R36 Overview of Equity Securities

Version 1.0

1. Importance of Equity Securities

In this reading, we look at the different types of equity securities, how private equity securities differ from public equity securities, the risk involved in investing in equities, and the relationship between a company's cost of equity, its return on equity, and investors' required rate of return.

1.1 Equity Securities in Global Financial Markets

In 2008, the U.S. contributed about 21% to the global GDP, but its contribution to the total capitalization of global equity markets was around 43%.

Historically, equity markets have offered high returns relative to government bonds and T-bills but at higher risk. The volatility in equity markets was high during key crises such as World War I, World War II, the Tech Crash of 2000-2002, the Wall Street Crash, and the most recent credit crash of 2007-2008. In the recent crash, while the world markets fell by 53%, Ireland was the worst hit incurring losses of over 70%.

An important point to note is that equity securities are a key asset class for global investors.

2. Characteristics of Equity Securities

2.1 Common Shares

Common shares represent an ownership interest in a company and give investors a claim on its operating performance, the opportunity to participate in decision-making, and a claim on the company's net assets in the case of liquidation.

Common shareholders can vote on major corporate governance decisions such as election of its board of directors, the decision to merge with another company, selection of auditors etc. If a shareholder cannot attend the annual meeting in person, he can 'vote by proxy' i.e. have someone else to vote on his behalf.

Statutory voting versus cumulative voting

In statutory voting each share is entitled for one vote. In cumulative voting, a shareholder can cumulate his total votes and choose one particular candidate. For example, let's say that a shareholder holds 100 shares and is supposed to vote for the election of three board members' position. In statutory voting, he can vote 100 votes for each position while in cumulative voting, he can vote all the 300 votes to a single candidate thereby increasing his likelihood of winning. Cumulative voting is beneficial to minority shareholders.

Different classes (Class A and Class B)

A firm can have different classes of equity shares which may have different voting rights and priority in liquidation. For example: Class A shares would have more votes than Class B shares.

2.2 Preference Shares

Preference shares are a form of equity in which payments made to preference shareholders take precedence over payments to common shareholders.

Cumulative and non-cumulative preference shares

- Cumulative**:** If dividends are not paid out for year one and two, year three dividends would be sum of the third year's dividends plus the non-paid out dividend of years one and two.
- Non-cumulative**:** If dividends are not paid out for year one and two, and the firm decides to pay dividends in the third year, it would only have to pay third year dividends.

Participating and non-participating preference shares

- Participating**:** As the name implies, preferred shareholders participate in the firm's profit. Shareholders receive extra dividends than the pre-specified rate in case of higher profits. The shareholders also receive a higher proportion of firm's asset than the par value in case of liquidation.
- Non-participating**:** Shareholders receive only the pre-specified rate even if the firm earns higher profits. The shareholders only receive the par value in case of liquidation.

Convertible preference shares

- Convertible preference shares are those that can be converted to common stock and hence have lower risk and the inherent option to gain from a firm's future profits.

3. Private versus Public Equity Securities

Private equity refers to the sale of equity capital to institutional investors via private placement. The key characteristics of private equity are:

- Less liquidity as shares are not publicly traded.
- Price discovery can be biased as the security is not available for valuation by a broad base of public participants.
- Management can focus on long-term value creation as it doesn't have to worry about reporting results to market.
- Lower reporting costs due to lesser regulatory requirements.
- Potentially weaker corporate governance due to lesser regulatory requirements.
- Potential for generating high returns when investment is exited.

The types of private equity are:

Venture capital:

- Refers to capital provided to firms in early stages of development.
- The three stages of funding include: seed/startup capital, early stage, and mezzanine

financing.

- Investors can range from family and friends to wealthy individuals and private equity funds.
- Investments are illiquid and require a commitment of funds for a relatively long period of time, typically 3 to 10 years.

Leveraged buyout:

- Large amount of debt relative to equity is used to buy out a firm.
- The large proportion of debt amplifies returns if the buyout turns out to be successful.
- Leveraged buyout performed by management is termed as **Management Buyout (MBO)**.
- The firm acquired either has to generate the adequate cash flows or sell assets to service the debt.

Private investment in public equity: A public company, which needs additional capital immediately, sells equity to private investors.

4. Non-Domestic Equity Securities

A market is said to be "**integrated**" with the global market if capital flows freely across its borders. However, some countries place restrictions on capital flows.

The key reasons why capital flows into a country's equity securities might be restricted is:

- To prevent foreign entities from taking control of domestic companies.
- To reduce volatility of financial markets which can rise by the constant inflow and outflow of capital.
- To provide domestic investors the advantage of earning better returns.

The two ways to invest in the equity of companies in a foreign market are:

- Direct investing
- Depository receipts

4.1 Direct Investing

It refers to directly buying and selling securities in foreign markets. Some potential issues associated with direct investing are:

- Along with the stock performance, the returns are exposed to the currency risk as the trade is made in foreign currency.
- Investors must be aware of the investment environment and laws of the foreign land.
- The disclosure requirement of the foreign country might be low, impeding the analysis process.

4.2 Depository Receipts

A depository receipt (DR) is a security that trades like an ordinary share on a local exchange and represents an economic interest in a foreign company.

Process of creating a DR
A foreign company's shares are deposited in a local bank, which in turn issues receipts representing ownership of specific number of shares. The receipts then trade on a local exchange in local currency price. For example, a Japanese firm's shares are held by a UK bank, which then issues DR representing this stock to the UK citizens. The depository bank is responsible for handling dividends, stock splits, and other events.

Based on the foreign company's involvement, DR can either be:

- **Sponsored DR:** Foreign company is involved in issuance and holders of DR are given voting rights.
- **Unsponsored DR:** Foreign company is not involved in issuance and the bank retains the voting rights.

Based on the geography of issuance, DRs can either be:

- **Global depository receipt (GDR):**
  - DRs issued outside the company's home country and outside the U.S.
  - GDRs are issued by a depository bank which is located or has branches in the countries on whose exchanges the shares are traded.
- **American depository receipt (ADR):**
  - USD denominated DRs that trade like common shares on U.S. exchanges.
  - Some ADRs allow firms to raise capital and use shares to acquire other firms in the US.
- **Global registered shares (GRS):**
  - Shares traded on different stock exchanges in different currencies.
- **Basket of listed depository receipts (BLDR):**
  - Is an ETF representing a collection of DRs.

Types of ADRs
The table below shows the four types of ADRS:

	Level I	**Level II**	**Level III**	**Rule 144A**
Objectives	Broaden U.S. investor base with existing shares.	Broaden U.S. investor base with existing shares.	Broaden U.S. investor base with existing shares. Attract new investors.	Access qualified institutional buyers.
Raising capital on U.S. markets?	No	No	Yes, through public offerings.	Yes, through private placements or QIBs.

SEC Registration	Required	Required	More registration required	Not required
Trading places	Over-the-counter (OTC)	Stock exchanges	Stock exchanges	Private placement
Listing Fees	Low	High	High	Low
Earnings requirements	None	Size constraint is applicable.	Size constraint is applicable.	None

5. Risk and Return Characteristics

5.1 Return Characteristics of Equity Securities

There are two sources of total return for equities: capital gains (or price change) and dividend income. That is, how much the stock appreciates in price and how much dividend is paid by the company during that period. For investors who buy foreign securities directly or through depository shares, there is another source of income: foreign exchange gains or losses due to currency conversion.

5.2 Risk of Equity Securities

Risk is based on uncertainty of future cash flows. A stock's return is from the price change and dividends paid. Since a stock's price is uncertain, the expected future return is uncertain. The standard deviation of the equity's expected total return measures this risk.

The table below shows the risk characteristics of different types of equity securities.

Risk characteristics of different types of equity securities		
Common shares vs. preference shares. Preference shares are less risky.	**Preference Shares** 1. Dividends on preference shares are fixed as a percentage of the par value. 2. Dividends are paid before common shares. 3. On liquidation, preference shareholders get par value of the shares.	**Common Shares** 1. Returns are unknown as can be from capital gains (price appreciation) and dividends. 2. On liquidation, common shareholders have residual claim, i.e., they get paid after claims of debt and preferred shares have been met; hence the amount to be received is unknown. 3. Foreign investments are subject to currency exposure risk.

Cumulative vs. non-cumulative preference shares. Cumulative shares are less risky.	1. Any unpaid dividends are accumulated and paid before common stock dividends are paid.

6. Equity and Company Value

Companies issue equity in primary markets to raise capital and increase liquidity. A company needs capital for the following reasons:

- to finance revenue-generating activities (organic growth). The capital is used to purchase long-term assets, invest in profit-generating projects, expand to new territories, or invest in research and development.
- to make acquisitions (inorganic growth).
- to provide stock-based and option-based incentives to employees.
- in some cases, if the company is cash-strapped, it needs the capital to keep it a going concern, fulfill debt requirements, and maintain key ratios.

The goal of a company's management is:

- to increase book value or shareholders' equity on a company's balance sheet. Management has control over the book value as it can increase net income or sell and purchase its own shares. If the company pays little or no dividends and retains the earnings, then book value increases. Book value = assets - liabilities.
- to ensure that the stock price rises (maximizing market value of equity). Management cannot directly influence what price a stock trades at. It depends on investors' expectations, analysts' view of the company's future cash flows, and market conditions, etc.

Book value is based on the current value of assets and liabilities (historic) whereas market value is based on what investors expect will happen in the future (intrinsic value). Book value and market value of equity are rarely equal. A useful ratio to compute and understand this relationship better is the price to book ratio (P/B).

6.1 Accounting Return on Equity

ROE is a key ratio to determine whether the management is using its capital effectively.

$$\mathrm{ROE_t} = \text{Net Income / Average book value of equity} = \mathrm{NI_t} / (\mathrm{BVE_t} + \mathrm{BE_{t-1}})/2$$

Sometimes the beginning book value of equity is used instead of average book value.

ROE can increase over time because of the following reasons:

- Increase in business profitability that increases net income relative to the increase in book value of the equity.
- Rapid decline in book value, i.e., net income declines at a slower rate compared to the decline in book value.

- Increase in leverage that increases net income and reduces book value of the equity, thereby increasing overall risk.

As only the first case is desirable in the above three cases, a proper analysis of the increase in ROE should be done. The DuPont formula can yield a better understanding of the sources of growth in the ROE ratio.

6.2 The Cost of Equity and Investors' Required Rates of Return

When investors purchase company shares, their minimum required rate of return is based on the future cash flows they expect to receive.

Cost of equity is the minimum expected rate of return that a company must offer its investors to purchase its shares (not easily determined).

- Cost of equity may be different from the investors' required rate of return.
- Because companies try to raise capital at the lowest possible cost, the cost of equity is often used as a proxy for the investors' minimum required rate of return.
- If the expected rate of return is not maintained, the share price falls.

Cost of equity can be estimated using methods such as the dividend discount model (DDM) and the capital asset pricing model (CAPM). These models are discussed in detail in other readings.

Summary

LO.a: Describe characteristics of types of equity securities.

There are two types of equity securities: common shares and preference shares.

Common shares represent an ownership interest in a company, including voting rights. In statutory voting, each share is entitled for one vote. In cumulative voting, a shareholder can cumulate his total votes and choose one particular candidate.

Preference shares get precedence over common shares while claiming a company's earnings in the form of dividends, and net assets upon liquidation. Dividends on preference shares can be cumulative, non-cumulative, participating, non-participating, or a combination of these. Convertible preference shares are those that can be converted to common stock.

LO.b: Describe the differences in voting rights and other ownership characteristics among different equity classes.

A firm can have different classes of equity shares, which may have different voting rights and priority in liquidation. For example: Class A shares would have more votes than Class B shares.

LO.c: Compare and contrast public and private equity securities.

Private equity refers to the sale of equity capital to institutional investors via private placement.

The types of private equity are:

- Venture capital
- Leveraged buyout
- Management buyout
- Private investment in public equity

LO.d: Describe methods for investing in non-domestic equity securities.

There are two ways to invest in equity of companies outside the local market: direct investing and depository receipts.

Direct Investment: Buy and sell securities directly in foreign markets in the company's domestic currency.

Depository receipt: A security that trades like an ordinary share on a local exchange and represents an economic interest in a foreign company.

Based on the foreign company's involvement a DRs can be sponsored or unsponsored. Based on the geography of issuance, DRs can classified as

- Global depository receipt (GDR)
- American depository receipt (ADR)
- Global registered shares (GRS)

- Basket of listed depository receipts (BLDR)

LO.e: Compare the risk and return characteristics of different types of equity securities:

Risk characteristics of different types of equity securities		
Common shares vs. preference shares. Preference shares are less risky.	Preference Shares 1. Dividends on preference shares are fixed as a percentage of the par value. 2. Dividends are paid before common shares. 3. On liquidation, preference shareholders get par value of the shares.	Common Shares 1. Returns are unknown as they can be from capital gains (price appreciation) and dividends. 2. On liquidation, common shareholders have residual claim, i.e., they get paid after claims of debt and preferred shares have been met; hence the amount to be received is unknown. 3. Foreign investments are subject to currency exposure risk.
Cumulative vs. non-cumulative preference shares. Cumulative shares are less risky.	1. Any unpaid dividends are accumulated and paid before common stock dividends are paid.	

LO.f: Explain the role of equity securities in the financing of a company's assets.

Companies issue equity in primary markets to raise capital and increase liquidity. A company needs capital to finance revenue-generating activities, make acquisitions, and provide stock-based and option-based incentives to employees.

LO.g: Contrast the market value and book value of equity securities.

Book value is based on the current value of assets and liabilities (historic) whereas market value is based on what investors expect will happen in the future (intrinsic value). Book value and market value of an equity are rarely equal. A useful ratio to compute and understand this relationship better is the price-to-book ratio (P/B).

LO.h: Compare a company's cost of equity, its accounting return on equity, and investors' required rates of return.

Return on equity (ROE) is an important measure to determine whether the management is using the capital effectively. Both net income and the book value of equity in the formula below are affected by the management's choice of accounting methods related to depreciation, inventory, etc.

ROE_t = Net Income / Average book value of equity= NI_t / $(BVE_t+BE_{t-1})/2$

When companies raise money by issuing debt or equity securities, there is a minimum return that investors expect in return for their money, which is called the cost of capital. Cost of equity is the minimum expected rate of return that a company must offer its investors to purchase its shares.

Practice Questions

1. Which of the following statements regarding the key characteristics of preference shares is *least accurate*?
   A. Preference shares combine the characteristics of both debt and equity securities.
   B. During liquidation, preference shareholders rank below subordinated bondholders with respect to claims on the company's net assets.
   C. Dividends on preference shares are a contractual obligation and hence their price is less volatile than equity securities.

2. When the shareholders receive only the pre-specified rate of dividend irrespective of performance of the Company, it is *most likely* known as:
   A. Cumulative.
   B. Participating.
   C. Non-participating.

3. Which of the following is *least accurate* about private equity securities?
   A. Private equity firms have lower reporting costs compared to public companies.
   B. Private equity investments are liquid investments that offer greater potential for returns.
   C. Corporate governance and disclosures are weaker at a private firm.

4. Which of the following statements regarding depository receipts is least accurate?
   A. Foreign stocks that trade on U.S. exchanges, and are denominated in U.S. dollars, are called American depository receipts.
   B. Investors holding sponsored depository receipts have voting rights while investors holding unsponsored depository receipts do not.
   C. Global depository receipts are issued out of the U.S. and issuer's country and are subject to capital flow restrictions.

5. Which of the following statements regarding the book value and market value of equity is *least accurate*?
   A. The book value of an equity is the difference between the balance sheet value of the firm's assets and liabilities.
   B. Positive retained earnings decrease the book value of an equity.
   C. The market value of an equity is the current price of shares multiplied by the number of outstanding shares.

6. Which of the following sources of increase in a firm's ROE is the *most* favorable for an investor?
   A. Net income decreasing at a lower rate than book value of the equity.

B. Net income increasing at a higher rate than book value of the equity.
C. Debt is used to buy back some of the outstanding equity.

Solutions

1. C is correct. Dividends on preference shares are not a contractual obligation of the firm. However, their price is less volatile than equity securities because they do not allow investors to share in the profits of the company and the dividends on preference shares are fixed.

2. C is correct. In non-participating dividend, shareholders receive only the pre-specified rate even if the firm earns higher profits. The right to receive the standard preferred dividend plus an additional dividend based on some condition is known as a participating dividend. In cumulative dividend, if dividends are not paid out for year one and two, year three dividends would be sum of the third year's dividends plus the non-paid out dividend of years one and two.

3. B is correct. Private equity investments are illiquid investments. However, they have a long-term growth prospect that offers greater potential for returns once the firm goes public.

4. C is correct. Global depository receipts are issued out of the U.S. and issuer's country. However, they are not subject to capital flow restrictions. They are most often denominated in U.S. dollars.

5. B is correct. Positive retained earnings increase the book value of an equity. The book value signifies the firm's past operating performance.

6. B is correct. Net income increasing at a higher rate than book value of an equity is generally favorable for an investor. Issuing debt to buy back an equity can increase ROE, but also increase the riskiness of the stock. Net income decreasing at a lower rate than the book value of the equity will increase the ROE. However, such an increase in ROE is not favorable as it signifies a contracting business.

