**CAPM (Capital Asset Pricing Model) –**

* CAPM is a model that described the relationship between the expected return and risk securities.
* CAPM indicates that the expected return on a security is equal to the risk-free returm plus a risk premium.

*ERi*​=*Rf*​+*βi*​(*ERm*​−*Rf*​)

**where:**

ERi​=expected return of investment

Rf​=risk-free rate

βi​=beta of the investment or systematic risk

(ERm​−Rf​)=market risk premium​

**Terms –**

* The expected return is the profit or loss that an [investor](https://www.investopedia.com/terms/i/investor.asp) anticipates on an investment that has known historical [rates of return](https://www.investopedia.com/terms/r/rateofreturn.asp) (RoR). It is calculated by multiplying potential outcomes by the chances of them occurring and then totaling these results.
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* Systematic risk refers to the risk inherent to the entire market or [market segment](https://www.investopedia.com/terms/m/market-segment.asp). Systematic risk, also known as undiversifiable risk, volatility risk, or market risk, affects the overall market, not just a particular stock or industry.
* The risk-free rate of return is the theoretical [rate of return](https://www.investopedia.com/terms/r/rateofreturn.asp) of an investment with zero risk. The [risk-free](https://www.investopedia.com/articles/financial-theory/08/risk-free-rate-return.asp) rate represents the interest an investor would expect from an absolutely risk-free investment over a specified period of time.

bp=(w1\*b1)+(w2\*b2)+….+