Description of DCF model & Definition of benchmark WACC assumptions

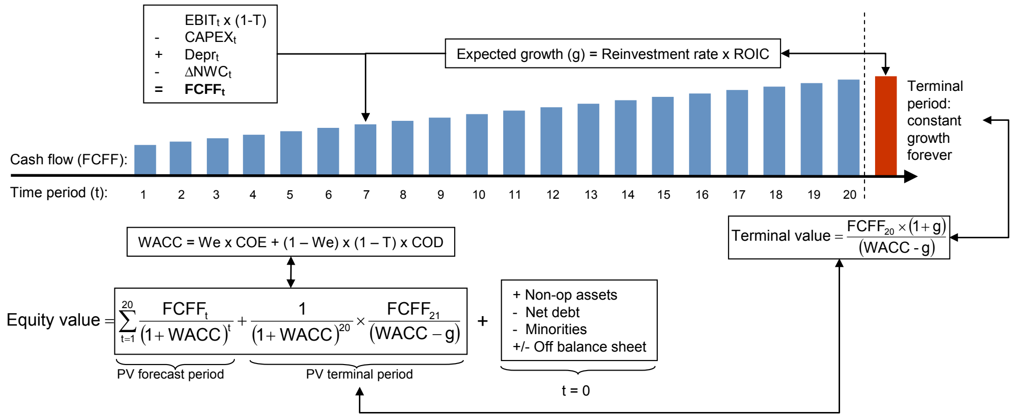
DCF MODEL – GENERAL DESCRIPTION

For non-financial companies, Handelsbanken equity research employs a fundamental valuation approach whereby the firm's operating cash flows (FCFF) are estimated over a 20 year explicit forecast period.

The cash flows are discounted to present value using the company's estimated WACC (weighted average cost of capital).

Following the explicit forecast period, the company is assumed to grow at a constant rate (g) in eternity, whereby the value of the residual period is calculated as a perpetuity.

In order to arrive at the equity value, the value of net debt and minorities are deducted from, while the market value of associated companies and other non-operating assets is added to the sum of the present values of the FCFF-streams.



*) Note that the DCF value is the analyst's assessment of the company's fundamental value, whereas the target price reflects the analyst's best guess of what the share price will be in the next 12 months

BENCHMARK WACC ASSUMPTIONS

When calculating the weighted average cost of capital (WACC), all analysts use the same benchmarks for the risk free interest rate and the equity market risk premium as stipulated by the strategy team. The benchmarks are updated on an ad-hoc basis.

The risk-free interest rate (Rf) used in the calculation of WACC is the highest of our assessment of the average yield on 10-year government bonds over the next business cycle (i.e. the %Y historical moving average) and the current level. The interest rate used must correspond to the currency in which the company reports its financial accounts and consequently in which currency the cash flow forecasts are made.

The equity market risk premium (Rp) is HCM's forecast of the extra return that investors on the Nordic markets on average will require to invest in equity in the upcoming 12-month period.

DEFINITIONS OF DCF RELATED VARIABLES

Variable	Definition	Description
Corporate tax rate (T)	The corporate tax rate in the country in which the company is domiciled adjusted for any deviations emanating from the taxation of foreign subsidiaries.	Used to calculate the after-tax operating cash flows, and to calculate the tax-shield received on interest payments when calculating WACC.
Cost of debt (COD)	The cost of borrowing before tax for a firm. The size is determined by the current and expected credit rating and the duration of the loan portfolio.	Used as one of the weighted capital cost components in the calculation of WACC.
Cost of equity (COE)	The risk free interest rate + the risk adjustment factor x equity market risk premium + small cap risk premium (if any)	Used as discount factor in the valuation of a company's equity (e.g. in the dividend discount model), and as one of the weighted capital costs in the calculation of WACC.
DCF value per share	The value per share as returned by the DCF model. The DCF value divided by the fully diluted issue adjusted number of shares. If the value of any incentive program is significant, undiluted number of shares must be used.	Used as a measure of the long term value of the company, not necessarily a target price.
Equity risk adjustment factor (Be)	The expected company specific risk coefficient, i.e. how much more (or less) risky an investment in the company is compared the equity market average. Not calculated as historical beta, but based on a calculated 10-year volatility and translated into an index.	Used to create a company specific risk premium in the calculation of cost of equity.
Equity risk premium (Rp)	The expected equity market risk premium, i.e. the average return expected over and above the return received on a risk free investment.	Used in the calculation of cost of equity.
Equity weight used in WACC (We)	The share of equity (market valued) in operating capital.	Used to calculate the weight of equity and debt in WACC.
Growth in sustainable period (g)	The expected nominal growth in sales, cash flow, the balance sheet, etc. in the terminal period, i.e. the period from the end of the explicit forecast period into eternity.	Used in the calculation of terminal value. May not be equal to or exceed WACC. Should not significantly exceed expected inflation if the forecast period is long.
Risk free interest rate (Rf)	The country-specific expected 10-year interest rate of a government bond.	Used in the calculation of cost of equity.
Small Cap Premium (SCP)	An extra risk premium added to cost of equity in order to compensate for small-company risk. Guideline ranges for market cap (EURm): <0.1bn = 4%, 0.1-0.5bn = 3%, 0.5-1bn = 2%, 1-2bn = 1%.	Used to adjust the cost of equity to extra risks relating to the size of the company being valued which are not incorporated in the risk adjustment factor or the estimates, such as illiquidity of the share.
Weighted average cost of capital (WACC)	We x COE + (1-We) x (1-T) x COD	The weighted demand placed on the company by the stakeholders. Used in the present value calculations of cash flows in firm valuation DCF. The denominator is FCFF.