

Homework — Comparables and Multiples

Optional. Worked solutions are on the website

Practice problems

11.1

1. A firm pays out 50% of earnings, grows at 4%, and has a required return of 11%. Compute its implied P/E. Then recompute if growth rises to 6%.
2. Two firms in the same industry trade at P/E ratios of 7 and 14. List three things that could explain the difference and describe the evidence you would look for on each.
3. A firm trades at 12 times earnings. Its payout ratio is 35% and its required return is 13%. What growth rate is the market implying? Comment on whether it seems plausible for a mature business.
4. Explain in four sentences why two companies with identical EBITDA can deserve very different EV/EBITDA multiples.

11.2

1. State whether each multiple pairs correctly, and correct any that do not: (a) EV / net income; (b) share price / earnings per share; (c) EV / EBITDA; (d) market capitalisation / revenue; (e) EV / EBIT.
2. Recommend a primary multiple for each, with one sentence of reasoning: (a) a commercial bank; (b) a loss-making software company; (c) a hotel group; (d) a cement manufacturer.
3. Two identical businesses have EBITDA of GH¢20M. One has GH¢60M of debt; the other has none. Explain what happens to their EV/EBITDA multiples and to their P/E ratios, and say which comparison is more useful.
4. Explain in four sentences why EV/EBITDA flatters a capital-intensive business relative to an asset-light one, and describe how you would adjust for it.

11.3

1. You are valuing a Kenyan private hospital group with four facilities. Propose three different comparable sets and describe the likely direction of the multiple each would produce.
2. A comp set has EV/EBITDA multiples of 6.2, 6.8, 7.1, 7.4, and 19.6. Compute the mean and the median, and say which you would report and why.
3. Explain in four sentences why a franchisor and a company-owned operator in the same retail industry should trade at different multiples.
4. An analyst selects comparables using industry classification codes alone. Describe two specific ways this can go wrong, and outline the process you would use instead.

11.4

1. A comp set of listed European logistics firms trades at a median $9.0\times$ EV/EBITDA. You are valuing a private Nigerian haulage business. Build a walk-down to a defensible multiple, naming each adjustment and its direction.
2. Explain in four sentences why country risk appears as a lower multiple in a comparables valuation and as a higher discount rate in a DCF, and why these are the same adjustment.
3. A firm has higher growth than its comparables but worse cash conversion and higher risk. Describe the net direction of the adjustment and explain why it cannot be determined without quantifying each.
4. An analyst applies a $12\times$ multiple from listed comparables directly to a private target with no adjustment. Estimate the direction and rough size of the error, and explain your reasoning.
5. Using the Densu walk-down, argue that the scale and growth adjustment should be zero rather than $-1.0\times$. Then argue that it should be $-2.0\times$. State which case you find stronger.

11.5

1. A DCF values a company at GH¢240M while comparable multiples suggest GH¢140M. List three explanations and describe what evidence would distinguish between them.
2. Explain in three sentences why a DCF is the only available check on whether an entire industry is mispriced.
3. An analyst produces estimates of GH¢50M, GH¢78M, and GH¢81M from three methods and reports the average of GH¢69.7M. Explain what is wrong and describe what should have been reported.
4. You are advising a seller whose two methods give GH¢120M and GH¢155M. Write a four-sentence recommendation, including where to open and where to walk away.

11.6

1. Rewrite this opening so the recommendation leads: "We analysed three years of statements, built a forecast, constructed a discount rate, and selected comparables. Our conclusion is that the business is worth around GH¢140 million."
2. You have valued a business at GH¢200–240M. Write the ninety-second opening you would give to a panel, following the five-part structure.
3. List the four questions a panel is most likely to ask, and draft a one-sentence answer to each for the Jollof Express valuation.
4. Explain in three sentences why presenting a point estimate of GH¢81.7M is less persuasive than presenting a range of GH¢75–90M.