

IB1006- Islamic Capital Market

Corporate Finance

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Corporate Finance

- There are several methods firms can finance their projects. Finance basically comes from two sources.

Internal (within a firm)

External (from outside a firm)

Internal Source of finance can come either from

Retained Earnings

Depreciation Allowances

External Resource of finance can come either from:

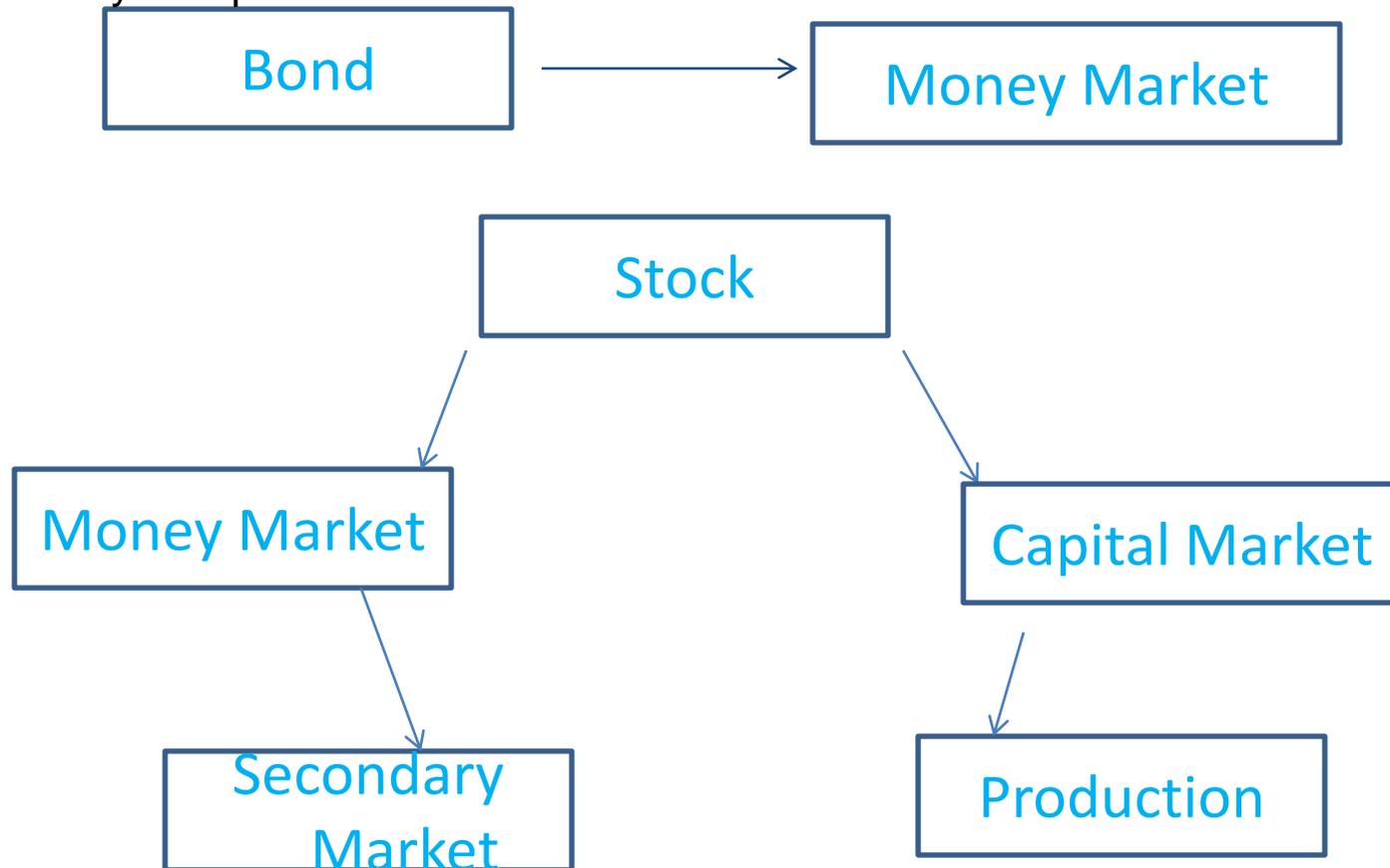
Issuance of new stocks (shares)

Issuance of Bonds

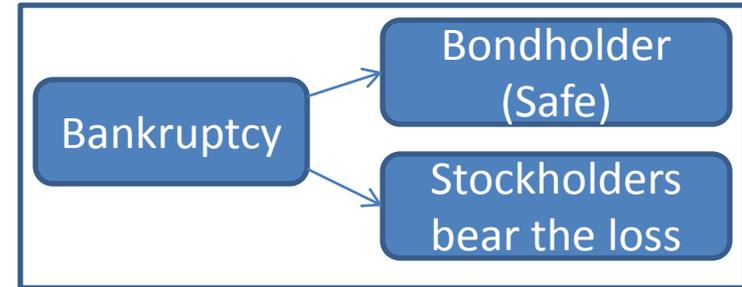
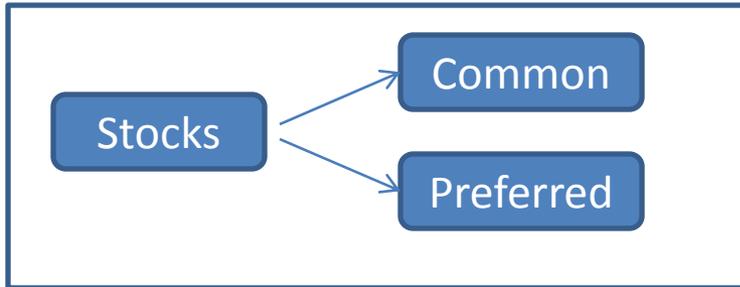
Corporate Finance

Does bonds or stock mostly add to the production capacity of a country?

In USA less than 2/3 of Savings goes to investments and rest of money whirlpool.



Stock



➤ Responsibility?

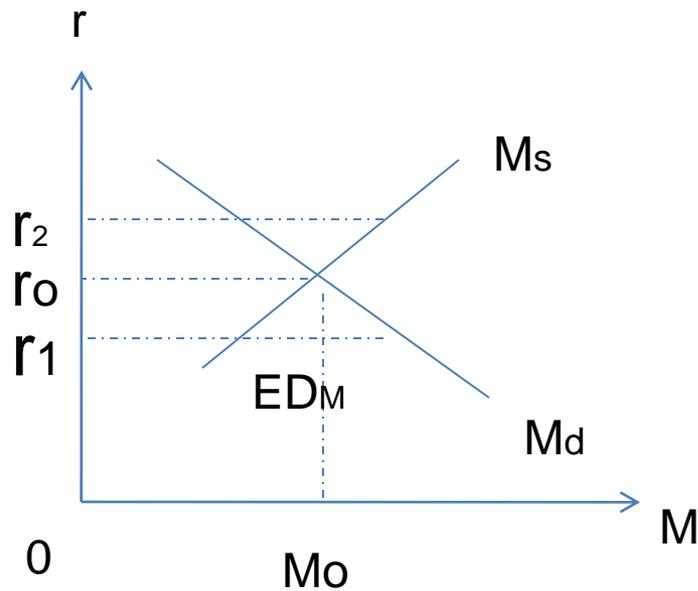
$$P_b = Y/r$$

A bond of 1000 value at 10% "r" gives you $Y=100$ or

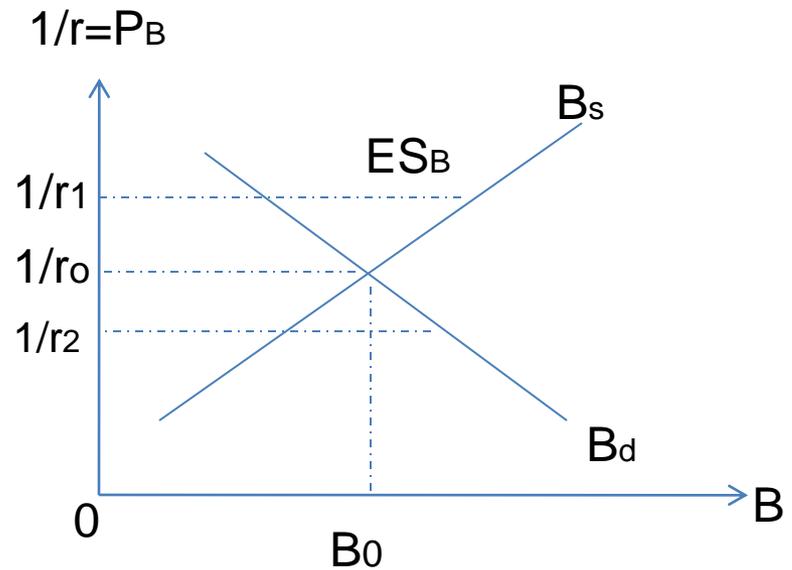
Any bond that yields 100 per year @ 10% is valued 1000

How Interest is related to Bond market?

The Capital Market Line (CML) is all linear



Money Market
 $r \downarrow \rightarrow PM \downarrow \rightarrow M_d \uparrow \text{ \& \ } M_s \downarrow$



Bond Market
 $r \downarrow \rightarrow 1/r \uparrow = P_B \uparrow \rightarrow B_d \downarrow \text{ \& \ } B_s \uparrow$

How Interest and Bond markets are Related?

Ultimate Results

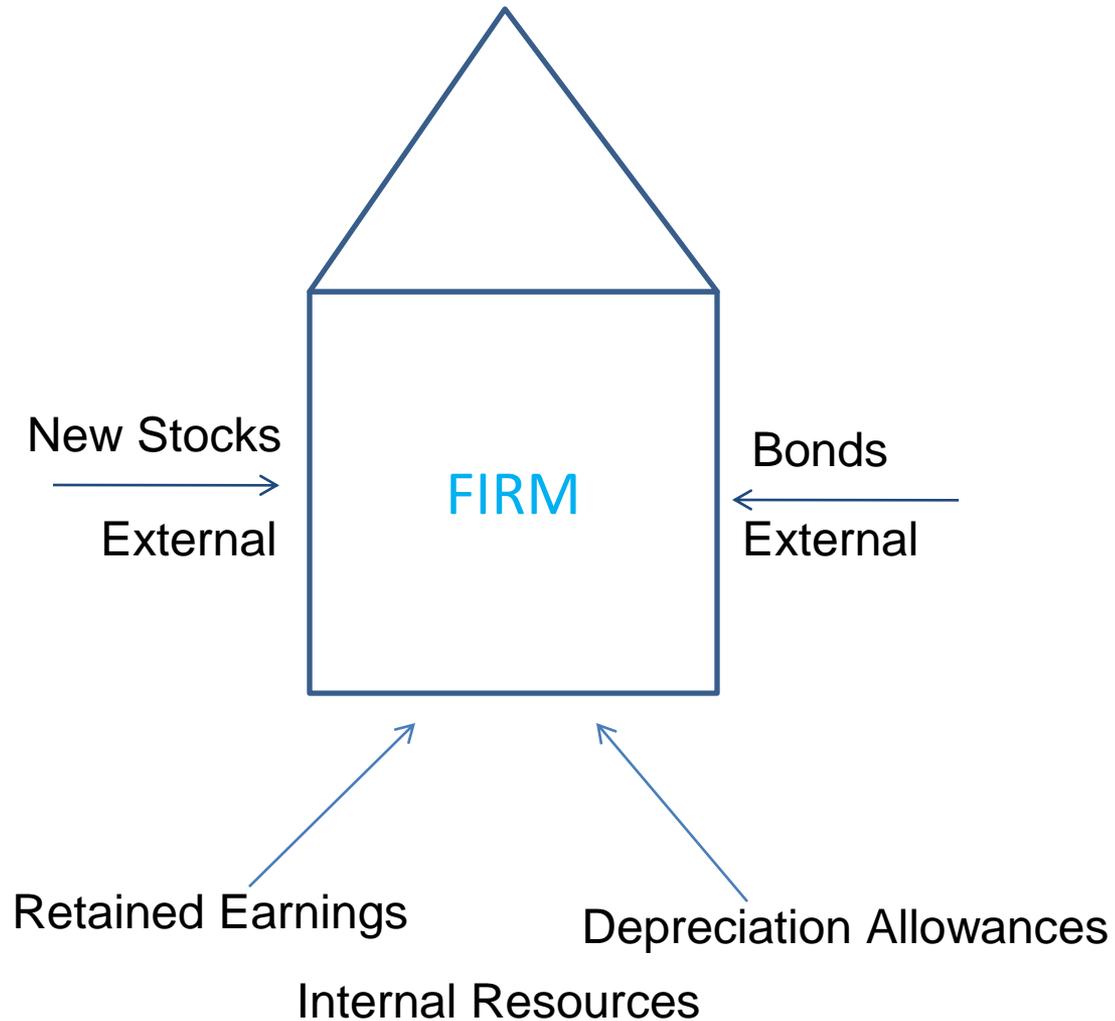
$$M_d \uparrow \rightarrow B_d \downarrow \quad \& \quad M_s \downarrow \rightarrow B_s \uparrow$$

Bears expectation: $r^e \uparrow \rightarrow \frac{1}{r^e} = P_B^e \downarrow \rightarrow B_d \uparrow \& B_s \downarrow$

Bulls Expectations: $r^e \downarrow \rightarrow \frac{1}{r^e} = P_B \uparrow \rightarrow B_d \downarrow \& B_s \uparrow$

The expectations of bulls and bears in the bond market determines the demand and supply of bonds

Corporate Finance



Stock

- An instrument that signifies an ownership position (called equity) in a corporation, and represents a claim on its proportional share in the corporation's assets and profits. Ownership in the company is determined by the number of shares a person owns divided by the total number of shares outstanding.

[Why stockholders engage in speculation in the stock market?](#)

- The answer can be found in their rate of return.

Example:

- Turn-over = 2 times per month
- Cost-plus pricing = 10%
- Total rate of return (per annum) = $(2 \times 12) (1 + .10) = 26.4\%$

Stock

Common Stock Definition

- A common stock represents a small ownership piece of a company.
- A common stock represents a small ownership piece of a company. For example, if a company had 10 shares of common stock available and you owned 1 share, you'd basically own 10% of the company. In reality, most companies have millions of shares
- Owning some common stock in a company allows you to partake of the profits from the company via dividends.
- Common stocks may pay dividends, but it varies depending on how profitable the company is

Stock

Common Stock Definition

- Owning common stocks also gives you legal rights to the assets of the company. However, if the company is in a position where it needs to sell off its assets -- such as bankruptcy -- the bond owners, preferred shares owners and other creditors are paid first. Typically when a company goes out of business, there's little to nothing left for the common stock holders after the other creditors take their pieces.
- A common stock value can be diluted by other types of stocks. If you're buying stock in a company, it is important to read the fine print. You will often find out that your ownership percentage of the company is smaller than you thought due to, for example, preferred shares.

Stock

- **Preferred Stock Definition**

- Preferred stock is another way for a company to raise capital for its growth. It is like common stocks, in that it is traded through brokerage firms, and the price of each share rises and falls, depending on the perceived value of the company.
- Unlike stocks but like bonds, it pays the preferred stockholder a fixed, agreed-upon dividend at regular intervals. Preferred stocks are also like bonds in that if they are held until maturity (typically 30-40 years), However, the company reserves the right to recall preferred stocks before maturity, paying the issue price.
- It is called preferred because, in the event a company goes bankrupt, preferred stockholders will get paid back before common stockholders.

Bond

- Definition: It is an official document promising that (a government or) company will pay back money that it has borrowed, often with interest.
- Bond is a type of official document, it is said to be used for interest but unlike a stock, bond is issued for a period of more than one year with the purpose of raising K by borrowing.
- Bondholders are classified as creditors, where as stockholders are referred to as company owners.
- Bonds are offered in the securities market.

Bond

- a **bond** is a debt security, in which the authorized issuer owes the holders a debt and, depending on the terms of the bond, is obliged to pay interest (the coupon) and/or to repay the principal at a later date, termed maturity. A bond is a formal contract to repay borrowed money with interest at fixed intervals.
- A bond is like a loan: the *issuer* is the borrower (debtor), the *holder* is the lender (creditor), and the *coupon* is the interest. Bonds provide the borrower with external funds to finance long-term investments, or, in the case of government bonds, to finance current expenditure. Certificates of deposit (CDs) or commercial paper are considered to be money market instruments and not bonds. Bonds must be repaid at fixed intervals over a period of time.

Difference between Stock and Bond.

- Bonds and stocks are both securities, The major difference between the two is that stockholders have an equity stake in the company (i.e., they are owners), whereas bondholders have a creditor stake in the company (i.e., they are lenders). Another difference is that bonds usually have a defined term, or maturity, after which the bond is redeemed, whereas stocks may be outstanding indefinitely.
- An exception is a consol bond, which is a perpetuity (i.e., bond with no maturity).
- A stock or bond not registered in the name of an owner and that therefore belongs to whoever holds the bearer certificate. Dividends or interest payments are claimed using coupons attached to the certificate, which is transferable and negotiable without endorsement. Bearer bonds are also called coupon bonds for this reason.

What Does *Voting Right* Mean?

- As common stock holder, you're also entitled to voting on company matters. Votes can be held for many reasons - such as electing people to executive positions.
- The right of a stockholder to vote on matters of corporate policy and who will make up the board of directors. Voting often involves decisions on issuing securities, initiating corporate actions and making substantial changes in the corporation's operations.
- Preferred stock normally carries no voting rights. Preferred stockholders MAY be granted SOME voting rights, but normally those voting rights are limited to matters directly affecting their special rights as preferred stockholders

The Efficient Market Hypothesis (EMH):

- The **Efficient Market Hypothesis (EMH)** is a controversial theory that states that **security prices reflect all available information, making it fruitless to pick stocks.**
- **EMH** is an efficient system for assigning each security the **most adequate price, given the available information.** Therefore, no individuals can outsmart this fabulous group and *beat the market* by regularly buying securities at prices that are lower than what they should be.
- the hypothesis is saying that no stock trades too cheaply or too expensively; hence, it would be useless to select which ones to buy or sell. According to the EMH, the reason for this perfect pricing is that, if one stock happens to be trading even just a bit too cheaply (or too costly), then its demand increases (or decreases), rapidly moving the price to its most reasonable value.

The Efficient Market Hypothesis (EMH):

- This sounds against ordinary wisdom, as we have all heard stories of successful stock picking by keen traders. Sometimes, these traders justify their accomplishments, explaining how they anticipated certain news that produced a change of price, which was unseen for most of the other stock traders. Nevertheless, these cases don't necessarily contradict the EMH. When some news triggers a change of value, the previous price may have reflected the amount of probability of the news really happening and the price shift it would produce. There was a probability of the news not happening, and if that had been the case, the price would have shifted in opposite direction. If the EMH happens to be right, those who were lucky to select the right outcome this time, may be unlucky the next.

The Efficient Market Hypothesis (EMH):

- To decide if investors can beat the market or not, what we need to know is if their predictions are more often right than wrong (actually, that "more often" should be a weighted average that considers the amount of possible profits and losses). On the one hand, people tend to remember and communicate their success stories more than their failures, especially if they are trying to sell a service. Moreover, among the veteran traders in the markets, there are more who won in the past, because those who lost money were more inclined to finding something else to do with their time and remaining assets. So **you will hear a lot of success stories about traders supposedly using their knowledge to beat the market, but that doesn't necessarily prove the EMH to be wrong.**

The Efficient Market Hypothesis (EMH):

- **Weak, Semi-Strong and Strong EMH**
- There is **scientific evidence** to support the EMH. According to some it is conclusive (and so they talk about an Efficient Market *Theory*) and according to others it is not. In part, it depends on the **flavor of EMH being under study**, as there are three versions of it, which differ in their definition of *available information*. We said that the hypothesis states that this fabulous team called the market assigns the more adequate price given a certain *information*. It is key to know what kind of information that is, because if we had more than that data then the EMH wouldn't say anything about our chances to beat the market.

The Efficient Market Hypothesis (EMH):

- A stronger flavor of EMH, called ***semi-strong***, says that the information in question is all which is publicly available. This version is the **most interesting** for our case because, as investors, that is exactly the information that we have access to, so if semi-strong EMH is true, then it is useless for us to analyze stock in an attempt to separate winners from losers.
- There is a stronger version, or ***strong EMH***, which is based on all information, public or private. This one has evidence against. Therefore, it is illegal to use insider information for trading, as it would mean insiders taking profits from the general public and thus pushing them away from stock trading, something that society doesn't want. Corporate officers can buy their corporations' stock, but when they do they have to inform the government, and that information is made public so that their purchase becomes a publicly-known fact.

The Efficient Market Hypothesis (EMH):

- **Implications**
- The EMH version that most interests us (semi-strong) has **strong factual support**, although it is arguable to say that it is conclusive. Personally I take it to be not totally true but to a high degree, and that level of acceptance is enough for inferring some important practical conclusions:
- Stock picking takes, in the best of cases, a lot of work to be just feebly fruitful, so there are probably better things to do with our resources.
- Instead of picking stocks, it makes sense to buy passively-managed funds with low commissions, such as various ETFs, to obtain the market's average returns.
- If we are hiring professionals to do stock picking for us (which happens, for example, when we purchase shares of an actively-managed fund) their fees shouldn't be too high, because the potential benefits aren't.

The Efficient Market Hypothesis (EMH):

- **Implications**
- Whenever we attempt to beat the market, by performing security picking ourselves or through a professional (fund manager), let's consider the rationale behind the EMH, to identify potential sources of market inefficiency. For example, we better not try to beat the market by analyzing large-cap companies, because lots of people are doing it, with the same information that is available to us. Instead, coming to know a small company and a niche market could put us (or our fund manager) in an advantageous position compared to the rest of the market. Therefore, active management sounds like a better idea for small-cap funds than for large.
- Don't feel too bad if you bought a security and then its price fell, you only were as silly (or intelligent) as that fabulous team called the market. There are other better criteria for judging your portfolio-building skills.

The Efficient Market Hypothesis (EMH):

- **Implications**
- EMH shouldn't be misinterpreted into thinking that there is no such thing as **investment-portfolio design**. There are still important decisions to make in order to obtain a portfolio with a risk that suits you; a good (expected) reward for that risk, and the lowest possible costs, meaning commissions and other fees. *Modern Portfolio Theory* is a set of theories that provide the basis for doing it, with EMH as one of its pillars, and will be treated in subsequent articles. Just as the Efficient-Market Hypothesis, much of the rest of Modern Portfolio Theory is easy to grasp and has immediate practical consequences, even for small investors.

Sukuk

- *Sukuk is a document or certificate that represents the value of an asset. AAOIFI refers sukuk to investment products. It constitutes certificates of equal value representing, after closing of subscription, receipt of the value of the certificates and putting it to uses as planned, common title to shares and rights in tangible assets, usufructs and services, or equity of a given project or equity of a special investment activity.*
- *Sukuk is distinguished from shares, notes and bonds as sukuk must have an intrinsic value. AAOIFI states that investment sukuk does not represent debts owed by the issuer or certificate holder. In this manner, sukuk cannot be issued from dayn or debt receivables*

Sukuk

- Sukuk are securities that are said to comply with the Islamic law and its investment principles, which prohibits the charging, or paying of interest. Financial assets that comply with the Islamic law can be classified in accordance with their tradability and non-tradability in the secondary markets.
- Sukuk constitutes partial ownership in a debt (Sukuk Murabaha), asset (Sukuk Al Ijara), project (Sukuk Al Istisna), business (Sukuk Al Musharaka), or investment (Sukuk Al Istithmar).
- The most accepted structure, which is tradable, is thereafter the Sukuk Al Ijara. Debt certificates can be only bought before the finance occurs and then held to maturity from an Islamic perspective, which is critical on debt trading at market value regarding any difference to be like the prohibited Riba

Securitization

- A security is a legal document that shows an ownership interest of financial assets such as stocks and bonds. Securitization is the process of converting an asset or collection of asset (i.e financial as well as real assets) into marketable securities.
- **Securitization** is a structured finance process that distributes risk by aggregating debt instruments in a pool, then issues new securities backed by the pool. The term "securitization" is derived from the fact that the form of financial instruments used to obtain funds from the investors are securities.

Securitization

- Asset-Back Securitization (ABS) is the securitization of physical and financial assets involving a True Sale of the said assets.
- True Sale involves changes in legal ownership. New owner registration.
- Islamic ABS in Malaysia allows securitization of:
 1. Debt receivables (Cagamas Bond)
 2. Physical assets (Global Malaysian Sukuk)
- Islamic ABS in the Middle-East only allows securitization of:
Physical asset

Discounted cash flow

- In finance, the **discounted cash flow** (or DCF) approach describes a method of valuing a project, company, or asset using the concepts of the time value of money (or money value of time). All future cash flows are estimated and discounted to give their present values. The discount rate used is generally the appropriate WACC (weighted average cost of capital), that reflects the risk of the cashflows. The discount rate reflects two things:
- 1. the time value of money!! (risk rate) - investors would rather have cash immediately than having to wait and must therefore be compensated by paying for the delay.
- 2. a risk premium (risk premium rate) - reflects the extra return investors demand because they want to be compensated for the risk that the cash flow might not materialize after all.
- Discounted cash flow analysis is widely used in investment finance, real estate development, and corporate financial management.
- Very similar is the net present value.

Discounted cash flow

- **Discrete cash flows**
- The discounted cash flow formula is derived from the future value formula for calculating the time value of money and compounding returns.

$$FV = DPV \cdot (1 + i)^n$$

- Thus the discounted present value (for one cash flow in one future period) is expressed as:

$$DPV = \frac{FV}{(1 + i)^n} = FV \cdot (1 - d)^n$$

- **Where:** *DPV* is the discounted present value of the future cash flow (*FV*), or *FV* adjusted for the delay in receipt; *FV* is the nominal value of a cash flow amount in a future period; *i* is the interest rate, which reflects the cost of tying up capital and may also allow for the risk that the payment may not be received in full; *d* is the discount rate, which is $i/(1+i)$, ie the interest rate expressed as a deduction at the beginning of the year instead of an addition at the end of the year; *n* is the time in years before the future cash flow occurs.

Discounted cash flow

- **Discrete cash flows**
- Where multiple cash flows in multiple time periods are discounted, it is necessary to sum them as follows:

$$DPV = \sum_{t=0}^N \frac{FV_t}{(1+i)^t}$$

- for each future cash flow (FV) at any time period (t) in years from the present time, summed over all time periods. The sum can then be used as a net present value figure. If the amount to be paid at time 0 (now) for all the future cash flows is known, then that amount can be substituted for DPV and the equation can be solved for i , that is the internal rate of return.
- All the above assumes that the interest rate remains constant throughout the whole period.
- $(1+i)^{-t}$ can of course also be expressed as $\exp(-it)$.

Discounted cash flow

- **Continuous cash flows**
- With continuous cash flows, the summation in the above formula is replaced by an integration - nothing else changes:

$$DPV = \int_0^T FV_t * e^{-it}$$

- where $FV(t)$ is now the *rate* of cash flow.

What is the CAPM?

- The CAPM (Capital Asset Pricing Model) is an equilibrium model that specifies the relationship between risk and required rate of return for assets held in well diversified portfolios.
- It is based on the premise that only one factor affects risk.
- What is that factor?

What is the CAPM?

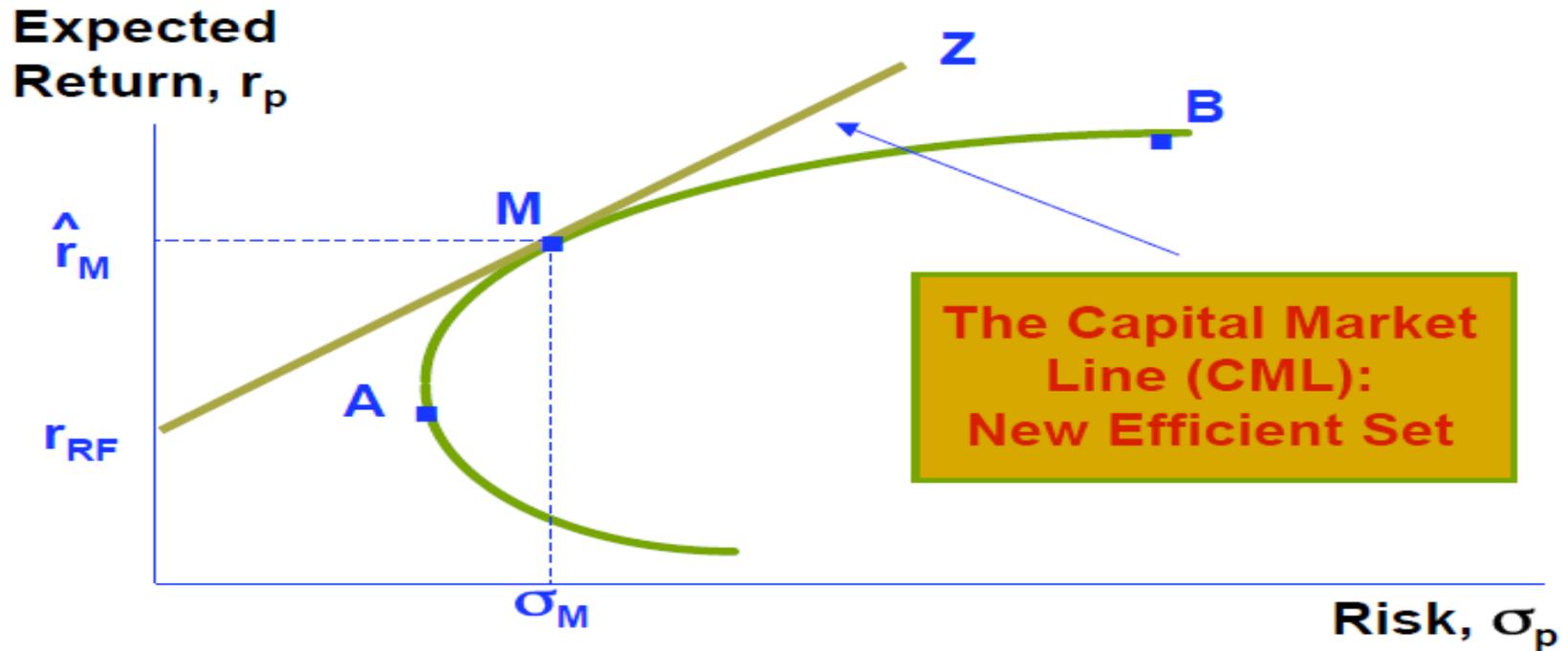
- **What are the assumptions of the CAPM?**
- **Investors all think in terms of a single holding period.**
- **All investors have identical expectations.**
- **Investors can borrow or lend unlimited amounts at the risk-free rate.**
- **All assets are perfectly divisible.**
- **There are no taxes and no transactions costs.**
- **All investors are price takers, that is, investors' buying and selling won't influence stock prices.**
- **Quantities of all assets are given and fixed.**

What impact does r_{RF} have on the efficient frontier?

- When a risk-free asset is added to the feasible set, investors can create portfolios that combine this asset with a portfolio of risky assets.
- The straight line connecting r_{RF} with M , the tangency point between the line and the old efficient set, becomes the new efficient frontier.

What impact does r_{RF} have on the efficient frontier?

- Efficient Set with a Risk-Free Asset



What is the Capital Market Line?

The Capital Market Line (CML) is all linear combinations of the risk-free asset and Portfolio M.

- Portfolios below the CML are inferior.
 - The CML defines the new efficient set.
 - All investors will choose a portfolio on the CML.
- Asset