Collateral Thinking

Defining defaults: a novel approach to calculating loan default rates

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Leveraged Loan Strategy
United States

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Top of the Stack

Large variations exist around loan default rates across providers. For YE 2023, published numbers range from 2-6% driven by factors such as index composition, methodology, and definition of what constitutes a default itself. After examining three of the most prominent loan data providers and evaluating their data and calculation methodologies across three default cycles, we find that no source single-handedly reflects an appropriate credit loss picture for institutional loan investors. Problems range from complete omission of Distressed Exchanges which underestimates investor impact, to inclusion of non-index eligible defaults and issuer-led opportunistic buybacks which overestimates it. Differences can also arise from inclusion criteria and ratings mix.

This necessitates a newer, more functional way to look at loan default rates. We have used data and best practices gathered through our deep dives across providers to develop a new time series of historical default rates which we believe provides the most relevant loss information for loan investors. In this report, we introduce this data series and the methodology behind calculating our BofA Loan default rates.

Our approach starts with identifying the most appropriate underlying loan index, then layering it with ratings from multiple sources, running gap analysis to recover missed defaults, and including Distressed Exchanges but not Amend & Extend transactions. Our BofA Loan default rates indicate prevailing LTM default rate of 3.8% on issuer basis, and 2.9% on par basis.

Market Technicals

In the three weeks ending January 19th, demand for loans totaled $9.6bn, an increase from $8.2bn demand seen in the prior three weeks. CLO issuance and Coupon payments increased by $899mn and $436mn followed by increase in retail flows by $103mn.

Rating Actions

In the past month, we have seen rating actions across 11 distinct issuers. A total of 7 issuers were downgraded by 9 notches and 4 issuers upgraded by 5 notches. In terms of sectors, Technology and Real estate each contributed 26% of total downgrades in the past month whereas Healthcare and Travel contributed 51% and 27% to upgrades respectively. Overall, we see a net downgrade of $4.4bn.

Return Performance

Loans in the LCD index returned 0.55% in three weeks ending January 19th, down from the -1.23% cumulative return seen in the prior three weeks. Across asset classes, YTD loan returns are at 0.6%, YTD HY returns are at -0.3% and YTD IG returns are at -1.2%.

Primary Activity

YTD global and US issuance totals $48bn and $45bn, with a total of 67 and 58 loans launched respectively in the primary market thus far. In total, YTD 2024 both global and US issuance have outperformed YTD 2023.

Exhibit 1: Loan performance

YTD Loan return is at 0.6%

Index	Level	1wk Δ	2wk Δ	YTD Rtn
All Loan	96.3 pts	-0.0	-0.0	0.6%
BBs	99.5 pts	-0.0	-0.1	0.6%
Bs	98.0 pts	-0.1	-0.0	0.6%
CCCs	79.5 pts	+0.5	-0.2	1.2%

Source: S&P LCD. Past performance is not necessarily a guide to future performance.

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Exhibit 2: HY performance

YTD HY return is at -0.3%

Index	Level	1wk Δ	2wk Δ	YTD Rtn
US HY	344 bps	-18	-06	-0.3%
BBs	208 bps	-13	-03	-0.3%
Bs	347 bps	-22	-04	-0.2%
CCCs	915 bps	-25	-23	-0.8%

Source: BofA Global Research. . Past performance is not necessarily a guide to future performance.

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Exhibit 3: Fund flows ($mn)

YTD loan inflows are at 376mn

Asset	1wk	2wk	YTD	LTM
Loans	+167	+251	+376	-8,931
US HY	+621	+1,291	+1,007	+5,203
US IG	+3,525	+9,384	+17,944	+173,743

Source: EPFR Global

See glossary of abbreviations and terms in the Glossary section at the end of the report

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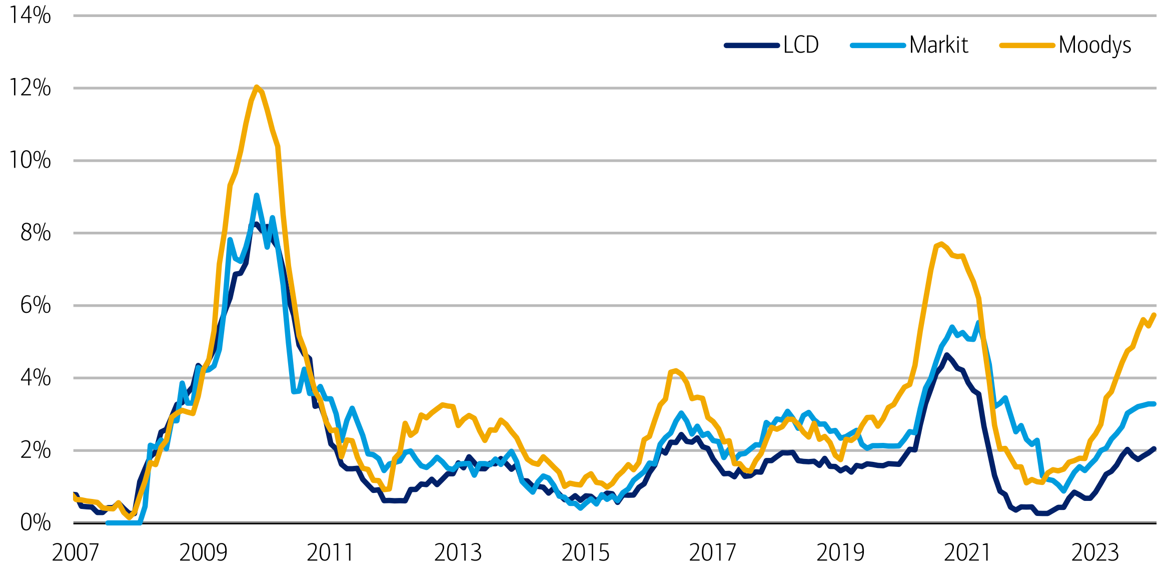
Top of the Stack

Defining default rates should theoretically be straightforward, and calculated as the proportion of issuers that default over a 12-month period. However, over time with the proliferation of more data and service providers, meaningful variability has crept into quoted levels. Reported default rates for year-end 2023 range from 2-6% (Exhibit 4) and are driven by factors such as index composition, methodology, and definition of what constitutes a default itself.

After examining three of the most prominent loan data providers, and evaluating default data and calculation methodologies where available, we find that no source single-handedly reflects an appropriate credit loss picture for loan investors. In coming to this conclusion, we have combed through three default cycles over the past 15 years in detail, understanding differences across sources from the vantage point of loan universe composition, ratings availability, default definitions, event triggers, and default rate calculation methodologies.

Exhibit 4: Default rates based on various loan data sources
Large variation exists around current estimates of loan default rates



Source: BofA Global Research, LCD, Markit, Moody's

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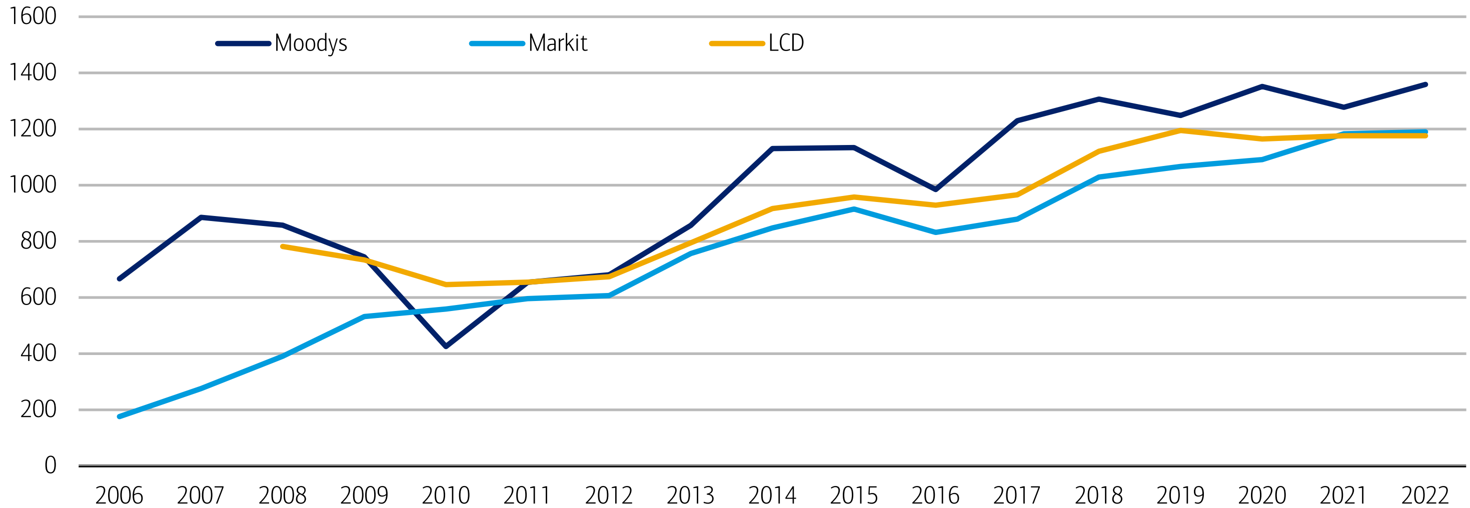
A major issue in current methodologies is the variation around what constitutes a default event. Problems range from complete omission of Distressed Exchanges which underestimates investor impact, to inclusion of non-index eligible defaults and issuer-led opportunistic buybacks which overestimates it. Besides mis-representing prevailing credit stress, this also impacts investors' forward-looking decision making because the Street's default rate forecasts are often calibrated to incorrect data-series.

Take the rating agencies for example. S&P separates Distressed Exchanges (DEs) from hard defaults identifiable by appropriate loan-level ratings. They do not include Amend and Extend (A&E) transactions in default rate calculations. Moody's on the other hand does not have loan-level default ratings and uses its issuer-level default ratings to comingle all defaults in one broad category - including hard defaults, DEs and even A&Es.

Exhibit 5: Size of loan universe across data providers by issuer
Moody's has the largest loan universe owing to inclusion of multiple loan types such as revolvers, TLAs and TLBs



Source: BofA Global Research, LCD, Markit, Moody's

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Another layer of complexity is the issuer universe under consideration, where inclusion criteria can be broad enough to include non-institutional loans, or stringent enough to eliminate illiquid institutional loans. For example, Moody's includes all its rated loans in its calculations including revolvers, TLAs and 2Ls even if they are not widely held by institutional investors. As a result, its loan universe is bigger (Exhibit 5). Divergence can also occur from rating exclusions. For example, LCD and Markit indices are generally similarly sized indices, but Markit has a higher CCC concentration while LCD has a larger portion of BBBs (Exhibit 6). Finally, not every data provider has its own ratings - Markit and LCD being indices don't provide ratings, event triggers, or default definitions, but simply a loan memberlist that can be used as a blank canvas per user requirements.

Exhibit 6: Distribution of LCD and Markit index by ratings
Markit is CCC heavy while LCD is BBB heavy

	Pct of index by count		Pct of index by par	
	LCD	Markit	LCD	Markit
BBB	5%	2%	6%	3%
BB	22%	20%	22%	22%
B	57%	54%	61%	60%
CCC	12%	16%	8%	10%
D	1%	0%	1%	0%
NR	2%	8%	2%	5%
Total	100%	100%	100%	100%

Source: BofA Global Research, LCD, Markit

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Given these considerations, we find that no singular data source has the appropriate data and processes required to produce default rates that reflect the true credit picture for institutional loan investors, necessitating a newer more functional way to look at this issue. We have used data and best practices gathered through our deep dives across all our data sources to develop a new time series of historical default rates which we believe provides the most relevant credit picture for loan investors. In this report, we introduce this data series and the methodology behind calculating our default rates.

Topical:

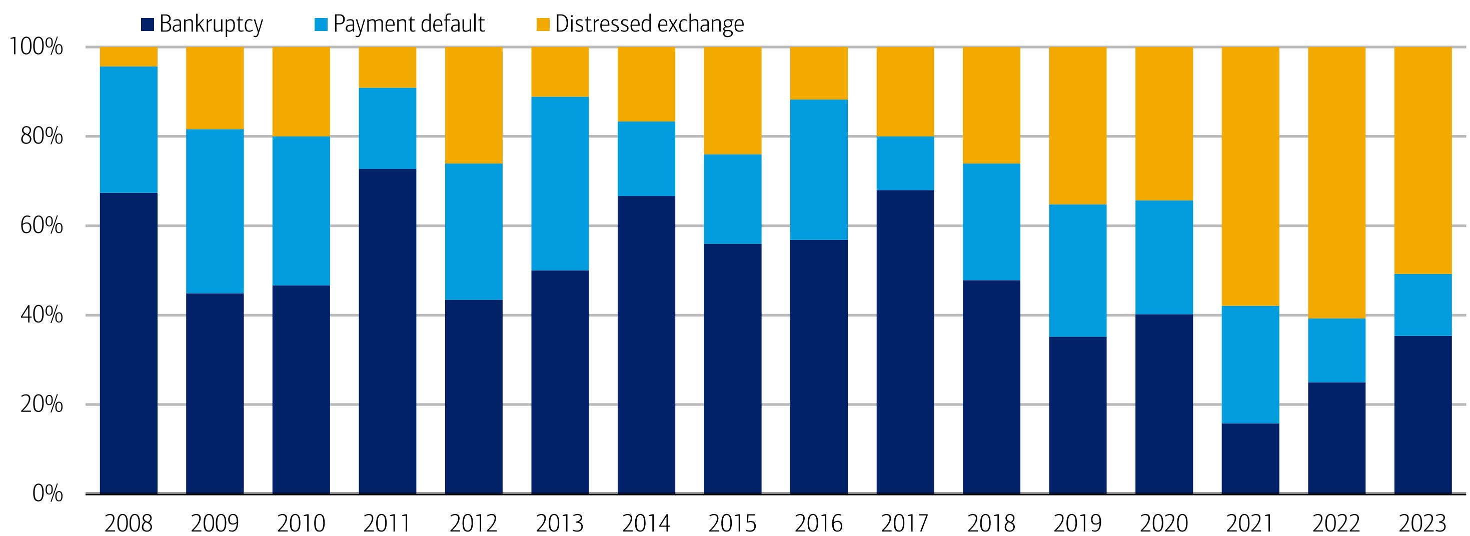
In defining what constitutes a default, we are guided by one question alone- does the event represent quantifiable destruction of value for loan investors? For the outcome to be affirmative, two things have to happen: a) there has to be an observable and quantifiable loss of value under distressed conditions b) involved securities have to be widely held by institutional investors. As such, our calculations encompass bankruptcies, hard defaults as well as distressed exchanges where index loans have been impacted. We, however, do not include defaults led by bonds, revolvers and 2Ls not widely held by loan investors, even if the affected issuer's TLBs are present in the loan index. We also do not include A&Es for the same reason why technical defaults are not factored into modern-day credit loss calculations. Our rationale for all this is discussed below.

Why distressed exchanges should be included

Using our definition of defaults, a distressed exchange (DE) should be factored in calculations as it represents clear and quantifiable loss of value (100-exchange price) * par value of debt swapped. For debt-to-equity swaps there are ways to assess a proxy value of the acquired equity. Additionally, preponderance of DEs has increased remarkably post-GFC as they have become the preferred way for sponsors to conduct portfolio company restructurings. Exhibit 7 shows how DEs as percentage of defaults have increased over time and now become the dominant form of realized defaults. Back in 2008, DEs only accounted for 4% of realized defaults. Their contribution has gradually increased post GFC, reaching an average of 20% from 2009 to 2018. In the most recent 5yr period, their contribution has accelerated to an average of 48%, reaching ~60% from 2021 to 2023.

Exhibit 7: Distribution of annual defaults by type

Distressed Exchanges have become the most dominant type of default recently



Source: BofA Global Research, LCD, Markit, Moody's

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Why A&Es should not be included

A&Es are essentially akin to covenant relief- they are designed to give issuers maneuvering capabilities in temporary periods of stress triggered by short-term macro conditions. The idea here is to minimize lender losses by maximizing the survivability of an issuer, as opposed to being the first to collect dues in times of trouble, at the risk of paving the way for a hard default later.

The reason why financial covenants essentially stopped mattering and were ultimately removed from credit documents over time was because while tripping such covenants is an indicator of issuer stress, it does not necessarily lead to distress, and certainly not an ultimate bankruptcy. Counting these as trips as default events only sped up the ultimate demise of businesses in the pre-GFC era. The evidence over the last 15 years of covenant-lite loan performance shows that removing financial covenants has led to lower default rates for issuers by giving them flexibility to divert cashflows to shore up their operations in times of need, thereby also increasing survivability and the ultimate probability of creditors getting their money back.

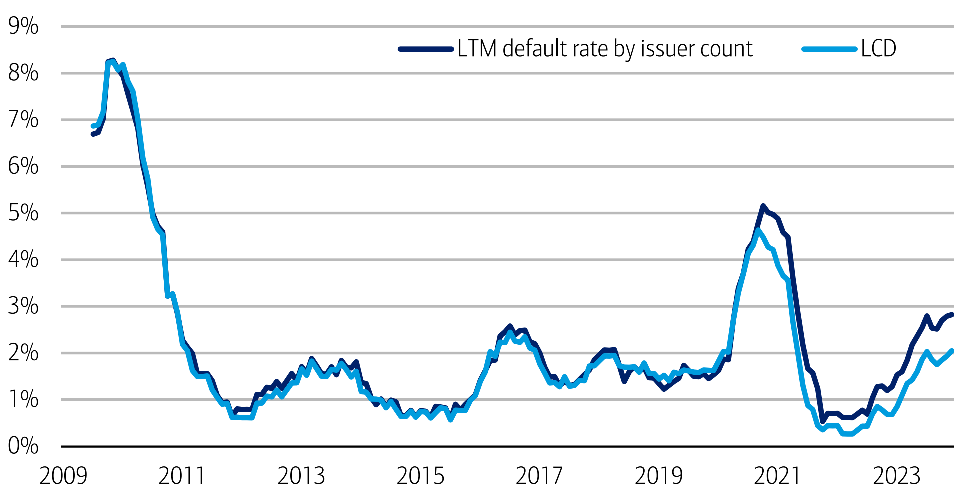
Admittedly, loss of covenants has also led to lower recoveries for those that ultimately default, presumably because these businesses were not worth saving to begin with. It's impossible to ascertain which contribution is heavier. It is therefore our opinion that the directional impact of covenant defaults to loan value (or the impact resulting from stripping of such terms from docs) is not observable or quantifiable. Without the benefit of hindsight, the impact of removing technical default triggers from docs has essentially led to a more profound segregation between good and bad businesses, an acceptable outcome in our opinion. In the same spirit, maturity extensions and margin relief should also receive a similar treatment, and should not constitute a default event in our opinion. The loss of value for creditors in such situations is not unequivocal, and certainly not quantifiable. Furthermore, some A&Es are a result of proactive issuer behavior, making it cumbersome to differentiate between those acting opportunistically or under distress.

Problems with currently available approaches

Morningstar LCD index is a widely followed loan-market index given its coverage of both secondary and primary bond/loan markets, helpful data analysis, as well as 100% ratings coverage from S&P. However, their reported default rates do not include DEs. Fortunately, because they carry S&P ratings which provides a separate rating category for DEs at a loan-level, we are able to supplement LCD's baseline default information. Below we show revised default rates including DEs based on the LCD universe. Since the impact from DEs has been growing, there is genuine need to encompass them in published default rates. These revised default rates are a good place to start but are not ideal since the LCD index is BBB heavy and CCC light, which underestimates the true preponderance of loan defaults amongst leveraged issuers.

Exhibit 8: Default rates based on LCD universe, with and without the contribution from DEs

The divergence has increased as DEs become the dominant form of loan defaults



Source: BofA Global Research, LCD

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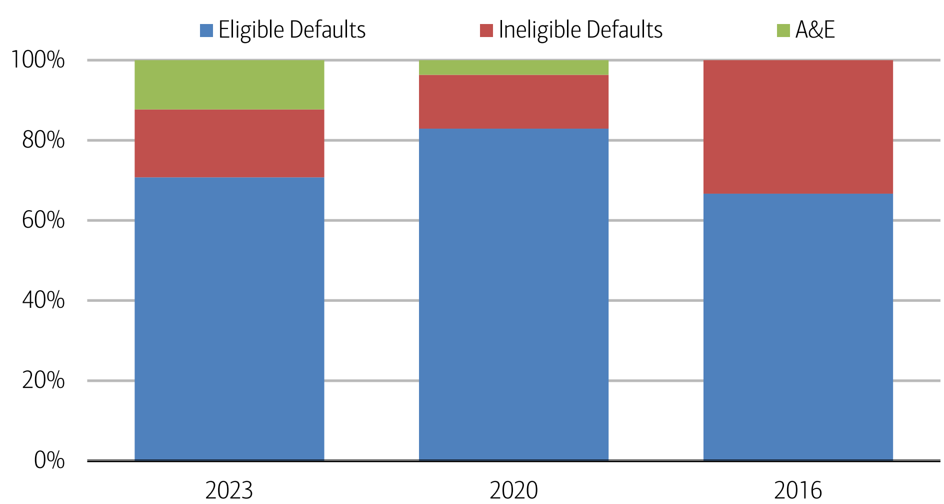
Moody's also has a universe of rated bonds and loans and provides indispensable wealth of information through its issuer coverage and LevFin data analytics. Moody's' loan universe is also the largest amongst our data providers as seen in Exhibit 5 – but in large part because it contains all Moody's rated loans, even if they are not held by institutional investors. These include non-index eligible revolvers, TLAs and 2Ls. The challenge here stems from a combination of two issues. First, Moody's does not produce security-level default indicators, and therefore it relies on issuer level ratings (called "PDR") to produce default rates. Second, because the universe contains index ineligible loans, there are inadvertent inclusions of ex-index loans/issuers which should not typically count towards institutional loans default rates. For example, if a bond-only capital structure with a revolver rated by Moody's restructures, this will be included in their loan default rates because the issuer PDR is now marked as in default. An additional challenge is that Moody's also includes Amends & Extends (A&Es) in their default rates because they consider this to be a DE.

To assess the extent of impact from these issues, we analyzed all Moody's defaults from the past three default cycles and categorized them into index-eligible and ineligible defaults based on whether the defaulted loan featured in the indices we track or not (which is representative of it being widely held by institutional investors). Going into loan-wise details also allowed us to break out a separate category for A&Es which Moody's does not provide. Exhibit 9 shows the distribution of defaults by bucket over the last three default cycles.

Exhibit 9: Distribution of Moody's loan issuer defaults by category
Index-eligible defaults range from 70-80% of the headline number



Source: BofA Global Research, Moody's

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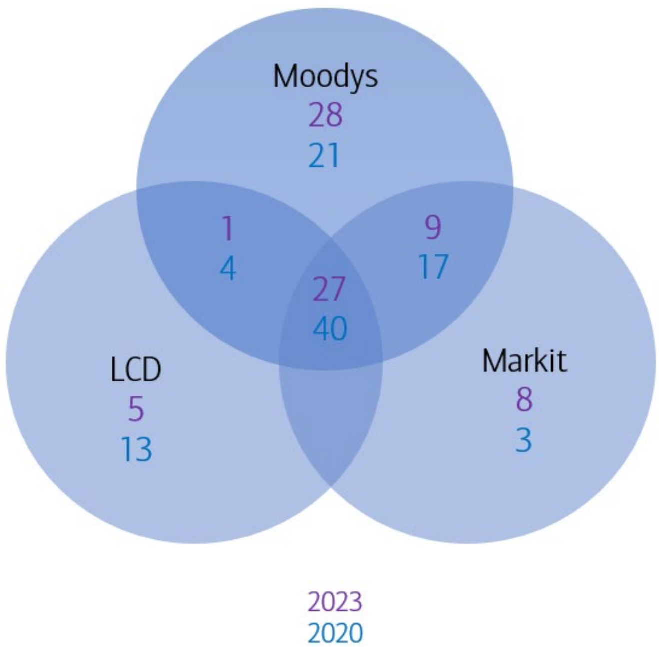
There are 2 takeaways- First, index-eligible defaults are anywhere from 70%-80% of their reported headline defaults. Second, A&Es account for an increasing portion of Moody's defaults today, creating the need to assess them separately and not together with the larger DE bucket. These two combined explain why Moody's default rates are meaningfully higher than those from Markit and LCD.

Defining defaults: a mixed approach

In coming up with the most appropriate historical default rate series, we wanted to address as many of the above-mentioned issues as possible. First step is to choose the most appropriate universe. To us this is the Markit index due to its more realistic ratings mix and inclusion of only institutional leveraged loans. Markit also has a higher number of defaults captured, and a larger overlap with Moody's defaulted universe, as compared to LCD index, for all three default cycles that we analyzed.

Exhibit 10 shows a Venn-diagram to visualize these default overlaps across providers. Each intersecting portion represents the number of common defaults found across the overlapping providers. The numbers outside the intersections represent defaults found only with that provider. We have shown two default experiences: 2023 color coded in purple and 2020 color coded in blue. As an example, Moody's dataset listed a total of 65 issuer defaults in 2023, of which 27 were found in both LCD and Markit data, 9 were found only in Markit, and 1 was found only in LCD. Bulk of the 28 left over represent index-ineligible defaults and A&Es as we have seen in the previous section. Outside of these overlaps Markit listed 8 additional issuer defaults while LCD listed 5 additional ones. In total, Markit and LCD listed 44 and 33 defaults in 2023 respectively.

Exhibit 10: Markit has a higher overlap of default data with Moody's
Markit also represents a higher #issuer defaults vs LCD



Source: BofA Global Research, LCD, Markit, Moody's

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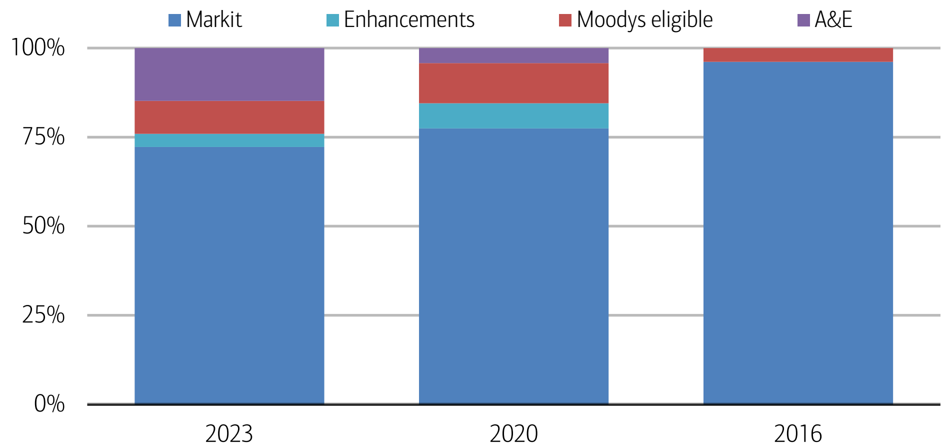
However, Markit does not provide its own ratings and default triggers, so we need to overlay Moody's/S&P ratings for its constituents. For the purpose of calculating default rates, we rely on constituents' S&P ratings given 1) S&P's ability to provide loan-level defaults 2) our ability to differentiate between DEs and A&Es using S&P ratings.

Because Markit is a comparatively smaller universe vs Moody's, we have run a gap analysis between the two for the last three default cycles to seek out any potential missed defaults. Exhibit 11 shows where the gaps lie. The full bar represents all Moody's defaults after the elimination of index-ineligible items shown in Exhibit 9. Markit portion of the bar represents the index's baseline default coverage which was ~75% of Moody's eligible coverage in 2023. The distance between the two ("Markit-Moody's gap") comprises of 1) "A&Es" which are index eligible loans but not defaults according to us 2) "Moody's eligible" which are index-eligible defaults missed by Markit 3) "Enhancements" which are index-eligible defaults missed by Markit but recovered through our analysis of other data sources. Clearly, the gap has become wider with time as a result of the growth of both A&Es and index-eligible missed defaults.

Exhibit 11: Markit-Moody's default gap analysis through last three default cycles
In '23 BofA default rate covered 75% of Moody's defaults, with another 15% accounted for by A&Es



Source: BofA Global Research, LCD, Markit, Moody's, S&P

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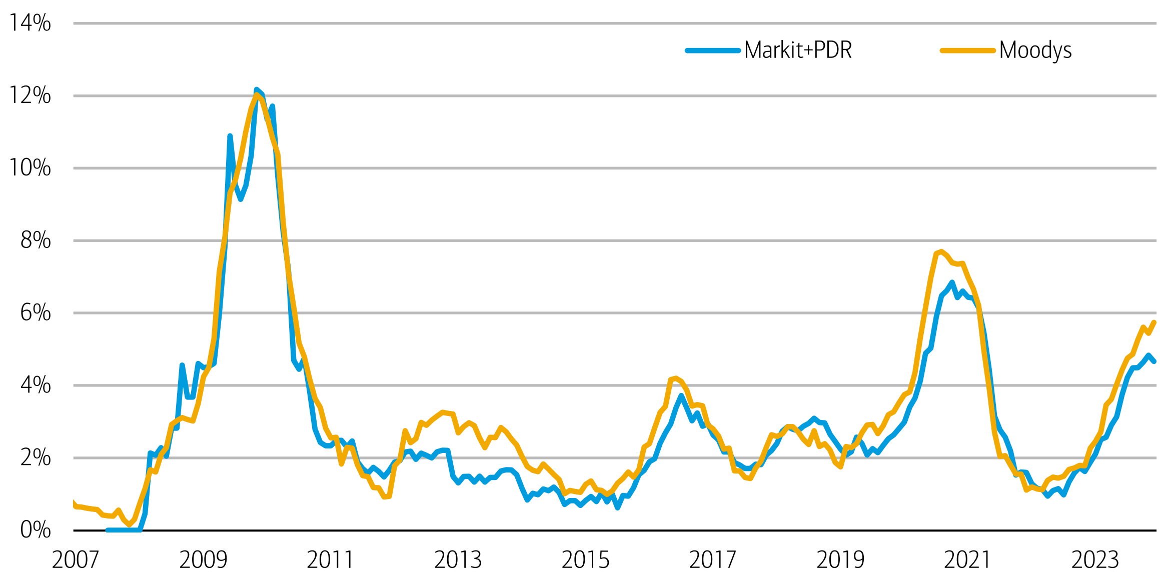
In order to address the missed defaults, we have added certain enhancements, such as bringing in Moody's issuer-level PDR ratings, and LCD index's loan-level default ratings to supplement our default data and approach Moody's levels. We were able to significantly close the gap to Moody's default rates by overlaying their PDR data over our Markit defaults as seen in Exhibit 12 (Markit+PDR vs Moody's time series).

Exhibit 12: Overlaying Moody's PDR issuer ratings to our default rates closes the gap
Missed defaults recovered by overlaying Moody's PDR ratings to our data are mostly A&Es



Source: BofA Global Research, LCD, Markit, Moody's, S&P

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We found that only LCD rating overlays were beneficial in providing incremental default information, while all the "missed" defaults brought in through Moody's PDR ratings were essentially A&Es which we do not factor into our default rates. As such the "Enhancements" portion only comprises of incremental information from LCD, representing a small but useful upgrade to our baseline default rate. This enhanced default rate which we think represents a more relevant rate for loan investors is hereby referred to as the BofA Loan default rate.

The leftover "Moody's eligible" section then essentially represents the true missed defaults, which we were not able to recover through available data sources. The most common reason for this occurrence is Markit and LCD's comparatively more stringent eligibility criteria which encompass loan size, margin and liquidity depth, thereby eliminating legitimately held institutional loans which fall out due to index exclusion criteria. However, this bucket is limited to <10% of the headline Moody's defaults and represents a small price to pay to get a more realistic picture for loan investors.

Exhibit 13 shows a snapshot of current default rates using all the approaches defined in this report including the ones we have rejected as incorrect. These include LCD default rate with and without DEs, Markit+PDR rate, and Moody's default rate. Our henceforth chosen dataset- BofA loan default rate sits right in the center of this range and reflects the most accurate state of credit stress amongst US leveraged loans, in our opinion.

Exhibit 13: Snapshot of current default rates using various approaches outlined in this report
Our chosen approach- BofA loan default rate sits right in the center of the range

Date	LCD	LCD with DE	New Markit	Markit + PDR	Moody's
12/31/2023	2.05%	2.82%	3.73%	4.66%	5.74%

Source: BofA Global Research, LCD, Markit, Moody's, S&P

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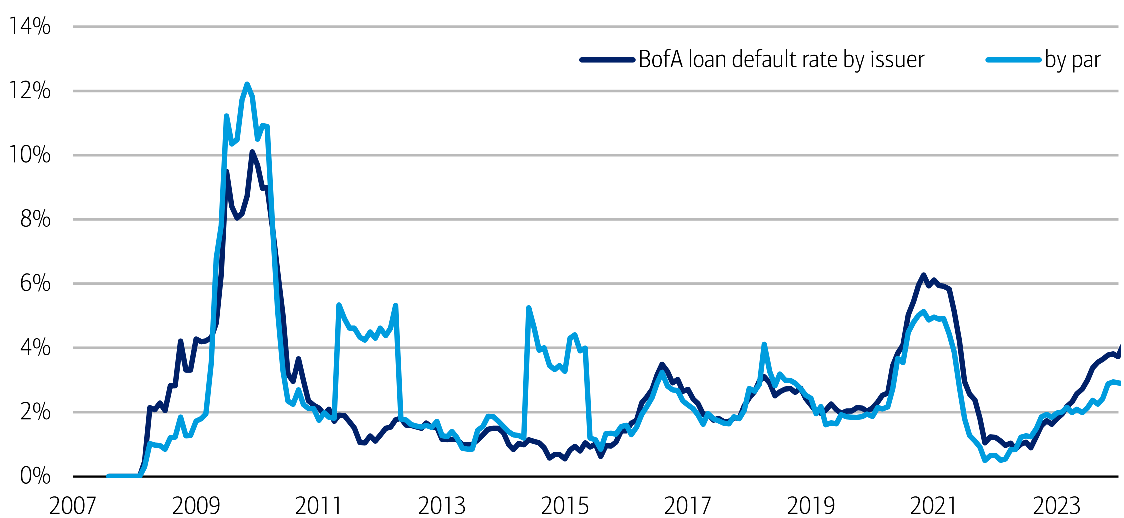
BofA Loan Default rate time-series

Exhibit 14 shows the new BofA Loan default rate time-series. Using our new methodology, we arrive at an LTM default rate of 3.8% on issuer basis, and 2.9% on par basis today. Going forward we will benchmark current and expected default rates to this time series.

Exhibit 14: BofA loan default rates by issuer and par
Our rates are calculated using data and best practices across three loan data providers.



Source: BofA Global Research, Markit, LCD, S&P

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Methodology

To assess what is driving the difference between the current 5.7+% LTM default rate from Moody's vs what we calculate based on underlying loan ratings of Markit & LCD index constituents, we performed a deep dive into Moody's defaults. We extracted the defaulted issuers used to calculate their default rates and performed a comp analysis against the defaults we derived from the indices, where we focused on the past three default cycles: 2023, 2020 and 2016.

Since Moody's underlying universe is less transparent, in order to do our analysis we had to start grounds-up. We collated a list of defaulted issuers and facilities by leveraging monthly and annual default reports where available. We needed to supplement this information my performing manual checks through appropriate research reports. One of the obstacles we encountered in this process was that Moody's only had issuer level default information available for certain years. However, to perform gap analysis we needed loan-level information which we had to identify by digging into Moody's issuer reports and locating the appropriate defaulted loans by looking at default dates, and loan characteristics such as tranche size, margin, maturity, facility and lien, to cross check against Markit/LCD/Bloomberg to find appropriate matches.

With our loan-level information we then compared Moody's defaults against Markit/LCD indices to come up with a list of "missing" defaults. With detailed default events info and loan characteristics collected from the previous step, we categorized the missing loans into different groups based on the reasons they were missed, aiming to bridge the gap. Below we illustrate our key findings and conclusions.

The first group is loans missing due to data quality issue. As we cross checked defaulted loans across different sources, we noticed some inconsistences in the historical rating data between what we received from data vendor and what S&P officially published. In addition, rating data from Markit and LCD for a same loan can also sometimes be different. To address these issues, we verified all the missing D ratings from S&P and overwrote the incorrect ratings where needed. We also enhanced our default identification process by looking at rating data from both Markit and LCD to ensure no default is missed or wrongly flagged.

The second group contains loans missing due to ineligibility, and this can be further broken down into two cases – 1) loans that were never included in Markit/LCD indices and 2) loans that exited the indices before default occurred. In the former case, we find that most of loans under this bucket are revolvers, PIK, TLAs, etc, which naturally preclude them from being included in the indices. This demonstrates a key difference in Moody's defaults vs ours, in that Moody's default universe is broader and contains not only term loans but also revolvers and other loan types, whereas default rates derived from indices are only based on index eligible loans. In the second case, responses provided by respective index support teams suggest that those loans were dropped due to index inclusion criteria (e.g., amount outstanding dropped below index cut-off, loan was converted to PIK, loan became no longer trackable as it was sold by investors who contribute to vendor data, etc), and thus were excluded.

The last group comprises loans missing due to divergence in default definitions between Moody's and S&P. These loans exist in the indices at time of default. However, they were deemed as defaulted only by Moody's and not S&P. Digging deeper, we found that although Moody's categorized these defaults as distressed exchanges, they were all A&Es rather than actual debt exchanges. Because we don't consider A&Es as defaults, these are missing from our default rate dataset for good reason.

Market Technicals

In the three weeks ending January 19th, demand for loans totaled $9.6bn, increasing from the $8.2bn of demand seen in the prior three weeks ending December 22nd. The increase in demand was mainly driven by a $899mn increase in CLO issuance followed by $436mn increase in coupon payments and $103mn increase in retail flows respectively between the two three-week periods. YTD net demand has trailed supply by ($14.9) bn versus the $14.4bn of net demand seen at this time last year. We note that this table doesn't account for demand channels such as SMAs and alternate asset vehicles.

Exhibit 15: Weekly Technicals ($mns)

Demand net of supply is at (14.9) bn

	YTD as of 1/19/2024	1/19/24	1/12/24	1/5/24	12/29/23
Retail flows (a)	489	-62	348	203	45
CLO creation (b)	2,598	1,312	1,286	0	490
Coupons (c)	6,592	1,801	1,563	3,228	1,761
Demand (a+b+c)	9,679	3,051	3,197	3,431	2,297
Issuance Ex-repricings (d)	33,092	14,757	14,332	4,003	0
Repayments (e)	8,423	424	2,098	5,901	5,063
Supply (d-e)	24,669	14,333	12,234	-1,898	-5,063
Demand net of Supply	-14,990	-11,282	-9,037	5,329	7,360

Source: BofA Global Research, LCD

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Rating Actions

In the past 30 days, we have seen rating actions across 11 distinct issuers. A total of 7 issuers were downgraded by 9 notches ($8.3bn total notional) and 4 issuers upgraded by 5 notches ($3.9bn total notional). Of the downgrades, GoTo Group, Inc. had one loan downgraded by one notch, totaling $2.1bn the most by notional. Of the upgrades, Zelis Healthcare Corp had one loan upgraded by one notch, totaling $1.97bn the most by notional.

In terms of sectors, Technology and Real estate each contributed 26% of total downgrades by notional respectively. Of the upgrades, by notional amount, 51% was in Healthcare followed by 27% in Travel. Four distinct sectors experienced upgrades while seven distinct sectors experienced downgrades. Downgrades outweighed upgrades by $4.4bn

Exhibit 16: Recent downgrades and upgrades

There was net downgrade activity of $4.4bn

Issuer	Ticker	Margin	Notional	Maturity	Sector	Rating Action	Current Rating	Previous Rating	Notches
Conservice	CONSER	425	660	5/13/2027	Services	Downgrade	B-	B	-1
Cushman & Wakefield U.S. Borrower LLC	CWK	400	1,000	1/31/2030	Real Estate	Downgrade	BB-	BB	-1
Cushman & Wakefield U.S. Borrower LLC	CWK	325	995	1/31/2030	Real Estate	Downgrade	BB-	BB	-1
Cushman & Wakefield U.S. Borrower LLC	CWK	275	193	8/21/2025	Real Estate	Downgrade	BB-	BB	-1
Del Monte Foods	DELMFD	425	718	5/16/2029	Food Producers	Downgrade	B-	B	-1
GoTo Group, Inc.	LOGM	475	2,183	8/31/2027	Technology	Downgrade	CCC+	B-	-1
Hilton Grand Vacations Inc	HGV	275	1,271	8/2/2028	Travel	Downgrade	BB+	BBB-	-1
KBR, Inc	KBR	275	501	2/5/2027	Capital Goods	Downgrade	BB	BB+	-1
STG Logistics Inc	STGWAR	600	781	3/24/2028	Transportation	Downgrade	B-	B	-1
84 Lumber Company	LUMBER	275	450	11/29/2030	Real Estate	Upgrade	BB	BB-	1
LA Fitness International LLC	LAFTNS	225	736	1/8/2025	Travel	Upgrade	B+	B	1
LA Fitness International LLC	LAFTNS	325	325	4/18/2025	Travel	Upgrade	B+	B	1
NASCAR Holdings	NASCAR	250	403	10/19/2026	Technology	Upgrade	BBB	BBB-	1
Zelis Healthcare Corp	STRATO	350	1,978	9/30/2026	Healthcare	Upgrade	B+	B	1

Source: BofA Global Research, LCD

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Return Performance

Loans in the LCD index returned 0.55% in the three weeks ending January 19th, down from the 1.23% cumulative return seen in the prior three weeks ending December 29th. Second Lien loans were the best performer during the three-week window returning 132bps and CCC's (92bps) outperformed both BB's (51bps) and B's (55bps) respectively. Across asset classes, YTD loan returns are 0.6%, HY returns are -0.3% and IG returns are -1.2%

Exhibit 17: Total returns (price plus coupon return) bps
Loans returned 10bps in the week ending Jan 19th

	1/19/2024	1/12/2024	1/5/2024	12/29/2023
All Loans	10	20	26	29
BB	13	16	22	23
B	7	21	28	30
CCC	9	55	28	42
2nd Lien	77	18	36	47
LL100	3	13	14	34

Source: BofA Global Research, LCD, Past performance is not necessarily a guide to future performance.

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Primary Activity

YTD global and US issuance totals $48.3bn and $45.4bn, with a total of 67 and 58 loans launched respectively in the primary market thus far. In comparison, YTD 2023 brought in $9.3bn global issuance across 24 loans and $8bn US issuance across 16 loans. In total, YTD 2024 both global and US issuance have outperformed YTD 2023. In terms of the composition of the types of deals financed in the past 30 days, 74% by notional amount was for Refinancing and 13% was for Dividend.

Exhibit 18: Recent new loan issues
The largest recent new issue came from UKG Inc $4.88bn deal

Launch Dt	Issuer	New Inst. Money	Moody's	S&P	ABL	Cov Lite	Proceeds	Sector	Country
1/23/2024	GoodRx	662	B1	BB-	No	YES	Refinancing	Computers & Electronics	United States
1/23/2024	Help At Home LLC	100	B1	B-	No	YES	Refinancing	Healthcare	United States
1/23/2024	Husky Injection Molding Systems Ltd	1,300	B2	B-	No	YES	Refinancing	Manufacturing & Machinery	Canada
1/23/2024	UKG Inc	4,885	B1	B-	No	YES	Refinancing	Computers & Electronics	United States
1/22/2024	Univar Solutions Inc	115	B2	B+		YES	Dividend	Chemicals	United States
1/22/2024	Univar Solutions Inc	325	B2	B+	No	YES	Dividend	Chemicals	United States
1/22/2024	Magnite	365	Ba3	BB-	No	YES	Refinancing	Services & Leasing	United States
1/22/2024	Plusgrade LP	420	B2	B	No	NO	Bridge to IPO	Computers & Electronics	Canada
1/22/2024	Science Applications International Corp	510	Ba1	BB+	No	YES	Refinancing	Computers & Electronics	United States
1/22/2024	Shearer's Foods Inc	1,220	B3	B	No	YES	LBO	Food & Beverage	United States
1/22/2024	Garda World Security	1,438	B2	B	No	YES	Refinancing	Services & Leasing	Canada
1/22/2024	Greystar Real Estate Partners	45	Ba3	BB-	No	YES	Acquisition	Real Estate	United States
1/22/2024	IntraFi Network	200	B2	B-	No	YES	Dividend	Services & Leasing	United States
1/22/2024	Ineos Group Ltd	300	Ba2	BB		YES	Refinancing	Chemicals	United Kingdom
1/22/2024	Ineos Group Ltd	500	Ba2	BB	No	YES	Refinancing	Chemicals	United Kingdom
1/22/2024	BMC Software Inc	375	B1	B-	No	YES	Refinancing	Computers & Electronics	United States
1/19/2024	Foundation Building Materials LLC	1,000	B2	B	No	YES	Dividend	Building Materials	United States
1/18/2024	Ahead DB	600	B1	B+	No	YES	Acquisition	Computers & Electronics	United States
1/18/2024	Fitness International LLC	675	B1	B+	No	NO	Refinancing	Entertainment & Leisure	United States
1/18/2024	Caesars Entertainment Inc	2,000	Ba3	B+	No	YES	Refinancing	Gaming & Hotel	United States
1/18/2024	Tacala Restaurants LLC	725	B2	B-	No	YES	Refinancing	Restaurants	United States
1/18/2024	TEAM Services Group	150	B2	B-	No	YES	Acquisition	Healthcare	United States
1/18/2024	Waupaca Foundry Inc	330	NR	NR	No	YES	LBO	Metals & Mining	United States
1/18/2024	WellSky Corp	405	B2	B	No	YES	Refinancing	Computers & Electronics	United States
1/17/2024	Sabre Industries Inc	50	B2	B-	No	YES	Refinancing	Manufacturing & Machinery	United States
1/17/2024	SubCom	1,350	B1	B+	No	YES	Dividend	Telecom Equipment	United States
1/17/2024	Vistage Worldwide	125	B1	B	No	YES	Refinancing	Services & Leasing	United States
1/17/2024	PCI Pharma Services	440	B3	B-	No	YES	Refinancing	Services & Leasing	United States
1/17/2024	Mariner Wealth Advisors	100	Ba3	B-	No	YES	Refinancing	Services & Leasing	United States
1/17/2024	Merlin Entertainment Group	200	B2	B+		YES	Refinancing	Entertainment & Leisure	United Kingdom
1/17/2024	Merlin Entertainment Group	1,273	B2	B+	No	YES	Refinancing	Entertainment & Leisure	United Kingdom
1/17/2024	Mitratech Holdings	50	B2	B-	No	YES	Refinancing	Computers & Electronics	United States
1/17/2024	NGL Energy Partners LP	700	NR	B+	No	NO	Refinancing	Oil & Gas	United States
1/17/2024	DRW Holdings	312	Ba3	BB-	No	NO	GCP	Services & Leasing	United States
1/16/2024	Dun & Bradstreet Corp	2,652	B1	B+	No	YES	Refinancing	Services & Leasing	United States
1/16/2024	Eir	200	B2	B+		YES	Refinancing	Telecom	Ireland
1/16/2024	The Chamberlain Group Inc	775	B3	B	No	YES	Refinancing	Computers & Electronics	United States
1/16/2024	Intrado Corp	45	B2	B	No	YES	Refinancing	Services & Leasing	United States
1/16/2024	ION Corporates	77	B2	B	No	YES	Dividend	Computers & Electronics	United States

Exhibit 18: Recent new loan issues
The largest recent new issue came from UKG Inc $4.88bn deal

Launch Dt	Issuer	New Inst. Money	Moody's	S&P	ABL	Cov Lite	Proceeds	Sector	Country
1/16/2024	Group of Butchers	50	B2	B		YES	Refinancing	Services & Leasing	Netherlands
1/16/2024	HUB International Ltd	110	B2	B	No	YES	Refinancing	Insurance	United States
1/16/2024	Kohler Energy	742	B1	B		NO	LBO	Manufacturing & Machinery	United States
1/16/2024	Kohler Energy	813	B1	B	No	NO	LBO	Manufacturing & Machinery	United States
1/15/2024	Autodistribution Group S.A.	960	B2	BB-		YES	Refinancing	Automotive	France
1/11/2024	Rough Country	110	B2	B-	No	YES	Refinancing	Automotive	United States

Source: BofA Global Research, LCD

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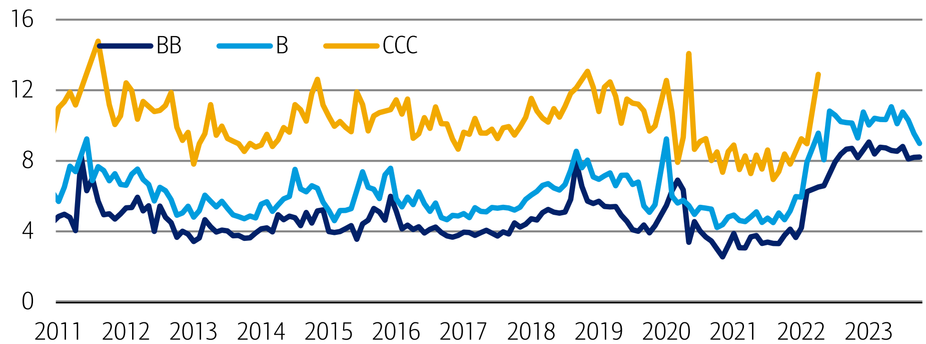
Exhibit 19: Average new issue yields by month
BB and B currently yield 8.22% and 8.99% respectively, while there is not enough sample size for CCC



Source: BofA Global Research, LCD

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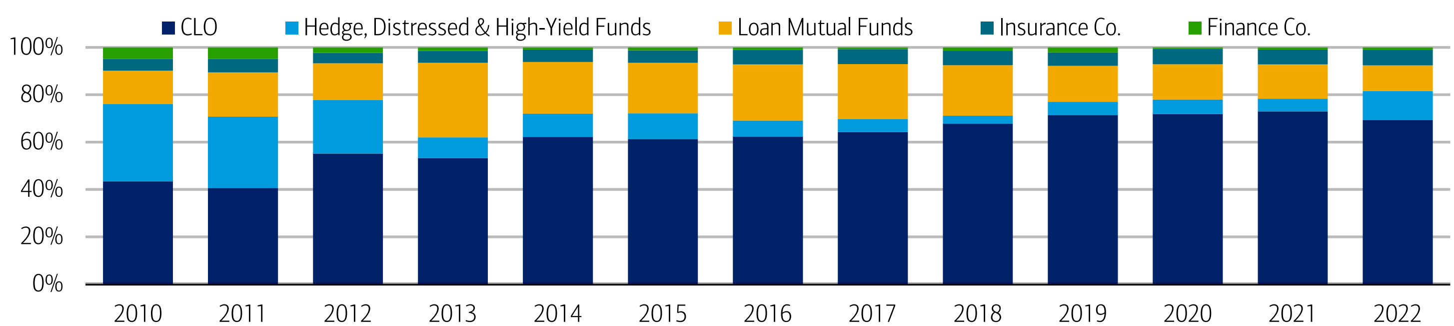
CLO Update

CLOs are the largest buyers of loans and today represent close to 70% of the primary demand within this asset class. Loan retail funds are the second-largest buyers – their participation has shrunk since the peaks of 2013 but has been increasing recently, coinciding with the rate move. At the same time, hedge, distressed and high yield funds have played a lesser role in the primary market.

Exhibit 20: Distribution of investors across loan market
CLOs make up 69% of the primary institutional market



Source: BofA Global Research, LCD

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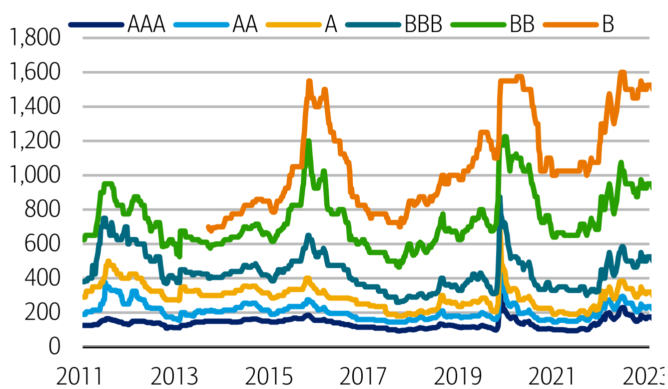
Exhibit 21 shows CLO spread levels by tranches. CLO arbitrage is a widely followed statistic in the loan market and represents the theoretical spread that managers can capture by issuing CLOs. Exhibit 22 compares CLO asset (loan) spreads to the weighted average spreads of CLO liabilities. The difference between these two values is the theoretical arbitrage and represents the current attractiveness of creating new CLOs. A higher arbitrage number means a greater incentive for managers to bring new CLOs to the market, and thus provide incremental loan demand, and vice versa. Importantly, this arbitrage calculation puts more weight on the primary loan market.

Exhibit 21: US CLO 2.0/3.0 indicative spread level (bps)
Secondary CLO spreads have increased materially



Source: BofA Global Research

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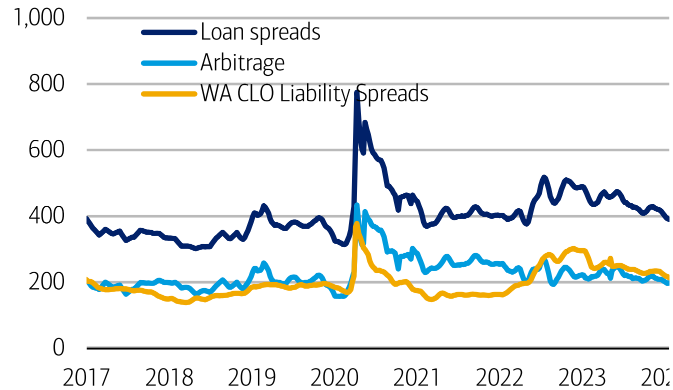
Exhibit 22: CLO Arbitrage (bps)
CLO arbitrage has been declining



Source: BofA Global Research, LCD
Arbitrage: Loan asset spread – WA CLO spread X Liability %
Loan spreads (running avg 4wks): 60% sec BB, 40% sec B
Until 3/4/22 Loan spreads (running avg 4wks): 50%new issue B+/B, 30% pri BB, 10% sec BB, 10% sec B

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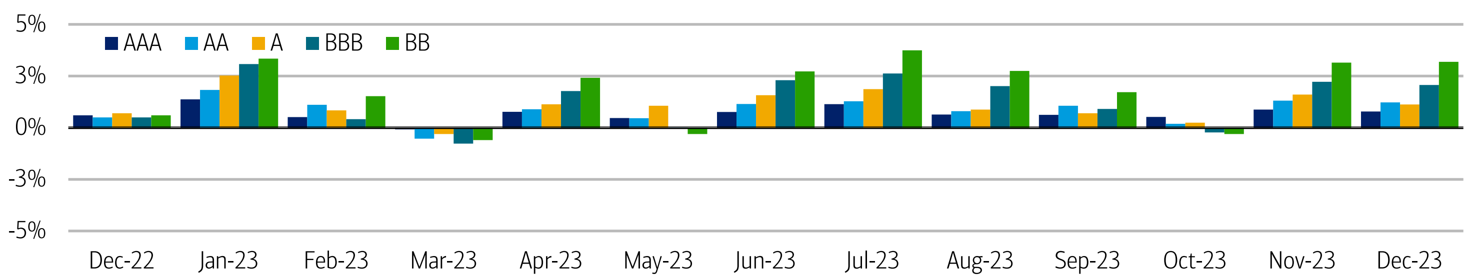
Exhibit 23 shows monthly CLO returns as defined by the Palmer Square CLO index (price plus coupon returns).

Exhibit 23: Monthly CLO 2.0 returns by rating
CLOs returned 1.1% in Dec



Source: BofA Global Research, PriceServe, Palmer Square CLO Indices, Bloomberg

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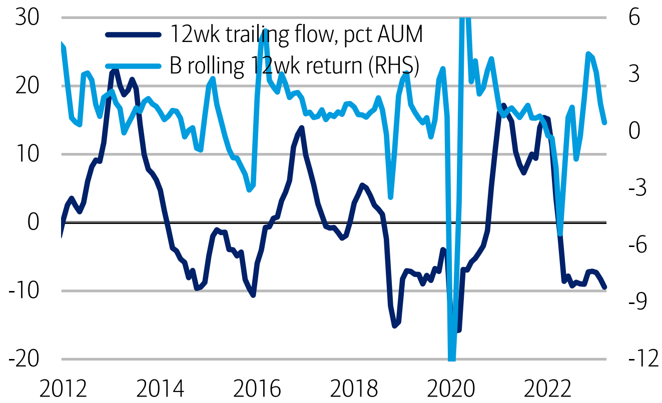
The following charts show demand trends within the loan market, correlated with returns within rating buckets. Exhibit 24 shows a measure of retail flows (12 week trailing retail flows as a percentage of outstanding AUM) versus monthly BB Loan total returns, while Exhibit 25 depicts monthly CLO issuance versus monthly B Loan total returns.

Exhibit 24: BB performance vs Loan retail flows
12wk trailing flow % of AUM with BB rolling 12k return



Source: LCD, EPFR Global

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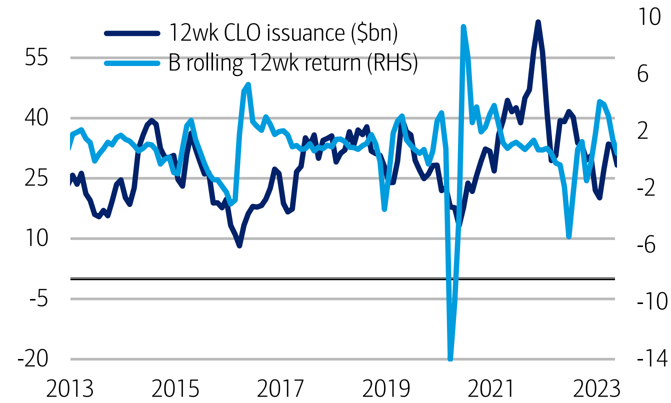
Exhibit 25: B performance vs CLO creation
12wk CLO issuance with B rolling 12wk return



Source: LCD, EPFR Global

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Glossary

A&E: Amendment and Extension
AUM: Assets Under Management
BSL: Broadly Syndicated Loan Market
CLO: Collateralized Loan Obligation
CPI: Consumer Price Index
DE: Distressed Exchange
DL: Direct Lending
DR: Default Rate
FL/1L: First Lien
GFC: Global Financial Crisis
FOMO: Fear of Missing Out
IG: Investment Grade
HY: High Yield
ISM: Institute for Supply Management
LBO: Leveraged Buyout
LCD: Leveraged Commentary & Data
LevFin: Leveraged Finance
LTM: Last 12 months
MM: Middle Market
OAS: Option-Adjusted Spread
OER: Owners' Equivalent Rent
PD: Private Debt
PDR: Probability Default Rating
PIK: Payment-in-Kind
PPI: Producer Price Index
Refi: Refinancing
RV: Relative Value
SL/2L: Second Lien
SMA: Separately Managed Accounts
TLA/TLB: Term Loan A/B
WK: Week

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