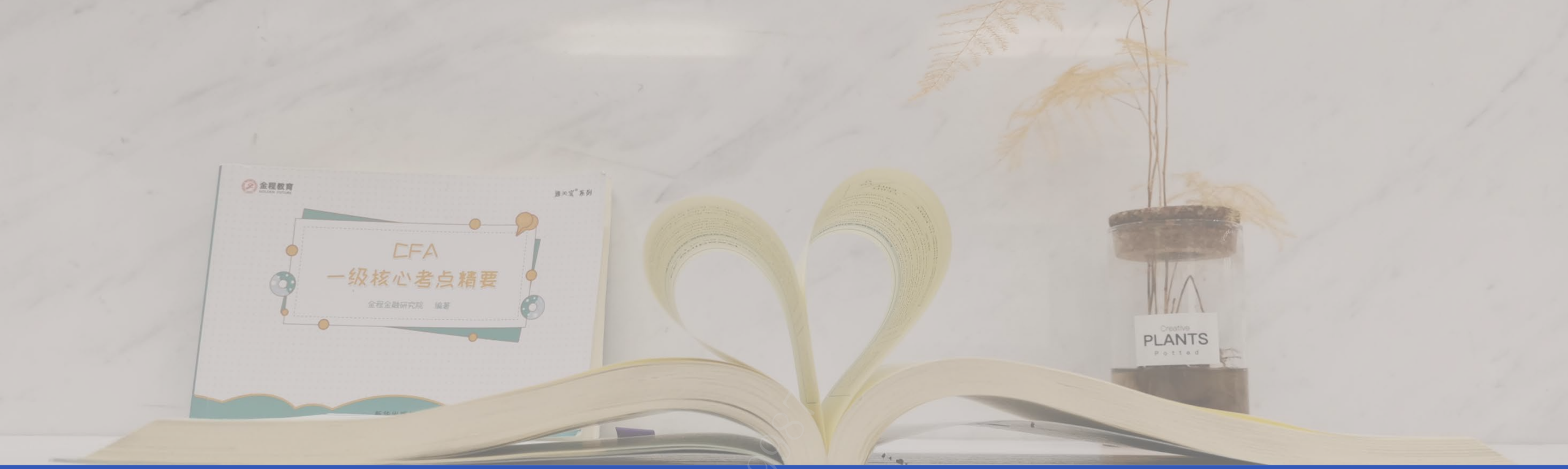


Corporate Issuers

CFA一级培训项目

讲师：王慧琳

师资介绍

1. 基本介绍

金程教育资深培训师、上海财经大学经济学学士、美国约翰霍普金斯大学金融学硕士、CFA、FRM、ESG investing持证人

2. 工作背景

多家知名机构内训项目授课，参与出版CFA相关系列丛书教材。本科毕业于上海财经大学，研究生毕业于约翰霍普金斯大学，一次性通过CFA一二三级考试，对于考试重点和应试技巧有自己的心得。

3. 服务客户

中国工商银行、中国银行、建设银行、农业银行、杭州银行、兴业证券、南京证券、湘财证券、兴业银行、中国人寿、人保资产管理、中国平安、民生银行、华夏基金、中邮基金、富国基金、中国再保险、中国进出口银行等。

Topic Weightings in CFA Level I

Topics	Weights (%)
Quantitative Methods	8-12
Economics	8-12
Financial Statement Analysis	13-17
Corporate Issuers	8-12
Equity	10-12
Fixed Income	10-12
Derivatives	5-8
Alternative Investments	5-8
Portfolio Management	5-8
Ethical and Professional Standards	15-20

Corporate Issuers

1. Organizational Forms, Corporate Issuer Features, and Ownership
2. Investors and Other Stakeholders
3. Corporate Governance: Conflicts, Mechanisms, Risks, and Benefits
4. Working Capital and Liquidity
5. Capital Investments and Capital Allocation
6. Capital Structure
7. Business Models

中文精读

1. 公司组织方式，企业发行人特征和所有权
2. 投资者和其他利益相关者
3. 公司治理：冲突、体系、风险和优势
4. 营运资本和流动性
5. 资本投资和分配
6. 资本结构
7. 商业模式

Framework

Module

Organizational Forms, Corporate Issuer Features, and Ownership

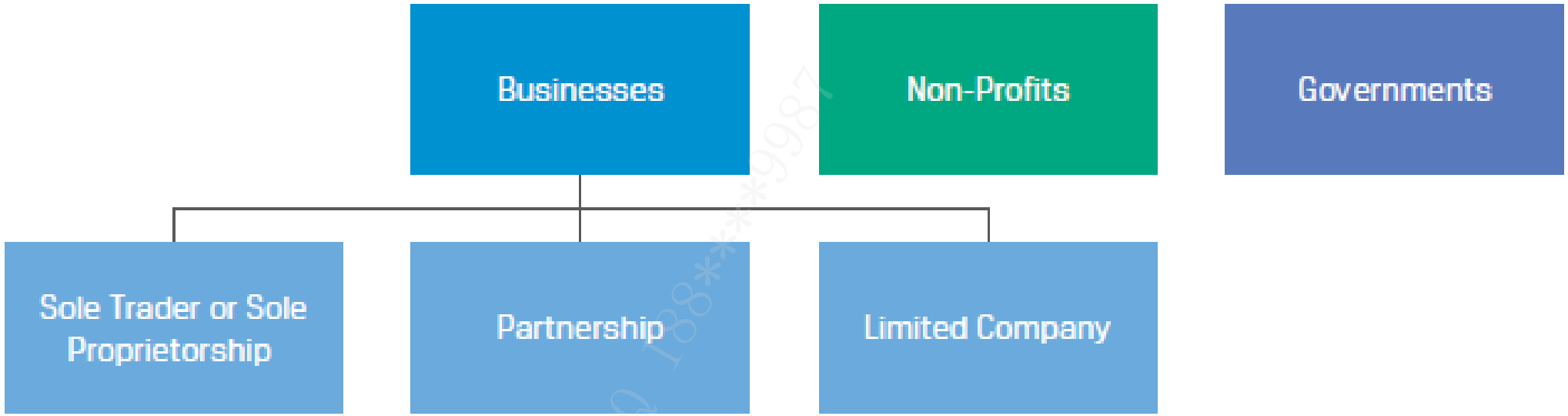
1. Organizational Forms of Businesses
2. Key Features of Corporate Issuers
3. Publicly vs. Privately Owned Corporate Issuers

Organizational Forms of Businesses

- Organizational Forms of Businesses
- Sole Trader or Proprietorship
- Partnerships
- Limited Companies

Organizational Forms of Businesses

- Business owners choose a legal organizational form that defines how returns, risks, and ownership and operational responsibilities are distributed.



Organizational Forms of Businesses

- The organizational forms of businesses differ by several attributes:
  - **Legal identity:** Whether the business is legally considered a separate entity or person apart from its owners;
  - **Owner–manager relationship:** The relationship between the owner(s) of the business and those who manage the business;
  - **Owner liability:** The extent to which owners are personally legally liable for actions or debts undertaken by the business;
  - **Taxation:** The treatment of business profits or losses for tax purposes;
  - **Access to financing:** The ability to raise capital to fund expansion and distribute risks.

Sole Trader or Proprietorship

- In a **sole proprietorship**, the owner provides the capital needed to start and operate the business and retains full control over management, while participating fully in the firm's financial returns and risks.
  - An example of a sole proprietorship is a family-owned store.

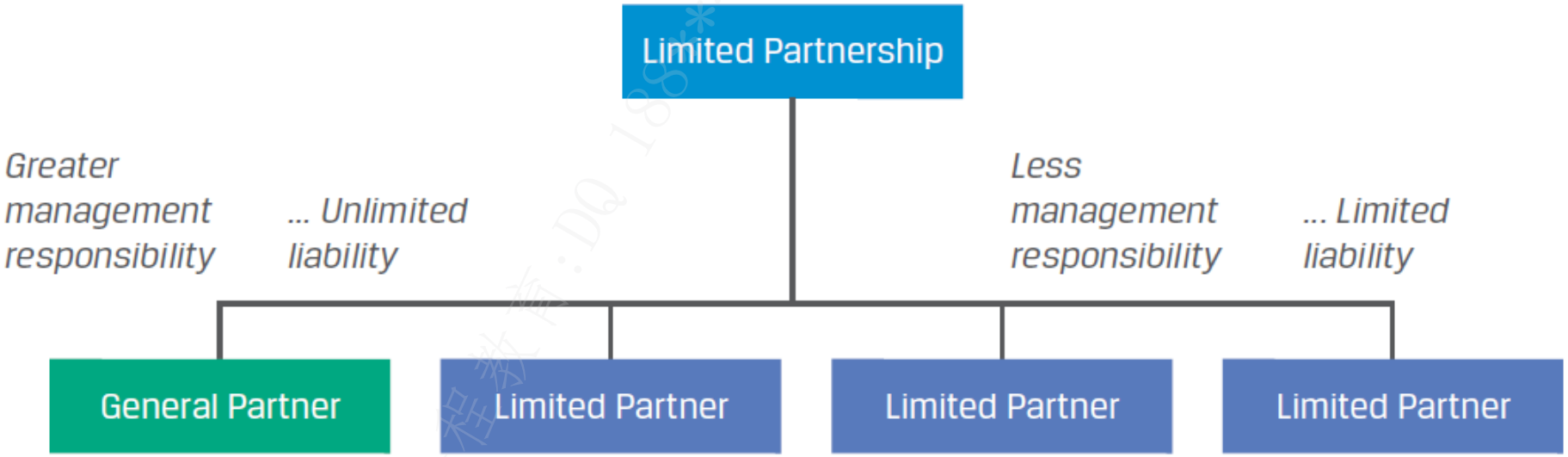
- **Key features of sole proprietorships include**
  - No legal identity;
  - Considered extension of owner;
  - Owner-operated business;
  - Owner retains all return and assumes all risk;
  - Profits from business taxed as personal income;
  - Operational simplicity and flexibility;
  - Financed informally through personal means;
  - Business growth is limited by owner's ability to finance and personal risk appetite.

Partnerships

- **Partnerships** allow multiple owners to pool their resources and share business risk and return. There are three common types in most jurisdictions: **general partnerships**, **limited partnerships**, and **limited liability partnerships.**
- **General partnerships** has two or more owners called partners or **general partners (GPs) ,** are like sole proprietorships, with the important distinction that they allow for additional resources to be brought into the business by the additional owners, along with the sharing of business risk and return.
  - A written agreement is not required;
  - Partnerships can be formed verbally or incidentally through actions.

Partnerships

- In a **limited partnership,** there must be at least one **general partner (GP)** with unlimited liability that often manages the business. Remaining partners, however, called **limited partners (LPs),** have limited liability, meaning their losses are limited to the size of their investment in the limited partnership, and may not have any management responsibilities.
  - With limited liability, personal assets are considered separate and thus protected from the obligations of the business.
  - All partners are entitled to a share of the profits and losses as specified in the partnership agreement, with GPs typically receiving a larger portion in exchange for their greater risk and personal liability.



Partnerships

- **Limited partnership：**
  - In a limited partnership, while financial risk and reward are shared, such resources as capital and expertise are typically limited to what the partners can contribute, and limited partners usually grant managerial responsibilities to the GP, which entails risk.
  - Partnership agreements are customized and often limit the transferability of ownership interest or expansion beyond a small group of partners.
  - Like sole proprietorships, partnerships are typically pass-through businesses for tax purposes. Pass-through businesses are not taxed at the entity level, passing on all their profits or losses to the partners who are taxed personally. Business income from these entities is passed through and taxed regardless of whether income was actually distributed or retained in the partnership and reinvested.

Partnerships

- **Limited liability partnership (LLP)**
  - In some jurisdictions, there is a special form of limited partnership known as a limited liability partnership (LLP), which does not require a general partner and is instead **composed entirely of limited partners**, thus resolving the risk of unlimited liability for the GP.
  - Instead, all partners have limited liability, and the partners share in management responsibilities, typically appointing one or more partners as managing partners.
    - ✓ In some jurisdictions, such as the United States, LLPs are permitted only for **professional services firms**, such as law, accounting, engineering, and architecture, and have limits on the number of partners and legal restrictions on equity investment.

Limited Companies

- A **limited company** has many similarities to limited partnerships but includes several more features that allow greater access to financing and expertise for growth. In many jurisdictions, there are two types of limited companies: **private limited companies** and **public limited companies**.
- **Private limited companies:**
  - Limited liability for all owners,
  - improved transferability of ownership interests by dividing ownership into units called **shares** that are more easily tradeable, and a distinction between owners and managers.
    - ✓ Owners, known as **shareholders** or members, elect **a board of directors** to manage the company and authorize any distributions of profits to owners. Boards of directors typically appoint professional managers.

Limited Companies

- **Public limited companies**:
  - Public limited companies, often called **corporations**, face no legal restrictions on the number of owners or ownership transferability. For these reasons, public limited companies are the most suitable form for companies that seek to go public and are the dominant organizational form globally by revenues and asset values.
  - Public limited companies are taxed at the business level and again at the personal level if profits are distributed to shareholders. But if profits are retained and reinvested in the company, the shareholder level of tax does not apply, which makes this organizational form more suitable for companies intending to retain profits to fund investment.

Organizational Forms of Businesses

- The key distinctions between **sole proprietorships, partnerships,** and **public limited companies:**

Features	Sole Proprietor	General Partnership	Limited Partnership	Corporation
Legal Identity	No separate legal identity; extension of owner	No separate legal identity; extension of partner(s)	No separate legal partner(s)	Separate legal entity
Owner–Operator Relationship	Owner operated	Partners operated	GP operated	Board and management operated
Owner Liability	Sole unlimited liability	Shared unlimited liability	GP has unlimited liability	Limited liability
Taxation	Pass-through: Profits taxed as personal income	Pass-through: Profits taxed as personal income	Pass-through: Profits taxed as personal income	Corporation income taxed; distributions (dividends) taxed as personal income
Access to Financing	Limited by owner access to capital	Limited by partner access to capital	Limited by GP/LP access to capital	Unbounded access to capital, unlimited business potential

Summary

Organizational Forms, Corporate Issuer Features, and Ownership

Organizational Forms of Businesses

Attributes

Proprietorship

Partnership

Limited Companies

Key Features of Corporate Issuers

- Legal Identity
- Owner–Manager Separation
- Owner/Shareholder Liability
- External Financing
- Taxation

Legal Identity

- Corporations share many of the rights and responsibilities of an individual and may engage in similar activities.
  - For example, a corporation can enter into contracts, hire employees, sue and be sued, borrow and lend money, make investments, and pay taxes.
- Large corporations frequently have business operations in many different geographic regions and are subject to each regulatory jurisdiction where:
  - the company is incorporated,
  - the business is conducted, and
  - the company finances itself and
  - registration,
  - financial and non-financial reporting and disclosure, and
  - capital market activities (issuance, trading, investment)

Owner–Manager Separation

- A key feature of most corporations is the separation between those who own the business (**the shareholders**) and those who operate it, as represented by the **board of directors and management**.
  - In a corporation, shareholders are largely removed from the day-to-day operations of the business. Instead, shareholders elect a board of directors that, in turn, appoints executive-level management, who is accountable for investing, financing, and operating decisions.
  - Directors and managers have a primary responsibility to act in the best interest of shareholders and, indirectly, all stakeholders.
  - The separation of ownership and management enables the corporation to obtain financing from a larger universe of potential investors who do not need (or want) to be involved in management.

Owner/Shareholder Liability

- Risk is shared among all shareholders, who face limited liability.
  - The maximum amount shareholders can lose is what they have invested in the company (i.e., the value of their shares can fall to zero but no further),
  - and they are not responsible for the debts of the corporation unless they separately, specifically guarantee them.
- Shareholders share in the risk and return of the company in proportion to their share ownership unless the corporate charter specifies differently.
  - Unlike partnerships, ownership units are divided into shares of smaller unit size, allowing investors to more easily purchase or sell ownership interests as represented by their shares.
    - ✓ For example, some issuers have more than 1 billion shares outstanding, meaning that ownership interests are divided into extremely small increments

External Financing

- The separation between ownership and management allows corporations to access external financing more easily than other business structures
  - Purchasing a share is the only requirement to become an owner.
  - While more expensive to form and operate than other forms, the corporate form is typically preferred when capital needs exceed what could be raised by an individual or small group of partners.
  - Financing may be provided by individuals or by institutions, such as mutual funds, pension funds, banks, governments, non-profits, and other corporations.
- Corporations are financed in two ways:
  - With **equity**, by selling shares to investors or reinvesting profits
    - ✓ Equity investors (shareholders) have a right to receive any distributions of profits, known as **dividends**
  - and with borrowings, or **debt**, in the form of loans, bonds, and leases,
    - ✓ debt must be repaid on a pre-specified date in the future with **interest**.

Taxation

- The corporation is ultimately subject to the **tax authority** and **tax code** governing the issuer's tax reporting, payment, and status. In most countries, corporations are taxed on their profits. Taxable profits are usually not the same as profits reported on financial statements, because tax codes and accounting standards differ.
  - In many countries, shareholders pay an additional tax on distributions (dividends) that are passed on to them. This is referred to as **the double taxation of corporate profits**.
  - In some countries, shareholders do not pay a personal tax on dividends if the corporation has paid tax previously on the earnings distributed to shareholders or shareholders receive a personal tax credit for their proportional share of taxes paid by the corporation.
  - In other countries, corporations pay no tax at all or may face different tax regimes within one country.

Taxation

- **Why corporate form attractive:**
  - While corporate shareholders are taxed on distributions, sole proprietors and partners are often taxed on all profits regardless of whether they are distributed as dividends (exceptions exist with allowances for profit reserves). This difference makes the corporate structure attractive to businesses that expect to reinvest undistributed profits in, for example, additional capacity for growth.
  - Also, in jurisdictions where corporate tax rates are lower than personal income tax rates, it can be advantageous to **"store" profits** in the business.

Summary

Organizational Forms, Corporate Issuer Features, and Ownership

Key Features of Corporate Issuers

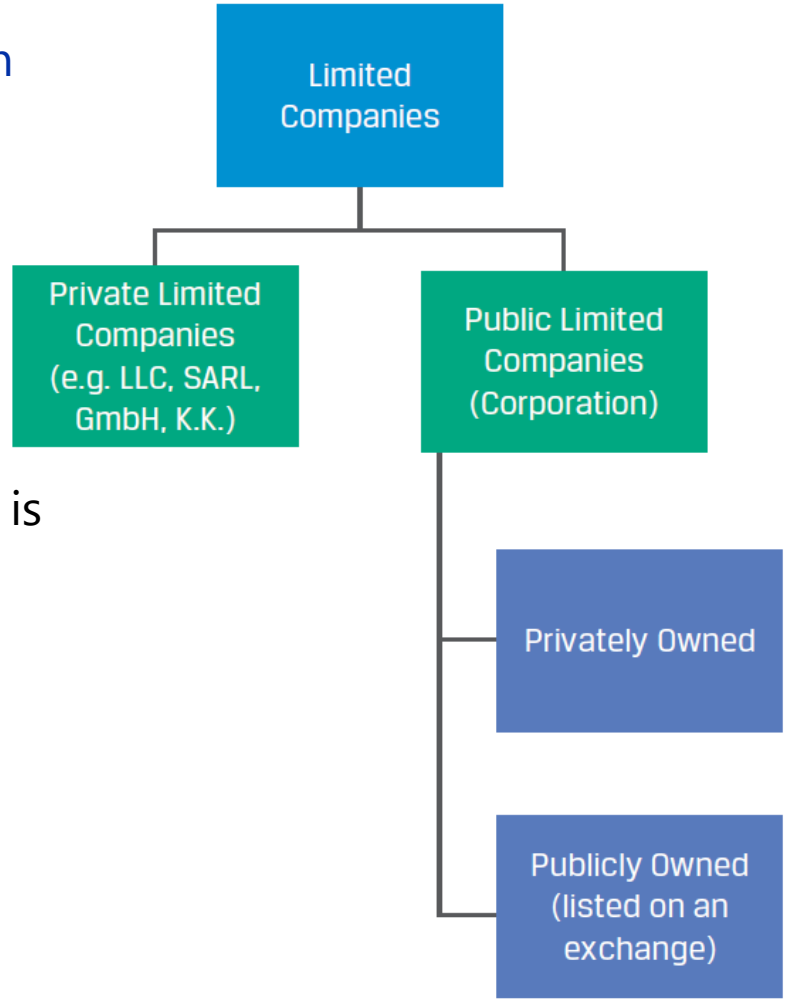
Legal Identity
Owner–Manager Separation
Owner/Shareholder Liability
External Financing
Taxation

Publicly vs. Privately Owned Corporate Issuers

- Exchange Listing, Liquidity, and Price Transparency
- Share Issuance
- Registration and Disclosure Requirements
- Going from Private to Public
- Going from Public to Private
- The Varieties of Corporate Owners

Publicly vs. Privately

- For corporations, "public" and "private" (or "listed" and "unlisted") are often defined by whether the company's shares are listed and tradeable on **an exchange**.
  - Most public or listed companies are public limited companies,
  - but public limited companies are not obliged to list their shares on an exchange.
    - ✓ An exchange, which for equities is referred to as a stock exchange, is a **rules-based, open access market venue** where financial instruments are traded, with price and volume transparency accessible by issuers, investors, and their intermediaries.
  - Other features distinguishing public and private companies :
    - ✓ the ability to transfer ownership between investors
    - ✓ the process of issuing new shares, and
    - ✓ registration and disclosure requirements.



Exchange Listing, Liquidity, and Price Transparency

- **Exchange listing:**
  - An investor can become a shareholder in **a public company** by executing a buy order in a brokerage account or reduce an ownership position by executing a sell order. This can be done immediately for a relatively small number of shares in a liquid stock or take longer for many shares in a company whose shares trade infrequently.
  - An exchange listing provides share price **transparency,** allowing investors to track how a company's value changes.

Exchange Listing, Liquidity, and Price Transparency

- **Private company:**
  - The shares of a private company are not listed (do not trade on an exchange)
  - This makes ownership transfer between investors far more difficult than for a public company.
  - A private company shareholder seeking to sell shares must find a willing buyer, and the two parties must negotiate a price.
  - Their investment is usually locked up until the company is acquired for cash or shares by another company or it goes public.

Exchange Listing, Liquidity, and Price Transparency

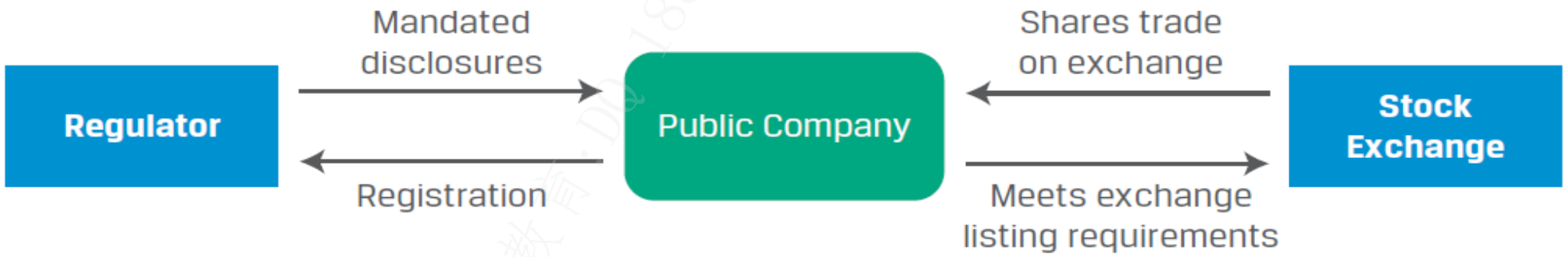
- **Private companies provide benefits that may outweigh the downside of limited transferability of shares.**
  - Private companies typically have fewer shareholders, meaning that controlling owners and management are accountable to fewer stakeholders.
  - Second, many early-stage companies are private. If successful, an investor in tand Price Transparencyheir equity could earn high returns.
  - Finally, private companies have few disclosure requirements, which are costly to comply with, and there are few regulations and costs associated with raising financing in private transactions.

Share Issuance

- **Corporate issuers may issue additional equity shares in the capital markets from time to time.**
  - For a public issuer, these shares can be traded in the secondary market once they're issued.
  - Private companies finance smaller amounts in the primary market (private debt or equity) from fewer investors who typically have longer holding periods.
    - ✓ Private company investors are typically invited to purchase shares in the company through a private placement whose terms are outlined in a legal document (public companies can also conduct private placements, subject to regulatory constraints).
    - ✓ Private company investors may be limited to qualified or so-called **accredited investors** or **sophisticated investors**, or those deemed to be able and willing by regulatory authorities to assume the greater risk of a non-public offering.

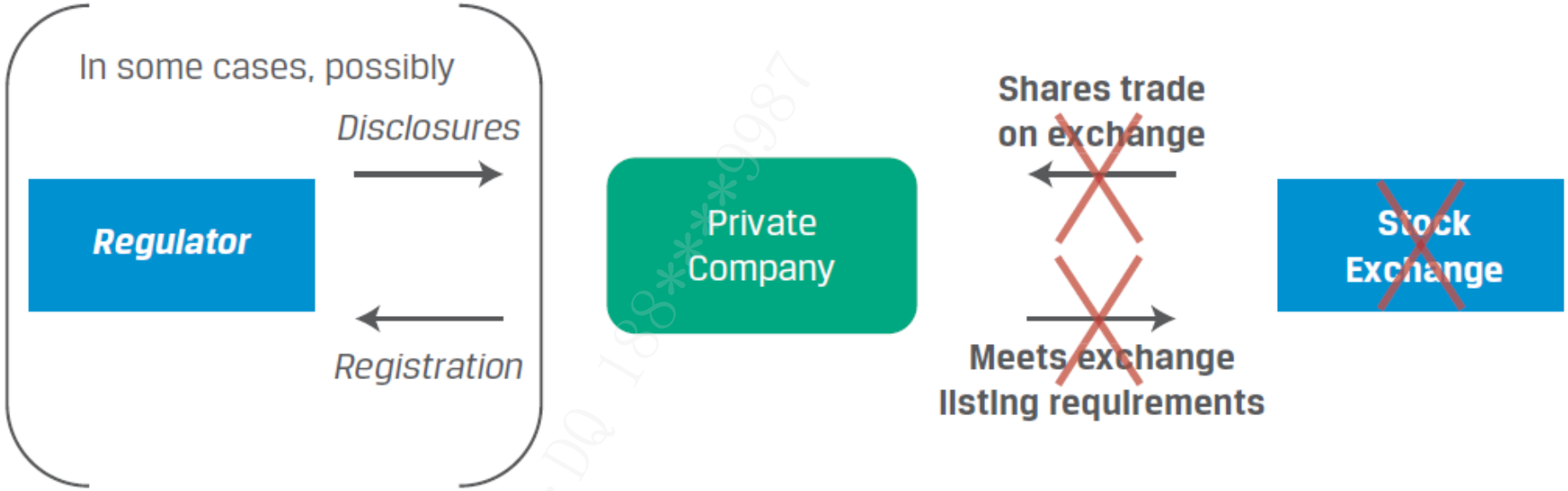
Registration and Disclosure Requirements

- **Public companies** must register with a regulatory authority and are subject to compliance and reporting requirements.
  - For example, companies with securities listed on US exchanges (e.g., NYSE and NASDAQ) must file audited financial statements and other information on a quarterly basis with the Securities and Exchange Commission (SEC);
  - In the European Union, financial statements must be reported in the EU's standardized ESEF (European Single Electronic Format) in the registry of domicile, at least semiannually;
  - Public companies must also disclose major changes in the holding of voting rights and other information that may affect security prices, such as management and director stock transactions.



Registration and Disclosure Requirements

- **Private companies are generally not subject to the same level of regulatory disclosures**
  - While not required, some private firms disclose pertinent information directly to owners as well as lenders, especially if they hope to be able to raise additional financing in the future.



Going from Private to Public

- **1. Public: initial public offering (IPO)**
  - The IPO involves the participation of **investment banks who underwrite**, or guarantee, the offering or sale of new (or existing) shares.
  - Once the IPO process is completed, the company is public and its **shares begin trading on an exchange**.
- **2. Direct listing (DL):** shares are sold by **existing** shareholders.
  - Does **not** involve an underwriter
  - **No** new capital is raised
  - **Major benefits**: speed of going public and the lower costs.
- **3. Acquisition**
  - **Special Purpose Acquisition Company (SPAC)**
    - ✓ A SPAC is a **shell company**, often called a "**blank check**" company, because **it exists solely for the purpose of acquiring.**
    - ✓ 1. SPACs raise capital through an IPO.
      - Proceeds are placed in a trust account and can **only** be disbursed to complete the acquisition or for return back to investors.
    - ✓ 2. SPACs have a finite time period (e.g.18 months) to complete a deal;
    - ✓ 3. Otherwise, proceeds are returned to investors.

Going from Public to Private

- **Go-private reasons:**
  - Investors who believe that go-private would result in a higher valuation than that reflected in the current share price.
  - Going private puts these investors in control and takes the company out of public view, which may be beneficial.
    - ✓ These actions undertaken with greater private control might include management changes, selling assets, restructuring, or realizing cost savings that are expected to exceed the premium paid and financing costs.
    - ✓ Once these actions are complete, investors may take the company public again several years later if they are able to achieve the desired valuation at that time.
- **Means:**
  - A "take-private" or "go-private" process involves investors acquiring all of the company's publicly traded shares and **delisting** the company from the exchange.
  - The investors must typically pay a **premium** above the current share price and often use debt to finance the acquisition.

Going from Public to Private

- **Public versus private company trends can provide insight into market developments.**
  - For example, many emerging economies have a growing number of public companies, while the opposite is occurring in developed economies.
    - ✓ Emerging economies are usually characterized by higher rates of growth, a transition to more open market structures, and foreign capital inflows.
- **A declining number of listed public companies in developed markets is a result of several factors.**
  - One cause is a higher number of mergers and acquisitions, which reduces the number of independent listed companies.
  - Another is the growing number of private capital sources available, such as venture capital and private equity, allowing companies to access needed capital while avoiding the additional cost, regulatory burden, public scrutiny, and compliance costs associated with a public listing.
  - Another factor is that many private companies simply choose to remain private because it preserves control by incumbent owners and management.

Summary

Organizational Forms, Corporate Issuer Features, and Ownership

Publicly vs. Privately Owned Corporate Issuers

Exchange Listing, Liquidity, and Price Transparency

Share Issuance

Registration and Disclosure Requirements

Going from Private to Public

Going from Public to Private

The Varieties of Corporate Owners

Summary

Module : Organizational Forms, Corporate Issuer Features, and Ownership

Organizational Forms of Businesses

Key Features of Corporate Issuers

Publicly vs. Privately Owned Corporate Issuers

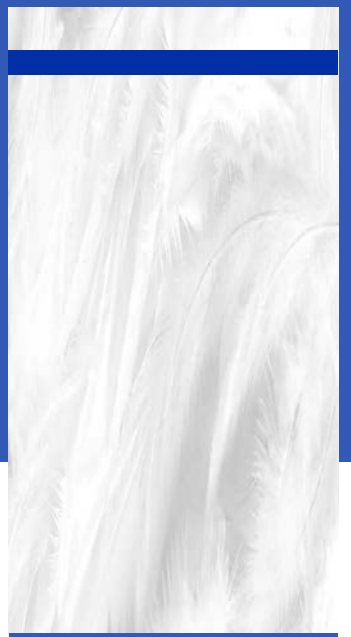
Module

Investors and Other Stakeholders

1. Financial Claims of Lenders and Shareholders
2. Corporate Stakeholders and Governance
3. Corporate ESG Consideration

Financial Claims of Lenders and Shareholders

- Debt Versus Equity
- Debt Versus Equity: Risk and Return
- Conflicts of Interest among Lenders and Shareholders

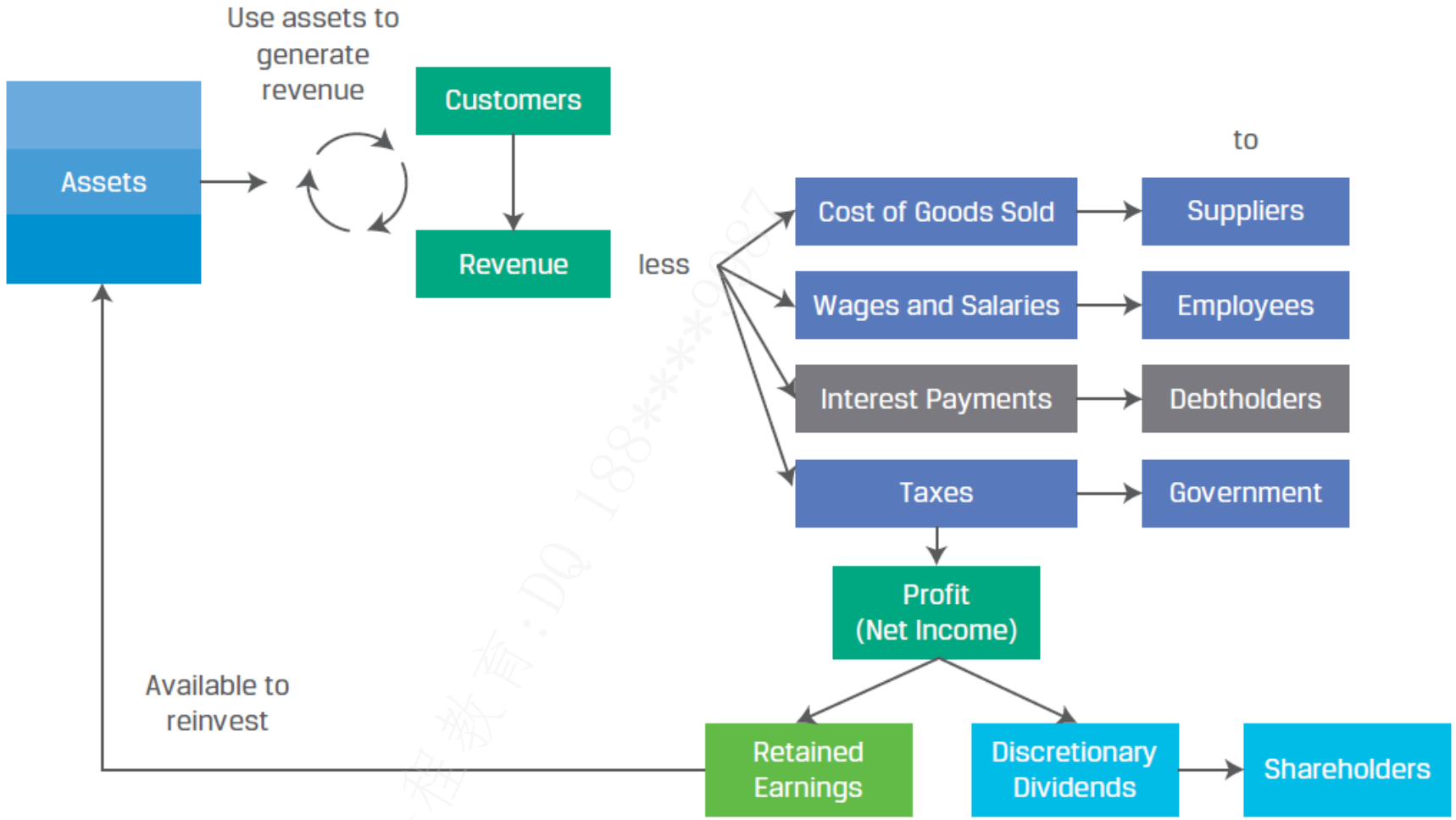


Debt Versus Equity

- **Debtholders, or lenders, provide capital with a finite maturity**
  - Issuers agree to make promised interest payments and to repay principal on pre-specified dates.
  - Lenders have no decision-making power within the corporation, but debt contracts can be structured to protect lenders by imposing financial requirements and/or legal claims on certain assets of the corporation if the debt is not repaid as agreed.
  - Debtholder interest payments are usually treated as a tax-deductible expense, reducing taxable income.
- **Equity investors make permanent capital available to issuers**
  - Issuers generally do not commit to future dividends or repayments to shareholders.
  - Equity is a **residual claim** against company cash flows—whatever is left after expenses, investments, and debt payments.
  - Cash distributions to equity investors are at the discretion of the board of directors.
  - In contrast to lenders, equity investors have voting rights on important company matters such as choosing the board of directors, which appoints and oversees management.

Debt Versus Equity

- **Other claims**
  - Payments to suppliers, employees, and governments in the form of taxes.



Debt Versus Equity: Risk and Return

- **From an issuer's perspective, debt financing is less costly but involves greater risks than equity financing**
  - It commits the issuer not only to **interest and principal payments** but also to any restrictions that lenders impose in the debt contract.
  - The greater use of debt for a given amount of equity financing, known as **financial leverage,** increases the likelihood that the firm may be unable to meet its promised obligations to lenders, resulting in bankruptcy and potential liquidation.
  - While debt financing adds risk, equity holders often prefer it to an issuer raising additional equity to fund growth,
    - ✓ Additional share issuance reduces the fractional firm ownership of existing shareholders, known as **dilution.**
    - ✓ The **downside of dilution** may be **offset** by an expectation that the firm will generate enough incremental profit to compensate.

Debt Versus Equity: Risk and Return

- **From an investor's perspective, stocks are riskier than bonds**
  - Shareholders hold **residual** rather than fixed claims against the firm.
  - The profits available for distribution to shareholders can vary greatly, depending on the performance of the firm as well as financial leverage.
    - ✓ If a corporation is successful, there is theoretically no limit to how much equity owners could earn on their investment.
    - ✓ But if the firm performs poorly, owners can lose their entire investment if the firm is liquidated and debtholders take control of the assets.
      - Due to their limited liability, shareholders cannot lose more than their initial investment.

Conflicts of Interest among Lenders and Shareholders

- Shareholders seek to maximize profits
  - Since these investors lose their entire investment in the case of **insolvency** but have unlimited upside return potential, they prefer that management pursue projects with greater calculated risks and higher potential returns while maximizing the use of debt financing.
  - Shareholders can demand higher cash dividends, which can increase leverage, thereby increasing risk for debt investors.
- Bondholders seek to maximize the likelihood that they will receive timely interest and principal payments
  - Bondholders generally prefer that management invest in less risky projects that increase cash flow certainty.
  - Since they have no voting rights over management decisions, bondholders seek to impose **contractual restrictions** such as requiring cash flow coverage for debt payments and/or limiting a firm's financial leverage.
    - ✓ These restrictions prevent a firm from taking actions that may benefit shareholders but reduce the firm's likelihood of debt repayment in the future.

Summary

Investors and Other Stakeholders

Financial Claims of Lenders and Shareholders

Debt Versus Equity

Conflicts

Corporate Stakeholders and Governance

- Shareholders versus Stakeholders
- Investors
- Board of Directors
- Managers
- Employees
- Customers
- Suppliers
- Governments

Shareholders versus Stakeholders

- **A stakeholder is any individual or group with a vested interest in a company. Primary stakeholder groups and their roles in a corporation include:**
  - Debt and equity **investors**;
  - **A board of directors** that supervises the corporation's activities;
  - **Managers** who execute the board's strategy and run operations;
  - **Employees** who provide human capital for the firm's operations;
  - **Customers** who demand the company's products and services;
  - **Suppliers** who provide the raw materials and goods and services not generated internally, including functions that are outsourced;
  - **Governments** that establish rules and regulations, collect taxes, and provide a variety of public goods and services; and
  - **Other individuals and the non-human environment** affected by the company's products and processes.

Shareholders versus Stakeholders

- **Shareholder theory of corporate governance**
  - Shareholders elect the board of directors, which hires managers to serve the interests of shareholders.
  - The interests of other parties—such as creditors, employees, customers, and even society—are considered only to the extent that they affect shareholder value.

- **Stakeholder theory of corporate governance**
  - Corporate governance should consider all stakeholder interests, not just those of shareholders.
    - ✓ For example, it is often suggested that environmental, social, and governance (ESG) considerations be an explicit objective of the board of directors and management.

Key Stakeholder Groups

- **Investors**
  - **Private debtholders**
    - ✓ Such as banks, have direct access to company management and non-public information, making them critical sources of financing for small or mid-sized companies.
    - ✓ Private lenders may have varying risk appetites, approaches, behaviors, and relationships with borrowers, and a single private lender's decision can have a significant impact on the company, especially those with limited access to capital markets.

Key Stakeholder Groups

- **Investors**
  - **Public debtholders(Bondholders)**
    - ✓ Such as institutional investors and asset managers, rely on public information such as financial statements to make investment decisions.
    - ✓ These investors usually have little to no influence over an issuer's operations, relying instead on the terms of the debt contract negotiated at inception.
      - Bondholders can have significant influence when a financially distressed firm needs to restructure its outstanding public debt, even though it is harder to get their consent to change the terms of an existing agreement compared to private lenders.

Key Stakeholder Groups

- **Board of Directors**
  - The board of directors is responsible for ensuring that the company is managed in the best interests of shareholders.
    - ✓ **Inside directors** : including founders and current and former managers
    - ✓ **Independent directors** : no material relationship with the company
      - Independent directors may better represent the interests of minority shareholders. Major stock exchanges maintain corporate governance standards with which listed companies must comply. These standards often include director independence requirements.
      - Besides independence, corporate governance standards also typically require boards to include a diversity of backgrounds, expertise, and competencies.
  - Director duties are mandated by laws that vary by jurisdiction, but directors are usually required to display a high standard of prudence, care, and loyalty to the company.

Key Stakeholder Groups

- **Board of Directors**
  - **Two-Tier Board Structure**
    - ✓ Under the two-tier model, a **separate supervisory board** is elected to oversee the activities of the board of directors.
      - The supervisory board consists solely of independent directors from among corporate stakeholders, including shareholders, employees, labor unions, the public at large, and, in some cases, government representatives for firms with state ownership.
      - The supervisory board is responsible for overseeing the activities of the board of directors, including appointing or dismissing board members and approving selected board decisions, among other duties. Meanwhile, the board of directors remains responsible for strategy and management oversight.

Key Stakeholder Groups

- **Board of Directors**
  - **Staggered Boards**
    - ✓ Some companies have staggered boards, with directors divided into groups elected separately in consecutive years.
    - ✓ It takes several years to replace a full staggered board, which limits the ability of shareholders to effect a major change of control at the company.
    - ✓ Staggered board elections allow for continuity without constant reassessment of strategy and oversight by new board members, which may introduce short-termism into company strategy.

Key Stakeholder Groups

- **Managers**
  - Managers are responsible for determining and implementing the strategy of the corporation, under the oversight of **the board of directors**, as well as day-to-day operations.
  - Senior executives and other high-level managers are usually compensated via a base salary in cash and an annual bonus that often involves cash and stock, as well as a multi-year, stock-based incentive plan and other benefits.
    - ✓ Compensation structures are designed to align manager interests with those of shareholders and other stakeholders as well.
- **Employees**
  - A corporation relies on the labor and skills, or human capital, of its employees to provide its goods and services. In return, employees typically seek competitive compensation and benefits, development opportunities, job security, and a safe and healthy work environment.

Key Stakeholder Groups

- **Customers**
  - Loyalty and satisfaction of retail customers are correlated with revenue and profit growth.
  - The environmental or social impact of products is increasingly important to customers and may affect sales and profits.
- **Suppliers**
  - Suppliers are short-term creditors who want to be paid on time, but also have long-term interests in building mutually beneficial relationships.
  - In times of financial distress, supplier willingness to extend credit may be affected, but their interest in a company's long-term stability is important, especially when products are specialized and there has been investment in the relationship.

Key Stakeholder Groups

- **Governments**
  - Governments seek to advance the interests of their constituencies and ensure the well-being of the economies over which they preside.
    - ✓ Because corporations have a significant effect on economic output, capital flows, employment, social welfare, and the environment, among other factors, regulators have an interest in ensuring that corporations comply with applicable laws.
    - ✓ Moreover, corporations and their employees are a major source of tax revenue.

Summary

Investors and Other Stakeholders

Corporate Stakeholders and Governance

Shareholders versus Stakeholders

Stakeholders

Corporate ESG Considerations

- Environmental Factors
- Social Factors
- Governance Factors
- Evaluating ESG-Related Risks and Opportunities

Corporate ESG Considerations

Environmental	Social	Governance
Climate change	Customer satisfaction	Board composition
Air and water pollution	Data protection and privacy	Audit committee structure
Biodiversity	Gender and diversity	Bribery and corruption
Deforestation	Employee engagement	Executive compensation
Energy efficiency	Community relations	Lobbying
Waste management	Human rights	Political contributions
Water scarcity	Labor standards	Whistleblower schemes

Corporate ESG Considerations

- **ESG considerations are of increasing importance for three reasons:**
  - The material financial impact of ESG factors on corporate issuers has risen.
    - ✓ Both shareholders and debtholders have suffered substantial losses due to environmental disasters, social controversies, and governance deficiencies.
  - Interest in the environmental and social impacts of investments has grown, particularly among younger clients, who increasingly demand that newly acquired or inherited wealth, as well as pension contributions, be managed with ESG considerations in mind.
  - As government stakeholders continue to prioritize climate change and social policies, **revised regulations** are forcing corporate issuers to adapt their business practices to meet more stringent ESG criteria.

Corporate ESG Considerations

- **Environmental Factors**
  - **Physical risks** include damage to or destruction of assets by severe weather, which is expected to significantly increase in frequency as the climate changes. Physical risks can often be insured against or diversified.
  - **Transition risks** are losses related to the transition to a lower-carbon economy, which may result from regulations or shifting consumer demand.
    - ✓ For example, a coal producer's revenues may decline materially if its electric utility customers switch to lower-emission fuel sources and renewables.
- **Social Factors**
  - Social factors typically pertain to a firm's practices concerning, and their impacts on, its employees and human capital, customers, and communities in which it operates.
  - Minimizing social risk can lower a company's costs through higher employee productivity, lower employee turnover, reduced litigation potential, and reduced reputational risk.

Corporate ESG Considerations

- **Governance Factors**
  - Corporate governance and stakeholder management address issues that include:
    - ✓ Company ownership and voting structure;
    - ✓ Relevance of board skills and experience to current and future company needs;
    - ✓ Alignment of management compensation with company results;
    - ✓ Strength of company shareholder rights versus peers; and
    - ✓ Company effectiveness in managing long-term risks and sustainability.

Evaluating ESG-Related Risks and Opportunities

- Analysts evaluate the potential positive and/or negative effects of material ESG-related factors by discounting future expected cash flows at an appropriate rate and using sensitivity and/or scenario analysis to weigh different outcomes for debt and equity holders.
  - For instance, an analyst might increase her forecast of a hotel company's operating costs because of the impact of excessive employee turnover.
    - ✓ This would result in lost productivity, reduced customer satisfaction, and increased expenses for employee searches, temporary workers, and training programs.
  - An analyst might choose to lower the discount rate for a food company that is expected to gain a competitive advantage by transitioning to a sustainable source of a key ingredient in its products.

Summary

Investors and Other Stakeholders

Corporate ESG Considerations

Environmental

Social

Governance

Risks and Opportunities

Summary

Module : Investors and Other Stakeholders

Financial Claims of Lenders and Shareholders

Corporate Stakeholders and Governance

Corporate ESG Consideration

Module

Corporate Governance: Conflicts, Mechanisms, Risks, and Benefits

1. Stakeholder Conflicts and Management
2. Corporate Governance Mechanisms
3. Corporate Governance Risks and Benefits

Stakeholder Conflicts and Management

- Shareholder, Board Director, and Manager Relationships
- Controlling and Minority Shareholder Relationships
- Shareholder versus Creditor Interests

Shareholder, Board Director, and Manager Relationships

- **Information Asymmetry** lowers shareholders' ability to assess the performance of directors and managers, weakening their capacity to identify and dismiss poor performers.
- Manager and shareholder interests may diverge in the following common ways:
  - **Insufficient effort.** Managers may be unable or unwilling to make investments, manage costs appropriately, or make hard decisions like shutting down unprofitable business lines.
  - **Inappropriate risk appetite.** Compensation dominated by **stock grants** and **options** can motivate excessive management risk-taking, as option holders participate only in upside share price moves..
  - **Empire building.** Management compensation and status are typically tied to business size (e.g., total revenues, number of employees), which can incentivize managers to seek "growth for growth's sake," such as acquisitions that do not increase shareholder value.

Shareholder, Board Director, and Manager Relationships

- Manager and shareholder interests may diverge in the following common ways:
  - **Entrenchment.** Directors and managers want to retain their jobs. Tactics to do so include copying competitors and peers, avoiding risks, and pursuing complicated transactions and restructurings that they are uniquely suited to manage. Directors may avoid speaking out against management, even if speaking out is in the interest of shareholders or other stakeholders.
  - **Self-dealing.** Managers may exploit firm resources to maximize personal benefits, such as excessive perquisites (private airplanes, club memberships, personal security), or defraud investors by misappropriating assets. The smaller a manager's stake in the company, the less they bear these costs themselves, reducing their desire to maximize firm value.

Controlling and Minority Shareholder Relationships

- **Concentrated Ownership**
  - Concentrated ownership reflects an individual shareholder or a group (known as **controlling shareholders**), who can exercise control over the corporation.
    - ✓ The group may involve a family, another company (or companies), or government.
  - a controlling shareholder may also be **a long-term shareholder** with a multi-year or multi-decade perspective,
- **Dispersed Ownership**
  - Dispersed ownership involves many shareholders, none of whom can exercise control over the corporation(known as **minority shareholders**) who hold diversified portfolios and would prefer that management focus on maximizing shareholder value, as they can diversify cheaply on their own.

Controlling and Minority Shareholder Relationships

- **Dual-class Structure**
  - In contrast to a simple structure of one vote per shareholder, a **dual-class structure** involves one share class (e.g., Class A) that carries one vote per share and is publicly held and traded and another share class (e.g., Class B) that carries several votes per share and is held exclusively by company insiders or founders.
    - ✓ A dual-class structure allows certain stakeholders to effectively control the company even if they do not hold most of the shares outstanding.

Shareholder versus Creditor Interests

- **Shareholders:**
  - Tend to prefer greater leverage and shareholder distributions rather than dilutive equity issuance.
- **Debtholders:**
  - Prefer that a company raise more equity and limit shareholder distributions.
    - ✓ This potential conflict is greater for long-term debt, as the passage of time exposes debtholders to changes in business conditions, strategy, and management behavior.
    - ✓ Long-term creditors are more likely to impose contractual limits on leverage and shareholder distributions.

Summary

Corporate Governance: Conflicts, Mechanisms, Risks, and Benefits

Stakeholder Conflicts and Management

Shareholder, Board Director, and Manager

Controlling and Minority

Shareholder and Creditor

Corporate Governance Mechanisms

- Shareholder Mechanisms
- Creditor Mechanisms
- Board and Management Mechanisms
- Other Mechanisms

Shareholder Mechanisms

- **Shareholder Meeting**
  - **General meetings—an annual general meeting (AGM)**
    - ✓ Typically held once a year— enable shareholders to participate in discussions and vote on matters and transactions that are not delegated to the board of directors.
  - **Extraordinary general meetings (EGMs)**
    - ✓ When other resolutions requiring shareholder approval are proposed, or when requested by a specified minimum number of calling shareholders (or proportion of stock outstanding).
  - **Proxy voting**
    - ✓ Shareholders unable to attend a meeting in person usually authorize another party to vote on their behalf in a proxy voting process, typically by submitting a ballot electronically or by mail.
    - ✓ Proxy voting is the most common form of investor participation in general meetings.

Shareholder Mechanisms

- **Shareholder Activism**
  - The primary motivation of shareholder activists is to increase shareholder value relatively quickly.
  - Shareholder activists often pressure management to act using tactics such as initiating proxy fights, proposing shareholder resolutions, and publicizing issues of contention.
  - **Hedge funds**
    - ✓ Hedge funds base the majority of their fees on returns, granting them a significant stake in the financial success of an activist campaign.
    - ✓ Hedge funds face fewer investment restrictions and are therefore able to take on large share positions using borrowed funds.
      - **Mutual funds**, however, are subject to investment restrictions that limit these activities, although some large funds use their influence to encourage positive corporate action.

Shareholder Mechanisms

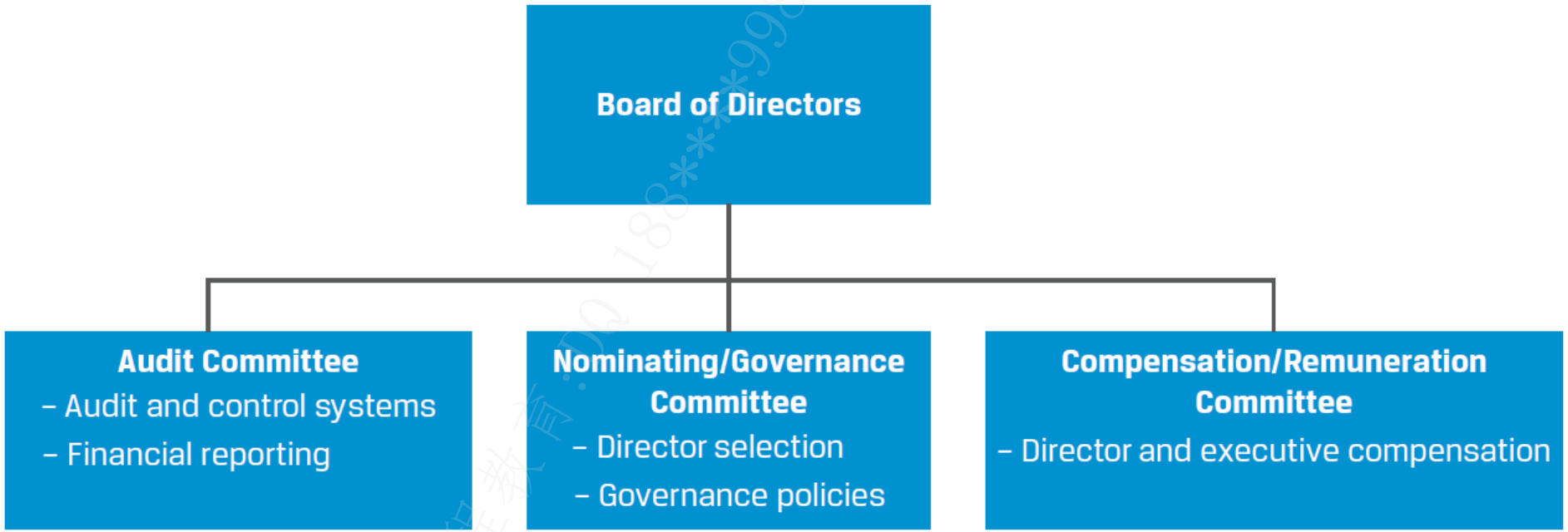
- **Shareholder Litigation**
  - **Shareholder derivative lawsuits** are legal proceedings initiated against the board of directors, management, and/or controlling shareholders by a shareholder deemed to be acting on behalf of the company in place of its directors and officers, who have failed to adequately act for the benefit of the company.
- **Corporate Takeovers**
  - **Proxy contest**
    - ✓ In a proxy contest, a group seeking a controlling position on a company's board of directors attempts to persuade shareholders to vote for the group.
  - **Tender offers**
    - ✓ A tender offer involves an invitation to shareholders to sell their interests directly to a group seeking to gain control.
  - **Hostile takeovers**
    - ✓ A hostile takeover is an attempt to acquire a company without the consent of the company's management.

Creditor Mechanisms

- **Bond Indenture**
  - A bond indenture is a legal contract that describes the structure of a bond, the obligations of the company, and the rights of the bondholders.
    - ✓ The terms and conditions of lending agreements either require the company to perform certain actions (or meet certain requirements) or prohibit certain actions.
    - ✓ Bondholders may also require that certain assets be pledged by an issuer to secure its promise to repay its obligations.
- **Creditor Committees**
  - Creditor committees are expected to represent bondholders during bankruptcy proceedings and to protect bondholder interests in restructuring or liquidation.
  - When a company is struggling to meet its obligations under an indenture, an **adhoc committee** may be formed by a group of bondholders to approach the company with potential options to restructure their bonds.

Board and Management Mechanisms

- These committees provide recommendations and reports to the board on a regular basis.
  - When establishing committees, boards do not delegate their ultimate responsibility nor are they discharged of their duties.
  - The board is required to review, challenge, and assure the content of any reports raised to it by the committees and to make the proper decisions.



Board and Management Mechanisms

- **Audit Committee**
  - The audit committee should be composed solely of **independent** board members and include at least one director with accounting or financial management expertise.
    - ✓ The audit committee monitors the issuer's financial reporting process, including the proper selection and implementation of accounting policies according to accounting standards and regulations in order to ensure the integrity of the financial statements.
    - ✓ It supervises the internal audit function and ensures its independence and competence.
    - ✓ The audit committee is also responsible for recommending the appointment of an independent external auditor and proposing its remuneration.
    - ✓ It interacts and holds meetings with the external auditor.
    - ✓ It receives reports from the internal and external auditors, proposes remedial actions for highlighted issues or matters, and follows up on them.

Board and Management Mechanisms

- **Nominating/Governance Committee**
  - The nominating, or governance, committee is composed of **independent** members.
    - ✓ This committee appraises director and manager candidates and oversees the board election process.
    - ✓ It sets nomination procedures and policies, including board directorship criteria, the search for and identification of qualified candidates for board directorships, and the election process by shareholders.
  - The committee also oversees the establishment and enforcement of corporate policies, including:
    - ✓ a corporate governance code;
    - ✓ the charter of the board and its committees;
    - ✓ a code of ethics; and
    - ✓ a policy on conflicts of interest, among others.
  - It reviews these policies periodically to incorporate any necessary changes or developments.

Board and Management Mechanisms

- **Compensation/Remuneration Committee (independent)**
  - The compensation, or remuneration, committee develops and proposes remuneration policies for the directors and key executives.
  - Compensation plans often include a variable component--typically profit sharing, stock, or stock options--contingent on corporate or stock price performance.
    - ✓ However stock-based remuneration does not serve its purpose if managers can improve their personal gains at the expense of the company while limiting their exposure to weak stock performance.
    - ✓ As a result, companies are increasingly designing incentive plans that discourage "short-termism" or excessive risk-taking by managers.
  - By allowing shareholders to express their views on remuneration-related matters, companies can limit the discretion of directors in granting excessive or inadequate remuneration.

Board and Management Mechanisms

- **Additional Committees**
  - Companies can have multiple other board committees, which are often industry specific.
    - ✓ **Risk committees**
      - determine the risk profile and appetite of the company and ensure that the company has an enterprise risk management system in place whereby risks are identified, assessed, mitigated, and managed appropriately.
      - Accordingly, risk committees oversee the setting of the risk policy and risk management annual plans and monitor their implementation.
      - Insurance companies often have investment committees that ensure the company has adopted and adheres to rational and prudent investment and capital management policies.

Other Mechanisms

- **Employee Mechanisms**
  - **Employee relationship management** (sometimes called **human capital management**) helps firms attract and retain talent and ensure that employees fulfill their responsibilities and are motivated to act in the company's best interest.
- **Customer and Supplier Mechanisms**
  - Both customers and suppliers enter into **contractual agreements** with a company that specify the products and services underlying the relationship, the prices or fees and the payment terms, the rights and responsibilities of each party, the after-sale relationship, and any guarantees.
    - ✓ **Contracts** also specify actions to be taken and recourse available if either party breaches the terms of the contract.
  - Customers, owners, and other stakeholders increasingly use social media to voice or protect their interests or to enhance their influence on corporate matters.

Other Mechanisms

- **Government Mechanisms**
  - **Laws and Regulations**
    - ✓ Governments and regulatory authorities develop laws that companies must follow and monitor companies' compliance with those laws. Such laws protect and enforce property and contract rights, in addition to protecting the rights of a specific group such as consumers or the environment.
      - Industries whose services, products, or operations are more likely to affect the public or stakeholder interests are typically subject to greater regulation.
  - **Corporate Governance Codes**
    - ✓ These codes require companies to disclose their adoption of recommended corporate governance practices or explain why they have not done so, known as a "**comply or explain**" approach.

Summary

Corporate Governance: Conflicts, Mechanisms, Risks, and Benefits

Corporate Governance Mechanisms

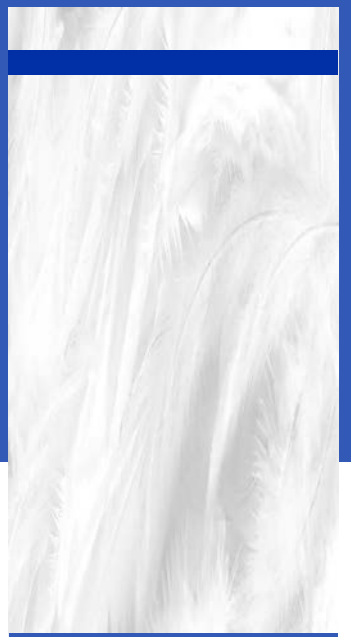
Shareholder Mechanisms

Creditor Mechanisms

Board and Management Mechanisms

Corporate Governance Risks and Benefits

- Operational Risks and Benefits
- Legal, Regulatory, and Reputational Risks and Benefits
- Financial Risks and Benefits



Operational Risks and Benefits

- **Operational Risks and Benefits**
  - In the absence of adequate controls, one stakeholder group may benefit at the expense of others.
    - ✓ Formal procedures for **dealing with conflicts of interest and related-party transactions** ensure fair dealing and avoid hidden costs.
  - Internal auditors and other internal control mechanisms like compliance and legal departments are an equally important pillar of organizational and governance structures.
    - ✓ In addition, the governance, risk, and compliance (GRC) functions in the organization work in partnership to align interests.
  - Strong governance practices involve proper scrutiny and control at all corporate levels.
    - ✓ Controls are enhanced when overseen by an effective independent audit committee.
  - Effective governance also clarifies the delegation of authority and the reporting lines across a company, ensuring that employees have a clear understanding of their respective responsibilities.

Legal, Regulatory, and Reputational Risks and Benefits

- **Legal, Regulatory, and Reputational Risks and Benefits**
  - The company may be investigated by government or regulatory authorities for violation of applicable laws.
  - A company may also be vulnerable to lawsuits filed by shareholders, employees, creditors, or other parties for breach of contractual agreements or company bylaws or for violation of stakeholders' legal rights.
  - Improperly managed conflicts of interest or governance failures can cause reputational harm to a company, and its associated costs can be significant.

Financial Risks and Benefits

- **Financial Risks and Benefits**
  - **Governance arrangements** that seek to manage creditor conflicts of interest restrict those corporate actions that would hinder the company's ability to repay its debt and thus reduce its default risk.
  - Governance practices at shareholder meetings, as well as internal corporate mechanisms such as the board of directors and its committees, give investors greater assurance that their capital is well managed. Studies have shown the following:
    1. Improved corporate governance practices increase the likelihood of a **credit rating** upgrade from speculative to investment grade, reducing the cost of debt.
    2. Listed companies with experienced audit committees possessing financial expertise tend to have stronger market performance during a crisis.
    3. Board diversity and independence appear to be key factors in firm valuation.

Summary

Corporate Governance: Conflicts, Mechanisms, Risks, and Benefits

Corporate Governance Risks and Benefits

Operational, Legal, Regulatory, and Reputational Financial Risks and Benefits

Summary

Module : Corporate Governance Conflicts, Mechanisms, Risks, and Benefits

Stakeholder Conflicts and Management

Corporate Governance Mechanisms

Corporate Governance Risks and Benefits

Module

Working Capital and Liquidity

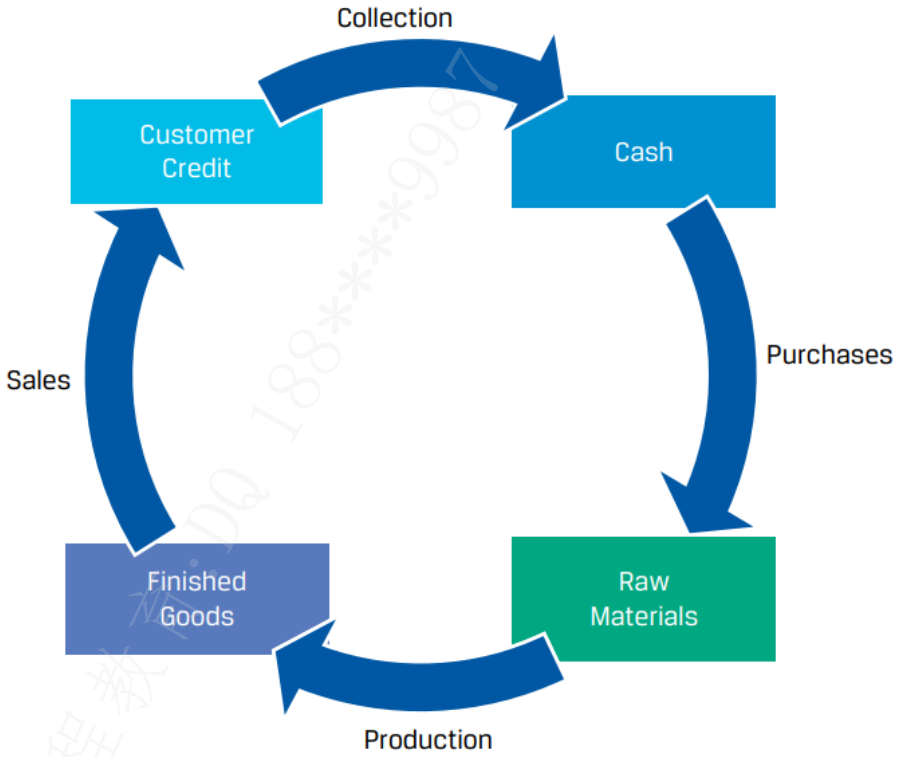
1. Cash Conversion Cycle
2. Liquidity
3. Managing Working Capital and Liquidity

Cash Conversion Cycle

- Cash Conversion Cycle
- Working Capital

Cash Conversion Cycle

- **Operating cycle**
  - For a company that makes and sells physical goods, its operations include acquiring materials, producing inventory, selling products to customers, and collecting cash. These activities are known as the issuer's operating cycle and occur once or many times over a year.



Cash Conversion Cycle

- **Selected Short-Term Assets and Liabilities**
  - These activities result in cash outflows and inflows that usually do not occur at the same time as the activity.

Short-Term Asset	Meaning	Recognized When . . .	Derecognized When . . .
Accounts receivable	Amounts to be collected from customers for products or services sold	Product or service is sold to customer on credit	Cash is received from customer
Inventory	Cost of products produced or purchased for sale	Issuer takes ownership of materials, goods, supplies, etc.	Product is sold to customer
Short-Term Liability	Meaning	Recognized When . . .	Derecognized When . . .
Accounts payable	Amounts owed to suppliers for products or services received	Product or service is received, and issuer defers payment to supplier	Cash is paid to supplier

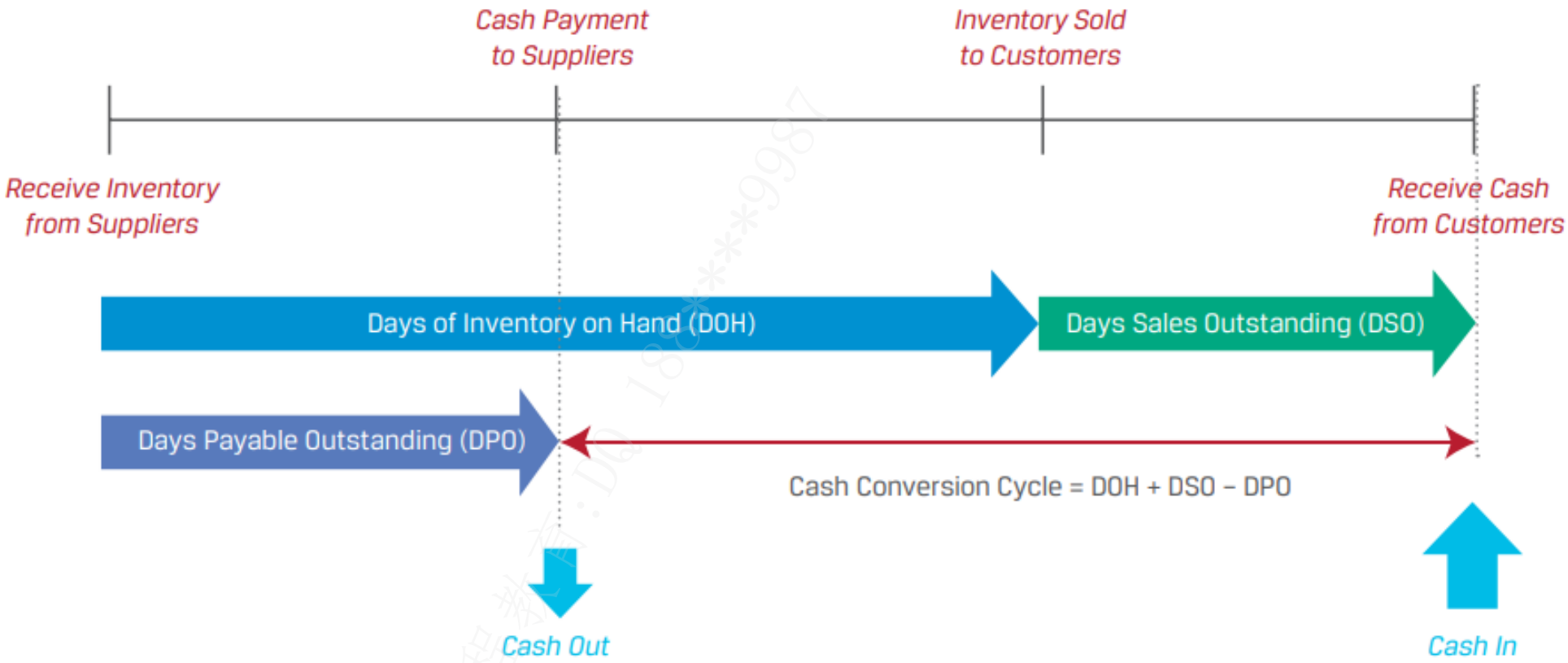
Cash Conversion Cycle

- **Cash Conversion Cycle**
  - The amounts of time that accounts payable, inventory, and accounts receivable are outstanding on the balance sheet are known, respectively, as **days payable outstanding (DPO), days of inventory on hand (DOH),** and **days sales outstanding (DSO).** The calculations of these amounts, known as **activity ratios.**

Inventory	A/R	A/P
Inventory turnover = COGS / average inventory	Receivables turnover = Net revenue / average A/R	Payables turnover = Purchase / average A/P
DOH= 365 / inventory turnover	DSO= 365 / receivables turnover	DPO= 365 / payables turnover
Cash conversion cycle = DOH+DSO-DPO		

Cash Conversion Cycle

- **Cash Conversion Cycle**
  - Cash conversion cycle = Days of inventory on hand + Days sales outstanding − Days payable outstanding



Cash Conversion Cycle

- **Cash Conversion Cycle**
  - The cash conversion cycle is the number of days it takes a company to convert an inventory investment into cash receipts from customers. Therefore, the longer the cash conversion cycle, the longer a company needs financing to pay its bills, such as payroll, because it has not yet received cash from customers
    - ✓ A long cash conversion cycle may reflect industry or business model characteristics, but a longer cycle relative to competitors and a lengthening over time are of particular concern for analysts.
    - ✓ A longer cycle may signal worsening customer demand, deteriorating customer financial health or credit quality, or the loss of bargaining power with suppliers.
  - The ideal scenario is a short or even negative cash conversion cycle, which means that cash invested in inventory is quickly returned for subsequent investment.
    - ✓ A negative cash conversion cycle can result from receiving cash from customers before—in some cases, well before—suppliers are paid.

Cash Conversion Cycle

- **Shorten Cash Conversion Cycle**
  - **Reduce days of inventory on hand** by discontinuing products or product lines with low or niche demand, by negotiating with suppliers to do more frequent deliveries in order to establish "just in time" inventory levels, and by using data analytics to improve customer demand forecasts and to rationalize stocking levels.
  - **Reduce days sales outstanding** by offering prompt-payment discounts to customers, imposing late fees, tightening credit standards, imposing upfront deposits or accelerating installment payments, and working with third-party collection agencies.
  - **Increase days payable outstanding** by negotiating supplier contracts for longer terms. This approach may be feasible by establishing preferred suppliers—purchasing more in volume in exchange for better terms. However, it may result in suppliers charging higher prices or asking for deposits.

Cash Conversion Cycle

- **Prompt-payment discount offered by its supplier**
  - While extending days payable outstanding can improve the cash conversion cycle, suppliers typically offer discounts for prompt payment, such as requiring payment in 30 days but offering a 2% discount if payment is received within 10 days. If a company forgoes this discount in favor of paying in 30 days, it is implicitly borrowing from the supplier for 30 − 10 = 20 days at the cost of the forgone discount. One strategy is to borrow from a third party (e.g., a bank) at a relatively low interest rate, pay the supplier early to receive the prompt-payment discount, and later repay the bank.

$$\text{EAR of Supplier Financing} = \left(\left(1+\frac{\text{Discount \%}}{100\%-\text{Discount \%}}\right)^{\frac{\text{Days in Year}}{\text{Payment Period}-\text{Discount Period}}}\right)-1$$

Example

Cash Conversion Cycle

- Keown Corporation is an established manufacturer of custom paddleboards operating in the North American market. Keown operates its own manufacturing plant in Canada and sells its paddleboards exclusively through its website to avoid the cost of retail locations. Most of Keown's sales take place during the North American summer season from May to August. Keown's customers expect orders to be filled immediately, so it must maintain substantial inventory to start the summer season or risk losing sales to competitors. Given the seasonality of the business, Keown is particularly focused on meeting customers' needs. Since Keown lacks the necessary cash to pay its suppliers within 10 days, the CFO must decide whether to borrow from its bank at an effective annual rate (EAR) of 7.7% to take the prompt-payment discount offered by its supplier of materials or pay in 30 days. The terms from the supplier are 2/10, net 30.
  - ✓ Should Keown use the bank loan and pay the supplier within 10 days to receive the 2% discount, or simply forgo the discount and pay the supplier in 30 days?

Example

Cash Conversion Cycle

- **Solution**
  - To compare the relative cost of the bank loan with that of the trade credit, we can calculate the effective annual rate on the trade credit. Essentially, we are calculating the interest rate on a loan for which the interest cost is the forgone discount and the term is the additional time Keown gets to pay; in this case, 30 − 10 = 20 days.
    - ✓ Effective Annual Rate of Supplier Financing= $\left(\left(1+\frac{2\%}{100\%-2\%}\right)^{\frac{365}{30-10}}\right)$-1
    - ✓ Effective Annual Rate of Supplier Financing = 0.446 or 44.6%
  - Since the effective annual rate of 44.6% on the supplier financing is significantly higher than the 7.7% interest rate on the bank loan, Keown should borrow from its bank. That way, it will still be able to preserve cash but will pay a far lower interest rate on the financing.

Cash Conversion Cycle

- **Working capital**
  - In addition to the cash conversion cycle, another measure analysts use to assess the efficiency of business operations is the amount of working capital
    - ✓ Total working capital=Current assets
      -Current liabilities
    - ✓ Net Working Capital=Current assets, excluding cash and marketable securities
      -Current liabilities, excluding short-term and current debt

Cash Conversion Cycle

- **Working capital**
  - The cash conversion cycle and the ratio of working capital to sales are interrelated. Since receivables and inventories are often large components of short-term assets and payables are a large component of short-term liabilities, a short cash conversion cycle is associated with a low ratio of working capital to sales and vice versa.
  - A high ratio of working capital to sales may be a result of industry characteristics, such as in the spirits industry, where inventory must age for several years before being sold to customers, or in the pharmaceutical industry, where companies hold a large amount of inventory, sometimes to comply with regulations.

Summary

Working Capital and Liquidity

Cash Conversion Cycle

Activity ratios

Cash conversion cycle

DPO,DOH,DSO

EAR

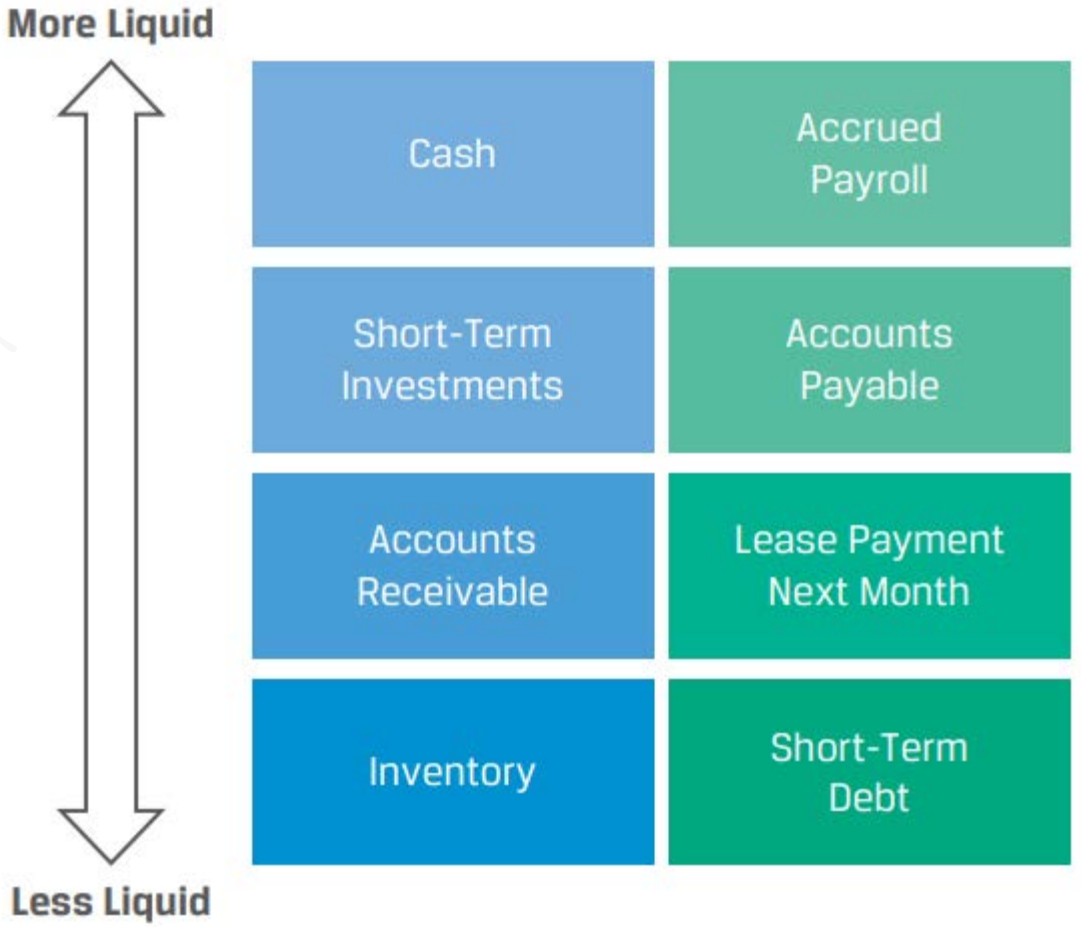
working capital

Liquidity

- Primary Liquidity Sources
- Secondary Liquidity Sources
- Factors Affecting Liquidity: Drags and Pulls
- Measuring and Evaluating Liquidity

Liquidity

- **Liquidity**
  - Liquidity for an individual asset or liability is its nearness to cash or settlement.
    - ✓ Cash is already cash, so it is the most liquid asset
    - ✓ Assets and liabilities that are not expected to convert into cash or settle within 12 months are presented as long-term assets and liabilities.
  - Liquidity for an issuer refers to its ability to meet its short-term liabilities.



Primary Liquidity Sources

- **Primary Liquidity Sources**
  - Cash and marketable securities on hand, which is cash available in bank accounts or held as currency or securities that could be sold quickly without significant loss of value.
  - Borrowings, from banks, bondholders, or suppliers' trade credit. While this source can yield cash to settle near-term obligations, it creates another obligation that will need to be repaid in the future.
  - Cash flow from the business, though it takes time to generate, is a substantial source of liquidity for profitable firms.

Primary Liquidity Sources

- **Cash flow from operations**
  - Cash flow from operations is a cash profit measure over a period for an issuer's primary business activities.
  - Cash received from customers

    Plus: Interest and dividends received on financial investments

    Minus: Cash paid to employees and suppliers

    Minus: Taxes paid to governments

    Minus: Interest paid to lenders

    Cash flows from operations
- **Free cash flow**
  - Cash flow from operations does not account for capital investments (covered in a subsequent learning module) that issuers make to improve operations or expand.
  - Cash flows from operations

    Minus: Investments in long-term assets

    Free cash flow

Secondary Liquidity Sources

- **Secondary Liquidity Sources**
  - Suspending or reducing dividends to shareholders.
  - Delaying or reducing capital expenditures, which will preserve cash in the near term but may result in missed opportunities and impair long-term value.
  - Issuing equity, by issuing shares in the public markets or privately to select investors. While equity issuance provides cash, it comes at the cost of dilution for existing shareholders.
  - Renegotiating contract terms, such as refinancing short-term debt to long-term debt; seeking concessions on interest, rent, and/or lease payments; restructuring debt covenants; and renegotiating payment or delivery terms with customers and suppliers.
  - Selling assets, which depends on the degree to which short-term and/or long-term assets can be liquidated and converted into cash without substantial loss in value.
  - Filing for bankruptcy protection and reorganization to continue operations while restructuring debt contracts and possibly selling assets.

Factors Affecting Liquidity: Drags and Pulls

- **Drag on liquidity**
  - Involve pressures from credit management and deterioration in other assets.
    - ✓ Uncollected receivables
    - ✓ Obsolete inventory
    - ✓ Tight credit: short-term debt becomes more expensive to arrange and use.
- **Pull on liquidity**
  - Restrict payment terms so much that the company's liquidity reserves are stretched thin.
    - ✓ Making payments early;
    - ✓ Reduced credit limits;
    - ✓ Limits on short-term lines of credit;
    - ✓ Low liquidity positions.

Measuring and Evaluating Liquidity

- **Liquidity ratios**
  - Current ratio= $\frac{\text{current assets}}{\text{current liabilities}}$
  - Quick ratio= $\frac{\text{cash+short term marketable securities+receivables}}{\text{current liabilities}}$
  - Cash ratio= $\frac{\text{cash+short term marketable securities}}{\text{current liabilities}}$
  - The higher the liquidity ratio, the more likely it is the company will be able to pay its short-time bills.

Summary

Working Capital and Liquidity

Liquidity

Primary, Secondary Liquidity Sources

Free cash flow

Drug, pull

Liquidity ratios

Managing Working Capital and Liquidity

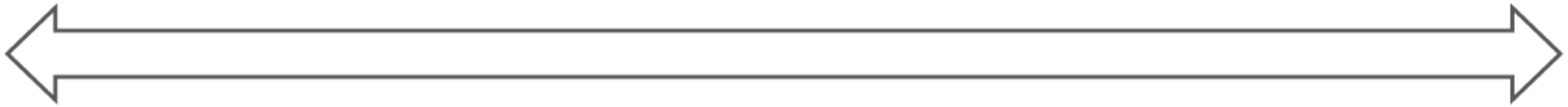
- Working Capital Management
- Liquidity and Short-Term Funding

Working Capital Management

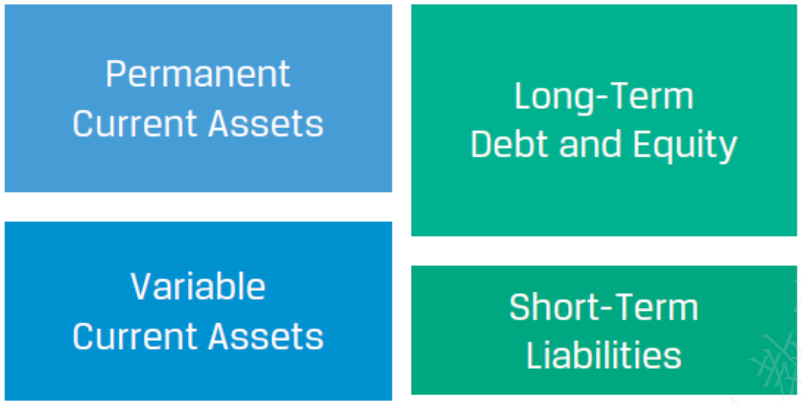
- **Working Capital Management**
  - The primary goal of working capital and liquidity management is to maximize firm value while maintaining ready access to funds necessary for day-to-day operations and obligations to creditors
  - Base levels of inventory, staffing, and receivables that are permanent current assets.
  - Additional inventory and labor needed during a company's seasonal peak production and sales period or during a growth phase that are considered variable current assets.
  - Companies take different approaches to both the size of current assets and the composition of financing used to support those assets.

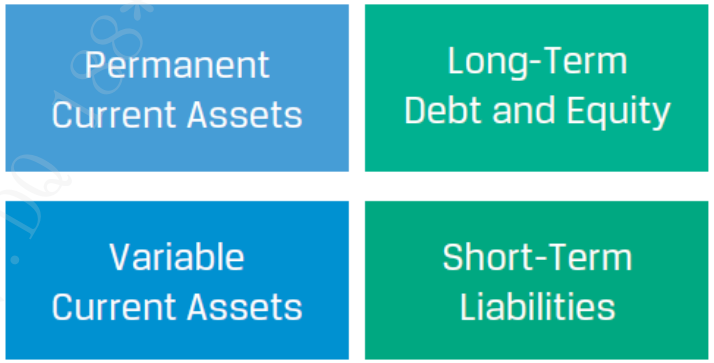
Working Capital Management

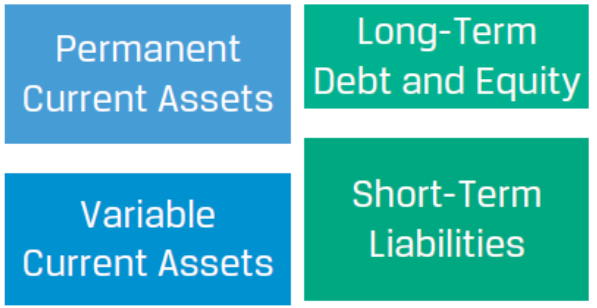
Working Capital Management



Conservative	Moderate "Matched"	Aggressive
Larger short-term asset position versus sales	Moderate short-term asset position versus sales	Smaller short-term asset position versus sales
Greater reliance on long-term debt and equity	**Match funding:** Fund permanent assets long-term Fund variable assets short-term	Greater reliance on short-term liabilities







Working Capital Management

- **A conservative approach**
  - A conservative approach to working capital management involves more cash, receivables, and inventory relative to sales, with a greater reliance on long-term funding sources. While this strategy provides a firm with the most financial flexibility to meet its needs, it is also typically the costliest.

Pros	Cons
Stable, permanent financing avoids rollover risk associated with short-term debt	Long-term debt typically involves a higher interest rate
Financing costs are known upfront	High cost of equity
Certainty of working capital needed to purchase the necessary inventory	Permanent financing eliminates the opportunity to borrow only as needed
Extended payment term reduces short-term cash needs for debt service	A longer lead time is often required to establish the financing position
Higher flexibility during market disruptions that can be covered by larger cash or marketable securities positions	Long-term debt may involve more restrictions on business operations

Working Capital Management

- **A conservative approach**
  - Reasons
    - ✓ Firms in an early-growth phase are more likely to consider a conservative approach due to limited access to short-term debt.
    - ✓ More established companies with higher profit margins pursuing such a policy may also be able to pass these higher financing costs on to customers.
    - ✓ Reduced need to access capital during times of market stress.
    - ✓ Expectation of flat to rising interest rates.
    - ✓ Preference for cash flow stability over rollover risk of short-term debt.
    - ✓ Benefits of greater certainty and access to more permanent capital, which are perceived to offset the higher associated financing cost.

Working Capital Management

- **An aggressive working capital approach**
  - With fewer committed resources to support current assets, the firm has reduced its short-term financial flexibility in exchange for higher returns for investors.

Pros	Cons
Lower financing cost	Interest expense may fluctuate as rates on short-term financing change
Flexibility to borrow only as needed reduces overall interest expense	May result in higher short-term cash needs to satisfy debt maturities
Short-term debt usually involves fewer restrictions on business operations	Rollover risk of short-term debt increases bankruptcy risk, particularly during market disruptions
Flexibility to refinance if rates decline	May have to rely on more costly trade credit, tighten customer credit, or sell receivables if unable to refinance at favorable terms

Working Capital Management

- **An aggressive working capital approach**
  - Reasons
    - ✓ Firms in industries with lower profit margins may consider pursuing a more aggressive working capital policy to gain a cost advantage over competitors.
    - ✓ Ability to forecast future sales and cash needs with a high degree of precision.
    - ✓ Expectation of stable or falling interest rates.
    - ✓ Expectation that firm will shorten its cash conversion cycle (i.e., shorten its accounts receivable and inventory period and extend its accounts payable period).
    - ✓ Ability to quickly liquidate inventory and minimize accounts receivable.
  - While greater reliance on short-term financing lowers debt cost versus a conservative approach, a firm also faces greater exposure to debt rollover risk in times of market stress.

Working Capital Management

- **A moderate working capital approach**
  - A balance between the use of long-term financing for more permanent current asset needs and short-term debt for variable needs. Since stable, predictable needs are met with long-term financing and less predictable seasonal or growth-based needs are met with short-term resources, this method is often also referred to as a "matched" approach.

Pros	Cons
Lower financing cost versus conservative approach; lower risk than aggressive approach	Access to short-term capital may be limited for seasonal or growth needs
Flexibility to increase financing for seasonal requirements or growth as needed	Uncertain cost of short-term debt for variable needs during market disruptions
Diversified sources of funding, with a more disciplined approach to balance sheet management	May have to rely on more costly trade credit to meet seasonal or growth needs if unable to refinance at favorable terms

Working Capital Management

- **A moderate working capital approach**
  - Reasons
    - ✓ Allows for more gradual changes.
    - ✓ Ability to accurately forecast base current asset requirements, with less certainty surrounding variable needs.
    - ✓ Reduced financing costs relative to a conservative approach, with lower rollover risk and greater financial flexibility than a more aggressive approach.
    - ✓ To balance the use of less costly short-term financing with the stability and certainty of permanent working capital supported by long-term financing.

Liquidity and Short-Term Funding

- **Liquidity and Short-Term Funding**
  - Short-term financing strategy
    - ✓ Maintaining sufficient and diversified sources of credit to fund ongoing cash needs.
    - ✓ Securing adequate funding capacity to handle the firm's changing cash needs.
    - ✓ Financing rates offered, as well as associated terms and conditions, are competitive.
    - ✓ Ensuring that both implicit (e.g., the cost of supplier financing discussed earlier) and explicit funding costs are considered.
  - Factors may influence short-term funding
    - ✓ Size
    - ✓ Creditworthiness
    - ✓ Legal considerations
    - ✓ Regulatory considerations
    - ✓ Underlying assets

Summary

Working Capital and Liquidity

Managing Working Capital and Liquidity

Moderate, conservative, aggressive working capital approach

Summary

Module : Working Capital and Liquidity

Cash Conversion Cycle

Liquidity

Managing Working Capital and Liquidity

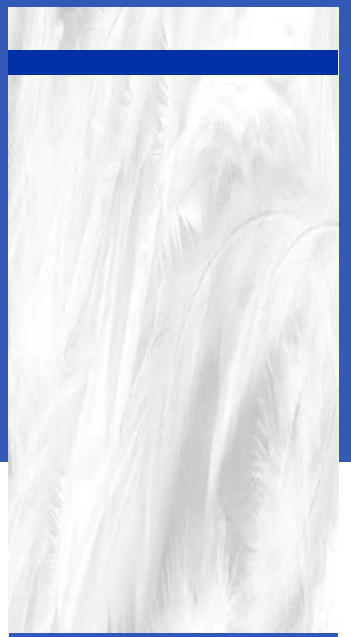
Module

Capital Investments and Capital Allocation

1. Capital Investments
2. Capital Allocation
3. Capital Allocation Principles and Pitfalls
4. Real Options

Capital Allocation Process

- Capital Allocation Process
- Types of Capital Investments
- Basic Principles of Capital Budgeting



Capital Allocation Process

- **Capital allocation process is the process used by a company to make capital investment decisions**
  - **Idea generation**
    - ✓ Generating good investment ideas from a number of resources
  - **Analyzing project proposals**
    - ✓ Gathering the information → cash flow forecasting →evaluating project's profitability
  - **Create the firm-wide capital budget**
    - ✓ The timing of project's cash flows
    - ✓ The availability of company's resources
    - ✓ Fit the company's overall strategies
  - **Monitoring decisions and conducting a post-audit**
    - ✓ Comparing the actual result with the projected and explain the reasons

Types of Capital Investments

- **Capital investments are undertaken for two primary purposes**
- **Business Maintenance**
  - **Going concern**
    - ✓ Projects necessary to continue current operations and maintain existing size of the business or to improve business efficiencies.
    - ✓ E.G. Machine replacement; Infrastructure improvement.
    - ✓ Going concern projects are fairly easy for management to evaluate because their costs are typically small relative to the production or business interruption.
  - **Regulatory/Compliance**
    - ✓ Projects typically required by a third party, such as the government regulatory body, to meet specified safety and compliance standards.
    - ✓ E.G Factory pollution control installation; Performance bond posting to guarantee satisfactory project completion.

Types of Capital Investments

- **Capital investments are undertaken for two primary purposes**
- **Business Growth**
  - **Expansion**
    - ✓ Projects that expand business size and typically involve greater degrees of risk and uncertainty than going concern projects.
    - ✓ An important value driver for companies is growth in profits.
    - ✓ E.G. New product or service development; Merger; Acquisition.
  - **Other (new)**
    - ✓ Projects, which should include high-risk investments and new growth initiatives, that are outside the company's conventional business lines.
    - ✓ E.G. Exploration investment into a new innovation; Business model, or idea.

Types of Capital Investments

- **Independent projects**
  - Projects are unrelated to each other and allow for each project to be evaluated based on its own profitability
- **Mutually exclusive projects**
  - Only one of several potential projects can be chosen.
  - Rank all alternatives and select the best one.
- **Project sequencing**
  - Some projects must be undertaken in a certain order, so that investing in a project today creates the opportunity to invest in other projects in the future.
- **Unlimited funds vs. Capital rationing**
  - Unlimited funds: company can raise the funds it wants for all profitability projects
  - Many firms have constraints on the amount of capital they can raise, and must use capital rationing (choose more profitable projects).

Basic Principles of Capital Budgeting

- **Decision are based on incremental cash flows, not accounting income**
- **The timing of cash flows is important → time value of money**
  - Cash flows received earlier are worth more than cash flows to be received: accelerated depreciation.
- **Cash flow are analyzed on an after tax basis**
  - A decision should consider the impact of taxes.
  - The value of an firm is none of government's business.

Basic Principles of Capital Budgeting

- **Cash flows should be ignored**
  - **Sunk costs:** any costs that cannot be avoided, even if the project is not undertaken, consulting fee, advertisement costs.
  - **Financing costs/interest cost:** financing costs are included in the project cost of capital or WACC.
- **Cash flows should be included**
  - **Externalities**
    - ✓ A negative externalities (cannibalization): new project takes sales from an existing product
    - ✓ A positive externalities: the product benefits sales of a firm's other product lines
  - **Opportunity costs**
    - ✓ Opportunity cost: cash flows that a firm will lose by undertaking the project, generally an asset the firm already owns

Summary

Capital Investments

Capital Allocation Process

Types of Capital Investments,
Capital Allocation Process,
Basic Principles of Capital Budgeting

Project Evaluation Methods and NPV profile

- Net present value (NPV)
- Internal rate of return (IRR)
- Return on invested capital (ROIC)

NPV

- **The Net Present Value (NPV)**
  - Definition

$$NPV = CF_0 + \frac{CF_1}{(1+r)^1} + \frac{CF_2}{(1+r)^2} + \cdots + \frac{CF_n}{(1+r)^n}$$

    - ✓ PV of the future after-tax cash flows minus the investment outlay
    - ✓ r: required rate of return (opportunity cost of capital, COC) related with risks.
  - Decision rule
    - ✓ For independent projects
      - If NPV>0, increase wealth, accept.
      - If NPV<0, decrease wealth, reject.
    - ✓ For mutually exclusive projects
      - Choose the one with highest NPV.

Example

NPV calculation

- Assume that the firm's cost of capital is 9% (Use your calculator)

Year (t)	0	1	2	3
Net cash flow	-100	25	50	75
Discounted NCF	-100	22.94	42.08	57.91

- **Correct Answer:**
  - $\text{NPV} = -100 + \frac{25}{(1+9\%)^1} + \frac{50}{(1+9\%)^2} + \frac{75}{(1+9\%)^3}$

$= -100 + 22.94 + 42.08 + 57.91 = 22.93$

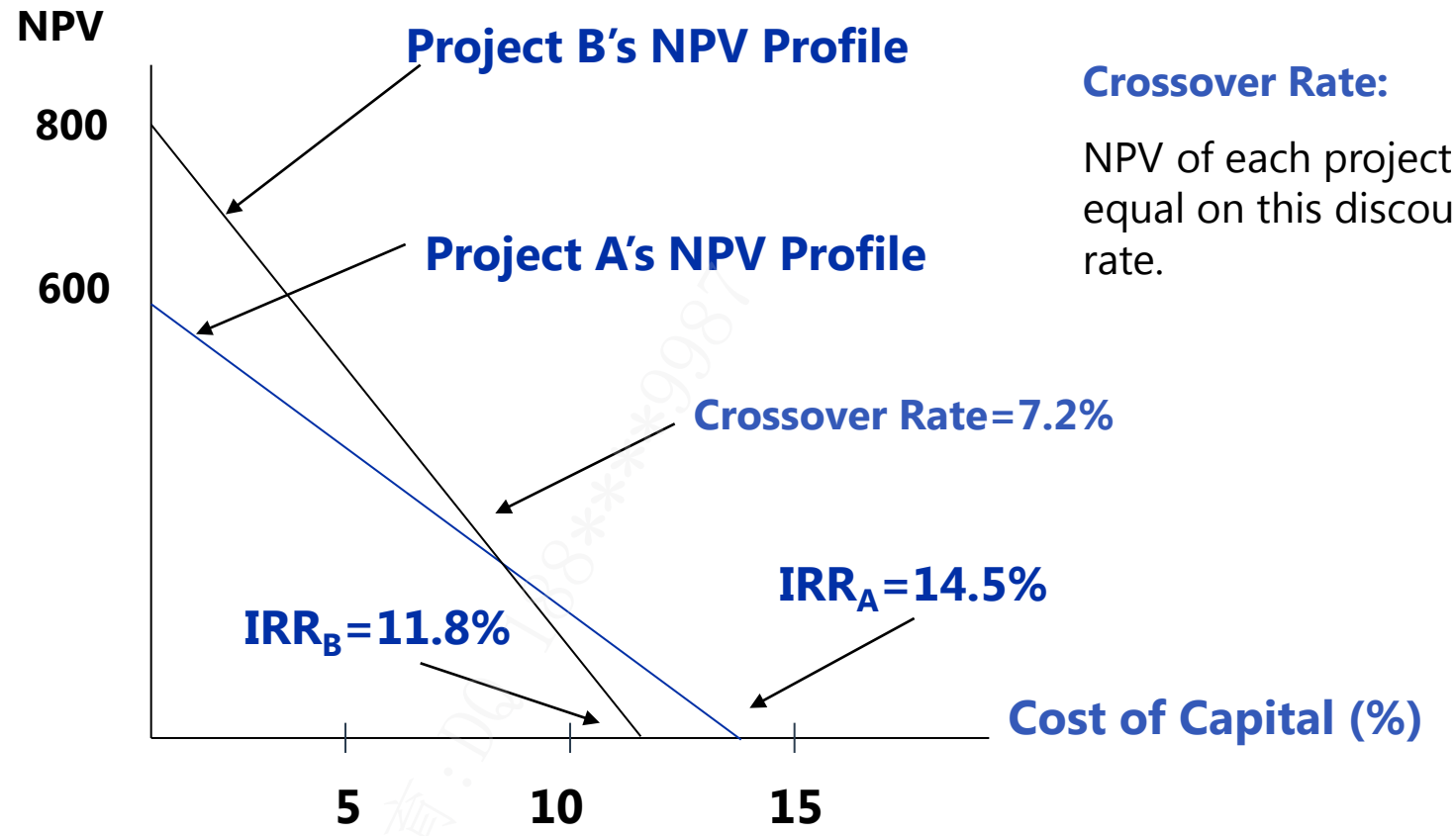
IRR

- **Internal rate of return (IRR)**
  - Definition
    - ✓ Discount rate that makes the PV of the future after-tax cash flows equal that investment outlay (NPV=0).

$$CF_0 + \frac{CF_1}{(1+IRR)^1} + \frac{CF_2}{(1+IRR)^2} + \cdots + \frac{CF_3}{(1+IRR)^3} = 0$$

  - Decision rule
    - ✓ For independent projects
      - Invest if IRR ≥ the required rate of return (hurdle rate);
      - Reject if IRR ≤ the required rate of return (hurdle rate).
    - ✓ For mutually exclusive projects
      - Choose the highest IRR.

NPV Profiles



Crossover Rate:

NPV of each project are equal on this discount rate.

Impact of NPV Rule and Stock Price

- When the NPV is **positive**, firm value is increased and shareholder wealth is **increased.**
- An NPV of **zero** means the project does **not increase** shareholder wealth.
- A **negative** NPV means **decrease** shareholder wealth.
- The **NPV of the project = change of the market value of the stocks**
  - In theory, when the NPV is **positive**, **P_{stock} is increased**, vice versa.

Example

Impact of NPV Rule and Stock Price

- Presstech is investing $500 million in new printing equipment. The present value of the future after-tax cash flows resulting from the equipment is $750 million. Presstech currently has 100 million shares outstanding, with a current market price of $45 per share. Assuming that this project is new information and is independent of other expectations about the company, calculate the effect of the new equipment on the value of the company and the effect on Presstech's stock price.

- **Correct Answer:**
  - NPV=750-500=250 million
  - New value = 45+250/100= $47.5

Impact of NPV Rule and Stock Price

- **In reality**
  - The impact of a project on the company's stock price is more complicated than previous example.
  - The impact of an investment on the stock price will depend on whether the investment's profitability is more or less than expected.
  - An analyst could learn of a positive NPV project, but if the profitability is less than expectation, stock may drop in price on the news.
  - A project that by itself might add $2.5 to the value of the stock might signal the existence of other profitable projects, thus increase the stock price by far more than $2.5

Return on Invested Capital

- **Return on invested capital** is a measure of the profitability of a company relative to the amount of capital invested by the equity- and debt holders.
- ROIC reflects **how effectively** a company's management is able to **convert capital into profits**.
  - $\text{Return on invested capital} = \frac{\text{after tax operating profit}}{\text{average book value of invested capital}}$
    - ✓ Invested capital includes
      - Common shares
      - Preferred shares
      - Debt
- **Decision rule**
  - If ROIC > COC, company generates a higher return for investors, **increasing** the firm's value for shareholders.
  - If ROIC < COC, the company generates a lower return for investors, **decreasing** the firm's value for shareholders.

Summary

Capital Investments

Project Evaluation Methods and NPV profile

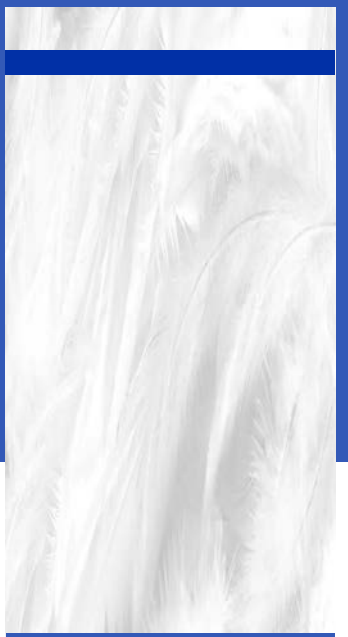
Net present value (NPV) ,

Internal rate of return (IRR),

Return on invested capital (ROIC)

Real Options

- Types of Real Options
- Evaluating Projects with Real Options
- Common capital budgeting pitfalls



Real Options

- **Real options are capital budgeting options** that allow managers to make decisions in the future that alter the value of capital budgeting investment decisions made today.
  - Just deal with real assets instead of financial assets;
  - Entail the right to make a decision, but not the obligation;
  - The flexibility is given to managers to enhance the NPV of the company's capital investments.
- **Types of real options include**
  - Timing options;
  - Sizing options;
  - Flexibility options;
  - Fundamental options.

Types of Real Options

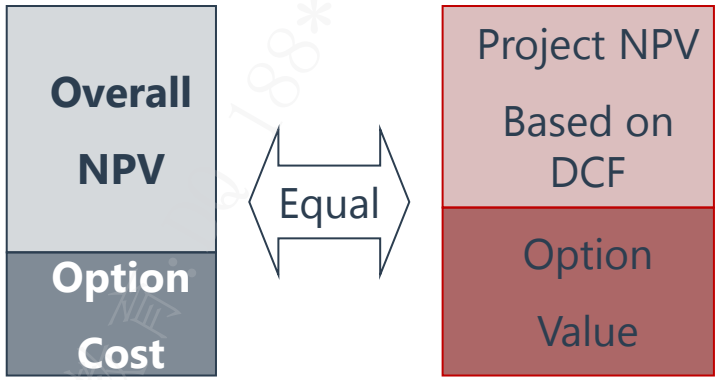
- **Timing Options**
  - Instead of investing now, the company can delay investing.
  - **Project sequencing options** allow the company to defer the decision to invest in a future investment until the outcome of some or all of a current investment is known.
- **Sizing options**
  - **Abandonment option**
    - ✓ The company can abandon the project when the financial results are disappointing after investing.
  - **Growth (expansion) option**
    - ✓ The company can make additional investments when future financial results are strong after investing.

Types of Real Options

- **Flexibility options**: once an investment is made, other operational flexibilities may be available besides abandonment or expansion.
  - **Price-setting options**
    - ✓ By increasing prices, the company could benefit from the excess demand, which it cannot do by increasing production.
  - **Production flexibility options**
    - ✓ The company can profit from working overtime or from adding additional shifts.
- **Fundamental options**
  - Options embedded in a project that can raise its value. In other cases, the whole investment is essentially an option.
  - The payoffs from the investment are contingent on an underlying asset, just like most financial options.
  - High oil prices, drill a well.

Evaluating Projects with Real Options

- **Four common sense approaches to real options analysis**
  - **Project NPV(with option) = NPV(without option) - Cost of options + Value of options**
  - **Use DCF analysis without considering options**
    - ✓ If the NPV is positive without considering real options, and the project has real options that would simply add more value, it is unnecessary to evaluate the options.
  - **Use decision trees**
    - ✓ Decision trees can capture the essence of many sequential decision making problems.
  - **Use option pricing models**



Example

Real Options

- Auvergne AquaFarms has estimated the NPV of the expected cash flows from a new processing plant to be –€0.40 million. Auvergne is evaluating an incremental investment of €0.30 million that would give management the flexibility to switch among coal, natural gas, and oil as energy sources. The original plant relied only on coal. The option to switch to cheaper sources of energy when they are available has an estimated value of €1.20 million. What is the value of the new processing plant including this real option to use alternative energy sources?

- **Correct Answer:**
  - Project NPV = NPV (based on DCF alone) – Cost of options + Value of options.
  - Project NPV = –0.40 million – 0.30 million + 1.20 million = €0.50 million.

Example

Real Options

- The company must make an initial investment of C$190 million to begin production for ten years. If demand is high, cash flows are expected to be C$40 million per year. If demand is low, cash flows will be only C$20 million per year. Management believes there is an equal chance that demand will be high or low. What is the NPV (C$ millions) of the original project for Bouchard Industries without considering the production-flexibility option? Discount rate=10%.

  A. –C$6.11million.

  B. –C$5.66million.

  C. C$2.33million.

- **Correct Answer: B.**

Common Capital Budgeting Pitfalls

- **Common capital allocation mistakes that companies make are**
  - **Inertia**
    - ✓ Management anchoring their capital investment budgets to prior year amounts.
  - **Source of capital bias**
  - **Failing to consider investment alternatives or alternative states**
  - **Pushing "pet" projects**
  - **Basing investment decisions on EPS, net income, or ROE**
  - **Internal forecasting errors**

Summary

Capital Investments

Real Options

Types of Real Options,

Evaluating Projects with Real Options,

Common capital budgeting pitfalls

Summary

Module : Capital Investments and Capital Allocation

Capital Investments

Capital Allocation

Capital Allocation Principles and Pitfalls

Real Options

Module

Capital Structure

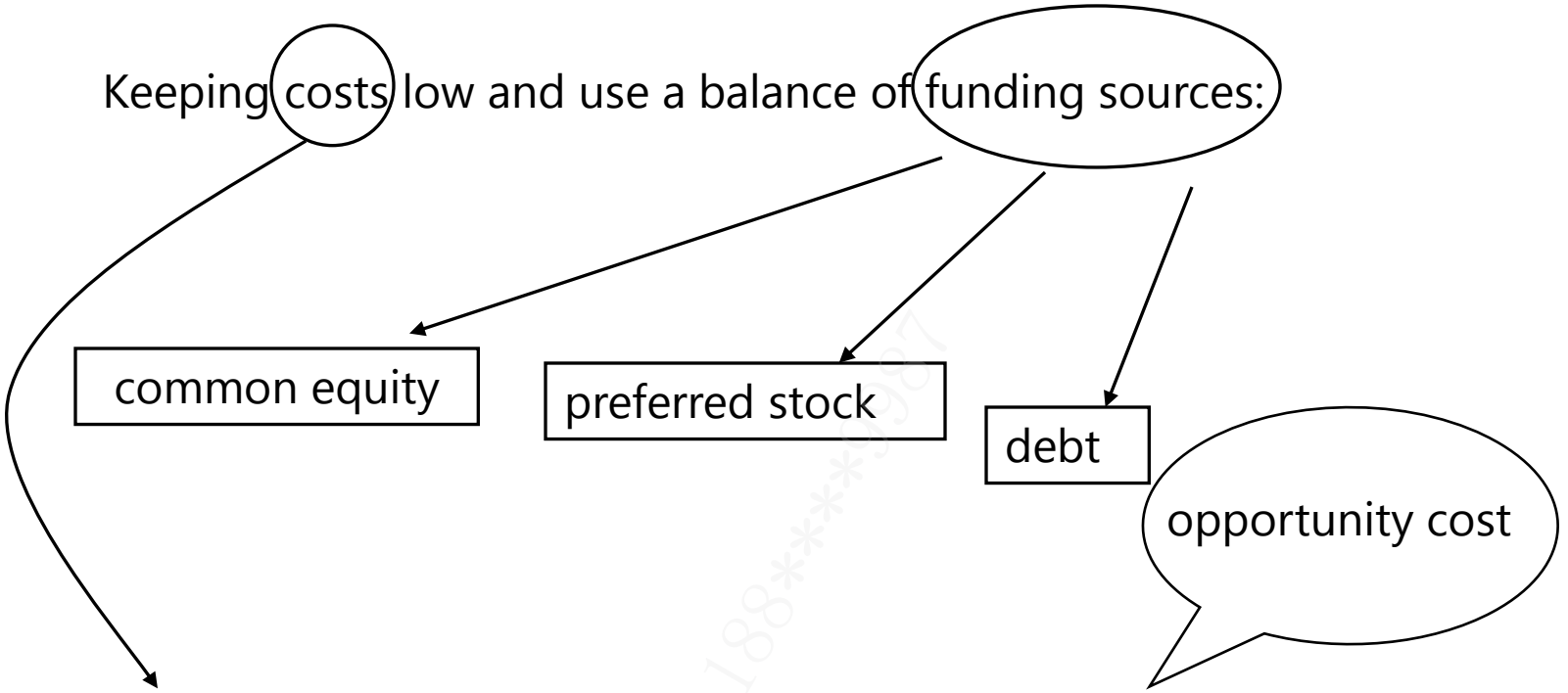
1. Capital Structure
2. MM Propositions
3. Static Trade-off Theory
4. Pecking Order Theory

Capital Structure

- Internal Factors Affecting Capital Structure
- External Factors Affecting Capital Structure
- Capital Structure and Company Life Cycle

Cost of the Different Sources of Capital

- **How a company raises capital**



WACC is described as the cost of financing firm assets. So this is an appropriate way to determine whether undertaking that project will increase the value of the firm.

Weight Average Cost of Capital (WACC)

- **$WACC=(w_d)[r_d(1-t)]+(w_{ps})(r_{ps})+(w_s)(r_s)$**
  - t is the firm's marginal tax rate.
  - w is the proportion of each type of capital, all the components are using **market value** when computing weightings.
  - r is the current cost of each type of capital (debt, preferred stock and common stock).
- **Outside analysts can estimate target capital structure using one of the approaches**
  - Use the company's **target capital structure**
  - If target capital structure is not available:
    - ✓ Assume the company's **current** capital structure, represents the company's target capital structure.
    - ✓ Examine **trends** in capital structure to infer the target structure.
    - ✓ Use **average of comparable** company's capital structure as the target structure.
- **WACC is also referred to as the marginal cost of capital (MCC).**

Example

WACC: How to Determine Weights?

- Fran McClure of Alba Advisers is estimating the cost of capital of Frontier Corporation as part of her valuation analysis of Frontier. McClure will be using this estimate, along with projected cash flows from Frontier's new projects, to estimate the effect of these new projects on the value of Frontier. McClure has gathered the following information on Frontier Corporation?

	Current Year	Forecasted for Next Year
Book value of debt	$50	$50
Market value of debt	$62	$63
Book value of equity	$55	$58
Market value of equity	$210	$220

- **Correct Answer:**
  - The weights that McClure should apply in estimating frontier's cost of capital for debt and equity are, w_d =0.223;
    w_e= 0.777 ,respectively.

Internal Factors Affecting Capital Structure

- **Business model characteristics**
  - **Revenue, earnings, and cash flow sensitivity**
    - ✓ Revenue streams can be **subscription-like**, **recurring revenues** or **pay-per-use**.
    - ✓ Stable revenue streams can also lead to earnings and cash flow streams being relatively more stable.
    - ✓ Cost structure—the proportions of fixed costs and variable costs will impact the degree of stability and predictability in earnings and cash flows.
    - ✓ Operating leverage = Fixed costs/Total costs

Business Model Factor	Ability to Support Debt
High (low) revenue, cash flow volatility	Reduced (increased)
High (low) earnings predictability	Increased (reduced)
High (low) operating leverage	Reduced (increased)

Internal Factors Affecting Capital Structure

- **Business model characteristics**
  - **Asset type**
    - ✓ A company's assets can be broadly categorized as tangible or intangible, fungible or non-fungible, and liquid or illiquid.

Asset Type	Ability to Support Debt
Greater (fewer) fungible, tangible, liquid, or marketable assets	Increased (reduced)

  - **Asset ownership**
    - ✓ Some companies may choose not to own assets but instead "outsource" asset ownership to other parties.
    - ✓ Outsourcing of assets can allow the company to move to a variable cost structure, resulting in lower business risk as measured by lower operating leverage.

Internal Factors Affecting Capital Structure

- **Existing leverage**
  - The cost of that capital is highly dependent on the firm's existing financial leverage.
  - Financial ratios can be used to assess a company's ability to service debt.

Financial Ratio Type	Ability to Support Debt
Higher (lower) liquidity	Increased (reduced)
Higher (lower) profitability	Increased (reduced)
Higher (lower) leverage	Reduced (increased)
Higher (lower) interest coverage	Increased (reduced)

- **Corporate tax rate**
  - Another important factor in the determination of a firm's capital structure is its marginal income tax rate.
  - The higher (lower) the firm's marginal income tax rate, the greater (lower) the tax benefit of using debt in the firm's capital structure.

Internal Factors Affecting Capital Structure

- **Capital structure policies/guidelines**
  - The capital structures are often also guided and influenced by firm-specific policies.(E.G. debt/equity less than 0.5 times).
  - Another important consideration is whether their debt or equity issuances meet index provider requirements that allow inclusion in a benchmark index.
- **Third-Party Debt Ratings**
  - Maintaining the company's rating at a certain level, such as investment-grade or above, may be an explicit policy target for management.

External Factors Affecting Capital Structure

- **Market conditions/business cycle**
  - A company's capital structure is highly influenced by interest rates and the current macroeconomic environment.
  - Cost of debt is driven by interest rates and credit spreads.
  - Cost of debt is equal to a benchmark risk-free rate (rf) plus a credit spread specific to the company.
- **Regulatory constraints**
  - Capital structure, payout policy, and pricing, are often subject to guidelines set by regulatory bodies.
- **Industry/peer firm leverage**
  - Companies in the same industry are likely to have common asset types and business model characteristics.
  - It is not uncommon for companies in the same industry to have fairly similar capital structures.

Capital Structure and Company Life Cycle

Stage in life cycle	Start-up	Growth	Mature
Financial management			
Revenue growth	Beginning	Rising	Slowing
Cash flow	Negative	improving	Positive/ predictable
Business risk	High	Medium	Low
Debt capital/leverage			
Availability	Very limited	Limited/ improving	High
Cost	High	Medium	Low
Typical cases	N/A	Secured (by receivables, fixed assets)	Unsecured (bank and public debt)
Typical % of capital structure*	Close to 0%	0%~20%	20%+
*: These ratios are calculated based on the market values of equity and debt			

Capital Structure and Company Life Cycle

- **Start-Ups**
  - Company is a **cash consumer**—— the company must raise capital
    - ✓ Debt capital is typically not available or available but very expensive.
  - Revenues are **zero or minimal**, and **risk of business failure is high**.
- **Growth Businesses**
  - The company **generates revenues**, providing confirmation of the product concept and evidence of demand.
  - **Revenue growth may be rising and/or high**, but investment is needed to achieve this growth and scale.
  - Cash flow typically turns positive and then becomes **more stable and predictable** as the business grows.
  - Many growth companies use debt conservatively in order to **preserve operational and financial flexibility** and **minimize the risk of financial distress**.

Capital Structure and Company Life Cycle

- **Mature Businesses**
  - Company's **revenue growth may slow** or even **begin to decline**.
  - A successful business **generates reliable and positive cash flow** and likely has an established customer and supplier base.
  - The company becomes **able to support low-cost debt**, often on an unsecured basis.
  - The prevalence of **low interest rates increases** the debt-carrying capacity of businesses and the use of corporate debt.
  - Mature businesses **often de-leverage over time**
    - ✓ De-leverage means a reduction in debt as a proportion of total capital.
    - ✓ De-leveraging occurs due to continuing cash flow generation and because equity values commonly rise over time from share price appreciation.
  - Share buybacks are attractive to companies
    - ✓ They offer greater flexibility
    - ✓ More tax-efficient means of distributing cash to taxable investors.

Capital Structure and Company Life Cycle

- **Unique situations**
  - Capital intensive businesses with marketable assets
    - ✓ Some businesses use **high levels of leverage** regardless of their development stage.
      - For example, real estate industry
    - ✓ Conversely, some relatively large and mature businesses use little debt.
  - Cyclical industries
    - ✓ Revenues and cash flows **vary widely** through the economic cycle, which limits debt capacity.
    - ✓ Businesses in cyclical sectors may have less debt in their capital structures than companies in other less cyclical industries.
  - "Capital-light" businesses
    - ✓ They tend to have little debt in their capital structures and in many cases have substantial net cash.

Summary

Capital Structure

Capital Structure

Internal Factors Affecting Capital Structure,

External Factors Affecting Capital Structure

Capital Structure and Company Life Cycle

MM Propositions

- MM Propositions
  - MM1 without tax
  - MM2 without tax
  - MM1 with tax
  - MM2 with tax

Capital Structure Theory

- **Capital Structure Theory**
  - MM theory 1958 → No taxes, no costs of financial distress;
  - MM theory 1963 → With taxes, no costs of financial distress;
  - The static trade – off theory → With taxes, with costs of financial distress.

MM: Modigliani - Miller

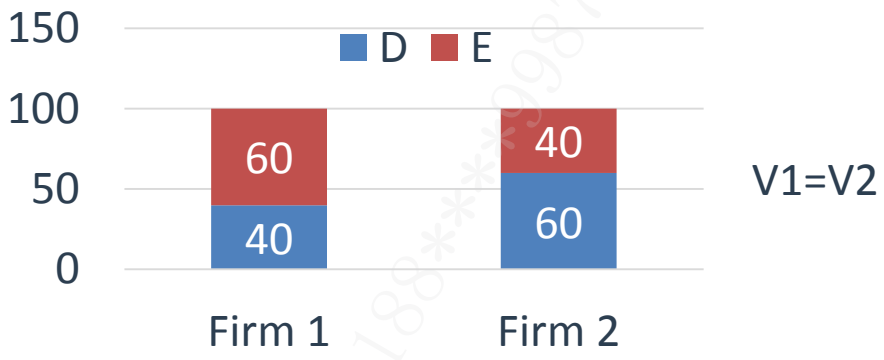
Under different assumptions of taxes, transaction costs, and bankruptcy costs, there are different conclusions.

Capital Structure Theory

- **Basic assumptions for MM theory**
  - **Homogenous expectations**
    - ✓ Investors agree on the expected cash flow from a given investment.
  - **Perfect capital market**
    - ✓ Bonds and shares of stock are traded in a perfect capital market.
  - **Risk free rate**
    - ✓ Investors can borrow/lend at the risk-free rate.
  - **No agency costs**
    - ✓ Managers act to maximize shareholder wealth.
  - **Independent decisions**
    - ✓ Financing decision and investment decision are independent.

Capital Structure Theory

- **MM proposition 1 without taxes: capital structure irrelevance**
  - Conclusion
    - ✓ The market value of a company is not affected by the capital structure.



Capital Structure Theory

- **MM proposition 1 without taxes: capital structure irrelevance**
  - Value is not created simply by changing company's capital structure;
  - With the increase in leverage, the increase in equity returns is offset by increases in the risk and the associated increase in the required rate of return on equity.
  - For simplification, assume 2 firms have the same cash flow (FCFF) and uncertainty.
  - The firm value is the same as the discount rate is the same.

Capital Structure Theory

- **MM proposition 2 without taxes: higher leverage raises the cost of equity**
  - The cost of equity is a linear function of D/E;
  - Assumption
    - ✓ Financial distress has no cost;
    - ✓ Debt holders have prior claim to assets and income → $r_d < r_e$
  - r_e rises with higher D/E to offset the increased use of cheaper debt to maintain constant WACC.

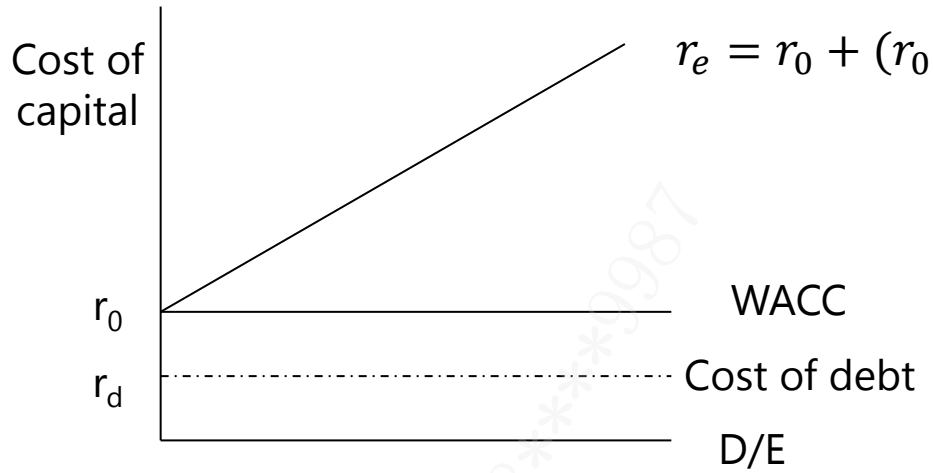
$$r_{WACC} = \frac{D}{V} r_d + \frac{E}{V} r_e$$

  - Let us define r_0 as the cost of capital for a company financed only by equity (an "all-equity company"). Then, by MM Proposition I, $r_{wacc} = r_0$, so

$$r_{WACC} = \frac{D}{V} r_d + \frac{E}{V} r_e = r_0$$

Capital Structure Theory

- **MM proposition 2 without taxes: higher leverage raises the cost of equity**



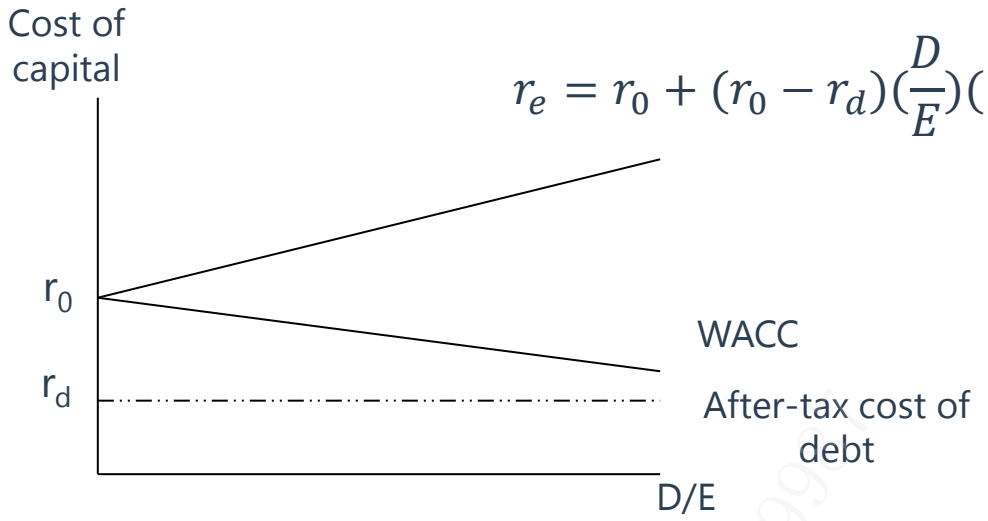
$$\beta_a = (\frac{D}{V})\beta_d + (\frac{E}{V})\beta_e \Rightarrow \beta_e = \beta_a + (\beta_a - \beta_d)\frac{D}{E} \qquad V = \frac{EBIT}{r_0}$$

The r_0 is not determined by capital structure, but by business risk of the company.

Capital Structure Theory

- **MM proposition 1 (with taxes)**
  - The tax deductibility of interest payment creates a tax shield that adds value to the firm, and the optimal capital structure is 100% debt.
  - $V_L = V_u + t \times D$
- **MM proposition 2 (with taxes)**
  - WACC is minimized at 100% debt.
  - We do not consider the costs here
    - ✓ Cost of financial distress;
    - ✓ Cost of bankruptcy.

Capital Structure Theory



$$r_e = r_0 + (r_0 - r_d)(\frac{D}{E})(1-t)$$

$$V_L = \frac{EBIT(1-t)}{WACC}$$

$V_L = D + E$ （公司价值 = 股权价值 + 债权价值）

$$V_L = V_U + t \times D \Rightarrow V_U = V_L - t \times D = (D+E) - t \times D = E + (1-t)D$$

$$V_U = \frac{EBIT(1-t)}{r_0} \Rightarrow EBIT(1-t) = V_U \times r_0 = [E + (1-t)D] \times r_0$$

$$r_e = \frac{NI}{E} = \frac{(EBIT - r_d \times D)(1-t)}{E} = \frac{EBIT(1-t) - r_d \times D(1-t)}{E}$$
$$= \frac{[E + (1-t)D] \times r_0 - r_d \times D(1-t)}{E} = \frac{r_0 \times E + r_0(1-t)D - r_d \times D(1-t)}{E}$$
$$= r_0 + r_0(1-t)\frac{D}{E} - r_d \times (1-t)\frac{D}{E} = r_0 + (r_0 - r_d)(\frac{D}{E})(1-t)$$

Short summary for MM theory

- **Difference between Proposition 2 without taxes and with taxes**
  - When t ≠ 0, (1 - t) lowers cost of leveraged equity compared to no-tax case.
    - ✓ re becomes greater as the company increases the debt financing, but re does not rise as fast as it does in the no-tax case. Because the slope coefficient (r0-rd)(1-t) < (r0-rd) in the case of no taxes;
    - ✓ WACC for the leveraged company falls as debt increases, and overall company value increases;
    - ✓ If taxes are considered but financial distress and bankruptcy costs are not, debt financing is highly advantageous;
    - ✓ In extreme, optimal capital structure is all debt.

	Without taxes	With taxes
Proposition 1	$V_L=V_U$	$V_L=V_U+t*D$
Proposition 2	$r_e= r_0+(r_0-r_d)*D/E$	$r_e= r_0+(r_0-r_d)(1-t)*D/E$

Summary

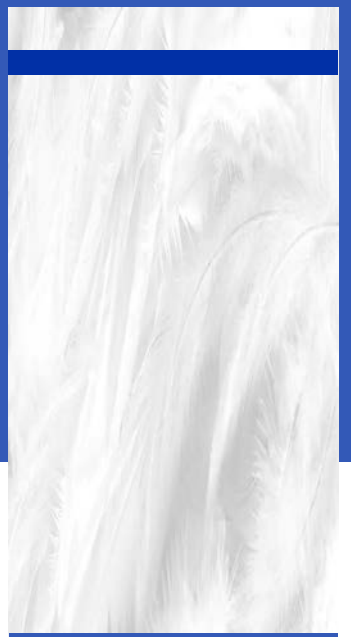
Capital Structure

MM Propositions

Basic assumptions for MM theory,
MM proposition 1 without/with taxes,
MM proposition 2 without/with taxes

Static Trade-off Theory

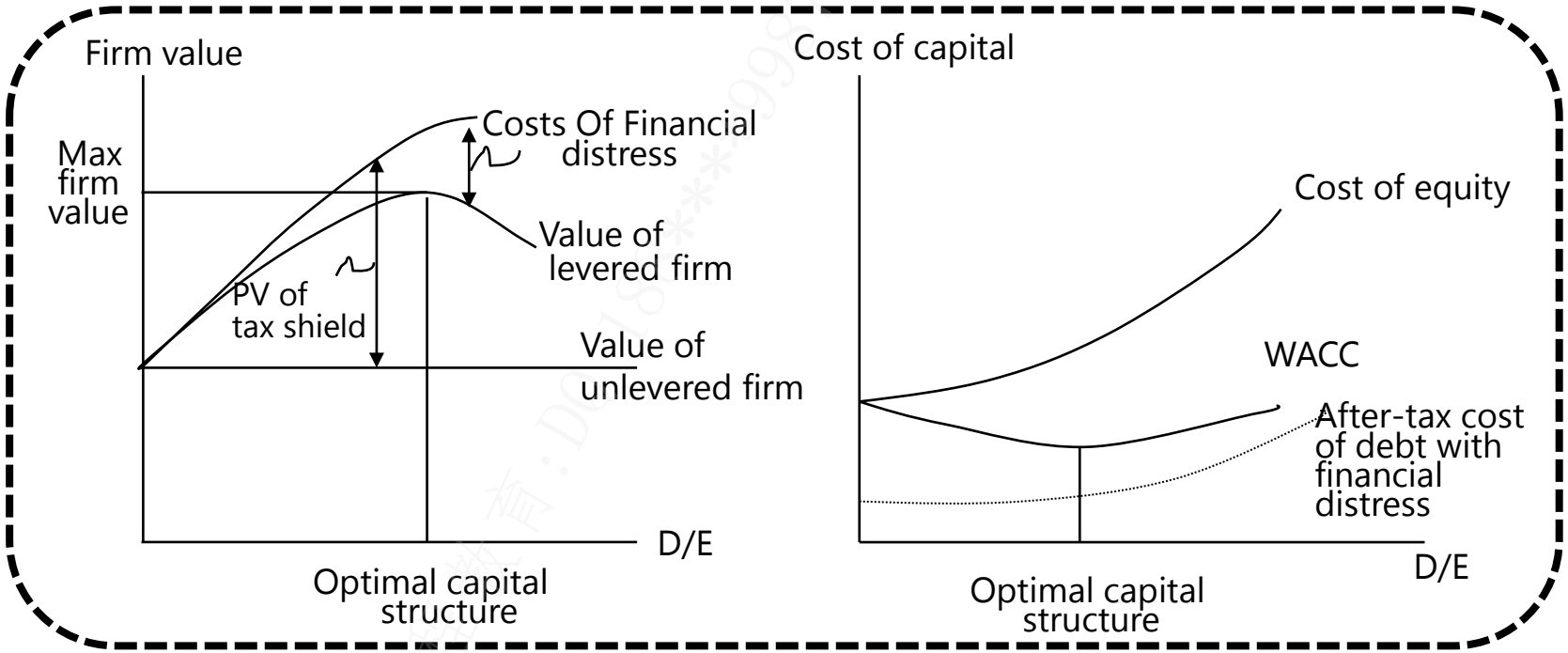
- Static trade-off theory
- Cost of financial distress
- Agency cost



Static Trade-off Theory

- **The static trade-off theory** is a theory pertaining to a company's optimal capital structure;
- The optimal level of debt is found at the point where additional debt would cause the costs of financial distress to increase by a greater amount than the benefit of the additional tax shield.

$$V_L = V_U + (t \times d) - \text{PV(Costs of Financial Distress)}$$



Costs of financial distress

- **Financial distress** refers to the heightened uncertainty regarding a company's ability to meet its various obligations because of diminished earnings power or actual current losses.
- **Cost of financial distress**
  - **Direct costs:** actual cash expenses associated with the bankruptcy process, such as legal and administrative fees.
  - **Indirect costs:**
    - ✓ Forgone investment opportunities
    - ✓ Reputational risk
    - ✓ Impaired ability to conduct business
    - ✓ Agency costs of debt, during periods in which the company is near or in bankruptcy.
- **Probability that financial distress and bankruptcy happen**
  - Operating leverage and financial leverage;
  - Quality of management and corporate governance structure.

Agency Costs

- **Agency cost**
  - The **smaller stake** the mangers have, **HIGHER cost**;
  - **Net agency cost of equity** consist of three components
    - ✓ **Monitoring costs** are the costs borne by owners to monitor the management of the company;
    - ✓ **Bonding costs** are the costs borne by management to assure owners that they are working in the owners' best interest;
    - ✓ **Residual losses** are the costs incurred even when there is sufficient monitoring and bonding, because monitoring and bonding mechanisms are not perfect.
- **The better the company is governed, the lower agency cost;**
- **The increase in use of debt decreases agency costs.**

Summary

Capital Structure

Static Trade-off Theory

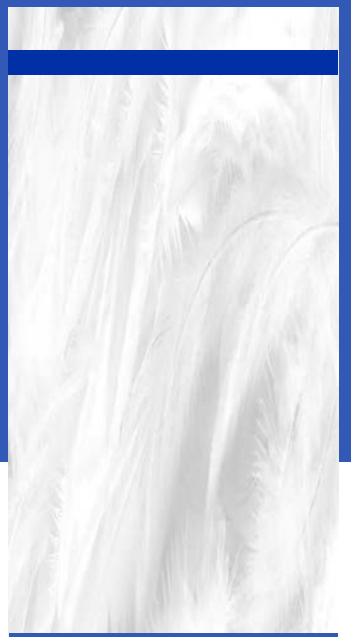
Static trade-off theory

Financial distress,

Agency cost

Pecking Order Theory

- Asymmetric information
- Types of Capital Structures



Asymmetric Information

- **Asymmetric information** arises from the fact that managers have more information about a company's performance and prospects than do outsiders.
- Providers of both debt and equity capital demand higher returns from companies with higher asymmetry in information because there is greater potential for conflicts of interest.
- **To address asymmetric information**
  - The company is to **tie financing to the event** that requires it or that might cause investor concern. This approach aims to reduce the extent of information asymmetry between managers and investors.
  - Another corporate response is to **avoid equity issuance**.
    - ✓ **Pecking order theory** suggests that the management of the company **prefers the way of financing that disclose less information**.
      - Financing sequential: **internal financing>debt>equity**.

Types of Capital Structures

- **Three types of capital structures:**
  - The theoretical point at which the value of the company is maximized is known as the **optimal capital structure**.
  - When a company recognizes its optimal capital structure, it may adopt it as its target capital structure. **But target capital structure may or may not equal to the optimal capital structure.**
  - Actual capital structure is set for a particular project, while targe capital structure is measured at the consolidated company level.

Summary

Capital Structure

Pecking Order Theory

Summary

Module : Capital Structure

MM Propositions

Static Trade-off Theory

Pecking Order Theory

Module

Business Models

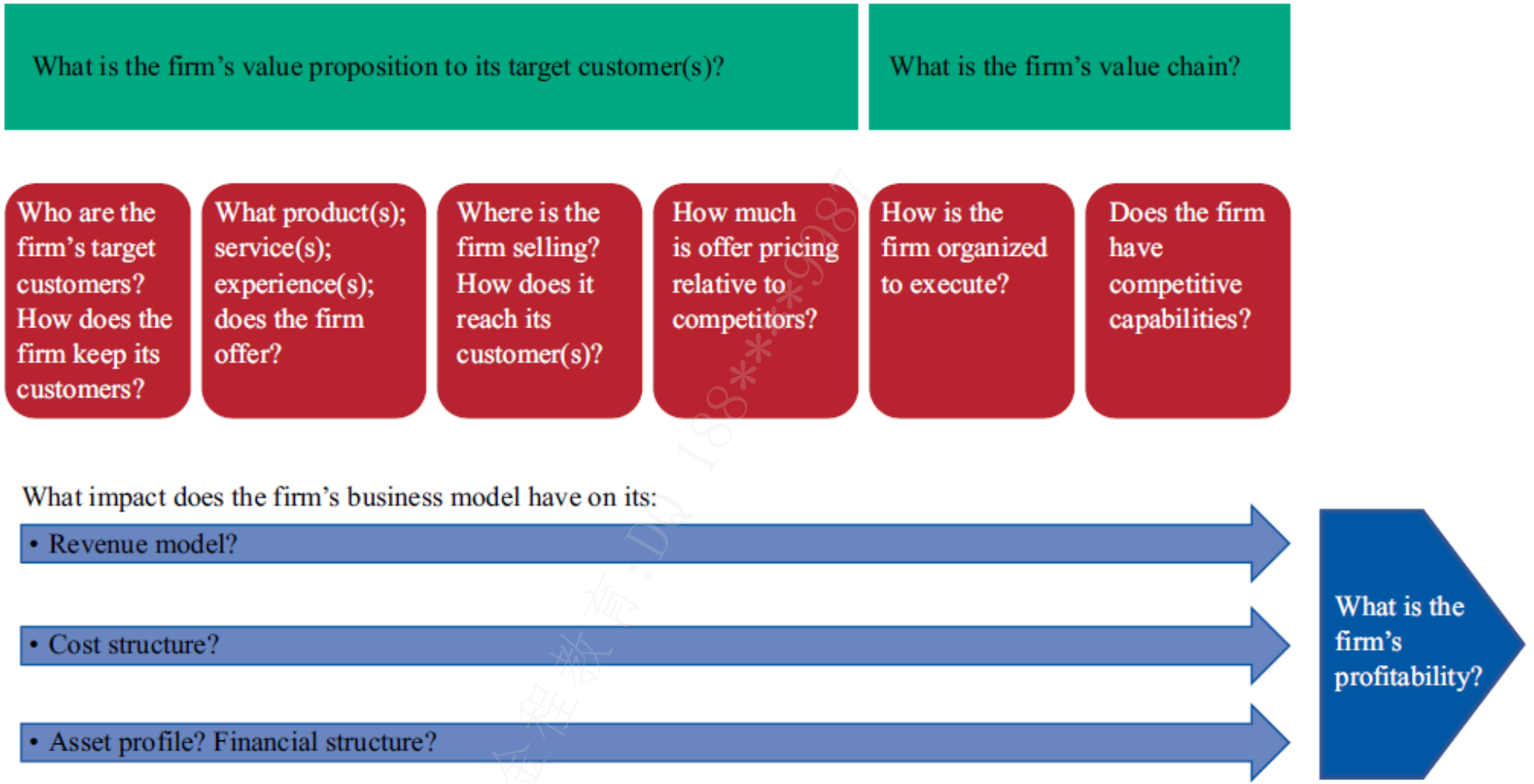
1. Defining the Business Model
2. Business Model Types

Business Models

- Definition of business model
- Key features of business model
- Business Model Innovation
- Business model variation
- External Factors
- Firm-Specific Factors

Definition

- **A business model** makes it clear what the business does, how it operates, and how it generates revenue and profits, as well as how it differs in these respects from its competitors.

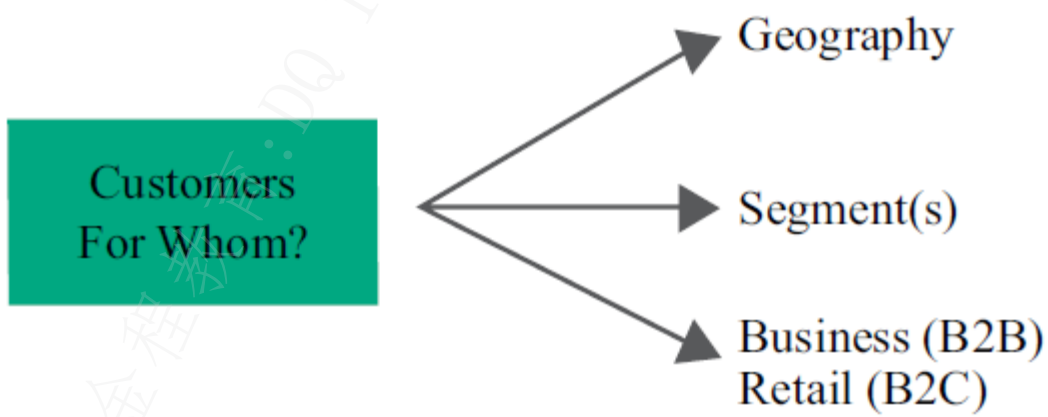


Key features of business model

- **Value Proposition**
  - Customers, Market: Who (Target customers).
  - Firm Offering: What (Product/service offering).
  - Channels: Where (Channel strategy).
  - Pricing: How Much(Pricing strategy).
- **Value Chain**
  - Business activities (assets, organization).
  - Value add and costs per activity.
  - Competitive advantage.
- **Profitability**
  - Margins.
  - Break-even points.
  - “Unit economics”: expressing revenues and costs on a per-unit basis.

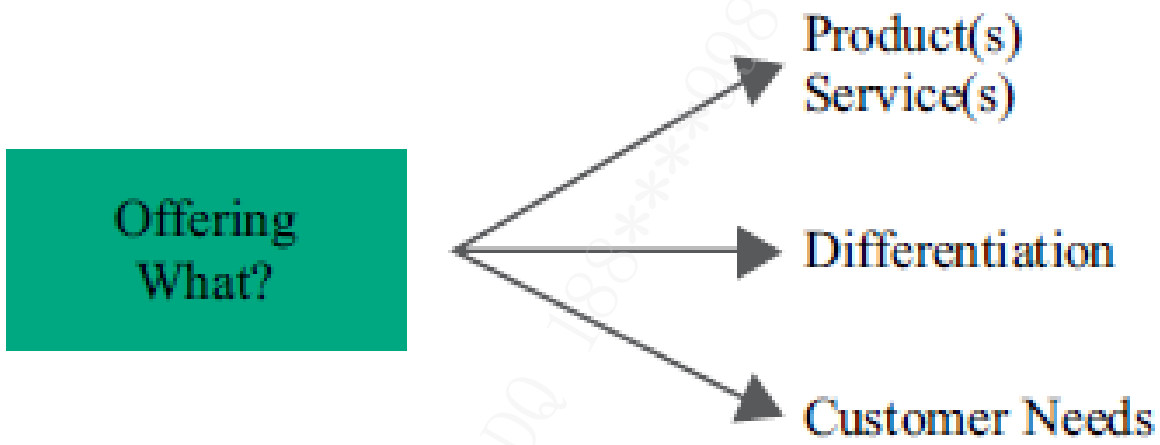
Value Proposition: Customers, Market: Who

- **The business model should identify the firm's target customers:**
  - What geographies will be served?
  - What market segments will be served?
  - What customer segments will be served? Is this a business (B2B) or consumer (B2C) market?
    - ✓ It is common in consumer markets to think of target demographic segments as defined by marketers (e.g., high-income suburban families).
    - ✓ Business opportunities often arise because established firms may not effectively serve (or even recognize) particular customer segments.



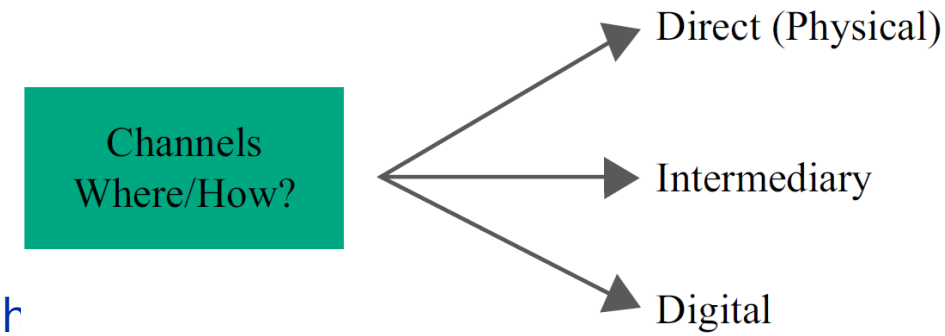
Firm Offering: What

- The business model should define **what the firm offers (what product or service),** in terms that differentiate it from competitor offerings, and with reference to the needs of its target customers.
  - This helps the analyst to understand the addressable market for the business and to identify key competitors and associated risks.

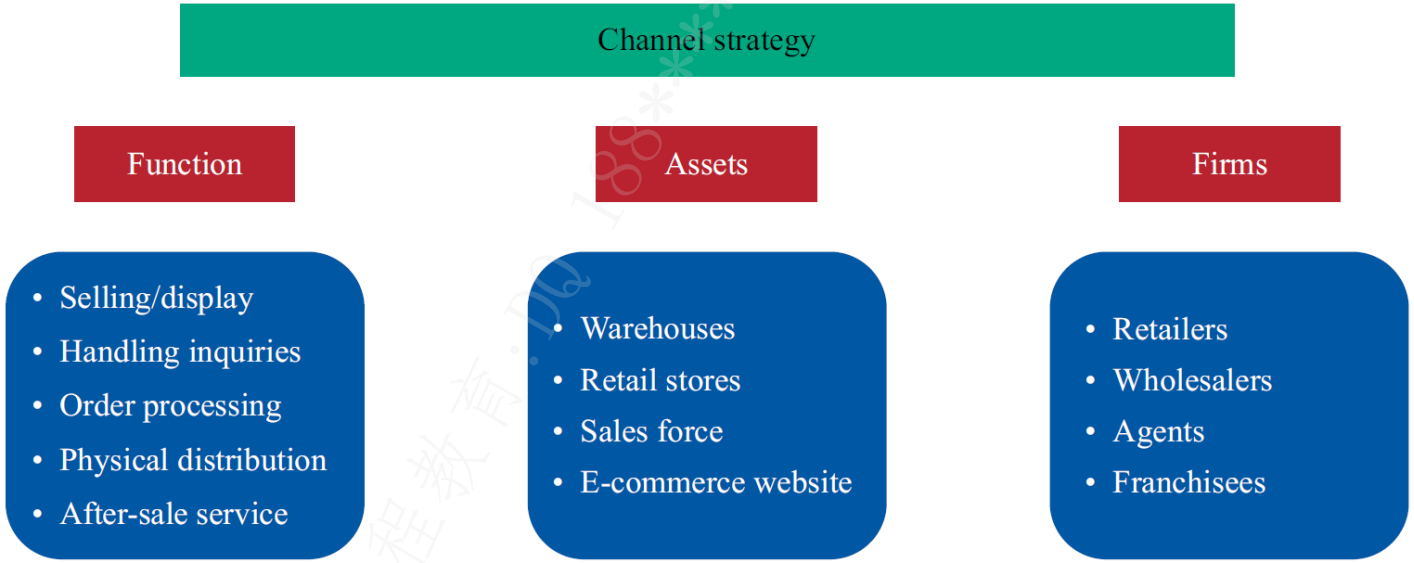


Channels: Where

- **Channel strategy usually involves two main functions:**
  - 1. Selling the firm's products and services
  - 2. Delivering them to customers

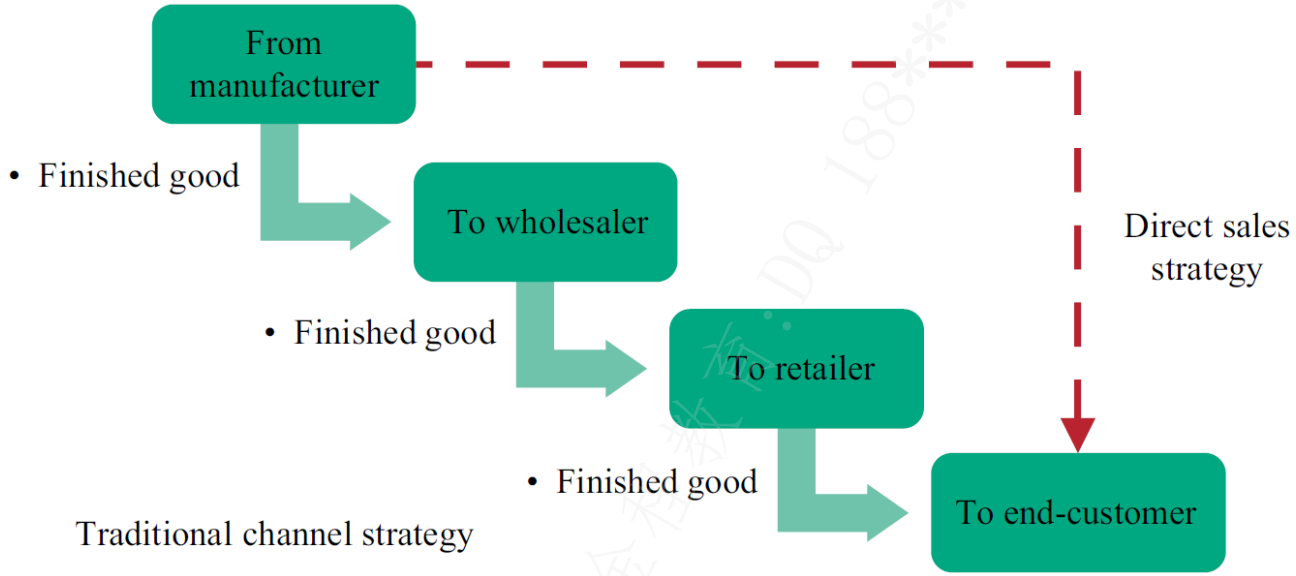


- In assessing a firm's channel strategy, it is important to distinguish that might be involved and different firms that might be involved in performing those functions or owning those facilities.



Channels: Where

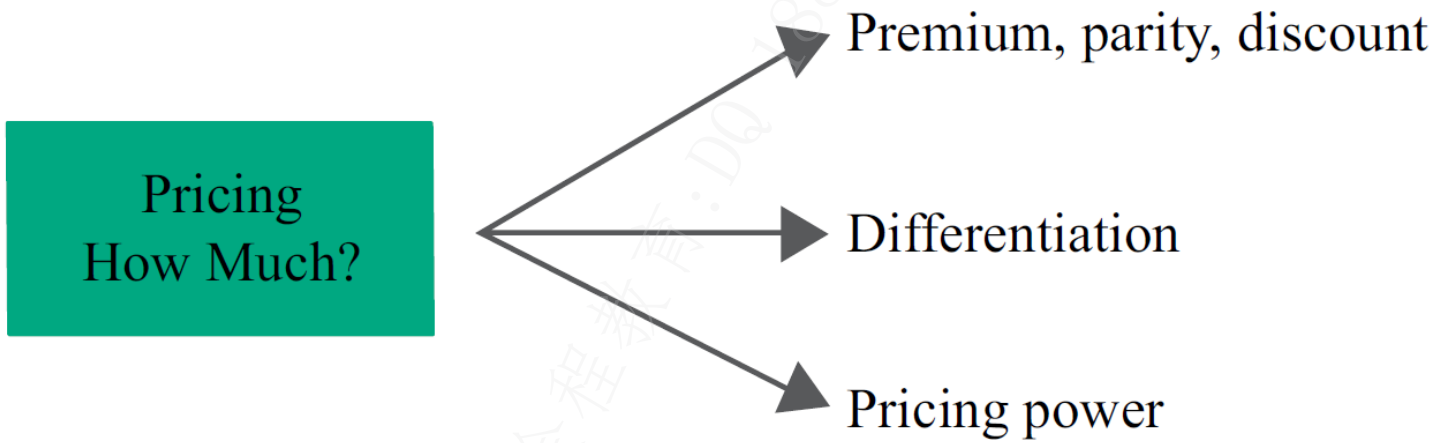
- For "product" businesses, the traditional channel strategy is typically reflected in the flow of finished goods (e.g., from manufacturer to wholesaler, retailer, and end customer), each with its own physical facilities and with the product sold and purchased at each stage.
- In some categories, manufacturers employ a direct sales strategy, selling directly to the end customer.
  - ✓ With e-commerce, however, direct sales have become a cost-effective strategy across many business and consumer markets.
- Often, channels are used in combination. With an **omnichannel** strategy, both digital and physical channels are used to complete a sale.



Drop shipping (without taking the goods into inventory.)

Pricing: How Much

- **Does the firm price at a premium, parity, or discount relative to competitors?**
  - Companies with little differentiation are **"commodity" producers** that must **accept market prices** dictated to them **("price taker (parity)").**
  - Companies with **high differentiation** can command **premium pricing ("price setter").**
  - Companies whose demand is **highly price-elastic** can command **discounting strategy**.
- **How is the firm's pricing justified in its business model?**
  - Pricing approaches are typically value or cost based.
    - ✓ Value-based pricing attempts to set pricing based on the value received by the customer.
    - ✓ Cost-based pricing attempts to set pricing based on costs incurred.



Pricing: How Much

- **Price Discrimination**
  - ✓ Common pricing strategies in this category include the following:
    - Tiered pricing charges different prices to different buyers, most commonly based on volume purchased.
    - Dynamic pricing charges different prices at different times.
    - Auction/reverse auction models establish prices through bidding (by sellers in the case of reverse auctions).
- **Pricing for Multiple Products**
  - ✓ Some pricing models are used by firms selling multiple or complex products:
    - Bundling refers to combining multiple products or services so that customers are incentivized, or required, to buy them together.
    - Optional product pricing applies when a customer buys additional services or product features, either at the time of purchase (e.g., a deluxe interior for a car or a side order with a restaurant meal) or afterward (e.g., change orders in a construction contract).

Pricing: How Much

- **Pricing for Rapid Growth**
  - ✓ Penetration pricing is an example of discount pricing and is used when a firm willingly sacrifices margins in order to build scale and market share.
  - ✓ Freemium pricing allows customers a certain level of usage or functionality at no charge—for example, with news content, a software application, or a game.
  - ✓ Hidden revenue business models provide services to users at no charge and generate revenues elsewhere.
- **Alternatives to Ownership**
  - ✓ Recurring revenue/subscription pricing ("product as a service") enables customers to "rent" a product or service for as long as they need it.
  - ✓ Fractionalization creates value by selling an asset in smaller units or through the use of an asset at different times
  - ✓ Leasing involves shifting the ownership of an asset from the firm using it to an entity that has lower costs for capital and maintenance.
  - ✓ Licensing typically gives a firm access to intangible assets (e.g., a brand name or intellectual property, such as a film library, song, or patented formula) in return for royalty payments (often a percentage of revenues).

Value chain vs. supply chain

- **Value chain:** the systems and processes within a firm that create value for its customers.
  - A value chain includes only those functions performed by a single firm, which may be functions that are valued by customers but do not involve physical transformation or handling the product.
- **Supply chain:** the sequence of processes involved in the creation of a product, both within and external to a firm.
  - A supply chain includes all the steps involved in producing and delivering a physical product to the end customer, regardless of whether those steps are performed by a single firm (multiple firms).

Value chain

- **Value chain** analysis provides a link between the firm's value proposition for customers and its profitability. It involves:
  - **1.** identifying the specific activities carried out by the firm,
  - **2.** estimating the value added and costs associated with each activity,
  - **3.** identifying opportunities for competitive advantage.

Evaluating the value chain

- **Five primary activities**: inbound logistics, operations, outbound logistics, marketing, and sales and service.
- **Four primary "support" activities** are procurement, human resources, technology development, and firm infrastructure.

Business Model Innovation

- **Location matters less.**
- **Outsourcing is easier.**
- **Digital marketing** makes it easy and cost-effective to reach very specific groups of customers.
- **Network effects:** increase in value of a network to its users as more users join.
  - **Two-sided (multi-sided) network** effects apply to two or more groups of users.
    - ✓ E.g. employment website.
  - **One-sided network** effects apply in the case when users are a single, homogeneous group.
    - ✓ E.g. social network of train collectors.

Business Model Variation

- **Private label or "contract" manufacturers** that produce goods to be marketed by others. This is an extremely common arrangement, particularly for offshore production.
- **Licensing arrangements** in which a company will produce a product using someone else's brand name in return for a royalty.
  - For example, when manufacturers might pay for the right to use the name of a famous film character, a sports team, or a brand that has become popular in a related category (e.g., sporting goods).
- **Value added resellers** that not only distribute a product but also handle more complex aspects of product installation, customization, service, or support.
- **Franchise models** in which distributers or retailers have a tightly defined and often exclusive relationship with the parent (franchisor) company.

Business Model Variation

- **E-commerce** Business Models
  - **Affiliate marketing** generates **commission** revenues for sales generated on others' websites. E.g. CJ Affiliate, Awin, and Leadbit.
  - **Marketplace businesses** create networks of buyers and sellers without taking ownership of the goods during the process. Examples include Alibaba, eBay, Mercado Libre, and Etsy.
  - **Aggregators** are similar to marketplaces, but the aggregator re-markets products and services under its own brand. Examples include Uber and Spotify.

Business Model Variation

- **Crowdsourcing：to contribute directly** to a product, service, or online content.
  - Examples include contests and competitions; online gaming; **product development**, such as open source software; knowledge aggregation, such as **Wikipedia** and Waze/Google Maps; fan or hobbyist clubs; and networks of tradespersons or professionals.
- **Hybrid Business Models**: combining platform and traditional "linear" businesses.
  - **With a platform business model (technology + non-technology firms),** value is created in the network, outside the firm.
  - With a **linear business model (traditional)**, value is added by the firm.
- For example, **Amazon's** core business has both traditional elements (goods distribution) and platform elements (online marketing and advertising).

External Factors

- **Economic conditions** affect almost all businesses.
- **Demographic trends** influence the overall economy, but in certain markets, they are important in their own right.
- **Sector demand** characteristics vary by industry. Some industries, such as consumer staples, have very stable and predictable demand, while others, such as industrial machinery, are more cyclical.
- **Industry cost characteristics**, such as capital intensity and operating leverage, are also important.
- The **political, legal, and regulatory environment** is also a key "external" factor for many businesses.
- **Social and political trends:** Shifts in public opinion and tastes often precede changes in consumer buying behavior or the political/legal environment.

Firm-Specific Factors

- **Firm maturity or stage of development of the business:** A startup or early-stage business typically requires more capital, such as that needed to finance new facilities or for "investment spending" on product development, marketing/sales, working capital, and/or startup losses, and presents more business risk than a more mature business.
- **Competitive position:** A company with strong barriers to competition, also referred to as a "wide moat," will have lower business and financial risk than one that does not, other things being equal.
- **Business model**
  - Asset-light business models shift the ownership of high-cost assets to other firms.
  - Lean startups extend this logic to human resources, outsourcing as many functions as possible. Technology companies frequently adopt this approach, to accelerate their development and to increase their agility.
  - Pay-in-advance business models reduce or eliminate the need for working capital.

Summary

Module : Business Models

Defining the Business Model

Business Model Types

问题反馈

- 如果您认为金程**课程讲义/题库/视频**或其他资料中**存在错误，欢迎您告诉我们，**所有提交的内容我们会在最快时间内核查并给与答复。
- **如何告诉我们？**
  - 将您发现的问题通过扫描右侧二维码告知我们，具体的内容包含:
    - ✓ 您的姓名或网校账号
    - ✓ 所在班级
    - ✓ 问题所在科目(若未知科目，请提供章节、知识点和页码）
    - ✓ 您对问题的详细描述和您的见解
- **非常感谢您对金程教育的支持，您的每一次反馈都是我们成长的动力。**

求知无坦途。

There is no royal road to learning.