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Single Family Rental CMBS Evaluation

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Executive Overview

The standard approach to CMBS evaluation is to establish the sustainable net cash flow, asset value, debt service coverage and LTV under a range of stress criteria. Then calculate the probability of default and potential losses for the security during its term and on maturity. CMBS backed by single-family assets are difficult to evaluate due to the lack of historical data for individual properties and the asset class in general.

Visulate has developed a computer-based model to address the lack of historical data. It estimates the net operating income (NOI) for one or more single-family rental properties. The model is data driven. It uses property tax records and data from the US Census. The model has been tested using 4.9 million single-family residences in Florida. It could be extended to cover any property in the United States.

Introduction

Most CMBS ratings methodologies start by calculating the NOI and sustainable net cash flow for each property. A cap rate is applied to the NOI to establish the value of each property and then a series of stress tests are applied to determine the sustainable net cash flow, debt service coverage and leverage level under a range of scenarios. These are used to determine the probability of default (PD) during the term of the security and on its maturity. An estimate of the loss given default is calculated and used to identify the probable loss for each of the scenarios.

All of these calculations drive off the sustainable net cash flow estimate. This value can be produced with a reasonable degree of accuracy for most types of commercial property. A typical securitization will involve a relatively small number of properties. A detailed analysis can be performed on each one. Most properties will have historical performance data and any that don't can be compared to similar properties that do.

A security backed by single-family rental properties is likely to involve thousands of assets. It would be cost prohibitive to conduct a detailed analysis on each one. None of the properties will have historical data to indicate their performance as a rental. Many will have been owner occupied or vacant due to foreclosure prior to their use as a rental. Statistical analysis will be required to validate numbers and assumptions provided by the sponsor of the offering.

Single Family Rental Properties

Single-family rental properties are houses that are owned by real estate investors and operated for their rental income. These investors can be individuals or companies. The single-family rental market is dominated individual "mom and pop" investors. Private equity firms started buying single-family rental properties in late 2011. They aggregate properties in to investment pools. Most of their investments are located in a handful of metropolitan areas. They have a significant but not dominant presence in these markets. Most single-family rentals are owned and operated by individuals.

The market value for a single-family residence (SFR) is not necessarily related to its capitalized NOI. An owner occupant will often pay more for a given property than an investor who wants to use it as a rental. As a result real estate investors have traditionally focused on low-end properties where there is less competition from owner occupants. The foreclosure crisis and tight credit conditions in recent years changed that. Real estate investors have been able to purchase mid-market SFRs at or below their income value. Many of them have a business plan that assumes above average house price appreciation (HPA) and a "retail exit" to an owner occupant.

The probability of default on maturity of a SFR based CMBS will increase if HPA is lower than anticipated. This could happen if the security is based on low-end properties. These are the properties that traditionally sold to investors based on their income value. Their HPA may not track the general market. It is important to identify the asset mix for SFR based CMBS.

SFRs can be classified into 4 letter grades summarized below:

Class	Property Profile
A	High-end, high quality construction
B	Mid-market, recent construction, good condition
C	Low-end, 30 years or older in serviceable condition*
D	Any of the above (but typically a C) in the wrong part of town

* Property must be in serviceable condition or better for use as a rental property

Most single-family rentals fall in the B, C and D classes. Cash flow models should assume higher vacancies and bad debt expenses for C/D class properties in comparison to B's. Lower property tax expenses may offset this.

SFR Analysis and Evaluation Criteria

INCOME:

Residential rental leases are typically short-term (less than 2 years). Individual properties are unlikely to have historical performance data that can be used as a basis for a cash flow analysis. Net cash flow should be calculated based on the current rent roll and validated using data from the Census Bureau's American Community Survey. The Census Bureau collects market rents, vacancy rates and household income for every community in the United States.

Gross Potential/Base Rent

- Current rent roll: Gross potential rent should be based on the trailing twelve-month period and historical rental collections data if available.
- Market rents: Census data and or other sources (e.g. Rent Range, Rent Metrics, Rent-O-Meter) should be used to validate values from the current rent roll.
- Above-market rents: If the aggregate weighted average rent is higher than the market, the rental income for the pool of properties should be adjusted downward.

Other Income

- Not generally significant for single-family rental properties

Credit Loss

- Varies by property class. C and D class properties should have a higher bad debt provision than A and B ones.

Vacancy

- This should be based on Census data.

EXPENSES:

Property Management Fees

- Industry standard practice is to charge 10% of rents collected and 50% of first month's rent for new leases. Some property managers will accept a lower commission. Managers that do this may charge fees for site visits and other tasks that are traditionally included in the 10%. These often return their expense ratio to around 10%.
- The management fee may be capped at a lower percentage if absolute dollar amount is large owing to high rental rates at the area where the property is located.
- PE funds and REITs often employ their own property managers in order to achieve economies of scale. This may allow management fee to be capped at a lower rate.

Capital Management Fees

- Include an allowance for management of committed capital if these fees are funded from ongoing operations. For example, a fund that charges 2% of committed capital for management would generate a \$200 monthly expense on a \$120K property purchased without leverage.

Operating Expenses

- Based on current actual expenses (real estate taxes, insurance and HOA) when possible.
- If not:
 - Estimates property tax based on assessed value and millage
 - Estimate insurance based on property size and location.
 - Make a per property allowance based on historical data from comparable portfolios.
- Remaining line items should be based on the most recent twelve month period
- Individual expenses and overall expense ratios should be consistent with comparable properties located in the same state.

Capital Expenditures/Replacement Reserves:

- An annual allowance should be budgeted for maintenance based on the size of the property.

- Large capital expenditures should be amortized over their expected life.

CAP RATE DETERMINATION

Cap rates should be adjusted to match the composition of the property portfolio. For example, a portfolio that is predominantly A and B class properties should be valued using a lower cap rate than one that is mostly Cs and Ds. Key factors to consider when evaluating the portfolio are:

Physical Characteristics/Condition

- Bedroom and bathroom count (3/2 is more desirable than 3/1)
- Garage capacity (2+ car garage is desirable)
- Garage converted to living space (undesirable)
- Age of asset (newer is better)
- Functional age of asset (a 20 year old property may be less desirable than newly renovated 30 year old one)
- Potential for lead paint and asbestos
- Type of construction (block construction is generally preferable to frame)
- General curb appeal

Location and Market

- Comparable sales of similar properties
- Demographics
 - Population/population growth/average household size
 - Median household income
 - Employment (major employers, stability, professional vs. blue collar)
 - Growth trends in area
- Rental rates vs. single family home prices in area
- Rental property supply and demand
- School district
- HOA Status
- Tenant or landlord friendly county

Financial Considerations

- HOA limits on percentage of rentals in a community
- Legal or other restrictions on rent
- Legal or other restrictions on tenant profile
- Analysis of turnover and tenant retention history

Property Management

- Experience with property-type
- Process for prospective tenants (pre-screening, reference checks, late payment)

EXIT STRATEGIES AND VALUATIONS

Many of the SFR rental funds that have formed in the last two years assume they will hold their properties for 5-years. At the end of that term they plan to sell the properties or convert the fund to a Real Estate Investment Trust (REIT). Most of the funds have concentrated on a small number of MSAs. This geographic concentration will make it difficult to sell the properties to retail clients in a short period of time without flooding the market. Many of these funds formed around the same time and have a 5-year term. As a result, the most likely exit for a fund that goes to term is REIT formation or bulk sale. PD maturity calculations should be based on the income value of the properties rather than replacement cost or brokers price opinions of their retail value.

Visulate Residential Rental Property Income Valuation

Visulate estimates the income value for a property using property tax and Census data. The American Community Survey collects data on household income and expenditure in the United States. The results are published in 1-year, 3-year, and 5-year Public Use Microdata Sample (PUMS) files. PUMS files reference Public Use Microdata Areas (PUMAs). These are non-overlapping areas that partition each state into areas containing around 100,000 residents. PUMS files provide coverage for all of the United States. Visulate combines these with property tax data to generate NOI and net cash flow estimates for single-family rental properties.

Visulate estimates the income value for a property by estimating the annual rent, subtracting the annual expenses and then applying a cap rate. The following table shows an example.

	Amount
Monthly Rent	1,034
Annual Rent per Sq Ft	10.00
Gross Annual Rent	12,411
Vacancies and Bad Debt	15%
Vacancies and Bad Debt Amount	1,862
Maintenance	644
HOA, Utilities and CAM	0
Property Taxes	1,256
Insurance	965
Management Fees	1,241
NOI	6,443
Cap Rate	7
Estimated Value	92,043

Income Estimates

Four separate models are used to estimate rent

- A *Household Income* estimate uses a combination of census data and property tax records. Each property is assigned a percentile based on its tax-assessed value. This percentile is used as a key to estimate the household income of the occupant. For example, if the tax assessed value places the property is in the 35th percentile in its region we use census data to find the 35th percentile of household incomes in the same region. The census data also reports the percentage of household income that people spend on rent in this region. We multiply income by the percentage to estimate the rent.
- The *Household Income - Renters* estimate performs a similar calculation based on the household income of renters rather than all households.
- The *Market Rents* estimate evaluates this property in comparison to rental properties in the area.
- The *Price/Ft* estimate uses the size of the property to estimate its rent.

Expense Estimates

- Census data is used to identify the vacancy percentage for the region where the property is located. A bad debt allowance is added to this. This allowance varies based on the property class. 'A' class properties are assigned a lower bad debt allowance than 'C' class properties.
- Maintenance costs are estimated using a price per sq ft value.
- HOA, Utilities and CAM are not estimated currently

- The property tax estimate uses the average millage rate for the county. It does not include adjustments for city or unincorporated areas
- Insurance estimates are based on the size and location of the property. They are not adjusted for age, flood zone or other risk factors
- Management fees are estimated as 10% of rents collected
- Cap rates are assigned based on the class of the property. Visulate uses property tax records to determine which class to place the property in.

NOI Estimation Detailed Logic

Visulate has assembled a database with details of every single-family property in Florida from tax records. Each property was assigned to its Public Use Microdata Area (PUMA). The properties were percentile ranked by their tax-assessed value. Visulate uses this percentile value as a key to read values from the 5-year American Community Survey (ACS) Public Use Microdata Sample (PUMS) data.

Each residential property is allocated 2 percentile values. The *puma_percentile* records the tax-assessed value percentile within the PUMA. The *rental_percentile* also records the tax assessed value percentile in the PUMA but limits the sample to properties where the mailing address of the owner is not the same as the property address (it's not owner occupied). The *puma_percentile* is used to estimate the household income. The *rental_percentile* is used to estimate the monthly rent.

Expense estimates for vacancies, maintenance and insurance are calculated using seed data that can be varied by PUMA. The model has been tested using 4.9 million single-family properties located in Florida. The model could be extended to cover properties anywhere in the United States.

Visulate uses property tax data assembled by the State of Florida's Department of Revenue. This data includes a numeric assessment for the condition of each property. This is used to determine the property class. The tax-assessed value is used as the basis for a ranking mechanism. It provides an objective assessment of the value for every property in each county. It is subject to independent review since homeowners can appeal their assessment. Each property record identifies its Census tract. This is used to allocate properties to PUMAs.

Property tax records for other States are available from commercial vendors. They could be imported into the Visulate model. A different ranking mechanism may be required in some States. For example California's Proposition 13 limits increases to the tax-assessed value of a property. An automated valuation model (AVM) should be used to rank California properties. The property class can be determined using valuation data if a condition assessment is not available. Properties with a low value per sq ft can be assumed to be C class. High values indicate A class. The zip-code of a property can be used instead of the Census tract if the tract is not available.