CHARTA LEARNING · INTERVIEW PREPARATION

Accounting and Valuation

Interview preparation summary · PE track

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INT.AV.1.a · Three statements and working capital

Trace a change in one line, such as depreciation, capex, inventory or debt repayment, through all three statements.

Every operating or financing event touches at least two lines, and the statements must still balance. Net income goes to retained earnings and starts the cash flow statement, while closing cash from the cash flow statement becomes cash on the balance sheet. Depreciation is the classic case: it lowers profit, is added back as non-cash, and so raises cash only through the tax saving. Capex does not touch the income statement when bought, it moves cash into PP&E and shows in investing cash flow, and depreciation then spreads the cost. Repaying debt lowers cash and debt, sits in financing, and changes interest and therefore net income later. A write-down is non-cash but may change tax paid. Walk the entry in order: income statement, balance sheet, cash flow, then check assets equal liabilities plus equity. Interview point: always say which lines move on each statement and show that the balance sheet still balances, including the tax effect.

WORKED EXAMPLE: A NEW MACHINE THROUGH ALL THREE STATEMENTS

Harlow Components is a profitable buyout target. Early in the year it pays 300 in cash for a new machine, depreciated straight line over five years with no residual value. The tax rate is 25%, depreciation is fully deductible and tax is paid in cash in the same year. Ignore financing and all other activity. The interviewer asks: walk me through the machine on all three statements, for the purchase and for the first year, and show that the balance sheet still balances.

Answer: Over the year cash is 285 lower, PP&E is 240 higher and equity is 45 lower, and the only cash benefit of the depreciation is the 15 tax shield.

> **Interview tip:** Say the order aloud: income statement, balance sheet, cash flow, then the balance check. The interviewer listens for you to say that depreciation is non-cash and that the 15 of tax saved is its only cash effect.

INT.AV.1.b · Three statements and working capital

Explain how working capital movements drive cash flow and judge whether a cash flow figure is sustainable.

Net working capital is operating current assets, mainly receivables and inventory, less operating current liabilities such as payables, accruals and deferred revenue. Cash and debt are left out because they belong in net debt. An increase in net working capital uses cash and lowers operating cash flow, while a decrease releases cash. Only the change matters for the cash flow, not the level. Days measures (receivable days on revenue, inventory and payable days on cost of sales) let you forecast each balance. A business with negative working capital, such as one paid up front by customers, releases cash as it grows. Stretching supplier payments or collecting early flatters one year and reverses when terms normalise. Interview point: separate the underlying cash generation from timing effects, and say whether a cash flow figure repeats.

WORKED EXAMPLE: WORKING CAPITAL AND A FLATTERING CASH FLOW

Brindle Foods, a buyout target, grows revenue from 400 to 440 and cost of sales from 240 to 264. Use a 360-day year. Receivable days are 36 on revenue, inventory days 60 and payable days 45, both on cost of sales, all unchanged. Operating cash flow before working capital is 80. The interviewer asks: what is the cash flow after working capital, what changes if management stretches payable days to 60 in the second year, and is the result sustainable?

Answer: Cash flow after working capital is 75 on unchanged terms, the 86 from stretching payables is a one-off, and 75 is the sustainable figure.

> **Interview tip:** Say that only the change in working capital hits cash, then split the cash flow into underlying and timing. The interviewer listens for you to name the 11 as a reversible timing gain and not as performance.

INT.AV.2.a · Enterprise value, equity value and free cash flow

Bridge between enterprise value and equity value, stating your conventions for debt, cash, minorities, preferred shares, options and leases.

Enterprise value is the value of the operating business to all capital providers. To reach equity value, subtract debt, preferred shares and minority interest, and add cash and equivalents; to go the other way, reverse the signs. Minority interest is included in enterprise value because consolidated EBITDA contains all of a partly owned subsidiary. In-the-money options are handled with the treasury stock method, adding only the net new shares after assumed buyback at the current price. Leases are a convention: if lease liabilities are treated as debt, the EBITDA and the comparison multiples must be measured before lease cost, and if they are not, lease cost stays in EBITDA. Interview point: state your convention at the start, apply it to both the multiple and the bridge, and never mix equity value with enterprise value metrics.

WORKED EXAMPLE: FROM A 600 ENTERPRISE VALUE TO A PRICE PER SHARE

A sponsor is bidding for Corvane Logistics at an enterprise value of 600. Debt is 200, cash is 40, minority interest is 30 and preferred shares are 20. There are 20 million ordinary shares and 5 million options with an exercise price of 10. Lease costs sit inside EBITDA, so leases are not treated as debt. The interviewer asks: what is the equity value, and what price per share does that imply?

Answer: Equity value is 390, which is 17.60 a share on about 22.16 million diluted shares.

> **Interview tip:** Open with your lease convention, then walk the bridge line by line with its signs. The interviewer listens for minority interest and preferred shares coming off, and for options added through the treasury stock method and not by simply counting them all.

INT.AV.2.b · Enterprise value, equity value and free cash flow

Define and calculate unlevered and levered free cash flow and say which one you discount at what rate.

Unlevered free cash flow is cash available to all capital providers before financing: EBIT multiplied by one minus the tax rate, plus depreciation and amortisation, minus capex, minus the increase in net working capital. It is discounted at WACC and gives enterprise value. Taxing EBIT in full keeps the cash flow independent of capital structure, because the interest tax shield is captured in the after-tax cost of debt inside WACC. Levered free cash flow, or free cash flow to equity, starts from unlevered cash flow, deducts after-tax interest and adds net borrowing, and is discounted at the cost of equity to give equity value. Definitions vary, particularly for share-based compensation and leases, so state yours. Interview point: do not mix cash flow and discount rate, and explain why interest is excluded from the unlevered figure.

WORKED EXAMPLE: UNLEVERED AND LEVERED FREE CASH FLOW

Tarn Fabrication, a buyout target, has EBIT of 100, depreciation and amortisation of 30, capex of 40, an increase in net working capital of 10 and a 25% tax rate. It pays interest of 20 before tax and expects to borrow a net 10. Cash flows are at year end. The interviewer asks: give me the unlevered and levered free cash flow, say which rate goes with each, and value the business if the unlevered figure of next year grows at 3% for ever and WACC is 8%.

Answer: Unlevered free cash flow is 55 and levered is 50, and discounting the 55 at an 8% WACC with 3% growth gives an enterprise value of 1,100.

> **Interview tip:** Build the figure line by line and then match each cash flow to its rate in one sentence. The interviewer listens for why interest is left out of the unlevered figure: the financing is paid for through WACC.

INT.AV.3.a · DCF and cost of capital

Build a DCF from forecast to terminal value, discount it and show how value responds to the assumptions.

A DCF forecasts unlevered free cash flow for an explicit period, adds a terminal value, and discounts everything at WACC to give enterprise value, then bridges to equity value. The terminal value comes from either a perpetuity growth formula, final-year cash flow times one plus g divided by WACC minus g, or an exit multiple applied to final-year EBITDA. Discount the terminal value from the end of the final forecast year. Cross-check one against the other by solving for the growth rate implied by the exit multiple. Mid-year discounting moves cash flows half a year earlier and raises value, though an exit multiple terminal value still sits at year end. Terminal value is often well over half of enterprise value, so show a sensitivity table of WACC against growth or multiple. Interview point: state the convention, and be ready to defend growth below long-run nominal GDP.

WORKED EXAMPLE: A THREE-YEAR DCF AS A CROSS-CHECK ON AN LBO PRICE

A sponsor's LBO analysis supports a price of 560 for Quill Instruments and you cross-check it with a DCF. Unlevered free cash flow is 40, 44 and 48 in years 1 to 3, received at year end. WACC is 10%, terminal growth is 2% on the year 3 cash flow, and year 3 EBITDA is 90. The interviewer asks: what enterprise value does the DCF give, how much of it is terminal value, and how do you test that terminal value?

Answer: The DCF gives an enterprise value of about 568.6, of which 81% is terminal value, and it moves between roughly 505 and 639 when WACC or growth is changed by one point.

Interview tip: State the discounting convention first, then give the terminal value share before you are asked. The interviewer listens for the cross-check of the terminal value against an exit multiple and for you saying how sensitive the answer is.

INT.AV.3.b · DCF and cost of capital

Calculate a cost of equity with CAPM and a WACC, and defend each input.

CAPM sets the cost of equity as the risk-free rate plus beta times the equity risk premium. WACC weights the cost of equity and the after-tax cost of debt by the proportions of equity and debt in the capital structure. Debt is cheaper after tax because interest is deductible, so multiply the pre-tax rate by one minus the tax rate. Use market values and a target, long-run mix rather than book values. When a company has no usable beta, take peer betas, unlever each to remove the effect of their leverage, average them, and relever at the target debt to equity ratio. A common formula is beta times one plus one minus tax rate times debt to equity, assuming debt beta of zero. More debt does not mechanically lower WACC, because the cost of equity rises with leverage. Interview point: show the formula, name each input's source, and note which assumptions you chose.

WORKED EXAMPLE: COST OF EQUITY AND WACC WITH NO LISTED BETA

Marrow Dental is a private target with no usable beta. Peer A has a levered beta of 1.45 at debt to equity of 0.6, and Peer B has 1.04 at 0.4. The tax rate is 25%, debt beta is zero, the risk-free rate is 4%, the equity risk premium is 5%, the pre-tax cost of debt is 8% and the sponsor's target mix is debt to equity of 0.5. The interviewer asks: what cost of equity and WACC do you use?

Answer: The cost of equity is about 10.19% and the WACC about 8.79%, using a relevered beta of 1.2375 at the target mix.

Interview tip: Say the formula, then the inputs with their sources, then flag the two you chose: the peers and the target mix. The interviewer listens for unlevering before averaging and relevering at the target structure.

INT.AV.4.a · Relative valuation and choosing a method

Choose and apply trading comparables and precedent transactions, and explain why their values differ.

Trading comparables apply the multiples of listed peers to the target and reflect minority, day-to-day pricing. Precedent transactions use multiples paid in past acquisitions and normally include a control premium and sometimes synergies, so they tend to sit above trading multiples. Pick peers by business model, growth, margins, size and geography. Choose the multiple to fit the business: enterprise value multiples such as EV/EBITDA or EV/EBIT ignore capital structure, P/E depends on leverage, and EV/revenue suits loss-making growth companies. Use the median where outliers distort the mean, apply forward multiples to forward metrics, and then bridge from enterprise value to equity value. If the target grows faster than peers, a higher multiple may be justified but should be argued, not assumed. Interview point: match the multiple to the metric and period, and say why a control premium separates the two sets.

WORKED EXAMPLE: TRADING COMPARABLES AGAINST PRECEDENT TRANSACTIONS

Dalby Print Services is a buyout target with latest-year EBITDA of 50, forward EBITDA of 55 and net debt of 150. Listed peers trade at forward EV/EBITDA of 7.0x, 7.5x, 8.0x, 7.5x and 12.0x. Three past sector acquisitions were at 8.5x, 9.0x and 9.5x latest-year EBITDA. The interviewer asks: value the target from the peers, then from the precedents, and explain why the two differ.

Answer: Peers imply an enterprise value of 412.5 and precedents 450, about 9.1% higher, mainly because past buyers paid a control premium.

Interview tip: Say why you chose the median and that you matched forward multiples to forward EBITDA before bridging to equity. The interviewer listens for control premium as the reason precedents sit above trading multiples.

INT.AV.4.b · Relative valuation and choosing a method

Recommend which valuation method fits a given situation and reconcile methods that disagree.

No single method suits every case. A DCF values intrinsic cash flows and suits stable, forecastable businesses, but is sensitive to terminal assumptions. Trading comparables show where the market prices similar companies. Precedent transactions show what buyers have paid for control. An LBO analysis solves for the price a financial sponsor could pay and still earn its target return, which is why it is central in private equity. Banks and insurers are valued on equity metrics such as P/E, price to tangible book and dividend or excess return models. Early-stage companies lean on revenue multiples. When methods disagree, find what drives the gap, such as terminal value share, WACC, or the growth embedded in peer multiples, and present a reasoned range rather than an average. Interview point: name the method, say when it fails, and explain the reconciliation.

WORKED EXAMPLE: RECONCILING A DCF, COMPARABLES AND AN LBO

A sponsor is pricing Harbin Controls. A DCF with unlevered cash flows of 35, 38, 40, 43 and 45 at year end, 2% terminal growth and a 9% WACC gives 580.9. Trading comparables give an enterprise value of 450 and precedents 500. For an LBO, the sponsor needs a 20% IRR over five years, expects exit equity of 600 and can raise debt of 240, ignoring fees. The interviewer asks: which method do you lead with, and why does the DCF sit highest?

Answer: The sponsor can pay about 481 and still earn 20%, inside the 450 to 500 market range, and the higher DCF of 580.9 comes mainly from a 9% WACC applied to a terminal value that is 73% of the total.

> **Interview tip:** Name the method you lead with and why, then explain the outlier by its driver instead of dismissing it. The interviewer listens for a range with reasons, never a simple average of the methods.

Summary of the Charta interview-preparation topic. Companies and figures in the examples are invented. Draft content, not yet expert reviewed.