# Class #1 : Syllabus, Intro to M&A

Merger — merger agreement, create a new entity, does not require unanimity

Acquisition — asset purchase
— stock purchase

} requires unanimity

How to compare target firms?

These are the characteristics that we use (Bloomberg terminals do too)

- Risk
- Growth
- Cash Flow Characteristics (Payout)

$$\frac{DPS_1}{EPS_1}$$

Part I: 7 - 7:40pm

Part II: 7:42 - 8:20pm

Part III: 8:22 - 9pm

Textbooks:

- AD Damodaran
- B Bruner
- Scholes et al.
- RP

## Midterm Qs:

- Selection (at random) of 5 out of 23 questions
- 5 questions will be verbatim
- Can work together to study for those questions
- Cannot submit same (group) answers!
- Can arrange for specific exam time

SOME DEFINITIONS:

1. Shares Definitions

Outstanding Stock

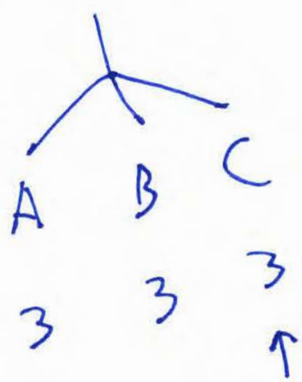
||

Issued & Authorized

2. Disclosure

Basic vs. Levinson (1988)

3. Classified vs. Unitary Board




In a staggered board, there are usually three classes of directors, that are elected every three years.

In a unitary board, all directors are elected every year.

Mergers vs. Acquisitions

contract

✓ asset purchases

✓ stock purchases

Datasources: Bloomberg, SDC, Capital IQ

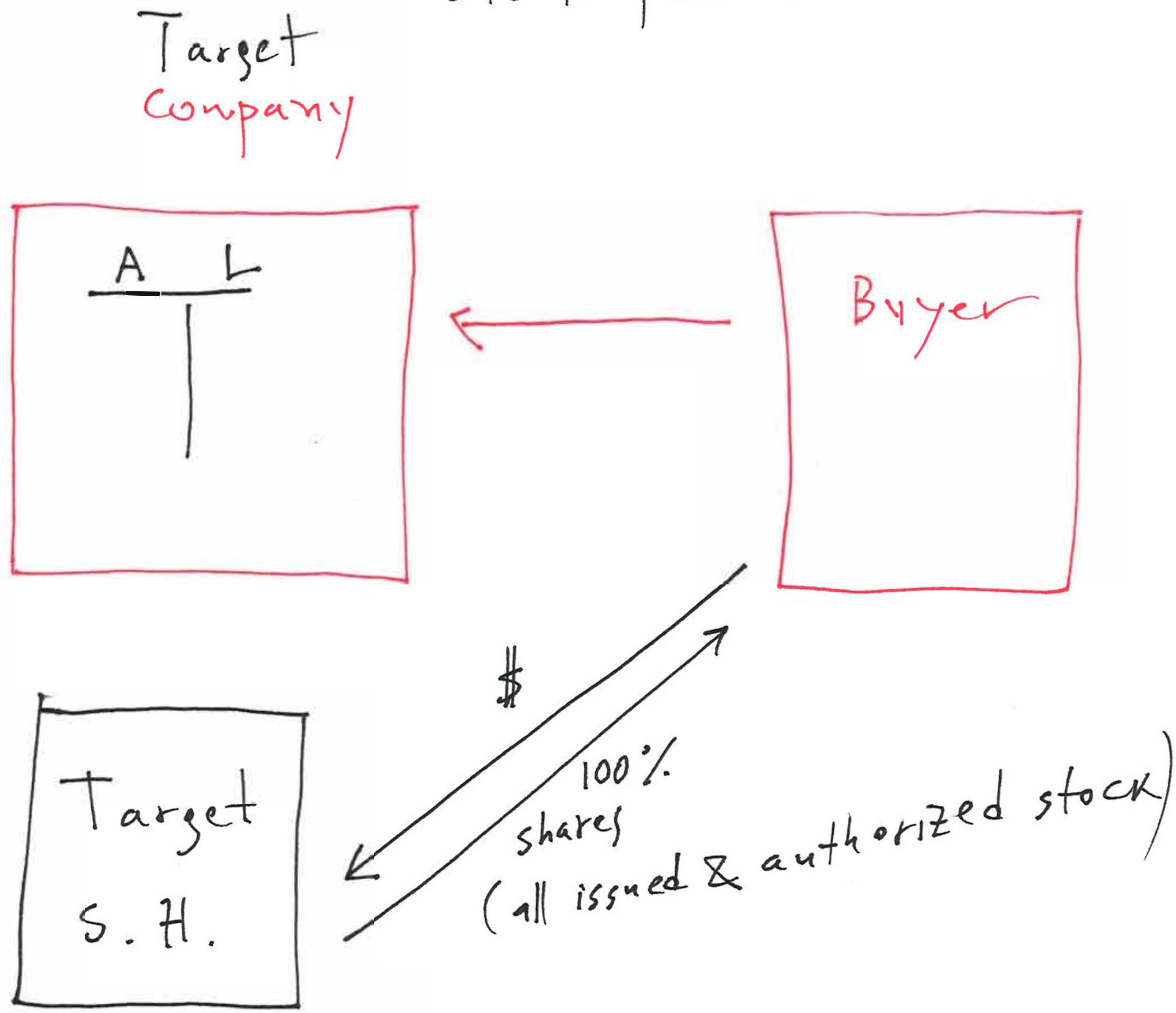
Main Source → Bloomberg → MA (for entire market)

Bloomberg → BUYP, MRGC (per given firm)

Example: TNT purchase by Fedex

Blue Sky Laws — state laws that additionally restrict merger activity, separately so from federal regulations.

# Stock Purchase



Why do mergers happen if returns to acquirers are usually negative?

- Value creation is disguised (synergies already priced-in before merger announcement)
- Disproportionate benefit to sellers (because they are smaller)
- Winning bidder overpays (i.e., winner's curse)

Why are returns from M&A so low?

→ **Returns are disguised!**

T

A

\$ 1bn

\$ 100 bn

synergy

\$ .5b

$$\text{Return} = \frac{.25}{1} = \boxed{25\%}$$

$$\text{Return} = \frac{.25}{100} = \boxed{.25\%}$$

split of synergy \$.25 b (T) & \$.25 bn (A)

Bottomline: it may appear (from buyer's perspective) as if returns are nill.

This is possibly due to the significantly greater ize of the buyer!

# Value is "hidden" – an example

| Acquirer | Target | Synergy |
| --- | --- | --- |
| \$100 | \$10 | \$3 |

if all gains to target

$$\frac{\$13}{\$10} - 1 = .30 \text{ or } \boxed{30\%}$$

if all gains to acquirer

$$\frac{103}{100} - 1 \approx \boxed{3\%}$$

most value appears to be received by the target! This is because of its smaller size.

**Compare w/ 1.6% gain in Andrade et. (2001)**

For example, if gains equally split ⇒ gain to acquirer is $\frac{101.5}{100} - 1 = \boxed{1.5\%}$

gain to target ⇒ $\frac{11.50}{10} - 1 = \boxed{15\%}$

# Disproportianate benefit to sellers vs. buyers

Deal $1b company (target)

Buyer $10b company

Synergy $1b

$.5b target

$.5b aqcuirer

$$\frac{\$.5b}{\$1b} = \boxed{50\%}$$

$$\frac{\$.5b}{\$10b} = \boxed{5\%}$$

SPAC = Special Purpose Acq. Comp.

Emerging Growth Company (EGC)

JOBS Act (2012)

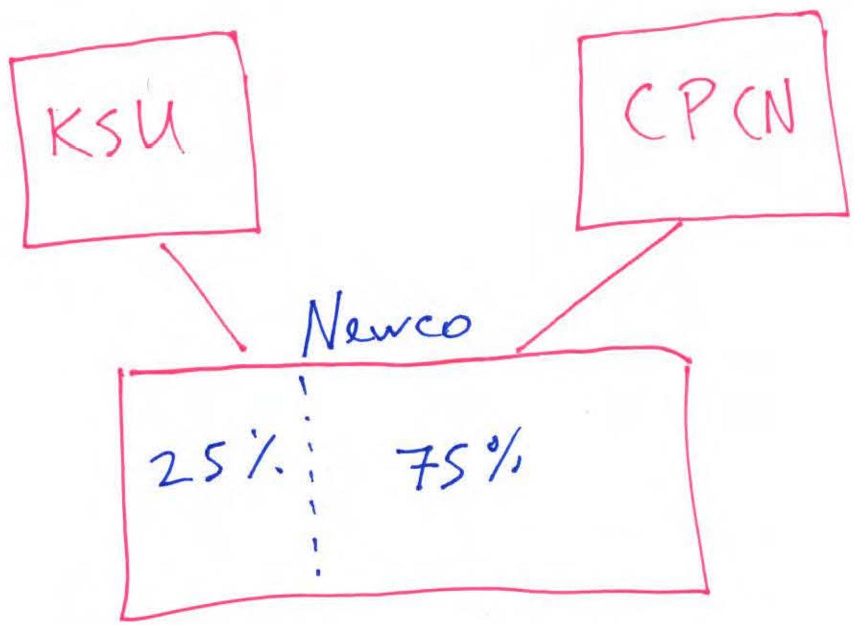
Runup vs. Markup

RUNUP = the increase in the target price prior to the announcement of th e merger;

MARKUP = the increase in the target price after the announcement of the merger.

Outstanding Shares

Authorized & Issued Stock



# Merger Arbitrage

1. Buy target stock @ announcement

2. Sell buyer stock @ announcement
(short-sell)

shown in Bloomberg as "Gross Spread"

$$= \frac{\text{Offer Price} - \text{Buy Price}}{\text{Buy Price}}$$

For an example to compute ~~the~~ gross spread, please refer to spreadsheet "Arbitrage Spreads (Bruner).xlsx"

# Merger Arbitrage

- Buy target @ announcement
- Sell (Short -sell) buyer @ announcement

$$\text{Gross Spread} = \frac{\text{Offer Price} - \text{Buy Price}}{\text{Buy Price}}$$

How is arbitrage spread calculated?

$$\text{Arbitrage Spread} = \frac{\text{Offer Price} - \text{Current Price}}{\underbrace{\text{Current Price}}_{\text{Target price}}}$$

Usually arbitrage involves buying target stock in cash mergers or buying target stock & selling acquirer stock and buying equivalent amount in target stock in stock-for-stock mergers

$$\beta_E = \beta_A + \frac{D}{E}(\beta_A - \beta_D)$$

$$g = ROE \times (\underbrace{1 - \text{payout ratio}}_{\text{Retention Ratio}})$$

# Reasons for mergers

# Reasons for mergers:

(1) Necessary restructuring

(2) Diversification

(3) Market Power

(4) Operating Synergies

(5) Tax Reduction

**NSMIA (1996) discussion** — the main cause for increase in private equity funding in the U.S.

National Securities Markets Improvement Act

## Discussion of Market Power as a cause of M&A

Used to judge the level of competition in an industry

# HHT (Index)

Hershman - Herfindahl Index

$\boxed{10,000}$ → HHI thresho[ld]

If a merger results in increase of HHI above 10,000 ⇒ Federal Trade Commission (FTC) & Justice Department will look into the transaction.

| | Before | | After | |
|---|---|---|---|---|
| A | 40% | After → Merger | A | 40% |
| B | 30% | | BC | 60% |
| C | 30% | | | |

$$HHI = \underbrace{\left[40\%^2 + 30\%^2 + 30\%^2\right]}_{= 3,400} \rightarrow \underbrace{40\%^2 + 60\%^2}_{= 5,200}$$

(increase in concentration of market power)

## Why are public firms disappearing today in the U.S. stock markets?

1. **The rise of private equity investing** (post 1996 NSMIA discussed above)

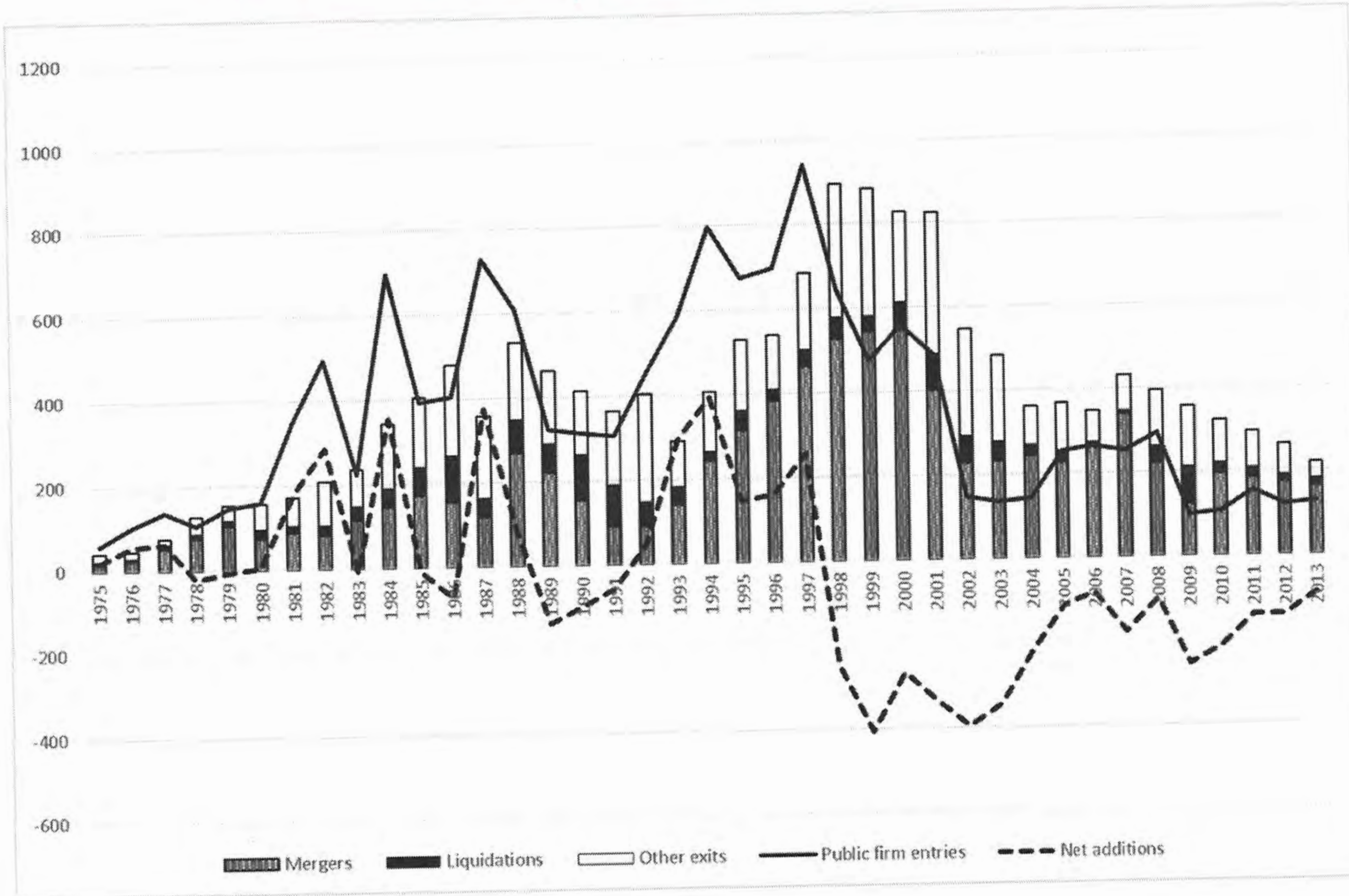
2. **Concentration of market power through Mergers & Acquisitions** (fueled in great part by the large supply of cheap debt by the Fed in the past 20 years – the so called "credit expansion")

3. **Most importantly, because of the rise of intangible assets in this economy (a.k.a. the 3rd industrial revolution 1998 - 2003)**

(Intangible assets are harmed by public disclosure in competitive markets – how much does it cost to make a copy of a 1 TB dataset?)

⇒ Intangible rich firms prefer to stay private!

The pronounced increase in private equity funding has contributed to the decrease in the new listings (IPOs) in the U.S. public equity markets



On NSMIA Act (except from Ewens & Farre-Mensa, 2017)

What explains the growth in the supply of private capital to late-stage startups?

As is often the case with such macroeconomic changes, a variety of factors are likely at play. Kahle and Stulz (2016) note that the Internet has reduced search costs for firms searching for investors (and vice versa), thus reducing one of the fundamental advantages of centralized stock exchanges. A number of regulatory changes affecting private firms and their investors have also facilitated the process of raising capital privately (e.g., de Fontenay (2017)).

One notable change was the *National Securities Markets Improvement Act (NSMIA) of 1996. The NSMIA made it easier for private firms to sell securities to "qualified purchasers" (e.g., institutions or accredited investors) in different states by exempting those sales from state-level regulations known as blue-sky laws (public firms have long been exempt from these state laws). The NSMIA also made it easier for unregistered funds such as VC and PE funds to raise capital*: In addition to exempting them from blue-sky laws, it introduced new exclusions from registration that effectively increased the maximum number of investors in a fund.[1] This exclusion was particularly important for funds investing in late-stage startups, which tend to be larger and have more investors to meet mature startups' higher capital needs.

effect of NSMiA

According to Investment Company Act: qualified purchaser is:

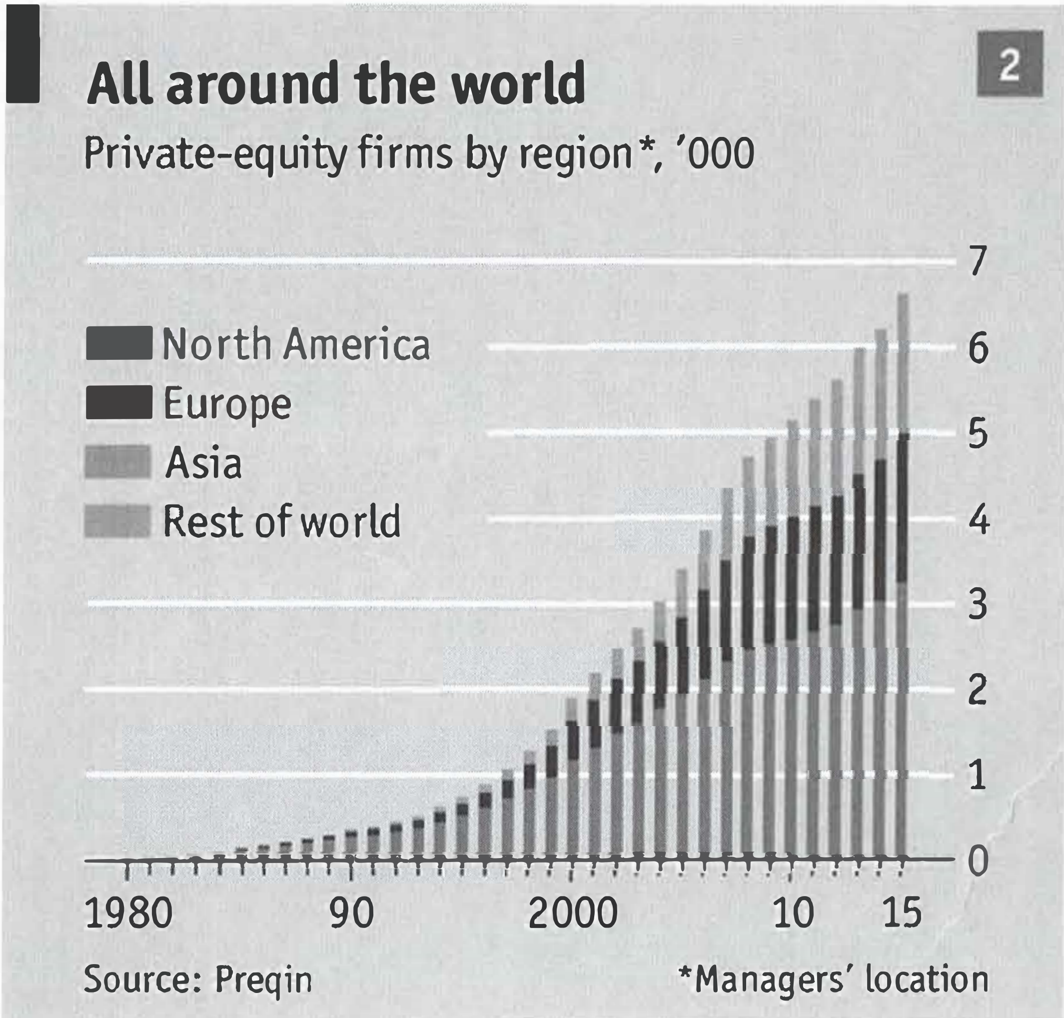
✓ — a person with no less than $5 million in investment

✓ — an investment manager with no less than $25 million under management

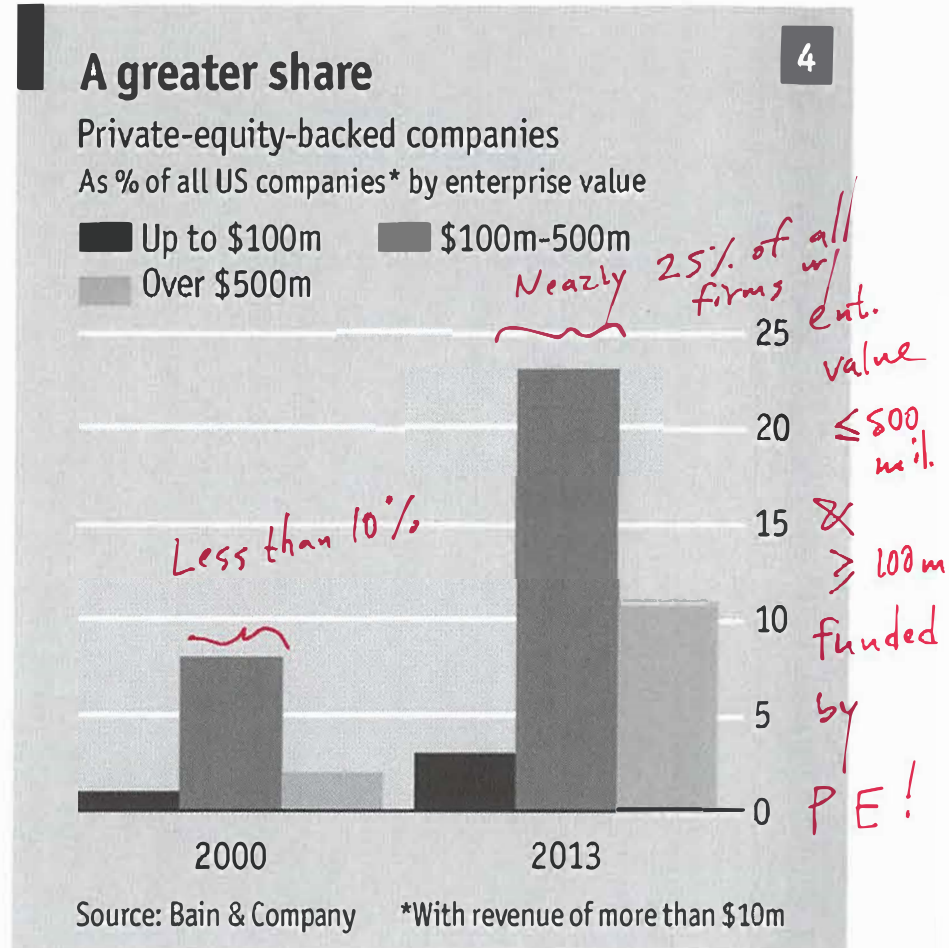
✓ — A company with no less than $25 million in investment

[1] Prior to the NSMIA, only funds with 100 or fewer investors were excluded from registering as investment companies under the Investment Company Act. Such registration can be burdensome, as it requires the regular disclosure of investment positions and limits the use of leverage, among other requirements.

On the influence of the NSMiA (1996) Act on private equity funding in the U.S.




Economist.com




Economist.com

The remarkable growth of PE-funded enterprises

# Merger Examples

Class Example of a Recently Announced Merger: The Acquisition of WPX Energy by Devon Energy

WPX and DEVON ENERGY merger

| | | | | | |
|---|---|---|---|---|---|
| Target | 1) WPX Energy Inc | Acquirer | 2) Devon Energy Corp | Currency | USD |
| | WPX US Px USD 9.43 | | DVN US Px USD 18.57 | Announcement | 09/28/20 |
| | Oil Comp-Explor&Prodtn | | Oil Comp-Explor&Prodtn | Transaction Value | 5,951.70M |

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11) Summary
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Comps
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Markets
20) Arbitrage

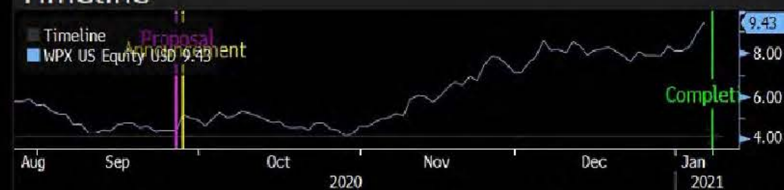
ID 221982820

**Description**

Devon Energy Corp acquired WPX Energy Inc for USD 5,951.70M. The transaction was announced on 09/28/2020 and completed on 01/07/2021.

| Dates | |
|---|---|
| Announcement | 09/28/20 |
| Completion | 01/07/21 |
| Status | Completed |
| Duration (# Days) | 101 |

**Timeline**




| Deal Terms | |
|---|---|
| Nature of Bid | Friendly |
| Percent Owned/Sought | 0.00% / 100.00% |
| Payment Type | Stock |
| Stock Terms (Acq Sh/Tgt Sh) | 0.5165 |

| Deal Value | Announced | Final |
|---|---|---|
| Tran Value (M) | 5,951.70 | 8,480.24 |
| Equity Value (M) | 2,779.70 | 5,308.24 |
| Deal Price | -- | -- |
| Premium | +2.88% | +0.34% |
| Net Debt (M) | 3,172.00 | 3,172.00 |

| Deal Attributes |
|---|
| Company Takeover |

| TTM Deal Multiples | Target | Comp Median |
|---|---|---|
| TV/Revenue | 3.65x | 5.61x |
| TV/EBIT | -- | 20.46x |
| TV/EBITDA | 14.07x | 11.49x |

Notes --

The intuition for the merger: diversify exposure to possible governmental restrictions on fracking in the near future (DVN is substantially more exposed to federal acrage).

# The Fedex - TNT Merger (class example)

Note the regulatory approvals needed, especially the one by the HSR Act


Hart-Scott-Rodino Act

Another example:

# The Fedex – TNT merger

| Target | 1) TNT Express BV | Acquirer | 2) FedEx Corp | Currency | USD |
|---|---|---|---|---|---|
| | TNTE NA Px EUR 8.447 | | FDX US Px USD 153.84 | Announcement | 04/07/15 |
| | Transport-Services | | Transport-Services | Transaction Value | 4,406.23M |

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**Comps**
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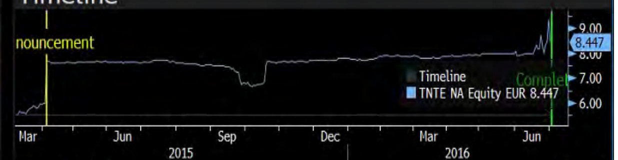
**Markets**
21) Arbitrage

**Description**

On 04/07/2015, FedEx Corp announced the acquisition of TNT Express NV for EUR 4,060.67M. The transaction is expected to close in the first half of calendar year 2016. This is the second largest transaction for the transport-service sector at the date of announcement since 01/01/2013.

| Dates | |
|---|---|
| Announcement | 04/07/15 |
| Completion | 07/04/16 |
| Status | Completed |
| Duration (# Days) | 454 |

**Timeline**




| Deal Terms | | |
|---|---|---|
| Nature of Bid | | Friendly |
| Percent Owned/Sought | | 0.00% / 100.00% |
| Payment Type | | Cash |
| Cash Terms (per Tgt Sh) | USD | 8.6808 |

| Deal Value | Announced | Final |
|---|---|---|
| Tran Value (M) | 4,406.23 | 4,406.23 |
| Equity Value (M) | 4,758.89 | 4,758.89 |
| Deal Price | -- | -- |
| Premium | +39.29% | -5.29% |
| Net Debt (M) | -352.66 | -352.66 |

**Deal Attributes**

Tender Offer, Cross Border, Company Takeover

| TTM Deal Multiples | Target | Comp Median |
|---|---|---|
| TV/Revenue | 0.61x | 1.32x |
| TV/EBIT | -- | 35.72x |
| TV/EBITDA | 94.43x | 16.73x |

ID 105141648 Notes 06/03/2016: 98.45% OF TGT SHARES HAVE BEEN TENDERED. OFFER PRICE IS CUM DIVIDEND

The example structure of the Fedex – TNT merger in 2016 (basic information from Bloomberg)

can be accessed by typing:

→ FDX US Equity

→ BUYP

The Announced Sonic – Inspire Brands Merger

**A recent merger example – a brief introduction to M&A**

1. Inspire Brands acquisition of Sonic Corp
   Type MA on the Bloomberg terminal, then click on "Summary"
   Type in upper left corner search window the ticker for → SONC US Equity

| Target | 1) Sonic Corp | Acquirer | 2) Inspire Brands Inc | Currency | USD |
|---|---|---|---|---|---|
| | SONC US Px USD 43.49 | | 0208044D US | Announcement | 09/25/18 |
| | Retail-Restaurants | | Retail-Restaurants | Transaction Value | 2,263.08M |

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**Description**

Roark Capital Group Inc announced the acquisition of Sonic Corp for USD 2,263.08M. The transaction was announced on 09/25/2018 and completed on 12/10/2018. On 11/02/2018, it was reported that a shareholder-driven lawsuit was challenging Inspire Brands Inc's planned acquisition.

| Dates | |
|---|---|
| Announcement | 09/25/18 |
| Completion | 12/10/18 |
| Status | Completed |
| Duration (# Days) | 76 |

**Timeline**


| Deal Terms | | |
|---|---|---|
| Nature of Bid | | Friendly |
| Percent Owned/Sought | | 0.00% / 100.00% |
| Payment Type | | Cash |
| Cash Terms (per Tgt Sh) | USD | 43.5000 |

| Deal Value | Announced | Final |
|---|---|---|
| Tran Value (M) | 2,263.08 | 2,263.08 |
| Equity Value (M) | 1,613.17 | 1,613.17 |
| Deal Price | -- | -- |
| Premium | +20.33% | +0.02% |
| Net Debt (M) | 649.90 | 649.90 |

**Deal Attributes**
Company Takeover

| TTM Deal Multiples | Target | Comp Median |
|---|---|---|
| TV/Revenue | 5.34x | 1.84x |
| TV/EBIT | 21.27x | 20.49x |
| TV/EBITDA | 15.63x | 10.68x |

} multiples for deal

ID 178276891 Notes --

all cash deal

note premium of 20.33%

Why was premia so much higher in the past?
B/c stocks were less expensive!

A bit lower by historic standard but above current annual average for market (18%)

2. Timeline


note the immediate (and permanent) jump in valuation.

Such price jump is reflection of "merger arbitrageurs" buying Sonic (or more generally target) stock right after announcement.

Their strategy → buy @ less than offer price, hoping that if deal completes they will make profit $\left(= \text{gross spread} = \frac{\text{offer} - \text{buy price}}{\text{buy price}}\right)$

3. Parties

| | | | | | |
|---|---|---|---|---|---|
| Target | 1) Sonic Corp | Acquirer | 2) Inspire Brands Inc | Currency | USD |
| | SONC US Px USD 43.49 | | 0208044D US | Announcement | 09/25/18 |
| | Retail-Restaurants | | Retail-Restaurants | Transaction Value | 2,263.08M |

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| Target | | Acquirer | |
|---|---|---|---|
| Name* | Sonic Corp | Name* | Inspire Brands Inc |
| Ticker* | SONC US | Ticker* | 0208044D US |
| Industry | Retail-Restaurants | Industry | Retail-Restaurants |
| Country/Region | U.S. | Country/Region | U.S. |
| Mkt Cap (M) | 1,568.29 | Mkt Cap (M) | -- |
| Shrs Out (M) | 36.09 | Shrs Out (M) | -- |
| Board Size | 11 | Board Size | -- |
| Classified Board | Yes | Classified Board | No |
| ESG Disc Score | 12.44 | ESG Disc Score | -- |
| Gov Disc Score | 37.50 | Gov Disc Score | -- |
| Prim Exch* | -- | Prim Exch* | -- |
| Auditor* | KPMG LLP | Auditor* | -- |
| Employees* | 391 | Employees* | 27,930 |
| Fiscal Year End* | 08/2019 | Fiscal Year End* | 12/2015 |
| Poison Pill Plan* | No | Poison Pill Plan* | -- |
| Approved Poison Pill* | No | Approved Poison Pill* | -- |

ID 178276891 *Data as of today. Other data as of deal announcement date.

target

parent of buyer
(a private equity firm)

Note the "Material Adverse Effect" clause
It allows the parties to break a deal subject to certain exceptions (e.g., acts of God, etc)

4. Structure

| | | | | | |
|---|---|---|---|---|---|
| Target | 1) Sonic Corp | Acquirer | 2) Inspire Brands Inc | Currency | USD |
| | SONC US Px USD 43.49 | | 0208044D US | Announcement | 09/25/18 |
| | Retail-Restaurants | | Retail-Restaurants | Transaction Value | 2,263.08M |

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ID 178276891

Structure

| Legal | | Dates | |
|---|---|---|---|
| Taxable | Yes | Merger Agreement Date | 09/25/18 |
| Dissenter Rights | Yes | Dissenter Cut-Off Date | -- |
| State / Section | -- | Drop Dead Date | 12/21/18 |
| Fractional Shares | -- | Election Expiration Date | -- |
| Letter of Transmittal | Yes | **Contingency** | |
| Exchange | -- | Stock Cont Payment | -- |
| Non-Equity Payments | -- | Cash Cont Payment | -- |
| Governing Law | DE | **Go-Shop** | |
| Expiration Time | -- | Go-Shop Period | -- |
| Exp Time Zone | -- | Go-Shop Start | -- |
| Financing Conditions | -- | Go-Shop End | -- |
| Material Adverse Effect | Yes | **Termination Fees** | |
| **Additional Info** | | Target to Acquirer | USD 47.74 M |
| Exercisable Options (Shares) | 1.63M | Acquirer to Target | -- |
| Target Ownership in NewCo | -- | **Synergy** | |
| Acquirer Ownership in NewCo | -- | Cost Synergy Amount | -- |
| Purpose | -- | Cost Syn Realization Date | -- |
| | | Revenue Syn Amount | -- |
| | | Rev Syn Realization Date | -- |

Drop Dead Date is the latest date by which transaction needs to close

Fee payable from seller to buyer (indicative of weak bargaining position for Sonic)

Note the presence of dissenter rights (right to disagree w/ valuation of stock & seek remedy in DE courts) → only available for mergers & stock purchases (not asset purchases)

Options held by Sonic management

As a rule, upon acquisition (or more generally change of control) all unvested options or vested & unexercised options → they all vest & convert to newly issued & authorized shares

Those shares are also bought by buyer

5. Advisers

| | | | | | |
|---|---|---|---|---|---|
| Target | 1) Sonic Corp | Acquirer | 2) Inspire Brands Inc | Currency | USD |
| | SONC US Px USD 43.49 | | 0208044D US | Announcement | 09/25/18 |
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| Target Adviser | Credit | Fee |
|---|---|---|
| **Financial** | | |
| Guggenheim Capital | 100% | |
| **Legal** | | |
| Shearman & Sterling LLP | 100% | |
| **Legal to Financial** | | |
| Paul Weiss Rifkind Whar... | 100% | |
| Ross A Fieldston | | |

| Acquirer Adviser | Credit | Fee |
|---|---|---|
| **Financial** | | |
| **Legal** | | |
| White & Case LLP | 100% | |
| J William Dantzler Jr "Bill" | | |
| John M Reiss | | |
| Steven Chabinsky "Steve" | | |
| Henrik P Patel | | |
| Arlene Arin Hahn | | |
| Brenda T Dieck | | |
| Rebecca H Farrington | | |
| Chang-Do Gong | | |
| Charles J Pesant | | |
| Daniel U Nam | | |
| Eric F Leicht | | |
| Steven M Lutt "Steve" | | |
| Jonathan Michels | | |
| **Legal to Financial** | | |

Shearman & sterling LLP is one of the main M&A legal advisories in the U.S.

6. Approvals

| Target | 1) Sonic Corp | Acquirer | 2) Inspire Brands Inc | Currency | USD |
|---|---|---|---|---|---|
| | SONC US Px USD 43.49 | | 0208044D US | Announcement | 09/25/18 |
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21) Arbitrage

ID 178276891

| Approvals | State | Date | #Days | Approval History Avg # Days* | App Ra... | H |
|---|---|---|---|---|---|---|
| Approved | | | | | | |
| Target Shareholders | -- | 12/06/18 | 72 | 111 | 99% | |
| Target Board of Directors | -- | 09/25/18 | 0 | 96 | 94% | |

*Approval times are calculated as the number of days from announcement date of the transaction until the date of approval/rejection by the approver.
**Dates for pending approvals are estimated based on historical approval times.

anticipate target shareholder proxy vote date

7. Sources/ News

| | | | | | |
|---|---|---|---|---|---|
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21) Arbitrage

ID 178276891

Source Documents

| | Date | Purpose | Description |
|---|---|---|---|
| 31) | 12/07/18 | Approval | Sonic Corp: 8-K 2018/12/06 |
| 32) | 11/05/18 | Merger Agreement | Sonic Corp: DEFM14A 2018/11/05 |
| 33) | 09/25/18 | Merger Agreement | Sonic Corp: 8-K 2018/09/25 |

Show on ☑ Target ☑ Acquirer Custom 09/25/18 - 12/12/18

40) News | NSE »

| | | | |
|---|---|---|---|
| 41) | Press Release: Inspire Brands Completes Acquisition of Sonic Corp. | DJ | 12/2018 |
| 42) | *DJ Inspire Brands Completes Acquisition of Sonic Corp. >SONC | DJ | 12/2018 |
| 43) | Inspire Brands Completes Acquisition of Sonic Corp. >SONC | DJ | 12/2018 |
| 44) | *INSPIRE BRANDS COMPLETES PURCHASE OF SONIC | BN | 12/2018 |
| 45) | Inspire Brands Completes Acquisition of Sonic Corp. | BUS | 12/2018 |
| 46) | Jack in the Box Takeout Unlikely, Jefferies Says | BFW | 11/2018 |
| 47) | Jack in the Box Unlikely to See Bids Near Sonic Value: Wedbush | BFW | 11/2018 |

50) Research | BRC »

| | | | |
|---|---|---|---|
| 1559575D US, 25... | M&A Keeps Cooking for Restaurants, But IPOs S... | Bloomberg Intell... | 01/28/21 |
| DNKN US, 155957... | Dunkin' Unlikely to Attract Bid Topping Inspire'... | Bloomberg Intell... | 11/03/20 |
| 1559575D US, 80... | M&A Keeps Cooking for Restaurants, But IPOs Ar... | Bloomberg Intell... | 01/22/20 |
| 0208044D US, 12... | Best of BI Research -- Americas Morning Note | Bloomberg Intell... | 08/08/19 |
| 1559575D US, 80... | M&A Keeps Cooking for Restaurants, But IPOs Ar... | Bloomberg Intell... | 08/08/19 |
| 1559575D US, 80... | Crack at Next Shake Shack? PE, Strategics Rival... | Bloomberg Intell... | 08/08/19 |
| 1559575D US, 80... | M&A Market Keeps Sizzling for Eateries, But IPO... | Bloomberg Intell... | 01/31/19 |
| 1559575D US, CM... | Is There a Next Shake Shack? Casual-Dining Ch... | Bloomberg Intell... | 12/24/17 |

News sources for the collected information
(mostly from SEC Edgar data @ sec.gov)

8. Deal Comps

| | | | | | |
|---|---|---|---|---|---|
| Target | 1) Sonic Corp | Acquirer | 2) Inspire Brands Inc | Currency | USD |
| | SONC US Px USD 43.49 | | 0208044D US | Announcement | 09/25/18 |
| | Retail-Restaurants | | Retail-Restaurants | Transaction Value | 2,263.08M |

Details
11) Summary
12) Timeline
13) Parties
14) Structure
15) Financing
16) Advisers
17) Approvals
18) Sources/News
Comps
19) Deal Comps
20) Trading Comps
Markets
21) Arbitrage

ID 178276891

Deal Comps
Trailing 12M Multiples   Forward 12M Multiples
Comparable Deals <Select a Deal>   31) Add Deals   32) Restore Defaults
Median   Average   Min   Max

| | | Target Company | Ann Date | Total Value↓ | TV/EBITDA | TV/EBIT | TV/Rev | TV/Total Assets |
|---|---|---|---|---|---|---|---|---|
| | | Sonic Corp | 09/25/18 | 2,263.08 | 15.63 | 21.27 | 5.34 | 4.26 |
| | | Median | | 1,670.26 | 10.68 | 20.49 | 1.84 | 1.78 |
| 41) | ⊗ | Buffalo Wild Wings Inc | 11/28/17 | 2,832.12 | 11.49 | 30.33 | 1.40 | 3.04 |
| 42) | ⊗ | Spirit Pub. Co Ltd | 09/23/14 | 2,413.65 | 6.34 | 7.59 | 1.84 | .75 |
| 43) | ⊗ | Burger King Holdings Inc | 04/03/12 | 2,301.45 | 15.34 | 20.49 | 3.36 | 1.42 |
| 44) | ⊗ | Punch Taverns Ltd | 12/15/16 | 1,982.12 | 7.15 | 7.48 | 3.92 | .64 |
| 45) | ⊗ | Popeyes Louisiana Kitche | 02/21/17 | 1,800.34 | 21.28 | 24.17 | 6.70 | 6.87 |
| 46) | ⊗ | PizzaExpress Ltd | 07/12/14 | 1,540.17 | -- | -- | -- | 1.66 |
| 47) | ⊗ | CEC Entertainment Co LLC | 01/16/14 | 1,309.96 | 8.06 | 15.69 | 1.59 | 1.65 |
| 48) | ⊗ | Krispy Kreme Doughnuts | 05/09/16 | 1,296.16 | 19.35 | 25.56 | 2.48 | 4.06 |
| 49) | ⊗ | PF Chang's China Bistro I | 05/01/12 | 1,164.71 | 9.86 | 31.78 | .94 | 2.07 |
| 50) | ⊗ | KFC Holdings Malaysia Bh | 12/14/11 | 1,023.34 | -- | 14.66 | 1.21 | 1.90 |

Transactio Multipl s

These ar comparable transactions & their valuation!

Typically, comparable transactions are for targets in the same industry & of similar size.

Transaction Multiples:
TV/EBITDA → Transaction Value / EBITDA
TV/EBIT
TV/Revenue & TV/Total Assets

TV / EBITDAX

Transaction Value = Ent. Value + Non-oper cash

Transaction value

Ent. Value = Market Value of Equity + Assumed Liabilities

− Non-operating Cash

9. Trading Comps

| | | | | | |
|---|---|---|---|---|---|
| Target | 1) Sonic Corp | Acquirer | 2) Inspire Brands Inc | Currency | USD |
| | SONC US Px USD 43.49 | | 0208044D US | Announcement | 09/25/18 |
| | Retail-Restaurants | | Retail-Restaurants | Transaction Value | 2,263.08M |

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ID 178276891

Trading Comps

Compare trading multiples against comparable companies (Bloomberg Comps from RV). Both Bloomberg Comps and multiples are as of deal announcement date.

Median Average Min Max

| Name | Mkt Cap (M) | EV (M) | EV/TTM EBITDA | EV/EBITDA FY1 | EV/EBITDA FY2 | P/E |
|---|---|---|---|---|---|---|
| 41) Sonic Corp | 1,568.29 | 2,249.64 | 15.54 | 15.20 | 14.58 | 31.15 |
| Median | 13,359.98 | 12,205.98 | 14.31 | 12.84 | 12.16 | 24.96 |
| 42) McDonald's Corp | 129,100.95 | 156,173.55 | 14.31 | 13.24 | 12.59 | 24.96 |
| 43) Restaurant Brands Intern | 35,857.53 | 49,699.24 | 20.15 | 18.69 | 16.86 | 35.71 |
| 44) Yum! Brands Inc | 28,523.93 | 36,805.93 | 12.21 | 15.87 | 14.82 | 21.25 |
| 45) Yum China Holdings Inc | 13,359.98 | 12,205.98 | 10.28 | 7.68 | 7.19 | 50.18 |
| 46) Wendy's Co/The | 4,128.40 | 6,711.35 | 19.71 | 12.45 | 11.73 | 41.15 |
| 47) Jack in the Box Inc | 2,317.54 | 3,457.28 | 11.17 | 12.00 | 11.61 | 21.07 |
| 48) El Pollo Loco Holdings In | 478.75 | 563.52 | 22.58 | -- | -- | 19.63 |

These are the valuations for the targets' competitors
Note the use of Enterprise Value (EV) defined as
Firm Value − Non-operating Cash (or as I like to call it, the net acquisition cost of the Firm)

Note also "TTM"
→ it means trailing twelve months;
e.g. if we pulled data in Oct 2018, it will be covering EBITDA From Oct/17 through Sep/18

Main valuation ratio is EV/TTM EBITDA

10. Arbitrage

| | | | | | |
|---|---|---|---|---|---|
| Target | 1) Sonic Corp | Acquirer | 2) Inspire Brands Inc | Currency | USD |
| | SONC US Px USD 43.49 | | 0208044D US | Announcement | 09/25/18 |
| | Retail-Restaurants | | Retail-Restaurants | Transaction Value | 2,263.08M |

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ID 178276891

| Deal Terms | |
|---|---|
| Completion | 12/10/18 |
| Payment Type | Cash |
| Cash Terms (per Tgt Sh) | 43.50 |
| Stock Terms | -- |
| Current Deal Price | -- |
| Current Value | 2,263.08M |
| Gross Spread | -- |
| Deal Probability | -- |

| Premium | | | |
|---|---|---|---|
| Announced | +20.33% | Current | +.02% |
| 1 Day | +18.82% | 1 Week | +19.24% |
| 1 Month | +20.33% | 3 Month | +23.17% |
| 52 Wk Avg | +54.40% | 52 Wk High | +12.84% |

| Short Interest | Date | %Float |
|---|---|---|
| 31) SONC US \| SI » | -- | -- |
| 32) 0208044D US \|... | -- | -- |

| Dvd Next Period | Ex-Date | Amount |
|---|---|---|
| 33) SONC US \| DVD... | -- | -- |
| 34) 0208044D US \|... | -- | -- |

35) Target Option Monitor | OMON »
36) Acquirer Option Monitor | OMON »


(we will further discuss the definition of merger arbitrage in class)

when the gross spread ↑ ⇒

⇒ that indicates that the merger does not appear likely to happen (why? → because if more arbitrageurs view the deal as likely to complete, then they will bid up the price ⇒ and the gross spread can go down)

Note the gross spread calculation

$$\text{Gross Spread} = \frac{\text{Offer price} - \text{Buy Price}}{\text{Buy Price}}$$

## Additional Discussions:

Governance Mechanisms

(in the context of alternative methods to transfer control over the corporation)

alternative to M&A

# Discussion of incentive compensation

Incentive Pay format

- Options no more
- RSU — restrictive stock units
- PSU — performance stock units

authorized, but not issued

Discussion of classified boards

Classified Board –

Board with multiple classes of directors

e.g. 9 board members

- Class I (3) 2020 elect
- Class II (3) 2021
- Class III (3) 2022

Alternative: proxy fight → buy stock & then attempt to raid the board

(shareholder meeting)

Board of Directors

[ Unitary vs. Classified Board ]

1 class (elected annually)

3 classes (one class only elected each year)

use of Bloomberg for M & A data

MRGC → pro-forma valuation (for potential deal scenarios)

BUYP → complete deal detail + timeline

MA → for the entire market

HP/Compaq
Conrail A
Seagate

mandatory reports for 3 case studies

# Discussion of poison pills

Poison pill — a discriminatory dividend plan executed by the corporate board against an acquirer (unsolicited) who acquires X% or more of the target stock.

- everyone else among shareholders gets stock dividend @ discount price
- control-seeking acquirer does not get such dividend
- usually X is 10%

# Poison pills types:

- flip-in → e.g. Conrail had it; it permits shareholders, except acquirer, to purchase additional shares at a discount. It dilutes shares held by hostile acquirer while such acquirer is attempting to gain control.
- flip-over → Enables shareholders (who do not seek control) to purchase acquirer's shares <u>after</u> merger @ a discount.

**Poison Pill**

Tactic utilized by companies to prevent or discourage hostile takeovers.

Types:

1. **"Flip-in"**

Permits shareholders, except acquirer, to purchase additional shares at discount. It provides investors with instantaneous profits & dilutes shares held by the acquirer.

2. **"Flip-over"**

Enables stockholders to purchase the acquirer's shares after merger @ discount. For example, shareholder has right to buy stock of acquirer in subsequent merger @ two-for-one rate.

## Make-up Quiz #1 (Week #1) for EMAD 5442

*Question #1 (1 pts)*

Which of the following causes is NOT an economic rationale for a merger or an acquisition?

- **A. Purchasing overvalued assets** → note that purchasing under-valued assets is economically-meaningful strategy
- B. Managerial self-interest to acquire a firm
- C. Diversification
- D. Market Power
- E. Operating synergies

*Question #2 (1 pts)*

What is the difference between a merger and an acquisition?

- **A. A merger is a contract whereby a new company is created and to effectuate such contract one needs no unanimity among selling shareholders; in contrast, an acquisition is a sales contract whereby one requires unanimity among selling shareholders.**
- B. An acquisition is a contract whereby a new company is created and to effectuate such contract one needs no unanimity among selling shareholders; in contrast, a merger is a sales contract whereby one requires unanimity among selling shareholder
- C. Mergers and acquisitions are the same conceptual legal format for two firms to merge
- D. A merger refers to the purchase of a larger firm while an acquisition refers to the purchase of a smaller firm
- E. None of the above answers is correct

*Question #3 (1 pts)*

What caused the merger wave of 2015-2019?

SPAC – more materials on SPACs on Canvas

- A. Deregulation & lax antitrust enforcement
- B. Consolidation & vertical integration
- C. The advent of globalization
- **D. The expansion of private equity funding**
- E. The wide-spread conglomeration

NSMIA Act, 1996

*Question #4 (0.5 pts)*

Which of the following causes for bad M&A performance is NOT valid?

- **A. Too low purchase price**
- B. Poor due diligence investigation of the target
- C. Poor integration of the target into the existing business
- D. Inadequate protection from transaction risks

*Question #5 (0.5 pts)*

According to the discussion in the HBS article by Professors Andrade, Mitchell, and Stafford in 2002, cited and discussed in video lecture "Expected Outcomes of M&A", what is the (i) average target premium and (ii) combined return (or synergy) from M&A of two firms in the 1990-1998 period?

- **A. Target premium of 34.5% and combined return of 1.6%**
- B. Target premium of 47.2% and combined return of 0.1%
- C. Target premium of 37.7% and combined return of 3.2%
- D. Target premium of 3.2% and combined return of 37.7%

Investment Banking Commands on Bloomberg

# Investment Banking Commands – Bloomberg Terminal

## News

| | |
|---|---|
| TOP | Top BLOOMBERG NEWS® stories |
| READ | BLOOMBERG's most read news |
| NI PREMNA | News on rumored deals |
| NI LBO | News on deal financing |
| NI PREIPO | IPO deal talk and rumors |
| NRR | News ranked by readership |
| TLOAN | Top loan news |
| TOP FIN | Top financial news |
| TOP DEAL | Top corporate news |
| NI WNEWS | Who is in the news |
| BRIEF | Bloomberg Brief newsletters |

## Market Monitors

| | |
|---|---|
| WEI | World equity indices |
| BTMM | US treasuries and money markets |
| WB | World bond markets |
| IMAP | Intraday market map |
| FWCM | Forward interest rate matrix |
| EA | Earnings season analysis |
| MA | Global M&A transactions |
| CMDS | Commodity markets |
| WCDS | Global CDS pricing |
| CMBQ | Key commodity price and volatility data |
| FXGN | Major currency markets live |
| FXIP | BLOOMBERG FX homepage |
| RATT | Credit rating upgrade/downgrade ratio |
| BLP | Start BLOOMBERG LAUNCHPAD™ |

## Calendar & Statistics

| | |
|---|---|
| EVTS | Conference calls and transcripts |
| ACDR | Earnings announcement calendar |
| IPO | Equity offerings search and monitor |
| NIM | New bond and equity offerings |
| WE | Key economic data worldwide |
| WEx | Top CEO compensation figures |

## Economics

| | |
|---|---|
| ECO | Global economic releases |
| ECOF | Economic data finder |
| ECOW | Chart economic data |
| LEAD | Leading economic indicators |
| BLS | Historical employment data by super sector |
| GEW | Global economic watch |

## Searches

| | |
|---|---|
| EQS | Equity search |
| LSRC | Loan search |
| SRCH | Bond search |
| BBLS | BLOOMBERG lawsearch |
| NSE | News search |
| RSE | Research for industries, economics, companies |
| BI | Bloomberg industries analysis and data |
| FSRC | Hedge and mutual fund search |
| BMAP | Search for energy assets, mines, vessels, utilities |
| PEOP | Search for people with BLOOMBERG profiles |

## Forecasts

| | |
|---|---|
| OUTL | BLOOMBERG NEWS® economic surveys |
| CPF | Commodity price forecasts |
| CMSE | Monitor commodity market sentiments |
| FXFC | Access FX rate forecasts |
| ECFC | Economic forecasts |
| BYFC | Bond yield forecasts |

## Market Returns

| | |
|---|---|
| MRR | 10 best/worst performing stocks in an index |
| WEIS | Global equity indices returns |
| WCRS | Rank 10 best/worst performing currencies |
| WBIS | Rank returns of selected bond indices |
| CRR | Commodity ranked returns |
| FPC | Compare fund returns over time |

## Market Movers

| | |
|---|---|
| *MOV | Index movers |
| MMAP | Market map for global market sectors |
| CMCX | UBS BLOOMBERG CMCI |
| CRB | Reuters/Jefferies Commodity Index |
| CMOV | Rank best/worst CDS performers by sector |

## League Tables

| | |
|---|---|
| LEAG | Underwriter/legal adviser rankings |
| RANK | Broker-reported equity trading ranking |
| LMX | Underwriter/legal adviser rankings |
| LTOP | Top loan underwriter rankings |
| MA | Merger advisor search engine |
| WHF | Best hedge fund players snapshot |
| WMF | Best mutual fund players snapshot |
| LALT | Legal adviser rankings |

## Company Analysis

| | |
|---|---|
| *DES | Fundamental and financial data |
| *BQ | Composite quote and key price/trade ratios |
| *MGMT | Executives, board, interlocking relationships |
| *MGSN | Management snapshot |
| *PGEO | Product and geographic analysis |
| *PPC | Product peer comparison |
| *SPLC | Supply Chain Analysis |
| *CAST | Company capital structure |
| *RELS | All related securities and expenditures |
| *CCM | Company capital market |
| *CACS | Corporate actions |
| *FA | Financial statements, key ratios, industry data |
| *RV | Comparable company analysis |
| *RVR | Relative value ranking |
| *GF | Graph financial values and ratios |
| *WACC | Weighted average cost of capital |
| *DDM | Dividend discount model |
| *CRVD | Credit relative value |
| *CDSH | CDS spread rate history |
| *DDIS | Company's debt maturity profile |
| *COV | Covenant/default info on debt/loans |
| *RVRD | Relative debt value ranking |

## Company Earnings

| | |
|---|---|
| *EM | Reported earnings and estimates |
| *EEB | Best consensus estimates |
| *EEO | Consensus estimates overview |
| *GUID | Company's own estimates |
| *ERN | Graph and monitor EPS summaries |

## Charts

| | |
|---|---|
| *GIP | Graph intraday prices |
| *IGPV | Multiple intraday chart with volume |
| *GP | Graph historical closing prices for a security |
| *RG | Graph/compare historical equity returns |
| *RVG | Relative value graph |
| *G | Multiple security relative charts |
| GRAPH | All chart-related functions menu |

## Company News/Research

| | |
|---|---|
| *CN | Security-specific news |
| *MCN | Most read news stories |
| *EVT | Conference calls and transcripts |
| *ANR | Equity analysts' recommendations |
| *BRC | Research reports for a specific company |

## Risk Analysis

| | |
|---|---|
| *RSKC | Evaluate a company's health |
| *CRPR | Credit ratings |
| *CRAT | Company rating, valuation by BLOOMBERG |
| *GV | Graph volatility |
| *PC | PEER correlations |
| *HVT | Historical volatility table |
| *TRMS | Term structure of volatility |
| *SKEW | Option volatility skew |

## Holders/Holdings

| | |
|---|---|
| *OWN | Security holders ownership analysis |
| *GPTR | Graph insider transactions |
| HDSM | Holders' matrix |
| *PHDC5 | Holdings search, company holdings |
| *AGGD | Debt holders aggregated |
| FLNG | Search for 13F filings |

## Legal/Regulatory Filings

| | |
|---|---|
| *CF | Search all company filings |
| *EDFS | Free-text EDGAR searches and alerts |
| *LITI | Company litigation summaries |
| BLAW | Legal resources menu |
| SEC | SEC acts and rules menu |

## Miscellaneous

| | |
|---|---|
| BERRY | BLOOMBERG info on your BlackBerry® |
| MSGM | Message-related functions menu |
| SPDL | Create/organize your contact list for MSG |
| DINE | Find restaurants and reviews |
| FLY | Find flight information |