Valuation Model Structures[1]

	Basic Model Construction: VAL = $PV_{DCF} + PV_{CV}$		
Individual Model Form	$PV_{DCF} = \sum \frac{CF_t}{(1+r)^t}$	$CV_0 = \frac{CF_1}{(r-g)}$	$PV_{CV} = \frac{\frac{CF_1}{(r-g)}}{(1+r)^t}$
Dividend Growth or Dividend Yield (DG) *Used expressly for equity shares*	$PV_{DCF} = \sum \frac{Dividend_t}{(1+WACC)^t}$	$CV_0 = \frac{Dividend_1}{WACC-g}$	$PV_{CV} = \frac{\frac{Dividend_1}{WACC-g}}{(1+\mathrm{WACC})^t}$
Free Cash Flow (FCF) This is the Free Cash Flow augmented form of the Dividend Yield model	$PV_{DCF} = \sum \frac{FCF_i}{(1+\mathrm{WACC})^t}$	$CV_0 = \frac{FCF_1}{(WACC-g)}$	$PV_{CV} = \frac{\frac{FCF_1}{(WACC-g)}}{(1+\mathrm{WACC})^t}$
Key Value Drive (KVD) The KVD form uses FCF = $NOPLAT_1$ + Depreciation – NCS - ΔNWC as the cash flow variable during the explicit period, but uses FCF = $NOPLAT_1\left(1-\frac{g}{ROIC}\right)$ for the continuation period	$PV_{DCF} = \sum \frac{FCF_t}{(1+WACC)^t}$	$CV_0 = \frac{NOPLAT_1\left(1-\frac{g}{ROIC}\right)}{WACC-g}$	$PV_{CV} = \frac{\frac{NOPLAT_1\left(1-\frac{g}{ROIC}\right)}{WACC-g}}{(1+\mathrm{WACC})^t}$
Economic Profit (Eπ or ECONπ). This model includes the base year Invested Capital (IC_0) plus a discounted cash flow (DCF) during the explicit period.	$PV_{DCF} = IC_0 + \sum \frac{IC_{t-1}(ROIC-WACC)}{(1+WACC)^t}$	$CV_0 = \frac{IC_0\ (ROIC_1-WACC_1)}{WACC_1-g}$	$PV_{CV} = \frac{\frac{IC_0\ (ROIC_1-WACC_1)}{WACC_1-g}}{(1+\mathrm{WACC})^t}$
Adjusted Present Value (APV). This model includes two unique cash flows, FCF and Tax Shield, during both the explicit and continuation periods. It uses k_U as the discount rate for FCF, and k_{TAX} as the discount rate for TS (tax shield). The model outcome is the sum of two sets of PVDCF and PVCV equations, one for each of the two cash flow variables.	$PV_{DCF} = \sum \frac{FCF_i}{(1+\mathrm{k_u})^t}$ $PV_{DCF} = \sum \frac{\mathrm{Tax\ Shield}_i}{(1+\mathrm{k_{tax}})^t}$	$CV_0 = \frac{FCF_1}{(k_u-g)}$ $CV_0 = \frac{Tax\ Shield_1}{(k_{tax}-g)}$	$PV_{CV} = \frac{\frac{FCF_1}{(k_u-g)}}{(1+k_U)^t}$ $PVCV = \frac{CV_0}{(1+\mathrm{k_{tax}})^t}$
Forward Market Multiple (FMM). This model uses one of a variety of Enterprise Value (EV) based multiples (EV/EBIT is shown) in the continuing value as a scalar applied to the multiple's denominator variable to estimate CV_0. The multiple's value is observed for the base year or formed as a target amount. The model uses FCF as the explicit period's cash flow variable.	$PV_{DCF} = \sum \frac{FCF_t}{(1+WACC)^t}$	$CV_0 = EBIT_1\ x\ FMM$	$PV_{CV} = \frac{EBIT_1\ x\ FMM}{(1+\mathrm{WACC})^t}$

Valuation Models seek to estimate the present value of the future cash flows from an asset. Each of the models presented include an ***explicit period*** in which cash flows are estimated for a specified period of time and a ***continuation period*** in which the asset's ongoing cash flows beyond the explicit period are considered. PV_{DCF} captures the present value of those cash flows included in the explicit period. PV_{CV} captures the present value of those ongoing cash flows, which have no expected end and as such represent an infinite series of values. To determine the present value of the continuing value, it's necessary to calculate the continuing value (CV_0).

Recall that CF is simply some cash flow, with each model potentially using a different form of cash flow. Similarly, r is simply some discount rate, with WACC, investor expectations, k_U, and k_{TAX}, being possible forms of a discount rate – sometimes referred to as a hurdle rate.

The explicit period includes those years for which cash flows have been expressly and rigorously estimated, recognizing that estimation validity is negatively correlated with the number of years of estimated cash flows. The last year of the explicit period becomes the base year of the continuation period and forms CV_0, with the first year following the explicit period representing time = 1 in the continuation period.

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