

Corporate Issuers

公司发行人

Level I



王牌陈讲CFA

陈一磊，CFA/FRM双证持证人，高顿教育资深总监，首席讲师

□ 学神级别的开挂人生

- 中考、高考、研究生一路以第1名身份保送
- 本科阶段就读复旦大学财务金融系，GPA全系第一，获管理学学士学位和法学学士学位；研究生阶段就读复旦大学管理学院
- 以全优成绩通过CFA三个级别考试；一天时间以全优成绩同时通过FRM两个级别考试

□ 财经讲师的王牌之路

- 全职加入高顿财经前，就职于国有商业银行总行和华尔街投行，同时以兼职身份承担高顿CFA/FRM教学工作
- 逾12年教龄，CFA/FRM培训界的教父级人物，学员遍布全球



王牌陈讲CFA



抖音 陈一磊讲CFA

王牌陈讲CFA

极速串讲 一级公金



企业组织与公司治理

1. 企业组织形式及其特点

Organizational Forms of Business				
	Sole Proprietor	Partnership		Corporation (Limited Company)
		General Partnership	Limited Partnership	
Independent legal entity		No		Yes
Operated by	Owner	Partners	General Partner	Managers & board
Owner's liability		Unlimited	Unlimited for GP Limited for LP	Limited
Taxation	Pass-through: personal tax			Corporation on profits Personal on dividends
Access to financing	Limited by owner's ability	Limited by partner's ability	Limited by ability of GP/LP	Unlimited access to capital & business potential

4

2.1 上市公司和非上市公司的对比

- Exchange listing, liquidity, and price transparency
 - **Private:** not trade on exchange, difficult to transfer shares, greater chance of owner/manager overlap
 - **Public:** trade on exchange, easy to transfer shares
- Registration and disclosure requirements
 - **Private:** non-financial disclosure
 - **Public:** shares registered, both financial & non-financial disclosure
- Share issuance
 - **Private:** issue shares through a private placement with a legal document to accredited investors
 - **Public:** issue shares in the capital market with much larger size capital raised from time to time

5

2.2 上市公司和非上市公司的转换

- Private → Public
 - Initial public offering (IPO)
 - Acquisition
 - Acquired by a public company
 - Special Purpose Acquisition Company (SPAC): blank check
 - Direct listing (DL)
 - No new shares issued, no underwriter involved
 - Faster, at a lower cost
- Public → Private
 - Take-private / go-private

2.3 公司上市数量的趋势变化

- Emerging markets: number of public companies increases
- Developed markets: number of public companies declines
 - Mergers and acquisitions
 - Growing number of private capital sources available
 - Private companies remain private

6

3.1 债务融资和股权融资

Issuer Perspective	Debt	Equity
Cost of capital	Lower	Higher
Attractive when future performance is	predictable	unpredictable
Risk & Financial leverage	Higher	Lower

3.2 债权投资和股权投资

Investor Perspective	Debt	Equity
Capital tenor	Finite	Indefinite
Interests	Prior and fixed claims	Residual claims
Maximum loss	Initial investment	Initial investment
Return potential	Capped	Unlimited
Investment risk	Lower	Higher
Voting rights	No	Yes

7

4.1 公司治理和利益相关方理论

- **Corporate governance** is the system of internal controls and procedures by which individual companies are managed
 - **Shareholder theory** takes the view that the most important responsibility of a company's managers is to **maximize shareholder value**
 - **Stakeholder theory** focuses on the **interest of all stakeholder groups**, and try to **minimize and manage the conflicting interests between stakeholders**
- Stakeholder groups
 - Shareholders ■ Customers ■ Managers and employees
 - Board of directors ■ Suppliers ■ Government
 - Debt-holders
 - **Private debt-holders** have **more direct access** to management and non-public information than bondholders

1-1

8

4.2 委托代理问题

- Shareholder **vs.** Management Shareholder **vs.** Board director
 - **Entrenchment**: avoiding risks to retain jobs ■ **Empire building**
 - Inappropriate risk appetite
 - Stock grants and options dominate: **excessive risk-taking**
 - Little or no use of stock grants and options: **risk-averse**
 - Insufficient effort ■ Self-dealing
- Controlling **vs.** Minority shareholder
 - Concentrated ownership (not dispersed ownership)
 - Dual-class structure
- Shareholders **vs.** Creditor (Debtholder)
 - Different structure of risks and returns

2-2

9

5.1 公司治理的常用机制

1. Corporate reporting and transparency
2. Shareholder mechanisms

① Shareholder meetings

- Annual general meeting (AGM)
- Extraordinary general meeting (EGM)
- Proxy voting: authorize another to vote

Special elections of board members

Amendments to bylaws or articles of association

Mergers and acquisitions, takeovers, and asset sales
Capital increases and voluntary firm liquidation

② Shareholder activism (e.g., hedge funds)

③ Shareholder litigation (e.g., shareholder derivative lawsuits)

④ Corporate takeovers

- Proxy contest, tender offers, hostile takeover
- Anti-takeover measures

Staggered board elections: dilute shareholder voting rights

Poison pill

5.1 公司治理的常用机制

3. Board and management mechanisms

All members are independent,
as best practices

- Audit committee: monitors the financial reporting process, supervises the internal audit function, and recommends external auditors
- Remuneration (compensation) committee: develops and proposes remuneration policies for the directors and key executives, with shareholders' say on pay
- Nomination / Governance committee: appraises director and manager candidates, and oversees the board election process, the establishment, and enforcement of corporate policies
- Additional committee
 - Risks committee
 - Investment committee

5.1 公司治理的常用机制

4. Creditor mechanisms

- Bond indenture
- Creditor committees, Ad hoc committee

5. Other mechanisms

① Employee mechanisms

- Labor laws, employment contracts

② Customer and supplier mechanisms

- Contractual agreement

③ Government mechanisms

- Laws and regulations

④ Social media

- Guiding principles: corporate governance codes

5.2 公司治理的影响

□ Risks of poor governance

- Weak control systems
- Legal, regulatory, reputational risks

- Default and bankruptcy risks

- Poor decision making, improperly avoiding investments that create shareholder value

6. ESG考量

- Environmental, social, and governance (ESG) factors are increasingly prioritized in investment decisions

1. Environmental factors

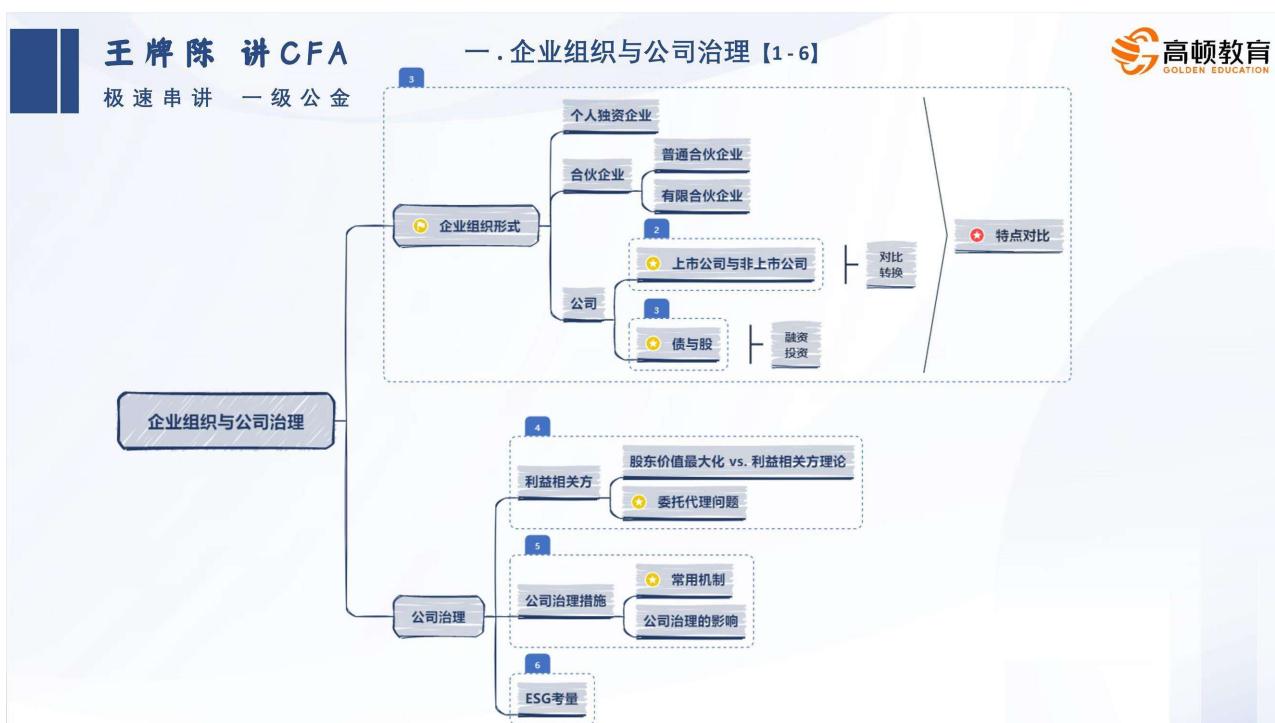
- Climate change
 - Physical risk
 - Transition risk (e.g. stranded assets)
- Pollution and waste, deforestation, water scarcity, biodiversity

2. Social factors:

firm's practices concerning, and their impacts on, its employees and human capital, customers, and communities in which it operates

3. Governance factors

- Corporate governance & stakeholder management
- Evolved **more quickly** into investment analysis than environmental & social factors, and government continues to **prioritize** climate change and social policies



7.1 流动性的来源

□ Primary liquidity sources

- Cash and marketable securities on hand: be sold quickly **without significant loss of value**
- **Borrowings or suppliers' trade credit**
- Cash flow from the business
 - **Cash flow from operations**
 - **Free cash flow** = CFO – investments in long-term assets

□ Secondary liquidity sources

- Suspend or reduce dividends to shareholders
- Delay or reduce capital expenditures: miss opportunities and impair long-term value
- Issue equity: dilution for existing shareholders
- Renegotiate contract terms
- Sell assets
- File for bankruptcy protection and reorganization
 - Liquidation costs
 - ① Fees and commissions for selling an asset
 - ② Reduction in value due to asset's illiquidity

16

7.2 流动性的恶化

□ Drags on liquidity: decelerate cash inflows

- Uncollected receivables; obsolete inventory; borrowing constraints

□ Pulls on liquidity: accelerate cash outflows

- Making payment early; reduced trade credit limits or short-term lines of credit; chronic liquidity shortages

7.3 流动性管理的相关指标

□ Generally, the **higher** the liquidity ratios, the better a company's liquidity

- ◆ **Current Ratio** = current assets / current liabilities
- ◆ **Quick Ratio** = (cash + short term marketable security + receivable) / current liabilities
- ◆ **Cash Ratio** = (cash + short term marketable security) / current liabilities

17

8. 经营效率管理的相关指标

□ **Cash conversion cycle** is a measure of the " time from paying suppliers for inventory to collecting cash from the subsequent sale of goods

◆ **Cash conversion cycle**

$$= \text{Days of inventory on hand (DOH)} + \text{Days sales outstanding (DSO)} - \text{Days payable outstanding}$$

□ The shorter or even **negative** conversion cycle, the more efficient business operations

9. 应付账款优惠条款

□ Payment terms of trade payables of "**a / m, net n**"

□ **Effective annual rate (EAR)** on the trade credit

$$= \left[\left(1 + \frac{\text{Discount\%}}{100\% - \text{Discount\%}} \right)^{\frac{\text{Days in Year}}{\text{Payment Period} - \text{Discount Period}}} \right] - 1 = \left[\left(1 + \frac{a\%}{100\% - a\%} \right)^{\frac{365}{n-m}} \right] - 1$$

18

10.1 营运资本的计算

- ◆ Total working capital = current assets – current liabilities
- ◆ Net working capital = (current assets – cash & marketable securities)
– (current liabilities – short term & current debt)

10.2 营运资本的管理方式

- **Conservative**
 - More cash, receivables and inventories
 - More reliance on long-term funding sources
- **Aggressive**
 - Minimize excess cash, receivables and inventories
 - More reliance on short-term funding sources
- **Moderate:** between the two approaches above

19

10.2 营运资本的管理方式

Approaches	Financing sources		Risk / Return
Aggressive	Variable current asset	← Short-term liabilities	Higher
	Permanent current asset		
	Non-current asset	← Long-term debt and equity	
Moderate	Variable current asset	← Short-term liabilities	Moderate
	Permanent current asset		
	Non-current asset	← Long-term debt and equity	
Conservative	Variable current asset	← Short-term liabilities	Lower
	Permanent current asset		
	Non-current asset	← Long-term debt and equity	

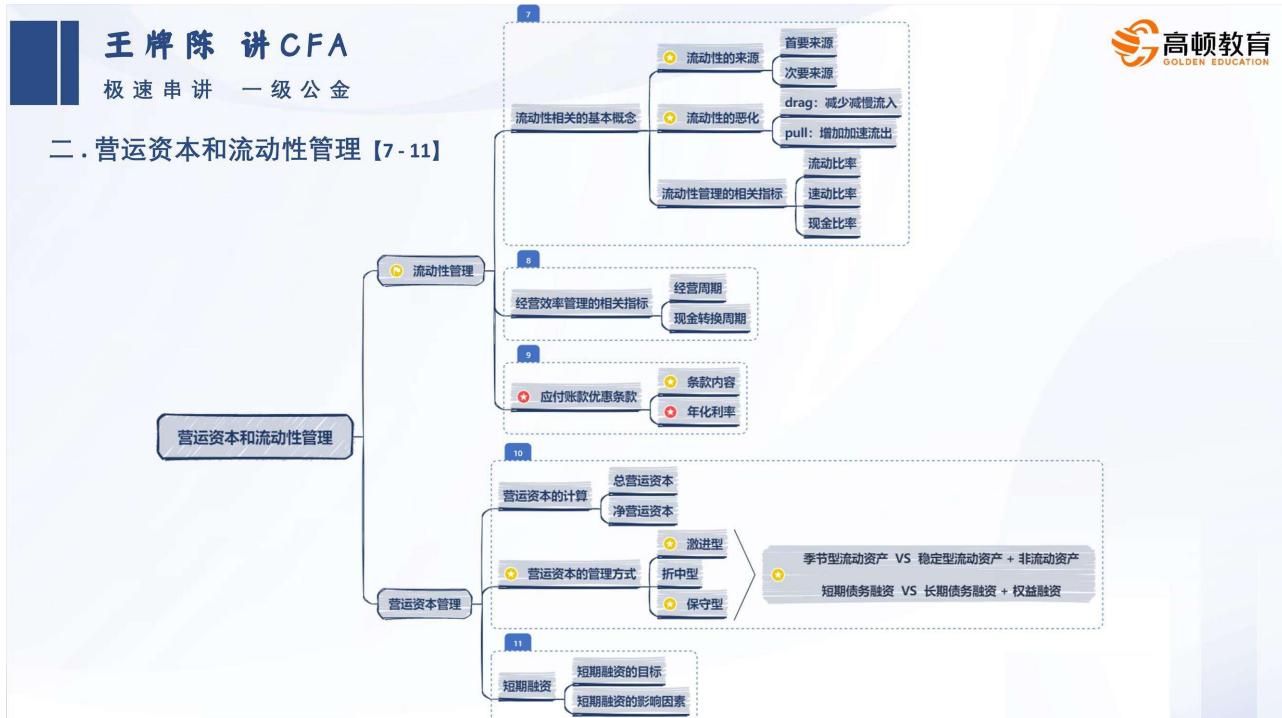
20

11. 短期融资

- Major objectives of short-term financing
 - Maintain sufficient and diversified sources of credit to fund ongoing cash needs
 - Secure adequate funding capacity to handle the firm's changing cash needs
 - Ensure that rates, terms and conditions competitive
 - Ensure both implicit and explicit financing costs are considered
- Factors influence short-term funding strategy
 - Company size and creditworthiness
 - Legal and regulatory constraints
 - Underlying assets as collaterals

21

二. 营运资本和流动性管理【7-11】



资本投资

12. 资本投资项目分类

1. Business maintenance

① Going concern (maintenance)

- Continue current operations
- Improve efficiency
- Risk management

② Regulatory / Compliance

2. Business growth

① Expansion of existing business: low to moderate risk

- Expand business size or scope
- R&D and acquisitions *within* core business

② New lines of business and other: high risk

- R&D and acquisitions *outside* current business

13.1 资本投资的基本原则

After-tax incremental cash flows

- Include: externalities (negative or positive effect) and opportunity cost
- Exclude: sunk costs, which is the cost have already been incurred

Timing of cash flows

13.2 投资决策：净现值

Net present value (NPV) is the sum of the present value of all the after-tax incremental cash flows

$$\text{■ } \text{NPV} = \text{CF}_0 + \frac{\text{CF}_1}{(1+r)^1} + \frac{\text{CF}_2}{(1+r)^2} + \dots + \frac{\text{CF}_n}{(1+r)^n} = \text{initial investment} + \text{PV of future CF}$$

- r : require rate of return of capital suppliers & cost of capital of capital receivers

Investment decision criteria for single or independent project

- If NPV > 0, then accept & invest
- If NPV < 0, then reject & deny & do not invest

Advantages: directly reflects the expect change of firm's value

Disadvantages: ignore the size of the project

25

13.3 投资决策：内部回报率

Internal rate of return (IRR) is the discount rate that makes the total present value of

all cash flows, the NPV, equal to zero

$$\text{◆ } \text{NPV} = 0 = \text{CF}_0 + \frac{\text{CF}_1}{(1+\text{IRR})^1} + \frac{\text{CF}_2}{(1+\text{IRR})^2} + \dots + \frac{\text{CF}_n}{(1+\text{IRR})^n}$$

Advantage: it reflects the profitability

Disadvantages:

- For projects with non-conventional cash flows, there may be multiple IRRs or no IRR
 - Conventional cash flows: cash flows change signs once
 - Non-conventional cash flows: cash flows change signs more than once
- Impractical assumption of reinvestment rate (IRR)

For single or independent project with conventional cash flows, NPV and IRR give the same judgement

- If NPV > 0, IRR > cost of capital, then accept the project
- If NPV < 0, IRR < cost of capital, then reject the project

26

13.4 投资决策：资本回报率

Return on invested capital (ROIC) is a measure the profitability relative to the amount of total capital invested

$$\text{◆ } \text{ROIC} = \text{after-tax operating profit} / \text{average invested capital}$$

$$= (\text{operating profit} \times (1 - \text{tax rate})) / \text{average total long term liabilities \& equity}$$

- Working capital is not included in invested capital

If ROIC > cost of capital, firm is creating value for investors

$$\text{□ Decomposition of ROIC: } \text{ROIC} = \frac{\text{after tax operating profit}}{\text{sales}} \times \frac{\text{sales}}{\text{average invested capital}}$$

$$= \text{after-tax operating profit margin} \times \text{capital turnover}$$

Advantage: data for calculation is available to independent investment analysts

Disadvantages:

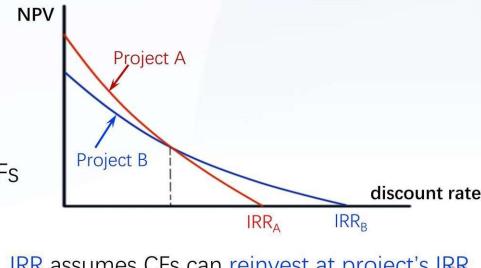
- An accounting, not cash-based measure
- Backward-looking and can be volatile from year to year
- A highly aggregated measure that may mask profitable or unprofitable areas

14.1 项目之间的关系

- Project interaction
 - **Independent projects:** projects are unrelated to each other
 - Accept all projects with **positive NPV**
 - **Mutually exclusive projects:** projects compete directly with each other
 - Choose the one with **highest positive NPV**
- Unlimited funds:** the firm can raise the funds it wants for all profitable projects
- Capital rationing:** the firm has a fixed amount of funds to invest
- Project sequencing:** projects should be taken in time order

14.2 多项目抉择的最终决策依据

- NPV and IRR project rankings may conflict due to:**
 - Different sizes of CFs ■ Different timing of CFs
 - Different reinvestment rate assumptions
 - NPV assumes CFs can **reinvest at the cost of capital**
 - IRR assumes CFs can **reinvest at project's IRR**



14.2 多项目抉择的最终决策依据

Consider the two investments below. The cash flows as well as the NPV and IRR for the two investments are given. For both investments, the required rate of return is 10%. What discount rate would result in the same NPV for both investments?

	Year 0	Year 1	Year 2	Year 3	Year 4
Investment 1	-100	36	36	36	36
Investment 2	-100	0	0	0	175

- A. A rate between 0% and 10%
- B. A rate between 10% and 15.02%
- C. A rate between 15.02% and 16.37%

29

15.1 实物期权的种类

- Types of **real options**
 - **Timing options** (eg. **delay investment option**)
 - **Sizing options** (eg. **abandonment option, growth option**)
 - **Flexibility options** (eg. **price-setting flexibility, production flexibility**)
 - **Fundamental options** (eg. **gold mine, oil well**)

15.2 实物期权对投资决策的影响

- ◆ **NPV (with option) = NPV (no option) + value of real options - cost of real option**
- Approaches of evaluating the value of real options
 - **Decision trees and option pricing models:** assign a **probability** and **expected timing** to future outcomes

30

16. 投资决策中常见的错误

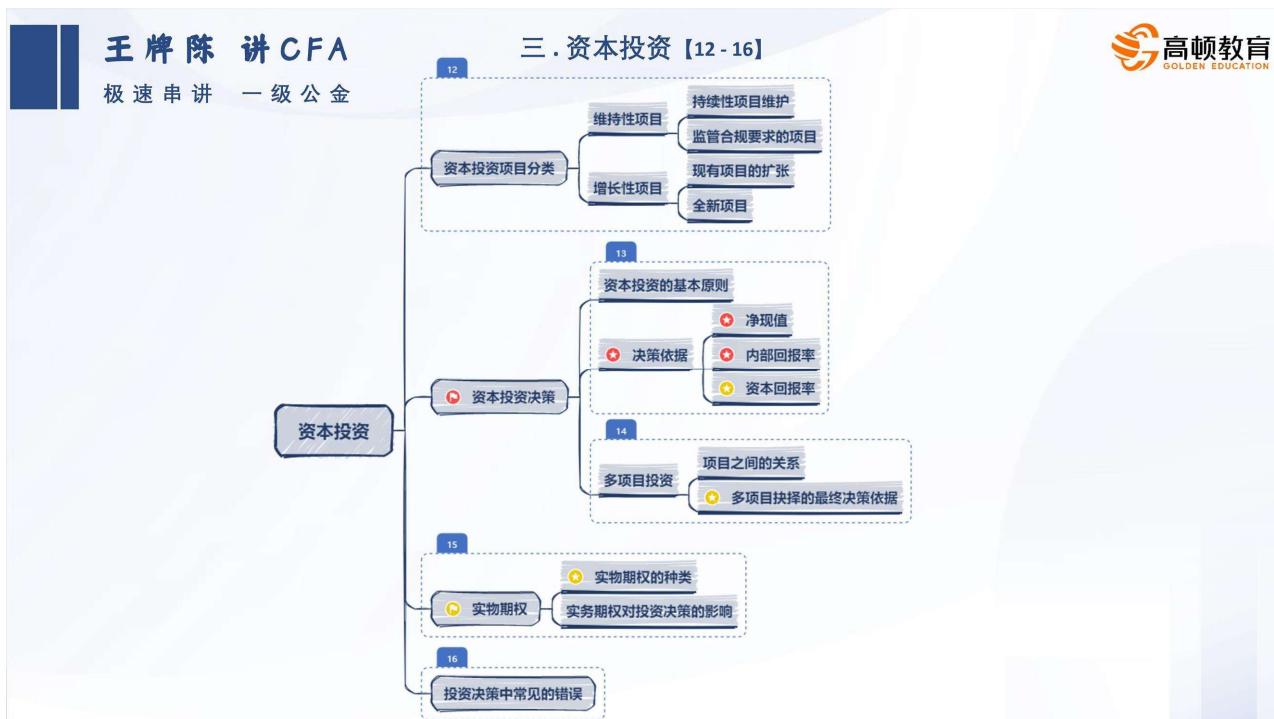
□ Cognitive errors

- Internal forecasting errors
 - Incorrect overhead costs or discount rate
 - Failure to incorporate competitor responses
- Ignoring costs of internal financing: internal funds as “free”, external funds as “expensive”
- Inconsistent treatment of, or ignoring, inflation
 - Cash flows and discount rate should be consistent in nominal or real

□ Behavioral biases

- Inertia
 - Although returns on investment are falling, capital investment is still static or rising
- Basing investment decisions on accounting measures, such as EPS, net income, ROE
- Pet project bias
- Failure to consider investment alternatives

31



17. 加权平均融资成本

- **Cost of capital** is the required rate of return for capital suppliers, and the most common way to estimate the cost is **weighted average cost of capital (WACC)**
- ◆
$$WACC = w_d \times r_d \times (1 - t) + w_{ps} \times r_{ps} + w_{cs} \times r_{cs}$$
 - w is the market value weights; if the market value is not available, the weight should represent the company's target capital structure; if target weights is not available, estimate weights using one of the following approaches: ① current capital structure, ② infer the target capital structure by trends in the company's capital structure or statements by management, ③ use averages of comparable companies' capital structures
 - t is the company's marginal tax rate
 - r_{ps} and r_{cs} are the marginal cost of preferred stock and common equity
 - r_d is the before-tax marginal cost of debt
 - $\text{after-tax cost of debt} = YTM \times (1 - t)$

34

18. 1 债务融资成本 r_d 和权益融资成本 r_e 的影响因素

- Factors affecting costs of debt and equity
 1. Top-down factors
 - Economic conditions
 - Industry conditions
 2. Issuer-specific factors
 - Collateral and type of assets owned
 - Sales risks
 - More stable and predictable and growing revenues, lower sales risk
 - Profitability risks
 - $\text{Operating leverage} \approx \text{fixed costs} / \text{total costs}$
 - Higher operating leverage, higher profitability risk
 - Financial leverage and interest coverage

35

18. 2 资本结构 (w_d 和 w_e) 的影响因素

- External factors
 - Capital markets and economic conditions
 - Regulatory constraints
 - Industry factors
- Internal factors
 - I. Capital-intensive businesses: higher leverage
 - Business model
 - Asset types and ownership
 - Cash flows and profitability
 - II. Capital-light businesses: lower leverage
 - Stage in the life cycle

Revenue Growth	beginning	rising	slowing
Cash Flow	negative	rising	stable
Business Risk	high	medium	low
Debt Availability	little or none	rising	high
Debt Type	leases, convertible secured		unsecured

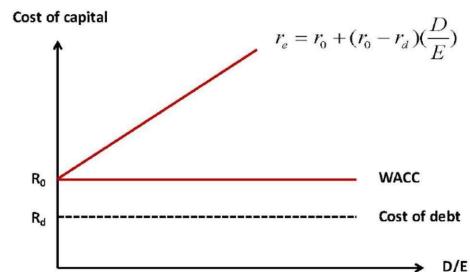
19. 1 MM理论的前提假设

- Assumptions of **Modigliani and Miller (MM) Theory**
 1. Homogeneous expected cashflows
 2. Perfect capital markets
 - ① No transactions costs
 - ② No bankruptcy costs
 - ③ No agency costs
 - ④ Symmetric information
 3. Investors can borrow and lend at the risk-free rate
 4. Independent financing decision and investment decision

36

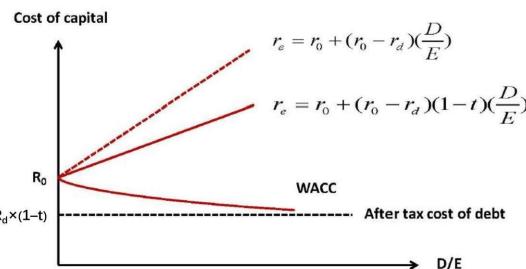
19.2 无税模式下的MM理论

- MM (without taxes) Proposition I
 - ◆ $V_{leveraged} = V_{unleveraged}$
- MM (without taxes) Proposition II
 - ◆ $r_e = r_0 + (r_0 - r_d) \times D/E$



19.3 有税模式下的MM理论

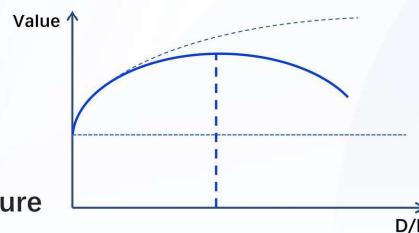
- MM (with taxes) Proposition I
 - ◆ $V_{leveraged} = V_{unleveraged} + t \times D$
- MM (with taxes) Proposition II
 - ◆ $r_e = r_0 + (r_0 - r_d) \times D/E \times (1-t)$



37

20.1 财务危机成本

- Costs of financial distress
 - Direct costs: actual cash expenses associated with the bankruptcy process, eg. legal and administrative fees
 - Indirect costs: eg. forgone investment opportunities, impaired ability to conduct business, and agency costs



20.2 静态权衡理论

- Static trade-off theory of capital structure
 - ◆ $V_{leveraged} = V_{unleveraged} + t \times D - PV(\text{costs of financial distress})$

38

21.1 代理成本

- Agency theory predicts that an increase in use of debt results in a reduction in agency costs of equity

21.2 自由现金流假说

- Michael Jensen's free cash flow hypothesis
 - Higher debt levels discipline managers by reducing the company's free cash flow and thus management's opportunities to misuse cash

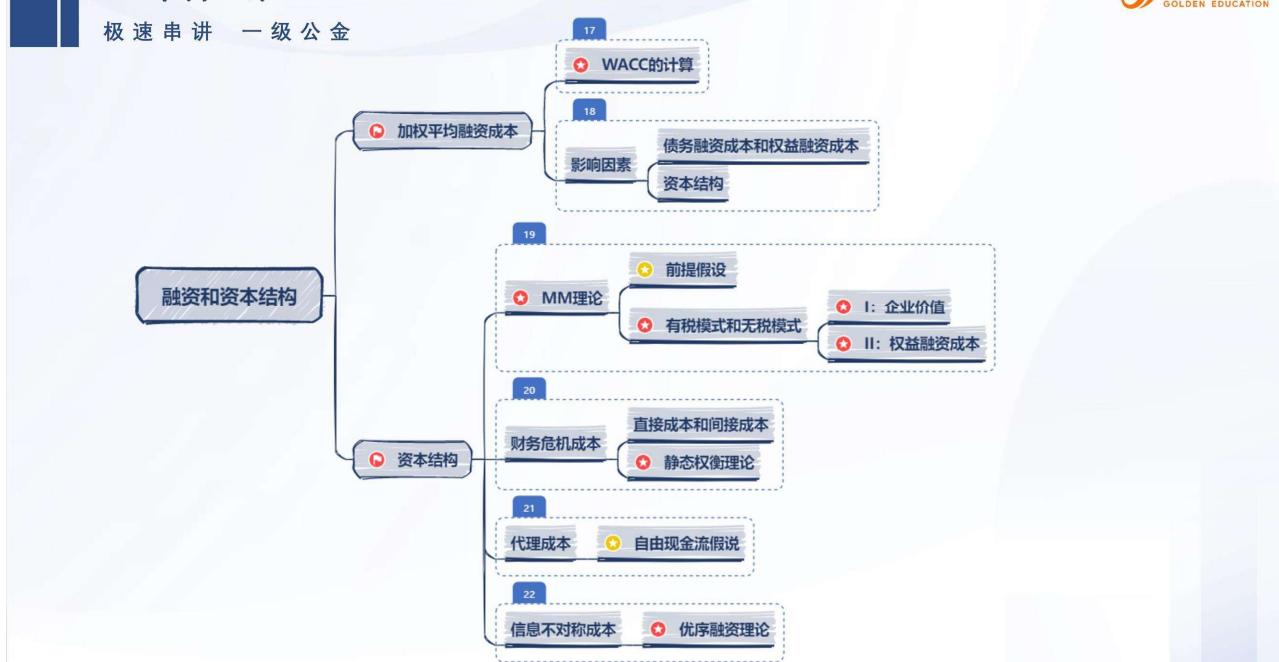
22.1 信息不对称成本

- Costs of asymmetric information arises because managers have more information about a company's performance and prospects than owners and creditors
- The higher information asymmetric, the higher returns demanded by both debt and equity capital suppliers

22.2 优序融资理论

- Pecking order theory (signaling model)
 - internal capital > debt > external equity

39



五

企业商业模式



23.1 企业商业模式的基本特征：价值主张

- Key features of business models: value proposition
 1. Customers [who]
 2. Product or service offering [what]
 3. Channels [where]
 - traditional channel strategy
 - direct sales vs. agency basis
 - omnichannel
 4. Pricing [how much]
 - Price taker: commodity producers with many competitors and little or no product differentiation, have little pricing power, so they pursue a cost leadership strategy
 - Price and revenue models: value-based pricing | cost-based pricing
 - Price discrimination: tiered pricing | dynamic pricing | auction & reverse auction
 - Pricing for multiple products: bundling | razors & blades pricing | add-on pricing
 - Pricing for rapid growth: penetration pricing | freemium | hidden revenue business model
 - Alternatives to ownership: recurring revenue / subscription pricing | leasing | fractionalization | licensing and franchising

23.2 企业商业模式的基本特征：价值链条

□ Key features of business models: value chain 【how】

- Value chain is the systems and processes which create value for customers are performed in a single company
 - value chain vs. supply chain

23.3 企业商业模式的基本特征：盈利率和单位经济

□ Key features of business models: profitability and unit economics

- Operating profit margin
- Unit economics: revenues and costs on a per-unit basis
- Break-even point

43

24. 企业商业模式的类型

□ Business model variations

- Private label or “contract manufacturers”
- Licensing arrangements
- Franchise models
- Value added resellers

□ Platform business models

- Network effects: increase in value of a network to its users as more users join
 - One-sided network effects
 - Two-sided or multi-sided network effects

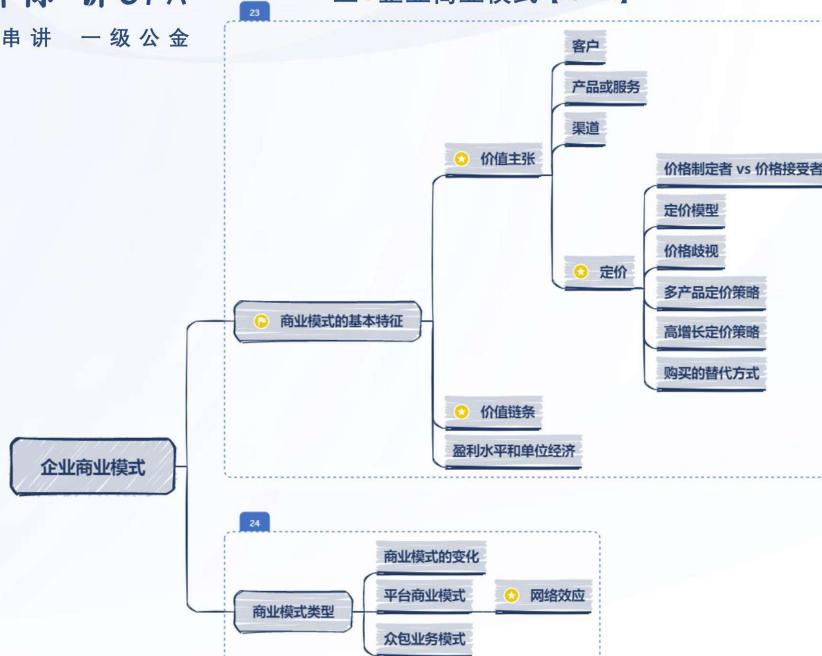
□ Crowdsourcing: users contribute directly to product or service

44

王牌陈讲CFA

极速串讲 一级公金

五. 企业商业模式 [23 - 24]



如果方向是正确的
就别害怕路途艰辛
只要全力以赴
终将得偿所愿

