

Analysis of Distressed Commercial Mortgage Backed Securities (CMBS) Loans and Special Servicing – A Case Study

by

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Submitted to the Program in Real Estate Development in Conjunction with the Center for Real Estate in Partial Fulfillment of the Requirements for the Degree of Master of Science in Real Estate Development

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Massachusetts Institute of Technology

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ABSTRACT

The outbreak of the COVID-19 pandemic in late 2019 has largely impacted the global economy by changing every aspect of our living environment with limited social and economic activities throughout 2020. This unprecedented economic downfall exposed real estate properties to high risk of default, pushing the CMBS loans delinquency rate to 10.32% in June 2020. As such an economic halt is likely to prevail, it is expected that the Commercial Real Estate (CRE) market would experience more distress in terms of debt service. Thus, it is imperative to overview the CMBS securitization process, the servicing structure, and the workout scenarios in case of loan default in order to understand the complexity of the CMBS structure and better prepare appropriate measures or strategies in response to current market landscape. By having a case study on 666 Fifth Avenue in New York, this paper will analyze one of the most high-profile properties that was transferred to special servicing to review strategies to resolve financial distress.

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Introduction

The main purpose of this paper is to provide clear understanding of the complexity of the Commercial Mortgage Backed Securities (CMBS) and special servicing in case of default. This paper will start by analyzing the current landscape of the Commercial Mortgage Backed Securities (CMBS) market in terms of delinquency and overview the CMBS securitization process, the loan structure, the servicing structure, and possible workout scenarios in Part I. For the purpose of this paper, Part II will cover a case study on one of the most high-profile real estate transactions in the U.S. that fell into special servicing and went through the workout process: 666 Fifth Avenue in New York.

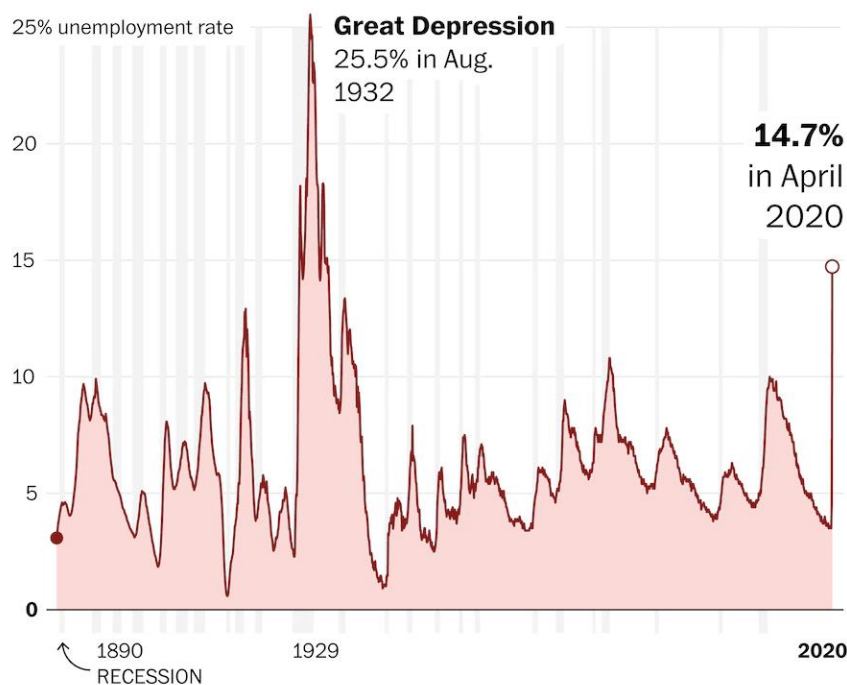
Part I. Overview of Commercial Mortgage-Backed Securities (CMBS)

Chapter 1. Delinquent CMBS Impacted by COVID-19

1.1 COVID-19 Pandemic & Economic Downturn

Since its outbreak in late 2019, the COVID-19 pandemic has largely disrupted every aspect of the human living environment, changing our fundamental ways of living by limiting social interaction in everyday life throughout 2020. Hitting the unprecedented unemployment rate at its peak of 14.7% in April, 2020, the U.S. economy has faced enormous job losses and still remains at significant risk with its commercial real estate severely impacted by mandated retail store closures and shelter-in-place policies.

Figure 1. 130 Years of Unemployment Rates in the U.S.



Note: Seasonally adjusted; figures from before 1948 are estimates

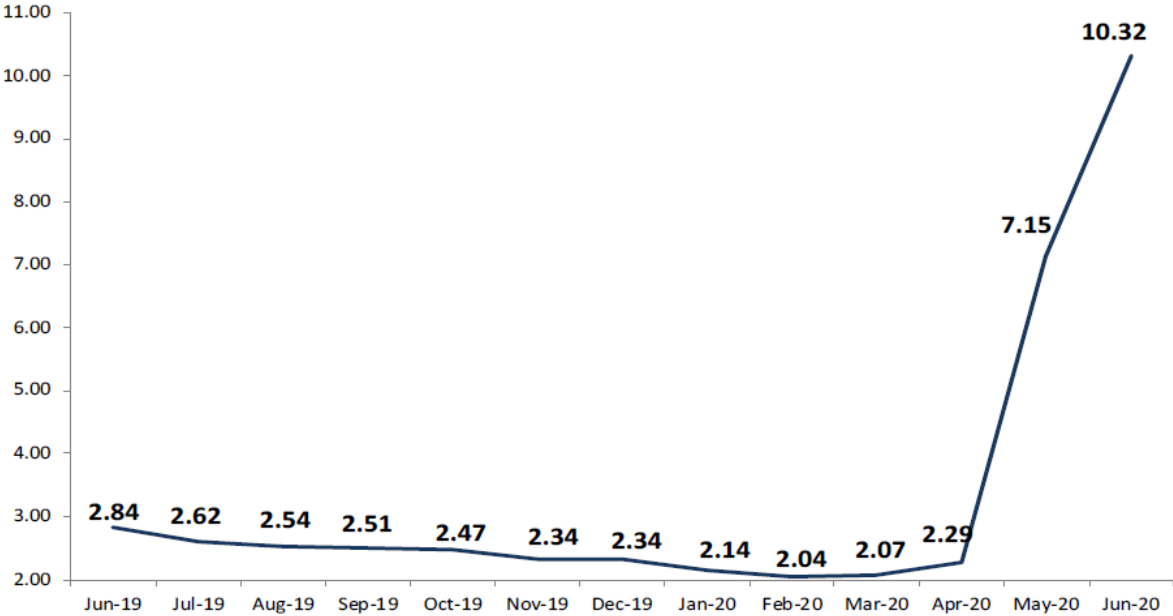
Sources: Labor Department (1948-present); Annual estimates from David Weir (University of Michigan) in Research in Economic History disaggregated to monthly data by Nicolas Petrosky-Nadeau (San Francisco Fed) and Lu Zhang (Ohio State University) in Journal of Monetary Economics

THE WASHINGTON POST

As most businesses closed or transitioned to remote work and people no longer traveled, a great number of property owners were forced to shut down their office buildings, retail stores, and hotels. Heavily impacted by such a halt in economic activities, tenants became unable to pay rent and owners had been experiencing cash flow shortage to pay for debt service and operating expenses on their properties.

According to Trepp, the commercial mortgage-backed securities (CMBS) delinquency rate in June, 2020 surged to 10.32% from 7.15% in May, 2020, reaching near the all-time high rate recorded at 10.34% in 2012. Trepp cautiously expects that the CMBS delinquency rate will not stop rising in the near future as the negative impact of COVID-19 on the global economy will continue to prevail throughout 2020.

Figure 2. Percentage of CMBS Marked as 30+ Days Delinquent



Source: Trepp

Among the 5 major commercial property types including office, industrial, multifamily, hospitality, and retail, hospitality and retail had been the most immediately affected by the pandemic in terms of loan delinquency. Trepp’s monthly report states that the hospitality delinquency rate jumped to 19.13% in May, 2020 from 2.71% in April, 2020 and increased to 24.30% in June, 2020 while the retail delinquency rate rose to 18.07% in June, 2020 from 3.67% in April, 2020. Hospitality and retail property owners were the first to suffer from the decrease of travelers, shoppers, and visitors.

Figure 3. Delinquency Rate by Property Type (% 30 Days +)

	JUN-20	MAY-20	APR-20	3 MO.	6 MO.	12 MO.
Industrial	1.57	1.82	1.36	1.35	1.57	1.94
Lodging	24.30	19.13	2.71	1.53	1.48	2.41
Multifamily	3.29	3.25	1.92	1.63	2.02	2.11
Office	2.66	2.40	1.92	1.86	1.87	3.02
Retail	18.07	10.14	3.67	3.89	3.76	4.44

Source: Trepp

1.2 CMBS Special Servicing Rate

As more CMBS loans become delinquent and the economy does not appear that it will go back to normal in the near future, it is only a matter of time before more delinquent loans will be transferred to special servicing. It is evident that commercial real estate borrowers are now in significant distress and seeking forbearance, relief or any measures to resolve current distress from lenders.

As shown in Figures 4 and 5, the Trepp CMBS Special Servicing rate has reached 8.28% in June from 6.07% in May and such an increase can be attributed to the surge in hospitality and retail special servicing rates starting from April, 2020. In June, a total of 351 loans were newly sent to special servicing with an outstanding balance of \$12.5 billion and the total balance of CMBS loans in special servicing has reached \$32 billion according to Moody’s Analytics.

Figure 4. Special Servicing Status (As of June 2020)

SS TRANSFER REASON	PERCENT
Not In Special Servicing	91.70%
Monetary Default	1.28%
Non-Monetary Default	0.08%
Imminent Default	5.73%
Other	1.20%

Source: Trepp

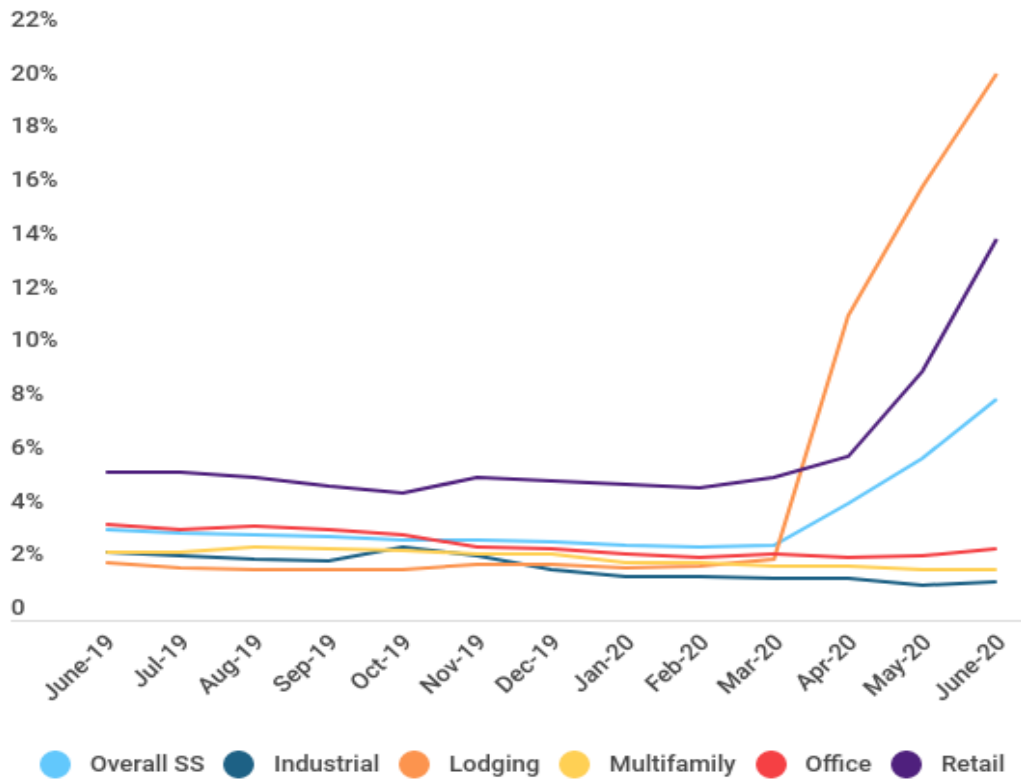
Figure 5. Overall CMBS Special Servicing Rate by Property Type

	JUN-20	MAY-20	APR-20	3 MO.	6 MO.	1 YR.
Industrial	1.40%	1.33%	1.56%	1.59%	1.86%	2.54%
Lodging	20.47%	16.21%	11.42%	2.27%	2.08%	2.17%
Multifamily	1.86%	1.89%	2.02%	2.03%	2.49%	2.56%
Office	2.68%	2.42%	2.37%	2.45%	2.66%	3.61%
Retail	14.24%	9.31%	6.09%	5.31%	5.19%	5.55%

Source: Trepp

It is worth noticing in Figure 5 that the CMBS special servicing rates for both hospitality and retail nearly doubled within just 2 months starting from April. Considering that the overall special servicing rates were 3.36% one year ago and 2.92% 6 months ago respectively and the volume of CMBS loans in special servicing following the financial crisis of 2007-2008 peaked at \$92 billion in 2010, it is evident that the current crisis caused by the pandemic is unfolding rapidly and will result in a continuous increase in the overall special servicing rate.

Figure 6. Month-Over-Month Special Servicing Rates



Source: Trepp

1.3 Sequential Events of Distress in CMBS Loans

Moody's Analytics summarizes a typical sequence of events on how a CMBS loan is distressed in the case of an economic downturn in its analysis report *COVID-19 and Distress in CMBS Markets* (2020) written in collaboration with CWCcapital as follows:

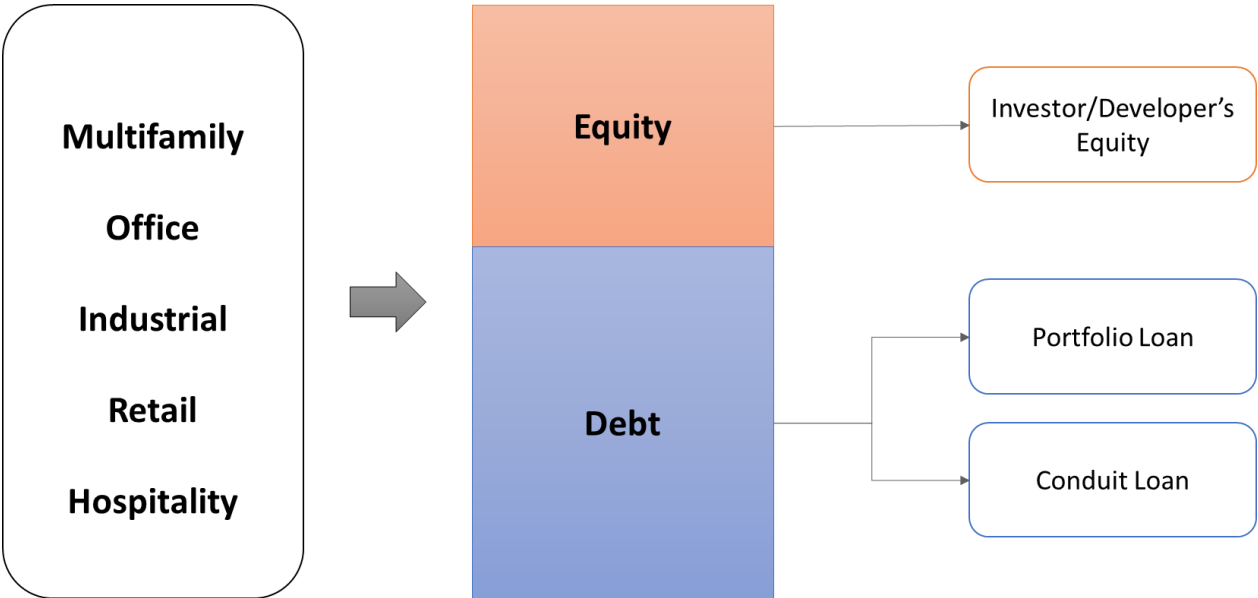
1. Economic activity slows, reflected in job losses and/or a pullback in consumer spending.
2. Tenants occupying multifamily and commercial real estate experience stress as business slows; some go out of business and vacate their space, while others attempt to renegotiate lease agreements.
3. Property net cash flows declines, leading debt service coverage to fall.
4. Borrowers use reserves, additional equity may be brought in, forbearance measures are pursued, and other options are explored to bridge the period of stress.
5. Bridge measures are exhausted and defaults increase. Servicers advance loan P&I payments to CMBS bondholders to the extent that recoverability is credible.
6. Losses and associated bond principal write-downs are incurred relative to the recovery available through liquidation values. Certain bondholders may be impacted by the effect of reduced appraisals in advance of actual liquidation.
7. Credit enhancement of senior bonds deteriorates as losses are incurred.
8. High investment-grade bonds are exposed to greater downside risk as losses breach thresholds.

Chapter 2. Commercial Real Estate (CRE) Debt

2.1 Portfolio Loan vs. Conduit Loan

Commercial real estate (CRE) is normally financed through a mixture of investors' equity and debt and the proportion of equity and debt varies depending on the types of deals or assets, the preference of investors on risk exposure, and even sometimes financial regulations imposed by governments. Thus, the CRE investors who are willing to leverage loans for acquisition, development, or construction of properties as much as possible seek to establish and maintain a friendly relationship with potential lenders such as commercial banks, insurance companies, and other financial institutions.

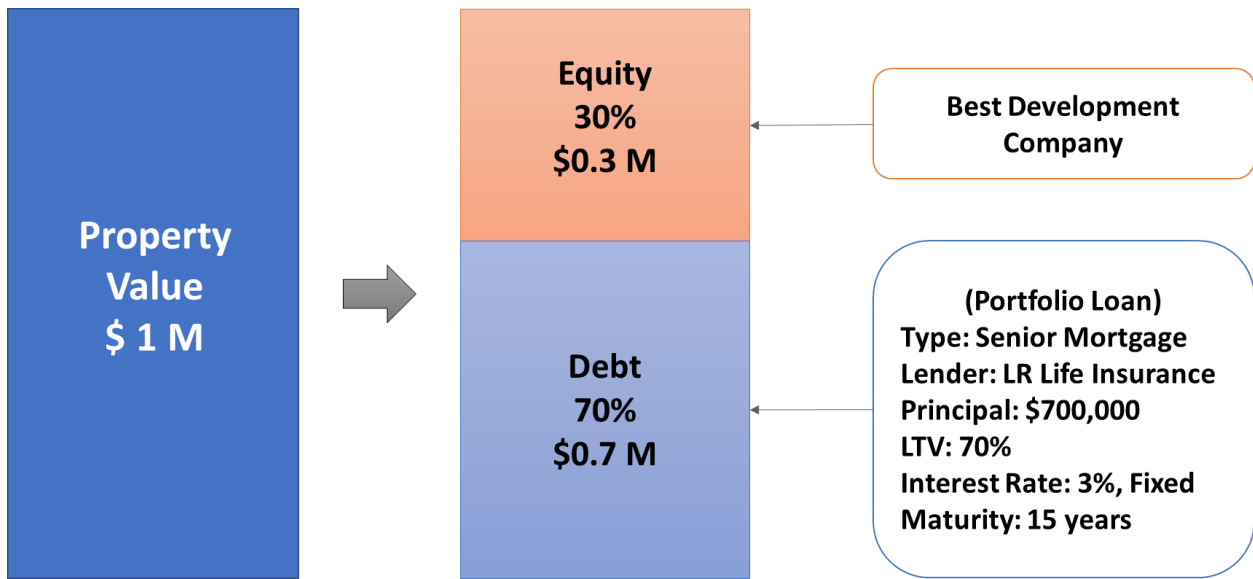
Figure 7. Basic Capital Structure of Commercial Real Estate (CRE)



This so-called CRE debt can be originated in a form of either a portfolio loan or a conduit loan. A *portfolio loan* is a loan that a lender issues and keeps it in its investment portfolio rather than selling the loan in the secondary mortgage market. In this case, the lender is considered as a portfolio lender.

For instance, assume a hypothetical situation that a developer, Best Development Company, finishes leasing up a property after construction and wants to take out its existing construction loan with the interest rate fixed at 8% and replace it with a long-term loan with a more favorable and lower rate. Best Development Company goes to a life insurance company, LR Life Insurance, which originates long-term CRE loans for stabilized properties in order to get a take-out loan. Fortunately, with all terms matched after a series of negotiations between both parties, LR Life Insurance finally decides to issue a 15-year permanent loan of \$700,000 out of the property's appraised value at \$1,000,000 with a loan-to-value (LTV) of 70% and the interest rate fixed at 3%. As a portfolio lender, LR Life Insurance does not sell loans that it issues and invests in but keeps them in its investment portfolio following its investment strategy focused on a long-term horizon. As described in this hypothetical example, the 15-year permanent loan of \$700,000 issued by LR Life Insurance is considered as a portfolio loan.

Figure 8. Hypothetical Example: Best Development Company



A *conduit loan*, also known as a Commercial Mortgage-Backed Securities (CMBS) loan, is formed in a more complex way which requires involvement of various entities including commercial banks, investment banks, rating agencies, mortgage servicers, and mortgage-backed securities investors. As its name “conduit” means a channel, a conduit loan is pooled into a trust together with other loans and can be sold to investors after it is securitized. Further detailed information will be discussed in the following chapters.

Chapter 3. Commercial Mortgage-Backed Securities (CMBS)

3.1 CMBS Loan Basics

A CMBS loan are originated by a conduit lender as a non-recourse loan secured by a senior mortgage lien on a property which is already stabilized and generating cash flow of rental income. A typical CMBS loan has a term of 5 to 10 years with a 20 to 30-year amortization with a fixed rate; sometimes, it can be also interest-only depending on property types or market conditions. Since the amortization period and the loan term are not matched, the loan requires a “balloon” payment for the remaining outstanding balance at maturity.

Single Asset Single Borrower (SASB)

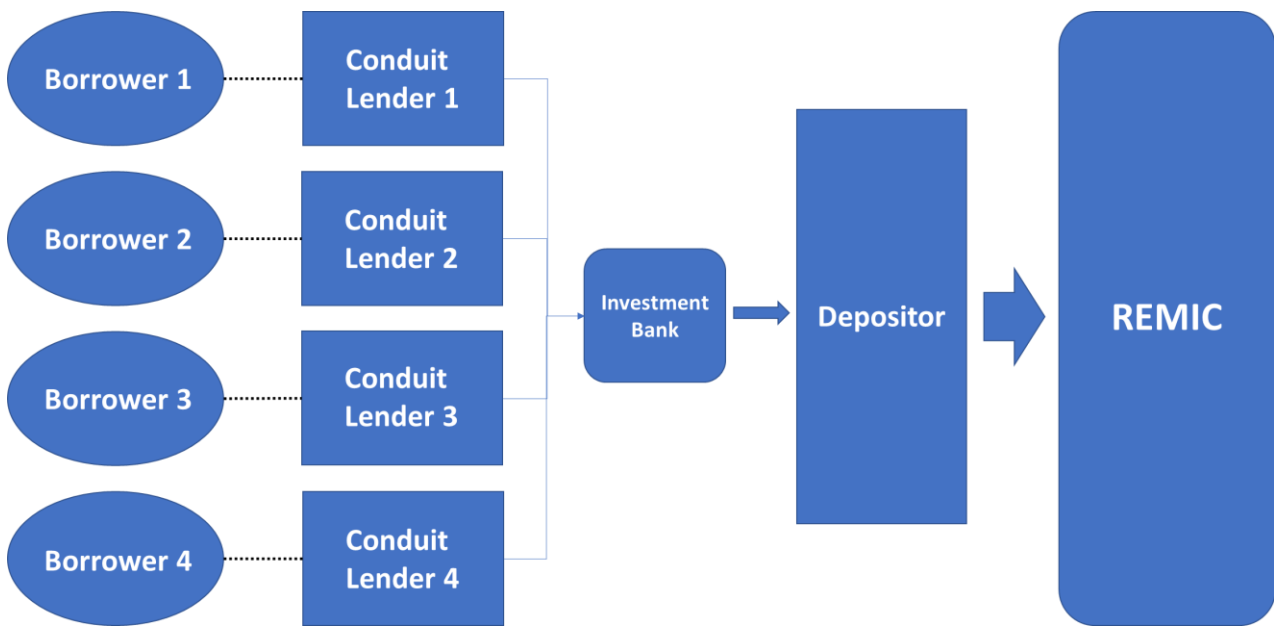
Typical CMBS transactions involve the securitization of multiple commercial mortgage loans in different size with various property types, regions, and characteristics for diversification. However, a single loan backed by a single large property or a portfolio of properties owned by a single borrower can be also securitized. The size of a typical SASB loan can be at least \$200 million and often amounts to \$1 billion. Investors who have specific interests in the collateralized property or do not mind the lack of diversity participate in the SASB CMBS transactions.

3.2 CMBS Securitization A: Loan Origination & Pooling

Loan Origination – Conduit Lender, Sponsor, and Depositor

Conduit lenders are either commercial banks, mortgage service providers, or other financial institutions with conduit programs that source, underwrite, and originate CMBS loans. As CMBS loans are originated, they are transferred and collected to a *depositor*, an intermediary special purpose entity (SPE) created by the CMBS transaction’s *sponsor* that leads, arranges, and coordinates a CMBS transaction. A depositor aggregates multiple CMBS loans before they are pooled into a trust because it legally isolates loans from borrowers for the purpose of bankruptcy remoteness. Thereafter, the depositor transfers the loans to a trust known as a *Real Estate Mortgage Investment Conduit (REMIC)*.

Figure 9. CMBS Loan Origination & Pooling



Real Estate Mortgage Investment Conduit (REMIC)

A REMIC is a federally tax-exempt legal entity that holds a pool of multiple CMBS loans and issues bonds in different classes backed by the pool of loans with various risk and return structure. The primary purpose of a REMIC is to pass through cash flows from commercial mortgages to bondholders. Since CMBS transactions involve multiple parties as well as various loans at the same time, it is difficult to make significant changes in terms and conditions for CMBS loans within REMICs and additional loans cannot be added to the pool once corresponding bonds are issued.

Trustee

The Trustee is the nominal owner of all assets within the trust that holds loan documents while managing the trust in general by hiring rating agencies to rate the pool and supervising the servicers to act in accordance with the Servicing Standard. Because the Trustee is the nominal owner, any loan modifications or foreclosure process will be in the name of the Trustee.

3.3 CMBS Securitization B: Tranche & Bonds

Tranche & Rating Agencies

The trust issues multiple tranches of bonds with different priority, yield, and maturity. Supported by cash flows from the pool of loans within the trust, each tranche is rated by rating agencies as shown in Figure 10. Rating agencies are nationally recognized statistical rating organizations (NRSRO) registered with the Securities and Exchange Commission (SEC) which provide an assessment of creditworthiness of securities. As of July 2020, there are currently nine

agencies registered with the SEC as NRSROs. Major agencies include Fitch Ratings, Moody’s Investors Service, Standard & Poor’s Global Ratings, DBRS, and Kroll Bond Rating Agency.

Figure 10. Bond Rating Letters & Grade

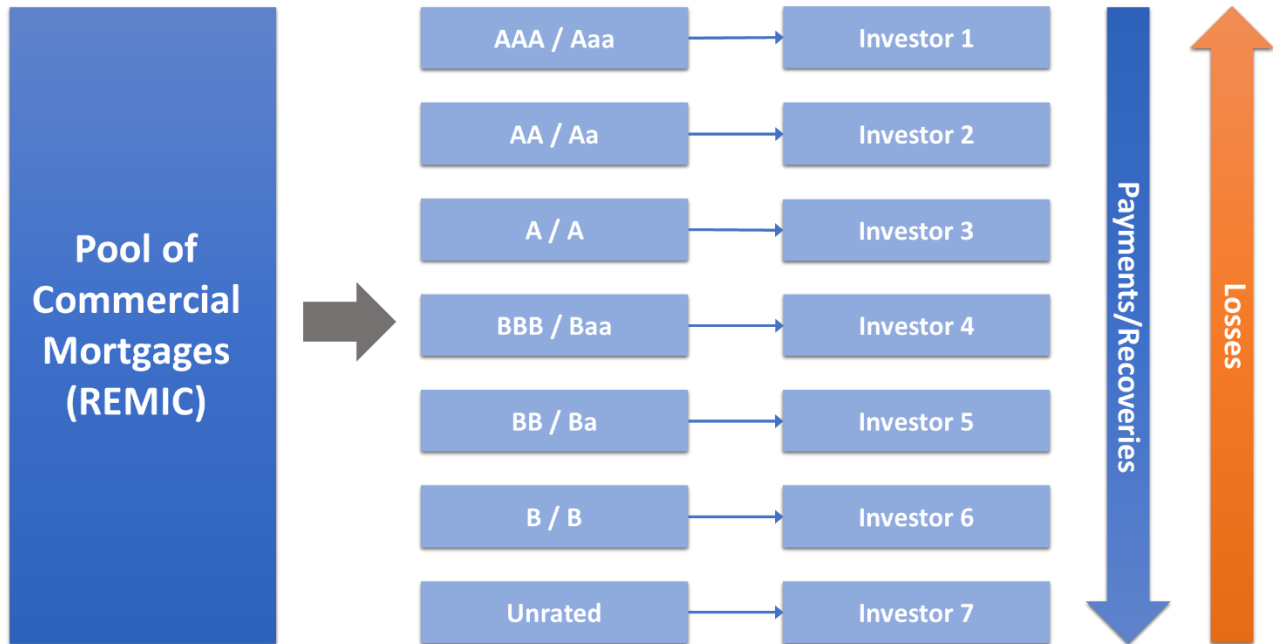
Code	Moody's	Fitch and S&P	Grade
1	Aaa	AAA	Investment Grade
2	Aa1	AA+	
3	Aa2	AA	
4	Aa3	AA-	
5	A1	A+	
6	A2	A	
7	A3	A-	
8	Baa1	BBB+	
9	Baa2	BBB	
10	Baa3	BBB-	
11	Ba1	BB+	Non-Investment Grade
12	Ba2	BB	
13	Ba3	BB-	
14	B1	B+	
15	B2	B	
16	B3	B-	
17	Caa1	CCC+	
18	Caa2	CCC+	
19	Caa3	CCC-	
20	Ca	CC	
21	C	C	
22	D	D	

Tranche Hierarchy

As tranches are rated, the highest rated bond (AAA/Aaa) becomes the senior bond and the senior bondholder has the right to first receive payments every month accordingly. Investors who own lower rated junior bonds can receive payments only after investors who own bonds senior to theirs with higher ratings are paid as shown in Figure 11. On the other hand, if one or more mortgage payments are missing, it will be the bondholder of the lowest rated bond that will

immediately suffer from losses caused by delinquency among all investors.

Figure 11. CMBS Structure: Tranche & Waterfall Structure



Since each bond is priced differently based on varying yield, maturity, and risk involved, investors with different risk preference purchase bonds based on their investment strategies. Conservative investors such as insurance companies or large financial institutions which prefer to invest in more stable products tend to purchase AAA/Aaa-rated bonds to receive predictable cash flows while aggressive investors that may be more experienced with risky investment having higher returns purchase subordinate bonds whose cash flows can be disrupted first in case of delinquency.

B-Piece Buyer & Controlling Class

Real estate private equity firms or affiliates of special servicers often invest in the most subordinate B-piece bonds that are normally non-investment grade. These B-piece buyers are exposed to loan defaults the most among all bondholders; in particular, the holder of the most subordinate class bond becomes the owner of the controlling class also referred to as the Direct Certificate Holder that has the right to appoint and replace the operating advisor or the special servicer of the pool and approve loan modifications in case of loan default which might damage the status of the controlling class. In this way, the controlling class gives its holder control over the restructuring of CMBS loans. As shown in Figure 12, Rialto Capital which has its special servicing arm has been the largest CMBS B-piece buyer by leveraging its asset management experience.

Figure 12. Top Conduit B-Piece Buyers (As of 2019)

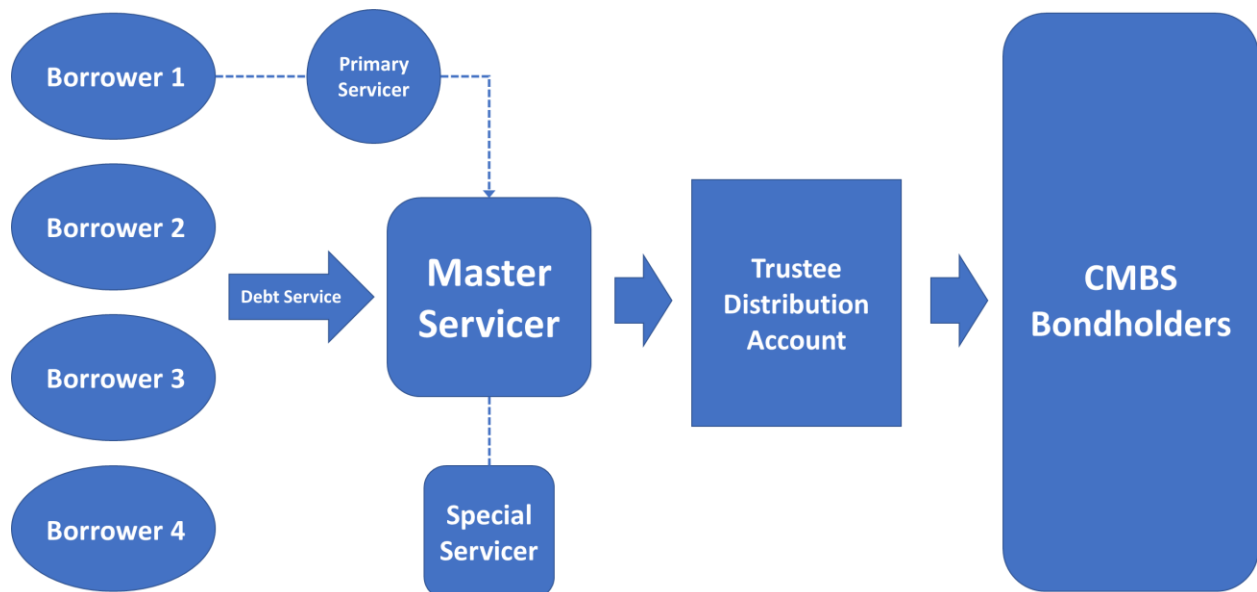
Rank	Name	2019 Total (\$Mil.)	Market No. of Deals	Share (%)	2018 Total (\$Mil.)	Market No. of Deals	Share (%)	'18-'19 % Chg.
1	Rialto Capital	11,604.70	12	24.10%	8,618.50	10	21.50%	34.60%
2	KKR	8,892.70	10	18.50%	8,762.00	10	21.80%	1.50%
3	Eightfold Real Estate	7,488.50	8	15.60%	3,815.40	4	9.50%	96.30%
4	Prime Finance	5,492.90	8	11.40%	2,366.10	3	5.90%	132.10%
5	LNR Partners	4,174.00	6	8.70%	2,438.80	4	6.10%	71.10%
6	Argentic	3,181.30	4	6.60%	5,776.40	7	14.40%	-44.90%
7	Ellington Management	2,304.60	3	4.80%	901.2	1	2.20%	155.70%
8	LoanCore Capital	2,279.90	3	4.70%	1,006.10	1	2.50%	126.60%
9	3650 REIT	1,629.70	2	3.40%	0		0.00%	
10	Seer Capital	1,107.10	1	2.30%	0		0.00%	
	OTHERS	0		0.00%	6,466.40	6	16.10%	-100.00%
	TOTAL	48,155.40	52	100.00%	40,151.00	44	100.00%	19.90%

Source: Commercial Mortgage Alert

3.4 CMBS Securitization C: Servicing Structure

As the trust sells each tranche of its pool to investors with varying investment appetites, the Master Servicer takes over to administer CMBS loan payments and manage required documentation. Loan payments from the borrowers are collected and distributed to the bondholders accordingly. The Master Servicer continues to service assigned loans until any trigger events related to loan defaults take place and the Special Servicer is involved. Figure 13 visually demonstrates the CMBS servicing structure.

Figure 13. CMBS Servicing Structure



Pooling and Servicing Agreement (PSA)

The Pooling and Servicing Agreement (PSA) is a legal document that lays out the responsibilities and rights of the transaction parties involved in the CMBS securitization process such as the servicers and the trustee and outlines how CMBS proceeds or losses will be distributed to the bondholders. The trustee supervises the servicers assigned to its CMBS transaction in order to make sure that the participants implement their obligations in accordance with the PSA. The PSA also stipulates the Servicing Standard which the Master Servicer and the Special Servicer will have to perform their jobs in accordance with.

Master Servicer

The responsibility of the Master Servicer is servicing CMBS loans within the pool throughout the entire term by collecting and managing monthly payments from borrowers following the terms stipulated in the PSA. The Master Servicer also handles additional paperwork required and keeps interacting with borrowers regularly unless any trigger events for loan default occur.

Primary Servicer

In addition, there can be another type of servicer called the Primary Servicer that manages interactions with borrowers directly on behalf of the Master Servicer. The Master Servicer can sub-contract one or more Primary Servicers to administer a certain dollar amount of loans so that it can service a large pool of loans at the same time.

Figure 14. Top US CMBS Master Servicers (As of 2019)

Rank	Name	Conduit/ Pooled (\$ Mil.)	Single Borrower (\$Mil.)	2019 Total (\$Mil.)	No. of Deals	Market Share (%)	2018 Total (\$Mil.)	No. of Deals	Market Share (%)	'18-'19 % Chg.
1	KeyBank	5,943.50	29,151.70	35,095.30	81	36.60%	18,757.80	48	24.6	87.10%
2	Wells Fargo	21,960.10	8,852.70	30,812.80	65	32.10%	41,775.70	84	54.7	-26.20%
3	Midland Loan Services	22,140.10	7,430.60	29,570.70	66	30.80%	15,376.60	40	20.2	92.30%
4	NCB	493.9	0	493.9	6	0.50%	399.8	6	0.5	23.60%
	TOTAL	50,537.70	45,435.00	95,972.70	139	100.00%	76,309.80	121	100	25.80%

Source: Commercial Mortgage Alert

Special Servicer

Once CMBS loans default or fall into any trigger events related to default, they are transferred to the Special Servicer who takes control of administering those loans from the Master Servicer and performs the duty to the trust per the Servicing Standard. The Special Servicer must take actions to resolve loan problems in the best interests of bondholders within the limitations of the Pooling and Servicing Agreement. After performing the net present value tests of potential workout scenarios and a series of negotiation with the borrower, the Special Servicer can proceed with loan resolution.

Figure 15. Top US CMBS Special Servicers (As of 2019)

Rank	Name	Conduit/ Pooled (\$ Mil.)	Single Borrower (\$Mil.)	2019 Total (\$Mil.)	No. of Deals	Market Share (%)	2018 Total (\$Mil.)	No. of Deals	Market Share (%)
1	Midland Loan Services	16,761.30	5,872.80	22,634.10	54	23.60%	13,509.80	39	17.70%
2	SitusAMC	1,727.70	13,566.60	15,294.20	44	15.90%	362.60	1	0.50%
3	KeyBank	5,645.40	7,690.70	13,336.10	40	13.90%	10,341.60	29	13.60%
4	LNR Partners	10,877.70	1,364.20	12,241.90	41	12.80%	11,848.30	36	15.50%
5	Rialto Capital	11,272.50	390.00	11,662.50	42	12.20%	8,572.30	29	11.20%
6	Aegon USA Realty	365.00	7795.10	8160.10	13	8.50%	11888.30	40	15.60%
7	CWCapital Asset Management	1757.10	4025.80	5782.80	28	6.00%	7651.20	26	10.00%
8	Trimont Real Estate	281.50	3174.90	3456.40	12	3.60%	1502.90	4	2.00%
9	Wells Fargo	74.70	950.00	1024.70	3	1.10%	6869.20	32	9.00%
10	C-III Asset Management	856.00	0.00	856.00	4	0.90%	0.00	-	0.00%
11	NCB	493.90	0.00	493.90	6	0.50%	399.80	6	0.50%
12	Pacific Life	425.00	0.00	425.00	5	0.40%	0.00	-	0.00%
13	Cohen Financial	0.00	305.00	305.00	1	0.30%	700.30	6	0.90%
14	Berkadia	0.00	300.00	300.00	1	0.30%	0.00	-	0.00%
15	Torchlight Loan Services	0.00	0.00	0.00	-	0.00%	2663.50	14	3.50%
	TOTAL	50537.70	45435.00	95972.70	139	100%	76309.80	121	100%

Source: Commercial Mortgage Alert

3.5 Loan Defaults & Special Servicing

Delinquency & Default

This section serves to clarify the definitions of terminologies describing the status of a loan. If a borrower makes payments on time, a loan is *current* or *performing*. However, when the borrower misses the payment due date even by one day, the loan becomes *delinquent*.

Delinquency and default both describe one common situation in which a borrower is missing payments on a loan. When loan delinquency is significantly extended and the borrower is unable to perform loan obligations and make payments following the terms on the agreement, the loan goes into *default*, making the lender take actions to resolve this situation. Likewise, if a loan is

delinquent more than 90 days, the loan is considered as *non-performing*. If the borrower restarts to make payments on the delinquent loan, it is now considered as *re-performing*.

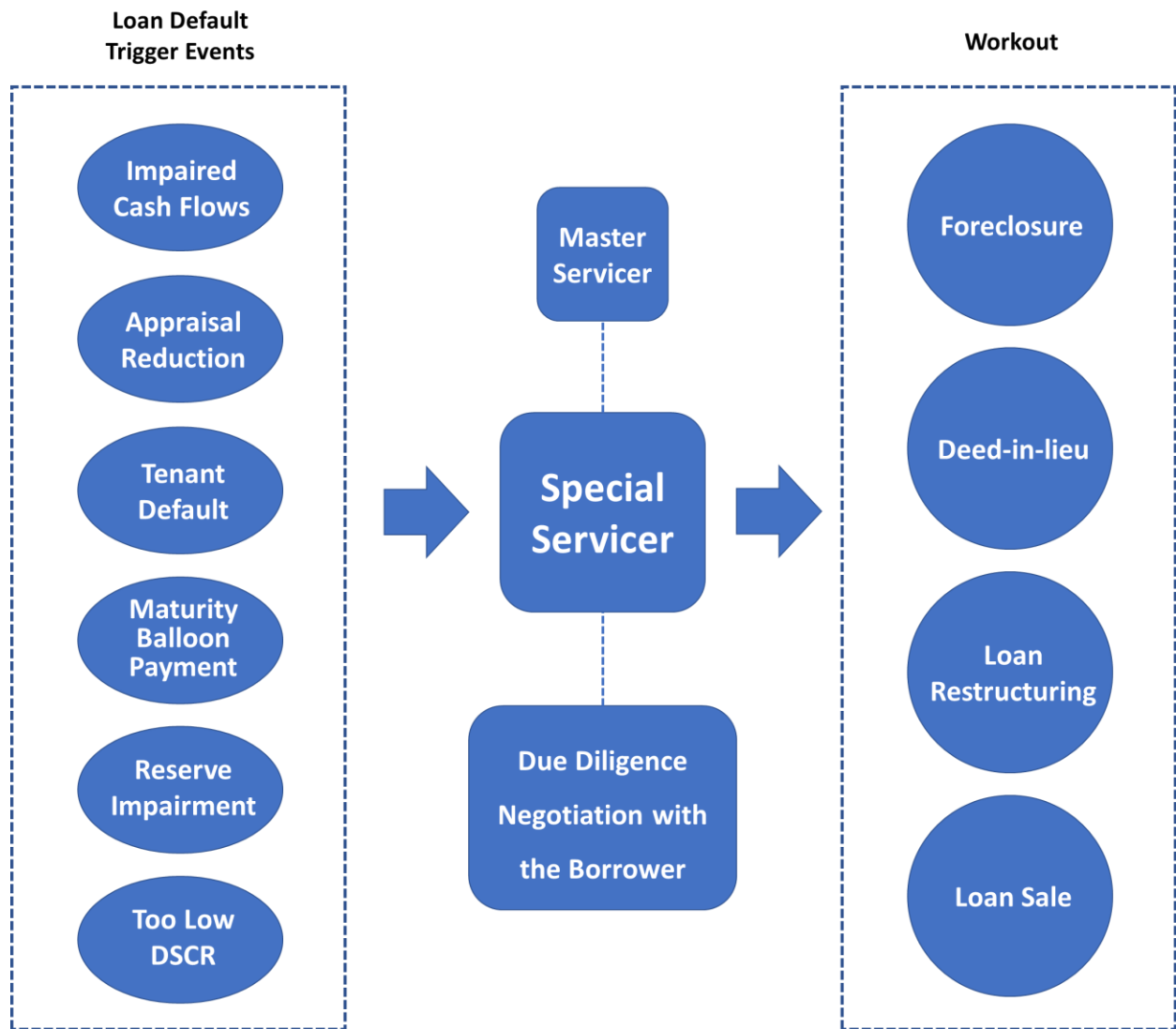
Types of Defaults

Loan default can occur because of monetary or non-monetary reasons. A monetary default occurs when the borrower fails to pay the amount due based on the agreement for more than 30 days. A non-monetary default is a situation in which the borrower fails to perform other obligations such as maintaining insurance, property conditions, and required minimum debt service coverage ratio (DSCR).

Trigger Events

Typically, when a loan is delinquent for more than 60 days, it is transferred from the Master Servicer to the Special Servicer. In addition, the Special Servicer can take over the administration of related loans in case of trigger events such as the impairment of rental income cash flows, the reduction of related property's appraisal value, the vacating of major or anchor tenants that might disrupt the value of the property, the impairment of the borrower's reserve to cover the debt service or related expenses, and the borrower's inability to make a balloon payment at maturity. In the abovementioned situations where a default is reasonably foreseeable, the borrower can also request to start a conversation with the Special Servicer to seek temporary relief or potential loan modifications.

Figure 16. Special Servicing Structure



Workout Alternatives

Based on the PSA, the Special Servicer is responsible for restructuring the transferred loan to maximize its Net Present Value (NPV) on behalf of the Trust. Once special servicing begins, the Special Servicer’s asset managers conduct a preliminary assessment of the related asset and prepare an Asset Status Report (ASR) within 30 days of special servicing. The ASR

contains a summary of the status of serviced mortgage loan as well as its collateralized property. Based on the ASR, the Special Servicer recommends a course of action to address the loan default per approval by the Controlling Class holder with the most subordinate B-class bond.

In general, the Special Servicer can have the following options to resolve loan problems:

- Foreclosure the loan and sell the property (or deed-in-lieu of faster resolution)
- Restructure the loan by discounting payoff, bifurcating the loan, or extending the maturity
- Sell the loan to a third party

The decision must be based on an NPV basis and any modifications to be made must be within the PSA limitations. In many cases, since the most junior B-class bondholder will be the first to be affected by any modifications of the loan, the Special Servicer will have to ask the Controlling Class holder for approval. However, there are also cases where the PSA allows the Special Servicer to pursue a course of action on its own without any approval by the Controlling Class holder.

Compensation Structure

The Pooling and Servicing Agreement (PSA) for a CMBS deal specifies the compensation structure for participants. Once a loan is transferred to the Special Servicer, the Special Servicer earns 0.25% of the loan principal balance per year as a special servicing fee. The fees will be accrued until the loan is no longer specially serviced. Thus, if the loan becomes current and re-performing as the borrower or other parties cure it, the loan will not be specially serviced anymore and be re-transferred back to the Master Servicer. In this case, the Special

Servicer will get an additional servicing fee of 1% of the loan principal. Likewise, the Special Servicer can earn the basic servicing fee of 0.25% while having an incentive to resolve loan defaults as early as possible in order to earn a higher fee of 1%. Since it can cost a lot of fee when the loan goes into special servicing, the borrower needs to be cautious when trying to transfer the loan to special servicing just to seek relief or forbearance before the loan defaults. All these abovementioned fees will become the first to be paid by the borrower even before senior bondholders are paid.

Part II. Case Study: 666 Fifth Avenue



Source: Kushner Companies

Chapter 4. Acquisition & Deal Structure

4.1 Property Information

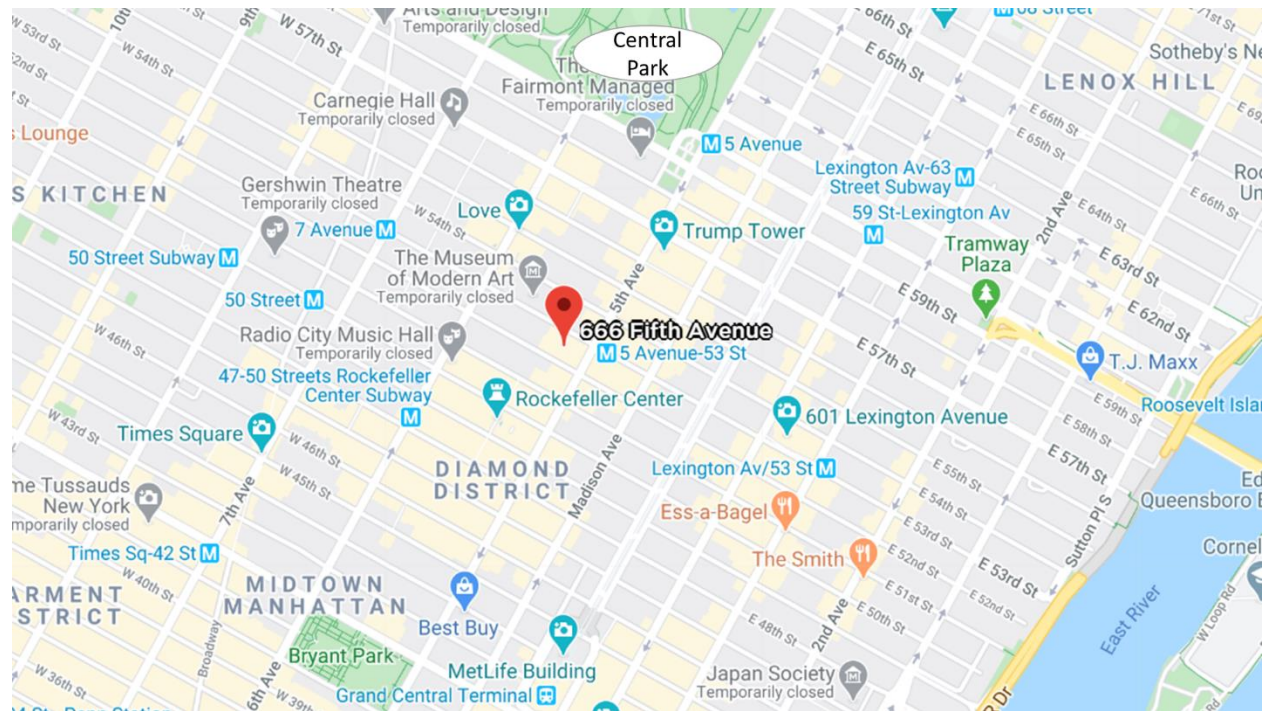
Located on 5th Avenue between 52nd Street and 53rd Street in Manhattan as shown in Figure 18, 666 Fifth Avenue is a 41-story office building with its retail portion on the ground and the office tower on the top. Its total area of 1,549,623 square feet consists of 1,454,110 square feet of the office tower and 95,513 square feet of the street retail space. The office tower of 1,454,110 square feet was structured as 1,367,545 square feet for office space, 69,087 square feet for retail and storage space, and 17,478 square feet for 90 underground parking spaces. Built by Tishman Realty and Construction in 1957, this building has obtained its position as a landmark building in a luxury retail destination.

Figure 17. 666 Fifth Avenue: General Information

Type	Office
Address	666 5th Ave, New York, NY 10103
Built	1957
Renovated	1999
Floors	41
Total Area (sf)	1,549,623 sf
- Office Tower	1,454,110 sf
- Street Retail	95,513 sf
Site	0.90 acres (39,204 sf)
Parking	90 Spaces (Underground)

Source: GE Commercial Mortgage Corp Free Writing Prospectus FWP

Figure 18. Location Map



Source: Google Map

4.2 The Acquisition

Kushner Companies

Kushner Companies is a private real estate company that invests, develops, and manages a diverse portfolio of real estate properties throughout the Northeast and Mid-Atlantic regions in the U.S. Before moving its headquarters to Manhattan, Kushner Companies was headquartered in New Jersey with its investment focus on multifamily properties. Jared Kushner, the Principal of Kushner Companies, had been leading the family business since his father, Charles Kushner, was jailed in 2005. Under a new leadership, Kushner Companies also began to face changes in their investment strategies.

The Acquisition

Tishman Speyer Properties and TMW Real Estate were the owners of 666 Fifth Avenue after the joint venture (JV) between the two purchased it from a Japanese firm, Sumitomo Realty & Development Co., Ltd. in 2000. Located in one of the busiest streets in the U.S., 666 Fifth Avenue was attractive enough for Kushner Companies to symbolically demonstrate the expansion of its presence in the biggest real estate market.

Thus, Kushner Companies took a preemptive action by offering a \$1.8 billion deal to Tishman Speyer Properties. Although the property was not for sale in the market, Jared Kushner was determined to give an undeniable bid to the seller. In January 2007, Tishman Speyer Properties officially announced the sale of 666 Fifth Avenue, making it the most expensive single office building in the U.S. history at that time.

Through this transaction, Kushner Companies gained the ownership of 95% interest in the property while Tishman Speyer Properties retained its 5% interest.

Major Tenants at Acquisition

At the time of acquisition, the office tower of 666 Fifth Avenue was 98.3% occupied by 47 tenants including Citibank, Orrick, Herrington & Sutcliffe, and Fulbright & Jaworski LLP as major tenants. Citibank was occupying 365,070 square feet renting out 25.1% of the office tower. The retail area on the street was occupied by the NBA store, Brooks Brothers, and Hickey Freeman. The office tower was generating Net Operating Income (NOI) of \$53,516,237 as of the appraisal date on March 1, 2017 with its major tenants' base rent per square foot set between \$40s and \$50s.

Figure 19. Major Office Tenants at Acquisition

Tenant	Significant Tenants ⁽¹⁾					Lease Expiration	Ratings (S/F/M)
	NRSF	% NRSF	Rent PSF	Potential Rent	% of Potential Rent		
Citibank N.A. ⁽²⁾	365,070	25.1%	\$44.47	\$16,234,522	23.2%	08/31/2014	AA/AA+/Aa1
Orrick, Herrington & Sutcliffe	239,464	16.5	\$44.79	10,725,722	15.3	03/31/2010	Not Rated
Fulbright & Jaworski L.L.P.	<u>139,177</u>	<u>9.6</u>	\$51.93	<u>7,228,117</u>	<u>10.3</u>	12/31/2016	Not Rated
Total:	743,711	51.1%		\$34,188,360	48.8%		

⁽¹⁾ Information obtained from underwritten rent roll except for Ratings (S&P/Fitch/Moody's) and unless otherwise stated. Credit Ratings are of the parent company whether or not the parent guarantees the lease. Calculations with respect to Rent PSF, Potential Rent and % of Potential Rent include base rent only and exclude common area maintenance and reimbursements.

⁽²⁾ Citibank N.A. has 17 different leases that expire between August 31, 2007 and August 31, 2014. 77,806 square feet will expire in 2007, 75,596 square feet will expire in 2009, and 211,668 square feet will expire in 2014.

Source: GE Commercial Mortgage Corp Free Writing Prospectus FWP

Deal Structure

666 Fifth Associates LLC was established to own 666 Fifth Avenue as a special purpose bankruptcy remote entity owned and controlled by Kushner Companies and its partner Gellert Global Group. In order to finance this large \$1.8 billion deal, Kushner Companies had to leverage aggressively by getting loans in total amount of \$1.75 billion while providing the equity in amount of \$50 million to the transaction.

The \$1.75 billion in loans consisted of a senior mortgage loan of \$1.215 billion and mezzanine loans of \$535 million. With its interest rate set at 6.353%, the 10-year interest-only senior mortgage loan was originated by Barclays Capital Real Estate Inc. and UBS Real Estate Inc. As large CMBS whole loans are sometimes cross-collateralized, divided into multiple pieces, and pooled into different trusts, the senior mortgage loan of \$1.215 billion was split into 8 pari passu pieces and pooled into different CMBS transactions as shown in Figure 20. While 6 pieces were included in 3 CMBS transactions, the remaining 2 pieces of \$285 million were syndicated and invested in by Starwood Capital, AREA Property Partners, Paramount Group,

and Colony Capital. In addition, Barclays Capital and UBS provided mezzanine financing to Kushner Companies with a senior mezzanine loan of \$335 million and a junior mezzanine loan of \$200 million. Kushner Companies was planning to convert 666 Fifth Avenue into a condominium and release or sell the retail space in order to pay back its mezzanine loans of \$535 million in total.

As a part of the deal, Kushner Companies placed \$100 million as up-front interest reserve to pay for tenant improvements, leasing commissions, and debt service. In addition, reserves for tax, insurance, and replacement were required as on-going reserve every month.

Figure 20. Financing Structure

Original Loan Terms & Pro-Forma Financials				Implied Equity
CMBS Deal	Loan Piece	Original Balance	Pro-Forma Property Value	250,000,000
GECMC 2007-C1	A-1	124,500,000	2,000,000,000	Mezz junior
GECMC 2007-C1	A-2	124,500,000	Pro-Forma NOI	200,000,000
WBCMT 2007-C31	A-3	197,500,000	118,617,233	Mezz Senior
WBCMT 2007-C31	A-4	197,500,000	Pro-Forma DSCR	335,000,000
WBCMT 2007-C33	A-5	142,750,000	1.46x	Whole Loan 1,215,000,000
WBCMT 2007-C33	A-7	142,750,000	As-Is DSCR	
Outside of CMBS	A-6	142,750,000	0.65x	
Outside of CMBS	A-8	142,750,000	CMBS LTV	
Whole Loan		1,215,000,000	60.75%	
Mezz Senior		335,000,000		
Mezz junior		200,000,000	Total LTV	
Total Debt		1,750,000,000	87.50%	

Source: Trepp

The Unusual Appraisal: Looming Distress

When the senior mortgage loan was underwritten, the appraised value of the office tower was \$2 billion at acquisition even though the appraisal did not include the retail portion on the

ground. This suggested that the entire building of both the office tower and the retail portion was worth \$3 billion assuming that the retail portion could be valued at \$1 billion. Based on this valuation, Kushner Companies was acquiring 666 Fifth Avenue by paying only 60% of its appraised value.

At the time of acquisition, the office tower was generating its as-is NOI of \$53,516,237 and its as-is Net Cash Flow (NCF) of \$50,635,019. Nevertheless, the appraiser underwrote that its NOI would be more than doubled to \$118,617,233 assuming that all expiring leases would be replaced with higher rents. Likewise, based on the \$2 billion appraisal, the underwritten LTV of the \$1.215 billion senior mortgage was 60.75% which was in a reasonable range. As Figure 21 demonstrates, the projected NCF of \$114,381,673 was enough to cover the \$78 million debt service with its DSCR at 1.46x while the as-is NCF of \$50,635,019 was not enough to cover the debt service with its DSCR at 0.65x. This meant that if Kushner Companies could not replace all leases with higher rents as soon as possible, it would use up all of \$100 million interest reserve within less than 2 years, increasing the possibility of delinquency on the senior mortgage loan.

Despite a huge gap between the appraised value and the as-is condition of the property, the appraisal successfully supported financing the acquisition deal. The appraiser was unknown since parties involved in this transaction do not have any obligation to disclose the identity of the appraiser. According to the GE Commercial Mortgage Corp Free Writing Prospectus, the appraisal was based on the favorable market conditions throughout 2005 and 2006 including the continuous employment growth, the increasing demand for office space with lower vacancy rates and higher rents, and the scarcity of new office space supply.

Figure 21. Financial Information: As-Is vs. Underwritten

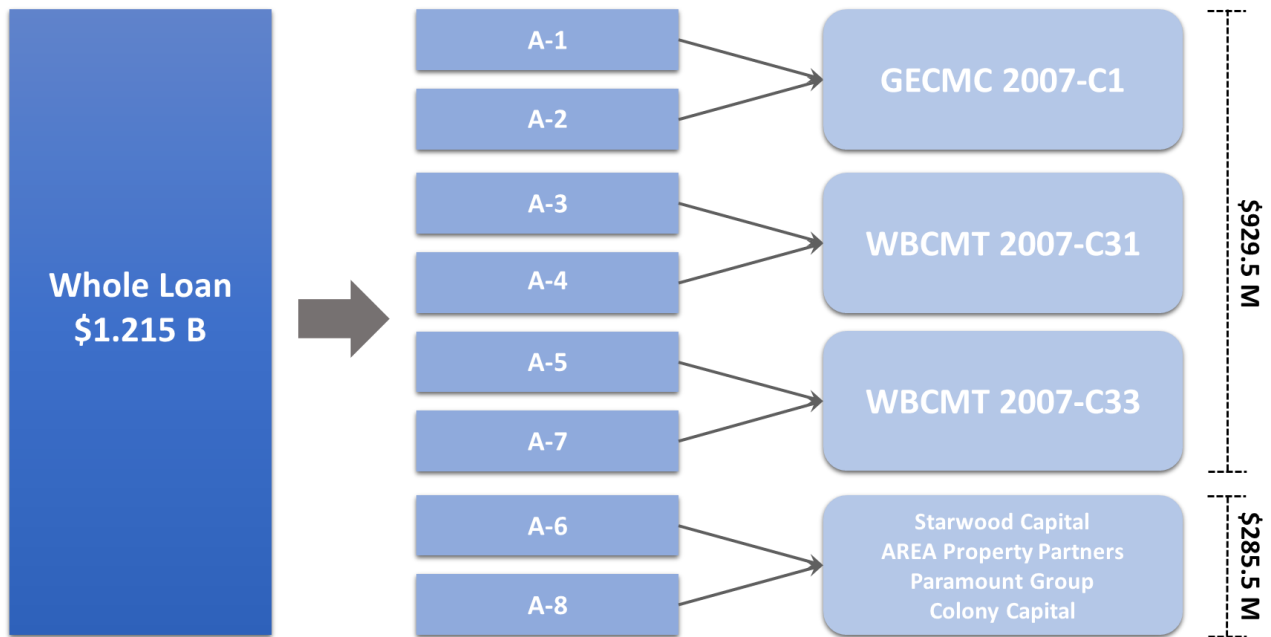
	As-Is	Underwritten
Net Operating Income (NOI)	\$ 53,516,237	\$ 118,617,233
Net Cash Flow (NCF)	\$ 50,635,019	\$ 114,381,673
LTV	-	60.75%
DSCR on NOI	-	1.52
DSCR on NCF	0.65	1.46
Appraised Value		\$ 2,000,000,000
Appraisal Date		March 1, 2007

Source: GE Commercial Mortgage Corp Free Writing Prospectus FWP

4.3 CMBS Structure

As Figure 22 shows, the senior mortgage loan of \$1.215 billion was split into 8 pari passu notes and 6 of them were packaged into 3 different CMBS transactions by GE Commercial Mortgage Corporation and Wachovia Bank: Note A-1 with a balance of \$124.5 million and Note A-2 with a balance of \$124.5 million pooled in GECCMC 2007-C1, Note A-3 with a balance of \$197.5 million and Note A-4 with a balance of \$197.5 million pooled in WBCMT 2007-C31, Note A-5 with a balance of \$142.75 million and Note A-7 with a balance of \$142.75 million pooled in WBCMT 2007-C33. Note A-6 and Note A-8 were not included in CMBS transactions but syndicated and sold to Starwood Capital, AREA Property Partners, Paramount Group, and Colony Capital.

Figure 22. CMBS Structure of Senior Mortgage Whole Loan



GECMC 2007-C1

GECMC 2007-C1 transaction was a CMBS deal of \$3,484,769,000 including Note A-1 and Note A-2 of the 666 Fifth Avenue senior mortgage whole loan with a total balance of \$249 million. GE Commercial Mortgage Corporation was the depositor that packaged all loan pieces from diverse mortgages into a trust called GE Commercial Mortgage Corporation, Series 2007-C1 Trust. Packaged with 197 mortgage loans on 286 commercial, multifamily, and manufactured housing properties, the trust was tranching into 30 different classes of commercial mortgage pass-through certificates created for sale.

For the 666 Fifth Avenue senior mortgage loan, the Pooling and Servicing Agreement (PSA) in connection with GECMC 2007-C1 was the controlling agreement that other loan pieces

packaged into WBCMT 2007-C31 and WBCMT 2007-C33 would be subject to. Bank of America was the Master Servicer while LNR Partners, Inc. was the Special Servicer.

WBCMT 2007-C31

WBCMT 2007-C31 transaction was a CMBS deal of \$4,899,751,000 with Note A-3 and Note A-4 of the 666 Fifth Avenue senior mortgage whole loan with a total balance of \$395 million. Wachovia Commercial Mortgage Securities, Inc. was the depositor that packaged all loan pieces together into a trust called Wachovia Bank Commercial Mortgage Trust, Series 2007-C31. For the 666 Fifth Avenue senior mortgage loan, the controlling PSA was the PSA in connection with GECMC 2007-C1. Thus, Bank of America would perform as the Master Servicer and LNR Partners, Inc. would perform as the Special Servicer.

WBCMT 2007-C33

Note A-5 and Note A-7 of the 666 Fifth Avenue senior mortgage whole loan with a total balance of \$285.5 million were packaged into a trust, Wachovia Bank Commercial Mortgage Trust, Series 2007-C33 by the depositor Wachovia Commercial Mortgage Securities, Inc. Like WBCMT 2007-C31, the PSA in connection with GECMC 2007-C1 governed the 666 Fifth Avenue loan portion with Bank of America as the Master Servicer and LNR Partners, Inc. as the Special Servicer.

Chapter 5. Increasing Distress to Special Servicing

5.1 Increasing Distress

Immediate Challenges

Unlike the positive projection on the property's performance by the appraiser at acquisition, 666 Fifth Avenue immediately faced challenges in the same year of the transaction. In December 2007, the largest tenant Citibank announced that it would not renew its lease of 75,596 square feet out of its previously leased 365,070 square feet in 2008. This meant that the rental income would decrease by approximately \$7.2 million assuming that Citibank was paying \$95 per square foot for its leased space. In late 2007, the economy started to be largely hit by the financial crisis of 2007-2008.

Restructuring the Mezzanine Financing

As expected, Kushner Companies decided to sell 49% of the ground-level retail space to a JV between Carlyle Group and Crown Acquisitions for \$525 million in July 2008. This transaction refinanced the existing \$535 million mezzanine debt structure on 666 Fifth Avenue with a senior mortgage loan of \$325 million from Barclays Capital and a mezzanine loan of \$135 million from SL Green while enabling Kushner Companies to pay back the senior mezzanine loan of \$335 million and place additional amount in its reserve.

Trigger Events

Despite the efforts to make the property perform better, Kushner Companies continued losing money on 666 Fifth Avenue as its vacancy rate increased. As shown in Figure 23, the NOI had been decreasing significantly since 2007 while worsening the DSCR on NCF from 0.73x to 0.49x in 2010. According to Trepp, at the end of 2009, the on-going reserve balance was \$63,689,612.76 which was not enough to pay for \$77.2 million interest payments for the senior mortgage loan.

In March 2010, the senior mortgage loan was finally transferred to the Special Servicer, LNR Partners as Kushner Companies kept requesting for loan modifications in order to prevent any delinquency in 2010 although the loan was not in default. It was obvious that the on-going reserve balance would keep decreasing and the property was anticipated to default by June 2011.

Figure 23. Historical Financials in 2007-2011

	Securitization		Full Year Historical Financials			
	As-Is	Pro Forma	2007	2008	2010	2011
As of Date	-	-	12/2007	12/2008	12/2010	12/2011
Revenues		\$ 157,016,346	\$ 105,956,694	\$ 100,792,446	\$ 88,708,496	\$ 77,616,981
Expenses		\$ 38,399,113	\$ 44,968,110	\$ 50,737,346	\$ 45,783,672	\$ 45,554,877
NOI		\$ 118,617,233	\$ 60,988,584	\$ 50,055,101	\$ 42,924,824	\$ 32,062,104
NCF		\$ 114,381,673	\$ 56,753,024	\$ 45,819,539	\$ 38,689,263	\$ 27,826,543
DSCR (NOI)		1.52	0.78	0.64	0.55	0.57
DSCR (NCF)	0.65	1.46	0.73	0.58	0.49	0.50
Occupancy		98%		89%	78%	77%

Source: Trepp

5.2 The Workout

Loan Modification

After a series of negotiations between Kushner Companies and LNR Partners for almost 2 years, the modification of the \$1.215 billion senior mortgage loan was closed on December 15, 2011. During the period of negotiations, the property was re-appraised at only \$820 million which was reduced by more than a half of its original projected value of \$2 billion at acquisition in 2007.

The whole loan was bifurcated into A/B Notes structure: A-Note of \$1.1 billion and B-Note of \$115 million. With the senior loan amount of \$1.215 billion reduced to \$1.1 billion as A-Note, the B-Note was considered as a “hope certificate” which was to be paid when the property began to perform better with lower vacancy. The A-Note interest rate was reduced from 6.353% to 3% at closure and were to gradually increase up to 6.353% in 2017 while accruing at 6.353%. The B-Note interest rate was 0% while accruing at 6.353% as well. The maturity was also extended 2 years to February 5, 2019. With hard lockbox placed, the borrower, Kushner Companies, had no control over cash flow management and was not to be paid with rental income until the maturity. The required reserve amount of \$20 million had filled first and all excess cash flow beyond the reserve amount was to amortize the A-Note.

Figure 24. Appraisal and LTV Comparison

Source	Appraisal Date	Appraisal Amount	Appraisal / SF	LTV
	06/02/2011	\$ 820,000,000	\$ 564	148.17%
Pro Forma	03/01/2007	\$ 2,000,000,000	\$ 1,375	60.75%

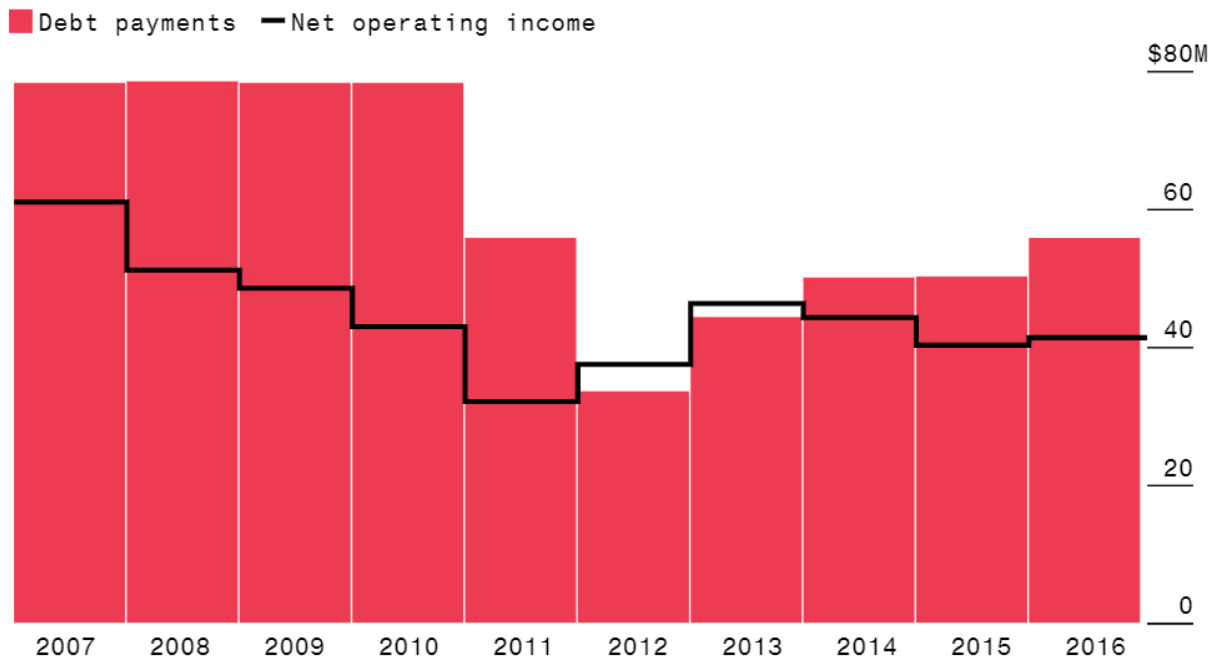
Source: Trepp

Figure 25. Modified Interest Rate for A-Note

Date Effective Through	Interest Rate	
	As-is	Modified
12/15/2011	6.353%	6.353%
12/15/2012		3.000%
12/15/2013		4.000%
12/15/2014		4.500%
12/15/2015		5.000%
12/15/2016		5.500%
12/15/2017		6.353%

Source: Trepp

Figure 26. Debt Payments vs. NOI



Source: Bloomberg

Recapitalization

As part of the deal, Kushner Companies partnered with Vornado Realty LP by selling 49.5% of the office tower in order to recapitalize the asset. \$110 million was to be committed for leasing costs, capital improvements, operating shortfalls, and closing costs. Vornado Realty LP funded \$80 million for new equity while Kushner Companies funded \$30 million by selling the air rights for construction for \$30.825 million to Starwood Capital Group. Likewise, as a new equity partner, Vornado Realty LP came to share the control and liability for 666 Fifth Avenue with Kushner Companies.

Efforts for Resolution

Furthermore, Kushner Companies kept leveraging the ground-level retail space in order to resolve the situation. In February 2011, Inditex, the owner of the fashion brand Zara, purchased the space previously leased to the NBA store for \$324 million to promote its presence on 5th Avenue. In addition, Vornado Realty LP decided to purchase all remaining retail space for \$707 million from Kushner Companies, Carlyle Group, and Crown Acquisitions in December 2012.

5.3 The Exit

After a series of efforts to transform the existing condition of 666 Fifth Avenue to a new ambitious building of office space, luxury condos on its top, and larger retail space on the ground fell apart, 666 Fifth Avenue started struggling with debt expenses as the modified interest rate increased back to 6.353% in 2017. As the hardship continued, Vornado Realty LP decided to sell its share of 49.5% in the office tower back to Kushner Companies for \$120 million in June 2018. At the same time, Kushner Companies kept negotiating with Brookfield Asset Management to figure out any possible measures to improve the current capital structure. Fortunately, in August, Brookfield Asset Management agreed to sign a 99-year leasehold of the office building for \$1,286,083,000 enabling Kushner Partners to finally pay back the bifurcated senior mortgage loan. The 11-year ambitious adventure by Kushner Companies was finally rescued and Kushner Companies was able to maintain its reputation without losing the entire property.

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