Advanced Financial Modeling – Certification Quiz Questions

Module 5 – Valuation Interpretation, Real-Life Usage, and Supplemental Methodologies

1. Suppose that you are drafting a "Long" stock pitch for a healthcare company, in which you recommend investing in the company's stock because you think its price will rise.

   Which of the following is **NOT** an appropriate catalyst?

   a. Generic drugs could potentially enter the market within the next year and drive down prices for the company's core products.

   b. An ongoing lawsuit is likely to be settled in the company's favor this year, extending the exclusivity period for its highest-priced drugs.

   c. New drugs in the company's pipeline will launch in 2-3 years, following their approval in the U.S. and EU.

   d. The company will announce the clinical trial results from its most promising drug candidate in ~6 months; the results are rumored to be positive.

   e. All of the above (i.e., NONE of these is an appropriate catalyst).

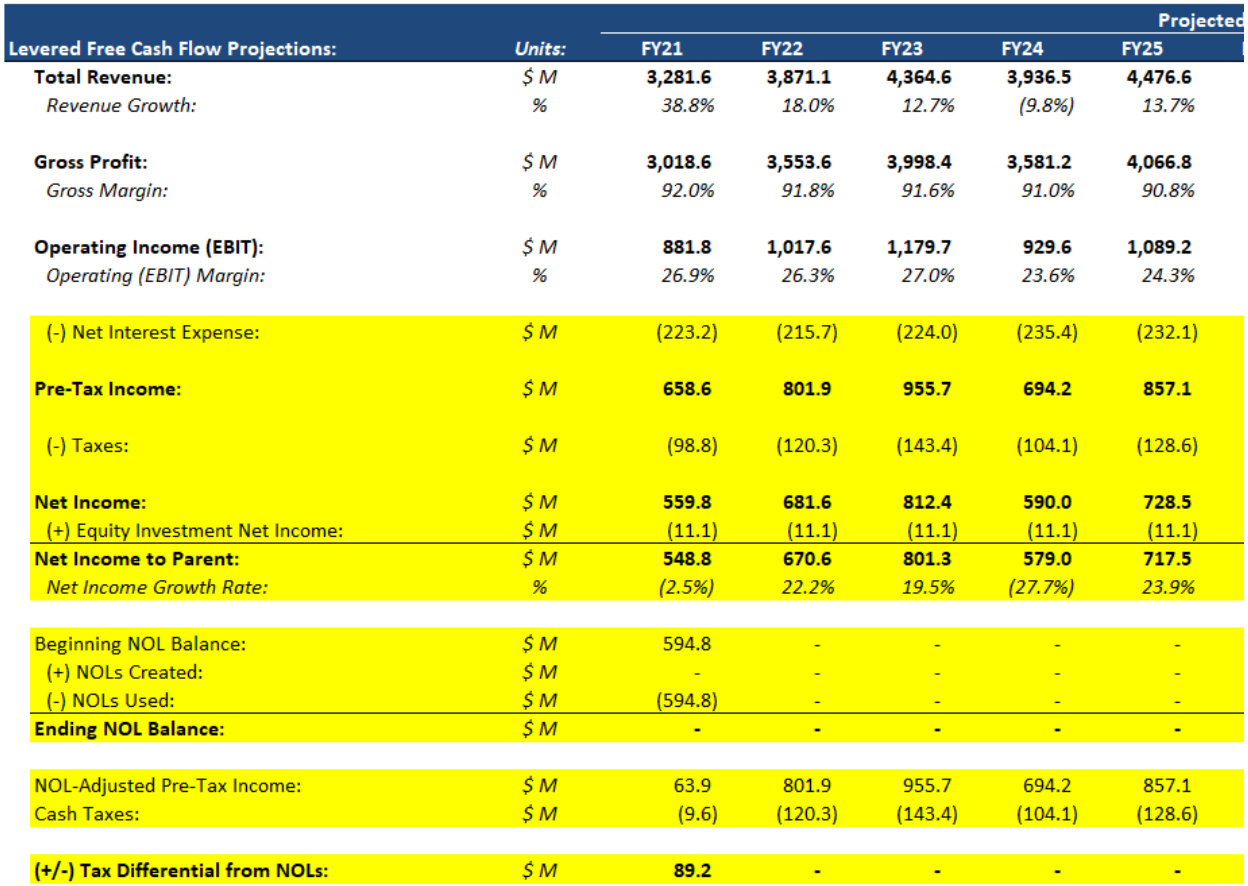
   f. Answer choices B, C, and D.

   g. Answer choices A and C.

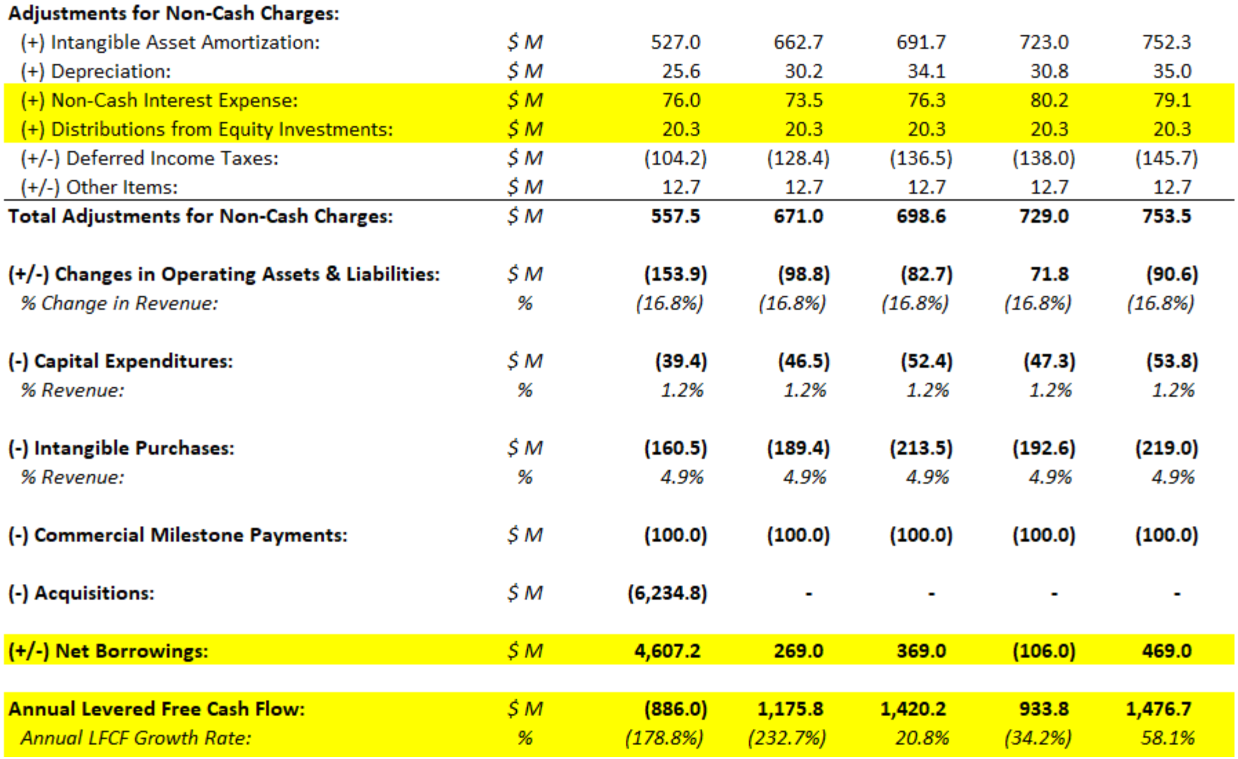
   h. Answer choices A, B, and D.

2. You have built a traditional Unlevered DCF analysis for a biotech company. Unfortunately, your VP is a sadistic micromanager who enjoys wasting time on pointless tasks, so he has asked you to convert your analysis into a Levered DCF "to see what it would look like."

Although you’re tempted to quit your job, you agree to his request and convert your analysis. The FCF projections in this Levered DCF are shown below, with the differences highlighted in yellow:



		Projected				
Levered Free Cash Flow Projections:	*Units:*	**FY21**	**FY22**	**FY23**	**FY24**	**FY25**
Total Revenue:	*$ M*	**3,281.6**	**3,871.1**	**4,364.6**	**3,936.5**	**4,476.6**
Revenue Growth:	*%*	*38.8%*	*18.0%*	*12.7%*	*(9.8%)*	*13.7%*
Gross Profit:	*$ M*	**3,018.6**	**3,553.6**	**3,998.4**	**3,581.2**	**4,066.8**
Gross Margin:	*%*	*92.0%*	*91.8%*	*91.6%*	*91.0%*	*90.8%*
Operating Income (EBIT):	*$ M*	**881.8**	**1,017.6**	**1,179.7**	**929.6**	**1,089.2**
Operating (EBIT) Margin:	*%*	*26.9%*	*26.3%*	*27.0%*	*23.6%*	*24.3%*
(-) Net Interest Expense:	*$ M*	(223.2)	(215.7)	(224.0)	(235.4)	(232.1)
Pre-Tax Income:	*$ M*	**658.6**	**801.9**	**955.7**	**694.2**	**857.1**
(-) Taxes:	*$ M*	(98.8)	(120.3)	(143.4)	(104.1)	(128.6)
Net Income:	*$ M*	**559.8**	**681.6**	**812.4**	**590.0**	**728.5**
(+) Equity Investment Net Income:	*$ M*	(11.1)	(11.1)	(11.1)	(11.1)	(11.1)
Net Income to Parent:	*$ M*	**548.8**	**670.6**	**801.3**	**579.0**	**717.5**
Net Income Growth Rate:	*%*	*(2.5%)*	*22.2%*	*19.5%*	*(27.7%)*	*23.9%*
Beginning NOL Balance:	*$ M*	594.8	-	-	-	-
(+) NOLs Created:	*$ M*	-	-	-	-	-
(-) NOLs Used:	*$ M*	(594.8)	-	-	-	-
Ending NOL Balance:	*$ M*	**-**	**-**	**-**	**-**	**-**
NOL-Adjusted Pre-Tax Income:	*$ M*	63.9	801.9	955.7	694.2	857.1
Cash Taxes:	*$ M*	(9.6)	(120.3)	(143.4)	(104.1)	(128.6)
(+/-) Tax Differential from NOLs:	*$ M*	**89.2**	**-**	**-**	**-**	**-**



Adjustments for Non-Cash Charges:						
(+) Intangible Asset Amortization:	$ M	527.0	662.7	691.7	723.0	752.3
(+) Depreciation:	$ M	25.6	30.2	34.1	30.8	35.0
(+) Non-Cash Interest Expense:	$ M	76.0	73.5	76.3	80.2	79.1
(+) Distributions from Equity Investments:	$ M	20.3	20.3	20.3	20.3	20.3
(+/-) Deferred Income Taxes:	$ M	(104.2)	(128.4)	(136.5)	(138.0)	(145.7)
(+/-) Other Items:	$ M	12.7	12.7	12.7	12.7	12.7
Total Adjustments for Non-Cash Charges:	$ M	**557.5**	**671.0**	**698.6**	**729.0**	**753.5**
(+/-) Changes in Operating Assets & Liabilities:	$ M	**(153.9)**	**(98.8)**	**(82.7)**	**71.8**	**(90.6)**
% Change in Revenue:	%	*(16.8%)*	*(16.8%)*	*(16.8%)*	*(16.8%)*	*(16.8%)*
(-) Capital Expenditures:	$ M	**(39.4)**	**(46.5)**	**(52.4)**	**(47.3)**	**(53.8)**
% Revenue:	%	*1.2%*	*1.2%*	*1.2%*	*1.2%*	*1.2%*
(-) Intangible Purchases:	$ M	**(160.5)**	**(189.4)**	**(213.5)**	**(192.6)**	**(219.0)**
% Revenue:	%	*4.9%*	*4.9%*	*4.9%*	*4.9%*	*4.9%*
(-) Commercial Milestone Payments:	$ M	**(100.0)**	**(100.0)**	**(100.0)**	**(100.0)**	**(100.0)**
(-) Acquisitions:	$ M	**(6,234.8)**	**-**	**-**	**-**	**-**
(+/-) Net Borrowings:	$ M	**4,607.2**	**269.0**	**369.0**	**(106.0)**	**469.0**
Annual Levered Free Cash Flow:	$ M	**(886.0)**	**1,175.8**	**1,420.2**	**933.8**	**1,476.7**
Annual LFCF Growth Rate:	%	*(178.8%)*	*(232.7%)*	*20.8%*	*(34.2%)*	*58.1%*

Given the conceptual and mechanical differences in this version, which of the following assumptions are MORE IMPORTANT than in an Unlevered DCF?

a. A possible Normalized Terminal Year following Year 10 of the explicit forecast period.

b. A Debt Schedule that tracks borrowings, repayments, and the net interest expense.

c. Detailed support for the CapEx, Intangible Purchase, and Commercial Milestone Payment projections.

d. Cost of Equity calculations based on the predicted or forward Beta rather than the standard historical numbers.

e. All of the above.

f. Answer choices A and B.

g. Answer choices A, B, and D.

h. Answer choices B and D.

i. Answer choices B and C.

3. Now that you've wasted time converting your Unlevered DCF into a Levered DCF, this same sadistic VP wants you to convert an Unlevered DCF for another company into a Dividend Discount Model (DDM) instead.

   This VP believes that the implied values produced by the DDM should be quite similar to those produced by the Unlevered DCF.

   However, in your analysis, the DDM keeps producing significantly lower implied values. What is the most PLAUSIBLE way to change the assumptions in this analysis such that it produces higher implied values, closer to those from the Unlevered DCF?

   a. You should set the Dividend Payout Ratio or the Dividends per Share to higher numbers so that the annual Dividends exceed the annual UFCF.

   b. You should calculate the Cost of Equity using assumptions that result in the Cost of Equity being less than WACC; a lower Discount Rate should boost the implied values from the analysis.

   c. Set the Terminal Multiple or Terminal Growth Rate assumptions such that the Terminal Value is significantly higher under the DDM.

   d. All the methods above are equally plausible.

   e. Only answer choices A and B.

   f. Only answer choices B and C.

   g. Only answer choices A and C.