

## COST OF CAPITAL

### Cost of Equity

**Cost of Equity (CoE) is a benchmark to assess whether holding shares in a firm makes sense. If the return for holding shares - the return on equity - matches at least the CoE, then such an investment seems viable, otherwise not.**

A good starting point for determining the cost for holding equity is reviewing the rights and rewards, but also the risks shareholders assume when acquiring shares: On the one hand, shareholders are allowed to vote at shareholder meetings on all major issues concerning the company. Further, they can also ask questions to the board, and in addition they have a right for their portion of dividends, provided shareholders agree to the board's proposal that these will be paid out. Therefore, next to receiving cash dividends, shareholders can indeed pro-actively influence the strategy of a firm by voting in a way which should eventually create value and ultimately be reflected in a positive share price dynamics.

On the other hand, shareholders also assume substantial risks, even though they cannot lose more than the amount they have invested: A firm cannot force shareholders to provide any additional funds in case of financial distress. And, a share price can never fall below zero. – But, in a worst-case scenario – the liquidation of a firm after declaring bankruptcy – shareholders may actually be left with nothing at all. They are positioned at the very bottom of a distribution cascade (or: waterfall), with all other claims having priority - such as those by banks, bondholders, employees, social security, tax authorities. Only once these priority claimants have been satisfied, shareholders will receive what's left over.

Therefore, CoE must be higher than cost of debt, as any creditor will be in a better, more favorable position, if a firm were ultimately liquidated: Hence, shareholders assume the highest, the ultimate risk.

To come up with a concrete figure - a number - for the CoE, several Nobel Prize laureates – among others – developed over decades a theoretical framework resulting in a formula composed of a risk free rate, a beta and a market risk premium. And despite the fact that this concept definitely has numerous flaws - as seen in practice -, nevertheless most financial investors, professionals and analysts have ever since been applying it.

To start with, a shareholder must receive at least the yield which can be achieved by investing in the least risky investment alternative available in capital markets: The yields of a long-term government bond. This yield is generally called the risk free rate. – Further, for assuming substantial additional risks, a so-called market risk premium will be added to the risk free rate. This premium is derived by subtracting the risk free rate from the average historical return of the stock markets. - And finally, as there are more and less risky industries or companies to invest in (just imagine a low-risk, stable food manufacturer in comparison to a firm operating in the cyclical and highly volatile luxury goods sector) the market risk premium is adjusted for this additional risk component by a multiplier, referred to as beta. The beta indicates whether the return of a specific stock or investment is overall more, less or equally volatile – or risky - as the average return of a well-diversified market portfolio, or a well-diversified index. Beta will also increase, the more a firm is levered or indebted.

