CHARTA LEARNING · INTERVIEW PREPARATION

Accounting and Valuation

Interview preparation summary · IB track

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INT.BV.1.a · Statements

Trace a transaction through the income statement, balance sheet and cash flow statement and show that the balance sheet still balances.

The three statements are one system. Net income from the income statement flows into retained earnings on the balance sheet and is the first line of the cash flow statement. The cash flow statement adjusts net income for non-cash items such as depreciation and for changes in working capital, then adds investing and financing flows, and its closing cash is the cash line on the balance sheet. Every transaction has two sides, so assets always equal liabilities plus equity. Interviewers ask you to trace an item because it shows you can build a model. Depreciation lowers profit and the asset but is added back in cash flow, so its only cash effect is the tax it saves. Capex never touches the income statement when it is bought. Interest is an expense, while repaying debt principal is a financing outflow and never an expense. The usual mistakes are forgetting the tax effect and changing cash without a matching entry elsewhere. Finish by checking that the change in assets equals the change in liabilities plus equity.

WORKED EXAMPLE: TRACING A MACHINE PURCHASE THROUGH HARROWGATE COMPONENTS

Harrowgate Components, an invented manufacturer, pays 60m in cash for a machine at the start of the year. It is depreciated straight line over 10 years with no residual value. Ignore any extra revenue from the machine. The tax rate is 25% and tax is paid in the year. Trace the first year through the three statements and show that the balance sheet balances.

Answer: Net income falls by 4.5m, cash falls by 58.5m, fixed assets rise by 54m, equity falls by 4.5m, and the balance sheet balances.

> **Interview tip:** Say the order aloud: income statement first, then cash flow, then balance sheet, and finish by saying the change in assets equals the change in liabilities plus equity.

INT.BV.1.b · Statements

Calculate net working capital and its cash effect, and explain how lease accounting changes EBITDA, net debt and the consistency of multiples.

Net working capital (NWC) is operating current assets, mainly receivables and inventory, less operating current liabilities, mainly payables and accruals. It excludes cash and debt. An increase in NWC absorbs cash, so growth consumes cash in most businesses. Days measures show why: receivable days are receivables over revenue times 365, inventory days and payable days use cost of sales. Businesses that are paid before they pay suppliers, such as grocers, have negative NWC and growth releases cash. Leases need care. Under IFRS 16 nearly every lease creates a right-of-use asset and a lease liability, and the cost becomes depreciation and interest, so EBITDA rises and net debt rises. Under US GAAP, operating lease cost stays as one rent charge inside EBITDA. The rule is consistency. If EBITDA is before rent, enterprise value must include lease liabilities. If EBITDA is after rent, leave leases out of debt. The usual mistake is mixing the two bases between target and peers.

WORKED EXAMPLE: PUTTING BRINDLE STORES ON ONE LEASE BASIS

Brindle Stores, an invented retailer, reports under IFRS 16. EBITDA is 120m before any rent. Annual lease payments are 50m. Equity value is 500m, financial net debt is 150m and lease liabilities are 280m. Calculate EV to EBITDA on both a post-IFRS 16 basis and a pre-IFRS 16 basis, and show what happens if the bases are mixed.

Answer: 7.75x post-IFRS 16 and 9.3x pre-IFRS 16. Mixing the bases gives 13.3x or 5.4x, which are meaningless.

Interview tip: Say the rule first: if EBITDA is before rent, EV includes lease liabilities, and if EBITDA is after rent, it does not. Then give the numbers.

INT.BV.1.c · Statements

Adjust reported earnings for non-recurring items and judge quality of earnings, including cash conversion and deferred tax.

Quality of earnings asks how well reported profit predicts sustainable cash. Start from reported EBITDA. Add back costs that are genuinely one-off, such as a litigation settlement or deal fees. Remove one-off gains, such as a profit on selling a building, which management often leaves in. Treat restructuring that appears every year as an operating cost, not an add-back. Then test the earnings. Cash conversion compares operating cash flow or free cash flow with EBITDA, and a persistent shortfall means profit is not turning into cash. Check capitalised development costs, which lift EBITDA relative to peers that expense them, plus revenue recognition and rising receivable or inventory days. Deferred tax comes from timing differences. Accelerated tax depreciation makes cash tax lower than the income statement charge and creates a deferred tax liability. In a DCF use cash taxes and let the benefit fade as it reverses. The usual mistake is accepting management's adjusted EBITDA unchallenged, because every pound of EBITDA is multiplied by the deal multiple.

WORKED EXAMPLE: ADJUSTING CALDERWICK FOODS' EBITDA

Calderwick Foods, an invented food producer, reports EBITDA of 84m. Management shows an adjusted figure that adds back restructuring of 9m and a litigation settlement of 6m. Restructuring costs were also 7m and 8m in the two previous years. EBITDA also includes a 5m gain on selling a depot and 4m of development costs capitalised this year that peers expense. Capex is 20m. Build a defensible adjusted EBITDA, compare it with management's and value the difference at 9.0x.

Answer: Defensible adjusted EBITDA is 81m against management's 99m, which is worth 162m of enterprise value at 9.0x.

Interview tip: Go through each adjustment and say accept or reject with the reason, then convert the difference into enterprise value. The conversion shows why the adjustments matter.

INT.BV.2.a · Intrinsic and relative value

Build an unlevered DCF from free cash flow, WACC and terminal value to an enterprise value, and say which judgements move it most.

A DCF values a business as the present value of its unlevered free cash flow (UFCF). UFCF is EBIT times one minus the tax rate, plus depreciation, less capex, less the increase in net working capital. It is before interest, so it belongs to all capital providers and is discounted at the weighted average cost of capital (WACC). WACC weights the cost of equity, from CAPM as the risk-free rate plus beta times the equity risk premium, and the after-tax cost of debt by target capital structure. Terminal value (TV) captures cash flows after the forecast. The Gordon method is final-year UFCF times one plus g, divided by WACC minus g. The exit multiple method applies a peer EV to EBITDA multiple. Use one to cross-check the other. TV is often 60% to 80% of EV, so show a sensitivity table on WACC and g. Discounting gives enterprise value, not equity value. Typical mistakes are discounting levered cash flow at WACC, growth above the long-run economy, and a terminal year with capex below depreciation.

WORKED EXAMPLE: VALUING PENNICK PACKAGING

Pennick Packaging, an invented company, forecasts unlevered free cash flow of 40m, 44m, 48m, 52m and 55m over the next five years. WACC is 9% and long-term growth is 2%. Year-five EBITDA is 100m. Cash flows arrive at year end. Calculate enterprise value, the share from terminal value, the implied exit multiple and the value at WACC of 8% and 10%.

Answer: Enterprise value is about 704m, with terminal value 74% of it and an implied exit multiple of 8.0x. The range is 614m to 825m for WACC of 10% to 8%.

Interview tip: State the value, the terminal value share and the implied exit multiple together, then the range. It shows you know which part of the DCF carries the risk.

INT.BV.2.b · Intrinsic and relative value

Choose the right multiple for a company, normalise peer data and use trading comparables to value a business from enterprise value to equity value.

Trading comparables value a company by what the market pays for similar listed companies. Choose peers by sector, business mix, growth, margin, size and geography. Calculate each peer's enterprise value from the diluted market capitalisation, using the treasury method for options, plus net debt including leases, minorities and preferred shares, less associates. Calendarise every company to the same year end and use forward estimates, because the market prices future earnings. Adjust metrics for one-offs. Use the median, which resists outliers. Match the multiple to the business. EV to EBITDA is the standard, EV to EBIT suits companies with heavy depreciation, EV to revenue suits loss-making growth companies, P/E suits banks and companies where interest is central, and price to tangible book suits banks. Pair EV multiples with EV metrics and equity multiples with equity metrics. Typical mistakes are mixing the two, stale net debt, forgetting dilution, and including a peer whose price is inflated by a bid.

WORKED EXAMPLE: VALUING ASHDOWN INSTRUMENTS ON TRADING COMPARABLES

Ashdown Instruments, an invented company, has a March year end. EBITDA for the year to March 2027 is 60m and for March 2028 is 66m. Peers have a December year end and trade at forward EV to EBITDA of 9.2x, 9.8x, 10.5x, 8.4x and 11.0x. Net debt is 150m, minorities are 10m and there are 100m diluted shares. Value the equity per share using the median, and show a range using the second and fourth ranked multiples.

Answer: Equity value is about 472m or 4.72 per share, with a range of 4.33 to 5.17 per share.

> **Interview tip:** Say that you calendarised, used the median and bridged from enterprise value to equity. Those three habits show you know how comps go wrong.

INT.BV.2.c · Intrinsic and relative value

Value a business from precedent transactions with a control premium and synergies, build a football field and bridge enterprise value to equity value per share.

Precedent transactions show what acquirers paid for control, usually as EV to last twelve months EBITDA. Because the price includes a control premium, and sometimes a share of synergies, precedent multiples typically sit above trading multiples. Choose deals by sector, size, date and market conditions. A multiple from a boom may overstate value now. Premium analysis compares the offer with the undisturbed share price, one day and one month before the approach. Synergies are the buyer's, so a seller wants a share of them, but the buyer's maximum price is its standalone value plus the net present value of synergies. A football field charts value ranges from each method, per share or as EV, against the current price and any offer. The bridge from EV to equity value deducts net debt, pensions, minorities and preferred shares and adds associates, then divides by diluted shares. The common mistake is applying a control premium to a precedent multiple that already includes one.

WORKED EXAMPLE: PRICING AN OFFER FOR DUNMORE PUMPS

Dunmore Pumps, an invented listed company, has LTM EBITDA of 100m and an undisturbed share price of 5.00 with 120m diluted shares. Five precedent deals in the sector were struck at EV to LTM EBITDA of 8.5x, 9.0x, 9.5x, 10.0x and 11.0x. Net debt is 220m, the pension deficit 40m, minorities 15m and associates are worth 25m. A buyer expects annual cost synergies of 12m, costing 20m to achieve. Value the equity per share, the premium to the undisturbed price and the synergy value.

Answer: The precedents imply about 5.83 per share, with a range of 5.42 to 6.25 and a premium of 17% for the median. Net synergies of 94m are the buyer's ceiling for sharing.

> **Interview tip:** Say that precedent multiples already contain a control premium, then show the bridge. A candidate who stacks a premium on top has double counted.

INT.BV.3.a · Judgement in valuation

Value a diversified group by sum of the parts and explain what a multiple implies about growth, returns and risk.

A sum of the parts (SOTP) values each division on the multiple of its own peer group, adds the results, then deducts net debt, pension deficits, minorities and the capitalised cost of the centre. The gap between SOTP value and market capitalisation is the conglomerate discount, and it is the case for a break-up, spin-off or sale of a division. Check the practical leakage: tax on disposals, stranded central costs, lost purchasing scale and shared contracts. A multiple is a summary of expectations. In a simple growth model, EV to NOPAT is one minus g over ROIC, divided by WACC minus g. A higher multiple is justified by higher growth, higher returns on capital and lower risk. A company on a high multiple is not necessarily expensive, and a low multiple is not necessarily cheap. Compare multiples with growth, margins and ROIC, and ask what the market is pricing in. The usual mistake is applying a peer multiple to a division with different growth or returns.

WORKED EXAMPLE: SUM OF THE PARTS FOR MARLOWE GROUP

Marlowe Group, an invented conglomerate, has three divisions. Industrial has EBITDA of 80m and peers at 8.0x. Healthcare Services has EBITDA of 50m and peers at 11.0x. Software has EBITDA of 30m and peers at 14.0x. Central costs are 15m a year, capitalised at 9.0x. Net debt is 400m, the pension deficit is 60m and minorities are 25m. There are 100m shares and the market capitalisation is 810m. Calculate the SOTP value per share and the discount in the market price.

Answer: SOTP equity value is 990m or 9.90 per share, 22% above the market price of 8.10, a conglomerate discount of 18%.

Interview tip: Give the value and the discount, then immediately say what would erode it: tax leakage, stranded costs and weak peer comparability.

INT.BV.3.b · Judgement in valuation

Estimate the price a financial sponsor could pay with a simple LBO and explain why it forms a floor for valuation.

An LBO analysis asks what a financial buyer can pay and still earn its required return, typically an IRR of 20% to 25%, or about 2.5x to 3x over five years. It is usually treated as a floor because a sponsor has no operating synergies and is limited by what lenders will advance, so a strategic buyer with synergies can pay more. The method works backwards. Set leverage, often 4x to 6x EBITDA, within interest cover limits. Forecast the cash flow that repays debt. Assume an exit multiple, often equal to entry. Exit equity is exit enterprise value less net debt at exit. Entry equity is exit equity divided by one plus the target IRR, to the power of years held. Maximum price is entry equity plus debt. The returns come from EBITDA growth, debt paydown and any multiple change. The floor moves with credit markets, since tighter lending lowers what a sponsor can pay. The usual mistake is quoting an entry price without stating the leverage and exit multiple.

WORKED EXAMPLE: ABILITY TO PAY FOR KESTREL LOGISTICS

Kestrel Logistics, an invented company, has LTM EBITDA of 100m. A sponsor will borrow 500m. After five years EBITDA is 130m and the exit multiple is 8.0x. Cash flow after interest repays 230m of debt over the period. The sponsor needs a 20% IRR. Ignore fees. Find the most it can pay, the implied multiple, and the answer at a 25% IRR.

Answer: A sponsor targeting 20% can pay about 809m, or 8.1x, and at 25% about 752m, or 7.5x. That range is the LBO floor.

Interview tip: State the leverage, the exit multiple and the target return before the answer. Then say it is a floor because a strategic buyer can add synergies.

INT.BV.3.c · Judgement in valuation

Spot the common valuation pitfalls and defend a valuation range to a client, including what evidence would change your view.

A valuation is a range with a reasoned story, not a single number. The common errors are mismatching enterprise and equity measures, using stale net debt, ignoring dilution and pensions, mixing lease treatments, using levered cash flows with WACC, a terminal value above 75% of the total with growth above the long-run economy, peak multiples, and management forecasts accepted without challenge. Before showing any number, sense-check it against the implied exit multiple, the implied growth rate and the peers. To defend a range, lead with the answer and the weights: say which methods matter most for this client and why. Show the two or three assumptions that drive value and the sensitivity of each. Explain why methods disagree, and what evidence would move you. When a client wants a higher number, separate valuation from price aspiration: value is evidence-based, while price is what a bidder is willing to pay in a process. The usual mistake is false precision, or changing an assumption to please the client.

WORKED EXAMPLE: TESTING LARKHILL RETAIL'S PRICE EXPECTATION

Larkhill Retail, an invented client, says its DCF gives 1,400m of enterprise value using WACC of 8% and terminal growth of 3.5%. Its year-five free cash flow is 70m and year-five EBITDA is 150m. Peers trade at 7.5x EBITDA. Your base case uses WACC of 9% and growth of 2%. Test the client's terminal value against the peers and find the growth rate consistent with the peer multiple at your WACC.

Answer: The client's terminal value implies 10.7x against peers at 7.5x. At WACC of 9% the peer multiple implies growth of about 2.6%, so a defensible range sits around that case.

> **Interview tip:** Argue with the implied exit multiple, not with the person. Saying that the number needs a multiple 40% above where peers trade is evidence the client can check.

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