



# Credit Markets

## Primary & Secondary

# Agenda

- The Primary Market
  - Bank Loans & Loan Syndication
  - Private Credit
- The Secondary Market
  - CLOs
  - Pricing & Yields
- Case Study – Warehouse Finance / CLO



# Issuing Bank Loans, Private Loans, and Loan Syndication

# Corporate Loans: An Overview

- Unlike corporate bonds, corporate loans are issued by companies that need flexibility during the repayment process.
- These corporate loans are provided by banks and structured as floating rate loans based on an index, such as the Secured Overnight Financing Rate (SOFR), plus a negotiated spread determined by the issuer's credit quality.
- These loans may be backed by collateral or be unsecured and backed by the "good faith" of the corporation.
- In a bankruptcy, corporate loans have the highest priority of payment.

# Corporate Debt: An Overview

“The Waterfall” or priority of payment, in a bankruptcy, bonds are viewed higher in the capital structure than stock.

## "WATERFALL" PRIORITY OF PAYMENT



Figure 7.1

# Corporate Loans

- Revolving Loan Facility (Revolver)
- Asset-Based Lending Facility (ABL) *Mortgage bonds*
- Term Loans
- Second-Lien Term Loans
- Mezzanine Loans and Notes
- Unitranche Term Loans
- Other Types of Bank Loans
  - Debt-In-Possession Loan (DIP)
  - Bridge Loans
  - Swing Loans
  - Project Finance Loans

# Revolving Loan Facility (Revolver)

- The revolving loan facility or revolver provided by a traditional commercial bank is a variable line of credit used by companies to primarily fund working capital needs.
- This revolver is one of the most flexible debt facilities that a company obtains from a bank. It can borrow and be repaid at any time and typically for any reason.
- It provides short-term liquidity and in many cases the company uses the revolver as a guarantee letter of credit for ordering their raw materials and supplies.
- The pricing is made up of two rates: an unfunded rate called a commitment fee, plus a funded interest rate based on the LIBOR, plus a negotiated spread based on the quality of the borrower. Commitment fees are calculated as a percentage of the unfunded portion of the facility, typically 0.35–0.50%.
- The amount determined by the bank is based on the company's working capital needs and expected cash flow. This amount is often highly negotiated as the company is trying to obtain the best possible flexibility to fund its short-term cash flow setbacks.
- Seasonal companies, such as retailers that build up their inventory before the holidays in November and December, are heavy users of revolver credit. The rule of thumb for a traditional user of a revolver is for the amount to be set at 1.0x EBITDA.

# Asset-Based Lending Facility (ABL)

- This type of revolver is structured based on the company's current assets such as accounts receivable and inventory.
- The lender has a priority of payment over the borrower's current assets.
- The term loans provided, also by the banks, have a second priority claim on these assets.
- The amount that can be drawn under this facility is based on a set advance rate against the pledged assets.
- Typically, accounts receivable, which has the highest liquidity after cash, draws advanced rates of 85%. Inventory typically carries 50% advance rates, but they can be dependent on the individual business and current situation.
- Since ABLs are directly secured by the most liquid collateral, the interest rate charged is significantly lower than bank revolvers and term loans (1–2% lower), which rely on the company's future cash flows for debt repayment.

# Term Loans

- Unlike the revolver, term loans are one-time loans provided by a traditional bank and are typically used for acquisitions, purchasing equipment, and real estate.
- A term loan typically carries a floating interest rate based on a benchmark like the U.S. prime rate or LIBOR plus a negotiated spread based on the quality of the borrower.
- The interest and principal payments for such loans are typically paid on a quarterly basis for 5–7 years. Throughout the years, terms loans have developed to be marketable in the secondary markets.
- This led to ratings being assigned to these loans, similar to bonds, by the rating agencies.
- Also, these term loans are sometimes structured in various tranches like term loan A and term loan B, or even term loan C or term loan D.
- Each tranche can be priced differently based on maturity and scheduled payments. Term loan B is one of the most marketable debt facilities that represents the loan secondary market, often called Term loan B markets.
- Most collateral loan obligations (CLOs) use term loan Bs in their portfolio and trade these securities frequently in the secondary market.
- The scheduled principal repayment for these term loan Bs are structured similar to that of bonds with most of the repayment being made at maturity (bullet payment).
- Typically, a 7-year term loan will have a scheduled amortization payment of 1–2% per year for the first 6 years with the balance (other 94%) being paid in the seventh year.

# Term Loans

- **Pricing**

- The SOFR
- The spread
- Original issuance discount (OID)

To calculate the loan-yield the analyst needs all the sections of pricing, as described. The formula is as follows:

$$\text{Annual loan yield} = \text{SOFR or SOFR floor} + \text{spread} + (100 - \text{OID}) / 4 \text{ years}$$

For example, a term loan B is priced at SOFR or SOFR floor of 1% plus 4% spread and OID of 98. Assuming current SOFR is 1.5%, the original issued yield is calculated as follows:

- First, since SOFR is higher than SOFR floor (1.5% versus 1.0%), the SOFR is used as the benchmark to calculate yield:
- Annual loan yield (%) =  $1.5 + 4.0 + (100-98)/4 = 5.5 + 2/4 = 5.5 + .5 = 6.0\%$



# Second-Lien Term Loans

- Second-lien term loans are more popular in mid-cap LBO transactions.
- In the last few years there has been a shift in replacing unsecured bonds with second-lien term loans to provide the company and the private equity buying or owning the company with the flexibility of restructuring the debt in the future
- A second-lien term loan is a secured loan that has a subordinated or second lien claim to collateral pledged as a means of securing the term loan and revolver.
- In a bankruptcy that results in a forced liquidation, the second-lien term loan may receive proceeds from the sale of assets pledged to secure the loan, but only after senior term loan holders have been paid.
- Due to the second-lien nature of this loan, second liens carry more risk for lenders than senior-term loans. As a result, these loans usually have higher borrowing rates, typically 1–2% higher than term loans.
- Analysts that attempt to weigh the default risk before approving a second-lien loan usually assess many of the same factors as first-lien lenders. This includes borrowers' leverage ratios such as total debt to EBITDA, total debt to total capitalization (total debt/ (total debt + equity)), and credit ratings.

# Mezzanine Loans and Notes

- **Mezzanine financing is placed between senior loans and equity, hence the name “mezzanine.”**
- A typical structure would be a hybrid of debt and equity financing that gives the lender the right to convert to an equity interest in the company in case of default on the loan.
- Given the financial risk, pricing is set much higher than on senior loans (12% to 20%). Mezzanine financing is structured to replace part of the capital equity investors would otherwise have to provide the company.
- For example, a company would seek financing for \$20 million and put in \$30 million of its own funds for the buyout (the purchased company’s assets are generally placed as collateral for the loan).
- The mezzanine lenders will look to gain equity in the business through structured warrants allowing the purchase of equity later, sometimes at an agreed-on rate. Basically, mezzanines are structured originally as debt that entitles the issuer to receive interest payments with the upside of equity returns if the company succeeds.

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- The borrowers could prefer mezzanine debt instead of equity if there is enough support because the interest is tax deductible. Also, since the mezzanine investor has the best interest of the company in mind (potential equity ownership), he or she might be willing to amend certain terms to help the company through tough times.

# Mezzanine Loans and Notes

- Figure below shows an example of Colorado Dental LBO structure purchased by a private equity firm for \$1.15 billion that includes bank loans, mezzanine notes, and equity.

Colorado Dental								
TRANSACTION SOURCES & USES								
Sources	Interest Rate	Term (Years)	Committed (\$ 000's)	Funded (\$ 000's)	% Cap	EBITDA x	Uses	Amount (\$ 000's)
Revolving Credit	0.50%/SOFR +3.5%		100,000	-			Cash	-
Term Loan A	SOFR + 3.5%	5	180,000	180,000	18.4%	1.5x	Purchase of Equity (100% share:	740,000
Term Loan B	SOFR + 4.0%	7	200,000	200,000	20.4%	1.7x	Refinance Existing Debt	220,000
Total Bank Debt			480,000	380,000	38.8%	3.2x	Transaction Fees & Expenses	20,000
Senior Unsecured / Subordinated Notes	10% FIXED		200,000	200,000	20.4%	1.7x		
Total Debt			<b>680,000</b>	<b>580,000</b>	59.2%	4.8x		
Cash Equity			400,000	400,000	40.8%	3.3x		
<b>Total Sources</b>			<b>1,080,000</b>	<b>980,000</b>	100.0%	8.2x	<b>Total Uses</b>	<b>980,000</b>

Acquisition Target EBITDA =

# Unitranche Term Loans

- **Unitranche debt is a type of structured debt that combines senior and junior loans into one debt vehicle.**
- **These senior and junior loans are awarded different priority of payment or pricing in one loan agreement during the structuring of the security.**
- This type of loan is obtained from one or multiple participants that are interested in the combination of the different term structures.
- It is typically arranged by financial institutions and not your traditional bank and allows the borrower to raise funds with a one-stop-shop arrangement that only requires one approval process.
- Combining different debt structures from different investors that have their own risk assessment and purposes allows the total debt package to be more comprehensive, tailored, and marketable in the secondary market.
- The borrower in this case will make one interest payment to one lender with the cost of the loan (interest rate) being a blend between a traditional bank-secured loan and a subordinated loan such as a second-lien and/or mezzanine loan.

# Unitranche Term Loans

- Unitranche loans serving middle-market companies are typically structured as non-amortizing loans. In many cases, these are made to riskier borrowers with the structure possibly utilizing a PIK-interest toggle as well as equity kickers. A PIK or paid-in-kind interest toggle is a mechanism that allows the interest payment to be converted to a form of cash paid subsequently to finance-deferred payments. Equity kickers are mechanisms that allow investors to obtain equity at different points during the loan term.
- There are two types of unitranche loans:
  - **Straight unitranche** are loans that are provided by one lender or a syndicate of lenders. A straight unitranche loan represents a senior stretch loan. The name “stretch loan” comes from the idea that the lender stretches the seniority to leverage ratios of total debt to EBITDA of five to six times instead of breaking up the facilities into senior and junior loans.
  - **Bifurcated unitranche** are structures that separate the principal into first-out and last-out tranches, as discussed.

# Other Types of Bank Loans

- **Debt-In-Possession Loan (DIP)**

- **Debtor-in-possession financing (DIP financing)** is a special type of financing that aids and gears companies for the process of either filing for bankruptcy or a reorganization.
- Those companies that are considered financially distressed will generally seek additional financing to cover short-term liquidity while the rest of the debt is restructured post-bankruptcy.
- The facility is therefore a bridge to facilitate the short-term needs of the company until post-reorganization and bankruptcy. DIP financing has immediate priority of payment over existing debt, equity, and other claims.

- **Bridge Loans**

- **Bridge loans are short-term loans that are used for cash until the company can secure more permanent financing.**
- Bridge loans are designed so that the company is able to close on a specific transaction that requires quick funding and execution, such as an acquisition or leveraged buyout (LBO).
- Bridge loan participants charge high fees and interest rates once funded and could insist on interest rate escalation if the bridge objective is not accomplished within the expected time frame. Bridge loans are very popular when the company is in the process of raising public debt or equity for a specific transaction.

# Other Types of Bank Loans

- **Swing Loans**

- This is a loan that is offered by the lead syndication arranger that includes all the terms of the loan in the credit agreement.
- **The swing loan, which has a maximum cap, is used as a quick liquidity loan for the company to manage same day working capital needs.**
- In a large syndication with multiple lending banks, implementing a revolver could be a bureaucratic nightmare. It is tedious to have all the banks fund their share of a revolver.
- Therefore, as compensation, the administrative bank is asked to fund the working capital on behalf of the other lenders.
- The swing facility is usually repaid shortly thereafter (within a few days), so there is no real incentive to having additional banks involved in the financing.

# Other Types of Bank Loans

- **Project Finance Loans**

- Project loans are used to finance infrastructure and industrial projects.
- **A project loan is structured to include the interest payment during construction and is repaid with a more permanent loan after the project is completed or rolled over into a permanent-term debt facility.**
- The facility is then paid back with the cash flow generated by the project. Project financing is a loan structure that relies primarily on the project's cash flow as repayment and is secured by the project's assets.
- A project loan is a non-recourse loan and is structured to finance three distinct phases of a project's initiation process; the three phases draw the connotation BOT standing for build, operate, and transfer.
- Project loans finance the BOT projects via a special purpose vehicle (SPV).
- The riskiest period of the loan for both the borrower and the lender is during the construction phase.
- The expected repayment in this phase relies on an off-take contract or a power purchase agreement in the case of an energy project.

# Raising / Issuing Corporate Loans

In a larger syndicated transaction involving a facility known as a broadly syndicated loan (BSL), typically raised in tandem with the bond issue, the agencies rate the bonds and the underwriter will also ask for ratings to be assigned to the associated loans

CORPORATE BOND RATING AGENCIES' SCALES				
Description		Standard & Poor's	Moody's	Fitch
Highest Quality (Risk Free)	INVESTMENT GRADE	AAA	Aaa	AAA
High Quality		AA+ AA AA-	Aa1 Aa2 Aa3	AA+ AA AA-
Strong Payment Capacity		A+ A A-	A1 A2 A3	A+ A A-
Adequate Payment Capacity		BBB+ BBB BBB-	Baa1 Baa2 Baa3	BBB+ BBB BBB-
Likely to fulfill Obligations	NON-INVESTMENT GRADE (HIGH YIELD)	BB+ BB BB-	Ba1 Ba2 Ba3	BB+ BB BB-
High-risk Obligations		B+ B B-	B1 B2 B3	B+ B B-
Current Vulnerable to Default	DISTRESS	CCC+ CCC CCC- CC C	Caa	CCC
Default	DEFAULT	D	D	DDD,DD,D

Figure 7.2

# Rating Agency Methodology

- **Industry Risk**
- **Company-Specific Business Risks**
- **Management Factor**
- **Financial Risk Analysis**
  - **Loan-to-value or debt capitalization ratio**
  - **Leverage ratio of debt to EBITDA**
  - **Coverage ratios, including EBITDA/interest and cash flow to debt service**
  - **Cash Flow Forecasting and Modeling**

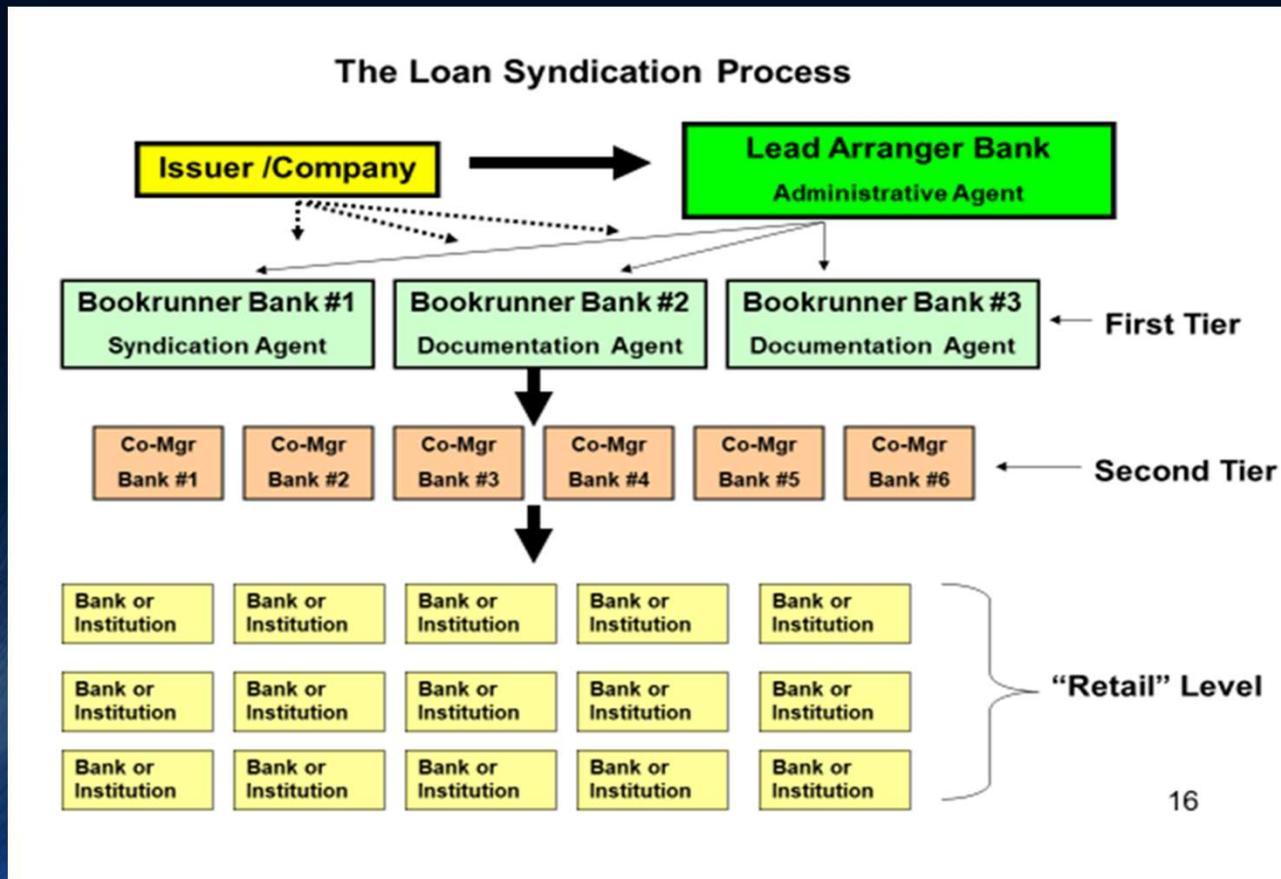
# Types of Loan Syndication

- Fully Underwritten
  - This is where the loan underwriters or arrangers of the loans guarantee the entire commitment, then syndicate the loan to reduce their exposure.
  - Similar to a bond underwriting, if the arrangers cannot fully subscribe the loan, they are forced to absorb the difference and take full market risk.
  - The incentive for the arrangers to take such market risk is embedded in the transaction. A fully underwritten loan can be a very competitive tool for arrangers to win a mandate.
  - Also, the arranger requires higher fees and can profit off the spread it charges over its associated cost.
- Best-Efforts Syndication
  - This is where the underwriter or arranger commits to underwriting less than the entire amount of the loan. If the loan is undersubscribed, the deal may not close unless the terms/pricing/structure are changed (revisiting the terms).
  - Best-efforts syndications are used for risky borrowers or for complex transactions.
- Club Deal
  - This arrangement is a very typical financing arrangement for smaller and middle-market transactions and involves a pre-marketed offering to a group of issuers or equity sponsors called relationship lenders. The
  - he arranger is generally a first among equals, and each lender gets a full cut of the fees.

# The Loan Syndication Process

- The loan syndication process starts from a handful of arrangers who solicit bids to win the mandate of a specific deal.
- These arrangers provide the company or the sponsor with information including an outline of their syndication strategy and their view on the way the loan will be priced in market.
- After all the solicitation processes are completed by the potential arrangers, the following process is executed:
  - The issuer gives the mandate to one or more arrangers (co-arrangers).
  - The arranger will prepare an information memo (IM) describing the terms of the transactions.
  - A bank meeting is scheduled at which potential lenders hear from the management and the investor group.
  - A deadline is given for the banks to send their commitment levels that are subject to final documentation.
  - Each bank analyzes the deal's credit and assesses the pricing (RORA). Each issuer is assigned an internal rating.
  - The arranger collects all commitments, different amounts from each bank.
  - Allocations are given and legal documentation is sent for final review.
  - After review and signatures of legal documents by each lender, the deal closes and is funded.

# The Loan Syndication Process



# Terms and Conditions of Corporate Loans

- **Money Terms**
  - Amount
  - Interest
  - Maturity/Term
  - Principal Payment
- **Non-Money**
  - Financial Covenants
  - Negative Covenants
  - Affirmative Covenants

The background of the slide is a dark blue gradient with a complex, abstract pattern of curved, overlapping lines that create a sense of depth and movement, resembling a tunnel or a stylized architectural structure. The lines are lighter blue and white, creating a grid-like effect that curves and recedes into the distance.

# Secondary Debt Markets:

Credit and Alternative Investments: Leveraged Loans, CLOs, Private Credit and Lender Finance

# Secondary Loan Markets – An Overview

- The secondary loan market sprung up in the late 1990s and early 2000s with the creation of the institutional loan market, also referred to as term loan B market, since the traditional term loan (term loan A) was financed by commercial banks.
- The growth came from the establishment of collateralized loan obligations (CLO) that became the majority of the syndication market.
- These loans evolved into many types, depending on the purpose of the loan, the investor providing the loan, and the market demand supply dynamics.
- Also, when Standard & Poor's and Moody's expanded their rating services to loans from bonds, the secondary market opened, and many funds were created that were designed to frequently trade these loans.

# The Bank Loan or Credit Markets

- **The secondary loan market is divided into two distinct markets:** investment-grade (IG) and non-investment-grade or leverage loan (LevFin) markets. T
- The IG secondary market consists primarily of commercial banks trading with one another to reduce or increase exposure on certain borrowers.
- In the case of non-investment-grade and leveraged transactions, the parties that trade these loans consist of financial companies and institutional investors such as collateralized loan obligations (CLOs), loan mutual funds (LMF), business development companies (BDCs) and other direct lenders and hedge funds.
- Since the IG secondary market involves trading between commercial banks whose cost of capital is relatively low, the pricing is not as important as the LevFin secondary market. These commercial banks, often called relationship banks, are more interested in providing other banking products to the company.
- Thus, they see the transaction as a source of increasing their exposure to obtain customers or up-tier their relationship with the company.
- The participants in LevFin secondary market, on the other hand, care more about the loan's price based on the credit quality of the issuer and their personal risk appetite.

# Bonds, Loans and CLOs Ratings

CORPORATE BOND RATING AGENCIES' SCALES				
Description		Standard & Poor's	Moody's	Fitch
Highest Quality (Risk Free)	INVESTMENT GRADE	AAA	Aaa	AAA
High Quality		AA+ AA AA-	Aa1 Aa2 Aa3	AA+ AA AA-
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Current Vulnerable to Default	DISTRESS	CCC+ CCC CCC- CC C	Caa	CCC
Default	DEFAULT	D	D	DDD,DD,D

Figure 7.2

# The Case of Loans

- The leveraged loan asset class has been relatively attractive for many portfolio managers due to the following investment characteristics.
  - **Insulation from interest rate risk**: Both the revenues and cost of the CLO is based on floating rate interest (SOFR based) that is reset at least every 90 days, so even if the interest rate rises for the CLO's loan obligations, the rates will also rise at the same level for the individual portfolio of companies, enabling natural arbitrage for the CLO manager.
  - **Low price volatility**: In general, leverage loans experience reduced volatility resulting from a low correlation and covariance with other assets. The floating rate nature of leveraged loans contributes to its low correlation with other security types. Only short-term treasury bills (considered risk free) consistently exhibit lower volatility.
  - **Defensive strategy**: Senior loan funds have historically provided consistent, higher risk-adjusted returns compared to other asset classes, which may make them attractive to investors during volatile markets.

# Pricing and Loan Yields

- Then the pricing is set based on an initial spread over a base rate (usually SOFR) at set original issuance discount (OID), which represents the additional “fee” the investor receives. The loan yield formula is as follows:

$$\text{Annual loan yield} = \text{SOFR} + \text{spread} + \frac{\left(\frac{100 - \text{OID}}{4 \text{ years}}\right)}{100}$$

Please note that this conventional formula is based on 4 years’ average life of the loan.

A typical press announcement from the lead arranger bank will be as follows:

- “The term loan B price is set at SOFR + 4.5% at 99.0 OID and is now free to trade.”
- Based on this example and assuming the starting SOFR is 2.50%, the initial loan yield is then calculated as follows:

$$\text{Annual loan yield} = 2.5\% + 4.5\% + \frac{\left(\frac{10}{4 \text{ years}}\right)}{100} = 2.5\% + 4.5\% + 0.25\% = 7.25\%$$

# Pricing and Loan Yields

- The Loan Syndication and Trading Association (LSTA) was established in the mid 1990s to develop liquidity and transparency in the secondary market for bank loans.
- LSTA provides dealer-secondary quotes based on market-to-market and other relevant information including the most volatile loans, the list of the biggest price movers, and the listing of the newest deals.
- The LSTA, in conjunction with Standard & Poor's Leveraged Commentary & Data (LCD), has developed a LevFin index as a benchmark representing a weighted average of the 100 largest loan facilities.
- The index, S&P/LSTA Index is a total return index of the leverage loans. Loan portfolio managers use this as a benchmark to compare the portfolio performance and other asset class to the market.
- A list of loan secondary trading level examples is shown in figure 12.1.

SECONDARY LOAN MARKET									SOFR (3M)= 2.25%
Companies	Corporate Rating	Facility	Spread bps	Remaining Avg Life Years	OID %	Secondary Bid Price %	Secondary Ask Price %	Difference to OID	Current Yield %
Axell Corporation	B+/B1	TL B	400	3.50	98.500%	97.500%	97.625%	-1.000%	6.964%
Buzz Tech. Corp.	B/B2	TL B	475	3.75	99.000%	99.500%	99.525%	0.500%	7.133%
Cite Inc.	B+/B1	TL A	375	4.00	99.500%	99.750%	99.850%	0.250%	6.063%
Delmon Company	B-/B3	TL B	525	2.50	97.000%	100.500%	101.100%	3.500%	7.300%
Excelent Hotel Corp.	B+/B2	TL B	450	2.25	98.250%	97.500%	98.000%	-0.750%	7.861%
Filarmo Inc.	B-/B2	TL B	545	3.50	98.250%	97.500%	97.750%	-0.750%	8.414%
Gray Tech Inc.	B+/B2	TL B	425	2.00	99.250%	97.500%	98.000%	-1.750%	7.750%
Holifas Saas Co.	B/B1	TL B	400	1.75	98.750%	97.500%	97.750%	-1.250%	7.679%
Intergem Inc.	B/B2	TL B	475	2.00	99.250%	97.500%	97.875%	-1.750%	8.250%
Jasminsen Corp.	BB-/Ba3	TL B	325	3.25	99.750%	97.500%	98.000%	-2.250%	6.269%
Kapko Company	B+/B1	TL B	425	3.50	99.000%	97.500%	97.750%	-1.500%	7.214%

# Secondary Loan Terms - Concepts

- **Loan participation**: A loan participation, sometimes called “silent participation,” is an agreement between two or more lenders in which a primary lender sells specific rights in a loan to other lenders (participants)
- **Loan assignments**: Defined in the credit agreement, assignments are the sale or transfer of all or portion of the loan from one bank (assignor) to another bank (assignee). With the purchase, the assignee has the same rights and obligations as all the other banks listed in the agreement as a lender of record
- **Most-favored Nation**: Most agreements for leverage loans include “most-favored nation” (MFN) pricing protection.
- **Sunset provision**: A sunset provision is a clause in the loan agreement that would allow the MFN protection to expire after a set period, typically 90–180 days.

# Private Credit & Collateralized Loan Obligations (CLOs)

- **Collateralized loan obligations (CLOs) are funds created with a pool of corporate loans.**
- Typically, these corporate loans are comprised of leveraged loans with lower credit ratings with higher expected returns. In exchange for taking on higher risk, the investor in a CLO is offered higher diversity and better-than-average returns.
- A typical CLO fund will include a portfolio of 100 –250 first-lien bank loans that the manager of such funds is actively buying and selling in the secondary loan market.
- To fund the initial purchase of these loans, the CLO raises funds from outside investors in structures called tranches.
- Each tranche is ranked with a priority of payment when and if the CLO fund liquidates. The tranches are comprised of debt and equity investments

# Private Credit & Collateralized Loan Obligations (CLOs)

- The investments in the debt tranches are rated by Moody's based on risk of default, where the equity investments in CLOs are not ranked and are the last to get paid in a liquidation.
- Investors who are paid out first have lower overall risk, but they receive smaller interest payments as a result.
- Investors who are in later tranches, referred to as equity tranches, are paid last, and thus expect higher interest payments.
- The highest priority tranches, referred to as debt tranches, are treated just like bonds and have credit ratings as well as set coupon payments.
- These debt tranches are structured and rated in a specific pecking order.

# Structuring the Tranches of CLOs

## Metanext CLO Fund IV (MCLO)

### COLLATERALIZED LOAN OBLIGATION (CLO) STRUCTURE

#### \* MCLO Summary Income Statement

Revenues (net)	5.00%	\$ 25.00	mm
Interest Exp. (net)	2.50%	(11.25)	
Mgmt Fee	0.50%	(2.50)	
Total Income (net)		\$ 11.25	mm
ROE %		22.50%	

\* SOFR offsets (Income - Expenses)

**METANEXT CLO INVESTMENT & PORTFOLIO MANAGEMENT COMPANY**

LEVERAGED LOAN FUND:	
Capital Raising as follows:	
<b>DEBT TRANCHES:</b>	
Tranche A	} \$450 million
Tranche B	
Tranche C	
Tranche D	
Tranche E	

EQUITY TRANCHE \$100 million

Weighted Average Portfolio Revenue SOFR+5.0%

Weighted Average Cost of Debt SOFR+2.5%

Portfolio Management Fee 0.5%

#### PORTFOLIO OF INVESTMENTS

Investments in Leveraged Loans

Loan A	Loan B	Loan C	Loan D
Loan E	Loan F	Loan G	Loan H
Loan I	Loan K	Loan L	Loan M
Loan N	Loan O	Loan P	Loan Q
Loan R	Loan S	Loan T	Loan U
Loan V	Loan W	Loan X	Loan Z
Loan AA	Loan AB	Loan AC	Loan AD
Loan AE	Loan AF	Loan AG	Loan AH
Loan AI	Loan AJ	Loan AK	Loan AL

\$500 million



# Structuring the Tranches of CLOs

- CLO funds are structured to meet certain criteria set by the credit agencies such as Moody's including portfolio diversification factors by industry, company and credit ratings discussed further in this chapter.
- These loans are primarily leveraged loans given the higher yield characteristics.
- The CLO investment platforms are as follows:
  - **Intermediate Investing: Warehouse Financing**
  - **Capital Raising**
  - **Investing the Capital Raised**

# Structuring the Tranches of CLOs

## Intermediate Investing: Warehouse Financing

- Typically, before raising the capital, the CLO manager obtains a warehouse facility.
- This is basically a credit facility obtained by a commercial bank (typically by the underwriter for the intended new-issue CLO).
- This will serve as a short-term financing for the purchase (or warehousing) of leverage loans before the launch of the CLO. Especially with new issuance of CLOs, companies need to show their success of ramping up the portfolio before they obtain more permanent financing.
- Also, since the permanent financing requires diversification, this arrangement is built toward securing that.
- The terms and conditions of the warehouse facility are relatively straightforward.
- Such facility, similar to revolving credit facility, could have several classes of loans with differing seniority levels, and the short-term equity during the ramp up is typically funded by the CLO manager or affiliates.
- The borrower is often the special purpose vehicle or entity (e.g., Metanext CLO Fund IV Ltd.) that will raise the permanent financing shortly after a significant percentage of the ramp up has occurred.
- This borrower will pledge the corporate loans purchased as security to the warehouse lenders.
- This credit agreement (warehouse facility agreement) typically has specific criteria of what loan can be purchased.

# Structuring the Tranches of CLOs

## Intermediate Investing: Warehouse Financing

- **The most significant risk to a manager who provides the warehouse facility is market risk**, a loss that various commercial banks experienced during the financial crisis of 2008/2009 when the secondary loan market plummeted due lack of liquidity.
- Given the potential fluctuations of the secondary loan markets, these loans are vulnerable to price movements.
- To mitigate this market risk, a typical warehouse lender requires that the manager who provides the short-term equity maintain a pre-negotiated level of loan-to-value ratio, so if the market value of loans decreases above the set loan-to-value ratio, the manager must provide additional funding to maintain the required level of loan-to-value ratio stated in the agreement (similar to a margin loan).
- In recent years, a lot of seasoned CLO managers have successfully launched new-issue CLOs without relying on a warehouse facility, as it seems very costly for the equity investor in a ramp-up stage.
- Banks have been very innovative in creating various structures that encourage the manager to use these warehouse facilities by using various cash flow techniques such as higher overcollateralization during the ramp up.
- Overcollateralization ratio tests (OC tests) are used to maintain a par amount of the warehouse portfolio, in aggregate, instead secondary market value-based tests.

# Structuring the Tranches of CLOs

## Capital Raising

- Once the ramp up is successful (typically 70% of the fund used), the manager moves to raise a more permanent finance for the CLO investments (typical 10–14 years).
- The CLO manager will reach out to an advisor (typically the provider of the warehouse facility) to assist with capital raising for the next CLO portfolio.
- The capital raising includes the debt and equity.
- As mentioned, the debt is divided by tranche based on probability of default assigned by third-party rating agency for each tranche.
- Typically, each tranche is raised by different investors based on their risk appetite. Historically, commercial banks invest in the AAA- and AA-rated tranches, and any tranches below that (BBB–BB) involve other institutional investors such as insurance companies, pension funds, and hedge funds.

# Structuring the Tranches of CLOs

## Investing the Capital Raised

- Moody's and Standard Poor's set various parameters for CLO managers to follow when building a portfolio of investments including certain diversification levels across companies, industries, and ratings levels.
- The typical investment is between \$5–\$15 for a \$500-million loan.

# Private Credit Investment Vehicles

## Bank Loan Funds (BLF)

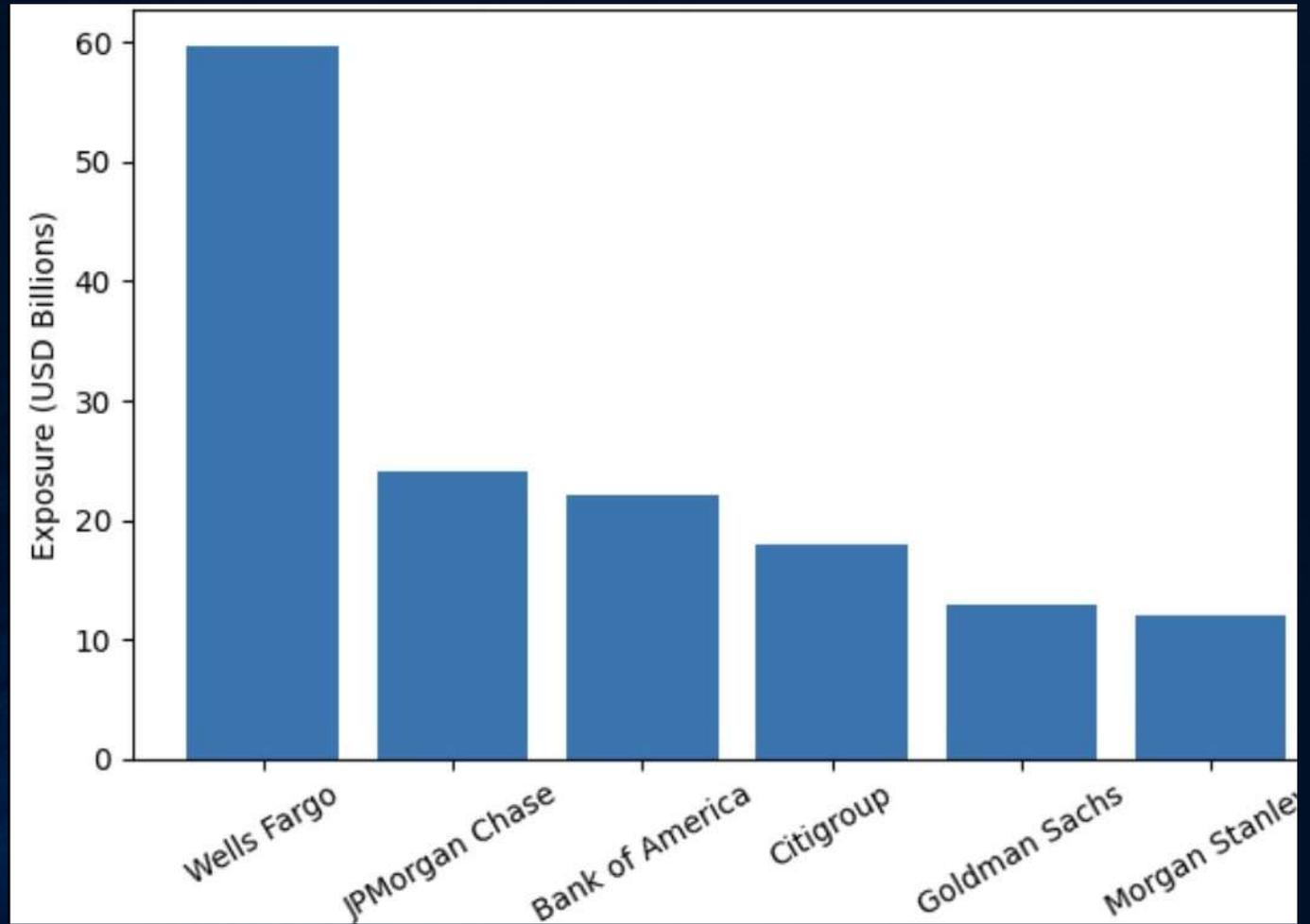
- These are closed-end funds that trade leveraged loans.
- BLFs are sometimes called floating rate funds because the loans in these funds are SOFR or prime rate based on floating rate loans.
- These funds trade based on the market value of the individual loans that create BLFs' net asset value and are structured like CLOs except they provide daily information such as liquidity and diversification across borrowers and industries.
- The market values in these funds may fluctuate based on individual loan and industry performance.
- These loans are typically repaid without penalty at any time and cause the expected income stream to end before the stated maturity. Such prepayment is caused by an upgrade of the rating of the borrower, a declining interest rate environment, and favorable market conditions.

# Private Credit Investment Vehicles

## Business Development Company (BDC)

- A business development company (BDC) is a firm that also invests in leveraged loans. To qualify as a business development company, a company must be registered in compliance with Section 54 of the Investment Company Act of 1940.
- Many financial institutions are set up to have both CLOs and BDC structures. A major difference between a BDC and a CLO fund is that BDCs allow smaller, non-accredited investors to invest in these funds.
- The other difference is that BDCs have a maximum leverage of 1:1 equity and debt.
- Due to lower leverage than CLOs, many BDCs invest in junior debt that carries higher yields.
- BDC funds are typically closed-end funds that make investments in middle-market companies. BDCs provide the investors with exposure to debt and equity investments in predominantly privately owned companies.
- Because BDCs are regulated investment companies, they must distribute over 90% of their profits to shareholders, which results in above-average dividend yields.

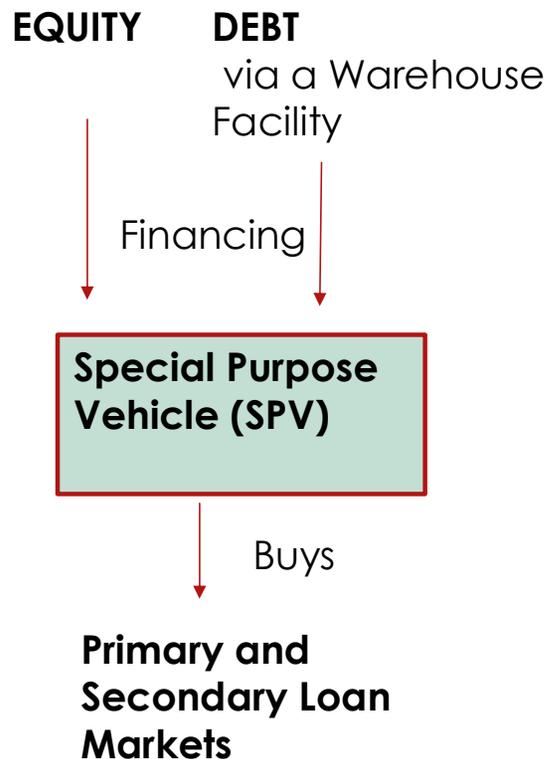
# US Bank Exposure to Private Credit (2025)





# CASE STUDY – PRIVATE CREDIT/CLO

# Portfolio Credit Risk – Warehouse Facility



## 1. Establishing the SPV

## 2. Initial Equity Investment

1. Equity investors provide the **first-loss capital**.
2. This equity serves as a cushion for the warehouse lender, absorbing losses before debt holders.

## 3. Warehouse Facility Financing

1. The SPV secures a **short-term credit line (warehouse facility)** from a bank.
2. This allows the CLO manager to begin purchasing a pool of **leveraged corporate loans** (often from the secondary loan market).

## 4. Portfolio Accumulation & Diversification

1. The CLO manager purchases and aggregates loans.
2. The warehouse stage continues until the portfolio reaches sufficient **size and diversification** (by borrower, industry, and credit rating).

# Portfolio Credit Risk – Warehouse Facility

- ▶ **CLO portfolio aggregation under a warehouse facility seeks to maximize the available warehouse borrowing by ensuring the loans archive maximum borrowing base eligibility**
- ▶ **Typical restrictive stipulations: (Borrowing Base Strips)**
  1. Maximum Maturity
  2. Minimum Coverage Ratios – EBITDA / Interest and EBITDA / Debt Service
  3. Maximum Leverage Ratios – Total Debt / EBITDA (or at least the Total Debt including the loan being considered in the portfolio)
  4. Maximum participation amount
  5. Maximum concentration in any single loan or borrower

During the aggregation of the pool of loans the manager must be concerned with market liquidity

# The “terming” of Warehouse Facility

## New CLO DEBT

Refinancing the Warehouse Debt



Special Purpose Vehicle (SPV)



Continues to Buy

Primary and Secondary Loan Markets

## 1. Refinancing via Capital Markets

1. Once diversified, the warehouse facility is refinanced with **long-term permanent financing**. Financing is provided by Financial Institutions
2. The CLO issues debt securities structured into **tranches** (senior, mezzanine, subordinated).

## 2. Tranche Structuring & Credit Ratings

1. Each tranche receives a **credit rating** (AAA down to BB/B) from agencies such as Moody's, S&P, or Fitch.
2. Senior tranches carry lower risk/lower return; junior tranches carry higher risk/higher return.

## 3. Ongoing Loan Purchases

1. Proceeds from tranche issuance are used to **repay the warehouse line** and to **continue acquiring loans**.
2. The CLO becomes self-sustaining, using loan repayments and interest income to service tranches and equity investors.

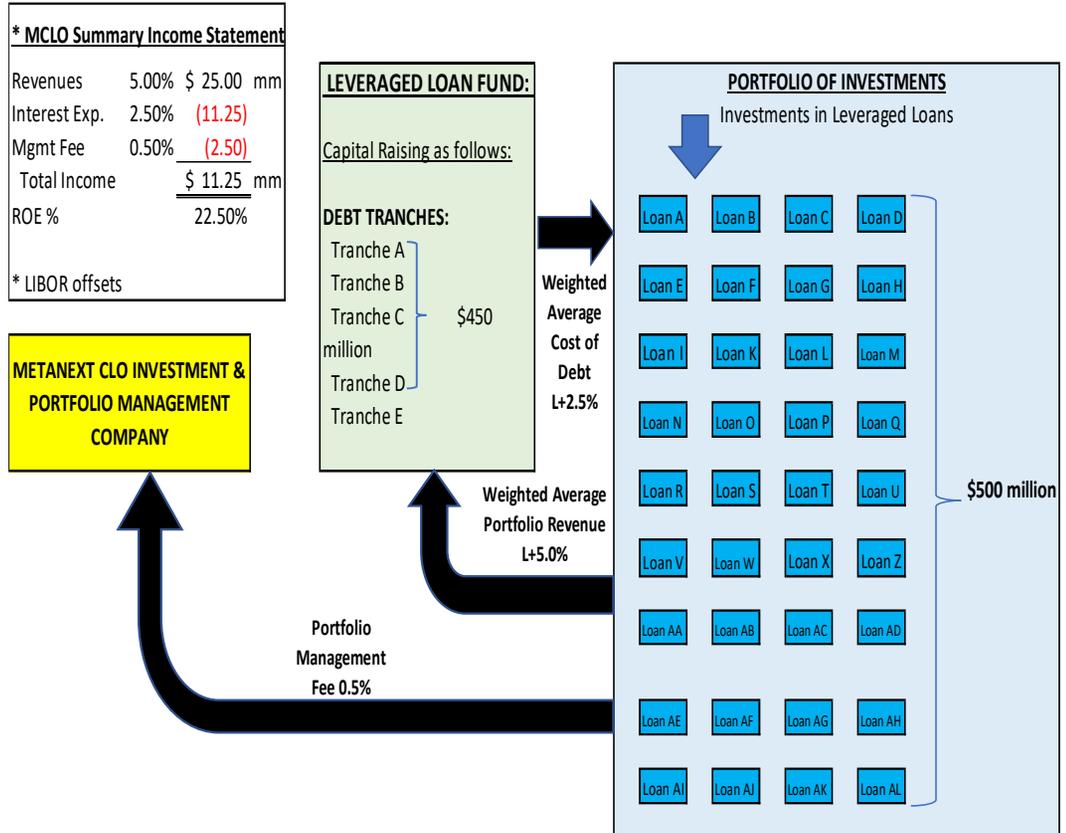
# Portfolio Credit Risk – Structuring CLOs

- ▶ **Credit portfolios on a financial institution operate like CLOs**
- ▶ **CLO Formation**
  - ▶ 100-250 homogeneous loans
  - ▶ Funding from the institution and third-parties in Multiple tranches
  - ▶ Tranches have different credit ratings, and rights to cash flows and pricing – AAA, AA - BB
- ▶ **Structuring the CLO Tranches**
  - ▶ Diversification across borrowers and industries, yet homogeneous in term
- ▶ **Warehouse Financing – Aggregating the CLO assets**
  - ▶ Manager / Originator: The sponsoring financial institution funds the loans on balance until the pool reaches sufficient scale to be securitized (CUSIP)
  - ▶ E.g. Goldman Sachs / Bank of Montreal
  - ▶ Non-bank originators, SPVs, use warehouse lines – credit facilities from banks

# Metanext CLO Fund IV – Case Study

- ▶ Metanext CLO Fund IV (MCLO) has raised \$500 million to set up their fourth CLO.
- ▶ \$450 million debt - four tranches - weighted average cost of debt: SOFR + 2.5% (S+2.5%).
- ▶ \$50 million Equity
- ▶ The loan portfolio returns on average SOFR + 5.0% (S+5.0%)
- ▶ Management Fee: 0.5%
- ▶ \$11.5 million net income - 23% ROE (\$11.5 mm/\$50 mm) before any portfolio losses.

## Metanext CLO Fund IV (MCLO) COLLATERALIZED LOAN OBLIGATION (CLO) STRUCTURE



# Metanext CLO Fund IV – Case Study

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## Metanext CLO Fund IV (MCLO)

Arbitrage Cash Flow CLO Model

### Capital Structure

Tranches	Par amount	% Cap	% Debt	Rating S&P/M	Coupon Libor+ Spread	WACD Libor +
Tranche A	335.0	67.0%	74.4%	AAA/Aaa	178	132.51
Tranche B	41.0	8.2%	9.1%	AA/Aa2	300	27.33
Tranche C	30.0	6.0%	6.7%	A/A2	400	26.67
Tranche D	27.0	5.4%	6.0%	BBB/Baa2	600	36.00
Tranche E	17.0	3.4%	3.8%	BB/Ba2	730	27.58
Total Debt	<b>450.0</b>	<b>90.0%</b>	100.0%			
Equity	50.0	10.0%		NR		
	<b>500.0</b>	<b>100.0%</b>				<b>250.1</b>

# Metanext CLO Fund IV – Case Study

▶ Metanext CLO Fund IV (MCLO) shows capitalization of of

- ▶ Tranche A - \$335mm @ S+178
- ▶ Tranche B - \$41mm @ S+300
- ▶ Tranche C – \$30mm @ S+400
- ▶ Tranche D – \$27mm @ S+600
- ▶ Tranche E - \$17mm @ S+730

## Metanext CLO Fund IV (MCLO)

Arbitrage Cash Flow CLO Model

### Capital Structure

Tranches	Par amount	% Cap	% Debt	Rating S&P/M	Coupon Libor+ Spread	WACD SOFR +
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Total Debt	<b>450,000,000</b>	<b>90.0%</b>	100.0%			
Equity	50,000,000	10.0%		NR		
	<b>500,000,000</b>	<b>100.0%</b>				<b>250.1</b>

# Metanext CLO Fund IV – Case Study

▶ Metanext CLO Fund IV (MCLO) shows a purchase of

- ▶ 25 loans at an average of
- ▶ \$20 million per loan,
- ▶ generating 500 basis points or 5%
- ▶ \$500-million portfolio.

## Metanext CLO Fund IV (MCLO)

Arbitrage Cash Flow CLO Model

### Portfolio of Leveraged Loans

	Par amount (\$ millions)	% of Total	Rating S&P	Discount margin SOFR+	Annual Income (excluding SOFR)	Weighted Average Interest Income (bps)
Company 1	15.0	3.0%	B+	425	637,500	12.75
Company 2	30.0	6.0%	B-	525	1,575,000	31.50
Company 3	20.0	4.0%	B	475	950,000	19.00
Company 4	12.0	2.4%	B+	450	540,000	10.80
Company 5	25.0	5.0%	B+	425	1,062,500	21.25
Company 6	12.0	2.4%	BB-	350	420,000	8.40
Company 7	16.0	3.2%	B+	425	680,000	13.60
Company 8	15.0	3.0%	B	425	637,500	12.75
Company 9	12.0	2.4%	B-	600	720,000	14.40
Company 10	25.0	5.0%	CCC	850	2,125,000	42.50
Company 11	21.0	4.2%	B+	425	892,500	17.85
Company 12	23.0	4.6%	B-	625	1,437,500	28.75
Company 13	27.0	5.4%	B-	525	1,417,500	28.35
Company 14	15.0	3.0%	B+	425	637,500	12.75
Company 15	30.0	6.0%	B+	400	1,200,000	24.00
Company 16	27.0	5.4%	BB	330	891,000	17.82
Company 17	26.0	5.2%	B+	450	1,170,000	23.40
Company 18	14.0	2.8%	B-	500	700,000	14.00
Company 19	12.0	2.4%	B-	550	660,000	13.20
Company 20	15.0	3.0%	B	500	750,000	15.00
Company 21	14.0	2.8%	B-	575	805,000	16.10
Company 22	22.0	4.4%	B	475	1,045,000	20.90
Company 23	20.0	4.0%	B	500	1,000,000	20.00
Company 24	25.0	5.0%	B-	600	1,500,000	30.00
Company 25	27.0	5.4%	B-	575	1,552,500	31.05
	<u>500.0</u>	<u>100.0%</u>			<u>25,006,000</u>	<u>500.12</u>
Average	<u>20.0</u>					

# Metanext CLO Fund IV – Case Study

## ► Metanext CLO Fund IV (MCLO)

► Net income generated from the Metanext CLO Fund IV of \$11.2 million after interest payments and management fees - 22.5% (ROE)

► Default Assumption – 3%

► recovery rates of 70%, yielding a loss-given default (LGD) of 0.9% of \$500 million - \$4.5 million

► RAROC - \$6,752,000 = 13.5%

## Metanext CLO Fund IV (MCLO)

### Arbitrage Cash Flow CLO Model

#### EXPECTED EQUITY CASH FLOW ANALYSIS

	Average Interest Assumptions	
CLO Interest Income	5.00%	25,006,000
Less Management Fee	0.50%	<u>2,500,000</u>
CLO Income after Management Fees		22,506,000
<b>Less Interest Expenses:</b>		
Tranche A	335,000,000 1.78%	5,963,000
Tranche B	41,000,000 3.00%	1,230,000
Tranche C	30,000,000 4.00%	1,200,000
Tranche D	27,000,000 6.00%	1,620,000
Tranche E	17,000,000 7.30%	<u>1,241,000</u>
Total Interest Expense	450,000,000 2.50%	11,254,000

#### Equity Cash Flow (before Loss Given Default)

	<b>11,252,000</b>
Portfolio Amount	500,000,000
Debt Investment	450,000,000
Equity Investment	50,000,000
<b>ROE</b>	<b>22.5%</b>

#### EXPECTED EQUITY CASH FLOW ADJUSTED FOR LOSS

<b>Equity Cash Flow (before Loss Given Default)</b>	11,252,000
<b>Less Loss Given Default (LGD) -Assumptions</b>	
Default Rate	3.00%
Recovery	70.00%
LGD rate	0.900%
Total Portfolio Value	\$ 500,000,000 million
<b>Less Loss Given Default</b>	<b>4,500,000</b>
Risk Adjusted Income on Capital	<u>6,752,000</u>
<b>RAROC %</b>	<b>13.50%</b>

#### BREAK EVEN ANALYSIS

Default Rate	<b>7.50%</b>
Recovery	70.00%
LGD rate	2.250%
Break Even LGD	<u>11,252,000</u>