Week 1 - M&A Overview

Identifying the acquirer (bidder) and target (seller)

- A firm that makes an offer to purchase another company or an asset is the bidder
  - If they are successful in their purchase, they are an acquirer
- A whole firm that is acquired, or the subject of an offer is the target
  - A target firm may receive an offer <u>*just for specific assets*</u>
- Who decides whether to accept an offer or not?
  - The owners of the company, i.e. the shareholders

DIfferent perspectives

- What do stakeholders in the acquiring firm want?
- What do the stakeholders in the target firm want?
- Can both sides end up better off?

The role of managers and shareholders

- Managers should act in the best interests of shareholders (maximise firm value)
- How do the managers (and board) of a target do this?
- How do the managers (and board) or an acquirer do this?
- Are there any conflicts?

Defining Mergers and Acquisitions

- **Mergers** are those forms of business transactions where there is a combination of two/more companies, and in the process one or more such companies lose their corporate existence because they merge with the surviving entity
- **Acquisition** - shares or control of a company is taken over by persons who, prior to the change in shareholding or control, did not possess such shareholding or control
- Terms used interchangeably, though typically follow in-deal dominance
- Can have implications for post-deal accounting and taxation

Others names for deals

- Buyouts
  - An acquisition where the acquirer is typically a *group of investors*. This is a common term when there is a private equity player involved or a management buyout
- Takeover
  - Essentially an acquisition, the term implies a much larger acquirer and possible a level of hostility in the deal
- Reverse takeover
  - A typically smaller, private company is the acquirer of a larger, listed target
  - A way to become public without an IPO
- Tax inversion merger
  - Merger between companies based in different tax jurisdictions and resulting in relocating legal HQ to the lower tax area

Classifying deals

- Horizontal
  - Firms in the same industry that compete in the same product markets
- Vertical
  - Firms at different stages of the production process/supply chain
- Conglomerate
  - Firms not related in industry or in a supply-chain - diversification process
- Other deal classifications

    - Cross-border acquisitions
    - Blurred mergers
    - Financial acquisitions

Market Overview

- Drop off from high in H12018 in $ value of M&A deals

Other important concepts

- **Toeholds**
    - Company A buys shares of company B, then can make a formal takeover offer to company B in the future
        - If you own less than 5%, no disclosure required
        - Once you own more than 20%, you have to launch a formal bid offer
- **Synergy**
    - Value of combined entity is greater than the value of two stand alones (1 + 1 = 3)
- **Form of payment**
    - Cash
        - For target shareholders, their trip with the company ends
    - Stock (scripp)
        - For target shareholders, they are new shareholders of the combined company
- **Exchange ratio**
    - How many shares does the target shareholder get from the acquisitions
- **Competing offers**
    - Go shop - multiple bidders in the bidding process
- **Revised bids**
    - Buyers can make multiple bids before deal is finalised
- **Friendly vs hostile takeovers**
- **Merger of equals**
    - Merger of equal size companies
- **Antitrust regulation/ Competition Regulation (ACCC - Australia)**
    - Legislation preventing industries turning into monopolies through M&A deals
- **"In Play"**
    - Companies are in play when an offer is on the table
- **Offer premium**
    - Buyer is willing to pay above market price to convince shareholders to sell their company
- **Standalone value**
    - Value of the business as is (without any synergies from M&A)
- **Advisers**
    - Companies that provide transaction services to M&A players (IB, Corporate Advisory firms)
- **Recommendations**
    - BoD make a recommendation to shareholders of the target company
- **Newco**
    - New company created through M&A
- **Due diligence**
    - Process of finding about the company you want to buy - info about business, financials, products, supply chain, shareholding structure, etc.

- **Deal terms and conditions**
    - Price, withdrawal conditions, earnouts, exchange ratio, etc.
- **Independent experts report**
    - BoD of target companies typically bring in third party experts to check whether the offer is a fair price (typically they want the answer to be no so that they can get a higher price for the sale)

Key players involved in M&A transactions

- Acquirer
- Target
- Other (potential) bidders
- Investment banks (Financial advisers)
- Private Equity firms (Financial sponsors)
- Shareholders (Activists?)
- Consultants (Strategic, industry specialist, integration, etc.)
- Lawyers, Regulators, Investors, Stakeholders, Employees, Government(?)

1) **Why do companies undertake M&A**
   (A) - is a means by which a company can achieve growth. Corporate can be achieved **organically** - through internal investment - or **inorganically**. M&A is a form of inorganic growth. Firms seeking growth and acting in the best interest of shareholders will undertake M&A and other inorganic growth strategies when possible
2) **How do growth and value creation differ in corporate restructuring**
   (A) - Corporate restructuring refers more broadly to the rearrangements a firm can make to its structure. Restructuring for inorganic growth includes M&A, however a firm *<u>can downsize</u>* through divestiture to create value

3) **What is the role of firm managers?**
   (A) - Firm managers should maximise shareholder wealth
4) **What is meant by the 'agency problem'**
   Agency problems arises when one group is tasked with making decisions on behalf of another group. The agent should make these decisions in a way that benefits the principal, the conflict arises as they will be motivated to act in their own best interests

<u>Week 2</u>

What is a successful deal?

- Measurable economic outcomes
    - Specifically, the shareholders of the two primary parties
    - Was value created for the acquirer's and target's shareholders
- There may be other considerations, good/bad
    - Numerous motives for managers to pursue M&A
    - Often, other stakeholders who are also important and aggregate economic welfare relevant to consider
    - Fiduciary responsibility of the firm's board is to its shareholders

Test of M&A Profitability

- **Weak form -** $P_{after} > P_{before}$

    - Unreliable, susceptible to confounding events
- **Semi-strong form** - **$R_{M\&A} > R_{benchmark}$**
    - Benchmark selection an important consideration. Not perfect, but an improvement
- **Strong form - $R_{M\&A} > R_{no\ M\&A}$**
    - Perfect test, but not observable

Think about a strong form test
- AOL-Time Warner
    - The biggest merger deal in history when AOL purchased Time Warner for $165 billion in early 2000
    - AOL was one of the most valuable companies, trading at a high valuation
        - A few months later, dot com burst and AOL MV fell $200b
    - Weak and semi-strong form tests indicate a huge destruction in value

Research approaches to M&A outcomes

	Strengths	Weaknesses
Market-based event study	• Direct measure of shareholder wealth effect • Forward-looking	• Relies on assumptions of market efficiency • Benchmark choice can influence results
Accounting based	• Indirect measure of value creation • Used to evaluate corporate performance	• Backward looking • Comparability • Relies on disclosure
Manager surveys	• Unobservable outcomes can be identified	• May not capture true economic value • generalisability

Returns to target firm shareholders
- No pattern in target firm returns before deal
- Some price run up a week before deal announced
- Over 2-day announcement period, average abnormal return of **23.4%** in this study
- Literature finds average target returns range up to +50%
    -

The results are *mixed* for acquirer firm shareholders
- At announcement, there is no clear and consistent research evidence
- At best, it might appear that the average effect is nothing
- Longer term studies indicate a more negative outcome
    - But long-term studies are more exposed to *confounding events* and interpretation of these results must be done carefully

Long-term performance
- Difficult studying stock prices over long-term periods - can't isolate effects of event being studied
- Studies use buy and hold returns (equal and/or value weighted), and cumulative abnormal returns
    - Long-term price performance following merger is insignificantly different from zero
    - Results sensitive to estimation methods

Net economic gain?
- Even though targets appear to reflect value creation, whie acquirers may on average breakeven, this does not mean there is a *net economic gain*

- Why? - *have to look at sizes*
    - Acquirers are typically substantially larger than targets
    - A large percentage gain to the target may be wiped out if the acquirer experiences even a small percentage loss
- A portfolio approach to analysis. On average, studies indicate modest economic gains

Combined returns

- Measure combined returns to explain cause of merger
    - *Positive*: synergy and efficiency
    - *Negative:* agency costs, managerial entrenchment
    - *Zero:* redistribution of wealth from bidder
- Most evidence suggests mergers have *positive effect* in *short-term*

M&A Outcomes

- Did the merger create value?
- Share price is the right metric
    - A metric that is objective as possible
    - Focus on the benefit to shareholders of target and acquirer despite the importance of other stakeholders to the M&A process
    - Other considerations captured through the share price
- The impact of the M&A transaction must be isolated
    - Examine abnormal returns
    - Use an 'event study' approach

Event Studies

Measurement of abnormal returns

- Residual analysis - tests whether returns to common stock of individual firms or groups of firms is greater or less than that predicted by general market relationships between return and risk
- Event period (period of days centered on announcement date)
    - Identify event and its announcement day (day t_0)
- **Length of event period involves tradeoff**
    - Longer period captures all effects on stock price of event but is subject to more noise (confounding factors)

Benchmarks

- The post-acquisition firm is different from the pre-acquisition entities
    - To compare the post acquisition performance of the merged firm with the pre-acquisition performance of the separate merging firms, *requires a measure of the shareholder value had the merger not occurred* - a control, or **benchmark**
- **Benchmark 1: mean-adjusted return**
- **Bench mark 2: market-adjusted return**
- **Benchmark 3: market-model return**
- **Benchmark 4: other control samples**
    - For example, an external benchmark could be built from a control sample of non-merging firm
    - The presumption is that firms sharing common characteristics are likely to have similar performance
    - Choice of characteristics on which to pick a control sample is imprecise

- Firms may share some common characteristics and still be widely different in their strategic posture, resources, capabilities and ability to create and maintain a competitive advantage

Mean-adjusted and Market-adjusted returns

- Predicted return, for each day *t* and for each firm *j*
    - Represents return that would be expected in the absence of the event
    - Estimated using a "clean period" that does not include event period
- **1. Mean-adjusted return**
    - The mean of daily returns for firm *j* during clean period
        - $\hat{R}_{jt} = \overline{R}_j$
- **2. Market-adjusted return**
    - Predicted return is return on market index for that day
        - $\hat{R}_{jt} = R_{mt}$
- **3. Market Model**
    - Regression using returns for firm *j* during clean period
    - $R_{jt} = a(j) + B * R + e$
    - Estimate regression coefficients A^hat and B^hat
        - Predicted return for firm *j* in day *t* in event period
        - Takes explicit account of both risk associated with market and mean returns
    - Market-adjusted is an approximation of the market model

Calculating abnormal returns

- **Residual** - $r_{jt} = R_{jt} - \hat{R}_{jt}$
    - $r_{jt} = R_{jt} - \hat{R}_{jt}$
    - Abnormal return is the actual return minus predicted return
    - That is, the return that was unexpected from what we expected had the event not occurred
- **Average residual returns**
    - $AR_t = \dfrac{\Sigma r_{jt}}{N}$
    - Measure across multiple deals - what's the average reaction?
    - Average across *N* firms for each event day *t*
    - Averaging across larger number of firms mitigates noisy component of returns
- **Cumulative returns and absolute gains**
    - **Cumulative average residual (CAR)**
        - $CAR = \sum_{t=T1}^{T2} AR$
        - accumulate average residuals for successive days over event period
        - Represents average total effect of event across all firms over event period
    - **Absolute gains (ΔW)**
        - Absolute dollar gain or loss at time *t* due to abnormal return during event period
        - $\Delta W = CAR * MKTVAL$