Corporate valuation

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3 main approaches

Peers approaches

Listed peers

M&A peers

Intrinsic approach: Discounted Cash Flows (DCF)

Substantial approaches

Net Asset Value (NAV)

Sum of the Parts (SotP)

1.a. Listed peers approach

Identification of listed peers i.e. listed firms with the same business model

For each peer, calculation of multiples for the current year, the 2 coming years and possibly the previous year (if no other financial information is available): EV/Sales, EV/EBITDA, EV/EBIT, P/E, P/BV, P/TBV

- EV = enterprise value = Market cap + Net debt
- Net debt = Financial debt – Cash and cash equivalents
- BV = Book Value of shareholders' equity
- TBV = Tangible Book Value = BV – Intangible assets including goodwill
- P = Price of the firm's shares = Market cap

Calculation of a mean for each category of multiple, each mean corresponding to the industry's multiple

Application of each industry's multiple to the corresponding aggregate of the firms to be valued

- Direct calculation of the equity value when P/E, P/BV and P/TBV are respectively applied to net income, BV of equity and TBV
- Calculation of EV when EV/Sales, EV/EBITDA, EV/EBIT are respectively applied to Sales, EBITDA and EBIT. Then equity value = EV – Net debt

1.b. M&A peers approach

Same principles as the listed peers'

Replacement of listed peers by firms that have been targets of M&A deals

Calculation of multiples based on financial aggregates that were posted at the end of the last year before the closings of the deals

Calculation of means for the last year's achievements corresponding to the industry's multiples

Application of the industry's multiples to the corresponding aggregates of the firm's to be valued, based on the last year's achievements

Possibility to have the same approach for the current year and the coming year, should such financial information be available for peers and for the firm to be valued

2. DCF

$$EV = \sum_{t=1}^{+\infty} \frac{FCF_t}{(1+K)^t} = \sum_{t=1}^{n} \frac{FCF_t}{(1+K)^t} + \sum_{t=n+1}^{+\infty} \frac{FCF_t}{(1+K)^t}$$

$$TV = \sum_{t=n+1}^{+\infty} \frac{FCF_t}{(1+K)^t} = \frac{(1+g).FCF_n}{(K-g)(1+K)^n}$$

With

- FCF_n = Free Cash Flow of the year Nr n
  - *FCF* = NOPAT + D&A – Net Capex - ΔWCR
    - NOPAT = EBIT(1-τ)
    - τ = corporate tax rate
    - Net Capex = Capital Expenditures – Assets disposals
    - WCR = Working Capital Requirement = current assets – current liabilities
  - *n* = numbers of future years in the business plan

- *g* = perpetuity growth rate

- K = Weighted Average Cost of Capital = WACC = $k\frac{E}{E+D} + i(1-t).\frac{D}{E+D}$
  - E = equity value as calculated by the DCF model which has therefore to loop on itself
  - D = last available net debt

- Equity value = EV – Net debt

3. NAV and SotP

Purpose

- NAV: valuation of holdings
- SotP: valuation of conglomerates

Calculation the EV

- NAV: replacement of the assets' book values in the statutory accounts (mainly shares in affiliates and subsidiaries) by their economic values
- SotP: calculation of the EV of each business line

Calculation of the equity value

- NAV = EV – statutory net debt
- SotP = EV – Consolidated net debt – Minority interests