Advanced Financial Modeling – Certification Quiz Questions

Modules 9 and 10 – More Complex LBO Models and Case Studies

1. Consider the Debt Schedule shown below for a leveraged buyout in which the private equity firm enacts a leveraged Dividend Recap in Year 3:

			Stub:	Post-Transaction - Projected:				
Debt Schedule:	*Units:*	**2020-12-31**	**2021-03-31**	**FY22**	**FY23**	**FY24**	**FY25**	**FY26**
Sources of Funds:								
Cash - Beginning of Period:			-	38.4	43.3	50.5	61.3	71.7
(+) Free Cash Flow Minus Dividends:			17.1	59.8	64.5	(236.2)	135.7	205.1
(+) Additional Term Loan A Issuance (Div Recap):			-	-	-	324.9	-	-
(-) Issuance Fees on Dividend Recap Debt:			-	-	-	(6.5)	-	-
(-) Mandatory Debt Repayments:			(8.2)	(33.3)	(33.3)	(33.3)	(65.8)	(65.8)
(-) Minimum Cash:			(38.4)	(43.3)	(45.2)	(48.6)	(51.9)	(55.3)
Cash Flow Available Before Revolver:			**(29.4)**	**21.6**	**29.3**	**50.8**	**79.3**	**155.7**
(+) Revolver Borrowing Required:			29.4	-	-	-	-	-
Debt Balances (Face Values):								
Revolver:		-	29.4	7.8	-	-	-	-
Term Loan A:		302.9	295.4	265.1	224.1	493.3	390.9	250.3
Term Loan B:		302.9	302.1	299.1	290.7	274.9	252.1	210.1
Senior Unsecured Notes:		201.9	201.9	201.9	201.9	201.9	201.9	201.9
Subordinated Notes:		201.9	202.9	207.0	211.1	215.3	219.6	224.0
Mezzanine:		201.9	205.4	219.8	235.1	251.6	269.2	288.1
Total Debt (Face Value):		**1,211.4**	**1,237.1**	**1,200.6**	**1,162.9**	**1,437.1**	**1,333.7**	**1,174.4**
Mandatory Debt Repayments:	**% Principal:**							
Revolver:	0.0%		-	-	-	-	-	-
Term Loan A:	10.0%		7.5	30.3	30.3	30.3	62.8	62.8
Term Loan B:	1.0%		0.7	3.0	3.0	3.0	3.0	3.0
Senior Unsecured Notes:	0.0%		-	-	-	-	-	-
Subordinated Notes:	0.0%		-	-	-	-	-	-
Mezzanine:	0.0%		-	-	-	-	-	-
Mandatory Debt Repayment Total:			**8.2**	**33.3**	**33.3**	**33.3**	**65.8**	**65.8**

As shown above, the PE firm was initially planning to fund this Dividend Recap with an additional Term Loan A issuance.

The PE firm is now thinking about using a Subordinated Note issuance to fund this Dividend Recap instead. The Subordinated Notes will have 100% PIK Interest with no Cash Interest component.

Which of the following answer choices represent the correct ADVANTAGES and DISADVANTAGES of this Subordinated Note funding for the Dividend Recap, compared with the originally planned Term Loan?

a. The Cash Interest Expense and Mandatory Debt Principal Repayments following the Dividend Recap would decrease.

b. The IRR and money-on-money (MoM) multiple would likely decrease because the Subordinated Notes are more expensive than the Term Loans.

c. Even if the Subordinated Notes have a lower Cash cost, they might still cause potential problems with the covenants on the other tranches of Debt, depending on how ratios such as EBITDA / Total Interest change.

d. With the Subordinated Note funding, the company would be able to fund additional Dividend Recaps more easily due to the reduction in Cash Interest Expense and Mandatory Debt Principal Repayments.

e. All of the statements above are correct.

f. Only statements A and B are correct.

g. Only statements A, B, and C are correct.

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

i. Only statements A and C are correct.

2. You are analyzing the returns to the Mezzanine lenders in a leveraged buyout. The Mezzanine has a 5% fixed cash interest rate, 7% fixed PIK interest, a 5% original issue discount, a 2% prepayment penalty based on a 10-year maturity, and a 1% equity grant upon exit. The Base Case numbers are shown below:

Returns to Mezzanine:								
(-) Initial Investment:	£ M	(201.9)						
(+) Original Issue Discount (OID):	£ M	10.1						
(+) Cash Interest Received:	£ M		2.5	10.3	11.0	11.8	12.6	13.5
(+) Mandatory/Optional Principal Repayments:	£ M		-	-	-	-	-	-
(+) Issuance Fees:	£ M	4.0	-	-	-	-	-	-
(+) Prepayment Penalty:	£ M		-	-	-	-	-	5.8
(+) Equity Granted to Mezzanine Investors:	£ M		-	-	-	-	-	66.2
(+) Repayment Upon Exit:	£ M		-	-	-	-	-	288.1
Total Cash Flows:	£ M	**(187.8)**	**2.5**	**10.3**	**11.0**	**11.8**	**12.6**	**373.5**
Mezzanine Multiple:	x	**2.2 x**						
Mezzanine IRR:	%	**18.0%**						
Mezzanine Recovery:	%	**100.0%**						

The lenders want to boost their IRR to the 20-25% range in cases where the company performs well. They plan to do this by negotiating for a higher equity grant, such as 2-3%, in exchange for a reduction in the other terms.

Which of the following changes represents the MOST REALISTIC method to achieve this goal?

a. Reduce the prepayment penalty to 0% in exchange for the slightly higher equity grant.

b. Reduce the OID to 1-2% in exchange for the slightly higher equity grant.

c. Remove the cash interest component and accept a 12% fixed PIK interest rate in exchange for the slightly higher equity grant.

d. Reduce both the cash interest and PIK interest components by 1-2% in exchange for the slightly higher equity grant.

3. You are completing an open-ended, "take-home" LBO case study in which you need to select a public company to model. Once you've built the model, you will draft a presentation with your investment recommendation. You've narrowed your list of candidates to three companies, with the following financial stats:

Company A: 13x EBITDA multiple; 15% EBITDA margin; 20% revenue growth; 5% FCF yield

Company B: 10x EBITDA multiple; 25% EBITDA margin; 10% revenue growth; 15% FCF yield

Company C: 7x EBITDA multiple; 20% EBITDA margin; 5% revenue growth; 8% FCF yield

Company A has traded at EBITDA multiples between 10x and 15x over the past 5 years, Company B has traded at multiples between 9x and 14x, and Company C has traded at multiples between 4x and 10x.

Based on ONLY this financial information, which of these companies is the best candidate for your LBO case study?

a. Company A.

b. Company B.

c. Company C.

d. All three companies would be about the same.

e. Unable to answer the question without additional information.

4. You are completing an LBO case study in which you're creating three operational scenarios for the company (Base, Upside, and Downside) and assuming that its core business achieves different market share and revenue figures in each case.

   Additionally, you're assuming that it completes 100% Debt-funded add-on acquisitions of smaller companies trading at lower multiples to boost its EBITDA. The company's FCF yield is healthy, so it can repay substantial portions of this additional Debt each year.

   An excerpt of the model is shown below:

Total EBIT from Acquisitions:	*$ M*	**12.0**	**24.4**	**37.1**	**50.2**	**63.7**

		Projected				
Income Statement:	***Units:***	**FY21**	**FY22**	**FY23**	**FY24**	**FY25**
(+) Marketplace Subscription Advertising:	$ M	$ 442.2	$ 444.1	$ 443.3	$ 439.7	$ 435.6
(+) Display Advertising, PPL & Other:	$ M	109.0	108.3	108.9	109.6	109.4
(+) Revenue from Acquisitions:	$ M	200.0	406.0	618.2	836.7	1,061.8
Total Revenue:	$ M	**751.1**	**958.4**	**1,170.4**	**1,386.1**	**1,606.8**
Revenue Growth:	*%*	*37.2%*	*27.6%*	*22.1%*	*18.4%*	*15.9%*
Operating Expenses:						
(-) Cost of Revenue and Operations:	$ M	(104.7)	(110.5)	(116.0)	(120.9)	(125.3)
(-) Product and Technology:	$ M	(60.2)	(60.3)	(60.3)	(60.0)	(59.5)
(-) Marketing and Sales:	$ M	(165.0)	(151.4)	(141.8)	(135.3)	(131.4)
(-) General and Administrative:	$ M	(56.7)	(56.8)	(56.8)	(56.5)	(56.0)
(-) Affiliate Revenue Share:	$ M	(11.5)	(11.4)	(11.5)	(11.5)	(11.5)
(-) Cash Expenses from Acquisitions:	$ M	(180.0)	(365.4)	(556.4)	(753.1)	(955.6)
(-) Depreciation:	$ M	(14.0)	(14.0)	(14.0)	(13.9)	(13.8)
(-) D&A from Acquisitions:	$ M	(8.0)	(16.2)	(24.7)	(33.5)	(42.5)
(-) Amortization of Existing Intangibles:	$ M	(85.0)	(71.7)	(69.8)	(67.2)	(52.5)
(-) Goodwill Impairment:	$ M	-	-	-	-	-
Total Operating Expenses:	$ M	**(684.9)**	**(857.7)**	**(1,051.2)**	**(1,251.8)**	**(1,448.1)**
Operating Income / (Loss):	$ M	**66.2**	**100.6**	**119.2**	**134.3**	**158.6**
Operating Margin:	*%*	*8.8%*	*10.5%*	*10.2%*	*9.7%*	*9.9%*

Based on the results of the model (an IRR of 20-22% in the Base Case vs. the 20% target, 4-8% in the Downside Case vs. the 0% target, and 30-33% in the Upside Case vs. the 30% target), you're planning to recommend this deal because it meets or exceeds the targeted returns in all cases.

What is the biggest potential PROBLEM with your logic?

a. You're not considering the case where the add-on acquisitions fail or are executed on less favorable terms, such as at higher multiples.

b. You're not considering the case where the add-on acquisitions must be funded by a combination of Debt and Equity rather than 100% Debt.

c. If the Downside Case still produces a positive IRR, it may not use realistic operating assumptions.

d. It appears that the EBIT margin of these acquired companies is quite different from the parent company's standalone EBIT margin, so the operating assumptions for the acquisitions may not be plausible.

e. The revenue from the add-on acquisitions exceeds the parent company's standalone revenue by Year 5, which seems overly aggressive.