Situation Room

Sep '23 Monthly HG Market Review: Rates shock

Sep '23 Monthly HG Market Review: Rates shock

The big increase in Treasury yields drove market returns in September. In the first half of the month the rise in rates was view as benign and a reflection of the strong US economy. Interest rate volatility declined, equity prices remained resilient, and IG spreads reached YtD tights. However, the FOMC on September 20th signaled the Fed viewed rates as insufficiently restrictive (see Global Rates Weekly: High & tight). Hence the further jump in Treasury yields in the second half of September led instead to higher implied interest rate volatility, lower stock prices, and eventually wider spreads (Figure 2, Figure 3).

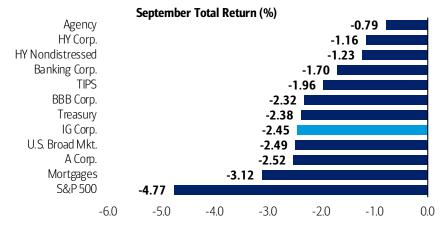
Losses across the board

Higher rates, lower stocks in September led to losses across all broad asset classes during the month. Equities (-4.77%) underperformed in terms total return, followed by IG corporates (-2.45%) and Treasuries (-2.38%). High yield (-1.16%) outperformed due to relatively shorter duration.

IG index spread 1bps wider in September

The ICE BofA US IG index spread widened 1bps in September for an excess return of +16bps. The October monthly rebalancing added 2bps to the index spread, bringing it to 125bps. September top performing sectors in terms of excess returns were the longer-duration Railroads (+58bps), Pipelines (+57bps) and Utilities (+56bps). Underperforming sectors were the shorter and more liquid Banks/Brokers (-26bps), as well as Retail-Discounters (-9bps) and Consumer Products (-7bps).

Figure 1: Broad Asset Class Total Return Performance, September 2023 Equities underperformed in September, followed by IG corporates.



Source: BofA Global Research, Bloomberg, ICE Data Indices, LLC

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02 October 2023

Credit Strategy United States Cross Product

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Outlook

IG spreads should remain resilient as long as the problem is higher rates (see <u>Credit Market Strategist</u>: <u>Fluid rate dynamics</u>). The big jump in interest rate volatility has clearly been negative for spreads more recently. However, lower stocks and more attractive yields should eventually slow down the selloff in interest rates and the corresponding jump in implied rates vol. Hence, we expect IG spreads to trade in a relatively tight range in October.

Figure 2: Higher rates, higher rates vol in the second half of September Interest rates increased throughout September, interest rate implied volatility first declined, but then increased in the second half of the month.

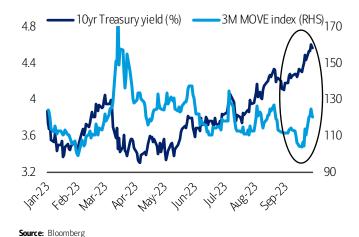
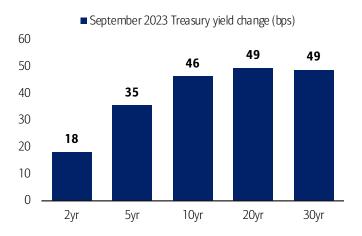


Figure 4: Treasury yield curve bear steepened in September Treasury yields jumped 18, 46 and 49bps for 2yr, 10yr and 30yr Treasuries, respectively.



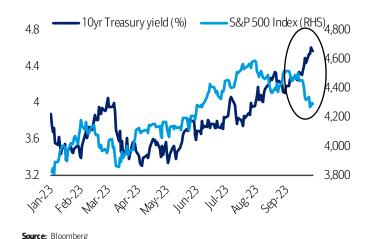
Source: BofA Global Research, Bloomberg

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Figure 3: Higher rates, weaker stocks

 $S\&P\ 500$ index price declined in the second half of September as interest rate volatility increased.



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Figure 5: Fewer Fed cuts in 2024

Market pricing for Fed cuts in 2024 dropped from 119bbps on August $31^{\rm st}$ to 81bps on September 29.



Source: BofA Global Research, Bloomberg

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Figure 6: High Grade Sector Views Summary

US IG credit strategy sector views matrix

| Overweight | View | Market weight | View | Underweight | View |
|----------------|------|-----------------------|--------|-------------------|-------|
| Banks/Brokers | Over | Automobiles | Market | Aerospace/Defense | Under |
| Insurance | Over | Media & Entertainment | Market | Basic Materials | Under |
| Life Insurance | Over | Railroads | Market | Chemicals | Under |



Figure 6: High Grade Sector Views Summary

US IG credit strategy sector views matrix

| Overweight | View Market weight | View | Underweight | View |
|-------------------|-----------------------|--------|---------------------------|--------|
| P&C & Reinsurance | Market Tobacco | Market | Metals & Mining | Market |
| Energy | Over Technology | Market | Paper and Forest Products | Under |
| Oil & Gas | Market | | Consumer Products | Under |
| Pipelines | Over | | Food, Bev, & Bottling | Under |
| Health Care | Over | | Industrial Products | Under |
| REITs | Over | | Retail | Under |
| Telecom | Over | | Discounters | Under |
| Utilities | Over | | Non-Discounters | Under |

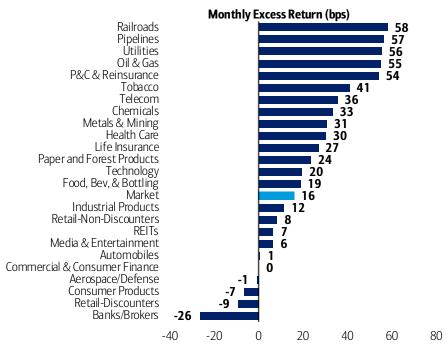
Source: BofA Global Research

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September 2023 Returns

Figure 7: High grade sector excess return, September 2023

IG corporate market excess return: +35bps in September.



Source: BofA Global Research, ICE Data Indices, LLC

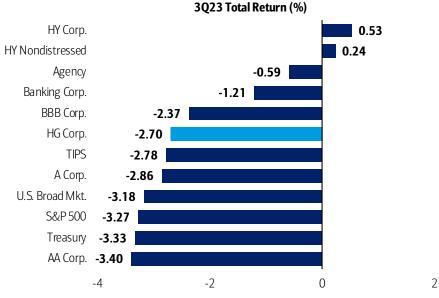
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3Q-2023 returns



Figure 8: Broad Asset Class Total Return Performance, 3Q 2023

Quarterly total return for broad asset classes in 3Q-2023.

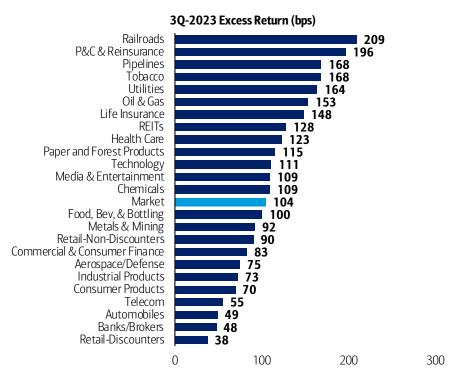


Source: BofA Global Research, ICE Data Indices, LLC

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Figure 9: High grade sector excess return, 3Q 2023

Market excess return: 104bps in 3Q.



Note: Results include hybrid and subordinated securities.

Source: BofA Global Research, ICE Data Indices, LLC



Based on

Situation Room: October supply: downside risks 27 September 2023

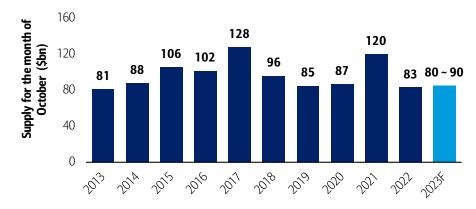
Supply

Over the past five years ex. 2020 the median October IG corporate supply was \$96bn, ranging from \$83 to \$128bn. We look for October supply in the low end of that range, or \$80 to \$90bn (Figure 10).

Drivers of supply in October

October IG issuance volumes should be more modest for two reasons. First, the big jump in interest rates generally discourages opportunistic issuance. We saw an example of that in September, when supply underwhelmed during the week of September 18 following the September FOMC meeting. Second, issuance in October is more skewed towards financials (Figure 13), as US industrials tend to be issuance blackouts related to the 3Q earnings reporting season. The big-six US banks, on the other hand, come of the blackouts in mid-October. So far in 2023, however, financial supply in general, and the big six US bank supply in particular (Figure 14), has been the lowest in three years. This should be negative for October issuance volumes should the trend continue.

Figure 10: We look for October issuance near the low end of historical range We look for October IG supply in \$80-\$90bn range, similar to 2022 and down from \$120bn in 2021.



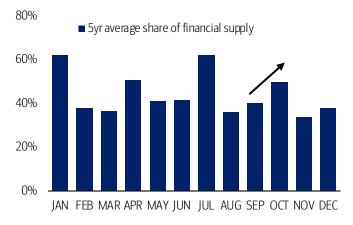
Source: BofA Global Research



Figure 11: IG supply averaged \$103bn for the month of October Supply for the calendar month of October tends to be relatively light.



Figure 13: The share of financial supply is typically higher in October The 5yr average share of financial supply goes up to 50% in October from 40% in September.



Note: the average is for years 2017 - 2019, 2021 - 2022.

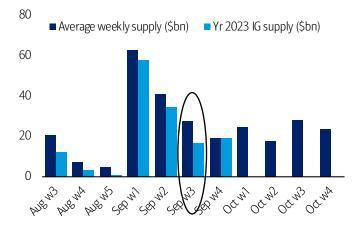
Source: BofA Global Research

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Figure 12: The jump in rates should discourage supply

IG new issue supply volumes underwhelmed in the third week of September following the more hawkish than expected FOMC.

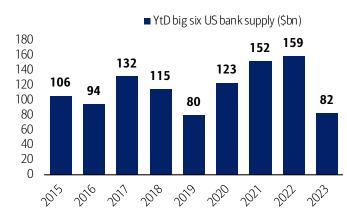


Source: BofA Global Research

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Figure 14: Big six US bank supply YtD has been the lowest in three vears

YtD big six US bank supply has been \$82bn – the lowest since 2019 and down from \$159bn in 2022.



Source: BofA Global Research

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September supply review

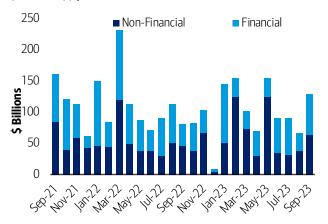
IG gross supply totaled to \$128.4bn in September, up from \$67.2bn in Aug '23 and \$81.4bn in September '22. September 2023 supply consisted of \$65.5bn financials and \$62.9bn non-financial issuer bonds.

IG new issue performance weakened in September. The average new issue concession increased to 7.6bps in September from 6.6bps in August, while the average break performance increased to 2.9bps in September from 2.3bps tighter in August. As a result, the overall performance of new issues, which we define as new issue concession plus break performance, widened to 4.7bps in September from 4.3bps in August (Figure 17).



Figure 15: Monthly US IG supply volume

September supply consisted of \$62.9bn non-financials and 65.5bn financials.

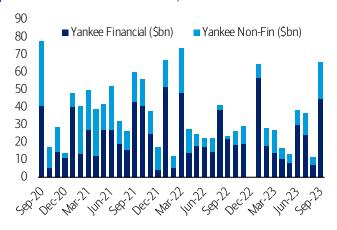


Source: Bloomberg, BofA Global Research

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Figure 16: USIG Yankee supply

US IG Yankee issuance = \$65.7bn in September

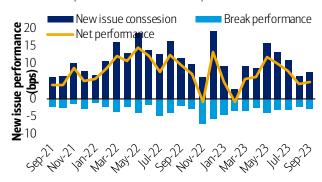


Source: Bloomberg, BofA Global Research

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Figure 17: Monthly new issue supply performance

US IG new issue performance weakened in September.

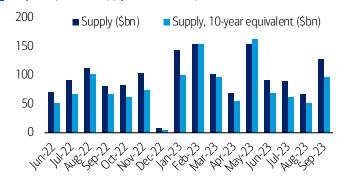


Source: Bloomberg, BofA Global Research

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Figure 18: Monthly gross and 10-year equivalent supply volumes

10-year equivalent supply = \$96.3bn in September



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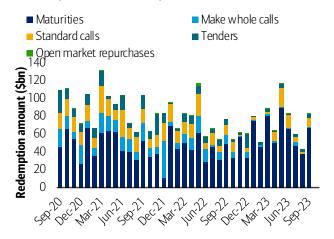
Redemptions

Redemptions totaled \$82.9bn in September, including \$67.2bn of contractual maturities and \$15.7bn of additional redemptions (Figure 19). Gross supply less all redemptions increased to +\$45.5bn in Sep from \$23.9bn in Aug (Figure 20).



Figure 19: US IG maturities and additional redemptions

US IG redemptions = \$82.9bn in September.



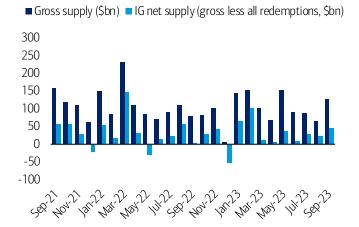
Note: Detailed redemption amounts data by type is grouped by effective dates.

Source: Bloomberg, ICE Data Indices, LLC, BofA Global Research

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Figure 20: US IG gross and net supply

US IG gross supply = \$128.4bn and net supply = \$45.5bn in Sep.



Source: BofA Global Research, Bloomberg

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Figure 21: US IG gross supply and redemption

Figure shows IG gross supply, maturities, additional redemptions and net supply by month

| - | • | | | • | | | | | |
|--------|---------------------|------------|------------------|----------------|---------|-------------------------|-------------------|--|---------|
| Month | Gross supply (\$bn) | Maturities | Make whole calls | Standard calls | Tenders | Open market repurchases | Total redemptions | IG net supply (gross less all redemptions, \$bn) | Coupons |
| Jan-18 | 133.3 | 72.4 | 4.1 | 5.3 | 6.9 | 0.0 | 88.7 | 44.6 | 24.4 |
| Feb-18 | 98.4 | 46.4 | 2.0 | 5.8 | 4.1 | 0.0 | 58.2 | 40.1 | 22.0 |
| Mar-18 | 125.2 | 65.6 | 15.4 | 4.2 | 14.1 | 1.6 | 100.8 | 24.4 | 28.4 |
| Apr-18 | 124.3 | 74.3 | 20.0 | 1.7 | 1.7 | 0.0 | 97.7 | 26.5 | 22.7 |
| May-18 | 127.6 | 80.6 | 3.5 | 18.3 | 3.1 | 0.0 | 105.5 | 22.1 | 24.9 |
| Jun-18 | 120.4 | 43.9 | 10.9 | 9.3 | 5.7 | 1.8 | 71.6 | 48.8 | 22.5 |
| Jul-18 | 67.3 | 47.9 | 6.3 | 5.9 | 0.2 | 0.2 | 60.5 | 6.8 | 24.4 |
| Aug-18 | 91.8 | 36.3 | 2.9 | 2.8 | 1.3 | 0.3 | 43.6 | 48.2 | 22.0 |
| Sep-18 | 146.2 | 29.0 | 6.0 | 4.1 | 8.9 | 1.8 | 49.7 | 96.4 | 28.4 |
| Oct-18 | 96.2 | 29.7 | 7.4 | 4.0 | 3.8 | 0.4 | 45.4 | 50.7 | 22.7 |
| Nov-18 | 97.4 | 52.6 | 6.8 | 1.4 | 3.9 | 0.2 | 64.8 | 32.5 | 24.9 |
| Dec-18 | 9.1 | 31.2 | 16.9 | 3.5 | 12.8 | 0.8 | 65.1 | -56.0 | 22.5 |
| Jan-19 | 118.3 | 72.6 | 1.6 | 2.0 | 3.2 | 0.0 | 79.4 | 38.9 | 25.5 |
| Feb-19 | 106.6 | 49.7 | 3.2 | 4.9 | 21.5 | 0.0 | 79.3 | 27.3 | 22.4 |
| Mar-19 | 121.7 | 65.8 | 16.1 | 5.0 | 7.1 | 0.2 | 94.2 | 27.5 | 31.8 |
| Apr-19 | 95.9 | 52.3 | 5.8 | 3.5 | 5.6 | 0.6 | 67.8 | 28.2 | 25.1 |
| May-19 | 110.8 | 66.8 | 6.3 | 3.8 | 3.6 | 0.0 | 80.5 | 30.3 | 27.3 |
| Jun-19 | 85.5 | 42.9 | 5.4 | 4.2 | 6.6 | 0.2 | 59.2 | 26.3 | 24.5 |
| Jul-19 | 101.4 | 44.3 | 5.2 | 1.1 | 6.6 | 0.0 | 57.2 | 44.2 | 25.5 |
| Aug-19 | 84.9 | 42.6 | 5.4 | 2.8 | 12.3 | 0.6 | 63.6 | 21.3 | 22.4 |
| Sep-19 | 166.5 | 72.9 | 15.4 | 10.9 | 14.2 | 0.3 | 113.8 | 52.7 | 31.8 |
| Oct-19 | 85.2 | 55.1 | 19.2 | 6.3 | 12.7 | 0.0 | 93.2 | -8.0 | 25.1 |
| Nov-19 | 104.2 | 39.2 | 8.5 | 9.1 | 7.6 | 0.4 | 64.9 | 39.3 | 27.3 |
| Dec-19 | 24.0 | 26.6 | 18.0 | 26.6 | 11.2 | 0.0 | 82.4 | -58.4 | 24.5 |
| Jan-20 | 152.3 | 65.6 | 7.9 | 7.3 | 2.3 | 0.0 | 83.0 | 69.3 | 27.2 |
| Feb-20 | 96.7 | 36.6 | 6.9 | 2.9 | 2.7 | 0.0 | 49.0 | 47.7 | 23.0 |
| Mar-20 | 261.4 | 73.2 | 22.4 | 16.0 | 14.2 | 0.4 | 126.2 | 135.2 | 32.5 |
| Apr-20 | 297.4 | 36.7 | 2.2 | 5.6 | 11.2 | 0.0 | 55.6 | 241.7 | 26.1 |
| May-20 | 261.9 | 59.2 | 7.7 | 17.8 | 11.9 | 0.0 | 96.6 | 165.4 | 27.5 |
| Jun-20 | 176.8 | 60.9 | 19.4 | 9.3 | 18.1 | 0.0 | 107.8 | 69.0 | 24.3 |
| Jul-20 | 68.9 | 46.9 | 14.3 | 11.5 | 9.2 | 0.0 | 81.9 | -13.0 | 24.8 |
| Aug-20 | 143.5 | 35.3 | 11.1 | 9.4 | 14.7 | 0.6 | 71.2 | 72.3 | 21.3 |
| Sep-20 | 168.4 | 45.7 | 19.9 | 18.3 | 25.1 | 0.0 | 109.1 | 59.4 | 31.4 |
| Oct-20 | 87.0 | 65.9 | 14.6 | 18.8 | 11.0 | 0.1 | 110.4 | -23.4 | 28.3 |
| Nov-20 | 98.6 | 54.8 | 7.8 | 17.0 | 8.6 | 0.2 | 88.4 | 10.1 | 30.7 |
| Dec-20 | 42.4 | 26.4 | 20.9 | 15.5 | 8.3 | 0.2 | 71.2 | -28.8 | 26.8 |
| Jan-21 | 137.9 | 67.2 | 7.5 | 18.1 | 12.1 | 0.0 | 104.8 | 33.1 | 24.6 |
| Feb-21 | 119.9 | 35.3 | 9.4 | 11.2 | 11.0 | 0.0 | 67.0 | 52.9 | 21.2 |
| Mar-21 | 202.5 | 60.7 | 23.1 | 30.1 | 17.0 | 0.0 | 130.9 | 71.6 | 31.7 |

Figure 21: US IG gross supply and redemptionFigure shows IG gross supply, maturities, additional redemptions and net supply by month

| Month Apr-21 | Gross supply (\$bn) 124.3 | Maturities 63.9 | Make whole calls | Standard calls 19.4 | Tenders 3.5 | Open market repurchases 0.0 | Total redemptions 102.8 | IG net supply (gross less all redemptions, \$bn) 21.5 | Coupons 27.8 |
|------------------------|----------------------------------|--------------------|------------------|---------------------------|-------------|-----------------------------|-------------------------|---|-----------------|
| May-21 | 136.7 | 61.8 | 14.2 | 10.5 | 7.7 | 0.0 | 94.3 | 42.5 | 30.3 |
| Jun-21 | 139.1 | 40.9 | 15.9 | 30.7 | 16.6 | 0.0 | 104.2 | 34.9 | 26.2 |
| Jul-21 | 90.7 | 39.6 | 15.4 | 12.3 | 4.8 | 0.0 | 72.1 | 18.6 | 25.0 |
| Aug-21 | 88.3 | 31.0 | 9.1 | 16.3 | 5.5 | 0.0 | 61.9 | 26.5 | 20.6 |
| Sep-21 | 160.4 | 52.1 | 19.8 | 15.9 | 16.1 | 0.0 | 103.9 | 56.6 | 30.2 |
| Oct-21 | 120.4 | 33.8 | 10.1 | 10.6 | 8.7 | 0.0 | 63.3 | 57.0 | 27.8 |
| Nov-21 | 112.6 | 38.1 | 6.9 | 14.3 | 22.8 | 0.0 | 82.2 | 30.3 | 30.3 |
| Dec-21 | 62.4 | 10.7 | 42.0 | 19.1 | 11.3 | 0.0 | 83.2 | -20.8 | 26.2 |
| Jan-22 | 149.7 | 69.5 | 4.5 | 19.6 | 1.1 | 0.0 | 94.8 | 55.0 | 24.4 |
| Feb-22 | 84.6 | 43.3 | 6.6 | 13.8 | 2.1 | 0.0 | 65.8 | 18.8 | 21.4 |
| Mar-22 | 231.8 | 50.5 | 9.9 | 13.5 | 9.0 | 0.0 | 82.9 | 148.9 | 32.2 |
| Apr-22 | 112.6 | 42.6 | 12.5 | 15.8 | 9.1 | 0.0 | 80.1 | 32.5 | 28.4 |
| May-22 | 87.1 | 61.1 | 19.7 | 24.4 | 9.2 | 3.0 | 117.5 | -30.4 | 29.6 |
| Jun-22 | 70.6 | 28.1 | 14.6 | 7.7 | 5.9 | 0.0 | 56.3 | 14.2 | 24.3 |
| Jul-22 | 90.9 | 45.9 | 2.1 | 12.9 | 5.3 | 0.0 | 66.2 | 24.7 | 24.4 |
| Aug-22 | 112.6 | 30.6 | 9.2 | 6.9 | 7.1 | 0.6 | 54.5 | 58.1 | 21.4 |
| Sep-22 | 81.4 | 49.1 | 9.9 | 11.5 | 5.9 | 0.0 | 76.4 | 5.0 | 32.2 |
| Oct-22 | 83.2 | 33.3 | 6.4 | 11.8 | 1.4 | 0.2 | 53.1 | 30.1 | 28.4 |
| Nov-22 | 103.9 | 56.6 | 1.0 | 1.3 | 2.0 | 0.3 | 61.2 | 42.6 | 29.6 |
| Dec-22 | 8.1 | 33.3 | 6.1 | 5.5 | 15.5 | 0.1 | 60.5 | -52.5 | 24.3 |
| Jan-23 | 144.6 | 74.4 | 1.2 | 3.3 | 0.5 | 0.0 | 79.5 | 65.0 | 26.1 |
| Feb-23 | 154.8 | 45.0 | 2.4 | 0.9 | 2.6 | 0.0 | 50.9 | 103.9 | 23.9 |
| Mar-23 | 101.7 | 80.6 | 2.4 | 2.2 | 2.9 | 0.1 | 88.2 | 13.5 | 35.0 |
| Apr-23 | 69.4 | 50.5 | 1.3 | 11.0 | 0.5 | 0.5 | 63.8 | 5.5 | 31.1 |
| May-23 | 153.9 | 89.8 | 0.9 | 20.6 | 5.3 | 0.0 | 116.5 | 37.3 | 29.6 |
| Jun-23 | 91.3 | 65.7 | 1.7 | 13.9 | 1.0 | 0.1 | 82.3 | 9.0 | 25.1 |
| Jul-23 | 89.7 | 46.6 | 4.4 | 5.6 | 3.1 | 0.0 | 59.7 | 30.1 | 26.1 |
| Aug-23 | 67.2 | 37.4 | 0.0 | 2.0 | 3.9 | 0.0 | 43.3 | 23.9 | 23.9 |
| Sep-23 | 128.4 | 67.2 | 0.9 | 10.0 | 4.8 | 0.1 | 82.9 | 45.5 | 35.0 |

Source: Bloomberg, ICE Data Indices, LLC, BofA Global Research

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Figure 22: September new issue pricing and new issue concessions
List of new issues in the IG corporate bond market today along with performance metrics

| | | | | | | | D., | New | | C |
|------------|--------|--|--------|--------|-------------|--------|--------------|----------------|-------------|----------------|
| | | | | Size | Moody's/S&P | Coupon | Px Spread | Issue Conc. | * Break | Current spread |
| Date | Ticker | Name | Tenor | (\$mm) | Rating | (%) | (bps) | (bps) | performance | (bps) |
| 2023-09-05 | BHP | BHP Billiton Finance USA Ltd | 3 | 850 | A1/A- | 5.25 | 65 | n.a. | -1 | 64 |
| 2023-09-05 | BHP | BHP Billiton Finance USA Ltd | 5 | 700 | A1/A- | 5.1 | 85 | n.a. | 0 | 93 |
| 2023-09-05 | BHP | BHP Billiton Finance USA Ltd | 7 | 900 | A1/A- | 5.25 | 100 | n.a. | 0 | 103 |
| 2023-09-05 | BHP | BHP Billiton Finance USA Ltd | 10 | 1,500 | A1/A- | 5.25 | 110 | 11 | 0 | 112 |
| 2023-09-05 | BHP | BHP Billiton Finance USA Ltd | 30 | 800 | A1/A- | 5.5 | 125 | n.a. | -8 | 109 |
| 2023-09-05 | BRKHEC | MidAmerican Energy Co | 10 | 350 | Aa2/A+ | 5.35 | 110 | 11 | n.a. | 92 |
| 2023-09-05 | BRKHEC | MidAmerican Energy Co | 31 | 1,000 | Aa2/A+ | 5.85 | 147 | 15 | n.a. | 123 |
| 2023-09-05 | CBAAU | Commonwealth Bank of Australia | 2 | 600 | Aa3/AA- | FRN | SOFR+63 | n.a. | n.a. | n.a. |
| 2023-09-05 | CBAAU | Commonwealth Bank of Australia/New York NY | 2 | 900 | Aa3/AA- | 5.499 | 55 | 13 | -2 | 50 |
| 2023-09-05 | CDEL | Corp Nacional del Cobre de Chile | 10 | 1,300 | A3/NA | 5.95 | 170 | n.a. | n.a. | n.a. |
| 2023-09-05 | CDEL | Corp Nacional del Cobre de Chile | 30 | 700 | A3/NA | 6.3 | 195 | n.a. | n.a. | n.a. |
| 2023-09-05 | CSX | CSX Corp | 10 | 600 | A3/BBB+ | 5.2 | 95 | 5 | 1 | 102 |
| 2023-09-05 | DBSSP | DBS Group Holdings Ltd | 2 | 750 | Aa2/NA | FRN | SOFR+63 | n.a. | n.a. | n.a. |
| 2023-09-05 | DBSSP | DBS Group Holdings Ltd | 2 | 750 | Aa2/NA | 5.479 | 53 | n.a. | n.a. | n.a. |
| 2023-09-05 | DE | John Deere Capital Corp | 2 | 350 | A2/A | 5.3 | 38 | n.a. | n.a. | 32 |
| 2023-09-05 | DE | John Deere Capital Corp | 3 | 550 | A2/A | 5.15 | 52 | n.a. | 2 | 47 |
| 2023-09-05 | DE | John Deere Capital Corp | 10 | 1,000 | A2/A | 5.15 | 90 | n.a. | -2 | 84 |
| 2023-09-05 | DUK | Duke Energy Corp | 10 | 600 | Baa2/BBB | 5.75 | 150 | 7 | -3 | 143 |
| 2023-09-05 | DUK | Duke Energy Corp | 30 | 750 | Baa2/BBB | 6.1 | 173 | 14 | 2 | 161 |
| 2023-09-05 | INTNED | ING Groep NV | 4 | 500 | Baa1/A- | FRN | SOFR+156 | n.a. | n.a. | n.a. |
| 2023-09-05 | INTNED | ING Groep NV | 4NC3 | 1,250 | Baa1/A- | 6.083 | 142 | 3 | -3 | 143 |
| 2023-09-05 | INTNED | ING Groep NV | 11NC10 | 1,250 | Baa1/A- | 6.114 | 185 | n.a. | -4 | 195 |



Figure 22: September new issue pricing and new issue concessions
List of new issues in the IG corporate bond market today along with performance metrics

| Date | Ticker | Name | Tenor | Size (\$mm) | Moody's/S&P Rating | Coupon (%) | Px Spread (bps) | New Issue Conc. (bps) | * Break performance | Current spread (bps) |
|--------------------------|-------------|---|----------------|----------------|------------------------|---------------|-----------------------|--------------------------------|------------------------|----------------------------|
| 2023-09-05 | JBSSBZ | JBS USA LUX SA / JBS USA Food Co / JBS Luxembourg | 11 | 1,600 | Baa3/BBB- | 6.75 | 250 | 24 | n.a. | 242 |
| 2023-09-05 | JBSSBZ | JBS USA LUX SA / JBS USA Food Co / JBS Luxembourg | 30 | 900 | Baa3/BBB- | 7.25 | 290 | n.a. | n.a. | 272 |
| 2023-09-05 | MET | Metropolitan Life Global Funding I | 5 | 600 | Aa3/AA- | 5.4 | 105 | n.a. | -1 | 104 |
| 2023-09-05 | MITHCC | Mitsubishi HC Finance America LLC | 5 | 500 | A3/A- | 5.807 | 143 | n.a. | n.a. | n.a. |
| 2023-09-05 | PM | Philip Morris International Inc | 5 | 650 | A2/A- | 5.25 | 105 | -2 | 0 | 112 |
| 2023-09-05 | PM | Philip Morris International Inc | 7 | 700 | A2/A- | 5.5 | 135 | 13 | 2 | 137 |
| 2023-09-05 | PM | Philip Morris International Inc | 10 | 1,000 | A2/A- | 5.625 | 160 | 12 | 2 | 157 |
| 2023-09-05 | SO | Southern Co/The | 6 | 600 | Baa2/BBB | 5.5 | 113 | 2 | -1 | 103 |
| 2023-09-05 | SO | Southern Co/The | 11 | 700 | Baa2/BBB | 5.7 | 148 | 6 | -2 | 139 |
| 2023-09-05 | SUMIBK | Sumitomo Mitsui Financial Group Inc | 5 | 1,100 | A1/A- | 5.716 | 135 | 6 | n.a. | 141 |
| 2023-09-05 | SUMIBK | Sumitomo Mitsui Financial Group Inc | 10 | 900 | A1/A- | 5.808 | 155 | 13 | n.a. | 162 |
| 2023-09-05 | SUMITR | Sumitomo Mitsui Trust Bank Ltd | 3 | 500 | A1/A | FRN | SOFR+115 | n.a. | n.a. | n.a. |
| 2023-09-05 | SUMITR | Sumitomo Mitsui Trust Bank Ltd | 3 | 500 | A1/A | 5.65 | 100 | n.a. | -3 | 97 |
| 2023-09-05 | SUMITR | Sumitomo Mitsui Trust Bank Ltd | 5 | 500 | A1/A | 5.55 | 122 | n.a. | -5 | 117 |
| 2023-09-05 | SWEDA | Swedbank AB | 3 | 1,000 | Baa1/A- | 6.136 | 148 | n.a. | -1 | 151 |
| 2023-09-05 | UBS | UBS AG/London | 2 | 500 | Aa3/A+ | FRN | SOFR+93 | n.a. | n.a. | n.a. |
| 2023-09-05 | UBS | UBS AG/London | 2 | 1,000 | Aa3/A+ | 5.8 | 85 | 9 | 0 | 90 |
| 2023-09-05 | UBS | UBS AG/London | 5 | 1,500 | Aa3/A+ | 5.65 | 128 | n.a. | 2 | 142 |
| 2023-09-05 | UNANA | Unilever Capital Corp | 5 | 700 | A1/A+ | 4.875 | 55 | n.a. | n.a. | n.a. |
| 2023-09-05 | UNANA | Unilever Capital Corp | 10 | 800 | A1/A+ | 5 | 85 | 16 | n.a. | 84 |
| 2023-09-05 | W | Volkswagen Group of America Finance LLC | 2 | 500 | A3/BBB+ | FRN | SOFR+93 | n.a. | n.a. | n.a. |
| 2023-09-05 | W | Volkswagen Group of America Finance LLC | 2 | 800 | A3/BBB+ | 5.8 | 85 | n.a. | n.a. | 88 |
| 2023-09-05 | VW | Volkswagen Group of America Finance LLC | 3 | 900 | A3/BBB+ | 5.7 | 105 | n.a. | n.a. | n.a. |
| 2023-09-05 | W | Volkswagen Group of America Finance LLC | 5 | 700 | A3/BBB+ | 5.65 | 130 | n.a. | n.a. | n.a. |
| 2023-09-05 | W | Volkswagen Group of America Finance LLC | 10 | 500 | A3/BBB+ | 5.9 | 165 | n.a. | 5 | 179 |
| 2023-09-05 | WEC | WEC Energy Group Inc | 3 | 600 | Baa1/BBB+ | 5.6 | 93 | 12 | -4 | 79 |
| 2023-09-06 | AIB | AIB Group PLC | 6NC5 | 1,000 | A3/BBB | 6.608 | 217 | n.a. | -9 | 211 |
| 2023-09-06 | BACR | Barclays PLC | 4NC3 | 300 | Baa1/BBB+ | FRN | SOFR+188 | n.a. | n.a. | n.a. |
| 2023-09-06 | BACR | Barclays PLC | 4NC3 | 1,450 | Baa1/BBB+ | 6.496 | 175 | 11 | -4 | 179 |
| 2023-09-06 | BACR | Barclays PLC | 6NC5 | 1,250 | Baa1/BBB+ | 6.49 | 205 240 | 7 6 | -1 -1 | 207 |
| 2023-09-06 2023-09-06 | BACR BKH | Barclays PLC Black Hills Corp | 11NC10 | 1,500 450 | Baa1/BBB+ Baa2/BBB+ | 6.692 6.15 | 240 195 | | | 244 192 |
| 2023-09-06 | CABKSM | CaixaBank SA | 11 4NC3 | | | 6.684 | 195 | n.a. | n.a. -7 | |
| 2023-09-06 | CABKSM | Caixabai ik SA CaixaBank SA | 4NC3 11NC10 | 1,000 1,000 | Baa3/BBB Baa3/BBB | 6.84 | 255 | n.a. n.a. | -7 -7 | 190 253 |
| 2023-09-06 | GMT | GATX Corp | 11 | 300 | Baa2/BBB | 6.05 | 180 | 11.a. 12 | -7 -6 | 233 171 |
| 2023-09-06 | IDA | Idaho Power Co | 31 | 350 | A2/A- | 5.8 | 150 | 7 | n.a. | 139 |
| 2023-09-06 | MMC | Marsh & McLennan Cos Inc | 10 | 600 | A3/A- | 5.4 | 115 | 8 | 11.a. 1 | 116 |
| 2023-09-06 | MMC | Marsh & McLennan Cos Inc | 30 | 1,000 | A3/A- | 5.7 | 135 | 1 | -3 | 132 |
| 2023-09-06 | NESNVX | Nestle Holdings Inc | 5 | 500 | Aa3/AA- | 5.7 | 57 | 1 | n.a. | 54 |
| 2023-09-06 | NESNVX | Nestle Holdings Inc | 7 | 500 | Aa3/AA- | 5 | 67 | -1 | n.a. | 67 |
| 2023-09-06 | NESNVX | Nestle Holdings Inc | 10 | 500 | Aa3/AA- | 5 | 77 | 1 | n.a. | 73 |
| 2023-09-06 | NIPLIF | Nippon Life Insurance Co | 30NC10 | 930 | A3/A- | 6.25 | 195 | n.a. | n.a. | n.a. |
| 2023-09-06 | TOYOTA | Toyota Motor Credit Corp | 2 | 400 | A1/A+ | FRN | SOFR+65 | n.a. | n.a. | n.a. |
| 2023-09-06 | TOYOTA | Toyota Motor Credit Corp | 2 | 600 | A1/A+ | 5.6 | 58 | n.a. | -10 | 38 |
| 2023-09-06 | TOYOTA | Toyota Motor Credit Corp | 5 | 750 | A1/A+ | 5.25 | 85 | 19 | -8 | 77 |
| 2023-09-07 | BRASKM | Braskem Netherlands Finance BV | 7 | 850 | NA/BBB- | 8.5 | n.a. | n.a. | n.a. | n.a. |
| 2023-09-07 | GILD | Gilead Sciences Inc | 10 | 1,000 | A3/BBB+ | 5.25 | 100 | 3 | n.a. | 100 |
| 2023-09-07 | GILD | Gilead Sciences Inc | 30 | 1,000 | A3/BBB+ | 5.55 | 120 | n.a. | n.a. | 111 |
| 2023-09-07 | LII | Lennox International Inc | 5 | 500 | Baa2/BBB | 5.5 | 113 | n.a. | -2 | 132 |
| 2023-09-07 | NDSN | Nordson Corp | 5 | 350 | Baa2/BBB | 5.6 | 122 | n.a. | -6 | 119 |
| 2023-09-07 | NDSN | Nordson Corp | 10 | 500 | Baa2/BBB | 5.8 | 157 | n.a. | -9 | 149 |
| 2023-09-07 | SPGI | S&P Global Inc | 10 | 750 | A3/NA | 5.25 | 100 | 6 | -2 | 101 |
| 2023-09-11 | ABNANV | ABN AMRO Bank NV | 4NC3 | 500 | Baa1/BBB | FRN | 0 | n.a. | n.a. | n.a. |
| 2023-09-11 | ABNANV | ABN AMRO Bank NV | 4NC3 | 1,250 | Baa1/BBB | 6.339 | 165 | -7 | -8 | 162 |
| 2023-09-11 | BRKHEC | Nevada Power Co | 31 | 500 | A2/A+ | 6 | 163 | n.a. | -9 | 146 |
| 2023-09-11 | CNHI | CNH Industrial Capital LLC | 5 | 500 | Baa2/BBB | 5.5 | 122 | n.a. | n.a. | 127 |
| 2023-09-11 | MAERSK | AP Moller - Maersk A/S | 10 | 750 | Baa2/BBB+ | 5.875 | 165 | n.a. | n.a. | 158 |
| 2023-09-11 | MHK | Mohawk Industries Inc | 5 | 600 | Baa1/BBB+ | 5.85 | 145 | n.a. | -2 | 140 |
| 2023-09-11 | MRVL | Marvell Technology Inc | 5 | 500 | Baa3/BBB- | 5.75 | 140 | n.a. | -4 | 135 |
| 2023-09-11 | MRVL | Marvell Technology Inc | 10 | 500 | Baa3/BBB- | 5.95 | 175 | n.a. | -7 | 163 |
| 2023-09-11 | PTEN | Patterson-UTI Energy Inc | 10 | 400 | Baa3/BBB- | 7.15 | 290 | n.a. | n.a. | 253 |



Figure 22: September new issue pricing and new issue concessions
List of new issues in the IG corporate bond market today along with performance metrics

| _ | | | | Size | Moody's/S&P | Coupon | Px Spread | New Issue Conc. | * Break | Current spread |
|--------------------------|------------------|---|--------------|-------------------------|------------------------|---------------|-----------------|-----------------------|--------------|-------------------|
| Date | Ticker | Name | Tenor | (\$mm) | Rating | (%) | (bps) | (bps) | - | (bps) |
| 2023-09-11 | SO CTOALL | Southern Co Gas Capital Corp | 10 | 500 | Baa1/BBB+ | 5.75 | 148 | n.a. | -1 | 143 |
| 2023-09-11 2023-09-11 | STOAU TMUS | Santos Finance Ltd T-Mobile USA Inc | 10 10 | 850 1,000 | Baa3/BBB- Baa2/BBB | 6.875 5.75 | 265 148 | n.a. 3 | n.a. -3 | n.a. 150 |
| 2023-09-11 | TMUS | T-Mobile USA Inc | 31 | 1,000 | Baa2/BBB | 5.75 6 | 163 | -2 | -3 -3 | 163 |
| 2023-09-11 | VLTO | Veralto Corp | 3 | 700 | Baa1/BBB | 5.5 | 80 | n.a. | 2 | 85 |
| 2023-09-11 | VLTO | Veralto Corp | 5 | 700 | Baa1/BBB | 5.35 | 95 | n.a. | 3 | 103 |
| 2023-09-11 | VLTO | Veralto Corp | 10 | 700 | Baa1/BBB | 5.45 | 120 | n.a. | n.a. | 126 |
| 2023-09-12 | AMT | American Tower Corp | 5 | 750 | Baa3/BBB- | 5.8 | 142 | n.a. | -4 | 137 |
| 2023-09-12 | AMT | American Tower Corp | 10 | 750 | Baa3/BBB- | 5.9 | 167 | 3 | -1 | 164 |
| 2023-09-12 | BAC | Bank of America Corp | 4NC3 | 500 | A1/A- | FRN | SOFR+135 | n.a. | n.a. | n.a. |
| 2023-09-12 | BAC | Bank of America Corp | 4NC3 | 1,500 | A1/A- | 5.933 | 120 | 2 | -2 | 139 |
| 2023-09-12 | BAC | Bank of America Corp | 6NC5 | 2,750 | A1/A- | 5.819 | 140 | 5 | -2 | 153 |
| 2023-09-12 2023-09-12 | BAC CRBG | Bank of America Corp Corebridge Financial Inc | 11NC10 10 | 3,750 500 | A1/A- Baa2/BBB+ | 5.872 6.05 | 160 183 | 8 n.a. | -3 -1 | 167 182 |
| 2023-09-12 | FE | Monongahela Power Co | 10 | 400 | A3/A- | 5.85 | 160 | n.a. | -1 -7 | 151 |
| 2023-09-12 | HMN | Horace Mann Educators Corp | 5 | 300 | Baa2/BBB | 7.25 | 288 | n.a. | n.a. | n.a. |
| 2023-09-12 | HNTOIL | Hunt Oil Co of Peru LLC Sucursal Del Peru | 10 | 450 | Ba1/BBB | 8.55 | n.a. | n.a. | n.a. | n.a. |
| 2023-09-12 | INTU | Intuit Inc | 3 | 750 | A3/A- | 5.25 | 55 | n.a. | -3 | 52 |
| 2023-09-12 | INTU | Intuit Inc | 5 | 1/19/1902 | A3/A- | 5.125 | 75 | n.a. | -1 | 76 |
| 2023-09-12 | INTU | Intuit Inc | 10 | 6/3/1903 | A3/A- | 5.2 | 100 | n.a. | -1 | 96 |
| 2023-09-12 | INTU | Intuit Inc | 30 | 6/3/1903 | A3/A- | 5.5 | 120 | n.a. | -6 | 109 |
| 2023-09-12 | KBCBB | KBC Group NV | 11NC10 | 9/26/1902 | Baa1/A- | 6.324 | 205 | n.a. | -3 | 214 |
| 2023-09-12 | NGGLN NSANY | Brooklyn Union Gas Co/The | 10 | 2/3/1901 10/26/1900 | NA/BBB+ | 6.388 | 212 225 | n.a. | n.a. -23 | 206 |
| 2023-09-12 2023-09-12 | NSANY | Nissan Motor Acceptance Co LLC Nissan Motor Acceptance Co LLC | 3 5 | 11/30/1900 | Baa3/BBB- Baa3/BBB- | 6.95 7.05 | 225 265 | n.a. | -23 -11 | 188 254 |
| 2023-09-12 | NYLIFE | New York Life Global Funding | 3 | 3/10/1901 | Aaa/AA+ | 7.03 5.45 | 73 | n.a. n.a. | -11 -2 | 234 71 |
| 2023-09-12 | VST | Vistra Operations Co LLC | 10 | 10/11/1901 | NA/BBB- | 6.95 | 270 | n.a. | -7 | 266 |
| 2023-09-13 | BRKHEC | Sierra Pacific Power Co | 31 | 2/3/1901 | A2/A+ | 5.9 | 160 | 6 | n.a. | 150 |
| 2023-09-13 | CNP | CenterPoint Energy Houston Electric LLC | 5 | 5/14/1901 | A2/A | 5.2 | 85 | n.a. | n.a. | 78 |
| 2023-09-13 | MAR | Marriott International Inc/MD | 3 | 3/25/1901 | Baa2/BBB | 5.45 | 100 | n.a. | -3 | 92 |
| 2023-09-13 | MAR | Marriott International Inc/MD | 5 | 11/30/1901 | Baa2/BBB | 5.55 | 130 | n.a. | -3 | 123 |
| 2023-09-14 | BBLTB | Bangkok Bank PCL/Hong Kong | 5 | 5/14/1901 | NA/BBB+ | 5.3 | 98 | n.a. | n.a. | n.a. |
| 2023-09-14 | BBLTB | Bangkok Bank PCL/Hong Kong | 10 | 1/19/1902 | NA/BBB+ | 5.5 | 128 | n.a. | n.a. | n.a. |
| 2023-09-14 | CRBG | Corebridge Global Funding | 5 | 5/14/1901 | A2/A+ | 5.9 | 150 | n.a. | n.a. | 140 |
| 2023-09-14 2023-09-18 | ROIC AER | Retail Opportunity Investments Partnership LP AerCap Ireland Capital DAC / AerCap Global Aviatio | 5 3 | 12/15/1900 6/18/1902 | Baa3/BBB- Baa2/BBB | 6.75 6.1 | 245 150 | n.a. 3 | n.a. n.a. | n.a. 142 |
| 2023-09-18 | AER | AerCap Ireland Capital DAC / AerCap Global Aviatio | 7 | 4/29/1902 | Baa2/BBB | 6.15 | 185 | n.a. | n.a. | 181 |
| 2023-09-18 | BMO | Bank of Montreal | 2 | 10/26/1900 | A2/A- | FRN | SOFR+95 | n.a. | n.a. | n.a. |
| 2023-09-18 | BMO | Bank of Montreal | 2 | 4/14/1903 | A2/A- | 5.92 | 87 | 16 | n.a. | 92 |
| 2023-09-18 | BMO | Bank of Montreal | 5 | 9/26/1902 | A2/A- | 5.717 | 127 | 17 | n.a. | 132 |
| 2023-09-18 | ENBCN | Enbridge Inc | 60 | 1/19/1902 | Baa3/BBB- | 8.25 | 379 | n.a. | n.a. | n.a. |
| 2023-09-18 | ENBCN | Enbridge Inc | 60 | 6/3/1903 | Baa3/BBB- | 8.5 | 418 | n.a. | n.a. | n.a. |
| 2023-09-18 | ES | NSTAR Electric Co | 5 | 5/29/1900 | A1/A | 5.6 | 115 | 19 | -7 | 103 |
| 2023-09-18 | ES | Public Service Co of New Hampshire | 10 | 10/26/1900 | A1/A+ | 5.35 | 105 | 9 | -3 | 98 |
| 2023-09-18 | HYNMTR | Hyundai Capital America | 3 | 11/30/1901 | Baa1/BBB+ | 5.95 | 125 | -1 | -1 | 125 |
| 2023-09-18 2023-09-18 | HYNMTR HYNMTR | Hyundai Capital America Hyundai Capital America | 5 7 | 3/10/1902 5/14/1901 | Baa1/BBB+ Baa1/BBB+ | 6.1 6.2 | 165 183 | 4 1 | -1 n a | 164 186 |
| 2023-09-18 | LGENSO | LG Energy Solution Ltd | 3 | 2/3/1901 | Baa1/BBB+ | 5.625 | 100 | n.a. | n.a. n.a. | n.a. |
| 2023-09-18 | LGENSO | LG Energy Solution Ltd | 5 | 8/22/1901 | Baa1/BBB+ | 5.75 | 130 | n.a. | n.a. | n.a. |
| 2023-09-18 | LNT | Interstate Power and Light Co | 10 | 10/26/1900 | Baa1/A- | 5.7 | 145 | n.a. | n.a. | 133 |
| 2023-09-18 | TTXCO | TTXCo | 3 | 10/26/1900 | NA/A | 5.5 | 80 | n.a. | n.a. | n.a. |
| 2023-09-18 | UBS | UBS Group AG | 4NC3 | 6/3/1903 | NA/A | 6.327 | 160 | 13 | -3 | 158 |
| 2023-09-18 | UBS | UBS Group AG | 6NC5 | 2/8/1904 | NA/A | 6.246 | 180 | 14 | -2 | 188 |
| 2023-09-18 | UBS | UBS Group AG | 11NC10 | 10/15/1904 | NA/A | 6.301 | 200 | 10 | -2 | 206 |
| 2023-09-19 | DANBNK | Danske Bank A/S | 3NC2 | 6/3/1903 | A3/A+ | 6.259 | 118 | n.a. | n.a. | 113 |
| 2023-09-21 | INDKOR | Industrial Bank of Korea | 5 CNCE | 8/22/1901 | Aa2/AA- | 5.375 | 85 170 | n.a. | n.a. | n.a. |
| 2023-09-25 | ACAFP | Credit Agricole SA | 6NC5 | 10/15/1904 | A3/A- | 6.316 | 170 | n.a. | n.a. | 171 |
| 2023-09-25 2023-09-25 | ANZ ANZ | Australia & New Zealand Banking Group Ltd Australia & New Zealand Banking Group Ltd/New York | 2 | 10/11/1901 9/26/1902 | Aa3/AA Aa3/AA | FRN 5.671 | SOFR+64 55 | n.a. 5 | n.a. | n.a. 52 |
| 2023-09-25 | ANZ C | Citibank NA | 2 2 | 9/26/1902 1/19/1902 | Aa3/AA Aa3/A+ | 5.67 I FRN | 55 SOFR+80.5 | n.a. | n.a. n.a. | 52 n.a. |
| 2023-09-26 | C | Citibank NA | 2 | 10/15/1904 | Aa3/A+ | 5.864 | 73 | n.a. | n.a. | 11.a. 74 |
| 2023 03 20 | C | CIGIDAIII\ IVA | _ | 10/13/1304 | ruun n | 5.007 | , , | ı ı.u. | 1 1.CL | , ¬ |



Figure 22: September new issue pricing and new issue concessions

List of new issues in the IG corporate bond market today along with performance metrics

| | | | | Size | Moody's/S&P | Coupon | Px Spread | Issue Conc. | * Break | Current spread |
|------------|--------|-------------------------------------|-------|------------|-------------|--------|--------------|----------------|-------------|----------------|
| Date | Ticker | Name | Tenor | (\$mm) | Rating | (%) | (bps) | (bps) | performance | (bps) |
| 2023-09-26 | C | Citibank NA | 5 | 11/4/1906 | Aa3/A+ | 5.803 | 118 | n.a. | -0 | 121 |
| 2023-09-26 | CEG | Constellation Energy Generation LLC | 10 | 5/14/1901 | Baa2/BBB | 6.125 | 158 | 6 | -1 | 157 |
| 2023-09-26 | CEG | Constellation Energy Generation LLC | 30 | 6/18/1902 | Baa2/BBB | 6.5 | 180 | n.a. | -7 | 176 |
| 2023-09-26 | CM | Canadian Imperial Bank of Commerce | 3 | 12/15/1900 | A2/A- | FRN | 122 | n.a. | n.a. | n.a. |
| 2023-09-26 | CM | Canadian Imperial Bank of Commerce | 3 | 4/29/1902 | A2/A- | 5.926 | 110 | 15 | n.a. | 114 |
| 2023-09-26 | CM | Canadian Imperial Bank of Commerce | 5 | 11/30/1901 | A2/A- | 5.986 | 138 | 15 | n.a. | 144 |
| 2023-09-26 | CM | Canadian Imperial Bank of Commerce | 10 | 1/4/1903 | A2/A- | 6.092 | 155 | n.a. | n.a. | 162 |
| 2023-09-26 | EIX | Southern California Edison Co | 5 | 7/3/1901 | Baa1/BBB | 5.65 | 105 | n.a. | -1 | 106 |
| 2023-09-26 | RABOBK | Cooperatieve Rabobank UA/NY | 3 | 10/26/1900 | Aa2/A+ | FRN | SOFR+90 | n.a. | n.a. | n.a. |
| 2023-09-26 | RABOBK | Cooperatieve Rabobank UA/NY | 3 | 11/30/1901 | Aa2/A+ | 5.5 | 77 | n.a. | -2 | 79 |
| 2023-09-27 | GLENLN | Glencore Funding LLC | 5 | 1/19/1902 | Baa1/BBB+ | 6.125 | 155 | 11 | -13 | 157 |
| 2023-09-27 | GLENLN | Glencore Funding LLC | 7 | 1/19/1902 | Baa1/BBB+ | 6.375 | 180 | 1 | n.a. | 181 |
| 2023-09-27 | GLENLN | Glencore Funding LLC | 10 | 9/26/1902 | Baa1/BBB+ | 6.5 | 195 | n.a. | n.a. | 195 |
| 2023-09-27 | GUARDN | Guardian Life Global Funding | 5 | 2/3/1901 | Aa1/AA+ | 5.737 | 105 | n.a. | -3 | 105 |
| 2023-09-27 | NBNAUS | NBN Co Ltd | 5 | 1/19/1902 | Aa3/AA | 5.75 | 108 | n.a. | n.a. | n.a. |
| 2023-09-27 | NBNAUS | NBN Co Ltd | 10 | 5/14/1901 | Aa3/AA | 6 | 143 | n.a. | n.a. | n.a. |
| 2023-09-27 | PPC | Pilgrims Pride Corp | 11 | 5/14/1901 | Ba3/BBB- | 6.875 | 250 | n.a. | n.a. | n.a. |
| 2023-09-27 | WES | Western Midstream Operating LP | 5 | 8/22/1901 | Baa3/BBB- | 6.35 | 170 | -6 | n.a. | n.a. |

Source: BofA Global Research

BofA GLOBAL RESEARCH

New

Quantitative Review

Returns

Performance data include year-to-date sector returns, sector spreads, and a table summarizing a number of sector statistics such as size, performance and rating. At the issuer level, the top 25 names gained 75bps in terms of excess return in August while the bottom 25 large issuers lost 40bps in terms of excess return.

Ratings trends

Net upgrades (upgrades less downgrades, including Fallen Angels) for credits in ICE BofA US IG corporate index COAO rose to +\$40.7bn (net upgrade) in September from +\$32.8bn in August. Net LTM upgrades remained at+9.6% of index notional in September from +9.6% of index notional in August. At the sector level Automobiles and Banks/Brokers contributed the most to the overall index positive rating actions in September (including watch (75% weight) and outlook (25% weight) changes), Retail-Non-Discounters and Telecom contributed the most to positive rating actions.

Fund flows

Net inflows to US IG bond funds and ETFs turned negative to -0.12% of assets in September (based only on funds reporting daily) from +0.30% of assets in August (based on all funds).

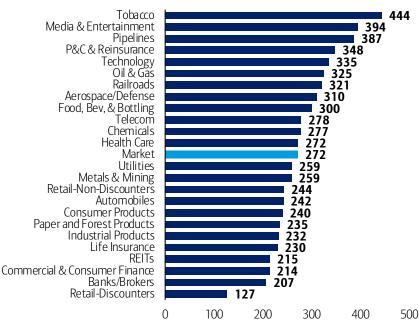


Appendix: Performance Data

Figure 23: High Grade YtD sector excess return

Year-to-date excess return for HG corporate market sectors, through September 30, 2023. Results include hybrid and subordinated securities.

Year 2023 Excess Return (bps)

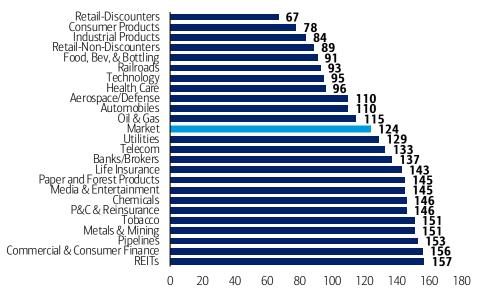


Source: BofA Global Research, ICE Data Indices, LLC

BofA GLOBAL RESEARCH

Figure 24: High grade spreads by sector (bps)

Sector spreads for BofA US IG Corporate Index COAO as of September 30 2023.



Note: Results include subordinated and hybrid securities.

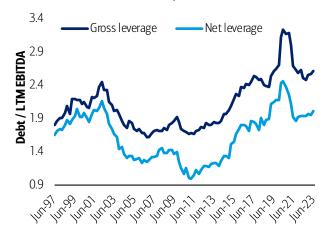
 $\textbf{Source:} \ \ \mathsf{BofA} \ \ \mathsf{Global} \ \ \mathsf{Research,} \ \ \mathsf{ICE} \ \ \mathsf{Data} \ \ \mathsf{Indices,} \ \ \mathsf{LLC}$



Leverage and coverage

Figure 25: Net and gross leverage: ex. Utilities

US IG industrial (ex. financial & utility) leverage ratio was 2.61x on a gross basis and 2.02x on a net basis as of 2Q23



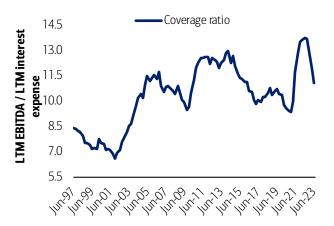
Note: Medians based on the US HG universe (ex. Fins and Utilities). Universe is rebalanced each quarter

Source: Bloomberg, BofA Global Research

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Figure 26: Coverage: ex. Utilities

US IG industrial (ex. financial & utility) coverage ratio was 11.08x as of 2Q23



Note: Medians based on the US HG universe (ex. Fins and Utilities). Universe is rebalanced each quarter.

Source: Bloomberg, BofA Global Research

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Note: High grade market fundamental statistics are all median values for U.S. nonfinancial issuers in our benchmark USD high grade index COAO.

High grade sector historical performance

Figure 27: High Grade Sector Performance as of September 30, 2023

Sector spreads and performance for BofA HG U.S. Corporate Master COAO. Results include subordinated and hybrid securities

| | | | | | | Face | % Mk t | Excess Return (bps) | Spread Change (bps) | Total Return | | | | | | |
|-------------------------------|--------|-----|----------|-------|-------|---------|---------------|---------------------------|---------------------------|-----------------|-----|-----|-----|-----|-----|------|
| Sector | Rating | OAS | Duration | Yield | Price | (\$bn) | Value | MTD | QTD | YTD | YOY | MTD | QTD | YTD | YOY | QTD |
| Aerospace/Defense | BBB2 | 110 | 7.4 | 5.91 | 88.3 | 152.0 | 1.79 | -1 | 75 | 310 | 707 | 3 | -1 | -17 | -58 | -397 |
| Automobiles | BBB1 | 112 | 3.8 | 5.99 | 92.4 | 190.8 | 2.33 | 1 | 49 | 242 | 443 | 6 | -1 | -17 | -43 | -51 |
| Banks/Brokers | A2 | 139 | 4.4 | 6.29 | 90.3 | 1,906.1 | 22.84 | -26 | 48 | 207 | 436 | 10 | 1 | -5 | -31 | -121 |
| Basic Materials | BBB2 | 148 | 6.8 | 6.25 | 88.2 | 344.9 | 4.04 | 28 | 105 | 275 | 701 | 1 | -2 | -13 | -57 | -290 |
| Building Materials | BBB2 | 132 | 6.9 | 6.11 | 85.9 | 25.3 | 0.29 | 25 | 140 | 367 | 678 | 3 | -2 | -27 | -55 | -281 |
| Chemicals | BBB2 | 149 | 7.0 | 6.28 | 86.3 | 132.6 | 1.52 | 33 | 109 | 277 | 614 | 1 | 0 | -7 | -42 | -307 |
| Homebuilders | BBB2 | 139 | 4.6 | 6.18 | 89.8 | 15.3 | 0.18 | -16 | 66 | 355 | 693 | 7 | -1 | -29 | -75 | -109 |
| Metals & Mining | BBB1 | 150 | 7.4 | 6.26 | 89.8 | 125.7 | 1.50 | 31 | 93 | 259 | 843 | -2 | -4 | -18 | -74 | -359 |
| Paper and Forest Products | BBB2 | 149 | 5.4 | 6.27 | 89.9 | 46.0 | 0.55 | 24 | 115 | 235 | 606 | 4 | -5 | -6 | -53 | -133 |
| Commercial Services | A2 | 105 | 8.2 | 5.82 | 83.7 | 109.8 | 1.22 | 51 | 152 | 368 | 618 | -2 | -10 | -24 | -46 | -391 |
| Consumer Products | A2 | 78 | 6.2 | 5.55 | 88.7 | 73.1 | 0.86 | -7 | 69 | 240 | 454 | 4 | -8 | -18 | -39 | -264 |
| Energy | А3 | 133 | 7.2 | 6.14 | 88.1 | 714.5 | 8.36 | 56 | 160 | 351 | 676 | -3 | -12 | -19 | -47 | -278 |
| Oil & Gas | А3 | 117 | 7.4 | 5.96 | 87.1 | 410.2 | 4.75 | 55 | 153 | 325 | 635 | -3 | -11 | -17 | -42 | -305 |
| Pipelines | BBB1 | 156 | 6.9 | 6.38 | 89.5 | 304.4 | 3.62 | 57 | 169 | 387 | 733 | -1 | -11 | -22 | -53 | -243 |
| Finance | А3 | 137 | 5.0 | 6.22 | 88.7 | 445.1 | 5.24 | 9 | 105 | 242 | 457 | 3 | -9 | -13 | -37 | -123 |
| Commercial & Consumer Finance | BBB1 | 156 | 3.7 | 6.45 | 91.5 | 161.7 | 1.97 | 0 | 83 | 214 | 412 | 3 | -11 | -11 | -40 | -13 |
| Finance-Other Services | А3 | 125 | 5.8 | 6.08 | 87.1 | 283.3 | 3.27 | 14 | 117 | 257 | 483 | 2 | -9 | -14 | -35 | -187 |
| Food, Bev, & Bottling | A3 | 94 | 7.6 | 5.72 | 87.1 | 314.6 | 3.64 | 19 | 100 | 300 | 639 | 3 | -3 | -19 | -48 | -371 |
| Health Care | А3 | 97 | 8.0 | 5.77 | 86.0 | 842.7 | 9.62 | 30 | 123 | 272 | 580 | 0 | -7 | -14 | -40 | -402 |
| Industrial Products | А3 | 85 | 5.8 | 5.67 | 88.9 | 213.9 | 2.52 | 12 | 73 | 232 | 444 | 2 | -3 | -12 | -34 | -237 |
| Insurance | A2 | 145 | 6.7 | 6.28 | 87.0 | 371.2 | 4.29 | 35 | 167 | 272 | 496 | -1 | -16 | -10 | -27 | -228 |
| Insurance-Other | BBB1 | 141 | 7.8 | 6.15 | 86.0 | 36.8 | 0.42 | 30 | 170 | 329 | 605 | 1 | -13 | -14 | -38 | -297 |
| Life Insurance | A2 | 143 | 6.0 | 6.29 | 87.7 | 233.1 | 2.72 | 27 | 148 | 230 | 428 | -1 | -16 | -9 | -24 | -175 |
| Multi-Line Insurance | BBB1 | 159 | 8.1 | 6.44 | 88.2 | 24.4 | 0.29 | 54 | 254 | 343 | 642 | 4 | -16 | -5 | -21 | -288 |
| P&C & Reinsurance | А3 | 147 | 8.2 | 6.25 | 85.0 | 76.9 | 0.87 | 54 | 196 | 348 | 605 | -2 | -16 | -14 | -36 | -340 |



Figure 27: High Grade Sector Performance as of September 30, 2023

Sector spreads and performance for BofA HG U.S. Corporate Master COAO. Results include subordinated and hybrid securities

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|------------------------------|------|-----|-----------|---------|-------|--------------|--------|----|-----|-----|-------|----|-----|-----|------|------|
| Leisure | BBB2 | 145 | 3.9 | 6.25 | 91.6 | 30.6 | 0.37 | 7 | 51 | 317 | 745 | -3 | -9 | -48 | -113 | -58 |
| Media & Entertainment | BBB1 | 146 | 8.2 | 6.24 | 82.1 | 334.2 | 3.65 | 6 | 109 | 394 | 750 | 3 | -4 | -24 | -57 | -426 |
| Media-Cable | BBB1 | 151 | 9.0 | 6.29 | 80.8 | 154.4 | 1.66 | 17 | 147 | 369 | 782 | 1 | -8 | -17 | -55 | -471 |
| Media-Diversified | BBB1 | 142 | 7.5 | 6.19 | 83.3 | 179.9 | 1.99 | -2 | 77 | 417 | 724 | 4 | -1 | -30 | -58 | -388 |
| Real Estate Dev & Mgt | A3 | 167 | 5.5 | 6.34 | 86.7 | 8.0 | 0.09 | 0 | 112 | 259 | 302 | 1 | -14 | -11 | -5 | -148 |
| REITs | BBB1 | 157 | 5.4 | 6.32 | 85.6 | 283.5 | 3.22 | 7 | 128 | 214 | 429 | 2 | -17 | -11 | -38 | -120 |
| Retail | A2 | 90 | 7.5 | 5.69 | 85.4 | 320.7 | 3.64 | 4 | 79 | 218 | 523 | 3 | -2 | -9 | -37 | -388 |
| Food & Drug Retailers | BBB2 | 144 | 7.1 | 6.26 | 83.3 | 28.9 | 0.32 | -8 | 68 | 187 | 459 | 7 | 5 | 3 | -19 | -372 |
| Retail-Discounters | A1 | 68 | 7.2 | 5.46 | 89.1 | 56.0 | 0.66 | -9 | 38 | 127 | 340 | 4 | 3 | 0 | -21 | -393 |
| Retail-Non-Discounters | A3 | 89 | 7.6 | 5.68 | 84.7 | 235.9 | 2.65 | 8 | 90 | 244 | 577 | 2 | -4 | -12 | -43 | -389 |
| Technology | A2 | 96 | 7.3 | 5.75 | 85.4 | 560.4 | 6.35 | 20 | 111 | 335 | 673 | 2 | -4 | -18 | -47 | -343 |
| Telecom | BBB2 | 134 | 8.1 | 6.10 | 83.0 | 335.6 | 3.70 | 36 | 56 | 279 | 658 | 0 | -1 | -15 | -50 | -473 |
| Tobacco | BBB1 | 152 | 6.7 | 6.32 | 87.7 | 88.5 | 1.03 | 41 | 168 | 444 | 1,015 | 0 | -5 | -31 | -90 | -208 |
| Transportation | BBB1 | 115 | 8.5 | 5.97 | 85.4 | 194.1 | 2.20 | 48 | 168 | 323 | 721 | -1 | -9 | -21 | -53 | -400 |
| Railroads | A3 | 94 | 10.4 | 5.74 | 82.2 | 111.0 | 1.21 | 58 | 209 | 321 | 753 | -3 | -13 | -17 | -49 | -543 |
| Transportation-Other | BBB2 | 142 | 6.2 | 6.26 | 89.7 | 83.1 | 0.99 | 35 | 115 | 322 | 675 | 2 | -2 | -25 | -59 | -223 |
| Utilities | A3 | 130 | 8.0 | 6.09 | 85.5 | 794.2 | 9.01 | 56 | 164 | 260 | 606 | -3 | -13 | -14 | -45 | -349 |
| Market | A3 | 125 | 6.5 | 6.07 | 87.3 | 8,628.5 | 100.00 | 16 | 104 | 272 | 567 | 3 | -5 | -13 | -42 | -270 |
| | | | | | | | | | | | | | | | | |

Source: ICE Data Indices, LLC, BofA Global Research

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Figure 28: Summary of fallen angels, September 2023

Number of IG issuers downgraded to HY in September 2023: 3.

| Ticker | Rating | N Bonds | Par, \$mn | Avg. Price | Avg. Yield | Avg. OAS |
|--------|--------|---------|-----------|---------------|---------------|-------------|
| BDN | BB1 | 4 | 1,500 | 87.29 | 8.88 | 399 |
| PONEIV | BB1 | 1 | 300 | 82.79 | 8.91 | 431 |
| Total | | 5 | 1,800 | 86.56 | 8.89 | 404 |

Source: BofA Global Research, ICE Data Indices, LLC

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Figure 29: Summary of rising stars, September 2023

Number of HY issuers upgraded to IG in September 2023: 1.

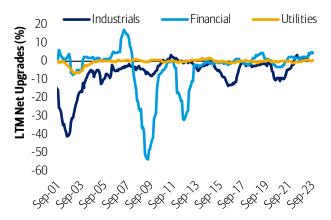
| Ticker | Rating | N Bonds | Par, \$mn | Avg. Price | Yield | Avg. OAS |
|--------|--------|---------|-----------|---------------|-------|----------|
| PTEN | BBB3 | 2 | 827 | 90.37 | 6.79 | 212 |
| Total | | 2 | 827 | 90.37 | 6.79 | 212 |

Source: BofA Global Research, ICE Data Indices, LLC

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Figure 30: Net LTM upgrades and rising stars as percent of HG index notional.

LTM net downgrades as shares of index notional increased across sectors in September



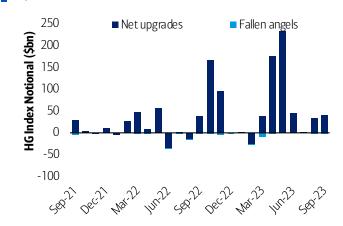
Note: Net upgrades equal to the total notional upgraded each month less the total notional that was downgraded. Rising stars are credit that migrated from HY Master (H0A0) to HG Master (C0A0) during the month.

Source: BofA Global Research, ICE Data Indices, LLC

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Figure 31: HG Index upgrade and fallen angel volumes.

Net upgrades for credits in the US IG corporate Index totaled \$40.7bn in September.



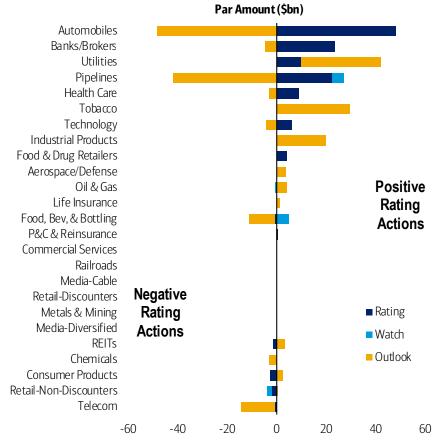
Note: Net upgrades equal to the total notional upgraded each month less the total notional that was downgraded. Fallen angels are credit that migrated from HG Master (COAO) to HY Master (HOAO) during the month.

Source: BofA Global Research, ICE Data Indices, LLC



Figure 32: September 2023 rating actions by sector, percent of HG index market value

Data include rating action by any of the three agencies (Moody's, S&P, Fitch).

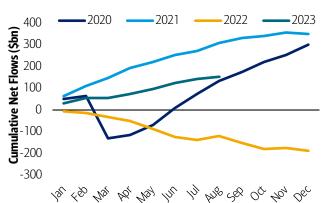


Source: BofA Global Research, ICE Data Indices, LLC

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Figure 33: LTM mutual fund net flows in HG credit funds

 $Cumulative\ outflows\ YtD\ have\ been\ the\ largest\ since\ 2021.$

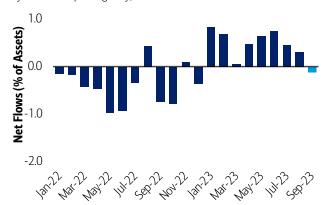


Note: Weekly-only mutual fund flows for the latest month, all-funds flows for earlier months. **Source**: BofA Global Research, EPFR

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Figure 34: Monthly HG fund and ETF flows

Net inflows to US IG bond funds and ETFs = 0.30% of assets in August (based only on funds reporting daily)



Note: Weekly-only mutual fund flows for the latest month, all-funds flows for earlier months. **Source:** BofA Global Research, EPFR



Figure 35: Monthly top and bottom performers

Top and bottom excess-retum performers in BofA HG Master Index (COAO). Results include hybrids and subordinated securities

| | | Top 25 Cred | dits | | | | Во | ttom 25 C | redits | | |
|-----|-----------------------------------|-------------|----------------------|---------|--------|-----|----------------------------------|-----------|----------------------|---------|--------|
| Rnk | Name | Ticker | Excess Return | OAS Chg | Weight | Rnk | Name | Ticker | Excess Return | OAS Chg | Weight |
| 1 | Enterprise Products Partners LP | EPD | 165 | -12 | 0.31 | 1 | US Bancorp | USB | -78 | 18 | 0.34 |
| 2 | PG&E Corp | PCG | 123 | -11 | 0.38 | 2 | Bank of America | BAC | -59 | 13 | 2.13 |
| 3 | MidAmerican Energy Company | BRKHEC | 114 | -8 | 0.42 | 3 | UBS AG | UBS | -59 | 16 | 0.72 |
| 4 | Altria Group | MO | 113 | -8 | 0.22 | 4 | PNC Financial Services Group | PNC | -56 | 13 | 0.32 |
| 5 | #N/A | OKE | 108 | -10 | 0.22 | 5 | Enbridge Inc | ENBCN | -56 | 14 | 0.24 |
| 6 | Energy Transfer LP | ET | 81 | -6 | 0.38 | 6 | Capital One Financial | COF | -53 | 17 | 0.32 |
| 7 | AT&T Corp | T | 77 | -3 | 0.93 | 7 | The Charles Schwab Corporation | SCHW | -50 | 13 | 0.24 |
| 8 | Saudi Arabian Oil Co | ARAMCO | 74 | -4 | 0.23 | 8 | Citigroup | C | -46 | 12 | 1.25 |
| 9 | Shell International Finance BV | RDSALN | 72 | -6 | 0.34 | 9 | Deutsche Bank AG | DB | -46 | 11 | 0.27 |
| 10 | Consolidated Edison | ED | 67 | -5 | 0.21 | 10 | Truist Bank | TFC | -44 | 11 | 0.32 |
| 11 | Exxon Mobil Corp. | XOM | 66 | -2 | 0.32 | 11 | JP Morgan Chase | JPM | -42 | 12 | 1.89 |
| 12 | Dell Inc | DELL | 65 | -7 | 0.20 | 12 | Morgan Stanley | MS | -39 | 10 | 1.49 |
| 13 | Gilead Sciences, Inc. | GILD | 63 | -3 | 0.23 | 13 | Warner Bros. Discovery, Inc. | WBD | -33 | 10 | 0.46 |
| 14 | Exelon Corp | EXC | 62 | -4 | 0.38 | 14 | Raytheon Technologies Corp | RTX | -32 | 7 | 0.35 |
| 15 | Xcel Energy | XEL | 61 | -4 | 0.25 | 15 | Banco Santander SA | SANTAN | -28 | 10 | 0.29 |
| 16 | Intel Corporation | INTC | 61 | -3 | 0.53 | 16 | Lloyds Banking Group plc | LLOYDS | -28 | 9 | 0.31 |
| 17 | Burlington Northern Santa Fe, LLC | BNSF | 60 | -4 | 0.24 | 17 | Societe Generale | SOCGEN | -28 | 9 | 0.33 |
| 18 | Duke | DUK | 60 | -4 | 0.63 | 18 | BNP Paribas | BNP | -26 | 4 | 0.40 |
| 19 | Kinder Morgan | KMI | 59 | -3 | 0.32 | 19 | Goldman Sachs Group | GS | -26 | 8 | 1.22 |
| 20 | Metlife | MET | 58 | -6 | 0.36 | 20 | Walt Disney Co | DIS | -25 | 5 | 0.43 |
| 21 | Dominion Resources | D | 57 | -5 | 0.38 | 21 | Barclays PLC | BACR | -25 | 8 | 0.51 |
| 22 | BAT Capital Corp | BATSLN | 57 | -2 | 0.40 | 22 | Bank of Nova Scotia | BNS | -24 | 10 | 0.28 |
| 23 | Meta Platforms, Inc. | META | 56 | -4 | 0.22 | 23 | Wells Fargo | WFC | -22 | 8 | 1.40 |
| 24 | Entergy Corp | ETR | 55 | -4 | 0.23 | 24 | T-Mobile USA Inc | TMUS | -22 | 8 | 0.65 |
| 25 | Charter Communications Inc | CHTR | 53 | -1 | 0.45 | 25 | Philip Morris International Inc. | PM | -19 | 7 | 0.33 |
| | Average (Market Weighted) | | 75 | -5 | 8.79 | | Average (Market Weighted) | | -40 | 11 | 16.47 |

Source: ICE Data Indices, LLC, BofA Global Research



Daily credit snapshot

US IG issuance totaled \$5.5bn across 5 deals today, \$5.5bn WTD and \$5.5bn MTD. The average new issue concession was 4.6bps today, while the average break performance was 2.7bps tighter today. This week's new issues are trading 3.0bps tighter on average from pricing.

S&P 500 closed +0.01%, 10-year Treasury yields +11bps, CDX IG +0.8bps, CDX HY - \$0.23pts, and cash bond spreads quoted + 1-3bp today, LQD closed 0.70bps tighter today.

Figure 36: Recent new issue pricing and new issue concessions

List of new issues in the IG corporate bond market today along with performance metrics.

| Date | Ticker | Name | Tenor | Size (\$mm) | Moody's/S&P Rating | Coupon (%) | Px Spread (bps) | New Issue Conc. (bps) | * Break performance | spread (bps) |
|------------|--------|---------------------------------|-------|----------------|-----------------------|---------------|--------------------|--------------------------|------------------------|-----------------|
| 2023-10-02 | ACGCAP | Aviation Capital Group LLC | 5 | 500 | Baa2/BBB- | 6.75 | 225 | -4 | -6 | 219 |
| 2023-10-02 | DGELN | Diageo Capital PLC | 3 | 800 | A3/A- | 5.375 | 60 | 9 | -1 | 59 |
| 2023-10-02 | DGELN | Diageo Capital PLC | 10 | 900 | A3/A- | 5.625 | 100 | 4 | -5 | 95 |
| 2023-10-02 | HNDA | American Honda Finance Corp | 2 | 950 | A3/A- | 5.8 | 75 | n.a. | -7 | 68 |
| 2023-10-02 | HNDA | American Honda Finance Corp | 2 | 300 | A3/A- | 6.13383 | n.a. | n.a. | n.a. | n.a. |
| 2023-10-02 | HNDA | American Honda Finance Corp | 7 | 500 | A3/A- | 5.85 | 115 | 8 | -1 | 114 |
| 2023-10-02 | KIM | Kimco Realty OP LLC | 10 | 500 | Baa1/BBB+ | 6.4 | 178 | n.a. | n.a. | n.a. |
| | | Public Service Enterprise Group | | | | | | | Ο | |
| 2023-10-02 | PEG | Inc | 5 | 600 | Baa2/BBB | 5.875 | 120 | 6 | O | 120 |
| | | Public Service Enterprise Group | | | | | | | 1 | |
| 2023-10-02 | PEG | Inc | 10 | 400 | Baa2/BBB | 6.125 | 150 | n.a. | 1 | 151 |

Note: We calculate new issue concessions by estimating the difference between new issue bond spread and interpolated G spread from comparable liquid secondary bonds of the same issuer prior to the new issue deal announcement, adjusted for the spread impact of dollar prices deviating from par. Break performance is computed as the difference between new issue pricing and secondary dosing spread on the first day of trading.

Source: BofA Global Research, Bloomberg

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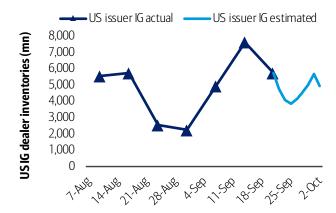
Daily dealer inventories update

Below we estimate dealer inventories for the IG corporate bonds based on TRACE data. The actual inventories of US issuer bonds based on NY Fed survey, as well as the estimated change since the latest Fed report are plotted in Figure 37 and Figure 38. We estimate the corresponding DV01 equivalent in Figure 38. More details by sector and maturity are available in Figure 39 and Figure 40. Finally, note that the data for the current date is through about 4:40 p.m. Eastern Standard Time.



Figure 37: Estimated dealer inventories of IG corporate bonds.

We estimate IG dealer inventories of US issuer bonds declined to \$5.0bn currently from \$5.7bn on Sep-20.



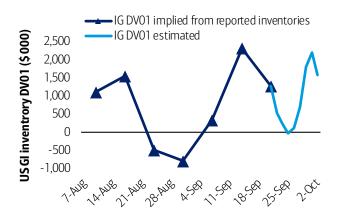
Note: data for US issuer bonds only, maturities 13M or longer. Actual dealer inventory data is from Primary Dealer Statistics survey by the NY Fed. The subsequent change in inventory is estimated based on TRACE.

Source: BofA Global Research, FINRA, TRACE, Federal Reserve

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Figure 38: Estimated dealer inventory DV01 for IG corporate bonds.

We estimate IG dealer inventory DV01 of $\overline{\text{US}}$ issuer bonds increased to \$1.6mn currently from \$1.3bn on Sep-20.



Note: data for US issuer bonds only, maturities 13M or longer. Actual dealer inventory data is from Primary Dealer Statistics survey by the NY Fed. The subsequent change in inventory is estimated based on TRACE.

Source: BofA Global Research, FINRA, TRACE, Federal Reserve

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Figure 39: Estimated changes in IG dealer inventories by maturity and broad sector.

We estimate IG dealer inventories declined -\$863mn today and increased \$2,816mn over the prior week.

| Net dealer buy (\$mn) | | | | | | Net | dealer DV | 01 chang | e (\$thous | Trading volumes on 2-Oct-23 (\$mn) | | | | | |
|-----------------------|-------|--------|-------|--------|--------|-------|-----------|----------|------------|------------------------------------|-------|-------|--------|--------|--|
| Sector | 2-0ct | 29-Sep | 1 W | 2 W | 4 W | 2-0ct | 29-Sep | 1 W | 2 W | 4 W | Buy | Sell | Dealer | Total | |
| High grade (13M+) | -863 | 1,654 | 2,816 | 285 | 4,957 | -666 | 803 | 2,441 | 1,144 | 3,655 | 6,830 | 7,693 | 5,883 | 20,405 | |
| <3yr | -97 | 576 | 394 | -1,513 | -1,093 | -28 | 74 | 12 | -342 | -243 | 1,226 | 1,322 | 1,162 | 3,710 | |
| 3-5yr | -100 | 76 | 32 | 192 | 1,495 | -20 | 38 | 47 | 82 | 580 | 1,279 | 1,379 | 999 | 3,658 | |
| 5-11yr | -85 | 612 | 312 | 619 | 3,402 | -15 | 352 | 198 | 350 | 2,005 | 2,351 | 2,436 | 1,786 | 6,573 | |
| 11+yr | -582 | 390 | 2,077 | 987 | 1,153 | -604 | 339 | 2,184 | 1,055 | 1,313 | 1,974 | 2,555 | 1,936 | 6,464 | |
| Fin | -410 | 1,173 | 1,568 | 1,047 | 2,373 | -162 | 393 | 578 | 439 | 1,287 | 2,576 | 2,986 | 1,854 | 7,417 | |
| Non-Fin | -453 | 481 | 1,248 | -762 | 2,584 | -504 | 409 | 1,862 | 705 | 2,368 | 4,253 | 4,707 | 4,028 | 12,988 | |
| Fixed | -858 | 1,692 | 2,609 | 100 | 4,664 | -644 | 808 | 2,436 | 1,186 | 3,579 | 6,746 | 7,604 | 5,839 | 20,188 | |
| Floating | -5 | -38 | 207 | 185 | 293 | -22 | -5 | 4 | -42 | 76 | 84 | 89 | 44 | 217 | |
| US issuers | -735 | 678 | 1,117 | -902 | 2,250 | -607 | 388 | 1,624 | 319 | 2,042 | 5,373 | 6,109 | 4,871 | 16,353 | |
| DM Yankees | -173 | 926 | 1,409 | 823 | 1,909 | -87 | 391 | 718 | 638 | 1,212 | 1,216 | 1,389 | 944 | 3,550 | |
| EM Yankees | 45 | 50 | 289 | 364 | 798 | 28 | 24 | 99 | 187 | 401 | 240 | 195 | 68 | 503 | |

Note: data for maturities 13M or longer. Changes in inventories are estimated based on TRACE.

Source: BofA Global Research, FINRA, TRACE.

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Figure 40: Estimated changes in IG dealer inventories by sector.

We estimate today IG dealer inventories declined -\$367mn for Banks/Brokers and increased \$45mn for Energy.

| | | Net de | aler buy | (\$mn) | | Net | dealer DV | 01 chang | e (\$thou | sand) | Trading | volumes | s on 2-Oct- | 23 (\$mn) |
|-----------------------|-------|--------|----------|--------|-------|-------|-----------|----------|-----------|-------|---------|---------|-------------|-----------|
| Sector | 2-0ct | 29-Sep | 1 W | 2 W | 4 W | 2-0ct | 29-Sep | 1 W | 2 W | 4 W | Buy | Sell | Dealer | Total |
| Aerospace/Defense | -40 | -10 | 46 | 48 | 51 | -40 | -1 | 133 | 190 | 204 | 153 | 194 | 137 | 484 |
| Automobiles | 27 | -30 | -30 | -267 | 258 | 9 | -14 | 2 | -69 | 75 | 146 | 119 | 129 | 394 |
| Banks/Brokers | -367 | 1,000 | 1,463 | 888 | 1,532 | -145 | 307 | 459 | 322 | 695 | 1,704 | 2,070 | 1,113 | 4,887 |
| Basic Materials | -18 | 60 | -40 | -30 | 231 | -41 | 37 | -42 | -68 | 166 | 242 | 260 | 191 | 692 |
| Commercial Services | 9 | 25 | 145 | 92 | 270 | 14 | 20 | 128 | 88 | 185 | 138 | 128 | 49 | 315 |
| Energy | 45 | 58 | 135 | -28 | -208 | 54 | 17 | 103 | 75 | -305 | 574 | 529 | 452 | 1,556 |
| Finance | 57 | 60 | 191 | 127 | 288 | 30 | 28 | 230 | 216 | 428 | 447 | 390 | 403 | 1,241 |
| Food, Bev, & Bottling | -90 | 5 | -59 | -214 | -64 | -87 | -8 | -18 | -62 | 20 | 214 | 305 | 219 | 738 |
| Health Care | -248 | 170 | 47 | -572 | 18 | -235 | 122 | 154 | -293 | 175 | 623 | 871 | 756 | 2,250 |
| Industrial Products | -2 | 72 | 3 | -148 | 267 | 7 | 51 | -3 | -42 | 286 | 145 | 146 | 183 | 474 |
| Insurance | -86 | 67 | -207 | -144 | 201 | -50 | 43 | -179 | -186 | 65 | 199 | 285 | 184 | 667 |
| Media & Entertainment | -16 | -36 | 140 | 182 | 347 | -23 | -6 | 187 | 280 | 253 | 287 | 303 | 320 | 910 |
| REITs | -14 | 47 | 120 | 176 | 352 | 3 | 15 | 68 | 87 | 98 | 226 | 241 | 155 | 623 |
| Retail | -108 | -28 | 35 | 115 | 233 | -65 | 25 | 187 | 292 | 255 | 225 | 333 | 300 | 858 |
| Technology | -1 | 137 | 87 | -146 | -201 | -36 | 136 | 244 | 41 | -44 | 448 | 448 | 438 | 1,334 |



Figure 40: Estimated changes in IG dealer inventories by sector.

We estimate today IG dealer inventories declined -\$367mn for Banks/Brokers and increased \$45mn for Energy.

| | | Net de | aler buy | (\$mn) | | Net | dealer DV | 01 chang | ge (\$thou | Trading volumes on 2-Oct-23 (\$mn) | | | | |
|----------------|-------|--------|----------|--------|-----|-------|-----------|----------|------------|------------------------------------|-----|------|--------|-------|
| Sector | 2-0ct | 29-Sep | 1 W | 2 W | 4 W | 2-0ct | 29-Sep | 1 W | 2 W | 4 W | Buy | Sell | Dealer | Total |
| Telecom | -49 | 8 | 203 | -77 | 142 | -54 | 24 | 197 | -79 | -61 | 271 | 320 | 204 | 796 |
| Tobacco | 16 | -27 | 28 | -26 | 0 | 9 | -7 | 98 | 64 | 27 | 61 | 45 | 85 | 192 |
| Transportation | -40 | 39 | 29 | 121 | 61 | -35 | 34 | 21 | 125 | 164 | 100 | 140 | 128 | 368 |
| Utilities | 4 | 33 | 468 | 208 | 829 | 1 | -10 | 454 | 179 | 777 | 501 | 497 | 346 | 1,344 |
| Other | 56 | 4 | 11 | -21 | 351 | 19 | -10 | 15 | -16 | 190 | 124 | 68 | 91 | 283 |

Note: data for maturities 13M or longer. Changes in inventories are estimated based on TRACE.

Source: BofA Global Research, FINRA, TRACE.

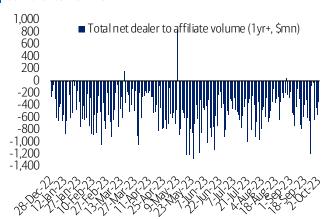
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Daily foreign demand tracker

We believe net dealer-to-affiliate volumes from Trace are correlated with foreign buying of US HG corporate bonds - i.e., negative numbers mean foreign investor buying (US dealers taking down inventory in favor of foreign affiliates). For supporting material see our "primer" on tracking foreign inflows (See: Credit Market Strategist: One year round-trip in spreads 15 July 2016). Figure 41 shows the overall daily dealer-to-affiliate volumes while Figure 42, Figure 43 and Figure 44 show subsets of this data. In particular Figure 42 shows net dealer-to-affiliate volumes for longer maturity (12+ years) bonds, Figure 43 displays volumes reported to Trace before 8am NY time (biased toward Asian buying) and Figure 44 shows the subset of net trades reported between 8am and noon (biased toward European buying).

Figure 41: Net dealer buying from affiliate (1yr+)

Figure shows inconsistent overall foreign buying of US IG corporate bonds for some time.



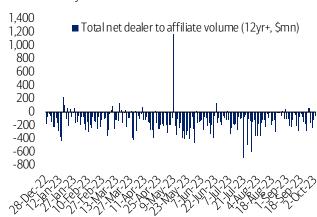
Note: Net dealer-to-affiliate volumes are correlated with foreign buying/selling. Negative numbers indicate foreign buying.

Source: Bloomberg, TRACE

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Figure 42: Net dealer buying from affiliate (12yr+)

Foreign buying of longer maturity US IG corporate bonds has been consistent this year



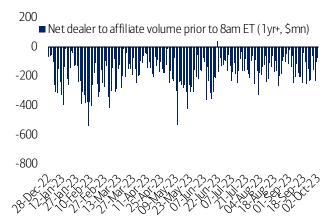
Note: Net dealer-to-affiliate volumes are correlated with foreign buying/selling. Negative numbers indicate foreign buying.

Source: Bloomberg, TRACE



Figure 43: Net dealer-to-affiliate trading volumes before 8am ET Foreign buying before 8am NY time is dominated by Asia and has been

Foreign buying before 8am NY time is dominated by Asia and has been consistent this year



Note: Morning share of daily trading volume is correlated with secondary market activity of foreign investors due to different time zones.

Source: BofA Global Research, TRACE

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Common abbreviations:

IG: Investment Grade

HG: High Grade

LQD: iShares iBoxx \$ Investment Grade Corporate Bond ETF

DV01: Dollar value of a basis point

CDX IG: The Markit CDX North America Investment Grade Index

CDX HY: Markit CDX North America High Yield Index

ECB: European Central Bank

QE: Quantitative Easing

CSPP: corporate sector purchase programme

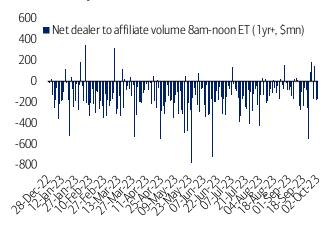
Unched: Unchanged

CPI: Consumer Price Index

FOMC: The Federal Open Market Committee

Figure 44: Net dealer-to-affiliate trading volumes 8am - noon ET

Foreign buying 8am-noon NY time is dominated by Europe and has been inconsistent this year



Note: Morning share of daily trading volume is correlated with secondary market activity of foreign investors due to different time zones.

Source: BofA Global Research, TRACE



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