

Case

You have just been hired by Internal Business Machines Corporation (IBM) in their capital budgeting division. Your first assignment is to determine the free cash flows and NPV of a proposed new type of tablet computer similar in size to an iPad but with the operating power of a high-end desktop system.

Development of the new system will initially require an initial capital expenditure equal to 10% of IBM's Property, Plant, and Equipment (PPE) at the end of fiscal year 2014. The project will then require an additional investment equal to 10% of the initial investment after the first year of the project, a 5% increase after the second year, and a 1% increase after the third, fourth, and fifth years. The product is expected to have a life of five years. First-year revenues for the new product are expected to be 3% of IBM's total revenue for the fiscal year 2014. The new product's revenues are expected to grow at 15% for the second year then 10% for the third and 5% annually for the final two years of the expected life of the project. Your job is to determine the rest of the cash flows associated with this project. Your boss has indicated that the operating costs and net working capital requirements are similar to the rest of the company and that depreciation is straight-line for capital budgeting purposes. Since your boss hasn't been much help (welcome to the "real world"!), here are some tips to guide your analysis:

1. Obtain IBM's financial statements. (If you *really* worked for IBM you would already have this data, but at least you won't get fired if your analysis is off target.) Download the annual income statements, balance sheets, and cash flow statements for the last four fiscal years from Yahoo! Finance (finance.yahoo.com). Enter IBM's ticker symbol and then go to "financials."
2. You are now ready to estimate the Free Cash Flow for the new product. Compute the Free Cash Flow for each year using Eq. 8.5:

$$\text{Free Cash Flow} = \overbrace{(\text{Revenues} - \text{Costs} - \text{Depreciation}) \times (1 - \tau_c)}^{\text{Unlevered Net Income}} + \text{Depreciation} - \text{CapEx} - \Delta \text{NWC}$$