Mergers & Acquisitions


京东物流
JD Logistics
德邦快递
DEPPON EXPRESS


达达快送
京东到家
达达集团
DADA GROUP
京东

- M&A Objectives and Considerations
- Acquisitions
- Valuation Methods
- Corporate Restructuring

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M&A Objectives and Considerations

- One of the key objectives in an acquisition or merger is to **achieve cost savings through economies of scale** (sharing central services such as legal, accounting, finance, and executive management) and **reduction of redundant assets** (real estate, corporate jets, etc.) 规模经济＋冗余资产精简
- Before entering into a transaction, companies typically compare the costs, risks and benefits of an **acquisition or merger** with their **organic opportunity** (a "**Greenfield analysis**")
- This buy versus build analysis is an important departure point for a company as it begins to think about a transaction. Is it better to **build a brand, geographic coverage, distribution network**, installed base of products or services, and relationships, or is it better to **acquire them**?
- The inverse decision – **whether to sell** – is an analysis that asks whether the benefits of continuing to **operate an asset is a better risk-adjusted option** than **monetizing the asset** (for cash or stock of the acquirer)

Global M&A League Table

Global M&A League Table US Completed M&A

Ranking			2021	
2021	**2020**	**Company Name**	**Value (USDm)**	**Deal Count**
1	1	Goldman Sachs & Co	1,799,405	604
2	3	JPMorgan	1,515,772	600
3	2	Morgan Stanley	1,234,266	422
4	6	Citi	928,863	336
5	4	Bank of America	922,064	341
6	7	Barclays	632,044	264
7	5	Credit Suisse	498,385	273
8	8	Lazard	429,050	288
9	10	Evercore	415,264	209
10	9	Rothschild & Co	371,144	522
11	11	UBS Investment Bank	336,722	210
12	13	Deutsche Bank	308,787	169
13	16	Jefferies	264,261	340
14	19	BNP Paribas	261,549	148
15	18	Centerview Partners	248,486	88

Mains Considerations

- Strategic Rationale 战略合理性
- Synergies 协同效应
- Control Premium 控制权溢价
- Credit Ratings, Taxes and Acquisition Currency 信用评级、税务和对价形式
- Regulatory Considerations 监管考量
- Social and Constituent Considerations 社会与利益相关方

Strategic Rationale

- Before undertaking an acquisition or merger, a strategic rationale should be determined that **results in an immediate or near-term increase in shareholder value**
- This is accomplished if the transaction projects an increase **in EPS, ROE, and/or ROIC**, while potentially **reducing cost of capital** and **expanding trading multiples**
- 战略合理性 ⇔ 股东价值提升 ⇔ 财务指标改善
- 估值倍数扩张
  - 一家纯硬件公司变成“硬件 + 软件”公司：市场愿意给它更高的 PE 倍数。同样的利润，PE 从 15 倍变 25 倍，股价就涨 67%。
  - 案例：2015 年 58 同城合并赶集网

Synergies

- A key component in determining if a transaction is strategically justifiable is the **analysis of synergies**（协同效用分析）
- Synergy = V(A+B) − V(A) − V(B)
- Synergies include **cost synergies (most reliable)** and **revenue synergies**
  - 2015 年滴滴和快的合并
  - 2015 年美团和大众点评合并

Control Premium

- In an acquisition, **control premium** is the percentage difference between the price an acquirer will pay to **purchase control** of a target company compared to the price **for owning a minority share** (non control) position
- The purchase price premium (to the target's current share price) in an acquisition is determined based on consideration of **synergies and control premium**
- 溢价＝协同效应＋控制权价值

并购溢价与商誉

- 为什么会产生商誉
  - 根据《企业会计准则》规定，非同一控制下的企业合并中，合并成本大于合并中取得的被购买方可辨认净资产公允价值份额的差额。
  - 商誉＝收购价－被收购方可辨认净资产公允价值 × 持股比例
  - 商誉占净资产比例过高曾被视为存在触雷风险，尤其是当收购标的经营状况出现问题时。因此，公司需要定期进行**商誉减值测试**。
- 以蓝帆医疗并购为例
  - 2018年，蓝帆医疗**以发行股份及支付现金的方式**，收购CBCH II 62.61%股份和CBCH V 100%股份，从而实现间接持有柏盛国际93.37%股份，将产品范围由健康防护手套，拓充到心脏支架及介入性心脏手术相关器械。
  - 截至2018年末，蓝帆医疗商誉**63.79亿元**，占净资产的比例高达**81.78%**。

并购溢价与商誉

资产端
商誉

利润表
资产减值损失

业绩承诺（对赌协议）

- **目的**
  - 高昂的收购价格产生了“商誉”，而“业绩承诺”是为了合理化这种高溢价而设定的保险。
  - 但当业绩承诺无法达成时，这层保险就会被击穿，直接引发“商誉减值”，从而大幅削减收购方的当期利润（即“商誉爆雷”）。
- **机制**
  - 目标公司原股东承诺在未来几年内（通常为3年），每年实现一定金额的净利润。
  - 业绩承诺为账面上高额的商誉提供了合法且合理的“业绩支撑点”。只要能完成承诺，商誉就是安全的。

商誉与业绩承诺

- **情景 A：业绩承诺达标（相互成就）**
  - 目标公司完成了承诺的净利润。账面上的“商誉”被证明是物有所值的，无需减值。
  - 收购方获得了利润增长，被收购方拿到了全额收购款。

- **情景 B：业绩承诺未达标（连锁爆雷）**
  - 如果目标公司实际利润低于承诺利润，说明其未来的盈利能力不及预期，当初买贵了。此时会触发严格的财务联动：
    - **触发业绩补偿**：目标公司的原股东必须按照协议，向收购方支付补偿款。
    - **触发商誉减值**：既然盈利能力下降，账面上庞大的“商誉”资产就缩水了。会计准则要求对其进行商誉减值测试。如果确认减值，这部分蒸发的商誉将直接作为“资产减值损失”计入收购方的利润表。这种损失会直接吞噬收购方当年的净利润。

案例：华谊兄弟并购东阳美拉

- **并购基本信息(2015年)**
  - **收购方**：华谊兄弟传媒股份有限公司
  - **标的公司**：浙江东阳美拉传媒有限公司（股东为冯小刚、陆国强）。
  - **收购对价**：华谊兄弟以**10.5亿元**收购东阳美拉**70%**的股权。
  - **公司估值**：东阳美拉成立仅2个月，净资产为-5500元，却被估值高达**15亿元**。
  - **收购基础**：冯小刚对东阳美拉未来业绩的承诺，按照承诺净利润的15倍估值。

- **业绩承诺与对赌协议**
  - 承诺期限：**5年（2016-2020年）**。
  - 业绩承诺：冯小刚承诺，东阳美拉2016年度税后净利润不低于1亿元，之后每年以15%递增。
  - 违约责任：若未达到承诺净利润，冯小刚需要以现金方式补足差额。
  - 完成情况：<u>并购期间，东阳美拉曾多次未达业绩承诺，冯小刚曾按照协议支付业绩补偿款（如2018年亏损需补偿0.68亿元）</u>。

案例：华谊兄弟并购东阳美拉

- **并购后果与后续演变**
  - 商誉减值：此次高溢价收购形成了巨额商誉。因业绩未达标，华谊兄弟累计对东阳美拉商誉计提减值准备超9亿元，严重侵蚀了华谊兄弟的利润。
  - 退出/转让：9年后，由于经营环境变化和业绩不达预期，华谊兄弟断臂求生。
  - 阿里影业接盘：2024年7月，华谊兄弟宣布以3.5亿元将东阳美拉70%的股权转让给北京阿里巴巴影业文化有限公司。
  - 最终结果：这次高价并表、低价转让的交易导致华谊兄弟资产亏损严重，是华谊兄弟陷入债务危机的重要原因之一。

- **交易所的监管**
  - 2021年5月17日晚间，深交所向华谊兄弟下发年报问询函，因浙江东阳美拉未完成业绩承诺，深交所要求公司说明冯小刚等业绩承诺方应向公司补偿的具体金额，是否存在承诺方无法完全履行补偿义务的风险。

并购融资方式抉择的考虑： Credit Ratings, Taxes and Acquisition Currency

- Companies must attempt to balance **the credit rating, tax and EPS impact** of an M&A transaction
- Paying cash as an acquisition currency often requires **borrowing, creating leverage**
- A credit rating **downgrade may occur** if the transaction creates **too much leverage**, resulting in a higher cost of debt capital, but a potential reduction in weighted average cost of capital
- If the acquisition currency is shares of the **acquiring company's stock**, credit ratings will **not** likely be **downgraded**, but the **acquirer's EPS may drop**, often resulting in a share price reduction
- Shares used as consideration may be preferred by target company shareholders in order to **delay**

Regulatory Considerations

- There are local, regional, national and international anti-trust and other regulatory considerations in M&A transactions
- Approvals required from regulators depend on the size of the transaction, location of the business and the **industries of the participating companies**
- In the U.S., most public transactions require a **Hart-Scott-Rodino (HSR)** filing with the Federal Trade Commission and the Department of Justice
- There is a **30-day** waiting period after filing
- If there are international operations, filing with the European Commission (EC) or with **antitrust regulators** （反垄断审查） in other countries may be necessary

Principal Constituents in an M&A Transaction

- **Shareholders**: concerned about valuation, control, risk and tax issues
- **Employees**: focus on compensation, termination risk（裁员） and employee benefits
- **Regulators**: must be persuaded that anti-trust, tax and securities laws are adhered to
- **Union leaders**: worry about job retention and seniority issues
- **Credit rating agencies**: focus on credit quality issues
- **Politicians:** they get involved if constituent jobs and tax base are at risk
- **Equity research analysts:** focus principally on growth, margins, market share and EPS
- **Debt holders:** consider whether debt will be increased, retired, or if there is potential for changing debt values

Key Parameters for Evaluating M&A Opportunities

- Strategic fit with business strategy
- Management team and asset quality
- Synergy potential
- Ease of integration
- Margins, earnings, ROIC and credit ratings impact, and other financial attributes
- Price/valuation
- Regulatory risk

Fairness Opinion

- Investment bankers are usually asked to **render a fairness opinion** to the respective boards of companies involved in an M&A transaction
- The opinion is made publicly available and it states, among other things, that the transaction is "**fair from a financial point of view**"
- A fairness opinion is **not** an <u>evaluation</u> of the business rationale for the transaction, a <u>legal opinion</u>, or a <u>recommendation</u> to the board to approve the transaction
- The fairness opinion includes a summary of **the valuation analysis** conducted by the investment bank to show the basis on which the opinion is offered
- Companies must decide whether it makes sense for the same **investment bank** that provides the fairness opinion to also act as the **M&A advisor** (since advisory fees are

拓展：财务顾问报告

- 《上市公司收购管理办法》第六十五条
  - 收购人聘请的财务顾问应当履行以下职责：
    - 对收购人的相关情况进行**尽职调查**；
    - 应收购人的要求向收购人提供专业化服务，**全面评估被收购公司的财务和经营状况**，帮助收购人分析收购所涉及的法律、财务、经营风险，就收购方案所涉及的收购价格、收购方式、支付安排等事项提出对策建议，并指导收购人按照规定的内容与格式制作公告文件；
    - 对**收购人进行证券市场规范化运作的辅导**，使收购人的董事、监事和高级管理人员熟悉有关法律、行政法规和中国证监会的规定，充分了解其应当承担的义务和责任，督促其依法履行报告、公告和其他法定义务；
    - **对收购人是否符合本办法的规定及公告文件内容的真实性、准确性、完整性进行充分核查和验证，对收购事项客观、公正地发表专业意见**；
    - 与收购人签订协议，**在收购完成后12个月内，持续督导**收购人遵守法律、行政法规、中国证监会的规定、证券交易所规则、上市公司章程，依法行使股东权利，切实履行承诺或者相关约定。
- 《上市公司收购管理办法》第六十六条：
  - 收购人聘请的财务顾问就本次收购出具的**财务顾问报告**，应当对以下事项进行说明和分析，并逐项发表明确意见。

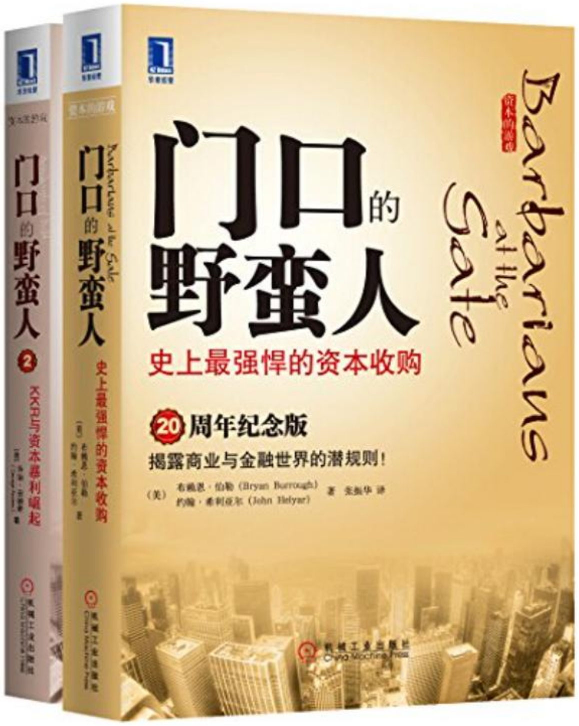
- M&A Objectives and Considerations
- **Acquisitions**
- Valuation Methods
- Corporate Restructuring

Acquisitions

- A publicly traded company can be acquired through either:
  - **A merger**（兼并，按照法律程序进行合并）
    - A merger requires **> 50% shareholder vote** in favor of a stock swap or cash payment to the target company share-holders
  - **A tender offer**（要约收购）
    - An acquisition of stock directly from the target company shareholders using a tender offer, followed by a merger to acquire any remaining untendered shares
    - A tender offer, which **does not require a shareholder vote**, is a public offer by an acquirer to all shareholders of a target company to tender their stock for sale at a specified price during a specified period of time.
  - **An acquisition of selected target company assets**（收购目标公司资产）
- A **proxy contest** is designed to **gain minority representation on or control of a board of directors.**

- 金融界最著名的纪实文学经典之作，被誉为“华尔街的并购圣经”。
- 《华尔街日报》的两位记者布赖恩·伯勒（Bryan Burrough）和约翰·希利亚尔（John Helyar）撰写，出版于1989年，并在1993年被HBO翻拍成了同名电影。
- 20世纪80年代末华尔街历史上最惊心动魄的一场并购大战：雷诺兹-纳贝斯克公司（RJR Nabisco，当时旗下拥有奥利奥饼干、骆驼香烟等知名品牌）的杠杆收购（LBO）案。

- **门口的野蛮人：**指那些不请自来、资金雄厚、手段极其激进，企图对上市公司发起“敌意收购（Hostile Takeover）”的外部资本。



Break-up Fee (交易终止费)

- **A break-up fee** is paid if a transaction is not completed because a **target company** walks away from the transaction after a merger agreement or stock purchase agreement is signed
- This fee is designed to discourage other companies from making bids for the target company since they would, in effect, end up paying the breakup fee if successful in their bid
- **A reverse breakup fee** is paid if the **acquiring company** walks away from a transaction after signing the agreement
- These fees are usually set at **2-4% of the target company’s equity value**, but this is the subject of negotiation

M&A Hostile Defense Strategies

- Shareholder rights plan (poison pill) 毒丸计划
- White Knight bidder 白衣骑士
- Management Buyout (MBO) 管理层收购
- Stagger board（交错董事会/分类董事会）
  - 将董事会成员分成三组以上，每年只改选其中一组（任期三年）。这样即使收购方获得控制权，也至少需要两年才能完全改组董事会，为管理层争取宝贵时间部署其他防御措施。
- Delay annual shareholder’s meeting
- Trigger acceleration of debt repayment
  - 债务条款中设置“控制权变更”条款。一旦遭遇敌意收购，所有债务立即到期，必须用现金偿还。
- Litigation
  - 通过起诉收购方违反反垄断法、信息披露不充分或证券法规，制造法律障碍。

Shareholder Rights Plan

- The key feature of a shareholder rights plan involves implementation of a "**poison pill**", which gives **non-hostile shareholders** a right to purchase additional shares in the company at a substantial discount (usually 50%)
- The result of the exercise of this right is that hostile shareholder ownership percentage declines as **"friendly" shareholder ownership increases**
- This **dilution** of hostile ownership economically compels the hostile party to **give up**, **negotiate a higher price**, **or launch a proxy contest** to gain control of the target company's board and then rescind the poison pill
- A shareholder rights plan usually **does not require** a

Accretion and **Dilution** in M&A Transactions

- An accretion/dilution analysis（增厚/稀释分析） compares a company's financial results before a proposed transaction to the results after the transaction
  - 备考财务报表：买方和卖方的报表合并在一起，看看合并后的新实体财务表现
- The analysis usually focuses on **earnings per share (EPS)**
- If the transaction results in an increase in EPS, this is accretive (and may have a positive impact on the company's share price)
- If the transaction results in a decrease in EPS, this is dilutive (and may have a negative impact on the company's share price)
- It is unusual for a company to proceed with a dilutive M&A transaction unless analysis suggests that EPS

Strategic Buyers vs Financial Buyers

- **Private equity firms** (also called LBO firms, buyout firms or financial sponsors) are considered financial buyers because they usually do not bring synergies to an acquisition
- **Strategic buyers** are generally competitors of a target company and will benefit from synergies when they acquire or merge with the target
- As a result, in auctions conducted by investment banks for target companies, strategic buyers are usually able to **pay a higher price** than the price offered by financial buyers
- However, sometimes financial buyers win auctions because of **anti-trust issues**, more aggressive assumptions regarding future cash flow (based on

Alternative Sale Processes

Alternative Sell-Side Processes

Divestiture Strategy	Description	# of Buyers	Advantages	Disadvantages	Circumstances
Preemptive	• Screen and identify most likely buyer	1	• Efforts focused on one buyer • Maximum confidentiality • Speed of execution • Minimum business disruption	• Unlikely to maximize value • Tied to result of one negotiation	• Have very clear sense of most logical buyer • High risk of damage from business disruptions • Have strong negotiating position
Targeted Solicitation	• High-level approach to selected potential buyers • Customized executive summary-type presentation • No pre-established guidelines or formal process • No public disclosure	2 to 5	• Speed of execution • Confidentiality maintained • Limited business disruption • Sense of competition enabled	• Requires substantial top-level management time commitment • Risks missing interested buyers • May not maximize value	• Have limited group of logical buyers • Have key objectives of confidentiality and limiting any business disruption
Controlled Auction	• Limited range of logical potential buyers contacted • Requires formal guidelines on sale process • No public disclosure	6 to 20	• Reasonably accurate test of market price • High degree of control over process • Creates strong sense of competition	• Lack of confidentiality • May "turn off" logical buyers • Potential for disruption due to rumors	• Seek good balance between confidentiality and value
Public Auction	• Public disclosure made • Preliminary materials distributed to wide range of potential buyers	N/A	• Most likely to obtain highest offer • Finds "hidden" buyers	• May limit subsequent options if process fails • Highest risk of business disruption	• Believe business is unlikely to be damaged by public process • Have difficulty identifying potential buyers

Alternative Sale Processes

- Preemptive （优先出售）
  - Screen and identify most likely buyer
  - 速度极快，保密性极高，业务几乎不受干扰。
  - 但很难实现估值最大化
  - 卖家处于绝对强势地位，或者极其害怕泄密。

Advantages	Disadvantages	Circumstances
• Efforts focused on one buyer • Maximum confidentiality • Speed of execution • Minimum business disruption	• Unlikely to maximize value • Tied to result of one negotiation	• Have very clear sense of most logical buyer • High risk of damage from business disruptions • Have strong negotiating position

Alternative Sale Processes

- Targeted Solicitation（定向征集）
  - High-level approach to selected potential buyers
  - Customized executive summary-type presentation
  - No pre-established guidelines or formal process
  - No public disclosure
  - 2 to 5 Buyers
  - 行业高度集中，或者卖家把“不影响日常经营”看得很重。

Advantages	Disadvantages	Circumstances
• Speed of execution • Confidentiality maintained • Limited business disruption • Sense of competition enabled	• Requires substantial top-level management time commitment • Risks missing interested buyers • May not maximize value	• Have limited group of logical buyers • Have key objectives of confidentiality and limiting any business disruption

Alternative Sale Processes

- Controlled Auction （可控/有限拍卖，最标准最常用）
  - Limited range of logical potential buyers contacted
  - Requires formal guidelines on sale process
  - No public disclosure
  - 6 to 20 Buyers
  - 投行会制定严格的“游戏规则（Formal guidelines）”，分发保密协议（NDA）和保密信息备忘录（CIM），组织第一轮非约束性报价（NBO）和第二轮约束性报价。
  - 想要在“卖个好价钱”和“适度保密”之间寻找最佳平衡点。

Advantages	Disadvantages	Circumstances
• Reasonably accurate test of market price • High degree of control over process • Creates strong sense of competition	• Lack of confidentiality • May “turn off”logical buyers • Potential for disruption due to rumors	• Seek good balance between confidentiality and value

Controlled Auction

- **第一轮：非约束性报价 (NBO - Non-Binding Offer)**
  - 在签署了保密协议（NDA）并阅读了投行提供的《保密信息备忘录（CIM）》后，有兴趣的买家需要提交一份初步的报价意向书（IOI）。
    - 通常是一个价格区间，附加了大量的前提条件
    - 法律效力：完全没有（除了保密条款）。
    - 帮助卖家和投行“筛选（Shortlist）”，3-5家家进入下一轮。

- **第二轮：约束性报价 (Binding Offer)**
  - 进入第二轮的“入围买家”将被允许进入数据室（VDR），查阅目标公司最核心的机密（财务底稿、核心合同、专利细节），并与目标公司的管理层交流。经过尽职调查（Due Diligence）后，买家提交最终报价。
    - 报价特征：极其确切的数字 + 资金证明。
    - 买家要提交一份经过其律师修改过的《股权购买协议（SPA）》草案
    - Binding Offer 是一份正式的法律要约。一旦买家提交，并在规定的有效期内被卖家正式接受（并在 SPA 上签字），这份交易就达成了。

Alternative Sale Processes

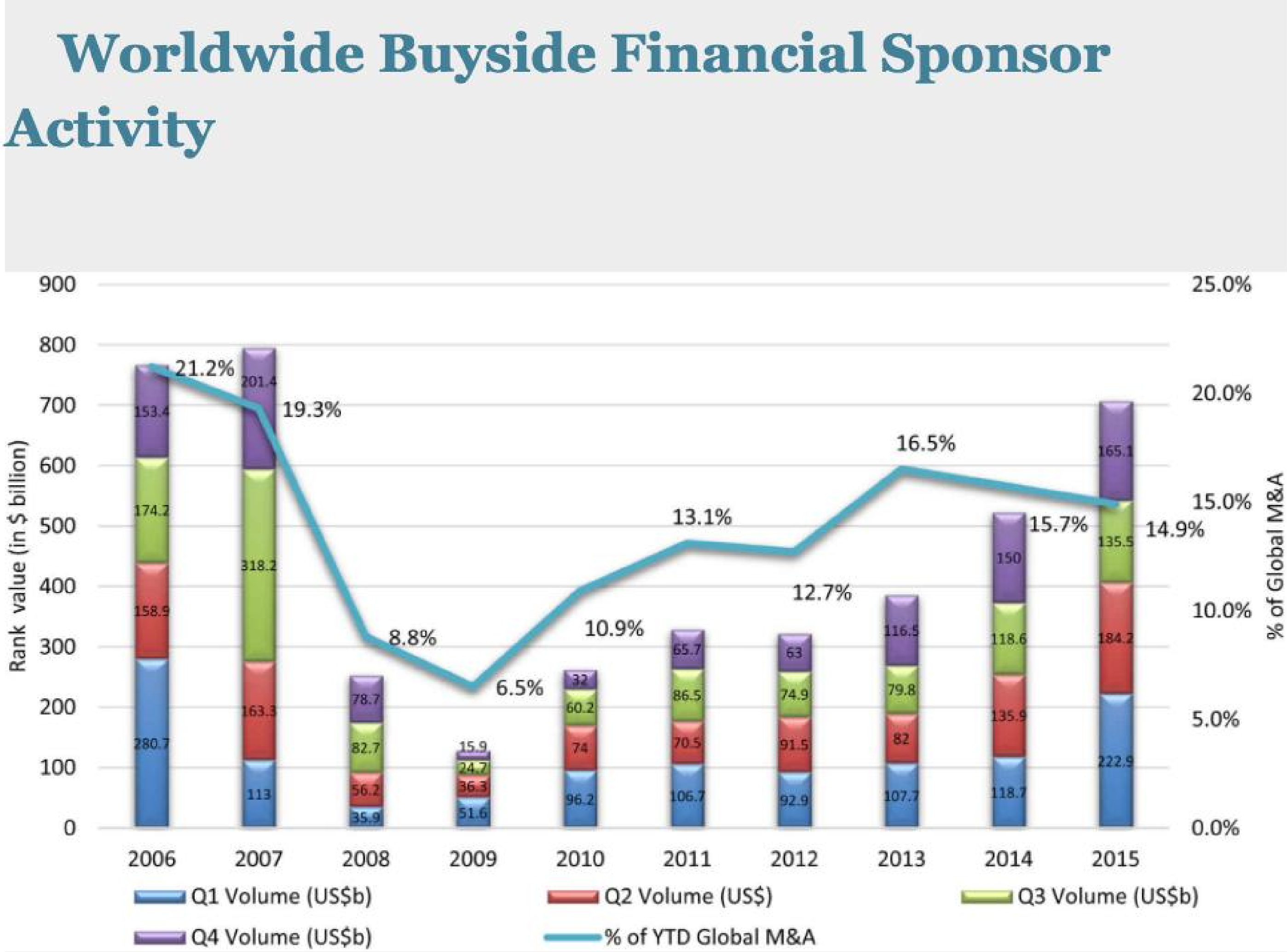
- Public Auction （公开拍卖）
  - Public disclosure made
  - Preliminary materials distributed to wide range of potential buyers
  - 6 to 20 Buyers
  - 拍卖所，交易中心等。

Advantages	Disadvantages	Circumstances
• Most likely to obtain highest offer • Finds "hidden" buyers	• May limit subsequent options if process fails • Highest risk of business disruption	• Believe business is unlikely to be damaged by public process • Have difficulty identifying potential buyers

股权交易市场

- 中国多层次资本市场
  - 一板市场（主板）：服务于大型、成熟、盈利能力强的企业（如上交所、深交所主板）。
  - 二板市场（创业板、科创板）：服务于具备一定规模的科技型、创新型、成长型企业。
  - 三板市场（新三板）：即“全国中小企业股份转让系统”，是全国性的非上市公众公司股权交易平台，门槛低于主板和二板。
  - 四板市场（新四板）：即“区域性股权交易市场”，，是中小微企业的“孵化器”和“练兵场”。

Financial Sponsor M&A Participation



- M&A Objectives and Considerations
- Acquisitions
- **Valuation Methods**
- Corporate Restructuring

Valuation Methods

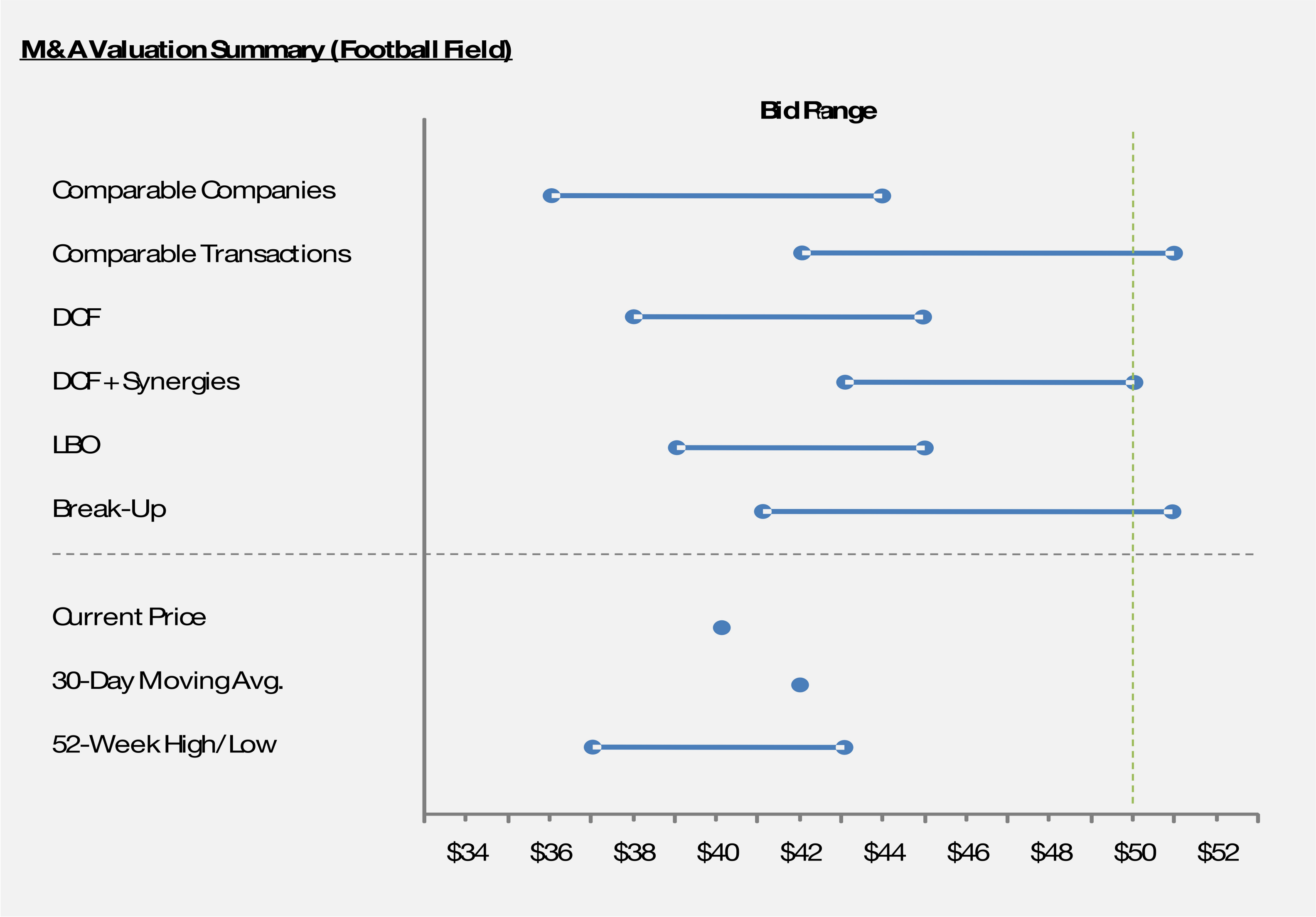
Summary of Valuation Methods

Publicly Traded Comparable Companies Analysis	Comparable Transactions Analysis	Discounted Cash Flow Analysis	Leveraged Buyout Analysis	Other
Description				
• "Public Market Valuation" • Value based on market trading multiples of comparable companies • Applied using historical and projected multiples • Does not include a control premium	• "Private Market Valuation" • Value based on multiples paid for comparable companies in sale transactions • Includes control premium	• "Intrinsic" value of business • Present value of projected free cash flows • Incorporates both short and long-term expected performance • Risk in cash flows and capital structure captured in discount rate	• Value to a financial buyer • Value based on debt repayment and return on equity investment	• Sum-of-the-parts analysis • Liquidation analysis • Break-up or net asset value analysis • Historical trading performance • Discounted future share price • Dividend discount model
Comments				
• Similarity of companies (size, growth prospects, product mix) • Placement within peer group • Underlying market / sector trading fluctuations • Market may view firm's outlook differently • Valuing synergies, tax benefits problematic	• Limited number of truly comparable transactions • Dated information due to changes in market • Data missing or hard to find (earnings often unavailable on subsidiary transactions)	• The preferred valuation technique when credible cash flows can be projected and confident in WACC determination • Sensitive to terminal value assumptions	• Usually represents a floor bid because of lack of synergies and high cost of capital and high required return (IRR) • Requires various assumptions on capital structure • May not be a viable option due to size or type of business	• May be more situational and not as relevant as a broad-based valuation technique • Near-term EPS impact may not reflect true value

如果你要买一套二手房，你怎么出价?

- **Comps（可比公司法）**：看看同小区、同户型的邻居最近挂牌价是多少
- **Precedents（先例交易法）**：看看同小区、同户型的房子，上个月实际成交价是多少。（相对估值，且包含控制权溢价）
- **DCF（现金流折现法）**：不管别人卖多少，算算这套房子未来50年能收多少租金，折现到今天值多少钱。（绝对估值/内在价值）
- **LBO（杠杆收购法）**：炒房客视角。我首付只有20%，剩下80%靠高息贷款，我要求3年后转手卖掉必须赚30%的收益（IRR）。倒推一下，我今天最多只能出多少钱买这套房?（财务买家底价）

Valuation Summary



Using Multiples in Valuation

- Multiples based analysis incorporates key accounting concepts and financial information in the process of valuing of companies
- **Comparable Companies** analysis and **Comparable Transactions** analysis are the two principal multiples based valuation methodologies.

Using Multiples in Valuation

- **EV/EBITDA**
  - **Enterprise Value (EV)** = a company's total economic value, which is shared by holders of equity, debt, preferred stock and minority interest
  - **企业价值（EV）＝当前股票的市场价值＋净负债**
    - 净负债＝短期负债＋长期负债＋资本化租赁＋优先股－现金及现金等价物
    - 同时考权益价值和净债务的价值
  - To determine EV, calculate market value of equity, debt, preferred stock and minority interest and then deduct cash and cash equivalents
  - **EBITDA:** Earnings Before **Interest**, **Taxes**, **Depreciation** (折旧) and **Amortization** (摊销) (EBITDA) is important to determine since it and EBIT are often used in multiples calculations: EV/EBITDA and EV/EBIT

Using Multiples in Valuation

- **EV/EBITDA**
  - 息税折旧摊销前利润：经营性现金流
  - 衡量核心业务能力：EBITDA 移除了不直接反映核心业务盈利能力的成本项目，如利息、税收、折旧和摊销，从而更好地显示公司日常运营创造利润（现金流）的真实能力。
  - 方便跨公司比较：由于排除了不同公司的资本结构（利息）、税收政策和折旧摊销政策等差异，EBITDA 使得对同行业内不同公司之间的经营业绩进行公平比较成为可能。

Using Multiples in Valuation

- **Price/ EPS**
  - **Price**：股票的市场价值（权益价值），不包括公司债务。
  - **EPS**：扣除了利息、折旧摊销、税费后，公司实际利润
  - 市盈率=当前股价÷每股收益率，或者市盈率=当前股票总市值÷净利润
  - 直观理解：PE = 10，如果盈利能力保持不变，持有该股票10年回本。
  - 静态市盈率 = 股票价格 /已公布的上年度每股收益
  - 动态市盈率 = 股票价格 / 预期未来12个月的每股收益
  - 滚动市盈率（TTM） = 股票价格 /已公布的上年度每股收益

Comparable Companies Analysis

- A comparable companies valuation analysis compares similar publicly trading companies using multiples
- Comparable companies are in the **same industry** and have similar growth, profitability, size, capital structure and margin characteristics
- The key multiples used for comparison are:
  - <u>Enterprise multiples</u>: EV/Revenue; EV/EBITDA and EV/EBIT
  - <u>Equity multiples</u>: EPS; Market Value/Book Value; PE/Growth Rate (PEG ratio)
- This analysis values a **non-controlling ownership** in comparable companies and does

Comparable Transactions Analysis

- A comparable transaction analysis compares historical M&A transaction values for companies in the same industry that have similar growth, profitability, size, capital structure and margin characteristics
- This valuation assumes that the acquirer obtains control (usually 51%-100% ownership of the target), so a **control premium and synergies** are included in the purchase price
- The principal multiples used in this analysis are similar to the multiples used in a comparable companies analysis
- To determine value/share for enterprise multiples based valuation methodologies, use the following

Discounted Cash Flow (DCF) Analysis

- DCF analysis determines EV for a company by calculating the present value of
  - projected unlevered (not including financing costs) future cash flows
  - projected terminal value
- Present value is typically calculated by using a discount rate equal to the weighted average cost of capital (

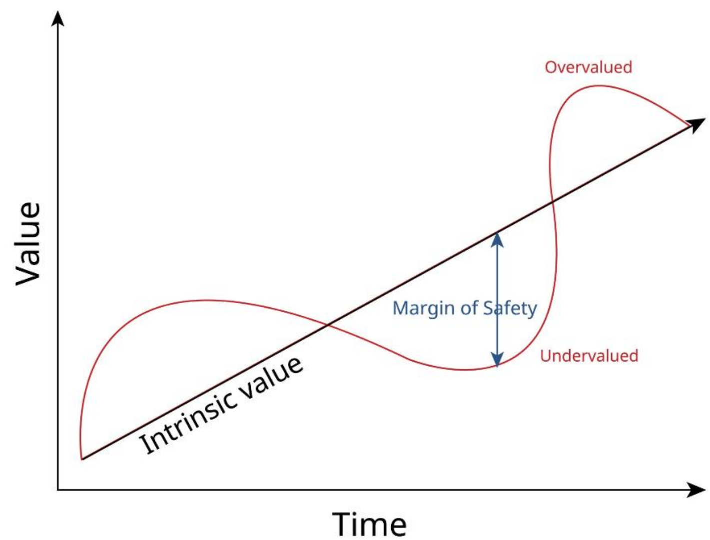
$$WACC = \left(\frac{E}{V} \times R_e\right) + \left(\frac{D}{V} \times R_d \times (1 - T)\right)$$

- E/V 和 D/V：代表股东和债权人各自出资的比例（权重）。
- R_e：股权成本（股东要求的高回报，因为他们承担高风险）。
- $R_d \times (1 - T)$：税后债务成本（银行要求的利息，且利息可以抵扣所得税）。

- This analysis determines the intrinsic value of a company

Discounted Cash Flow (DCF) Analysis

- **Market Value vs. Intrinsic value**
  - **Market Value**：向外看，可比公司法（Comps）”和“先例交易法（Precedents）”，本质上都是在向外看。它们遵循的是“参照物定价逻辑”。
    - 例如：隔壁那家做新能源车的公司市盈率是 50 倍，所以你也应该是 50 倍。
    - 这种方法极易受市场情绪（牛市泡沫或熊市恐慌）的干扰。
  - **Intrinsic value**： DCF 只向内剖析这家公司本身的业务：
    - 例如：你这台“赚钱机器”在未来 10 年到底能吐出多少真金白银（自由现金流）？把这些真金白银折现到今天，就是你的内在价值。



Discounted Cash Flow (DCF) Analysis

- The quality of this analysis depends on the accuracy of cash flow projections and the assumptions used in determining WACC and terminal value.
- Terminal value is determined through either a perpetuity growth or exit multiple methodology.
- A DCF analysis is usually sensitized to incorporate synergies, which increase the valuation amount.
- 一个小小的参数变化会引发估值巨大变化。

标准的 DCF 企业价值（Enterprise Value, EV）计算公式如下：

$$EV = \sum_{t=1}^{n} \frac{FCF_t}{(1+WACC)^t} + \frac{TV}{(1+WACC)^n}$$

- EV = 企业价值 (Enterprise Value)
- FCF_t = 第 t 年的无杠杆自由现金流 (Unlevered Free Cash Flow)
- $WACC$ = 加权平均资本成本 (Weighted Average Cost of Capital，即折现率)
- n = 详细预测期 (通常为 5 年或 10 年)
- TV = 预测期末的终值 (Terminal Value)

终值 (Terminal Value) 的两种计算公式

1. 永续增长法 (Perpetuity Growth Method)

假设公司在详细预测期之后，以一个稳定的长期增长率（g）永续经营。这种方法在学术界最为经典。

$$TV = \frac{FCF_n \times (1+g)}{WACC - g}$$

- FCF_n = 详细预测期最后一年（第 n 年）的自由现金流
- g = 永续增长率 (Perpetuity growth rate，通常设定在 2% - 3% 左右，与长期通胀率或 GDP 增速挂钩)

2. 退出倍数法 (Exit Multiple Method)

假设在详细预测期的最后一年（第 n 年），将公司按照当时市场上的行业平均估值倍数出售。这种方法在投行实务和 PE 并购中最为常用。

$$TV = EBITDA_n \times \text{Exit Multiple}$$

- $EBITDA_n$ = 详细预测期最后一年（第 n 年）的息税折旧摊销前利润
- Exit Multiple = 预期的退出倍数 (通常参考当前可比公司的 EV/EBITDA 倍数)

Leveraged Buyout (LBO) Analysis

- This valuation analysis is used only if the company being valued has characteristics that make it an interesting target for a Buyout fund（并购基金）.
- These characteristics include:
  - strong and predictable cash flow
  - clean balance sheet with room for leverage
  - limited need for future capital expenditures
  - quality assets that can be used as collateral for loans,
  - cost cutting opportunities and a viable exit strategy in 3-7 years

Leveraged Buyout (LBO) Analysis

- Buyout funds target an IRR (compound annual return) of more than 20% and determine the highest price they can pay such that this return is achieved as of the assumed exit date
- Buyout funds will not be competitive bidders if the maximum price they can bid that achieves their minimum IRR return target is substantially less than the price that strategic buyers will bid.

内部收益率（IRR）

- IRR是使一项投资未来所有现金流的净现值(NPV)恰好等于零的折现率。
  - 它只取决于投资自身的现金流，不随市场利率波动而变化
  - 投资项目“内生”的回报率，与银行存款利息等“外部”收益率相对
- 例子：假设投资一个项目
  - 现在投出 -100万（负现金流）
  - 第1年收回 +30万
  - 第2年收回 +40万
  - 第3年收回 +50万

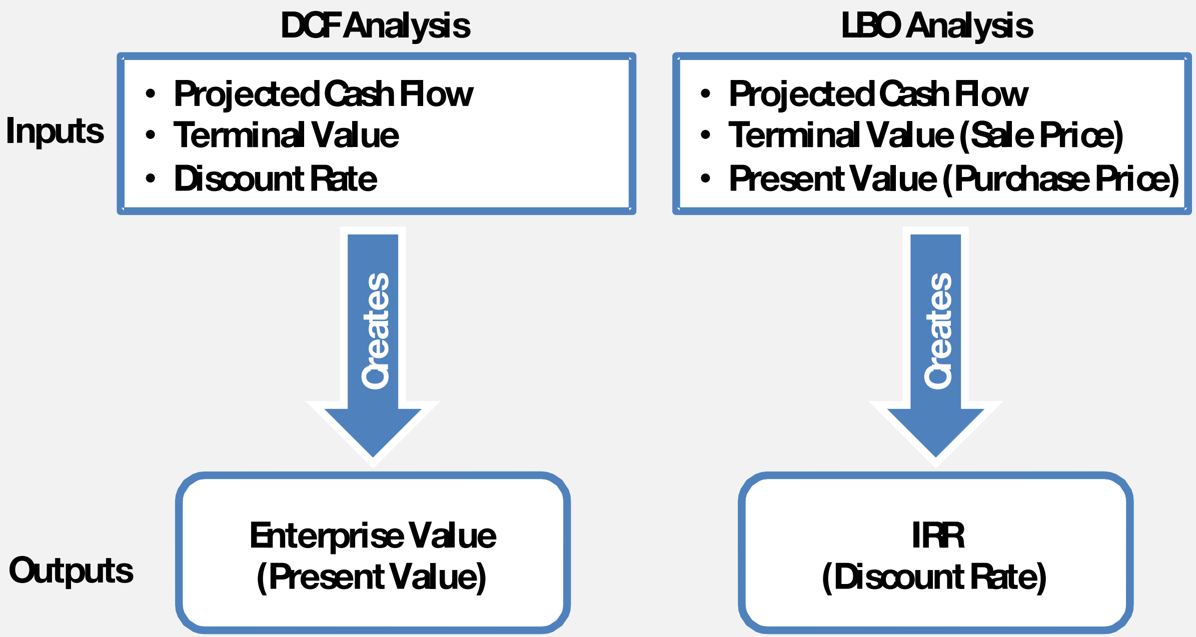
  IRR就是求解下面方程的r：

$$-100 + 30/(1+r) + 40/(1+r)^2 + 50/(1+r)^3 = 0$$

  若解得 r=15%，意味着这笔投资的实际年化收益率为15%，可与资金成本（如10%）直接比较——只要IRR > 资金成本，项目就创造价值。

Comparing LBO and DCF Analysis

LBO Analysis and DCF Analysis



Source: Castillo, Jerilyn and Peter McAniff. The Practitioner's Guide to Investment Banking, Mergers & Acquisitions, Corporate Finance. Circinus Business Press, 2007.

拓展：DCF vs. LBO

- 都基于现金流分析，但估值逻辑和目的根本不同：
  - DCF衡量企业的内在价值
    - “这家企业值多少钱？”
    - 基于永续经营假设，计算所有未来现金流现值。
    - 企业未来现金流可预测性较强；评估战略收购（需计入协同效应）；作为估值基准与其他方法交叉验证。
  - LBO计算财务买家基于回报要求能支付的最高价格
    - “我能出多少钱还能赚XX%的年化回报？”
    - 本质是财务投资者的能力测试。
    - 私募股权基金竞标项目；目标企业负债能力高；需测试不同资本结构下的回报可行性。

Other Potential Valuation Analysis

- Sum of the **parts analysis (break-up analysis)** is a useful additional valuation tool when a company has many different businesses that, when analyzed separately and then added together, are worth more than the value of the company as a whole
- In this analysis, EV for each separate business is calculated based on comparable transaction multiples (multiplying EBITDA for each business by the relevant comparable company multiple) to determine the total EV for the target company when the EVs for each business are added together
- Other valuation methodologies may be appropriate for certain industries, including an analysis of acquisition premiums in comparable transactions

Price Risk in M&A through Stock Swaps

- When using **shares** as the acquisition currency, the acquirer and the seller must consider **share price risk** associated with this payment method.
  - Time Gap: 3-9 months from announcement to closing creates volatility exposure.
  - Risk Allocation: Target shareholders bear downside risk of acquirer's stock price.
- Three Deal Structures
  - Fixed Exchange Ratio
  - Floating Exchange Ratio
  - Collar Mechanism （衣领条款）

Price Risk in M&A through Stock Swaps

- Exchange Ratio
  - offer price for target/acquiring company's closing share price on the last trading day before the deal is announced = exchange ratio.
  - 交换比率 = 收购方愿意支付的每股价格 ÷ 收购方自己的每股价格
  - 简而言之："我一股换你几股"，例如：
    - 公司A：100元/股，公司B：40元/股
    - 公司A打算用自己股票收购公司B，价格为50元/股
    - 交换比率为：50/100 = 0.5，即：公司B股东每持有1股，可换取0.5股公司A股票

Price Risk in M&A through Stock Swaps

- Fixed Exchange Ratio
  - 交换比率在签约时锁定（如2:1），经济价值随收购方股价浮动
  - 收购方股价上涨 --> 收购价格上涨，收购方承担风险（标的高估）
  - 收购方股价下降 --> 收购价格下降，被收购方承担风险（估值下降）
- Floating Exchange Ratio
  - 维持固定的经济价值（现金等价），交换比率浮动
  - 无论收购方股价涨跌，目标方获得的对价总价值不变
- Collar Mechanism （衣领条款）
  - 在交换比例中加入一个双限期限期权
  - 当收购方股价**低于**设定的最低价格（地板价），则**提高比例**
  - 当收购方股价**高于**设定的最低价格（天花板价），则**降低比例**

交易结构模型	买方核心战略诉求 (Acquirer)	卖方核心战略诉求 (Target)	适用谈判与市场环境
固定比例 (Fixed)	追求资本结构确定性，锁定稀释上限	谋求长期投资回报，共享协同效应溢价	买方议价力较强，或属于对等合并 (MOE)
浮动比例 (Floating)	克服流动性约束，以股权平替现金	追求对价安全性，完全规避下行风险	卖方处于卖方市场，具备绝对议价优势
衣领条款 (Collar)	引入价格上限机制，防范恶性股权稀释	引入价格下限机制，构建对价安全垫	双方谈判地位均衡，宏观市场波动率极高

Risk Arbitrage

- In a stock-for-stock acquisition, some traders will buy the target company's stock and simultaneously short the acquiring company's stock, creating a "risk arb" position
- The purchase is motivated by the fact that after announcement of a pending acquisition, the target company's share price typically trades at a lower price in the market compared to the price reflected by the Exchange Ratio that will apply at the time of closing
- Traders who expect that the closing will eventually occur can make trading profits by buying the target company's stock and then receiving the acquiring company's stock at closing, creating value in excess of their purchase cost
- To hedge against a potential drop in value of the acquiring company's stock, the trader sells short the same number of shares to be received at closing in the acquiring company's stock based on the Exchange Ratio
- Risk arb trading puts downward pressure on the acquiring company's stock and upward pressure on the selling company's stock

Risk Arbitrage (cont.)

- As an example, if an acquiring company agrees to purchase a target company's stock at an Exchange Ratio of 1.5x, then at closing, the acquirer will deliver 1.5 shares for every share of the target's stock
- Assume that just prior to when the transaction is announced, the target's stock price is $25, the acquirer's stock is $20, and it will be six months until the transaction closes
- Since 1.5 acquirer shares will be delivered, the value to be received by target company shareholders is $30 per share
- However, because there is some probability the acquisition doesn't close in 6 months, the target company stock will likely trade below $30 until the date of closing

Risk Arbitrage (cont.)

- If the target stock trades at, for example, $28 after announcement, for every share of target stock that risk arbs purchase at $28, they will simultaneously short 1.5 shares of the acquirer's stock
- This trade enables risk arbs to profit from the probable increase in the target's share price up to $30, assuming the closing takes place, while hedging its position (the shares received by risk arbs at closing will be delivered to the parties that originally lent shares to them
- The objective for risk arbs is to capture the spread between the target company's share price after announcement of the deal and the offer price for the target company, as established by the Exchange Ratio, without exposure to a potential drop in the acquirer's share price
- However, if the transaction doesn't close or the terms change, the risk arbs' position becomes problematic and presents either a diminution in profit or a potential loss
- Investment bankers keep close track of risk arb activity throughout the transaction period since the prices of both the acquirer and target stocks can be significantly impacted by risk arb trading

Risk Arbitrage (cont.)

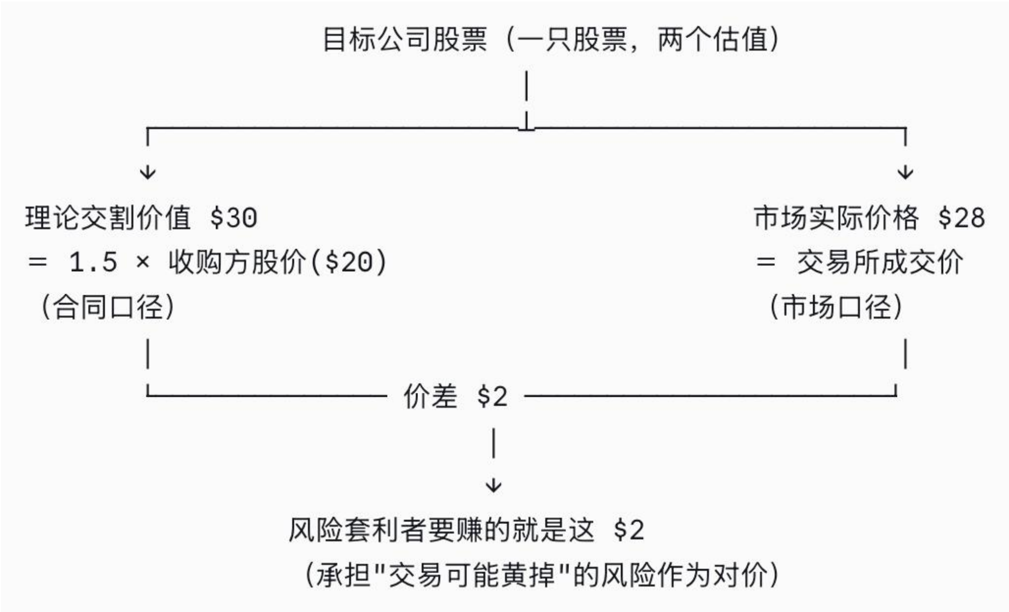
<u>Share for Share Merger Arbitrage</u>

UPSIDE: *The Deal Closes*	**DOWNSIDE:** *The Deal Does NOT Close*
• The Arbitrageur gains ○ The Arbitrage spread (difference between Target stock when acquisition announced and bid price when closes) ○ Dividends paid on Target stock ○ Interest on proceeds of short selling (less borrow costs and dividends paid on shorted Acquirer stock) • The arbitrage spread can be accentuated if the bid is repriced higher, possibly through the presence of another bidder	• The Target stock will drop to the pre-announcement price (or below), causing losses • The Acquirer stock price might increase, causing a loss on the short position

In most cases, the amount an arbitrageur will lose if the deal does not close far outweighs the gain if the deal closes

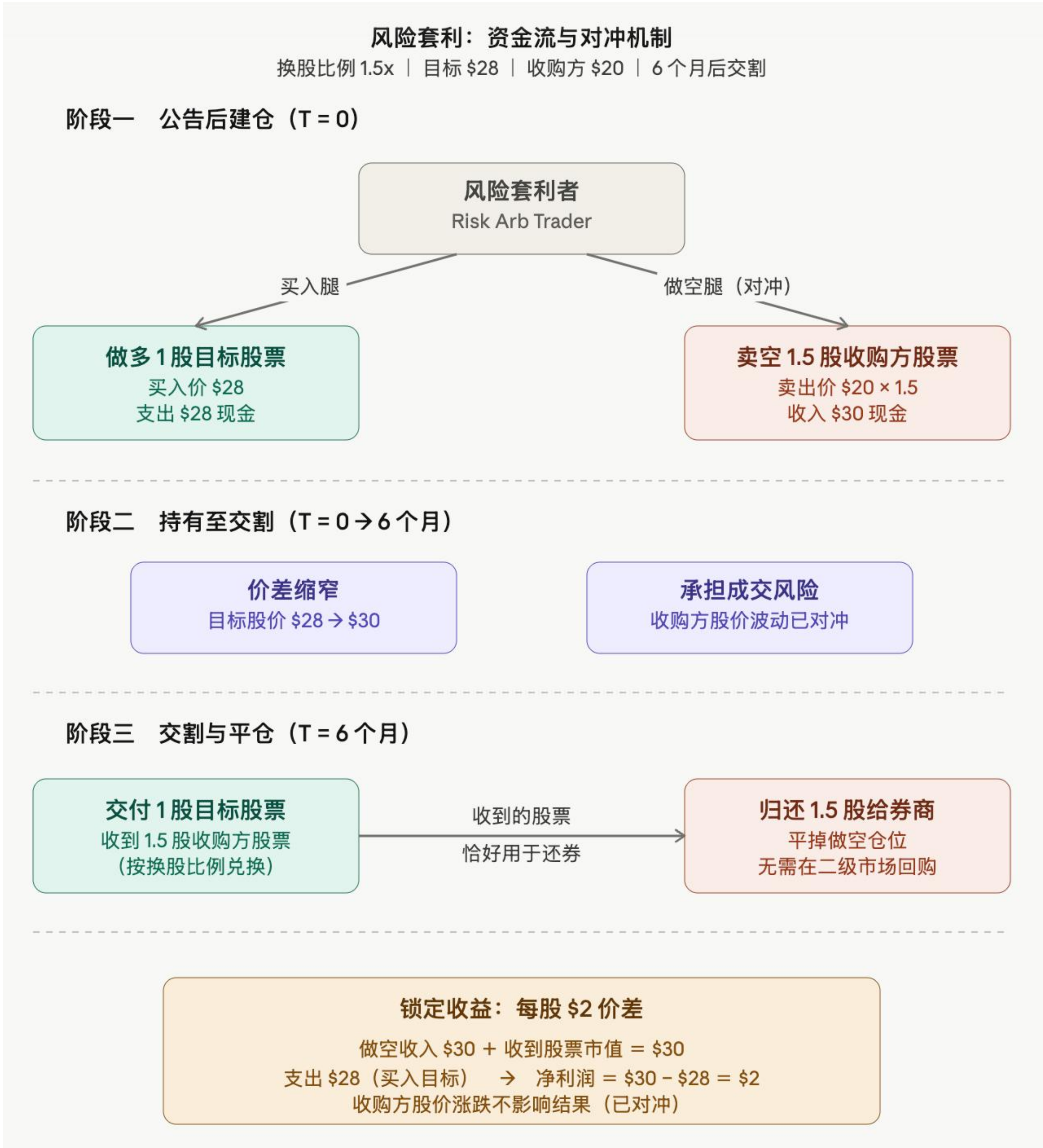
Risk Arbitrage (cont.)

- 换股收购后：最终目标股东收到的是收购方股票，而不是现金。
- 换股收购宣布后，目标公司在市场上其实同时存在两个“价格”：
  - 理论交割价值按换股比例 × 收购方股价计算的“应得价值”
  - 市场实际价格目标公司股票在二级市场的真实成交价



Risk Arbitrage (cont.)

- 风险套利策略：“做多目标＋做空收购方”
  - 如果只买入目标公司股票，套利者承担两类风险：
    - 收购方股价下跌的风险
    - 交易失败的风险
      - 监管或政治环境变化导致交易终止
      - 反垄断审查未通过
  - 做空收购方股票＝把“换股收购”在经济意义上转化为“现金收购”


风险套利：资金流与对冲机制
换股比例 1.5x ｜ 目标 $28 ｜ 收购方 $20 ｜ 6 个月后交割
阶段一　公告后建仓（T = 0）
风险套利者
Risk Arb Trader
买入腿
做空腿（对冲）
做多 1 股目标股票
买入价 $28
支出 $28 现金
卖空 1.5 股收购方股票
卖出价 $20 × 1.5
收入 $30 现金
阶段二　持有至交割（T = 0 → 6 个月）
价差缩窄
目标股价 $28 → $30
承担成交风险
收购方股价波动已对冲
阶段三　交割与平仓（T = 6 个月）
交付 1 股目标股票
收到 1.5 股收购方股票
（按换股比例兑换）
收到的股票
恰好用于还券
归还 1.5 股给券商
平掉做空仓位
无需在二级市场回购
锁定收益：每股 $2 价差
做空收入 $30 + 收到股票市值 = $30
支出 $28（买入目标） → 净利润 = $30 − $28 = $2
收购方股价涨跌不影响结果（已对冲）

Corporate Restructurings

- Carve-out: the sale through an IPO of a portion of the shares of a subsidiary to new public market shareholders in exchange for cash
- Spin-off: parent gives up control over a subsidiary by distributing subsidiary shares to parent company shareholders on a pro-rata basis
- Split-off: parent company delivers shares of a subsidiary to only those parent shareholders who are willing to exchange their parent company shares for the shares of the subsidiary

Corporate Restructurings

- Carve-out（分拆上市）
  - 操作：母公司出售子公司部分股份给公众，通过IPO募资
  - 结果：母公司仍保持控制权
  - 融资（卖子公司的少数股权换钱）+子公司独立估值
  - 案例：阿里巴巴分拆菜鸟物流
- Spin-off（公司分立）
  - 操作：母公司免费将子公司股份按比例分给所有股东
  - 结果：母公司持股降为0%，股东同时持有两家独立公司股票
  - 目的：专注主业、释放价值
  - 惠普拆分为HPE和HPQ
- Split-off（换股拆分）
  - 操作：母公司向自愿的股东提供选择：用母公司股票换取子公司股票。
  - 结果：母公司持股降为0%，只有愿意交换的股东获得子公司股份。
  - 目的：减少股东数量、剥离非核心资产。

拓展：我国实践

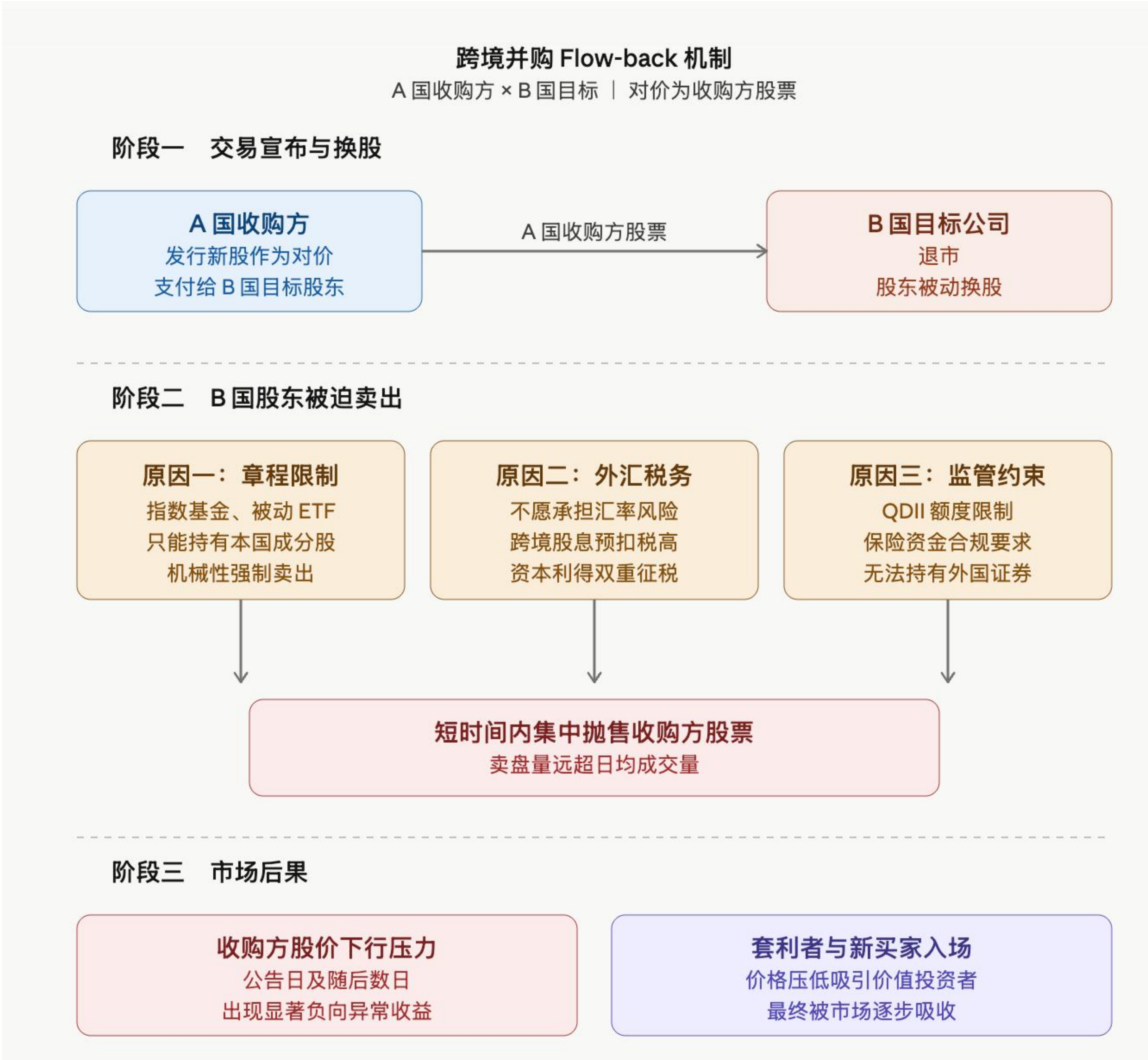
- 中国证监会2019年12月12日公布了《上市公司分拆所属子公司境内上市试点若干规定》
  - 明确分拆条件
  - 规范分拆流程
  - 强化中介机构职责

Cross-Border Transaction

- A large number of M&A transactions are completed between companies that are based in <u>two different countries.</u>
- More complicated
  - multiple regulators (focusing principally on antitrust and securities law matters)
  - complex accounting and disclosure considerations
  - tax matters

Cross-Border Transaction

- "Flow-back"（回流）
  - An acquirer from one country purchases a target company from another country, some shareholders of the target company may feel compelled to sell their newly received shares immediately.
  - Shareholders are uncomfortable with foreign exchange risk, unfamiliar with holding foreign securities, or face regulatory or institutional constraints regarding cross-border investment.
  - Large volumes of the acquirer's stock may be sold in the market, creating downward pressure on the stock price. This phenomenon is called "flow-back."


跨境并购 Flow-back 机制
A 国收购方 × B 国目标 ｜ 对价为收购方股票
阶段一　交易宣布与换股
A 国收购方
发行新股作为对价
支付给 B 国目标股东
A 国收购方股票
B 国目标公司
退市
股东被动换股
阶段二　B 国股东被迫卖出
原因一：章程限制
指数基金、被动 ETF
只能持有本国成分股
机械性强制卖出
原因二：外汇税务
不愿承担汇率风险
跨境股息预扣税高
资本利得双重征税
原因三：监管约束
QDII 额度限制
保险资金合规要求
无法持有外国证券
短时间内集中抛售收购方股票
卖盘量远超日均成交量
阶段三　市场后果
收购方股价下行压力
公告日及随后数日
出现显著负向异常收益
套利者与新买家入场
价格压低吸引价值投资者
最终被市场逐步吸收

Cross-Border Transaction

- **“回流”案例：**
  - 1998 年德国戴姆勒-奔驰收购美国克莱斯勒，对价是新公司“DaimlerChrysler AG”的股票
  - 新公司在德国法兰克福为主要上市地
  - 大量美国克莱斯勒原股东（特别是只能持有 S&P 500 成分股的美国共同基金、养老金）被迫抛售
  - 因为新公司是德国公司，不再属于 S&P 500
  - 公告后数月内，DaimlerChrysler 股价持续承压
  - 学术研究估计 flow-back 卖盘量达到流通股的 25–30%