Mergers & Acquisitions

Andrej Bajic

28.1. Background and Historical Trends

- What is M&A: mergers and acquisitions are part of what is often referred to as “**the market for corporate control**”.

- Participants of M&A
  - A **buyer**, the acquirer or bidder.
  - A **seller**, the target firm.

- Types of mergers
  - **Horizontal merger**: if the target and acquirer are in the same industry.
  - **Vertical merger**: if the target’s industry buys or sells to the acquirer’s industry.
  - **Conglomerate merger**: if the target and acquirer operate in unrelated industries.

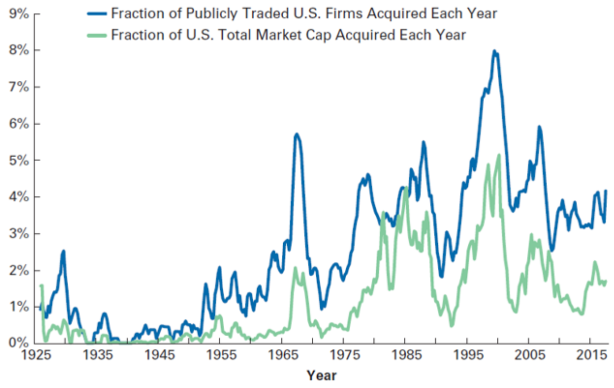
- Mergers classified by means of payments
  - The target shareholders can receive **stock as payment.**
  - The target shareholders can receive cash as **cash as palyment.**

Average Acquisition Premium and Stock Price Reactions to Mergers

Premium Paid over Premerger Price	Announcement Price Reaction: Target	Announcement Price Reaction: Acquirer
43%	15%	1%

Merger waves

- Merger waves—peaks of heavy activity followed by quiet troughs of few transactions.
- Merger activity is greater during economic expansions than during contractions and correlates with bull markets.



28.2. Market Reaction to a Takeover

1. In most U.S. states, the law requires that when existing shareholders of a target firm are forced to sell their shares, they receive a fair value for their shares.

2. As a consequence, a bidder is unlikely to acquire a target company for less than its current market value

3. In practice, most acquirers pay a premium on the current market value.

QUESTIONS

1. Why do acquirers pay a premium?
2. Why does the price of the target rise less than the premium offered?
3. Why does the acquirer not experience a large price increase?

28.2. Market Reaction to a Takeover - Market Overview: Global Mergers & Acquisitions Review (as of Q3 2022)

01

WORLDWIDE M&A FALLS 34%, THIRD QUARTER M&A FALLS BELOW US$1 TRILLION

Worldwide M&A activity totaled US$2.8 trillion during the first nine months of 2022 a decrease of 34% compared to year-ago levels and largest year-over-year percentage decline since 2009. The third quarter of 2022 marked the first quarter to fall below US$1 trillion since the second quarter of 2020. By number of worldwide deals, nearly 40,300 deals were announced during the first nine months of 2022, a decrease of 17% compared to year ago levels and a two-year low.

02

TECHNOLOGY ACCOUNTS FOR RECORD 22% OF DEAL MAKING

Deal making in the Technology sector totaled US$609.1 billion during the first nine months of 2022, a decrease of 30% compared to 2021 levels and accounting for a record 22% of overall value. The number of technology deals decreased 22% compared to year ago levels. Energy & Power M&A accounted for 13% of overall M&A, down 14% compared to a year ago. Industrials deal making accounted for 12% of activity during the first nine months of 2022, a 30% decrease compared to a year ago.

03

CROSS-BORDER M&A DECLINES 38%

Cross-border M&A activity totaled US$930.1 billion during the first nine months of 2022, a 38% decrease compared to a year ago and the slowest first nine months for cross-border M&A since 2020. The Technology, Energy & Power and Financials sectors accounted for 42% of cross-border deals during the first nine months of 2022, up from 40% a year ago.

04

PRIVATE EQUITY-BACKED M&A DOWN 25%, ACCOUNTS FOR RECORD 23% OF M&A

Private Equity-backed buyouts accounted for a record 23% of M&A activity during the first nine months of 2022. Overall value reached US$654.2 billion, a decrease of 25% compared to a year ago. Nearly 8,600 private equity backed deals were announced during the first nine months, a decrease of 26% compared to last year at this time. Special Purpose Acquisition Companies (SPAC) announced 144 initial business combinations during the first nine months of 2022, totaling US$81.1 billion, or 3% of overall value. SPAC business combinations accounted for 10% of activity during the first nine months of 2021.

05

US TARGET M&A DOWN 40%, ACCOUNTS FOR 42% OF DEAL MAKING

MAKINGM&A activity for US targets totaled US$1.2 trillion during the first nine months of 2022, a decrease of 40% compared to the level of activity seen during the first nine months of 2021 and the slowest period months for US deal making in two years. US deal making accounted for 42% of overall worldwide M&A during the first nine months of 2022, down from 46% a year ago.

06

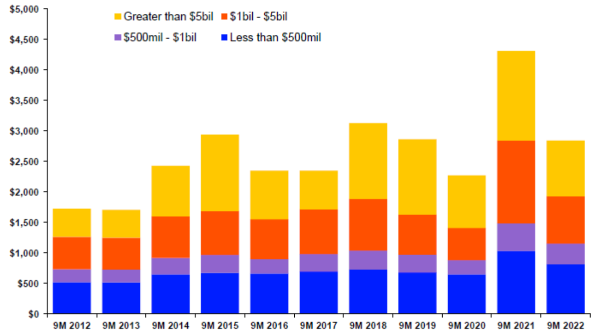
EUROPEAN M&A DOWN 24%; ASIA PACIFIC DECLINES 30%

European target M&A totaled US$712.2 billion during the first nine months of 2022, a decrease of 24% compared to 2021 levels and a two-year low. Asia Pacific deal making totaled US$621.1 billion during the first nine months of 2022, a 30% decrease and the slowest first nine months since 2020.

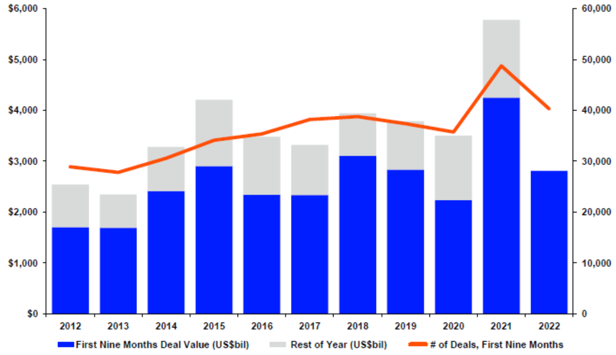
07

MEGA DEALS FALL 30%; DEALS BETWEEN US$1-US$5 BILLION DOWN 43%

The value of worldwide M&A between US$1 and US$5 billion totaled US$770.6 billion during the first nine months of 2022, a decrease of 43% compared to a year ago and a two-year low. Twenty-nine deals greater US$10 billion totaled US$618.7 billion during the first nine months of 2022, a 30% decrease compared to 2021 levels and the lowest period for mega deals, by value, in two years.



Global Announced M&A



Global Announced M&A - Deal Size Composition (US$bil)

28.2. Market Reaction to a Takeover - Market Overview: M&A Scorecard

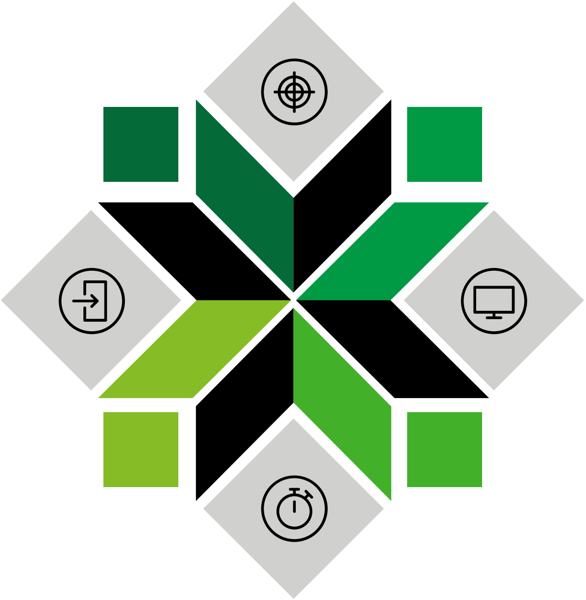
Global Announced AD1 YoY Change ($) -34% QoQ Change ($) -37%

Financial Advisor	Rank 2022	Rank 2021	Value US$mil	Market Share	Mkt. Sh. Chg	# of Deals
Goldman Sachs & Co	1	1	898,001	31.9	0.5	335
JP Morgan	2	2	625,334	22.2	-0.7	253
Morgan Stanley	3	3	609,467	21.7	-0.9	230
BofA Securities Inc	4	5	468,161	16.7	2.6	169
Citi	5	4	409,144	14.6	-2.0	146
Barclays	6	6	287,209	10.2	-1.0	159
Credit Suisse	7	8	239,858	8.5	0.3	92
Lazard	8	10	212,188	7.6	0.7	213
BNP Paribas SA	9	16	208,335	7.4	3.8	108
Rothschild & Co	10	11	165,635	5.9	0.4	354
UBS	11	7	150,189	5.3	-3.1	117
Jefferies LLC	12	14	141,576	5.0	0.9	186
Evercore Partners	13	9	134,045	4.8	-2.1	152
RBC Capital Markets	14	15	122,994	4.4	0.7	116
Wells Fargo & Co	15	18	121,231	4.3	1.4	42
Moelis & Co	16	23	120,166	4.3	1.8	117
Centerview Partners LLC	17	17	109,034	3.9	1.0	56
Nomura	18	26	108,355	3.9	1.7	113
Allen & Co Inc	19	19	106,412	3.8	1.0	9
HSBC Holdings PLC	20	20	101,709	3.6	0.9	48
CITIC	21	45	95,558	3.4	2.5	54
Deutsche Bank	22	12	82,670	2.9	-1.7	59
Santander Corp & Invest Bkg	23	34	74,710	2.7	1.2	52
PJT Partners Inc	24	22	68,441	2.4	-0.2	59
UniCredit	25	78	67,521	2.4	2.1	21
Industry Total			**2,811,232**	**100.0**		**40,277**

Global Completed AF1 YoY Change ($) -13% QoQ Change ($) -20%

Financial Advisor	Rank 2022	Rank 2021	Value US$mil	Market Share	Mkt. Sh. Chg	# of Deals
Goldman Sachs & Co	1	1	935,655	34.9	4.4	299
JP Morgan	2	2	613,341	22.9	-3.5	253
Morgan Stanley	3	3	606,946	22.7	-1.4	228
Citi	4	5	552,052	20.6	6.2	159
BofA Securities Inc	5	4	427,131	15.9	0.5	180
Barclays	6	7	346,172	12.9	3.7	124
Credit Suisse	7	6	234,840	8.8	-0.6	96
UBS	8	12	206,119	7.7	2.5	105
Rothschild & Co	9	10	184,440	6.9	0.8	273
Lazard	10	9	182,845	6.8	-0.8	202
RBC Capital Markets	11	20	156,126	5.8	2.9	83
Centerview Partners LLC	12	13	155,630	5.8	0.7	58
Deutsche Bank	13	11	154,478	5.8	0.2	71
Evercore Partners	14	8	149,720	5.6	-2.8	115
Perella Weinberg Partners LP	15	28	141,220	5.3	3.5	44
BNP Paribas SA	16	15	127,008	4.7	0.3	94
Jefferies LLC	17	14	115,639	4.3	-0.1	168
HSBC Holdings PLC	18	19	109,822	4.1	1.2	37
LionTree Advisors LLC	19	18	99,741	3.7	0.7	20
PJT Partners Inc	20	25	89,663	3.4	1.5	42
Allen & Co Inc	21	46	81,284	3.0	1.9	8
Qatalyst Partners	22	26	80,745	3.0	1.1	8
Stifel/KBW	23	48	77,428	2.9	1.8	108
Moelis & Co	24	16	74,407	2.8	-1.4	102
Nomura	25	17	73,018	2.7	-0.7	89
Industry Total			**2,679,753**	**100.0**		**31,356**

*Indicates a Tie



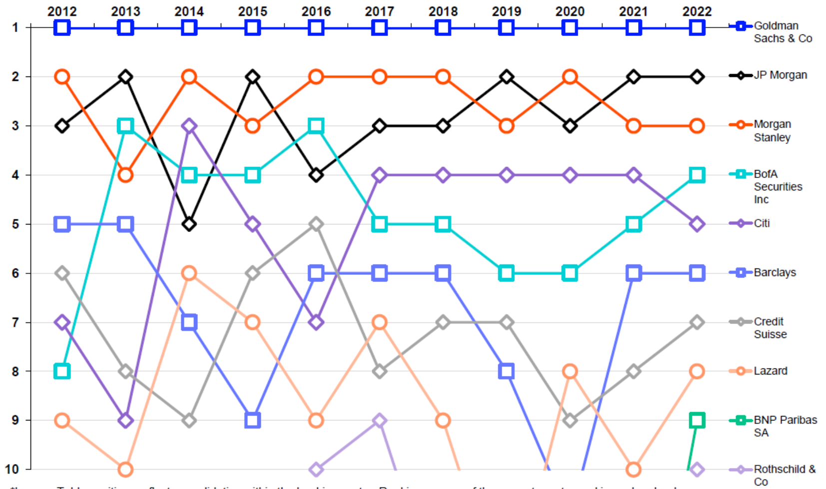
Global Scorecard: Global Announced M&A

Target Region / Nation	01/01/2022 - 09/30/2022 Value ($mil)	# of Deals	01/01/2021 - 09/30/2021 Value ($mil)	# of Deals	YoY % Chg. ($)	YoY % Chg. (#)
Worldwide	**2,811,232**	**40,277**	**4,248,919**	**48,753**	**-34%** ▼	**-17%** ▼
Americas	**1,319,193**	**13,194**	**2,179,028**	**16,249**	**-39%** ▼	**-19%** ▼
Caribbean	2,335	66	13,027	86	-82% ▼	-23% ▼
Latin America	71,971	1,030	95,211	1,367	-24% ▼	-25% ▼
Brazil	40,457	614	63,466	901	-36% ▼	-32% ▼
Mexico	12,704	137	9,827	137	29% ▲	0% -
North America	1,244,887	12,098	2,070,789	14,796	-40% ▼	-18% ▼
United States	1,175,201	10,424	1,960,605	12,421	-40% ▼	-16% ▼
Canada	69,686	1,674	110,184	2,375	-37% ▼	-30% ▼
Africa/Middle East	**99,287**	**1,395**	**171,201**	**1,494**	**-42%** ▼	**-7%** ▼
Middle East	66,332	574	100,601	727	-34% ▼	-21% ▼
North Africa	7,582	256	6,937	259	9% ▲	-1% ▼
Sub-Saharan Africa	24,442	495	62,693	452	-61% ▼	10% ▲
Europe	**712,249**	**13,726**	**939,180**	**15,371**	**-24%** ▼	**-11%** ▼
Eastern Europe	40,069	2,041	45,433	2,230	-12% ▼	-8% ▼
Western Europe	672,180	11,685	893,748	13,141	-25% ▼	-11% ▼
France	70,472	1,720	105,211	1,629	-33% ▼	6% ▲
Germany	78,049	1,367	116,293	1,703	-33% ▼	-20% ▼
United Kingdom	183,086	3,234	337,754	3,627	-46% ▼	-11% ▼
Asia-Pacific	**621,105**	**9,157**	**886,404**	**12,582**	**-30%** ▼	**-27%** ▼
Australia	66,783	1,190	183,524	1,504	-64% ▼	-21% ▼
China	251,972	3,116	366,358	6,111	-31% ▼	-49% ▼
India	136,278	1,597	85,892	1,333	59% ▲	20% ▲
Singapore	32,695	438	74,442	365	-56% ▼	20% ▲
South East Asia	138,691	1,670	86,524	1,416	60% ▲	18% ▲
Japan	**59,398**	**2,805**	**73,106**	**3,057**	**-19%** ▼	**-8%** ▼

Global Scorecard: Global Completed M&A

Target Region / Nation	01/01/2022 - 09/30/2022 Value ($mil)	# of Deals	01/01/2021 - 09/30/2021 Value ($mil)	# of Deals	YoY % Chg. ($)	YoY % Chg. (#)
Worldwide	**2,679,753**	**31,356**	**3,093,951**	**38,651**	**-13%** ▼	**-19%** ▼
Americas	**1,266,920**	**11,417**	**1,623,701**	**13,934**	**-22%** ▼	**-18%** ▼
Caribbean	17,398	59	17,872	63	-3% ▼	-6% ▼
Latin America	68,858	829	62,703	1,054	10% ▲	-21% ▼
Brazil	39,917	503	39,735	683	0% ▲	-26% ▼
Mexico	10,881	100	5,311	104	105% ▲	-4% ▼
North America	1,180,665	10,529	1,543,125	12,817	-23% ▼	-18% ▼
United States	1,117,267	9,339	1,471,265	10,944	-24% ▼	-15% ▼
Canada	63,398	1,190	71,860	1,873	-12% ▼	-36% ▼
Africa/Middle East	**72,187**	**1,011**	**137,112**	**1,111**	**-47%** ▼	**-9%** ▼
Middle East	44,020	425	75,300	577	-42% ▼	-26% ▼
North Africa	7,451	207	4,630	211	61% ▲	-2% ▼
Sub-Saharan Africa	18,813	311	55,935	274	-66% ▼	14% ▲
Europe	**803,741**	**10,937**	**732,981**	**12,497**	**10%** ▲	**-12%** ▼
Eastern Europe	35,366	1,600	31,766	1,831	11% ▲	-13% ▼
Western Europe	768,375	9,337	701,216	10,666	10% ▲	-12% ▼
France	90,466	1,338	90,495	1,364	0% ▼	-2% ▼
Germany	52,687	1,048	55,561	1,158	-5% ▼	-9% ▼
United Kingdom	302,181	2,733	284,423	3,125	6% ▲	-13% ▼
Asia-Pacific	**484,523**	**5,820**	**520,572**	**8,703**	**-7%** ▼	**-33%** ▼
Australia	146,359	959	76,891	1,212	90% ▲	-21% ▼
China	140,085	1,481	231,411	4,163	-39% ▼	-64% ▼
India	51,106	1,231	62,560	998	-18% ▼	23% ▲
Singapore	41,511	330	31,051	255	34% ▲	29% ▲
South East Asia	51,515	1,266	63,327	1,054	-19% ▼	20% ▲
Japan	**52,382**	**2,171**	**79,586**	**2,406**	**-34%** ▼	**-10%** ▼

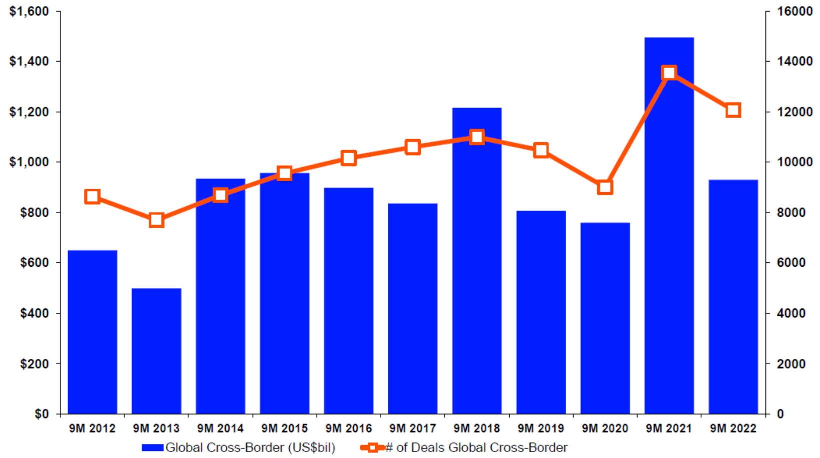
28.2. Market Reaction to a Takeover - Market Overview: Transaction Overview

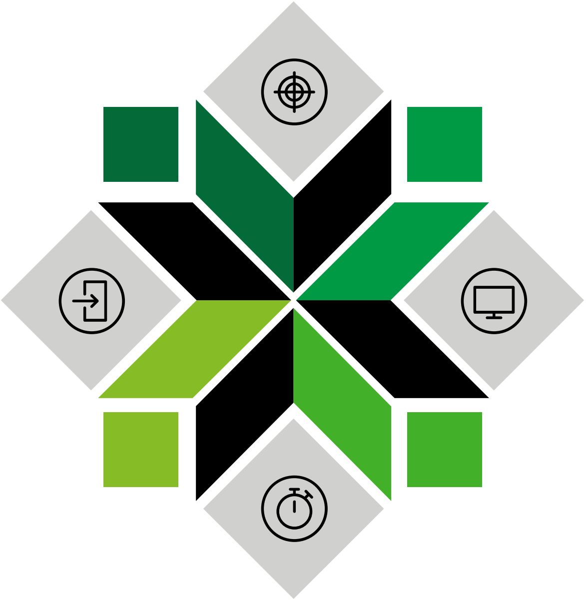


*League Table positions reflect consolidation within the banking sector. Rankings are as of the current quarter end in each calendar year.

Global M&A Rankings

Global Announced Cross-Border M&A

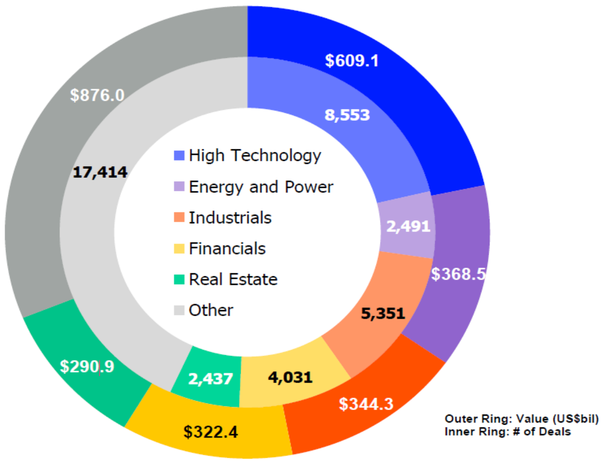




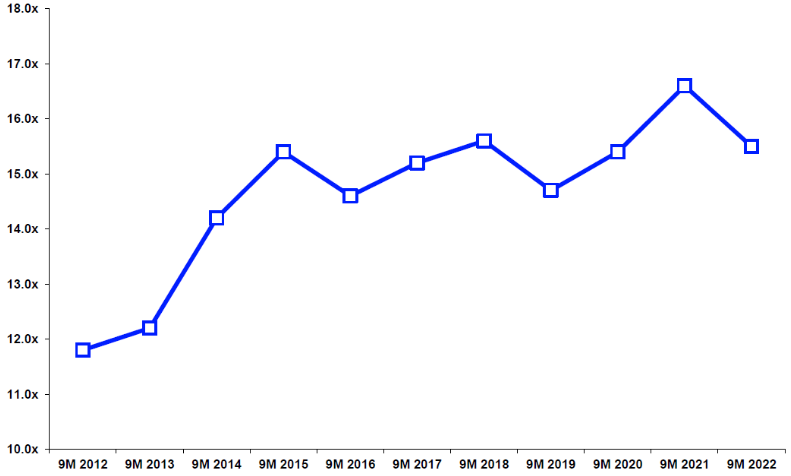
Rank Date	Target Name	Target Nation	Value ($mil)	Acquiror Name	Acquiror Nation
1/18/22	Activision Blizzard Inc	United States	68,676.3	Microsoft Corp	United States
5/26/22	VMware Inc	United States	68,282.1	Broadcom Inc	United States
4/4/22	Housing Dvlp Fin Corp Ltd	India	60,390.1	HDFC Bank Ltd	India
4/14/22	Atlantia SpA	Italy	52,056.6	Schemaquarantatre SpA	Italy
5/10/22	Duke Realty Corp	United States	25,424.4	Prologis Inc	United States
2/15/22	Mileway BV	Netherlands	23,740.5	Investor Group	United States
1/28/22	Constellation Energy Corp	United States	21,704.2	Shareholders	United States
5/31/22	Firmenich International SA	Switzerland	20,719.8	Koninklijke DSM NV	Netherlands
9/15/22	Figma Inc	United States	18,752.2	Adobe Inc	United States
7/18/22	GSK Consumer Healthcare	United Kingdom	18,580.0	Shareholders	United Kingdom
5/11/22	Swedish Match AB	Sweden	17,283.7	Philip Morris Investments BV	Netherlands
1/31/22	Citrix Systems Inc	United States	16,161.9	Picard Parent Inc	United States
5/4/22	Black Knight Inc	United States	15,960.2	Intercontinental Exchange Inc	United States

Top Global Announced M&A Transactions

Global Announced M&A - Macro Industry Composition

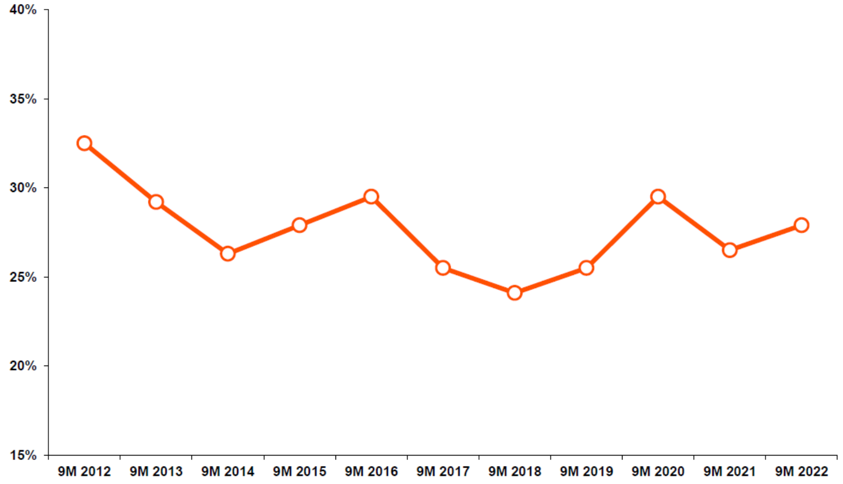


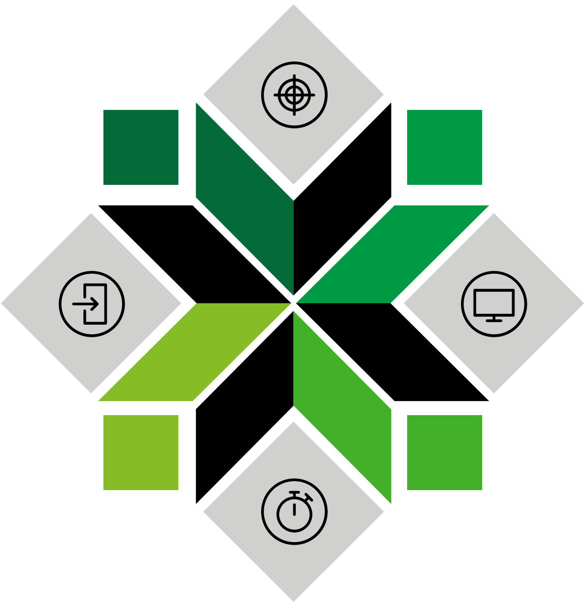
28.2. Market Reaction to a Takeover - Market Overview: Multiples Comparison – Relative Valuation Appetite

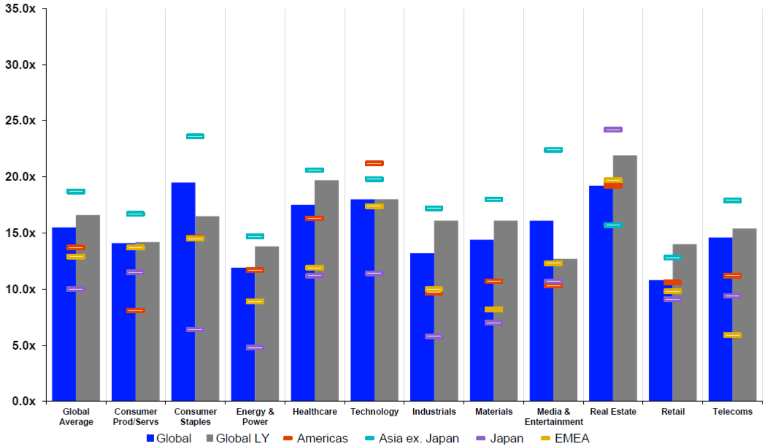


Global Rank Value to EBITDA Exit Multiples

Global Bid Premium to 4-Week Stock Price

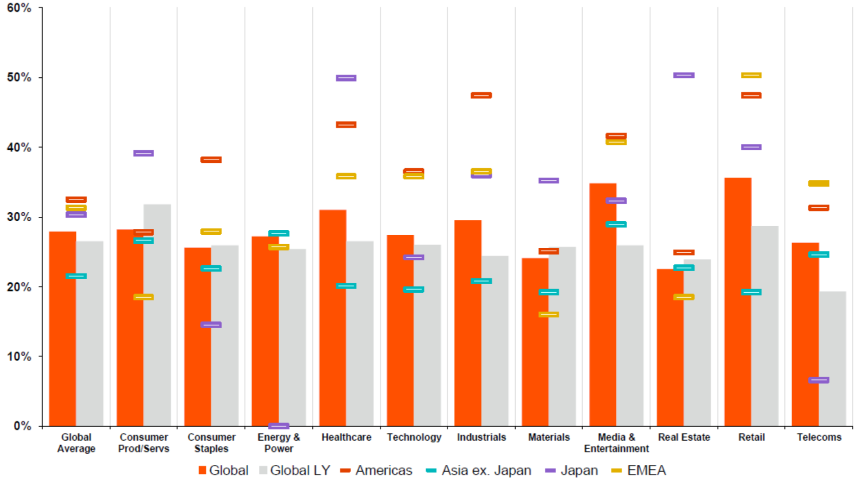






Exit Multiples - 2022 Average Rank Value to EBITDA by Macro Industry

Bid Premium - 2022 Avg Premium to 4 Week Stock Price by Macro Industry

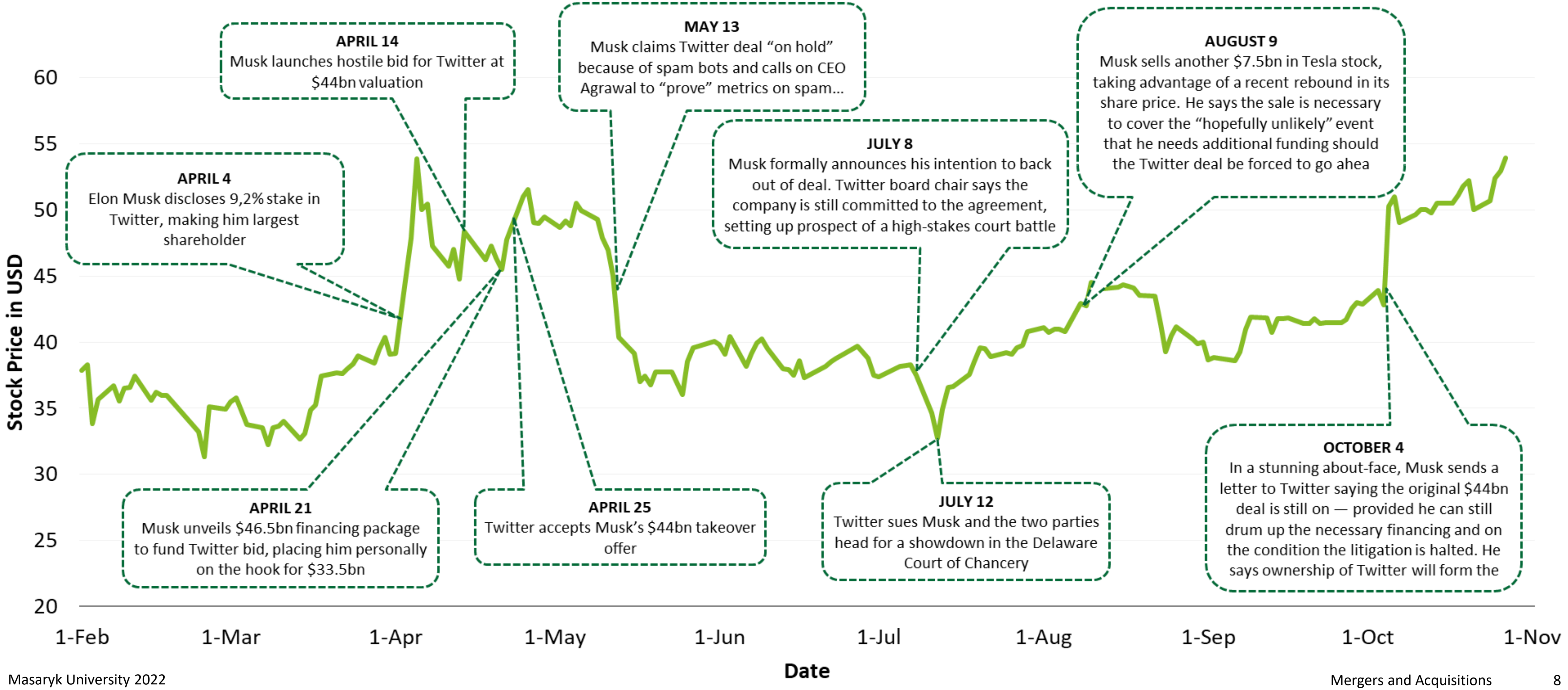


28.2. Market Reaction to a Takeover - Twitter Takeover Timeline

February 1. – Musk starts buying Twitter shares (Price at close $38,12)

October 27. – Deal is completed (Price at close $53,70)

Premium = 40,87%



28.3. Reason for M&A

Mergers and acquisitions are motivated by the goal to mitigate the weaknesses of either business and to bolster their combined strengths, to remove a competitor or threat within their industry, or to undergo a period of exponential growth in a short space of time. The most common reasons why M&A happen are listed and explained below:

1. Economies of scale

Economies of scale is savings from producing goods in high volume.

2. Efficiency gains

Another justification acquirers cite for paying a premium for a target is efficiency gains, which are often achieved through an elimination of duplication

3. Vertical integration

Vertical integration refers to the merger of two companies in the same industry that make products required at different stages of the production cycle.

4. Expertise

Firms often need expertise in particular areas to compete more effectively.

5. Economies of scope

Economies of scope, which are savings that come from combining the marketing and distribution of different types of related products

6. Operating losses

When it incurs a loss, the government does not rebate taxes.

7. Diversification

Direct risk reduction, lower cost of debt or increased debt capacity, and liquidity enhancement

8. Earnings growth

Combine two companies with the result that the earnings per share of the merged company exceed the premerger earnings per share of either company

9. Monopoly gains

Merging with or acquiring a major rival enables a firm to substantially reduce competition within the industry and thereby increase profits

28.3. Reason for M&A – Economies of Scale and Scope

Economics of scale benefits

- ✓ Efficient production
- ✓ Reduction in promotion costs
- ✓ Buy in bulk
- ✓ Reduction in logistics costs
- ✓ Cheaper capital
- ✓ Spread risk

Economies of scale ≠ **Economies of scope**

Economies of scale	Economies of scope
Accumulated volume in production -> lower price per unit	Reusing a resource from one business/country in additional business/countries

Economics of scale definition

A large company can enjoy **economies of scale**, or savings from producing goods in high volume, that are not available to a small company.

Economics of scale example

Stride Rite's acquisition of sports shoemaker Saucony in 2005, one motivation was to reduce Saucony's manufacturing costs because, due to its larger size, Stride Rite could negotiate superior manufacturing contracts in China.

Economics of scope definition

Economies of scope, benefit are savings that come from combining the marketing and distribution of different types of related products.

Economics of scope example

Many analysts believed that Kraft's decision in 2009 to purchase the British chocolate maker Cadbury was motivated by a desire to expand Kraft's snack foods into emerging markets where Cadbury already had a large presence. There may also be costs associated with size.

Drawbacks

Chief among these is that larger firms are more difficult to manage. In a small firm, the CEO is often close to the firm's operations. He or she can keep in touch with the firm's largest customers and most important personnel, thereby keeping abreast of changing market conditions and potential problems. Because they receive information quickly, small firms are often able to react in a timely way to changes in the economic environment.

28.3. Reason for M&A – Vertical Integration

1 Definiton

- **Vertical integration** refers to the merger of two companies in the same industry that make products required at different stages of the production cycle.
- A company might conclude that it can enhance its product if it has direct control of the inputs required to make the product. Similarly, another company might not be happy with how its products are being distributed, so it might decide to take control of its distribution channels.
- The principal benefit of vertical integration is coordination. By putting two companies under central control, management can ensure that both companies work toward a common goal.

2 Examples

1. Netflix's shift from licensing shows and movies from major studios to producing its own original content is an example of vertical integration.

2. Oil companies are often vertically integrated. They generally own all stages of the production process, from the oil fields to the refineries and so on, even down to the gas stations that distribute their primary product—gasoline. Many also have divisions that prospect for new oil.

3 Drawbacks

- Consequently, not all successful corporations are vertically integrated. A good example is Microsoft Corporation. Microsoft has chosen to make the operating system that the vast majority of computers use, but not the computers themselves.
- Many experts have argued that a key factor in Microsoft's early success over rivals IBM and Apple was its decision not to integrate vertically.

28.3. Reason for M&A: Acquiring Expertise

Expertise requirement

- Firms often need **expertise** in particular areas to compete more effectively.
- The expertise requirement can be fulfilled by a firm entering the labor market and attempt to hire personnel with the required skills

Challenges in fulfilling the expertise requirement

- Hiring experienced workers with the appropriate talent might be difficult with an unfamiliar, new technology.

Possible solution in fulfilling the expertise requirement

- A more efficient solution may be to purchase the talent as an already functioning unit by acquiring an existing firm

Example

- U.K. builder Amec bought a large stake in Spie Batignolles, a French contractor, to gain local contacts and expertise in the French building industry.
- Such mergers are common in high-tech industries. Networking firm Cisco Systems is known for its strategy of buying young start-up firms that have developed promising new networking technologies.

28.3. Other reason for M&A – brief

Other main reasons for engaging into M&A transaction:

MONOPOLY GAINS

- Merging with or acquiring a major rival enables a firm to substantially reduce competition within the industry and thereby increase profits.
- Society as a whole bears the cost of monopoly strategies, so most countries have antitrust laws that limit such activity.
- The extent to which these laws are enforced tends to vary across countries and over time depending on the policy of current leaders.

EFFICIENCY GAINS

- Acquirers cite for paying a premium for a target is efficiency gains, which are often achieved through an elimination of duplication.
- Acquirers also often argue that they can run the target organization more efficiently than existing management could.
- Unhappy investors typically sell their stock, so the stock of a corporation with an inept chief executive trades at a discount relative to the price at which it would trade if it had more capable leadership.

OPERATING LOSSES

- When a firm makes a profit, it must pay taxes on the profit. However, when it incurs a loss, the government does not rebate taxes.
- Thus, it might appear that a conglomerate has a tax advantage over a single-product firm simply because losses in one division can be offset by profits in another division.

DIVERSIFICATION

- The benefits of diversification are frequently cited as a reason for a conglomerate merger.
- The justification for these benefits comes in three forms: direct risk reduction, lower cost of debt or increased debt capacity, and liquidity enhancement

EARNING GROWTH

- It is possible to combine two companies with the result that the earnings per share of the merged company exceed the premerger earnings per share of either company, even when the merger itself creates no economic value.

28.4. Valuation and the Takeover Process

Valuation

- Valuation approaches
  - Compare the target to other comparable companies
  - Projection of the expected cash flows that will result from the deal, and valuing those cash flows
- Second approach to valuation requires making a projection of the expected cash flows that will result from the deal, and valuing those cash flows.

$$\begin{gathered}Amount\ paid \\ = Target`s\ Pre\ Bid\ Market\ Capitalization \\ + Acquisition\ Premium\end{gathered}$$

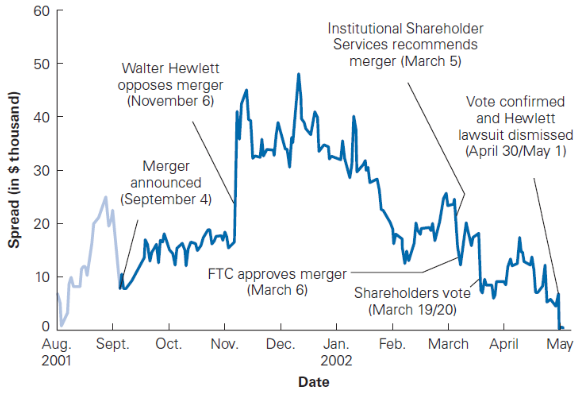
$$Value\ Acquired = Target\ Stand\ Alone\ Value + PV(Synergies)$$

The Offer

- Once the acquirer has completed the valuation process, it is in the position to make a tender offer.
- A bidder can use either of two methods to pay for a target: cash or stock.

Merger "Arbitrage"

- Because there is the uncertainty of the deal being completed, the stock price of the target company typically sells at a price below the acquisition price.



Tax and Accounting Issues

- Tax liability is deferred until the target shareholders sell their new shares of bidder stock for a stock swap purchase.
- Higher depreciable basis (when purchased directly) reduces future taxes through larger depreciation charges.
- Any goodwill created could also be amortized for tax purposes over 15 years.

Board and Shareholder Approval

- In a friendly takeover, the target board of directors supports the merger, negotiates with potential acquirers, and agrees on a price that is ultimately put to a shareholder vote.
- In a hostile takeover, the board of directors (together with upper-level management) fights the takeover attempt. To succeed, the acquirer must garner enough shares to take control of the target and replace the board of directors.

28.4. Valuation and the Takeover Process - Valuation Methodologies: Approach to Asset Valuation

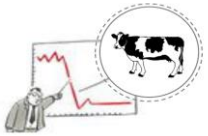
Valuation Methodologies

Comparable Valuation

Share Price | **Broker Target**

- Current trading of a company on the stock exchange (if listed)
- Based on efficient market hypothesis

- Current valuation of research analysts covering the stock
- Research analysts analyze and value a company in detail based on publicly available information



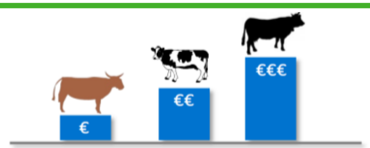
*"How much would other farmers pay on the market for **my** cow?"*

Comparable Valuation

Trading | **Transaction**

- Company valuation based on trading levels of a peer group
- Public market valuation
- Comparability between companies as key limiting factor

- Company valuation based on precedent transactions
- Transaction based approach
- Specific character of precedents a challenge



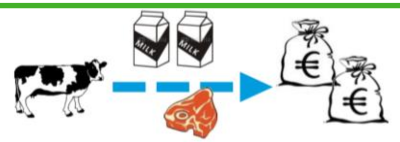
*"How much is paid for **similar** cows?"*

Intrinsic Valuation

Trading | **Transaction**

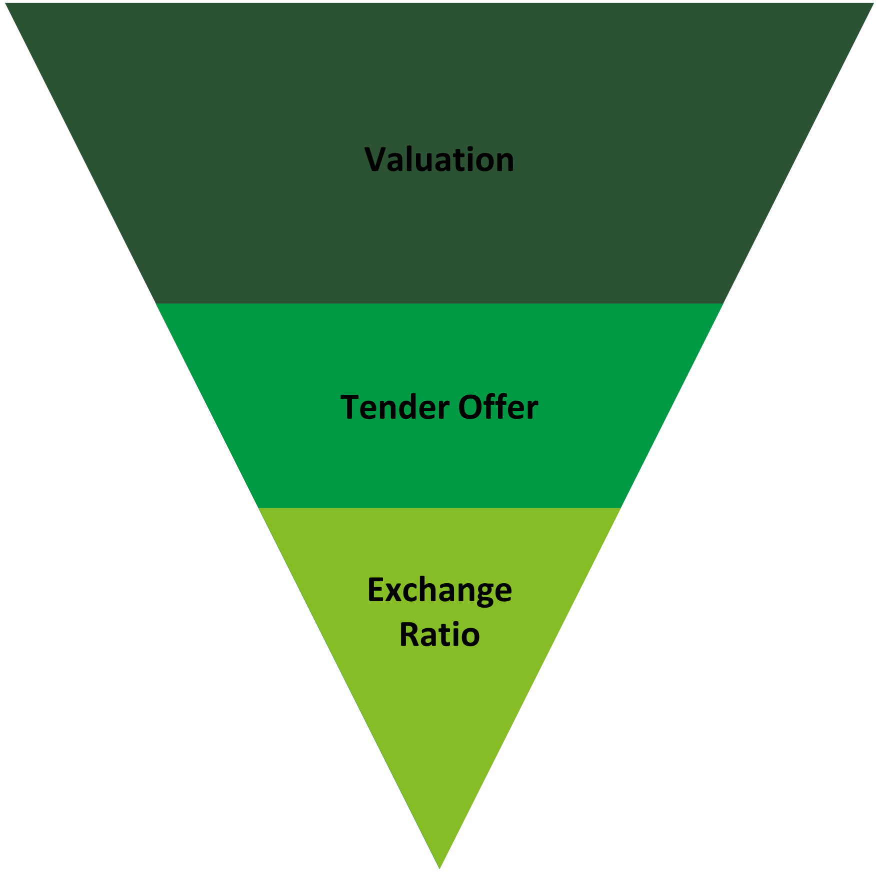
- Values a company by discounting expected future cash flows
- Explicit longer-term forecasts
- Discount rate and terminal value assumptions are key

- Leveraged buyout valuation with focus on returns
- Dividend discount model
- IDW S1 Valuation used e.g. in merger/ squeeze out situations
- Applied in specific situations



*"How much does my cow generate **for me**?"*

28.4. Valuation and the Takeover Process - the Offer



- Once the acquirer has completed the valuation process, it is in the position to make a **tender offer**.
- A bidder can use either of two methods to pay for a target: cash or stock.

- The "price" offered is determined by the **exchange ratio**.
- A stock-swap merger is a positive-NPV investment for the acquiring shareholders if the share price of the merged firm (the acquirer's share price after the takeover) exceeds the premerger price of the acquiring firm.

$$\frac{A + T + S}{N_A + x} > \frac{A}{N_A} = P_A$$

$$Exchange\ ratio = \frac{x}{N_T} < \frac{P_T}{P_A}(1 + \frac{S}{T})$$

28.4. Valuation and the Takeover Process – Example: Maximum Exchange Ratio in a Stock Takeover

Problem

- At the time Sprint announced plans to acquire Nextel in December 2004, Sprint stock was trading for $25 per share and Nextel stock was trading for $30 per share.
- If the projected synergies were $12 billion, and Nextel had 1.033 billion shares outstanding, what is the maximum exchange ratio Sprint could offer in a stock swap and still generate a positive NPV?
- What is the maximum cash offer Sprint could make?

Solution

- Nextel's premerger market cap was T = 1.033 * 30 = $31 billion. Thus using equation for exchange ratio from previous slide,

$$Exchange\ ratio < \frac{P_T}{P_A}\left(1+\frac{S}{T}\right) = \frac{30}{25}\left(1+\frac{12}{31}\right) = 1.665$$

- That is, Sprint could offer up to 1.665 shares of Sprint stock for each share of Nextel stock and generate a positive NPV.
- For a cash offer, given synergies of $12 billion/1.033 billion shares = $11.62 per share, Sprint could offer up to $30 + 11.62 = $41.62.
- Note that this cash amount equals the cash value of the exchange offer: $25 * 1.665 = $41.62.

28.5. Takeover Defense

For a hostile takeover to succeed, the acquirer must go around the target board and appeal directly to the target shareholders. The acquirer can do this by making an unsolicited offer to buy target stock directly from the shareholders (a tender offer). The acquirer will usually couple this with a proxy fight: The acquirer attempts to convince target shareholders to unseat the target board by using their proxy votes to support the acquirers' candidates for election to the target board. Target companies have a number of strategies available to them to stop this process.

Golden Parachutes

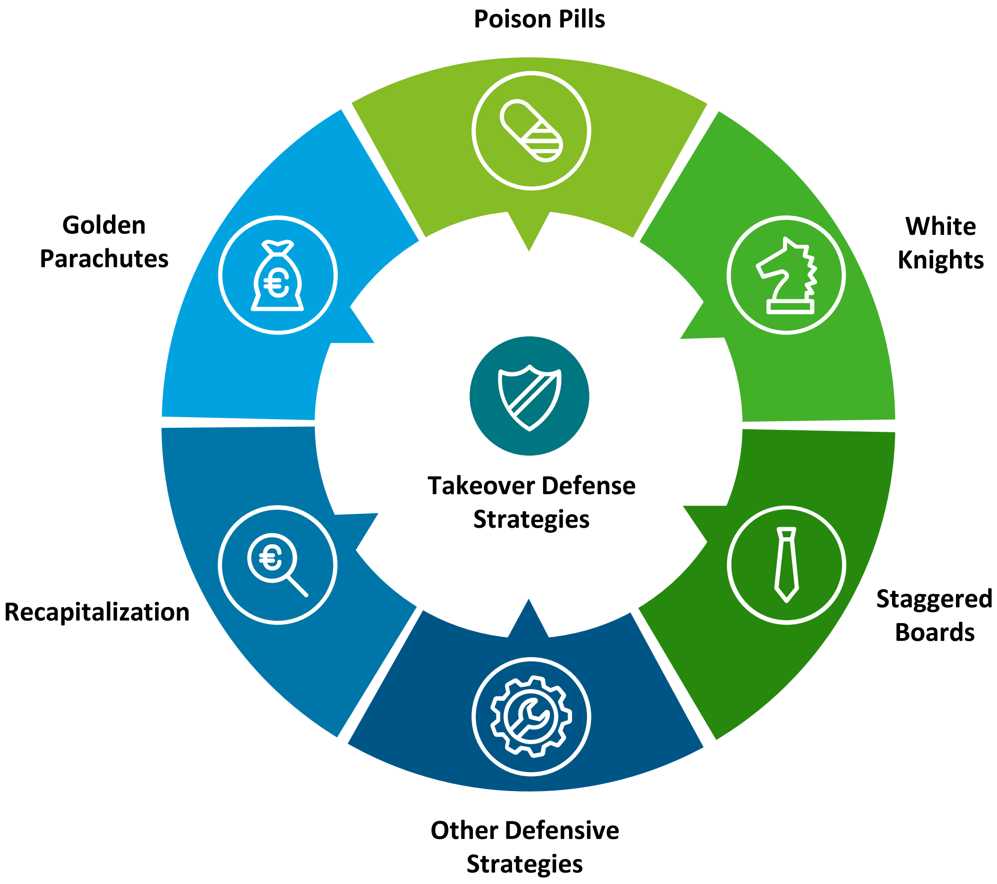
- A **golden parachute** is an extremely lucrative severance package that is guaranteed to a firm's senior managers in the event that the firm is taken over and the managers are let go.

Recapitalization

- **Recapitalization** is a strategy in which a company changes its capital structure to make itself less attractive as a target.

Other Defensive Strategies

- A corporation's charter can require a supermajority (sometimes as much as 80%) of votes to approve a merger.
- It can also restrict the voting rights of very large shareholders.
- Finally, a firm can require that a "fair" price be paid for the company, where the determination of what is "fair" is up to the board of directors or senior management.



Poison Pills

- A **poison pill** is a rights offering that gives existing target shareholders the right to buy shares in the target at a deeply discounted price once certain conditions are met.

White Knights

- When a hostile takeover appears to be inevitable, a target company will sometimes look for another, friendlier company to acquire it. This company that comes charging to the target's rescue is known as a **white knight**.
- One variant on the white knight defense is the **white squire** defense.

Poison Pills

- In a typical **staggered board**, every director serves a three-year term and the terms are staggered so that only one-third of the directors are up for election each year.
- Thus, even if the bidder's candidates win board seats, it will control only a minority of the target board.

28.5. Takeover Defense - Poison Pills

Poison pill
Rights offering that gives existing target shareholders the right to buy shares in the target at a deeply discounted price once certain conditions are met.

Because target shareholders can purchase shares at less than the market price, the rights offering dilutes the value of any shares held by the acquirer.
This dilution makes the takeover so expensive for the acquiring shareholders that they choose to pass on the deal.

Because the original poison pill goes into effect only in the event of a complete takeover (that is, a purchase of 100% of the outstanding shares), one way to circumvent it is to not do a complete takeover.

Most poison pills now specify that if a raider acquires more than a trigger amount (typically 20%) of the target shares (but chooses not to execute a complete takeover by purchasing all outstanding shares), existing shareholders—with the exception of the acquirer—have the right to buy more shares in the target at a discounted price.

By adopting a poison pill, a company effectively entrenches its management by making it much more difficult for shareholders to replace bad managers, thereby potentially destroying value.

28.6. Who Gets the Value Added from a Takeover?

Why does the price of the acquiring company not rise at the announcement of the takeover and why the bidder is forced to pay a premium for the target? You might imagine that the people who do the work of acquiring the corporation and replacing its management will capture the value created by the merger. Based on the average stock price reaction, it does not appear that the acquiring corporation generally captures this value. Instead, the premium the acquirer pays is approximately equal to the value it adds, which means the target shareholders ultimately capture the value added by the acquirer.

28.6. Who Gets the Value Added from a Takeover? - Example: Leveraged Buyout

Problem

- FAT Corporation stock is currently trading at $40 per share. There are 20 million shares outstanding, and the company has no debt. You are a partner in a firm that specializes in leveraged buyouts. Your analysis indicates that the management of this corporation could be improved considerably.
- If the managers were replaced with more capable ones, you estimate that the value of the company would increase by 50%.
- You decide to initiate a leveraged buyout and issue a tender offer for at least a controlling interest—50% of the outstanding shares.
- What is the maximum amount of value you can extract and still complete the deal?

Solution

- Currently, the value of the company is $40 * 20 million = $800 million, and you estimate you can add an additional 50%, or $400 million.
- If you borrow $400 million and the tender offer succeeds, you will take control of the company and install new management.
- The total value of the company will increase by 50% to $1.2 billion. You will also attach the debt to the company, so the company will now have $400 million in debt.
- The value of the equity once the deal is done is the total value minus the debt outstanding:

$$Total\ Equity = 1200 - 400 = \$800\ million$$

- The value of the equity is the same as the premerger value. You own half the shares, which are worth $400 million, and paid nothing for them, so you have captured the value you anticipated adding to FAT.
- What if you borrowed more than $400 million? Assume you were able to borrow $450 million. The value of equity after the merger would be:

$$Total\ Equity = 1200 - 450 = \$750\ million$$

- This is lower than the premerger value. Recall, however, that in the United States, existing shareholders must be offered at least the premerger price for their shares. Because existing shareholders anticipate that the share price will be lower once the deal is complete, all shareholders will tender their shares.
- This implies that you will have to pay $800 million for these shares, and so to complete the deal, you will have to pay 800 - 450 = $350 million out of your own pocket. In the end, you will own all the equity, which is worth $750 million.
- You paid $350 million for it, so your profit is again $400 million. Thus, you cannot extract more value than the value you add to the company by taking it over.