Corporate Finance Basics

1. Overview:

Corporate finance encompasses all the actions and actors operating in the financial and accounting management sphere of a corporation with the aim of optimizing and maximizing the corporation's value over time.

The main topics addressed in the context of corporate finance are:

- the investment decision, what investments should the firm make? _
- the financing decision, how can the company finance those investments? _
- the remuneration policy for capital providers, how should the company distribute its earnings? ossary: for the policy for capital providers, how should the company distribute its earnings? ossary: for the policy for capital providers, how should the company distribute its earnings? ossary: -
- 2. Glossary:

Real As physical assets such as plants, machinery, etc.

Financial Assets- A financial asset, also known as an intangible asset, is a liquid asset that gets its value from a contractual right or ownership claim. Cash, stocks, bonds, mutual funds, and bank deposits are all are examples of financial assets. (Source: https://www.investopedia.com/terms/f/financialasset.asp)

Opportunity cost of capital- The opportunity cost of capital measures the loss of goods that are given up by allocating available resources to another use. The opportunity cost of an investment is the cost of not making an investment. This criterion is one of the main ones used in investment choices.

- Present Value of a stream of cashflows formula: $PV = \frac{CF_1}{(1+r)^1} + \frac{CF_2}{(1+r)^2} + \dots + \frac{CF_t}{(1+r)^t}$
- Perpetuity formula: $PV = \frac{c}{r}$
- Present value of an annuity: $PV = C \cdot \left[\frac{1}{r} \frac{1}{r(1+r)^t}\right]$
- EAR formula: $1 + EAR = (1 + monthly rate)^{12}$
- Relationship between real and nominal interest rate: 1 + real int. rate = 1+nominal int.rate 1+inflation
- \circ Real int.rate \approx nom.int.rate inflation

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• We use the Gordon Growth model to determine the present value of a stock with a growing dividend.

5. Further knowledge

- Formula for the present value of a bond: $PV = \frac{cpn_1}{(1+r)^1} + \frac{cpn}{(1+r)^2} + \dots + \frac{(cpn+face\ value)_t}{(1+r)^t}$ or also $PV = cpn\left[\frac{1}{r} \frac{1}{r(1+r)^t}\right] + \frac{face\ value\ t}{(1+r)^t}$
- Formula for the return of a bond: Rate of return = $\frac{coupon income + price change}{initial investment}$
- $\circ \quad \frac{Coupon \text{ income}}{investment} < Discount \text{ rate } (YTM) => Bond \text{ price is expected to increase}$
- $\frac{Coupon income}{investment}$ > Discount rate (YTM) => Bond price is expected to full • Gordon Growth model formula: $P_{-s} = P_{-s}^{i_1} Otesale$ • **From From 15 Of 52 Preview Page**

- Formula Adjusted accounting profits: Operating cash flows= after tax profit + depreciation
- Formula for adding back depreciation tax shield: operating cash flows = (revenues-cash expenses). (1- tax rate) + depreciation. (tax rate)



Stock split- A stock split is a corporate action in which a company divides its existing shares into multiple shares to boost the liquidity of the shares. (Source: https://www.investopedia.com/terms/s/stocksplit.asp)

3. Recap

As we previously mentioned, corporations pay out their equity shareholders by either issuing dividends or repurchasing their stock.

A cash dividend is a cash distribution by a company to its shareholders. Here the most important dates are the declaration date, the ex-dividend date and the record date as they influence the price of the stock. Sometimes a corporation might decide to do a stock split. This is a cosmetic event, where the company splits it shares so that the value of each shares now is less than it was. This allows small investors to buy the now affordable shares and drive up demand, which consequently boost the value per share. A stock split is often interpreted by investors as a positive signal.

Stock repurchases are a popular alternative to call dividends. The corporation distributes cash to shareholders by repurchance large. The corporation can either choose to keep the shares on the balance speet (treasury share) or cancel them (capital decrease/reduction). This can be note by holding open marker repurchase, offering a tender to shareholders, holding an auction or direct negotiation. Stock repurchases are used to pay out any excess cash and are, thus, more volatile and unpredictable. Stock repurchases are also used to change the corporation's capital structure, i.e. replace equity with debt financing.

The underlying notion here is the same one as in the pecking order theory from last theme, mainly that there is some asymmetric information between the managers and the investors. The managers can use the payout policy to convey information to the market. Managers "smooth" cash dividends around a target payout, which reflects long-run, sustainable levels of earnings. In particular, managers want to avoid having to cut the cash dividend. In addition, managers take into account the information content of dividends and repurchases. For example, a cut in cash dividends may signal to investors that management lacks confidence in the firm's prospects.

given by the forward rate. Similarly, the ratio between future and spot rates equals the ratio between expected and current spot rate. The implication is that we can use the forward premium to figure out what investors think the spot rate will be in the future. We can measure the expected change in the spot rate by looking at the difference in inflation rates, the difference between spot and forward exchange rates and the difference in interest rates.

Of course, a corporation which has multiple offices around the world faces significant currency risk. The most commonly known currency risk that a corporation might be subject to is transaction exposure. A transaction exposure is when a corporation agrees to pay or receive a given amount of foreign currency in the future. However, that carries risk because the value can change due to exchange rate fluctuations, but it can be easily identified and hedged with the help of forward contracts. Exchange rate risk can be reduced by operational hedging (balancing production close to sales), taking opposite positions or other financial instruments like forward contracts, futures contracts and options.

Another type of risk can be economic exposure. This is when unexpecterer change rate fluctuations may affect a corporation, even if it neither every ratio owed foreign currency. For example, when the corporation operates in new different comprise, exchange rate fluctuations affect the present value of ruture cash flows acceived in foreign countries and thus might affect the corporation value every action of a given investment project.

4. Key takeaways

- The spot exchange rate is an exchange rate for an immediate transaction
- The forward rate is for a future transaction.
- The international Fisher effect shows the relative difference in a given foreign currency relative to a given domestic currency and how that is related to the difference in inflation rates.
- The purchasing power parity is the idea that a unit of currency of one country must have the same purchasing power in another country.
- The interest rate parity states that the ratio between the interest rates in 2 countries is equal to the ratio between the forward and spot exchange rates

Options

1. Overview

Options are a particular type of financial derivative based on the value of the underlying security. Options (and derivatives in general) are used to hedge, speculate and arbitrage. Investors often opt for options because their value lies in the flexibility they offer. That is why in corporate finance it is important to understand how options work and how investors can benefit from them.

2. Glossary

Strike price- A strike price is the set price at which a derivative contract can be bought or sold when it is exercised. For call options, the strike price is where the security can be bought by the option holder; for put options, the strike price is the price a chick the security can be sold. (Source: <u>https://www.investopedia.com/terms/s/chick.asp</u>)

Call option- Call options are financial contracts that give the colion buyer the right, but not the obligation, to buyer stock, bond, commodity of the asset or instrument at a specified price within opperil ic time period (Stude). https://www.investopedia.com/tecnee/calloption.asp)

Put option- A put option is a contract giving the owner the right, but not the obligation, to sell, or sell short, a specified amount of an underlying security at a pre-determined price within a specified time frame. (Source: https://www.investopedia.com/terms/p/putoption.asp)

The put-Call Parity- Put-call parity is a principle that defines the relationship between the price of European put options and European call options of the same class, that is, with the same underlying asset, strike price, and expiration date. (Source: <u>https://www.investopedia.com/terms/p/putcallparity.asp</u>)

Real options- Real options are options embedded in physical or identifiable assets

5. Further knowledge

- Futures contract profit to buyer= Ultimate market price- initial futures price
- Futures contract profit to seller= Initial futures price- ultimate market price

