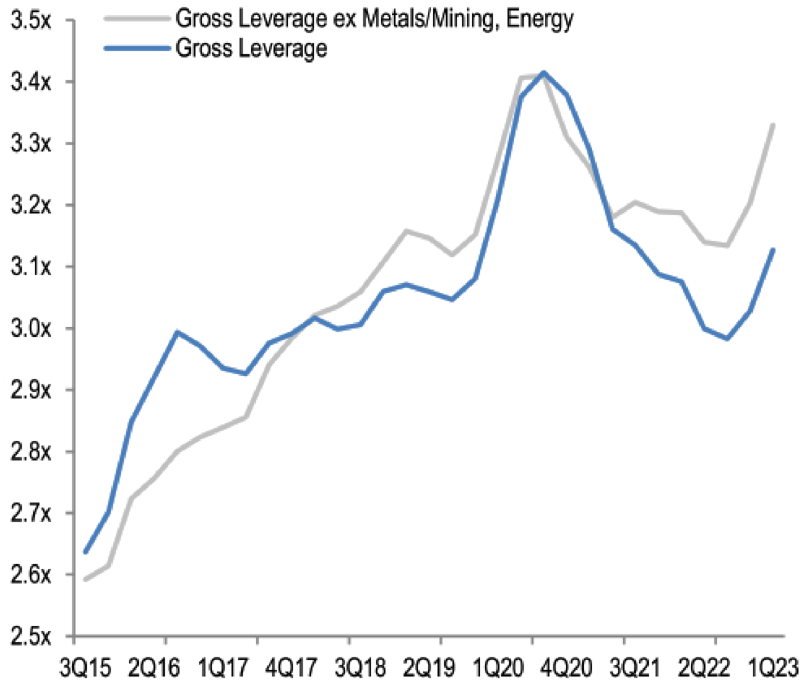
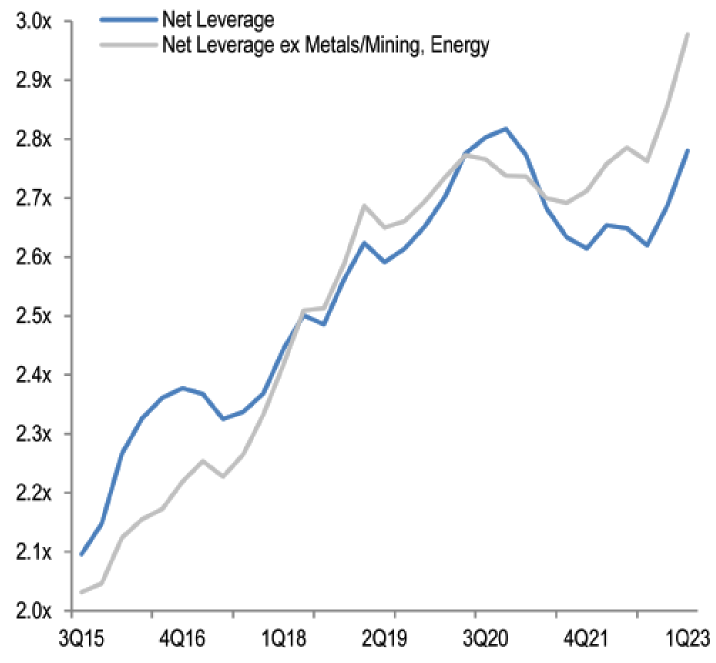
- Debt levels have generally been falling since 1Q22, but saw small uptick of 1% YoY in 1Q23.
- Gross Leverage had been trending downward since peak of 3.4x in 3Q20, but has trended upwards since the low in 2Q22; it now sits at 3.1x as of 1Q23
- Net Leverage has also ticked up modestly to 2.8x



Source: J.P. Morgan.

Figure 23: Net leverage has deteriorated more than gross leverage as cash has declined



Source: J.P. Morgan.

Source: JP Morgan HG Credit Fundamentals

1Q23 IG Credit Metrics – Interest Coverage

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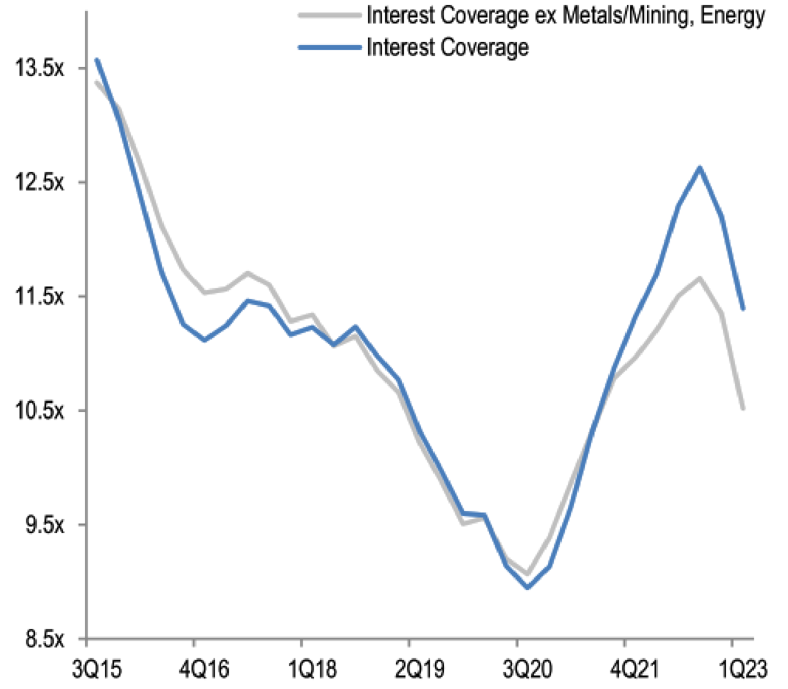
- Interest Expense continues to rise, up 6.5% YoY in 1Q23
  - Driven by higher coupons on new debt
- Interest Coverage continues to fall from last high reached in 2022 but remains healthy at 11.4x, which is higher than 4Q19 ratio of 9.8X



Source: J.P. Morgan.

Figure 32: Interest coverage ratio by sectors, sorted by y/y change

	1Q23	q/q chg	y/y chg
Energy	21.1	-0.7	6.0
Telecoms - Yankees	10.9	1.1	1.6
Automotive	17.3	0.0	1.3
Capital Goods	15.5	0.2	1.3
Food/Beverages	9.7	-0.1	1.2
Cable/TV	7.9	0.0	0.6
Food/Drug Retail	10.2	0.0	0.2
Transportation	12.1	-0.5	0.0
Utilities	4.9	-0.6	-0.2
Pharmaceuticals	16.1	-0.6	-0.5
Healthcare/HMOs	10.2	-0.7	-0.9
Telecoms - Domestic	9.3	-0.6	-1.5
Diversified Media	5.0	-0.6	-1.9
Non-Food Retail	11.3	-0.7	-2.9
Chemicals	11.4	-2.0	-4.4
Technology	22.2	-3.4	-8.9
Consumer Products	19.0	-2.1	-9.0
Metals/Mining	34.4	-1.2	-15.6
Overall	11.4	-0.8	-0.3
Overall ex-comm	10.5	-0.8	-0.7

Source: J.P. Morgan.

1Q23 High Yield Credit Fundamentals

SECOR | ASSET MANAGEMENT

Quarterly 1Q23	Q/Q	Y/Y	LTM as of 1Q23	Q/Q	Y/Y
Revenue	-5.8%	3.8%	Revenue	0.9%	13.7%
EBITDA	-6.3%	7.5%	EBITDA	1.6%	17.4%
Capex	-7.9%	17.4%	Debt	0.0%	0.0%
Cash	-14.1%	-21.0%	TEV	3.4%	-8.8%

LTM	1Q23	4Q22	1Q22	4Q19	Q/Q	Y/Y	Pre-Pandemic
Leverage (Debt/EBITDA)	3.91x	3.96x	4.57x	4.15x	-0.06x	-0.66x	-0.25x
Net Leverage ((Debt-Cash)/EBITDA)	3.46x	3.43x	3.94x	3.58x	0.04x	-0.48x	-0.12x
EBITDA Margin	15.6%	15.6%	14.8%	15.80%	0.0%	0.8%	-0.2%
Coverage (EBITDA/Net Int Exp)	5.68x	5.82x	5.28x	4.48x	-0.14x	0.40x	1.20x
EBITDA-Capex/Net Int Exp	3.52x	3.71x	3.49x	2.50x	-0.20x	0.02x	1.02x
TEV/Revenue	1.43x	1.45x	1.85x	1.65x	-0.01x	-0.42x	-0.22x
TEV/EBITDA	8.21x	8.35x	10.94x	11.38x	-0.14x	-2.74x	-3.17x
Debt/TEV	47.60%	47.49%	41.77%	44.36%	0.1%	5.8%	3.2%

Source: J.P. Morgan; S&P Capital IQ

Continuing to see deterioration in 1Q23 metrics vs 4Q22 but fundamentals remain strong

- 3rd consecutive quarterly decline in Revenues and EBITDA
- 89% of sectors are experiencing profit margin declines but in aggregate remains strong at 15.6%
- Interest coverage at 5.7x down for YE22, but remains higher than pre-COVID levels
- 8th consecutive quarterly decline in HY Leverage

1Q23 High Yield Credit Metrics

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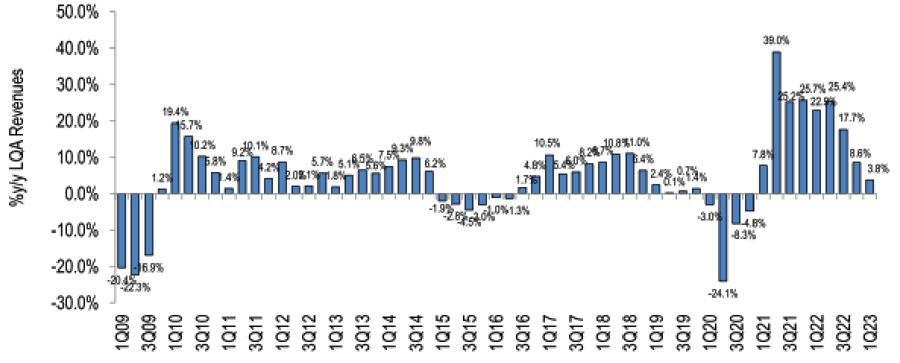
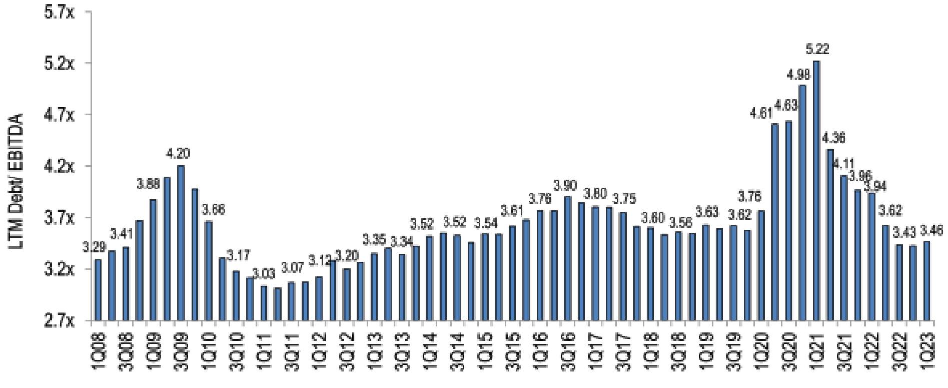
Revenues for HY companies increased on a year-ago basis for a ninth consecutive quarter, albeit at the slowest pace over the period



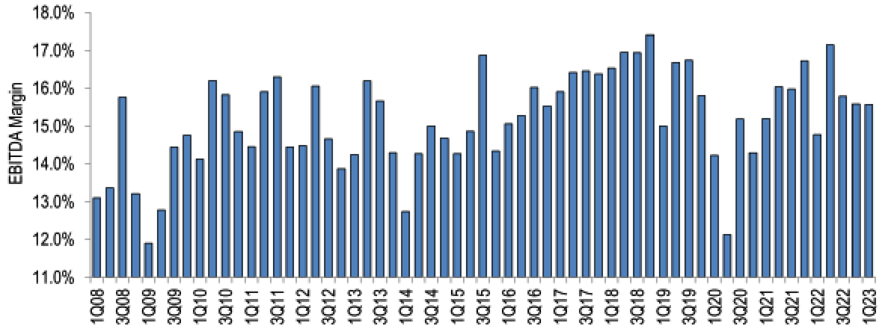
Source: J.P. Morgan; S&P Capital IQ

Net Leverage ticked higher in 1Q



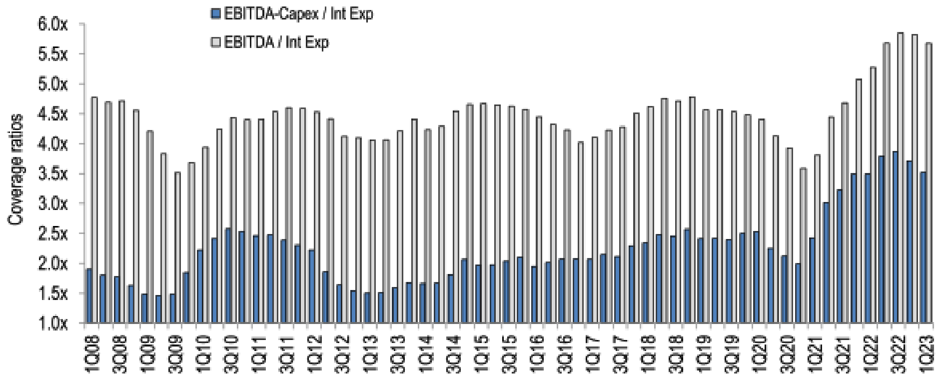
Source: J.P. Morgan; S&P Capital IQ

Profit margins unchanged in 1Q, remain above historical average



Source: J.P. Morgan; S&P Capital IQ

Coverage ratio for HY companies decreased for a second consecutive quarter



Source: J.P. Morgan; S&P Capital IQ

1Q23 Leveraged Loan Credit Fundamentals

Quarterly 1Q23	Q/Q	Y/Y	LTM as of 1Q23	Q/Q	Y/Y
Revenue	-2.8%	6.8%	Revenue	1.6%	14.1%
EBITDA	-7.1%	15.3%	EBITDA	3.2%	18.0%
Capex	-11.8%	14.7%	Debt	0.3%	0.4%
Interest expense	2.5%	28.4%	TEV	3.7%	-11.4%

LTM	1Q23	4Q22	1Q22	4Q19	Q/Q	Y/Y	Pre-Pandemic
Leverage (Debt/EBITDA)	4.61x	4.75x	5.43x	4.74x	-0.13x	-0.81x	-0.13x
Net Leverage ((Debt-Cash)/EBITDA)	4.13x	4.15x	4.62x	4.19x	-0.02x	-0.48x	-0.05x
EBITDA Margin	16.7%	17.3%	15.1%	17.19%	-0.6%	1.5%	-0.5%
Coverage (EBITDA/Net Int Exp)	4.58x	4.72x	4.40x	4.63x	-0.14x	0.17x	-0.05x
EBITDA-Capex/Net Int Exp	2.98x	3.08x	2.97x	2.81x	-0.10x	0.01x	0.17x
TEV/Revenue	1.84x	1.80x	2.37x	2.00x	0.04x	-0.53x	-0.16x
TEV/EBITDA	9.77x	9.72x	13.01x	10.29x	0.05x	-3.24x	-0.53x
Debt/TEV	47.23%	48.85%	41.70%	46.05%	-1.6%	5.5%	1.2%

Source: J.P. Morgan; Capital IQ

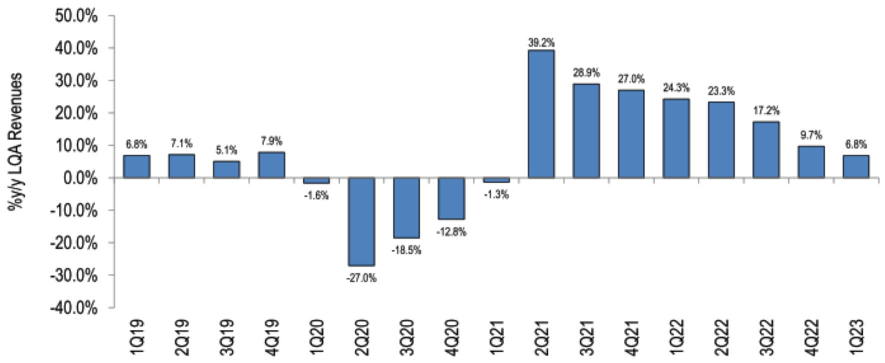
1Q23 metrics eroded vs 4Q22 but fundamentals still relatively solid

- 2nd consecutive quarterly contraction in Revenue growth, but YoY remains positive at 6.8%
- Similarly, 2nd consecutive quarterly contract in EBITDA margins, -3.4% QoQ to 16.7%, but above 4-year avg of 15.8%
- Net Leverage at 4.13x has declined significantly over 8 consecutive quarters from 6.71x in 1Q21
- Interest coverage decreased to 4.58x, a one-year low but above 4-year avg of 4.13x

Source: JP Morgan Leveraged Loan Credit Fundamentals

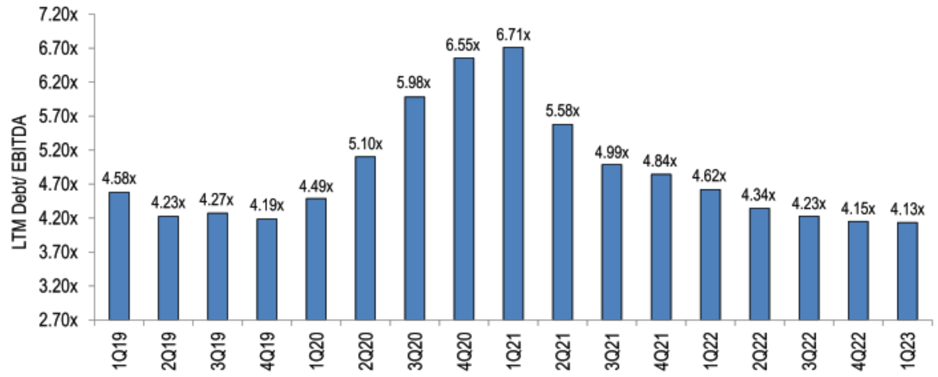
1Q23 Leveraged Loan Credit Metrics

Revenue growth for loan companies continued to decelerate in 1Q



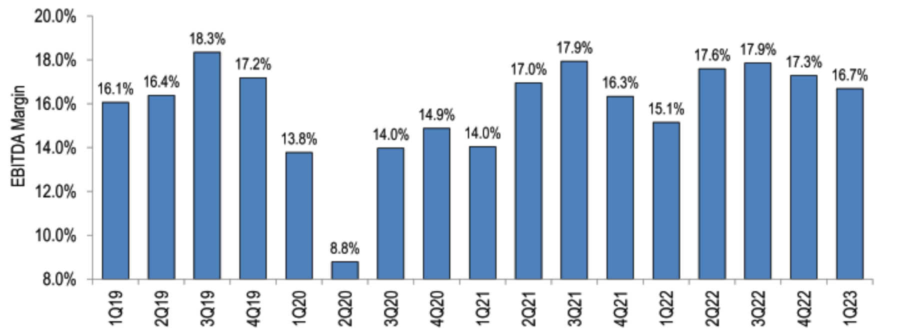
Source: J.P. Morgan; Capital IQ

Net Leverage decreased to its lowest level since at least 2018



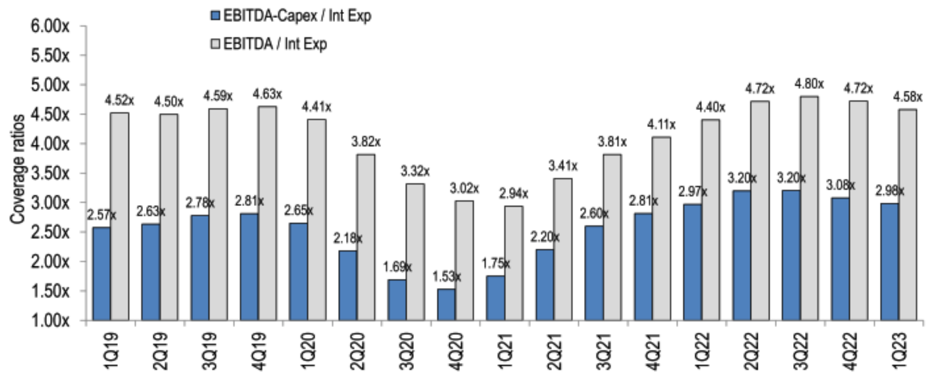
Source: J.P. Morgan; Capital IQ

Profitability declined for a second consecutive quarter in 1Q, but has remained fairly strong over the last several quarters



Source: J.P. Morgan; Capital IQ

Coverage ratio declined for a second consecutive quarter



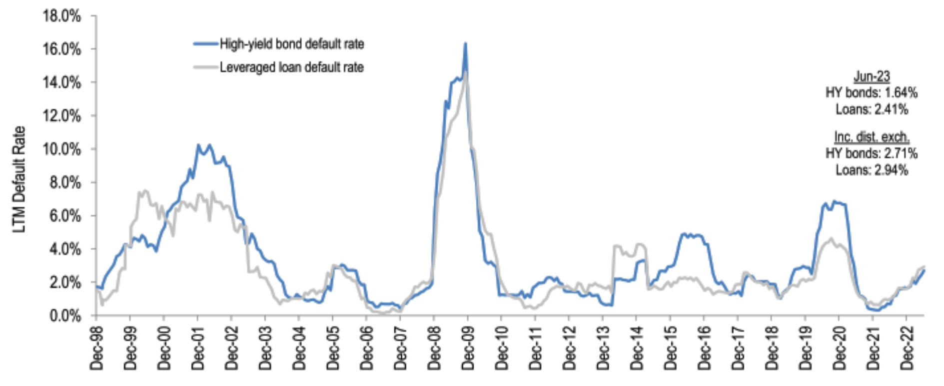
Source: J.P. Morgan; Capital IQ

Source: JPM Leveraged Loan Credit Fundamentals

Appendix – Default Activity, Distressed, Recoveries & Rating Actions

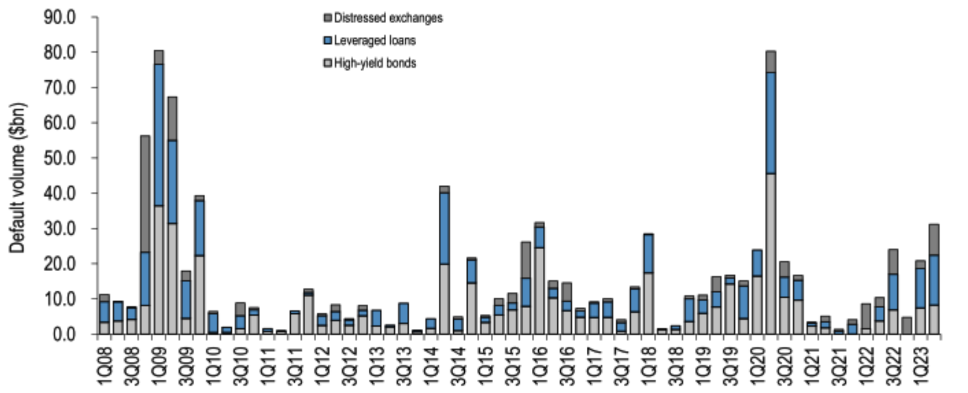
2Q23 YTD Default Activity

High-yield bond and loan par-weighted default rates



Source: J.P. Morgan.; PitchBook Data, Inc; Bloomberg Finance L.P.; S&P/IHSMarkit

Quarterly default volume increased to a three-year high and was the eighth largest total on record



Source: J.P. Morgan.

- Default YTD volume at $52bn, already surpassing 2022 total volume
- Default rates continue to tick up, including distressed exchanges ending 2Q23 at 2.71% for Bonds and 2.94% for Loans
- JPM expects
  - Default rates will rise to 3% (Bonds) and 3.5% (Loans) in 2023
  - And will further worsen to 3.25% & 4% respectively in 2024
  - But not pointing to severe default outcomes due to strong balance sheets, higher quality of the bond universe, limited maturities in 2023-2024.
  - Expect loans to experience higher default rates due to immediate transmission of higher rates and constrained capital markets.

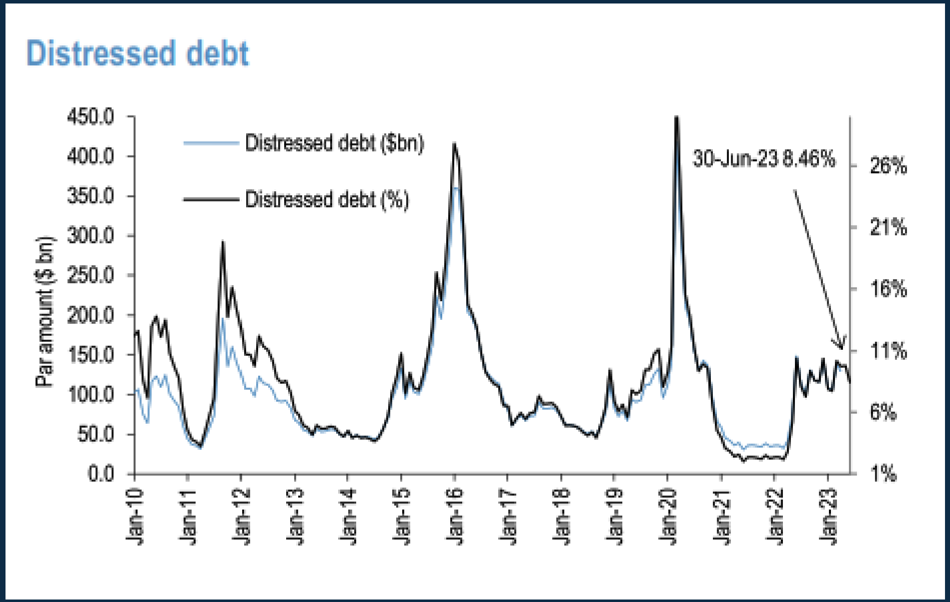
Ten largest defaults YTD

Date	Company	Bonds ($mn)	Loans ($mn)	Total ($mn)	Industry	Action
15-Apr-23	Envision Healthcare	938.9	9,413.7	10,352.6	Healthcare	Filed Chapter 11
15-Feb-23	Diamond Sports	4,783.5	3,819.6	8,603.1	Broadcasting	Filed Chapter 11
15-May-23	Wesco Aircraft Holdings	3,026.8	-	3,026.8	Industrials	Filed Chapter 11
14-Feb-23	Avaya	1,000.0	1,893.0	2,893.0	Technology	Filed Chapter 11
1-Jun-23	**Diebold**	**1,100.0**	**934.1**	**2,034.1**	**Technology**	**Filed Chapter 11**
23-Jan-23	Serta Simmons Bedding	-	1,889.3	1,889.3	Consumer Products	Filed Chapter 11
23-Apr-23	Bed Bath & Beyond Inc	1,029.9	547.1	1,577.0	Retail	Filed Chapter 11
17-Apr-23	Lumen Technologies	1,556.3	-	1,556.3	Telecommunications	Distressed exch.
29-Jun-23	**Exela**	**1,270.7**	**-**	**1,270.7**	**Technology**	**Distressed exch.**
5-May-23	WeWork	1,047.8	-	1,047.8	Financial	Distressed exch.
	Total	**15,754.0**	**18,496.8**	**34,250.8**		

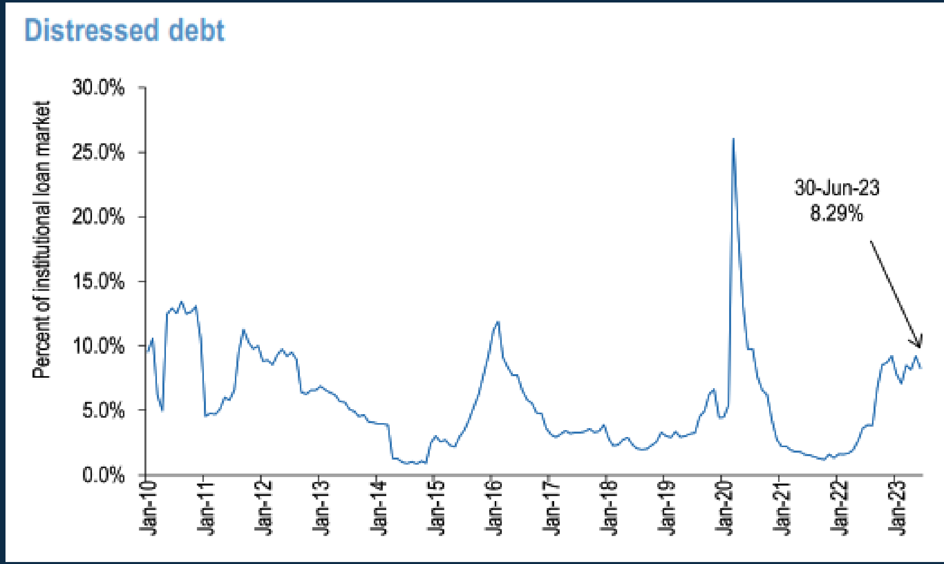
Source: J.P. Morgan.; PitchBook Data, Inc; Bloomberg Finance L.P.; S&P/IHSMarkit

Source: JPM Default Monitor

Distressed Debt (High Yield Bonds)



Distressed Debt (Loans)



Source: JP Morgan

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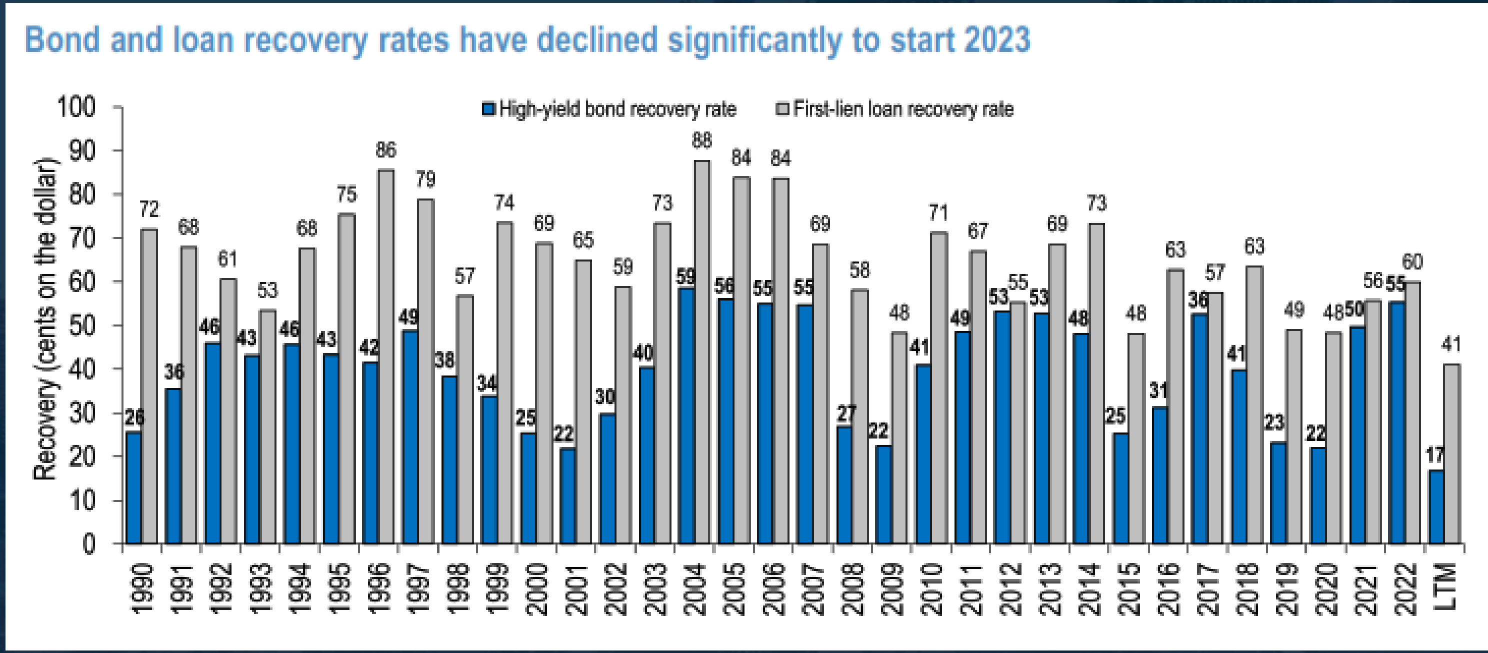
Distressed HY Bond Universe 1Q23

- HY Bond Distressed (trading at spread >1000 bps)
- $111.8 bn or 8.5% of the HY market, less severe than March 2020 when distressed represented 32% of the HY market

Distressed Leveraged Loan Universe 1Q23

- Loan Distressed (trading at <=$80)
- $119.1bn or 8.3% of the Loan market, nearly flat to last quarter's level

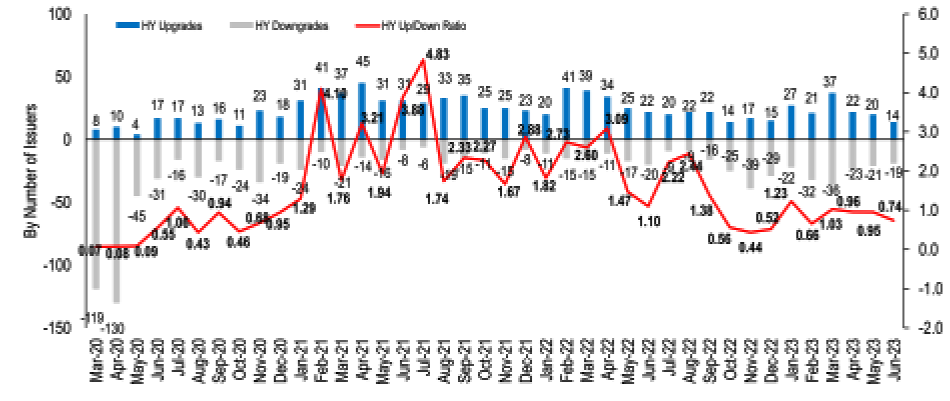
Recovery Rates continue to trend downward



Source: JP Morgan

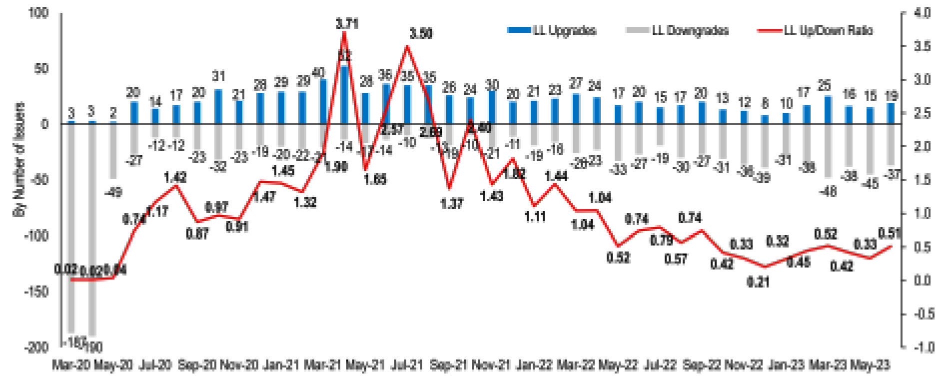
Upgrade/Downgrade Ratios

14 upgrades impacting $31.3bn and 19 downgrades totaling $24.3bn



Source: J.P. Morgan.

June saw 19 upgrades totaling $19.4bn and 37 downgrades totaling $38.1bn



Source: J.P. Morgan.

June saw 19 upgrades totaling $19.4bn and 37 downgrades totaling $38.1bn. As such, June's # of loan issuers downgraded exceeded upgrades for the 14th

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High Yield Bonds

- Following upgrade wave from Jan 2021 to Sep 2022, June was 7th time in last 9 months that downgrades outpaced upgrades.
- YTD upgrade-to-downgrade ratio by issuer was 0.92:1, well below peak in 2022 ratio of 1.35:1
- Largest # of upgrades in 2023 were in Energy, Gaming and Services; in downgrades were Healthcare and Retail
- YTD volumes for Rising Stars and Fallen Angels totaled $63.9bn and $550mn, respectively.

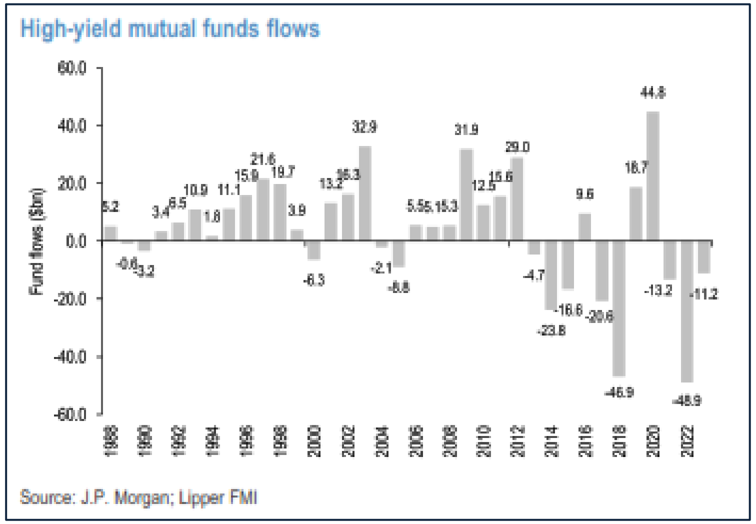
Leveraged LoanS

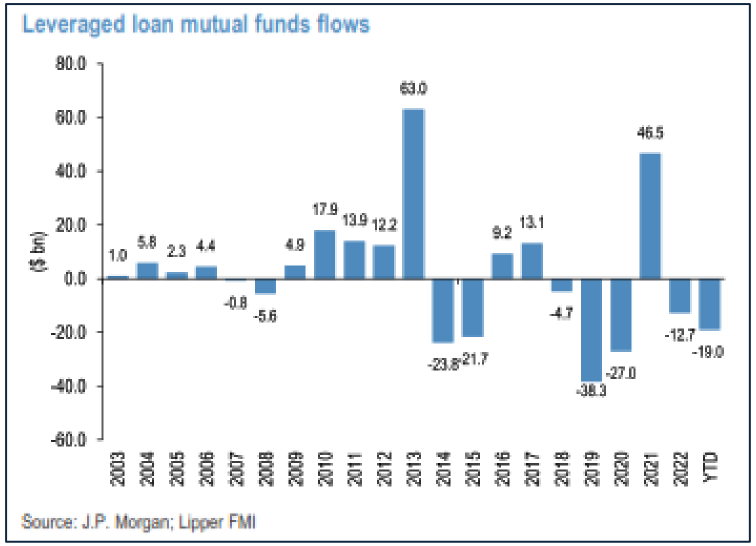
- Following upgrade wave from Nov 2020 to Apr 2022, June was 14th consecutive month that downgrades outpaced upgrades
- YTD 2023 upgrade-to-downgrade ratio by issuer was 0.43:1, below 2022 ratio of 0.67:1
- Largest # of upgrades in Gaming and Industrials; in downgrades Healthcare, Consumer Products and Retail

Source: JP Morgan

Appendix – Technicals

Leveraged Finance Fund Flows as of 30 Jun 2023





- **HY Fund Flows**
  - Significant outflows in 2022, 2nd largest outflow since 1988
  - 2023 so far has seen outflows of $11.2bn
  - June saw the 2nd positive flow to HY over the past 7 months at +$2.7bn
  - The last positive flow in that period was in April at +$5.9bn

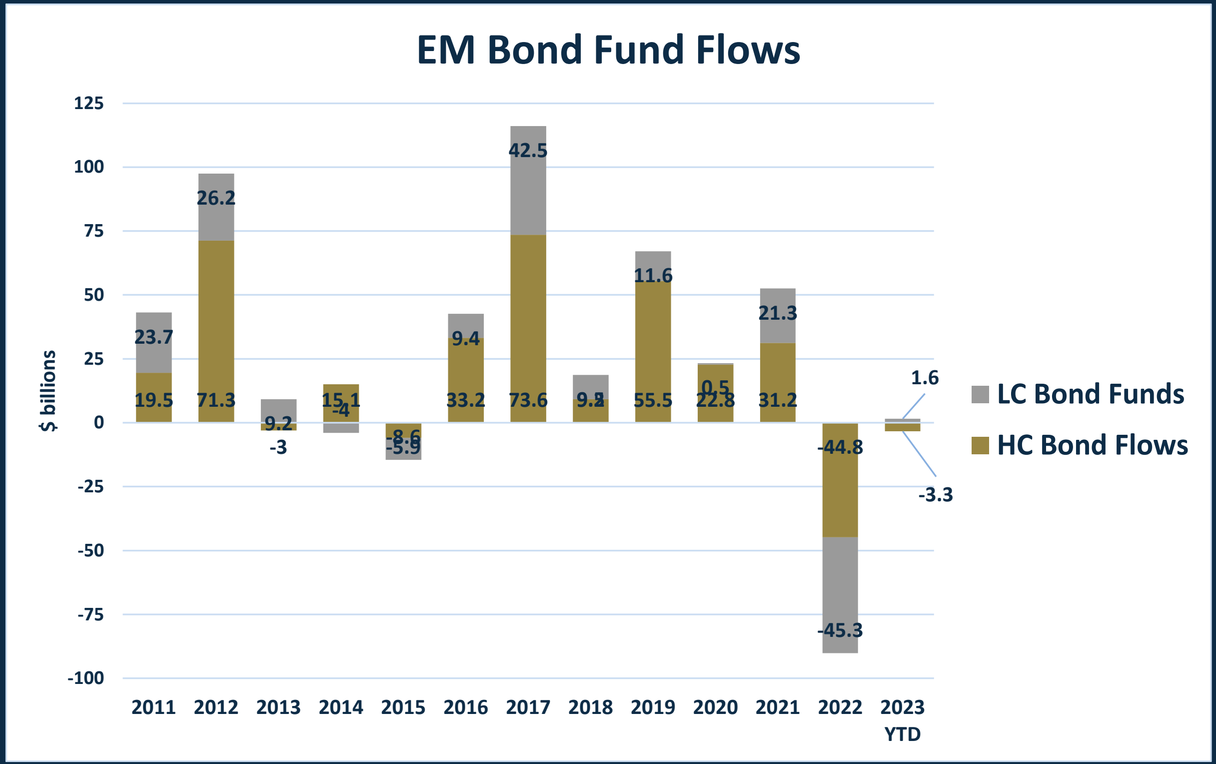
- **Loan Fund Flows**
  - 2022 saw outflows of $12. 7bn
  - 2023 so far has seen outflows of $18.5bn
  - June saw the 14th consecutive monthly outflow from Loan funds

Source: JP Morgan

EM Bond Flows as of 30 Jun 2023

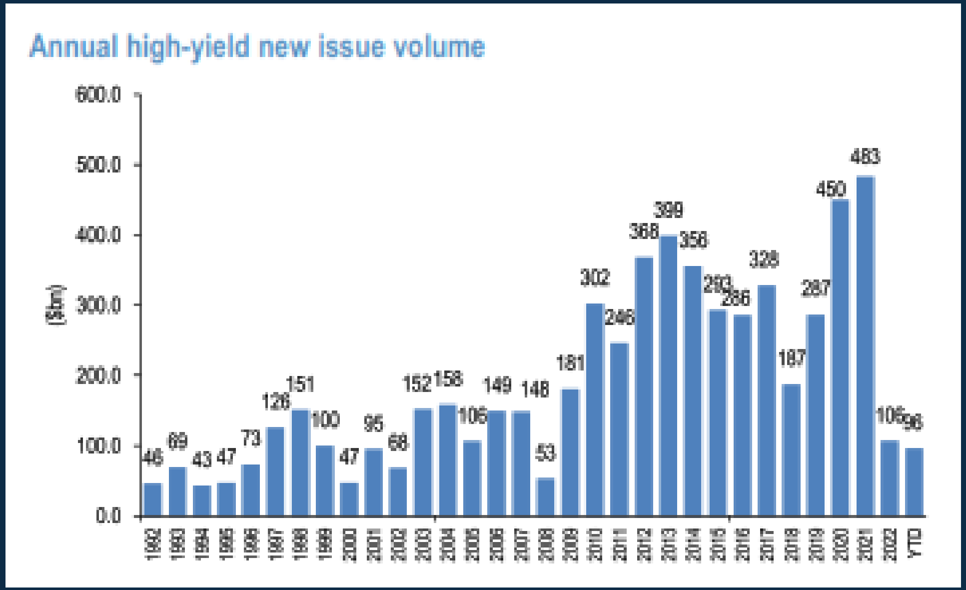
- EM Bond Fund flows sets historical record net outflow over the period 2006-2022, following 6 consecutive years of inflows

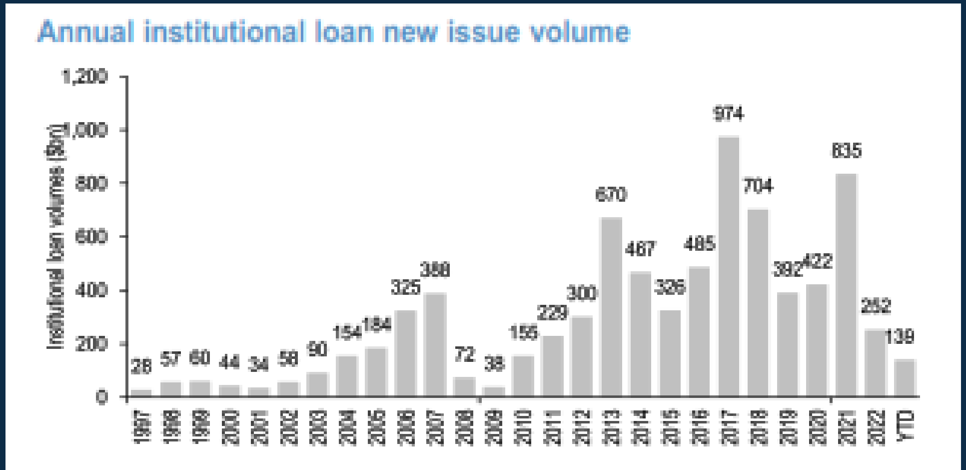
- Flow volumes moderated significantly in 1H 2023 with $1.6bn of inflows to Local Currency funds and $3.3bn of outflows from Hard Currency funds



Source: JPM EM Flows Weekly

YTD New Issue Activity





Source: J.P. Morgan.

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High Yield Bonds

- Continuing the trend from 2022 muted new issuance activity in high yield, although YTD ‘23 volume is nearing 2022 full year issuance volume

Leveraged Loans

- Similar to HY Bonds, Loan market is also seeing lower new issuance this year, but more downward trend appears to be more pronounced in Loans vs HY Bonds

Source: JP Morgan

Appendix – Capital Markets Conditions

U.S. Banks Lending Standards April 2023 Survey

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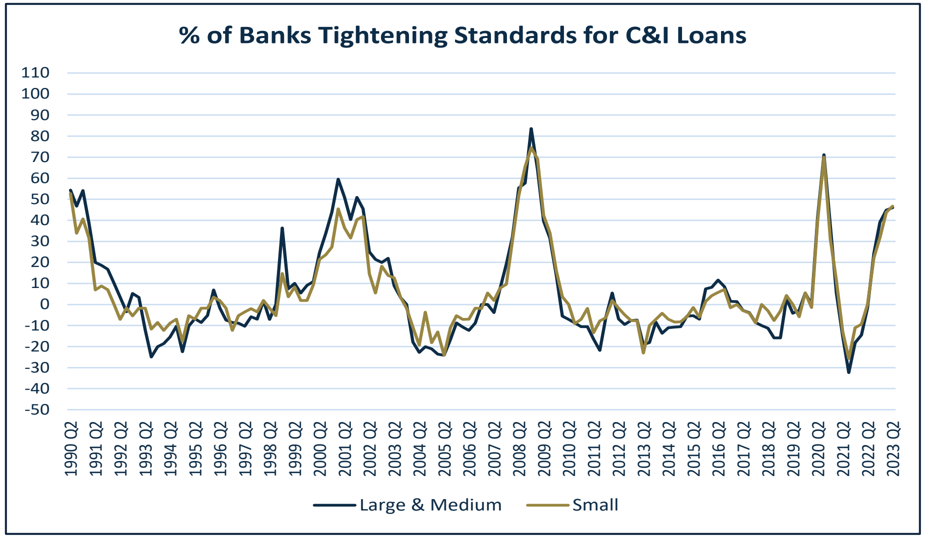

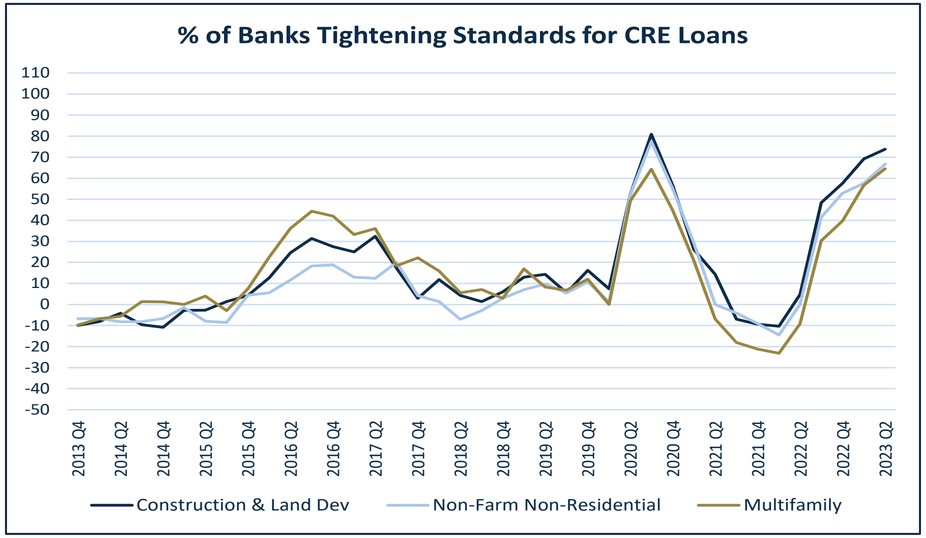

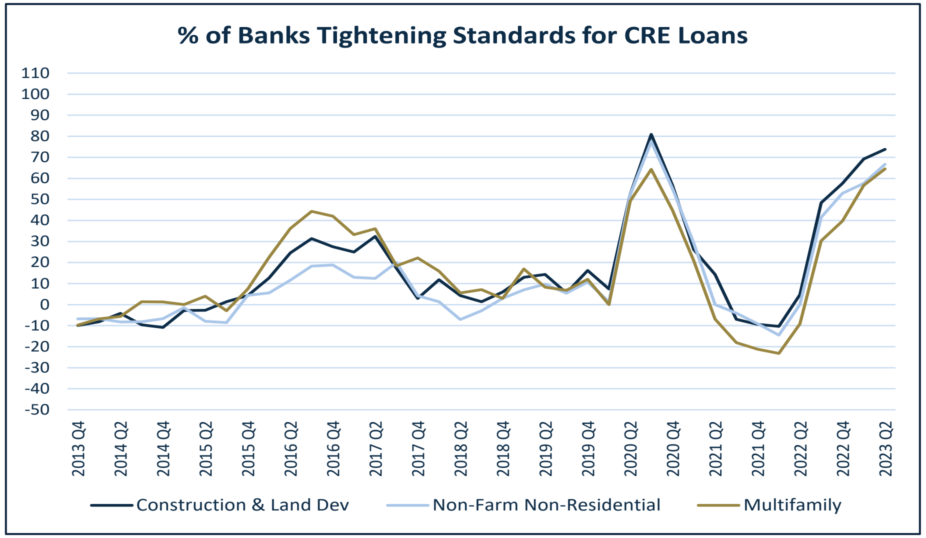

- For 1Q23 banks reported tighter standards and weaker demand across all categories.
- Banks tightened lending policies for all categories of CRE over the past year, particularly through **wider spreads** of loan rates over banks' cost of funds and **lower LTV ratios**
- Reasons cited for changing standards in 1Q23 were: less favorable or more uncertain economic outlook; reduced tolerance for risk; deterioration in collateral values and concerns about banks' funding costs & liquidity positions.
- For these reasons, including expected deterioration in the credit quality of their loan portfolios and potential deposit outflows, banks expect to continue tightening through remainder of 2023.

Fed April 2023 Senior Loan Officer Opinion Survey on Bank Lending Practices

Appendix – Market Composition

U.S. Leveraged Finance Market Size

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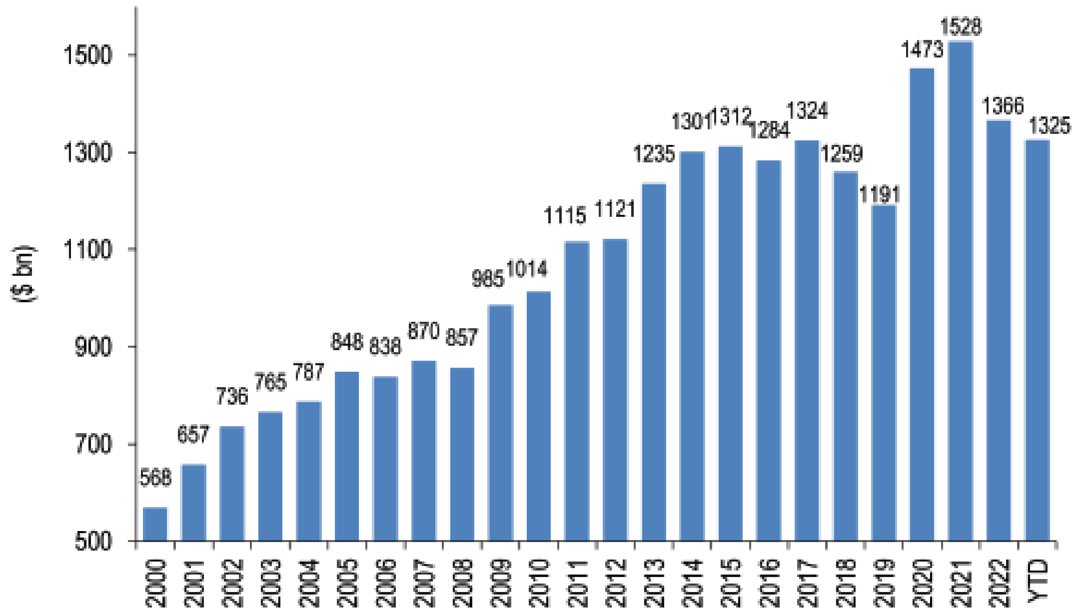
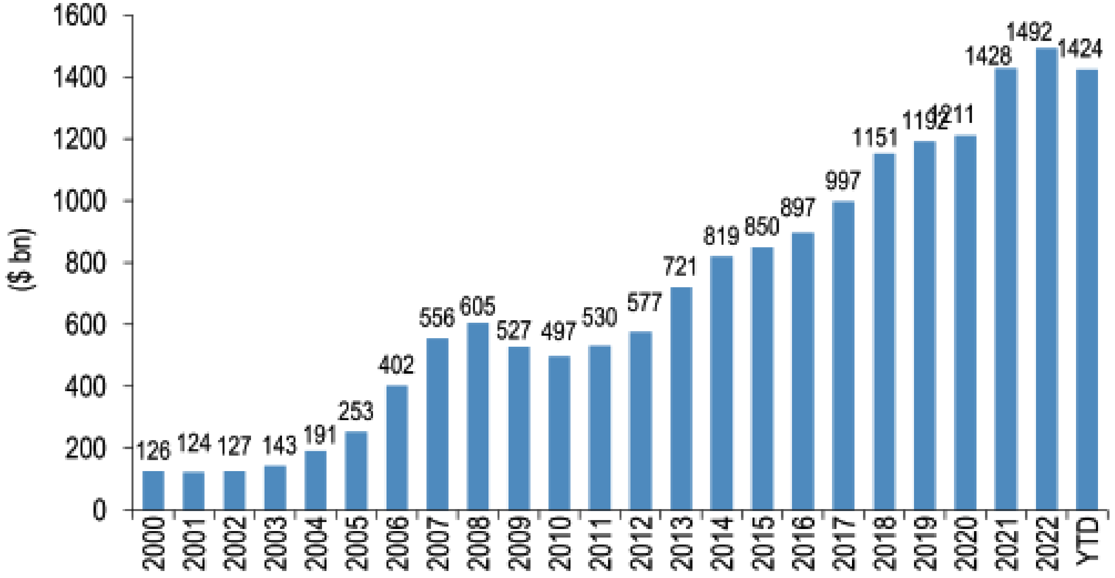
US high-yield market size



Source: J.P. Morgan.

Leveraged loan market size



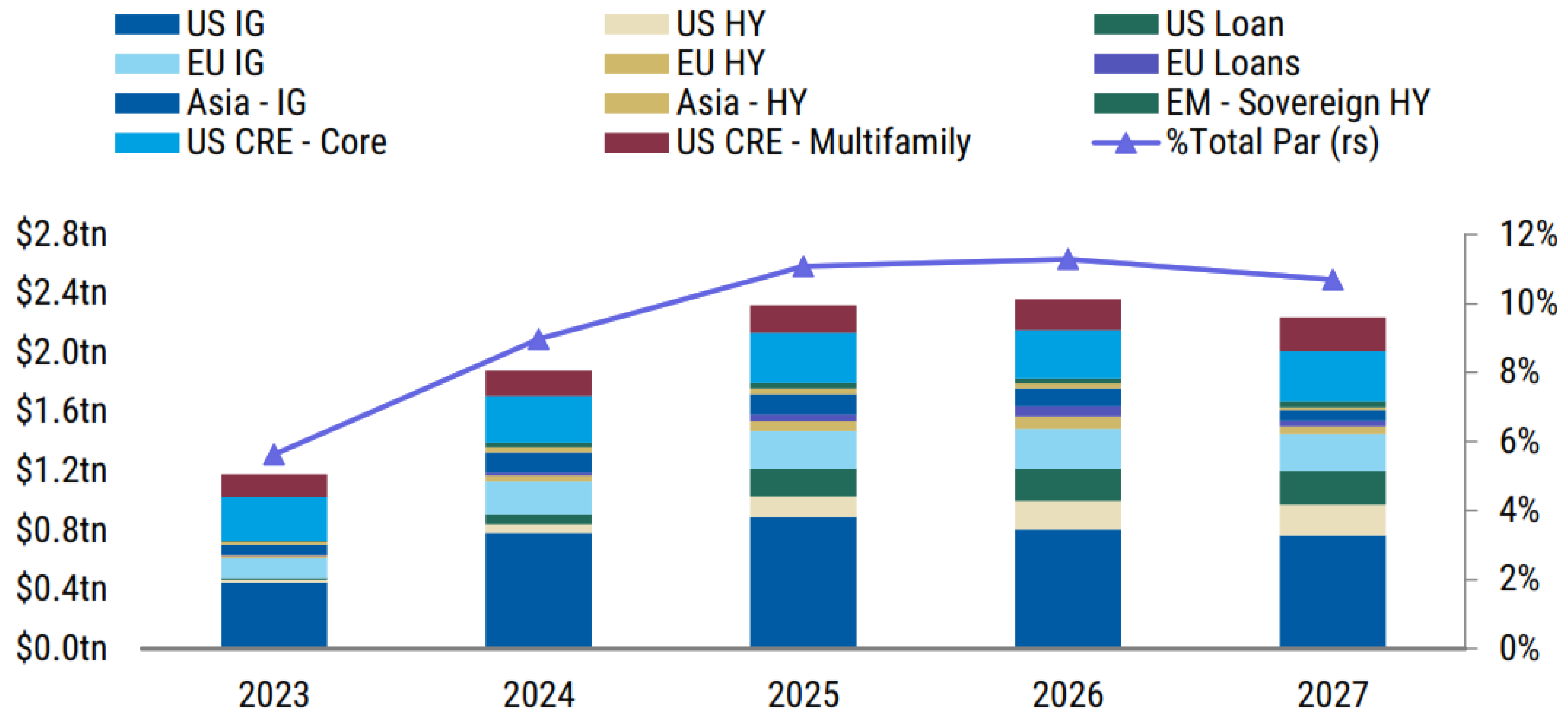
Source: J.P. Morgan; S&P/IHS Markit

Source: Barclays Research

Refinancing Risks in Perspective – Maturity Walls in Global Fixed Income

Global Fixed Income Maturity Profile

- **$3 trillion of global fixed income debt is set to mature in 2023-24; another $2.3 trillion in 2025** *(excluding revolvers, bank credit facilities, non-institutional loans and EM IG sovereigns)*
- **Thus, maturity debt through end of 2025 represents 26% of current outstanding index notionals**



Source: ICE, Morgan Stanley Research

Global Fixed Income Maturity Wall 2022-2025

- Asset classes with the most critical refinancing needs are highlighted in dark/light pink below:
- Aside from CRE, credit markets that have highest refi needs are the European HY and Asian IG/HY markets.

Key features of near-term maturity wall across asset classes

	$USD, billions					
	Market Size	2023 / 2024 Maturities	2025 Maturities	% of Total Due 2023-25	Index YTW - Avg Coupon of Maturing Debt	Sectors in Focus
Real Estate Debt						
US Core CRE	2,571	615	339	37%		• Office and retail are the property types most in focus. They constitute 25% and 20% of the CRE stock, respectively
US Multifamily	1,961	321	183	26%		
Leveraged Credit						
US HY	1,410	78	143	16%	2.3	• BB-heavy. Rating mix on par with the overall index • Fin. Services, Real Estate and Autos have more front-load maturities and higher incremental funding cost
US Lev Loans	1,341	78	182	19%	2.5	• B3 or lower accounts for a higher portion vs index • Staples, Technology and Healthcare have higher refi needs and weaker refi economics
Europe HY	365	58	70	35%	4.2	• Maturities 66% BB rated • Real estate, media, retail and fin services have higher shares of both <2026 maturities and <90 cash price bonds
EM Sovereign HY	533	35	38	15%	3.7	• Single Bs • Turkey, Egypt highest. Tunisia, Pakistan and Kenya smaller but in focus
Asia HY	163	58	37	59%	7.8	• China HY property sector
Investment Grade Credit						
US IG	8,950	1,231	889	24%	2.1	• Lower BBB3 weight vs index • Auto, leisure and cap goods drive near-term maturities in ICE index
Europe IG	2,556	357	258	24%	2.6	• Autos <2026 bonds have 2nd highest exposure to BBB- • Autos, retail and cap goods have largest share of <2026 maturities
Asia IG	808	203	137	42%	2.3	• China SOEs account for nearly half near-term maturities

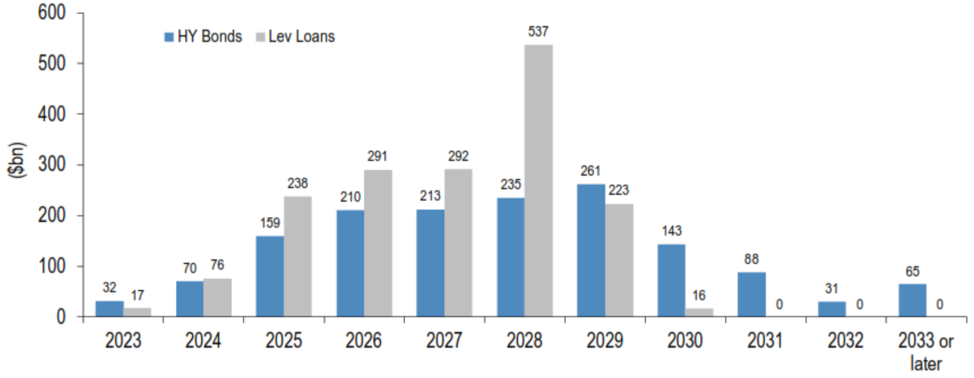
Source: Morgan Stanley Research; Note: for EM sovereign HY, we used 10yr yield instead of index YTW in calculating refinancing economics.

Source: Morgan Stanley – Global Credit Strategy – Scaling Maturity Wall 2023-04-04

U.S. Leveraged Finance Maturity Wall – Generally Benign Through YE 2024

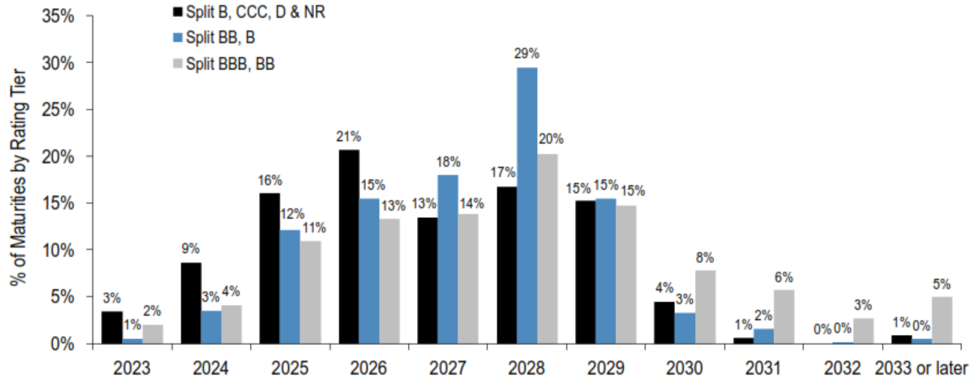
- More back-ended as many companies termed out debt during the pandemic years at record low rates and recently new issuance in both markets have been muted versus prior years
- Total of $196bn in bonds and loans are set to mature by end of 2024, representing 6% of the $3.26trn currently outstanding bonds and loans market
  - Comprised of 377 issues (16% of the 2,397 companies in the bond/loan universe)
  - A more positive spin: 84% of the universe have no maturities prior to 2025
  - Largest 25 companies with maturities prior to 2025 account for 39% of total debt maturity by end of 2024
- Maturity wall grows significantly in 2025-2026 with $898bn maturities representing 28% of HY bond and loan market currently outstanding
  - Comprised of 1,040 issuers (43% of the number issuers in the universe)
- Near-term maturities are skewed toward lower tier rated paper where about 49% will mature by end of 2026

Figure 2: High-yield bond and institutional loan maturities



Note: As of February 15th, 2023
Sources: J.P. Morgan; IHS Markit.

Figure 5: Percentage of high-yield bond and loan maturities by rating bucket; 50% of lower-tier cohort set to mature by YE26



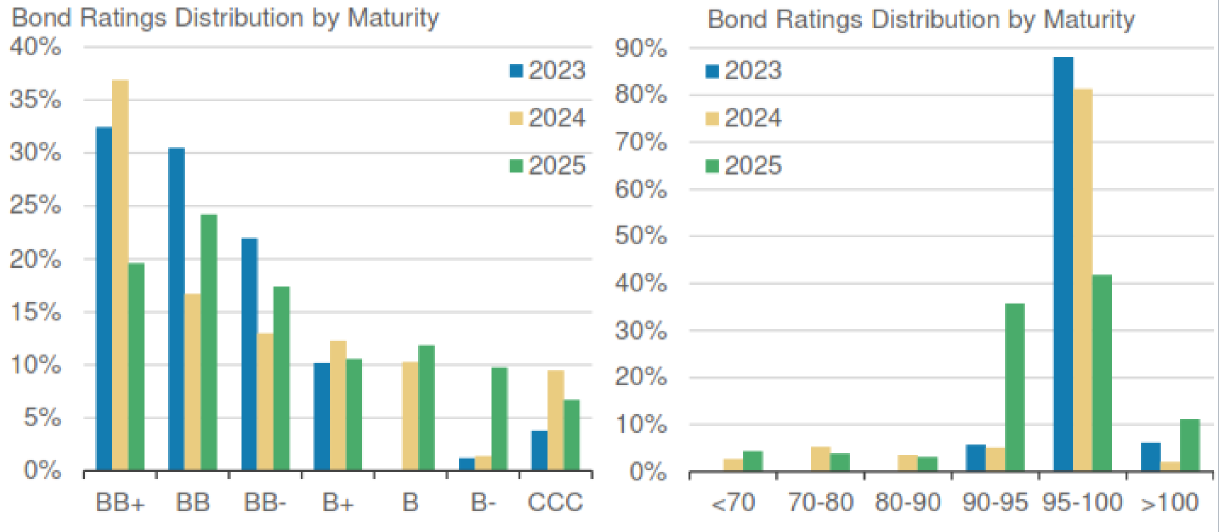
Note: As of February 15th, 2022.
Sources: J.P. Morgan; IHS Markit.

Source: JP Morgan HY Bond and Institutional Loan Maturity Schedule 2023-02-22

European HY Bonds Maturity Wall – Higher Rate Refi Sticker Shock

- EUR HY maturity wall is comprised of €168bn maturing over the next 3 years, including
  - €117bn of EUR bonds (35% of the index), €44bn of USD bonds and €5bn of GBP bonds
  - 2023 EUR maturities in line with historical average of €14bn, but 2024 maturities will double to €40bn
- On a positive note, by rating mix, 2/3 of bonds maturing by 2025 are BB-rated
- And so while there are no concerns about the EUR HY market digesting these maturities, there may be significant deterioration in credit metrics
- Avg coupon on these EUR denominated bond maturities are 4.7%, which is 3.5 points below the current average index single B yield of 8.15%
  - MS estimates that interest expenses for EUR HY bond issuers refinancing at the current market yields would see interest expense rise by 10-30% and ICRs fall by 1.1x
  - For USD denominated bonds, the gap between average coupon and market yield is only 1.9 points

Exhibit 50: Breakdown of maturity pipeline across ratings, sectors and cash prices



Source: ICE, Bloomberg, Morgan Stanley Research

Source: Morgan Stanley – Global Credit Strategy – Scaling Maturity Wall 2023-04-04

Asian Credit Maturity Wall – Mostly Manageable in the Near-Term

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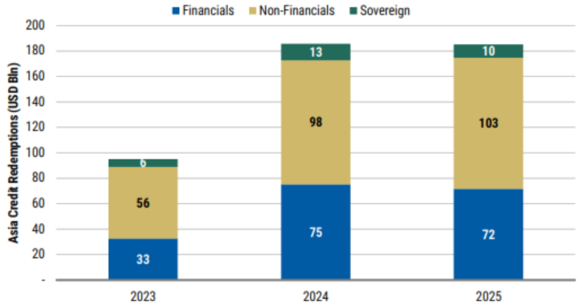
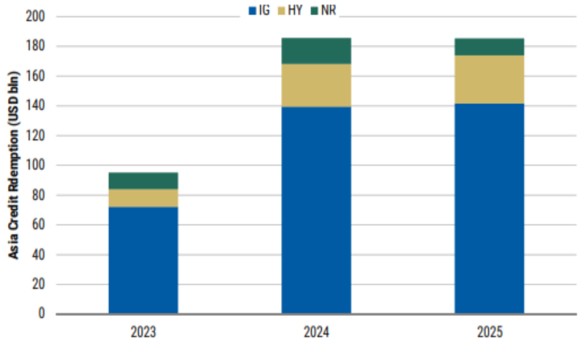
- After 2023's $95bn of maturities, the lowest seen since 2018, maturities pick up in 2024-2025 (to about $185bn per year) but will remain well below last year's historic high of over $200bn
- The majority of Asian Credit is IG Corporates; refinancing for these HQ companies should be manageable
- Where refinancing risk is concentrated is in Asia HY, more specifically the China HY property sector, where maturities pick up in 2024, >$30bn of maturities with majority in the latter half of the year.

Exhibit 90: Asia corporates make up most of Asia credit's redemptions....



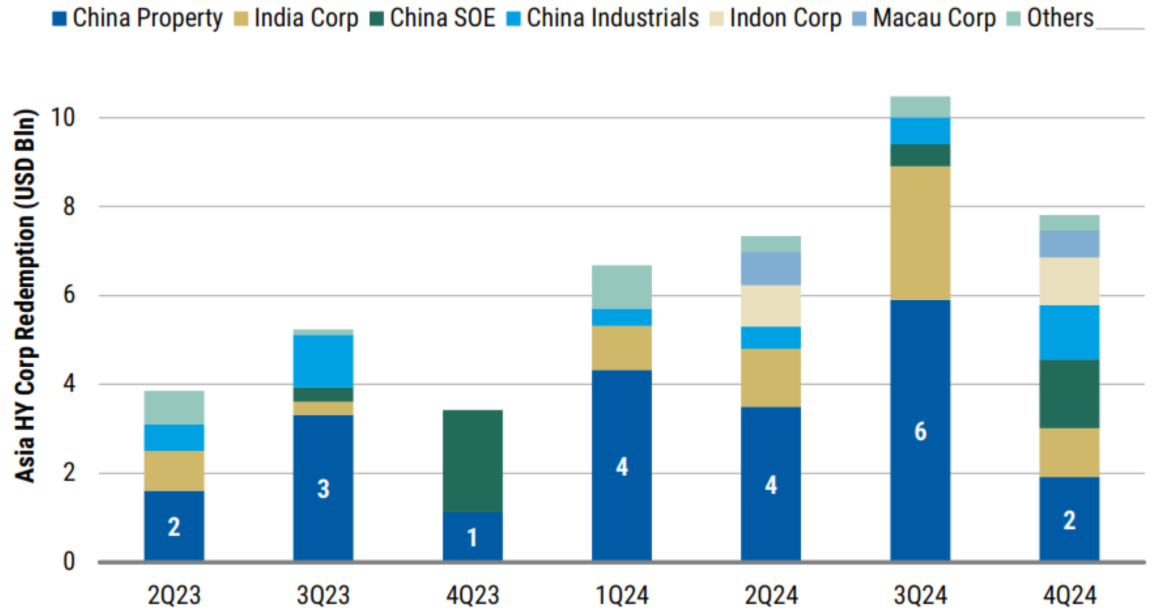
Source: Bloomberg, EMDB, Morgan Stanley Research

Exhibit 91: ... and they are mostly investment grade rated



Source: Bloomberg, EMDB, Morgan Stanley Research

Exhibit 93: ... and China property makes up the bulk of Asia HY's redemptions, especially in 2H24



Source: Bloomberg, EMDB, Morgan Stanley Research

Source: Morgan Stanley – Global Credit Strategy – Scaling Maturity Wall 2023-04-04

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