GLOBAL CREDIT TRADER

Introducing our Loan and CLO Issuance Forecasts

Amanda Lynam, CPA
+1(212)934-1895 |
amanda.lynam@gs.com
Goldman Sachs & Co. LLC

Spencer Rogers, CFA
+1(801)884-1104 |
spencer.rogers@gs.com
Goldman Sachs & Co. LLC

Sara Grut
+44(20)7774-8622 | sara.grut@gs.com
Goldman Sachs International

Shamshad Ali
+1(212)902-6712 |
shamshad.ali@gs.com
Goldman Sachs & Co. LLC

- The rise in global bond yields has renewed investors' focus on the downside risks for credit. For leveraged finance, we view the *drivers* of rate increases as more important than the absolute levels, as higher rates reflecting resilient growth are more easily digested by fundamentals and valuations.
- The key risk, in our view, is if higher rates become increasingly unfriendly and weigh on credit spreads—negating the technical tailwind for yield-based demand, which has kept spreads anchored for the past few years. But if higher real yields reflect a stronger growth outlook, we expect less of a headwind, especially if rates volatility is not outsized and supports yield-based buyers' confidence to deploy capital. This underscores our view that allocations to credit should be driven by income and yield considerations, not for a potential total return 'boost' from lower rates (or tighter spreads).
- Separately, we are introducing top-down forecasts for 2027 gross and net supply in the USD and EUR leveraged loan markets, as well as for gross collateralized loan obligation (CLO) issuance.
- **USD leveraged loans and CLOs:** We expect 2027 gross USD leveraged loan supply to increase to $500 billion (vs. $400 billion for 2026E). While higher base rates are a headwind, we anticipate AI-related financing for chips/compute will support supply—alongside incremental sponsor-backed activity. We forecast $75 billion in net issuance for 2027 (vs. $50 billion for 2026E), which would be higher if not for the steep maturity wall. We expect $360 billion of USD CLO supply (including resets and refinancing) in 2027 (vs. $405 billion for 2026E), reflecting our view that we are likely past peak refinancing/reset activity.
- **EUR leveraged loans and CLOs:** Higher base rates and a more sluggish fundamental outlook imply a slowdown in gross issuance next year, to €65 billion (vs. €75 billion for 2026E). For net issuance, we expect €20 billion (vs. €25 billion for 2026E). While we view AI-related issuance as a tailwind to USD loan supply, we think the EUR loan market is a less likely participant until there are signs of accelerating activity in the EUR IG and HY markets. We forecast a similar path for EUR CLO supply to the USD CLO market, and call for €125 billion in 2027 (vs. €130 billion for 2026E).

Investors should consider this report as only a single factor in making their investment decision. For Reg AC certification and other important disclosures, see the Disclosure Appendix, or go to www.gs.com/research/hedge.html.

Introducing our Loan and CLO Issuance Forecasts

The rise in global bond yields and recent central bank rate hikes have renewed credit investors' focus on the interest rates backdrop—specifically on the potential downside risks for fundamentals, flows and performance.

Earlier this week, we outlined our expectation for the recent pattern of fundamental credit metric improvement in the leveraged finance universe to stall somewhat, as floating rate borrowers absorb higher debt service costs. But we emphasized that the *drivers* of any rate increases are far more important than the absolute levels. Higher rates reflecting resilient growth are more easily digested by credit fundamentals.

The importance of the growth backdrop also extends to fixed rate corporate credit—especially the HY universe, which is more economically sensitive relative to its IG peer. The key risk, in our view, is if higher rates (or rates volatility) become increasingly unfriendly and weigh on credit spreads—negating the technical tailwind for yield-based demand, which has kept spreads anchored for much of the past few years.

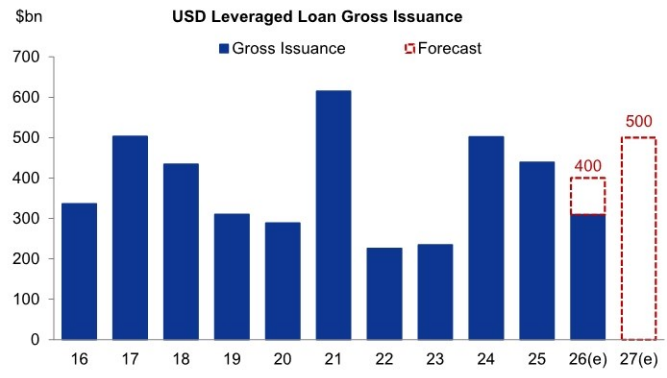
As we have noted in prior research, rate selloffs driven entirely by real yields are typically credit negative. That said, if higher real yields reflect a stronger growth outlook (instead of factors like increased term premium), that backdrop may pose less of a headwind for credit spreads, especially if volatility remains relatively contained and supports yield-based buyers' confidence to deploy. Notably, outside of the post-pandemic economic reopening, yesterday's S&P PMIs recorded the largest improvement in business activity since early 2015 (although a nominal bias to the data could be driving some of this strength).

This underscores our existing view that investors allocating to credit should do so for the income and yield considerations and not for a potential total return 'boost' from lower rates (or tighter spreads).

USD leveraged loans: Growing drivers of supply

In leveraged finance, we are introducing top-down forecasts for gross and net supply in the USD and EUR leveraged loan markets, as well as for collateralized loan obligation (CLO) creation. We forecast an incremental $100 billion in gross USD loan supply through the end of the year, taking the full year 2026 figure to $400 billion. This is below 2025 and 2024, but in line with the post-COVID average (Exhibit 1). For 2027, we expect supply to increase to $500 billion. While higher-for-longer base rates are a headwind to issuance based on our macro model, we anticipate the strong need for AI-related financing, especially for chips/compute, will provide a secular push to USD loan market supply in addition to any incremental sponsor-backed activity.

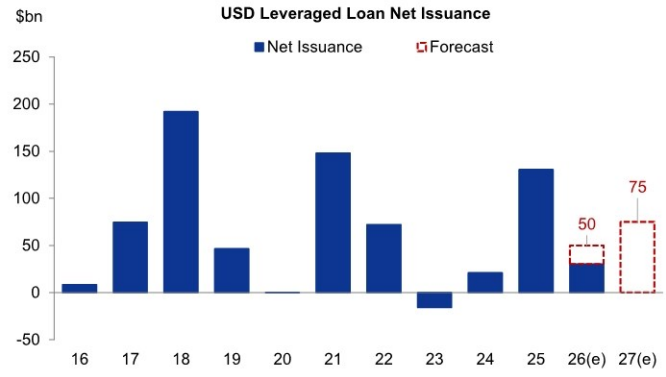
Exhibit 1: We forecast $400 billion and $500 billion in gross USD leveraged loan supply in 2026 and 2027, respectively



Source: Pitchbook LCD, Goldman Sachs Global Investment Research

On a net basis, measured as the change in the outstanding balance of the Morningstar LSTA US Leveraged Loan Index, we forecast $20 billion of incremental supply through year-end resulting in $50 billion for full-year 2026 (Exhibit 2). We raise that to $75 billion in 2027, which reflects the impulse from new sources of debt, primarily AI-related, vs. elevated refinancing volumes as the maturity wall for the loan market steepens into 2028.

Exhibit 2: We forecast $50 billion and $75 billion in USD leveraged loan net supply for 2026 and 2027, respectively

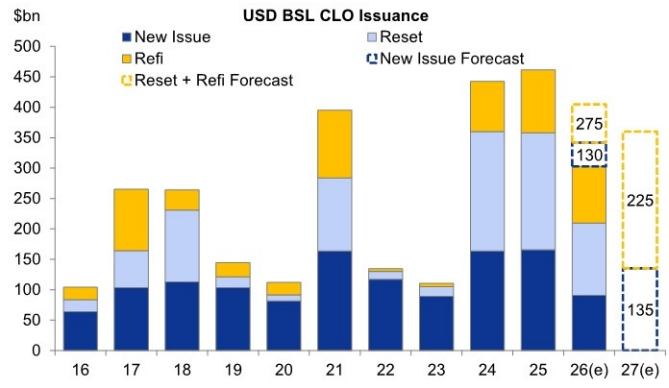


Source: Pitchbook LCD, Goldman Sachs Global Investment Research

USD CLOs: Past peak reset and refinancing volumes

We forecast USD BSL CLO issuance separately for (1) new issue creation and (2) for resets and refinancings. On new issue, we look for roughly $40 billion of incremental creation through the end of 2026, taking our full-year estimate to $130 billion, followed by a modest rise to $135 billion in 2027 (Exhibit 3). This reflects our call for more loan issuance, moderated slightly by continued tight conditions for new CLO creation. For resets and refinancings, we forecast an incremental $63 billion through year-end, or $275 billion for the full year, slowing to $225 billion in 2027 as the pool of reset and refi-eligible deals shrinks from still-elevated levels (again, Exhibit 3).

Exhibit 3: We forecast a slight rise in new issue CLOs – but a decline in reset and refinancing – from 2026 to 2027



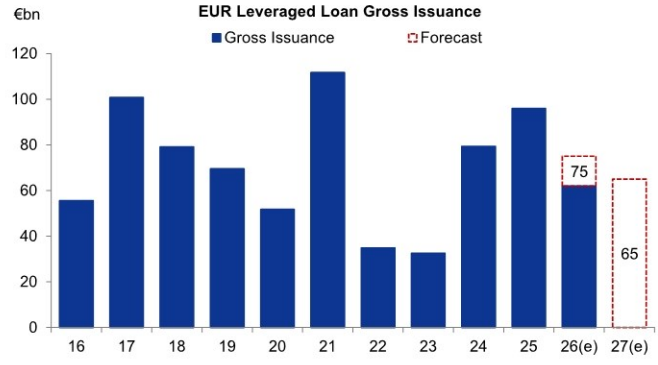
Note: For 2026, the $130bn and $275bn shown within the incremental issuance placeholders correspond to the full-year supply forecasts for new issue and reset/refis, respectively.

Source: Pitchbook LCD, Goldman Sachs Global Investment Research

EUR leveraged loans: Less AI-related financing and higher rates should stall issuance

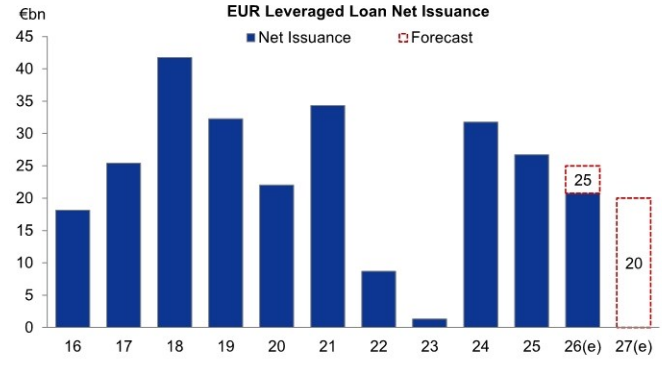
In the EUR market, we forecast an incremental €13 billion of gross supply through year-end, taking the full-year figure to €75 billion (Exhibit 4). Higher base rates and a more challenging fundamental outlook imply a slowdown to €65 billion in 2027 (again, Exhibit 4). On a net basis, measured as the change in the outstanding balance of the Morningstar European Leveraged Loan Index, we forecast €4 billion of incremental supply through year-end to reach €25 billion, with slower gross issuance feeding through to a more muted €20 billion in 2027 (Exhibit 5).

Exhibit 4: We forecast a slowdown in gross supply from €75 billion to €65 billion in EUR leveraged loans



Source: Pitchbook LCD, Goldman Sachs Global Investment Research

Exhibit 5: ... and a similar decline from €25 billion to €20 billion in net issuance



Source: Pitchbook LCD, Goldman Sachs Global Investment Research

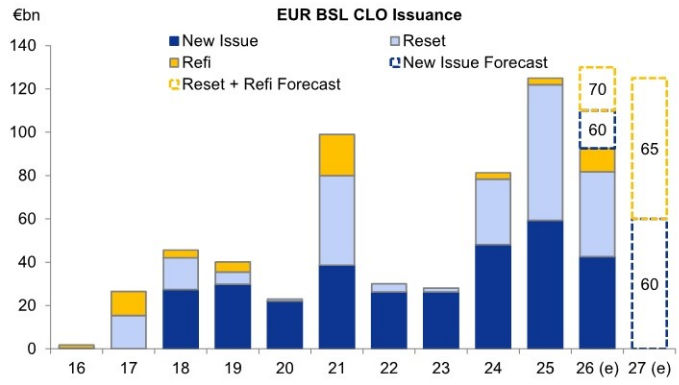
While we view AI-related issuance as a tailwind to USD loan supply, we think the EUR market is a less likely participant, at least for now, for two reasons. First, participation by EUR IG and HY issuers in AI-related financing has undershot what the size and liquidity of those markets would suggest. In our view, seeing this debt supply in the market is a likely precursor to the more structured issuance seen and anticipated in the USD leveraged loan market. Second, at €350 billion, the EUR loan market is simply a smaller pool in which to absorb large financing needs than both its bond counterparts and USD

loan market peer.

EUR CLOs: New issue steady, resets and refis past their high-water mark

We forecast similar path for the EUR CLO supply to the USD CLO market. On new issue, we look for roughly €18 billion through the rest of the year, taking the full-year total to €60 billion, and hold that forecast unchanged in 2027 (Exhibit 6). For resets and refinancings, we forecast an incremental €20 billion to reach €70 billion, a historical high-water mark. Given the already tight weighted average cost of debt, however, we look for a lighter €65 billion next year as the quantum of reset and refi eligible deals stalls.

Exhibit 6: We forecast a slight decrease in reset and refinancing volume in 2027 for EUR BSL CLOs



Note: For 2026, the €60bn and €70bn shown within the incremental issuance placeholders correspond to the full-year supply forecasts for new issue and reset/refis, respectively.

Source: Pitchbook LCD, Goldman Sachs Global Investment Research

The authors would like to thank Patricia Pacheco for her contribution to this report.

Forecast dashboard: Spreads, returns, issuance, defaults, and ratings migrations

Exhibit 7: USD and EUR spread forecasts

Market	Updated as of Sep. 23, 2026				
	Current	2026Q3	2026Q4	2027Q1	2027Q2
USD spreads (bp)					
USD IG	76	85	82	80	78
USD HY	274	305	295	290	280
EUR spreads (bp)					
EUR IG	85	91	88	86	84
EUR HY	286	320	315	310	305

Source: Bloomberg, Goldman Sachs Global Investment Research

Exhibit 8: USD and EUR excess returns forecast

Market	Updated as of Sep. 23, 2026		
	Current duration	2026 YTD (%)	2026 Full-year forecast (%)
USD excess returns			
USD IG	6.7	0.7%	0.5%
USD HY	3.5	1.8%	1.3%
EUR excess returns			
EUR IG	4.5	0.5%	0.6%
EUR HY	3.2	1.8%	1.3%

Source: Bloomberg, Goldman Sachs Global Investment Research

Exhibit 9: Issuance forecasts

Market	Updated as of Sep. 23, 2026	
	2026 YTD (bn)	2026 Full-year forecast (bn)
USD market		
Gross issuance		
IG	$1,826	$2,300
HY	$261	$400
Leveraged loans	$309	--
Net issuance		
IG	$765	$1,000
HY	$63	$160
EUR market		
Gross issuance		
IG	€ 667	€ 850
HY	€ 83	€ 125
Leveraged loans	€ 61	--
Net issuance		
IG	€ 187	€ 265
HY	€ 13	€ 60

Source: Dealogic, Bloomberg, Goldman Sachs Global Investment Research

Exhibit 10: Ratings migration and default forecasts
Default rates are issuer-weighted and 12-month trailing

Market	Updated as of Sep. 23, 2026	
	2026 YTD	2026 Full-year forecast
USD market		
Rising stars (bn)	$76	$75
Fallen angels (bn)	$38	$60
HY defaults (12-month trailing)	3.4%	4.0%
Leveraged loan defaults (12-month trailing)	4.9%	4.75%
EUR market		
Rising stars (bn)	€ 21	€ 20
Fallen angels (bn)	€ 5	€ 30
HY defaults (12-month trailing)	4.7%	5.0%
Leveraged loan defaults (12-month trailing)	3.5%	4.0%

Source: Bloomberg, Moody's, Goldman Sachs Global Investment Research

Forecast dashboard: Relative value views

Exhibit 11: Relative value views

Relative value views		
Corporate Credit		
Regional	Overweight USD vs. EUR	We have a slight preference for USD credit vs. its EUR peer, owing to a somewhat more challenging growth-inflation-monetary policy mix in the Euro Area. That said, the lines are blurring between the regional classifications, given the acceleration in cross-border issuance.
	Overweight EUR IG CLO tranches vs. USD IG CLO tranches	EUR IG tranches offer carry pickup relative to USD IG CLO tranches. While the policy and macroeconomic picture is less supportive in Europe, subordination should protect tranches up in the capital structure from a continued idiosyncratic default picture.
USD market	Neutral IG vs. HY	While we previously had a slight preference for IG vs. HY, we now view the case for an outright overweight in IG as less obvious based on valuations, rate sensitivity and supply related technicals.
	Overweight BBBs vs. higher-rated cohorts	We prefer owning BBBs over the higher-rated segments of USD IG (As and AAs), as a way to capture additional spread. We also see scope for balance sheet deterioration at the highest end of the rating spectrum in IG.
	Overweight Bs, Neutral BBs, Underweight CCCs	We expect BBs will continue to encounter a challenging supply technical due to AI-related supply. As a result, we favor the B rated cohort. The CCC universe is highly idiosyncratic and requires careful credit selection, in our view.
	Overweight HY bonds vs. loans	The substantial software sector exposure in the loan market leaves us favoring the HY market, at least until we receive more clarity on the refinancing of the 2028 loan maturity walls. The lower-rated distribution of loans and our economists' base case for no rate hikes in 2026 are also contributing factors.
	Overweight CLO mezz tranches vs. leveraged loans Neutral CLO vs. USD IG Neutral CLO vs. CMOs	For floating rate investors, we prefer CLO mezzanine tranches vs. leveraged loans. Historical data points to low impairment rates for BB and BBB CLO tranches, and current valuations offer attractive carry and a cushion against moderate to elevated default outcomes. Elsewhere, we are neutral between senior CLO tranches and USD IG; we would use spread widening to add exposure in CLOs. We are also neutral between CLO AAA and CMO floaters.
	Prefer Agency MBS vs. IG	Agency MBS offers an attractive diversification benefit vs. a portfolio of IG corporate bonds.
	Overweight Hybrids vs. BBBs	We view the additional spread compensation of hybrids vs. BBBs as moderately attractive in the context of the tight spread environment. We also expect the hybrid spread premium to compress vs. BBBs, as the hybrid market grows further.
EUR market	Neutral IG vs. HY	While we previously had a preference for IG vs. HY, we now view the case for an outright overweight in IG as less obvious based on valuations, rate sensitivity and supply related technicals.
	Overweight BBBs vs. higher-rated cohorts	We recently shifted our view to favor BBBs over both AAs and As in the EUR market, owing to an improved macroeconomic backdrop which now favors a broad-based, down-in-quality stance within IG.
	Overweight HY bonds vs. loans	Similar to the US, we prefer HY bonds given the loan market's weighting toward software (and the potential negative sentiment overhang). The reaction function of the ECB is increasing borrowing costs for floating rate issuers, given the central bank's focus on inflationary pressures.
	Overweight BBs, Neutral Bs, Underweight CCCs	At current valuations and given our expectation for heightened dispersion, we prefer moving up in quality within EUR HY.

Source: Goldman Sachs Global Investment Research

Performance dashboard: Cash and synthetic markets

Exhibit 12: Performance of USD and EUR markets

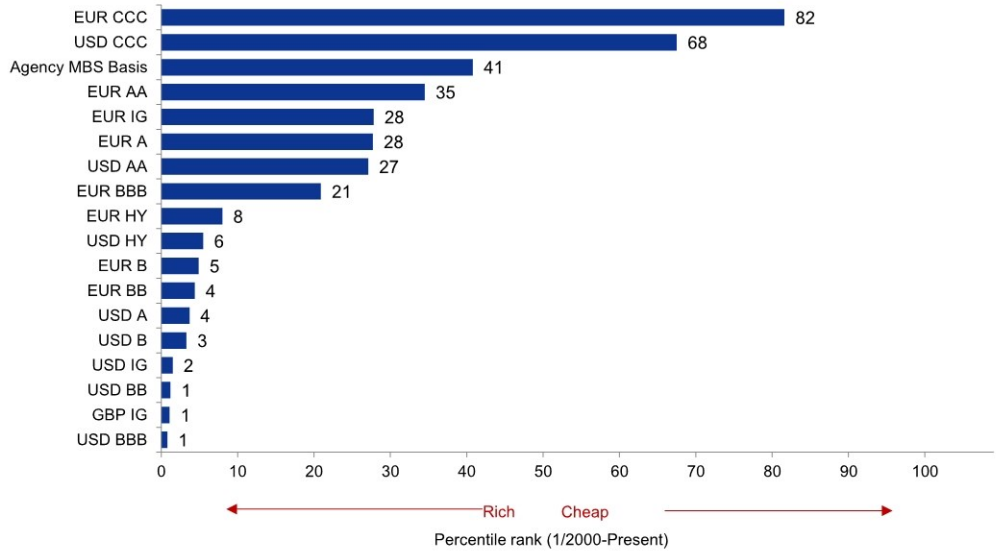
Market	Current*		Total return			Spread change (YTD,bp)	Yield change (YTD, %)
	Spread	Yield	MTD	QTD	YTD		
USD Corporate bonds							
IG	76	5.9	-1.53	-2.76	-1.92	-2	1.06
AA	57	5.7	-1.46	-3.20	-2.71	8	1.07
A	66	5.7	-1.51	-2.63	-1.78	1	0.99
BBB	95	6.1	-1.45	-2.45	-1.24	-6	0.96
HY	274	7.9	-1.35	-0.64	1.30	8	1.39
BB	159	6.9	-1.35	-0.74	1.09	-10	0.91
B	278	8.2	-1.20	-0.15	2.29	-23	0.84
CCC	1093	16.2	-1.76	-1.92	-1.78	208	3.22
USD Leveraged Loans							
Leveraged loan index	420	8.1	0.00	0.00	0.00	25	0.3
BB	250	6.3	0.31	1.70	4.28	-6	-0.1
B	403	7.9	0.67	2.81	3.90	11	0.1
CCC	2211	27.6	-1.41	-1.87	-5.23	647	7.0
USD Securitized products							
Agency MBS	38	5.7	-2.22	-3.54	-2.15	16	1.1
ABS (Autos)	51	5.1	-0.29	0.26	1.73	-15	0.9
ABS (Credit cards)	25	4.9	-0.56	-0.17	1.03	-8	1.0
ABS (Student loans)	93	5.0	0.31	1.29	3.59	120	0.1
USD Macro indices							
CDX IG	57	--	-0.01	0.11	0.58	7	--
CDX HY	309	--	-0.20	0.34	1.93	-7	--
EUR Corporate bonds							
IG	98	4.4	-1.27	-2.49	-1.15	8	0.9
AA	72	4.2	-1.18	-2.84	-1.58	10	0.9
A	90	4.3	-1.26	-2.52	-1.19	6	0.9
BBB	112	4.5	-1.30	-2.39	-1.01	10	1.0
HY	266	6.4	-1.01	-1.03	0.85	-4	0.8
AT1	268	6.1	-1.33	-1.36	1.99	-18	0.7
EUR Leveraged loans							
Leveraged loan index	449	7.2	0.50	1.34	3.23	-1	0.6
BB	267	5.3	0.33	1.18	3.98	-85	-0.3
B	417	6.9	0.54	1.52	3.28	2	0.7
EUR Macro indices							
iTraxx Main	59	--	-0.07	0.03	0.6	9	--
iTraxx Xover	285	--	0.12	0.44	3.7	41	--
iTraxx SenFin	64	--	-0.12	0.00	0.7	9	--
iTraxx SubFin	104	--	-0.17	0.08	1.5	11	--

*Data as of previous day close.
For USD IG and HY we use the Bloomberg indices with history back to Jun-89 and Jan-94, respectively. Corp rating level, Agency MBS and ABS we use ICE-BAML indices with history back to Dec-96, EUR IG we use the iBoxx QW5A index with history back to Jan-99, EUR HY we use the ICE-BAML index with history back to Dec-97, and USD and EUR leveraged loans we use the Morningstar LSTA LLI and ELLI indices with data going back to Jan-97 and Jan-02, respectively.

Source: Bloomberg, iBoxx, ICE-BAML, Pitchbook LCD, Goldman Sachs Global Investment Research

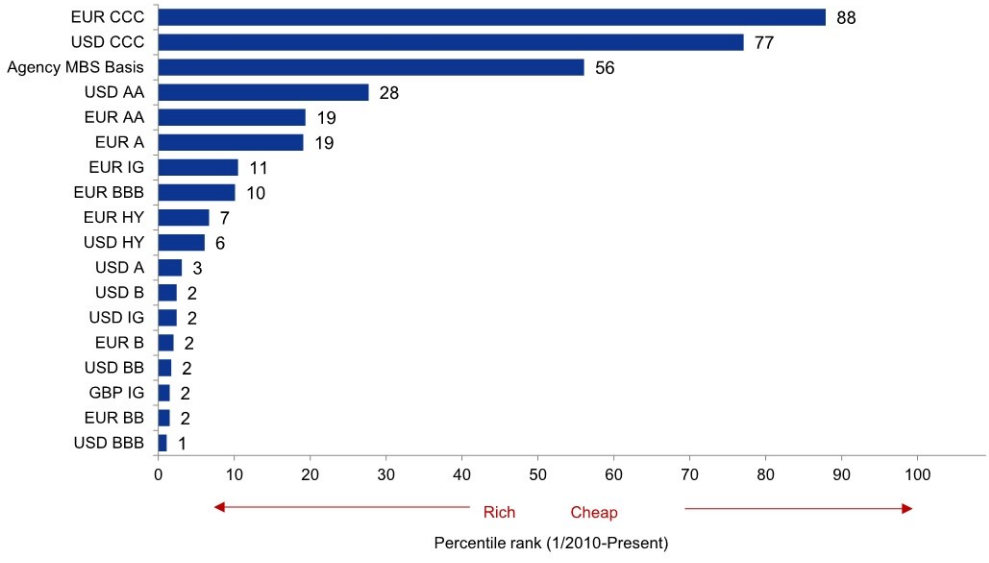
Valuation dashboard: Percentile ranks for spreads and yields

Exhibit 13: Percentile ranks for spreads across markets (2000-current)



Source: Bloomberg, Goldman Sachs Global Investment Research

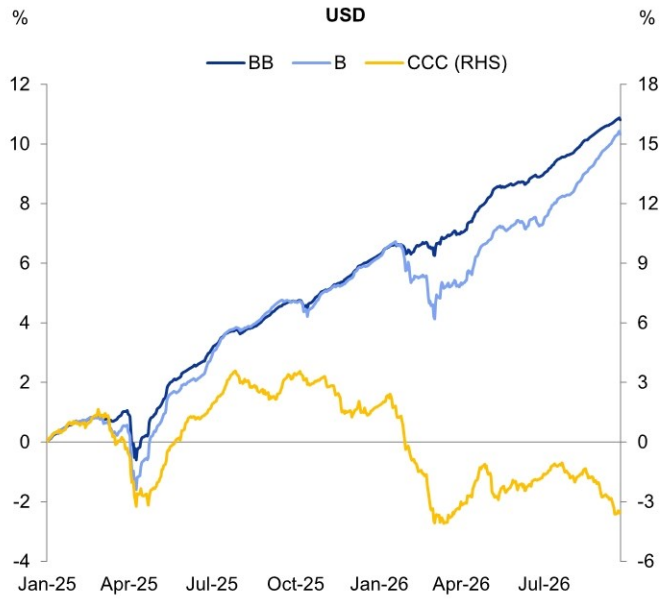
Exhibit 14: Percentile ranks for spreads across markets (2010-current)



Source: Bloomberg, Goldman Sachs Global Investment Research

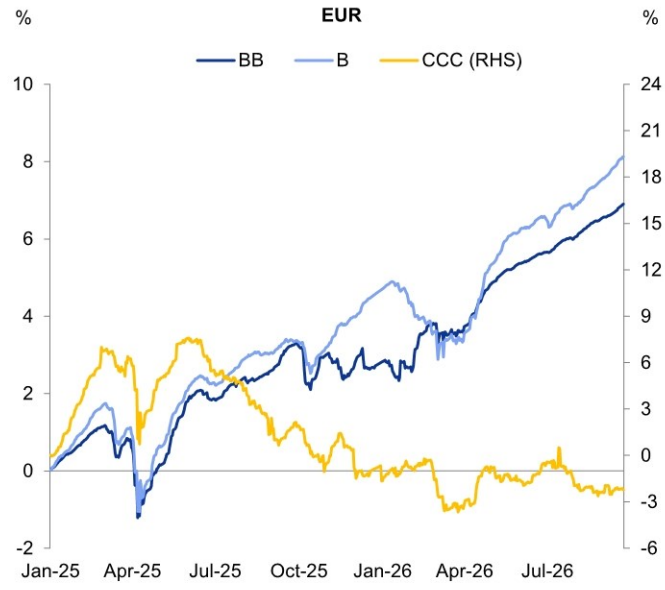
Performance dashboard: Leveraged Loans

Exhibit 15: Cumulative total return by rating for USD Leveraged Loans



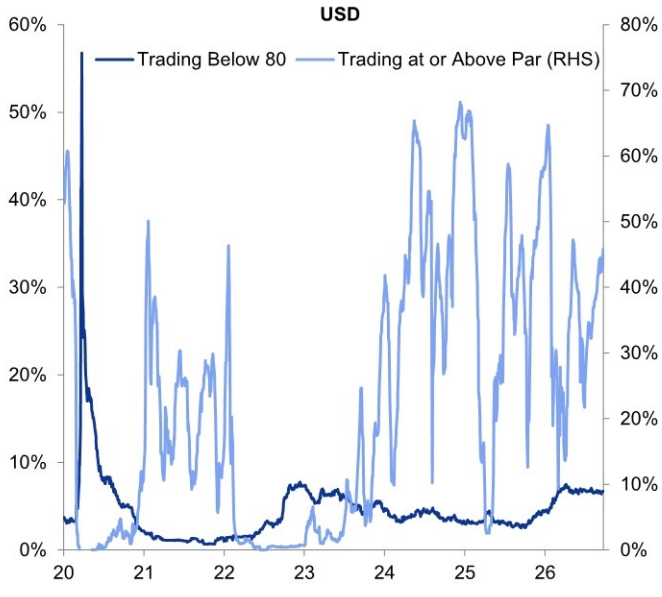
Source: PitchBook, Goldman Sachs Global Investment Research

Exhibit 16: Cumulative total return by rating for EUR Leveraged Loans



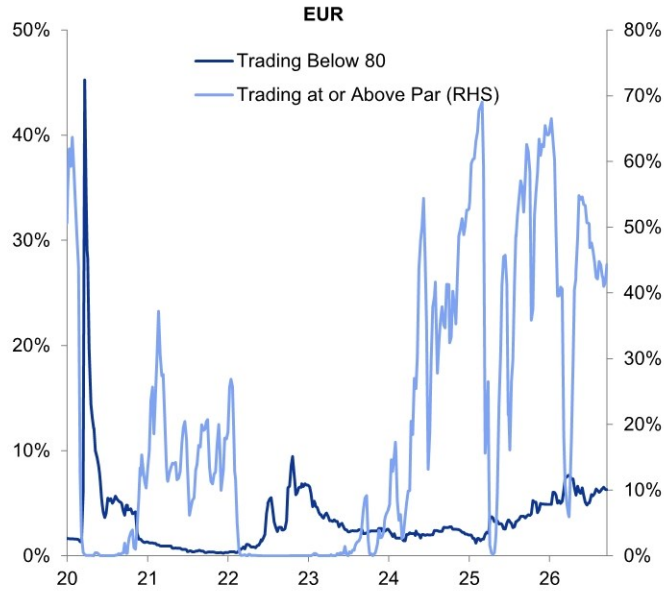
Source: PitchBook, Goldman Sachs Global Investment Research

Exhibit 17: Price breakdown for USD Leveraged Loans



Source: PitchBook, Goldman Sachs Global Investment Research

Exhibit 18: Price breakdown for EUR Leveraged Loans

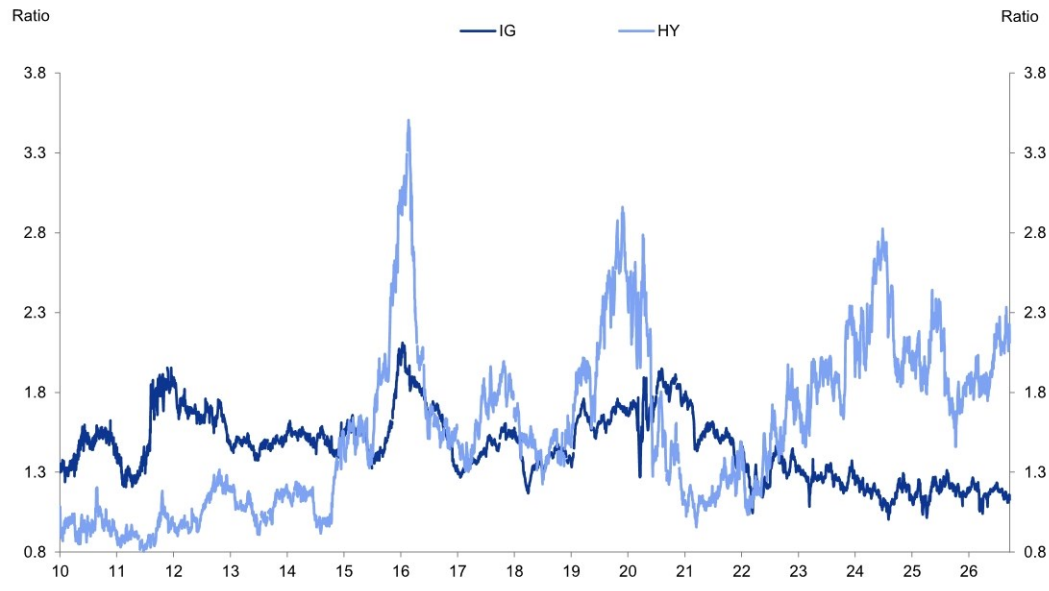


Source: PitchBook, Goldman Sachs Global Investment Research

Performance dashboard: Bond-level dispersion

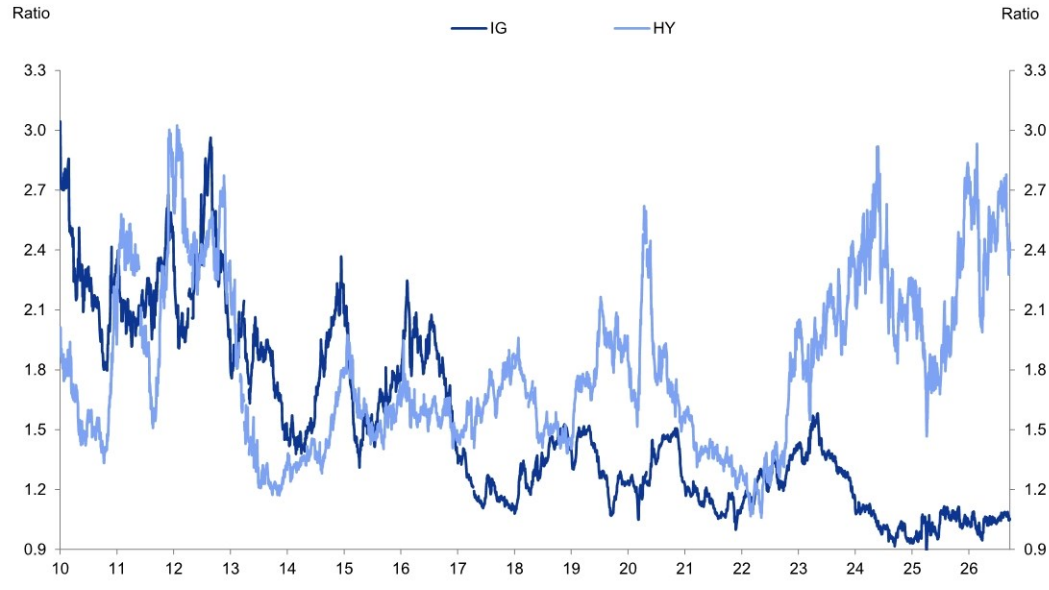
Note: Spread dispersion is the inter-decile range divided by the median across the bond index constituents and return dispersion is the inter-decile range of 10-day returns divided by the median across the bond index constituents.

Exhibit 19: USD spread dispersion



Source: iBoxx, Goldman Sachs Global Investment Research

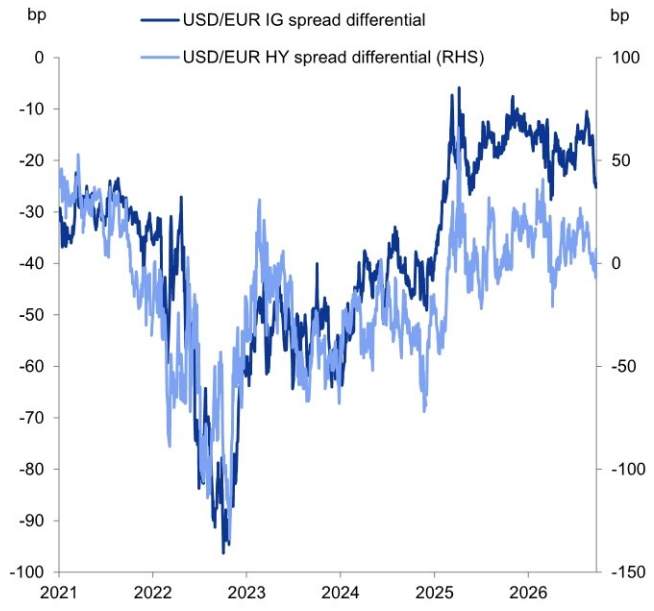
Exhibit 20: EUR spread dispersion



Source: iBoxx, Goldman Sachs Global Investment Research

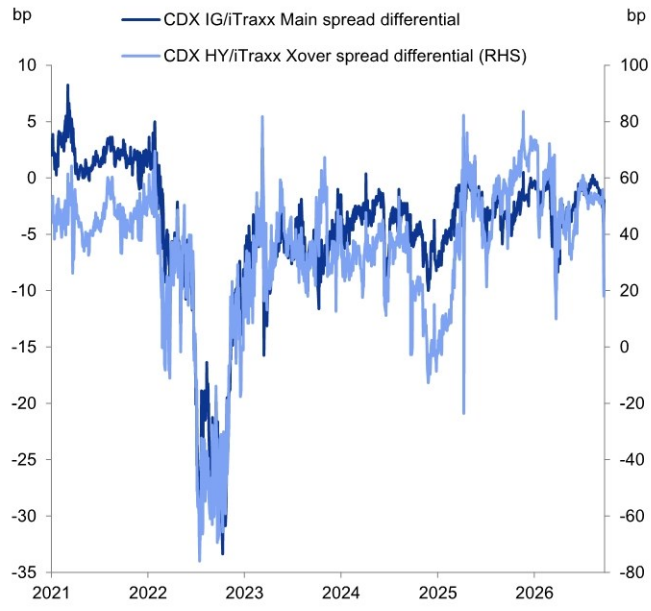
Relative value dashboard: Excess spreads in the USD and EUR markets

Exhibit 21: USD/EUR IG and HY spread differential



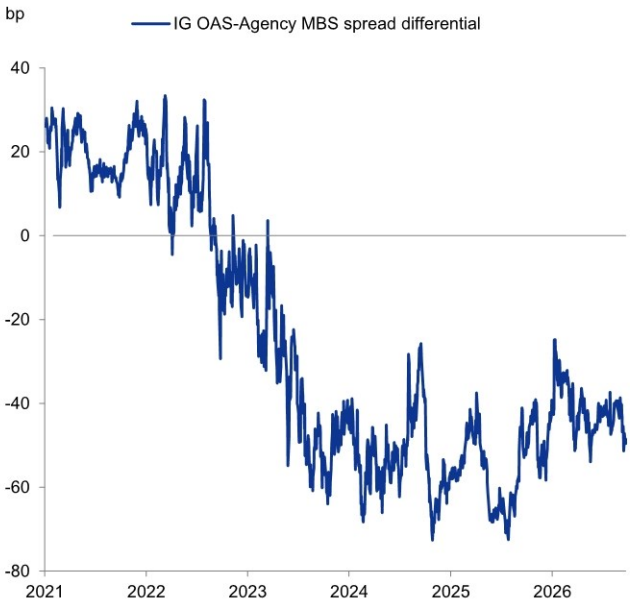
Source: iBoxx, Goldman Sachs Global Investment Research

Exhibit 22: CDX IG/iTraxx Main and CDX HY/iTraxx Xover spread differential



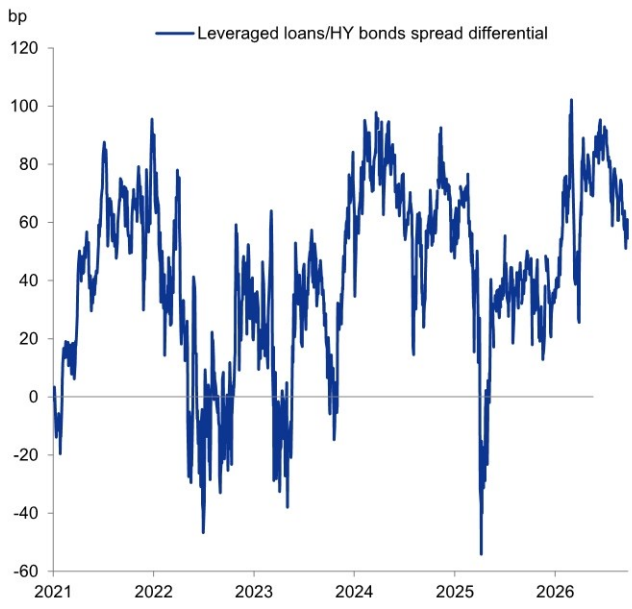
Source: Bloomberg, Goldman Sachs Global Investment Research

Exhibit 23: IG OAS/Agency MBS spread differential



Source: Bloomberg, Goldman Sachs Global Investment Research

Exhibit 24: Leveraged loans/HY spread differential



Source: Bloomberg, Morningstar LCD, Goldman Sachs Global Investment Research

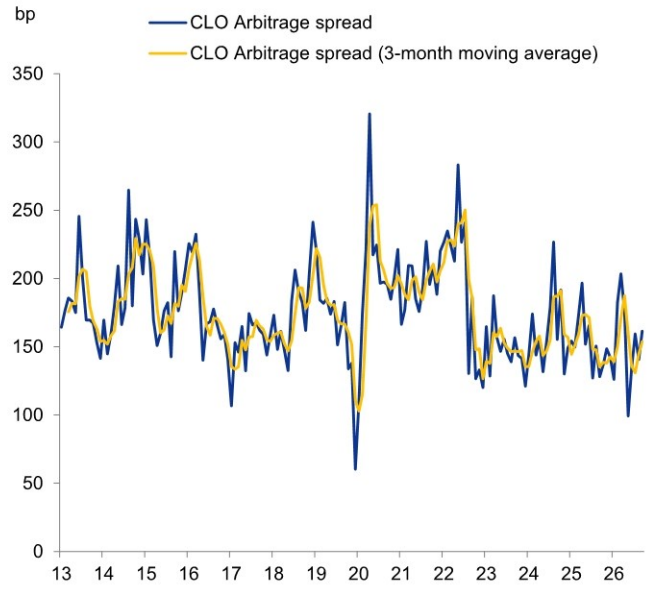
Valuation dashboard: CLOs

Exhibit 25: CLO spread percentile ranks

USD	Current spread (bp)	Percentile rank		
		3-year	5-year	10-year
AAA	107	14%	8%	4%
AA	141	0%	0%	0%
A	165	3%	2%	1%
BBB	268	11%	7%	6%
BB	762	65%	54%	64%

Source: Bloomberg, Goldman Sachs Global Investment Research

Exhibit 26: CLO new issue arbitrage spread
New issue CLO arbitrage spread, i.e., the difference between new issue loan spreads and new issue CLO spreads (across the capital stack)



Source: Pitchbook LCD, Goldman Sachs Global Investment Research

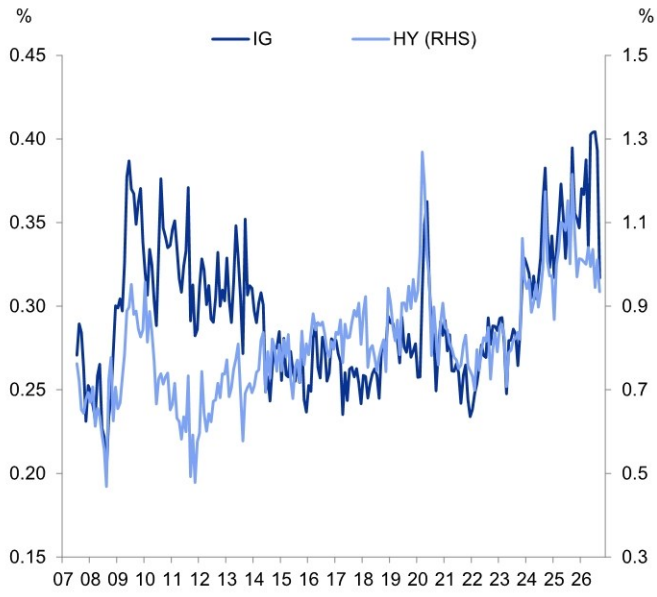
Exhibit 27: CLO vs. USD IG spread differential
CLO by rating and USD IG bond by rating spread differential



Source: Bloomberg, Goldman Sachs Global Investment Research

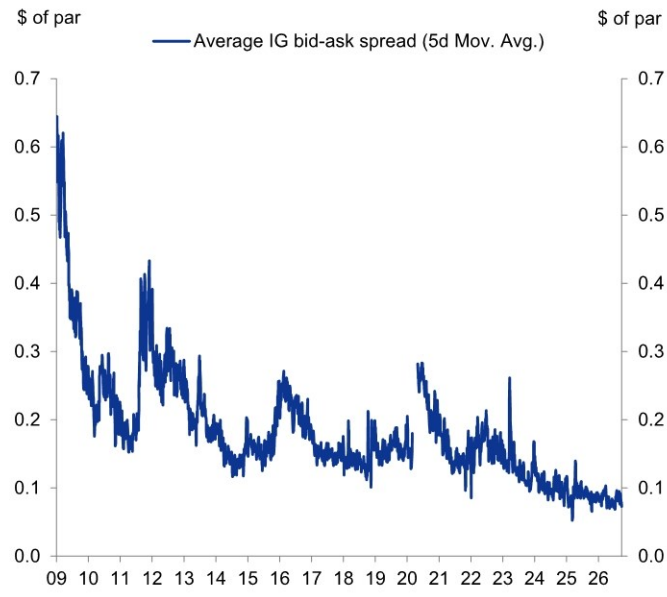
Microstructure dashboard: Liquidity conditions in the USD secondary bond market

Exhibit 28: Seasonally adjusted daily average turnover (trading volume/amount outstanding)



Source: TRACE, Bloomberg, Goldman Sachs Global Investment Research

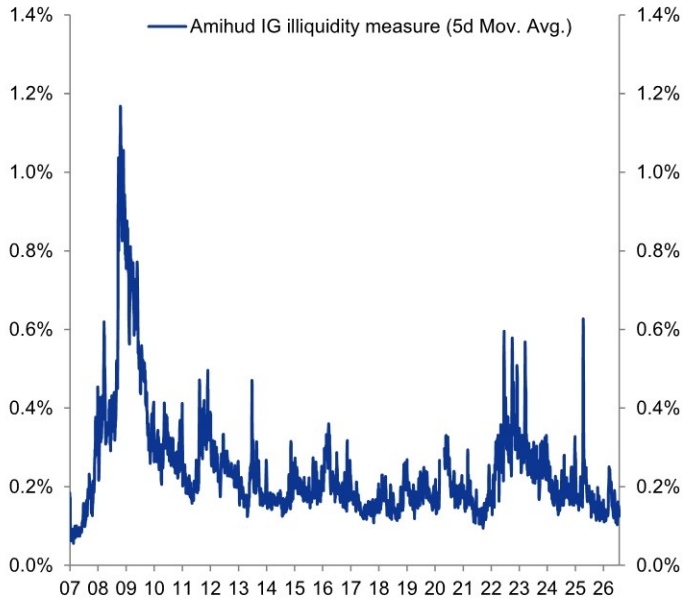
Exhibit 29: Average IG bid-ask spread
5-day moving average



Note: March and April 2020 are omitted.

Source: Trace, Bloomberg, Goldman Sachs Global Investment Research

Exhibit 30: Amihud IG illiquidity measure
5-day moving average

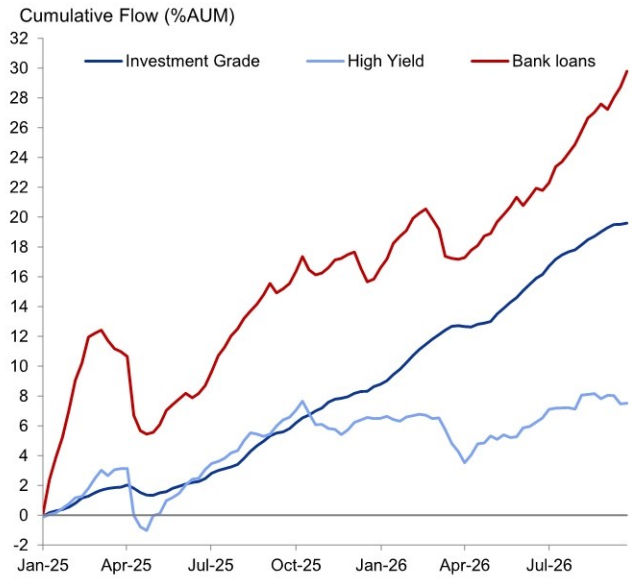


Note: March and April 2020 are omitted.

Source: TRACE, Bloomberg, Goldman Sachs Global Investment Research

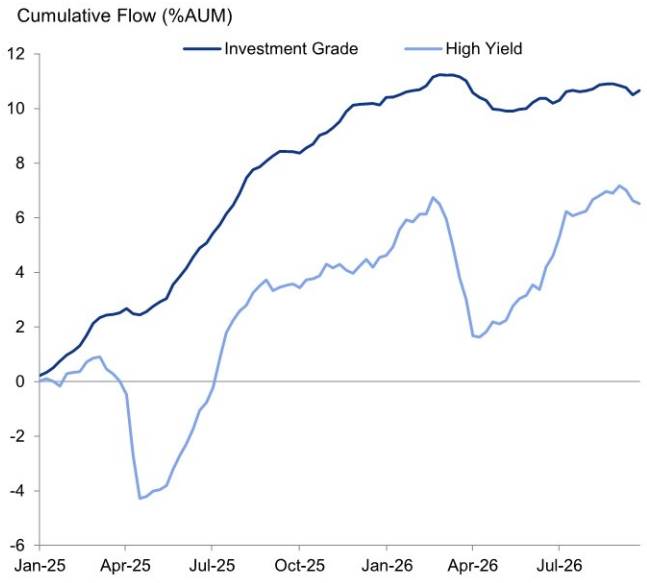
Flow dashboard: Mutual fund/ETF flows and foreign demand

Exhibit 31: Cumulative flows as a percentage of beginning of the year AUM for US credit funds



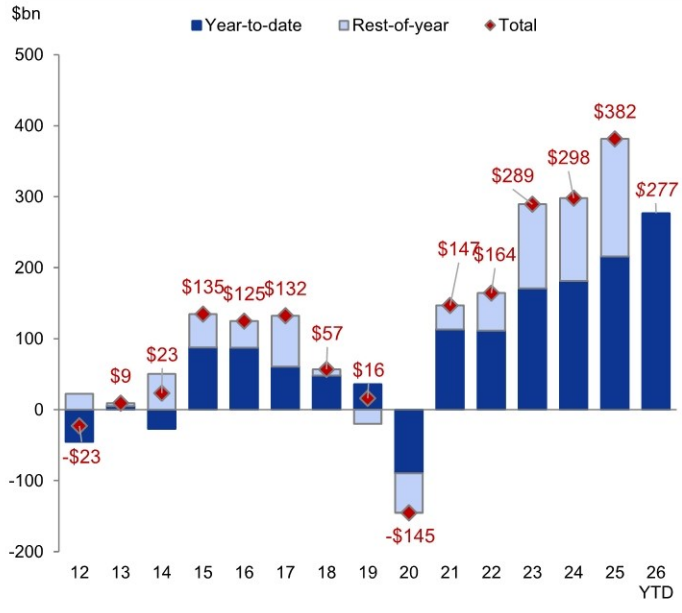
Source: EPFR, Goldman Sachs Global Investment Research

Exhibit 32: Cumulative flows as a percentage of beginning of the year AUM for European credit funds



Source: EPFR, Goldman Sachs Global Investment Research

Exhibit 33: Net purchases of USD corporate bonds by foreign investors

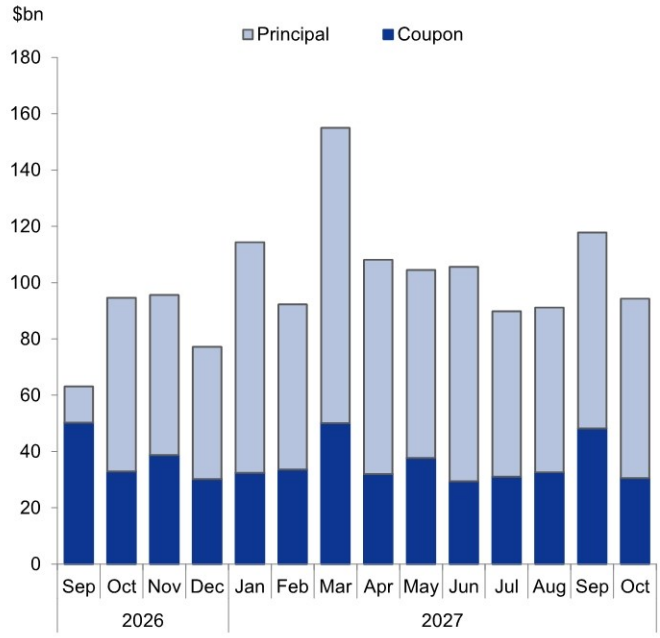


Note: As of July 2026.

Source: Department of Treasury, Goldman Sachs Global Investment Research

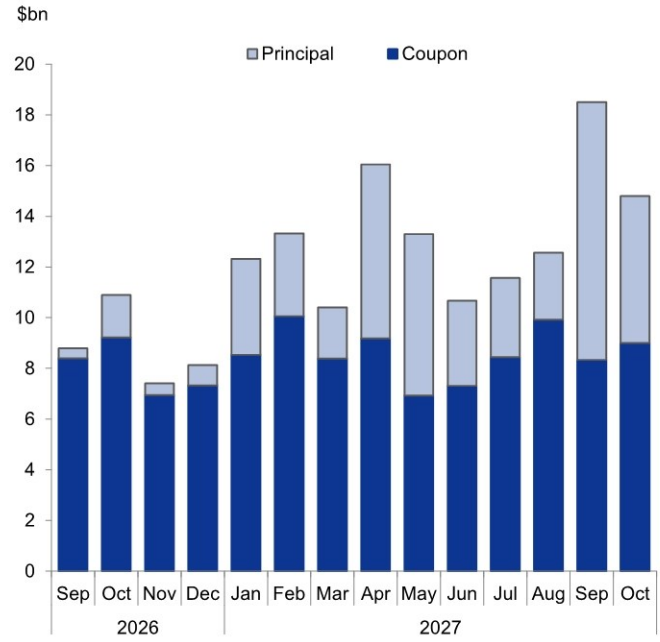
Flow dashboard: Upcoming coupon and principal payments

Exhibit 34: Our estimates of upcoming coupon and principal payments in the USD IG market



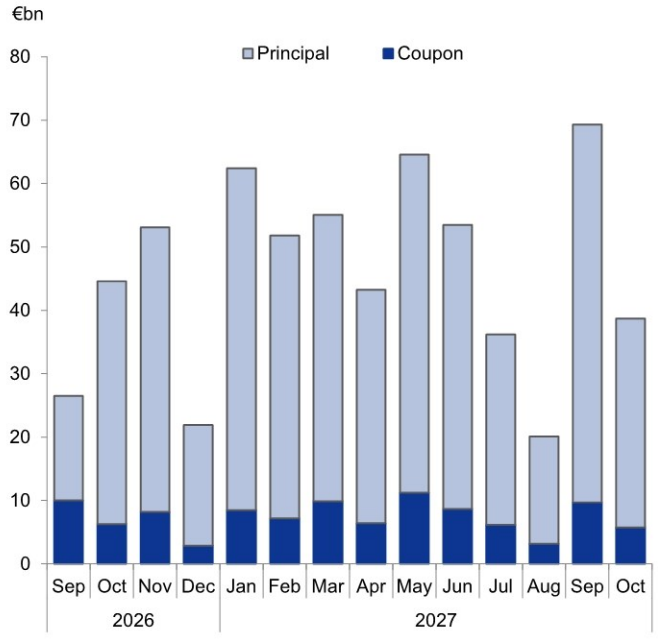
Source: Bloomberg, Goldman Sachs Global Investment Research

Exhibit 35: Our estimates of upcoming coupon and principal payments in the USD HY market



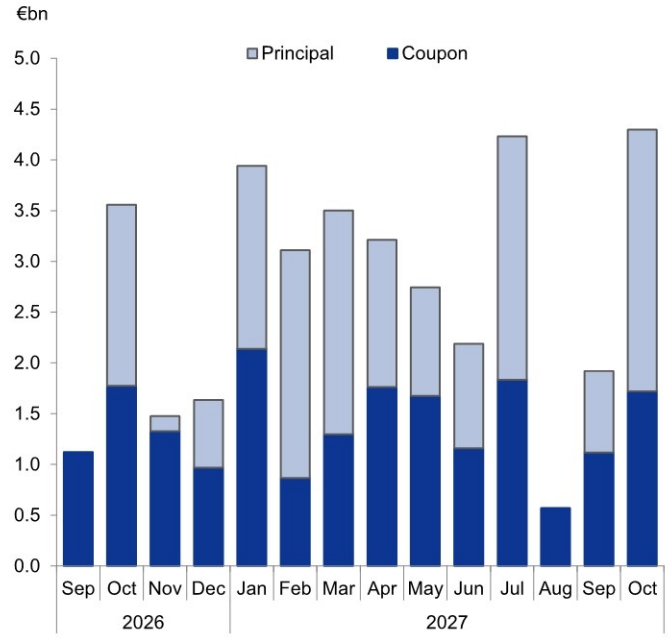
Source: Bloomberg, Goldman Sachs Global Investment Research

Exhibit 36: Our estimates of upcoming coupon and principal payments in the EUR IG market



Source: Bloomberg, Goldman Sachs Global Investment Research

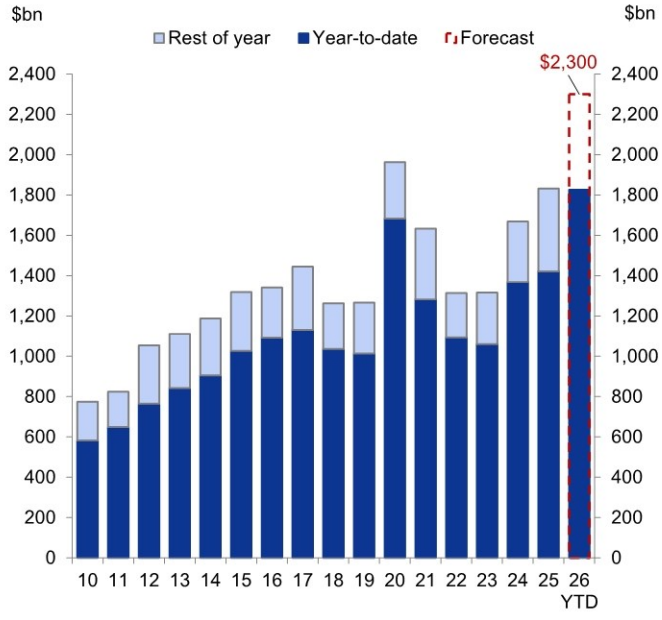
Exhibit 37: Our estimates of upcoming coupon and principal payments in the EUR HY market



Source: Bloomberg, Goldman Sachs Global Investment Research

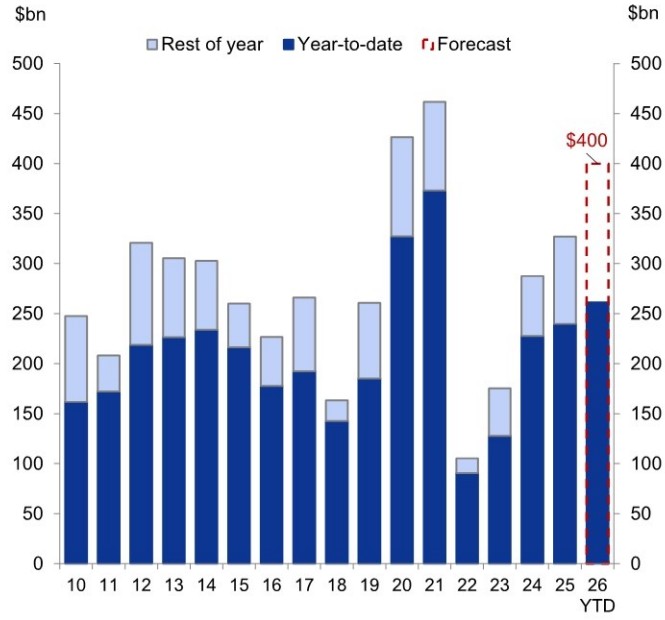
Primary market dashboard: USD gross issuance

Exhibit 38: USD IG gross issuance
Historical investment grade issuance: Same period year to date vs. rest of the year



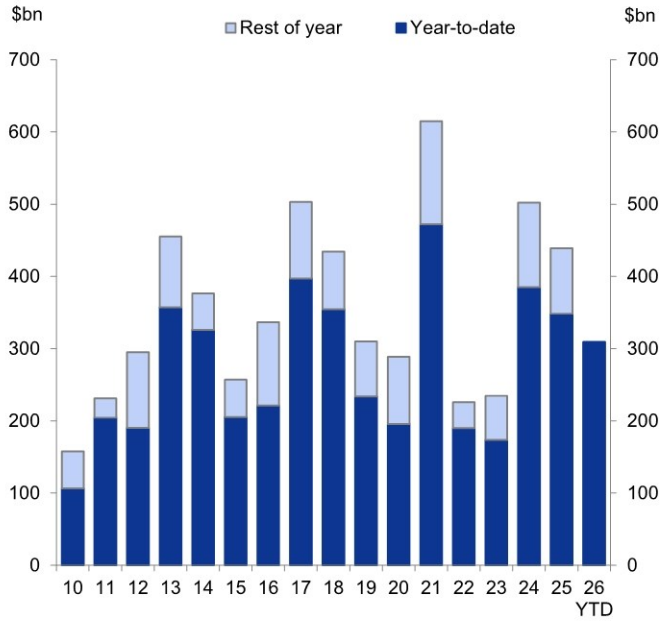
Source: Dealogic, Goldman Sachs Global Investment Research

Exhibit 39: USD HY gross issuance
Historical USD high yield issuance: Same period year to date vs. rest of the year



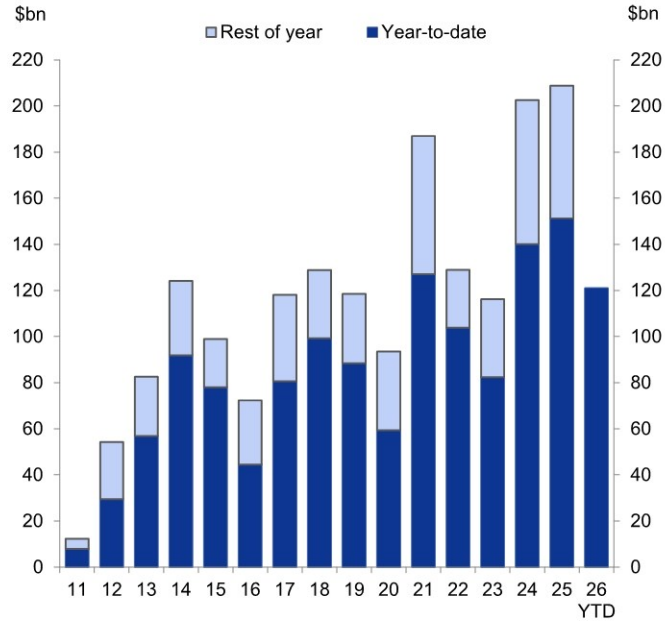
Source: Dealogic, Goldman Sachs Global Investment Research

Exhibit 40: USD institutional leveraged loan gross issuance
Historical leveraged loan issuance: Same period year to date vs. rest of the year



Source: Pitchbook LCD, Goldman Sachs Global Investment Research

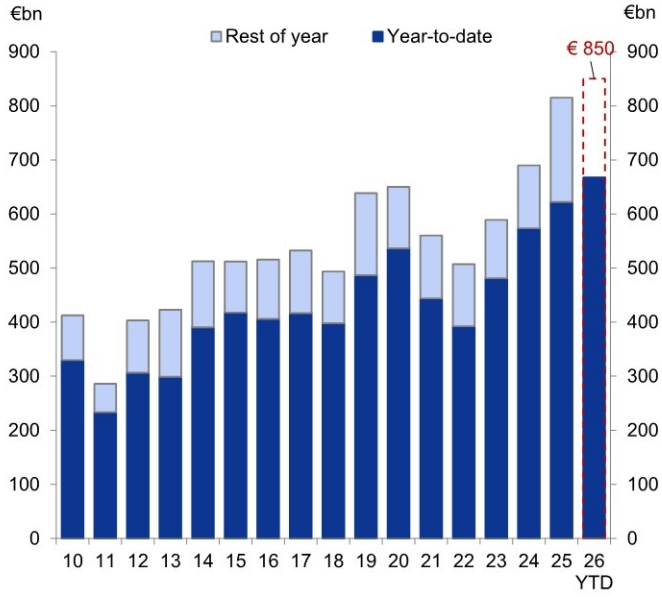
Exhibit 41: USD CLO creation
Historical USD CLO creation: Same period year to date vs. rest of the year



Source: Pitchbook LCD, Goldman Sachs Global Investment Research

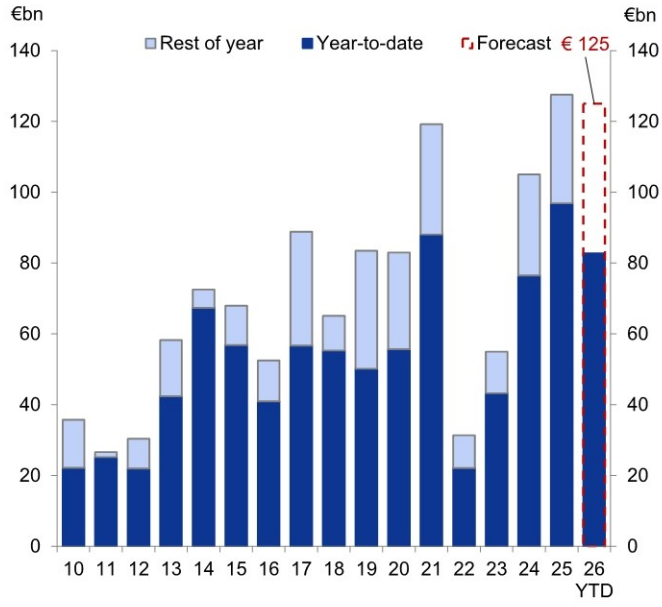
Primary market dashboard: EUR gross issuance

Exhibit 42: EUR IG gross issuance
Historical EUR investment grade issuance: Same period year to date vs. rest of the year



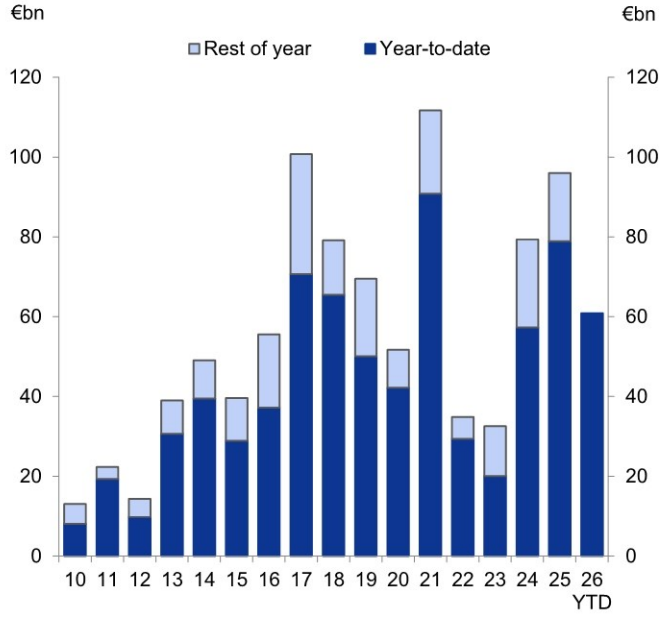
Source: Dealogic, Goldman Sachs Global Investment Research

Exhibit 43: EUR HY gross issuance
Historical EUR high yield issuance: Same period year to date vs. rest of the year



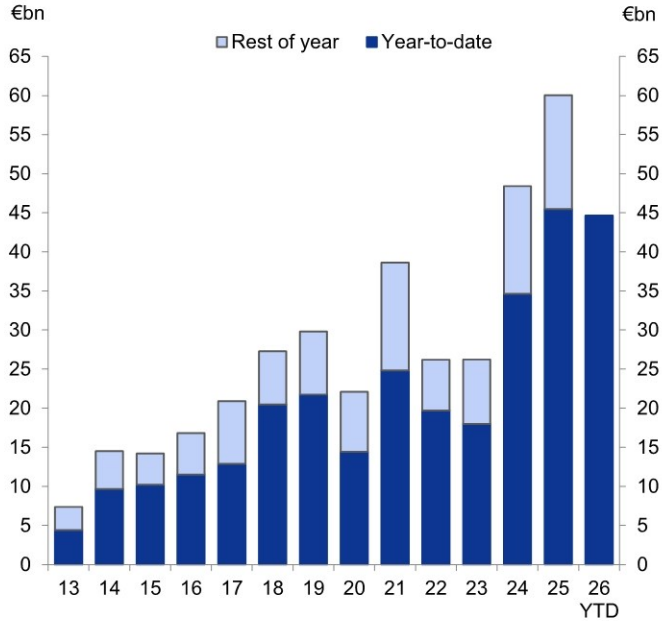
Source: Dealogic, Goldman Sachs Global Investment Research

Exhibit 44: EUR Leveraged loan gross issuance
Historical EUR leveraged loan issuance: Same period year to date vs. rest of the year



Source: Pitchbook LCD, Goldman Sachs Global Investment Research

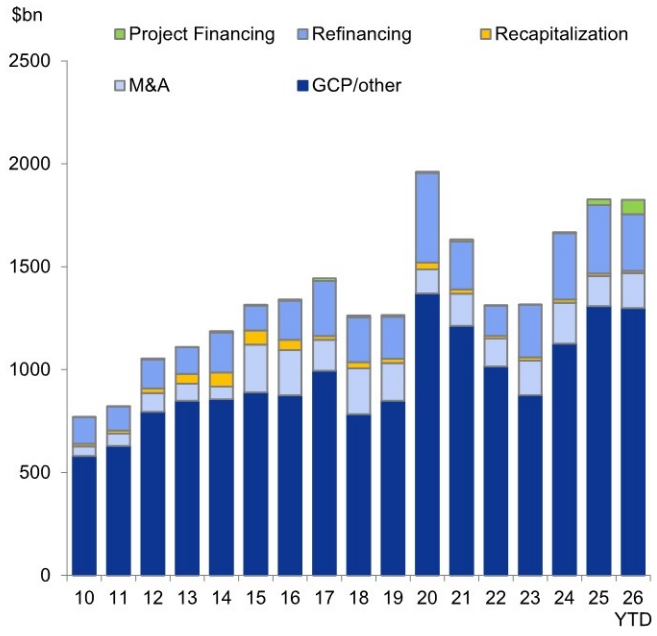
Exhibit 45: EUR CLO creation
Historical EUR CLO creation broken: Same period year to date vs. rest of the year



Source: Pitchbook LCD, Goldman Sachs Global Investment Research

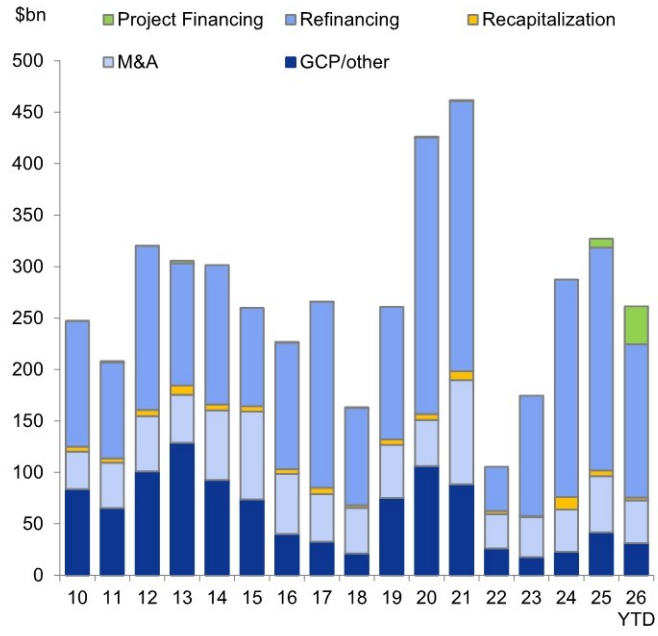
Primary market dashboard: Use of proceeds

Exhibit 46: Annual USD IG issuance volumes by use of proceeds



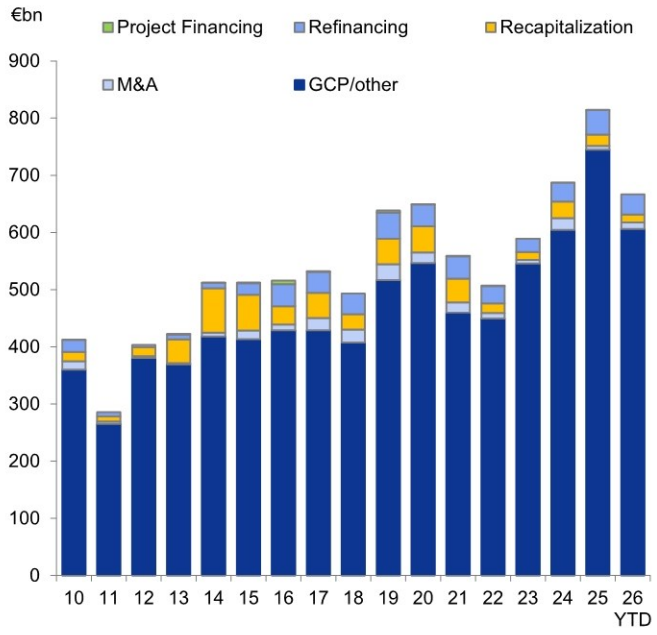
Source: Dealogic, Goldman Sachs Global Investment Research

Exhibit 47: USD HY issuance volumes by use of proceeds



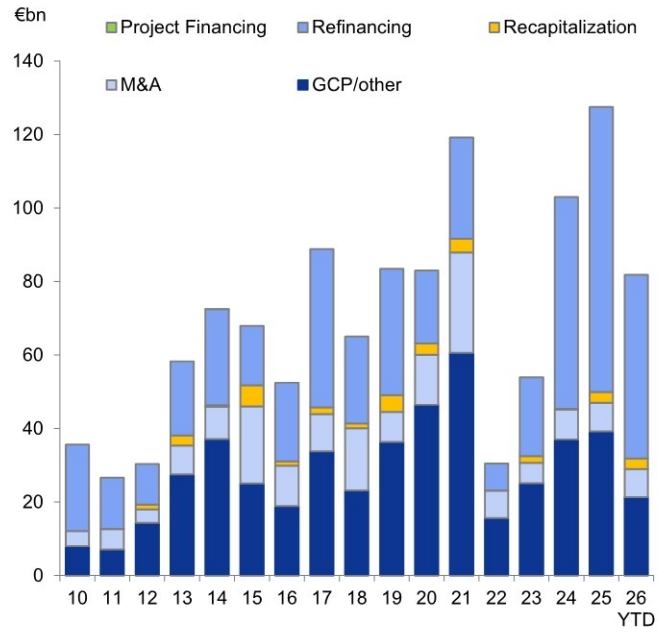
Source: Dealogic, Goldman Sachs Global Investment Research

Exhibit 48: EUR IG issuance volumes by use of proceeds



Source: Dealogic, Goldman Sachs Global Investment Research

Exhibit 49: EUR HY issuance volumes by use of proceeds

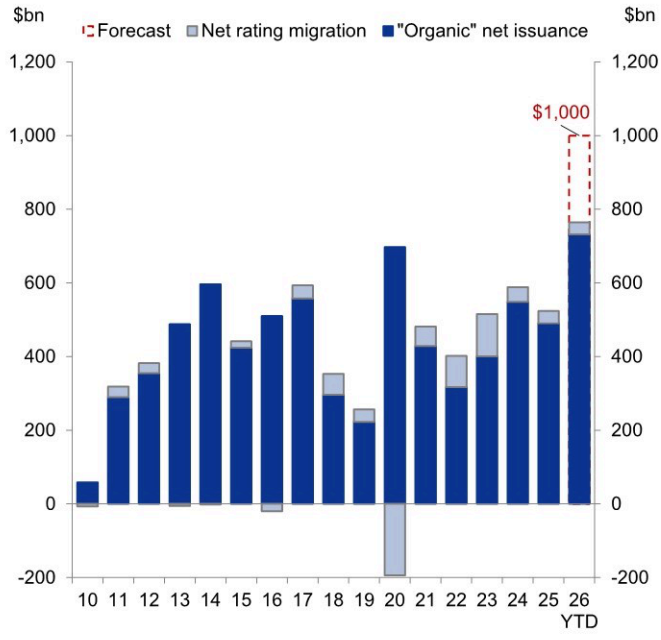


Source: Dealogic, Goldman Sachs Global Investment Research

Primary market dashboard: Net issuance

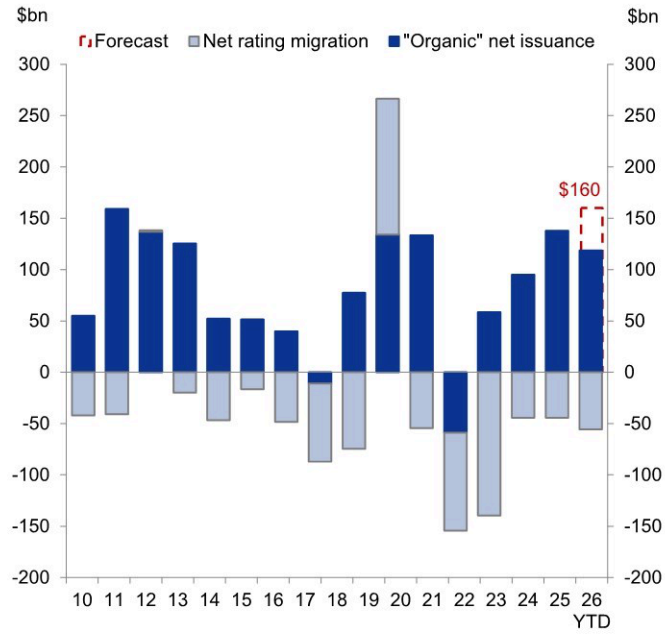
Note: Decomposition of the change in par value outstanding into net ratings migration vs. "organic" net issuance (gross issuance minus redemptions/matured bonds)

Exhibit 50: Annual USD IG net issuance



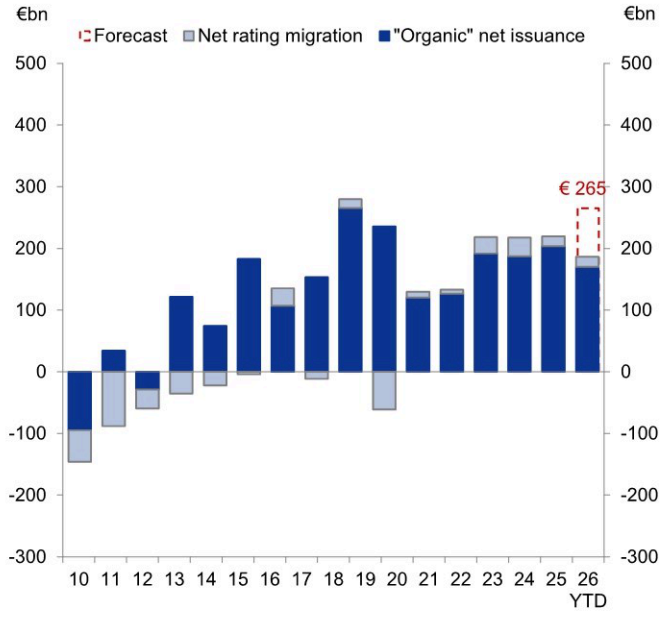
Source: Bloomberg, Goldman Sachs Global Investment Research

Exhibit 51: Annual USD HY net issuance



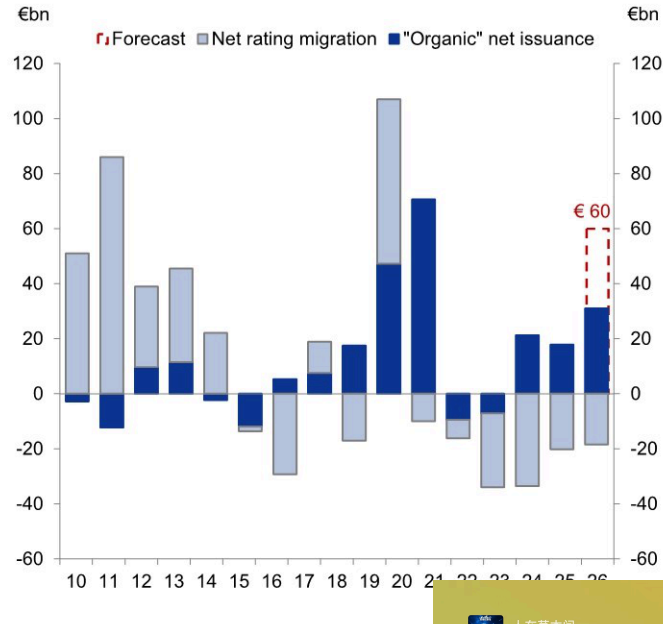
Source: Bloomberg, Goldman Sachs Global Investment Research

Exhibit 52: Annual EUR IG net issuance



Source: Bloomberg, Goldman Sachs Global Investment Research

Exhibit 53: Annual EUR HY net issuance

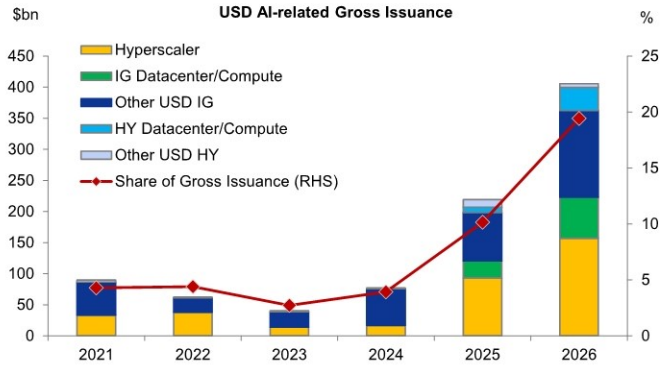


Source: Bloomberg, Goldman Sachs Global Investme

人在草木间

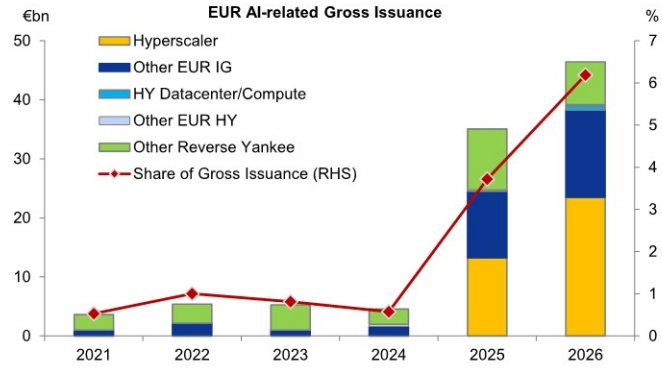
Primary market dashboard: AI-related issuance for the USD and EUR markets

Exhibit 54: USD AI-related Gross Issuance



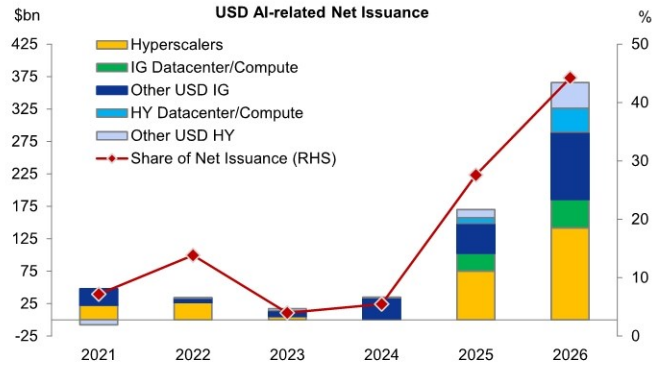
Source: Dealogic, Goldman Sachs Global Investment Research

Exhibit 55: EUR AI-related Gross Issuance



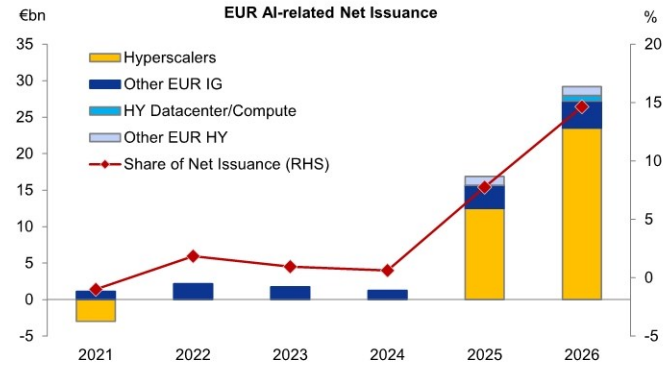
Source: Dealogic, Goldman Sachs Global Investment Research

Exhibit 56: USD AI-related net issuance



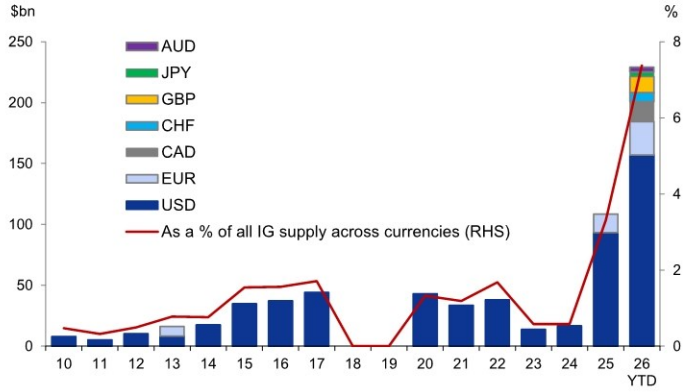
Source: Bloomberg, Goldman Sachs Global Investment Research

Exhibit 57: EUR AI-related net issuance



Source: Bloomberg, Goldman Sachs Global Investment Research

Exhibit 58: Hyperscaler debt issuance across currencies (in USD-equivalent)

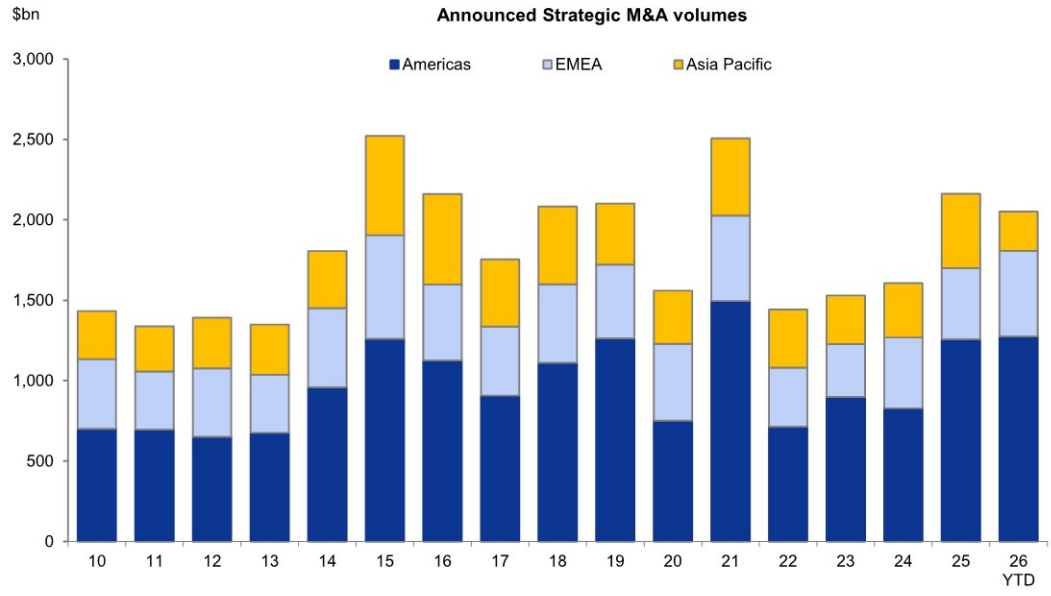


Note: Captures debt issued by the following companies: Alphabet (Google), Amazon, Microsoft, Meta, and Oracle.

Source: Dealogic, Goldman Sachs Global Investment Research

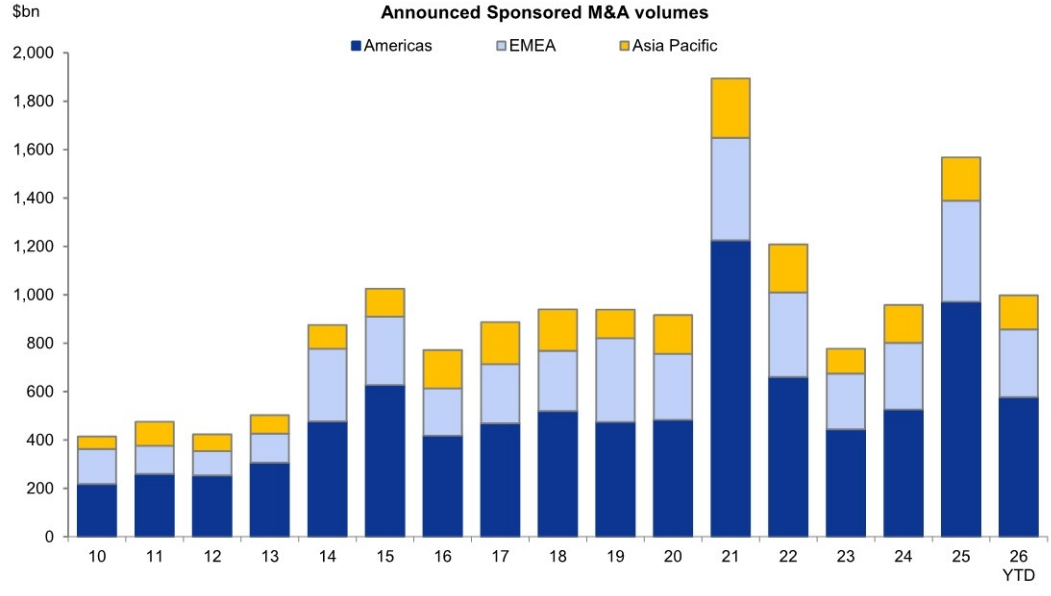
M&A volume

Exhibit 59: Annual strategic M&A volumes by region



Source: Dealogic, Goldman Sachs Global Investment Research

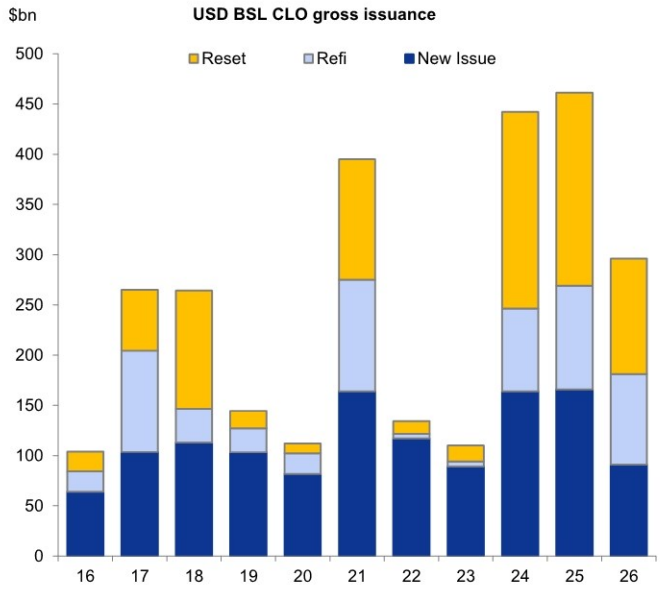
Exhibit 60: Annual sponsored M&A volumes by region



Source: Dealogic, Goldman Sachs Global Investment Research

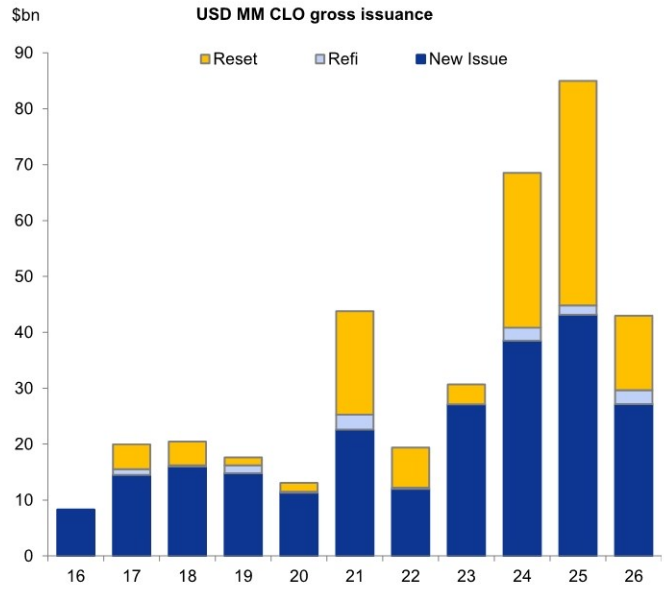
Primary market dashboard: CLO creation and refinancing

Exhibit 61: Annual USD broadly syndicated loan CLO creation



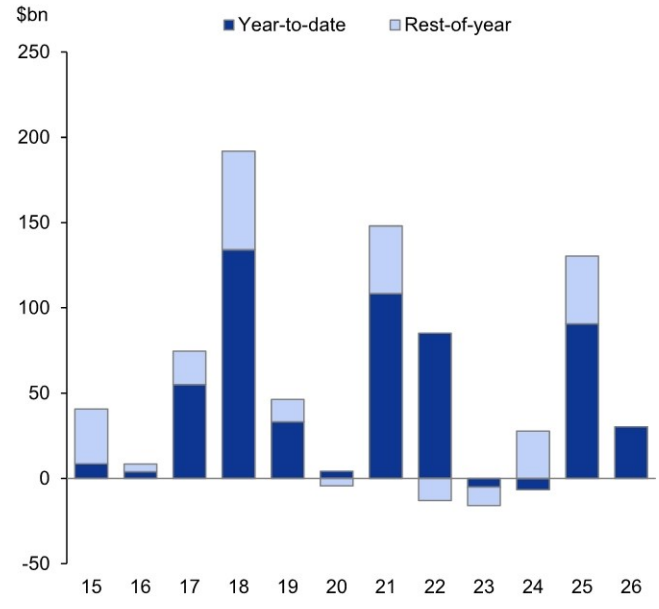
Source: Pitchbook LCD, Goldman Sachs Global Investment Research

Exhibit 62: Annual USD middle market CLO creation



Source: Pitchbook LCD, Goldman Sachs Global Investment Research

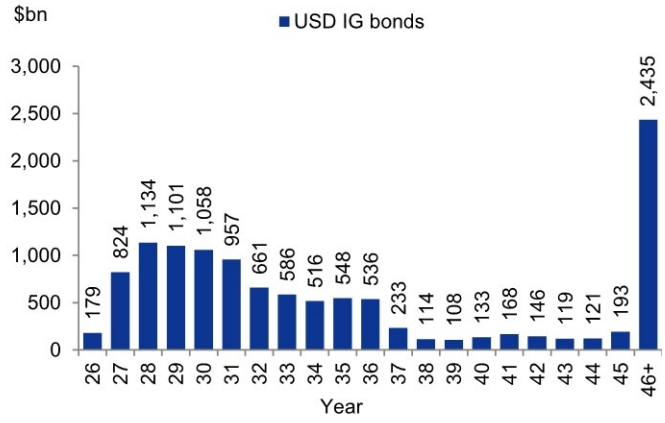
Exhibit 63: Annual USD leveraged loan net issuance



Source: Pitchbook LCD, Goldman Sachs Global Investment Research

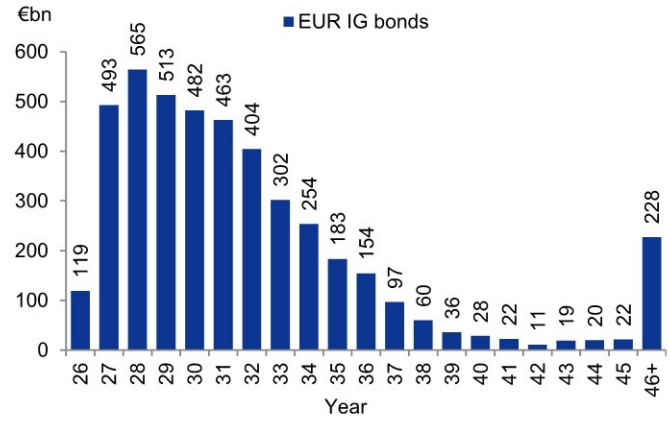
Primary market dashboard: Maturity walls

Exhibit 64: USD IG bond market maturity wall



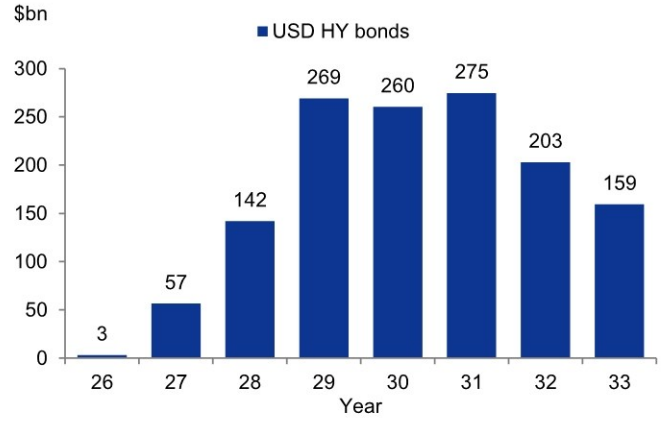
Source: Bloomberg, Goldman Sachs Global Investment Research

Exhibit 65: EUR IG bond market maturity wall



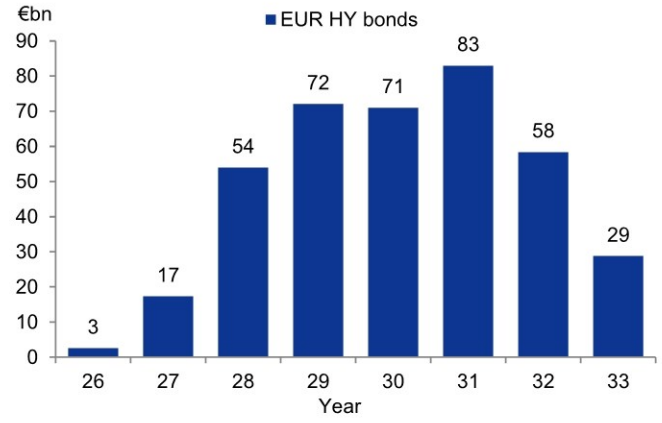
Source: Bloomberg, Goldman Sachs Global Investment Research

Exhibit 66: USD HY bond market maturity wall



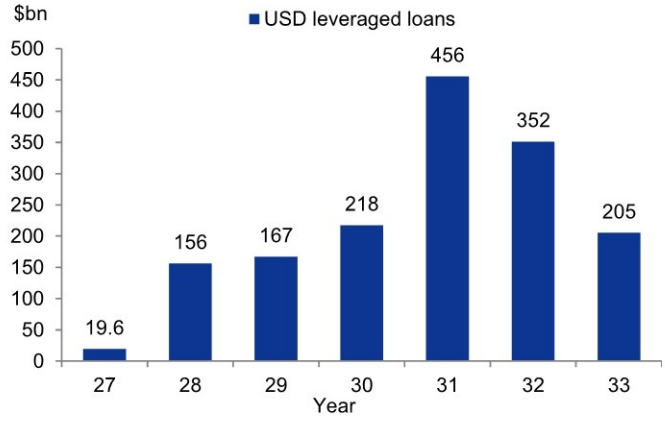
Source: Bloomberg, Goldman Sachs Global Investment Research

Exhibit 67: EUR HY bond market maturity wall



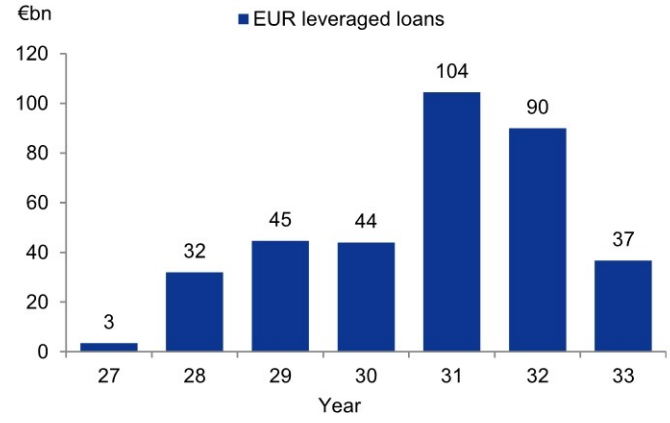
Source: Bloomberg, Goldman Sachs Global Investment Research

Exhibit 68: USD leveraged loan market maturity wall



Source: Pitchbook LCD, Goldman Sachs Global Investment Research

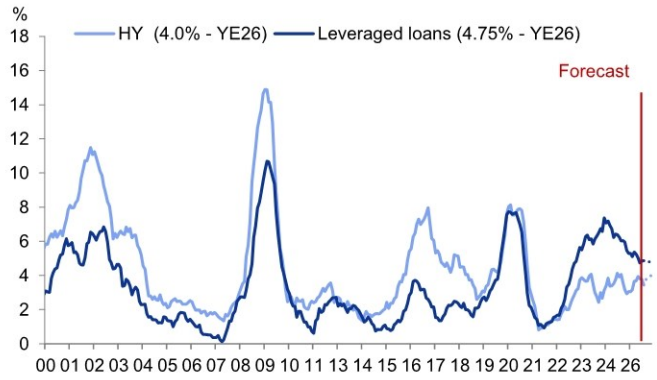
Exhibit 69: EUR leveraged loan market maturity wall



Source: Pitchbook LCD, Goldman Sachs Global Investment Research

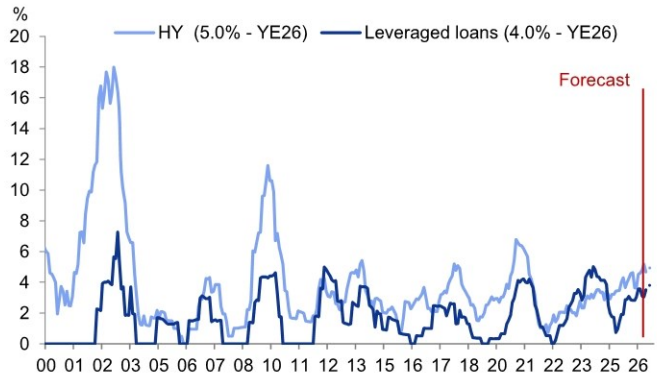
Default and ratings migration dashboard: Default trends, upgrades and downgrades

Exhibit 70: Default rates for US HY bond and leveraged loan issuers
12-month trailing issuer-weighted default rate in the US HY bond and leveraged loan markets



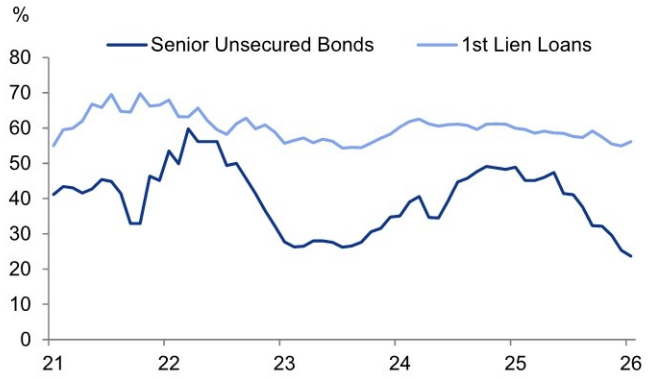
Source: Moody's, Goldman Sachs Global Investment Research

Exhibit 71: Default rates for European bond and leveraged loan issuers
12-month trailing issuer-weighted default rate in the European HY bond and leveraged loan markets



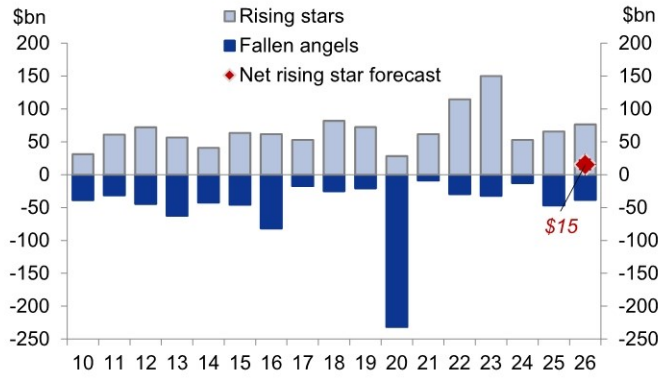
Source: Moody's, Goldman Sachs Global Investment Research

Exhibit 72: Annual recovery rates for US issuers



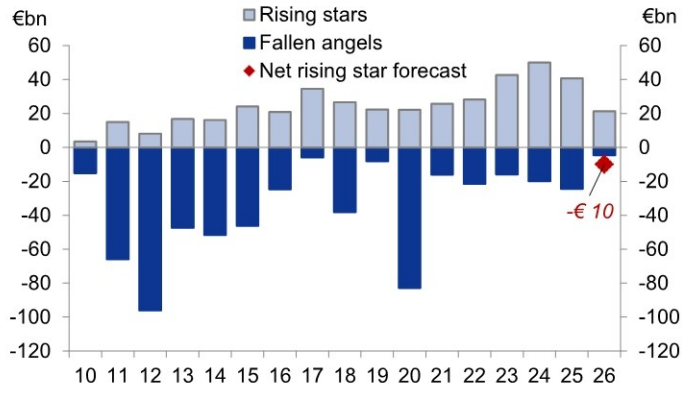
Source: Moody's, Goldman Sachs Global Investment Research

Exhibit 73: Fallen angels vs. rising stars in the USD market



Source: Bloomberg, Goldman Sachs Global Investment Research

Exhibit 74: Fallen angels vs. rising stars in the EUR market



Source: Bloomberg, Goldman Sachs Global Investment Research

Disclosure Appendix

Reg AC

We, Amanda Lynam, CPA, Spencer Rogers, CFA, Sara Grut and Shamshad Ali, hereby certify that all of the views expressed in this report accurately reflect our personal views, which have not been influenced by considerations of the firm's business or client relationships.

Unless otherwise stated, the individuals listed on the cover page of this report are analysts in Goldman Sachs' Global Investment Research division.

Contributing Authors: Amanda Lynam, CPA Goldman Sachs & Co. LLC, Spencer Rogers, CFA Goldman Sachs & Co. LLC, Sara Grut Goldman Sachs International, Shamshad Ali Goldman Sachs & Co. LLC.

Unless otherwise stated, the individuals listed in the Contributing Authors disclosure of this report are analysts in Goldman Sachs' Global Investment Research division.

Disclosures

Regulatory disclosures

Disclosures required by United States laws and regulations

See company-specific regulatory disclosures above for any of the following disclosures required as to companies referred to in this report: manager or co-manager in a pending transaction; 1% or other ownership; compensation for certain services; types of client relationships; managed/co-managed public offerings in prior periods; directorships; registered market maker. Goldman Sachs trades or may trade as a principal in debt securities (or in related derivatives) of issuers discussed in this report.

The following are additional required disclosures: **Ownership and material conflicts of interest:** Goldman Sachs policy prohibits its analysts, professionals reporting to analysts and members of their households from owning securities of any company in the analyst's area of coverage. **Analyst compensation:** Analysts are paid in part based on the profitability of Goldman Sachs, which includes investment banking revenues. **Analyst as officer or director:** Goldman Sachs policy generally prohibits its analysts, persons reporting to analysts or members of their households from serving as an officer, director or advisor of any company in the analyst's area of coverage. **Non-U.S. Analysts:** Non-U.S. analysts may not be associated persons of Goldman Sachs & Co. LLC and therefore may not be subject to FINRA Rule 2241 or FINRA Rule 2242 restrictions on communications with a subject company, public appearances and trading in securities covered by the analysts.

Additional disclosures required under the laws and regulations of jurisdictions other than the United States

The following disclosures are those required by the jurisdiction indicated, except to the extent already made above pursuant to United States laws and regulations. **Australia:** Goldman Sachs Australia Pty Ltd and its affiliates are not authorised deposit-taking institutions (as that term is defined in the Banking Act 1959 (Cth)) in Australia and do not provide banking services, nor carry on a banking business, in Australia. This research, and any access to it, is intended only for "wholesale clients" within the meaning of the Australian Corporations Act, unless otherwise agreed by Goldman Sachs. In producing research reports, members of Global Investment Research of Goldman Sachs Australia may attend site visits and other meetings hosted by the companies and other entities which are the subject of its research reports. In some instances the costs of such site visits or meetings may be met in part or in whole by the issuers concerned if Goldman Sachs Australia considers it is appropriate and reasonable in the specific circumstances relating to the site visit or meeting. To the extent that the contents of this document contains any financial product advice, it is general advice only and has been prepared by Goldman Sachs without taking into account a client's objectives, financial situation or needs. A client should, before acting on any such advice, consider the appropriateness of the advice having regard to the client's own objectives, financial situation and needs. A copy of certain Goldman Sachs Australia and New Zealand disclosure of interests and a copy of Goldman Sachs' Australian Sell-Side Research Independence Policy Statement are available at: https://www.goldmansachs.com/disclosures/australia-new-zealand/index.html. **Brazil:** Disclosure information in relation to CVM Resolution n. 20 is available at https://www.gs.com/worldwide/brazil/area/gir/index.html. Where applicable, the Brazil-registered analyst primarily responsible for the content of this research report, as defined in Article 20 of CVM Resolution n. 20, is the first author named at the beginning of this report, unless indicated otherwise at the end of the text. **Canada:** This information is being provided to you for information purposes only and is not, and under no circumstances should be construed as, an advertisement, offering or solicitation by Goldman Sachs & Co. LLC for purchasers of securities in Canada to trade in any Canadian security. Goldman Sachs & Co. LLC is not registered as a dealer in any jurisdiction in Canada under applicable Canadian securities laws and generally is not permitted to trade in Canadian securities and may be prohibited from selling certain securities and products in certain jurisdictions in Canada. If you wish to trade in any Canadian securities or other products in Canada please contact Goldman Sachs Canada Inc., an affiliate of The Goldman Sachs Group Inc., or another registered Canadian dealer. **Hong Kong:** Further information on the securities of covered companies referred to in this research may be obtained on request from Goldman Sachs (Asia) L.L.C. **India:** Further information on the subject company or companies referred to in this research may be obtained from Goldman Sachs (India) Securities Private Limited, Research Analyst - SEBI Registration Number INH000001493, 10th Floor, Ascent-Worli, Sudam Kalu Ahire Marg, Worli, Mumbai-400 025, India, Corporate Identity Number U74140MH2006FTC160634, Phone +91 22 6616 9000, Fax +91 22 6616 9001. Goldman Sachs may beneficially own 1% or more of the securities (as such term is defined in clause 2 (h) the Indian Securities Contracts (Regulation) Act, 1956) of the subject company or companies referred to in this research report. Registration granted by SEBI and certification from NISM in no way guarantee performance of the intermediary or provide any assurance of returns to investors. Goldman Sachs (India) Securities Private Limited compliance officer and investor grievance contact details, a copy of the annual compliance audit report and other relevant information and disclosures can be found at this link: https://www.goldmansachs.com/worldwide/india/research-analyst. **Japan:** See below. **Korea:** This research, and any access to it, is intended only for "professional investors" within the meaning of the Financial Services and Capital Markets Act, unless otherwise agreed by Goldman Sachs. Further information on the subject company or companies referred to in this research may be obtained from Goldman Sachs (Asia) L.L.C., Seoul Branch. **New Zealand:** Goldman Sachs New Zealand Limited and its affiliates are neither "registered banks" nor "deposit takers" (as defined in the Reserve Bank of New Zealand Act 1989) in New Zealand. This research, and any access to it, is intended for "wholesale clients" (as defined in the Financial Advisers Act 2008) unless otherwise agreed by Goldman Sachs. A copy of certain Goldman Sachs Australia and New Zealand disclosure of interests is available at: https://www.goldmansachs.com/disclosures/australia-new-zealand/index.html. **Russia:** Research reports distributed in the Russian Federation are not advertising as defined in the Russian legislation, but are information and analysis not having product promotion as their main purpose and do not provide appraisal within the meaning of the Russian legislation on appraisal activity. Research reports do not constitute a personalized investment recommendation as defined in Russian laws and regulations, are not addressed to a specific client, and are prepared without analyzing the financial circumstances, investment profiles or risk profiles of clients. Goldman Sachs assumes no responsibility for any investment decisions that may be taken by a client or any other person based on this research report. **Singapore:** Goldman Sachs (Singapore) Pte. (Company Number: 198602165W), which is regulated by the Monetary Authority of Singapore, accepts legal responsibility for this research, and should be contacted with respect to any matters arising from, or in connection with, this research. **Taiwan:** This material is for reference only and must not be reprinted without permission. Investors should carefully consider their own investment risk. Investment results are the responsibility of the individual investor. **United Kingdom:** Persons who would be categorized as retail clients in the United Kingdom, as such term is defined in the rules of the Financial Conduct Authority, should read this research in conjunction with prior Goldman Sachs research on the covered companies referred to herein and should refer to the risk warnings that have

been sent to them by Goldman Sachs International. A copy of these risks warnings, and a glossary of certain financial terms used in this report, are available from Goldman Sachs International on request.

European Union and United Kingdom: Disclosure information in relation to Article 6 (2) of the European Commission Delegated Regulation (EU) (2016/958) supplementing Regulation (EU) No 596/2014 of the European Parliament and of the Council (including as that Delegated Regulation is implemented into United Kingdom domestic law and regulation following the United Kingdom's departure from the European Union and the European Economic Area) with regard to regulatory technical standards for the technical arrangements for objective presentation of investment recommendations or other information recommending or suggesting an investment strategy and for disclosure of particular interests or indications of conflicts of interest is available at https://www.gs.com/disclosures/europeanpolicy.html which states the European Policy for Managing Conflicts of Interest in Connection with Investment Research.

Japan: Goldman Sachs Japan Co., Ltd. is a Financial Instrument Dealer registered with the Kanto Financial Bureau under registration number Kinsho 69, and a member of Japan Securities Dealers Association, Financial Futures Association of Japan Type II Financial Instruments Firms Association, and Investment Management Association of Japan. Sales and purchase of equities are subject to commission pre-determined with clients plus consumption tax. See company-specific disclosures as to any applicable disclosures required by Japanese stock exchanges, the Japanese Securities Dealers Association or the Japanese Securities Finance Company.

Global product; distributing entities

Goldman Sachs Global Investment Research produces and distributes research products for clients of Goldman Sachs on a global basis. Analysts based in Goldman Sachs offices around the world produce research on industries and companies, and research on macroeconomics, currencies, commodities and portfolio strategy. This research is disseminated in Australia by Goldman Sachs Australia Pty Ltd (ABN 21 006 797 897); in Brazil by Goldman Sachs do Brasil Corretora de Títulos e Valores Mobiliários S.A.; Public Communication Channel Goldman Sachs Brazil: 0800 727 5764 and / or contatogoldmanbrasil@gs.com. Available Weekdays (except holidays), from 9am to 6pm. Canal de Comunicação com o Público Goldman Sachs Brasil: 0800 727 5764 e/ou contatogoldmanbrasil@gs.com. Horário de funcionamento: segunda-feira à sexta-feira (exceto feriados), das 9h às 18h; in Canada by Goldman Sachs & Co. LLC; in Hong Kong by Goldman Sachs (Asia) L.L.C.; in India by Goldman Sachs (India) Securities Private Ltd.; in Japan by Goldman Sachs Japan Co., Ltd.; in the Republic of Korea by Goldman Sachs (Asia) L.L.C., Seoul Branch; in New Zealand by Goldman Sachs New Zealand Limited; in Russia by OOO Goldman Sachs; in Singapore by Goldman Sachs (Singapore) Pte. (Company Number: 198602165W); and in the United States of America by Goldman Sachs & Co. LLC. Goldman Sachs International has approved this research in connection with its distribution in the United Kingdom.

Goldman Sachs International ("GSI"), authorised by the Prudential Regulation Authority ("PRA") and regulated by the Financial Conduct Authority ("FCA") and the PRA, has approved this research in connection with its distribution in the United Kingdom.

European Economic Area: Goldman Sachs Bank Europe SE ("GSBE") is a credit institution incorporated in Germany and, within the Single Supervisory Mechanism, subject to direct prudential supervision by the European Central Bank and in other respects supervised by German Federal Financial Supervisory Authority (Bundesanstalt für Finanzdienstleistungsaufsicht, BaFin) and Deutsche Bundesbank and disseminates research within the European Economic Area.

General disclosures

This research is for our clients only. Other than disclosures relating to Goldman Sachs, this research is based on current public information that we consider reliable, but we do not represent it is accurate or complete, and it should not be relied on as such. The information, opinions, estimates and forecasts contained herein are as of the date hereof and are subject to change without prior notification. We seek to update our research as appropriate, but various regulations may prevent us from doing so. Other than certain industry reports published on a periodic basis, the large majority of reports are published at irregular intervals as appropriate in the analyst's judgment.

Goldman Sachs conducts a global full-service, integrated investment banking, investment management, and brokerage business. We have investment banking and other business relationships with a substantial percentage of the companies covered by Global Investment Research. Goldman Sachs & Co. LLC, the United States broker dealer, is a member of SIPC (https://www.sipc.org).

Our salespeople, traders, and other professionals may provide oral or written market commentary or trading strategies to our clients and principal trading desks that reflect opinions that are contrary to the opinions expressed in this research. Our asset management area, principal trading desks and investing businesses may make investment decisions that are inconsistent with the recommendations or views expressed in this research.

We and our affiliates, officers, directors, and employees will from time to time have long or short positions in, act as principal in, make a market or act as liquidity provider in, and buy or sell, any securities, derivatives, or other financial instruments referred to in this research (including any financial instruments issued by the companies referred to herein), unless otherwise prohibited by regulation or Goldman Sachs policy.

The views attributed to third party presenters at Goldman Sachs arranged conferences, including individuals from other parts of Goldman Sachs, do not necessarily reflect those of Global Investment Research and are not an official view of Goldman Sachs.

Any third party referenced herein, including any salespeople, traders and other professionals or members of their household, may have positions in the products mentioned that are inconsistent with the views expressed by analysts named in this report.

This research is focused on investment themes across markets, industries and sectors. It does not attempt to distinguish between the prospects or performance of, or provide analysis of, individual companies within any industry or sector we describe.

Any trading recommendation in this research relating to an equity or credit security or securities within an industry or sector is reflective of the investment theme being discussed and is not a recommendation of any such security in isolation.

This research is not an offer to sell or the solicitation of an offer to buy any security in any jurisdiction where such an offer or solicitation would be illegal. It does not constitute a personal recommendation or take into account the particular investment objectives, financial situations, or needs of individual clients. Clients should consider whether any advice or recommendation in this research is suitable for their particular circumstances and, if appropriate, seek professional advice, including tax advice. The price and value of investments referred to in this research and the income from them may fluctuate. Past performance is not a guide to future performance, future returns are not guaranteed, and a loss of original capital may occur. Fluctuations in exchange rates could have adverse effects on the value or price of, or income derived from, certain investments.

Certain transactions, including those involving futures, options, and other derivatives, give rise to substantial risk and are not suitable for all investors. Investors should review current options and futures disclosure documents which are available from Goldman Sachs sales representatives or at https://www.theocc.com/about/publications/character-risks.jsp and https://www.goldmansachs.com/disclosures/cftc_fcm_disclosures. Transaction costs may be significant in option strategies calling for multiple purchase and sales of options such as spreads. Supporting documentation will be supplied upon request.

Differing Levels of Service provided by Global Investment Research: The level and types of services provided to you by Goldman Sachs Global Investment Research may vary as compared to that provided to internal and other external clients of GS, depending on various factors including your

individual preferences as to the frequency and manner of receiving communication, your risk profile and investment focus and perspective (e.g., marketwide, sector specific, long term, short term), the size and scope of your overall client relationship with GS, and legal and regulatory constraints. As an example, certain clients may request to receive notifications when research on specific securities is published, and certain clients may request that specific data underlying analysts' fundamental analysis available on our internal client websites be delivered to them electronically through data feeds or otherwise. No change to an analyst's fundamental research views (e.g., ratings, price targets, or material changes to earnings estimates for equity securities), will be communicated to any client prior to inclusion of such information in a research report broadly disseminated through electronic publication to our internal client websites or through other means, as necessary, to all clients who are entitled to receive such reports.

All research reports are disseminated and available to all clients simultaneously through electronic publication to our internal client websites. Not all research content is redistributed to our clients or available to third-party aggregators, nor is Goldman Sachs responsible for the redistribution of our research by third party aggregators. For research, models or other data related to one or more securities, markets or asset classes (including related services) that may be available to you, please contact your GS representative or go to https://research.gs.com.

Disclosure information is also available at https://www.gs.com/research/hedge.html or from Research Compliance, 200 West Street, New York, NY 10282.

© 2026 Goldman Sachs.

You are permitted to store, display, analyze, modify, reformat, and print the information made available to you via this service only for your own use. You may not resell or reverse engineer this information to calculate or develop any index for disclosure and/or marketing or create any other derivative works or commercial product(s), data or offering(s) without the express written consent of Goldman Sachs. You are not permitted to publish, transmit, or otherwise reproduce this information, in whole or in part, in any format to any third party without the express written consent of Goldman Sachs. This foregoing restriction includes, without limitation, using, extracting, downloading or retrieving this information, in whole or in part, to train or finetune a machine learning or artificial intelligence system, or to provide or reproduce this information, in whole or in part, as a prompt or input to any such system.