Real Estate Finance and Investments

Mid Term Exam

Spring 2016

NAME:______________________

<u>Information:</u> This is a closed book, individual exam. You are expected to adhere to the honor code. All outside material and help is prohibited. Answer all questions. Financial calculators are allowed. Answer questions in the space provided.

There are 3 questions. Be sure to show all working supporting your answers. **Very little credence will be given to answers that do not provide supporting calculations**. If a specific input you require is not provided, use your best judgment in determining an appropriate assumption. **<u>Illegible or incoherent presentation will be viewed unfavorably in the grading of this exam.</u>**

You have 1 hour and 10 minutes to complete the exam. The exam has 8 pages of information. Good luck.

Academic integrity is expected of all students at Cornell at all times, whether in the presence or absence of the faculty. Understanding this, I declare that I have not given, used, or received unauthorized aid on this exam.

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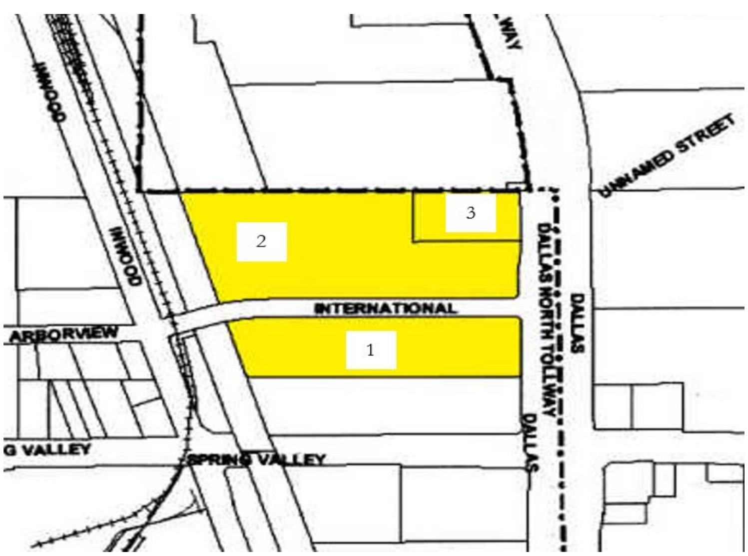
Student signature

JP Morgan International Plaza

JP Morgan International Plaza is a 3 building complex located in the Farmer's Branch submarket of Dallas, TX.[1] As seen in the figure below, the three buildings that make up the complex are: 1) 14201 Dallas Parkway, a 13-story 351,248 SF office building; 2) 14221 Dallas Parkway, a 15-story 405,603 SF office building; and 3) 14241 Dallas Parkway, a 13-story 351,248 SF office building. There are also two parking garages encompassing 4,539 parking spaces situated on the site behind Building 1 and Building 2. There are three separate land tax parcels for the complex. Building 1 and the first parking garage make up one lot, Building 2 plus the second parking garage and the center plaza make up the second lot, and Building 3 makes up the third lot.

[1] 14201, 14221, and 14241 Dallas Parkway, Dallas, TX 75254.

Land Tax Parcels



The properties were developed in sequence starting with the completion of Building 1 in 1999, and Buildings 2 and 3 in 2002. In 2000, JP Morgan Chase agreed to lease Building 1, and leased Building 2 upon its completion in 2002. The long term lease for both buildings runs until February 28, 2018. JP Morgan had the option of also leasing Building 3 when it was completed, but declined to sign a lease for that space. Building 3, which was renovated in 2012, is leased to multiple tenants and currently has 35,466 SF available with another 28,851 SF available for sublease. Asking rates for the space are between $34-35 PSF.

JP Morgan's lease provides them with certain termination rights. One floor in Building 1 effective January 31, 2011 with a termination fee of $16.09 PSF, and up to two floors in Building 2, effective November 30, 2012 with a termination fee of $16.32 PSF. JP Morgan did not exercise either of these options. However, JP Morgan subleases approximately 164,272 SF (Floors 8 to 13) of Building 2 to Fannie Mae. That sublease ends in November 2016.

Under the terms of the lease, JP Morgan reimburses the landlord for all operating expenses. In 2006 JP Morgan was paying rent of $18.36 PSF for Building 1 and $18.84 PSF for Building 2. Rent steps in the leases occurred in 2008 (Building 1 to $20.04 PSF and Building 2 to $20.4 PSF) and 2013 (Building 1 to $21.84 PSF and Building 2 to $21.34 PSF.) There are no additional rent increases during the lease term.

Operating expenses (excluding property taxes and electricity) at the property have grown modestly since 2006. In 2006 they were $4.45 PSF and in 2015 they were $5.56 PSF. Property taxes have declined slightly from $3.7 PSF in 2006 to $3.55 PSF in 2015. Over the lease term the buildings have been very well maintained and suffer from no deferred maintenance. Historic results for the property are reported in the figure below.

	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006*
Building 1 Rent PSF	21.84	21.84	21.84	20.04	20.04	20.04	20.04	20.04	18.36	18.36
Building 2 Rent PSF	21.34	21.34	21.34	20.4	20.4	20.4	20.4	20.4	18.84	18.84
Base Rental Revenue	16,326,824	16,326,824	16,326,824	15,313,311	15,313,311	15,313,311	15,313,311	15,313,311	14,090,474	9,393,649
Reimbursement Revenue	6,899,821	7,232,882	7,018,301	6,401,286	6,678,409	6,708,067	7,040,238	6,543,978	6,706,433	4,113,641
Other Income	16,105	5,047	12,013	6,742	3,298	18,938	5,025	2,317	7,612	804
Total Revenue	**23,242,750**	**23,564,753**	**23,357,138**	**21,721,339**	**21,995,018**	**22,040,316**	**22,358,574**	**21,859,606**	**20,804,519**	**13,508,094**
Property Taxes	2,691,650	2,693,450	2,408,092	2,180,969	2,211,473	2,483,928	2,893,159	2,620,497	2,696,772	1,868,450
Operating Expenses	4,210,249	4,544,632	4,620,209	4,219,717	4,466,926	4,224,236	4,146,278	3,924,488	4,010,711	2,244,475
Total Expenses	**6,901,899**	**7,238,082**	**7,028,301**	**6,400,686**	**6,678,399**	**6,708,164**	**7,039,437**	**6,544,985**	**6,707,483**	**4,112,925**
Net Operating Income	**16,340,851**	**16,326,671**	**16,328,837**	**15,320,653**	**15,316,619**	**15,332,152**	**15,319,137**	**15,314,621**	**14,097,036**	**9,395,169**
* Part year cash flows										

In 2006, all three buildings were sold as a portfolio for $282.5MM. At the time, Building 3 was 60% leased. As part of the transaction, the complex was replatted (into the tax lots described above) so the buildings could be owned by separate entities. To finance the acquisition, Greenwich Capital provided a $225MM loan package in April 2006. The collateral for the loan package excludes Building 3.[2] In underwriting the loan, Buildings 1 and 2 were assigned a combined appraised value of $268MM. The loan package consisted of a $194.25MM senior

[2] Building 3 was sold in April 2008 for $73.3MM

note paying 4.94%.[3] The loan's maturity date is June 10, 2016. The note has a custom amortization schedule, leaving an outstanding balance of $163,857,320 at maturity. This loan was securitized through GCCFC 2006-GG7. The prospectus summary from the senior loan is given below.[4]

Property Information	
Number of Mortgaged Real Properties	1
Location (City/State)	Farmers Branch, Texas
Property Type	Office
Size (sf)	756,851
Percentage Leased as of June 1, 2006	100.0%
Year Built/Year Renovated	1999/2002
Appraisal Value	$268,000,000
Underwritten Occupancy	100.0%
Underwritten Revenues	$19,975,974
Underwritten Total Expenses	$4,819,842
Underwritten Net Operating Income (NOI)	$15,156,132
Underwritten Net Cash Flow (NCF)	$15,080,447

Mortgage Loan Information	
Originator	GCFP
Cut-off Date Principal Balance	$194,060,178
Cut-off Date Principal Balance PSF/Unit	$256.40
Percentage of Initial Mortgage Pool Balance	5.4%
Number of Mortgage Loans	1
Type of Security	Fee Simple
Mortgage Rate	4.940%
Original Term to Maturity (Months)	122
Original Amortization Term (Months)	Custom (1)
Cut-off Date LTV Ratio	72.4%
LTV Ratio at Maturity	61.1%
Underwritten DSCR on NOI	1.33x
Underwritten DSCR on NCF	1.33x

(1) Amortization on the JP Morgan International Plaza I & II Trust Loan is based on a custom schedule which results in a loan balance at maturity approximately equivalent to that using a 388-month amortization schedule.

The $30.75MM remainder of the financing package was a subordinate interest only companion loan. This loan has a custom interest rate declining from 8.67% down to 8.17%. This loan was purchased by 111 Debt Acquisitions LLC, an affiliate of Newkirk Realty Trust. As part of the financing package, a hard lockbox was established for the properties. Under the terms of the lockbox, all cash flows after payment of all property operating expenses and loan debt service would be swept into a reserve account that was for the benefit of the secured mortgage lender. Required debt service payments on the senior and companion loan (excluding balloon payments) are reported below.

Year	Senior Note	Subordinate Note
2006*	$ 7,562,073	$ 1,777,133
2007	$ 11,346,115	$ 2,659,051
2008	$ 12,434,337	$ 2,652,420
2009	$ 12,613,170	$ 2,645,806
2010	$ 12,628,171	$ 2,639,208
2011	$ 11,956,842	$ 2,632,626
2012	$ 11,939,100	$ 2,626,061
2013	$ 11,560,160	$ 2,605,626
2014	$ 12,350,660	$ 2,584,744
2015	$ 12,342,048	$ 2,578,298
2016*	$ 6,217,545	$ 1,256,138
* 8 months in 2006 and 6 months in 2016		

[3] The difference between $194.25MM and the $194.06MM "cut off balance" reflects the seasoning of the loan at securitization.

[4] In underwriting the loan, the originator excluded property taxes and electric from their operating expense and reimbursement calculations because these were being directly billed to the tenant.

At the same time that the financing package was being put in place, the borrowing entity also took out a $10MM mezzanine loan.[5] The originator of the loan was FPG JPM Investor, LLC, an affiliate of the seller and the property manager. The interest only loan is coterminous with the senior and companion loans and has a contract interest rate of 6%, but interest on the loan will accrue while the senior loan is outstanding.

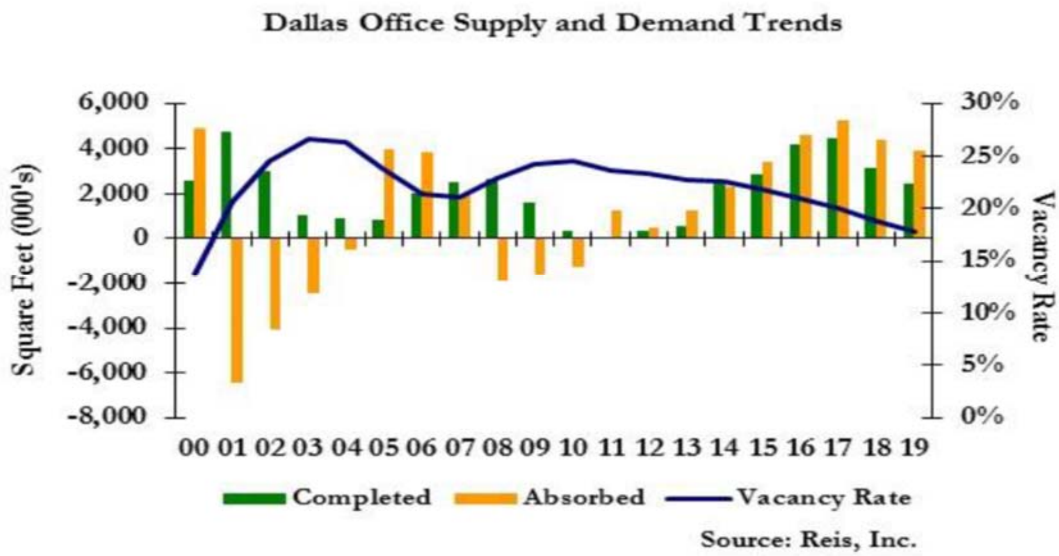
The intercreditor agreement between the senior and companion loan gives the companion loan the following purchase rights. In the event of the following: i) the senior loan is 60 days delinquent on principal and interest payments; ii) the senior loan has accelerated; iii) the senior loan is not paid at maturity; iv) the borrower files bankruptcy petition; or v) the loan becomes specially serviced, the companion loan may with written notice purchase the senior loan for the sum of: i) the outstanding principal balance of the senior loan; ii) any accrued interest; and iii) any outstanding servicing fees or expenses.

Rumors had been circulating since early 2015 that JP Morgan was considering consolidating its Dallas operations and was shopping for a 50-75 acre development site in Dallas and surrounding markets. In November 2015, the senior loan was transferred to special servicing after the borrower informed the lender that they believed they would be unable to refinance the loan when it came due in June 2016. In January 2016, JP Morgan announced they had selected a site in the Legacy West development in Plano, TX and would be building a 1MM SF office campus. The move in date for the project is expected to be in late 2017. JP Morgan has not publicly addressed its future at JP Morgan International Plaza. All they have said is that they plan to move about half of their 12,000 Dallas employees to the new office campus in Plano, but will keep some senior executives in their current location in the CBD.

In March 2016, it was announced that the special servicer had modified the loan. The modification took the form of a 2-year extension. The term of the senior loan was extended until February of 2018. The modification also allows for 3 one-year extensions past the new maturity date. These extensions are conditional on JP Morgan renewing their lease. Information has not been released regarding the companion and mezzanine loans, but given the loan structure, it is assumed those two loans have effectively been extended also.

The Dallas market has shown remarkable resilience to the recent down turn in oil prices. Unemployment stands at 3.8% down from 5.2% a year earlier. Although low oil prices have been somewhat of a drag on the market as a whole, the affordability of the market for businesses has led to several large headquarters relocations to the market (Toyota, Raytheon, Liberty Mutual, FedEx, and State Farm Insurance are all in the process of relocating to the area.) These firms have been attracted to the Plano submarket to the north of Dallas, and this has resulted in significant rent growth and construction activity in the submarket. Of the 9 million square feet of space under construction, 73.5% is located in Plano. The strength of Plano and the Uptown submarkets mask the weakness in the CBD, where vacancy is 25.8%.

[5] The borrowers are five tenant-in-common, special-purpose, bankruptcy remote entities: 70 Washington Street LP, DCW Holdings LP, LaShawn LP, 70 Wash LP, and 30 Main LP. 70 Washington Street LP owns 40.80% of the property, DCW Holdings LP owns 34.39% of the property, LaShawn LP owns 11.00% of the property, 70 Wash LP owns 8.32% of the property and 30 Main LP owns 5.49% of the property. The general partner of each of the five borrowing entities is controlled by either David Walentas, or Jane Walentas, as an individual or trustee. David Walentas has a 40.6% overall ownership interest, and Jane Walentas controls 59.0% of the ownership interests. David Walentas, founder of Two Trees Management Company, guaranteed the non-recourse carveouts of the loan package.



The Farmer's Branch submarket in which JP Morgan International Plaza is located (north of the CBD and south of Plano) has fared reasonably well, but performance is heavily segmented by property quality. Only 12% of the stock of properties in the submarket were built after 2000, and these properties tend to have significantly lower vacancy rates and higher rental rates. The submarket is largely built out although there are developable parcels available, however minimal construction activity is planned in the market. A 240,000 SF office building is expected to break ground in late 2016 and come online in early 2018.

Of the top 40 leases signed in the Dallas market in 2015, only 2 were in the Farmer's Branch submarket. These were 2 lease renewals to Behringer for 66,000 and 60,000 SF respectively and they ranked 32nd and 35th on the list respectively.

Farmer's Branch Submarket

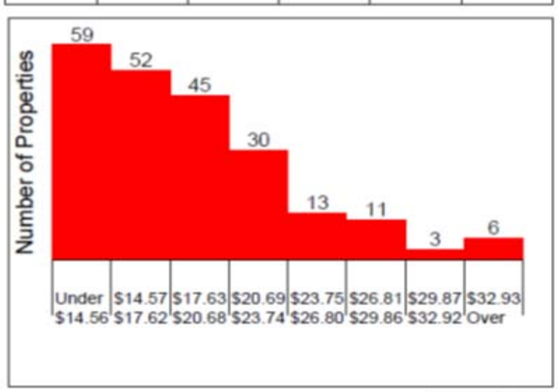
Asking Rent by Age

Year Built	Rent
Before 1970	$18.92
1970-1979	$13.70
1980-1989	$20.63
1990-1999	$25.86
2000-2009	$26.66
After 2009	$26.09
All	$21.83

As of 12/31/15

Asking Rent Distribution

Low	25%	Mean	Median	75%	High
$11.50	$16.82	$21.83	$21.27	$26.00	$35.95



As of 12/31/15

Vacancy Rate By Age

Year Built	Vac. Rate
Before 1970	100.0%
1970-1979	30.1%
1980-1989	22.7%
1990-1999	14.5%
2000-2009	8.5%
After 2009	13.2%
All	19.0%

As of 12/31/15

An examination of similar Class A properties located near JP Morgan International Plaza benchmarks mean asking rents at $29.75 PSF, average vacancy at 8.7%, TI allowances of $13.5 PSF, and rent concessions of approximately 3%.[6] (The difference in maximum asking rent between the figure above and figure below is due to the first figure being for all properties in the Farmer's Branch submarket, while the figure below includes only similar quality properties that are geographically close to JP Morgan International Plaza, but can be in a different submarket.)

Comparable Group Summary Statistics

	Low	Mean	Median	High
Current Asking Rent/ SF	$23.00	$29.75	$28.48	$41.76
Current Vacancy Rate	0.0%	8.7%	6.5%	22.4%
Operating Expenses/ SF	$7.20	$7.93	$7.97	$8.99
Real Estate Taxes/ SF	$2.46	$3.11	$2.86	$4.81
Property Size (SF)	300,000	396,406	393,548	519,675
Year Built	1986	1997	1999	2002

Pricing in the Dallas market has been quite patchy. REIS reports that the overall rolling 12-month office cap rate in the market was 6.9% for Q4 2015. There has been very limited sales volume in the Farmer's Branch submarket. Two Class A multi-tenant properties sold for approximately $235 PSF in 2014-2015.[7] For the market as a whole, top quality assets have transacted with cap rates in the high 5s, but these properties have tended to be newer and farther north towards West Plano and Frisco.

Required:

1) Discuss the quality of the 2006 debt stack. Relate this to the prospectus supplement from the senior loan.
2) What do you think Building 1 and 2 are worth today?
3) Based on your answer to Q2, critically evaluate the loan modification. Would you have modified the loan differently? Explain.

[6] The higher operating expense PSF numbers for comparable properties is due to the NNN nature of the JP Morgan lease. JP Morgan is directly billed for electricity and this not included as operating expenses or reimbursement income in the historic financials for the property.

[7] CoStar reports the cap rates for these properties were 4.12% and 5.4% respectively. While both properties had largely stabilized occupancy, both had significant free rent embedded in the NOI used to calculate the cap rates. Based on reported rental rates, occupancy, and estimate property expenses, the implied cap rates for these transactions were around 6.3%.