



QUANTITATIVE
FINANCE
SOCIETY

Intro to Financial Industry & Asset Classes

Brain Teaser

The mean, median, and range of a set of eight integers are all equal to 8. What's the largest number that can be part of the set?



Solution: Brain Teaser

Solution: 14

Explanation: 16 can't be the highest number, because the range is 8 and that would force all the numbers to be at least 8. If all the numbers are at least 8, with one 16, then the mean cannot be 8, so 16 (and above) doesn't work.

15 cannot be the highest number. Since the mean is 8, this means the eight numbers sum to $8 * 8 = 64$. If 15 is the highest number, then all the numbers in the set are at least 7, since the range is 8. If the sum of the set is 64, then the sum of the other seven numbers is $64 - 15 = 49$. This means that all the other numbers in the set would be 7 if 15 was the highest number. But $\{7, 7, 7, 7, 7, 7, 7, 15\}$ fails, because its median is 7, not 8.

14 does work; the set $\{6, 6, 6, 8, 8, 8, 8, 14\}$ satisfies the criteria.



Portfolio Team Application

❖ **Timeline:**

- Opens on Friday, Sep 13th, 11:59pm
- Closes on Friday, Sep 20th, 11:59pm

❖ **Eligibility:** open to all NYU students

❖ **Application Process:**

- Fill in Google form (admin details & portfolio preference)
- Combine your resume and application response into a single PDF and submit it

❖ All instructions will be on the front page of our website, and emailed to everyone on our mailing list

Portfolio Team Open House

❖ Date & Time

- Wednesday, Sep 18th, 7pm
- Location TBD

❖ Investment Pitches:

- Each portfolio team will present a pitch to give you more insights on what our portfolios focus on & their investment strategies
- You are encouraged to participate during the pitches and ask any questions you may have
- You will also get a chance to talk to members of the portfolio team and learn more about what they do

❖ Food will be served 😊



Expectations

Ask



Participate



Learn



What is a Financial Market?

- ❖ **Market** is a mechanism where goods are transferred from people who have them, to people who need them, for a price
- ❖ **Capital markets** are where capital (money) is transferred from people who have it (investors) to people who need it (issuers)
- ❖ Capital markets consist of the primary market (new securities are issued and sold) and secondary market (already-issued securities are traded between investors)

What is a Financial Market?

❖ What are two types of capital you can raise?

How Does Money Flow?

Investors

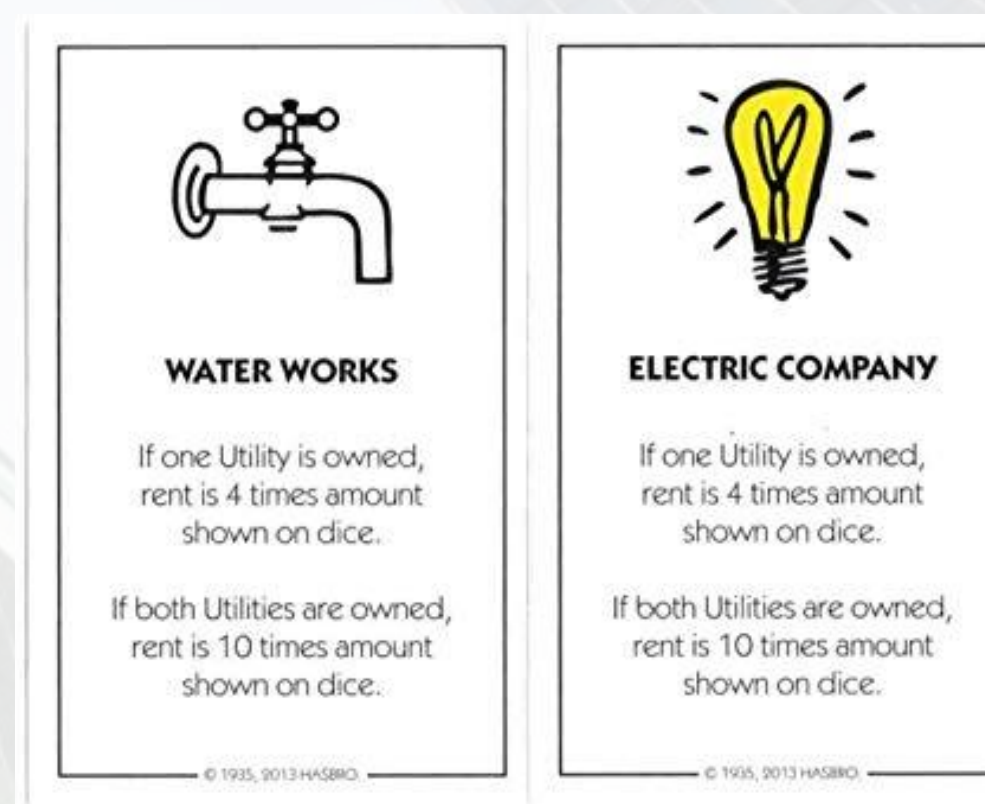


Have spare
capital

Capital

Return

Issuers



Require capital

How Does a Bank Make Money?

- ❖ How many people here have a credit or debit card with Chase?
- ❖ How does Chase make money?



Breaking Down an Investment Bank

Customer Facilitation

- **Investment Banking:** Facilitate the buying and selling of businesses
- **Sales & Trading:** Making markets for clients

Asset & Risk Management

- **Private Wealth Management:** Invest on behalf of wealthy individuals
- **Asset Management:** Invest on behalf of institutional money / pensions
- **Commercial Banking:** Lending and borrowing money

Market Intelligence

- **Market Research:** Gather industry information and trade ideas (eg. Equity, Credit, and Macro Research)



Breaking Down an Investment Bank

- ❖ Let's take a look at Goldman Sachs' divisions and see if they fit the different categories
- ❖ <https://www.goldmansachs.com/careers/divisions/>



Divisions Within Investment Banking

Mergers & Acquisitions

- Advise on buying and selling of businesses

Equity Capital Market

- Advise on IPOs and secondary offerings

Debt Capital Market

- Advise on debt raising & refinancing

Restructuring

- Advise on situations of financial distress

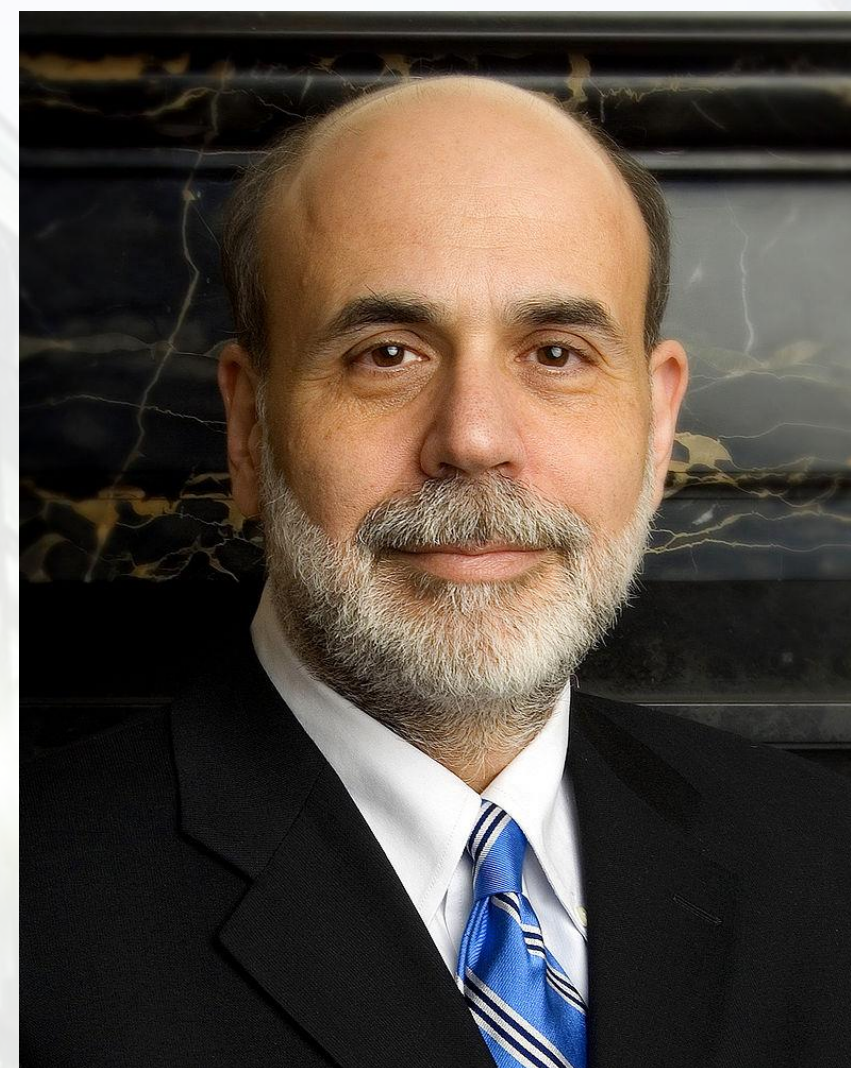
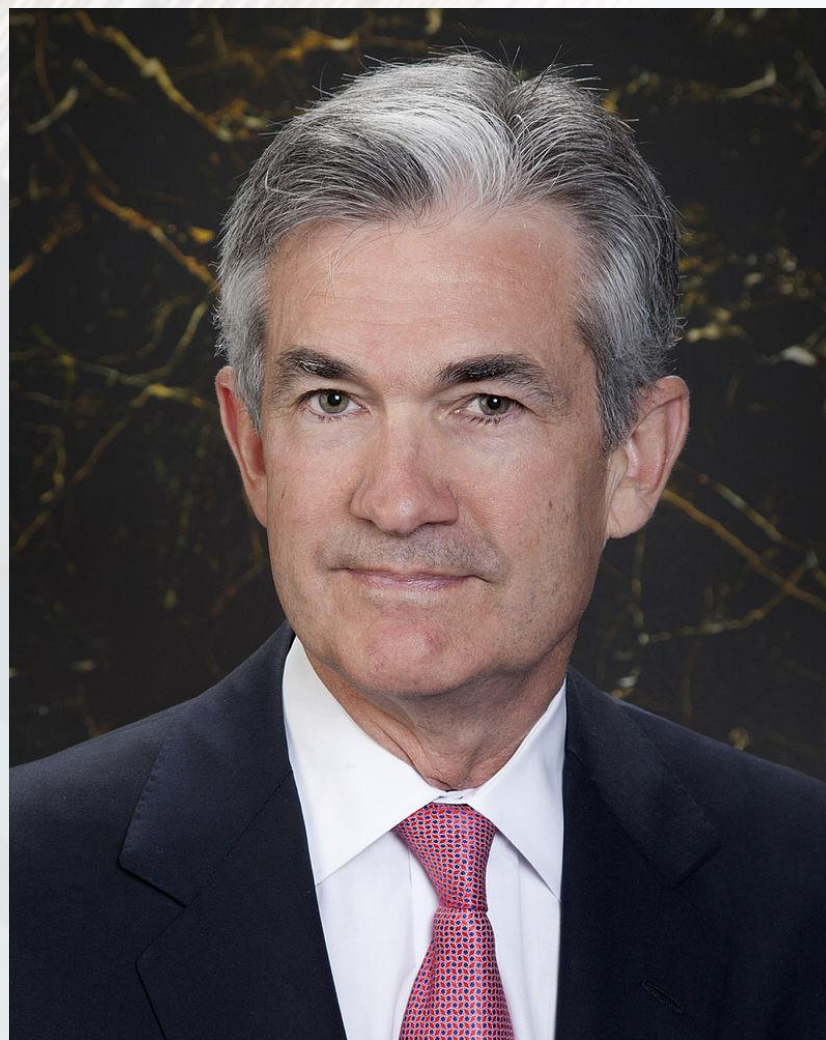
Other Players in the Financial Market

- ❖ Buy-Side Investors
- ❖ Central Banks
- ❖ Regulators

Buy-Side Investors

- ❖ Funds that purchase stocks, securities, and other financial products based on the needs and strategy of their company's or client's portfolio needs.
- ❖ Make direct investments in public and private markets, rather than just assist the investing market with recommendations (sell-side)
- ❖ Vary in size – can range from \$50 million to \$5 trillion
- ❖ Examples:
 - ❖ Hedge Funds
 - ❖ Private Equity
 - ❖ Venture Capital

Central Banks



Central Banks

- ❖ An **independent** national authority that conducts monetary policy, regulates banks, and provides financial services including economic research
- ❖ Central Banks have the important role of **setting the interest rate** so as to manage economic growth, inflation, and the country's exchange rate
- ❖ What is the dual mandate of the Fed?
- ❖ What are some examples of Central Banks outside of the US?

Regulators

- ❖ The objectives of financial regulators are to maintain market confidence, ensure financial stability, and provide consumer protection
- ❖ There are many different types of regulators – eg. Securities and Exchange Commission (SEC), Financial Industry Regulatory Authority (FINRA), Commodity Futures Trading Commission (CFTC), etc.

Asset Classes

Grouping of investments that exhibit similar characteristics, behave similarly to one another, and are subject to the same laws and regulations

- ❖ Equity
- ❖ Fixed Income
- ❖ Commodities
- ❖ Currencies
- ❖ Derivatives

Equity



- ❖ A share of stock is basically a piece of ownership in a corporation – entitles stockholder to that proportion of the corporation's assets and earnings
- ❖ Bought and sold predominantly on global stock exchanges (NYSE, NASDAQ, FTSE, TSE)
- ❖ What does it mean to long or short a stock?
- ❖ How do you short a stock?
- ❖ ETFs (exchange-traded funds) – a collection of securities, such as stocks, that tracks an underlying index
 - Eg. S&P 500

Fixed-Income

- ❖ Investment security that pays investors fixed interest payments until its maturity date
- ❖ Relates to credit (debt) of a company or a country
- ❖ Eg. Give me \$100 now, and I will pay out back the \$100 + extra compensation back (generally coupons from interest rate)
- ❖ What's an example of a fixed-income security that is common to households?
- ❖ If you are deciding between investing in fixed-income asset versus equity, which one is usually safer? Which one do you think you should expect a higher return from?

Commodities



- ❖ Basic good used in commerce – most often used as inputs in the production of other goods
- ❖ **Agricultural:**
 - Grains: corn, soybean, wheat
 - Softs: cocoa, coffee, sugar, frozen concentrated orange juice
 - Livestock: cattle, hogs
- ❖ **Metals:**
 - Industrial: copper, aluminum, iron, nickel, zinc
 - Precious: gold, silver
- ❖ **Energy:**
 - Oil: WTI, Brent
 - Distillates (Refined Products): heating oil, gasoline

Currencies



- ❖ Any country's currency
- ❖ Why do you need to pair two currencies when you make a trade?
- ❖ Driven by many different factors, but broadly speaking, currencies are influenced by economic well-being, interest rates, and investor flows of money
- ❖ Which market do you think is bigger? Global equity market or the foreign exchange market?



Derivatives

- ❖ An asset that derives its value from the performance of an underlying entity
- ❖ Ownership of derivative \neq ownership of an asset
- ❖ Examples of derivatives
 - Futures
 - Options
 - Swaps
 - Credit Default Swaps
- ❖ Does anyone know what caused the 2008 financial crisis?



Reach Out If You Have Questions

Feel free to reach out to us over Facebook or email if you have any questions

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