Valuation Waterfall

Revenue Growth

IBM is in the midst of another generational transition, focusing on Cloud services, cybersecurity, and AI. These business, termed "Strategic Imperatives" are growing quickly, partially or wholly offsetting declines in its legacy businesses. We think Strategic Initiatives can grow between 5% and 12%, and that legacy revenues will decline by about 10% per year. Because the businesses are similarly sized, top-line growth will be choppy for awhile.

Profitability

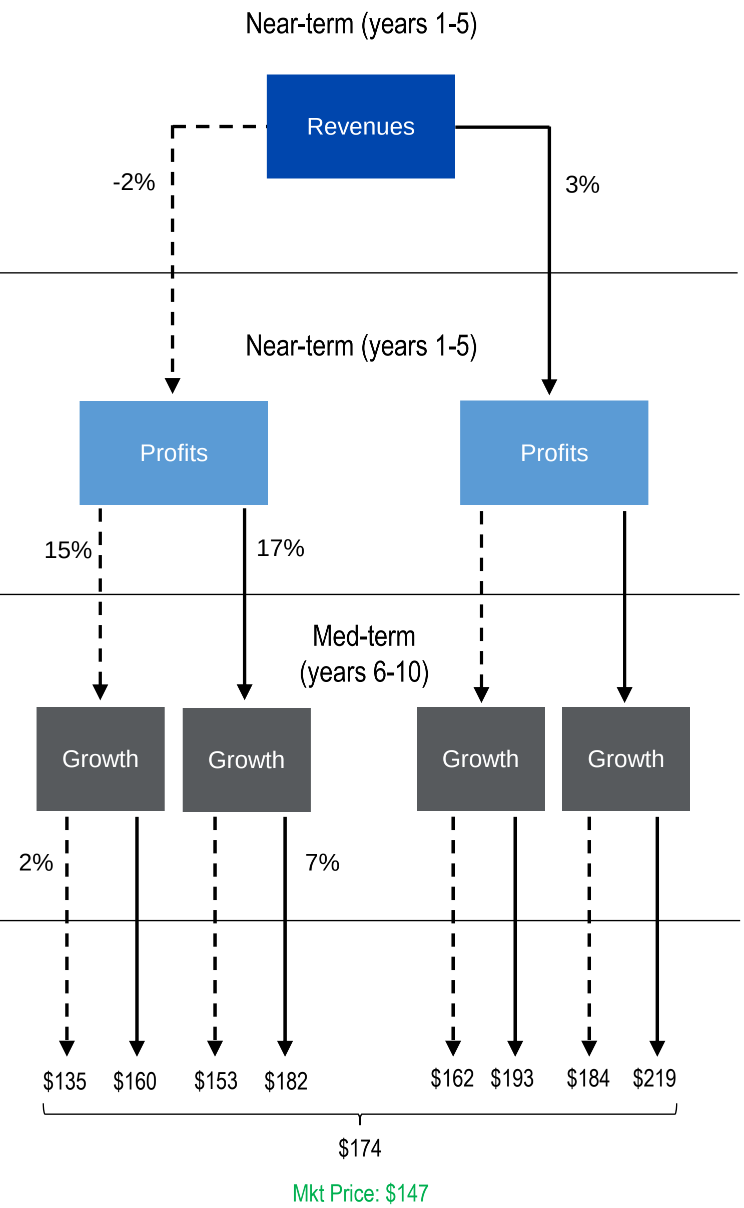
Despite continual revenue declines since the 2012 fiscal year, IBM's profitability has actually held steady over this period and lately, improved somewhat on an OCP basis. This negative operating leverage is a good sign for owners, and as the firm returns to top-line growth, we believe the operating leverage will be positive – meaning that profits will growth quicker that revenues do. Again, more good news for owners.

Medium-Term Cash Flow Growth

IBM is building on its strong customer relationships and developing strong, differentiated franchises to serve those clients. The shift is a big one, and there is a good bit of uncertainty as to how successful IBM will be in the medium-term. Recent indications (Strategic Imperatives revenue growth, profitability) have been good, and we think there is a good chance that the firm will grow relatively more rapidly in the medium term.

Fair Value Range

Our fair value range extends from $135 to $219 / share with an average value of $174 / share using a **discount rate of 10%**. Over the last two years, the firm's actual operating performance has been tracking closer to our best-case scenarios and we are bullish about its medium-term growth as well. This suggests that the fair value of IBM is closer to $200 / share than to $150 / share. Only one, unlikely (in our opinion) valuation scenario is lower than the market price.



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Methodology

Framework Investing analyses focus on three main valuation drivers: revenue growth, profitability, and medium-term cash flow growth. We estimate a best- and worst-case scenario for each of these drivers resulting in a total of $2^3 = 8$ fair value scenarios based on discounted cash flow methodology. Profitability is measured by [Owners' Cash Profit (OCP)] margin and our measure of free cash flow is termed [Free Cash Flow to Owners (FCFO)]. We use a discount rate of 10% for large capitalization stocks. A wide spread of lowest and highest fair values indicates a firm whose value is uncertain. Risk depends on the stock price's relationship to the valuation range. Best-case scenarios are represented with a solid line; worst-case scenarios, with a dotted one.