

STANDARD
&POOR'S

Structured Finance

CMBS Property Evaluation Criteria

January 2004

The most recent version of this criteria is available at
www.standardandpoors.com/ratings/structuredfinance

Published by Standard & Poor's, a Division of The McGraw-Hill Companies, Inc. Executive offices: 1221 Avenue of the Americas, New York, NY 10020. Editorial offices: 55 Water Street, New York, NY 10041. Subscriber services: (1) 212-438-7280. Copyright 2004 by The McGraw-Hill Companies, Inc. Reproduction in whole or in part prohibited except by permission. All rights reserved. Information has been obtained by Standard & Poor's from sources believed to be reliable. However, because of the possibility of human or mechanical error by our sources, Standard & Poor's or others, Standard & Poor's does not guarantee the accuracy, adequacy, or completeness of any information and is not responsible for any errors or omissions or the result obtained from the use of such information. Ratings are statements of opinion, not statements of fact or recommendations to buy, hold, or sell any securities.

Standard & Poor's uses billing and contact data collected from subscribers for billing and order fulfillment purposes, and occasionally to inform subscribers about products or services from Standard & Poor's and our parent, The McGraw-Hill Companies, that may be of interest to them. All subscriber billing and contact data collected is processed in the U.S. If you would prefer not to have your information used as outlined in this notice, or if you wish to review your information for accuracy, or for more information on our privacy practices, please call us at (1) 212-438-7280. For more information about The McGraw-Hill Companies Privacy Policy please visit www.mcgraw-hill.com/privacy.html.

Standard & Poor's receives compensation for rating obligations and other analytic activities. The fees generally vary from US\$5,000 to over US\$1,500,000. While Standard & Poor's reserves the right to disseminate the rating it receives no payment for doing so, except for subscriptions to its publications. The Standard & Poor's ratings and other analytic services are performed as entirely separate activities in order to preserve the independence and objectivity of each analytic process. Each analytic service, including ratings, may be based on information that is not available to other analytic areas.

CMBS Property Evaluation Criteria

Overview.....	3
The Rating Process for CMBS Transactions	5
Process Components	5
What Is a Rating?	9
Commercial Property Cash Flow Analysis	11
Estimating the Cash Flows	12
Deriving Credit Support for Pool Transactions	14
Some Factors That Influence Cash Flow Analysis	17
Analyzing Single Tenant, Noncredit Lease Loans	27
Tenant Improvement and Leasing Commission Costs	29
Guidelines for Analysis of Major Property Types	31
Retail Guidelines	32
Office Guidelines	39
Industrial Guidelines	44
Hotel Guidelines	49
Multifamily Property Guidelines	54
Manufactured Housing Guidelines	57
Health Care Guidelines	59
Self-Storage Guidelines	63
Ground Lease Guidelines	65
Insurance Criteria for CMBS Transactions	67
Ground Lease Requirements in CMBS Transactions	75

Appendix A

Sample Engagement Letter	79
Exhibit A, Loan Summary	82
Exhibit B, Collateral Information	85

Appendix B

Sample Rating Letter	89
--------------------------------	----

Appendix C

Standard & Poor's Issue Credit Rating Definitions	91
Long-Term Issue Credit Ratings	92
Non-Investment-Grade Ratings	93
Short-Term Issue Credit Ratings	94
Local Currency and Foreign Currency Risks	95
CreditWatch	96

Overview

In the mid- to late 1980s, capital flow to the real estate markets was unending. While signs of overbuilding were becoming evident in several markets, lenders still rushed to finance new construction at an astounding rate. By the late 1980s to early 1990s, real estate values began to plummet as the markets struggled to absorb the new supply. These market dynamics coincided with tax law changes, an economic recession, and the collapse of the nation's savings and loan industry. Further, increased scrutiny of commercial property lenders by banking and insurance regulators was added to the mix, which eventually led to a widespread credit crunch. While some foreign institutions stepped into the void created by the departure of traditional U.S. lenders, it was not enough to prevent the precipitous rise in delinquencies and losses that quickly ensued.

The confluence of these events resulted in the deepest and most protracted commercial real estate downturn ever experienced in U.S. history. Many would call it a 100-year event that will not be repeated in our lifetime. Only the passage of time will prove this hypothesis. Nevertheless, the consequences of these events, including the performance of Resolution Trust Corp. (RTC)/Federal Deposit Insurance Corp. (FDIC) loans, served to redefine how Standard & Poor's analyzes commercial real estate transactions. The 1989-1992 experience formed the basis of a worst-case scenario that was founded on empirical evidence rather than speculation. While RTC/FDIC assets formed one end of the performance spectrum, insurance company assets formed the opposite end and, although neither of these asset classes escaped the downturn unscathed, their respective performances can be clearly differentiated.

The face of real estate lending has changed in recent years with the addition of capital market participants into the traditional lending mix. Commercial mortgage-backed securities (CMBS) programs have evolved from being lenders of last resort to being preferred lenders, winning many of the financing assignments for large, "trophy" properties. In recent years, CMBS' share of the real estate lending market has increased to the point where the industry now rivals commercial banks as the major source of real estate capital.

Standard & Poor's developed its criteria for the securitization of commercial mortgages in the early 1990s. The criteria have been periodically refined to reflect new empirical evidence and trends in the marketplace. While criteria assumptions, perspectives, and outlook may change over time as the market environment changes, the general approach to analyzing commercial properties and rating CMBS has remained consistent. First, Standard & Poor's rates through full real estate and economic cycles. We must consider the impact of deterioration in the property markets and/or the economy, especially at higher rating categories. Second, we rely upon real estate fundamentals (location, occupancy, competition, local market conditions, etc.) at the property level. The underlying properties in any transaction become the primary focal point of our analysis and the rating process. The cash flows of these properties are analyzed to determine ongoing viability and to establish Standard & Poor's adjusted loan-to-value (LTV) percentages and debt service coverages (DSC). We believe this is essential in determining the adequacy of credit support or debt levels for CMBS transactions.

For more than a decade, Standard & Poor's has helped to shape the evolution of the CMBS market by developing criteria and standards to facilitate its dynamic growth. This most recent edition of *CMBS Property Evaluation Criteria* updates our capitalization rate ranges and includes additional guidelines for the analysis of transitional properties, loans subject to earnouts, self-storage properties, and ground leases, as well as expanded guidelines for the analysis of health care properties. By publishing its criteria for rating securitizations backed by commercial mortgages, Standard & Poor's hopes to contribute to further growth of this market by increasing borrower, originator, and investor understanding of its rating criteria and process.

The Rating Process for CMBS Transactions

Standard & Poor's primary role in the CMBS market is to assess a given transaction's credit risks, evaluate the appropriate level of credit support that is required, and assign ratings that reflect these risks.

The rating process usually begins with a request to conduct a preliminary assessment of a transaction. Whether a single mortgage loan or a pool of mortgage loans, most issuers prefer a preliminary indication. The request is typically initiated by the issuer, borrower, or an investment banking firm representing the issuer/borrower during a formal meeting where a term sheet outlining the financial terms of the transaction, a data tape containing loan and property-level information needed to model the transaction, and a detailed presentation book may be provided. Sometimes the request is made by a simple phone call followed by delivery of a data tape. For proposals that entail a new property type or new financing structures, Standard & Poor's will typically hold internal meetings to determine the ratability of the proposed transactions. If they are determined to be ratable, Standard & Poor's proceeds with the preliminary assessment.

Process Components

Preliminary assessments typically entail a desk review of the collateral. However, the preliminary review for single-borrower deals (commonly called property-specific transactions), as well as large loans (a loan that is greater than or equal to \$35 million) that may be included in a conduit (large pool of diversified small balance loans), fusion (conduit with large loans), or large loan transaction could entail an intensive review of the asset, possibly a site visit, and discussions regarding the loan/deal structure. The data tapes required for pool transactions are delivered in a specific format and contain the necessary information to facilitate the use of the mortgage default model. Since site visits typically are not conducted during a preliminary review and a detailed analysis has not been performed on the collateral at this point, some assumptions are made about the collateral regarding cash flow adjustments and appropriate capitalization rates (by property type) to complete the preliminary analysis.

The results of this preliminary assessment are communicated to the issuer/banker, who decides whether the assessment will result in an economically feasible transaction. For conduit and fusion transactions, the results are in the form of credit support ranges at each rating category requested. For single-borrower and large loan transactions, the results are in the form of a range of debt levels at each rating category requested, which correspond to permitted LTVs and DSCs at each category, depending on the property type. If the preliminary results are accepted by the issuer, an engagement letter outlining the terms of the rating process is typically prepared and sent to the issuer. The engagement letter includes a phased timeline of the rating process, the fee structure (including legal and surveillance fees), and other relevant information (*see sample engagement letter, Appendix A*). Upon receipt of the signed engagement letter, an analytical team is assigned to rate the transaction and the official rating process begins.

The assigned analytical team is responsible for coordinating the rating of the transaction. The team reviews the information that is provided by the issuer/banker, visits the properties, evaluates and adjusts the cash flows, and reviews all relevant third-party reports, such as environmental reports, appraisals, property condition reports, and seismic reports, if applicable. The team is also responsible for analyzing the deal structure, including the offering materials, pooling and servicing or trust agreement, and all other related transaction documents. To facilitate the review of the collateral, the banker/issuer is required to send a loan file for each loan in a pool. Generally, each loan file contains the documents and information contained in tables 1 and 2.

The rating process typically takes four to six weeks, depending on the transaction. During this period, and especially during the cash flow analysis phase, the analysts maintain a dialogue with the banker/issuer on issues concerning the collateral. This facilitates better understanding of the collateral and the motivations of the lender in structuring the loan.

The results of the property-by-property analysis are rolled up and modeled to generate credit support levels at each rating category. For single-borrower and large loan transactions, the results of the analysis yield the amount of mortgage debt allowable at each rating category, based on the derived cash flows, LTVs, and DSCs (see section on Sizing Credit Support and Debt Levels). On completion of the collateral analysis, modeling, and legal review, the lead analyst(s) makes a presentation to a credit committee. During the committee, asset-specific as well as related legal and structural issues are discussed and evaluated to determine the appropriate credit support or debt levels for the transaction. Other factors that may affect the final levels given are also considered in deriving credit support or debt levels. For instance, the review of environmental, property condition, and seismic reports may result in the need for additional credit support or lower debt levels to cover any risks that have not otherwise been covered. The underwriting standards and the lending environment in which the loans were originated are likewise considered in the recommendations.

Table 1

Components of Typical Loan Files in Conduit and Fusion Transactions

- **Asset summary:** typically consists of a narrative about the asset detailing the property's location, operating history, strengths and weaknesses, a description of the borrower, a summary of the loan terms, a competitive market analysis, and summaries of the environmental and property condition reports.
- **Financial history:** three years of financial statements, if available, the current operating statement, the trailing 12-months income statement, the borrower's budget, and agreed-upon procedures, if applicable.
- **Underwriter's analysis of stabilized cash flow:** includes footnotes of assumptions used for all adjustments to revenue, expenses, capital expenditures, tenant improvements, and leasing costs, if applicable.
- **Appraisal:** complete MAI appraisal (less than 12 months old).
- **Loan summary:** questionnaire that addresses and summarizes the material terms of the loan documents in an effort to determine compliance with Standard & Poor's legal criteria. Typically required for large loans in conduits and fusion transactions.
- **Current property condition report:** assessment of the property's condition, building quality, immediately needed repairs and future capital needs over the life of the loan prepared by a licensed engineer (less than 12 months old).
- **Phase I and other environmental reports:** a current (less than 12 months old) phase I report prepared in accordance with ASTM protocols by a licensed environmental engineer detailing the scope and results of the analysis and recommendations. Any follow up reports, phase II reports and environmental insurance should also be included.
- **Current rent roll:** should show the as-of date, tenant's name, space occupied, rent paid, beginning and ending lease dates and other pertinent lease data.
- **Insurance certificates:** should detail coverage levels and names of carriers.
- **Seismic report:** required for properties located in seismic zones 3 and 4.

The final credit support or debt levels are voted on by the committee members, and the results are communicated to the issuer/banker. If the results are accepted by the issuer/banker and Standard & Poor's is asked to provide a final rating, the lead analyst(s) will typically prepare a presale report, which outlines and discusses the analysis and the rationale for the ratings. The presale report is posted to the Web site, www.standardandpoors.com in the "News and Analysis" section, and is available to investors during the transaction's marketing/pre-pricing period. Between pricing and closing, the analysts and Standard & Poor's legal counsel continue to review and finalize the terms of the deal's structure and documents. Any changes that occur during this period could result in a change to the transaction's structure and possibly the ratings. Any such changes would be noted in the post-closing report that is prepared for every rated Rule 144A or public CMBS transaction. When all of the open issues have been resolved, rating letters are issued to facilitate transaction closing (see *sample rating letter, Appendix B*).

Table 2

Components of Typical Loan Files in Large Loan and Single-Borrower Transactions

- **Asset summary:** typically consists of a narrative of the asset detailing the property's location, operating history, strengths and weaknesses, a description of the borrower, a summary of the loan terms, a competitive market analysis, and summaries of the environmental and property condition reports.
- **Financial history:** three years of financial statements, if available, the current operating statement, the trailing 12-months income statement, the borrower's budget, and agreed-upon procedures, if applicable.
- **Underwriter's analysis of stabilized cash flow:** includes footnotes of assumptions used for all adjustments to revenue, expenses, capital expenditures, tenant improvements, and leasing costs, if applicable.
- **Appraisal:** complete MAI appraisal (less than 12 months old).
- **Loan summary:** questionnaire that addresses and summarizes the material terms of the loan documents in an effort to determine compliance with Standard & Poor's legal criteria. Typically required for large loan and stand-alone transactions.
- **Mortgage or mortgages.**
- **Copies of leases or lease abstracts of major tenants.**
- **Current property condition report:** assessment of the property's condition, building quality, immediately needed repairs and future capital needs over the life of the loan prepared by a licensed engineer (less than 12 months old)
- **Phase I and other environmental reports:** a current (less than 12 months old) phase I report prepared in accordance with ASTM protocol by a licensed environmental engineer detailing the scope and results of the analysis and recommendations. Any follow up reports, phase II reports, and environmental insurance should also be included.
- **Current rent roll:** should show the as-of date, tenant's name, space occupied, rent paid, beginning and ending lease dates, and other pertinent lease data.
- **Insurance certificates:** should detail coverage levels and names of carriers.
- **Seismic report:** required for properties located in seismic zones 3 and 4.
- **Management agreements, franchise agreements, and ground leases, if applicable.**

What Is a Rating?

The credit rating assigned to CMBS transactions is an opinion on the ability of the collateral to pay interest on a timely basis and to repay principal by the rated final distribution date, according to the terms of the transaction. The rating does not reflect the impact of prepayment or any other factors that may affect investors' yields. The rating scale used for all CMBS ratings is shown in Appendix C.

Commercial Property Cash Flow Analysis

While securitization of residential mortgages, credit card receivables, and auto loans is based primarily on an actuarial analysis of a homogenous pool of assets, commercial real estate securitization incorporates asset-specific analysis as well as other more actuarial techniques.

Whether the transaction is a pool of loans or a single-borrower deal, Standard & Poor's analysis begins with the underlying real estate, since it is important to ascertain the property's income-producing capability for the life of the rated transaction. The property's ability to service its debt during the loan term and to refinance its debt when the loan matures are the primary factors in analyzing the likelihood of certificateholders' receipt of timely payments of interest and ultimate repayment of principal.

Moreover, 80% or more of the loans in a typical CMBS conduit are structured as 10-year balloon mortgages on 25- or 30-year amortization schedules. Thus, the certificateholders of a rated transaction rely in part on a balloon refinancing to be repaid by the scheduled maturity date. In addition, should the borrower default at any time during the loan term, the liquidation proceeds from the property's sale should be adequate to repay certificateholders.

After being engaged to rate a transaction, Standard & Poor's analysts will typically visit a representative sample of properties, meet with management, analyze historical (approximately three years) and current financial statements, and review all third-party reports, typically the appraisal, phase I environmental report, property condition report, and seismic review, if applicable. For a typical conduit, the analysts visit properties located in various localities and MSAs, representing approximately 60% of the pool balance. The selected properties will reflect a mix of those properties securing the largest loans, a sample of those securing smaller loans, and a selection of properties that provide the analysts with a good insight into the spectrum of asset types and the origination standards of loans in the pool.

In addition to reviewing and adjusting the cash flows for all of the properties that have been seen, a sample of cash flows of properties that were not seen also will be reviewed and adjusted in an effort to assess the overall credit quality of the pool. This combination usually results in a 70% review and cash flow adjustment, by aggregate loan balance, for a typical CMBS conduit.

Estimating the Cash Flows

The cash flow review and adjustment is Standard & Poor's attempt to derive an estimate of the stabilized net cash flow that the property can be expected to sustain over the life of the securitized transaction. It should be noted that the derived net cash flow is not based on forecasts of revenues and expenses over the loan term, nor is it based on the worst-case scenario of the property's performance. Sustainable net cash flow is derived by making adjustments to the property's current revenues (typically trailing 12 months) and current expenses to produce the net operating income. In addition, all capital expenditures and re-tenanting costs that will be needed over the life of the loan are averaged and deducted from the net operating income to produce the stabilized net cash flow. These deductions are made regardless of whether the borrower is required to fund reserves under the terms of his/her respective loan documents.

As outlined in this section, several considerations are incorporated into each property analysis. These considerations include many of the qualitative aspects of the analysis, such as competition, economic projections, demographic changes, occupancy trends, design features that may result in functional obsolescence of the asset, and other factors that may affect a property's performance over time and possibly impair its value. Most of these considerations are captured by applying an appropriate direct capitalization rate to the derived net cash flow to reflect risks or strengths inherent in each property. In some cases, additional adjustments to revenues may be warranted. The key is that these observations should be incorporated into the analysis used to derive sustainable net cash flow for the life of the loan. This cash flow is used to determine the appropriate DSC and LTV for each property.

A stressed capitalization rate is then applied to the derived net cash flow to determine the appropriate "Standard & Poor's Adjusted Value" for the property. The capitalization rate is a function of the property's quality, age, location, competitive characteristics, value as it relates to replacement cost for the asset, and historical capitalization rates for the respective property type.

The same basic cash flow adjustments and analytical approach are used to determine the stabilized net cash flow for any mortgaged property that is being securitized. However, the extent of the review and the use of the derived cash flow will differ, based on the type of transaction that is being structured. For example, a single-borrower transaction, which can be characterized by a single property secured by one mortgage to a single borrower or multiple crossed or uncrossed mortgages to a single borrower encumbering multiple properties, will undergo an extensive review due to the reliance on the financial performance of a single property or a single borrower.

In addition to the subject property site visits, the analysts also will visit the competing properties. Moreover, the analysts will conduct a management meeting to assess the operational capabilities of the sponsor and manager, the entities that control the borrower and operate the property. These meetings are usually focused on both the corporate/organizational levels, as well as the asset level, because the sponsor's ability to enhance or, at a minimum, maintain the value of the asset should ensure that the property will be able to meet its debt service requirements.

To facilitate this meeting, the analysts prepare an outline of the topics for discussion, which is sent to the issuer before the management meeting. Discussions usually center on the company's operating and financial history, the organization's structure, legal structure, long-term corporate strategy, lender relationships, and management experience at both the corporate and asset levels. At the asset level, analysts conduct a review of the asset's operating history, expense budgets, financial reporting systems, onsite management capabilities, and market and competitive analysis and strategy. This type of in-depth analysis also is performed on large loans in fusion deals and all large loan transactions.

Suffice it to say that within a typical conduit of over 100 loans, the aforementioned level of due diligence cannot be performed on every loan. However, most conduits include a mixture of loans of varying credit quality, size, and property type. As a result, Standard & Poor's applies an extensive review to the larger loans in a pool, typically those loans that are greater than or equal to \$35 million or any loans or borrower concentrations that are greater than or equal to 5% of the pool. However, these absolute amounts may be higher or lower, depending on the number of loans, number of borrowers, loan and/or borrower concentrations in any pool, and any loans, regardless of amount, that may heighten the risks to the pool.

Deriving Credit Support for Pool Transactions

Credit support is the amount of protection from losses that each class of securities requires at each rating category. For example, in a generic conduit with 20% credit support at the ‘AAA’ level and 2% at the ‘B’ level, the pool would have to suffer losses that exceed 2% of the loan balance before the ‘B’ certificates would be impacted. Similarly, losses exceeding 20% of the pool balance would result in losses to the ‘AAA’ certificates.

The amount of recommended credit support is a function of the aggregate characteristics of the loan pool and will depend on the projected losses for each loan during various economic stress environments. Since the ‘AAA’ rating category is highest, the ‘AAA’ loss assumptions and related credit support should be sufficient to survive the worst possible economic stress. Conversely, the assumptions and the resulting credit support for a ‘B’ rating are less severe.

After adjusting the underwriter’s cash flows, the derived cash flows are segmented by property type. The weighted average net cash flow variance by property type, as well as the weighted average applied capitalization rate by property type, are extrapolated to the remaining net cash flows for each property of that type that has not been seen individually or adjusted (*see table 3*).

Using the example outlined in table 3, the analysis resulted in a net cash flow that was 2.5% less than the issuer’s current cash flow. If we assume that all of the representative retail properties underwritten by Standard & Poor’s resulted in similar cash flow differences, then the weighted average cash flow variance for all under-

Table 3

Sample Cash Flow Analysis

	Issuer/originator analysis	S&P analysis
Revenues (\$)	500,000	495,000
Expenses (\$)	175,000	175,000
Net operating income (\$)	325,000	320,000
Tenant improvements/leasing commissions (\$)	30,000	32,000
Replacement reserves (\$)	5,000	5,500
Net cash flow (\$)	290,000	282,500
Cash flow variance (%)	—	(2.5)
Capitalization rate (%)	9.5	9.75
Value (\$)	3,052,631	2,897,436
Loan balance (\$)	2,500,000	2,500,000
LTV (%)	82	86

LTV—Loan-to-value.

written retail properties will be applied to the net cash flow of the remaining retail properties that were not seen and evaluated. A similar approach would apply to the capitalization rate.

These adjusted cash flows are used as the basis for modeling credit support for a transaction. The loss model measures the default frequency for each loan and the severity of loss that can be expected as a result of a default.

Pools that consist of a combination of large loans, conduit loans, and credit leases will be analyzed separately, based on their component parts. For example, the large loans will be evaluated based on a single-borrower (property-specific) analysis, the conduit loans will be analyzed separately, and credit tenant lease loans are analyzed using the credit tenant lease model. Each component will produce its respective credit support which, when combined, will produce the overall required credit support for the whole transaction.

The default frequency of a specific loan is a function of its respective DSC and LTV, based on the Standard & Poor's adjusted net cash flow, as well as qualitative characteristics that have been observed during the site visit and the strengths and weaknesses of the loan structure.

The loss severity is the sum of the principal balance that may be lost during the liquidation and foreclosure period, accrued interest on the defaulted mortgage balance, as well as legal and other costs associated with the foreclosure and liquidation of the asset. The required credit support is the product of the foreclosure frequency and the loss severity.

For example, the following table highlights the process of determining losses associated with a single loan. If we assume that the loan defaults at the 'AAA' category based on the Standard & Poor's derived DSC and LTV, then its foreclosure frequency at the 'AAA' category is 100%. Then assume the variables shown in table 4. As table 4 shows, the estimated loss at the 'AAA' category of the pool is approximately 20% of the loan balance.

The model performs this calculation for each loan in a pool at each rating category. The foreclosure frequency at each rating category is multiplied by the loss severity at each rating category to provide the required credit support at each rating category. As the example in table 4 illustrates, the assumed property value decline and the assumed period of lost interest are important variables that will affect the losses associated with any loan. Of course, these assumptions will become less severe as one descends the rating spectrum, and the assumptions also will vary, based on factors that may be specific to individual loans.

When determining the losses associated with any loan, the analysis incorporates all of the following:

- The amount of amortization that has occurred by the assumed default date;
- The presence of additional debt;
- The quality of the real estate;
- The property type;
- The loan structure;
- Whether the property is located in a judicial foreclosure or power of sale state; and
- The availability of credit for the related asset type, or other factors that may affect liquidity and credit and thereby heighten or reduce the risks of potential losses associated with any loan.

Thus, while the default frequency of two loans within the same property type with the same DSC and LTV is the same, the losses associated with each of these two loans may differ, based on their individual characteristics as outlined above.

Other factors are also considered in deriving credit support or debt levels, and these may affect the final levels that are recommended for the pool. For instance, the review of environmental, property condition, and seismic reports may result in the need for additional credit support or lower debt levels to cover any risks that have not otherwise been covered. The underwriting standards (for example, whether the lender requires escrows for various reserves or requires seismic insurance for properties located in seismic zones 3 and 4) and the lending environment in which the loans were originated are also factored into the recommendations. In addition, the absence of reserves, cash management, and other structural features may adversely affect the overall sizing of the transaction.

Table 4

Process of Determining Losses

Assumed loan balance at default (\$)	8,000,000
Property value (\$)	14,500,000
Assumed decline in property value at 'AAA' category (\$)	7,250,000
Post-default property value (\$)	7,250,000
Liquidation and other carrying costs, including lost interest during the liquidations period for 18 months (\$)	900,000
Total payments required following liquidation (\$)	8,900,000
Total gain/(loss) (\$)	(1,650,000)
Loss severity as a % of defaulted loan balance	20.6
'AAA' credit support required for this loan (foreclosure frequency x loss severity) (%)	20.6

Some Factors That Influence Cash Flow Analysis

While each property type has certain nuances that affect its individual analysis, there are some issues that have a broad-based effect on a transaction's performance, since they impact the level and stability of cash flow that can be relied on for the life of the transaction. The most common issues are outlined below.

Contingent Liabilities

These are typically payments that are owed by the borrower to certain parties, and failure to pay them can negatively affect the certificateholders' security interest in the property. The most common contingent liabilities are accrued ground lease payments and deferred taxes. Preferably, the borrower should set aside funds in the form of cash, a letter of credit, or additional collateral as a reserve for these liabilities. To properly reflect the effect of contingent liabilities, the present value of the future payments is determined and subtracted from the Standard & Poor's adjusted value of the property if the contingent liabilities are not collateralized by cash or a letter of credit.

Tax Abatements and Other Special Tax Situations

Properties that have been developed or redeveloped under an economic development program usually qualify for some reduction in their property taxes as part of the plan. As a result, the property's current tax rate is significantly lower than the actual taxes that will be incurred by the property when the abatement period expires.

In analyzing tax-abated properties, a two-pronged approach is used: a separate cash flow determination is made for purposes of calculating DSC, and another is made for purposes of determining asset value. For valuation purposes, the full, unabated real estate taxes are assumed when making adjustments to the underwriter's cash flow, and this adjusted cash flow is capitalized to determine the property's value. Then, the present value of the tax savings over the remaining life of the abatement period is added to the value. The discount rate used in the present value calculation is equal to the capitalization rate. The sum of the two is the property's Standard & Poor's adjusted value.

For DSC purposes, the average tax abatement (the present value of the tax savings divided by the abatement period) is added to the unabated net cash flow to derive the cash flow for DSC calculations. The combination approach allows Standard & Poor's to segment the value of the abatement from the value of the real estate and offers some insight as to the liquidation value of the real estate (*see table 5*).

Real Estate Tax Reassessments

The increase in property values over the past five years has resulted in significant reassessment of property taxes following recent sales. Because the current taxes do not reflect the actual taxes that would be incurred by the property upon a sale or transfer of the asset, and because the higher taxes might be due during the loan term, Standard & Poor's analysis seeks to normalize the tax expense over the loan term. In addition, these higher taxes may be due if the property is sold in an arm's length transaction or as a result of a foreclosure.

This situation applies especially to properties located in California, which are subject to Proposition 13 reassessments when they are sold. Although the tax reassessment will not occur until ownership of the property is transferred, the value of the property will be impacted by the expectation of higher taxes. For this reason, Standard & Poor's uses a bifurcated analysis to determine the LTV and DSC for properties subject to tax reassessments. The net cash flow for DSC purposes is calculated using the current tax amount. The LTV is determined by calculating the net cash flow without any deduction for real estate taxes. The Standard & Poor's

Table 5

Example of Tax Abatement Analysis

Example: An apartment complex benefits from a real estate tax abatement that has 15 years remaining. Current real estate taxes, reflecting the abatement, are \$25,000. Unabated taxes are \$75,000.

Loan amount (\$)	2,844,444	
Annual debt service (\$)	234,667	
	DSC	LTV
Effective gross income (\$)	500,000	500,000
Unabated real estate taxes (\$)	(75,000)	(75,000)
Other expenses (\$)	(100,000)	(100,000)
Net operating income (\$)	325,000	325,000
Tenant improvements, leasing commissions, and replacement reserves (\$)	(55,000)	(55,000)
Net cash flow for LTV		270,000
Value @ 9.25% capitalization rate before adjustment for tax abatement (\$)		2,918,919
Present value of tax abatement @ 9.25% discount rate (\$)		397,155
Standard & Poor's adjusted value (\$)		3,316,074
LTV used for modeling (%)		86
Average PV of tax abatement @ cap rate (\$)	26,477	
Net cash flow for DSC (\$)	296,477	
DSC used for modeling (x)	1.26	

LTV—Loan to value. PV—Present value. DSC—Debt service coverage.

adjusted value is derived by capitalizing the resulting net cash flow using a “loaded capitalization rate” equal to the sum of the base capitalization rate that would have been used if taxes were not subject to reassessment plus the tax rate (see table 6).

Non-Real Estate Income

From time to time, Standard & Poor’s is asked to analyze properties where a large portion of the income is derived from non-real estate-related businesses; for example, hotel properties where a major restaurant or bar or the on-site golf facilities contribute a significant amount to the property’s income. Since this income is primarily due to the greater attraction of the non-real estate business, the cash flow related to these businesses is subject to volatility. As a result, this non-real estate cash flow is segmented from the cash flow that is derived from the real estate operation, and each component is analyzed separately to determine the combined value of the property. If the non-real estate operations are leased to third parties, then the lease payment will be treated as any other lease income and will be analyzed as part of the property’s total revenues.

Table 6

Example of Tax Reassessment Analysis

Example: A Los Angeles multifamily complex was recently sold and is now subject to a Proposition 13 reassessment of real estate taxes. The current taxes are \$75,000 annually, but the reassessed tax rate will be 3.77% of the property value.

Loan amount (\$)		2,400,000
Annual debt service (\$)		198,000
	DSC	LTV
Effective gross income (\$)	500,000	500,000
Real estate taxes (\$)	(75,000)	
Other expenses (\$)	(100,000)	(100,000)
Net operating income (\$)	325,000	400,000
Tenant improvements, leasing commissions, and replacement reserves (\$)	(55,000)	(55,000)
Net cash flow (\$)	270,000	345,000
DSC (x)	1.36	
Base capitalization rate (%)		9.25
Tax rate (%)		3.77
Loaded capitalization rate (%)		13.02
Standard & Poor’s adjusted value		2,649,770
LTV (%)		91

DSC—debt service coverage. LTV—Loan to value.

Ground Rent

Standard & Poor's uses stabilized ground rent based on the present value of the ground rent payments due over the term of the ground lease. The present value (discounted at the capitalization rate) is divided by the term of the ground lease to estimate the annual ground rent expenses that will be used when deriving stabilized cash flow. This cash flow is used to determine both the DSC and the LTV of the asset.

Contractual Rent Steps

Since a highly rated tenant ('BBB' or higher) has a relatively low probability of default over a typical 10-year loan term, Standard & Poor's gives value credit for contractual rent steps to be paid by highly rated tenants (*see table 7*). In a bifurcated analysis, the in-place rent is used to derive net cash flow for DSC purposes. But the present value, discounted at the capitalization rate, of the highly rated tenants' rent steps during the term of the lease will be included when determining the Standard & Poor's adjusted value of the property. Thus, the property benefits from having long-term leases in place from strong tenants. This approach may only be used if the leases have no "outs" or options to release space, and the rent steps are at or within the current market range for like tenants in like properties. If the scheduled rent steps exceed market levels, Standard & Poor's caps the rent steps at the market level.

Reserves

Many commercial mortgage loans are structured with one of two types of fully funded (upfront) reserves:

- General reserve funds that can be used for any purpose including retenanting costs, debt service maintenance, capital expenditures, deferred maintenance, etc.; and
- Reserves earmarked to address specific rollover events, for example, retenanting costs for a major tenant whose lease expires within the loan term or shortly thereafter.

The reserves are typically in the form of either cash or a letter of credit assigned to the trust.

The role of the reserves is to mitigate risk and preserve, or possibly enhance, the property's value. Standard & Poor's again uses a bifurcated approach in its analysis of loans with upfront reserves. General reserves may be used to offset normalized retenanting costs of the property for the purpose of determining DSC. The general reserve amount should be averaged over the loan term and added back to the underwritten net cash flow to determine DSC. The amount of the reserve added to net cash flow for DSC purposes cannot exceed the total annual normalized releasing costs that were underwritten. Reserves earmarked to address specific rollover events can only be used to offset normalized retenanting costs associated with that specific tenant. Therefore the amount of the average reserve that is added to underwritten net cash flow is limited to the reserves that were underwritten for that specific tenant. For LTV calculations, the average reserve amount is not added to net cash flow.

Table 7

Rent Step Analysis for Highly Rated Tenants

Example: A 'BBB+' rated company leases 40,000 square feet in a suburban office building. Current base rent is \$20 per square foot, the remaining lease term is 15 years, and the rent steps up to \$25 after seven years. Current market rent for the space is \$22.

Loan amount (\$)	15,000,000	
Annual debt service (\$)	1,127,500	
	DSC	LTV
Income from highly rated tenant (\$)	800,000	800,000
Income from other tenants (\$)	2,000,000	2,000,000
Vacancy (\$)	(140,000)	(140,000)
Other income (\$)	280,000	280,000
Effective gross income (\$)	2,940,000	2,940,000
Expenses (\$)	(1,199,660)	(1,199,660)
Net operating income (\$)	1,740,340	1,740,340
Tenant improvements, leasing commissions, and, replacement reserves (\$)	(100,000)	(100,000)
Net cash flow (\$)	1,640,340	1,640,340
DSC (x)	1.45	
Capitalization rate (%)		9.75
Value without highly rated tenant rent steps (\$)		16,824,000
Present value of highly rated tenant rent steps up to \$22 per square foot market rent @ 9.75% discount rate (\$)		224,569
Standard & Poor's adjusted value (\$)		17,048,569
LTV (%)		88

DSC—Debt service coverage. LTV—Loan to value.

Rather, underwritten net cash flow is capitalized to obtain the Standard & Poor's value and the full amount of the reserve is added to that value to derive the Standard & Poor's adjusted value (*see table 8*).

Loans With Earnouts

Occasionally, when a mortgage loan is secured by a newly constructed property that has sufficient cash flow to support debt service but is not yet fully stabilized, a lender may withhold a portion of the full loan proceeds until the mortgaged property achieves an occupancy or DSC target. Typically the loan documents allow the lender to use the amount held back to pay the loan down if the target is not achieved within

Table 8

Analysis of Retenancing Costs for Loans with Upfront Reserves

Example: A \$500,000 general reserve has been established for a 10-year loan secured by a suburban office building. The reserve can be used for any purpose.

Loan amount (\$)	15,000,000	
Annual debt service (\$)	1,237,000	
	DSC	LTV
Effective gross income (\$)	2,926,000	2,926,000
Expenses (\$)	(1,199,660)	(1,199,660)
Net operating income (\$)	1,726,340	1,726,340
Tenant improvements, leasing commissions, and replacement reserves (\$)	(65,533)	(65,533)
Average annual upfront reserve (\$)	50,000	
Net cash flow (\$)	1,710,807	1,660,807
DSC (x)	1.38	
Capitalization rate (%)		9.75
Value before upfront reserve credit (\$)		17,033,917
Upfront reserve (\$)		500,000
Standard & Poor's adjusted value (\$)		17,533,917
LTV (%)		86

DSC—Debt service coverage. LTV—Loan to value.

a specific timeframe, typically no more than 18 months. Standard & Poor's uses a bifurcated approach in its analysis of loans with earnouts. The net cash flow for determining DSC is calculated based on the actual in-place occupancy. This net cash flow is capitalized and an in-place LTV is calculated using the principal balance of the full loan minus the holdback amount. The Standard & Poor's adjusted value, which includes the value created by the additional leasing, is determined by dividing the full principal balance of the loan, including the holdback amount, by the in-place LTV as just described. An example of this analysis is shown in table 9.

Table 9

Analysis of a Loan With an Earnout

Example: A lender funds a \$10,000,000 loan secured by a newly constructed anchored retail center that is currently 88% occupied. The lender has held back \$2,000,000 of the loan until occupancy reaches 95%. If 95% occupancy is not achieved within 18 months, the \$2,000,000 earnout will be applied to reduce the loan balance.

Annual debt service (\$)	750,000
Effective gross income (\$)	1,865,000
Expenses (\$)	(750,000)
Net operating income. (\$)	1,115,000
Tenant improvements, leasing commissions, and capital expenditures (\$)	(175,000)
Net cash flow (\$)	940,000
DSC (x)	1.25
Capitalization rate (%)	9.5
As-is value (\$)	9,894,736
As-is LTV based on full loan amount less earnout amount (%)	81
Standard & Poor's adjusted value (as-is value/as-is LTV) (\$)	12,368,420
Standard & Poor's adjusted LTV based on full loan amount (%)	81

DSC—Debt service coverage. LTV—Loan to value.

Loans Secured by Transitional Properties

If a mortgaged property is experiencing a temporary, below-market occupancy in a stable market either because it was recently constructed and has not yet stabilized or because a major tenant has just vacated, Standard & Poor's will bifurcate its analysis for DSC and LTV purposes (*see table 10*). Net cash flow for DSC is based on actual in-place occupancy. However, the LTV is based on a stabilized value. The net cash

Table 10

Stabilized Analysis

Example: Occupancy at a suburban office building recently fell to 80% when a 17,000-square-foot tenant vacated. Historically, occupancy in the building was at 97% in a market that averages 92%. The building is expected to reach the average market occupancy level in two years. The average in-place rent is \$25 per square foot.

Loan amount (\$)	12,000,000	
Annual debt service (\$)	960,000	
Market rent (\$ per square foot)	26.50	
	DSC	LTV
In-place effective gross income (\$)	2,460,000	2,460,000
Additional leasing to 92% stabilized market level @ \$25.00 per square foot, the lower of average in-place and market rent (\$)		300,000
Effective gross income (\$)	2,460,000	2,760,000
Fixed expenses (\$)	(525,000)	(525,000)
Variable expenses (\$)	(396,600)	(456,090)*
Management fee (\$)	(98,400)	(110,400)*
Net operating income (\$)	1,440,000	1,668,510
Tenant improvements and leasing commissions (\$)	(122,000)	(140,400)*
Replacement reserves (\$)	(25,000)	(25,000)
Net cash flow (\$)	1,293,000	1,503,110
DSC (x)	1.35	
Capitalization rate (x)		10.0
Stabilized value (\$)		15,031,100
Tenant improvements and leasing commissions for additional space leased to reach stabilized occupancy (\$)		(276,000)
Lost income during stabilization for two years (\$)		(457,020)
Stabilized value (\$)		14,298,080
Present value of stabilized value for one year at a 10% discount rate (\$)		13,998,255
Standard & Poor's adjusted value (\$)		12,998,255
LTV (%)		92

*These expenses have been increased to reflect the higher 92% occupancy. LTV-Loan to value.

flow used to calculate the stabilized value is determined by grossing up the vacant space to a market occupancy level at the lower of in-place rent and the average market rent. Variable expenses and reserves for average leasing expenses are also grossed up to reflect the increased occupancy. After the stabilized net cash flow is capitalized using a higher capitalization rate that includes a premium to reflect the risk associated with the nonstabilized nature of the property, the following items are deducted to derive the stabilized value:

- Tenant improvements and leasing commissions, at the rate for new tenants, for the grossed up space; and
- Lost income during the stabilization phase. This is determined for each year of the absorption period by subtracting the in-place net operating income from the stabilized net operating income. If it is expected that the vacant space is expected take more than one year, the difference in net operating income is multiplied by the number of years that are assumed for the absorption period. For example, if the difference between the stabilized net operating income and the as-is net operating income is \$100,000, the lost income deduction would be \$100,000 if the absorption period is expected to be one year and \$200,000 if the absorption period is expected to be two years.

If the vacant space is expected to be leased up within one year, no further adjustment is required to derive the Standard & Poor's adjusted value. However, if the absorption period is estimated to be more than one year, the Standard & Poor's adjusted value is derived by calculating the present value of the stabilized value, discounted at the capitalization rate, for each absorption year in excess of one year (i.e., a two-year absorption period would require present valuing the stabilized value for one year).

Analyzing Single Tenant, Noncredit Lease Loans

The evaluation of properties occupied by single tenants on triple-net leases incorporates a real estate analysis, with some concessions for the triple-net lease structure and the rating of the tenant.

The typical triple-net lease is given to a creditworthy tenant that leases an office, industrial, or retail property for usually 15 to 20 years. Triple-net leased buildings range from simple big box retail structures with minimal fit-out to highly specialized facilities that have been customized to meet the tenant's needs. With a triple-net lease structure, the tenant has control over its space requirements and expense reimbursements, since it is responsible for paying all expenses associated with operating and maintaining the property. Accordingly, the property is less subject to cash flow volatility over the term of the mortgage loan. However, a single-tenant building exposes certificateholders to the risks associated with the reliance on a single tenant's ability to meet its debt service. As a result, the analysis is obliged to reflect all of the nuances of single tenancy weighed against market conditions.

In recognition of the relatively high probability of receiving rent paid by a highly rated tenant throughout the loan term, Standard & Poor's may use a lower vacancy/credit loss factor than is typically used for 100% occupied assets that are not leased highly rated tenants. As shown in the following section, the rollover assumptions should reflect the impact of the tenant's rating, or lack thereof, and the term of the lease remaining on expiration of the loan term. Finally, the direct capitalization rate used to derive the property's value should be a function of the market conditions affecting the property sector along with the tenant's creditworthiness and the remaining lease term.

There are many issues that may arise and affect the adjustments that are applied to income from triple-net, noncredit lease, single-tenant transactions. However, the following assumptions should offer some guidance to the adjustments that Standard & Poor's may apply to the underwritten net cash flow:

- Rental income will be based on the lease, assuming the rent is at or below market;
- A 1%-4% vacancy/credit loss factor may be applied to tenants rated at the 'BBB' and higher rating categories to reflect the credit strength of the tenant and the likelihood that the tenant will be viable over the lease term;

-
- A vacancy factor equal to the greater of the market average and 5% will be applied to tenants rated 'BBB-' and lower due to the higher probability that the tenant may default during the term of the lease. In the case of the tenant's default, the building may be subject to market conditions for releasing before, or at, the expiration of the loan term. Similarly, a 4%-5% vacancy factor may be applied to investment-grade tenants whose remaining lease terms are significantly shorter than the loan term; and
 - A 3% management fee will be applied to reflect the less intensive management that is required, due to the single tenancy of the facility.

Replacement Reserves

The following are minimum replacement reserve requirements:

- \$0.10/sq. ft. for industrial buildings;
- \$0.15-0.20/sq. ft. for retail properties;
- \$0.25-0.35/sq. ft. for office buildings; and
- These requirements could increase if the property condition report for the respective properties recommends a higher amount.

Typical Assumptions for a Noncredit Lease, Triple-Net Lease, and Single-Tenant Assets

If the tenant's credit rating is 'A-' or higher and its lease expires a minimum of five years past the maturity of the loan (assumed to be at least 10 years), the following assumptions apply:

- A 1% vacancy deduction for tenants rated 'AAA'; a 2% vacancy for tenants rated 'AA+', 'AA', and 'AA-'; and a 3% vacancy deduction for tenants rated 'A+', 'A', and 'A-';
- A 3% management fee;
- Standard capital expenditure assumption; and
- Tenants rated 'A-' or higher may be excluded from the calculation of tenant improvements and leasing commissions if their lease terms extend at least five years beyond the maturity of the loan (assumed to be at least 10 years).

If the tenant's credit rating is 'BBB+' or 'BBB' and its lease expires a minimum of five years past the maturity of the loan, or the tenant has a credit rating of 'A-' or higher and the lease expires between the loan maturity and five years beyond the maturity of the loan (assumed to be at least 10 years), the following assumptions apply:

- A 3% vacancy deduction for tenants rated 'A-' or higher with leases expiring between the loan maturity and five years beyond the loan maturity and 4% for tenants rated 'BBB+' and 'BBB' with lease terms extending at least five years beyond the maturity date (assumed to be at least 10 years);

- A 3% management fee;
- Standard capital expenditure assumption; and
- Tenant improvements and leasing commissions calculated based on the tenant's actual lease term. However, tenants rated 'BBB+' or 'BBB' may be excluded from the calculation of tenant improvements and leasing commissions if their lease term extends at least five years beyond the maturity of the loan (assume to be at least 10 years).

If the tenant's credit rating is 'BBB+' or 'BBB' and its lease expires less than five years past the maturity of the loan (assumed to be at least 10 years) or if the tenant's credit rating is 'BBB-' or lower regardless of the lease term, the following assumptions apply:

- The greater of 5% and market vacancy;
- A 3% management fee;
- Standard capital expenditure assumption; and
- Tenant improvements and leasing commissions calculated based on the tenant's actual lease term.

Tenant Improvement and Leasing Commission Costs

The assumptions for tenant improvement and leasing commission costs for triple-net leased properties are a function of the lease term, lease structure, tenant commitment to the property, the extent and the costs of the tenant space fit-out, and the competitive conditions present in the market. If the lease expires during the loan term or has less than five years remaining after the loan maturity, the standard stabilized average expiry analysis will be applied. For example, if the building's 80,000 sq. ft. is leased by a single highly rated tenant, the loan term is 10 years, and the remaining term under the lease is 13 years, the average will be the following: 80,000 times 97% occupancy rate (assuming 3% vacancy/credit loss factor) equals 77,600 sq. ft., divided by the lease term, which results in average annual expiry of 5,969 sq. ft.

Under this scenario, 5,969 sq. ft. is used to calculate tenant improvements and leasing commission costs. However, if a tenant has a minimum of five years remaining on the lease at the end of the loan term (which is assumed to be at least 10 years), the cash flow analysis may exclude deductions for tenant improvements and leasing commissions if the tenant has a rating of 'BBB' or higher.

The direct capitalization rates used to derive the Standard & Poor's adjusted value of single-tenant properties generally reflect the rating, or lack thereof, of the tenant, the market conditions, and the term remaining on the lease. Suffice it to say that a highly rated tenant with 15 years remaining on its lease term at the end of the loan term will benefit from a more favorable capitalization rate; thus, the property will receive a higher value. This is due to the credit strength of the tenant and the strong probability of refinancing, as a lender is likely to look favorably at the tenant's continued occupancy for the next 15 years.

Guidelines for Analysis of Major Property Types

In establishing the rating criteria for major property types, there are a variety of factors that can influence the evaluation of an asset and the analysis of property's cash flows. These vary from economic and social factors to government regulations, such as the various zoning, legal, and environmental issues, that can affect real estate values. As a result, no two real estate assets are exactly alike. The analysis applied to each, therefore, should highlight these differences. For the purposes of securitization, however, certain standard assumptions are necessary to provide a framework for the application of each individual analysis. Hence, the following property analysis section offers guidelines to the standard assumptions and the factors that are integrated into the analysis of individual property types that secure commercial mortgages.

While each asset is analyzed based on its individual characteristics, there are some overriding factors that may affect value and refinancibility of the mortgage loan. The impact of these factors on the long-term stability of the property's net cash flow must therefore be evaluated. The following considerations help to differentiate within and among the asset types. They can also affect assumptions used to adjust cash flows and the ultimate values that are derived for the respective properties. These factors also may influence the quality scores that are assigned to a property during the site visit. Notwithstanding these guidelines, there are situations that are exceptions to these assumptions.

Retail Guidelines

Retail properties in CMBS transactions can include a variety of assets across the retail spectrum. Standard & Poor's analysis breaks down the retail sector into two major groups—anchored and unanchored, with subsectors within the anchored group.

Anchored Centers

The following centers fall into the anchored retail category:

- *Neighborhood centers:* These centers are generally anchored by a major supermarket chain and/or major drug store. They offer a complementary mix of tenants that provide convenience goods and personal services for area residents. The typical size of neighborhood anchored centers found in conduits ranges from 30,000 sq. ft. to 100,000 sq. ft.; however, the newer centers usually consist of a supermarket anchor store that is at least 60,000 sq. ft.
- *Community centers:* These centers have at least two anchor tenants, typically department stores, which provide a wide range of goods and services, including soft goods, such as apparel, and hard goods, such as hardware and appliances. Some larger community centers in conduit transactions will include supermarkets as well as a mix of goods and services that are typically found in any neighborhood retail center. Gross leasable area (GLA) typically ranges from 100,000 sq. ft. to 500,000 sq. ft.
- *Power centers:* Another variation of the community center is the power center—a collection of a group of “big box” specialty superstores. These centers can range from 100,000 sq. ft. of GLA to more than 300,000 sq. ft. of GLA in some of the super power center formats.
- *Factory outlet centers:* Factory outlets are the least common retailing format found in conduit pools. Tenants in these centers are primarily manufacturer-operated retail stores that sell quality brand goods at a discount to regular retail prices or sell goods that are specifically produced for sale at outlet centers. Typical sizes range from 60,000 sq. ft. to 300,000 sq. ft.
- *Malls:* There are two major formats—the regional mall and the super-regional mall. The regional mall is primarily a two or three department store-anchored center with a varied merchandise mix. Typical GLA is 250,000 sq. ft. to 900,000 sq. ft. Super-regional malls have as many as five or six anchors, offer a greater variety of merchandise, and have GLAs ranging from 500,000 sq. ft. to more than 1.5 million sq. ft.

Unanchored Retail Centers

Unanchored centers are similar to anchored centers, but they lack the major anchors mentioned above. These centers offer a complementary mix of tenants that meet the convenience needs of the neighborhood residents. Many of these tenants include small businesses, such as video stores, fast food shops, local restaurants, and financial services companies. The typical size of these centers range from 30,000 sq. ft. to 60,000 sq. ft. and the space can be easily retrofitted to meet changing tenant needs.

Key Considerations for Retail Property Types

All of the considerations listed below will apply to the sector as a whole, but specific areas of concern will be highlighted within each category. For example, the competitive challenges facing the outlet center sector and signs of overbuilding among power centers are factors that will weigh heavily in the analysis of these two sectors. Among malls, the analysis will seek to differentiate among various types of malls, their markets, and their sponsors. These considerations are by no means comprehensive, but are provided as a guide to some of the issues that will be incorporated in the analysis.

Location, visibility, and elevation signage: the center's accessibility, proximity to major roads and residential developments, its signage, adequacy of turning lanes for shoppers, and other qualitative factors that help to differentiate it among its competitors and draw shoppers.

Layout and design features: the physical appearance of the center, including any layout and design features that date the center, diminish its appeal to shoppers, or result in functional obsolescence over the loan term.

Occupancy: the center's historical and current occupancy trends and the impact on future performance.

Demographic trends: evaluation of the trends in the trade area's population growth, income patterns, and disposable income.

Trade area: an analysis of the primary trade area, how the trade area has changed over time, its effect on the center's capture rate, and what the capture rate is in the secondary and tertiary trade areas.

Sales: trends in sales for anchor tenants, major tenants, and overall sales trends at the center.

Tenant mix: strength of tenants at the center and their deterrent effect on future competition in the market and whether or not the center can support retenanting or any changes in tenant mix.

Management: management's operating history and competitive strategy, as evidenced by its experience with tenant selection, lease negotiations, and overall relationships with tenants; and its use of promotion, innovation, and marketing to enhance or maintain the center's viability.

Competition: the supply and demand dynamics in the market and the potential for revenue erosion due to future competition. The presence of competitive and complementary retail formats in the surrounding area and the availability of land for further development.

Occupancy costs: the impact of occupancy costs (the sum of base rent, percentage rent, and expense reimbursement divided by sales) on anchors and in-line tenants.

Parking ratio: the adequacy of parking ratios to meet zoning and use requirements at the center, especially those centers with a preponderance of movie theaters and restaurants.

Lease terms: the trends in tenants' lease terms and their indications of the center's strength.

Co-tenancy: any go-dark clauses (i.e., those that allow for termination if an anchor tenant closes) and other special co-tenancy agreements that may influence occupancy over the term of the loan.

The impact of shadow anchors: where shadow anchors (the anchor tenant owns its store) play an integral role in drawing tenants to a center. Co-tenancy clauses of the in-line tenants with the shadow anchor, especially in those cases where the shadow anchor accounts for 25%-30% of center's sales, should be assessed to determine the impact on cash flow volatility. The Standard & Poor's stressed capitalization rates used to determine the value for these centers also may be increased to reflect any additional risks.

Tenant bankruptcy: the proliferation of bankruptcies among retailers is a concern in Standard & Poor's assessment of retail properties, since this development significantly heightens the vacancy potential at a center. In bankruptcy situations, the analysis will focus on the tenant's viability at the specific center. First, has the tenant affirmed its lease in the bankruptcy court? If a decision has not been made, then the tenant's sales at the center are compared with the total chain sales, since it is likely that a retailer will close the marginal stores as part of a reorganization plan. In addition, the tenant's current rental rate is evaluated against the market rents for like space.

The analysis includes an assessment of the retenanting costs, should the tenant vacate. This may be accomplished by increasing the vacancy assumptions and/or assuming a lower renewal probability to reflect extended downtime associated with retenanting the bankrupt tenant's space. Generally, Standard & Poor's will assume an above-market vacancy factor for bankrupt tenants that have affirmed their leases and are still conducting operations, and a 100% vacancy factor for bankrupt tenants that have not affirmed their leases or have affirmed these leases, but are no longer operating at the premises. A 0% renewal probability is assumed for all bankrupt tenants, whether or not they have affirmed their leases. A higher stressed capitalization rate also may be used to determine the value at the center depending on the bankrupt tenant's overall contribution to revenues and the center's overall performance.

Adjustments to the Issuer's Underwriting: Gross Potential Revenue

The following components will be used in the assessment of gross potential rent for retail properties:

- Contractual income from the current rent roll is included. Rent steps scheduled to occur within the next three months can also be included;
- Vacant space will be grossed up based on the weighted average in-place rents for like spaces (i.e., weighted average anchor rent is used to gross up vacant anchor space and weighted average in-line rent is used to gross up vacant in-line space);
- If the weighted average in-place rent is determined to be above the average market rent, based on current information, it will be marked to market;
- Reimbursements will be based on the historical recovery ratio, with consideration given to any increases in expenses that are anticipated over the next year;
- Percentage rent will be based on the tenants' payment histories and the overall trends in percentage rent. These rents will be included at a level that is believed to be sustainable over the term of the loan; and
- Temporary tenants' income will be based on the historical averages. If temporary tenant income as a percentage of total income has been increasing, the vacancy assumption may be increased to reflect the possible weakness at the center.

Vacancy/Credit Loss and Concessions Allowance

Allowances for vacancy, credit loss, and concessions are projected as follows:

- The vacancy factor is the greatest of 5%, market vacancy, and actual vacancy at the center;
- Anchor tenants rated 'BBB' and higher, or lower rated anchor tenants with strong sales, may be excluded from the vacancy calculation, depending on the strength of the tenant's sales, its occupancy costs, its historical performance at the center, and the terms of the lease;
- The vacancy factor is assessed against all income, including any recoveries, percentage rents, and other income;
- The vacancy factor may be increased to reflect increased competition in the market, the proliferation of concessions at the center, or higher vacancy rates at similar centers in the market; and
- The present value of concessions is deducted from the capitalized value for LTV purposes.

Operating Expenses and Adjustments

- Underwritten expenses are based on historic expenses. However, the expenses will be compared against industry standards and adjusted accordingly;
- For all retail properties except malls, management fees are based on the greater of: 4% of effective gross income and actual fees for properties with five or more tenants; and the greater of 3% of effective gross income and actual fees for properties with four or fewer tenants; and
- For regional and super-regional malls, management fees are calculated as 5% of all income, excluding recoveries. Management fees for malls are capped at \$1 million.

Replacement Reserves

The following are minimum replacement reserves:

- A minimum of \$0.20/sq. ft. is deducted for all retail properties except malls; and
- The minimum requirement for malls is \$0.25/ sq. ft. of collateral GLA.

These reserves may be higher if the property condition report for the respective properties recommends a higher amount.

Tenant Improvement and Leasing Commission Costs

Assumptions for tenant improvement and leasing commission costs are a function of the rental rate, the average lease terms of tenants in place together with the terms of new leases, and the absence or presence of concessions in the market. The tenants also are segmented; for example, the analysis for anchors and major tenants is segmented from the in-line tenants' analysis to determine the stabilized average expiry for each group. Anchor tenants rated 'BBB' and higher, and other anchor tenants with strong sales and low occupancy costs, can be excluded from the lease roll if their leases expire at least five years beyond the loan maturity (assumed to be 10 years).

The stabilized average annual expiry is determined by dividing the total occupied square feet, less leases that have been excluded from the rollover assumptions, by the weighted average in-place lease term. As an example, for a 300,000 sq. ft. center with a Standard & Poor's adjusted vacancy factor of 5%, the total space subject to lease roll will be the following:

$$300,000 \text{ sq. ft.} \times 95\% \text{ occupancy rate} = 285,000 \text{ sq. ft.}$$

If the average in-place lease term is five years, then the stabilized average annual expiry will be 57,000 sq. ft. (285,000 divided by 5). This average annual roll is used to calculate tenant improvements and leasing commission costs.

A higher renewal assumption—for example, 70% or greater—may be applied to tenants rated ‘BBB’ or higher, tenants whose rents are below market, and any tenants with high sales and low occupancy costs.

Typical assumptions for in-line tenants at neighborhood, community, power, and outlet centers are:

- \$3.00-\$8.00/ sq. ft. for tenant improvements for new tenants;
- \$2.00-\$4.00/sq. ft. for tenant improvements for renewals;
- Leasing commissions at 4% for new leases, 2% for renewals; and
- 65% lease renewal probability.

Typical assumptions for anchors in neighborhood, community, power, and outlet centers are:

- \$3.00-\$7.00/sq. ft. tenant improvements for new tenants;
- \$1.50-\$3.50/sq. ft. tenant improvements for renewals;
- Leasing commissions of 4% for new leases and 2% for renewals; and
- 65% lease renewal probability.

Typical assumptions for mall in-line tenants are:

- \$8.00-\$15.00/sq. ft. tenant improvements for new tenants;
- \$4.00-\$5.00/sq. ft. tenant improvements for renewals;
- Commissions at 4% for new leases and 2% for renewals; and
- 65% lease renewal probability.

Typical assumptions for anchor tenants at malls are:

- \$2.00-\$15.00/sq. ft. tenant improvements for new tenants;
- \$1.00-\$7.50/sq. ft. tenant improvements for renewals;
- Leasing commissions of 4% for new leases and 2% for renewals; and
- 65% lease renewal probability.

Retail Capitalization Rates

The capitalization rate that Standard & Poor's applies to the net cash flow of a retail property is a function of the tenants' sales and occupancy costs, tenant mix, credit rating (or lack thereof) of the major tenants, proximity to residential neighborhoods, and the center's competitive position. Table 12 shows the ranges of capitalization rates that are used for retail properties. The ranges are general guidelines. Standard & Poor's actual capitalization rates are based on the individual property's characteristics and may fall outside these ranges.

Table 12

Retail Capitalization Rates

Property type	Capitalization rate range (%)
Regional and super-regional malls	7.50-9.25
Anchored neighborhood and community centers	9.25-10.00
Power centers	9.50-10.25
Unanchored retail centers	10.00-10.50
Outlet centers	10.25-10.75
Theaters	11.00-12.00

Office Guidelines

In the mid-1990s, the office component in a typical conduit consisted primarily of suburban properties. However, office properties located in central business districts are becoming increasingly more common in conduits.

Central Business District (CBD) Properties

While many of the major metropolitan cities have experienced wild fluctuations in supply and demand, the prime areas of major cities on average have maintained their ability to attract premier tenants. Buildings in these downtown business districts range from new “class A” to older “class C” buildings. Class A properties are typically 15 years old and less, but due to the lack of new construction in many major metropolitan markets, several older buildings have been extensively renovated to provide many of the amenities that are expected in class A properties. Therefore, the services and amenities as well as the age are evaluated when determining the appropriate class designation for CBD office properties. At a minimum, a class A office building should have the following:

- 100,000 sq. ft. of GLA,
- Large floorplates,
- Prime location,
- Superior tenant profile,
- Professional building management,
- Extensively redesigned facilities,
- Superior telecommunications facilities, and
- Up-to-date mechanical systems (elevator service, heating and air conditioning systems, security, and computer systems).

Any special retail services and amenities in the building that are comparable or exceed the market would be viewed as a plus. However, their presence is not as essential in the CBD as in the suburban market.

Class B properties are usually older (pre-1980s construction), have not been renovated, have smaller floorplates, and have fewer amenities. They can, however, still be expected to provide better than average service and facilities.

Class C properties, finally, offer adequate or below-average facilities.

Suburban Properties

The 15-year-old age delineation separating classes A and B office buildings holds true for the suburban market, since most of these properties were constructed within the last 20 years. Accordingly, Standard & Poor's considers a class A suburban office property to be less than 15 years old. The property should meet all of the criteria discussed earlier except GLA requirements, which will be less than CBD standards. In addition, the property should be conveniently located near area regional malls, hotels, and restaurants, and provide ample parking and quick access to area highway networks.

Medical and dental professional offices are typically located close to area hospitals and other medical facilities and are easily accessible to area transportation networks. In many cases, the buildings are occupied by groups of practitioners, who have formed a medical professional association. Further, the rental rates are more reflective of their ability to pay, rather than the market rents for comparable space.

Key Considerations for Office Property Types

The considerations listed below will apply to both the CBD and suburban sectors of the office market and will affect the analysis, adjustments to cash flows, and quality score awarded to each property. Most considerations are focused on ensuring the stability of cash flow during the loan term and minimizing erosion of real estate value during this time.

Structure and design: the building's exterior and interior design, configuration, aesthetic appeal, and its adaptability to support present and future electrical and technological demands.

Floorplate: the size of floorplates (or floor area) and their ability to accommodate tenant needs and flexible workspace design.

Location: accessibility to public transportation, especially in CBD markets; for the suburban sector, accessibility to major roads and highways, other suburban office parks, area hotels, restaurants, banks, and shopping.

Employment growth: current and historical trends in employment in the surrounding submarkets, including a review of the types of industries entering or vacating the submarket.

Parking: adequate parking to meet zoning requirements and tenants' needs.

Occupancy: a comparison of the building's current occupancy and occupancy trends with its competitors, trends in office space absorption, rental structure, and tenant profile.

Tenant roster: the composition and credit quality of the national, regional, and local tenants in the building.

Management: management's strength and strategy in tenant selection, lease negotiations, and relationships with tenants.

Competition: supply and demand dynamics in the market and the potential for revenue erosion due to future competition.

Lease structure: the presence of lease outs and other abatement clauses as well as the additional rental income contribution from various expense reimbursement structures and additional services charged by the borrower.

Adjustments to Issuer's Underwriting: Gross Potential Revenue

The following will be included in the assessment of gross potential rent for office properties:

- Base rent is the contractual income from the current rent roll. Rent steps scheduled to occur within three months can be included;
- Vacant space will be grossed up based on the weighted average in-place rents;
- Income from recently signed and executed leases from investment-grade tenants that have yet to take occupancy, but will do so within six months, may be included;
- If the average in-place rent is determined to be above market, based on available market information, it will be marked to market;
- Expense reimbursements will be based on historical recoveries, with consideration given to any increases in expenses that are anticipated over the next year;
- Standard & Poor's will differentiate between net lease terms and gross lease terms and apply the appropriate recovery rates and income, and
- Additional income (for example, income from parking and other additional services) will be based on historical averages. This income will be included at a level that is believed to be sustainable over the term of the loan.

Vacancy/Credit Loss Allowance

Allowances for vacancy and credit loss are established as follows:

- The greatest of 5%, market vacancy, and actual vacancy in the building will be used. Vacancies ranging from 1% to 4% can be taken against income from tenants rated 'BBB' or higher if their lease terms extend to the loan's maturity date or beyond;
- The vacancy factor may be increased to reflect heightened competition in the market/submarket or among the building's direct competitors;
- A vacancy factor is applied to all income, including recoveries and other income; and
- The present value of concessions is deducted from the capitalized value for LTV purposes.

Operating Expenses and Adjustments

Projections regarding operating expenses and other adjustments will be determined as follows:

- Underwritten expenses will be based on historic averages, and will be compared to industry standards; and
- Standard management fees will be set as the greater of 4% of effective gross income and the actual fee for buildings with five or more tenants. For buildings with fewer than five tenants, the management fee is the greater of 3% of effective gross income and the actual fee. Management fees are typically capped at \$1 million for office buildings.

Replacement Reserves

The following are minimum replacement reserves:

- \$0.25-0.30/sq. ft. for suburban multitenanted properties; and
- \$0.30-0.35/sq. ft. for CBD properties.

These requirements may vary based on the age of the property and the recommendations of the property condition report.

Tenant Improvement and Leasing Commission Costs

Assumptions for tenant improvement and leasing commission costs are a function of the rental rate and average lease terms of tenants in place, as well as the terms of new leases and the absence or presence of concessions in the market. Standard & Poor's also segments various tenants and applies a separate analysis to each to assess the stabilized average expiry. For example, tenants that are rated 'BBB' and higher and whose leases extend at least five years beyond the loan term (assumed to be at least 10 years) may be excluded from the lease rollover analysis.

The stabilized average annual expiry is determined by dividing the total occupied square footage by the weighted average in-place lease term. For example, for an 80,000 sq. ft. building with a Standard & Poor's vacancy factor of 5% the average space subject to lease roll will be the following:

$$80,000 \times 95\% \text{ occupancy rate} = 76,000 \text{ sq. ft.}$$

If the average in-place lease term is 10 years, then the stabilized average annual expiry will be 7,600 sq. ft. (76,000 divided by 10). This average is used to calculate tenant improvements and leasing commission costs.

A higher renewal assumption, for example, 70% or greater, may be applied to highly rated credit tenants ('A-' or higher) whose rents are below the average market rent. Tenants whose investment in leasehold improvements and infrastructure of their space indicate a commitment to the rented area may also benefit from higher renewal assumptions.

Typical assumptions for suburban offices are:

- \$5.00-\$20.00/sq. ft. tenant improvements for new tenants;
- \$2.50-\$10.00/sq. ft. tenant improvements for renewals;
- 4% leasing commissions for new leases and 2% for renewals; and
- 65% renewal probability.

The assumptions for CBD markets will range from:

- \$15.00-\$40.00/sq. ft. tenant improvements for new tenants;
- \$7.50-\$20.00/sq. ft. tenant improvements for renewals;
- 4% commissions for new leases and 2% for renewals; and
- 65% renewal probability.

The assumptions for medical offices will range from:

- \$15.00-\$50.00/sq. ft. tenant improvements for new tenants. These ranges may differ based on whether these are initial requirements versus ongoing requirements.
- \$7.50-\$25.00/sq. ft. tenant improvements for renewals;
- 4% commissions for new leases and 2% for renewals; and
- 65% renewal probability.

These assumptions are by no means comprehensive and will vary based on an assessment of the asset. The renewal assumptions may be increased or decreased, based on the respective tenant’s effective rental rate, lease renewal options, an current and anticipated competition in the market.

Office Capitalization Rates

The capitalization rate that Standard & Poor’s applies to the net cash flow of an office property is a function of the building’s quality, age, amenities, tenant mix, credit rating (or lack thereof) of the major tenants, accessibility, and the building’s competitive position. Table 13 shows the ranges of capitalization rates that are used for office properties. The ranges are general guidelines. Standard & Poor’s actual capitalization rates are based on the individual property’s characteristics and may fall outside these ranges.

Table 13

Office Capitalization Rates

Property type	Capitalization rate range (%)
CBD	8.25-9.50
Suburban	9.25-10.00
Medical office	9.75-10.25

Industrial Guidelines

Industrial properties comprise an asset class that is included in conduits because of the stability of the income stream. The following section outlines the various types of industrial properties that are commonly securitized, although most conduit loans are secured by warehouses and light industrial facilities.

Bulk Distribution/Warehouse

These are single-story boxes that are used for storage and distribution of food and other goods. The sizes range from 50,000 sq. ft.-300,000 sq. ft. These facilities are usually multitenanted warehouse distribution facilities located within an area of like usage and are easily accessible to the interstate and highway network systems. The facilities' ceiling heights typically range from 18-30 feet. There are multiple truck bays, and ample parking and turning clearance for truck access. Typically, up to 15% of the GLA is allocated to office space.

Flex Space and Research and Development Facilities

Unlike warehouses, flex/R&D facilities usually have a higher component of office space—typically 20%-25% of the GLA, and fewer truck bays. The ceiling heights are less than 18 feet and there are fewer docks than in distribution warehouses. In addition, flex space can be found in traditional suburban markets that have been zoned to accommodate a mix of office and industrial facilities.

Light Manufacturing/Light Industrial Facilities

These facilities are similar to the bulk distribution centers. Light manufacturing buildings are usually multitenanted, single-story facilities that are located within an area of like usage and are easily accessible to major interstates and highways. The ceiling heights typically range from 20-30 feet. There are multiple truck bays, and ample parking and turning clearance for truck access. Typically, up to 15% of the GLA is allocated to office space.

Key Considerations for Industrial Property Types

The locations of assets that secure loans within the industrial sector range from historical, fringe of city, older industrial locations to build-to-suit, state-of-the-art facilities that are located in suburban markets. As a result, the analysis of this sector is keenly focused on the current use and alternative uses of the facility. Since many of the newer facilities are located in suburban locations where the key requirements are access to highways, airports, and large expanses of land to facilitate truck access, the in-city locations are left at a disadvantage because they are older and lack these amenities. However, many of these locations specialize in uses that are specific to their location and business needs, and where close proximity to the client is important. As a result, the analysis of the industrial sector will focus on the different uses in assessing the viability of these assets.

Structure and design: The structure and design, ceiling heights, electrical supply, and floor load capacity should be adequate and adaptable to meet the tenants' requirements.

Space: Design should accommodate high-volume receiving and delivery of bulk goods, and fork lift usage, with sufficient truck-high and drive-in loading docks to service single or multitenant configurations.

Special-purpose facility: Build-to-suit and special-use facilities are analyzed to determine their adaptability to other uses and users in the event of the tenant's default or lease expiration before the loan term.

Location: Access to interstate highways and major road networks is key.

Occupancy: The building's historical occupancy is assessed within the context of its current competitive environment, its rent structure, tenant profile, and current and future market trends.

Tenant roster: Standard & Poor's evaluates the composition of national, regional, and local tenants at the building.

Management: Management's strength and strategy in tenant selection, lease negotiations, and relationships with tenants.

Competition: Supply and demand dynamics in the market and the potential for income erosion due to future competition.

Lease structure: Standard & Poor's assesses the impact on cash flow of lease outs and other abatement clauses, as well as the percentage of space that is leased by the owner or its affiliates.

Parking: Parking should be adequate to meet zoning requirements and tenants' needs, especially for flex space facilities, which have a large component of office users.

Loading docks: The adequacy of loading docks, number and depth of bays, and the adequacy of turning radii for truck loading and unloading are evaluated in relation to the likelihood of functional obsolescence at the structure.

Adjustments to Issuer's Underwriting: Gross Potential Revenue

The following will be included in the assessment of gross potential rent for industrial properties:

- Base rent is the contractual income from the current rent roll. Rent steps that are scheduled to occur within three months can be included;
- Vacant space will be grossed up, based on the weighted average in-place rents;
- Income from recently signed and executed leases to investment-grade tenants that have yet to take occupancy, but will do so within six months, may be included;
- If the average in-place rents are above market based on market information, they will be marked to market;
- Expense reimbursements will be based on historical recoveries. The analysis also includes an evaluation of the reimbursement methods applied to various tenants Standard & Poor's will delineate between net lease terms and gross lease terms and apply the appropriate recovery rate and income; and
- Additional income, for example, parking income, and other additional service income will be based on historical averages. This income will be included at a level that is believed to be sustainable over the term of the loan.

Vacancy/Credit Loss Allowance

Allowance for vacancy and credit loss is determined as follows:

- The greatest of 5%, market vacancy, and actual vacancy in the building will be used;
- A higher vacancy factor/credit loss may be applied to class B and C buildings to reflect additional structural vacancies prevalent at these types of properties;
- The vacancy factor may be increased to reflect heightened competition in the market/submarket or among the building's direct competitors;
- The vacancy factor is applied to all income, including recoveries and other income. However, the factor applied to recovery and other reimbursement income may be adjusted to reflect actual collections from current tenants;
- Vacancies ranging from 1%-4% may be taken on income from tenants rated 'BBB' and higher with lease terms that extend beyond long as the loan term; and
- The present value of concessions is deducted from value for LTV purposes.

Operating Expenses and Adjustments

- Expenses will be based on the actual expenses incurred during the most recent 12-month period and will be compared with industry standards; and
- A management fee equal to the greater of 4% of effective gross income and the actual fee will be applied to buildings with five or more tenants. The management fee for industrial buildings with fewer than five tenants will be the greater of 3% of effective gross income and the actual fee.

Replacement Reserves

- A minimum reserve of \$0.10/sq. ft. is required for industrial properties. Higher minimums may be necessary for flex space and other properties that have a higher component of office space. These requirements could vary based on the age of the property and the recommendations of the property condition report.

Tenant Improvement and Leasing Commission Costs

Assumptions for tenant improvement and leasing commission costs are a function of the rental rate, average lease terms of tenants in place, as well as the terms of new leases and the absence or presence of concessions in the market. Since retenanting costs in the industrial sector are usually very low, they do not have a significant impact on available cash flow. Tenants rated 'BBB' and higher with leases extending at least five years beyond the loan term (assumed to be at least 10 years) may be excluded from the lease roll when calculating tenant improvements and leasing commissions.

The stabilized average annual expiry is determined by dividing the total occupied space by the weighted average in-place lease term. As an example, for an 80,000 square foot industrial building with a Standard & Poor's vacancy factor of 5%, the average space subject to lease roll will be the following:

$$80,000 \times 95\% \text{ occupancy level} = 76,000 \text{ sq. ft.}$$

If the average in-place lease term is five years, then the stabilized average annual expiry will be 15,200 sq. ft. (76,000 divided by five) This average is used to calculate tenant improvements and leasing commissions costs.

A higher renewal assumption, for example, 70% or greater, may be applied to highly rated credit tenants ('A-' or higher) whose rents are below market. A tenant's significant investment in the facilities, especially in the case of research and development facilities, may indicate a commitment to the site, which would merit higher renewal assumptions.

Typical assumptions for industrial properties are:

- \$1.00-\$5.00/sq. ft. for tenant improvements for new tenants;
- \$0.50-\$2.50/sq. ft. for tenant improvements for renewals;
- 4% commissions for new leases, 2% for renewals; and
- 65% renewal probability.

Typical assumptions for the office component of industrial/flex properties are:

- \$3.00-\$10.00/sq. ft. tenant improvements for new tenants;
- \$1.50-\$5.00/sq. ft. tenant improvements for renewals;
- 4% commissions for new leases, 2% for renewals; and
- 65% renewal probability.

Industrial Capitalization Rates

The capitalization rate that Standard & Poor's applies to the net cash flow of an industrial property is a function of the property's use, age, location, accessibility to major highways, credit rating (or lack thereof) of the major tenants, and the center's competitive position. Table 14 shows the ranges of capitalization rates that are used for industrial properties. The ranges are general guidelines. Standard & Poor's actual capitalization rates are based on the individual property's characteristics and may fall outside these ranges.

Table 14

Industrial Capitalization Rates

Property type	Capitalization rate range (%)
Warehouse	9.00-9.50
Light manufacturing	9.25-9.75
Flex/R&D	9.50-10.00

Hotel Guidelines

The hotels found in CMBS transaction range from limited service hotels to luxury resorts. The following outlines the various types of hotels securing loans that are commonly securitized.

Full Service

Full service hotels offer a wide variety of facilities and amenities including full dining, room service, banquet and convention facilities, and other business/leisure amenities such as personal service, health spas, pools, and retail outlets. All of these services are aimed at distinguishing themselves from the competition and commanding higher room rates as a result. Within the full service sector are the following classes: “luxury,” such as the Four Seasons, Ritz Carlton, and the Intercontinental Hotels; “first class,” such as the Marriott, Hyatt, Westin, Hilton, and Omni Hotels; and “mid-tier full service,” such as the Holiday Inn and Ramada hotels. Resort hotels are a more specialized version of the full service segment and are often a destination unto themselves, where guests sometimes never leave the property during their stay.

Limited Service

A limited service hotel provides some of the amenities of a full service facility, but typically lacks a food and beverage component and significant meeting space. The restaurant facilities are usually provide only a limited breakfast or may be leased to a third-party operator. Hotels in this sector include Hampton Inn, Fairfield Inn, Days Inn, and other motels at the budget end of the spectrum.

Suites and Extended Stay Hotel

These hotels have separate living and sleeping areas and appeal primarily to full-time corporate business travelers and the relocation business. These hotels offer some amenities but lack a full food and beverage division. Examples are Embassy Suites, Summerfield Suites, Extended-Stay America, Candlewood Inns, and Residence Inns.

Key Considerations for Hotel Property Types

Economic cycles and external events like the terrorist attacks of Sept. 11, 2001 have caused cash flow volatility in the hotel sector. Standard & Poor’s is cognizant of the challenges associated with determining levels of occupancy and average daily rate (ADR) growth that are sustainable over the long term. As a result, the analysis of the hotel market focuses on the individual subsectors within the broader hotel groupings in an effort to truly integrate the nuances of each segment.

All of the considerations listed below will apply to the hotel sector as a whole, but specific areas of concern will be highlighted within each category. Standard & Poor's may adjust the occupancy and ADR assumptions as well as the capitalization rate to derive property values it believes are sustainable through economic cycles. The analysis also will differentiate between the strengths and weaknesses of full service hotels located in 24-hour cities versus typical full service hotels located elsewhere in the country. These considerations are by no means comprehensive, but are provided as a guide to some of the factors that will be incorporated in the analysis.

Supply and demand dynamics: What are the factors that drive demand for the hotel? The available supply within the sector and the impact of current and future supply are key determinants in assumptions used for adjusting each hotel's occupancy and ADR.

Demand generators and market segmentation: What has been the historical market mix and how has it evolved over time? Has the typical user changed and what trends are indicated by such changes?

Economic growth: How have the national, regional, and local economic trends affected the hotels demand? Do the local area employment trends differ from the broader economy? The interrelationship of office construction and hotel room availability is also evaluated.

Competitive strength: What is the strength of the franchise, the property's historical performance, and the hotel's ability to compete within its market and sector and possibly penetrate other sectors?

Management/franchise agreements: Are these agreements with third parties or affiliates? What is the duration of the agreement? Are there termination rights?

Facilities: What are the age, configuration, and other property aesthetics? Are there adequate services and facilities to meet the users' needs, especially for hotels that target special users such as convention and conference hotels?

Seasonality: Is the business seasonal? Hotels that suffer from large fluctuations in reservations due to seasonal trends will be expected to fund a reserve to ensure cash flow stability during the off season.

Location: Is there adequate access and visibility to interstate highways and major road networks? Proximity to office developments are key considerations for the limited service and extended stay sector.

Parking: Is there adequate parking to meet zoning requirements and travelers' needs?

Adjustments to Issuer's Underwriting

The following will be included in the assessment of hotel revenue and expenses. These assessments are continually evaluated against industry research and benchmarks provided by industry sources, such as Smith Travel and PKF Consulting.

Revenue

Standard & Poor's evaluates the current and historical occupancy rate and ADR (over a minimum of three years, if available) to determine sustainable rates for each. Growth trends in occupancy and ADR as well as supply and demand factors that may affect these rates in the future, along with market penetration (the relationship between the occupancy and ADR of the subject hotel compared with its competitors), are also considered. Favorable trends in occupancy and ADR may provide the basis for emphasizing recent performance over historic occupancy and ADR. Conversely, declining occupancy and/or ADR may suggest a more conservative approach. In cases where there are no discernable trends in occupancy and ADR, Standard & Poor's underwriting will be based on historic averages. Other factors in the analysis include the following:

- Historical assumptions may change if the hotel has undergone a recent change in affiliation, for example, reflagging, which may affect the property's future performance;
- Food and beverage revenue, telephone/telecommunications revenue, and other departmental revenue are based on the historic revenue achieved per occupied room; and
- Rental income from restaurants, bars, and other recreational businesses will be closely evaluated to determine its stability over the loan term. The nonhotel income may be separated from the income generated by the hotel to determine its value as distinct from the real estate value. This may be accomplished by applying a different stressed capitalization rate to each component's adjusted cash flow.

Hotel expenses are classified in one of three general categories: department expenses; undistributed expenses; and fixed expenses. Department expenses are those expenses directly related to the income of the hotel including rooms, food and beverage, and telephone. These expenses have a direct relationship to occupancy levels. Unallocated expenses represent the overhead of the hotel and include management, sales and marketing, franchise fees, and repairs and maintenance. Fixed expenses include real estate taxes and insurance.

Departmental Expenses

As can be expected, any adjustments that are made to occupancy will result in corresponding adjustments to the department expenses. The following factors will be reviewed:

- Standard & Poor's analyzes the historic departmental operating expense ratios to determine sustainable departmental expense levels; and

-
- Underwritten departmental expenses are determined by applying these historic expense ratios to the corresponding departmental income (i.e. rooms revenue x room operating expense ratio = rooms expense).

Undistributed Operating Expenses

Operating expenses are reviewed in the following fashion:

- Franchise fees are underwritten at 4%-6% of total revenues or the actual fee, whichever is higher. In some instances, either a component or all of the franchise fee is combined with the marketing fee. If the franchise fee is included in the marketing/advertising expense, then the combined marketing, advertising, and franchise expenses should approximate 8%-10% of total revenues; and
- The management fee is 4%-5% of gross revenues, but a percentage that is allocated to management is sometimes included in the total fees allocated to franchise, marketing, and management expense items. If this is the case, the total expenses for marketing, advertising, franchise expenses, as well as management fees, should be consistent with historic expenses and should total 10%-15% of total revenues.

Fixed Expenses

- Real estate taxes will be based on the actual property tax assessment and current tax bills, other than cases with reassessments and abatements that are analyzed as discussed earlier in the Commercial Property Cash Flow Analysis section of this publication;
- Insurance expenses should be based on actual expenses and should be consistent with historic averages; and
- Any personal property taxes and insurance, such as taxes and insurance on artwork, should be included in the underwriting.

Replacement Reserves

Furniture, fixtures, and equipment (FF&E) reserves will range from 4%-6% of total revenues.

Profit Margins

Profit margin ranges will vary depending on the specific hotel properties and flags (or franchise). However, the adjusted net cash flows and resulting profit margins may be measured against certain industry benchmarks and trends that have been observed among similar properties. For example, profit margins for the luxury/resort sector typically range from 20%-25% of total revenues; 20%-30% for standard full service hotels across all tiers of the segment; 30%-40% for limited service; and 35%-42% for extended stay suites without food service.

Hotel Capitalization Rates

The capitalization rate that Standard & Poor's applies to the net cash flow of a hotel is a function of the hotel market subsector, location, proximity to demand generators, flag, and competitive position. Table 15 shows the ranges of capitalization rates that are used for hotels. The ranges are general guidelines. Standard & Poor's actual capitalization rates are based on the individual property's characteristics and may fall outside these ranges.

Table 15

Hotel Capitalization Rates

Property type	Capitalization rate range (%)
Luxury/resort	10.50-11.50
Full service	11.00-12.25
Extended stay	11.50-12.50
Limited service	12.00-13.00

Multifamily Property Guidelines

The multifamily property assets typically found in CMBS pools are primarily suburban developments. However, an increasing number of buildings located in major cities, such as New York, Boston, Philadelphia, Los Angeles, and San Francisco, are being financed in the conduit market. The following section outlines the various types of multifamily assets that are commonly securitized.

Conventional Multifamily

These are traditional, market rent multifamily residential complexes, located in both city and suburban markets. Tenants in some of the complexes under 80:20 guidelines may qualify for Section 8 government subsidized rent, under which tenants must earn 80% or less of the area's median income to qualify for assistance.

Special-Use Multifamily

Special-use multifamily properties, such as student housing, require specialized attention to certain expense items. These properties also may require debt service reserves to offset declines in cash flows due to seasonal declines in occupancy. In the case of military housing, the impact of base closures and reassignment is a major concern as they can result in dramatic fluctuations in occupancy levels over the term of the loan.

Key Considerations for Multifamily Property Types

Important aspects of the analysis include the following considerations.

Economic growth: the strength of the area's economy, its dependence on any single industry, and the overall impact on income patterns and job prospects.

Demographic trend: the area's population growth, changes in the average household size, and the composition of the entry-level market.

Amenities: the competitiveness of property's amenities within the market. If they are not, do the rental rates compensate for their absence?

Competition: the property's ability to withstand both temporary and protracted supply and demand imbalances.

Available land for future development: the impact of possible new development on the current rent levels and building occupancy.

Home affordability: a comparison of rental rates and prices for first-time homebuyers in the area is paramount, because renters typically seek to become homeowners whenever possible.

Location: access to shopping centers, interstate highways, recreation facilities, business parks, and major road networks are key convenience factors for residents.

Occupancy: Standard & Poor's assesses the building's historical occupancy within the context of its current competitive environment, its rent structure, tenant profile, and current and future market trends.

Break-even ratio: Standard & Poor's assesses the occupancy level at which point the property's cash flow may be inadequate to service the debt.

Tenant profile: a comparison of the tenant profile with other properties within the submarket and among the asset's competitors. What are the trends in the asset's tenant profile?

Management: management's strength, maintenance staff, and overall responsiveness to tenants' needs.

Visibility: signage, maintenance of the grounds, and overall curb appeal.

Parking: minimum of two spaces per unit, with higher requirements to meet the ratio of two- and three-bedroom units within the complex.

Adjustments to Issuer's Underwriting: Gross Potential Revenue

The following assumptions will be included in the assessment of gross potential rent for multifamily properties:

- Income is based on the current rent roll;
- Vacant units are grossed up at the weighted average in-place rent;
- Additional income, such as parking income, laundry income, pet fees, and vending income, will be based on historical averages;
- Forfeited security deposits, fees for late payments, and interest income will not be included; and
- Income from housing assistance programs is included at the government reimbursement level.

Vacancy/Credit Loss Allowance

Allowances for vacancies and credit losses are as follows:

- Vacancy is based on the greatest of 5%, actual vacancy in the building, and market vacancy.
- A higher vacancy factor may be used to reflect anticipated future supply and increased concessions in the market.

Operating Expenses and Adjustments

Operating expenses and adjustments are computed as follows:

- Standard & Poor's bases underwritten expenses on historic trends and checks them for consistency against industry averages. Multifamily operating expense ratios typically fall within the 35%-45% range. These expense ratios are expected to be higher for older properties, student housing, and urban dwellings; and
- The management fee will be the greater of 4% of effective gross income or the actual fee for properties with fewer than 500 units. A 3.5% management fee is used if the number of apartment units is 500 or more.

Replacement Reserves

The following minimum replacement reserve requirements are assumed:

- \$250/unit for new properties that are less than 10 years old;
- \$250-\$275/unit for properties that are 10-15 years old; and
- \$300-\$325/unit for properties that are 15-20 years old.

These requirements could vary based on the age of the property and the recommendations of the property condition report. Higher replacement reserves may be required for student housing, and a seasonality reserve may be required to meet the DSC requirements.

Multifamily Capitalization Rates

The capitalization rate that Standard & Poor's applies to the net cash flow of a multifamily property is a function its location, amenities, prices of single family homes in the immediate area, proximity to employment centers, local area demographic trends, and its competitive position. Table 16 shows the ranges of capitalization rates that are used for multifamily properties. The ranges are general guidelines. Standard & Poor's actual capitalization rates are based on the individual property's characteristics and may fall outside these ranges.

Table 16

Multifamily Capitalization Rates

Property type	Capitalization rate range (%)
Urban	8.25-9.25
Suburban	8.75-9.25
Student/military housing	9.25-9.75

Manufactured Housing Guidelines

The analysis of the manufactured housing sector is very similar to that for the multi-family sector. The revenue stream comes from tenants' rents on the foundation pads or land upon which their homes sit. However, this sector has lower turnover and operating expense ratios than a typical multifamily complex, resulting in a very stable cash flow stream.

Key Considerations for Manufactured Housing Property Types

Following are the main consideration in evaluating these properties.

Location: Access to shopping centers, major road networks, and leisure activities is key.

Competition: How do the rental rates compare with alternative rental and single-family housing options in the area?

Occupancy: Standard & Poor's assesses the historical occupancy in the context of its current competitive environment, resident profile, and current and future market trends.

Short-term Occupancy: What is the impact of seasonal and leisure-oriented usage on occupancy levels?

Amenities: Are the property's amenities competitive within the market? If not, do the rental rates compensate for this deficiency?

Tenant profile: The ratio of owned versus rented units may have an impact on the level of reserves required to maintain the community roads and sidewalks. Standard & Poor's assesses the resident profile in the context of the community's competitive position.

Management: Management's strength, maintenance staff, and overall responsiveness to residents' needs are evaluated.

- *Visibility:* Signage, maintenance of the grounds, and overall curb appeal are assessed.
- *Parking:* This should meet zoning requirements and residents needs.

Adjustments to Issuer's Underwriting: Gross Potential Revenue

The following will be included in the assessment of gross potential rent for manufactured housing parks:

- Income is based on the current rent roll;
- Vacant pads are grossed up at the weighted average in-place rent; and
- Additional income, such as parking income, laundry income, and vending income, will be based on historical averages.

Vacancy/Credit Loss Allowance

Vacancy and credit losses are figured at as follows:

- The vacancy factor is the greatest of 5%, market vacancy, and the actual vacancy at the park; and
- A higher vacancy factor may be used to reflect anticipated future supply and increased concessions in the market.

Operating Expenses and Adjustments

The following assumptions are employed:

- Expenses will be based on historic trends and will be compared to industry averages for consistency; and
- Management fees will be the greater of 4% of effective gross income and the actual fee for parks with less than 500 pads. A 3.5% management fee is used for properties that have more than 500 pads.

Replacement Reserves

The following are minimum replacement reserve requirements:

- \$50-\$75/pad; and
- This amount could vary based on the age of the property, presence of amenities, such as club houses and swimming pools, and the recommendations of the property condition report.

Manufactured Housing Capitalization Rates

The capitalization rate that Standard & Poor's applies to the net cash flow of a manufactured housing property is a function of its location, amenities, local area demographic trends, mix of single-wide and double-wide pads, price of single-family homes in the area, proximity to employment centers, and the property's competitive position. Table 17 shows the range of capitalization rates that is used for manufactured housing. The range is a general guideline. Standard & Poor's actual capitalization rates are based on the individual property's characteristics and may fall outside these ranges.

Table 17

Manufactured Housing Capitalization Rates

Property type	Capitalization rate range (%)
Manufactured housing	8.75-9.50

Health Care Guidelines

The health care sector has always been subject to cash flow volatility owing to the industry and regulatory changes that frequently affect all aspects of the sector. Standard & Poor's will continue to monitor these changes and integrate the impact into its analysis of health care asset cash flows.

Independent Living

This sector is also known as congregate care living and provides the lowest level care in elderly housing. Living facilities are typically clustered as apartments in retirement communities, with some communal and dining services. The typical services provided include full utilities, planned social activities, planned transportation, and weekly housekeeping. The residents are usually ambulatory and do not require assistance with day-to-day living activities. Revenues are generated primarily from rental income. The independent living sector is generally not subject to government regulation and does not qualify for public reimbursement.

Assisted Living

This sector of the market provides assistance to residents in their daily activities, such as bathing, dressing, and monitoring medication. Assisted living may also offer services, such as Alzheimer's care, that were traditionally provided at intermediate care nursing homes. Like independent living, this sector has generally been unregulated in the past. However, it may be subject to increased regulations as higher acuity care services are provided to patients and it thus becomes eligible for public reimbursement. Current regulations vary on a state-by-state basis, resulting in inconsistent standards. Some states allow patients with significant care needs to be accepted into assisted living facilities, while others do not.

Nursing Homes

These facilities have licensed nursing beds and are subject to state certificates of need (CON), which are intended to regulate new construction of facilities in some states. Nursing homes offer long-term care in the form of skilled nursing and some intermediate nursing care, although fewer nursing homes are providing this service. This is the most heavily regulated health care sector.

Key Considerations for Health Care Properties

While the analysis of the health care properties varies depending on the level of service provided, there are a number of common factors that need to be considered in the analysis of any health care property.

Consolidation: the impact is increasing as smaller facilities are being acquired by larger operators across the country.

Economic analysis: the strength of the state's economy and its effect on Medicaid reimbursement rates, reimbursement/payment history and the overall regulatory climate.

Reimbursement rates: the impact of managed care capitation programs, state and federal reimbursement policy, waiver rules, and other regulatory challenges heightens the level of uncertainty in analyzing these revenues.

Management: the strength, experience, philosophy and operationing history of management within the specific elderly care sector.

Location: the stability of the facility in its locale, especially in rural markets, where the operator's strength and ability to draw residents from a broader geographic area may be key to the facility's success.

Facility layout and physical condition: the ability of the layout to foster socialization and easy access to service providers. Are there specialized facilities that support aging in place? Does the facility offer a continuum of care with a variety of specialized services? The overall maintenance of the facilities, grounds, and curb appeal are considered.

Competition: the facility's services and amenities' competitiveness with the area's other operators, and whether the subject can withstand excess capacity at another facility. In addition, are there any CON moratoriums in the state (especially for nursing homes)? If it is not located in a CON state, are there other limitations to new supply in place?

Payor mix: Standard & Poor's assesses the payor mix to determine the breakdown between private pay and government pay to determine the exposure to reimbursement stress.

Underwriting Guidelines—Independent Living

The analysis of independent living facilities is similar to the analysis of multifamily properties.

Adjustments to Issuer's Underwriting: Gross Potential Revenue—Independent Living

The following will be included in the assessment of gross potential rent:

- Income is based on the current rent roll; and
- Vacant space should be grossed up at the weighted average in-place rent.

Vacancy/Credit Loss Allowance—Independent Living

These are evaluated as follows:

- The vacancy factor is the greatest of 5%, market vacancy, or actual vacancy at the facility; and
- Any concessions that may be offered in the form of extra services provided to residents should be noted and deducted from rental income.

Operating Expenses and Adjustments—Independent Living

Expenses and adjustments are assessed on the following basis:

- Standard & Poor's bases underwritten expenses on historic trends and checks them for consistency against industry averages; and
- The management fee will be the greater of 4% of effective gross income or the actual fee for properties with fewer than 500 units. A 3.5% management fee is used if the number of units is 500 or more.

Replacement Reserves—Independent Living

The following minimum replacement reserve requirements are assumed:

- \$250/unit for properties that are less than 10 years;
- \$250-\$275/unit for properties that are 10-15 years old; and
- \$325-\$350/unit for properties that are 15-20 years old.

These requirements could vary based on the age of the property and the recommendations of the property condition report.

Adjustments to Issuer's Underwriting: Gross Potential Revenue—Assisted Living/Nursing Homes

The following will be included in the assessment of gross potential rent for assisted living and nursing home properties:

- Income is based on the current rent roll and a thorough analysis of the payor mix;
- Vacant space is grossed up at the weighted average in-place rate;
- Income breakout should show rental rates based on levels of care and payor; and
- If these charges are not included in the daily rate, additional income will be based on a review of the services provided.

Vacancy/Credit Loss Allowance—Assisted Living/Nursing Homes

Vacancy and credit loss allowances are projected as follows:

- The vacancy factor is the greatest of 5%, market vacancy, or actual vacancy at the facility; and
- Any concessions that may be offered in the form of extra services provided to residents should be deducted from rental income.

Operating Expenses and Adjustments—Assisted Living/Nursing Homes

Expenses and adjustments are evaluated in the following manner:

- Market niche and level of care provided are the primary factors that drive expenses in this category. Standard & Poor's bases underwritten expenses on historic trends and checks them for consistency against industry averages.
- The overall management of the facility is typically segmented between off-site management and on-site administration. The typical off-site management fee ranges from 5%-7% of effective gross income. On-site administration fees typically range from 4%-6%, but this fee can be higher, based on the services offered at the center. If the off-site and on-site administration fees are combined, the total should exceed 10% of effective gross income, especially for those facilities that provide a low level of care.
- Staffing expenses are critical and will be based on the variety of services provided. A breakdown of the staff expense allocations among nursing, dietary, housekeeping, and maintenance should be provided on the income/expense statement.
- Total operating expense ratios typically fall within the 60-70% of effective gross income range, depending on the level of care and services that are provided.

Replacement Reserves—Assisted Living/Nursing Homes

Replacement reserves will be projected at a minimum of \$250 per bed. This requirement could vary based on the age of the property and the recommendations of the property condition report.

Health Care Capitalization Rates

The capitalization rate that Standard & Poor's applies to the net cash flow of a health care property is determined by the level of service, the payor mix, the location and amenities, and the property's competitive position. Table 18 shows the ranges of capitalization rates that are used for health care properties. The ranges are general guidelines. Standard & Poor's actual capitalization rates are based on the individual property's characteristics and may fall outside these ranges.

Table 18

Health Care Capitalization Rates

Property type	Capitalization rate range (%)
Independent living	9.75-10.25
Assisted living	11.75-12.75
Nursing homes	12.75-13.75

Self-Storage Guidelines

Self-storage facilities found in conduits range from single assets with as few as 50 units to national portfolios with thousands of units. Most self-storage facilities offer a variety of unit sizes, with both climate-controlled and nonclimate-controlled units.

Key Considerations for Self-Storage Properties

The following considerations apply to self-storage properties.

Security: Is the perimeter of the property fenced and does a gate limit access to the property?

Management: Is there 24-hour on-site management?

Climate control: What percentage of the units are climate controlled?

Ancillary services: Many self-storage facilities sell boxes and packing materials, and/or offer truck rentals and outdoor storage for boats and recreational vehicles.

Competition: Are there competing facilities nearby?

Nearby undeveloped land: Self-storage is one of the least expensive commercial property types to develop. Undeveloped land nearby could be a potential site for new competition.

Location: Is the property easily accessible from residential neighborhoods?

Adjustments to Issuer's Underwriting: Gross Potential Revenue

The following will be included in the assessment of gross potential revenue for self-storage facilities:

- Base rent is the contractual income from the current rent roll;
- Vacant units are grossed up at the weighted-average in-place rent; and
- Ancillary income from boxes, packing materials, and truck rentals will be discounted from historic averages and is usually limited to 15% of gross revenue.

Operating Expenses and Adjustments

- Underwritten expenses will be based on historic averages and will be compared to industry averages for consistency. The standard management fee will be underwritten as the greater of 4% of effective gross income and the actual management fee.

Replacements Reserves

Reserves for replacements will be underwritten at \$0.10/sq. ft. as the minimum reserve amount. This requirement may vary based on the age of the property and the recommendation of the property condition report.

Self-Storage Capitalization Rates

The capitalization rate that Standard & Poor's applies to the net cash flow of a self-storage property is a function of the property's age, condition, percentage of climate-controlled units, and current and potential future competition. Table 19 shows the range of capitalization rates that are used for self-storage properties. The range is a general guideline. Standard & Poor's actual capitalization rates are based on the individual property's characteristics and may fall outside these ranges.

Table 19

Self-Storage Capitalization Rates

Property type	Capitalization rate range (%)
Self-storage	10.5-11.5

Ground Lease Guidelines

Mortgage loans that are secured only by the borrower's fee interest in a property are sometimes included in CMBS transactions. In these instances, the borrower has no economic interest in either property improvements or the property's net cash flow prior to a ground lease default or expiration of the ground lease. However, a ground lease default is unlikely during the term of the loan. This is due to the relatively small cost of ground rent, and the major impact such a default would have upon the ground tenant, which could lose the valuable improvements to the ground lessor if the default is not cured.

For this reason, Standard & Poor's ground lease analysis focuses on the borrower's ability to pay debt service during the term of the loan and to refinance the loan at maturity rather than on the value of the fee interest. DSC is determined using a stressed refinance rate applied to the actual loan balance and the actual ground rent that will be payable at the maturity date.

DSC is determined by dividing the actual ground rent at maturity by the stressed debt service. The loan is then sized based on the DSC at each rating category (*see table 20*). All ground leases analyzed in this manner must meet Standard & Poor's ground lease criteria as summarized later in this publication. A more complete description of the ground lease criteria is contained in the Standard & Poor's publication entitled *U.S. CMBS Legal and Structured Finance Criteria*, which can be found at www.standardandpoors.com in the Credit Ratings Criteria section.

Table 20

Ground Lease Thresholds

Rating level	DSC* (x)
AAA	1.45
AA	1.35
A	1.20
BBB	1.05
BBB-	1.00

*DSC-Debt service coverage.

Insurance Criteria for CMBS Transactions

The following is intended as a general outline of Standard & Poor’s insurance criteria for CMBS transactions. A more complete description is contained in the Standard & Poor’s publication entitled *U.S. CMBS Legal and Structured Finance Criteria* which can be found at www.standardandpoors.com under “Credit Ratings Criteria”.

Minimum Requirements

As is typical in real estate lending, a borrower is required to maintain various types of insurance on the property in appropriate amounts to protect against losses and preserve the lender’s security in the asset. This requirement is no different for securitized commercial mortgage loans. Since certificateholders rely on the cash flow generated from the property to meet debt service, any disruption in payments due to an uninsured loss could result in losses to the pool. Moreover, the financial strength of the insurance carrier is also important, because the insurer’s ability to pay as promised is relied upon as security for the loan. Insurance coverage typically includes, at a minimum, fire and casualty (including acts of terrorism), general liability, and rental interruption insurance. Flood, windstorm, and earthquake coverage may also be required, depending on the location of the property.

The minimum insurance requirements for any property that is included in a CMBS transaction will vary based on the size of the loan and the type of securitized transaction. The requirements for single-borrower and/or large loan transactions are more stringent because of the lack of diversity and the reliance on a single property or small group of properties for the cash flow required to pay certificateholders. Conversely, the requirements for a typical CMBS conduit loan may be less stringent, primarily due to the diversity benefit and homogeneity of traditional conduit pools. As a result, a casualty on a single loan, providing it does not represent a significant percentage of the pool, does not result in a total disruption of payments to certificateholders.

For the purposes of this discussion, large conduit loans are generally those that are greater than or equal to \$35 million, while small conduit loans are typically less than \$35 million. However, some conduit loans totaling less than \$35 million may be subject to more stringent, single-borrower criteria if they represent 5% or more of the pool.

Qualified Insurers

Large loans in conduits, pools, and single-borrower transactions. Insurers providing large loan/single-borrower coverage for fire and casualty protection, earthquake flood, and rental interruption insurance should have minimum ratings that are no more than two categories less than the highest rating outstanding on the transaction. However, at no time should the carrier's rating fall below 'BBB', regardless of the then-outstanding rating on the transaction. The ratings of insurance providers of coverage against losses due to liability, workers' compensation, and boiler and machinery claims should be no more than two categories less than the highest rating outstanding on the transaction, but in no event should the rating be less than 'BBB'.

Small loans in conduits. Insurers providing all levels and types of coverage for small conduits loans should have minimum ratings of 'BBB' at all times during the life of the loan.

The borrower is expected to maintain coverage during the life of the loan and this requirement should appear as a covenant in the security documents representing ongoing borrower obligations. All policies should have a clause in favor of the lender, stating that there can be no changes, including modifications, amendments, and cancellations to the policy, without 30 days prior written notice to the lender. In addition, the insurance coverage may not be subject to restrictions or limitations in coverage of any kind resulting from the mortgaged property being insured together with mortgaged property that is not securitized. All exclusions not standard and customary to the industry are subject to Standard & Poor's review and approval.

Servicer Insurance Policies

An additional responsibility of the servicer in a CMBS transaction is to ensure that the borrower maintains insurance on each mortgaged property in a CMBS transaction. If the borrower fails to maintain the insurance, or the property becomes REO, the servicer is obligated to obtain insurance covering the property. Servicers typically fulfill this requirement by obtaining a blanket insurance policy that covers all properties in the transaction. Generally, the insurance provider under the servicer's blanket policy must have a financial strength rating that is at least 'BBB' for conduit pools and at least 'A' for pools that contain large loans.

Errors and Omissions Insurance and Fidelity Bonds

Each servicer, master servicer, special servicer, subservicer, and trustee in a CMBS transaction is required to maintain a fidelity bond and an insurance policy covering any loss occasioned by errors and omissions of its officers and employees in connection with its servicing and/or trustee obligations under the terms of the documents. All fidelity bonds and errors and omissions insurance must be issued in favor of the trustee by insurance carriers whose financial strength ratings are no lower than two rating categories below the highest rated security then outstanding on the transaction, but in no event can the carrier's rating be less than 'BBB'.

Group Coverage

From time to time, insurance coverage for a property is provided by a group of insurers that share the risks of the insured in an effort to reduce the individual maximum possible loss that they may incur. The qualified insurers outlined earlier will apply as well as the following standards:

- The first layers of coverage should be provided by carriers with a minimum rating of 'BBB' for conduit loans and no less than two rating categories below the highest rated security outstanding for large loan and single-borrower transactions.
- If the syndicate consists of five or more members, then at least 60% of the insured amounts should be provided by carriers that are rated at least 'BBB' by Standard & Poor's for small conduit loans. Large loans and single-borrower transactions should have at least 60% of the insured amounts covered by carriers that are rated no less than two rating categories below the then-highest rating of the transaction and all carriers must be rated at least 'BBB'.
- If there are four or fewer members of the syndicate, at least 75% of the coverage amounts should be provided by carriers whose ratings are at least 'BBB' by Standard & Poor's for small balance conduit loans. Large loans and single-borrower transactions should have at least 75% of their coverage provided by carriers that are rated no less than two rating categories below the then-highest rating of the transaction.
- Coverage that is provided under a blanket insurance policy should detail the allocated coverage amounts, deductibles, and per occurrence limits for each securitized property for each type of coverage that is provided.

Deductibles

The sum of any one or all deductibles across all types of coverage, including flood, windstorm, and earthquake, should not exceed 5% of the insured property's net cash flow, based on the Standard & Poor's underwriting. Reserves may be required if these deductibles exceed the 5% threshold, because a high deductible, like any unanticipated cost, and the borrower's inability to meet the deductible in the event of a casualty, heighten the risk of a default on the loan. The types and levels of all coverage and other pertinent information outlined below will be subject to review and approval by Standard & Poor's.

Types of Coverage: Fire, Casualty, and Other Extended Coverage Insurance

The property insurance coverage should be equivalent to the "special cause of loss" form, including coverage for steam pressure explosion, flood, and earthquake losses. The amount of insurance coverage should be the then-full replacement cost of the property, including costs associated with "civil or ordinance of law" requirements and without any deductions for depreciation.

As a result, the trustee should be ensured of receiving enough funds to pay off the loan if, for example, the amount of damage triggers a termination clause in a major tenant's lease and the tenant opts to exercise its termination right. It is the borrower's responsibility to provide evidence of the maximum possible loss that may result from catastrophic perils that have been insured against.

In addition, the policy should show the lender as an additional insured, and coverage provided should be sufficient to ensure that the insurer would not consider the borrower a co-insurer under the policies. The policy should show an agreed value clause that should be updated annually. The insurance coverage may not be subject to restrictions or limitations in coverage of any kind that result from the mortgaged property being insured together with mortgaged property that is not securitized. All exclusions not standard and customary to the industry are subject to review and approval.

Business Interruption and Loss of Rents Insurance

Rental interruption or loss of income insurance should cover a minimum period of:

- 12 months for small conduit loans, and
- 18 months for loans in single-borrower transactions, large loans in conduits, fusion pools, and large loan transactions.

Rental interruption coverage should provide protection against loss of income resulting from direct physical loss to the mortgaged property and indirect loss that may significantly jeopardize revenue. These losses should be regardless of cause, with limits of liability sufficient to sustain expected income for the mortgaged property had the loss not occurred. The loss of income analysis should include all rents, all additional rents, including percentage rents, if applicable, payable by tenants under the leases. Co-insurance penalties should be waived or completely avoided. In addition, extra expense protection should be provided at limits that are adequate to sustain expected income.

Liability Coverage

The borrower should maintain commercial general liability and umbrella coverage with provisions and limits of liability that are customary to the applicable industry and property type, which adequately protect the interests of the borrower and the trustee, on behalf of the holders of the rated securities. Coverage levels should be adequate for what is customary for the property type and the industry. Director's and officer's professional liability insurance should be carried in adequate amounts, as applicable.

Workers' Compensation and Statutory Coverages

The borrower should carry workers' compensation insurance as required by law, along with adequate limits of employer's liability and U.S. Longshore and Harbor Workers' Coverage, if applicable. In addition, all other insurance coverage that the borrower is or may be required to carry by law should be provided.

Boiler and Machinery

Comprehensive boiler and machinery coverage is required on all mechanical equipment that would cause a disruption in revenue if rendered inoperable. The coverage provided should cover direct losses and consequential losses that could materially jeopardize revenue.

Flood

Insurance coverage should be provided where any part of the property is located in a zone identified by the Federal Emergency Management Agency (FEMA) as a special flood hazard under the National Flood Insurance Act of 1968, as amended. Coverage should equal the lesser of the principal balance of the loan or maximum amount of insurance that is available under current Federal Insurance Administration standards. An explanation of the maximum possible loss estimate must accompany the insurance documentation for all properties located in a federally designated flood zone. The information should be presented in a report prepared by a professional engineer. The engineer should include a resume detailing his/her experience and familiarity with the subject area and mortgaged property type. Standard & Poor's will review the report and may request additional information to assess the sufficiency of coverage.

Earthquake Insurance

Standard & Poor's typically requires earthquake insurance for any property that has a probable maximum loss (PML) greater than 20%. Coverage under the policy should be equal to the estimated damage costs. For example, if the replacement cost of a property is \$10,000,000 and the PML is 22%, the earthquake insurance amount should be at least \$2,200,000 ($\$10,000,000 \times 22\%$). Standard & Poor's may also require that properties located in seismic zones 3 and 4 with PMLs less than 20% be insured for earthquake risk if the LTV is greater than 90% of appraised value. Each earthquake insurance policy should have a maximum deductible of 5% and each insurer should have a Standard & Poor's insurer financial strength rating not lower than 'BBB'.

Environmental Insurance

If environmental insurance has been obtained, it should provide protection for preexisting, but undetected environmental contamination, and for liabilities resulting from contamination that occurs during the policy term. The insurance should cover preexisting and ongoing cleanup liabilities and associated costs, including defense costs and costs against the trust. The insurance should also protect the mortgaged property from potential "superfund" liabilities and all other state and federal environmental liabilities.

Coverage should be triggered by discovery of contamination rather than by governmental mandate. Multiple properties should each be covered with separate limits of liability.

If applicable, the insurance coverage should include protection for liabilities associated with the release of any contaminant that has been removed from a mortgaged property. Such insurance should cover third-party bodily injury, mortgaged property damage, and loss of use due to sudden or gradual releases of contaminants on an insured property.

Other Insurance

Coverage should be provided for any other types of insurance that are deemed necessary to the security of the property.

Documentation of Insurance Coverage

To assess accurately if the borrower's existing insurance meets Standard & Poor's guidelines, as described above, the following should be submitted to Standard & Poor's:

- A schedule of insurance supported by valid certificates and evidences of insurance;
- Copies of the property, general liability, boiler and machinery, workers' compensation, business interruption, environmental, and umbrella/excess policies;
- A schedule of locations with flood and earthquake zones listed for all properties covered under the policies, including the mortgaged property(s) being securitized; and
- A schedule of replacement cost values for all locations on the mortgaged property policy.

The borrower's insurance representative/broker should submit a statement verifying that the borrower's insurance meets Standard & Poor's standards, together with any recommendations made by the representative/broker for additional coverage as required. Any exceptions to Standard & Poor's insurance guidelines should be explained in writing and should be submitted together with all other documentation.

Standard & Poor's may seek the advice of an independent insurance consultant to confirm, determine, or assess the need or adequacy of coverage on a case-by-case basis. In such instances, the costs will be passed on to the issuer.

Ground Lease Requirements in CMBS Transactions

From time to time, the collateral in securitized CMBS transactions is a mortgage encumbering a borrower's rights as a tenant under a ground lease. In these instances, Standard & Poor's seeks to ensure that the presence of the ground leasehold interest does not introduce additional risks into the transaction that may result in the failure of the borrower to refinance the mortgage and pay off the related securities. As a result, any ground lease encumbered by a mortgage that is part of a CMBS transaction should include the following covenants and representations and warranties. These covenants and representations and warranties will be required under the ground lease, a lessor estoppel certificate, and the security documents, and should be the borrower's ongoing obligations for the life of the loan. The applicability of these representations and warranties will vary, depending on whether the ground lessor's fee interest is subordinated to the lien of the mortgage.

Lease Term

The ground lease term, including all lessee options, should extend at least 20 years beyond the term of the mortgage in the case of partially amortizing mortgages. A 20-year term enables the asset to attract a variety of refinancing lenders due to the long-term nature of the ground lease. In addition, a longer-term ground lease accommodates possible extensions in the mortgage term, if there is a lack of refinancing at the balloon date. For fully amortizing mortgages where the need to refinance a balloon mortgage is not a concern, the ground lease term should extend at least 10 years beyond the term of the mortgage. In the case of hyperamortizing mortgages, the ground lease term should extend at least 20 years beyond the anticipated repayment date, but the ground lease term cannot expire before the legal maturity date of the hyperamortizing loan.

Fee Encumbered/Subordination

The mortgage loan is also secured by the related fee interest in the mortgaged property or the mortgage, by its terms, is not subordinate to the lien of any other mortgage or other lien on the fee interest.

Borrower Event of Default

Upon an event of default by the borrower, the mortgagee has the right to foreclose or exercise its rights with respect to the fee interest in a commercially reasonable time.

Recording

The ground lease or a memorandum of it must be recorded, and the ground lease permits the interest of the lessee thereunder to be encumbered by the related mortgage, and there has not been a material change in the terms of the ground lease since recordation of the memorandum or the ground lease, with the exception of written instruments that are part of the related mortgage file.

No Senior Liens

Except for the permitted exceptions (*see box*), the ground lessee's interest in the ground lease is not subject to any liens or encumbrances superior to, or of equal priority with, the related mortgage, other than the related ground lessor's related fee interest.

Assignability of Ground Lease

The borrower's interest in the ground lease is assignable to the trustee upon notice to, but without the consent of, the lessor thereunder. If such consent is required, it must be obtained before the closing date. If the ground lease has been assigned, it is

Permitted Exceptions

The typical permitted exceptions to the exclusion of senior liens are:

- Leases in existence on the closing date and any leases entered into thereafter in accordance with the requirements of the loan documents;
- Liens for property taxes, assessments, vault charges, and water and sewer rent not yet due and payable;
- Easements, rights of way, restrictions, minor encroachments, or other similar encumbrances not impairing the marketability of the mortgaged property and not interfering with the use of the mortgaged property for uses permitted under the loan documents or in the ordinary conduct of the business of the borrower;
- Statutory liens of mechanics and material men imposed by law incurred in the ordinary course of business for sums not yet due or delinquent; provided however, that the borrower shall pay or bond and remove of record any mechanic's lien for sums that have come due; and
- Liens created by the loan documents.

further assignable by the trustee and its successors and assigns upon notice to, but without a need to obtain the consent of, such lessor.

No Default

As of the closing date, the ground lease is in full force and effect and no default has occurred under the ground lease and there is no existing condition that, but for the passage of time or the giving of notice, would result in a default under the terms of the ground lease.

Transfer Notices

To the extent required by any loan documents, or the ground lease, or the ground lessor estoppel certificate, all notices of the transfer of the loan to the trustee for the benefit of the certificateholders have been delivered or will be delivered contemporaneously with the closing of the securitized transaction.

Notice

The ground lease requires the lessor to give notice of any default by the lessee to the mortgagee; or the ground lease, or an estoppel letter received by the mortgagee from the lessor, further provides that notice of termination given under the ground lease is not effective against the mortgagee unless a copy of the notice has been delivered to the mortgagee in the manner described in the ground lease.

Cure

The mortgagee is permitted a reasonable opportunity (including, where necessary, sufficient time to gain possession of the interest of the lessee under the ground lease) to cure any default under the ground lease, which is curable after the receipt of notice of the default before the lessor may terminate the ground lease. This cure period should be a minimum of 30 days after the notice has been received by the mortgagee. This ability to cure helps to prevent a termination of the ground lease before the maturity of the rated securities.

New Lease

The ground lease requires the lessor to enter into a new lease upon termination of the ground lease for any reason, including rejection of the ground lease in a bankruptcy proceeding.

Insurance Proceeds

Under the terms of the ground lease and the related mortgage, taken together, any related insurance proceeds will be applied either to repair or restore all, or part, of the related mortgaged property, with the mortgagee or an appointed trustee having

the right to hold and disburse the proceeds as the repair or restoration progresses, or to the payment of the outstanding principal balance of the mortgage loan together with any accrued interest thereon.

Subleasing

The ground lease does not impose restrictions on subletting or assigning all or a part of the ground lessee's interest.

Amendments, Cancellations, Modifications, and Changes

No amendments, changes, cancellations, or modifications can be made to the ground lease without the consent of the mortgagee.

Appendix A

Sample Engagement Letter

Phase I, II, and III

Date

Name

Title

Address

City, State, Zip Code

Salutation:

This letter will serve to outline our agreement to undertake to rate the proposed commercial mortgage securities for and your obligations in connection with such undertaking.

The rating process will have three major phases, each comprised of several individual activities. An outline of each phase and the associated fees are listed below along with the approximate timing until completion. The rating process will begin once we have received a signed copy of this engagement letter along with a check for \$AMOUNT.

Phase I

Preliminary analysis, site visits, and management meeting.

Timing: weeks

Fee: \$AMOUNT (\$Amount paid in advance and nonrefundable)

Phase II

Engineering, environmental, financial reviews, and final debt sizing.

Timing: weeks

Fee: \$AMOUNT

Phase III

Analyze securities structure and review documentation and legal opinions.

Timing: weeks

Fee: \$AMOUNT

These are the minimum fees for each of the respective phases. We will bill you only for those phases that we commence. When the rating is issued, our fee is \$AMOUNT. Credit will be given for any billings paid in connection with Phases I, II, and III. In addition, you agree to reimburse us for legal expenses, including disbursements, whether or not a rating is issued and pay an annual fee for the ongoing maintenance and surveillance of the rating not to exceed \$AMOUNT. Legal expenses for this transaction are expected to be approximately \$AMOUNT.

Payment of any or all of the fees stated above is not conditioned on our issuance of any particular rating. Furthermore, should a rating not be issued for any reason whatsoever (including, without limitation, Standard & Poor's decision not to rate the proposed offering in accordance with its policies), you agree to compensate us based on our time, effort, and charges incurred in connection with performing Phases I, II, and III through the date upon which it is determined that a rating will not be issued.

In order to complete the rating process, we will need the items listed in Exhibits A and B. Exhibit A contains those loans for which we would like attorney-prepared legal loan summaries in the attached Standard & Poor's format, and Exhibit B contains additional collateral information requests that necessary to present the transaction to committee. If Exhibit A is not received by DATE, and Exhibit B and the final data tape in Standard & Poor's format are not received by DATE, we will not be able to determine our credit support levels by DATE.

At the time of issuance, the rating on the securities will reflect our current opinion of the creditworthiness of the collateral and the owner/operator. Standard & Poor's relies on the issuer, its counsel, accountants, and other experts for the accuracy and completeness of the information submitted in connection with the rating and surveillance process. We do not and cannot guarantee the accuracy, completeness, or timeliness of the information relied on in connection with the rating or the results obtained from the use of such information. We may raise, lower, suspend, or withdraw the rating at any time, at our sole discretion, in accordance with our policies. You hereby agree and acknowledge that Standard & Poor's may, at its option, issue and disseminate presale reports (pre-pricing) describing the transaction, the rationale for the rating, and the expected rating at closing. Standard & Poor's may forward drafts of the rationale to ensure the accuracy of the factual information included in the report and to ensure that no confidential information is released. The rating is neither a "market" rating nor a recommendation to buy, hold, or sell the securities. Furthermore, nothing in this letter agreement shall limit our right to publish, disseminate, or license others to publish or disseminate the rating, the rationale for the rating, or other data and information regarding the transaction either at the time of rating or thereafter, unless you specifically request that the rating be assigned and maintained on a confidential basis because the rated securities are being placed privately under relevant federal and state securities laws.

You further agree to provide us promptly with all information relevant to the rating and surveillance of the rating, including without limitation, information on material changes to information previously supplied to us. The rating may be affected by our opinion of the accuracy, completeness, timeliness, or reliability of information received from you. You agree to indemnify and hold us harmless from and against any and all losses, damages, liabilities, costs, charges, and expenses (including reasonable attorneys' fees) arising out of any claim related to the accuracy, completeness, timeliness, or reliability of information provided to us by you, your agents, counsel, experts, or advisors. We reserve the right to withdraw the rating at any time in accordance with our policies or if you fail to provide us with the accurate, complete, timely, or reliable information required by this agreement.

You understand and agree that we are not advisors to you and that you should not rely on advice from us. Nothing in this agreement is intended to or should be construed as creating a fiduciary relationship between us and you or between us and recipients of the rating. You understand and agree that we have not consented to, and will not consent to, being named an "expert" under the federal securities laws including, without limitation, Section 7 of the Securities Act of 1933.

Nothing in this agreement is intended or should be construed as creating any rights on behalf of any third parties.

This agreement shall be construed in accordance with the internal laws of the State of New York and such laws shall apply to any claim or action arising out of or otherwise related to this agreement or any rating issued by us.

Please have the appropriate individual sign this letter agreement and return it to me at your earliest convenience along with a check for \$AMOUNT payable to Standard & Poor's Ratings Group.

Thank you for your interest in our services, we look forward to working with you on this transaction.

Sincerely,

Name

Director

APPROVED AND ACCEPTED:

Name and Title

Name of Issuer

Date

Exhibit A

Loan Summary

Summary: A first mortgage loan in the amount of \$_____ (the “Loan”) from _____ (“Lender”) to _____ (“Borrower”), made pursuant to that certain Loan Agreement dated as of _____, 200__ between Lender and Borrower. The Loan is evidenced by a promissory note (the “Note”) and is secured, inter alia, by _____-_____ mortgages and deeds of trust (the “Deeds of Trust”) encumbering _____ properties (the “Properties”) owned in _____ by Borrower.

I. Parties

A. Borrower:

B. Lender: _____, a _____ corporation

II. Terms of the Loan

A. Amount of loan: \$_____

1. Future advances:

2. Cross-collateralization and cross default with other loans
(excluding the Loan):

B. Interest rate: identify the rate

1. Fixed:

2. Change in stated rate:

3. Payment in advance or arrears:

4. 360-day year versus 365-day year:

5. Default rate:

C. Term of loan

1. Term: The final maturity date of the Loan is _____.

2. Option to extend:

3. Option of Lender to call loan at earlier date:

D. Payments:

E. Prepayment:

F. Defeasance:

1. Describe terms of defeasance including prerequisites for defeasance, the nature of opinions to be delivered, and the type of defeasance collateral that may be acquired.

G. Personal liability:

1. Recourse versus nonrecourse:

2. Guarantee:

H. Use of funds:

I. Cash management/collection of rents/reserve accounts:

1. Cash management/collection of rents:

- a. Explain the lockbox features of the loan, including, type of accounts, sweeping features, and the party (i.e., borrower, tenant, or manager) that deposits into the lockbox account.

2. Reserve accounts:

- a. Describe types of accounts and the use of the deposits in such accounts.

J. Eligible account and permitted investments:

1. Definitions: The loan documents contain the following definition of Eligible Accounts and Permitted Investments:

2. Accounts that must be eligible accounts:

III. Parties

- A. Real estate.
B. Security agreement.
C. Additional collateral.

IV. Lien Priority

- A. Lien priority.
B. Permitted exceptions.
1. Define.
2. The loan documents contain a representation that none of the “permitted exceptions” will materially and adversely affect the ability of the Borrower to pay in full the Loan, the use of the properties for the use currently being made thereof, the operation of the properties, or the value of the properties.
C. Trade payables. In how many days is the Borrower required to pay its trade payables? What is the cap on the amount of trade payables that the Borrower may have at any given point in time?

V. Representations and Warranties

1. Survival after closing:
2. Identity of party making representations and warranties:
3. Consequence of breach of representation and warranty:
4. Identify representations that are typical in a commercial mortgage transaction but are missing:
5. Identify representations that are unique to the transaction (i.e., nursing home representations; ground lease representations):

VI. Insurance

- A. Type and amounts:
 - a. Physical hazard:
 - b. Flood insurance:
 - c. Earthquake:
 - d. Rental value or business interruption:
 - e. Broad form comprehensive general liability insurance:
 - f. Boiler and machinery:
 - g. Builder's risk insurance:
 - h. Worker's compensation:
 - i. Catch all:
- B. Company and rating requirements:
- C. Loss payee, mortgagee clause, or endorsement:
- D. Casualty and condemnation proceeds:
 - 1. Insurance policies and condemnation proceeds assigned as part of collateral package:
 - 2. Settlement of insurance claims and condemnation awards:
 - 3. Use of proceeds upon a taking or casualty:
 - Insurance: Identify circumstances in which Borrower is entitled to receive insurance proceeds and the mechanics of distribution of such proceeds. Identify circumstances in which the insurance proceeds are applied to the debt.
 - Condemnation: Identify circumstances Borrower is entitled to receive insurance proceeds and the mechanics of distribution of such proceeds. Identify circumstances in which the condemnation proceeds are applied to the debt.
 - 4. Borrower required to restore:

VII. Loan Documents

- A. Loan documents:

VIII. Provisions to Be Considered in Loan Documents

- A. Management; termination of manager:
 - 1. Terms of management:
 - 2. Collateral assignment of the management agreement:
 - 3. Termination of manager/requirements of replacement manager:
 - 4. Identify manager and whether it is related to the Borrower:
- B. Financial covenants:
- C. Transfer:
 - 1. Interest in borrower:
 - 2. Interest in property:

- D. Events of default and grace periods:
- E. Legal remedies:
- F. Legal fees—is borrower liable for legal fees in disputes and exercise of remedies?
- G. Governing law:

Part II

Summarize compliance of the Borrower with the special-purpose entity (SPE) requirements set forth in Standard & Poor’s criteria book (*Structured Finance Ratings Real Estate Finance*, pages 112-117).

Part III

Identify any provisions that would seem unusual in a loan of this kind.

Part IV

Is there preferred equity or mezzanine financing? If so, please describe the terms of such equity/financing including, but not limited to, the holder of the equity/financing, the terms of such financing, the terms of any cash management, and any control rights held by the holder of the equity/financing.

Exhibit B

Collateral Information

Top 10 related borrower concentrations. Include sponsor name, borrowing entity name, property name, and cutoff loan amounts.

Loans with cash management features. Include the property name, cutoff loan balance, type of cash management (hard vs. modified lockbox), and if the feature is in-place or springing. If cash management is springing, note the triggers.

Loans with ongoing reserves for taxes, insurance, capital expenditures, leasing commissions, and tenant improvements by each category. List loan name, cutoff principal balance, reserve amounts, and separately indicate over what period escrows are collected. (e.g., monthly or quarterly).

Loans with up-front reserves for tenant improvements, leasing commissions, required repairs, and environmental issues by each category. List loan name, cutoff principal balance, and the amounts and type of reserve.

Loans with SPE borrowers, nonconsolidation opinions, and independent directors. List loan name, cut-off principal balance, and features that apply to the borrowing entity.

Loans with secondary financing. Include loans that have secondary debt and loans that have the ability to incur secondary debt. List the property name, cutoff principal balance of the first mortgage, the type of secondary debt (e.g., second mortgage, affiliate debt, mezzanine loan, or preferred equity), and the amount of the secondary debt.

Are secondary debt payments paid out of excess cash flow? Does the holder of the secondary debt have the ability to foreclose? Is rating agency confirmation required to transfer or increase the secondary debt or foreclose on the collateral?

Loans that are structured as hyper-amortizing. Indicate property name, cut-off balance, anticipated repayment date, and loan balance at the anticipated repayment date.

Loans collateralized by properties located in earthquake zones 3 and 4. (These zones include all of California; the Seattle-Tacoma-MSA and the Puget Sound areas in Washington; Portland-MSA, Salem, Eugene, Oregon; Reno, Nevada; Salt Lake City-MSA, Utah; NE Arkansas; Western Tennessee, and SE Missouri.) List property name, cutoff balance, whether a seismic study was conducted, the type of seismic study, the result (e.g., PML % result), and whether earthquake insurance was obtained. Regarding the type of seismic study, indicate the exposure period that was studied to determine the PML

Loans secured by leasehold mortgages. Indicate property name, cutoff balance, the term of the ground lease, whether or not the ground lease is subordinate, the term and expiration date of the ground lease, and whether or not there are notice and cure provisions.

Loan seasoning. What percentage of the outstanding pool balance of loans have been originated the past 12 months? The past 24 months? List loans that have been seasoned for more than two years.

Credit lease loans. List all credit lease loans, including the property name and cutoff principal balance. In the event the number of credits exceeds 10, we may require additional information.

Agreed-upon procedures. List loans where an accountant's agreed-upon procedure has been performed; include property name and cutoff loan balance.

Windstorm and flood insurance. List the assets that have windstorm insurance or flood insurance; include property name and cutoff balance.

Borrower bankruptcies. List loans that are to borrowers, principals of borrowers, affiliates, or sponsors of borrowers that have previously filed for bankruptcy or are in bankruptcy. List the loan name, the cutoff principal balance, the structure of the borrowing entity (e.g., SPE, bankruptcy remote, independent director), and what cash management mechanisms are in-place.

Loan participations. List any loans that are participation interests. Include property name, the cut-off balance of the portion of the loan that will be included in this pool, and what is the plan for the remaining participation interest. (If the remaining participation interest was included in another securitized transaction, please provide details on the full name and date of the transaction and whether the deal was rated by Standard & Poor's.)

Variable interest rate loans. List any loans that have variable interest rates. What are the interest rates (base plus spread)? Have caps been purchased? If so, what is the interest rate cap? When does it expire? What is the name and rating of the institution that provides the interest rate cap?

Environmental reports. Provide a summary of all environmental reports. This summary should include the property name, address, city, state, consultant, reports completed (e.g., Phase I, Phase II), date of reports, what issues were found on and off site, how these issues were addressed, further action needed, and escrows established to address issues.

Follow-up environmental reports. List all loans (include property name and cutoff balance) where a Phase II was recommended but not performed.

Structural reports. Provide a summary of all structural reports. This summary should include property name, consultant, date of the report, what issues were identified, the cost of the recommended immediate repairs, how the immediate repairs were addressed (e.g., escrows established or repairs completed), annual replacement reserve per unit/per square foot, and the term covered by the report.

Third-party report site inspections. Have all third party evaluations included a site inspection (e.g., PML, structural, and environmental reports)?

Third-party report age. List assets that have third party reports that were performed more than one year ago.

Representations and warranties. Please provide the securitization's representations and warranties as well as the exceptions to the representations and warranties.

Tenant concentration. List the number of mortgage loans that are secured by mortgage properties that are leased to single tenants (if not already listed in #11). In addition, list the number of mortgage loans that are secured by mortgage properties where the term of the related lease expires before the maturity date of the related mortgage loan.

Carveouts. Please provide a list of loans that do not have "warm body" carveouts (loans where the carveout guarantor is to an entity, not an individual).

Where applicable, please total loan and reserve balances. If possible, please provide the collateral information in both hard copy and electronic format.

Appendix B

Sample Rating Letter

Long-Term Debt and Pass-Through Certificates—(A)

Date of Rating

Name

Title

Company

Address

City, State, Zip Code

Re: Amount of Issue & Name

Salutation:

Pursuant to your request for a rating on the above-captioned issue, we have reviewed the information presented to us and have assigned the rating of ‘ ’ to these securities. If you have any questions relative to the rating we will be pleased to answer them.

Please be sure to send us blacklined copies of the executed final documentation as soon as it becomes available, along with a letter indicating all changes have been so marked. Should final papers not be received within a reasonable amount of time after the closing, we reserve the right to withdraw our rating.

We will maintain ongoing rating surveillance on the above-captioned securities in accordance with Standard & Poor’s policies and procedures. Rating adjustments may result from a change in the financial position of the Trustee as back-up liquidity provider. To maintain our rating surveillance, we must receive all reports submitted to the Trustee in regard to the above-captioned issue and all publicly distributed financial information. The absence of such data may result in the withdrawal of our rating. Please send all reports to the attention of:

— or —

We will maintain ongoing rating surveillance on the above-captioned securities in accordance with Standard & Poor’s policies and procedures. Rating adjustments may result from a change in the financial position of the Trustee as backup liquidity

provider, any of the credit lease tenants (or related guarantors), the provider of the credit lease enhancement policy, or the residual value insurance policy.

To maintain our rating surveillance, we must receive all reports submitted to the Trustee in regard to the above-captioned issue and all publicly distributed financial information. The absence of such data may result in the withdrawal of our rating. Please send all reports to the attention of:

Standard & Poor's Ratings Services
55 Water Street
New York, NY 10041
Attention: Commercial Mortgage Surveillance Group Manager

Placing us on a mailing list for these reports would facilitate the process. Standard & Poor's relies on the issuer and its counsel, accountants and other experts for the accuracy and completeness of the information submitted in connection with the rating.

This letter constitutes Standard & Poor's permission to you to disseminate the above-assigned rating to interested parties. You understand that Standard & Poor's has not consented to, and will not consent to, being named an "expert" under the federal securities laws, including without limitation, Section 7 of the Securities Act of 1933. In addition, it should be understood that the rating is neither a "market" rating nor a recommendation to buy, hold, or sell these securities.

Standard & Poor's reserves the right to advise its own clients, subscribers, and the public of the rating.

We are pleased to have had the opportunity to be of service to you. Our bill for the analytical work performed on this financing will be sent to you within a month. If we can be of further assistance, please do not hesitate to call upon us.

Very truly yours,

Kim S. Diamond
Managing Director

Appendix C

Standard & Poor's Issue Credit Rating Definitions

A Standard & Poor's issue credit rating is a current opinion of the creditworthiness of an obligor with respect to a specific financial obligation, a specific class of financial obligations, or a specific financial program (including ratings on medium-term note (MTN) programs and commercial paper (CP) programs.) It takes into consideration the creditworthiness of guarantors, insurers, or other forms of credit enhancement on the obligation and takes into account the currency in which the obligation is denominated. The issue credit rating is not a recommendation to purchase, sell, or hold a financial obligation, inasmuch as it does not comment as to market price or suitability for a particular investor.

Issue credit ratings are based on current information furnished by the obligors or obtained by Standard & Poor's from other sources it considers reliable. Standard & Poor's does not perform an audit in connection with any credit rating and may, on occasion, rely on unaudited financial information. Credit ratings may be changed, suspended, or withdrawn as a result of changes in, or unavailability of, such information, or based on other circumstances.

Issue credit ratings can be either long term or short term. Short-term ratings are generally assigned to those obligations considered short-term in the relevant market. In the U.S., for example, that means obligations with an original maturity of no more than 365 days—including CP. Short-term ratings are also used to indicate the creditworthiness of an obligor with respect to put features on long-term obligations. The result is a dual rating in which the short-term rating addresses the put feature, in addition to the usual long-term rating. MTNs are assigned long-term ratings.

Long-Term Issue Credit Ratings

Issue credit ratings are based, in varying degrees, on the following considerations:

- Likelihood of payment—capacity and willingness of the obligor to meet its financial commitment on an obligation in accordance with the terms of the obligation;
- Nature and provisions of the obligation; and
- Protection afforded by, and relative position of, the obligation in the event of bankruptcy, reorganization, or other arrangement under the laws of bankruptcy and other laws affecting creditors' rights.

The issue rating definitions are expressed in terms of default risk. As such, they pertain to senior obligations of an entity. Junior obligations are typically rated lower than senior obligations to reflect the lower priority in bankruptcy, as noted above. (Such differentiation applies when an entity has both senior and subordinated obligations, secured and unsecured obligations, or operating company and holding company obligations.) Accordingly, in the case of junior debt, the rating may not conform exactly with the category definition.

AAA

An obligation rated 'AAA' has the highest rating assigned by Standard & Poor's. The obligor's capacity to meet its financial commitment on the obligation is extremely strong.

AA

An obligation rated 'AA' differs from the highest rated obligations only by a small degree. The obligor's capacity to meet its financial commitment on the obligation is very strong.

A

An obligation rated 'A' is somewhat more susceptible to the adverse effects of changes in circumstances and economic conditions than obligations in higher rated categories. However, the obligor's capacity to meet its financial commitment on the obligation is still strong.

BBB

An obligation rated 'BBB' exhibits adequate protection parameters. However, adverse economic conditions or changing circumstances are more likely to lead to a weakened capacity of the obligor to meet its financial commitment on the obligation.

Non-Investment-Grade Ratings

Obligations rated 'BB', 'B', 'CCC', 'CC', and 'C' are regarded as having significant speculative characteristics. 'BB' indicates the least degree of speculation and 'C' indicates the highest. While such obligations will likely have some quality and protective characteristics, these may be outweighed by large uncertainties or major exposures to adverse conditions.

BB

An obligation rated 'BB' is less vulnerable to nonpayment than other speculative issues. However, it faces major ongoing uncertainties or exposure to adverse business, financial, or economic conditions that could lead to the obligor's inadequate capacity to meet its financial commitment on the obligation.

B

An obligation rated 'B' is more vulnerable to nonpayment than obligations rated 'BB', but the obligor currently has the capacity to meet its financial commitment on the obligation. Adverse business, financial, or economic conditions will likely impair the obligor's capacity or willingness to meet its financial commitment on the obligation.

CCC

An obligation rated 'CCC' is currently vulnerable to nonpayment, and is dependent upon favorable business, financial, and economic conditions for the obligor to meet its financial commitment on the obligation. In the event of adverse business, financial, or economic conditions, the obligor is not likely to have the capacity to meet its financial commitment on the obligation.

CC

An obligation rated 'CC' is currently highly vulnerable to nonpayment.

C

A subordinated debt or preferred stock obligation rated 'C' is CURRENTLY HIGHLY VULNERABLE to nonpayment. The 'C' rating may be used to cover a situation where a bankruptcy petition has been filed or similar action taken, but payments on this obligation are being continued. A 'C' also will be assigned to a preferred stock issue in arrears on dividends or sinking fund payments, but that is currently paying.

D

An obligation rated 'D' is in payment default. The 'D' rating category is used when payments on an obligation are not made on the date due even if the applicable grace period has not expired, unless Standard & Poor's believes that such payments will be made during such grace period. The 'D' rating also will be used upon the filing of a bankruptcy petition or the taking of a similar action if payments on an obligation are jeopardized.

Plus (+) or minus (-)

The ratings from 'AA' to 'CCC' may be modified by the addition of a plus or minus sign to show relative standing within the major rating categories.

r

This symbol is attached to the ratings of instruments with significant noncredit risks. It highlights risks to principal or volatility of expected returns which are not addressed in the credit rating. Examples include: obligations linked or indexed to equities, currencies, or commodities; obligations exposed to severe prepayment risk—such as interest-only or principal-only mortgage securities; and obligations with unusually risky interest terms, such as inverse floaters.

N.R.

This indicates that no rating has been requested, that there is insufficient information on which to base a rating, or that Standard & Poor's does not rate a particular obligation as a matter of policy.

Short-Term Issue Credit Ratings

A-1

A short-term obligation rated 'A-1' is rated in the highest category by Standard & Poor's. The obligor's capacity to meet its financial commitment on the obligation is strong. Within this category, certain obligations are designated with a plus sign (+). This indicates that the obligor's capacity to meet its financial commitment on these obligations is extremely strong.

A-2

A short-term obligation rated 'A-2' is somewhat more susceptible to the adverse effects of changes in circumstances and economic conditions than obligations in higher rating categories. However, the obligor's capacity to meet its financial commitment on the obligation is satisfactory.

A-3

A short-term obligation rated 'A-3' exhibits adequate protection parameters. However, adverse economic conditions or changing circumstances are more likely to lead to a weakened capacity of the obligor to meet its financial commitment on the obligation.

B

A short-term obligation rated 'B' is regarded as having significant speculative characteristics. The obligor currently has the capacity to meet its financial commitment on the obligation; however, it faces major ongoing uncertainties that could lead to the obligor's inadequate capacity to meet its financial commitment on the obligation.

C

A short-term obligation rated 'C' is currently vulnerable to nonpayment and is dependent upon favorable business, financial, and economic conditions for the obligor to meet its financial commitment on the obligation.

D

A short-term obligation rated 'D' is in payment default. The 'D' rating category is used when payments on an obligation are not made on the date due even if the applicable grace period has not expired, unless Standard & Poor's believes that such payments will be made during such grace period. The 'D' rating also will be used upon the filing of a bankruptcy petition or the taking of a similar action if payments on an obligation are jeopardized.

Local Currency and Foreign Currency Risks

Country risk considerations are a standard part of Standard & Poor's analysis for credit ratings on any issuer or issue. Currency of repayment is a key factor in this analysis. An obligor's capacity to repay foreign currency obligations may be lower than its capacity to repay obligations in its local currency due to the sovereign government's own relatively lower capacity to repay external versus domestic debt. These sovereign risk considerations are incorporated in the debt ratings assigned to specific issues. Foreign currency issuer ratings are also distinguished from local currency issuer ratings to identify those instances where sovereign risks make them different for the same issuer.

CreditWatch

CreditWatch highlights the potential direction of a short-or long-term rating. It focuses on identifiable events and short-term trends that cause ratings to be placed under special surveillance by Standard & Poor’s analytical staff. These may include mergers, recapitalizations, voter referendums, regulatory action, or anticipated operating developments. Ratings appear on CreditWatch when such an event or a deviation from an expected trend occurs and additional information is necessary to evaluate the current rating. A listing, however, does not mean a rating change is inevitable, and whenever possible, a range of alternative ratings will be shown. CreditWatch is not intended to include all ratings under review, and rating changes may occur without the ratings having first appeared on CreditWatch. The “positive” designation means that a rating may be raised; “negative” means a rating may be lowered; and “developing” means that a rating may be raised, lowered, or affirmed.