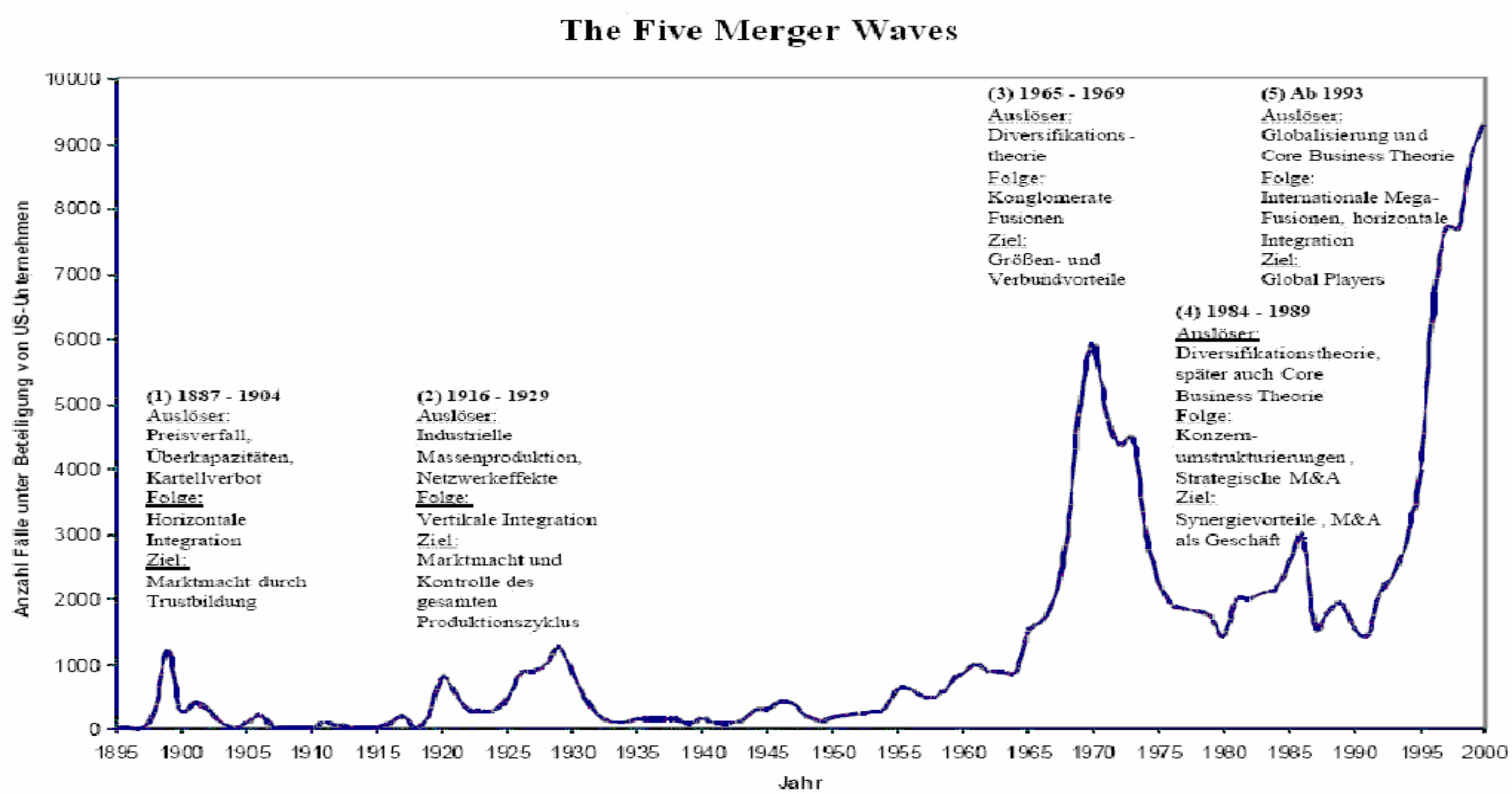
Corporate Finance

Lecture 12: Mergers and Acquisitions

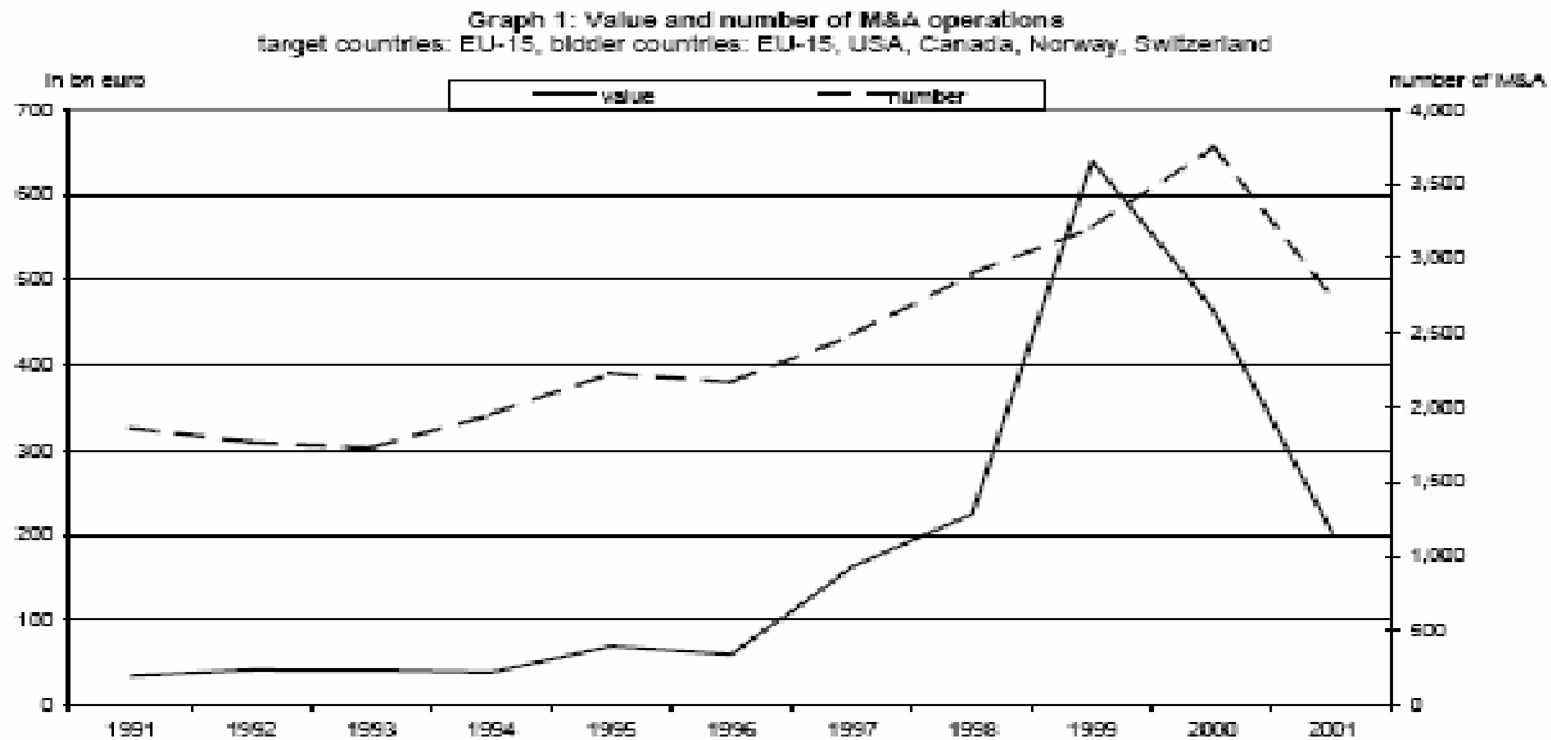
Albert Banal-Estanol

Merger activity in the US during the past century

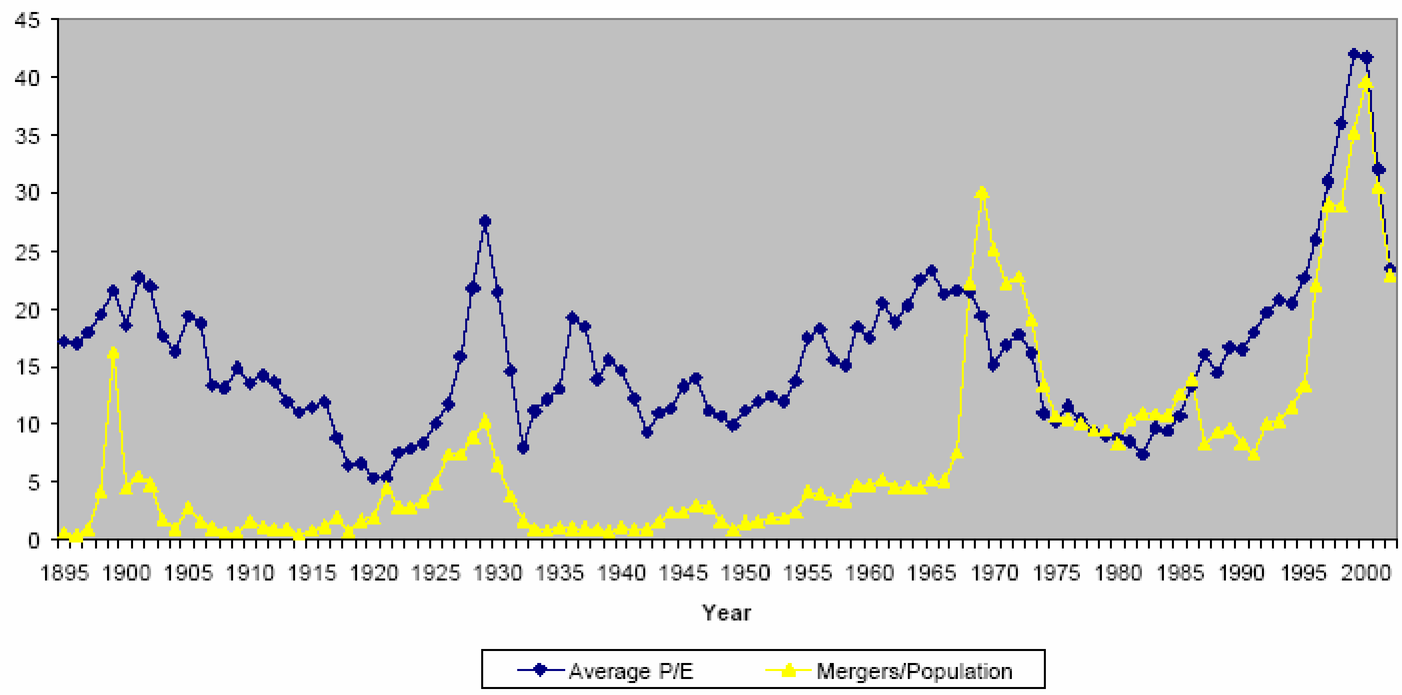


Source: FAZ / Müller-Stewens / Jansen

Mergers in Europe



Mergers come in waves and are pro-cyclical



Sources: Mergers: 1895 -1920 from Nelson (1959); 1921-67 from FTC; 1968-2002 from M&A. *P/E* ratios: Homepage of Robert Shiller: http://aida.econ.yale.edu/~shiller/data.htm; for 2002 we use the average *P/E* ratio until July; mergers: number of mergers in the first 8 months multiplied by 1.5 Population: Statistical Abstract of United States (several years).

Recent Mergers

Industry	Acquiring Company	Selling Company	Payment ($billions)
Telecoms	Vodafone (UK)	Mannesmann (germany)	203.0
Pharmaceuticals	Sanofi (France)	Aventis (France/Germany)	64.0
Pharmaceuticals	Pfizer	Pharmacia	59.5
Banking	JP Morgan Chase	Bank One	58.0
Banking	Bank of America	FleetBoston Financial Corp.	49.3
Telecoms	Cingular Wireless	AT&T Wireless Services	41.0
Banking	Mitsubishi Tokyo Financial Group (Japan)	UFJ Holdings (Japan)	25.7
Healthcare	Anthem	Wellpoint Health Networks	16.4
Insurance	St. Paul Companies	Travelers property Casualty	16.1
Banking	Banco santander Central Hispano	Abbey (UK)	15.6
Banking/Consumer Finance	HSBC Holdings (UK)	Household International	15.3
Media	General Electric	Vivendi Universal Entertainment (France)	13.7

Today's Lecture

- Evidence of merger activity
- Definitions and classifications
- Gains and losses from merging
- Empirical evidence
- (Bidding strategies in takeovers)

Definitions

- Merger: “A merger is a transaction in which assets of two or more firms are combined in a new firm”
- Acquisition: “Purchase of one firm (“target”) by another firm (“acquirer”)”
  - Friendly: made directly to the management
  - Hostile: making a tender offer to the shareholders
- Tender offer: “Offer to purchase a certain number of shares at a certain price and date”
- (Leverage) buyout: “Individual or group arranges to buy the company (often with debt) and take it private”

Types of Mergers

- Vertical merger
  - Combination of firms at different stages of production
- Horizontal merger
  - Combinations of two firms in the same line of business
- Conglomerate merger
  - Firms in unrelated markets combine

Financial classification of M&A

- Strategic acquisitions:
  - Generate operating synergies (reduce competition, attain economies of scale or scope, R&D synergies…)
  - Most of them horizontal
- Financial acquisitions:
  - Bidder thinks that target is undervalued (due to different information or because of bad management)
  - Leverage buyouts (e.g. RJR Nabisco)
- Conglomerate acquisitions:
  - Motivated by financial synergies (taxes, diversification…)
  - Example: ITT (communications, cars, TVs, hotels,…)

Takeover Gains (1)

- Tax gains:
  - Increase leverage
  - Tax shields from losses in one of the firms
- Operating synergies:
  - Improve productivity or cut costs, e.g. in R&D or advertising (economies of scale)
  - Eliminate coordination and bargaining issues in case of a vertical merger
  - Reduce competition in horizontal mergers
  - Combination of distribution networks
  - Diversification? (e.g. tobacco buying food companies)

Takeover Gains (2)

- Management incentives and takeovers:
  - If managers' interests deviate from shareholders' takeovers can correct that
  - Example: Gulf in the 1980s was taken over by Chevron. Stock was trading at low values because of investment in negative NPV (oil exploration)
  - Sometimes replacing caring by ruthless managers (gains at a cost for employees)
  - Usually hostile leading to break-ups and sometimes using large amount of debt (leverage buyout)
  - Not necessary to involve two firms nor even a change in management (management leverage buyout)

Takeover Gains (3)

- Financial synergies:
  - Diversification is not generally a good reason because it is cheaper for shareholders to diversify themselves (CAPM and APT)
  - However, merging two companies can bypass paying personal taxes before reinvesting
  - In addition, problem of information may impede transfers

Takeover Gains (Summary)

- Do the benefits outset the costs?
- Can the benefits be obtained otherwise?
  - Tax gains
  - Joint marketing agreement to use distribution networks of each other
  - However, an explicit contract may be too complicated or costly to write

Costs of Merging

- Hierarchical structure of organisation (Meyer et al., 1992)
- Divisional rent seeking (Sharfstein and Stein, 2000)
- Coordination problems in large organisations (Van Huyck et al., 1990)
- Cost of integrating two companies with different production processes, accounting methods or corporate cultures
- Misallocation of capital can also occur, decreasing value
- Mergers reduce information content of stock markets

Empirical Evidence: Methods

1. Analysis of the stock returns around the time of the tender or merger offer
2. Are diversified firms more valuable than non-diversified firms?
3. Did profits (of the target) increase after merging?

Event Studies

- Target shareholders are offered a premium and therefore gain from a takeover (10-50%)
- Bidder shareholders tend to be negative (bad mergers or too high premium)
  - Market reaction can contain other (primarily positive) information about bidder
  - Bidders buying in cash instead of own shares experienced higher returns (again cash good and shares bad signals)
  - Bids can also provide (primarily positive) information about the target (targets on failed mergers trade at a premium)

Diversification Studies

- Diversification increased from 60s and peaked in the late 70s
- Empirically, diversification lowers value
- However, this significantly depends on the period in time (Morck et al. 90) :
    - Diversifying acquisitions had lower returns in the 80's (-) than in the 70s
    - Non-diversifying acquisitions had higher returns in the 80's (7%) than in the 70s (1%)

Accounting Studies

- Compare profits of merged firms (or business units) with respect to a control group
- On average profits of the acquired units till 1975 declined (Ravenscraft and Scherer 87)
- Problems:
  - Accounting data
  - Total value of the firm may be higher still
  - Targets may already be firms with poor prospects (low Tobin's q)
- Studies on recent merger performance tend to offer more positive numbers (Andrade et al. 2001)

Why failures?

1. Bad luck
   - When realization lower than expectations
     →Failure because of bad luck

2. Empire Building
   - Managers maximise own utility, not shareholders'
   - This utility is typically linked with growth and size of assets
   - Gugler et al. (2003): Around 15% of all mergers and 35% of all failures

3. Hubris and bounded rationality
   - Being over-optimistic about efficiency gains (Booz-Allen & Hamilton, 1999).
   - Not foreseeing cultural conflict and post-merger problems (Weber and Cameron, 2003).
   - Interaction of synergies and agency conflicts can lead to coordination problems (Fulghieri and Hodrick, 2003)
     - → Managers foresee "good equilibrium", but end up in "bad equilibrium".
   - Gugler et al. (2003): Around 28% of all mergers and 65% of all failures

Empirical Evidence: LBOs

- Buy a public company using a lot of debt and transformed it into a private company
- Common in the 70's and 80's
- High increase in stock price suggesting increased management incentives
  - High premia for low growth-high cash (suggesting reduction of tendency to overinvest)
  - Higher cash flows and productivity levels despite some defaults

Financing Acquisitions

- Acquisitions may be paid in…
  - Cash (probably borrowing or issuing debt)
  - Own shares (very common in the 90s)
  - A combination of the two
- Need to take into account…
  - Taxes and accounting issues
  - Their current debt ratios
  - Private information about over/undervaluation of the bidder and target (see later!)

Bidding Strategies in (Hostile) Takeovers

- Sometimes firms bid for part of the firm
  - Not necessary to buy all firm to introduce changes
  - Need to pay high prices to some investors
- In theory, there is also a free-rider problem (Grossman and Hart 80):
  - Outside bidder can improve share price from $20 to $30
  - Makes a conditional tender offer for 51% of shares at $25
  - Would you tender? Would it be successful? Is it efficient?
  - What does the bidder needs to offer? Would it offer that?

Solutions to the Problem (1)

- Buy secretly from the open market:
  - Legal maximum 5%
  - Profit from the increase in price on those shares
- Presence of another large shareholder:
  - If one affects the probability of success, it might be optimal to tender at a lower price
  - Example: if tendering (success for sure) and not tendering (only 50%), accept tender if price > 25
  - Large shareholders may appear during the offer ("risk arbitrageurs")

Solutions to the Problem (2)

- If bidder benefits more from the shares than the market, then she may pay full price
- Two-tiered offers:
  - Minority shareholders may be forced to sell shares
  - Tender offer accompanied with a price that will be paid to the remaining shares (if successful)
  - Generally lower value than the tendering price and therefore shareholders could be forced to sell
  - Nowadays, regulations in place

Management Defenses

- Paying greenmail:
  - Buying back bidder's stock at a premium conditional on suspending bid
- Supermajority rules:
  - Firms may have rules saying that more than 50% of shares are necessary to gain control
- Poison pills:
  - Provide rights to not-tendering shareholders
  - e.g. right to buy firm's stock at discount if there is a merger
- Lobbying for anti-takeover legislation:
  - e.g. prevention of voting all of your shares (max 20%)
  - or allowing directors to consider rights of employees,…
- Are these defenses good for shareholders?