Three Different Approaches to DCF Models

Discounted Cash Flow (DCF) models estimate intrinsic value by projecting future cash flows and discounting them to present value. The three primary approaches, which should yield consistent results when applied correctly, are:

1. **Enterprise DCF (FCFF Approach)**: Discounts Free Cash Flow to the Firm (available to all capital providers) at the Weighted Average Cost of Capital (WACC), then subtracts net debt to get equity value. Ideal for assessing overall firm value.
2. **Equity DCF (FCFE Approach)**: Discounts Free Cash Flow to Equity (after debt obligations) directly at the cost of equity. Simpler for equity-focused valuations but sensitive to leverage assumptions.
3. **Adjusted Present Value (APV) Approach**: Values the unlevered firm by discounting unlevered cash flows at the unlevered cost of capital, then adds the present value of financing effects (e.g., tax shields from debt). Useful for complex capital structures or changing leverage.

Asset Valuation Categories (NISM XV Focus)

(i) Cost-Based Valuation

- Values assets at reproduction or replacement cost; ideal for strategic buyers (e.g., make-vs-buy decisions) but irrelevant for passive financial investors lacking operational control.
- Exam Tip: Often engineer-led assessments (e.g., depreciated replacement cost); rarely used in equity research due to impracticality for stock investors.

(ii) Cash Flow-Based Valuation (Intrinsic Valuation)

- Discounts projected cash flows at a rate reflecting investor-required returns; core for fundamental analysis in exams.
- **Sub-Category: Risk-Neutral Valuation**: Adjusts cash flows for realization probabilities, then discounts at risk-free rate; common for insurers (e.g., embedded value = PV of future profits + adjusted net assets; appraisal value adds new business potential).
- **Sub-Category: Real-World Valuation**: Uses expected (most likely) cash flows discounted at risk-free rate + risk premium (e.g., via CAPM); accounts for uncertainty without probability weighting.
- Exam Tip: Differentiate from relative methods—focus on DCF formulas like FCFF at WACC; test scenarios often compare risk-neutral (stable cash flows) vs. real-world (volatile ones).

(iii) Selling Price-Based Approach (Relative Valuation)

- Applies multiples (e.g., P/E, P/BV, EV/EBITDA) from comparable assets; assumes market efficiency for quick benchmarking.
- Exam Tip: Adjust for differences (e.g., size, growth); useful when intrinsics are hard to project, but validate with peers in same industry/lifecycle.

Overall Notes: Cost-based is niche (strategic only); prioritize cash flow (intrinsic) for long-term value and relative for market context. Exams may ask hybrids (e.g., sum-of-parts using multiples on cash flows).

Warren Buffett stated *"There are only two sources of value in a business - Earnings and Assets".*

"Price is what you pay and Value is what you get."

Asset generates two streams of cash flows - periodic earnings and a final inflow on sale of the asset. Reasons for carrying out valuations of assets/businesses/liabilities are as follows:

- **Buying a business as part of investment exercise**
- **Selling a business as part of investment exercise**
- **Mergers and Acquisitions**
- **General sense of value of business to owners**
- **Fair treatment to different set of stake holders in case of equity swap**
- **Accounting, taxation and other regulatory and legal requirements**

Changing the structure of share capital of a company by increasing the par value of its shares in a defined ratio and correspondingly reducing the number of shares to maintain the paid up/subscribed capital is known as <u>SHARE CONSOLIDATION</u>.

Companies Act requires that a company which wants to raise further capital through an issue of shares must first offer them to the existing shareholders and such an offer of shares is known as Rights Issue

When companies give new shares to their existing shareholders without any consideration, it is known as Stock dividend

Term share swap is often used during a <u>merger or acquisition</u> of a company when acquiring company uses its own stock as cash to purchase the business.

SEBI requires promoters to offer exit opportunities via reverse book building for delisting, where promoters set a floor price and shareholders bid their selling prices.
Promoters can accept bids, reject (cancelling delisting), or counter; voluntary delisting needs 90% promoter holding and 25% public participation.
Post-delisting, remaining public shareholders can sell to promoters at exit price within 1 year; no forced minority exits.
Delisted shares can relist after 5 years (voluntary) or 10 years (compulsory) per SEBI (Delisting of Equity Shares) Regulations, 2009.

Motives of buy back of shares could be multiple as follows:

- To give a value boost to the stock if it is seen as undervalued.
- Excess cash and lack of profitable investment opportunities.
- Buyback as a confidence building measure.
- Buyback as a defensive strategy against a potential takeover.
- Buyback to reduce equity and resultantly increase the leverage in the company.
- Buyback to diffuse the impact of dilution in promoters' holding on account of say Employee Stock Option Plans (ESOPs).

Buyback of shares can be done only out of the reserves and surplus available with the company. The company needs to pass a special resolution specifying the timeframe for buy back and maximum price at which the buyback will be made.

Demerger / Spin-off

A spin-off occurs when a company carves one or more of its existing businesses on to a separate company. the shareholders on the record date will be eligible to receive shares in the new company in proportion to the shares they held in the parent company.

A profitable company can buy a loss making company to enjoy tax shield against the losses of the target company.

Share consolidation reverses stock splits by increasing par value in a ratio while reducing outstanding shares to preserve paid-up/subscribed capital. For a 5:1 consolidation, 5 shares merge into 1, raising face value 5x and cutting shares to one-fifth the original.Consolidation created better perception for investors.
A stock split reduces face value in a ratio, splitting one share into multiple (e.g., 1:5 turns 1 share into 5, halving face value from ₹10 to ₹2). Example: 100 shares at ₹10 face value become 500 at ₹2, maintaining total share capital as increased shares offset lower face value. Companies split to lower high market prices, boosting liquidity and investor participation without altering P&L or balance sheet. Like bonuses, it's a book entry with no economic benefit, influencing psychology via affordable prices but diluting per-share metrics (EPS, BVPS, price). Shareholders' ownership proportion stays intact, so overall value is unaffected despite apparent per-share decline.
A bonus issue (equity dividend) is a cash dividend alternative, issuing free shares to existing shareholders from reserves (shareholders' funds), transferring them to paid-up capital without payment or change in holding value. It influences investor psychology with no economic impact; entitlement is ratio-based (e.g., 1:3 gives 1 bonus share per 3 held). Companies use free reserves from genuine profits only—no revaluation reserves or defaults on debt/fixed deposits allowed. Called reserve capitalization, it increases shares without altering P&L/balance sheet, diluting per-share metrics (EPS, BVPS, price) but preserving proportionate ownership and overall value.
W.e.f., Assessment Year 2021-22, the domestic company is not required to pay dividend distribution tax on any amount declared, distributed or paid by such company by way of dividend.

A **rights issue** is a corporate action where a company offers existing shareholders the **right** to purchase additional new shares at a discounted price (usually below the current market price), in proportion to their current holdings. This allows shareholders to maintain their ownership percentage without dilution from the new capital raised.
How It Works
• **Entitlement**: Based on a ratio (e.g., 1:2 means 1 new share for every 2 held). Shareholders get "rights" (certificates) exercisable within a timeframe (e.g., 15-30 days).
• **Options for Shareholders**:
    o **Subscribe**: Buy the new shares at the offer price.
    o **Renounce/Sell**: Transfer/sell rights to others (often on the stock exchange as "rights entitlements").
    o **Ignore**: Let rights lapse (shares get diluted).
• **Process**: Company announces via stock exchange; record date determines eligibility. Funds raised go to the company for expansion, debt repayment, etc.
• **Regulation**: In India, governed by Companies Act and SEBI; must offer to all equity holders proportionally.
Benefits
• **For Company**: Quick, low-cost equity funding without underwriters; signals confidence to markets.

- **For Shareholders**: Discounted shares preserve ownership; potential capital gains if market price rises post-issue. - **Overall**: Enhances liquidity and can stabilize stock price. **Risks/Drawbacks** - **Dilution**: Non-subscribers lose stake proportionally. - **Market Reaction**: Often seen as a distress signal (e.g., need for cash), causing stock price drops (cum-rights to ex-rights adjustment). - **Oversubscription**: Limited to rights; excess may be allotted proportionally. **Example** If you hold 100 shares of XYZ Ltd (market price ₹100), and it announces a 1:4 rights issue at ₹80/share: - Entitlement: 25 rights (1 per 4 shares). - Cost to subscribe: ₹2,000 (25 × ₹80). - Post-issue: Your holding becomes 125 shares, maintaining 1% ownership if you were 1% before. Rights issues boost capital access but require quick decisions—always review the offer document!
Although EBITDA is a useful metric, it omits to factor in impact of capital expenditures completely. Some capital expenditures are recurring in nature (for example, purchase of computers and other assets with short shelf life). **Adjusted profit after tax:** Exceptional items and non-recurring items affect comparability of net profit numbers. EBITDA also serves a proxy for cash profit earning by operations.
Gross profit: It is calculated by reducing the cost of goods sold from revenue. It is a suitable metric for manufacturing business. It refers to the surplus that a company can use to meet its fixed expenses.

Other Comprehensive Income (OCI) OCI includes income/expenses that bypass the P&L account, primarily non-operating changes in asset/liability values. Key components: • Changes in revaluation surplus. • Re-measurement gains/losses on defined benefit plans. • Gains/losses from translating foreign operation financials. • Fair value changes in financial assets/liabilities routed through OCI. • Gains/losses on effective hedging derivatives. In subsidiaries, OCI attributable to external (non-controlling) shareholders is allocated to minority interest.
Diluted EPS Diluted EPS assumes conversion of dilutive instruments (e.g., in-the-money warrants, ESOPs, convertibles) into equity, adjusting net profit for impacts and dividing by diluted share count. For loss-making firms, it equals basic EPS (no dilution effect).
Profit allocated to Non-controlling interest (minority interest): This refers to the amount of profits of a subsidiary company that belongs to external shareholders of the subsidiary.
Tax expense of an Indian company include three components: (i) Current tax, (ii) MAT and (ii) Deferred tax.
IndAS 16 requires that the method of depreciation take into consideration the way the asset is used.
Core working capital: The current assets of a company often include short term investments, which are not necessarily meant for business operations.
current liability for a company includes the following: (i) Short term provisions (ii) Current portion of long-term liability (iii) Deferred revenue (iv) Advanced from customers (v) Unpaid expenses and expense accrued but not due
Equity represents the residual interest in a company, which belongs to the owners of the company. It represents the value of assets *minus* liability.
Current Financial assets: These represent cash, cash equivalents, bank balances, short term investments, receivables and other financial claims that are likely to be received within one year.
1. To adjudge the company, a good analyst must track and review which of the following periodically: I. Disclosures

II. Commitments

III. Deliveries