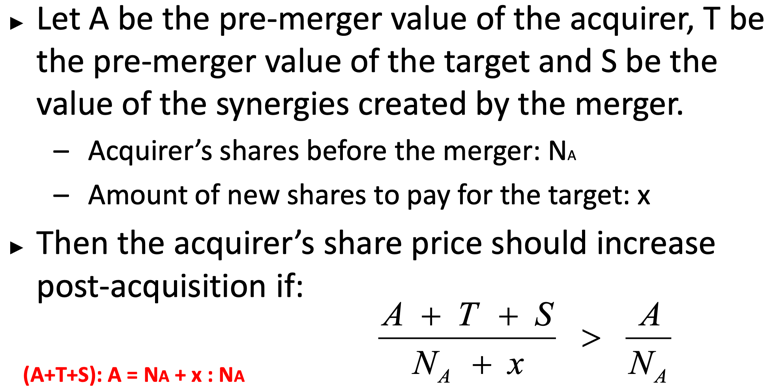
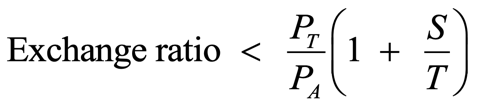
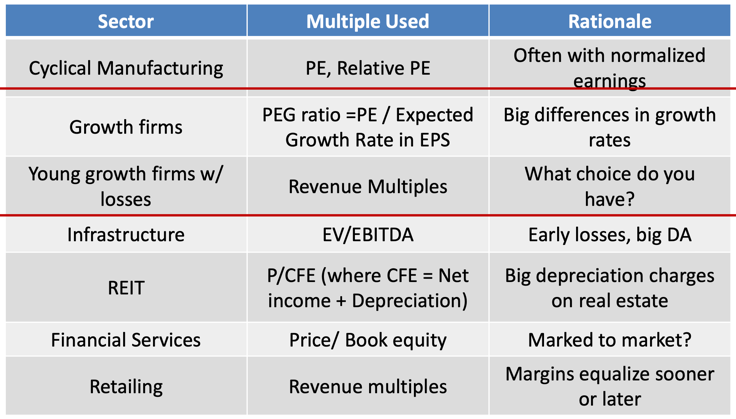
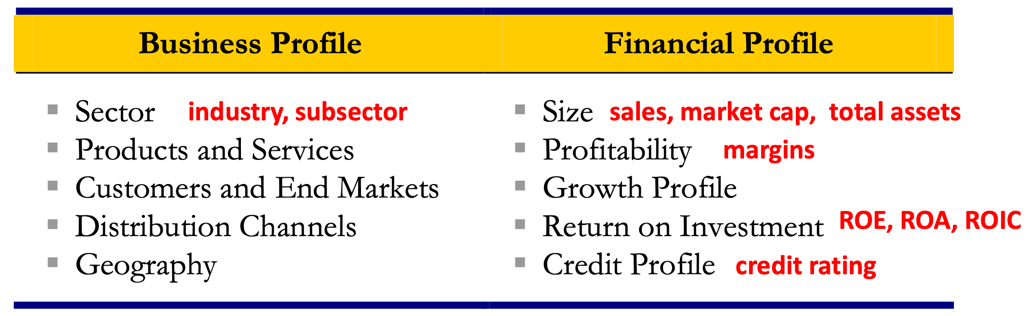
**1. Intro.** **(1) Introduction and Historical Trends.** *Non-organic Growth and M&A.*Inorganic growth occurs when a company grows by merging with or acquiring other businesses. (M&As are a much faster way of growing a company than organic growth). M&A is one of the most important means by which companies **r**espond to changing conditions. *Merger Waves.* Mergers have typically occurred in cyclical patterns. 1965-69: Known as the conglomerate (联合体) wave, 经济形势好, 收购大批不相关公司. 1981-89: Known for the hostile takeovers. 出现了一些恶意收购, LBO债务融资很常见. 1992-99: Known for the “strategic” mega-merger, 重视长期利益, 债务融资很少见. 2003-08: Shareholder Activism and Rebirth of Leverage, Highly leveraged buyouts and complex securities, Syndicated (银团) loan and excessive lending. Why Waves? Neoclassical Hypothesis: Economic disturbance leads to industry reorganization; Q (the ratio of market to book value) Theory of Mergers (高 Q 并购低 Q). Behavior Hypothesis: Stock Market Misvaluations drive waves; Bidders with overvalued stock to use the stock to buy assets of undervalued targets; Why anticipate? Herding (羊群) Behaviors; Deals completed late in waves tend to show lower acquirer returns. **(2) Why M&As Happen?** *“Better” Reasons Synergies.* Eco-nomies of Scale and Scope: 产生更大规模, This lowers the cost/good since any fixed costs are distributed over more units. Vertical Integration: Vertical integration is the merger of two companies involved in different stages of the production process of the same good (合并后目标一致). Expertise: Purchase “talent" as an already functioning unit by acquiring an existing firm (Acquiring human capital and innovation). Efficiency Gains: Efficiency gains are often achieved through an elimination of duplication (管理团队效率低就可以撤换掉他们, 调整发展逻辑). Tax Savings: 一个部门亏损可以抵消另一个部门的利润. *“Worse” Reasons to Acquire.* Monopoly Gains: 市场上少了一家公司, 竞争少, 利润高 (有搭便车现象, 毕竟只有收购方需要付钱). Diversification: Risk Reduction (分散化降低风险, 但完全可以通过分散投资实现), 公司过大导致效率降低. Earnings Growth: Acquirer can raise its earnings per share by acquiring a company with low growth potential. 收购低估值公司后高估值公司的EPS上升, 但没有任何经济价值. Managerial Motives: Under the conflict of interest explanation, managers know they are destroying shareholder value, but personally gain from doing so. Under the hubris hypothesis (overconfidence), managers believe they are doing the right thing for shareholders.

**2. Takeover Process and Defense. (1) Takeover Process.** *1) Valuation.*Valuation of Target.市场有自己的判断. It is important to use the un-affected target price: the price before market got wind of the takeover. 价格为公司原价值加溢价. The price paid for a target is equal to the target’s pre-bid market capitalization plus the premium paid in the acquisition. Condition for positive-NPV takeover. 支付的溢价比共生价值少就赚了. Target 的股价波动体现市场观点. *2) The Offer.* Two principal ways. Friendly: over a cocktail with the target's management/board; Hostile: an offer made directly to the share-holders of the target. Two methods to pay. Cash; Stock: In a stock-swap transaction, the bidder pays for the target by issuing new stock and giving it to the target shareholders. 这个地方Exchange Ratio 是必考点, 直接套公式即可. *3) Merger “Arbitrage”.* Average price reaction of the target firm to a takeover is 15%, while the average premium paid is 43% (没有突然跳跃的原因在于交易能否成功的不确定性). Risk-arbitrageurs. 因为不确定性, Target估值可能偏低, 就可以通过做多Target股票, 做空Acquirer股票赚取Merger-Arbitrage Spread. 但如果合并失败, Target估值跌, Acquirer股票涨, 会亏. Appraisal arbitrage. HFs acquire shares of announced target firm with the expectation that the Court determines that the fair value is higher than the merger price. 有些股东对收购价格有异议, 会向法院提起诉讼. 在这之前HFs收购了无异议的股东股票, 期待法院裁定更高价格套利. *4) Tax and Accounting Issues.* Target的股东需缴资本利得税. The difference between the purchase price and the sum of the fair value of the net assets is by definition the value of the "goodwill" of the purchased company. *5) Board and Shareholder Approval.* 就算有溢价, 董事会也可能会反对(自己价格没体现出来, 对方价格被高估). **(2) Takeover Defenses.** 对于恶意收购而言, 收购方和目标方可能有Proxy Fight: Schedule 14A (代理声明); Third-party proxy solicitor; Stock transfer agent (aggregate votes); Forward to target corporate secretary before shareholder’s meeting. Target有如下方法保护自己. *1) Poison Pills (Shareholder rights plan).* It is a right offering that gives the target shareholders the right to buy shares of either the target or an acquirer at a deeply discounted price. Flip-over rights (买Acquirer’s), Flip-in rights (买Target’s), Golden handcuffs (期权), Refund guarantees (退款). Goal. 防止bidder绕过董事会和股东直接交易, 争取时间获得更高估值. *2) Staggered Board (Classified Board).* 按类别将董事会错开, 恶意收购者需连续获得代理权竞争, 才能取得控制. 是一种有力手段, 保护管理层. 但很少被用. *3) White Knight.* 为防止恶意收购, 找一家友好的公司收购, 保全管理层. White Squire. 找大投资者购买大量股份, 享有特殊投票权, 但无控制权. *4) Golden Parachutes.* 公司被收购后保证给管理层一大笔遣散费. 实证表明其能创造价值, 可以减少管理层的固化. *5) Recapitalization.* 改变资本结构降低吸引力, 比如发债回购股票. *6) Greenmail.* 从特定股东手中回购股票, 减少公司价值. *7) Other Way.* 要求超多数票 (80%), 限制大股东投票权, 要求“公平”价格.

**3. Does M&A create value?** **(1) Does M&A pay?** Acquisition premium (Offer Premium). The acquisition premium is the percentage difference between the acquisition price and the pre-merger price of a target firm. *Premium average 23%, Reac-tion: Target 15%; Acquirer 1%.* Difference between Premium and Target price reaction: Run-up & Uncertainty. Difference between Target and Acquirer returns: Size effects & Uncertainty on synergy & Structural problem. 溢价已经基本就是其价值增长了, target公司股东获得了这个收益. *1) The Free Rider Problem.* The problem is that existing shareholders do not have to invest time and effort, but still participate in all the gains from the takeover that the corporate raider generates, hence the term “Free Rider Problem.” *2) Post-takeover Dilution.* 解决搭便车问题的方式. Two-tiered tender offer: The first tier is a bid b while the back end is a minority buyout at a lower value vd<v. If fair price rules prevent the minority buyout to take place at a price below the front-end price, acquirers can use Freeze-out/Squeeze-out merger (获得大多数股份后, 可强制并购). self-dealing (“asset tunneling”) 损害小股东利益. *3) Pre-takeover Toehold.* not announce anything and simply acquire the 50% stake anonymously through the market (正式谈判前悄悄从二级市场购买足够多的筹码). An initial ownership stake in a firm that a corporate raider can use to initiate a takeover attempt. SEC rules 强制过5%要公开信息. Why does toehold disappear? Cost from information leakage. *4) The Leveraged Buyout.* Instead of using his own cash to pay for these shares, he borrows the money and pledges the shares themselves as collateral on the loan. The law allows the corporate raider to attach the loans directly to the corporation (控制后将债务直接加到公司里). LBOs 并非纯债务融资, 只不过大部分是债务. *5) Competition.* The most likely explanation for large premium is the competition that exists in the takeover market.

**4. Valuation (1).** **(1) Relative Valuation.** *Why Relative Valuation?* Relative Valuation is pervasive. Pros: Market-based (数据全部来自真实市场); Relativity (相对性强, 容易直接比较); Quick and convenient (计算所需条件很少); Current (实时性强, 甚至可以做到日内更新). Cons: Market-based (非理性繁荣或熊市中估计不准确); Absence of relevant comparables (找不到可对比公司); Potential disconnect from cash flow; Company-specific issues. **(2) Five Steps to Relative Valuation.** *1) Select the Universe of Comparable Companies.* Identify Key Characteristics of the Target for Comparison Purposes (Business & Financial). *2) Locate the Necessary Financial Information.* Valuation is driven on basis of both historical performance (Financial Statement) and expected future performance (Research Report). *3) Spread Key Statistics, Ratios, and Trading Multiples.* Market Valuation. Equity Value = Share Price \* Full Diluted Sharing Outstanding (Basic Shares Outstanding + “In-the-Money” Options and Warrants + “In-the-Money” Convertible Securities). Number of shares repurchased is less than additional shares outstanding from exercised options. 股价 20, 期权行权价 18, 股数 100, 期权数 5, 实际股票数=100.5. Convertible and Equity-Linked Securities. Incremental Share = Amount Outstanding / Conversion Price. Enterprise Value. = Equity Value + Total Debt + Preferred Stock + Noncontrolling Interest – Cash and Cash Equivalents (从购买方角度, 现金折价) Independent of capital structure (MM Theory). Key Financial Data. sales, gross profit, EBITDA, EBIT, and net income; Profitability: Sales, Gross profit (Usually expressed as percentage of sales), EBITDA (Earnings Before Interest, Taxes, Depreciation and Amortization), EBIT, Gross Profit Margin (毛利率) and Net Income Margins (净利率). Growth Profile: Historical and estimated growth rates. Compound annual growth rates (CAGRs 复合年增长率). Return on Invest-ment: ROIC (Return on Invested Capital=EBIT/(Average Equity+Debt)), ROE (Return on Equity=Net Income/ Average Shareholder’s Equity), ROA (Return on Assets=NI/Average Total Assets), and Dividend Yield (Most Recent Quarterly Dividend Per Share\*4/Current Share Price). Credit Profile: Leverage ratios (Debt/EBITDA), Debt-to-Total Capitalization = Debt / (Equity+Debt+Preferred Stock+Noncontrolling Interest), Coverage Ratios (EBIT/利息), and credit ratings. Equity Value Multiples. PE=Market Price per Share/Earnings per Share (Negative Earning: Drop, Use Median Ratio, Average PE then reciprocal). Enterprise Value (EV) Multiples. EV/EBITDA & EV/EBIT. EV/EBIT is less commonly used than EV/EBITDA due to differences in D&A among companies. (PE 更好操控, 但对加杠杆的公司不利). *Why do we use sector-specific multiples?* More intuitive way of estimating value; Accounting differences across countries; None of the other multiples can be estimated or used *4) Benchmark the Comparable Companies.* Benchmark Financial Statistics and Ratios: 通过财务数据和比率分析多家公司, 选择关键指标较接近的, 分析既需定量又需定性. Benchmark the Trading Multiples: 循环所有公司, 计算多个比率取均值, 中位数, 两端值. 一般选择 median 做为 reliable comparison point. 可能会出现 outliers (可直接剔除, 但如果明显有偏, 需要谨慎考虑). *5) Determine Valuation (两层考虑).* Use means and medians of most relevant multiple for sector (e.g., EV/EBITDA or P/E) to extrapolate range of multiples. Must also determine which period financial data is most relevant for calculating trading multiples.