

Rating Methodology

Structured Finance

Global Commercial Mortgage Backed Securities (CMBS) Rating Criteria

Updated November 2018

Related Methodology

Each transaction will be accompanied by a transaction specific report that will disclose any additional observations or modifications to the Criteria. The Criteria should be read in conjunction with GCR's 'Global Structured Finance Rating Criteria, updated and published in September 2018'.

The methodology and assumptions detailed in this report will be further developed and enhanced as GCR rates a greater number of CMBS transactions.

Introduction

Global Credit Rating Co.'s ("GCR") Global Commercial Mortgage Backed Securities ("CMBS") Rating Criteria (the "Criteria") aims to summarise how GCR assesses credit risks within CMBS transactions globally (excluding the USA). The approach looks to analyse the risk of the underlying collateral on a loan by loan basis, the transaction structure, operational risk and counterparty risk, amongst others.

As transactions can vary significantly and each transaction is unique, in certain cases analysis may diverge from stated assumptions. For example assumptions may vary between countries and between structure types. If Criteria assumptions are amended or supplemented, these will be disclosed in individual transaction reports. In markets where there is little history of commercial real estate, few originators, undeveloped mortgage security rules etc., the Criteria may be supplemented as necessary.

This Criteria is an update to the version published in May 2017. There are no significant amendments to the Criteria. The update of this Criteria will not have an impact on any existing transactions that have been rated under it. Going forward, all new transactions will be rated using this Criteria.

Rating Approach

GCR's rating approach is both quantitative and qualitative, with final ratings accorded by a rating panel committee. GCR will initiate its rating approach with a review of the underlying commercial real estate collateral. The performance of the underlying real estate that acts as collateral is key. GCR will review stability and generation of income flows, asset quality, tenant profile, marketability of the property and future expected income over the property's economic life. GCR will also consider property market standards within specified countries, transaction costs, legal analysis, and lease structures, amongst others. GCR will also run a cash flow analysis to determine how projected rental flows are applied in the priority of payments for the loan on each payment date. GCR will also determine whether the stressed property value at transaction maturity can repay the outstanding debt - if a default does not occur during the life of the transaction - in order to determine if an orderly sale would be achievable.

As commercial real estate loans can be large and lumpy in nature, poor performance of one loan can have a dramatic effect on the entire portfolio. Pro-activeness of the servicer can influence the outcome of a CMBS transaction. Therefore, GCR will review servicers of CMBS transactions to determine their capabilities to manage the transaction over its lifetime during an onsite review. GCR will also conduct an onsite review of the originator.

GCR expects to receive adequate data for its analysis as listed in Appendix A. If certain data is not available, GCR may make conservative assumptions to fill the lack of data. GCR will also analyse available market data in respect of yields and rental values, among other market related trends.

A loan-level analysis on the real estate will be undertaken to determine the gross credit enhancement available to the portfolio, as well as a legal analysis to identify loan level features and transaction parties' obligations.

A liability analysis will also be undertaken to determine net credit enhancement levels. This analysis will consider structural features of the transaction in respect of, amongst others, liquidity.

Ratings for CMBS transactions are accorded by a ratings panel after consideration of both qualitative and quantitative analysis.

Operational Risk

A key factor of the rating analysis is the ability of the originator and servicer to perform their functions under the transaction documentation. As part of the rating analysis, GCR will carry out both an originator and servicer review for each transaction. The review provides a qualitative input to the rating panel. The role of the servicer is particularly important given high concentration risk within portfolios, timely intervention and proactive management can have a dramatic impact on a portfolio. GCR will consider work out strategies of servicers within its analysis.

Collateral Risk

Collateral performance is crucial to the analysis and is the key factor in determining default probability and loss severity for any limited recourse CMBS transaction, whereby the lenders only have recourse to the collateral barring statutory exclusions. GCR will perform a detailed mortgage collateral analysis, which will include projecting stressed property income and stressed loan performance over the loan term. Redemption of the loan at maturity forms part of GCR's analysis, and GCR will therefore stress the expected property value as well as determine the likely income to be achieved.

The value of commercial real estate is driven principally by its ability to generate future income. Therefore, GCR will analyse the tenant profile as well as vacancy rates, lease terms, etc., within its analysis. Rental increases contracted at a fixed rate will be considered in the analysis. Gross rent, however, is determined by tenants performing under their leases, hence the analysis of the tenant profile.

GCR will calculate the projected income on existing leases, it will also stress the net income due from subsequent leases. Within this analysis, GCR will consider lease term, and lease renewal probability.

Vacancy can occur between lease renewals or upon default of a lease. The length of the vacancy period can be determined by many factors, e.g. the marketability of the particular commercial property with the buildings i.e. location and flexibility in rental pricing as factors, and is considered in the analysis. Vacancy can impact projected net income, as earned rent is reduced and costs increase. Cost increases can be driven by capital expenditure (in order to maintain properties so that they can be re-leased), property management costs, utility bills and maintenance during the vacancy period and letting fees (to contract new leases), amongst others. GCR will therefore stress vacancy costs during the vacancy period in its analysis to determine net rental income. Vacancy costs and declines in rental values impact the net rental income that can be achieved on the real estate.

All these can be driven by market factors and are factored into the analysis.

GCR will expect to receive independent valuation reports for all properties within the transaction portfolio, as well as perform an on-site review of the properties to determine their upkeep, maintenance and tenancy profile.

The value of the commercial real estate is principally determined in relation to its rental yield demanded by investors. A more secure or more desirable property will often be valued at a lower yield than a property deemed to be riskier. To value the commercial real estate, projected future income is capitalised. If an asset is highly liquid, the less volatility exists within valuations. Illiquid assets are subject to sharp increases in yields due to fears of potential collapses of income. Factors considered in valuations and onsite reviews include the property size, specification, location and economic market conditions. GCR will use this information to establish cap rates. Stressed cap rates are utilised to capitalise the property income over the projected period for each property. The total is then aggregated to calculate the total collateral value available to support each loan. In calculating the property value, transaction costs such as legal costs, estate agent costs, and registration and transfer fees are considered in the analysis.

Within its analysis, GCR will determine the net property income and net property value, as discussed above. GCR will also compare income generated on the portfolio against debt service payments under the debt financing. GCR will run a cash flow model to simulate the transaction in this regard. Performance related triggers will be an input into the modelling; if they are breached they often trap cash within a CMBS structure. However, if this de-leveraging mechanism does not cure the breached trigger, it is expected that the loan will default and become immediately due and payable. At this point, unless the debt is rescheduled, the work-out process will begin.

Performance triggers and events of default will be reviewed during GCR's analysis.

At loan maturity, if a default during the loan lifetime has not occurred, the stressed property value is compared to the outstanding debt secured under the mortgage, taking into consideration the entire loan balance. If the property value is sufficient to cover the securitised debt amount in full, GCR believes the borrower would undertake a sale of the properties to preserve its stake in the collateral.

Loan Enforcement

Key aspects of enforcement are timing and recovery levels. Time to enforce security and the associated

costs are often country specific and will vary within the analysis.

For CMBS, the transaction-specific considerations also have implications (i.e. property size, location, etc.) GCR will request estimated foreclosure costs from issuers in each jurisdiction where it rates CMBS transactions.

Hedging

GCR assesses the impact of interest rate risk on the cash flows generated by the structured. Floating rate CMBS results in an interest rate mismatch with the underlying rent. Typically this mismatch is hedged by the borrower or the issuer entering into swap agreements. There may be costs associated upon swap termination, and swap breakage costs may have a negative effect upon recoveries. Fully balance-guaranteed swaps will not expose a transaction to market risk. GCR looks at the characteristics of the hedge agreement in place, if any, including the swap counterparty replacement mechanisms.

Liquidity

For timely payment on notes to occur, transactions are typically structured with liquidity facilities to cover revenue shortfalls and timing mismatches. Revenue shortfalls may occur at certain times due to a loan's scheduled interest payment profile or periodic special servicing fees which will reduce the net revenues available to cover the note interest when due.

Legal Analysis

GCR expects to receive full transaction legal documentation as well as legal opinions, as discussed in its Global Structured Finance Rating Criteria, updated in September 2018.

As part of the legal review, GCR will also request a letter of confirmation from the issuer that the pool of assets (i.e. underlying properties forming security to the transaction) have not been dual-ceded to another party.

For a CMBS transaction, a bankruptcy-remote SPV is expected to be established to isolate the assets from the bankruptcy and insolvency of other entities which are party to the transaction. Typically a loan will be advanced to the SPV in order to acquire the real estate collateral. The same loan is then assigned to another bankruptcy-remote SPV (the issuer), which finances the acquisition by issuing notes to investors.

GCR will carry out both a loan level and issuer level legal analysis on CMBS transactions. As well as issuer-level documents and legal opinions, GCR also expects to receive borrower-level documents which may consist of mortgage security, constitutional documents, and inter-creditor agreements as well as loan-level legal and tax opinions.

GCR typically uses external counsel to review legal opinions.

Counterparty Risk

GCR will review counterparty risk within the transaction. In order to support a rating higher than that of the originator, GCR expects transaction counterparties to meet the counterparty guidelines summarised in its Global Structured Finance Rating Criteria, updated September 2018. GCR expects that at closing, the transaction documentation incorporates its counterparty guidelines. The underlying analytical assumption of the guidelines listed in the Criteria is that a jump-to-default of the relevant counterparty within the specified remedial period is sufficiently remote to support the associated maximum achievable securities ratings.

Commingling Risk

Where commingling risk exists, this should be appropriately mitigated and furthermore covered in the legal opinion provided. For a CMBS transaction, funds should be paid directly into the issuer's bank account or paid into the account of the seller/originator and then transferred to the transaction account within a predefined time frame (see GCR's Global Structured Finance Criteria for more details).

Performance Monitoring

GCR expects to receive transaction reports on a monthly or quarterly basis. Periodically, GCR will expect to receive updated loan-by-loan information. For a CMBS transaction, cash flow modelling may not be continuously repeated over the life of the transaction if cash flows and the performance of the transaction remain in line with expectations. All transactions will be reviewed on an annual basis at a minimum, or as events may warrant. Declining performance of the transaction and changes in trends within the property or mortgage market may result in reviews being undertaken more frequently. GCR will aim to meet with the originator/servicer at least annually to discuss any updates to the origination/servicing processes.

Disclaimer

Note that GCR is not a legal, tax or financial adviser and will only provide a credit opinion of the rated securities. For example, a rating does not cover a potential change in the applicable laws nor can it be regarded as an audit. Moreover, GCR is not a party to the transaction documents nor does it provide legal, tax or structuring advice.

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Appendix A: Data Requirements

GCR expects to receive sufficient data to analyse the underlying portfolio. A spreadsheet template may be provided for completion.

GCR expects to receive:

- Loan by loan information on the underlying collateral.
- Borrower information.
- Property information.
- Tenant information.
- Commercial unit information.
- Portfolio information.
- Counterparty information.

Appendix B: Originator and Servicer Review Agenda

As discussed in the Criteria, GCR will carry out an on-site review for each originator/servicer. The review will include discussion on the following, amongst others:

- Company operating structure and history.
- Property maintenance.
- Conflict of interest.
- Legal department capabilities.
- Underwriting policies.
- Management/staffing.
- Origination.
- Underwriting and appraisals.
- Valuations.
- Servicing and collections.
- Work out processes.
- Data extraction capabilities.
- Systems.
- Disaster recovery plan.
- Mortgage regulation.
- Customer service.
- Quality control.
- Marketing.
- Audit.
- Audited Financial Statements (if applicable).

GLOSSARY OF TERMS/ACRONYMS USED IN THIS DOCUMENT AS PER GCR'S STRUCTURED FINANCE GLOSSARY

Advance	A lending term, to transfer funds from the creditor to the debtor.
Agent	An agreement where one party (agent) concludes a juristic act on behalf of the other (principal). The agent undertakes to perform a task or mandate on behalf of the principal.
Agreement	A negotiated and usually legally enforceable understanding between two or more legally competent parties.
Asset	An item with economic value that an entity owns or controls.
Bankruptcy	Court proceedings at which an individual or a company is declared unable to pay its creditors. The liability of a bankrupt company typically exceeds its assets.
Bankruptcy Remote	A feature, through real security and guarantees that reduces the enforceability of a creditor against a Special Purpose Vehicle. Typically a Security Special Purpose Vehicle should be bankruptcy remote.
Borrower	The party indebted or the person making repayments for its borrowings.
Capital	The sum of money that is used to generate proceeds.
Capital Expenditure	Expenditure on long-term assets such as plant, equipment or land, which will form the productive assets of a company.
Cash Flow	A financial term for monetary changes in operations, investing and financing activities.
Collateral	An asset pledged as security in event of default.
Commercial Mortgage Backed Securities	Securitisation: debt securities issued by a securitisation vehicle. Backed (collateral) by mortgage loans secured by income producing commercial real estate. (Hotels, Office buildings, Apartments, Industrial, Shopping Centres, Hospitals).
Commingling	The mixing of various transaction parties' funds in an account.
Credit	A contractual agreement in which a borrower receives something of value now, and agrees to repay the lender at some date in the future, generally with interest. The term also refers to the borrowing capacity of an individual or company
Credit Enhancement	Limited protection to a transaction against losses arising from the assets. The credit enhancement can be either internal or external. Internal credit enhancement may include: Subordination; over-collateralisation; excess spread; security package; arrears reserve; reserve fund and hedging. External credit enhancement may include: Guarantees; Letters of Credit and hedging.
Credit Rating	An opinion regarding the creditworthiness of an entity, a security or financial instrument, or an issuer of securities or financial instruments, using an established and defined ranking system of rating categories.
Credit Risk	The probability or likelihood that a borrower or issuer will not meet its debt obligations. Credit Risk can further be separated between current credit risk (immediate) and potential credit risk (deferred).
Creditor	A credit provider that is owed debt obligations by a debtor.
Debt	An obligation to repay a sum of money.
Debt Financing	Raising capital by selling debt instruments such as bonds or commercial paper.
Default	A default occurs when: 1.) The Borrower is unable to repay its debt obligations in full; 2.) A credit-loss event such as charge-off, specific provision or distressed restructuring involving the forgiveness or postponement of obligations; 3.) The borrower is past due more than X days on any debt obligations as defined in the transaction documents; 4.) The obligor has filed for bankruptcy or similar protection from creditors.
Enforcement	To make sure people do what is required by a law or rule et cetera.
Foreclosure	Legal proceedings initiated by a creditor to repossess the collateral for obligations that have defaulted.
Guarantee	An undertaking for performance of another's obligations in event of default.
Hedge	A form of insurance against financial loss or other adverse circumstances.
Hedging	A financial risk management process or function to take a market position to protect against an eventuality. Taking an offsetting position in addition to an existing position. The correlation between the existing and offsetting position is negative.
Income	Money received, especially on a regular basis, for work or through investments.
Insolvency	When an entity's liabilities exceed its assets.
International Scale Rating LC	International local currency (International LC) ratings measure the likelihood of repayment in the currency of the jurisdiction in which the issuer is domiciled. Therefore, the rating does not take into account the possibility that it will not be able to convert local currency into foreign currency or make transfers between sovereign jurisdictions.
Issuer	The party indebted or the person making repayments for its borrowings.
Lease	Agreement or temporary use and enjoyment of a corporeal thing (movable or immovable property) the whole or part thereof for rent. The essential elements of a contract of lease are: 1.) Undertaking of lessor to give the lessee the use and enjoyment of something; 2.) Agreement between the lessor and lessee that the lessee's right to use and enjoyment is temporary; and 3.) Lessee's undertaking to pay a sum or rent.
Legal Opinion	An opinion regarding the validity and enforceable of a transaction's legal documents.
Lender	A credit provider that is owed debt obligations by a debtor.
Liability	All financial claims, debts or potential losses incurred by an individual or an organisation.

Liquidity	The ability to repay short-term obligations or short-term availability of liquid assets to a market or entity.
Loan	A sum of money borrowed by a debtor that is expected to be paid back with interest to the creditor. A debt instrument where immovable property is the collateral for the loan. A mortgage gives the lender a right to take possession of the property if the borrower fails to repay the loan. Registration is a prerequisite for the existence of any mortgage loan. A mortgage can be registered over either a corporeal or incorporeal property, even if it does not belong to the mortgagee. Also called a Mortgage bond.
Long-Term Rating	A long term rating reflects an issuer's ability to meet its financial obligations over the following three to five year period, including interest payments and debt redemptions. This encompasses an evaluation of the organisation's current financial position, as well as how the position may change in the future with regard to meeting longer term financial obligations.
Loss	A tangible or intangible, financial or non-financial loss of economic value.
Market	An assessment of the property value, with the value being compared to similar properties in the area.
Market Risk	Volatility in the value of a security/asset due to movements in share prices, interest rates, currencies, commodities or wider economic factors.
Obligation	The title given to the legal relationship that exists between parties to an agreement when they acquire personal rights against each other for entitlement to perform.
Origination	A process of creating assets.
Originator	An entity that created assets and hold on balance sheet for securitisation purposes.
Payment Date	The date on which the payment of a coupon is made.
Performing	An obligation that performs according to its contractual obligations.
Pricing	A process of determining the price of a debt security.
Principal	The total amount borrowed or lent, e.g. the face value of a bond, excluding interest.
Property	Movable or immovable asset.
Rated Securities	Debt securities that have been accorded a credit rating.
Real Estate	Property that consists of land and / or buildings.
Recourse	A source of help in a difficult situation.
Recovery	The action or process of regaining possession or control of something lost. To recoup losses.
Redemption	The repurchase of a bond at maturity by the issuer.
Rent	Payment from a lessee to the lessor for the temporary use of an asset.
Scheduled Interest	The interest payment due on a scheduled date.
Securities	Various instruments used in the capital market to raise funds.
Security	An asset deposited or pledged as a guarantee of the fulfilment of an undertaking or the repayment of a loan, to be forfeited in case of default.
Servicer	A transaction appointed agent that performs the servicing of mortgage loans, loan or obligations.
Servicing	The calculation of interest and repayments, collection of repayments, advancing of loans, foreclose procedures, maintaining records and seeing that the proceeds of each loan are passed on to the respective party.
Short-Term Rating	A short term rating is an opinion of an issuer's ability to meet all financial obligations over the upcoming 12 month period, including interest payments and debt redemptions.
Spread	The interest rate that is paid in addition to the reference rate for debt securities.
Structured Finance	A method of raising funds in the capital markets. A Structured Finance transaction is established to accomplish certain funding objectives whilst reducing risk.
Swap	An agreement between two parties for the exchange of a series of future cash flows. The exchange of one security for another. Normally an investment bank, which provides a swap.
Timely Payment	The principal debt, interest, fees and expenses being repaid promptly in accordance with the contractual obligation.
Transaction	A transaction that enables an Issuer to issue debt securities in the capital markets. A debt issuance programme that allows an Issuer the continued and flexible issuance of several types of securities in accordance with the programme terms and conditions.
Vacancy	In commercial property, usually expressed as a percentage of unoccupied floor space in relation to the GLA.
Valuation	An assessment of the property value, with the value being compared to similar properties in the area.
Yield	Percentage return on an investment or security, usually calculated at an annual rate.

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