

Valuation Waterfall

Revenue Growth

Strategic Imperatives grow at roughly 12% per year in the best case and only 5% per year in the worst. Legacy business declines at roughly 10% per year. Strategic Imperatives – Cloud, AI, and Security – are key fields for the future of software, and we think IBM's portfolio is differentiated and its links with clients offer a strategic advantage to the firm.

Profitability

The company has been becoming more efficient at converting its revenues to profits and have maintained Owners' Cash Profits in the \$14 billion range over the past five years, despite a drop in revenues over this time from \$98.4 billion (2013) to \$79.9 billion (2016). As its Strategic Imperatives business expands more, we expect profitability to move up as well.

Medium-Term Cash Flow Growth

We think that the company has been making smart investments and know that if it has been able to maintain profitability even with a shrinking top-line, any revenue growth should generate good growth of profitability.

Fair Value Range

Our fair value range extends from \$144 to \$210 / share. We see the \$155 scenario as a likely worst-case valuation, and the \$196 scenario as a likely best-case valuation. Weak revenue growth in the first half of 2017 suggest the left-hand branch, with a range of \$144 - \$175 is most likely right now, but valuing a company on the basis of a few quarters of data is unwise.

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. 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.

