

Bank Collateralized Loan Obligations: An Overview

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Key Topics

- ❑ What is a Bank CLO?
- ❑ Why Banks Use CLOs
- ❑ Why Investors Buy CLOs
- ❑ Rating Process

■ Summary

Collateralized loan obligation (CLO) volume has increased significantly over the past two years (*see chart, page 2*). Third-quarter 1997 issuance hit a record-breaking \$25.5 billion, more than doubling the 1996 volume of \$11.5 billion. Furthermore, by year end, it is estimated that the total volume for collateralized bond obligations (CBOs) and CLOs will reach \$35 billion–\$40 billion. With larger growth potential than other securitized assets, CLOs will become a permanent part of the asset-backed securities (ABS) market. The market for CLOs is already international in scope, with loan portfolio securitizations by banks in the U.K., France, Netherlands, Japan, and the U.S. and interest from banks in other countries as well.

As the banking industry becomes more competitive and focused on capital efficiency, banks are evaluating alternatives to improve returns on assets and equity. CLOs offer capital advantages that improve a bank's ability to face competition. Banks that have securitized their loan portfolios view the use of CLOs as an efficient capital management and funding tool, not as an exit from the lending business. The reduction of a bank's overall regulatory capital requirement is the driving force behind the securitization of these loans. While in the U.S. CLO issuance continues to grow, federal regulators have indicated their intention to review the extent to which CLOs reduce credit exposure.

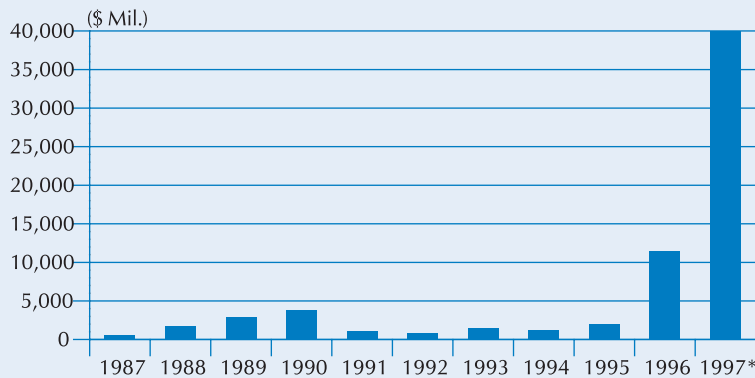
This report is intended to provide an overview of the motivation to securitize loan portfolios and the ABS market for these assets. It includes a description of FITCH IBCA's rating process and the information needed to obtain a rating.

■ What is a Bank CLO?

FITCH IBCA defines a bank CLO as a security issued by an entity that purchases or references loans from the banking institution which sponsors the transaction. Loans are typically originated by the sponsor and serve as collateral for the notes and certificates issued. There are also nonbank participants issuing CLOs with the motivation of spread arbitrage derived from an asset mix of high-yield and distressed loans. In bank CLOs, the motivation is to reduce capital requirements and fund low-yielding assets. The underlying collateral is composed mostly of investment-grade and some non-investment-grade corporate loans. There are generally several tranches of rated securities, as well as an unrated equity tranche commonly retained by the bank. The stratified structure redistributes risk among the debt tranches by the prioritization of cash flows. The most subordinated tranche or the equity absorbs the first losses from default. As a result of subordination in the structure, the most senior tranche holds the least credit risk and receives a higher rating than the subordinated tranches. The equity holds the most risk and is expected to yield positive returns in low default environments.

The ratings assigned reflect the risk of the underlying loan assets and the likelihood that payments can be made to investors under certain levels of stress. High investment-grade ratings are achieved through credit enhancement, provided by the prioritization of cash flows and, occasionally, by cash reserve accounts, letters of credit, or guarantees.

CBO/CLO Volume by Year



*Estimated. CBO/CLO – Collateralized bond obligation/collateralized loan obligation.
Source: Chase Securities Inc., FITCH IBCA, Inc.

Historical default and recovery information provides a basis for measuring the risk of underlying assets and pools of assets. Risk-reducing factors include industry and obligor diversification, minimum interest coverage ratios, minimum collateral ratings tests, and hedging mechanisms in the transaction.

Given the high investment-grade ratings achieved on the rated securities, the ABS market prices these securities at a lower yield relative to that of the underlying loan assets, thereby creating an excess spread that provides a cushion against losses. However, in the case of most bank CLOs, the loan pools are composed of relatively low-yielding investment-grade loans resulting in only a small amount of excess spread.

■ Why Banks Use CLOs

Securitization enables a bank to use the capital markets to efficiently finance low-yielding assets and free a significant amount of regulatory capital. While the industry in general currently has a high level of capitalization, this “freed up” capital as a result of CLOs could be used as part of an institution’s capital management plan for paying dividends, repurchasing shares, making strategic acquisitions, or other purposes. For example, assuming a

\$5 billion pool of loans with an average loan rating of ‘BBB’ and an adequate level of diversification (10% industry concentration and 2% issuer concentration), 97% of the issued securities could receive an investment-grade rating. The remaining 3% of the pool would be held as equity. From a presecuritization capital perspective, the issuing bank would be required to hold capital equivalent to 8% of \$5 billion, or \$400 million. In comparison, postsecuritization required capital would be 100% of \$150 million, amounting to \$250 million of capital that is freed up.

Banks have already demonstrated their portfolio management ability through the use of risk-adjusted return on capital (RAROC) models and can improve

Sample CLO Balance Sheet

(\$ Mil.)

| Assets (Loans) | Liabilities (Notes) | Rating | % |
|----------------|---------------------|----------|----|
| 5,000 | 4,650 | ‘AAA/AA’ | 93 |
| — | 100 | ‘A’ | 2 |
| — | 100 | ‘BBB’ | 2 |
| — | 150* | — | 3 |
| 5,000 | 5,000 | | |

*Equity, not rated. CLO – Collateralized loan obligation.

on the effectiveness of their portfolio management through CLOs.

RAROC models calculate returns based on risk, which is measured by, among other factors, historical loan non-accrual, chargeoff, and recovery behavior relative to industry segments, collateral, security status, covenants, loan type, and maturity. Banks that employ RAROC models often have relationship and loan “hurdle rates” (a minimum acceptable return) used in the decision-making process to compare performance across risk and asset types.

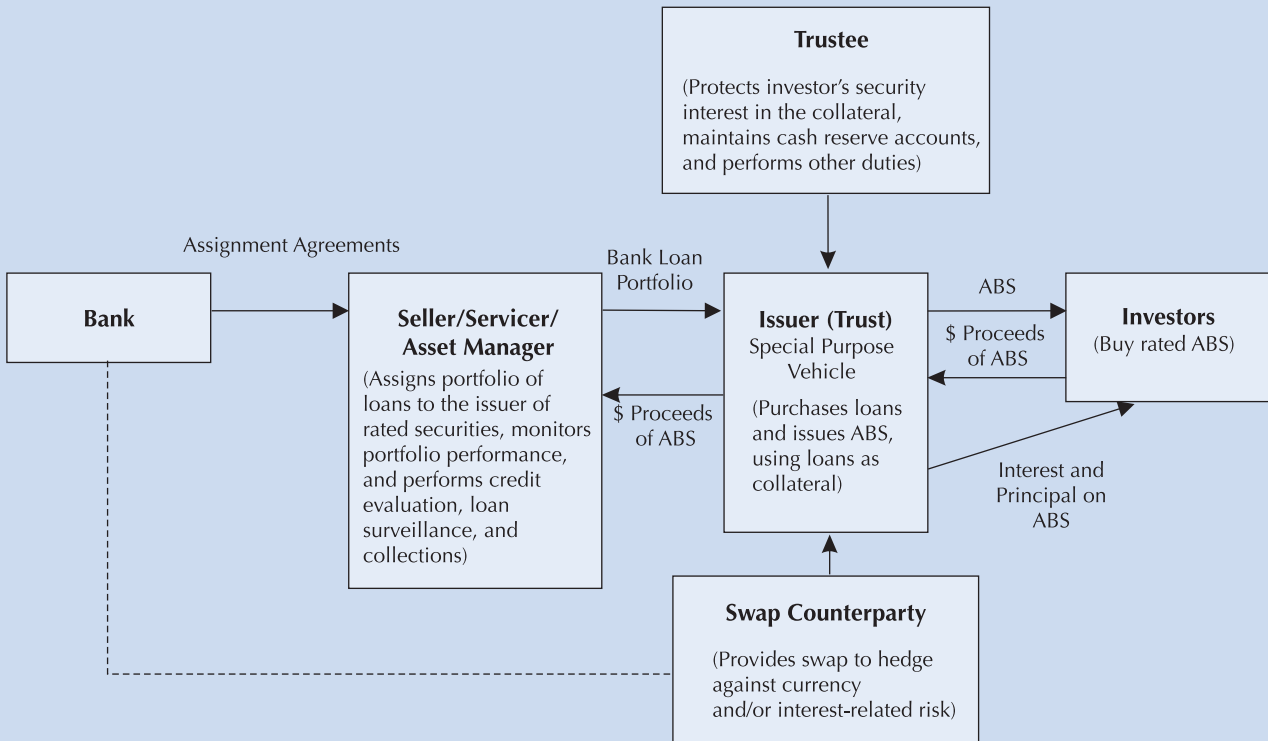
Even banks that engage in rigorous review of credit risk will find that, in the current market, companies can refinance their loans at very low rates. Under such circumstances, banks may find themselves holding loans that cease to be profitable under a risk-adjusted profitability measurement. With lower capital requirements and highly rated ABS funding, CLOs provide cost-efficient financing, helping banks to compete more efficiently in the capital markets.

Given the diminishing spreads in the ever-more competitive investment-grade syndicated loan market, banks are questioning the wisdom of holding low-yielding loans that require as much as 8% capital. Banks can improve their overall profitability by removing low-yielding risk-weighted assets, especially underutilized facilities that cost more in capital than they earn in fees.

■ Why Investors Buy CLOs

Even with record-breaking CLO volume in recent months, the ABS investor appetite for this asset class shows continued strength, as evidenced by the oversubscription levels of third-quarter 1997 CLO offerings. While corporate loans may be unfamiliar to many ABS investors, there is added comfort with the familiarity of the structure, rating methodology, and surveillance

Sample CLO Transaction Structure



CLO – Collateralized loan obligation. ABS – Asset-backed securities.

reporting used in the transactions. In addition, CLOs offer ABS investors an asset class with limited correlation to consumer assets, which dominate the ABS market.

NatWest R.O.S.E. Funding

| Class | Rating | Pricing Spread (bps) | |
|-------|--------|-----------------------------|-----------------------------|
| | | R.O.S.E. Funding No. 1 Ltd. | R.O.S.E. Funding No. 2 Ltd. |
| A1 | 'AA' | 3m\$L + 8 | 3m\$L + 8 |
| A2 | 'AA' | 3m\$L + 18 | 3m\$L + 14 |
| A3 | 'AA' | 3m\$L + 22 | 3m\$L + 17 |
| A4 | 'A' | 3m\$L + 40 | 3m\$L + 40 |
| A5 | 'BBB' | 3m\$L + 65 | 3m\$L + 60 |

3m\$L – Three-month U.S. Dollar London Interbank Offered Rate. bps – Basis points. Note: Maturity for R.O.S.E. Funding No. 1 and No. 2 is five and seven years, respectively.

Although CLOs initially paid a premium relative to other comparably rated ABS, this premium is rapidly disappearing. There are already signs of price compression in recent transactions, most notably in the second offering from National Westminster Bank PLC's (NatWest) R.O.S.E. Funding No. 2 Ltd. (see table at left).

Rating Process

FITCH IBCA welcomes an open dialogue with the issuing bank regarding the rating process and needed data. The rating process is initiated by the issuer or its investment bank. At this time, the issuer can formally present to FITCH IBCA the program goals of the CLO, as well as provide a sample loan pool and information about the institu-

tion, the performance of its loan portfolio, and its credit approval process.

Initial Review

FITCH IBCA assesses a bank's ability to evaluate credit risk by reviewing the bank's internal credit evaluation (or risk rating) system. Factors that build confidence in the definitions and accuracy conveyed by a credit score include the length of time in which the system has been in use, strong correlation between the internal credit score and any publicly available ratings, and consistency between chargeoff and non-accrual history and the credit score definition. For those institutions that have upgraded existing systems or adopted new systems, a random sampling of loans and an in-depth review of credit files can be

used to correlate the internal score with the rating that would be determined through a FITCH IBCA credit analysis. In some cases where credit-scoring data is more limited, alternative measurements can be public ratings, shadow ratings, or historical provisioning, chargeoff, or non-accrual data from the sponsor bank.

To address overall pool credit risks, the expected pool composition is viewed by industry, rating, loan type, interest payment characteristics, and maturity. The composition of loans and the proposed structure will be stress tested to insure that the loan pool will generate adequate cash flows to support transaction expenses, interest, and principal payments on the rated securities while withstanding stressful economic scenarios.

Due Diligence

An important step in determining the rating is the due diligence process. FITCH IBCA analysts meet with credit managers, line officers, risk managers, and other senior managers of the bank to attain a better understanding of the bank's goals in launching a CLO transaction, as well as the bank's ability to support the transaction operationally. A successful meeting will convey an adequate level of experience, capable credit and support staff, and an ability to appropriately manage transaction risk.

The discussions will also focus on the origination, management, and performance of the loan portfolio. If specific loan information has already been provided, sample loans can be selected for further review. Depending on the complexity of the transaction and the number of loans to be reviewed, the on-site due diligence process can take a day or several days with subsequent meetings and discussions.

Legal Analysis

The rating analysis also includes a thorough review of the legal and structural issues surrounding the transaction. In most ABS transactions, the legal analy-

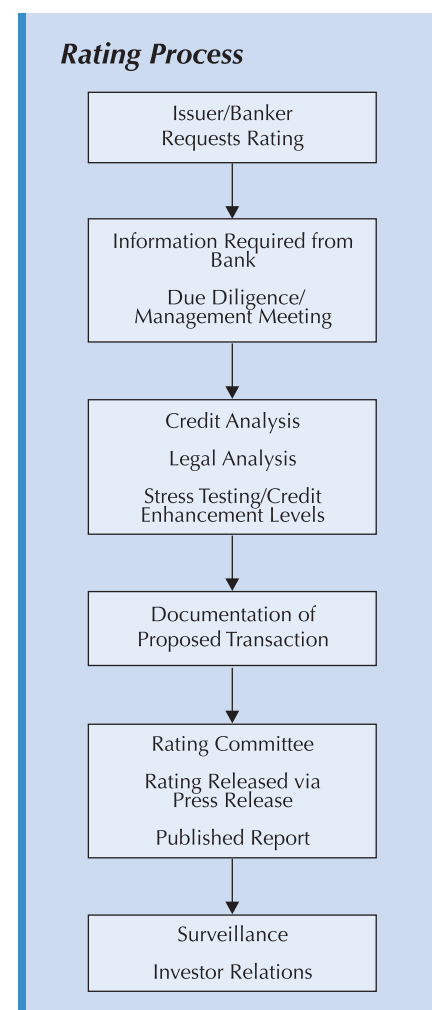
sis focuses on the bankruptcy-remoteness of the issuer/trust, the validity of the transfer of the underlying assets from the bank or seller to the trust, and the perfection of security interests in the underlying collateral. Particular attention is paid to the structural elements relating to the impact the bank sponsor's insolvency may have on the performance of the transaction.

The trust is typically structured as a special purpose, bankruptcy-remote entity limited to the acquisition and management of the collateral and the performance of related activities. This structure serves to protect the assets of the issuer from the insolvency of the seller and is necessary to maintain any rating separation between the two.

The most significant element is the nature of the underlying collateral. Unlike other ABS transactions, the conveyance of bank loan assets can take several different forms. Each form affects the structure of the transaction. Participations, assignments, and credit-linked notes (CLNs) are the methods most often proposed. Market participants may have preferences based on structural implications. Participations represent the right to receive principal, interest, and certain other amounts from a referenced loan. The sale of a participation to a trust may reflect 100% or less of the economic interests in the referenced loan. If the sale of these interests is done without the knowledge of the obligor, the participation creates a contractual relationship only between the trust and the seller, not the obligor. As a result, should the seller become insolvent, the trust may be an unsecured creditor of the seller without recourse to the obligor. This has important consequences for the rating of a pool of loans, as the insolvency risk of the seller consequently limits the rating of the CLO.

Most CLO transactions using loan participations have had a necessary rating

linkage between the senior unsecured rating of the seller and the rated notes. The NationsBank Commercial Loan Master Trust is a notable exception. Based on the security interest established in each eligible loan, the transfer of 100% participation interests in the eligible loan to the trust and a thorough review of the legal documentation (including opinions) surrounding the creation of the transferor and the trust and the enforceability of the security interest in the event of NationsBank's insolvency, FITCH IBCA viewed the default risk of the class A certificates to be substantially independent of the sellers' insolvency. As a result, the class A certificates received a rating ('AAA') higher than that of the sponsor bank ('AA-').



Additional issues stem from participations due to the fact that loan payments will continue to be made to the originating bank. To protect the trust from possible diversions of cash flow, it is required that the trust perfect a first priority security interest in the participations and related cash flows. It is also important that proper payment procedures be implemented to limit the period of time that cash flows due to the trust may reside with the originating bank.

For U.S. banks, the right of “set-off” poses a risk that may diminish cash flows due to the trust. Set-off refers to the action the Federal Depository Insurance Corp. (FDIC) may take in the event a bank becomes insolvent and enters receivership. If the bank has deposits from an obligor, the FDIC may reduce the amount of the outstanding loan by the amount of the deposit held by the institution on its own initiative or because obligors unable to access their deposits may petition the FDIC to set off an amount of the obligation equivalent to the amount on deposit. To mitigate this risk, sponsors may limit the pool to those loans whose obligors have explicitly waived their right to set-off. Sponsors may also track set-off exposure and set performance triggers on the transaction — based on the size of set-off exposure versus credit enhancement, for example. Such triggers could include limitations on principal reinvestment (forced amortization) and the retention of excess spread in a reserve account. Alternatively, it may be possible, in some cases, to obtain a “true sale” opinion that the sold participation is no longer the property of the bank. If so, FITCH IBCA will assume that set-off is not available.

Assignments represent a more complete transfer of the economic interests in a loan. Typically, assignments require obligor notification and, at times, approval. This is due to the new contractual arrangement created between the obligor and the purchaser, whereby the

obligor can be asked to pay the trust directly rather than the seller. As such, trusts that purchase assignments, and obtain an appropriate true sale opinion, are more likely to achieve a rating “de-linkage” between the seller and the rated notes than trusts using loan participations and a true sale opinion. However, because of the aforementioned notification and approval requirements, transactions involving assignments can be difficult for a seller to administer. Some market participants have proposed a “contingent assignment” process whereby a bank would only be obligated to perform the final steps toward assignment should the bank’s rating fall below a certain level. FITCH IBCA agrees that such an approach would not expose CLO holders to undue risk provided that such additional steps were entirely within the power of the bank (e.g. obligor notification rather than consent).

CLNs represent a structural innovation. CLNs are debt instruments backed by the full credit of the selling institution but whose performance is based on the performance of a reference loan or group of loans. If the reference credits perform, debt service payments are made on the CLN. If the reference credits default, the CLN is deemed “defaulted” and payment is halted. Most CLNs have additional features that provide for loan recoveries based on a predetermined minimum or the recoveries achieved on the referenced credit(s). As the CLNs are issued by the CLO sponsor, there is a clear linkage between the sponsor and the rated notes. However, CLNs have afforded some issuers tremendous flexibility in the customizing of payment terms and maturities for pools of loans. Furthermore, like participations, CLNs require no notification of obligors on the underlying credits.

FITCH IBCA reviews all the relevant deal documentation and related opinions to ensure that the legal structure of

the transaction is sound and sufficient for the assigned ratings.

Determining Credit Enhancement

To determine the appropriate credit enhancement levels associated with a rating, FITCH IBCA subjects the loan pool to actuarial cash flow and obligor concentration analyses. The analytical framework for the cash flow analysis is based on the timing of defaults, recoveries, and interest rate movements, among other things. (For more details, please see FITCH IBCA Research on “CBO/CLO Rating Criteria,” dated March 17, 1997.)

Estimating the credit risk is a critical part of the rating criteria. The credit risk of each loan is used to derive a weighted average rating on the pool and the base default probability used to stress the pool. The default probability for a given pool of assets will then be determined by the weighted average credit risk of the assets. The base default probability (*see table at the top of page 6*) is adjusted upward by a stress multiple depending on the proposed rating and other transaction characteristics. FITCH IBCA takes a conservative approach by front-loading the defaults over the first five years, thereby minimizing any benefits of excess spread that can accrue through the life of the transaction.

Loan Recoveries

Loan recoveries are assumed to be 40%–60% depending on the level of collateral associated with the loan. The structure is then stressed for different recovery periods, ranging from immediately to 24 months after default. (*For more details, please see FITCH IBCA Research on “Syndicated Bank Loan Recovery Study,” dated Oct. 22, 1997, available on FITCH IBCA’s web site at www.fitchibca.com.*)

Assumed Default Rates*

(%)

| Collateral Rating | FITCH IBCA Default Curve** | Note Rating (Assumed Default Rate) | | | | |
|-------------------|----------------------------|------------------------------------|-------|------|-------|-------|
| | | 'BB' | 'BBB' | 'A' | 'AA' | 'AAA' |
| 'AAA' | 1.0 | 0.0 | 0.5 | 0.8 | 1.0 | 1.3 |
| 'AA' | 1.2 | 0.6 | 0.9 | 1.2 | 1.4 | 2.3 |
| 'A' | 1.3 | 1.0 | 1.3 | 1.6 | 4.3 | 5.0 |
| 'BBB' | 4.0 | 4.0 | 5.0 | 10.0 | 12.0† | 14.0 |
| 'BB+' | 12.7 | 16.1 | 18.4 | 25.3 | 34.8 | 47.5 |
| 'BB' | 16.0 | 20.0 | 21.6 | 27.9 | 39.9 | 54.3 |
| 'BB-' | 20.6 | 24.3 | 26.8 | 34.0 | 46.4 | 59.7 |
| 'B+' | 25.2 | 29.0 | 31.6 | 39.1 | 50.5 | 64.1 |
| 'B' | 29.9 | 33.2 | 35.8 | 43.3 | 52.3 | 67.2 |
| 'B-' | 34.5 | 36.9 | 39.7 | 48.3 | 57.0 | 70.8 |

*Midpoint stressed default rates for corporate bonds. Loan default rates would be slightly lower. **Cumulative 10-year default probability of a corporate bond at an initial rating level. †For example, credit enhancement levels for an 'AA' note rating must cover 12% default stress on a portfolio with an average rating of 'BBB'.

Credit enhancement levels also take potential obligor concentrations into account by assessing the impact of the default of the largest obligors on the portfolio structure. An example of the number of obligors that may be defaulted for a given asset to reach the specified note rating is shown in the table below. The credit enhancement must support the rating category with the highest loss.

Additional protection from credit risk is achieved through portfolio diversification across obligors and industries. Since FITCH IBCA default probabilities assume a diverse pool of assets, additional

Obligor Concentration Matrix

| Collateral Rating | – Note Rating (No. of Obligor)– | | | |
|-------------------|---------------------------------|-----|-------|-------|
| | 'BBB' | 'A' | 'AA'* | 'AAA' |
| 'AAA' | 1 | 1 | 1 | 1 |
| 'AA' | 1 | 1 | 1 | 2 |
| 'A' | 1 | 2 | 3 | 4 |
| 'BBB' | 2 | 3 | 4 | 5 |
| 'BB+' | 3 | 5 | 6 | 7 |
| 'BB' | 4 | 6 | 7 | 8 |
| 'BB-' | 5 | 7 | 8 | 9 |

*For example, credit enhancement levels for an 'AA' rating must be sufficient to cover the default (net of recovery) of the largest one to eight obligors, depending on the underlying collateral rating.

default stresses will be applied to portfolios with excessive concentrations.

Rating Committee

The rating committee consists of senior FITCH IBCA analysts with experience in credit and structured finance, as well as analysts covering industrial and financial institutions. Based on all the information reviewed, the stress tests, and legal analysis, the analyst will recommend a rating for the transaction. A rating committee meets to consider the analyst's recommendation and officially determine the rating.

Research Report

Once the rating process is complete, FITCH IBCA publishes a research report, summarizing the underlying analysis supporting the rating. The information detailed in the report helps investors understand the FITCH IBCA rating.

Surveillance and Reporting

Surveillance is an integral part of the rating process. Ratings are reviewed periodically for any necessary adjustments. Surveillance generally monitors pool performance and ensures that coverage tests and original transaction standards are maintained. Surveillance includes periodic evaluation of the

servicer and revalidation of the underwriting ability of the servicer. This ongoing surveillance provides investors with comfort concerning the continued accuracy of the rating.

Investor Relations

FITCH IBCA maintains an active investor relations program to ensure that investors are aware of and understand FITCH IBCA's rating and underlying credit opinions. FITCH IBCA analysts speak to and meet with investors regularly to explain their rating rationale for various transactions. By maintaining active investor relations, FITCH IBCA provides issuers with feedback regarding investors' opinions and concerns.

For additional information on bank collateralized loan obligations, please refer to the reports listed below. Copies of FITCH IBCA Research can be obtained by calling Market Services at 1-800-853-4824. Reports are also available on FITCH IBCA's web site at www.fitchibca.com.

- ❑ "CBO/CLO Rating Criteria," dated March 17, 1997
- ❑ "CLOs Meet Investor Appetite for Loans," dated Sept. 23, 1996
- ❑ "Syndicated Bank Loan Recovery Study," dated Oct. 22, 1997

Sample Information Request

General/Organization

- Functional Areas and Staffing Levels
- Key Officers and Responsibilities
- Team Biographies
- Related Experience and Performance
- Credit Approval Process

Market Risk Management

- Hedging Strategy
- Interest Rate Risk Limits
- Counterparty Approval

Portfolio Risk Management

- Investment Strategy
- Risk Management Philosophy
- Pricing Systems
- Portfolio Monitoring

Portfolio Level

- Distributions by:
 - > Country
 - > Industry
 - > Credit Rating
 - > Asset Class
 - > Loan Size
 - > Maturity
 - > Payment Frequency
 - > Margin
 - > Loan Type
 - > Base Rate — LIBOR, Prime, and Federal Funds, Among Others
 - > Currency
 - > Collateral
 - > Position of Loan in Borrower's Capital Structure
 - > Drawn and Undrawn Amounts
 - > Swap Rate
 - > Swap Counterparty
 - > Facility Rating
 - > Amortization Schedule

Credit Risk Management

- Performance Benchmarks
- Use of External Ratings
- Internal Credit Evaluation System
 - > Basis of Credit-Scoring System
 - > Adjustments for Industry
 - > Influence of Collateral
 - > Treatment of Guarantees
 - > Relationships/Parent Companies/Subsidiaries
- Default Levels (by Internal Credit Score and Year)
- Recovery Levels (by Internal Credit Score and Year)
- Loan Provisions

Actual Loss History

- Specific Credit Information by Borrower
 - > Name
 - > Guarantor
 - > Parent Company
 - > Country
 - > Industry

Operations

- Risk Management Tracking and Reporting
- Procedures to Assure Consistent Use of Credit Scoring (Previous Changes to the Credit-Scoring System)
- Monitoring of Upgrades and Downgrades
- System Contingency Plans

Transaction

- Cash Flow Model

Legal Opinions*

- First Perfected Security Interest Opinion
- FIRREA Opinion
- True Sale Opinion
- Nonconsolidation Opinion

*U.S. issuers. Requirements for other jurisdictions will vary.

LIBOR – London Interbank Offered Rate. FIRREA – Financial Institutions Reform, Recovery, and Enforcement Act of 1989.

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