Mergers and Acquisitions

Interview preparation summary · IB track

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INT.BM.1.a · Strategy and process

Classify a deal rationale as scale, scope, vertical or defensive, size the synergies behind it, and test whether it survives the premium.

Every deal needs a rationale an adviser can put numbers on. Scale deals combine rivals in the same market and save cost in purchasing, overheads and footprint. Scope deals add products, customers or regions and rely on cross-selling. Vertical deals buy a supplier or a distributor to capture margin and secure supply. Defensive deals remove a threat or stop a rival buying the asset. Cost synergies are controllable and usually valued at close to full value. Revenue synergies are uncertain and are discounted heavily or left out of the price. Run-rate savings are phased over two or three years and cost a one-off integration charge, often one to one and a half times the annual saving. The premium is a transfer to the target's shareholders, so the buyer creates value only if the present value of net synergies exceeds the premium. The usual mistake is to quote synergies without phasing, cost or tax, and then pay most of them away.

WORKED EXAMPLE: SIZING SYNERGIES BEHIND A BAKERY MERGER

Fenwick Bakeries, an invented listed baker, wants to buy Garrow Foods, whose undisturbed equity value is 600m. The two overlap in purchasing and head office. Purchasing spend of 400m should fall by 3%. Garrow's duplicated head office costs 30m a year and 40% can go. Savings phase in at 40% in year 1, 80% in year 2 and 100% from year 3. One-off integration costs are 1.2 times the run-rate saving, paid half in each of years 1 and 2. Assume tax of 25%, a discount rate of 9%, year-end cash flows and no growth after year 3. How much premium can Fenwick afford?

Answer: The net present value of the synergies is about 168m. Paying away half supports a premium of about 14%. A 30% premium would hand over more than all of the value created.

> **Interview tip:** Say the rationale first, then size cost synergies after tax, phase them, deduct the cost to achieve and compare the result with the premium. Offer to show the revenue synergies separately and not rely on them.

INT.BM.1.b · Strategy and process

Compare the sell-side and buy-side roles, choose between an auction and a bilateral negotiation, and build and rank a buyer list by fit, ability to pay and certainty.

A sell-side adviser works for the seller: it prepares the teaser, information memorandum and model, builds the buyer list, runs the process, creates competition and negotiates price and terms. A buy-side adviser works for the buyer: it screens targets, values them, makes the approach, structures the bid and financing, supports due diligence and negotiates. A broad auction has many bidders, usually a non-binding round and then a binding round, and it maximises price discovery, but it risks leaks and distraction. A targeted auction invites a handful of credible buyers. A bilateral negotiation suits a single buyer with unique synergies, a sensitive business or a seller who values speed and secrecy, at the risk of leaving value on the table. Strategic buyers can pay most because of synergies but face competition review. Sponsors pay what their leveraged return allows and bring speed and financing. In an auction the price tends to settle near the second-highest bidder's walk-away price. Rank bidders by ability to pay and by certainty of completion, not by the size of the name.

WORKED EXAMPLE: RANKING THREE BIDDERS FOR A DENTAL SUPPLIES BUSINESS

You are selling Tolland Dental Supplies, an invented business with a standalone enterprise value of 500m. Strategic buyer A would gain synergies worth 80m in present value. Strategic buyer C would gain 40m. Sponsor B can pay at most 540m and still earn its target return. Assume each buyer's walk-away price is standalone value plus all its synergies, or 540m for the sponsor. Buyer A would negotiate on its own from standalone value plus 25% of its synergies. In the final round A bids 550m with a 75% chance of clearing competition review, and B bids 545m with a 95% chance of completing. If a deal fails, the seller later sells at 520m. Which bid do you recommend, and what does an auction add over dealing with A alone?

Answer: Expected value of B's bid is 543.75m against 532.5m for A. Recommend B unless A improves certainty. The auction added about 25m (4.8%) over a bilateral deal with A.

> **Interview tip:** Always separate ability to pay from certainty. Say that headline price is only one input, and that the seller can ask the higher but riskier bidder to buy back the gap with a reverse break fee.

INT.BM.1.c · Strategy and process

Describe how a public takeover works in outline, calculate the premium and the thresholds that matter, and explain defences, hostile bids and break fees without overstating how rules vary.

Rules for public takeovers differ by country, so a good answer names the regime or says it is general. In outline the bidder approaches the board, agrees terms or goes direct to shareholders, announces an offer, publishes an offer document, collects acceptances and settles. The premium is measured against the undisturbed price, recent average prices and the 52-week high, and is often in the range of 20% to 40%. In a UK-style regime a scheme of arrangement typically needs 75% by value of the votes cast and a majority in number, whereas a contractual offer needs about 90% acceptances to squeeze out holdouts. A bidder usually has a short deadline to announce firm intentions after an approach becomes public, and the target board may not frustrate a bid without shareholder approval. In a US-style regime the board has more room to defend, and deal protection and larger break fees are more common. Defences include a better standalone plan, a white knight and regulatory arguments. A break fee compensates a target-side counterparty for a deal that fails, and a reverse fee compensates for a failed approval.

WORKED EXAMPLE: READING AN OFFER FOR QUILLON RETAIL

An invented listed company, Quillon Retail plc, has 400m shares in issue and an undisturbed price of £11.60. The three-month average price was 12.10. A bidder offers 14.50 in cash. The bidder already holds 8% of the shares. The bidder agrees a reverse break fee of 1% of the equity value, payable to Quillon if the deal fails to win competition approval (UK-style rules generally prohibit fees paid by the target, so the protection runs the other way). Assume a UK-style regime, a contractual offer with a 90% squeeze-out threshold and a scheme that needs 75% of the votes cast with 80% turnout. What are the premium, the offer value and fee, and what acceptance levels does the bidder need?

Answer: The premium is 25.0% to the undisturbed price and 19.8% to the three-month average. Equity value is 5,800m and the fee is 58m. A scheme needs about 60% of all shares on 80% turnout, and a 90% contractual offer needs 328m more shares.

> **Interview tip:** Name the regime you are assuming, quote the premium against more than one reference price, and say that thresholds are typical and need checking against the rules in force.

INT.BM.2.a · Merger maths

Build an accretion and dilution analysis for a cash, stock or mixed offer, find the break-even synergies, and explain why EPS accretion is not the same as value creation.

Accretion and dilution compares the buyer's pro forma earnings per share with its standalone figure. Pro forma net income is the buyer's plus the target's, plus after-tax synergies, less the after-tax cost of financing and any extra amortisation of acquired intangibles. Pro forma shares are the buyer's plus new shares, which are the stock consideration divided by the buyer's share price. A quick test for an all-stock offer is that the deal is accretive when the buyer's P/E is higher than the P/E paid. A quick test for debt funding is that the deal is accretive when the target's earnings yield at the offer price exceeds the after-tax cost of debt. Break-even synergies are the extra pre-tax savings that make EPS unchanged, so the after-tax shortfall is divided by one minus the tax rate. Accretion is arithmetic, not value. It ignores risk, the cost of equity and the return on the price paid. The usual mistakes are using pre-tax interest, leaving synergies untaxed, and ignoring fees and amortisation.

WORKED EXAMPLE: ACCRETION AND DILUTION FOR HARLOW INSTRUMENTS

Harlow Instruments plc, an invented listed company, has net income of 240m, 400m shares and a price of 12.00 (EPS 60.0p, P/E 20.0x). It offers 9.00 a share for Dunmere Controls, which has 90m shares and net income of 36m. Half the price is paid in cash from new debt at 6% before tax and half in new Harlow shares at 12.00. Tax is 25%. Ignore fees and amortisation of acquired intangibles. Is the deal accretive, what pre-tax synergies break even, and what is EPS with 20m of pre-tax synergies?

Answer: Without synergies the deal is 1.0% dilutive (59.4p against 60.0p). Break-even synergies are 3.3m before tax. With 20m of synergies EPS is 62.9p, which is 4.8% accretive.

> **Interview tip:** State the conventions first, give the answer with and without synergies, and say that accretion does not prove value. Add that the break-even figure is small against the run-rate synergies, which is a reassuring but not a sufficient test.

INT.BM.2.b · Merger maths

Calculate the exchange ratio, new shares and pro forma ownership of a stock offer, test the split with a contribution analysis, and explain fixed and floating ratios.

In a stock offer, target holders receive shares in the buyer. The exchange ratio is the offer price per target share divided by the buyer's share price, so it is the number of buyer shares for each target share. New shares equal target shares multiplied by the ratio. Target holders then own new shares divided by the buyer's existing plus new shares. The premium implied is the ratio multiplied by the buyer's price, divided by the target's price, minus one. In a mixed deal only the stock part creates shares. Contribution analysis compares each company's share of combined revenue, EBITDA and net income with the ownership on offer. Revenue and EBITDA ignore capital structure, so they should be converted to equity contributions by valuing each at a common multiple and subtracting net debt. Contribution analysis ignores synergies and any premium, so it anchors a negotiation, especially a merger of equals. With a fixed ratio the value delivered moves with the buyer's price. With a fixed value the ratio floats and ownership changes, and collars limit the range.

WORKED EXAMPLE: EXCHANGE RATIO AND CONTRIBUTION FOR ALDER AND BIRCH

Alder Logistics, an invented company, has 300m shares at 8.00. It offers all shares for Birch Freight, which has 120m shares and an undisturbed price of 11.00, at a 30% premium. Alder has revenue of 2,000m, EBITDA of 400m, net income of 180m and net debt of 600m. Birch has revenue of 1,100m, EBITDA of 260m, net income of 100m and net debt of 200m. Find the exchange ratio and ownership, and compare them with the contribution analysis, valuing both at 8.0 times EBITDA for the levered view.

Answer: The ratio is 1.7875, new shares are 214.5m and Birch holders own 41.7%. That matches the levered EBITDA contribution of 42.0% but exceeds the revenue and net income contributions of about 36%.

> **Interview tip:** Always convert EBITDA contributions to equity by deducting net debt before comparing them with ownership, and say which metric you think fits the sector best.

INT.BM.2.c · Merger maths

Calculate pro forma net debt, leverage and interest cover for a financing mix, and test value creation by comparing the premium with the net value of synergies.

Lenders and rating agencies look at the combined business. Pro forma net debt is the buyer's net debt plus the target's net debt that is assumed or refinanced, plus new acquisition debt and fees, less any cash used. Leverage is pro forma net debt divided by combined EBITDA, usually before synergies unless the lenders allow a capped share of them. Interest cover is EBITDA divided by pro forma interest, which includes the new debt at its cost. The result is compared with the buyer's current ratios, its rating thresholds and covenants, and it sets how much of the price can be debt and how much must be stock. Value creation is separate. The premium goes to the target's holders, so the buyer's shareholders gain only the net present value of synergies, after tax and integration cost, less the premium. A buyer can also compare the return on the price paid, which is target profit plus synergies after tax over the price, with its cost of capital. The usual mistakes are forgetting target debt, counting synergies as cash flow at completion, and ignoring fees.

WORKED EXAMPLE: CREDIT AND VALUE TEST FOR MARLOW PACKAGING

Marlow Packaging, an invented company, has EBITDA of 300m, net debt of 750m and interest of 45m. It offers 900m for the equity of Pelham Cartons, a 30% premium to the undisturbed value. Pelham has EBITDA of 120m, net debt of 240m, which stays in place, and interest of 12m. Marlow pays 450m with new debt at 7% and 450m with new shares. Run-rate pre-tax synergies are 25m, valued after 25% tax as a perpetuity at 10%. Integration cost is 40m before tax, paid at once. Find pro forma leverage and cover, then say who gains the synergy value.

Answer: Leverage rises to 3.43x and cover falls to 4.7x. Net synergies of 157.5m do not cover a premium of 207.7m, so the deal transfers about 50m of value from Marlow's holders unless other benefits are proven.

> **Interview tip:** Give the credit result first against the rating threshold, then the value test. Say which assumptions drive each, and what you would change in the offer, such as more stock to cut leverage or a lower price.

INT.BM.3.a · Structure and special situations

Compare share and asset purchases, carve-outs, spin-offs and joint ventures, and adjust a carve-out's EBITDA for standalone and stranded costs.

In a share purchase the buyer takes the company with all its assets, liabilities, contracts and history, so it is simple to execute but known and unknown liabilities come with it and are handled through price, warranties and indemnities. In an asset purchase the buyer chooses the assets and liabilities it takes, often gains a stepped-up tax basis that it can amortise, and avoids unwanted liabilities, but contracts, permits and employees must be transferred one by one and the seller may face a higher tax cost. A carve-out is a sale of a division by its parent. Divisional accounts include allocated central costs, so EBITDA must be restated to standalone cost, and the buyer needs transitional services from the parent. The parent is left with stranded costs. A spin-off distributes shares in a subsidiary to the parent's shareholders, raising no cash. A joint venture pools assets in a new entity, so governance, deadlock and exit terms matter. The usual mistake is valuing a carve-out on reported divisional EBITDA.

WORKED EXAMPLE: STANDALONE EBITDA OF THE KESTREL COMPONENTS DIVISION

An invented parent, Halden Group, is selling its Kestrel Components division. Reported divisional EBITDA is 120m after an allocation of 15m of group costs. As a standalone business Kestrel would need 26m of its own central costs. Halden could remove only 6m of the 15m allocation, so the rest is stranded. The buyer values the business at 9.0 times standalone EBITDA. A share purchase has no tax basis step-up. An asset purchase would give the buyer a step-up of 300m, amortised over 15 years, with tax at 25% and a discount rate of 8%. What is the price on a standalone basis, what does the seller really give up, and what is a step-up worth?

Answer: Standalone EBITDA is 109m and the value is 981m. The seller sees a 7.6 times multiple on the EBITDA it actually loses (129m). A step-up is worth about 43m to the buyer, to be shared between the parties.

> **Interview tip:** Say that the divisional figure is a starting point, restate it, then show the buyer's multiple and the seller's effective multiple. Add that stranded costs are the parent's problem and a reason to run a cost programme before or after the sale.

INT.BM.3.b · Structure and special situations

Adjust a price for net debt and working capital under completion accounts or a locked box, and value an earn-out, a deferred payment and other price protections.

Deals are usually priced on a cash-free, debt-free basis with a normal level of working capital, so enterprise value is converted to an equity price at completion. With completion accounts, the price is adjusted after closing for actual net debt, debt-like items and working capital compared with an agreed peg. This gives accuracy but can lead to disputes over accounting policies and expert determination. With a locked box, the price is fixed by reference to a past balance sheet date and the seller promises that no value leaks out after it, in dividends, fees or related-party payments, and the buyer recovers any leakage pound for pound. That gives certainty and favours sellers who want a clean exit. An earn-out makes part of the price depend on later performance, bridging a gap in view of value. It should be valued at its probability-weighted, discounted amount, not the headline. Disputes arise over definitions and the buyer's control of the business, so protections are essential. Escrows and deferred payments are also used.

WORKED EXAMPLE: PRICE MECHANICS FOR THE WREN COATINGS SALE

An invented seller, Wren Coatings, is sold at an enterprise value of 400m on a cash-free, debt-free basis. The agreed net debt was 60m and the working capital peg is 50m. At completion, net debt is 75m and working capital is 42m. In a separate comparison, Bid A offers 400m in cash. Bid B offers 340m at completion plus up to 80m in an earn-out paid at the end of year 2 if profit targets are met. The seller thinks there is a 50% chance of payment and uses a discount rate of 10%.

Answer: Completion accounts reduce the equity price to 317m, 23m below expectation. Bid B is worth about 373.1m risk-adjusted against 400m for Bid A, so the lower headline cash bid is better unless the seller is very confident of the earn-out.

Interview tip: Convert headline to risk-adjusted value, say what the break-even probability is, and mention that earn-out definitions are where the disputes arise.

INT.BM.3.c · Structure and special situations

Explain what a fairness opinion does and does not say, read a football field against an offer, and list the cross-border points a banker checks in a deal.

A fairness opinion is a bank's written view that the consideration in a transaction is fair, from a financial point of view, to a stated group of shareholders, as at a date and on stated assumptions. It is not a recommendation to accept or vote, not a statement that the price is the best available, and not a view on legal, tax or strategic merits. The bank summarises its valuation work in a football field: discounted cash flow, trading comparables, precedent transactions, premiums paid and sometimes sum of the parts. It reviews management information without verifying it, and an independent committee reviews the opinion before release. Because the adviser's fee is often mostly contingent on completion, boards sometimes also take a second opinion on a fixed fee. Cross-border deals add currency exposure between signing and completion, approvals from several competition and sector regulators, foreign investment screening, differing takeover rules, tax leakage and withholding, accounting differences, and employee and pension consultation. The usual mistake is to call a fairness opinion proof of a good price.

WORKED EXAMPLE: READING A FOOTBALL FIELD FOR CORVANE SYSTEMS

An invented listed company, Corvane Systems, has an undisturbed share price of 11.60. A bidder offers 14.50 in cash. The adviser's ranges per share are: discounted cash flow 12.80 to 15.60, trading comparables 11.00 to 13.50, precedent transactions 13.00 to 16.20, and premiums paid of 25% to 40% on the undisturbed price. Separately, a sterling buyer has agreed to pay €600m for another business in six months. The euro costs £0.86 today and might rise to 0.92. A forward contract could fix it at 0.865. Where does the offer sit, what can the adviser say, and what is the currency exposure?

Answer: The offer is a 25.0% premium, above comparables, inside the cash flow and precedent ranges and at the bottom of premiums paid. A fairness opinion is supportable but does not say it is the best price. The unhedged euro exposure is 36m, and a forward fixes the cost at 519m.

Interview tip: Say what the opinion covers and does not cover, then show where the offer sits in each range. Keep to a few cross-border checks and say that the legal advisers confirm the details.