Debt Capital Markets and Leveraged Finance

Interview preparation summary · IB track

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INT.BD.1.a · Bonds and loans

Explain how an investment grade or high yield bond is priced from a benchmark, a credit spread and a new issue concession, and how price talk tightens.

The first question a debt capital markets banker answers for a client is where its bond will price. Ratings split the market. Investment grade (BBB minus or Baa3 and above) draws a wide, yield-driven investor base with long tenors and light covenants, while high yield (below that line) draws a smaller, return-driven base that asks for a higher coupon, tighter documentation and call protection. Pricing starts from a benchmark, usually a government bond or swap rate of similar maturity. A credit spread is added, read from the issuer's own secondary curve or close peers. A new issue concession, often a few basis points in a calm market and more in a weak one, pays investors for taking size. The coupon is set at or just below the reoffer yield and the bond is priced to match. Initial price talk is set wide and tightened as the book builds. The usual mistake is to quote only the all-in yield and forget that the spread, not the benchmark, is the issuer's credit risk.

WORKED EXAMPLE: HARROWGATE FOODS: FROM BENCHMARK TO REOFFER YIELD

Harrowgate Foods plc, an invented BBB minus issuer, wants to raise GBP 400m of 7-year sterling bonds. The 7-year gilt yields 4.10%. Its existing bonds trade at gilts plus 140bp at 5 years and gilts plus 180bp at 10 years. The market justifies a new issue concession of 10bp. Work out the fair secondary spread at 7 years by straight-line interpolation, the reoffer spread and yield, the issue price if the coupon is set at 5.75%, and the annual saving to the issuer if initial price talk of gilts plus 190bp tightens to the reoffer spread. Use annual coupons.

Answer: Fair spread 156bp, reoffer 166bp over gilts, yield 5.76%, coupon 5.75% at a price of 99.944, and tightening from 190bp saves 0.96m a year.

Interview tip: Lead with the chain benchmark plus spread plus concession, then say how tightening in the book moves the issuer's cost. Mention that real curves are not straight lines, so you would check against the nearest comparable bonds.

INT.BD.1.b · Bonds and loans

Calculate a bond's price from its yield, and use duration to estimate how much the price moves when yields change.

A bond's price is the present value of its coupons and principal discounted at its yield, so price and yield move in opposite directions. A bond with a coupon above its yield trades above par, and one with a coupon below its yield trades below par. Duration measures sensitivity. Macaulay duration is the weighted average time to the cash flows, and modified duration, which is Macaulay duration divided by one plus the yield, gives the approximate percentage price change for a one percentage point move in yield. Longer maturity and lower coupon raise duration, and a floating rate note has a duration close to its reset period. Duration is a straight-line estimate, so for large moves convexity matters: price rises by more when yields fall than it falls when they rise by the same amount. Interviewers ask for a price or a rough move in your head. The usual mistake is to forget that the estimate applies to the percentage change in price, not to the yield.

WORKED EXAMPLE: A FIVE-YEAR BOND WHEN YIELDS MOVE 50BP

An invented five-year bond pays an annual coupon of 4.5% on a face value of 100 and yields 5.5%. Calculate its price, its modified duration, the estimated price change if the yield rises 50bp, and the actual price changes at yields of 6.0% and 5.0%. State the convention.

Answer: Price 95.73, modified duration 4.34, estimated fall of 2.08 points for plus 50bp against an actual fall of 2.05, and a rise of 2.11 for minus 50bp.

Interview tip: State the convention (annual coupons, yield as an annual rate), give duration as the quick tool, and show you know it overstates the fall and understates the rise.

INT.BD.1.c · Bonds and loans

Compare syndicated loans, private placements and bonds for a borrower, and test headroom under a leverage covenant.

Borrowers choose between instruments on cost, flexibility, certainty and investor base. A bond is usually fixed rate, bullet, tradable and covered by incurrence covenants, which are tested only when the company takes an action such as raising debt or paying a dividend. A syndicated loan from banks is usually floating rate, prepayable and often amortising, with maintenance covenants tested every quarter whatever the company does. Institutional term loans in the leveraged market are often covenant-lite, while bank-held term loans are not. A private placement or direct loan is negotiated with a few lenders, giving speed and flexibility at a premium and with less liquidity. Covenant headroom is how far EBITDA can fall before the test is breached, equal to one minus actual leverage divided by the covenant level. Many agreements allow an equity cure. Candidates often quote leverage without converting it into headroom. Always say how far earnings can fall.

WORKED EXAMPLE: WEXLEY PACKAGING: LEVERAGE COVENANT HEADROOM

Wexley Packaging plc, an invented borrower, has net debt of 360m and EBITDA of 100m. Its bank facility has a maintenance covenant that net debt to EBITDA must not exceed 4.50x. Calculate the current leverage, the EBITDA at which the covenant is breached and the headroom. Then add 40m of debt for an acquisition with no EBITDA acquired, and finally find the debt repayment or equity cure needed if EBITDA falls to 78m. Ignore cure mechanics beyond debt reduction.

Answer: Leverage 3.60x, headroom 20%, falling to 11.1% after a 40m debt-funded acquisition. At EBITDA of 78m the cure is 49m with the acquisition debt, or 9m without it.

> **Interview tip:** Always turn the ratio into headroom in £ of EBITDA. A covenant that looks comfortable at 3.6x leaves little room once the company borrows for growth.

INT.BD.2.a · Leveraged and liability management

Size a leveraged buyout financing package using leverage and cover multiples and explain what lenders and sponsors each want from it.

A leveraged buyout is financed from the top down. The sponsor agrees a price as a multiple of EBITDA. Lenders then set how much debt they will provide as a multiple of EBITDA, split into senior secured term loans, which are cheapest, junior debt such as second lien, senior notes or mezzanine, and often an undrawn revolver for liquidity. Total leverage of five to six times has often been seen in open markets and less in weak ones. Lenders look past the multiple to cover: EBITDA to cash interest, EBITDA less capex to interest, and free cash flow to debt, because a higher base rate or margin cuts cover for the same leverage. The sponsor wants the most cheap debt to shrink its equity cheque, but needs covenant headroom and cash for the business plan. Equity of 35% to 50% of total sources is a common range. The usual mistake is to size debt on leverage alone.

WORKED EXAMPLE: CALVERLEY COMPONENTS: SIZING THE PACKAGE

Calverley Components, an invented company, has EBITDA of 120m. A sponsor will pay 9.0x EBITDA, with fees of 2.5% of the purchase price. Debt is a term loan of 4.0x at an all-in 8.0% and senior notes of 1.5x at 10.5%. Capex is 30m a year. Work out the sources and uses, total leverage, the equity cheque and share, cash interest, and two cover ratios. Then stress EBITDA down 20%.

Answer: Debt 660m (5.5x), equity 447m (40.4%), cash interest 57.3m, cover 2.09x and 1.57x, falling to 1.68x and 1.15x after a 20% EBITDA fall.

> **Interview tip:** State leverage and cover together. A package that looks fine at 5.5x can leave EBITDA less capex covering interest only 1.15 times in a downside, and that is what a lender will test.

INT.BD.2.b · Leveraged and liability management

Describe how rating agencies assess leverage, how hybrid capital changes the picture and why refinancing risk matters.

Rating agencies combine business risk, covering scale, diversification, cyclicality and regulation, with financial risk, covering debt to EBITDA, funds from operations to debt, interest cover, liquidity and the maturity profile. They then adjust reported figures for leases, pensions and hybrids, and they publish thresholds at which a rating may move. Hybrid and deeply subordinated capital is long-dated, ranks behind senior debt and lets the issuer defer coupons, so an agency may give it partial equity credit, often described as intermediate or 50%. That lowers adjusted leverage, but the hybrid costs more than senior

debt and the equity credit can be lost as the first call date approaches. Refinancing risk is the danger that debt maturing soon cannot be replaced on acceptable terms, so agencies and lenders compare liquidity with maturities over the next 12 to 24 months. A fall to high yield also narrows the investor base. The usual mistake is to treat a hybrid as free equity.

WORKED EXAMPLE: DUNMORE UTILITIES: HYBRID AND THE DOWNGRADE THRESHOLD

Dunmore Utilities, an invented BBB issuer, has net debt of 2,400m and EBITDA of 600m. The agency has said it may downgrade if adjusted net debt to EBITDA stays above 3.75x. Dunmore plans to issue a 500m hybrid and use the proceeds to repay senior debt. The agency gives the hybrid 50% equity credit. The hybrid costs 7.0% and the senior debt 5.0%. Calculate adjusted leverage before and after, the annual extra cost and the cost per turn of leverage saved.

Answer: Adjusted leverage falls from 4.00x to 3.58x, below the 3.75x threshold, for an extra 10m a year, about 24m per turn of leverage saved.

Interview tip: Compare the price of the fix with the cost of a downgrade. Never present a hybrid as equity: it is cheaper than ordinary equity and dearer than senior debt.

INT.BD.2.c · Leveraged and liability management

Evaluate a liability management exercise such as a tender offer or exchange offer by its cost, saving, effect on maturities and execution risk.

Liability management changes existing debt instead of raising new money. In a tender offer the issuer buys back bonds for cash at a stated price, often a premium to the market so that holders accept, and usually funds it with a new issue. In an exchange offer holders swap old bonds for new ones with a different coupon or maturity, often with a consent solicitation that amends covenants once a stated majority of holders agrees. An issuer can also redeem at a call price or a make-whole price if the bond allows it. To judge an exercise compare the premium and fees paid today with the coupon saved, work out the breakeven, and look at how the maturity profile and the rating change. Participation is uncertain, so test a lower take-up. A swap that gives holders less than they were promised may be treated as a default by agencies. The usual mistake is to look at coupon saving and ignore the premium.

WORKED EXAMPLE: BRIGHTWELL: TENDER AND REFINANCE

Brightwell plc, an invented issuer, has GBP 250m of 6.5% notes with three years left and no call right. It offers to buy them at 103.0, funded by a new 5-year bond at 5.2%. Fees are 0.6% of the nominal amount, and fees are fixed once the offer is made. Calculate the cost today, the annual coupon saving, the breakeven, the three-year net benefit at 5.2% discounting, and the case if only 80% of the notes are tendered.

Answer: Cost 9.0m, saving 3.25m a year, breakeven 2.77 years, an undiscounted three-year gain of 0.75m, and a breakeven of 2.88 years if take-up is 80%.

Interview tip: Do not sell the exercise on the coupon alone. Show the premium, the breakeven and what the new maturity profile is worth.

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