



## Top 10 Technical Questions

### Sample Accounting Questions:

1. You are a manufacturing company and just sold several pieces of equipment for \$60m -- could you walk me through how this impacts the three financial statements?
  - a. The interviewer is first trying to see if you understand the difference between market value and book value -- market value is what you sold the asset for (\$60m), but book value is what it is recorded in the financial statements. Hence, **first** ask what the book value is of the asset. Let's just say the interviewer states that the book value is \$20m...
  - b. Then, a \$40m gain is recorded. This gain is taxable, so ask for the tax rate (or assume one and explicitly state your assumption to the interviewer -- keep the mental math easy). Let's say the tax rate is 20%...
  - c. Income Statement: Hence, net income increases by \$32m on the income statement
  - d. Cash Flow Statement: On the Cash Flow Statement, your net income increase will flow through to the top of the Cash Flow from Operating Activities, but you also need to make an entry in the Cash Flow from Investing section -- you record a sale of the book value of the asset (which is \$20m), and your combined change in net cash flow is \$52m
  - e. Balance Sheet: Cash increases by \$52m, but your PP&E decreases by the book value of the asset (\$20m). Hence, your change in Total Assets is \$32m. On the "L+OE" side of the balance sheet, owners equity increases by \$32m due to the increase in retained earnings stemming from the change in net income
  - f. *Now what happens if this is a loss*
    - i. Let's say you sell it for \$10m. Book value stays the same at \$20m. A \$10m loss is recorded, and at a 20% tax rate, net income decreases by \$8m. This translates to net income decreasing on the Cash Flow Statement by \$8m -- in the Cash Flow from Investing section, methodology doesn't change, with a recorded sale of the book value amount (\$20m). Hence, Net Cash Flow increases by \$12m. On the balance sheet, your cash would increase by \$12m, but your PP&E would decrease by \$20m, resulting in Total Assets declining by \$8m. This is then matched on the "L+OE" side, with owners equity decreasing by \$8m due to the decline in retained earnings stemming from the change in net income
2. You realize that a portfolio company has misstated depreciation and that it should be \$20m higher. Walk me through how this affects the three financial statements
  - a. Do not be fooled by the slightly different wording. Think of this as the typical investment banking question, "walk me through how \$[xx]m of depreciation flows through the three financial statements?"
  - b. **First**, similar to question #2, ask for the tax rate. Let's assume it is 20% again to keep the mental math simple...
  - c. Income Statement: Because depreciation should be \$20m higher, your expenses increase by \$20m. Hence, your net income falls by \$16m
  - d. Cash Flow Statement: On the cash flow statement, remember that depreciation is a non-cash expense -- while the decrease of \$16m of net income flows through to the Cash Flow Statement, add-back the \$20m of depreciation, resulting in Cash Flow from Operating Activities increasing by \$4m
  - e. Balance Sheet: Cash increases by \$4m, with PP&E going down by the depreciation amount (\$20m) -- Total Assets then decline by \$16m, which is then matched on the "L+OE" side with owners equity decreasing by \$16m due to the decrease in retained earnings stemming from the change in net income
3. How does \$10m of PIK interest flow through the three financial statements?
  - a. Take a similar approach to how the above two questions were answered... start with the Income Statement, then move to the Cash Flow Statement, and finally the Balance Sheet. Just helps to make the thinking clearer / easier for the interviewer to follow
  - b. Income Statement: Interest expense increases by \$10m. As always, remember to ask or assume a tax rate. Assuming a tax rate of 20%, net income is reduced by \$8m
  - c. Cash Flow Statement: Net income decreases by \$8m, but because PIK interest is a non-cash expense, the \$10m gets added back, resulting in an increase in Cash Flow from Operations of \$2m



- d. **Balance Sheet:** Cash increases by \$2m, resulting in Total Assets increasing by \$2m. This is then matched on the "L+OE" side, with debt increasing by \$10m (as PIK interest adds / accrues to the debt balance due to the non-cash payment in-year), with owners equity reducing by \$8m due to the decrease in retained earnings stemming from the change in net income
4. You sell \$120 worth of software subscription for the year (recognized monthly) but receive all the cash upfront -- walk me through how this is recorded on the financial statements
  - a. Revenue that is recorded in advance of a good / service being delivered is a liability, and is called deferred revenue
  - b. **Balance Sheet:** Cash immediately increases by \$120, so Total Assets increase by \$120, but Total Liabilities increase by \$120 as well due to the increase in deferred revenue
  - c. **Income Statement:** \$120 is the price of the yearly subscription, meaning it costs \$10 / month. At the end of month 1, \$10 is recorded as revenue. Remember, ask or assume a tax rate. Using a 20% tax rate, net income increases by \$8
  - d. **Cash Flow Statement:** Net income increases by \$8, but since deferred revenue is a working capital account, and a decrease in a liability is a cash outflow, deferred revenue decreases by the monthly amount of \$10. Hence, the Cash Flow from Operations decreases by \$2
  - e. **Balance Sheet:** Cash decreases by \$2, decreasing Total Assets by \$2, which is then matched on the "L+OE" side with deferred revenue decreasing by \$10 but owners equity increasing by \$8 due to the increase in retained earnings stemming from the change in net income, resulting in a net decrease of \$2 on the "L+OE" side
  - f. This process continues to repeat itself until deferred revenue for the upfront \$100 yearly software subscription sale
5. You buy a piece of manufacturing equipment with cash for \$50m and it has a useful life of 5 years. Walk me through A.) how you would put it on the balance sheet and B.) what you would do if the piece of equipment becomes non-operational in Year 3 / can't be resold at all and is disposed of for a salvage value of \$0 at the end of Year 3
  - a. Start with the balance sheet for this type of question to show the "Year 0" impact (similar to the above question)
  - b. **Balance Sheet:** PP&E increases by \$50m, with Total Assets hence increasing by \$50m. Because you bought this piece of equipment with cash, cash decreases by \$50m, resulting in no net change in Total Assets
  - c. **Income Statement:** At the end of Year 1, because the manufacturing equipment has a useful life of 5 years, depreciation is \$10m. Ask for / assume a tax rate. Using a tax rate of 20%, net income decreases by \$8m
  - d. **Cash Flow Statement:** Net income decreases by \$8m, adding back the \$10m of depreciation as it is non-cash, resulting in an increase in Cash Flow from Operations of \$2m
  - e. **Balance Sheet:** Cash increases by \$2m, with the \$50m of PP&E declining by \$10m (accumulated depreciation increases by \$10m and the book value of the asset is now \$40m). Total Assets decline by \$8, which is matched on the "L+OE" side, with owners equity reducing by \$8m due to the decrease in retained earnings stemming from the change in net income
  - f. **To answer the second part**, assuming the asset is disposed of for a salvage value of \$0 at the end of Year 3 (i.e. a write-off)...
    - i. **Income Statement:** A write-down of \$20m is recorded (book value at end of Year 3 after 3 years worth of depreciation), resulting in net income declining by \$16m at a 20% tax rate
    - ii. **Cash Flow Statement:** Net income declines by \$16m, but since the write-down is non-cash, the \$20m write-down is then added back, resulting in Cash Flow from Operations increasing by \$4m
    - iii. **Balance Sheet:** Cash increases by \$4m, but PP&E decreases by \$20m due to the write-down, resulting in Total Assets declining by \$16m. This is matched on the "L+OE" side, with owners equity declining by \$16m due to the decrease in retained earnings stemming from the change in net income

#### **Sample Finance Questions:**

1. Would you be able to walk me through the following LBO scenario (proceeds to give you Paper LBO assumptions)?
  - a. See "Timeline" (Step 4) section of website for a step-by-step example
2. A company does \$100m in sales, and is expected to grow by 10% this year. Would its EBITDA grow at the same rate?
  - a. This question is testing your understanding of fixed costs -- assuming there are no fixed costs, EBITDA would grow in-line with revenue. Should there be fixed costs, EBITDA will grow at a higher rate -- this is due to operating leverage, and as a result, total costs will not increase as much as revenue



3. Will a decrease in financial leverage affect a company's cost of equity?
  - a. Assuming that there is a change in beta as a result of changing leverage, should a company pay down its debt, this should theoretically reduce the beta, and hence the company's cost of equity utilizing the Capital Asset Pricing Method (Risk Free Rate + (Beta \* MRP) will be lower
4. Typically, would you rather increase price or volume, and why?
  - a. The interviewer is assessing your understanding of profit maximization -- typically, you would prefer an increase in price, as an increase in price is not associated with incremental variable costs, whereas an increase in volume would mean more variable costs
  - b. The interviewer follows up and says "Ok, would you rather have a \$10 increase in price or a \$10 decrease in variable costs" -- here, come up with numbers to show your understanding. You could say something along the lines of "let's say a business does \$50m of revenue with a 70% gross margin. A \$10m increase in price results in revenue of \$60m. Since there are no incremental variable costs associated with a price increase, variable costs stay the same at \$15m, resulting in a gross margin of 75%. If variable costs decreased by \$10m, this would result in a gross margin of 90%. If you test out different numbers, you will see that the situation always stays the same (i.e. the cost take out will be better vs. increase in price only if the cost take-out is equal to that of the total increase in price). For example, if the cost reduction and total increase in price were equal to \$0.1m and the business has a gross margin of 0% (for exaggeration!), gross margin in the cost reduction example would be 0.2000% and the gross margin for the price increase example would be 0.1996%.
  - c. That being said, let's say the business realized they are the only game in town, and in the world of exaggeration, the total price increase was \$30m (now \$80m in revenue) but the cost reduction was only \$5m (now \$10m in total costs). Gross margin in the price increase example would be 81.25%, compared to gross margin in the cost reduction example of 80%
  - d. Key Takeaway: Increase in price always outweighs an increase in volume. If comparing a total \$ increase in price to a total \$ decrease in costs, and they are equal, the decrease in costs will outweigh the increase in price. If they are not equal, possibility that the \$ increase in price outweighs the cost reduction, so make sure to compare the scenarios
5. You invest \$50m into a car wash – it returns \$5m of free cash flow every year, and at the end of my hold, I will sell it no matter what for 10% higher than purchase price. What is my IRR?
  - a. 10%. As long as selling price stays the same across exit periods, IRR will not change as the duration of the investment does not matter