Week 12 – Merger Math

Investment Banking Recruiting

November 22, 2024

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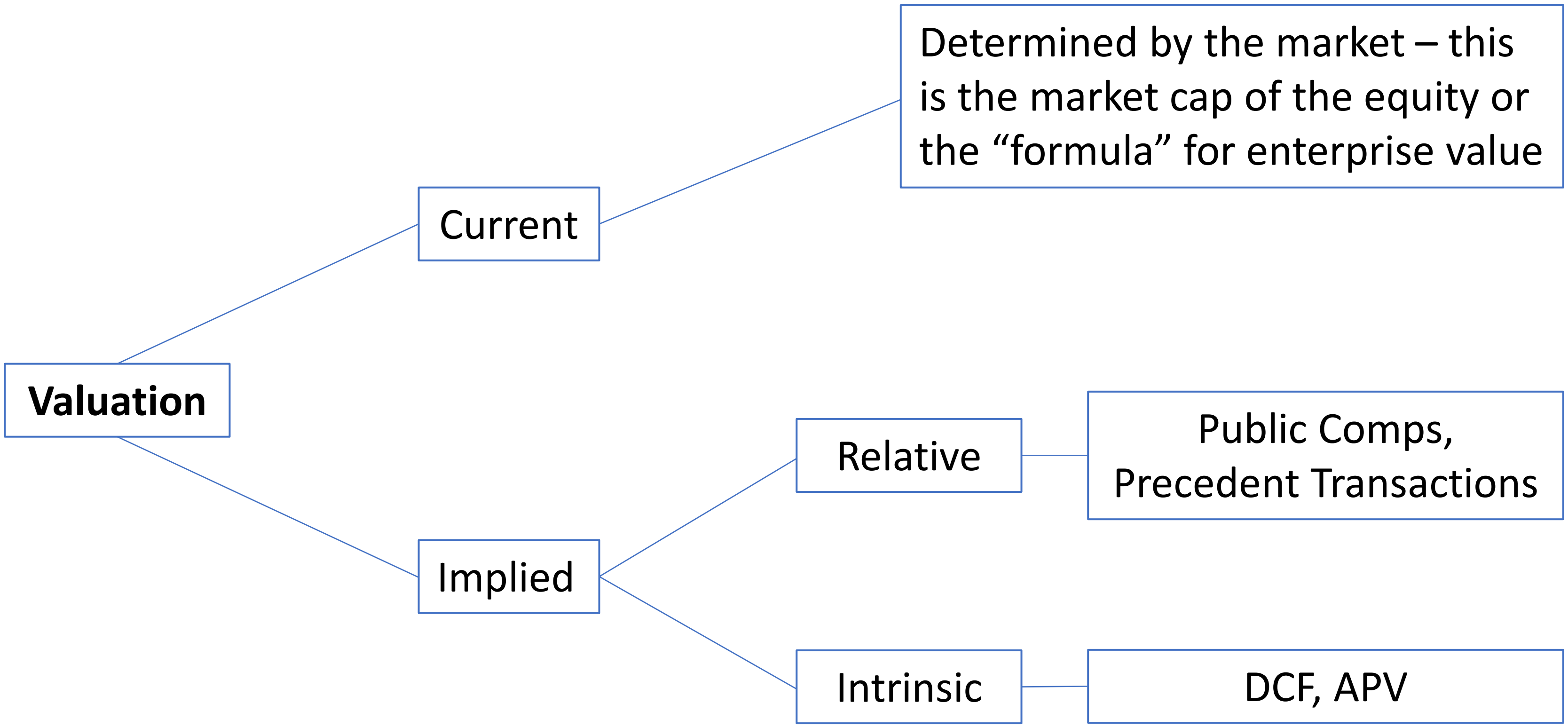
Valuation Overview

The most effective tool for valuing an asset is a financial market – analysis made by an investment banker seeks to represent value on either a relative or intrinsic basis to cross check market valuations and value private firms



Valuation in M&A

Over the course of the semester, we have covered a variety of valuation techniques that allow the investment banks advising on the transaction to ensure that the firm transacts as close to fair value as possible

DCF

Discounted Cash Flow Valuation

Public Comps

Valuation by Relative Comparison

Precedents

Valuation by Relative Comparison

LBO

Leveraged Buyout – Floor Valuation

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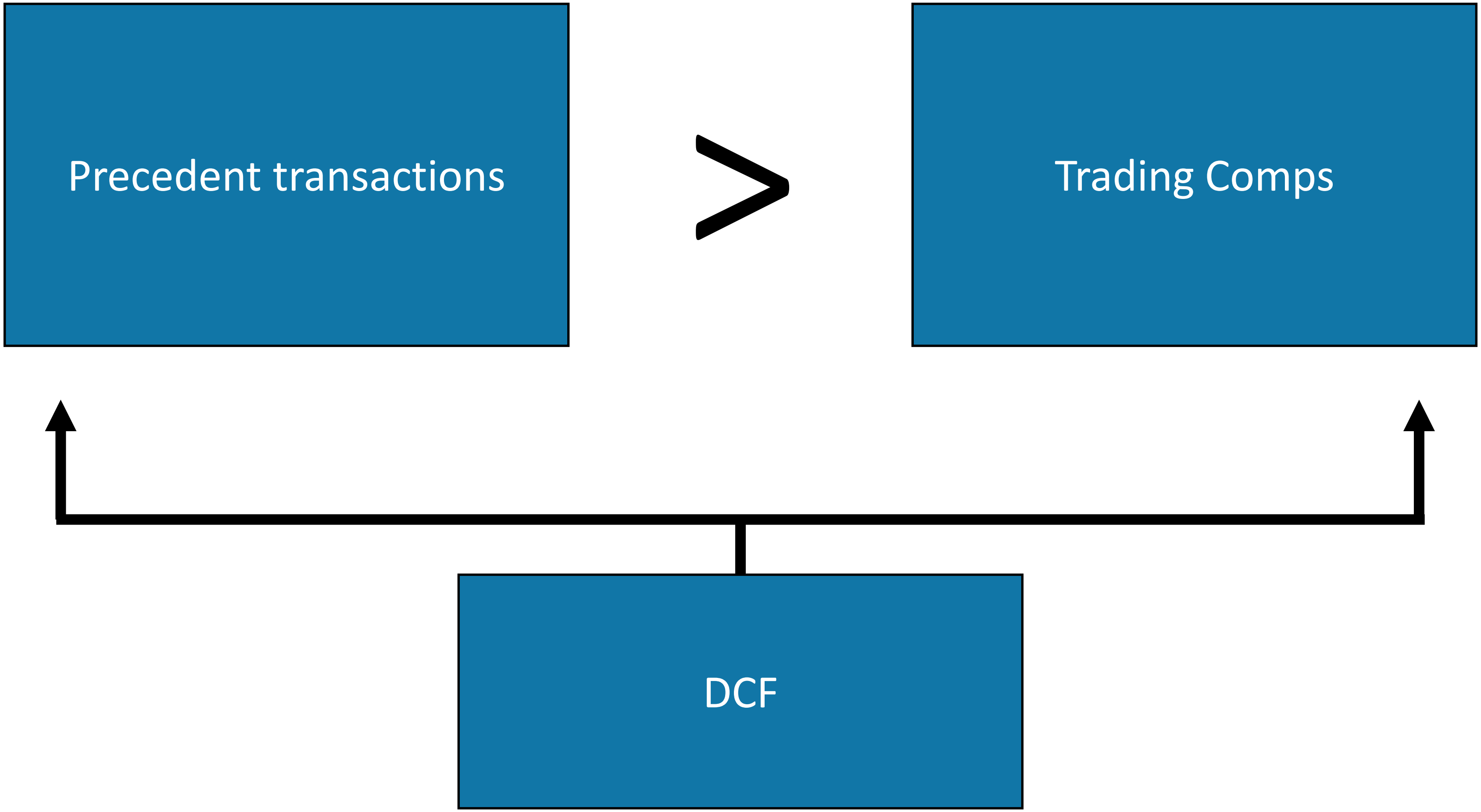
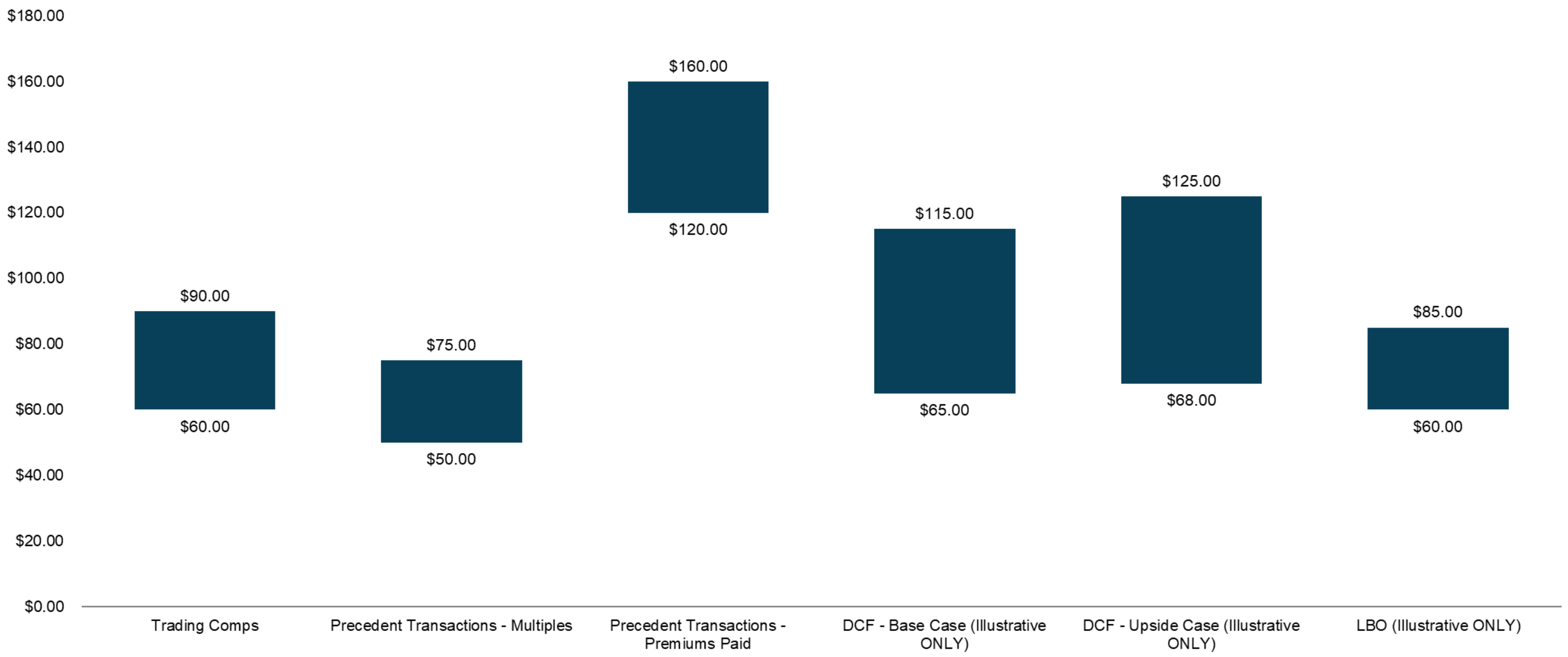
Ranking the 3 major valuation techniques



Putting it all together – Football field



When advising on strategic M&A, what is the point of using an LBO valuation?

Synergies

Strategic acquirers can also absorb the cost of the control premium by realizing synergies

Synergies

Definition:

- **Synergies** are potential cost savings, growth opportunities, lower costs of capital, or other benefits resulting from the combination of two companies
- Expected incremental cash flow and earnings in the future (beyond what the buyer could generate on its own)

Key Themes:

- Prices (and valuation multiples) can be impacted by the buyer's opinion of the probability of achieving potential synergies (timing, size, etc.)
- Most relevant for **strategic buyers** (less for **financial buyers**)
- Sometimes (not always) disclosed, either in absolute $ or % of the target's revenue

Key Takeaway

Synergies should be compared across precedent transactions (if possible) to provide greater context to each deal

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Cost & Revenue Synergies

Cost Synergies	Revenue Synergies
(Hard Synergies)	**(Soft Synergies)**
▪ Consolidation of administrative departments (accounting, finance, HR)	▪ Cross Selling
▪ Economies of scale to drive down production costs	▪ Geographic Expansion
▪ Consolidation of brick-and-mortar facilities	▪ Product Diversification
	▪ Increased Pricing Power

Synergies in M&A

Most synergies arising from large scale M&A transactions arise out of operating synergies – rarer are synergies associated with increases in revenue or improved capital structure

Table 3
Components of synergies

	Total synergies	Financial synergies	Operating synergies	Revenue increases/ cost savings	Cutbacks in investments
Mean	10.03***	1.64***	8.38**	−4.91*	13.29***
(*p*-value)	(0.01)	(0.01)	(0.03)	(0.09)	(0.01)
Median	5.11***	0.02**	4.45***	−0.52	5.39***
(*p*-value)	(0.01)	(0.02)	(0.01)	(0.25)	(0.01)
% > 0	58.33	51.52	56.82	48.86	60.61

Valuing Synergies

Both of the following methodologies are crude simplification of synergistic valuation in practice, but serve as a general picture of how the synergies associated with a deal may be valued

Method 1: Combined Operating Model

1	**Estimate Synergies**	Qualify and quantify synergies as accurately as possible through operating income with oversight from senior bankers
2	**Combine Synergies and Firm Value**	Combine synergies on the pro forma income statement with the combined firm and filter through to net income, complete the rest of the operating model
3	**Value Combined Firm**	Using the any valuation methodology, determine the value of the combined firm which now includes the buyer, the seller, and the synergies

Method 2: Independent Synergy Valuation

1	**Estimate Synergies**	Qualify and quantify synergies as accurately as possible through operating income with oversight from senior bankers
2	**Complete Synergistic P&L**	Filter the synergies from operating income all the way through to net income assuming the same capital structure and tax rate as the buyer
3	**Value Synergies**	Using the any valuation methodology, determine the value of the synergies as if it was its own firm

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Treatment of Debt in an Acquisition

In an acquisition, the buyer and seller can negotiate between 1 of 3 options – the debt is repaid in full, the debt is assumed by the buyer (combined firm), or the debt is refinanced

CFDF	A deal in which the debt of the target is repaid in full prior to the acquisition is known as cash free debt free – in this scenario the seller uses their cash to pay down the debt, and the equity holders keep the remainder. As net debt has gone to zero, the enterprise value is equal to the equity value. This is common in small private mergers.
Transfer of Debt	The buyer and seller may conclude that the assumption of the seller's debt by the combined firm post acquisition is the most beneficial course of action. When the transfer of debt ownership occurs, the same line item of debt may appear on both the sources and uses side of the balance sheet.
Re-financing	Commonly in large mergers, the combined firm will raise an amount of debt equal to the remainder of the principle outstanding of the target's debt balance and use the new debt to paydown the old – this is known as refinancing.

The Real Purchase Price

Neither enterprise nor equity value can be viewed exclusively as "the real purchase price" – a sources and uses statement is useful in determining the price paid in acquiring the target firm

Uses	$	%
Equity Purchase Price	$32,145	98.8%
Refinance Target Debt	--	--
Financing Fees & OID	279	0.9%
Transaction Fees	100	0.3%
Total Uses	**$32,525**	**100%**

Sources	X	$	%
Excess Cash from Acquirer and Target		$3,544	10.9%
Refinanced Target Debt	--	--	--
Revolver	--	--	--
New Term Loan	2.00x	12,718	39.1%
New Equity Issued		16,262	50.0%
Total Sources		**$32,525**	**100.0%**

Investment Analysis

In the world of corporate finance, there exist several ways to assess the outcome of an investment– the most prominent of which is NPV; however, banks and management teams primarily focus on EPS

Method	Considers	Determination
NPV	TVM Risk Size of Cash Flows	Is NPV > 0?
IRR	TVM Risk Size of Cash Flows	Does IRR > Hurdle Rate?
Payback Period	Size of Cash Flows	Is payback period within reasonable time frame?
Profitability Index	TVM Risk Size of Cash Flows	Is PI > 1?
EPS Comparison	Size of Cash Flows	Is EPS post acquisition greater than EPS of buyer?

Although an acquisition could be negative NPV (a bad investment), if it is anticipated to be accretive to EPS, management will likely pursue the acquisition.

M&A Investment Analysis

Academic economists have found through consistent research that managers often place accurate methods of investment analysis as secondary to determining the impact of a project on EPS

	Are you making decisions based on…		
	NPV/DCF?	EPS?	
Participants in study…	say "Yes"	say "Yes"	not asked
	(1)	(2)	(3)
(a) Broad objectives			
Graham (1947)		✓	
Petty et al. (1975)		✓	
Graham et al. (2005)		✓	
Dichev et al. (2013)		✓	
(b) Capital structure			
Pinegar and Wilbricht (1989)		✓	
Graham and Harvey (2001)	✓	✓	
Bancel and Mittoo (2004)	✓	✓	
Brounen et al. (2006)	✓		⊗
(c) Repurchases/issuance			
Baker et al. (1981)		✓	
Tsetsekos et al. (1991)		✓	
Badrinath et al. (2000)		✓	
Graham and Harvey (2001)		✓	
Brav et al. (2005)		✓	
Brounen et al. (2006)		✓	
Caster et al. (2006)		✓	
(d) Cash holdings			
Lins et al. (2010)	✓		⊗
(e) Capital budgeting			
Schall et al. (1978)	✓	✓	
Gitman and Maxwell (1987)	✓	✓	
Graham and Harvey (2001)	✓	✓	
Mukherjee et al. (2004)	✓	✓	
Baker et al. (2011)	✓	✓	

HP Acquires Compaq

In their acquisition of Compaq, the management team at HP focused heavily on the impact of the deal to the combined firm's EPS post transaction at the expense of more accurate methods of investment analysis

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tomorrow
belongs to those who embrace it
today

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Worst tech mergers and acquisitions: HP and Compaq

A corporate merger, like a marriage, can yield a whole stronger than its parts -- or it can end in utter disaster. We countdown the worst corporate romances in IT history.

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What is a merger model?

A merger model is used to analyze the financial profiles of 2 companies, the purchase price and how the purchase is made, and determines whether the buyer's EPS increases or decreases.

1

- Make assumptions about the acquisition – the price and whether it was cash, stock or debt or some combination of those

2

- Project out an Income Statement for each one
- Determine the valuations and shares outstanding of the buyer and seller

3

- Combine the Income Statements, adding up line items such as Revenue and Operating Expenses, and adjusting for Foregone Interest on Cash and Interest Paid on Debt in the Combined Pre-Tax Income line
- Apply the buyer's Tax Rate to get the Combined Net Income, and then divide by the new share count to determine the combined EPS

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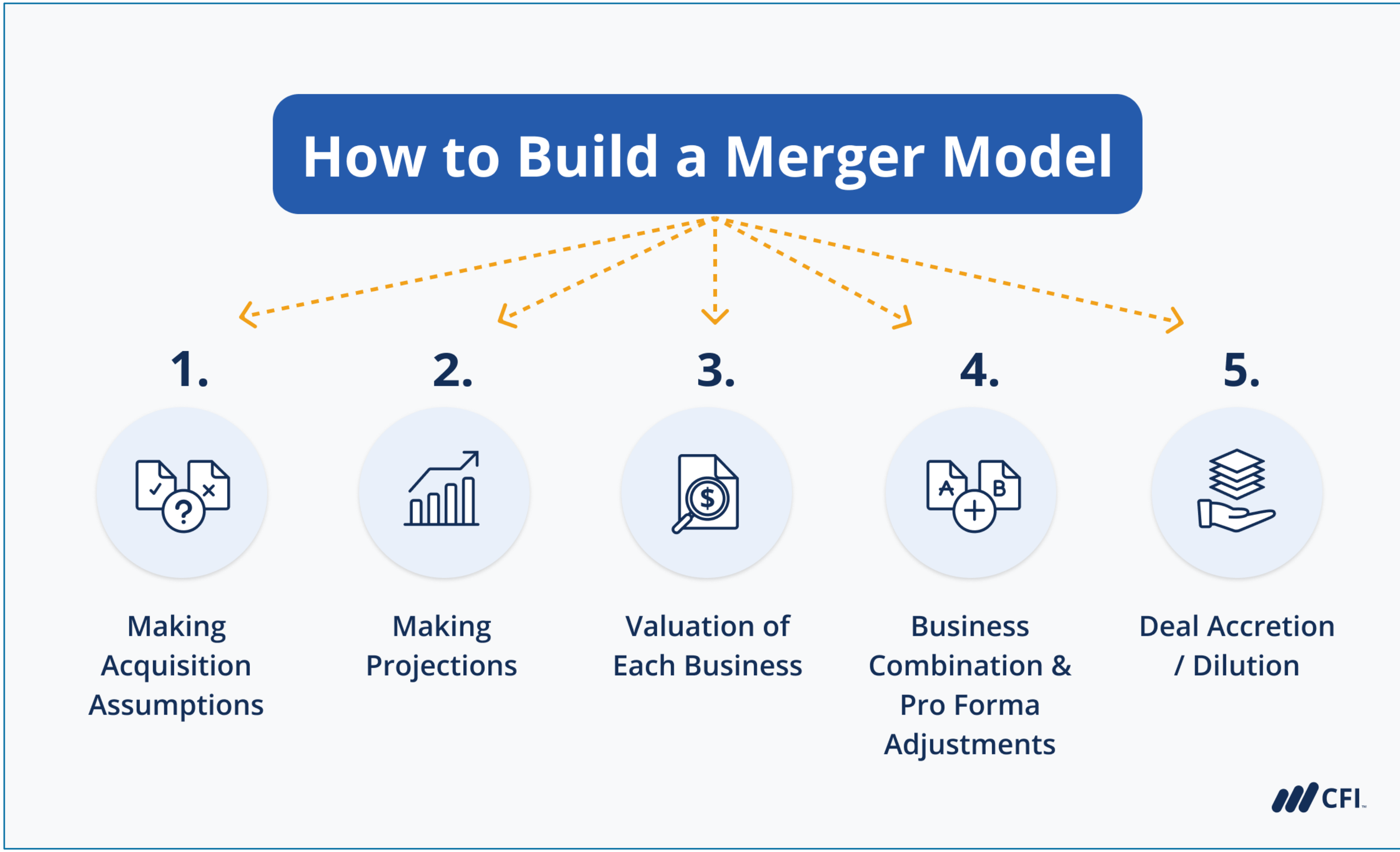
What is a merger model?



What sensitivities would you look at in a merger model?

Purchase Price

% Stock/Cash/Debt

Revenue Synergies

Expense Synergies

Share Price Senstivity

		Revenue Growth				
		0%	5.0%	10.0%	15.0%	20.0%
Exit Multiple	6.0x	19.22	23.73	29.09	35.43	42.88
	7.0x	20.85	25.92	31.97	39.13	47.56
	8.0x	22.47	28.11	34.85	42.83	52.24
	9.0x	24.10	30.31	37.72	46.53	56.92
	10.0x	25.73	32.50	40.60	50.23	61.60

Effects of M&A

1. Foregone Interest on Cash – The buyer loses the Interest it would have otherwise earned if it uses cash for the acquisition.

2. Additional Interest on Debt – The buyer pays additional Interest Expense if it uses debt.

3. Additional Shares Outstanding – If the buyer pays with stock, it must issue additional shares.

4. Combined Financial Statements – After the acquisition, the seller's financials are added to the buyer's.

5. Creation of Goodwill & Other Intangibles – These Balance Sheet items that represent a "premium" paid to a company's "fair value" also get created.

Goodwill & Other Intangibles

What is goodwill?

- These represent the value over the "fair market value" of the seller that the buyer has paid
- You calculate the number by subtracting the book value of a company from its equity purchase price

Represents things like the value of customer relationships, brand names and IP – valuable, but not true financial Assets

Difference between goodwill and other intangible assets?

- Goodwill typically stays the same over many years is not amortized
- Changes only if there is an impairment

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Accretion vs dilution

$$EPS = \frac{\text{net income} - \text{dividend payments}}{\text{weighted average shares outstanding}}$$

Accretion	Dilution
▪ An acquisition is said to be "accretive" if the buyer's **EPS goes up** post-deal	▪ An acquisition is said to be "dilutive" if the buyer's **EPS goes down** post-deal

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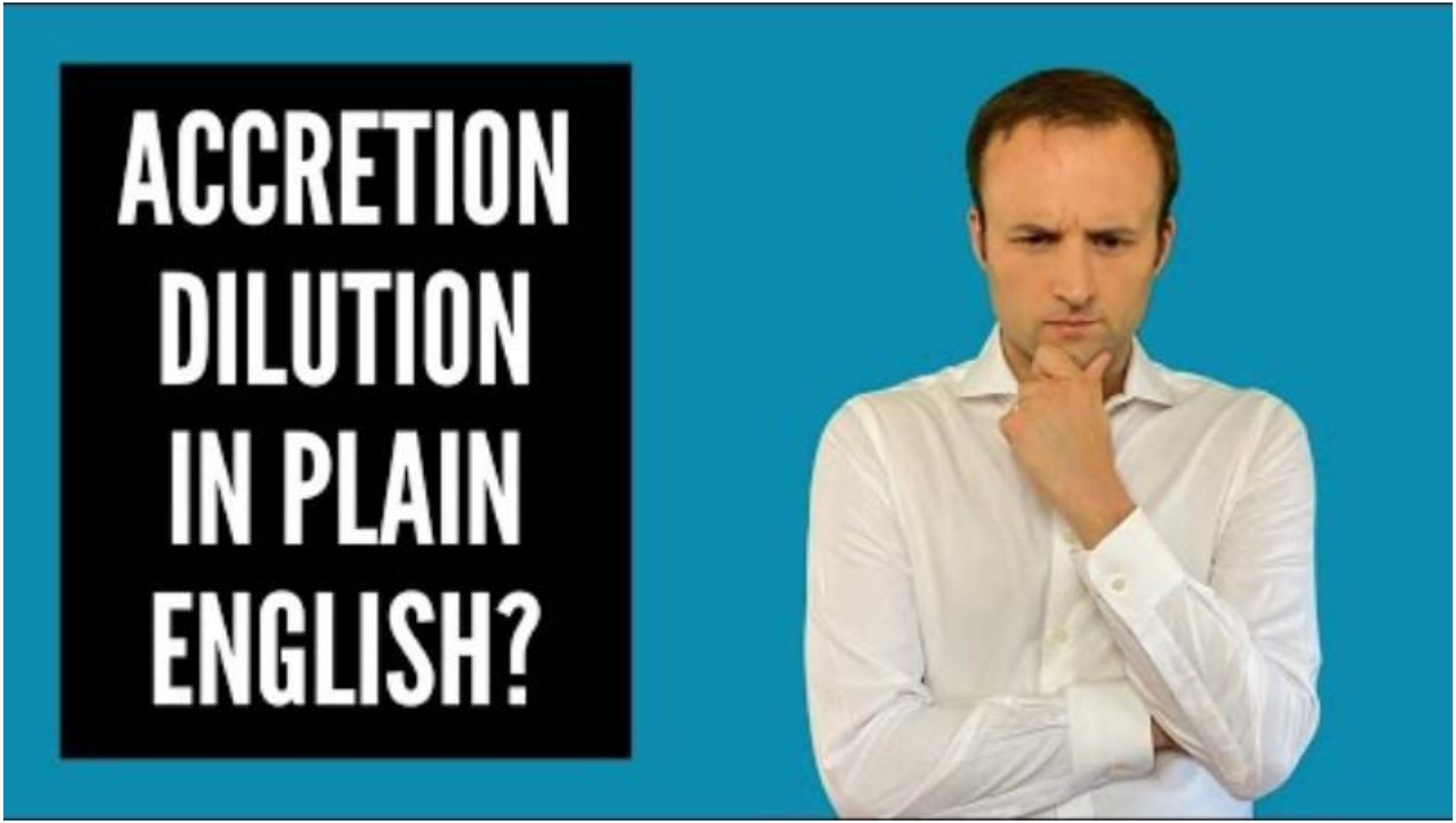
Accretion vs dilution



Why do we care so much about EPS?

$$EPS = \frac{\text{net income} - \text{dividend payments}}{\text{weighted average shares outstanding}}$$

- In theory, companies **should care only about expected future cash flows**
- EPS is important because it **reflects all acquisition effects**: foregone interest on cash, interest paid on new debt, and new shares issued to fund the deal
- So, if a company announces an acquisition that will “boost its long-term cash flows,” but it’s also expected to result in a huge EPS decrease next year, the **market may not react well**

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Easy rule

Must be 100% stock deal!

In an all-stock deal, if the buyer has a higher P/E than the seller, it will be accretive; if the buyer has a lower P/E, it will be dilutive.

On an intuitive level if you're paying more for earnings than what the market values your own earnings at, you can guess that it will be dilutive; and likewise, if you're paying less for earnings than what the market values your own earnings at, you can guess that it would be accretive.

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What makes a deal dilutive?

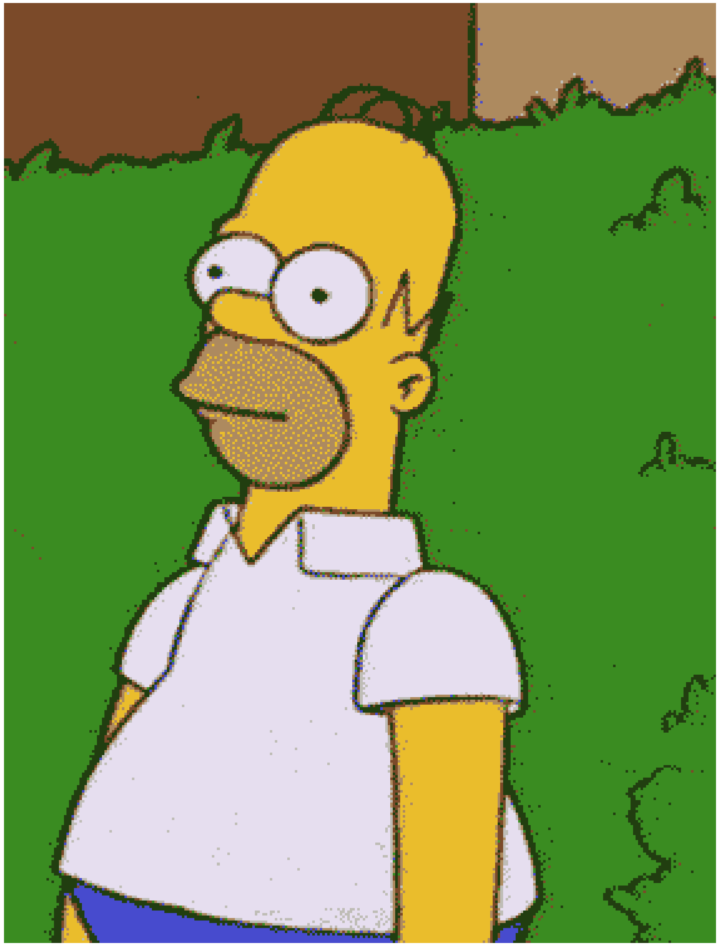
An acquisition is dilutive if the additional amount of Net Income the seller contributes is not enough to offset:

- Forgone interest on cash
- Additional interest paid on capital
- Effects of issuing additional shares
- Amortization of intangibles

Impairment charges

What happens when you overpay for another company?

- There would be an incredibly high amount of Goodwill & Other Intangibles created if the price is far above the fair market value of the company
- The goodwill must be tested (at least annually) to determine if the recorded value of the goodwill is greater than the fair value
- If the fair value is less than the carrying value, the goodwill is deemed impaired and must be charged off
- The company needs to decrease its book value in the balance sheet and recognize a loss in the income statement



Examples of large goodwill-related impairments

AOL TimeWarner	**$45.5 billion** 2002	Walgreens	**$12.4 billion** 2023

Impairment charges

TECHNOLOGY AND THE INTERNET

AOL Posts Record $54.2-Billion Loss

By JAMES BATES

April 25, 2002 12 AM PT

Share

TIMES STAFF WRITER

AOL Time Warner's problems continued Wednesday as the company posted the biggest quarterly loss in U.S. corporate history at $54.2 billion, or $12.25 a share.

The company also warned that cash flow will fall short of expectations this year because of a slowdown in ad sales at its America Online Internet unit.

AOL Time Warner had forecast the loss earlier this year. The loss was due to a change in accounting rules governing how companies account for mergers. The $54.2-billion write-down on AOL Time Warner's balance sheet, however, did not involve cash losses and has no effect on operations.

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Control Premium

Fair Market Value

Control Premium

+20%/30%
Secures Ownership

Other Methods of Assessing M&A

The following methods are used by both public companies as supplements to an EPS accretion/dilution analysis as well as by private companies to determine an M&A transaction is justifiable

M&A Valuation

The firm is valued as a standalone entity + the value of the synergies that would be realized post-acquisition. The sum of those two is compared with the equity purchase price of the firm to determine if the buyer is getting a "good" deal.

IRR vs Discount Rate

This method of valuation upholds the core principles of capital budgeting in that it accounts for the time value of money as well as the riskiness and size of the cash flows – if the IRR (the rate of return of the investment) is greater than the cost of capital, the deal is likely "good".

Relative Contribution Analysis

This valuation is commonly used in private M&A, all stock deals, and mergers of equals. The idea is simple – compare the fraction of a certain item on the P&L that the buyer is contributing post M&A, and back into the implied price they should be paying. For example, if the buyer would be contributing 70% of the combined firm's EBITDA, the price being paid should reflect at least 70% of the seller's equity.

Value Creation Analysis

Value creation analysis analyzes the value of the combined firm on a relative basis accounting for the fact that a larger firm may trade at a higher multiple. For example, if two small companies in a sector trade at 6x EBITDA, but the largest players in the space trade at 15x EBITDA, value creation analysis would say that 6x+6x=15x, and therefore shareholder value has been created.

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Merger Math Overview

While interviewing for investment banking, you will often be asked questions known as “Merger Math”. These questions are designed to assess, in simplified fashion, your ability to determine the short-term outcome of M&A.

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Merger Math Keys for Success

Determining the impacts of M&A activity in the interview setting can be stressful – be sure to utilize the following tips to ensure the greatest chance of answering the question correctly

Repeat Information	After the interviewer has described the situation to you, repeat back to them if the inputs you have been given. Although it is important to have the inputs right, you most likely wouldn't be discredited for using the "wrong" inputs as long as you arrive at a correct answer relative to those inputs – the real reason for doing this is to buy time and compose yourself.
Standardize Information	You may be given a variety of inputs when assessing a potential M&A transaction, be sure to solve for everything that you can with the given information – this will often require deducing EPS of the buyer and seller, the equity value of the buyer and seller, the earnings of the buyer and seller. Only in rare circumstances will more information be necessary.
Clarify Assumptions	As you work through a problem, be sure to speak out loud your thoughts regarding mental math and any assumptions that you may determine to be necessary along the way. Practice your mental math abilities so that this is not a limiting factor when creating a merger model verbally during the interview.

Merger Math Overview

There are three scenarios of merger math that you may be tested on during your interviews – an all-stock deal and comparison of PE ratios, a comparison of the weighted cost of financing, and a full merger model

	Use Case	Method
PE Ratio Comparison	All equity consideration – stock for stock exchange	Compare PE Ratios of the two firms – the firm with the higher PE ratio has more "expensive" equity on a dollar per dollar basis. This transaction will be accretive to the firm with the lower PE ratio.
Weighted Cost of Acquisition	Mixed Financing (No Synergies)	Comparison of the weighted cost of acquisition and the seller's yield provides insights regarding the likelihood the of the deal being accretive or dilutive – this only works in simplified models in which no synergies are realized.
Full Merger Model	Mixed Financing (with Synergies)	In cases with mixed financing, the realization of synergies, a lack of information necessary to compare the weighted cost of acquisition and the seller's yield, or when asked how accretive of dilutive a deal will be, it will be necessary to construct a full merger model.

PE Ratio Comparison

Compare PE Ratios of the two firms – the firm with the higher PE ratio has more "expensive" equity on a dollar per dollar basis; this transaction will be accretive to the firm with the lower PE ratio

If Buyer's PE **>** Seller's PE, the transaction is **accretive**

If Buyer's PE **=** Seller's PE, the transaction is **neutral**

If Buyer's PE **<** Seller's PE, the transaction is **dilutive**

One example problem

QUESTION: *"A company with a P / E multiple of 25x acquires another company for a purchase P / E multiple of 15x. Will the deal be accretive or dilutive?"*

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ANSWER: You can't tell unless it's a 100% Stock deal. If it is, it will be accretive because the Cost of Acquisition is 1 / 25, or 4%, and the Seller's Yield is 1 / 15, or 6.7%. Since the Seller's Yield is higher, it will be accretive.

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QUESTION: *"Let's say it is a 100% Stock deal. The Buyer has 10 shares at a share price of $25.00, and its Net Income is $10. It acquires the Seller for a Purchase Equity Value of $150. The Seller has a Net Income of $10 as well. Assume the same tax rates for both companies. How accretive is this deal?"*

One example problem

QUESTION: *"A company with a P / E multiple of 25x acquires another company for a purchase P / E multiple of 15x. Will the deal be accretive or dilutive?"*

ANSWER: You can't tell unless it's a 100% Stock deal. If it is, it will be accretive because the Cost of Acquisition is 1 / 25, or 4%, and the Seller's Yield is 1 / 15, or 6.7%. Since the Seller's Yield is higher, it will be accretive.

QUESTION: *"Let's say it is a 100% Stock deal. The Buyer has 10 shares at a share price of $25.00, and its Net Income is $10. It acquires the Seller for a Purchase Equity Value of $150. The Seller has a Net Income of $10 as well. Assume the same tax rates for both companies. How accretive is this deal?"*

ANSWER: The buyer's EPS is $10 / 10 = $1.00. It must issue $150 / $25.00 = 6 additional shares to do the deal, so the Combined Share Count is 10 + 6 = 16.

Since both companies have the same tax rate and since no Cash or Debt is used, Combined Net Income = $10 + $10 = $20, and Combined EPS = $20 / 16 = $1.25, so the deal is 25% accretive.

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Weighted Cost of Acquisition Comparison

Comparison of the weighted cost of acquisition and the seller's yield provides insights regarding the likelihood the of the deal being accretive or dilutive – this only works in simplified models in which no synergies are realized

Weighted Cost of Acquisition	[% Cash * Cash Interest Rate * (1-tax)] + [% Debt * Debt Interest Rate * (1-tax)] + [% Equity * E/P]
Seller's Yield	E/P of Seller

If Weighted Cost of Acquisition **>** Seller's Yield, the transaction is **dilutive**

If Weighted Cost of Acquisition **=** Seller's Yield, the transaction is **neutral**

If Weighted Cost of Acquisition **<** Seller's Yield, the transaction is **accretive**

Weighted Cost of Acquisition Comparison

Why does the buyer's weighted cost of acquisition account for several forms of financing, whereas the seller's yield only take into account equity?

Weighted Cost of Acquisition Comparison

Company A has a P / E of 10x, a Debt Interest Rate of 8%, a Cash Interest Rate of 4%, and a Tax Rate of 25%.

It wants to acquire Company B at a purchase P / E multiple of 16x using 1/3 Stock, 1/3 Debt, and 1/3 Cash. Will the deal be accretive?

Weighted Cost of Acquisition Comparison

Company A has a P / E of 10x, a Debt Interest Rate of 8%, a Cash Interest Rate of 4%, and a Tax Rate of 25%.

It wants to acquire Company B at a purchase P / E multiple of 16x using 1/3 Stock, 1/3 Debt, and 1/3 Cash. Will the deal be accretive?

ANSWER: Company A's After-Tax Cost of Stock is 1/10, or 10%, its After-Tax Cost of Debt is 8% * (1 – 25%) = 6%, and its After-Tax Cost of Cash is 4% * (1 – 25%) = 3%.

Company B's Yield is 1 / 16, or 6.25%
(mental math: 1 / 4 = 25%, and 1 / 8 = 12.5%, so 1 / 16 = 6.25%).

The Weighted Cost of Acquisition is:
10% * 1/3 + 6% * 1/3 + 3% * 1/3 = 3.33% + 2% + 1% = 6.33%.

Since the Weighted Cost is slightly above Company B's Yield, the deal will be dilutive.

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Full Merger Model Framework

In cases with mixed financing, the realization of synergies, a lack of information necessary to compare the weighted cost of acquisition and the seller's yield, or when asked how accretive of dilutive a deal will be, it will be necessary to construct a full merger model.

1 Standardize Information

Determine the following for both the buyer and seller: **earnings, equity value, share count –** determine if any synergies will be realized

2 Effects of Financing

Using the assumptions given, determine the affects of financing; the costs of **cash and debt are pre-tax** as they affect net interest expense, and the **cost of equity is the new share creation.**

3 Determine Pro Forma NI

After having standardized information, **determine the net income of the combined entity** and account for any synergies that are going to be realized.

4 Compare EPS

Having determined combined net income and total share count of the combined firm, **compare EPS with the firm prior to the merger to determine if the deal was accretive or dilutive.**

Full Merger Model Practice

Company A is buying company B with ½ stock and ½ debt at a 50% premium:

Company A
100 Shares
$10/Share
$2 EPS

Company B
200 Shares
$5/Share
$0.50 EPS

There is a 20% tax rate, a 10% interest rate on debt, and $100 in pre-tax cost synergies will be realized.

Is the transaction accretive or dilutive to company A's EPS, and by how much?

Standardize Information 1

Determine the following for both the buyer and seller: earnings, equity value, share count – determine if any synergies will be realized

Company A is buying company B with ½ stock and ½ debt at a 50% premium:

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Is the transaction accretive or dilutive to company A's EPS, and by how much?

Company A:
100 Shares * $2 EPS = **$200 Earnings**
100 Shares * $10/Share = **$1000 Equity Value**

Company B:
200 Shares * $0.50 EPS = **$100 Earnings**
200 Shares * $5/Share = **$1000 Equity Value**
@50% Premium = $1500 Equity Value

Synergistic Value:
$100 Pre-Tax @ 20% Tax Rate
$80 in After-Tax Synergies

Effects of Financing 2

Using the assumptions given, determine the affects of financing; the costs of cash and debt are pre-tax as they affect net interest expense, and the cost of equity is the new share creation

Company A is buying company B with ½ stock and ½ debt at a 50% premium:

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There is a 20% tax rate, a 10% interest rate on debt, and $100 in pre-tax cost synergies will be realized.

Is the transaction accretive or dilutive to company A's EPS, and by how much?

Company A:
100 Shares * $10/Share = $1000 Equity Value

Company B:
200 Shares * $5/Share = $1000 Equity Value
@ 50% Premium = $1500

½ Debt = $750 in Debt
½ Equity = $750 in Equity

$750 in Equity / $10/Share = 75 Shares

Share Count of Combined Firm
100 + 75

= 175

Interest on Debt
$750 * 10%

= $75

Determine Pro Forma Earnings 3

After having standardized information, determine the net income of the combined entity and account for any synergies that are going to be realized

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Is the transaction accretive or dilutive to company A's EPS, and by how much?

Company A:
100 Shares * $2 EPS = $200 Earnings

Company B:
200 Shares * $0.50 EPS = $100 Earnings

Synergistic Value:
$100 Pre-Tax @ 20% Tax Rate
($75) Interest Expense
$25 Taxable Synergies * 80%
$20 in After-Tax Synergies

Total Combined Earnings
$200 + $100 + $20

= $320

Compare EPS 4

Having determined combined net income and total share count of the combined firm, compare EPS with the firm prior to the merger to determine if the deal was accretive or dilutive.

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$5/Share
$0.50 EPS

There is a 20% tax rate, a 10% interest rate on debt, and $100 in pre-tax cost synergies will be realized.

Is the transaction accretive or dilutive to company A's EPS, and by how much?

Total Combined Earnings
= $320

Total Share Count
= 175

EPS of Combined Firm
= $320/175
~1.75$

EPS of Firm A
= $2

This transaction was dilutive to EPS by about $0.25

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Full Merger Model Extension Question

Having determined the EPS post transaction, how might you go about determining the breakeven cost synergies? How about break-even revenue synergies? What assumptions would you need to make?

What is a merger model?

A merger model is used to analyze the financial profiles of 2 companies, the purchase price and how the purchase is made, and determines whether the buyer's EPS increases or decreases.

1

- Make assumptions about the acquisition – the price and whether it was cash, stock or debt or some combination of those

2

- Project out an Income Statement for each one
- Determine the valuations and shares outstanding of the buyer and seller

3

- Combine the Income Statements, adding up line items such as Revenue and Operating Expenses, and adjusting for Foregone Interest on Cash and Interest Paid on Debt in the Combined Pre-Tax Income line
- Apply the buyer's Tax Rate to get the Combined Net Income, and then divide by the new share count to determine the combined EPS

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For more problems

Access the Rest of the IB Interview Guide

IB Interview Guide, Module 4: M&A Deals and Merger Models

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https://drive.google.com/file/d/1P-rfrDk8JUfTVadhIvWq5jUdGp-PTGl7/view?usp=drive_link

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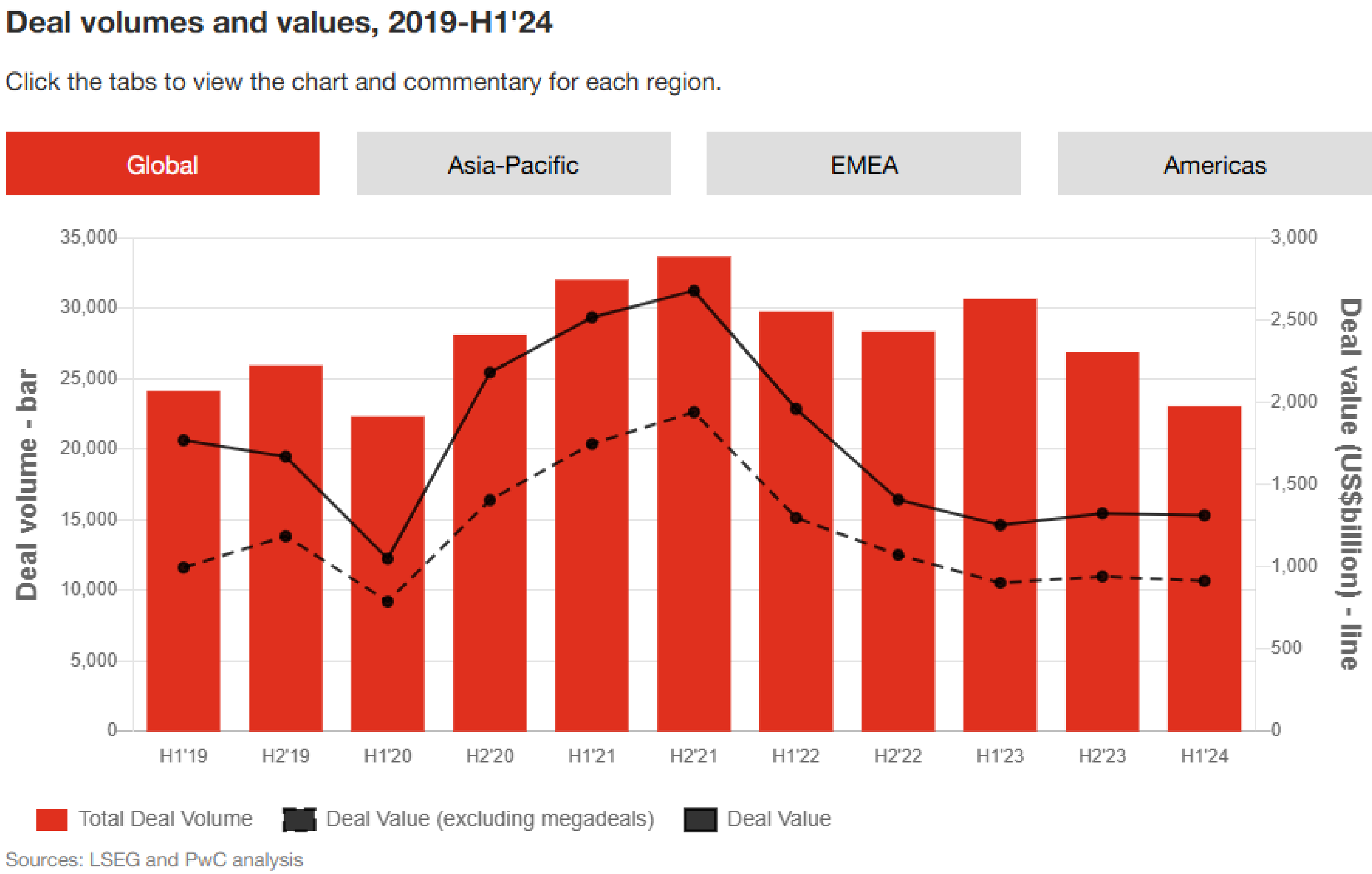
M&A Activity

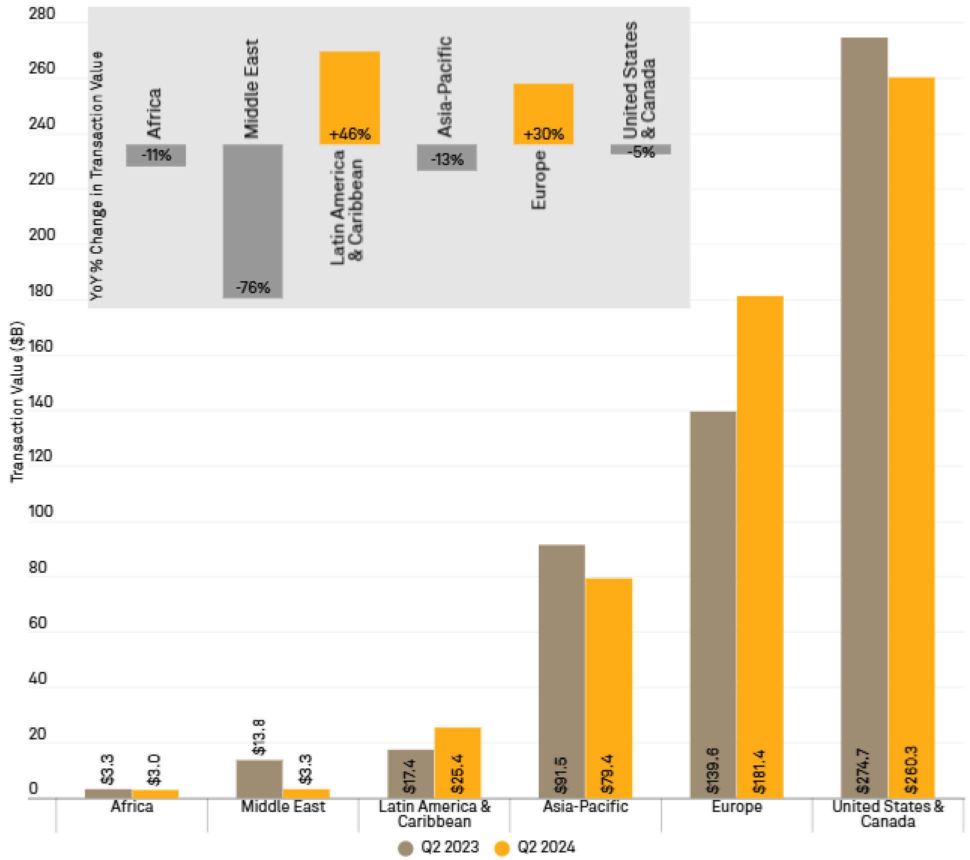
Total deal volume has been steadily decreasing for several years amidst the high-interest rate environment; however recent and anticipated rate cuts in coming months are set to increase total deal volume



Source: PWC Report

Q2 2024 Deal Volume

Deal volume in the second quarter of 2024 was down slightly from levels previously observed in the same period in 2023 as firms suffered the effects of higher interest rates as well as economic and political uncertainty



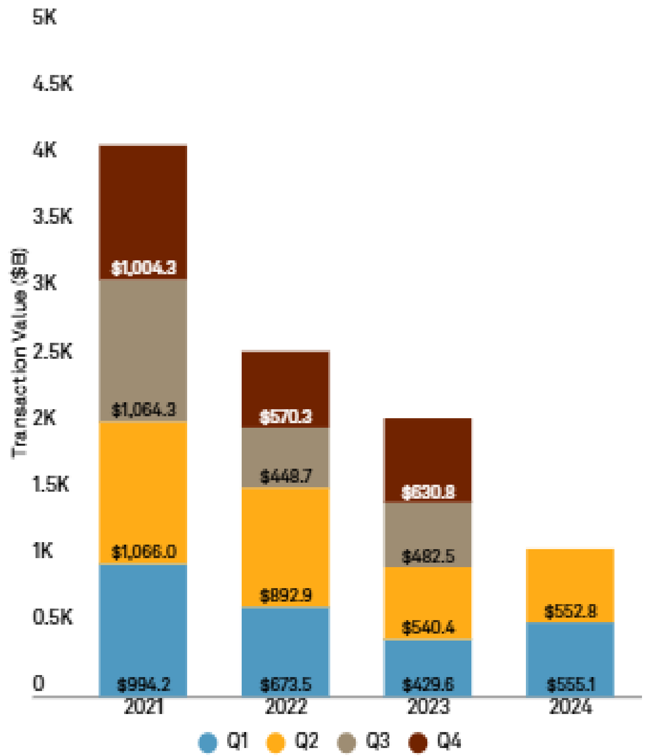
Source: CapIQ

Q2 2024 Deal Volume

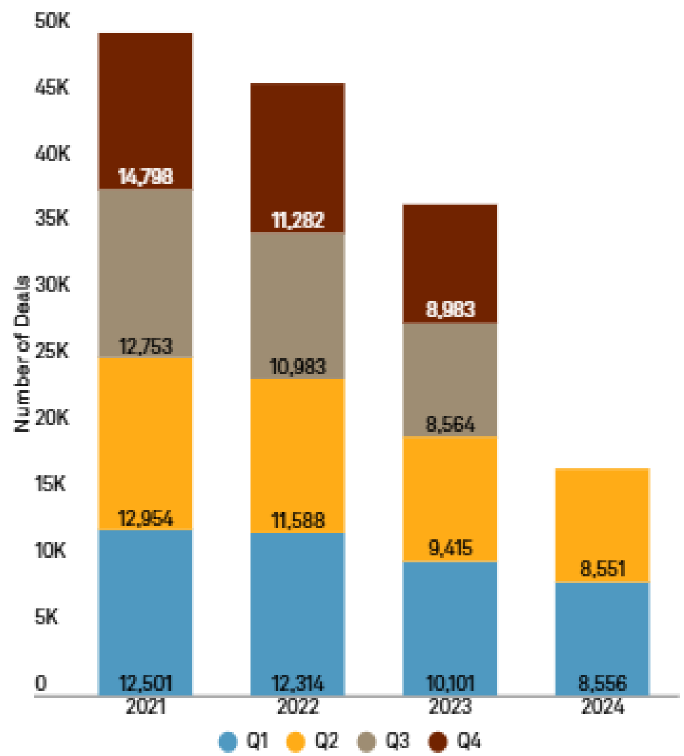
The number of deals announced in through the first half of 2024 was less than the same figure in the previous year, however the size of deals has increased as shown by the increase in total transaction value

Global M&A activity by year

Transaction value ($B)



Number of deals



Source: CapIQ

2024 – The Return of the Mega-Merger

Deal size has increased significantly in the first half of 2024 – public equity valuations have soared higher allowing large strategics to use their own stock as a more cost effect form of financing large scale acquisitions

Target name	Target Country	Buyer Name	Buyer Country	Target Industry Sector	Transaction Value ($B)
Marathon Oil Corp.	US	ConocoPhillips	US	Energy	$22.5
Endeavor Group Holdings Inc.	US	Silver Lake Technology Management LLC	US	Communication Services	$21.1
Minsheng Securities Co. Ltd.	China	Guolian Securities Co. Ltd.	China	Financials	$17.0
Covestro AG	Germany	Abu Dhabi National Oil Co.	UAE	Materials	$15.4
Shockwave Medical Inc.	US	Johnson & Johnson	US	Healthcare	$12.9
Banco de Sabadell SA	Spain	Banco Bilbao Vizcaya Argentaria SA	Spain	Financials	$12.3
Fab 34, Intel's leading-edge fabrication facility	Ireland	Apollo Global Management Inc.	US	Information Technology	$11.2
Millicom International Cellular SA	Luxembourg	Atlas LuxCo 4 Sarl	Luxembourg	Communication services	$10.0
Apartment Income REIT Corp.	US	Blackstone Real Estate Partners X LP	US	Real Estate	$9.2
Atlantica Sustainable Infrastructure PLC	UK	Energy Capital Partners LLC	US	Utilities	$7.9

Source: CapIQ

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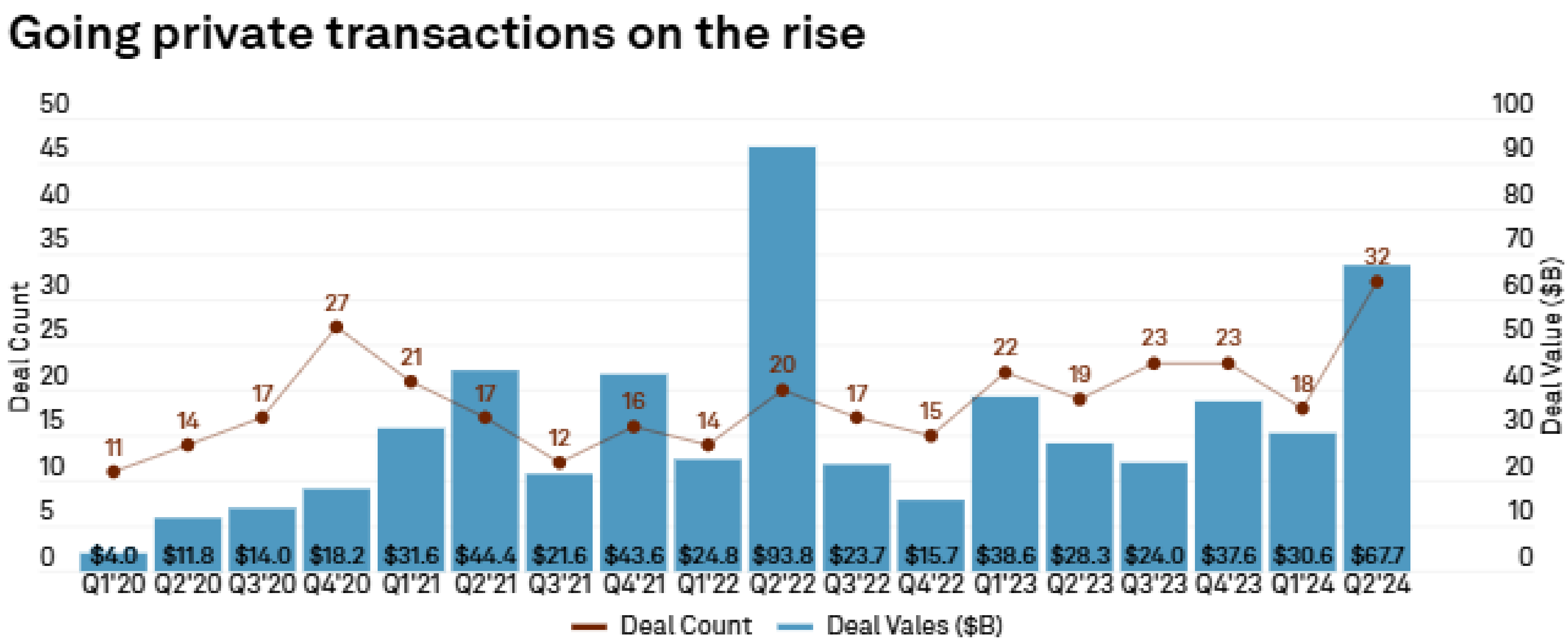
2024 – The Rise of the Take-Private

Alongside a notable increase in mega-merger type deals, private equity sponsors have grown increasingly active as the medium by which public firms are being delisted – such a transaction is known as a "take-private"



Source: CapIQ

Deal Spotlight – ExxonMobil Acquires Pioneer

In the largest corporate M&A deal of the year, ExxonMobil has announced plans to acquire Pioneer Natural Resources for a total consideration of ~$60B in an all-stock deal

ExxonMobil

PIONEER
NATURAL RESOURCES

Source: Mergersight

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Deal Spotlight – Vista Equity and Blackstone Take Smartsheet Private

This major take private demonstrates the power of private equity firms operating as a "consortium" to complete a large deal – the total transaction value was ~$8B and was financed entirely by a combination of debt and equity

Blackstone

smartsheet

VISTA EQUITY PARTNERS

Source: Blackstone – note the transaction was said to be financed by all cash; this is because the private equity sponsor paid the shareholders of the target in cash using the equity proceeds from their funds and debt from various lenders – recall the definition of a leveraged buyout

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Deal Spotlight – Blackstone Acquires Jersey Mike's

Just this week it was announced that Blackstone struck a deal to acquire Jersey Mike's Subs for $8bn

The rationale

Consolidation has been picking up among restaurant owners, whose cash flows have drawn interest from a range of buyers, including deep-pocketed private-equity firms. (Restaurant chains and operators are also on track this year to declare the most bankruptcies in decades outside of 2020, with many consumers reining in their spending at sit-down and fast-casual chains.)

Subway agreed last year to be sold to private-equity firm Roark Capital for $9.6 billion. Earlier this year, Olive Garden parent Darden Restaurants bought Chuy's for $605 million. Burger King owner Restaurant Brands International also spent $1 billion to acquire its biggest Burger King franchisee in the U.S.

Roark-backed Inspire Brands struck a deal for sandwich rival Jimmy John's in 2019, leading industry watchers to speculate when—if ever—a deal could come for Jersey Mike's.

Source: Mergersight

Why do mergers fail?

BUSINESS | DEALS

M&A Can Pay Off, but It's Far From a Sure Thing

Companies can get better at doing successful mergers and acquisitions, advisers say

Does M&A work? The latest research says it's a tossup.

Business-school students are often taught that successful mergers and acquisitions are a long shot. One influential Harvard Business Review article, dating from 2011, says a range of studies show roughly 70% to 90% of deals fail to create value for the buyer.

And many investors worry that takeovers are more reliably lucrative for investment banks—which LSEG says earned some $13.1 billion in M&A fees in the first half of this year—than for the acquiring companies and their shareholders.

But more recent research from academics and consultants puts the success rate closer to even. Companies that do frequent smaller deals, as well as making bigger bets, tend to outperform, advisers say. That is because they hone their ability to identify targets, integrate those businesses and reap the intended financial benefits.

Assignments for this week

1. Attendance quiz due Saturday night

2. M&A / Merger Math Quiz due Saturday night

3. Behavioral Interview Template due Nov. 26

4. Watch video recording next week

Attendance word: Elizabeth Holmes

Extra slides