

Lesson 2 – Group Choice and Corporate Finance Overview

## Investment Banking Recruiting

September 13, 2024



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**IB and Group Choice Overview**

**Corporate Finance Crash Course**

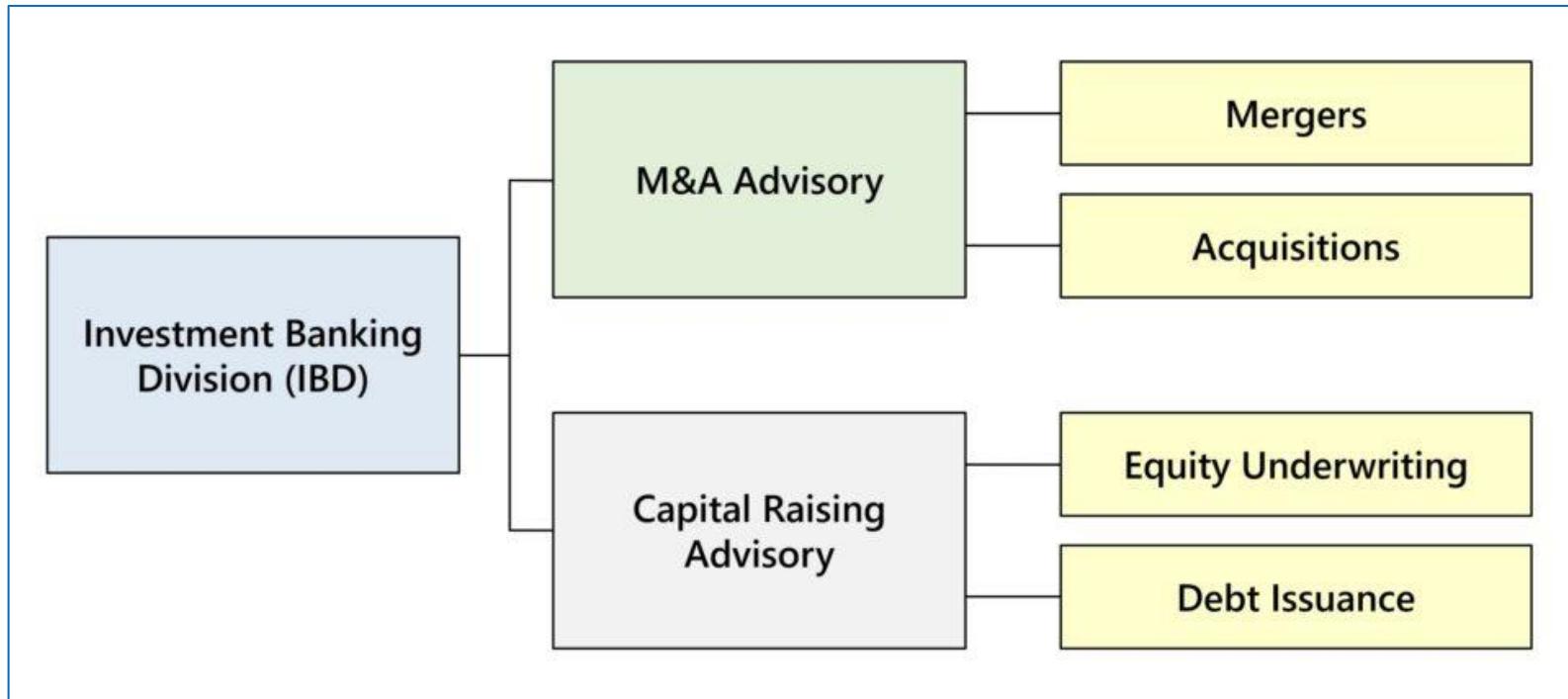
**Macro Economics Crash Course**



# What is Investment Banking?

## Overview

- Investment banking is oriented around providing advisory services to companies, institutional firms, and governmental entities.
- The role of an investment banker is two-fold, with each function—raising capital in the capital markets (i.e., underwriting) and mergers and acquisitions (M&A)—reflecting a form of matchmaking
- Clients of an investment banking firm are most often corporations or institutional investors, such as private equity firms, mutual funds, hedge funds, pension funds, and sovereign wealth funds (SWF)



# Examples Transactions

FORBES > INNOVATION > AI

## Facebook Closes \$19 Billion WhatsApp Deal

Parmy Olson Former Staff

AI, robotics and the digital transformation of European business.



Oct 6, 2014, 01:25pm EDT

FORBES > MONEY

## Microsoft's \$69 Billion Activision Blizzard Acquisition Finally Approved

Q.ai - Powering a Personal Wealth Movement Former Contributor

Q.ai Contributor Group ©



Oct 16, 2023, 07:10am EDT

## LATAM Group completes restructuring to emerge from Chapter 11

January 2023 | DEALFRONT | BANKRUPTCY & CORPORATE RESTRUCTURING

Financier Worldwide Magazine



Morgan Stanley



EVERCORE



MEDIA

## Paramount agrees to merge with Skydance, ending monthslong negotiations and Redstone era

PUBLISHED MON, JUL 8 2024 8:02 AM EDT | UPDATED MON, JUL 8 2024 4:02 PM EDT



Lillian Rizzo

@LILLIANNNN

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## Healthcare software firm Waystar raises \$968 mln million in IPO

By Echo Wang

June 6, 2024 4:23 PM MDT · Updated 3 months ago



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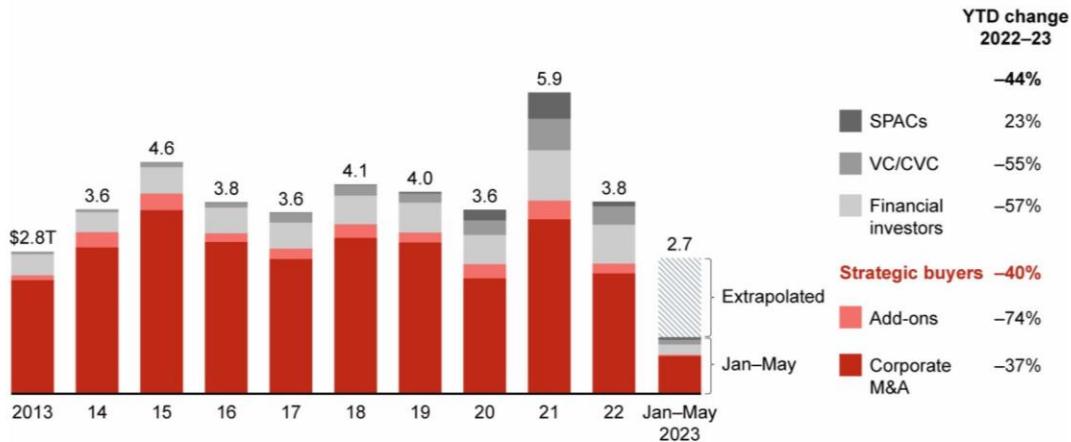
J.P.Morgan



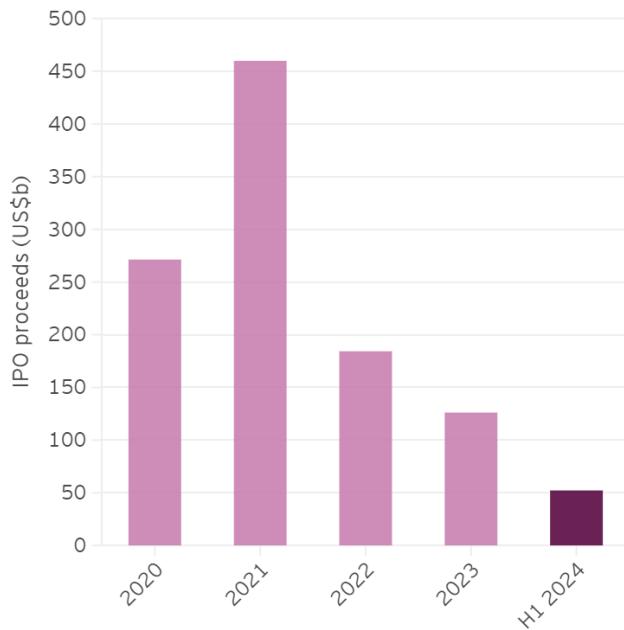
# M&A Activity and IPO Activity

## M&A

Global M&A deal market value (\$T)



## IPO



# Bulge bracket vs Elite Boutique vs Middle Market

Bulge Bracket	Elite Boutique	Middle Market
<ul style="list-style-type: none"><li>▪ largest, most prestigious, and global investment banks</li><li>▪ offer a wide range of services, including M&amp;A advisory, capital markets, sales and trading, research, wealth management, asset management, and more</li><li>▪ work on the largest deals in the industry, often worth billions of dollars</li></ul>	<ul style="list-style-type: none"><li>▪ specialized firms that primarily focus on advisory services (like M&amp;A) rather than offering the full range of investment banking services</li><li>▪ often serve large corporations and institutions but focus on niche areas, such as M&amp;A or restructuring</li><li>▪ Despite being smaller firms, they work on large deals, often worth billions of dollars</li></ul>	<ul style="list-style-type: none"><li>▪ cater to mid-sized companies and typically operate on a more regional or national scale</li><li>▪ provide a broad range of services similar to BBs, such as M&amp;A advisory, capital raising, and debt advisory</li><li>▪ They generally work on deals ranging from \$100 to \$500 million, though some may handle larger deals</li></ul>

Examples	Examples	Examples
       	       	         



# Product Group vs Industry Group

Product Group	Industry Group
<ul style="list-style-type: none"><li>The product groups specialize in the execution of a particular type of corporate action, such as a merger or acquisition</li><li>The M&amp;A group is widely perceived as the most modeling-intensive and technical product group relative to other groups, causing the potential exit opportunities to be more extensive</li></ul>	<ul style="list-style-type: none"><li>The industry groups, or “industry coverage groups”, specialize in a specific industry niche while working on a wide range of transactions</li><li>Unlike product groups, industry groups cover all companies that operate in a pre-specified industry niche, without constraints on their product offerings</li></ul>

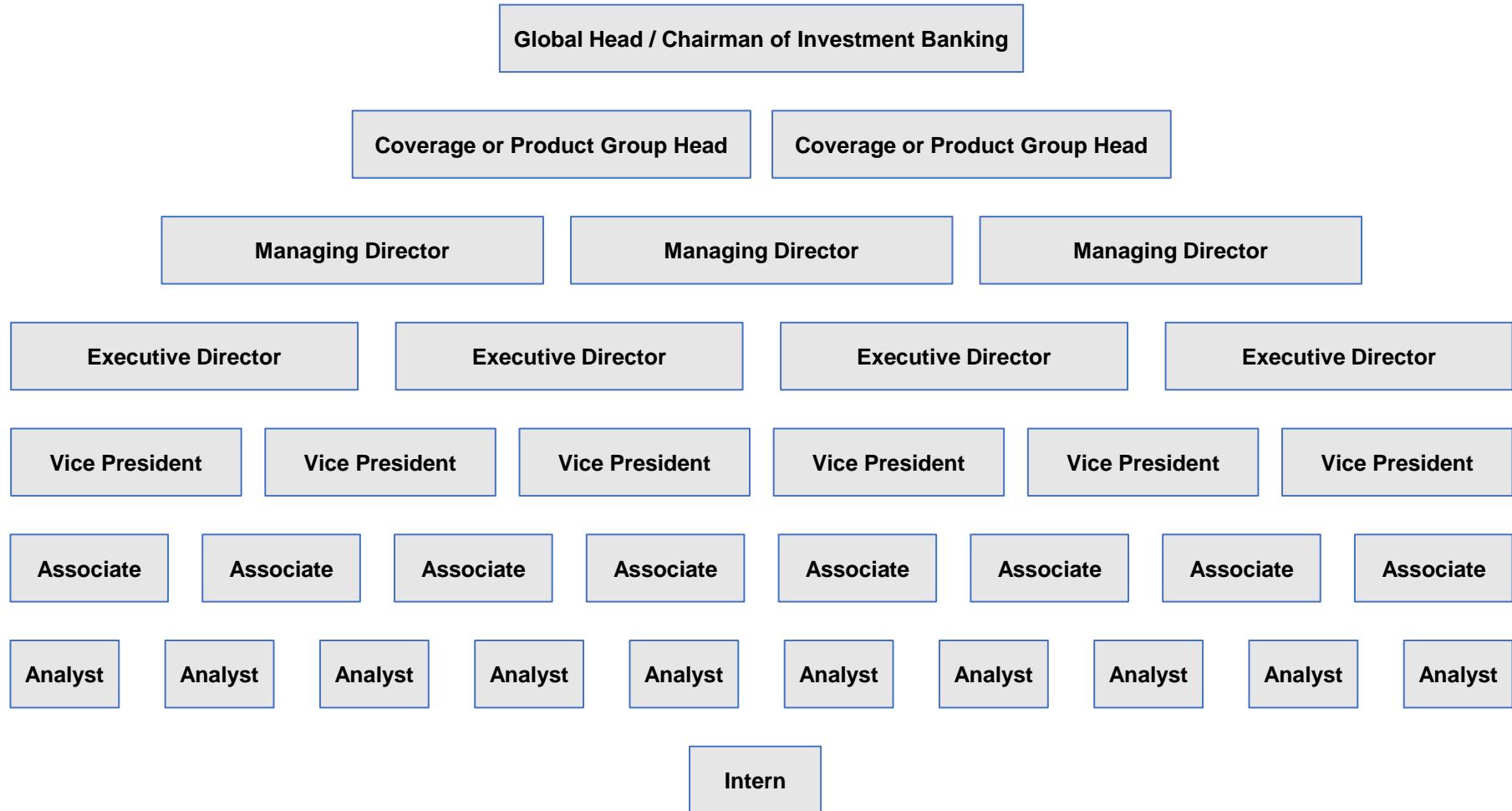
Product Groups vs. Industry Groups	
Product Groups	Industry Groups
Mergers and Acquisitions (M&A)	Technology, Media and Telecom (TMT)
Equity Capital Markets (ECM)	Healthcare and Life Sciences
Debt Capital Markets (DCM)	Financial Institutions Group (FIG)
Leveraged Finance (LevFin)	Oil and Gas (O&G)
Corporate Restructuring (RX)	Consumer Goods and Retail
Structured Finance	Financial Sponsors Group (FSG)

# Major Banking Cities

	Known for	BYU pipelines
New York	<ul style="list-style-type: none"><li>▪ Global Financial Hub</li></ul>	★★★★★
San Francisco	<ul style="list-style-type: none"><li>▪ Investment banks here often specialize in tech-related IPOs, M&amp;A, and advising high-growth companies</li></ul>	★★★★★
Los Angeles	<ul style="list-style-type: none"><li>▪ A center for entertainment and media industry deals, with a strong focus on M&amp;A and financing within Hollywood, as well as real estate finance</li></ul>	★★
Dallas / Houston	<ul style="list-style-type: none"><li>▪ A primary center for energy investment banking, particularly in oil &amp; gas, petrochemicals, and alternative energy</li></ul>	★★★
Chicago	<ul style="list-style-type: none"><li>▪ Middle-Market Deals, Industrials, and Consumer Goods</li></ul>	★
Boston	<ul style="list-style-type: none"><li>▪ Investment banks here often specialize in biotech IPOs, M&amp;A, and venture capital in healthcare</li></ul>	★
Charlotte	<ul style="list-style-type: none"><li>▪ A major center for commercial banking, with a strong presence of Bank of America, Wells Fargo, and Truist</li></ul>	★

# How are Investment Banks Structured?

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# Analyst responsibilities and job description

Investment banking analysts given a comprehensive array of duties and tasks and get significant experience straight out of undergrad.

## ANALYST ROLE

### Note-taking, Data Scrubbing and Other Routine Tasks

- **Note Taking:** Analysts in investment banks often take notes during client meetings and strategy sessions, recording key insights and action items to support informed decisions.
- **Data Scrubbing:** This involves cleaning and validating financial data to ensure accuracy for financial modeling and risk assessment.
- **Routine Tasks:** Analysts handle routine tasks like data entry, report generation, and document formatting, which are essential for operational efficiency and supporting complex analytical work.

### Financial Modelling and Valuation

- **Financial Modeling:** Analysts create financial models using spreadsheets to project company performance, evaluating variables like revenue growth and market conditions.
- **Valuation:** Valuation uses models to estimate asset worth, applying methods like DCF analysis and comps to guide investment strategies, mergers, and acquisitions.

### Slide Creation

- **Slide Creation:** Analysts create visually clear presentations using tools like PowerPoint to communicate financial and strategic insights to clients or teams.
- **Types of decks:** Investment banks produce pitch decks for proposals, research decks for market analysis, and CIMs for details on mergers and acquisitions.

# Why are the hours so long?

1

**Client Facing:** You are at the mercy of the client. If you aren't willing to do what they want ASAP, they will hire another bank.

2

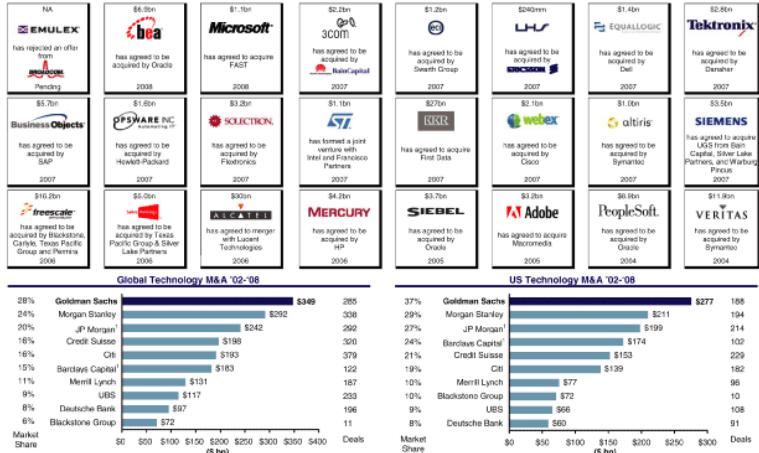
**High Stakes / Attention to detail:** Slide decks and excel models can have exactly 0 errors. These deals are worth hundreds of millions, if not billions of dollars. They have to be done 100% correctly.

3

**Historic culture:** Face-time culture is still important at many firms. Many senior bankers also feel that because they worked long hours as analysts, the current generation must do the same.

## Goldman Sachs' Technology M&A Expertise

Undisputed Leader in Technology M&A



Source: IFCI, announced transactions as of 31-Dec. deals value based on market value as defined by IFCI.

JP Morgan includes investment previously advised in Bear Stearns due to JP Morgan completing its acquisition effective 20-May-2008. Barclays Capital includes investment previously allocated to Lehman Brothers due to Barclays completing its acquisition effective 22-Sep-2008.

Why Goldman Sachs For This Assignment 8

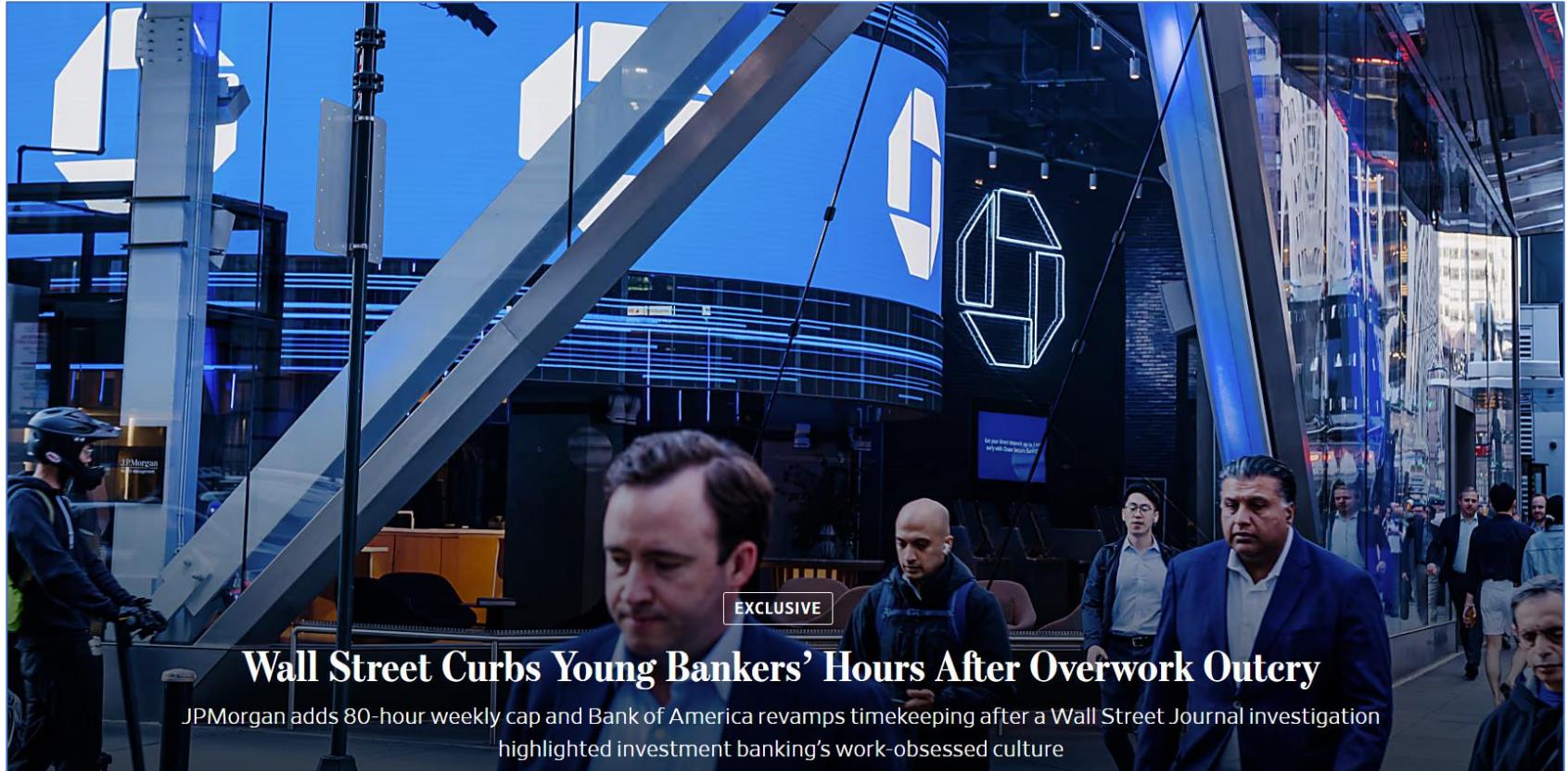
Company	Key Metrics	Strategic Rationale
SanDisk	Market Cap \$12.25B Enterprise Value \$2.08B Cash \$5.342T Debt \$2.153T  EV / CY11 Rev 1.59x EV / CY11 EBITDA 5.8x	+ Complementary product roadmaps + SanDisk in August launched its first product in embedded SSD category + Shakespeare's announced new strategic move into the Flash packaging focusing on Micro SD cards, SD cards, and USBs + Strategic opportunity to leverage Shakespeare's current presence to penetrate Brazil market by offering full manufacturing capability and shorter lead times - Specialized DRAM business not a clear fit
Micron	Market Cap \$11.914B Enterprise Value \$3.037B Cash 2.411B Debt 3.594B  EV / CY11 Rev 1.40x EV / CY11 EBITDA 4.1x	+ Expand downstream by further integrating Shakespeare's highly differentiated specialty DRAM capabilities to drive higher margins and top line growth + Synergistic product offering: Shakespeare's XceedIOPS SAS solution currently ships with Micron's MLC Flash components + Opportunity to leverage Shakespeare's presence and relationships with Tier 1 OEMs to cross sell into the Brazil's high growth end markets - High volume focused
Kingston	NA	+ #1 global memory module vendor – opportunity to acquire the closest competitor and further consolidate the market + Shakespeare's dominant position in Brazil provides instant access to highly attractive end markets + Access to Shakespeare's IP and expertise in enterprise-class SSS solutions to complement its consumer/computing SSS offering - Privately held and has not executed M&A historically
Samsung	Market Cap \$121.097B Enterprise Value \$112.354B Cash 21.126B Debt 12.363B  EV / CY11 Rev 0.91x EV / CY11 EBITDA 4.8x	+ Expand downstream by further integrating Shakespeare's highly differentiated specialty DRAM capabilities to drive higher margins and top line growth + Developing a new SSD controller in partnership with Seagate - enterprise-class SSD's slated for a "mid-2012" release - Has not historically executed on M&A

Source: FactSet and IBD/E/S consensus estimates. Data as of 2/25/11.

BARCLAYS CAPITAL

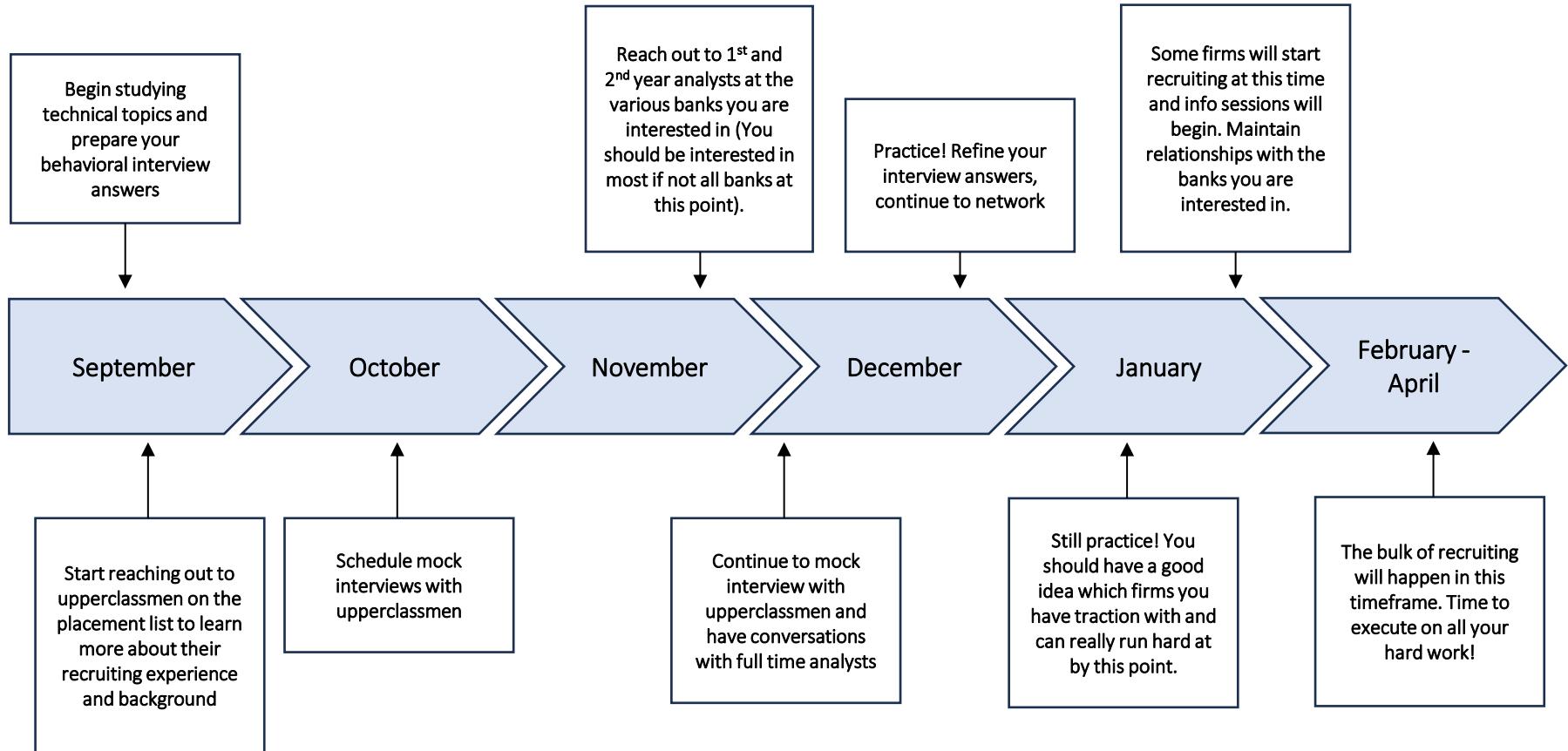
# Why are the hours so long?

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# Recruiting Timeline

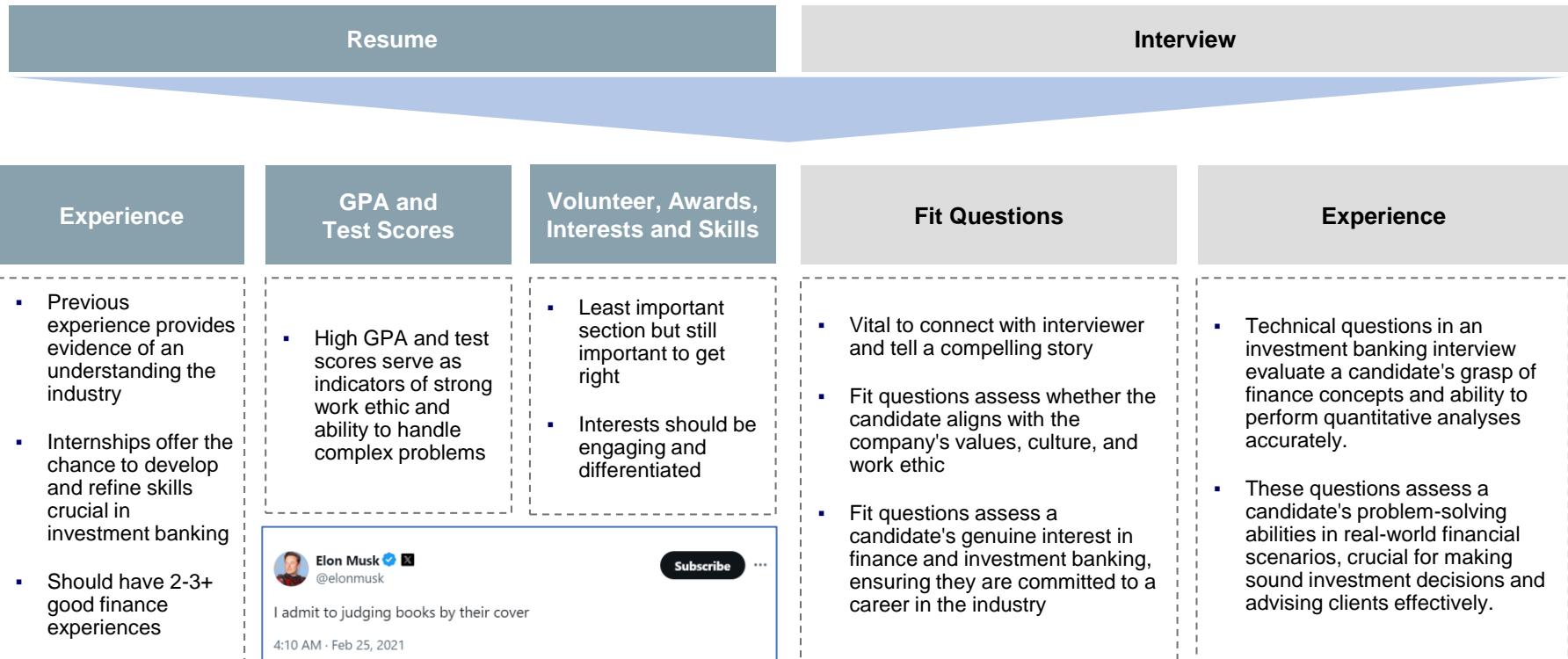
In addition to the information presented below, it is critical that you have an internship in both semesters of your sophomore year to demonstrate continued learning and passion for the financial services industry



# What are banks looking for?

Banks look for candidates who demonstrate strong analytical skills, a solid understanding of finance, excellent communication abilities, and a strong work ethic, coupled with a passion for the industry and a willingness to learn

- Investment Banks are looking for candidates who excel in all facets of life and have a track record of strong performance both inside and outside of the classroom
- They are also trying to mitigate risk in the interns they select. By doing well in each of these areas, banks will believe there is a lower chance you are a bad hire
- **This class will help you prepare everything on the interview side of the equation, but the resume side comes down to YOU. Only you can get the experience and GPA you need to land a job on Wall Street**



I admit to judging books by their cover  
4:10 AM · Feb 25, 2021

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# BYU Pipelines

BANK OF AMERICA

BARCLAYS

CITI



Deutsche Bank

EVERCORE

Goldman  
Sachs



Houlihan Lokey

Jefferies

LAZARD

Morgan Stanley

PIPER | SANDLER

Qatalyst  
PARTNERS

RAYMOND  
JAMES®

Rothschild & Co

WELLS  
FARGO

IBR

# Where we do not have established pipelines



CENTER | VIEW PARTNERS



GUGGENHEIM

Harris Williams

JPMORGAN CHASE & Co.



MIZUHO

Moelis



STIFEL

UBS

William Blair

IBR

# Exit Opportunities

Exit opportunities are determined by your personal ambition, bank prestige, group prestige, deal experience, and industry knowledge. Just having a job in IB will not guarantee you a top-tier exit opportunity.

Popular exits include, but are not limited to:

Private Equity

Growth Equity

Venture Capital

Hedge Fund

Asset Management

Corporate Development

Startup / Entrepreneur

MBA

andreessen.  
horowitz

Accel

amazon

Blackstone

CARLYLE

CITADEL

Fidelity

GENERAL ATLANTIC

Google

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IBR

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# Time Value of Money



The illustration features a black alarm clock in the center, with its hands pointing to approximately 10:10. A thought bubble originates from the top of the clock, containing three stacks of coins. Below the clock, there is a stack of US dollar bills and several loose coins scattered around them.

**Time Value of Money (TVM)**

*[tīm 'val-(.)yü əv 'mə-nē]*

The concept that a sum of money is worth more now than the same sum will be at a future date due to its earnings potential in the interim.

 Investopedia

# Opportunity Cost

Would you rather have \$20 today or in 5 years?

## Reasons to prefer the money now

1. Inflation
2. Investment opportunity

## CAGR example

A	B	C	D	E	F	G	H	I	J	K
11	<b>CAGR Example</b>									
12										
13		Revenue								
14	Year 0	\$20.0	← Beginning Value			Beginning Value	\$20.0			
15	Year 1	\$22.5				Ending Value	\$32.5			
16	Year 2	\$25.0				Number of Periods	5			
17	Year 3	\$27.5				CAGR	10.2%			
18	Year 4	\$30.0								
19	Year 5	\$32.5	← Ending Value							
20										

# Discounting

Discount rate is the required rate of return, or the hurdle rate that investors expect to earn relative to the risk of the investment.

**Future Value (FV)**

$$\text{Present Value (PV)} = \frac{\text{Future Value (FV)}}{(1 + \text{Discount Rate})^{\text{Period}}}$$

# Discounting

To be received in 5 years      \$100

I want to discount this \$100 to the present, and based on its riskiness, I need a 10% return

So.... I do the following

=100/(1+0.1)^5      \$ 62.09

Year	0	1	2	3	4	5
	\$ 62.09	\$ 68.30	\$ 75.13	\$ 82.64	\$ 90.91	\$ 100.00
Growth rate		10%	10%	10%	10%	10%

## Discounting Example Problem

- In year 1 you generate \$250 of cash flow.
- For each of the next 4 years your cash flow grows at a 12% rate. (5 years of cash flow total)
- You currently have a discount rate of 9%. Discount each of those cash flows and give me the sum total of all the discounted cash flows.

**Future Value (FV)**

**Present Value (PV) =** \_\_\_\_\_  
**(1 + Discount Rate)<sup>Period</sup>**

# Discounting

Year	1	2	3	4	5
Cash Flow	\$ 250.00	\$ 280.00	\$ 313.60	\$ 351.23	\$ 393.38
Growth		12%	12%	12%	12%
Discount rate	9%				
Discounted cash flows	\$ 229.36	\$ 235.67	\$ 242.16	\$ 248.82	\$ 255.67
Sum of cash flows	\$ 1,211.68				

# Loss Aversion

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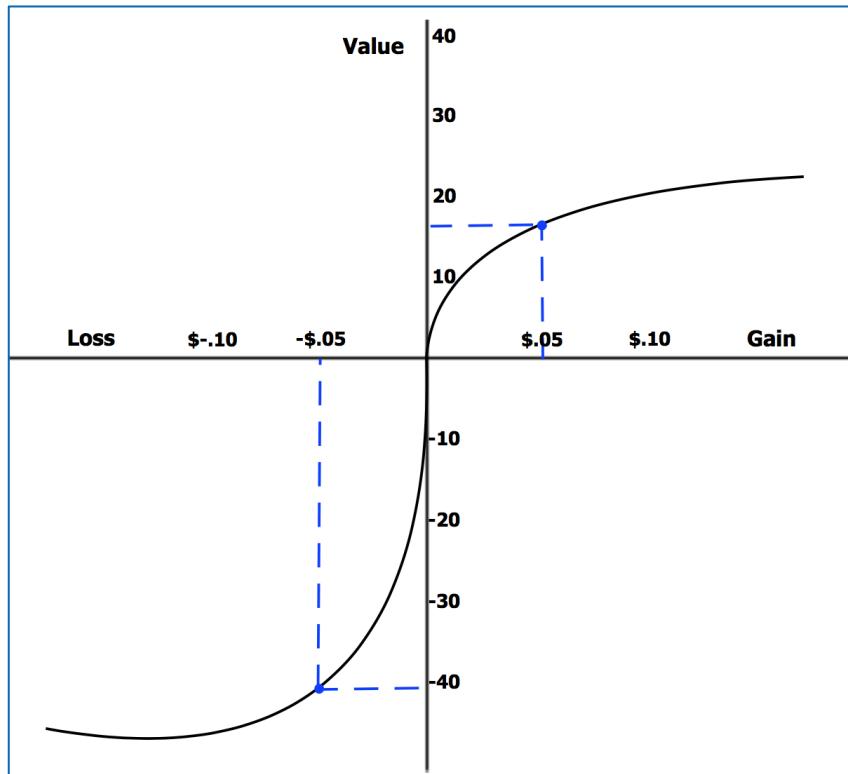
**Imagine the following scenarios...**

<b>Phone Insurance</b>	<p><b>Scenario A:</b> You choose not to buy insurance for your new phone, and you save \$100 upfront.</p> <p><b>Scenario B:</b> You buy phone insurance for \$100, even though there's only a small chance your phone will be damaged.</p>
<b>Lottery Ticket</b>	<ul style="list-style-type: none"><li>• <b>Scenario A:</b> You can participate in a lottery where there's a 50% chance of winning \$100.</li><li>• <b>Scenario B:</b> You are offered \$40 guaranteed.</li></ul>
<b>Selling Unused Equipment</b>	<p><b>Scenario A:</b> You sell your unused sports equipment for \$100, even though you paid \$300 for it.</p> <p><b>Scenario B:</b> You hold onto the equipment, hoping you'll use it one day, even though it's gathering dust.</p>

**What would you choose?**

# Loss Aversion

Human beings are loss averse - **meaning they tend to feel the pain of losses more intensely than the pleasure of equivalent gains**, leading them to make decisions that prioritize avoiding losses even when it may not be the most rational or beneficial choice.



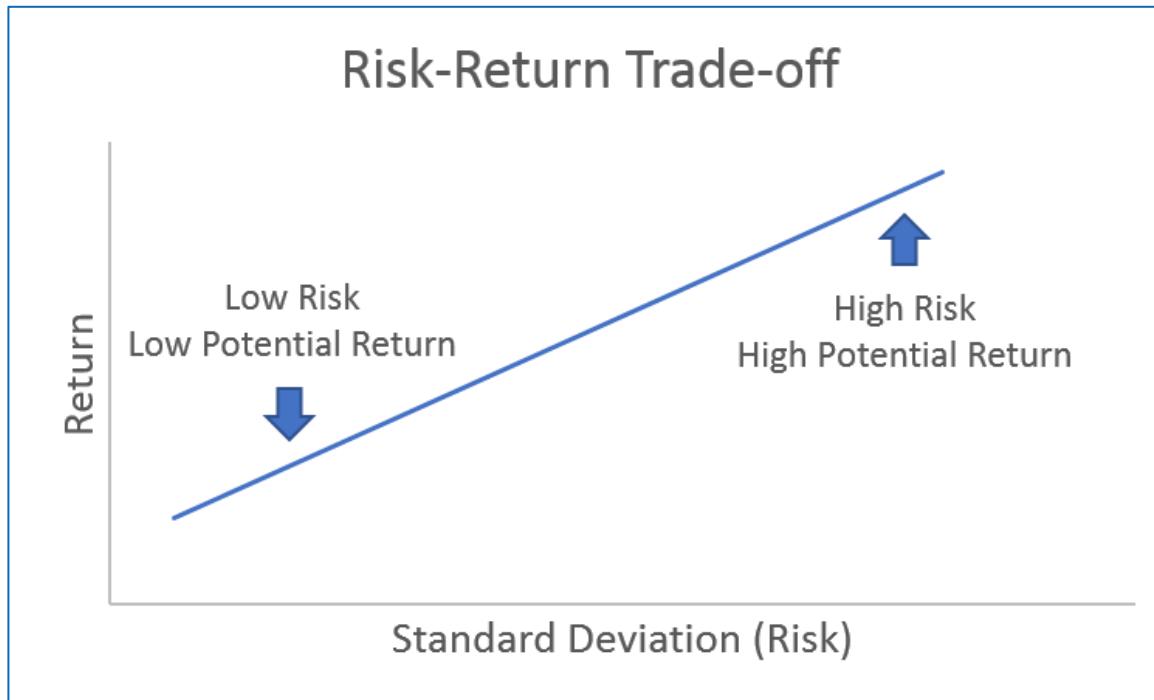
# Risk & Return

## Risk

The possibility of financial loss or lower than expected returns

## Return

Gain or loss on an investment over a specific period

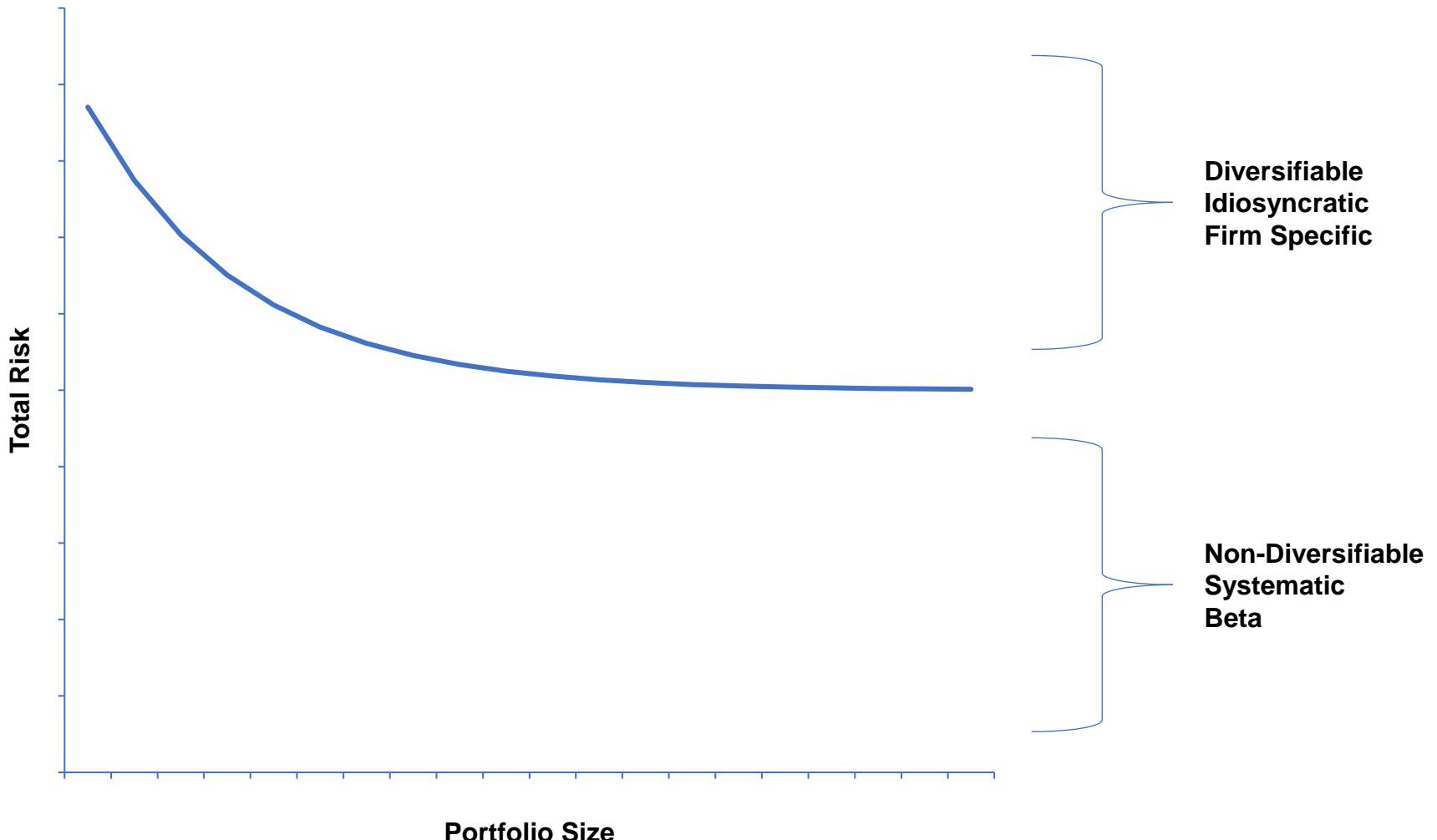


# Risk & Return

<b>Systematic Risk</b>	<p><b>Systematic Risk is non-diversifiable</b> – this type of risk affects the entire market in which a firm operates and cannot be mitigated by simply increasing portfolio size or expanding business operations.</p> <ul style="list-style-type: none"><li>▪ Systematic risk is also known as beta risk, and because even the best investor cannot overcome it, all investors seek after returns proportional to the amount of systematic risk borne.</li></ul>
<b>Idiosyncratic Risk</b>	<p><b>Idiosyncratic risk is diversifiable</b> – this sort of risk does not demand increased compensation in the form of greater returns</p> <ul style="list-style-type: none"><li>▪ This form of risk can be easily reduced by a skilled investor/financier by simply increasing portfolio size (diversification)</li><li>▪ Idiosyncratic risk exists on a case-by-case basis, and thus not all firms, projects, nor assets carry the same idiosyncratic risks even if they exist in the same market.</li></ul>

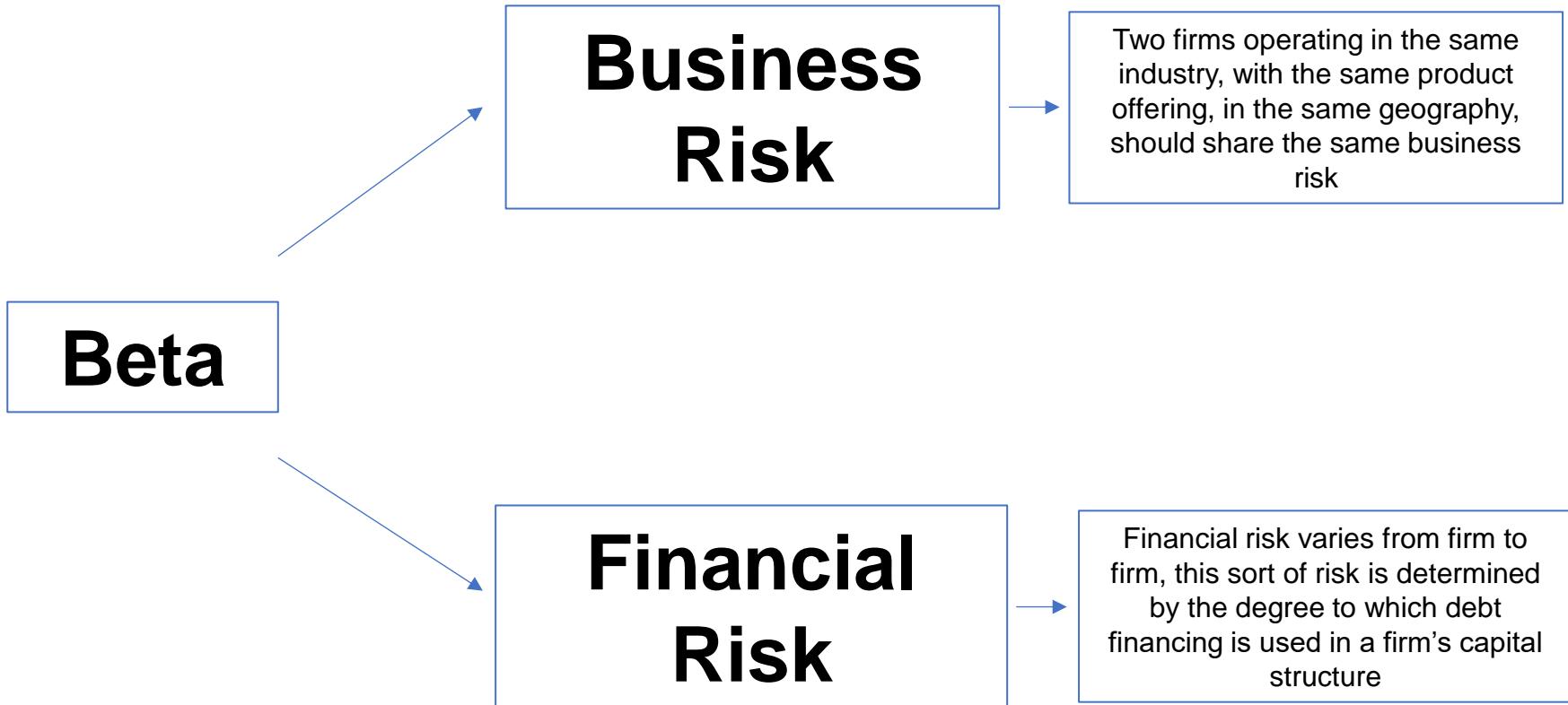
# Risk & Return (Buy-Side Perspective)

## Systematic vs Idiosyncratic Risk

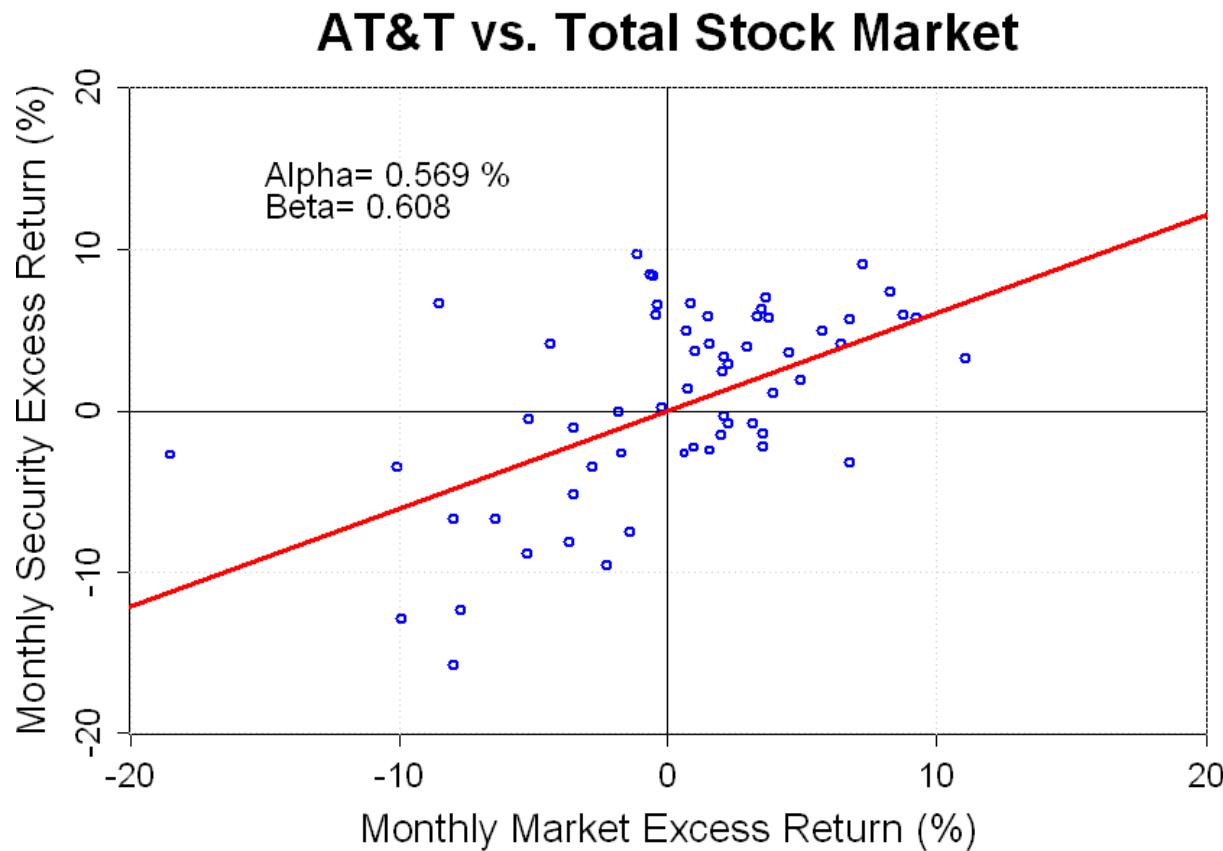


# Beta Risk (Sell-Side Perspective)

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# Beta Risk and the Capital Asset Pricing Model



$$\text{Cost of Equity } (k_e) = r_f + \beta (r_m - r_f)$$

# Cost of Capital

Corporations exist on the “sell-side” of the capital markets – they are the issuers of financial instruments. As such, in borrowing and receiving invested capital firms are obligated to pay a variety of costs known as the **cost of capital**.

$$\text{WACC} = \text{Cost of Equity} * E/V + \text{Cost of Debt} * D/V$$

The weighted average cost of capital (WACC) is the most used discount rate in valuation – it represents **the expected cost of financing the firm's assets weighted in accordance with the firm's mix of debt and equity financing** (the capital structure).

The WACC provides unmatched simplicity in valuation by way of pricing both business risk and financial risk into one single discount rate.

$$\text{Cost of Equity} = R_f + B * (\text{MRP})$$

$$\text{Cost of Debt} = \text{Weighted Average Interest Rate}$$

# Capital Structure

Capital Structure refers to the specific mix of funding sources with which a firm finances its operations and growth



## Debt

**Repayment Obligation:** Fixed repayments (principal + interest) over a specified period.

**Ownership:** Lenders do not gain ownership in the company.

**Tax Deductibility:** Interest payments are typically tax-deductible.

**Risk:** Increases financial risk due to required repayments, regardless of business performance.

**Priority in Liquidation:** Debt holders are paid before equity holders in case of liquidation.

**Cost:** Usually cheaper than equity but adds leverage (risk of default).

**Term:** Can be short-term (loans, credit lines) or long-term (bonds, mortgages).

## Equity

**Ownership Stake:** Investors receive ownership in the company (shares of stock).

**No Repayment Obligation:** No requirement to repay investors; returns come via dividends or capital appreciation.

**Dividends:** Not guaranteed; distributed based on company profits and board decisions.

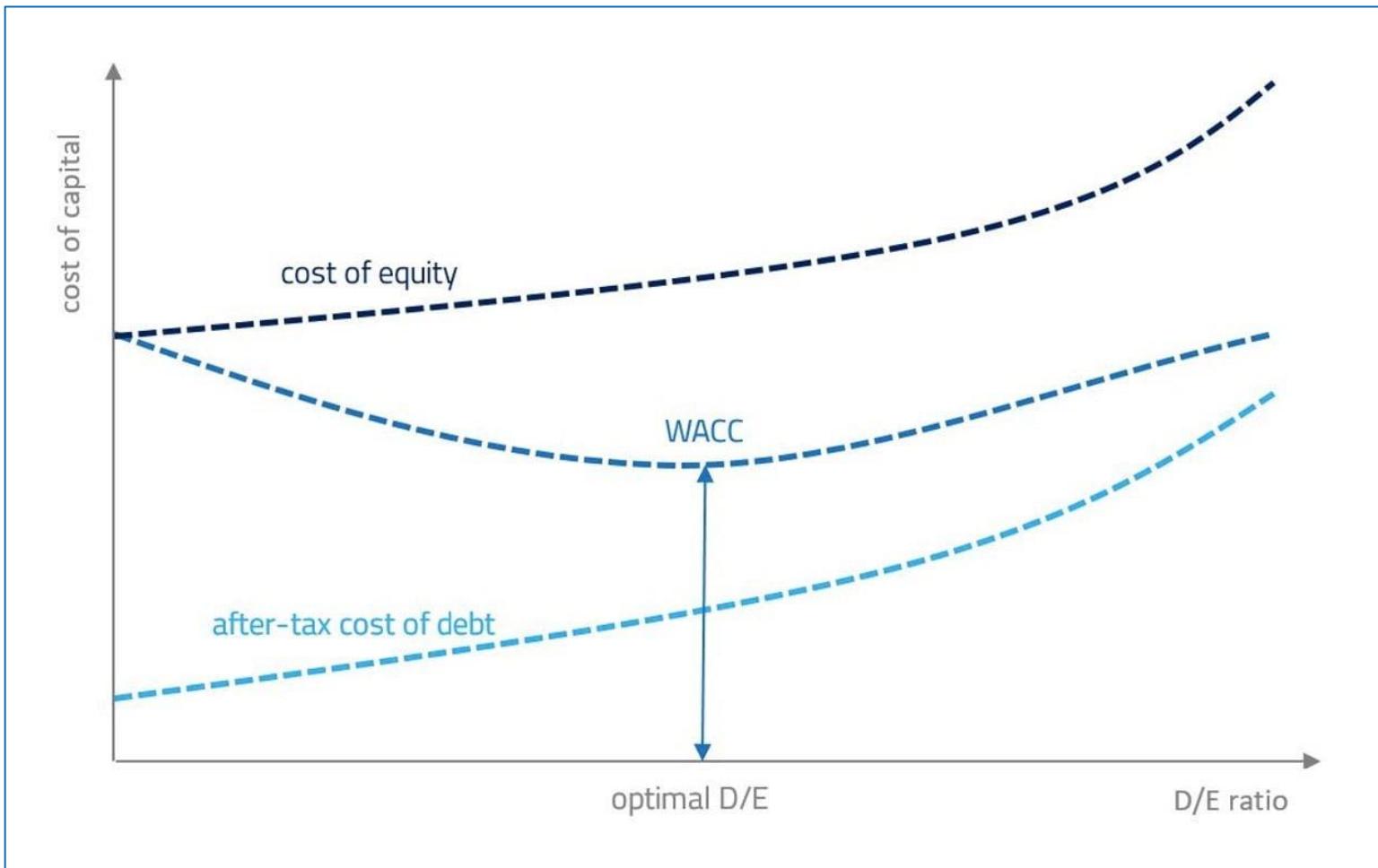
**Control Dilution:** Issuing more equity can dilute existing shareholders' control over the company.

**Risk to Investors:** Equity holders bear more risk as they are paid last in case of liquidation.

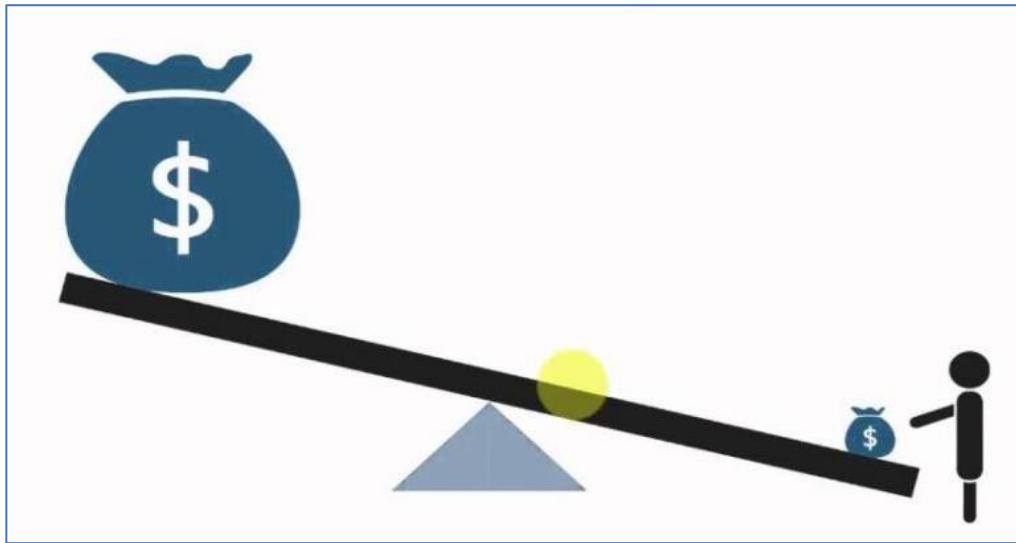
**Cost:** Higher long-term cost due to sharing profits, but no mandatory payments like with debt.

**Permanent Capital:** Equity remains on the company's balance sheet unless bought back.

# Capital Structure (Cont.)



# Financial Leverage



## Financial Leverage

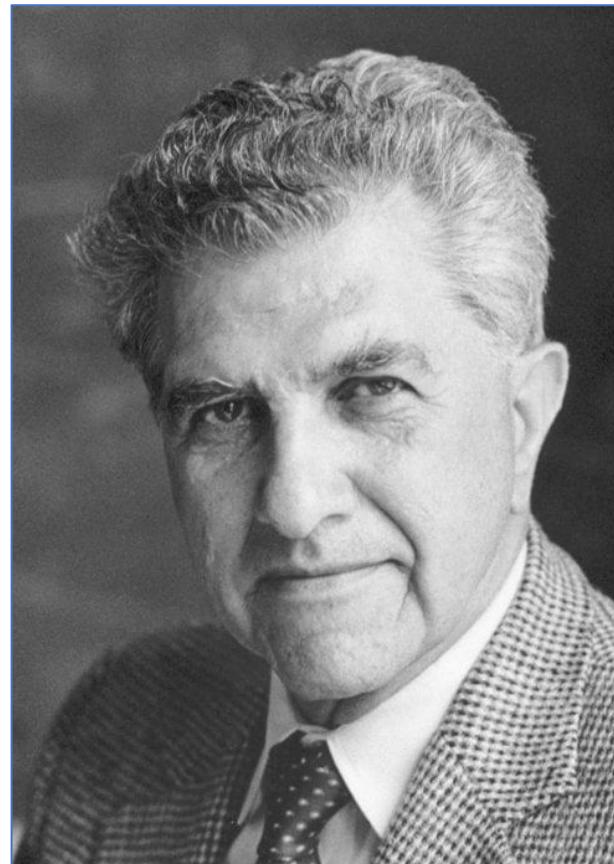
**Leverage is a tool, force, or advantage used to amplify an outcome.** In finance, this simply refers to a device of financial engineering used to enhance ROE. This device is debt – higher debt yields more extreme outcomes as measured by return on equity. Leverage considerations are a crucial part of the financing structure of both M&A deals and LBOs.

# Capital Structure & Value

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**Franco Modigliani**



**Merton Miller**

# Capital Structure & Value

Economists have studied the impacts of capital structure on value for decades, and have summarized their findings of how capital structure impacts value in the following ways:

Interest  
Tax  
Shield

As financial leverage increases, the interest expense on debt creates a “tax shield” - thus reducing the portion of unlevered free cash flows being distributed to the government, ultimately altering the risk associated with levered cash flows and the weighted average cost of capital

Costs of  
Distress

As financial leverage increases, the risk of default (missed payment on interest or principal amortization) increases – therefore a skilled lender will charge higher interest rates on debt as leverage increases to compensate for the higher risk borne in lending

Market  
Signals

Increasing financial leverage enhances the returns distributed to a firm’s owners in times of prosperity, therefore when a firm issues debt or uses debt to buyback stock (thus increasing leverage), investors may reasonably assume the firm is headed in a good direction and bidding will subsequently increase the firm’s valuation

Discipline

To avoid default (and bankruptcy) management in a highly levered firm is motivated to perform well – in this way financial leverage acts as a “big brother” sort of regulator keeping managerial decisions in line with the best interest of shareholders

Flexibility

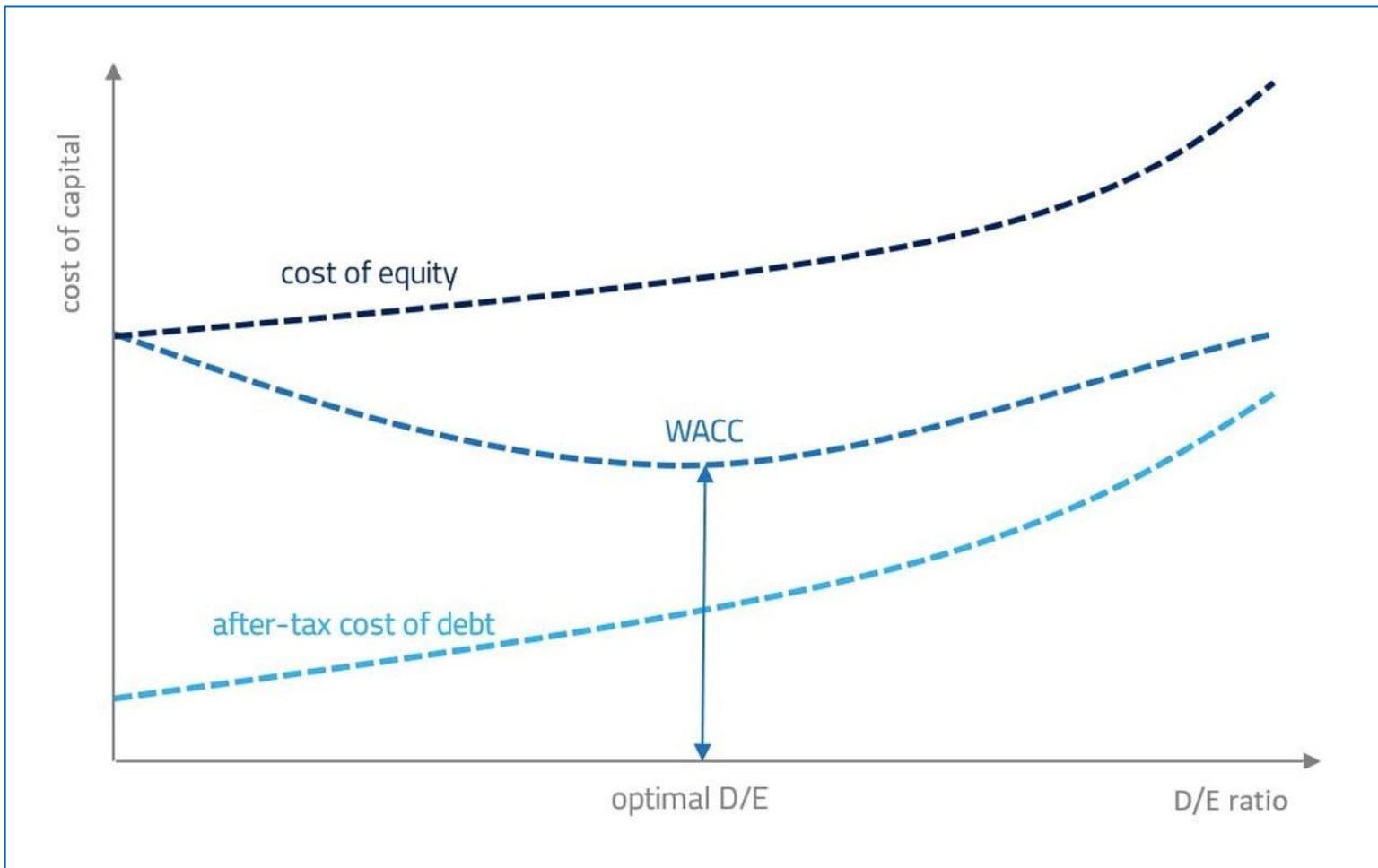
Increasing financial leverage constrains a firm’s ability to further issue new debt in the future and thus negatively impacts a firm’s financial flexibility to finance future prospects that are presently unknown

# Tradeoff Theory of Debt Financing

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# Capital Structure (Cont.)



# Internal Rate of Return (IRR)



**Internal Rate of Return (IRR)**

[in-'tər-nəl rāt ōf ri-'tərn]

A financial metric, used to measure the profitability of an investment, that takes into account the time value of money.

 Investopedia

# Internal Rate of Return (IRR)

Year	1	2	3	4	5	6	7
Investment Return	\$100.00	\$110.00	\$121.00	\$133.10	\$146.41	\$161.05	\$177.16
Growth Rate		10%	10%	10%	10%	10%	10%

CAGR  
10%

Year	1	2	3	4	5	6	7
Investment Return	\$100.00	\$102.00	\$105.06	\$106.11	\$107.17	\$123.25	\$177.48
Growth Rate		2%	3%	1%	1%	15%	44%

CAGR  
10%

# Internal Rate of Return (IRR)

SOLVE THE IRR  
TO MAKE THE  
NET PRESENT VALUE  
ZERO

VALUE OF ALL FUTURE CASHFLOWS  
REINVESTED @ THE IRR

$$NPV(0) = \frac{\text{Cashflow}_1}{(1 + IRR)^1} + \frac{\text{Cashflow}_2}{(1 + IRR)^2} + \frac{\text{Cashflow}_n}{(1 + IRR)^n}$$

- Initial investment

WHAT YOU PAID FOR  
INITIAL INVESTMENT

# IRR vs CAGR

## IRR

### Internal Rate of Return

- Widely used in analyzing investments for PE/VC, which involves multiple cash investments over the life of a business and a cash flow at the end through an IPO or sale of the business.

Year	Cash Flows	PV of Cash Flows
0	-\$500,000	-\$500,000
1	\$160,000	\$141,247
2	\$160,000	\$124,692
3	\$160,000	\$110,077
4	\$160,000	\$97,176
5	\$50,000	\$26,808

NPV	0
IRR	13%

## CAGR

### Compound Annual Growth Rate

- CAGR is superior to an average returns figure because it considers how an investment is compounded over time
- assumes a smoothed return over the time period, only considering an initial and a final value when an investment usually experiences short-term ups and downs

$$\text{CAGR (\%)} = \frac{\text{Ending Value}^{(1 \div t)} - 1}{\text{Beginning Value}}$$

A	B	C	D	E	F	G	H	I	J	K
Compound Annual Growth Rate (CAGR)										
1	(\$ in millions)	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	CAGR		
2										
3	Revenue	\$100	\$110	\$119	\$129	\$137	\$144	7.6%		
4	YoY Growth (%)		10.0%	8.5%	8.0%	6.5%	5.0%			
5	Implied Revenue	\$100	\$108	\$116	\$125	\$134	\$144			
6	YoY Growth (%)		7.6%	7.6%	7.6%	7.6%	7.6%			
7										
8										
9										
10										

# Price vs Value

Which company would you rather acquire?



ROLEX



or



NOMOS  
GLASHÜTTE



IBR

# Price vs Value

---

“Price is what you pay, value is what you get.”



# Correlation does not equal causation

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It's not possible to assume that one event causes another based on the observation of a correlation between them.

1

**Random chance**

2

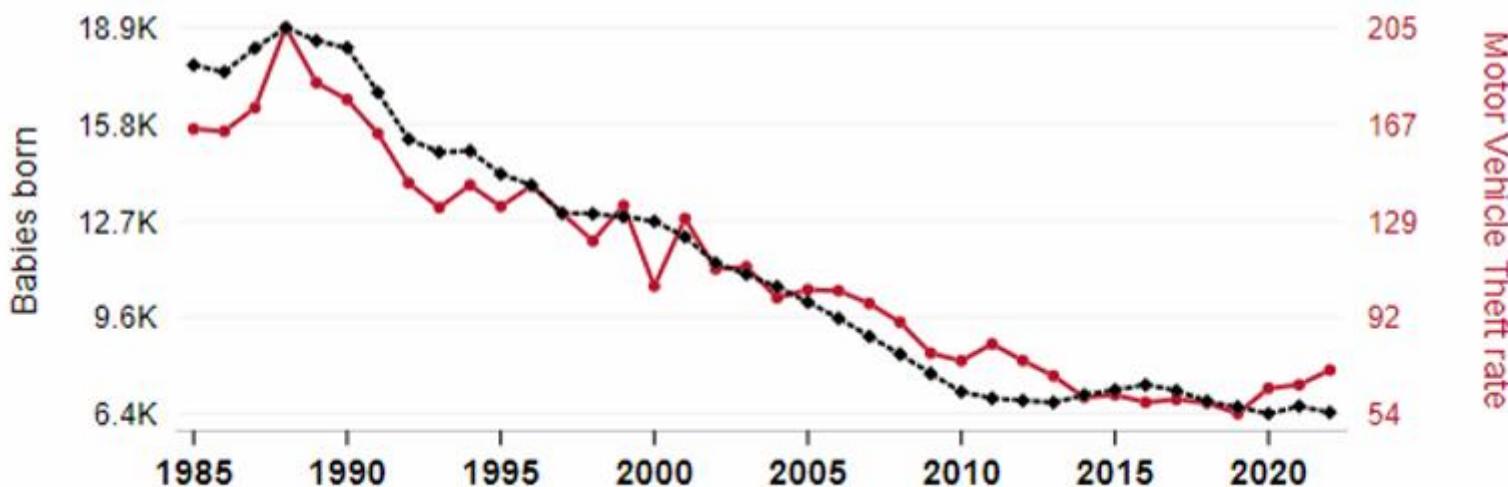
**Selection bias**

3

**Third variable**

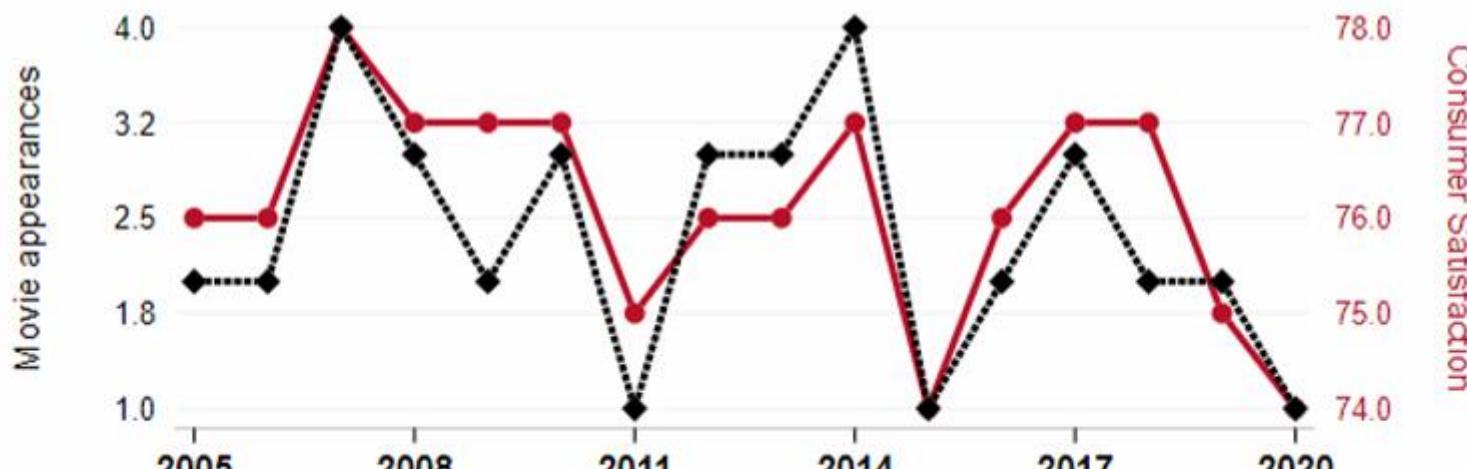
# Fun Examples

## Popularity of the first name Thomas correlates with Motor vehicle thefts in Maine



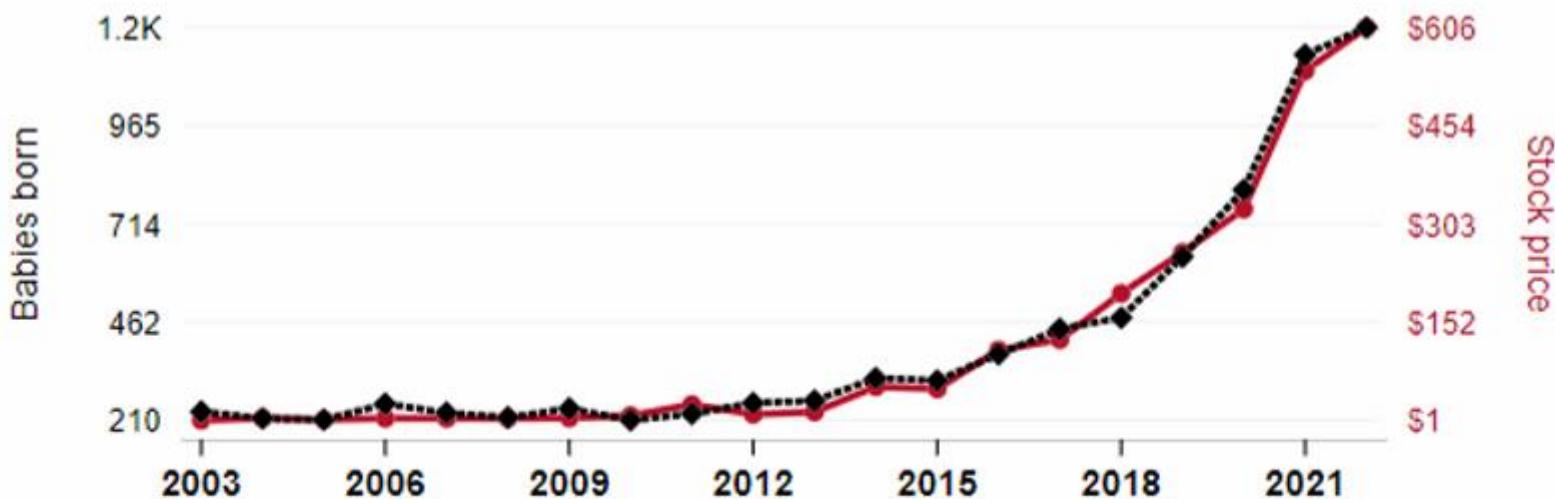
## Fun Examples

The number of movies Russell Crowe appeared in  
correlates with  
**Customer satisfaction with Walgreens**

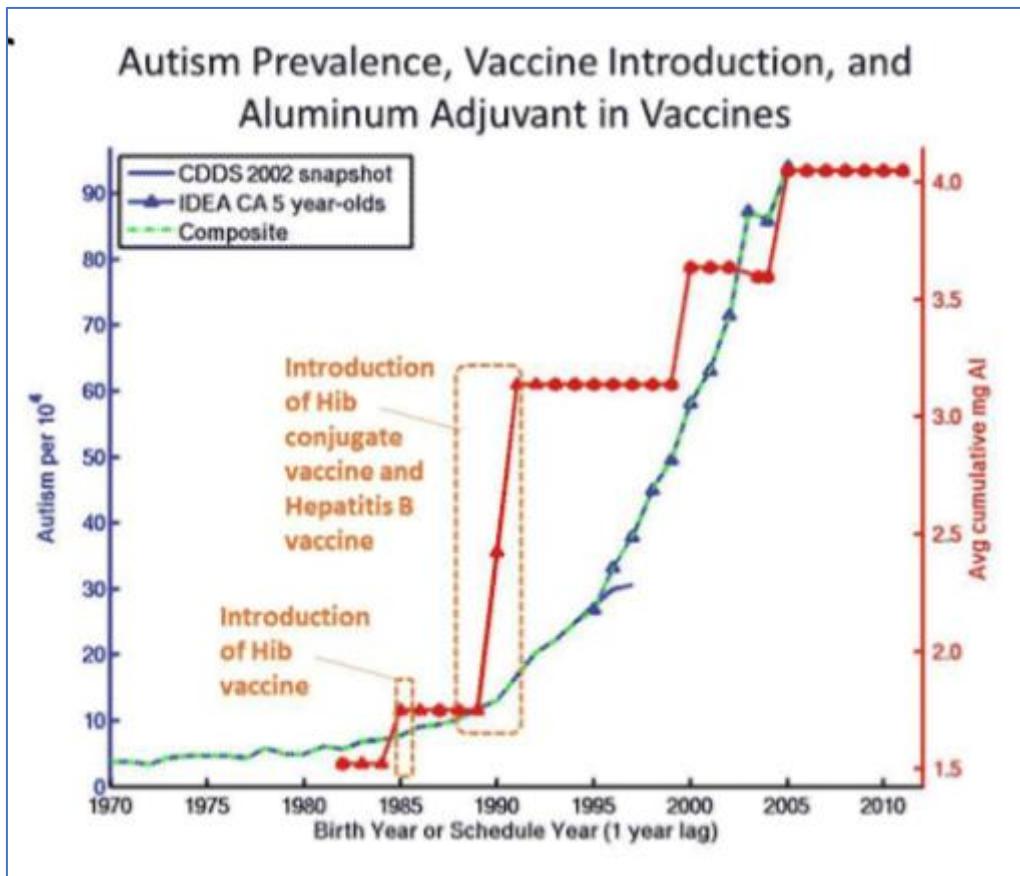


## Fun Examples

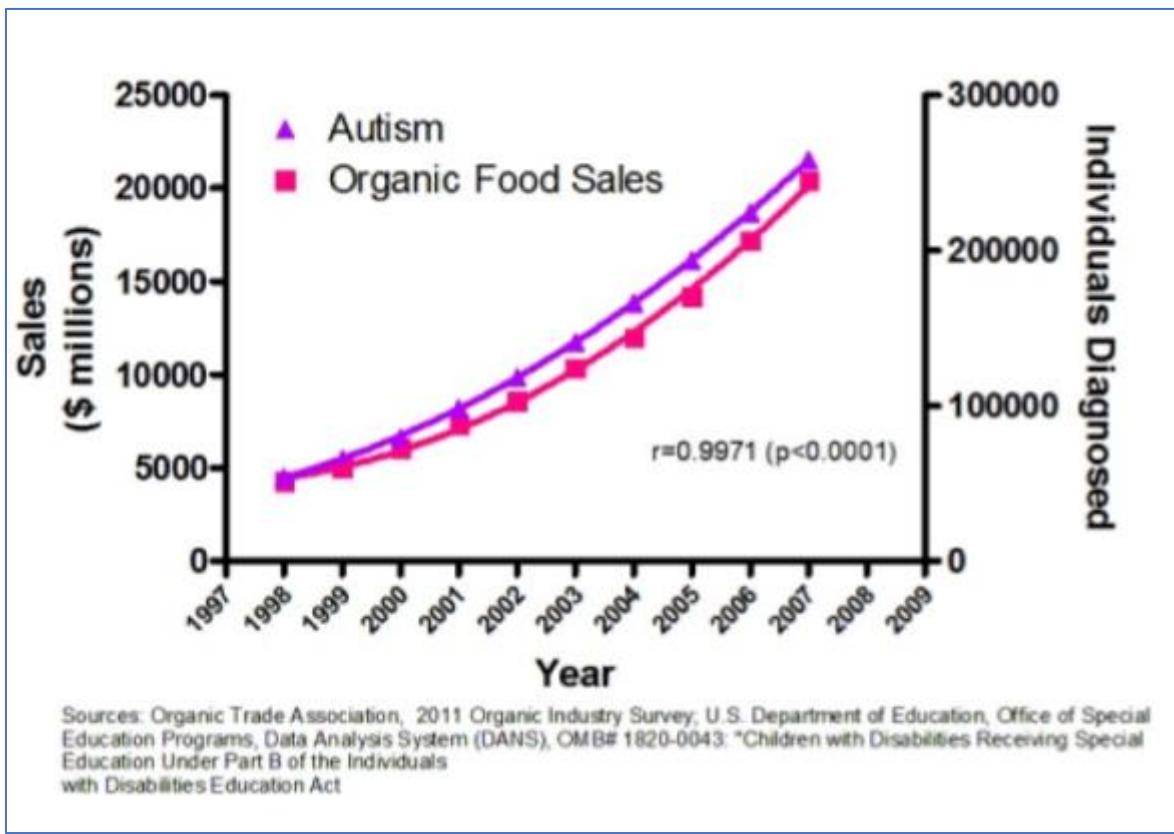
### Popularity of the first name Stevie correlates with Netflix's stock price (NFLX)



# Fun Examples



# Fun Examples



# Table of Contents

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**IB and Group Choice Overview**

**Corporate Finance Crash Course**

**Macro Economics Crash Course**



# The Federal Reserve (The FED)



## Overview

The FED is the central bank of the United States

Dual mandate:

- Promote maximum employment
- Maintain stable prices

The Federal Open Market Committee (FOMC), the Federal Reserve's policy-making body, meets eight times a year

ECONOMY | CENTRAL BANKING

Investors on Alert for Fed Signals of September Rate Cut

ECONOMY | CENTRAL BANKING

The Fed Gears Up to Show Its Hand: One Cut, Two or None at All

## Tools available to the FED

### Reserve Requirements



$$\text{Money Multiplier} = \frac{1}{\text{Required Reserve Ratio}}$$



### Forward Guidance

Updated 2 months ago ★

#### Powell Is Taking a Break From Forward Guidance

By Nick Timiraos

Often over the last several years, the Fed has tried offering rather specific hints about when it expects to raise or lower interest rates. Fed Chair Jerome Powell suggested he was abstaining from offering such forward guidance for right now.

Asked during congressional testimony on Tuesday when the Fed was considering making its first rate cut, he responded, "I'm not going to be sending any signals about the timing of future actions."

### Interest Rate Manipulation (Federal Funds Rate)

**Open Market Operations** – the buying and selling of government securities by the FED

**Interest on Reserve Balances** - interest paid on funds that banks hold in their reserve balance accounts at the Fed

# Interest Rates

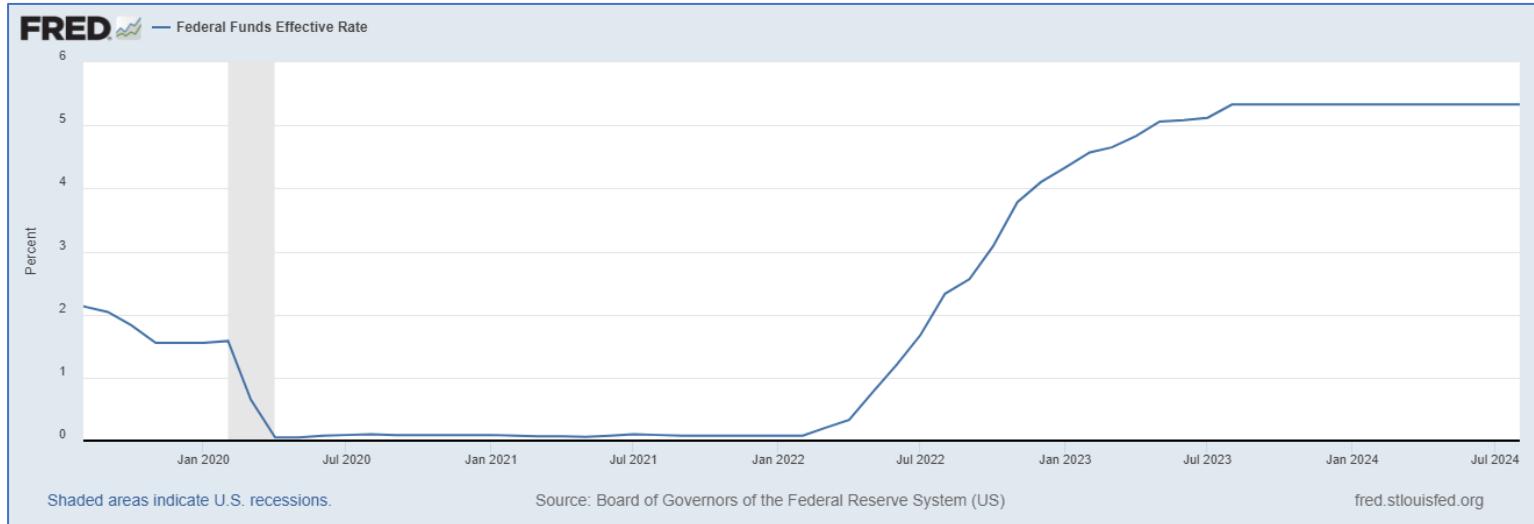
## Federal Funds Rate

The federal funds rate is the target interest rate set by the Fed at which commercial banks borrow and lend their extra reserves to one another overnight.

*Influenced via:*

- *Open market operations*
- *Interest on reserve balances*

Interest rates slow borrowing, which leads to cooled spending and investing, which leads to lower inflation and higher unemployment (generally)



# Market Interest Rates



Interest Rates on Reserve Balances for September 10, 2024  
Last Updated: September 9, 2024 at 4:30 p.m., Eastern Time

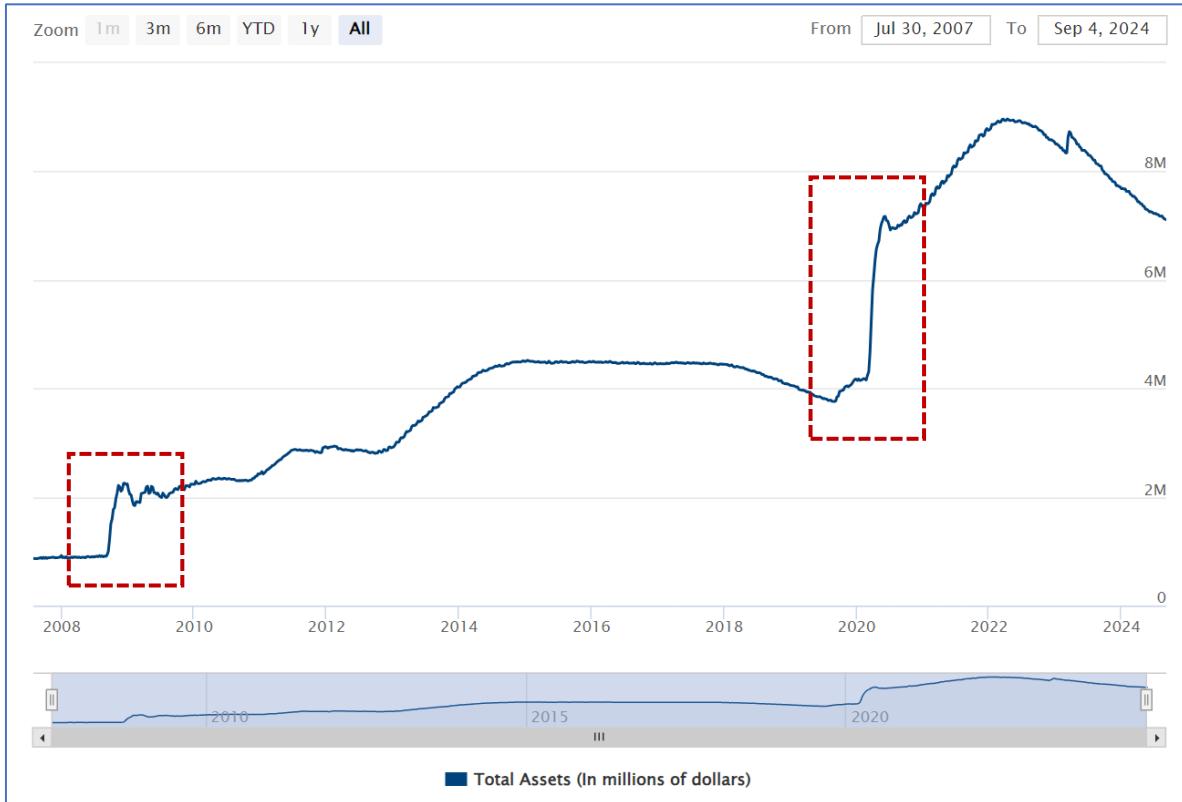
Rates  
(percent)

Effective  
Date

Rate on Reserve Balances (IORB rate)

5.40

7/27/2023

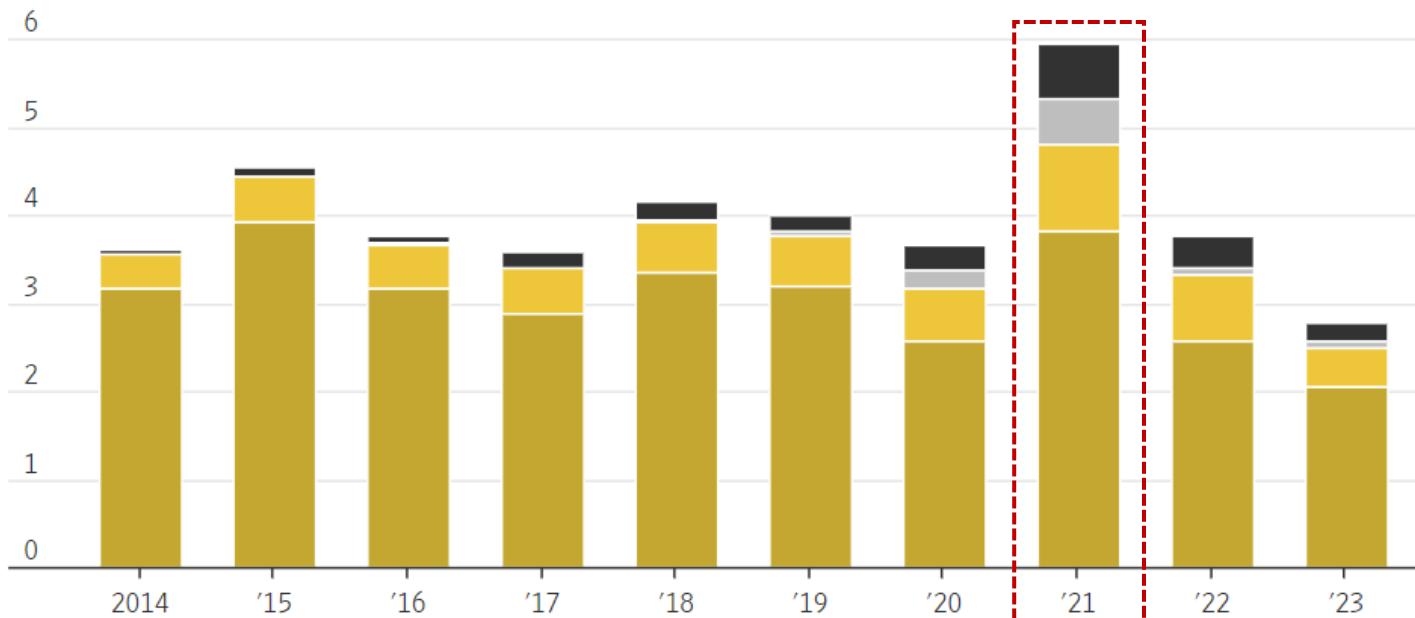


# Impact of Interest Rates: ZIRP ERA

Global M&A per year, by type of deal

■ Strategic ■ PE ■ SPAC ■ VC

\$7 trillion



Note: Figures include estimates for December 2023

Source: Bain & Co.

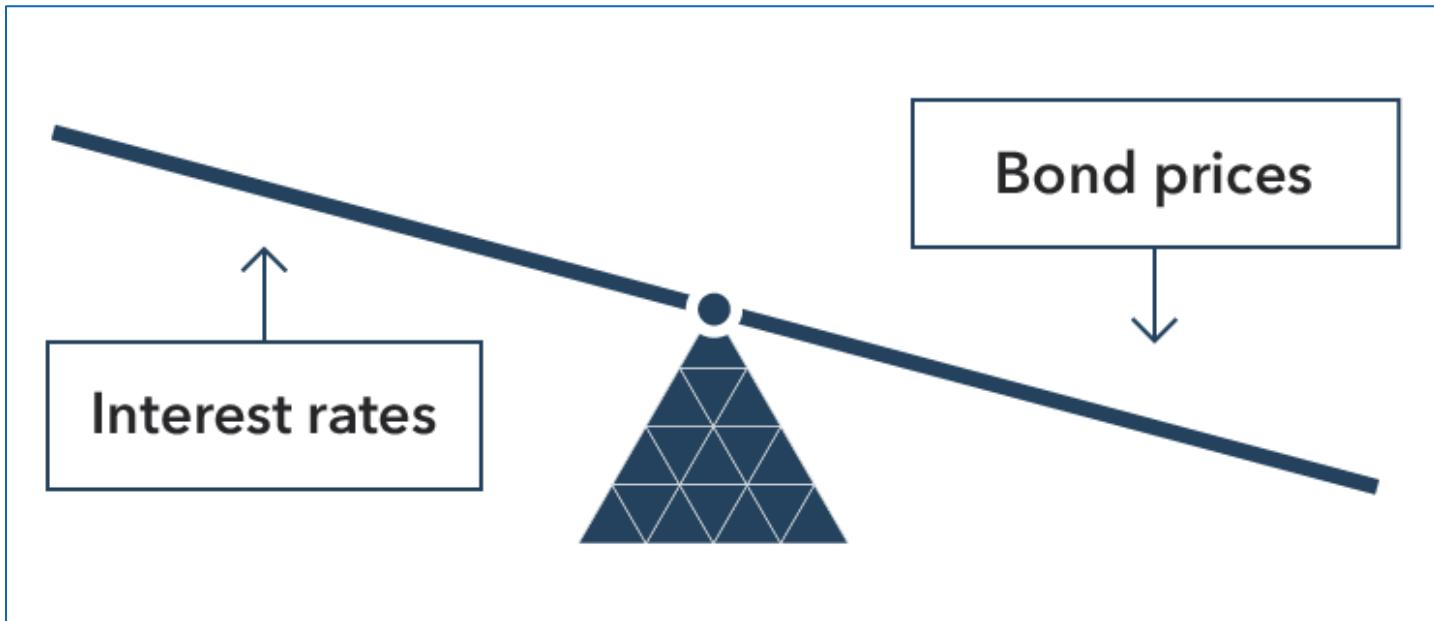
# Impact of Interest Rates: rapid rate increases

---



# Interest Rates and Bond Prices

---



# The Inverse Price-Yield Relationship

DISCOUNTED CASH FLOW METHOD FORMULA

$$DCF = \sum_{t=1}^N \frac{CF_t}{(1+r)^t}$$



# Soft Landing

STREET SIGNS ASIA

SHARE f X in e

## The U.S. economy is still on track for a soft landing and the Fed is not behind the curve: Economist

David Bassanese of Betashares says it's premature to worry that the U.S. economy is slowing "too hard" based on the pace of hiring and that the Fed has gotten its interest rate decisions "as good as you can hope."

SUN, SEP 8 2024 • 11:31 PM EDT

MARKETS & FINANCE | STOCKS | HEARD ON THE STREET

## America Is Still Headed for a Soft Landing

Don't rule out a surprise rate cut this summer as signs of an economic slowdown are piling up

## All the data is pointing to a soft landing in the US economy, top economist says

Matthew Fox Sep 9, 2024, 9:52 AM MDT

↗ Share ↗ Save

## US Soft Landing Confidence Gets Shaken by 'Anemic' Jobs Signal

By Chris Anstey

September 9, 2024 at 5:02 AM MDT



# How does the FED measure the economy?

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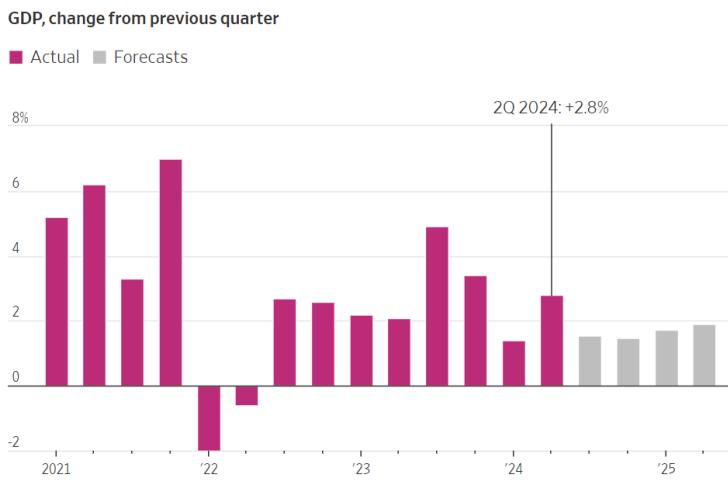


# Gross Domestic Product (GDP)

## Overview

**Measures the total value of goods and services produced in a country within a specific time period, usually a year or quarter**

- Not perfect, but an accepted measurement
- Doesn't count services parents provide for their children, work volunteers do for charities, or illegal activities
- Most commentators and analysts use, as a practical definition of recession, two consecutive quarters of decline in a country's real GDP



## How is GDP calculated?

There is a four-part formula:  $C + I + G + NX = GDP$

Personal Consumption Expenditures	Also called <b>consumer spending</b> : the goods and services people buy, such as groceries, clothing, cellphone service and health care.
+ Investment	This is <b>business spending</b> on fixed assets such as land, buildings and equipment, plus investment in unsold inventory; also includes purchases of homes by consumers.
+ Government Spending	<b>Spending by federal, state and local governments</b> to provide goods and services, such as schools, roads or national defense.
+ Net Exports	Also known as <b>exports minus imports (<math>X - M</math>)</b> : the value of exports to other countries minus the value of imports into the United States. <i>Why are imports subtracted? Consumers, businesses and governments spend some of their money on imports. U.S. production would be overstated if the formula didn't remove imports.</i>
= GDP	The total market value of the goods and services produced within the United States in a year.

# Gross Domestic Product (GDP)

## Economic Growth Quickens, Rising at 2.8% Rate in Second Quarter

Second-quarter GDP marks sharp acceleration from the first quarter

The U.S. economy accelerated in the second quarter as consumers increased their spending, businesses invested more in equipment and stocked inventories, and inflation cooled.

Gross domestic product—the value of all goods and services produced in the U.S., adjusted for inflation and seasonality—[rose at an annual rate of 2.8%](#) for April through June to \$22.9 trillion, the Commerce Department said Thursday.

### WHAT'S NEWS



#### How Tesla's Profits Are Boosted by Government Programs



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at their meeting next week but could cut at their subsequent meeting, in September, if inflation continues to cool.

Thursday's release is one of the last major readings of the economy's temperature that Fed officials will see before their meeting. The report suggests that the economy remains on solid footing, even two years after soaring inflation prodded the Fed to start raising rates at the fastest pace in decades. But the report also looks at previous months rather than what's coming up. Companies have been warning that customers are feeling squeezed, and that they expect that to continue.

That was faster than the 1.4% pace in the first quarter, and well above the 2.1% rate economists had expected. Household spending, the main driver of the U.S. economy, increased at a quicker pace as Americans' incomes continued to rise.

Stocks ended the day mixed. The Dow Jones Industrial Average was up slightly. The S&P 500 fell.

The new data shouldn't change the outlook for the Federal Reserve. Officials [have signaled](#) that they expect to hold interest rates steady

GDP, change from previous quarter



"The U.S. consumer remains a source of strength in the overall economy," [Capital One Financial](#) Corp. founder and CEO Richard Fairbank said during an earnings call Tuesday. Still, the effects of high inflation and borrowing costs "are almost certainly stretching some consumers financially," he said.

[Nestlé](#), the Swiss multinational maker of KitKat chocolate bars and Nescafé coffee, [cut its full-year sales guidance](#) Thursday, saying it had slowed the pace of price rises as shoppers grow more cost conscious.

"It's a period right now where consumer mood is kind of muted," Chief Executive Mark Schneider said on a call with reporters. The company is seeing "value-seeking behavior" from shoppers in the U.S., Europe and China, he added.

Airlines, for their part, are grappling with too many empty seats on U.S. flights and weaker fares. [Southwest Airlines](#) and [American Airlines](#) both reported a [sharp drop in second-quarter earnings](#) Thursday. Shares of [Ford](#) and Jeep-maker [Stellantis](#) fell sharply after disappointing earnings.

A measure of consumer and business spending that gauges underlying demand in the economy rose at an annual rate of 2.6%, matching the rate in the first quarter. That metric strips out the volatile categories of trade, inventories and government spending.

That points to "a rock-solid economy that has not fallen off a cliff nor looks to any time soon," said RSM US chief economist Joe Brusuelas.

A key category of business spending picked up, which analysts described as a positive signal for future productivity. Nonresidential fixed investment, reflecting spending on commercial construction, equipment and software, rose at a 5.2% rate. Capital expenditures were led by 11.6% growth in spending on equipment, while spending on structures declined.

### SHARE YOUR THOUGHTS

*What is your view of where the economy is headed? Join the conversation below.*

Thursday's report also showed that inflation, using the Fed's preferred gauge, is slowing compared with the previous quarter. Excluding volatile food and energy prices, the personal-consumption expenditures price index rose 2.9% in the second quarter at an annualized rate, cooling from 3.7% in the first quarter.

The rise in consumer and business spending offset negative developments such as a decline in spending on residential investment.

While the U.S. by many measures is doing well even amid high rates, and the [pace of inflation has cooled](#), many Americans are unhappy that [prices for groceries, cars and homes](#) are so much higher than they were a few years ago. Still-high borrowing costs are also holding back many consumers, and a red-hot jobs market [is starting to slow](#). The spring home-buying season, usually the busiest time of year for the housing market, was a dud thanks to high prices and elevated mortgage rates.

*—Dominic Chopping and Alison Sider contributed to this article.*

# Consumer Price Index (CPI)

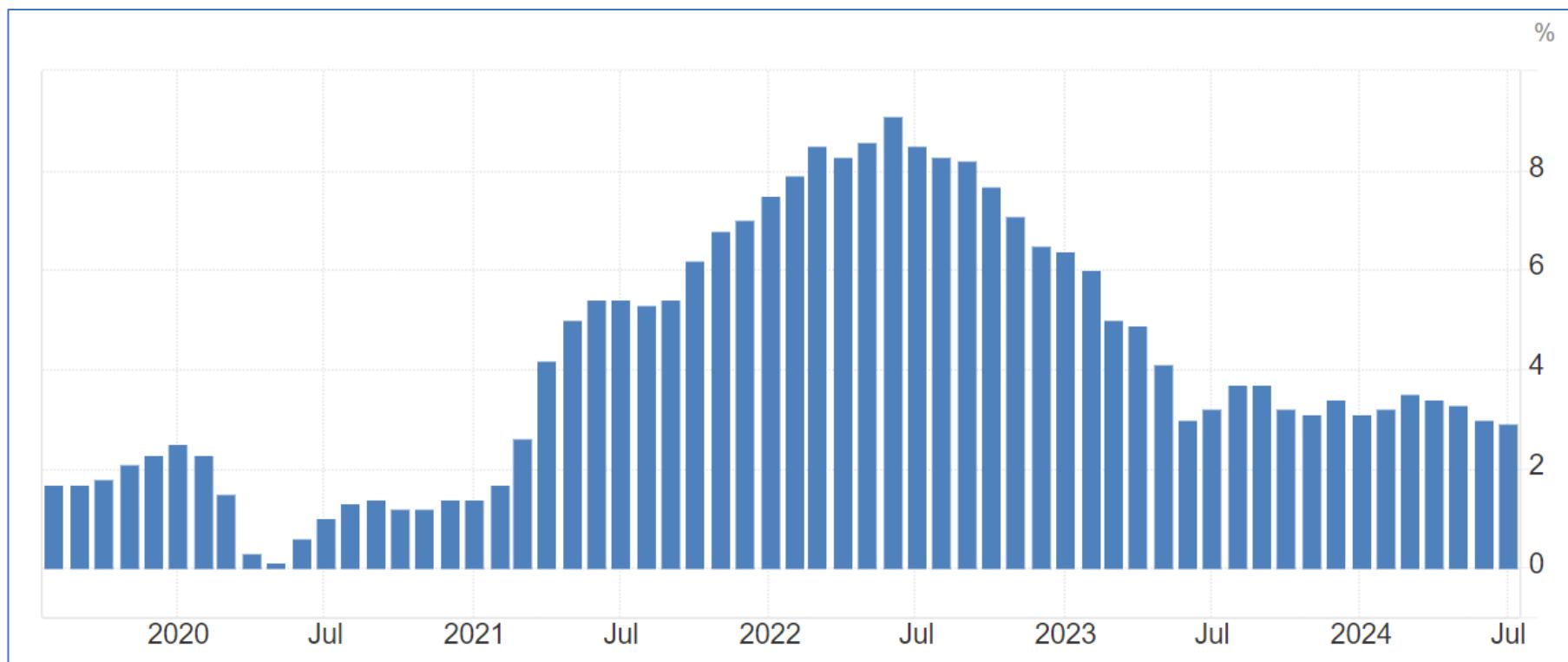
## Overview

**Inflation is the general increase in the prices of goods and services over time**

- The FED targets 2% inflation
- Core CPI vs True CPI
- High inflation leads to rate increases

## Why 2% target

1. Encourage spending
2. Price stability
3. Wage growth
4. Avoid deflation
5. Flexibility in monetary policy



# Consumer Price Index (CPI)

ECONOMY

## Inflation Extends Cooling Streak to Hit 2.5% in August

Price increases eased to new three-year lows, teeing up the Fed to begin gradually reducing rates next week

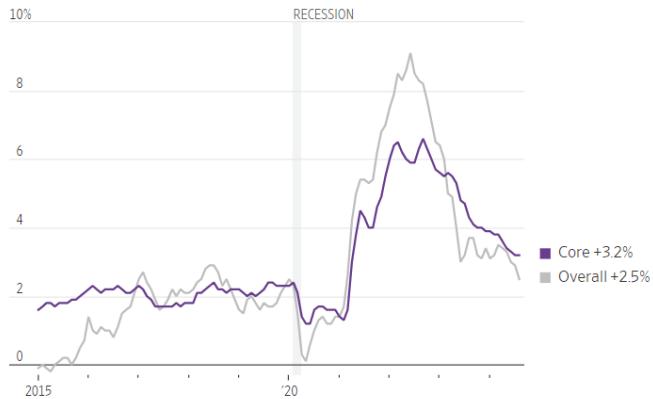
By David Uberti [Follow](#) and Nick Timiraos [Follow](#)

Updated Sept. 11, 2024 11:31 am ET

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Consumer-price index, change from a year earlier



Note: Core excludes food and energy prices.

Source: Labor Department

Inflation eased in August to new three-year lows, teeing up the Federal Reserve to begin gradually reducing interest rates at a meeting next week.

The [consumer-price index climbed](#) 2.5% from a year earlier, according to the Labor Department, decreasing from 2.9% in July and extending its cooling streak to five months. Core inflation, a measure that excludes volatile food and energy costs, held roughly steady at 3.2%.

Economists surveyed by The Wall Street Journal had expected overall prices to have risen 2.6% from a year ago, as well as a 3.2% increase in core prices.

The report likely cemented a shift in focus by the Fed from inflation, which has receded from 40-year-highs, and toward a cooling labor market, where softer hiring has sparked concerns of broader deterioration in the economy.

Major stock indexes veered lower after the report, led by the Dow Jones Industrial Average, extending a run of volatile trading sessions following major economic reports. [Treasury yields](#) wavered near their lowest levels of the year.

Firmer shelter inflation that contributed to somewhat stronger-than-anticipated core price increases in August will likely make it harder for officials to push for a larger half-percentage-point rate cut at next week's Fed meeting.

Many of the central bankers have signaled they are prepared to cut rates, and Wednesday's consumer-price index reading won't change that outcome. But some officials hadn't entirely ruled out the prospect of a larger cut, as opposed to a more traditional reduction of a quarter percentage point, or 25 basis points.

Traders on Wednesday ramped up bets that the Fed will ease policy at a more moderate pace.

Cost increases for food slowed in August, while used vehicles and energy were cheaper than a month earlier. An intensifying selloff in oil markets suggests prices at the pump will continue to decline in the coming weeks, a key reversal in pressures that have colored Americans' views of the U.S. economy.

"It was a lot more hopium than anything else for 50 basis points in September," said Samuel Rines, a macro strategist at asset manager [WisdomTree](#).

A similar rate-path debate at the Fed's following meeting in November "should be and will be much more focused on the labor market than inflation data, particularly if we continue to see these kinds of readings," Rines added.

# Unemployment

## Overview

- Represents the number of unemployed as a percentage of the labor force.
- Labor force data are restricted to people 16 years of age and older, who do not reside in institutions (e.g., penal and mental facilities, homes for the aged), and who are not on active duty in the Armed Forces.
- The FED does not indicate what % unemployment they desire, but many believe it be ~4%

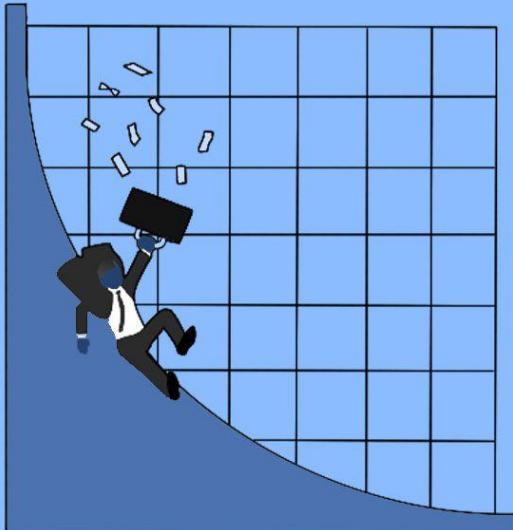
## Imperfect Measure

Once again, the measure is not perfect, but is useful because it gives an idea of the state of the labor economy

- Excludes discouraged workers
- Ignores underemployment
- No distinction between short-term and long-term employment



# Unemployment and Inflation



## Phillips Curve

[fi-leps 'kerv]

An economic concept developed by A. W. Phillips stating that inflation and unemployment have a stable and inverse relationship.

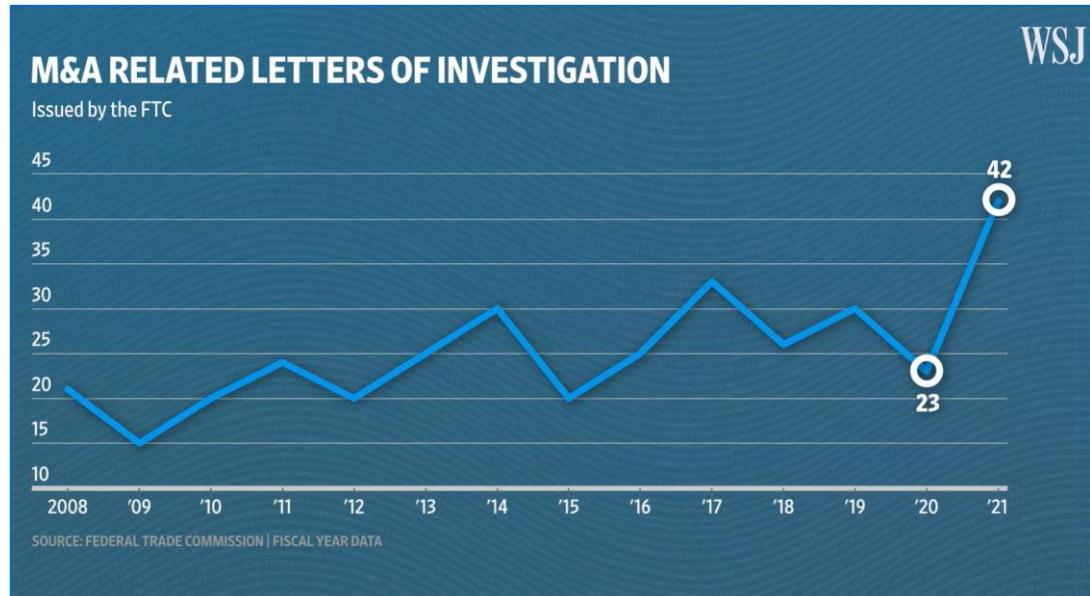


# The Federal Trade Commission (The FTC)

## Overview

**The Federal Trade Commission (FTC) is a U.S. government agency that protects consumers and promotes fair competition in the marketplace. It has two main roles:**

1. Protecting Consumers: Works to prevent deceptive or unfair business practices, like false advertising or scams, to protect consumers from harm
2. Promoting Competition: Enforces antitrust laws to ensure companies compete fairly and don't engage in monopolistic or anti-competitive behaviors, such as price-fixing or unfair mergers.



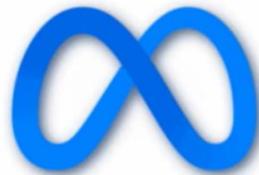
# The Federal Trade Commission (The FTC)

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AUG. 15, 2022 | DAVE MICHAELS AND RYAN TRACY

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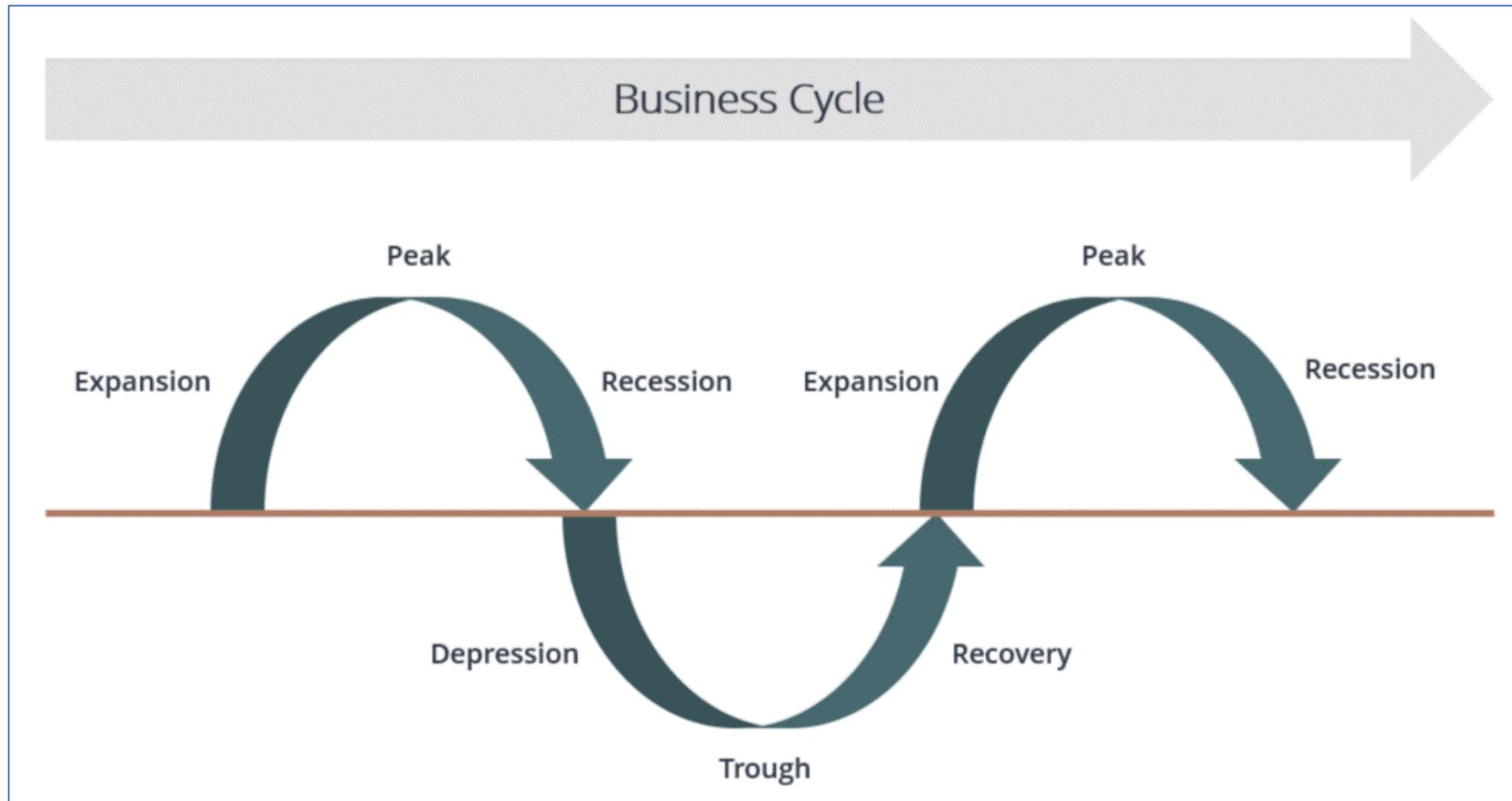
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## Microsoft Can Close Its \$75 Billion Buy of Activision Blizzard, Judge Rules

SARAH E. NEEDLEMAN AND DAVE MICHAELS

# Business Cycles



# Business Cycles

## Business Cycles

**Changes in Demand and Supply:** Consumer demand for goods and services rises and falls, influencing production levels. When demand increases, businesses expand, leading to economic growth. When demand drops, businesses cut back, leading to a slowdown.

**Monetary and Fiscal Policies:** Central banks and governments influence the economy by adjusting interest rates, taxes, and government spending. Expansionary policies (low interest rates, increased spending) can stimulate growth, while contractionary policies (higher rates, reduced spending) can slow it down.

**External Shocks:** Events like oil price shocks, pandemics, or wars can disrupt supply chains or change consumer behavior, causing economic fluctuations.

**Technological Innovations:** Breakthroughs in technology can drive economic growth as new industries emerge. Over time, growth slows as these innovations mature, contributing to the cycle.

**Business and Consumer Confidence:** Economic expansions are often driven by optimism, with businesses investing and consumers spending more. During downturns, pessimism causes a reduction in spending and investment.

# Financial Intermediaries

