



S&P intrinsic valuation model

An EPS discount model

Our intrinsic valuation model combines our detailed S&P EPS analysis with our intrinsic valuation expertise. We did this by creating a single-stage earnings discount model so that we could intrinsically value the S&P 500 based upon our EPS estimates. Our EPS discount model is consistent with the principles underlying a dividend discount model (DDM) or a discounted cash flow (DCF) model, but the direct input is EPS and not DPS.

We set our 12-month S&P 500 target using a fair intrinsic value model.

Our full valuation model, shown on page 21, can be daunting upon first glance, but it is actually very simple at its core. The model simply capitalizes S&P 500 EPS.

S&P 500 value = normalized EPS / a fair long-term real return on S&P 500 ownership

While our model can be reduced to the basic formula above, the full version of our model allows us to decompose and more closely examine our underlying assumptions. Examining our assumptions piece by piece helps us to fully consider current macro conditions and make more meaningful comparisons to history. It also allows us to better compare our assumptions to market implied expectations and run sensitivity tests. We validate the mechanics of our model by reconciling it to a dividend growth model, as well as a DCF and economic profit valuation model. This helps ensure correct math and provides us additional frameworks of thought to assess our assumptions.

A simple version of our model before introducing the full version

The simplest version of our model is just like a steady-state terminal value calculation in a DCF model. We set DPS equals to EPS and assume long-term growth is only inflation.

We capitalize our cyclically normalized and accounting quality adjusted pro forma S&P 500 EPS estimate at the real cost of equity.

This assumes that there will be no long-term S&P 500 economic profit growth or deterioration.

We try to stay disciplined about our real cost of equity assumption, usually 5.5-6.5%

Figure 42: Capitalize steady state earnings at the real cost of equity

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|--|-----------------|
| Deutsche Bank's 2015E S&P 500 EPS | \$119.00 |
| DB's *normal 2015E* S&P 500 EPS | \$122.00 |
| *Normal 2015E* EPS / 2015E EPS | 103% |
| Accounting quality adjustment to pro forma EPS | -\$12.00 |
| Normal 2015E S&P 500 EPS fair to capitalize | \$110.00 |
| Fair long-term return on S&P 500 index: | |
| + Long-term real risk free interest rate | 1.50% |
| + Long-term fair S&P 500 equity risk premium | 4.00% |
| = Fair real return on S&P 500 ownership | 5.50% |
| + Long-term inflation forecast | 2.00% |
| = Nominal S&P 500 cost of equity | 7.50% |
| S&P 500 intrinsic value at 2015 start | |
| = Adj. normal EPS / (nominal CoE - inflation) | 2000 |
| S&P 500 intrinsic value at 2014 end | |
| = Year start value * (1 + nominal CoE - div. yld.) | 2109 |

Source: Deutsche Bank