## Instruction to Stock Markets

## Stephen Hart's Economics Class, Redwood High School <br> September 20, 2018 <br> Jon Haveman, Ph.D.

## Outline

- What is a stock?
- How do you buy them?
- What is the stock market?
- How does a stock get listed?
- How is a stock's price determined?
- When should you buy or sell a stock?
- Some additional terminology
- Summary



## Stock Certificate



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## Stocks Represent Ownership

- Why do companies issue stocks?
- Raise money to, for example:
- Recoup investment
- Further growth or expansion
- Why do people own stocks?
- To make more money
- Buy low sell high!



## Apple Stock

### 220.45 USD - $3.39(1.51 \%)$ + <br> Sep 17, 12:28 PM EDT • Disclaimer

5 days 1 month

## ArE There Other ways to Raise Money?

- Equity:
- Stocks
- Debt:
- Bonds
- Loans



## Mgre About Stocks

- There are different types
- Common
- High return, voting rights
- Last to get paid
- Preferred
- More like debt than equity
- No voting rights
- $2^{\text {nd }}$ to last to get paid
- Receive a stream of dividends

- Other types?
$\circ$ A great many: different classes (A, B, ...). Generally about voting power.
$\qquad$ EDUCATION DELEGATION



## Dividends

- Kind of like interest on the money invested in a stock
- Larger more established companies pay stock owners a quarterly share of profits
- Smaller growth oriented companies tend not to pay dividends
- How are they paid?
- Cash Dividend
- Stock Dividend: Sometimes paid in
 additional shares of stock EDUCATION DELEGATION


## Apple Stock - Dividends

$$
220.45 \text { USD - } 3.39(1.51 \%) \downarrow
$$

Sep 17, 12:28 PM EDT • Disclaimer
1 day 5 days 1 month 6 months YTD 1 year 5 years Max


## How do you buy a stock?

- Through a stock broker
- Stock brokers are members of an exchange
- NASDAQ
- NYSE
- Stocks are "listed" on the exchange
- Initial Purchase Offering (IPO)
- If they have:
- \$10 million in earnings over 3 years
- \$100 million in shares outstanding



## How is a stock's price determined?

Stock

- Sense of the market
- Demand
- \# of outstanding Shares
- Supply
- Price = Market Valuation / \# of shares



## Sin ply Supply and Demand!

Price = Market Valuation / \# of shares



## What happens to a stock with GOOD news?

- What happens to the number of shares?
- What happens to the market's assessment of the value of the firm?
- Market Valuation
- Market Capitalization

Stock
Price


## What happens to a stock with BAD news?

What happens to the number of shares?

- What happens to the market's assessment of the value of the firm?




## Apple Stock - Bad News and Good News

### 220.45 usd - $3.39(1.5 \%$ ) $\downarrow$ <br> Sep 17, 12:28 PM EDT • Disclaimer

1 day 5 days 1 month

## Stock Dividends often Called "Stock Split"



- Split: Generally doubles the \# of shares outstanding
- What happens to share prices?
- Can be any ratio - even a reduction in the number of shares outstanding



## Stock Splits and Prices



## What Happened When Apple Split: 7-1



## Apple: 7:1 Stock Split - not an 80\% decline



## Ret erse Stock Split



## When to buy a Stock

- Flippant: When you think the price will rise!
- When you have done your homework
- When it hits your "buy" price
- When stocks are on sale

- Too many statistics, but one is important:
PE Ratio = Price/Earnings


## When are stocks "on sale"?



- Follow the indexes:
- Dow Jones
- S\&P 500
- Nasdaq Composite

1990

2010

## What is the P/E Ratio? Why is it important?

- It tells the relationship between prices and earnings
- Basically: the higher earnings are, the higher prices should be
- Market P/E Ratio: $\mathbf{2 5 . 0 9}$ for S\&P 500
- If the P/E ratio is high, simple expectation is for price to fall
- If the P/E ratio is low, simple expectation is for price to rise
- What about Apple's P/E ratio?



## What about: FAAMG?

(Note: was FANG)

Company
P/E Ratio
Price
Market Capitalization

## F Facebook

A Apple

- Tech Sector Giants
- Combined Market Cap: \$3.8 Trillion
- Greater than the GDP of Germany
- Together occupy the top 5 spots in the market
;illion
Microsoft
$G$ Google
A
Amazon
illion
Which do you buy? Which do you sell?



## Summary of When to Buy and Sell

- Do your research!
- Know that it is very difficult to pick winners!
- Know that things can change in a
 hurry!
$\qquad$
- Short selling
- OPM - Other People's Money
- Indexed funds
- Bear market
- Bull market


## Aciditional Terms




## Stock Market Summary



- Basically an investment in:
- The economy
- A small part of the economy
- Great way to generate wealth
- Great way to reduce your wealth
- Rewards specialized knowledge
- Filled with conflicts of interest



## Thank you!

## Any Questions?

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