REIT Financial Modeling – Certification Quiz Questions

Module 1 – REIT Overview and Short Case Studies/Modeling Tests

1. **You are comparing Equity REITs (Real Estate Investment Trusts) to real estate private equity (REPE) funds. Which of the following statements correctly describe(s) the similarities and differences between these entities?**

   a. REPE funds buy, sell, and develop properties constantly, while REITs focus on operating existing properties rather than buying, selling, and developing.

   b. REITs are required to distribute a high percentage of their Net Income in the form of Dividends; REPE funds face no such requirement.

   c. For REITs, high percentages of Revenue and Assets must be real estate-related; REPE funds face no such requirements.

   d. Both REITs and REPE funds tend to pay no corporate taxes or minimal corporate taxes – because REPE funds are structured as limited partnerships, and REITs get special tax treatment if they comply with their Dividend, Revenue, Asset, and other requirements.

   e. Both REITs and REPE funds tend to raise Debt and Equity constantly to fund their business operations.

   f. REITs record large Depreciation charges on their financial statements but no Fair Value Gains or Losses, while REPE funds do the opposite.

   g. All the statements above are correct.

   h. Only statements A, B, C, and D are correct.

   i. Only statements B, C, and D are correct.

   j. Only statements B, C, D, and E are correct.

k. Only statements B, C, and E are correct.

l. Only statements A, B, C, E, and F are correct.

2. You are reviewing a 3-statement projection model for a U.S.-based Equity REIT in the hotel sector. The REIT's Cash Flow Statement Drivers, including its FFO, Dividends, and Debt and Equity issuances are shown below:

		Historical:			Projected:				
Cash Flow Statement Drivers:	***Units:***	**FY14**	**FY15**	**FY16**	**FY17**	**FY18**	**FY19**	**FY20**	**FY21**
Recurring Maintenance CapEx % Revenue:	%	6.8%	8.4%	8.3%	8.4%	8.5%	8.6%	8.7%	8.8%
(+) Net Income Attributable to Parent:	$ M	$ 176	$ 292	$ 132	$ 279	$ 280	$ 293	$ 295	$ 299
(+) Depreciation & Amortization:	$ M	248	287	300	316	331	353	377	401
(+) Impairment Loss:	$ M	-	-	15	-	-	-	-	-
(-) Gain / (+) Loss on Sale of Assets, Net:	$ M	-	(143)	-	30	29	27	26	24
(+/-) Other Adjustments:	$ M	-	18	35	35	35	35	35	35
Funds from Operations (FFO):	$ M	**$ 424**	**$ 454**	**$ 482**	**$ 659**	**$ 675**	**$ 708**	**$ 733**	**$ 758**
Dividends % FFO:	%				65.0%	65.0%	65.0%	65.0%	65.0%
Planned Dividends:	$ M				429	439	460	476	493
Scheduled Debt Maturities:	$ M				55	-	-	12	750
Minimum Cash Balance:	$ M				119	124	130	137	144
Cash Balance Before Debt/Equity Financing:	$ M				296	87	(140)	(194)	(959)
Debt/Equity Funding Required:	$ M				-	37	270	331	1,104
Debt Issued:	$ M				-	18	135	166	552
Equity Issued:	$ M				-	18	135	166	552
Share Count:	*# Millions*			197.605	197.605	198.263	203.122	209.083	228.959

Key Metrics and Ratios:	Units:	Historical: FY14	Historical: FY15	Historical: FY16	Projected: FY17	Projected: FY18	Projected: FY19	Projected: FY20	Projected: FY21
EBITDA:	$ M	$ 688	$ 730	$ 733	$ 750	$ 763	$ 793	$ 823	$ 851
EBITDA Growth:	%	N/A	6.1%	0.4%	2.3%	1.8%	4.0%	3.8%	3.4%
EBITDA Margin:	%	27.4%	27.2%	26.9%	26.6%	26.3%	26.1%	25.8%	25.5%
Net Operating Income (NOI):	$ M	755	826	818	838	853	888	923	955
NOI Growth:	%	N/A	9.4%	(1.0%)	2.4%	1.9%	4.1%	3.9%	3.5%
Forward Cap Rate Based on Gross RE Assets:	%	9.9%	7.9%	8.0%	8.1%	8.2%	8.1%	8.1%	
Dividends per Share:	$ as Stated				$ 2.17	$ 2.21	$ 2.26	$ 2.28	$ 2.15
Dividend Yield:	%				7.8%	8.0%	8.2%	8.2%	7.8%
Debt / EBITDA:	x	6.18 x	5.63 x	4.40 x	4.22 x	4.18 x	4.19 x	4.22 x	3.85 x
Net Debt / EBITDA:	x	6.12 x	5.53 x	4.00 x	3.83 x	4.01 x	4.02 x	4.05 x	3.68 x
EBITDA / Interest:	x	3.72 x	3.95 x	4.09 x	6.29 x	6.51 x	6.92 x	6.89 x	7.00 x
Total Debt / Total Equity:	%	164.0%	146.9%	84.3%	86.1%	89.9%	94.4%	99.1%	84.7%
Total Debt / Total Assets:	%	43.8%	42.0%	32.8%	32.8%	33.4%	34.5%	35.6%	33.1%
EV / EBITDA:	x			11.4 x	11.2 x	11.0 x	10.5 x	10.2 x	9.8 x
P / FFO:	x			11.4 x	8.3 x	8.1 x	7.8 x	7.5 x	7.2 x

Based on this screenshot, which of the following statements represents VALID criticism of this model?

a. It seems that the model assumes 50/50 Debt/Equity funding, even for scheduled Debt maturities, which means the REIT may be raising higher-cost funding and straying from its targeted capital structure.

b. The projected Gains and Losses shown here are almost certainly too low, which may be distorting the REIT's FFO and Dividends.

c. The REIT's EBITDA Margins decline over time, even though NOI appears to be growing in-line with GDP or the inflation rate.

d. The REIT's Share Count increases each year, even though there is no way to project the REIT's future share price – it would be better to hold the Share Count constant.

e. All of the above.

3. You have built a Net Asset Value (NAV) Model for the same company to value this REIT based on its forward NOI and a range of Cap Rates. The basic model is shown below:

ASSETS:			
Forward Property Net Operating Income (NOI):	$ M	$	838
(÷) Assumed Cap Rate:	%		7.5%
Market Value of Gross Real Estate Operating Assets:	$ M	**$**	**11,168**
Construction-in-Progress:	$ M		79
(x) Market Value Adjustment:	%		80.0%
Market Value of Construction-in-Progress:	$ M		**63**
Cash & Cash-Equivalents:	$ M		293
Accounts Receivable:	$ M		130
Goodwill & Other Intangibles:	$ M		648
(x) Market Value Adjustment:	%		10.0%
Market Value of Goodwill & Other Intangibles:	$ M		**65**
Other Assets:	$ M		222
Total Market Value of Assets:	$ M	**$**	**11,941**
LIABILITIES & EQUITY:			
Debt & Other Borrowings:	$ M		(3,222)
(x) Market Value Adjustment:	%		100.0%
Market Value of Debt & Other Borrowings:	$ M		**(3,222)**
Accounts Payable:	$ M		(167)
Other Liabilities:	$ M		(2,622)
Noncontrolling Interests (NCI):	$ M		49
Net Asset Value (NAV):	$ M	**$**	**5,979**
NAV per Share:	$ as Stated	$	30.26
Current Share Price:	$ as Stated	$	27.77
NAV per Share Premium / (Discount) to Current:	%		9.0%
Cap Rate Implied by Current Share Price:	%		7.8%

Based on this screenshot, which of the following statements represents something INCORRECT or a potential problem with this model?

a. It's unusual to adjust the market value of Construction-in-Progress *down* from its book value; usually, the construction is expected to be worth more upon completion.

b. Goodwill & Other Intangibles should be worth $0, not some positive number, because they have no fair market value.

c. Ideally, the model should use a *range* of Cap Rates or NOI by segment to determine a plausible valuation range for the company (these can also be in separate sensitivity table).

d. It's unusual *not* to adjust the fair market value of the Debt – if interest rates have changed since the Debt was originally issued, its FMV is likely different now.

e. All of the above.

4. **You are valuing a European REIT. You get the following results from a set of Public Comps, which are based on European Office, Industrial, and Retail REITs with Fair Value of Investment Properties Between €3 and €15 Billion:**

Valuation Statistics:	Capitalisation			Fair Value of	Leverage	Enterprise Value /			
	Equity	Enterprise	Total	Investment	(Debt to		EBITDA		P / BV
Company Name	Value	Value	Assets	Properties	Total Assets)	FY16	FY17	FY18	FY16
intu properties plc	€ 4,286	€ 9,963	€ 12,128	€ 10,800	48.6%	23.0 x	21.7 x	21.7 x	0.7 x
British Land Company Plc	7,065	11,555	15,751	10,722	27.5%	19.9 x	20.2 x	20.5 x	0.7 x
Derwent London Plc	3,226	4,543	5,912	5,666	21.3%	32.1 x	28.7 x	28.6 x	0.7 x
Société Foncière Lyonnaise	2,236	4,596	5,764	5,632	34.9%	27.0 x	26.0 x	25.6 x	0.7 x
Hammerson plc	5,088	9,229	11,452	5,622	36.1%	23.5 x	24.4 x	24.3 x	0.8 x
SEGRO Plc	4,512	6,384	7,145	5,514	26.9%	32.1 x	23.6 x	22.3 x	0.9 x
Altarea Cogedim	2,554	6,358	7,081	4,256	44.6%	29.7 x	19.8 x	17.0 x	1.6 x
Beni Stabili SpA SIIQ	1,202	3,467	4,240	3,995	54.1%	25.1 x	24.6 x	24.8 x	0.6 x
Wereldhave N.V.	1,604	3,312	3,948	3,804	39.7%	18.5 x	18.2 x	17.9 x	0.8 x
Shaftesbury PLC	2,860	3,856	3,983	3,764	25.5%	46.8 x	43.5 x	37.4 x	1.0 x
Eurocommercial Properties N.V.	1,658	3,219	3,619	3,461	43.9%	21.4 x	20.8 x	20.5 x	0.9 x
alstria office REIT-AG	1,748	2,987	3,383	3,006	43.9%	19.3 x	19.7 x	19.0 x	1.0 x
Maximum	€ 7,065	€ 11,555	€ 15,751	€ 10,800	54.1%	46.8 x	43.5 x	37.4 x	1.6 x
75th Percentile	4,343	7,096	8,222	5,640	44.1%	30.3 x	24.9 x	25.0 x	0.9 x
Median	**€ 2,707**	**€ 4,569**	**€ 5,838**	**€ 4,885**	**37.9%**	**24.3 x**	**22.6 x**	**22.0 x**	**0.8 x**
25th Percentile	1,726	3,428	3,974	3,794	27.3%	21.0 x	20.1 x	20.1 x	0.7 x
Minimum	1,202	2,987	3,383	3,006	21.3%	18.5 x	18.2 x	17.0 x	0.6 x
Inmobiliaria Colonial SOCIMI, S.A.	**€ 2,256**	**€ 7,553**	**€ 8,228**	**€ 7,770**	**44.9%**	**35.0 x**	**32.6 x**	**31.2 x**	**1.0 x**

The company you are valuing ("Colonial") is growing its EBITDA at 4-5% vs. a median of 1-2% for the comparable companies. It is also a bit larger than the average comparable in terms of Enterprise Value, Total Assets, Fair Value of Investment Properties, and EBITDA, and it is slightly more leveraged (45% vs. 38%). What can you conclude, based on this information and the screenshot above?

a. The P / BV multiple is meaningless because REITs have high Accumulated Depreciation balances, which depress their Book Values.

b. Most likely, Colonial is appropriately valued right now since its multiples are higher than the median multiples of the set, but its growth rates and financial metrics are also higher.

c. You cannot say much because EV / EBITDA and EBITDA are not appropriate metrics for IFRS-based REITs due to the recognition of Fair Value Gains and Losses on the Income Statement.

d. Colonial is likely to be overvalued currently because its growth rate is over 2x the median growth rate of the set, but its multiples are only 25-50% higher.

e. You cannot say much because this set of Public Comps is too broad – you should select only one sector, such as Office or Retail, and you should limit the set to 1-2 European countries rather than the entire continent.