

European CLO Weekly

CLO manager trading: Decline in sales volumes

Market update: Busy primary, firm secondary

On the CLO primary, 3 NI deals, 3 resets, and 1 refi priced. YTD gross NI and reset/refi volumes are close to €32bn and above €22bn, respectively. On the loan market, primary supply picked up. We saw a few large loan repricings. At the same time, though, at least one repricing got pulled, in line with improved supply and a slightly softer loan market.

On the CLO secondary, BWIC vol reached €330mn, with spreads unchanged.

Decline in CLO manager sales

CLO manager sales declined in Q2. Whilst the reduction in loan sales on the secondary can be reconciled with the temporary dislocation in loan prices at the time, the lower sales volumes in May and June may at least in part have been due to CLO managers preferring to get repaid at par for loan repricings rather than sell loans at risk of repricing on the secondary.

Sales at stressed/distressed levels remain low

Loans sold at stress and distressed levels remained at low levels in recent months given an overall fairly benign credit backdrop. For example, in May loans sold below 80 and between 80 & 90 accounted for just 2% and 5% of total sales, respectively. Altice France has been the most sold issuer in terms of debt sold below 90 YTD, followed by Colisee, Cerba Healthcare, and Seqens (Sirona).

Increased gap between sales & purchase prices since 2023

Weighted average sales prices are oftentimes below purchase prices for CLO managers given that some loans get downgraded and sold at lower cash prices whereas loans repaid at par wouldn't be reflected in the trading data. The gap between sales & purchase prices has been wider than usual since 2023 though, in line with negative par build for most deals in 2024 and YTD. One factor has been strong demand for loans on the primary, and hence lack of OID (which is reflected in higher purchase prices).

Collateral pools – concentrated, but some improvement?

The top 10 issuers account for 7.6% of CLO collateral, and each of the top 10 issuers can be found in 70-85% of all deals. However, as the loan market has grown over the years, diversity scores have improved from low levels, with the median Moody's diversity score for in-RP deals increasing from around 45 in early 2017 to 61 now (though still significantly below US levels where the median is 84).

Please email us if you'd like to receive a detailed file on CLO manager trading.

For further developments in the European SF markets, please see **European SF Weekly: Australian and Japanese ABS in 1H25** and **European SF Data Addendum: Pricing a dozen deals**, both dated 7 July 2025.

07 July 2025

Structured Finance
Europe
CLO

Dustin Walpert, CFA
European CLO Strategist
MLI (UK)
+44 20 7996 0982
dustin.walpert@bofa.com

Alexander Batchvarov, CFA
Int'l Str. Fin. Strategist
MLI (UK)
+44 20 7995 8649
alexander.batchvarov@bofa.com

[Common Acronyms](#)

This document is intended for BofA Securities institutional investors only. It may not be distributed to financial advisors, retail clients or retail prospects.

BofA Securities does and seeks to do business with issuers covered in its research reports. As a result, investors should be aware that the firm may have a conflict of interest that could affect the objectivity of this report. Investors should consider this report as only a single factor in making their investment decision.

Refer to important disclosures on page 18 to 20.

12848011

Timestamp: 07 July 2025 04:00AM EDT

Market update

CLO

Activity picked up meaningfully in the **European CLO primary market** last week, including 3 new issue deals – **Aqueduct European CLO 12**, **Bilbao CLO V**, and **Arini European CLO 6** – as well as 3 resets (of which 2 were in-RP and 1 was out-of-RP) – **CVC Cordatus Loan Fund V**, **Cross Ocean Bosphorus CLO VIII**, and **Jubilee CLO 2023-XXVII** – and 1 refi – **OCP Euro CLO 2022-6**. This brings YTD gross new issuance to approximately €31.8bn. Meanwhile, refi/reset volume exceeds €22bn.

Last week's deals priced as follows:

- Aqueduct European CLO 12 new issue (S&P/Fitch): (AAA/AAA) 132, (AA/AA) 190, (A/A) 220, (BBB-/BBB-) 310, (BB-/BB-) 560, and (B-/B-) 875. The deal's triple-A tranche was offered both in loan and note format.
- Bilbao CLO V new issue (S&P/Fitch): (AAA/AAA) 132, (AA/AA) 200, (A/A) 225, (BBB-/BBB-) 315, (BB-/BB-) 580, and (B-/B-) 885. Similar to Aqueduct European CLO 12, the deal's triple-A tranche was offered both in loan and note format.
- Arini European CLO 6 new issue (S&P/Fitch): (AAA/AAA) 132, (AA/AA) 200, (A/A) 240, (BBB-/BBB-) 345, (BB-/BB-) 575, and (B-/B-) 850.
- CVC Cordatus Loan Fund V reset (S&P/Fitch): (AAA/AAA) 133, (AA/AA) 200, (A/A) 225, (BBB-/BBB-) 330, (BB-/BB-) 600, and (B-/B-) 910. The deal had originally been issued in 2015, and then got reset in 2017 and partially refinanced in 2019. Further, the deal exited the RP in 2021 already and had a deal balance factor of around 0.64 at the time of reset last week. Through the reset, the deal's equity leverage gets restored again, with the current balance of the triple-A tranche increasing from around €97mn at the moment to €240mn (close to its original balance of €263mn).
- Cross Ocean Bosphorus CLO VIII reset (S&P/Fitch): (AAA/AAA) 138, (AA/AA) 205, (A/A) 250, (BBB-/BBB-) 350, (BB-/BB-) 625, and (B-/B-) 940. The deal had originally been issued in Q1 2023. Via the reset, the deal not only achieves tighter pricing (with the triple-A spread compressing from 180 to 138 bps, for example), but also higher equity leverage (e.g., with the triple-A tranche getting upsized from €183mn to €213.5mn).
- Jubilee CLO 2023-XXVII reset (S&P/Fitch): (AAA/AAA) 135, (AA/AA) 190, (A/A) 240, (BBB-/BBB-) 345, (BB-/BB-) 610, and (B-/B-) 920. The triple-A tranche was offered in loan and note format. The deal had originally been issued in H2 2023, and via the reset, the deal's funding cost declines meaningfully, including a 135 bps triple-A spread post-reset vs. 172 bps pre-reset.
- OCP Euro CLO 2022-6 refi (S&P/Fitch): (AAA/AAA) 124, (AA/AA) 195, (A/A) 230, (BBB-/BBB-) 330, (BB-/BB-) 560, and (B-/B-) 880. The tight triple-A pricing is due to the fact that the deal is shorter-dated given that the refi leaves the RP end date unchanged, with the deal just having 3 years left inside the RP (vs. 4.5 or 5 years for standard managed BSL new issue deals), translating into a WAL of just 4.2 years.

Primary triple-A spreads for standard managed BSL deals remain in the low to high 130 bps range depending on manager tiering, with strong new issue & reset supply forming a technical headwind for further spread tightening. At such levels, triple-A new issue spreads are around 15-18 bps wider than their YTD tightens in late February.

With regards to resets, we continue to see both in-RP resets (e.g., from the 2022 & 2023 vintages) as well as out-of-RP vintages, including from a deal first issued in 2015. Out-of-RP resets for deals effectively contain a new money component insofar as it involves restoring the tranches that have started to amortize already to their full



balance. As we discussed in [European CLO Weekly: 2025: H1 review & H2 outlook](#) from 30 June 2025, we have increased our refi & reset forecast for full year 2025 to €45bn. We expect the remaining €23bn of resets to predominately come from 2022 & 2023 vintage deals that haven't repriced yet. However, the potential for more out-of-RP deals provides upside risk to our forecast.

The **CLO pipeline** remains busy and we expect a very active primary market throughout July. The visible new issue pipeline includes deals by debut manager LGT, Fidelity, Five Arrows, and Blackstone, among others. The visible reset/refi pipeline (including potential refis) includes deals by Arini, Carlyle, AB Carval, Hayfin Emerald, Tikehau, and Signal, among others.

On the loan market, primary market activity remained busy, with a broad range of transactions, including TLBs for acquisition, dividend recap, and acquisition purposes as well as A&Es, refis and repricings. With regards to repricings in particular, transactions included a €2.613bn TLB by Stata (one of the largest loan issuers in European CLO collateral pool, with the margin compression from 400 to 350 bps), a €735mn TLB by Sante Cie (from 375 to 350 bps), a €405mn TLB by Norgine (from 450 to 400 bps), a €1bn TLB by Your.World (from 450 to 400 bps), and a €1.255bn TLB by Cooper Consumer Health (from 400 to 375 bps).

As a consequence of improved loan primary supply as well as more loans getting repriced, the loan market has softened a little bit, and the share of loans trading above par has declined from more than 40% end of May to just above 20% end of June, according to LCD data. The uptick in loan supply may make it harder to push repricings through, and, in fact, Bloomberg reported that a repricing for a €1bn Synlab TLB got pulled. We may still see some repricings from wider spread paper in the coming weeks, but we generally expect loan repricing activity to slow down from here.

On the secondary, the European Leveraged Loan Index (ELLI) more or less traded sideways last week, with a slight bias towards softer. CLO BWIC volume was slightly lower than the week prior at €330mn, though we also note Friday was a holiday in the US. Spreads finished the week unchanged.



Commentary

Decline in CLO manager trading activity

We provide an update on CLO manager trading activity, with emphasis on trading in stressed or distressed names. In addition, we review CLO manager holdings and concentration risks.

We make 2 on-request files available. Please email us if you'd like to receive either of them.

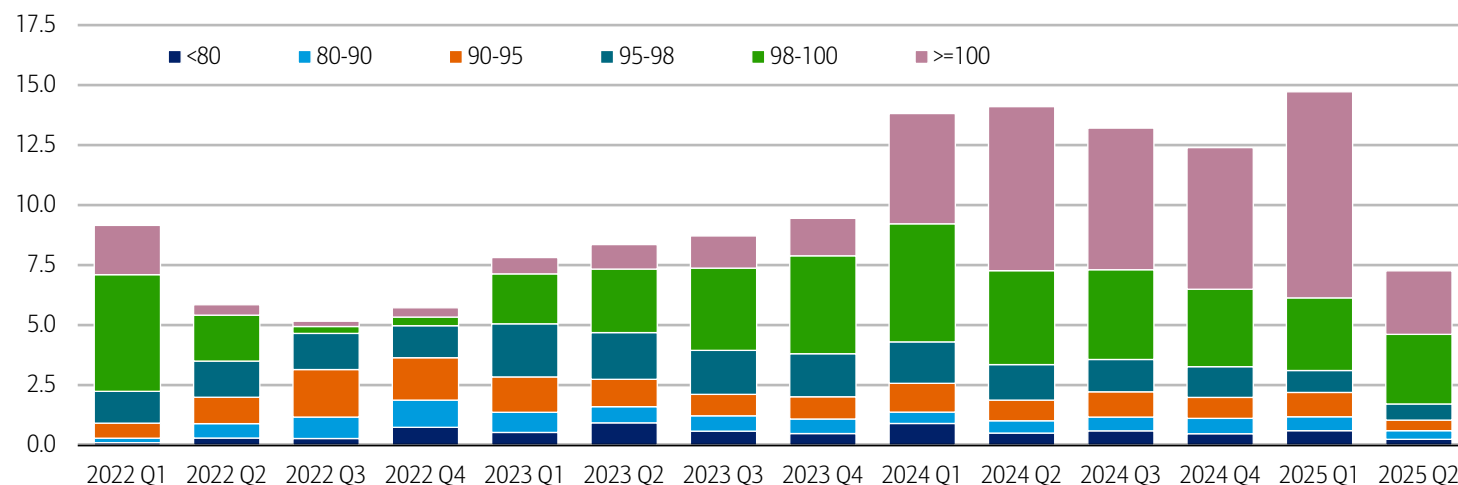
- **CLO manager trading, including trading in stressed & distressed names, WA sales & purchase prices by manager over time, and the price distribution for purchases by manager over time;**
- **CLO manager holdings**

CLO manager trading activity has slowed down in Q2

CLO manager trading was elevated throughout 2024 as well as Q1 2025, but then declined sharply in April and remained deflated in May. Managers were naturally reluctant to sell on the secondary in April given the decline in loan prices following Liberation Day. In May & June, activity remained muted even as loan prices recovered. From our conversations with CLO managers, we understand anecdotally that as repricings returned, rather than sell loans at risk of getting repriced, some managers preferred to wait for the repricing, not consent to it, and then get repaid at par, and hence sales activity remained weak.

Exhibit 1: CLO manager sales volume by quarter, in bn €

CLO manager trading activity was elevated in Q1 2025, but has declined since



Source: BofA Global Research, Bloomberg

Note: Full data for June 2025 not available yet, so final Q2 numbers will likely be a bit higher

BofA GLOBAL RESEARCH

% of loans sold at stressed or distressed levels remains low

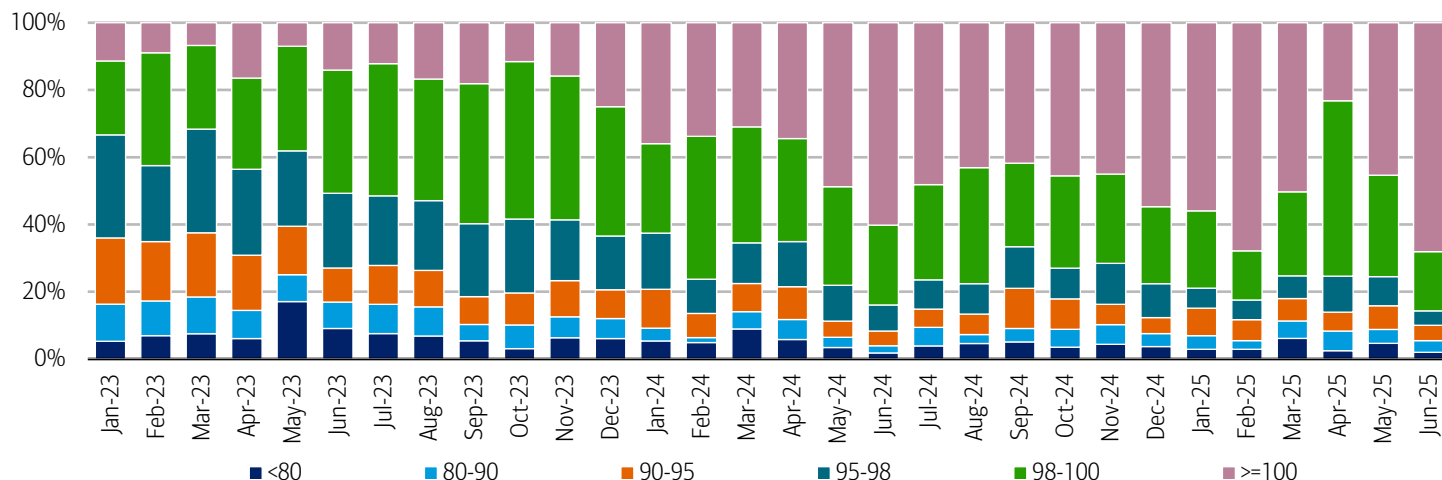
Whilst some CLO managers chose to sit on the sidelines with regards to loan sales in recent weeks, some continued to sell loans at risk of getting repriced though, and loans sold at or above par accounted for around 45% and 68% of CLO manager sales in May and June, respectively (though on low volume).

Sales at stressed or distressed levels remain low. For example, in May 2025, sales below 80 and between 80 & 90 accounted for approximately 5% and 2% of total sales, respectively. These figures are comparable to Q1 2025 as well as full year 2024, and significantly lower than in 2023.



Exhibit 2: CLO manager sales price distribution

Sales at or above par account for 68% of CLO manager sales in June so far, but absolute volume was low



Source: BofA Global Research, Bloomberg

Note: Only limited June 2025 trading data available at the time of writing

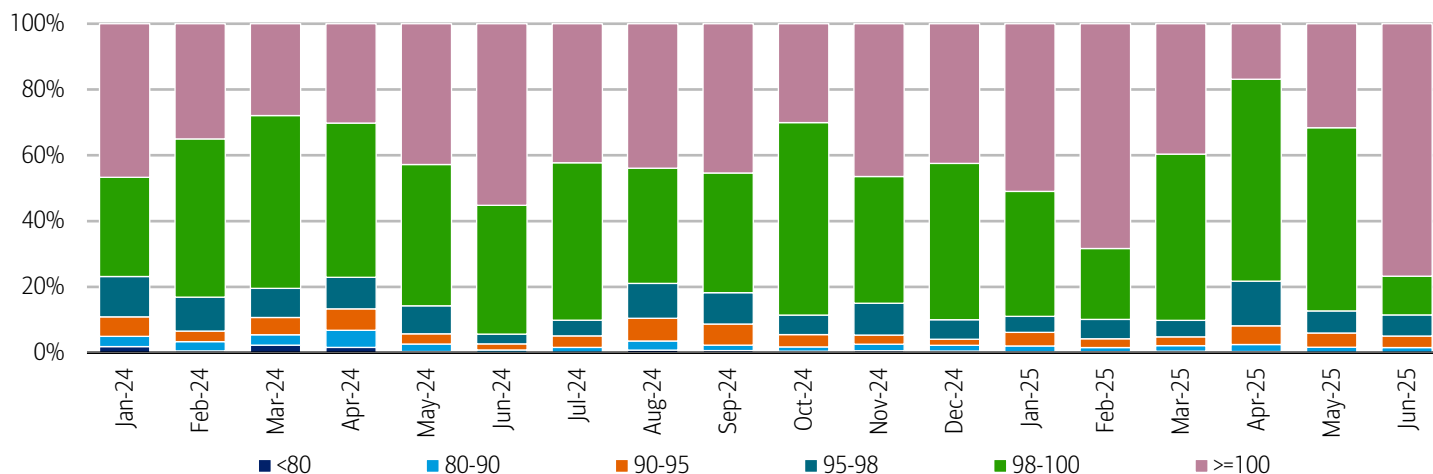
BofA GLOBAL RESEARCH

CLO managers can source paper on the primary again – but with no or little OID

As loan supply has improved, CLO managers have been able to source paper on the primary again. However, as we discussed in [European CLO Weekly: 2025: H1 review & H2 outlook](#) from 30 June 2025, with strong demand for primary paper, the vast majority of loans have been issued either at par or with just a negligible discount (e.g., 99.5 cash price). Consequently, most CLO manager purchases in June were at par, and the proportion of loans bought in the 98-99 cash price area has declined vs. May. The lack of OID during most of this year has been a key headwind for par build.

Exhibit 3: CLO manager purchase price distribution

In recent weeks, CLOs have been able to buy loans on the primary again as supply has picked up, but most loans were issued at par (i.e., offering no OID)



Source: BofA Global Research, Bloomberg

Note: Only limited June 2025 trading data available at the time of writing

BofA GLOBAL RESEARCH

Sales prices have been meaningfully below purchase prices since 2023

In the chart below, we show the weighted average sales and purchase prices for loans & bonds CLO managers received/paid over the last couple of years. Average sales prices

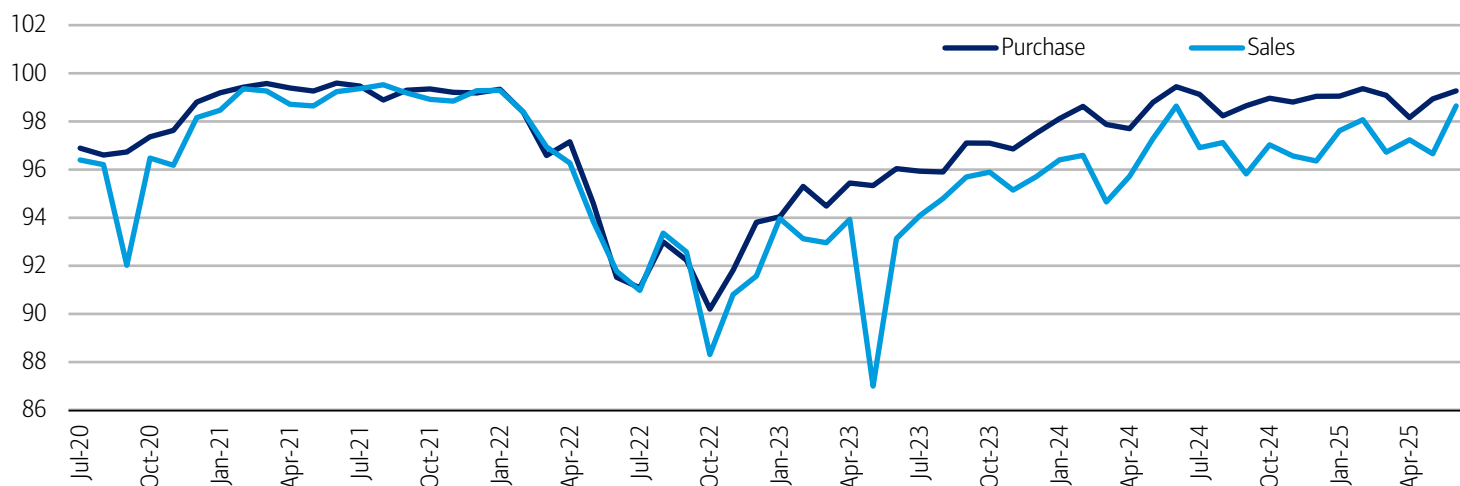


are oftentimes below purchase prices for CLOs given that purchases are often made on the primary, i.e., in the 98-100 cash price range generally whereas average sales prices get dragged down by credit risk sales, e.g., loans that got downgraded. Furthermore, CLOs receive loan principal back not just via sales on secondary, but also from loans repaying of course, and hence looking at trading data does not reflect the majority of cases where a loan repays at par.

What is interesting, though, is that the gap between the average sales and purchase prices has increased since 2023. In 2021, for example, the gap was just between 0.3 and 0.5 points for most months. In 2022, despite the deteriorating credit backdrop and declining cash prices, the gap remained quite low at least in H1, as CLO managers were able to buy fixed-rate bonds at even lower cash prices on the secondary as interest rates increased. However, since late 2022/early 2023, there has been a consistent and meaningful gap between average purchase and sales prices. This is in line with negative par build for the vast majority of deals recently and a tight loan primary amid strong CLO creation starting in 2024 (and hence limited if any OID).

Exhibit 4: CLO manager trading weighted average purchase and sales price

The weighted average price for loans & bonds sold by CLO managers has been meaningfully lower than for purchases since early 2023



Source: BofA Global Research, Bloomberg

BofA GLOBAL RESEARCH

Altice France remains the most sold issuer YTD

In the table below, we show the top 25 issuers in terms of gross sales YTD (regardless of cash price). We also provide gross purchase and net sales/purchase figures. For issuers trading near par, sales and purchases are often balanced (e.g., €235mn of sales for CD&R Firefly vs. €176mn of purchases, i.e., €59mn of net sales) whereas for stressed or distressed sales, purchases are naturally either zero or minimal, and gross and net sales either identical or very close.

Altice France remains the most sold issuer YTD (€448mn gross, €410mn net), followed by CD&R Firefly (€235mn gross, €59mn net), and Colisee (€230mn gross, €188mn net).

CLO manager sales activity has generally focussed on either sales at or above par (i.e., selling loans without realizing a par loss, e.g., to rotate into primary or – for above par sales – avoid a repricing), sales in the low 90s (e.g., selling loans potentially at risk of downgrade to CCC), and below 90 (i.e., stressed names) whereas sales activity has been very limited in the 95-99 cash price area.



Exhibit 5: Top 25 issuers in terms of gross sales by CLO manager in 2025

Altice France has been the most sold issuer YTD, with almost €450mn of debt sold on a gross and €410mn on a net basis

Issuer	Issuer rating			WA sales price	Sales, in mn €	Purchases, in mn €	Net, in mn €
	Moody's	S&P	Fitch				
ALTICE FRANCE SA	Caa2	D		85.7	-448.3	37.9	-410.4
CD&R FIREFLY BIDCO PLC	B2			100.1	-235.2	176.4	-58.8
COLISEE GROUP SAS	Caa2	CCC-		73.6	-229.9	42.2	-187.7
TK ELEVATOR MIDCO GMBH	B2			100.0	-224.0	349.5	125.6
APLEONA HOLDING GMBH	B2	B		100.1	-214.0	31.2	-182.8
GALILEO GLOBAL EDUCATION	B2	B		100.0	-158.5	169.0	10.5
CHROME BIDCO SASU	Caa1			85.2	-158.2	39.9	-118.3
DEDALUS FINANCE GMBH	B3	B-		99.9	-154.6	53.6	-101.1
EMERIA SASU	Caa1	B-	B-	91.1	-150.3	72.1	-78.1
WINDSOR HOLDINGS III LLC	B1	B+	B+	100.0	-140.8	120.5	-20.3
INSPIRED FINCO HOLDINGS	B2			99.9	-140.6	153.1	12.5
MASORANGE FINCO PLC	Ba3			99.9	-139.8	277.4	137.5
ZF INVEST SAS	B2	B		100.0	-134.6	40.8	-93.8
UNITED GROUP BV	B2	B		99.7	-132.0	70.5	-61.4
INEOS QUATTRO HOLDINGS	B1			97.5	-131.4	125.6	-5.8
CHEPLAPHARM ARZNEIMITTEL	B3	B	B	92.8	-130.3	159.4	29.1
CONCORDE LUX SARL	B3	B-		99.7	-130.0	110.3	-19.7
IGT HOLDING IV AB	B3	B		100.0	-128.2	141.5	13.2
FINANCIERE MENDEL SASU	B2			100.0	-126.4	151.2	24.8
PEER HOLDING III BV	Ba1	BB		100.1	-112.9	59.4	-53.5
BME GROUP HOLDING BV	B3	B-		93.7	-112.6	41.3	-71.3
ZIGGO BV	B1			98.3	-111.5	89.1	-22.4
CELESTE BIDCO BV	B3			100.0	-104.7	27.4	-77.2
GRIFOLS SA	B2	B+	B+	98.8	-104.1	208.9	104.8
ONE HOTELS GMBH	B3	B-	B+	100.0	-104.0	150.5	46.5

Source: BofA Global Research, Bloomberg

BofA GLOBAL RESEARCH

Around 70% of Altice France sales have been below 90 YTD

In the table below, we show the top 25 names in terms of gross sales below 90 YTD. We also show net sales/purchases, the weighted average sales price throughout the year, and the % of sales below 90 (since some loans & bonds may have been sold above 90 and others later on below 90 after prices declined, or an issuer may have multiple debt securities, with some trading above and others below 90).

The top 25 issuers sold account for around €1.3bn of sales below 90 (with total sales below 90 at €1.8bn YTD roughly).

- Altice France remains the most sold issuer below 90 YTD, with CLO managers selling – as aforementioned – €448mn in total, of which €315mn or 70% was below 90. Altice France is currently undergoing restructuring.
- French nursing home operator has been the second most sold issuer below 90 YTD, with CLO managers selling €230mn, of which €160mn was below 90. Colisee loans weighted average sales price YTD has been 74.
- Other issuers sold in meaningful quantities below 90 include laboratory company Cerba Healthcare (Chrome), chemicals company Seqens (Novacap/Sirona), Emerica (Foncia), and Altice International (Altice Financing).
- On Altice Financing, we note that the issuer had initially been downgraded to Caa1 by Moody's in June last year, then to CCC+ with negative outlook by February in February this year, and recently another notch down to Caa2 with negative outlook by Moody's again.

- The top 3 issuers sold below 90 – Altice France, Colisee, and Chrome Bidco (Cerba Healthcare senior secured loans) – account for more than 30% of all sales below 90 YTD.
- Sales below 90 in return account for 8% of total CLO manager sales YTD (€1.8bn of sales below 90 vs. €22bn of total sales).

Exhibit 6: Top 25 issuers in terms of gross sales below 90 by CLO managers in 2025

Altice France, Colisee, and Chrome/Cerba Healthcare have been the most sold issuers below 90 YTD

Issuer	Issuer rating			WA sales price	Sales < 90, in mn €	Sales, in mn €	% sales below 90	Purchases, in mn €	Net, in mn €
	Moody's	S&P	Fitch						
ALTICE FRANCE SA	Caa2	D		85.7	-315.4	-448.3	70.4%	37.9	-410.4
COLISEE GROUP SAS	Caa2	CCC-		73.6	-160.0	-229.9	69.6%	42.2	-187.7
CHROME BIDCO SASU	Caa1			85.2	-106.5	-158.2	67.3%	39.9	-118.3
SIRONA BIDCO SASU	Caa1			84.6	-91.5	-91.5	100.0%	7.5	-84.0
EMERIA SASU	Caa1	B-	B-	91.1	-58.6	-150.3	39.0%	72.1	-78.1
ALTICE FINANCING SA	Caa2			80.3	-57.0	-58.6	97.3%	17.9	-40.7
CHROME HOLDCO	Caa1	CCC+		35.1	-49.2	-49.2	100.0%	1.5	-47.6
TELE COLUMBUS AG	Caa1	CCC+		78.5	-46.3	-46.3	100.0%	4.1	-42.2
CARNIVAL PLC	Ba3		BB+	86.3	-40.8	-40.8	100.0%	69.7	29.0
TRANSCOM HOLDING AB	Caa1	B-		77.5	-38.5	-38.5	100.0%	12.0	-26.5
VZ SECURED FINANCING BV	B1			89.1	-36.3	-37.8	96.0%	47.5	9.8
EUTELSAT SA	B1	B-	BB	86.6	-35.1	-59.3	59.2%	4.4	-54.9
BABILOU SAS				92.0	-33.7	-81.9	41.1%	55.9	-26.0
VICTORIA PLC	Caa1	CCC+	CCC+	81.2	-33.2	-80.0	41.5%	0.8	-79.2
ZIGGO BOND CO BV	B3			87.7	-25.9	-27.1	95.6%	14.8	-12.3
CHEPLAPHARM ARZNEIMITTEL	B3	B	B	92.8	-24.2	-130.3	18.6%	159.4	29.1
S4 CAPITAL LUX FINANCE S	B1			90.2	-18.3	-40.9	44.6%	21.0	-19.9
FOUNDEVER GROUP SA	B3	B		62.9	-17.8	-17.8	100.0%	2.0	-15.8
CERBA HEALTHCARE SASU	B1			81.3	-17.7	-17.7	100.0%	3.3	-14.5
GHD VERWALTUNG GESUND	Caa2	CCC+		79.3	-14.2	-14.2	100.0%	10.5	-3.7
HERENS MIDCO SARL	B3	B-		86.6	-14.1	-14.1	100.0%	1.3	-12.8
GRUPO-ANTOLIN IRAUSA SA	B3	B-		68.9	-14.0	-14.0	100.0%	0.4	-13.6
INEOS QUATTRO HOLDINGS	B1			97.5	-14.0	-131.4	10.7%	125.6	-5.8
POSEIDON BIDCO SASU	B3	B-		65.5	-14.0	-14.0	100.0%	6.5	-7.5
LUNE HOLDINGS SARL	Caa1	CCC	CCC-	70.7	-13.8	-13.8	100.0%	1.3	-12.4

Source: BofA Global Research, Bloomberg

BofA GLOBAL RESEARCH

Net sales only a small percentage of holdings for most issuers

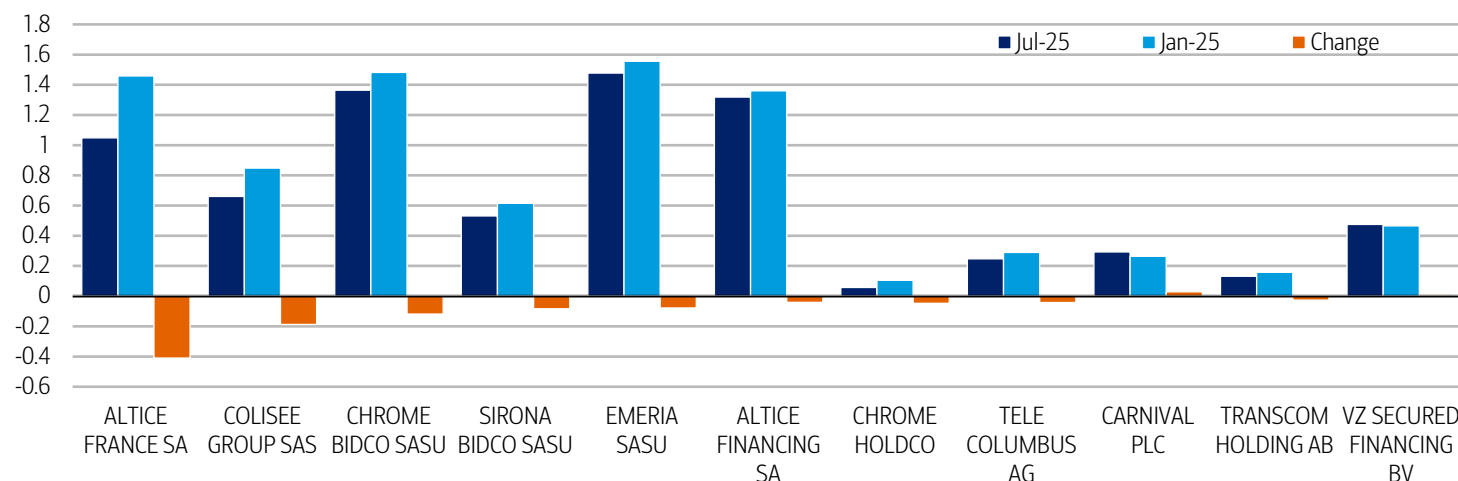
Whilst CLOs have reduced their exposure meaningfully to some stressed or distressed issuers, holdings have not change as much for others. For example, CLOs reduce their Altice France exposure significantly, from more than €1.4bn in early January to just above €1bn now, i.e., a 28% reduction. Similarly, CLOs reduced their exposure to Colisee by 22%.

However, for some other issuers, reductions were much smaller and CLOs held on to most of their holdings. For example, percentage reductions YTD were just 8%, 14%, and 5% for Chrome Bidco, Sirona, and Emerica, respectively. In fact, there were a very few cases where despite significant sales, net purchases remained positive and exposure thus increase, e.g., for Carnival PLC (with holdings increasing by 11% YTD).



Exhibit 7: CLO holdings and net change for 10 most sold issuers below 90 on a gross basis YTD, in bn EUR

Altice France exposure has declined from more than €1.4bn to just above €1bn YTD, though for many other issuers among the 10 most sold below 90, net sales represented only a small proportion of holdings



Source: BofA Global Research, Intex, Bloomberg

BofA GLOBAL RESEARCH

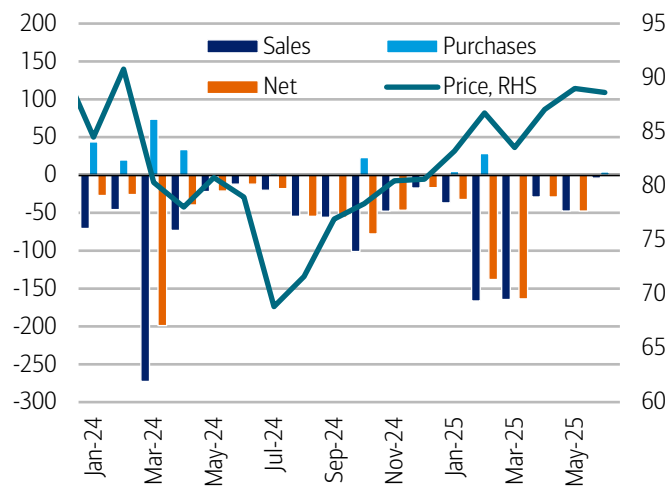
Be careful with buying the dip

In the 6 charts below, we show monthly gross sales, gross purchases, net purchases/sales, and the weight average sales price for 6 issuers of interest – Altice France, Altice Financing, Cerba Healthcare entities (senior secured loans, fixed-rate senior notes, and subordinated bonds), and Colisee – since January 2024.

- CLOs have been net sellers of Altice France debt for the last 18 months, and even gross purchases have been rare after Q1 2024. With Altice France now carried as a Defaulted Obligation, the CLO eligibility and reinvestment criteria should prevent any further purchases regardless.
- CLOs have also been net sellers of Altice Financing over the same time period, but one interesting difference is that some individual managers have actually added Altice Financing exposure even after its downgrade to Caa1 by Moody's in June last year. In fact, Altice Financing gross purchases have been €18mn YTD (vs. €59mn of sales). The WA sales price has deteriorated further since, from 84 at the start of the year to 76.
- Similarly, some CLOs purchased Cerba Healthcare debt both following its downgrade to Caa1 in September 2024, though overall CLOs have generally been net sellers.
- The data on trading in stressed names illustrates well the risk of buying loans post CCC downgrade – entry levels may be compelling, but there always remains the risk of further deterioration. We emphasize, though, that generally gross purchase volume for loans post CCC downgrades are very small, oftentimes just a few million Euros (i.e., the overwhelming majority of CLO managers do to pursue this “dip buying” strategy).

Exhibit 8: Altice France sales & purchases, in mn €

CLOs have been net sellers of Altice France for the last 18 months, including strong sales in Q1 2025

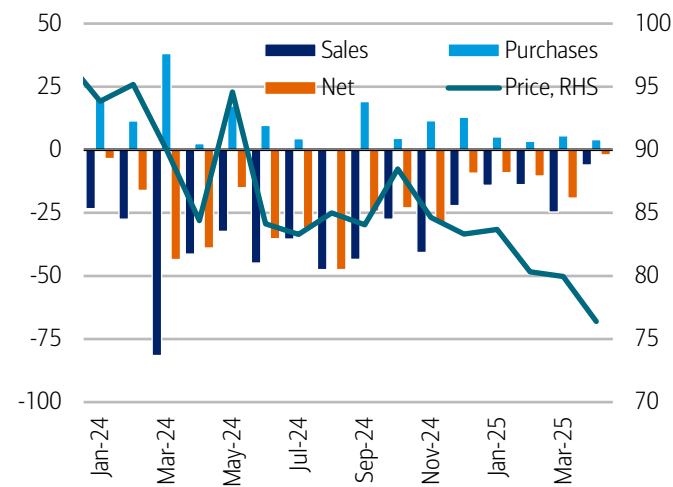


Source: BofA Global Research, Bloomberg

BofA GLOBAL RESEARCH

Exhibit 9: Altice Financing sales & purchases, in mn €

Whilst net sellers, some individual CLOs purchased Altice Financing loans over the last few months, which then got downgraded further by Moody's

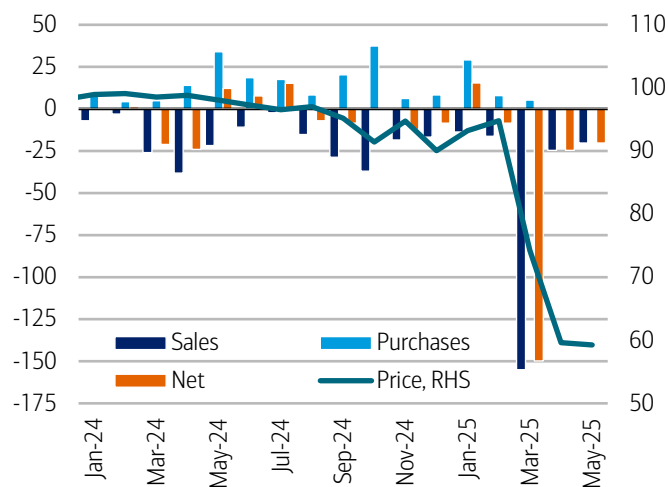


Source: BofA Global Research, Bloomberg

BofA GLOBAL RESEARCH

Exhibit 10: Colisee sales & purchases, in mn €

Some CLOs added Colisee exposure before the loans sold off in March

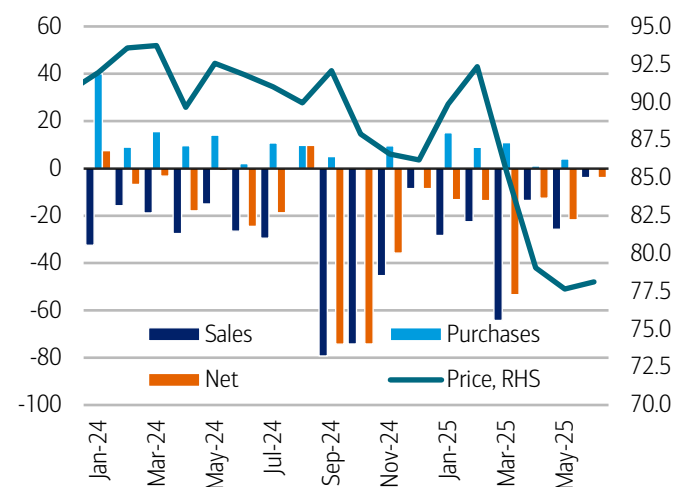


Source: BofA Global Research, Bloomberg

BofA GLOBAL RESEARCH

Exhibit 11: Chrome Bidco (Cerba senior secured loans) sales & purchases, in mn €

Cerba Healthcare loans sold off in March



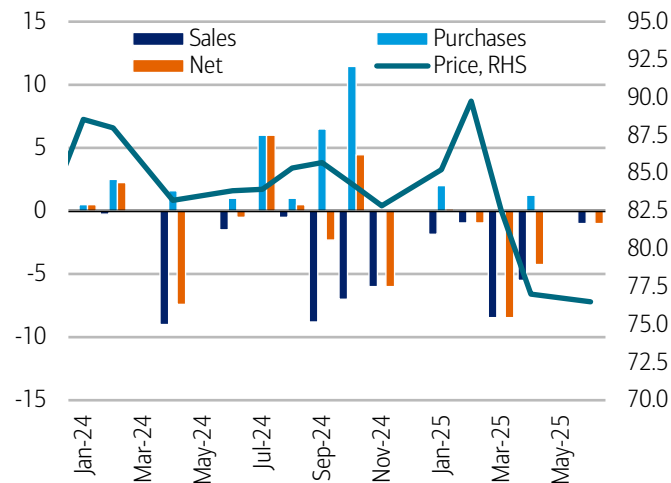
Source: BofA Global Research, Bloomberg

BofA GLOBAL RESEARCH



Exhibit 12: Cerba Healthcare (fixed-rate senior notes) sales & purchases, in mn €

CLOs were net buyers in October 2024, so absolute volume was small

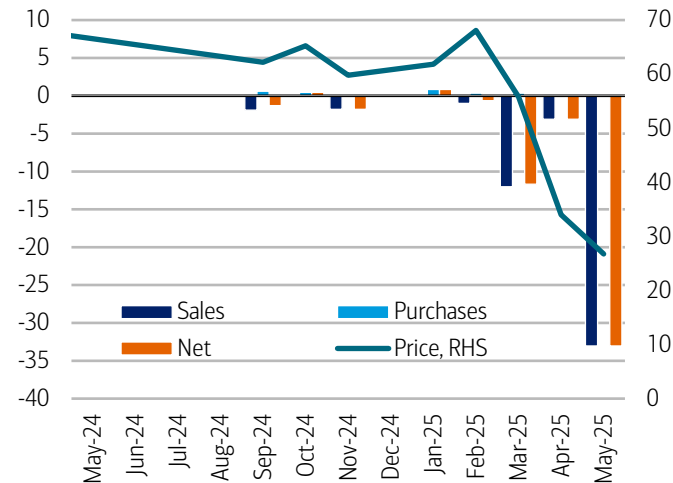


Source: BofA Global Research, Bloomberg

BoFA GLOBAL RESEARCH

Exhibit 13: Cerba Healthcare (subordinated bonds) sales & purchases, in mn €

CLOs have sold Cerba subordinated bonds in the 30s and 20s cash price area recently



Source: BofA Global Research, Bloomberg

BoFA GLOBAL RESEARCH

The top 10 issuers account for 7.6% of CLO collateral

CLO collateral pools continued to have significant single issuer concentration, though the composition has changed a bit in light of significant net selling of several large issuers such as Altice France, Altice Financing, and Cerba Healthcare, amongst others.

- The top 5, 10, and 20 issuers accounts for 4.3%, 7.6%, and 13.4% of total CLO collateral, respectively.
- Telecommunications company MasOrange is the largest exposure in CLO collateral pools, closely followed by retailer Action (Peer Holding), chemical company INEOS, alarm systems company Verisure, and pharmaceutical company Stata Arzneimittel (Nidda Healthcare). The top 3 issuers all have Moody's issuer ratings of at least Ba3.
- Issuers in the top 10 are generally included in 70-85% of all deals.
- Both Altice France and Altice Financing are no longer in the top 25, with Altice France having declined to the 56th place and Altice Financing to the 31st place.

Exhibit 14: Top 25 issuers held by European CLOs

Neither Altice France nor Altice Financing are in the top 25 any longer

Issuer	BBG industry group	Issuer rating			Exposure	
		Moody's	S&P	Fitch	% of collat	# of deals
MASORANGE FINCO PLC	Telecommunications	Ba3			0.96%	80.4%
PEER HOLDING III BV	Retail	Ba1	BB		0.96%	84.7%
INEOS FINANCE PLC	Chemicals	Ba3			0.84%	80.9%
VERISURE HOLDING AB	Commercial Services	B1	B+		0.76%	77.3%
NIDDA HEALTHCARE HOLDING	Pharmaceuticals	B2			0.74%	73.1%
IVC ACQUISITION LTD	Pharmaceuticals	B3			0.72%	80.3%
INEOS QUATTRO HOLDINGS	Chemicals	B1			0.67%	70.6%
ION TRADING FINANCE LTD	Internet		B		0.65%	72.4%
COOPER CONSUMER HEALTH S	Biotechnology	B3	B	B	0.64%	75.4%
AI SIRONA LUXEMBOURG ACQ	Pharmaceuticals	B2	B		0.63%	77.1%
QUIMPER AB	Distribution/Wholesale	B1	B+	B+	0.61%	73.2%
FLORA FOOD MANAGEMENT BV	Food	B2			0.60%	64.2%
ZIGGO BV	Media	B1			0.59%	66.6%
HOMEVI	Healthcare-Services	B3	B-		0.59%	70.6%
EMERIA SASU	Real Estate	Caa1	B-	B-	0.59%	68.2%

Exhibit 14: Top 25 issuers held by European CLOs

Neither Altice France nor Altice Financing are in the top 25 any longer

Issuer	BBG industry group		Issuer rating		Exposure	
WINTERFELL FINANCING SARL	Retail	B3	B-	B-	0.58%	72.2%
TK ELEVATOR MIDCO GMBH	Machinery-Diversified	B2			0.58%	66.5%
TACKLE SARL	Entertainment	B2	B		0.57%	63.2%
INSPIRED FINCO HOLDINGS	Commercial Services	B2			0.57%	70.5%
CAB SELARL	Healthcare-Services	B3	B-		0.56%	70.8%
INOVIE SASU	Healthcare-Services				0.56%	68.8%
BME GROUP HOLDING BV	Retail	B3	B-		0.56%	64.0%
AURIS LUXEMBOURG III SA	Healthcare-Products	B3			0.55%	64.9%
MEHILAINEN YHTIOT OY	Healthcare-Services	B2	B		0.55%	63.3%
CHROME BIDCO SASU	Healthcare-Services	Caa1			0.54%	65.9%

Source: BofA Global Research, Intex, Bloomberg

BofA GLOBAL RESEARCH

European CLOs continue to have concentration risk...

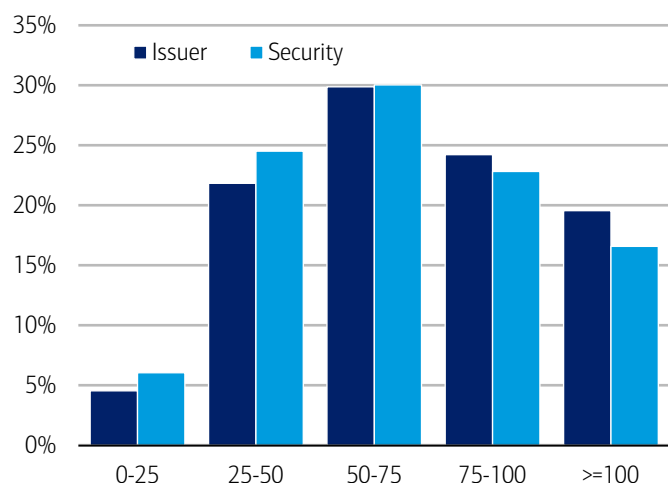
European CLOs are known to have more portfolio overlap, more concentrated pools, and less issuer diversity than US CLOs, as we discussed in [European CLO Weekly: The global CLO market: Value, fundamentals & tails](#) from 23 June 2025. This is also in line with the table on top issuers above, with several large issuers included in the vast majority of deals.

For the average in-RP CLO in Europe, positions of more than or equal to 1% of CLO collateral account for 20% of the deal's collateral (on an issuer-level) and 17% on a security-level (vs. 2% on a security-level for US deals).

Moody's diversity scores are generally in the 50 to 70 range for most European deals inside the RP, with a median of 61 vs. 84 for US deals.

Exhibit 15: Position sizing for European CLOs inside the RP, in bps

Almost 20% and 17% of positions held by CLOs account for 1%+ of a deal's collateral on average (on an issuer- and security-level, respectively)

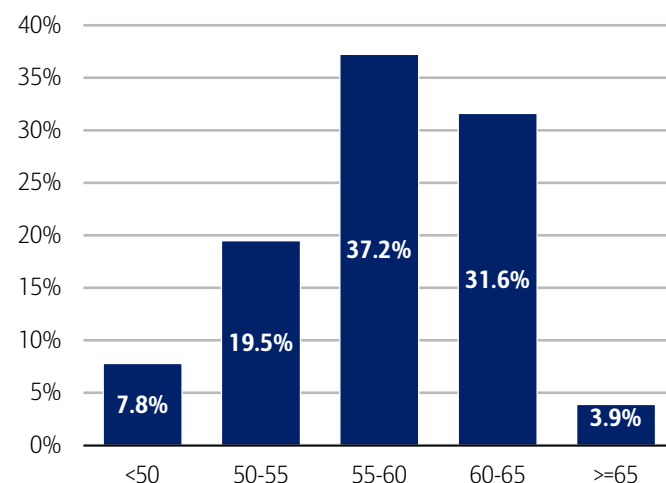


Source: BofA Global Research, Intex

BofA GLOBAL RESEARCH

Exhibit 16: Moody's diversity score distribution for CLOs inside the RP

Diversity scores are much lower in Europe vs. the US, but have improved over time



Source: BofA Global Research, Intex

BofA GLOBAL RESEARCH

... but diversity scores have improved over time

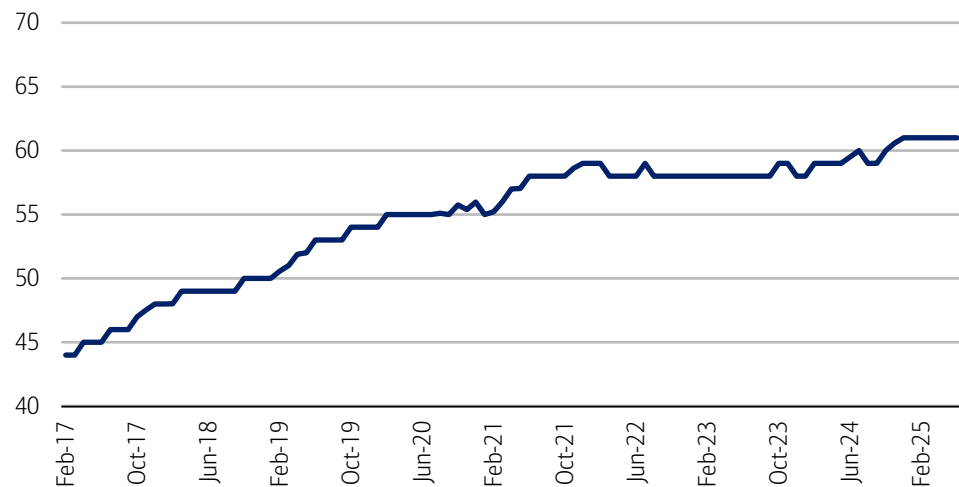
However, diversity scores have significantly improved in recent years. For example, the median diversity score for in-RP deals used to be around 45 in early 2017 – a level at which deals nowadays would fail their diversity test – and have increased by more than 15 points since.



Over the same time period, though, par subordination levels generally have declined a bit and equity leverage increased.

Exhibit 17: Median Moody's diversity score for CLOs inside the RP

Whilst lower than the US, Moody's diversity scores have improved significantly for Euro CLOs in recent years



Source: BofA Global Research, Intex

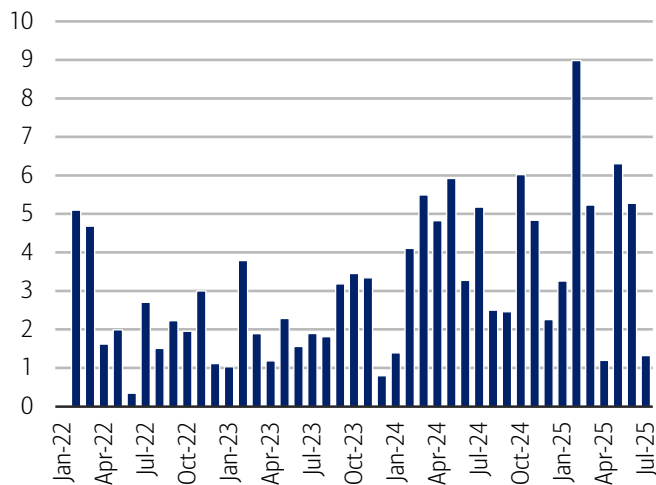
BofA GLOBAL RESEARCH

European CLO Data Appendix

Primary market

Exhibit 18: European CLO new issue volume, in bn EUR

New issue activity has been elevated YTD

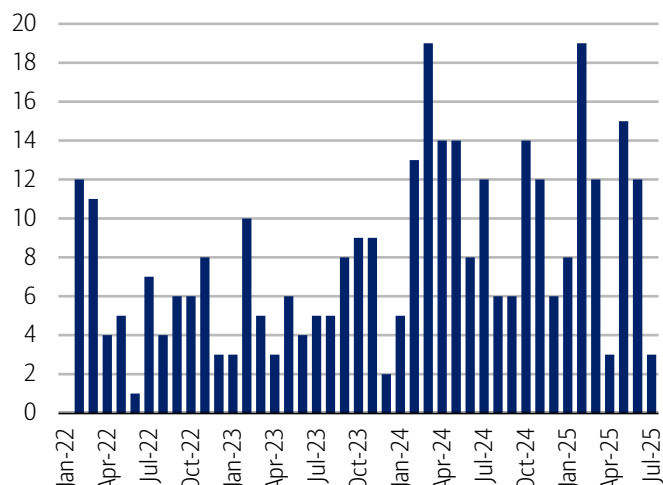


Source: BofA Global Research, IGM, Bloomberg, Creditflux

BofA GLOBAL RESEARCH

Exhibit 19: European CLO new issue deal count

Reset activity has picked up, and we expect €45bn of resets & refs this year

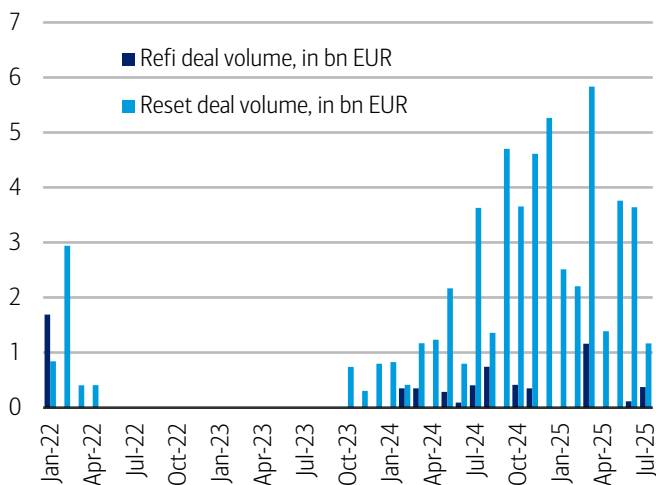


Source: BofA Global Research, IGM, Bloomberg, Creditflux

BofA GLOBAL RESEARCH

Exhibit 20: European CLO refi/reset volume

Refi/reset volume has picked up as spreads tightened

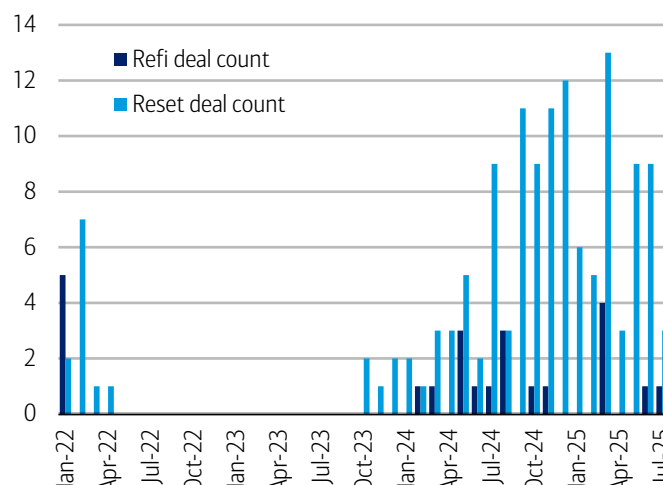


Source: BofA Global Research, IGM, Bloomberg, Creditflux

BofA GLOBAL RESEARCH

Exhibit 21: European CLO refi/reset deal count

Resets in particular have picked up, mainly from 2022 & 2023 vintage deals



Source: BofA Global Research, IGM, Bloomberg, Creditflux

BofA GLOBAL RESEARCH



Secondary market

Exhibit 22: European CLO relative value

CLO spreads have rebounded from their April dislocation

	04-Jul-25	27-Jun-25	06-Jun-25	03-Jan-25	04-Jul-24	1 week	1 month	6 months	1 year
European CLOs									
AAA	110	110	110	105	100	0	0	5	-60
AA	175	175	175	165	170	0	0	10	5
A	210	210	215	210	210	0	-5	0	0
BBB	300	300	310	300	325	0	-10	0	-25
BB	575	575	600	575	625	0	-25	0	-50
B	865	865	875	875	935	0	-10	-10	-70
US CLOs (vs. SOFR)									
AAA	120	120	125	120	120	0	-5	0	0
AA	160	160	165	170	175	0	-5	-10	-15
A	180	180	185	190	210	0	-5	-10	-30
BBB	285	285	285	285	330	0	0	0	-45
BB	625	625	650	575	650	0	-25	50	-25
UK RMBS									
Prime AAA	45	45	48	51	40	0	-3	-6	5
BTL AAA	72	72	74	79	82	0	-2	-7	-10
BTL A	130	130	130	133	150	0	0	-3	-20
NCF AAA	75	75	76	84	87	0	-1	-9	-12
NCF A	135	135	135	143	155	0	0	-8	-20
European RMBS									
France AAA	52	52	53	49		0	-1	3	
Dutch Prime AAA	45	45	46	44	36	0	-1	1	9
Dutch BTL AAA	67	67	68	72		0	-1	-5	
Ireland AAA	71	71	72	74	62	0	-1	-3	9
Ireland A	112	112	113	123	140	0	-1	-11	-28
CMBS									
UK AAA	120	120	135	135	135	0	-15	-15	-15
UK A	200	200	230	210	250	0	-30	-10	-50
Eurozone AAA	115	115	130	130	130	0	-15	-15	-15
Eurozone A	200	200	230	210	250	0	-30	-10	-50
ABS									
German Auto AAA 2 year	49	49	50	45	35	0	-1	4	14
UK Credit Card AAA	77	77	78	88	82	0	-1	-11	-5
CDS indices									
iTraxx Main 5Y	53	55	56	57	54	-2	-3	-4	-1
iTraxx Xover 5Y	278	284	289	307	293	-6	-11	-29	-14
CDX IG 5Y	49.65	52.10	54.10	48.75	49.90	-2.45	-4.45	0.90	-0.25
CDX HY 5Y	308.85	325.69	339.63	304.61	332.44	-16.85	-30.78	4.24	-23.59
Leveraged loans									
European loans (price)	97.63	97.69	97.83	98.05	97.64	-0.07	-0.21	-0.42	-0.02
US loans (price)	98.81	98.67	98.14	98.01	97.17	0.14	0.67	0.80	1.65
IG credit									
European IG corporates	75	80	84	88	73	-5	-9	-13	2
US IG corporates	121	129	126	118	123	-8	-5	3	-2
HY credit									
European HY corporates	272	284	275	266	266	-12	-3	6	6
US HY corporates	280	297	303	279	307	-17	-23	1	-27

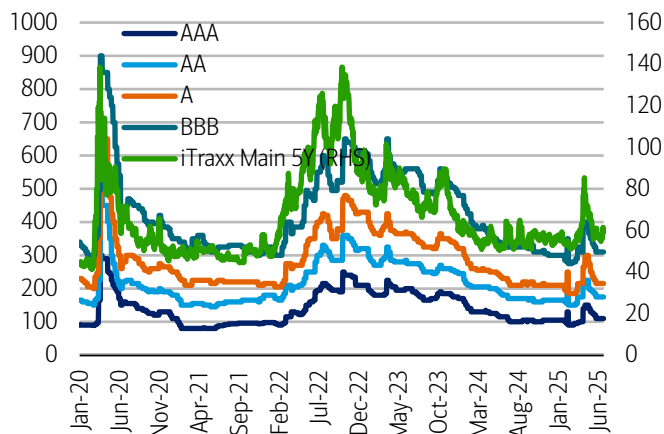
Source: BofA Global Research, Bloomberg, ICE Data Indices

BofA GLOBAL RESEARCH



Exhibit 23: CLO IG spreads vs. iTraxx Main 5Y

CLO IG spreads have been range-bound in recent weeks

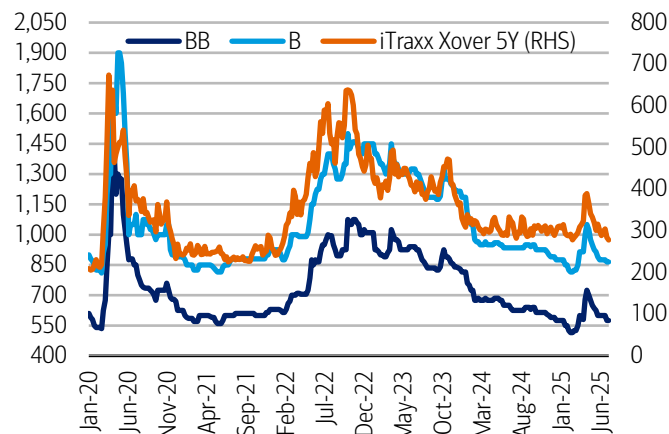


Source: BofA Global Research, Bloomberg

BofA GLOBAL RESEARCH

Exhibit 24: CLO sub-IG spreads vs. iTraxx Xover 5Y

CLO sub-IG spreads have rebounded from their April dislocation

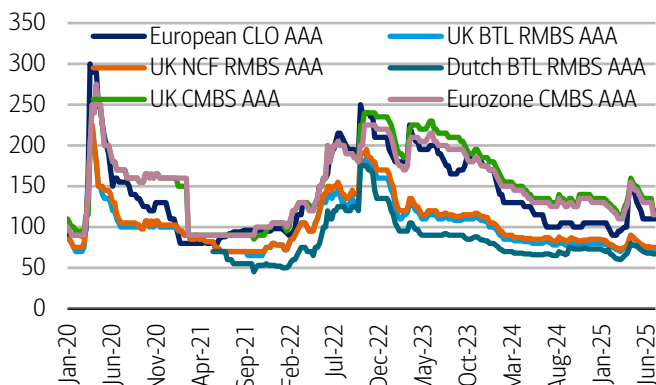


Source: BofA Global Research, Bloomberg

BofA GLOBAL RESEARCH

Exhibit 25: CLO AAA vs. other SF products

CLO AAA offers higher carry than BTL and NCF RMBS

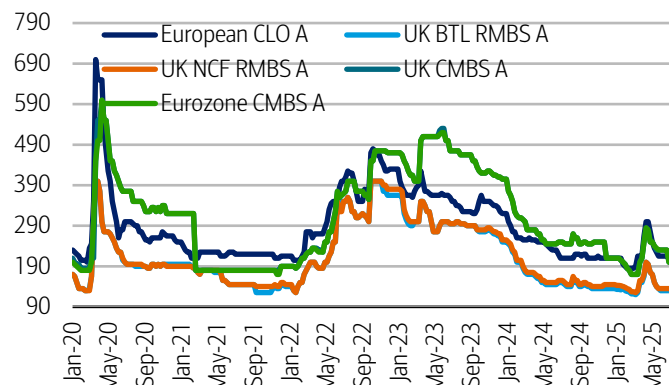


Source: BofA Global Research

BofA GLOBAL RESEARCH

Exhibit 26: CLO A vs. other SF products

CLO A offers a higher carry than other SF products, excluding CMBS

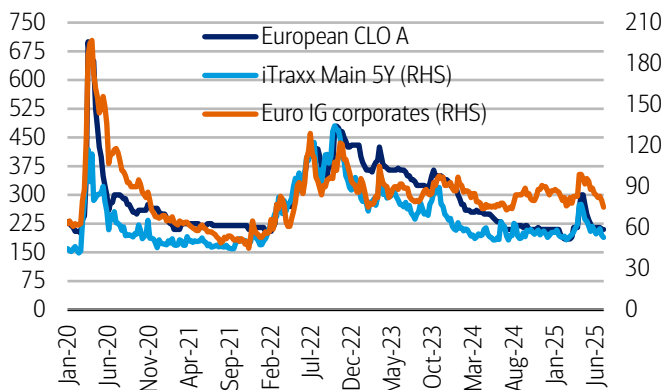


Source: BofA Global Research

BofA GLOBAL RESEARCH

Exhibit 27: CLO A vs. Euro IG corporates

CLO A remains wider than corporate credit

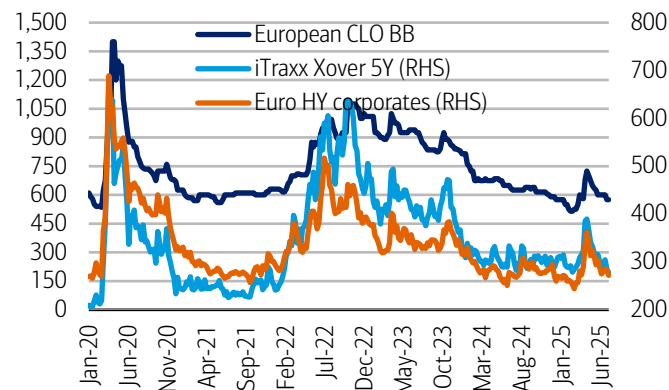


Source: BofA Global Research, Bloomberg, ICE

BofA GLOBAL RESEARCH

Exhibit 28: CLO BB vs. Euro HY corporates

CLO BB offers higher carry than Euro HY corporates



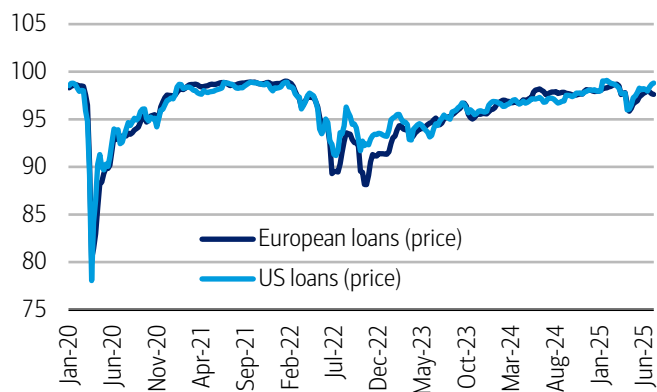
Source: BofA Global Research, Bloomberg, ICE

BofA GLOBAL RESEARCH



Exhibit 29: European vs. US leveraged loans

The ELLI has rebounded from its April dislocation



Source: BofA Global Research, Bloomberg, LCD

BofA GLOBAL RESEARCH

Disclosures

Important Disclosures

Due to the nature of strategic analysis, the issuers or securities recommended or discussed in this report are not continuously followed. Accordingly, investors must regard this report as providing stand-alone analysis and should not expect continuing analysis or additional reports relating to such issuers and/or securities.

BofA Global Research personnel (including the analyst(s) responsible for this report) receive compensation based upon, among other factors, the overall profitability of Bank of America Corporation, including profits derived from investment banking. The analyst(s) responsible for this report may also receive compensation based upon, among other factors, the overall profitability of the Bank's sales and trading businesses relating to the class of securities or financial instruments for which such analyst is responsible.

BofA Securities fixed income analysts regularly interact with sales and trading desk personnel in connection with their research, including to ascertain pricing and liquidity in the fixed income markets.

Other Important Disclosures

Prices are indicative and for information purposes only. Except as otherwise stated in the report, for any recommendation in relation to an equity security, the price referenced is the publicly traded price of the security as of close of business on the day prior to the date of the report or, if the report is published during intraday trading, the price referenced is indicative of the traded price as of the date and time of the report and in relation to a debt security (including equity preferred and CDS), prices are indicative as of the date and time of the report and are from various sources including BofA Securities trading desks.

The date and time of completion of the production of any recommendation in this report shall be the date and time of dissemination of this report as recorded in the report timestamp.

This report may refer to fixed income securities or other financial instruments that may not be offered or sold in one or more states or jurisdictions, or to certain categories of investors, including retail investors. Readers of this report are advised that any discussion, recommendation or other mention of such instruments is not a solicitation or offer to transact in such instruments. Investors should contact their BofA Securities representative or Merrill Global Wealth Management financial advisor for information relating to such instruments.

Rule 144A securities may be offered or sold only to persons in the U.S. who are Qualified Institutional Buyers within the meaning of Rule 144A under the Securities Act of 1933, as amended. SECURITIES OR OTHER FINANCIAL INSTRUMENTS DISCUSSED HEREIN MAY BE RATED BELOW INVESTMENT GRADE AND SHOULD THEREFORE ONLY BE CONSIDERED FOR INCLUSION IN ACCOUNTS QUALIFIED FOR SPECULATIVE INVESTMENT.

The securities or other financial instruments discussed in this report may be traded over-the-counter. Retail sales and/or distribution of this report may be made only in states where these instruments are exempt from registration or have been qualified for sale.

Officers of BofAS or one or more of its affiliates (other than research analysts) may have a financial interest in securities of the issuer(s) or in related investments.

This report, and the securities or other financial instruments discussed herein, may not be eligible for distribution or sale in all countries or to certain categories of investors, including retail investors.

Information relating to Affiliates of BofAS, MLPF&S and Distribution of Affiliate Research Reports:

Refer to [BofA Global Research policies relating to conflicts of interest](#).

"BofA Securities" includes BofA Securities, Inc. ("BofAS") and its affiliates. Investors should contact their BofA Securities representative or Merrill Global Wealth Management financial advisor if they have questions concerning this report or concerning the appropriateness of any investment idea described herein for such investor. "BofA Securities" is a global brand for BofA Global Research.

BofAS and/or Merrill Lynch, Pierce, Fenner & Smith Incorporated ("MLPF&S") may in the future distribute, information of the following non-US affiliates in the US (short name: legal name, regulator): Merrill Lynch (South Africa): Merrill Lynch South Africa (Pty) Ltd., regulated by the Financial Sector Conduct Authority; MLI (UK): Merrill Lynch International, regulated by the Financial Conduct Authority (FCA) and the Prudential Regulation Authority (PRA); BofASE (France): BofA Securities Europe SA is authorized by the Autorité de Contrôle Prudentiel et de Résolution (ACPR) and regulated by the ACPR and the Autorité des Marchés Financiers (AMF). BofA Securities Europe SA ("BofASE") with registered address at 51, rue La Boétie, 75008 Paris is registered under no 842 602 690 RCS Paris. In accordance with the provisions of French Code Monétaire et Financier (Monetary and Financial Code), BofASE is an établissement de crédit et d'investissement (credit and investment institution) that is authorised and supervised by the European Central Bank and the Autorité de Contrôle Prudentiel et de Résolution (ACPR) and regulated by the ACPR and the Autorité des Marchés Financiers. BofASE's share capital can be found at www.bofam.com/BofASEdisclaimer; BofA Europe (Milan): Bank of America Europe Designated Activity Company, Sucursal en España, regulated by the Bank of Spain, the ECB and the CBI; Merrill Lynch (Australia): Merrill Lynch Equities (Australia) Limited, regulated by the Australian Securities and Investments Commission; Merrill Lynch (Hong Kong): Merrill Lynch (Asia Pacific) Limited, regulated by the Hong Kong Securities and Futures Commission (HKSF); Merrill Lynch (Singapore): Merrill Lynch (Singapore) Pte Ltd, regulated by the Monetary Authority of Singapore (MAS); Merrill Lynch (Canada): Merrill Lynch Canada Inc, regulated by the Canadian Investment Regulatory Organization; Merrill Lynch (Mexico): Merrill Lynch Mexico, SA de CV, Casa de Bolsa, regulated by the Comisión Nacional Bancaria y de Valores; BofAS Japan: BofA Securities Japan Co., Ltd., regulated by the Financial Services Agency; Merrill Lynch (Seoul): Merrill Lynch International, LLC Seoul Branch, regulated by the Financial Supervisory Service; Merrill Lynch (Taiwan): Merrill Lynch Securities (Taiwan) Ltd., regulated by the Securities and Futures Bureau; BofAS India: BofA Securities India Limited, regulated by the Securities and Exchange Board of India (SEBI); Merrill Lynch (Israel): Merrill Lynch Israel Limited, regulated by Israel Securities Authority; Merrill Lynch (DIFC): Merrill Lynch International (DIFC Branch), regulated by the Dubai Financial Services Authority (DFSA); Merrill Lynch (Brazil): Merrill Lynch S.A. Corretora de Títulos e Valores Mobiliários, regulated by Comissão de Valores Mobiliários; Merrill Lynch KSA Company: Merrill Lynch Kingdom of Saudi Arabia Company, regulated by the Capital Market Authority. This information: has been approved for publication and is distributed in the United Kingdom (UK) to professional clients and eligible counterparties (as each is defined in the rules of the FCA and the PRA) by MLI (UK), which is authorized by the PRA and regulated by the FCA and the PRA - details about the extent of our regulation by the FCA and PRA are available from us on request; has been approved for publication and is distributed in the European Economic Area (EEA) by BofASE (France), which is authorized by the ACPR and regulated by the ACPR and the AMF; has been considered and distributed in Japan by BofAS Japan, a registered securities dealer under the Financial Instruments and Exchange Act in Japan, or its permitted affiliates; is issued and distributed in Hong Kong by Merrill Lynch (Hong Kong) which is regulated by HKSF; is issued and distributed in Taiwan by Merrill Lynch (Taiwan); is issued and distributed in India by BofAS India; and is issued and distributed in Singapore to institutional investors and/or accredited investors (each as defined under the Financial Advisers Regulations) by Merrill Lynch (Singapore) (Company Registration No 198602883D). Merrill Lynch (Singapore) is regulated by MAS. Merrill Lynch Equities (Australia) Limited (ABN 65 006 276 795), AFS License 235132 (MLEA) distributes this information in Australia only to 'Wholesale' clients as defined by s.761G of the Corporations Act 2001. With the exception of Bank of America N.A., Australia Branch, neither MLEA nor any of its affiliates involved in preparing this information is an Authorised Deposit-Taking Institution under the Banking Act 1959 nor regulated by the Australian Prudential Regulation Authority. No approval is required for publication or distribution of this information in Brazil and its local distribution is by Merrill Lynch (Brazil) in accordance with applicable regulations. Merrill Lynch (DIFC) is authorized and regulated by the DFSA. Information prepared and issued by Merrill Lynch (DIFC) is done so in accordance with the requirements of the DFSA conduct of business rules. BofA Europe (Frankfurt) distributes this information in Germany and is regulated by BaFin, the ECB and the CBI. BofA Securities entities, including BofA Europe and BofASE (France), may



outsource/delegate the marketing and/or provision of certain research services or aspects of research services to other branches or members of the BofA Securities group. You may be contacted by a different BofA Securities entity acting for and on behalf of your service provider where permitted by applicable law. This does not change your service provider. Please refer to the [Electronic Communications Disclaimers](#) for further information.

This information has been prepared and issued by BofAS and/or one or more of its non-US affiliates. The author(s) of this information may not be licensed to carry on regulated activities in your jurisdiction and, if not licensed, do not hold themselves out as being able to do so. BofAS and/or MLPF&S is the distributor of this information in the US and accepts full responsibility for information distributed to BofAS and/or MLPF&S clients in the US by its non-US affiliates. Any US person receiving this information and wishing to effect any transaction in any security discussed herein should do so through BofAS and/or MLPF&S and not such foreign affiliates. Hong Kong recipients of this information should contact Merrill Lynch (Asia Pacific) Limited in respect of any matters relating to dealing in securities or provision of specific advice on securities or any other matters arising from, or in connection with, this information. Singapore recipients of this information should contact Merrill Lynch (Singapore) Pte Ltd in respect of any matters arising from, or in connection with, this information. For clients that are not accredited investors, expert investors or institutional investors Merrill Lynch (Singapore) Pte Ltd accepts full responsibility for the contents of this information distributed to such clients in Singapore.

General Investment Related Disclosures:

Taiwan Readers: Neither the information nor any opinion expressed herein constitutes an offer or a solicitation of an offer to transact in any securities or other financial instrument. No part of this report may be used or reproduced or quoted in any manner whatsoever in Taiwan by the press or any other person without the express written consent of BofA Securities.

This document provides general information only, and has been prepared for, and is intended for general distribution to, BofA Securities clients. Neither the information nor any opinion expressed constitutes an offer or an invitation to make an offer, to buy or sell any securities or other financial instrument or any derivative related to such securities or instruments (e.g., options, futures, warrants, and contracts for differences). This document is not intended to provide personal investment advice and it does not take into account the specific investment objectives, financial situation and the particular needs of, and is not directed to, any specific person(s). This document and its content do not constitute, and should not be considered to constitute, investment advice for purposes of ERISA, the US tax code, the Investment Advisers Act or otherwise. Investors should seek financial advice regarding the appropriateness of investing in financial instruments and implementing investment strategies discussed or recommended in this document and should understand that statements regarding future prospects may not be realized. Any decision to purchase or subscribe for securities in any offering must be based solely on existing public information on such security or the information in the prospectus or other offering document issued in connection with such offering, and not on this document.

Securities and other financial instruments referred to herein, or recommended, offered or sold by BofA Securities, are not insured by the Federal Deposit Insurance Corporation and are not deposits or other obligations of any insured depository institution (including, Bank of America, N.A.). Investments in general and, derivatives, in particular, involve numerous risks, including, among others, market risk, counterparty default risk and liquidity risk. No security, financial instrument or derivative is suitable for all investors. Digital assets are extremely speculative, volatile and are largely unregulated. In some cases, securities and other financial instruments may be difficult to value or sell and reliable information about the value or risks related to the security or financial instrument may be difficult to obtain. Investors should note that income from such securities and other financial instruments, if any, may fluctuate and that price or value of such securities and instruments may rise or fall and, in some cases, investors may lose their entire principal investment. Past performance is not necessarily a guide to future performance. Levels and basis for taxation may change.

BofA Securities is aware that the implementation of the ideas expressed in this report may depend upon an investor's ability to "short" securities or other financial instruments and that such action may be limited by regulations prohibiting or restricting "shortselling" in many jurisdictions. Investors are urged to seek advice regarding the applicability of such regulations prior to executing any short idea contained in this report.

This report may contain a trading idea or recommendation which highlights a specific identified near-term catalyst or event impacting a security, issuer, industry sector or the market generally that presents a transaction opportunity, but does not have any impact on the analyst's particular "Overweight" or "Underweight" rating (which is based on a three month trade horizon). Trading ideas and recommendations may differ directionally from the analyst's rating on a security or issuer because they reflect the impact of a near-term catalyst or event.

Foreign currency rates of exchange may adversely affect the value, price or income of any security or financial instrument mentioned in this report. Investors in such securities and instruments effectively assume currency risk.

BofAS or one of its affiliates is a regular issuer of traded financial instruments linked to securities that may have been recommended in this report. BofAS or one of its affiliates may, at any time, hold a trading position (long or short) in the securities and financial instruments discussed in this report.

BofA Securities, through business units other than BofA Global Research, may have issued and may in the future issue trading ideas or recommendations that are inconsistent with, and reach different conclusions from, the information presented herein. Such ideas or recommendations may reflect different time frames, assumptions, views and analytical methods of the persons who prepared them, and BofA Securities is under no obligation to ensure that such other trading ideas or recommendations are brought to the attention of any recipient of this information.

In the event that the recipient received this information pursuant to a contract between the recipient and BofAS for the provision of research services for a separate fee, and in connection therewith BofAS may be deemed to be acting as an investment adviser, such status relates, if at all, solely to the person with whom BofAS has contracted directly and does not extend beyond the delivery of this report (unless otherwise agreed specifically in writing by BofAS). If such recipient uses the services of BofAS in connection with the sale or purchase of a security referred to herein, BofAS may act as principal for its own account or as agent for another person. BofAS is and continues to act solely as a broker-dealer in connection with the execution of any transactions, including transactions in any securities referred to herein.

Copyright and General Information:

Copyright 2025 Bank of America Corporation. All rights reserved. iQDatabase® is a registered service mark of Bank of America Corporation. This information is prepared for the use of BofA Securities clients and may not be redistributed, retransmitted or disclosed, in whole or in part, or in any form or manner, without the express written consent of BofA Securities. This document and its content is provided solely for informational purposes and cannot be used for training or developing artificial intelligence (AI) models or as an input in any AI application (collectively, an AI tool). Any attempt to utilize this document or any of its content in connection with an AI tool without explicit written permission from BofA Global Research is strictly prohibited. BofA Global Research information is distributed simultaneously to internal and client websites and other portals by BofA Securities and is not publicly-available material. Any unauthorized use or disclosure is prohibited. Receipt and review of this information constitutes your agreement not to redistribute, retransmit, or disclose to others the contents, opinions, conclusion, or information contained herein (including any investment recommendations, estimates or price targets) without first obtaining express permission from an authorized officer of BofA Securities.

Materials prepared by BofA Global Research personnel are based on public information. Facts and views presented in this material have not been reviewed by, and may not reflect information known to, professionals in other business areas of BofA Securities, including investment banking personnel. BofA Securities has established information barriers between BofA Global Research and certain business groups. As a result, BofA Securities does not disclose certain client relationships with, or compensation received from, such issuers. To the extent this material discusses any legal proceeding or issues, it has not been prepared as nor is it intended to express any legal conclusion, opinion or advice. Investors should consult their own legal advisers as to issues of law relating to the subject matter of this material. BofA Global Research personnel's knowledge of legal proceedings in which any BofA Securities entity and/or its directors, officers and employees may be plaintiffs, defendants, co-defendants or co-plaintiffs with or involving issuers mentioned in this material is based on public information. Facts and views presented in this material that relate to any such proceedings have not been reviewed by, discussed with, and may not reflect information known to, professionals in other business areas of BofA Securities in connection with the legal proceedings or matters relevant to such proceedings.

This information has been prepared independently of any issuer of securities mentioned herein and not in connection with any proposed offering of securities or as agent of any issuer of any securities. None of BofAS any of its affiliates or their research analysts has any authority whatsoever to make any representation or warranty on behalf of the issuer(s). BofA Global Research policy prohibits research personnel from disclosing a recommendation, investment rating, or investment thesis for review by an issuer prior to the publication of a research report containing such rating, recommendation or investment thesis.

Any information relating to sustainability in this material is limited as discussed herein and is not intended to provide a comprehensive view on any sustainability claim with respect to any issuer or security.

Any information relating to the tax status of financial instruments discussed herein is not intended to provide tax advice or to be used by anyone to provide tax advice. Investors are urged to seek tax advice based on their particular circumstances from an independent tax professional.

The information herein (other than disclosure information relating to BofA Securities and its affiliates) was obtained from various sources and we do not guarantee its accuracy. This information may contain links to third-party websites. BofA Securities is not responsible for the content of any third-party website or any linked content contained in a third-party website. Content contained on such third-party websites is not part of this information and is not incorporated by reference. The inclusion of a link does not imply any endorsement by or any affiliation with BofA Securities. Access to any third-party website is at your own risk, and you should always review the terms and privacy policies at third-party websites before submitting any personal information to them. BofA Securities is not responsible for such terms and privacy policies and expressly disclaims any liability for them.

All opinions, projections and estimates constitute the judgment of the author as of the date of publication and are subject to change without notice. Prices also are subject to change without

notice. BofA Securities is under no obligation to update this information and BofA Securities ability to publish information on the subject issuer(s) in the future is subject to applicable quiet periods. You should therefore assume that BofA Securities will not update any fact, circumstance or opinion contained herein. Certain outstanding reports or investment opinions relating to securities, financial instruments and/or issuers may no longer be current. Always refer to the most recent research report relating to an issuer prior to making an investment decision.

In some cases, an issuer may be classified as Restricted or may be Under Review or Extended Review. In each case, investors should consider any investment opinion relating to such issuer (or its security and/or financial instruments) to be suspended or withdrawn and should not rely on the analyses and investment opinion(s) pertaining to such issuer (or its securities and/or financial instruments) nor should the analyses or opinion(s) be considered a solicitation of any kind. Sales persons and financial advisors affiliated with BofAS or any of its affiliates may not solicit purchases of securities or financial instruments that are Restricted or Under Review and may only solicit securities under Extended Review in accordance with firm policies.

Neither BofA Securities nor any officer or employee of BofA Securities accepts any liability whatsoever for any direct, indirect or consequential damages or losses arising from any use of this information.

