Real Estate Financial Modeling – Certification Quiz Questions

Module 4 – 3-Hour Multifamily Acquisition and Credit Case Study (The Lyric)

1. **You are working on a model for the acquisition of a 234-unit multifamily property in Seattle, Washington. The sponsor plans to spend $104 million (Going-In Cap Rate of 4.50%), and has asked your firm, a real estate lender, to fund the Senior Loan (65% LTV), Mezzanine (10% LTV), and Preferred Equity (10% LTV) in the deal for a Total LTV of 85%.**

   You have built a Pro-Forma model with Base, Downside, and Extreme Downside cases to analyze the deal from a credit perspective, as well as returns calculations for each investor group. Some of the operating assumptions across the cases are shown below:

Operating Assumptions:	Units:	Historical: FY18	Projected: FY19	FY20	FY21	FY22	FY23	Stabilized Year:
Property Management Fee % EGI:	%	3.0%						
Market Rent per Unit per Month:	$ / RSF / Mo.	$ 2,500	$ 2,625	$ 2,756	$ 2,880	$ 3,010	$ 3,130	$ 3,240
In-Place Rent per Unit per Month:	$ / RSF / Mo.	2,300	2,428	2,618	2,808	2,980	3,099	3,207
In-Place Rent Discount to Market Rent:	%	8.0%	7.5%	5.0%	2.5%	1.0%	1.0%	1.0%
Parking Fees per Spot per Month:	$ / Spot / Mo.	150.00	157.50	165.38	172.82	180.59	187.82	194.39
Utility Reimbursements % Utility Expense:	%	85.0%	86.0%	87.0%	88.0%	89.0%	90.0%	90.0%
Income Growth Rate:								
Base	%	5.0%	5.0%	5.0%	4.5%	4.5%	4.0%	3.5%
Downside	%	5.0%	5.0%	(3.0%)	(1.0%)	6.0%	4.5%	3.5%
Extreme Downside	%	5.0%	5.0%	(6.0%)	(3.0%)	5.0%	4.0%	3.0%
Selected Income Growth Rate:	%	**5.0%**	**5.0%**	**5.0%**	**4.5%**	**4.5%**	**4.0%**	**3.5%**
General Vacancy:								
Base	%	(3.0%)	(3.0%)	(3.0%)	(3.0%)	(3.0%)	(3.0%)	(3.0%)
Downside	%	(3.0%)	(3.0%)	(6.0%)	(4.0%)	(3.5%)	(3.0%)	(3.0%)
Extreme Downside	%	(3.0%)	(3.0%)	(8.0%)	(6.0%)	(4.0%)	(3.0%)	(3.0%)
Selected General Vacancy:	%	**(3.0%)**	**(3.0%)**	**(3.0%)**	**(3.0%)**	**(3.0%)**	**(3.0%)**	**(3.0%)**
Bad Debt & Concessions % In-Place Rent:								
Base	%	(3.0%)	(3.0%)	(3.0%)	(3.0%)	(3.0%)	(3.0%)	(3.0%)
Downside	%	(3.0%)	(3.0%)	(6.0%)	(5.0%)	(4.0%)	(3.0%)	(3.0%)
Extreme Downside	%	(3.0%)	(3.0%)	(8.0%)	(6.0%)	(5.0%)	(4.0%)	(3.0%)
Selected Bad Debt & Concessions %:	%	**(3.0%)**	**(3.0%)**	**(3.0%)**	**(3.0%)**	**(3.0%)**	**(3.0%)**	**(3.0%)**
Sales, Marketing & Administrative % EGI:	%	10.0%	10.1%	10.2%	10.3%	10.4%	10.5%	10.5%
% Apartment Unit Turnover:	%	10.0%	12.0%	14.0%	16.0%	18.0%	20.0%	20.0%
Tenant Improvement (TI) Growth Rate:								
Base	%	4.0%	4.0%	4.0%	3.5%	3.5%	3.0%	2.5%
Downside	%	4.0%	4.0%	10.0%	10.0%	(8.0%)	(4.0%)	2.5%
Extreme Downside	%	4.0%	4.0%	15.0%	10.0%	(12.0%)	(7.0%)	2.5%
Selected TI Growth Rate:	%	**4.0%**	**4.0%**	**4.0%**	**3.5%**	**3.5%**	**3.0%**	**2.5%**
Tenant Improvements (TIs) per Unit Leased:	$ / Unit / Yr.	800.00	832.00	865.28	895.56	926.91	954.72	978.58
Leasing Commissions % Effective Rent:								
Base	%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
Downside	%	3.0%	3.0%	8.0%	6.0%	5.0%	4.0%	3.0%
Extreme Downside	%	3.0%	3.0%	12.0%	8.0%	6.0%	4.5%	3.0%
Selected Leasing Commission %:	%	**3.0%**	**3.0%**	**3.0%**	**3.0%**	**3.0%**	**3.0%**	**3.0%**
Capital Expenditures per Unit per Year:	$ / Unit / Yr.	-	1,000.00	1,500.00	750.00	-	200.00	-

Based <u>solely</u> on your knowledge of the industry and market cycles, what is the biggest problem with these assumptions?

a. The sponsor is assuming that In-Place Rents move closer to Market Rents over time but is not assuming a higher General Vacancy, Bad Debt & Concessions, or other trade-offs in exchange for these rental increases.

b. The Apartment Unit Turnover, at 10-20%, seems far too low since multifamily properties tend to have much higher turnover percentages.

c. It seems like the TIs and LCs increase by far too much in the Downside and Extreme Downside Cases when there's a recession in Years 2-3.

d. It is unrealistic for both In-Place Rents as a % of Market Rents and Utility Reimbursements as a % of Utility Expense to improve at the same time.

e. After the initial downturn in the Downside and Extreme Downside Cases, Market Rents ("Income Growth Rate") should not grow more quickly than in the Base Case.

2. The bottom portion of this same property's Pro-Forma in the Extreme Downside Case is shown below:

		Historical:	Projected:				
Property Pro-Forma:	***Units:***	**FY18**	**FY19**	**FY20**	**FY21**	**FY22**	**FY23**
Adjusted Net Operating Income:	$	**4,441,188**	**4,703,157**	**3,916,196**	**3,947,772**	**4,628,090**	**4,916,775**
Adjusted NOI Margin:	%	*63.4%*	*63.6%*	*60.7%*	*59.2%*	*63.3%*	*63.4%*
(-) Cash Interest Expense on Senior Loan:	$		(2,717,380)	(2,751,347)	(2,853,249)	(2,823,811)	(2,789,843)
(-) Cash Interest Expense on Mezzanine:	$		(418,058)	(434,781)	(452,172)	(470,259)	(489,069)
(-) Senior Loan Principal Repayment:	$		-	-	(2,264,483)	(2,264,483)	(2,264,483)
Cash Flow to Equity Investors:	$		**1,567,719**	**730,068**	**(1,622,132)**	**(930,462)**	**(626,620)**
PIK Interest on Mezzanine:	$		(418,058)	(434,781)	(452,172)	(470,259)	(489,069)
PIK Interest on Preferred Equity:	$		(1,045,146)	(1,149,661)	(1,264,627)	(1,391,089)	(1,530,198)
(+) Ending Senior Loan Balance:	$	$ 67,934,496	$ 67,934,496	$ 67,934,496	$ 65,670,013	$ 63,405,530	$ 61,141,046
(+) Ending Mezzanine Balance:	$	10,451,461	10,869,519	11,304,300	11,756,472	12,226,731	12,715,800
(+) Ending Preferred Equity Balance:	$	10,451,461	11,496,607	12,646,268	13,910,894	15,301,984	16,832,182
Ending Debt Balance:	$	**88,837,418**	**90,300,622**	**91,885,064**	**91,337,379**	**90,934,245**	**90,689,029**
LIBOR:	%	1.70%	1.90%	2.05%	2.20%	2.30%	2.40%
Interest Rate on Senior Loan:	%		4.00%	4.05%	4.20%	4.30%	4.40%
Debt Yield - NOI:	%		*5.3%*	*4.4%*	*4.7%*	*5.2%*	*5.6%*
Debt Yield - Adjusted NOI:	%		*5.3%*	*4.4%*	*4.4%*	*5.2%*	*5.5%*
Cash Interest Coverage Ratio - NOI:	x		*1.50 x*	*1.23 x*	*1.26 x*	*1.41 x*	*1.52 x*
Cash Interest Coverage Ratio - Adjusted NOI:	x		*1.50 x*	*1.23 x*	*1.19 x*	*1.40 x*	*1.50 x*
Debt Service Coverage Ratio (DSCR) - NOI:	x		*1.50 x*	*1.23 x*	*0.74 x*	*0.84 x*	*0.90 x*
Debt Service Coverage Ratio (DSCR) - Adj. NOI:	x		*1.50 x*	*1.23 x*	*0.71 x*	*0.83 x*	*0.89 x*

Your firm is seeking a minimum Debt Yield of 6.0%, minimum Cash Interest Coverage Ratio of 1.50x, and minimum Debt Service Coverage Ratio (DSCR) of 1.20x. How might you recommend tweaking the terms of the Senior Loan to boost the property's credit stats and ratios?

a. Use less Debt, such as a Total LTV of 70-75% rather than 85%.

b. Implement a "Holdback" for the Senior Loan such that the full amount is not distributed upfront, but only as the CapEx is spent.

c. Allow for a longer Interest-Only Period on the Senior Loan, such as 3-4 years, in exchange for a slightly higher Interest Rate, such as a LIBOR Spread of 2.50% rather than 2.00%.

d. Drop the Mezzanine and Preferred Stock to reduce the Cash Interest Expense and make the Debt entirely a Senior Loan.

e. All of the above.

3. **You are building the Equity Returns Schedule for this model in the Base Case.**

   You want to reflect the fact that the Senior Lenders have the highest repayment priority, followed by the Mezzanine Investors, followed by the Preferred Investors.

   To implement that logic correctly, what is the correct formula for the highlighted red cell below (for the Prepayment Penalty on the Senior Loan in FY 23)?

Returns to Equity Investors:	Units:	Historical: FY18	Projected: FY19	FY20	FY21	FY22	FY23
Forward NOI:	$		$ 5,106,361	$ 5,511,234	$ 5,872,721	$ 6,117,944	$ 6,348,531
Applicable Capitalization Rates:							
Base	%	4.50%	4.55%	4.60%	4.65%	4.70%	4.75%
Downside	%	4.50%	4.55%	6.00%	5.50%	5.00%	5.00%
Extreme Downside	%	4.50%	4.55%	6.50%	6.00%	5.50%	5.25%
Selected Capitalization Rate:	%	**4.50%**	**4.55%**	**4.60%**	**4.65%**	**4.70%**	**4.75%**
Implied Property Value:	$		112,227,709	119,809,433	126,295,071	130,169,027	133,653,280
Cash Flow to Equity Investors (Leveraged IRR):							
(-) Initial Equity Investment:	$	(18,110,712)	-	-	-	-	-
(+) Proceeds from Sale of Property:	$		-	-	-	-	133,653,280
(+) Return of Replacement Reserve:	$		-	-	-	-	-
(-) Selling Costs:	$		-	-	-	-	(2,673,066)
(+) Cash Flows to Equity Investors:	$		1,567,719	1,920,233	(135,439)	314,168	569,704
(-) Senior Loan Repayment:	$		-	-	-	-	(61,141,046)
(-) Mezzanine Repayment:	$		-	-	-	-	(12,715,800)
(-) Preferred Equity Repayment:	$		-	-	-	-	(16,832,182)
(-) Prepayment Penalty on Senior Loan:	$						
(-) Prepayment Penalty on Mezzanine:	$						
(-) Prepayment Penalty on Preferred Equity:	$						
(-) Equity Granted to Preferred Investors:	$						
Total Cash Flows to Equity (Leveraged IRR):	$	**$ (18,110,712)**	**$ 1,567,719**	**$ 1,920,233**	**$ (135,439)**	**$ 314,168**	**$ 40,860,889**

In the answer choices below, assume that "Year_Number" is 5 for FY 23 and that "Remaining_Senior_Loan" and "Senior_Loan_Maturity" mean what they say.

a. = –MAX(0, MIN(–Prepayment_Fee * K201, SUM(K$197:K203)))

b. = –Prepayment_Fee * Remaining_Senior_Loan

c. = –MAX(0, MIN(–Prepayment_Fee * Remaining_Senior_Loan, SUM(K$197:K203)))

d. = IF(Year_Number < Senior_Loan_Maturity, –MAX(0, MIN(–Prepayment_Fee * K201, SUM(K$197:K203))), 0)

e. = IF(Year_Number < Senior_Loan_Maturity, –MAX(0, MIN(–Prepayment_Fee * Remaining_Senior_Loan, SUM(K$197:K203))), 0)

4. The sensitivity tables for the IRR and Recovery for each tranche of Debt are shown below:

Sensitivity Analyses:

Senior Lenders - IRR vs. Exit Date and Market Scenario:

	Exit Date:		
	FY21	FY22	FY23
Base	4.9%	4.7%	4.7%
Downside	4.4%	4.7%	4.7%
Extreme Downside	4.4%	4.4%	4.7%

Senior Lenders - Recovery vs. Exit Date and Market Scenario:

	Exit Date:		
	FY21	FY22	FY23
Base	100.0%	100.0%	100.0%
Downside	100.0%	100.0%	100.0%
Extreme Downside	100.0%	100.0%	100.0%

Mezzanine Investors - IRR vs. Exit Date and Market Scenario:

	Exit Date:		
	FY21	FY22	FY23
Base	8.9%	8.7%	8.2%
Downside	8.4%	8.7%	8.2%
Extreme Downside	(1.7%)	8.3%	8.2%

Mezzanine Investors - Recovery vs. Exit Date and Market Scenario:

	Exit Date:		
	FY21	FY22	FY23
Base	100.0%	100.0%	100.0%
Downside	100.0%	100.0%	100.0%
Extreme Downside	72.7%	100.0%	100.0%

Preferred Investors - IRR vs. Exit Date and Market Scenario:

	Exit Date:		
	FY21	FY22	FY23
Base	14.8%	13.7%	12.7%
Downside	5.3%	11.9%	11.4%
Extreme Downside	#NUM!	3.7%	10.5%

Preferred Investors - Recovery vs. Exit Date and Market Scenario:

	Exit Date:		
	FY21	FY22	FY23
Base	100.0%	100.0%	100.0%
Downside	86.8%	100.0%	100.0%
Extreme Downside	-	78.1%	100.0%

Mezzanine Investors - Recovery vs. Year 5 Exit Cap Rate and Market Scenario:

Market Scenario:	Year 5 Exit Cap Rate:								
	5.00%	**5.25%**	5.50%	5.75%	6.00%	6.25%	6.50%	6.75%	7.00%
Base	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Downside	**100.0%**	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Extreme Downside	100.0%	**100.0%**	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	85.3%

Preferred Investors - Recovery vs. Year 5 Exit Cap Rate and Market Scenario:

Market Scenario:	Year 5 Exit Cap Rate:								
	5.00%	**5.25%**	5.50%	5.75%	6.00%	6.25%	6.50%	6.75%	7.00%
Base	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	92.6%
Downside	**100.0%**	100.0%	100.0%	100.0%	100.0%	85.7%	65.5%	46.8%	29.4%
Extreme Downside	100.0%	**100.0%**	100.0%	82.7%	60.8%	40.7%	22.1%	4.9%	-

Mezzanine Investors - IRR vs. Year 5 Exit Cap Rate and Market Scenario:

Market Scenario:	Year 5 Exit Cap Rate:								
	5.00%	**5.25%**	5.50%	5.75%	6.00%	6.25%	6.50%	6.75%	7.00%
Base	8.2%	8.2%	8.2%	8.2%	8.2%	8.2%	8.2%	8.2%	8.2%
Downside	**8.2%**	8.2%	8.2%	8.2%	8.2%	8.2%	8.2%	8.2%	8.2%
Extreme Downside	8.2%	**8.2%**	8.2%	8.2%	8.2%	8.2%	8.2%	8.2%	5.2%

Preferred Investors - IRR vs. Year 5 Exit Cap Rate and Market Scenario:

Market Scenario:	Year 5 Exit Cap Rate:								
	5.00%	**5.25%**	5.50%	5.75%	6.00%	6.25%	6.50%	6.75%	7.00%
Base	12.3%	12.0%	11.6%	11.3%	11.0%	10.8%	10.5%	10.3%	8.5%
Downside	**11.4%**	11.1%	10.8%	10.5%	10.2%	6.9%	1.3%	(5.3%)	(13.7%)
Extreme Downside	10.8%	**10.5%**	10.2%	6.1%	(0.2%)	(7.9%)	(18.5%)	(39.7%)	#NUM!

Based on these tables, a co-worker argues that the Mezzanine is the best tranche to invest in. Is he/she correct?

a. Yes – it appears to offer nearly twice the IRR of the Senior Loan, but with only incrementally higher risk.

b. No – the Mezzanine Recovery is under 100%, and its IRR is negative in the Extreme Downside Case with an FY 21 exit.

c. Yes – the floating Interest Rate on the Senior Loan and the PIK Interest on the Preferred create unfavorable risk/potential returns profiles for both of those.

d. No – the Preferred Stock offers superior returns, but only if we put in place a higher penalty for early repayment in Year 3 (FY 21).

e. No – the Mezzanine IRRs are too low when Exit Cap Rates rise significantly, so the Senior Loan is the best tranche to fund.

5. **The Mezzanine LTV in this deal is 10%, and it has a 4.0% fixed Cash Interest Rate and a 4.0% fixed Paid-in-Kind Interest Rate, along with a 5-year maturity and no amortization. Based on these terms and the tables above, how might we change the Mezzanine to mitigate risk in this deal?**

   a. Negotiate for a higher Prepayment Penalty in Year 3 in exchange for no penalty after that, or lower Issuance Fees.

   b. Negotiate for a higher Cash Interest Rate in exchange for a lower PIK Interest Rate.

   c. Link the Interest Rates to the property's Average Rent or Occupancy Rate, and increase the Rates when one of those declines.

   d. Statements A and B, but not C.

   e. Statements A and C, but not B.

   f. Statements B and C, but not A.

   g. All the statements above.

6. **You have also completed a quick DCF and valuation analysis for this property. The baseline Discount Rate in the DCF is 6.65%, based on the Debt Interest Rates and LTV and the targeted Equity IRR of 15.0%, and the Terminal Value is based on a 0.50% spread above the selected Year 5 Cap Rate (since the Year 10 Cap Rate will likely be higher).**

   The output in the Base Case is shown below (the property asking price is $104 million):

DCF - Unleveraged Cash Flow Projections:	Units:	Historical: FY18	Projected: FY19	FY20	FY21	FY22	FY23	FY24	FY25	FY26	FY27	FY28
Net Operating Income (NOI):	$	$ 4,441,188	$ 4,703,157	$ 5,106,361	$ 5,511,234	$ 5,872,721	$ 6,117,944	$ 6,348,531	$ 6,570,729	$ 6,767,851	$ 6,937,048	$ 7,075,789
NOI Growth Rate:	%	*N/A*	*5.9%*	*8.6%*	*7.9%*	*6.6%*	*4.2%*	*3.8%*	3.5%	3.0%	2.5%	2.0%
Unleveraged Cash Flow (Adjusted NOI):	$	4,441,188	4,703,157	5,106,361	5,434,465	5,872,721	6,113,099	6,348,531	6,472,168	6,666,334	6,832,992	6,969,652
Adjusted NOI % NOI:	%	*100.0%*	*100.0%*	*100.0%*	*98.6%*	*100.0%*	*99.9%*	*100.0%*	98.5%	98.5%	98.5%	98.5%
Present Value of Cash Flows:	$		4,554,168	4,636,286	4,626,522	4,687,878	4,575,490	4,455,418	4,258,966	4,113,207	3,953,153	3,780,793
Normal Discount Period:	*Year Frac.*		1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000	10.000
Mid-Year Discount Period:	*Year Frac.*		0.500	1.500	2.500	3.500	4.500	5.500	6.500	7.500	8.500	9.500

Terminal Cap Rate (Applied to Year 11 Stabilized NOI):	Discount Rate: 5.75%	6.00%	6.25%	6.50%	6.75%	7.00%	7.25%	7.50%
7.00%	$ 104,134,128	$ 102,244,409	$ 100,398,898	**$ 98,596,422**	**$ 96,835,839**	$ 95,116,044	$ 93,435,960	$ 91,794,546
6.75%	106,306,706	104,366,287	102,471,375	**100,620,760**	**98,813,265**	97,047,751	95,323,109	93,638,264
6.50%	108,646,405	106,651,386	104,703,273	**102,800,816**	**100,942,801**	99,128,051	97,355,423	95,623,806
6.25%	111,173,280	109,119,294	107,113,723	**105,155,277**	**103,242,700**	101,374,775	99,550,322	97,768,191
6.00%	113,910,728	111,792,860	109,725,044	**107,705,942**	**105,734,256**	103,808,726	101,928,129	100,091,276
5.75%	**116,886,214**	**114,698,911**	**112,563,437**	**110,478,405**	**108,442,470**	**106,454,325**	**104,512,702**	**102,616,368**
5.50%	**120,132,200**	**117,869,148**	**115,659,864**	**113,502,910**	**111,396,886**	**109,340,433**	**107,332,236**	**105,371,013**
5.25%	**123,687,327**	**121,341,312**	**119,051,190**	**116,815,463**	**114,632,674**	**112,501,409**	**110,420,297**	**108,388,006**
5.00%	127,597,967	125,160,692	122,781,649	**120,459,271**	**118,192,040**	115,978,482	113,817,164	111,706,698

Replacement Cost Analysis:

Category / Line Item:		Units:	Rentable SF:
The Lyric (215 10th Ave E) - Property Statistics:		234	186,215

Expense Category:	Total in $ as Stated:	% Total: Dev Costs:	$ per Unit:	$ per Rentable SF:
Land Acquisition Costs:				
(+) Land Purchase:	$ 22,000,000		$ 94,017	$ 118.14
(+) Taxes & Fees:	1,700,000		7,265	9.13
Total Land Costs:	**23,700,000**	**24.1%**	**101,282**	**127.27**
Hard Costs:				
(+) Excavation & Construction:	51,035,700		218,101	274.07
(+) Contingency:	1,531,071		6,543	8.22
(+) General Contractor Fee:	2,551,785		10,905	13.70
Total Hard Costs:	**55,118,556**	**56.0%**	**235,549**	**295.99**
Soft Costs:				
(+) Architectural & Engineering:	2,495,150		10,663	13.40
(+) Real Estate Taxes:	600,000		2,564	3.22
(+) Office and Common Area FF&E:	748,000		3,197	4.02
(+) Engineering:	745,123		3,184	4.00
(+) Startup Expenses:	345,178		1,475	1.85
(+) Legal & Closing:	415,415		1,775	2.23
(+) Impact & Permit Fees:	3,589,012		15,338	19.27
(+) Contingency:	1,500,000		6,410	8.06
(+) Development Fee:	2,415,975		10,325	12.97
Total Soft Costs:	**12,853,853**	**13.1%**	**54,931**	**69.03**
Financing Costs:	**6,782,895**	**6.9%**	**28,987**	**36.43**
Total Development Costs:	**98,455,304**	**100.0%**	**420,749**	**528.72**
Development Profit (20%):	**19,691,061**		**84,150**	**105.74**
Total Replacement Cost:	**$ 118,146,365**		**$504,899**	**$ 634.46**

Comparable Property Sales for The Lyric (215 10th Ave E)

Property Name:	# Units:	# Square Feet:	Avg. Unit Size in SF:	Year Built:	Sale Date:	Sale Price:	Price per Unit:	Price per SF:	Cap Rate:
Griffis Belltown	233	178,392	766	1991	2016-01-21	$ 90,750,000	$389,485	$ 508.71	3.90%
Packard Building	61	53,679	880	2010	2016-02-29	25,866,000	424,033	481.86	4.00%
Cornelius	137	62,380	455	1925	2016-03-16	29,950,000	218,613	480.12	5.40%
Whitworth	54	40,297	746	1927	2016-07-22	18,230,000	337,593	452.39	4.20%
Rivet	131	134,900	1,030	2014	2016-08-01	54,750,000	417,939	405.86	4.40%
Walton Lofts	137	98,875	722	2015	2016-08-08	76,675,000	559,672	775.47	4.60%
Cue	90	59,391	660	2015	2016-08-12	39,663,000	440,700	667.83	4.50%
Anthem on 12th	120	73,813	615	2015	2016-09-15	35,034,877	291,957	474.64	5.20%
JUXT	361	343,203	951	2016	2016-10-05	151,400,000	419,391	441.14	4.60%
Summit	52	31,602	608	1949	2016-12-30	17,000,000	326,923	537.94	4.30%
Union Bay	73	86,525	1,185	1994	2017-01-12	24,000,000	328,767	277.38	4.60%
Radius	282	225,600	800	2015	2017-02-03	141,000,000	500,000	625.00	4.00%
Helix-Ellipse	150	121,000	807	2006	2017-08-15	53,961,430	359,743	445.96	4.50%
Bridges @ 11th	184	159,716	868	2015	2017-10-12	64,400,000	350,000	403.22	4.40%
8th & Republican	211	280,000	1,327	2016	2017-10-30	101,300,000	480,095	361.79	4.10%
Sherwood Apartments	49	32,398	661	1912	2018-03-02	13,995,000	285,612	431.97	3.60%
Median:	**134**	**92,700**	**783**	**2012**	**2016-09-25**	**$ 46,812,215**	**$374,614**	**$ 463.52**	**4.40%**

What is the significance of this valuation/DCF from a credit perspective?

a. Nothing much because the Discount Rate in the DCF is too arbitrary to be useful, and the other methodologies have issues as well, such as much smaller properties for the Comp Sales.

b. It tells us that the asking price of $104 million is reasonable, and the stated LTV of 85% is also reasonably accurate.

c. These results indicate significant downside risk for the Equity Investors, but also for the junior lenders (Mezzanine and Preferred) since the property's implied value is above $104 million in 2 out of 3 methodologies.

d. It tells us that the 85% LTV is far too high because the LTVs implied by Replacement Cost and Comp Sales Analyses are lower.

e. These results aren't that useful because we need to look at the output in the Downside and Extreme Downside Cases to reach conclusions.