Marginal Cost Capital

- MCC is the cost of the last new dollar of capital a firm raises.
- As a firm raises more and more capital, the costs of different sources of financing will increase.
- MCC schedule shows the WACC for different amounts of financing.
- Break points occur any time the cost of one the components of the company's WACC changes.

Capital Asset Pricing Model

Since beta measures the stock's reactions to movements in the market, the beta for the market as a whole must be 1.0. A stock's systematic risk can be assessed relative to the market in the following manner:

- A stock with a beta of 1 has an average level of market sensitivity. If beta is set equal to 1 in the SML, the expected return on the stock equals the expected return on the market portfolio. Stocks of large, diversified conglomerates tend to have betas close to 1.
- A stock with a beta greater than 1 has more-than-average systematic risk and will have an expected return greater than the market's expected return. Stocks of companies in industries that are more sensitive to the level of economic activity tend to have betas greater than 1 and are sometimes referred to as cyclical stocks.
- A stock with a beta less than 1 has less-than-average systematic risk and will have an expected return smaller than the market's expected return. Stocks of companies in industries not very sensitive to the economy (e.g., oil companies and grocery store chains) tend to have betas less than 1 and are referred to as defensive stocks.

Arbitrage Pricing Model (APT)

The Arbitrage Pricing Theory (APT) refers to an asset pricing theory that assumes:

- *Returns are derived from a multifactor model.* Unfortunately, the APT provides little practical guidance for the identification of the risk factors. The lack of clarity for the risk factors is a major weakness of the APT.

- *Unsystematic risk can be completely diversified away.* This implies that unsystematic risk is not priced (has zero risk premium).
- No arbitrage opportunities exist. An arbitrage opportunity is defined as an investment opportunity that bears no risk, no cost, and yet provides a profit. This assumption implies that investors will undertake infinitely large positions (long and short) to exploit any perceived mispricing, causing asset prices to adjust immediately to their equilibrium values.

APT

Example

An investment firm employs a two factor APT model. The risk free rate equals 5%. Determine the expected return for the Invest Fund using the following data:

	Factor 1	Factor 2
Invest Fund Factor Betas	1.5	2.0
Factor Risk Premiums	0.0300	0.0125