CRE FINANCE COUNCIL EDUCATION SERIES

CRE CLO E-PRIMER

A comprehensive overview of Commercial Real Estate Collateralized Loan Obligations

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Contents

Chapter 1: An Introduction to the CRE CLO Market 3

Chapter 2: CRE CLO Collateral: The Building Blocks 5

Chapter 3: CRE CLO Structural Considerations 7

Chapter 4: Credit Analysis of CRE CLOs 12

Chapter 5: Parties to the Transaction and Process Step-by-Step 16

Chapter 6: The CRE CLO Investor Base and Relative Value Considerations 21

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CHAPTER 1

An Introduction to the CRE CLO Market

What are CRE CLOs?

Collateralized loan obligations (CLOs) are securitization vehicles that fund the purchase of loan portfolios. Rated debt securities and an equity component are typically issued. In particular, commercial real estate (CRE) CLOs purchase mortgage loans secured by commercial and multifamily properties that are typically undergoing some sort of transition.

CLOs are divided into multiple senior/investment-grade and subordinate/non-investment grade notes—which are sold to qualified investors, or, in the case of subordinate notes, retained by the issuer. The majority of CRE CLOs use the CLO securitization structure, which provides greater flexibility than traditional real estate mortgage investment conduit '(REMIC)' structures found in commercial mortgage-backed securities (CMBS).

Typical characteristics of underlying CRE CLO loans include:

- Loans are secured by assets that are not yet stabilized. The financing 'bridges' the redevelopment/renovation gap between acquisition and permanent financing
- Floating rate loans with two- to three-year initial terms and five-year fully-extended maturity
- Less call protection than conduit CMBS
- Loan proceeds are advanced in stages to address the capital needs of the sponsor's business plan, typically inclusive of performance hurdles
- Borrowers provide no or limited recourse

CRE CLO Evolution

Before the 2007 Financial Crisis, transitional commercial real estate properties were typically financed on bank balance sheets. Towards the peak of the cycle, meanwhile, they were securitized via large-loan CMBS transactions and collateralized debt obligations (CDOs). Post-crisis, CMBS issuance was significantly curtailed and CDO issuance ground to a halt. From 2012, non-bank lenders began to provide bridge financing and sought CRE CLO securitization as an alternative to balance sheet and warehouse financing. This was because CRE CLO securitization was the cheapest option, and because it avoided mark to market and recourse risks. The CRE CLO market therefore began to grow in earnest in 2016.

While pre-crisis CRE CDOs and current CRE CLOs share similarities, they have a few fundamental differences. One is the seniority and loss profile of the underlying debt. CDOs invested heavily in subordinated collateral such as B-Notes, mezzanine loans, subordinate CMBS, bonds of other CDOs, and real estate investment trust (REIT) debt. CRE CLO assets have been largely comprised of first lien mortgage debt with very few exceptions. CRE CLO subordination levels are also meaningfully higher than pre-crisis CDOs. Reinvestment periods are also more limited at two to three years, as opposed to five to six years in CRE CDOs.

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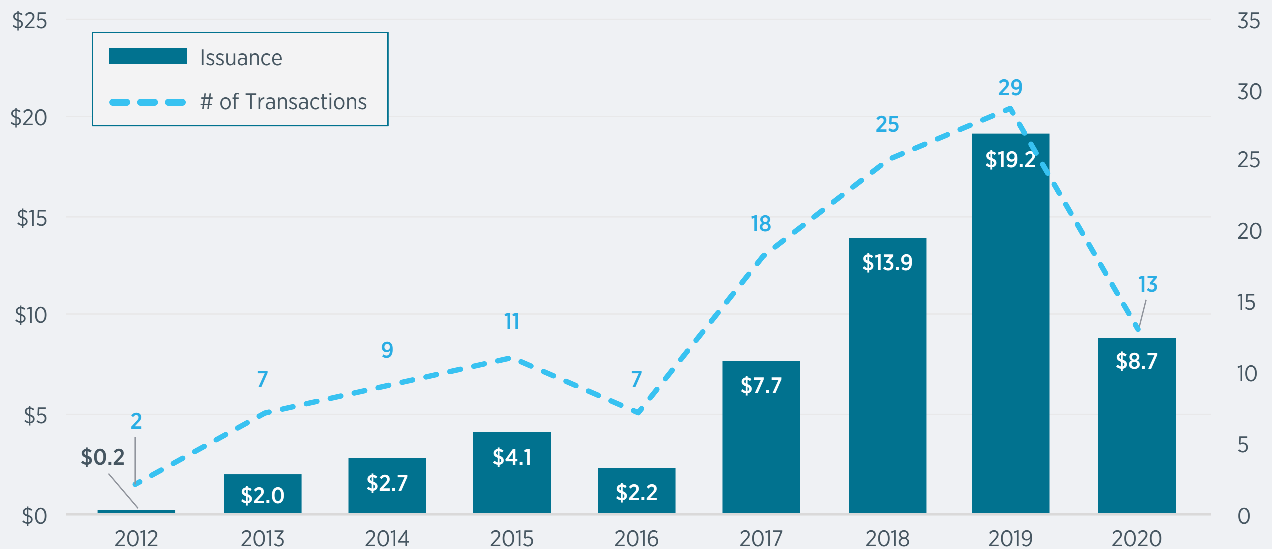
Beginning in 2018, CRE CLO issuance increased dramatically, with investor appetite driven by higher yield, floating rate exposure, and the appeal of a shorter duration product. Issuers and borrowers benefited from strong real estate and capital market fundamentals, lower interest rates, higher advance rates, and matched-term financing relative to warehouse lines. Compared to legacy CDOs, CRE CLO structures are simple, relatively conservative and provide significant alignment of interest. After all, issuers hold the non-investment grade, first loss positions and use the CRE CLO as a financing tool. While broader CRE securitization volumes increased, the share of all private-label CRE securitizations represented by CRE CLOs rose too.

Exhibit 1: CRE CLO Issuance (billions)



Source: Commercial Mortgage Alert

An Important Financing Tool for Lenders

Lenders have found CRE CLOs to be a competitive financing alternative to warehouse lines or repo funding, offering a more competitive advance rate, and cheaper cost of funds. CLOs can free up capacity under warehouse and repurchase facilities, adding diversity to lenders' funding sources. CRE CLOs also better match issuers' assets and liabilities, providing financing matched to the term of its loans. Conversely, warehouse line expirations may precede loan maturities. Because they're not subject to margin calls, CRE CLOs also provide non-mark-to-market financing, which can help issuers in economic downturns.

Managed CRE CLOs specifically provide more asset selection discretion to lenders relative to a warehouse facility. New assets must satisfy eligibility criteria in a CRE CLO. Repo warehouse lines are subject to lender approvals (with warehouse providers unique in having the authority to approve them).

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Lenders typically hold newly-originated loans on warehouse lines until they aggregate enough to issue a CRE CLO. They then acquire the loans from the warehouse line, freeing it up for the lender to originate new loans. Programmatic CRE CLO issuers repeat this process each time they issue a new CRE CLO.

Exhibit 2: CRE CLOs Provide an Alternative Financing Source

	CRE CLO	Repo Warehouse Line
Matched Funding	Yes	No
Recourse	No	Yes, often partial
Revolving Credit Facility	Limited	Yes
Asset Selection	Limited by Covenants	Sole Discretion Right
Collateral	A Notes/Whole Loans/Senior or Pari Passu Participations	A Notes/Whole Loans/ Senior or Pari Passu Participations
Mark-to-market	No	Yes, though may be limited to credit events at the property only.
Advance Rate	Typically 75-85%	Typically 65-80%

Source: Citi Research (adapted)

CHAPTER 2
CRE CLO Collateral: The Building Blocks

Loan, Collateral and Borrower Characteristics

The vast majority of CRE CLO assets are floating-rate whole loans—or senior or pari passu participations—featuring yield maintenance prepayment protection. Loans typically last five years (inclusive of extension options) but can sometimes vary from two to seven. Loans often provide for multiple one–year extensions if the property has not stabilized over the initial term. Borrowers typically obtain interest rate caps to protect against significant movements. Prepayment lockouts typically last from six to 12 months with spread maintenance or minimum interest. Penalty periods typically then last an additional six to 12 months.

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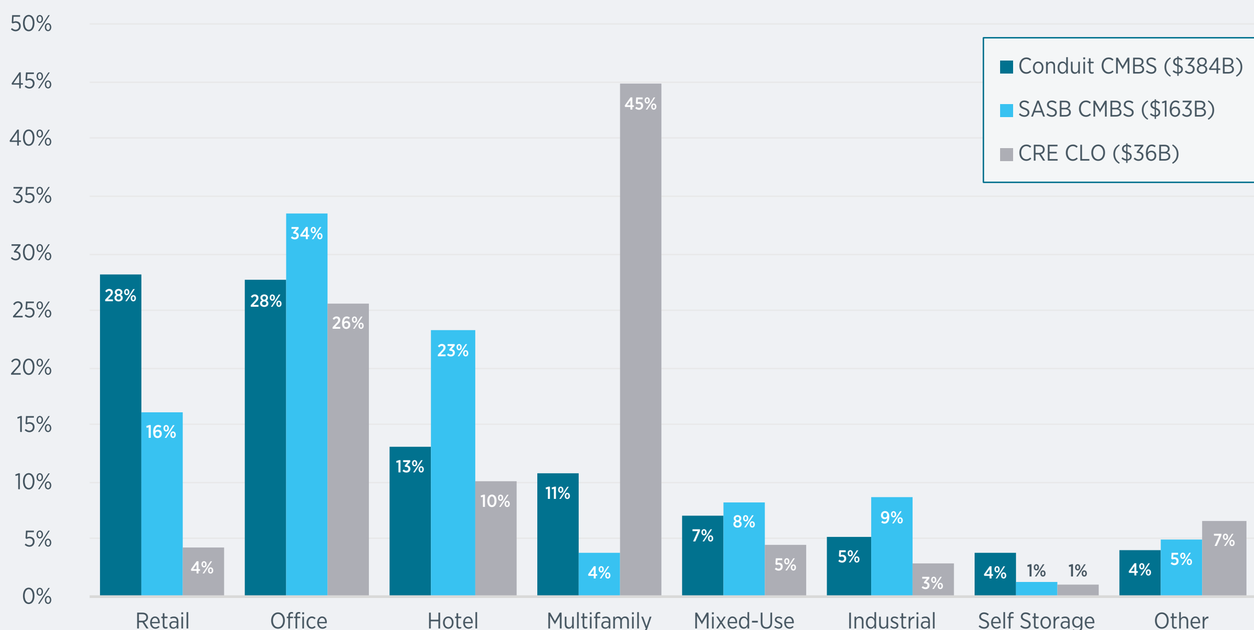
Multifamily properties have typically dominated here, comprising over 40% of underlying collateral. Offices, for their part, come in second. CRE CLO loan collateral often consists of properties undergoing renovation, re-tenanting, or repositioning—in other words 'transitional' properties. Funding for the property's improvement costs are provided through reserves or future funding commitments, often made available to the borrower via milestones (e.g., new lease signings or debt yield (DY) triggers).

Transitional properties entail execution risk—based primarily on the borrower's ability to carry out a business plan. Business plans normally involve a capital investment of debt and equity to renovate, lease, or otherwise improve a property. Upon successful execution of the business plan, the loan is repaid through refinance or sale of the property. Execution risk therefore represents the ability of the borrower to capitalize the project, complete the renovations on time and within budget, achieve pro-forma operating results, and successfully execute its exit strategy. Investors and rating agencies also consider factors that influence borrower behavior, including their basis, equity, and experience.

CRE CLO sponsors generally have asset management experience, and often play multiple roles in a transaction: originator, collateral or asset manager, future funding obligor, subordinate investor, and directing holder, among others. The multiple roles of the issuer create a level of counterparty dependency, and align the interests of the issuer with bondholders—which is not typical in CMBSs.

Exhibit 3: CRE Securitized Debt by Property Type



Source: Trepp (as of November 2020)

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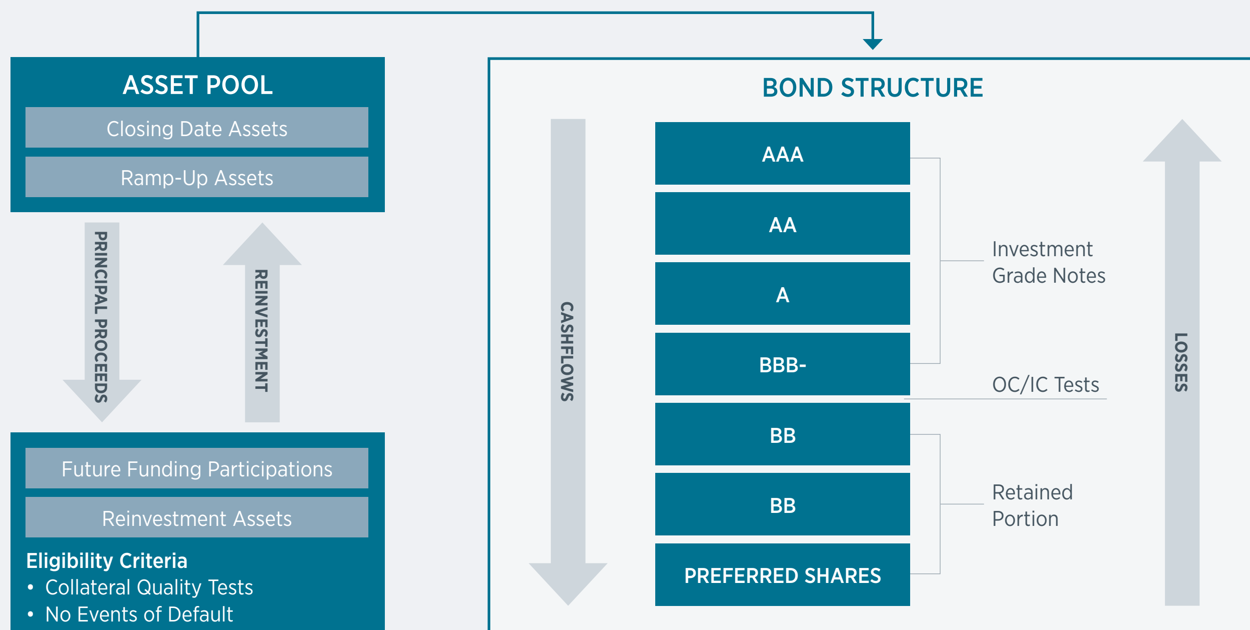
CHAPTER 3
CRE CLO Structural Considerations

CRE CLO Structure

CRE CLOs typically use a qualified REIT subsidiary structure, as opposed to a REMIC. This approach allows activities such as the reinvestment of principal proceeds, and certain modifications to performing loans, which may be impossible with a REMIC (without triggering adverse tax consequences anyway). It also permits real estate investment trusts, or REITs, to retain the assets on their balance sheets, which is beneficial for tax reasons. One limitation of the qualified REIT subsidiary structure is that the REIT is required to retain all of the 'tax equity' in the issuer, represented by the below-investment grade notes and the preferred shares. This serves to better align the interests of the issuer with the noteholders.

CRE CLO distributions are typically predicated on note protection tests. If interest coverage or overcollateralization fall below a prescribed level, interest payments and excess spread otherwise paid to the junior notes are used to redeem the principal of the senior notes until par value (overcollateralization) ratio is achieved. Equity is often used in the same way. While this approach is similar to corporate CLOs, it differs from REMIC CMBS, where the excess spread is sold off as a separate bond.

Exhibit 4: Generic CRE CLO Transaction Diagram



Source: Citi Research; class size not shown to scale

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The high-level structure of the CRE CLO, compared to pre-crisis CRE CDOs, CMBSs, and large-loan floaters, is shown below.

Exhibit 5: Structure Comparison

Overview	CRE CLOs	CRE CDOs	Conduit CMBS	Large Loan Floaters
Transaction Sponsors	REITs, real estate finance companies and asset managers	REITs, real estate finance companies, investment banks, hedge funds and private equity firms	Mostly investment banks, occasionally REITs and real estate finance companies	Mostly investment banks, occasionally REITs and real estate finance companies
Transaction Motivation	Financing	Financing, spread arbitrage, price arbitrage	Spread arbitrage	Spread arbitrage
Form of Securities Issued; Form of Collateral Exposure	**Securities**: Notes **Collateral Exposure**: Cash	**Securities**: Notes **Collateral Exposure**: Cash or Synthetic (reference performance of non-collateral assets via CDS)	**Securities**: Certificates **Collateral Exposure**: Cash	**Securities**: Certificates **Collateral Exposure**: Cash
Issuer Domicile and Tax Treatment	Typically non-REMIC onshore QRS or offshore domiciled	Typically non-REMIC, often offshore domiciled	REMIC	REMIC
Securitization First Loss Holder	Generally, all of the below IG classes retained by the transaction sponsor	Subordinate bonds were sold into the market or to other CRE CDOs	Generally sold to third parties (B-Piece buyer)	Generally sold to third parties; may take the form of rake certificates that derive 100% of their cash flow from individual loans
Reporting	Trustee reports, CREFC IRP reports, often customized quarterly collateral manager reports	Trustee reports; other reports non-standardized	Trustee reports, CREFC IRP reports	Trustee reports, CREFC IRP reports

Source: Kroll Bond Rating Agency, CRE CLOs: A Primer (April 20, 2018)

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Continuation of Exhibit 5

Overview	CRE CLOs	CRE CDOs	Conduit CMBS	Large Loan Floaters
Typical Subordination	AAA: 35%-50% BBB: 15%-30% B: 10%-13% (notably held by the issuer)	Deals with 70%+ first line loans: AAA: 25%-35% BBB: 8%-11% B: 2%-5% Varies greatly for the rest.	AAA: 19%-25% BBB: 6%-9% B: 3%-5%	AAA: 30%-50% BBB: 0%-20% B: Typically 0%
Standardization and Complexity	Somewhat customized and complex structure.	Very customized and complex structure.	Very standardized, basic structure.	Somewhat standardized, generally basic structure.
Payment Priority	Separate P&I waterfalls. Often include one OC and/or one IC cash diversion test. Generally sequential pay, may contain some pro rata payment conditions.	Generally separate P&I waterfalls. Often include multiple OC and/or IC cash diversion tests. Generally sequential pay, may contain some pro rata payment conditions.	Single waterfall for P&I with straight sequential payments.	Single waterfall for P&I; may have pooled certificates and rake certificates. Generally sequential pay, may contain prorata payment provisions.
Events of Default (EOD), Loss, and Control Rights Mechanisms	In static transactions, the most subordinate class is the directing holder for major decisions (e.g., replacement of Special Servicer). When the class has less than 25% of its original investment at risk, based on the total collateral balance after giving effect to appraisal reduction amounts (ARA) and realized losses relative to aggregate note balance, control shifts to the next most subordinate class. In managed transactions, all control rights are held by the collateral manager, who generally cannot be replaced, other than for cause. Issuer EOD for missed payments on non- PIK classes.	All control rights are with the collateral manager, who generally cannot be replaced, other than for cause. Generally, no servicers exist. The collateral manager and the holder of the most subordinate class are often related entities. Issuer EOD for missed payments on non-PIK classes.	The most subordinate class is the controlling class for major decisions. When it has less than 25% of its original investment at risk, after giving effect to ARAs and realized losses, control shifts to the next most subordinate class.	Most subordinate class is the controlling class. When it has less than 25% of its original investment at risk, after giving effect to ARAs and realized losses, control shifts to the next most subordinate class.
Reinvestment	Fully static, lightly managed, or managed. Managers generally have less discretion relative to CRE CDOs. Reinvestment period is generally 1-3 years.	Fully static or managed Reinvestment period is generally 4-6 years.	Static	Static
Ramp-Up	Present in over 20% of deals. Typically a 3-9 month ramp-up period with ~20% of the deal balance available to ramp.	Present in more than half of deals that had at least some exposure to CRE loans. Typically a 3-9 month ramp-up period with ~20% of the deal balance available to ramp.	None	None

Source: Kroll Bond Rating Agency, CRE CLOs: A Primer (April 20, 2018)

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Managed CRE CLO Transactions

CRE CLOs are generally characterized as 'static,' 'lightly managed,' or 'managed'. Static CRE CLOs are secured by collateral that is fully identified at issuance. Lightly managed CRE CLOs allow managers to use principal payments (or reserves set aside at closing) to buy additional pari passu participation interests in loans already linked to the CLO.

Managed CRE CLOs give managers a set amount of time to purchase loans into a trust after closing. 'Ramping' refers to using reserves to purchase assets during a short, defined period (typically three to six months) after closing. Ramped assets may or may not be identified preclosing. 'Reinvestment' refers to using principal from amortization, prepayments, and loan sales to buy additional loans, typically not previously identified. Both ramp and reinvestment assets are subject to eligibility criteria, including asset credit quality and pool concentration limits (e.g., of a particular property type or geography). In some cases, new assets are subject to confirmation from rating agencies.

Exhibit 6: Basic Reinvestment Criteria

Basic Reinvestment Criteria
• Portfolio percentage limitations on:
◦ *Property type concentration*
◦ *Geographic concentration*
◦ *Loan concentration (e.g., HERF, max loan size)*
◦ *Affiliated issuer/obligor concentration*
◦ *Fixed or floating rate assets*
• Asset is not impaired or credit risk
• Outside maturity date
• Appropriate servicing is in place
• Appropriate representations
• Minimum coupon and weighted average coupon
• Maximum maturity and weighted average life
• Loan-to-value (LTV) ratio
• Debt service coverage
• Future funding limitations
• Rating agency confirmation

Source: CRE Finance Council

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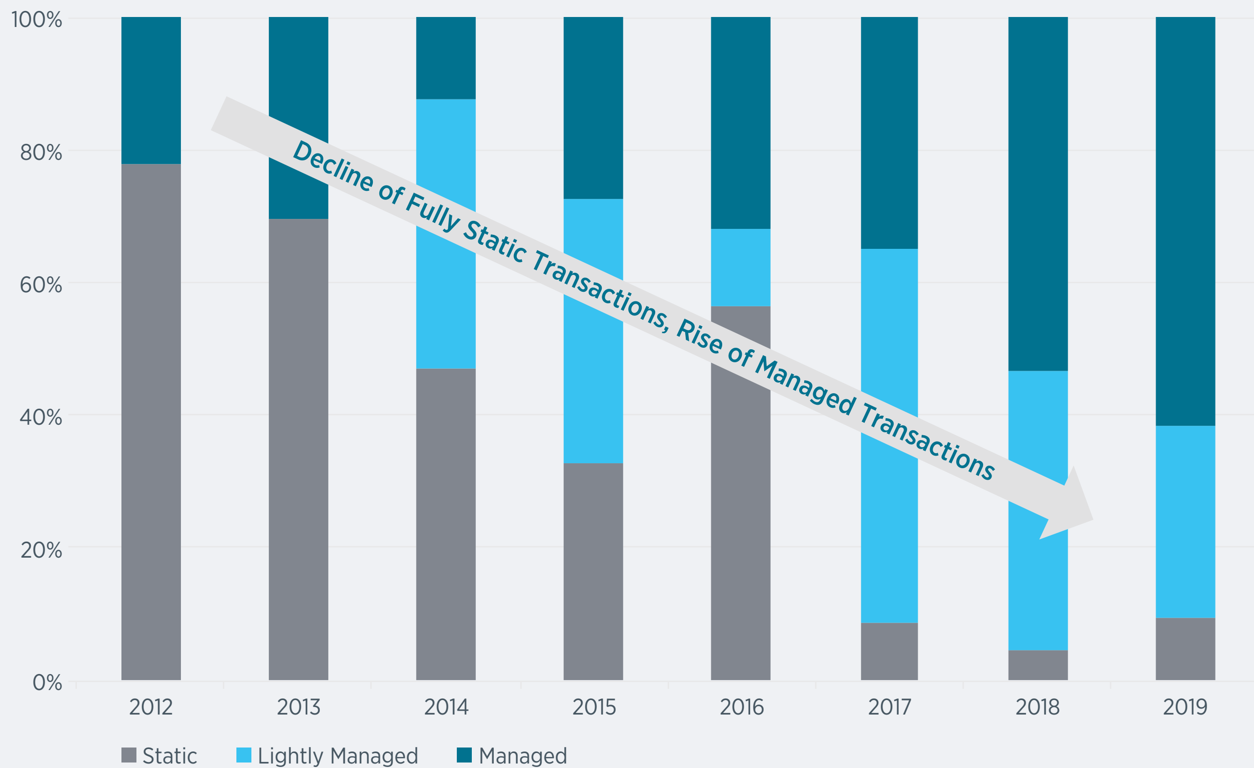
Advantages and Disadvantages of Managed CLOs

When CRE CLOs reemerged after the 2007 Financial Crisis, fully static CRE CLOs were most common. Over time, there has been a shift to more managed transactions. Managed CRE CLOs extend the life of the transaction, thereby lowering costs for issuers. However, investors will require additional spread and higher subordination to compensate for the uncertainty of future assets.

Exhibit 7: Increasing Share of Managed Transactions



Source: Kroll Bond Rating Agency

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CHAPTER 4

Credit Analysis of CRE CLOs

Rating Agencies and Investors Focus on a Variety of Factors

The non-stabilized nature of loans in CRE CLO transactions present a level of performance risk, and a reliance on counterparties, not present in other CMBS asset classes. Absent the proactive involvement of key transaction parties—borrowers, lenders, asset managers, and servicers—their expected cash flow and value will likely fall short of expectations, causing pressure on loan repayment. This can also increase the loss potential of the transaction.

To assess the likelihood that the liabilities are paid as agreed, investors and rating agencies focus on a variety of factors. In addition to property and loan performance, credit focus includes the willingness and capacity of the key parties to meet their obligations. Motivations and structural features are especially important. Primary credit considerations include:

Property, Sponsor and Loan Level Analysis

Efficacy of the Business Plan

Loan-level analysis starts by assessing the efficacy of the business plan, sponsor motivations, sponsor equity, loan basis—and ultimately the ability to refinance. More specifically:

- Is the loan for acquisition or refinance? If refinance, did the original business plan not work out?
- Does the stabilized net operating income (NOI) value and DY easily support the refinance of the debt? If not, will there be net recoveries?
- Are the pro-forma assumptions for rent and occupancy supported by third-party market data? Is there a consensus view among the appraiser, the sponsor, and third-party sources on rents and occupancy levels?
- Are assumptions specific to a limited sub-market or comparable set? How strong are market, demand, demographic, and absorption trends?
- Does the scope and cost of improvements support stabilized property quality and rent assumptions?
- Is pro forma NOI predicated on expense savings that are clearly identified and rationalized?

Certainty of Execution

In addition to estimating stabilized NOI, value, and other credit metrics, rating agencies also assess the likelihood of achieving these results. Significant consideration is given to factors that influence sponsors' willingness and capacity to complete projects, and the 'degree of difficulty' in executing the business plan.

- Is there a significant difference between the As-Is and stabilized DY?
- Does stabilized DY comfortably support refinance?
- Does the sponsor have experience in this market, with this property type?
- Does stabilized NOI indicate a reasonable return on investment to the sponsor?
- Is the sponsor's return predicated on creating value post-renovation, or will it cash out with the financing?
- Does the sponsor have material equity in the project? At closing? At stabilization? Does the difference between the sponsors' cost basis and the market value/comp sales provide a reasonable return for the sponsor—both before and after renovations? Is there risk of the property being over-improved?
- If the sponsors' return is not compelling, is the loan a distressed refinance? In that case, is the new loan basis compelling, even if enforcement is necessary?

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Adequacy of Loan Structure

Renovation of non-stabilized properties presents performance risks to the lender and investors. Rating agencies consider the materiality of the risk that sponsors don't execute under their business plan, the sufficiency of structure, and the adequacy of mitigants.

Considerations include:

- Is the borrower going out of pocket to support the loan and/or capital improvements? Are there reserves, or will the lender advance through future findings? Does the sponsor maintain sufficient equity after all future fundings?
- Are the additional amounts sufficient to complete the work?
- Are future fundings predicated on demonstrated performance metrics (e.g., DY, occupancy, etc.) or are they advanced as spent? Is there a risk of over-advancing?
- How reliable is the entity funding the improvement work (sponsor or lender)? Are there counterparty risks and consequences of not funding the project?
- Does in-place NOI cover debt service? If not, does a debt service reserve cover anticipated shortfalls? If not, are there guaranties? Consider the sponsors' ability to cover shortfalls in an economic downturn, particularly if they have similar projects concurrently.
- Is the timing reasonable? Will delays deplete reserves or impact the borrower's cost basis?

Pool and Securitization-Structure Analysis

Identified Assets vs. Reinvestment Structure

Initial credit enhancement levels reflect expected losses on the loans in the pool. For static pools, rating agencies estimate losses for the loans in the transaction. For managed transactions, rating agencies estimate losses based on loan loss attributes permitted by the reinvestment criteria (i.e., the pool is rated assuming the worst outcomes allowed by the eligibility criteria).

Initial considerations include:

- Is the pool **static** where the loans are identified, loan-specific credit analysis can be performed, and loan-specific losses are estimated? In this case, as loans are repaid, the liabilities are paid down sequentially.
- Is the pool **lightly managed**, whereby the issuer can reinvest principal proceeds into pari passu participations of loans already in the pool? For lightly managed pools, repayment is deferred during the reinvestment period.
- Is the pool **managed?** As the initial loans are paid off, are they replaced with new ones? For managed pools, the credit characteristics of the initial pool are less relevant given the ability to reinvest principal repayment from the initial loans. Repayment is therefore deferred during the reinvestment period.
- For managed pools, additional consideration is given to the degree of latitude afforded by Reinvestment Criteria.
    - **Eligibility Criteria** are pool- and loan-specific attributes that reinvestment loans must adhere to. These criteria typically address minimum and maximum attributes, including stabilized debt service coverage ratio (DSCR), stabilized loan-to-value (LTV) and pool concentrations. Rating agencies may estimate losses based on assumptions for an adversely-selected pool, and therefore require credit enhancement levels materially higher than loss estimates for the actual loans in the initial pool.
    - **Rating Agency Confirmation (RAC)** is where agencies also have the right to confirm that proposed reinvestment will not cause a rating downgrade or qualification prior to the action being taken. That includes adding a loan to the pool. Given eligibility criteria are typically based on expected vs. current performance, RAC can be more restrictive on issuers. However, credit enhancement is likely lower if RAC limits loan or pool factor losses.

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- **Ramp Periods** refer to the period immediately post-closing where liabilities are issued but the asset pool is not finalized (as mentioned above). Proceeds from issuing the liabilities are held as assets of the trust until the loans are purchased by the issuer. Loans may be identified for inclusion post-closing, or the ramp may be 'blind'—meaning new loans are not identified pre-closing and are subject to reinvestment criteria. Similar to reinvestment, the credit risk for blind ramp assets is higher than the identified pool, and thus impacts credit enhancement levels.
- Investors and agencies also consider how structural features in managed CLOs incentivize issuers to maintain the credit quality of the asset pool. **Interest coverage tests (IC Tests)** measure the sufficiency of interest income on assets or loans to pay interest on the liabilities. **Overcollateralization Tests (OC Tests) or Par Value** measure the adequacy of the performing assets to cover the cumulative liabilities.
- The IC and OC Tests are often referred to as Note Protection Tests. **Note Protection Tests** fail when defaulted assets (for the IC test), and when modified, defaulted, or impaired assets (for the OC test), are excluded from the numerator of the ratios. When troubled loans cause the tests to fail, all the income from the issuer's retainedinterests is diverted to pay the liabilities sequentially, and the ability to reinvest is turned off, in each case, until the deal is in compliance. Alternatively, issuers can typically buy out or exchange these credit impaired or defaulted assets. An Issuer's **potential loss of income and reinvestment creates a powerful incentive** to maintain the quality and performance of the loans in the pool.
- While using interest to pay principal creates overcollateralization, and therefore additional credit enhancement, it also creates a risk that mezzanine and subordinate classes incur **interest shortfalls**. Rating agencies and investors consider the likelihood of timely payment of interest on liabilities, particularly when interest owed on subordinate classes is used to pay principal on the senior classes. Transaction documents only require that AAA, AA, and other senior loans are paid on a timely basis. While CRE CLOs typically have servicer advances, advances for interest are limited to these classes; unlike CMBSs, the advancing party is not always subject to termination for failing to advance, and are not subject to the same minimum rating requirements as CMBS master servicers.

Key Transaction Parties and Their Functions

Successful repayment of the CRE CLO's liabilities is also dependent on the success of the transaction sponsor. Given the multiple roles of the sponsor, investors and rating agencies assess the sponsor from both a **credit and operational risk** perspective.

Affiliates of the sponsor often serve as the:

- **Originator**: Responsible for continuing to make eligible loans for managed transactions.
- **Collateral Manager**: Has advisory, administrative, monitoring, and reporting functions for the collateral property. They also select ramp and reinvestment assets, direct the sale of credit risk and defaulted assets, and advise, approve, or direct certain actions of the servicers on major asset decisions.
- **Future Funding Obligor**: Responsible for providing funds agreed to by the lender, in conjunction with property improvement funding permitted under the loan agreement.
- **Advancing Agent**: Provides liquidity for the transaction in the form of interest and property protection advances.

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Unlike traditional CMBS, there are no master servicers in CRE CLOs, and interest advances are limited to the most senior classes (and property protection amounts). **Servicing** and **Special Servicing** are performed by third parties unless the issuer is also a servicer or a Special Servicer. Given that the collateral manager (and not the servicer) is the primary interface with the borrowers, agencies and investors also consider the scope and quality of the loan level performance reporting (provided by the collateral manager).

CRE CLOs Have Higher Subordination Levels than CMBS

Subordination levels are substantially higher than conduit CMBS. In 2019, junior AAA subordination level CRE CLOs generally ranged between 30% to 40%, or even higher, while the levels for conduit CMBS during the same period broadly ranged between 18% and 23%. BBB CRE CLO subordination levels have generally ranged between 13% and over 20%, while the levels for 2019 conduit CMBS have ranged between 6% and 8%.

Higher subordination levels are attributable to a number of factors including:

- CRE CLO loans typically have **higher leverage** than conduit loans:
  - As-Is LTV in CRE CLOs is typically 70%-80%, while it's about 65% for stabilized LTVs. Conversely, As-Is LTVs in conduit CMBS is typically less than 60%. As-Is DY for CRE CLOs are in low- to mid-single digits levels relative to conduit CMBS DYs (which come in at between 7% to 9.5%).
- The **transitional nature** of the loans inherently makes them riskier collateral:
  - Repayment of the loans, and ultimately the transazction's liabilities, depend on the successful execution of the sponsors' business plans, which are often speculative, require the sponsor or lender to contribute additional debt or equity capital, and have inherent execution risk.
  - Properties that don't generate sufficient cash flow to pay current debt service need interest reserves or additional sponsor contributions.

Loan and Portfolio level **credit attributes can change** over time due to ramp, reinvestment, and buyout features:

- Subordination levels typically reflect **collateral quality and concentration levels permitted under the Eligibility Criteria**, which may represent higher risks than presented in the initial pool.
- The expected change in loan and pool attributes reflects the issuer's or equity holder's **objective to maximize the spread** between investment income from the collateral loans and the cost of funds from the existing liabilities. Increasing the credit risk attributes of the pool conflicts with the interests of the bondholders.

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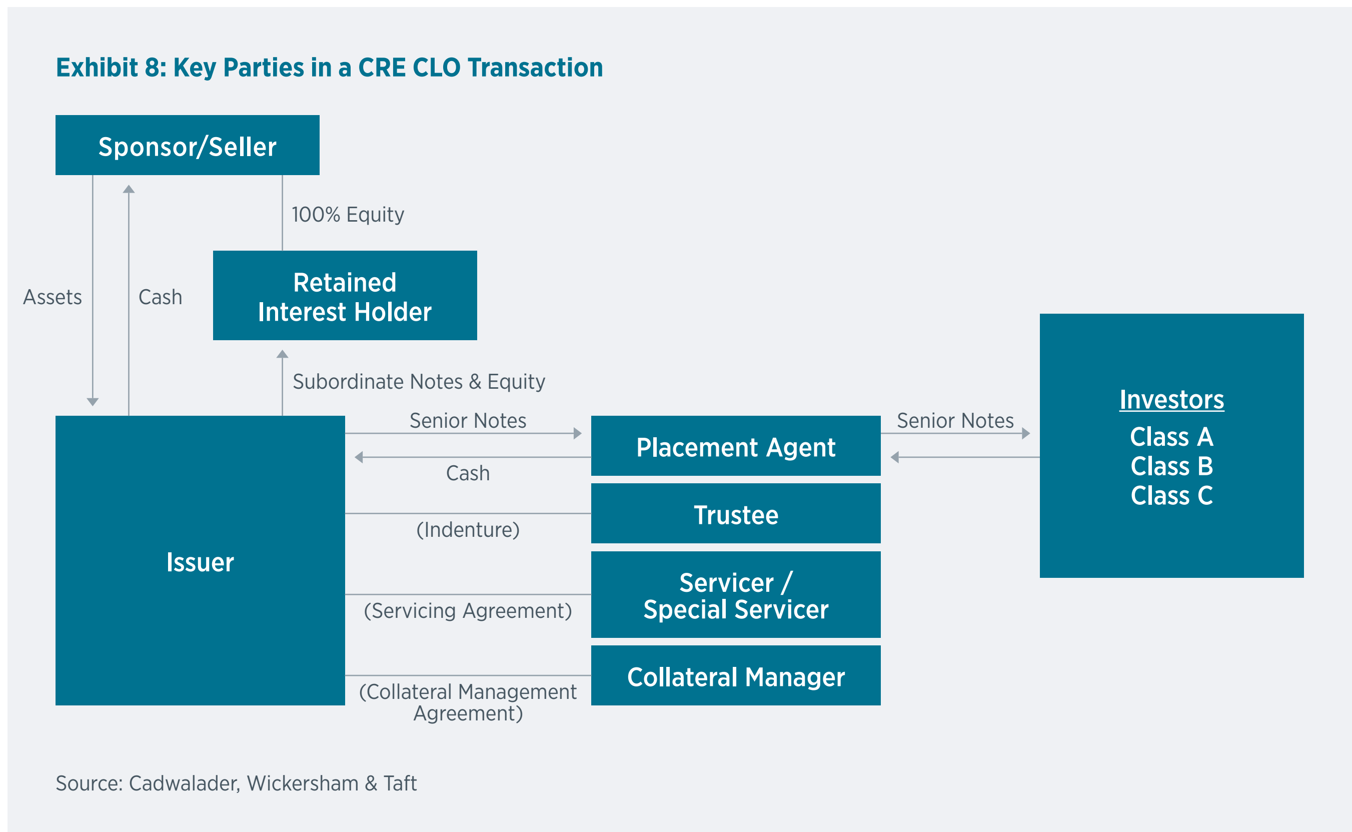
CHAPTER 5

Parties to the Transaction and Process Step-by-Step

The Parties in a Typical CRE CLO Transaction

A generic CRE CLO structures key parties are shown below:

Exhibit 8: Key Parties in a CRE CLO Transaction



Source: Cadwalader, Wickersham & Taft

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Exhibit 9: Key Participants

Participant	Description and Activity
Sponsor	• Selects the initial portfolio of commercial mortgage loans to be funded by the CRE CLO vehicle. • Organizes loan files for loans to be included in initial portfolio for review by other CRE CLO participants. • Creates data tape for the initial portfolio. • Creates loan summaries, usually for the top ten mortgage loans to be included in the initial portfolio. ◦ A Sponsor may produce large loan summaries internally or engage a third party service provider. • Identifies exceptions to standardized representations and warranties for each loan in the initial portfolio. • Coordinates with Note Administrator and Servicer for post-closing monthly reporting and quarterly asset summary updates.
Arranger	• Works with Sponsor to organize, structure, and model the CRE CLO. • Assists Sponsor in dealing with key participants to establish the CRE CLO. • Creates a structure and collateral term sheet for the marketing effort. • Markets and places offered CRE CLO notes with capital market investors.
Rating Agencies	• Review CRE CLO structure and commercial real estate loans funded through the structure against rating agency criteria. • Engage in on-going surveillance of the CRE CLO portfolio. • Rate CRE CLO notes.
Servicer and Special Servicer	• Servicer collects and allocates mortgage loan cash flows and produces various asset-level reports. • An affiliate of the sponsor that manages the CRE CLO portfolio after initial portfolio selection (for managed CRE CLOs). • Special Servicer manages the execution of proposed modifications and workouts of credit impaired loans. • Activities of Servicer and Special Servicer are generally subject to a widely-recognized servicing standard.
Collateral Manager	• An affiliate of the sponsor that manages the CRE CLO portfolio after initial portfolio selection (for managed CRE CLOs). • Selects the mortgage loans to be funded with the principal proceeds or sale proceeds of portfolio mortgage assets. • Manages the disposition of credit risk and defaulted mortgage assets. • Directs the Special Servicer on certain portfolio mortgage loan modifications, subject to the collateral management standard and other CRE CLO rules.

Source: Sidley Austin

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CRE CLO Collateral Managers

The collateral managers of CRE CLOs are typically non-bank lenders with extensive CRE experience and dedicated asset management processes. The collateral manager is party to the servicing agreement and the collateral management agreement. They are therefore subject to the requirements contained therein. Notably, CRE CLO structures contain mechanisms to have the collateral manager replaced, given oversight by the trustee.

CRE CLO collateral managers (and their affiliates) take on several roles over the life of a transaction:

Exhibit 10: CRE CLO Managers Wear Many Hats

Responsibility	Description
Asset Originator	• Acquires initial pool including ramp-up assets • Acquires companion participation interests and/or reinvestment assets
Distressed Loan Seller	• Identifies defaulted or credit-impaired loans and directs the trustee to sell • Negotiates modifications in some cases
Future Funding Obligor	• Funds future advance commitments
Advancing Agent	• Advances property protection expenses (real estate taxes, insurance premiums, ground lease rents, etc.) and interest shortfalls on certain senior notes
Equity & Subordinate Note Holder	• Retains a first loss horizontal interest, that also satisfies the risk retention requirement
Servicer Advisor	• Advises the Special Servicer with respect to major decisions regarding the collateral assets
Performance/ Compliance Monitor	• Maintains transaction compliance with contractual obligations and deal covenants
Asset Manager	• Maintains ongoing relationship with the borrower and monitors the progress of business plans • Approves funding draw requests and modifications (as necessary) • Provides quarterly business plan updates

Source: Citi Research, KBRA

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Exhibit 11: Timeline Pre-Closing

Source: Sidley Austin

Marketing and Transaction Execution

Prior to marketing a transaction, the issuer will go through a rating process, whereby agencies assign ratings based on the sufficiency of credit enhancement to cover expected losses, and the adequacy of trusts assets' cash flow to service the liabilities. This is subject to the final transaction structure.

The underwriters conduct a due-diligence call, which includes discussion of sponsor operations, legal and regulatory issues, risk retention, and details on the initial portfolio. Once ratings are received and the underwriter due-diligence call is done, marketing can begin.

During this phase, investors receive a plethora of materials to use when evaluating the pool:

- Collateral and Structural Term Sheet including:
  - Structural and legal summary
  - Summary of Sponsor business
  - Initial mortgage asset portfolio strategies
  - Large loan summaries
  - Accompanied by "Annex A" data tape (an Excel file that summarizes financial and appraisal information)
- Prospective investor data room access
- Preliminary Offering Memorandum which includes:
  - Description of transaction structure and the terms of the notes and preferred shares
  - Risk factors, including loan-specific risk factors
  - General description of the Sponsor's underwriting policies, and mortgage loan and participation term
  - US and EU risk retention disclosure
  - 'Annex A' data tape information
  - Large loan summaries
  - Mortgage loan representations and warranties, with descriptions of any exceptions for the initial mortgage loan portfolio

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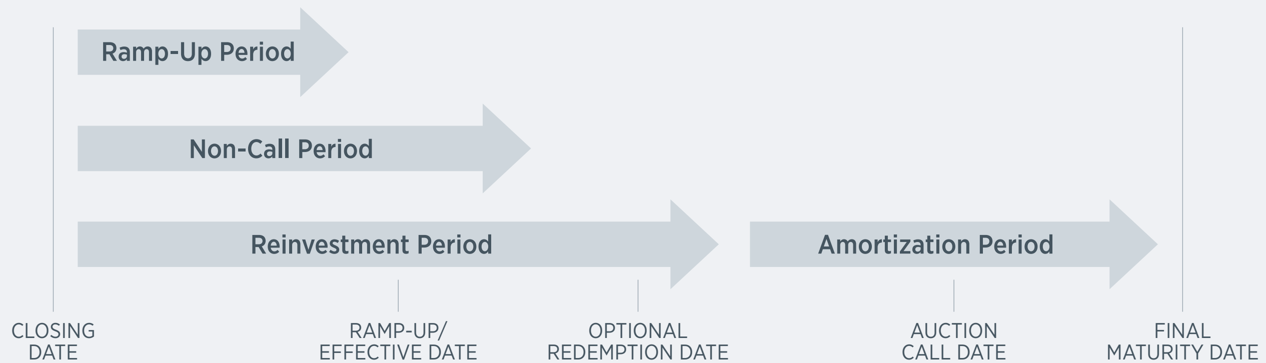
At the end of the marketing process, the deal is officially priced. Then there is typically a one-to-two week process where the Final Offering Memorandum is finalized, and the deal officially closes. At this stage, the underlying mortgage loan files are also delivered to the trustee.

Exhibit 12: Timeline Post-Closing



Ramp-Up Period	• Period during which the collateral manager may identify and acquire additional collateral with the cash reserved at closing
Reinvestment Period	• Period during which the collateral manager can reinvest principal proceeds into new collateral • Purpose is to reinvest principal on shorter term underlying assets to maximize the efficiency of the funding
Non-Call Period	• Period during which the collateral manager is prevented from calling back all the bonds and collapsing the transaction
Optional Redemption	• Redemption by Issuer, after a specified date, at the direction of holder of the preferred equity
Tax Redemption	• Redemption by the Issuer, at the direction of the holder, of preferred equity if certain negative tax events occur
Auction Call	• After a specified date (usually 10 years from closing), the Trustee is required to solicit bids for the collateral on a quarterly basis. If bids are sufficient to pay off all the notes and administrative expenses, the Trustee must sell the collateral and redeem the notes.

Source: Cadwalader

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Final Documents and Ongoing Issuer Administration

- Final transaction documents include but are not limited to the following:
  - Operative documents. This includes indenture, servicing agreement, mortgage asset purchase agreement, collateral management agreement, participation documents, and documents relating to future funding structuring.
  - Assignments of participations and mortgage loans (and any related state filings).
  - Preparation of notes (including DTC settlement eligibility) and preferred shares.
  - Placement agreement.
  - Officer's certificates and legal opinions.
  - Negative assurance letters from Sponsor counsel, placement agent counsel and each loan counsel.
  - Accountant AUP letters with respect to information in term sheet, preliminary offering memorandum, and offering memorandum.
  - Final Rating Agency Letters.
- Reporting packages:
  - Monthly report based on CREFC® Loan Periodic Update File.
  - CREFC® Investor Reporting Package.
  - Quarterly business plan summaries.
  - Annual and other periodic filing of Rule 15G representation and warranty buy-back summaries.
- Periodic EU risk retention certification and liquidity certification for future funding obligations.
- Portfolio management. This includes reinvestment, asset-specific modifications, loan repurchases, future funding contributions.

CHAPTER 6

The CRE CLO Investor Base and Relative Value Considerations

CRE CLO Investment Considerations

CRE CLO notes are collateralized by higher-risk transitional assets (relative to conduit CMBSs), but also feature several compensating layers of noteholder protections, including: higher subordination levels, note protection tests, and defaulted and credit-impaired asset sales. Most CRE CLO transactions are also protected by the CMBS 2.0/3.0 best practices, including CRE Finance Council (CREFC) reporting.

While managed CLOs provide limited visibility to the assets that will ultimately repay the notes, managed CRE CLOs provide a structure where issuer and investor incentives are more closely aligned than conduit and Single Asset Single Borrower (SASB) CMBS. This is because the issuer holds the retained notes and preferred shares, and therefore is a first loss holder, and because the IC test turns off interest to retained notes and preferred shares if triggered. Moreover, note protection tests limit investors'

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exposure to defaulted and impaired assets. Once the test is triggered, the issuer has the option to buy the loans out of the pool, or to carry on its retained interest, diverted to provide overcollateralization. Since the issuer bears the risk of first loss, whether or not the loan is left in the pool, there are economic benefits of buying the loan out. After all, that allows the sponsor/collateral manager to control the workout outside the trust.

CRE CLO investment-grade notes have performed well since 2012, and no post-crisis CRE CLO investment-grade note has experienced a downgrade to-date (as of November 2020). This is largely driven by prepayments and the absence of a credit downturn. The table below compares a typical 2019 CRE CLO offering (floating rate) to a typical conduit CMBS offering (fixed rate).

CRE CLO Investment Considerations

Typical characteristics of CRE CLOs versus conduit CMBS transactions are summarized in the below table.

Exhibit 13: Typical Characteristics of CRE CLOs vs Conduit CMBS Transactions

	CRE CLO	Conduit CMBS
Fixed/Float	Floating	Fixed
Risk Retention (RR)	EU & US RR	US RR only
Issuer Motivation	Balance Sheet Financing	Arbitrage
Reinvestment	Yes (2-3yrs)	No
Senior AAA CE (%)	45-50%	30%
Junior AAA CE (%)	30-40%	18-23%
Term (Yrs)	2- 5	10
LTV (%)	As Is: 70-80%; Stabilized: 65%	58%
UW DSCR	1.2x (includes reserves)	2.1x
# of Loans	20-30	50
Interest-only Loans	100%	60%
Top 10 (%)	60%	53%
Collateral Call Protection	1-11 months remaining	9+ months remaining
Bond Liquidity	Moderate	Strong

Source: CRE Finance Council

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CRE CLOs – Takeaways, Evolution and Current Themes

While this primer is intended to be as timeless as possible, market forces influence the industry, as well as provide context for how it has developed.

- Investors have found that CRE CLOs provide a higher spread alternative to CMBS, floating rate exposures, and shorter durations.
- Borrowers have found an accommodating market for financing transitional assets. Loan spreads have declined as issuance rapidly increases.
- Issuers have found CRE CLOs to be an attractive form of matched-term, non-mark-to-market financing. Managed deals have allowed for lower issuance costs by extending the weighted average life of the transaction.

When the CRE CLO market began in earnest, in 2016, transactions were simple, collateral properties were lightly transitional and leverage was modest, with As-Is debt yields averaging over 7%. Static transactions were the norm, as investors preferred to limit their risk to pre-identified loans, initially underwritten in the deal. Currently, managed transactions represent over half of all issuances. At the same time, the pricing delta between static and managed transactions has faded considerably—down to around 20 basis points (BPS). However, managed transactions come with greater risks for investors.

Reinvestment criteria in CRE CLOs are generally broad enough to allow most multi-strategy lending programs to conduct business in the ordinary way, and keep their collateral pools replenished. Even so, maintaining minimum spreads has been a challenge as the lending market became more competitive. The ability to reinvest militates against the negative consequences of a sequential pay structure, which results in a sponsor's liabilities becoming more expensive as prepayments occur. Broad reinvestment criteria, however, expose investors to a meaningful shift in collateral type and quality.

Sponsors using CRE CLOs as financing for their portfolio expect the ability to actively manage underlying loans, including by performing loan modifications. On the pool itself, collateral managers are incentivized to actively manage the portfolio from the perspective of minimizing negative carry, maximizing the life of the deal, and amortizing fixed costs over time. The inability to do so is one of the principal drawbacks of the conduit business.

To-date, transactions have consisted of first mortgage loans. Information flow is better than CRE CDOs, but still lacking relative to investor and agency needs. CREFC is working on an improved, bespoke, CRE CLO reporting package, integrating collateral manager quarterly business plan updates and servicer information.

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