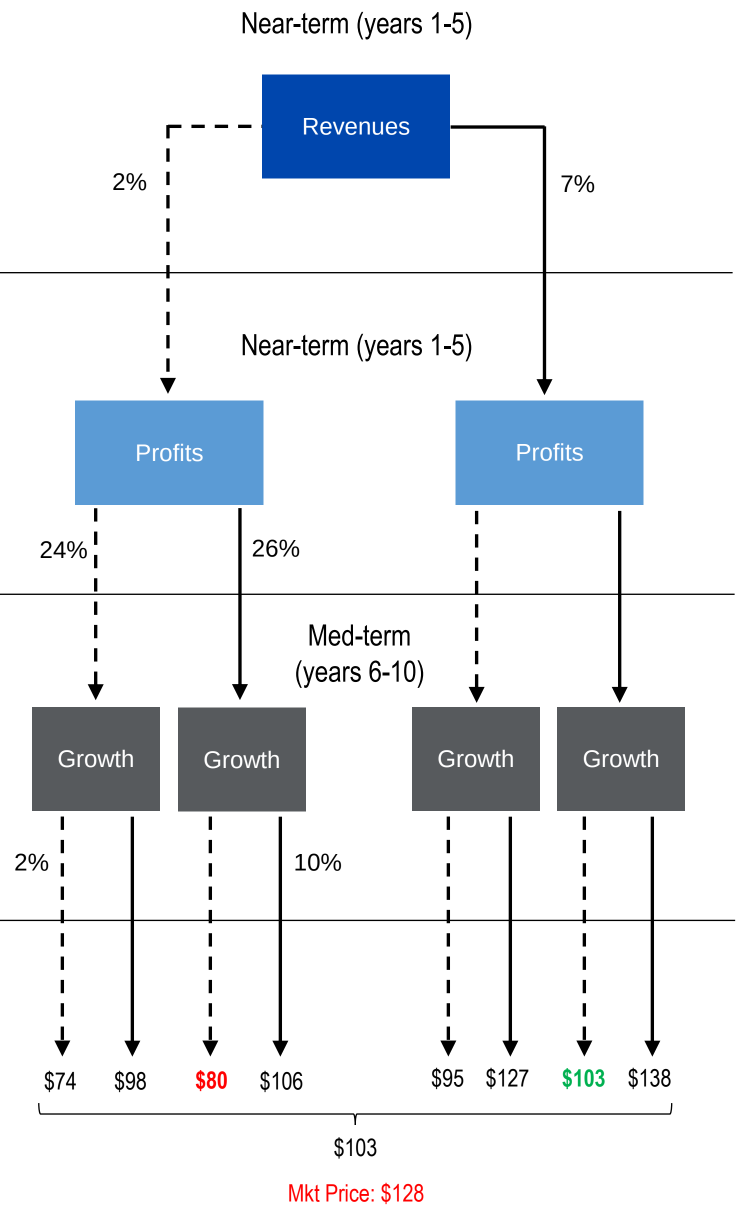
Valuation Waterfall

Revenue Growth
Over the past decade, volumes of most freight types have increased less than 2% on average. Coal volumes have fallen by nearly 6% and Intermodal, by a smidge. The company has pricing power, and overall revenue growth in each freight type has been between 3% and 5% (except for flat coal). Our model assumes continued strong pricing power contributing around three percentage points in the best case and around one percentage point in the worst.

Profitability
UP and other railroads have taken advantage of a more benign regulatory environment to raise shipping prices for its clients by 200%-300% in some cases. These price rises saved an industry that was perennially in bankruptcy mode in the 1960s and 70s. Now, UP converts more of its revenues to profits than some high-tech firms. We think UP's profitability is likely to go even higher over the next few years, but the dramatic price rises are likely behind us.

Medium-Term Cash Flow Growth
There are signs that the pricing environment is softening for railroads, as legacy contracts have rolled over into higher rate ones. The low hanging fruit is already plucked and marginal increases in cash flows from now on will be harder. We believe that high near-term revenue growth followed by high medium-term cash flow growth are virtually impossible considering pricing dynamics. Increased regulatory scrutiny also threatens medium-term growth.

Fair Value Range
Our fair value range extends from $74 to $138 / share, but the two highest valuation scenarios are extremely unlikely. We consider high-profit, low medium-term growth scenarios to be relatively more likely, giving us a likely worst-case scenario of $80 per share and a likely best-case scenario of $103 per share. The present stock price is considerably higher than the midpoint of both our most likely range ($92) and of the entire range ($103). We continue to be bearish.



13 February 2018

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.