DECISION MAKING AND SCENARIOS

MODULE 2.3 – Evaluating Projects

Analyzing the Incremental After-Tax Cash Flows – Terminal Phase

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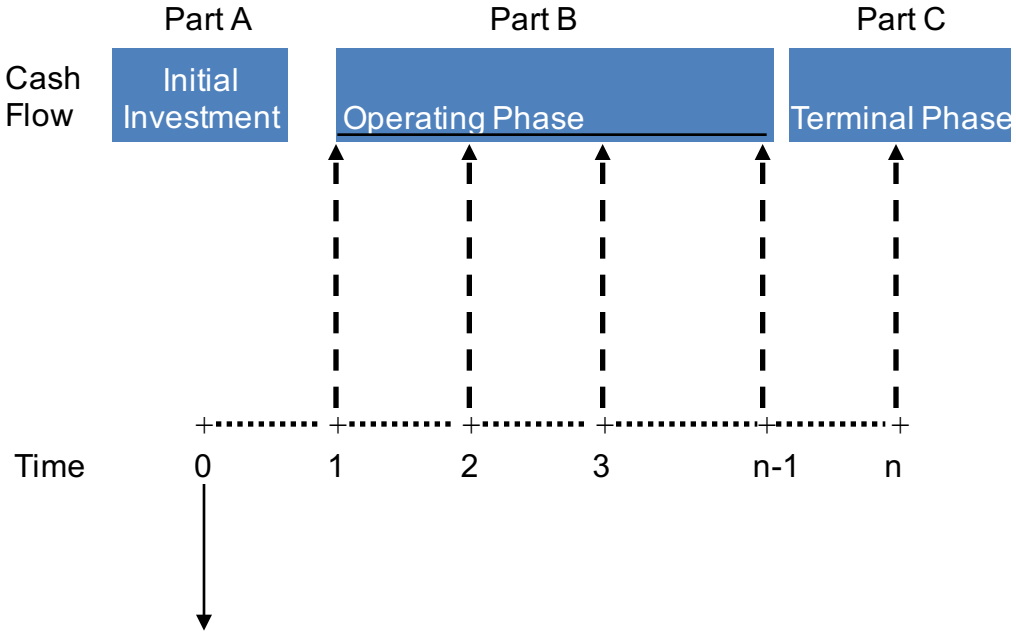
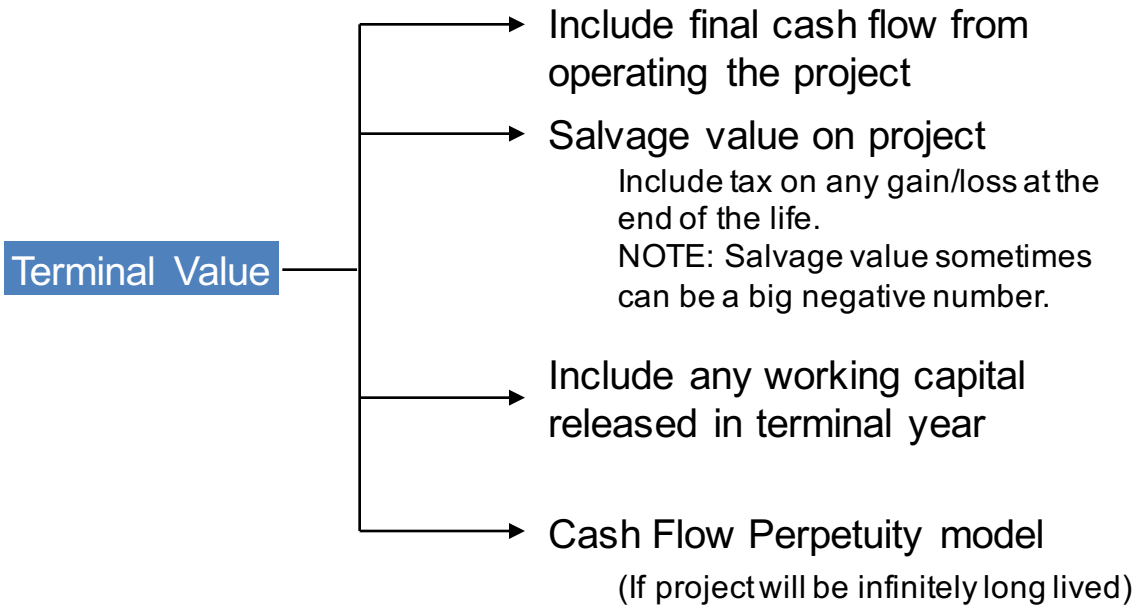
Incremental After-Tax Cash Flows – Terminal Phase



Terminal or Salvage Value in Last Year



Terminal Value - Cash Flow Perpetuity Model

- If you believe a project will be infinitely long lived, then use a cash flow perpetuity model to value the project, once you have forecasted out to a low or zero constant rate of growth in cash flows. Terminal value at year n, TV_n:

$$TV_n = \frac{NCF_{n+1}}{r - g}$$

Where : r = discount rate

g = constant percentage growth rate for future periods

Present value of an infinite stream of payments

Terminal Value - Cash Flow Perpetuity Model

- How would you use this? Suppose you forecasted cash flows for a new product for 10 years during which time the growth of the new product rose, but by the end of year 10 the growth rate was close to inflation, say 3%.
- Take the year 11 cash flow and apply the perpetuity model which gives you the value of the cash flow from year 11 to infinity at year 10

$$TV_{10} = \frac{F_{11}}{r - g}$$

Where : r = discount rate
g = constant percentage growth rate, in this case, 3%

- You now add $TV_{10} / (1+r)^{10}$ (which discounts the TV back to time 0) to the present value of the first ten years of cash flows
- Do not assume that all projects have an infinite life - rare

Net Present Value

NPV = - initial investment (discounted over time if multiple years)

+ discounted value of cash flows during the operating phase

+ discounted value of terminal value

If NPV **>** 0 accept project

If NPV **<** 0 reject project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