

Introduction to Stock Markets

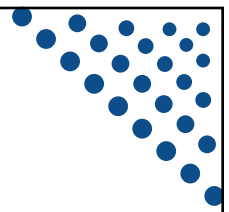
Stephen Hart's Economics Class, Redwood High School
September 11, 2020

Jon Haveman, Ph.D.



NATIONAL ECONOMIC
EDUCATION DELEGATION

1



Outline

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



NATIONAL ECONOMIC
EDUCATION DELEGATION

2

What is a stock?

3

Stock Certificate



4

Stocks Represent Ownership

- **Why do companies issue stocks?**

- Raise money to, for example:
 - o Recoup investment
 - o Raise money for growth or expansion

- **Why do people own stocks?**

- To make more money
 - o Buy low sell high!



5

Apple Stock

220.45 USD -3.39 (1.51%) ↓

Sep 17, 12:28 PM EDT · Disclaimer

1 day 5 days 1 month **6 months** YTD 1 year 5 years Max



Open	222.15	Div yield	1.32%
High	222.95	Prev close	223.84
Low	219.24	52-wk high	229.67
Mkt cap	1.07T	52-wk low	149.16
P/E ratio	19.13		

6

Are There Other ways to Raise Money?

- **Equity (ownership):**

- Stocks

- **Debt:**

- Bonds
- Loans



7

More About Stocks

- **There are different types**

- Common
 - o High return, voting rights
 - o Last to get paid
- Preferred
 - o More like debt than equity
 - o No voting rights
 - o 2nd to last to get paid
 - o Receive a stream of dividends
- Other types?
 - o A great many: different classes (A, B, ...). Generally about voting power.



8

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



Apple Stock - Dividends

220.45 USD -3.39 (1.51%) ↓
 Sep 17, 12:28 PM EDT · Disclaimer

1 day 5 days 1 month **6 months** YTD 1 year 5 years Max



Open	222.15	Div yield	1.32%
High	222.95	Prev close	223.84
Low	219.24	52-wk high	229.67
Mkt cap	1.07T	52-wk low	149.16
P/E ratio	19.13		

1.32% Dividend Yield

How do you buy a stock?

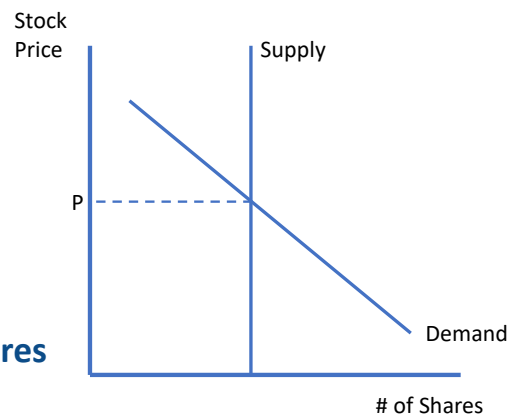
- **Through a stock broker**
- **Stock brokers are members of an exchange**
 - NASDAQ
 - NYSE
- **Stocks are “listed” on the exchange**
 - Initial Purchase Offering (IPO)
 - If they have:
 - \$10 million in earnings over 3 years
 - \$100 million in shares outstanding



11

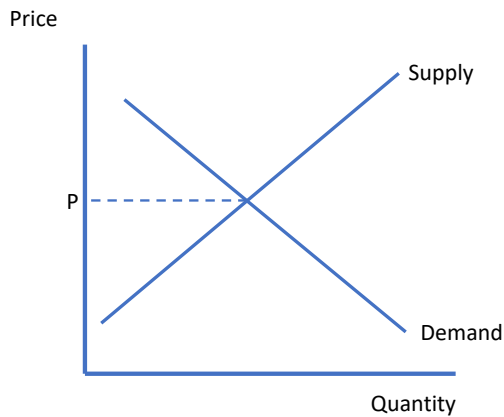
How is a stock's price determined?

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

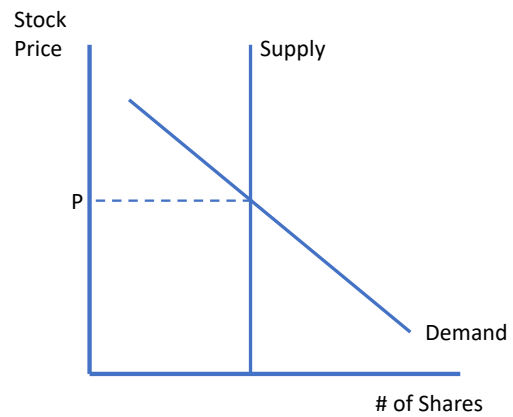


12

Simply Supply and Demand!



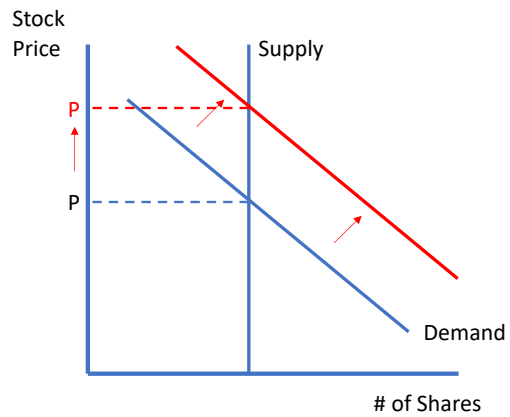
$$\text{Price} = \text{Market Valuation} / \# \text{ of shares}$$



13

What happens to a stock with GOOD news?

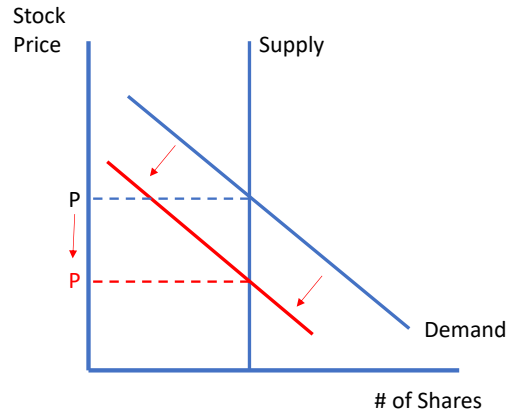
- What happens to the number of shares?
- What happens to the market's assessment of the value of the firm?
 - Market Valuation
 - Market Capitalization



14

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?



15

Apple Stock – Bad News and Good News

220.45 USD -3.39 (1.51%) ↓
 Sep 17, 12:28 PM EDT · Disclaimer

1 day 5 days 1 month 6 months YTD 1 year 5 years Max

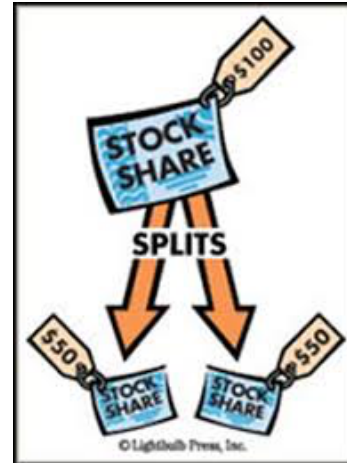


Open	222.15	Div yield	1.32%
High	222.95	Prev close	223.84
Low	219.24	52-wk high	229.67
Mkt cap	1.07T	52-wk low	149.16
P/E ratio	19.13		

16

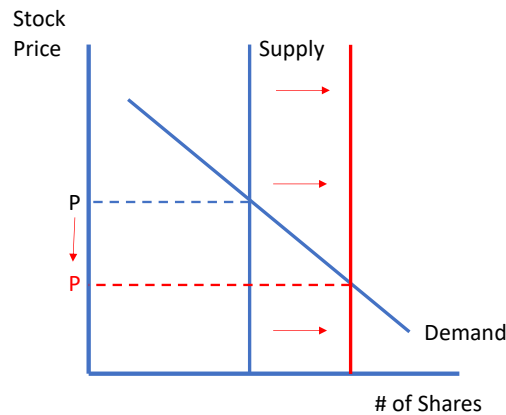
Stock Dividends often Called "Stock Split"

- **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**



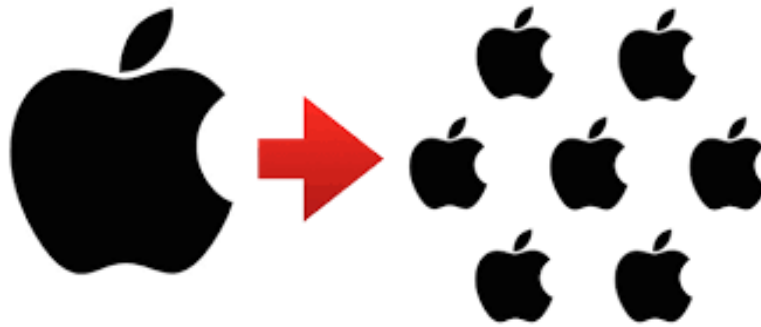
17

Stock Splits and Prices



18

What Happened When Apple Split: 7-1



19

Apple: 7:1 Stock Split – not an 80% decline



20

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

21

When are stocks “on sale”?

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



22

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
 - Comparing “price per share” with “earnings per share”
- **Market P/E Ratio: 25.09 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?**



23

Apple: P/E Ratio

220.45 USD -3.39 (1.51%) ↓
 Sep 17, 12:28 PM EDT · Disclaimer

1 day 5 days 1 month **6 months** YTD 1 year 5 years Max



19.13 P/E ratio

Open	222.15	Div yield	1.32%
High	222.95	Prev close	223.84
Low	219.24	52-wk high	229.67
Mkt cap	1.07T	52-wk low	149.16
P/E ratio	19.13		



24

What about: FAAMG? (Note: was FANG)

	Company	P/E Ratio	Price	Market Capitalization
F	Facebook	31.27	187	\$534 Billion
A	Apple	18.63	220	\$989 Billion
A	Amazon	76.26	1,839	\$910 Billion
M	Microsoft	27.12	137	\$1.05 Trillion
G	Google	25.49	1,240	\$860 Billion

Which do you buy? Which do you sell?

25

Amazon looks like a good sell by P/E ratio



26

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!**



NATIONAL ECONOMIC
EDUCATION DELEGATION

27

27

Additional Terms

- **Stock buyback**
- **Short selling**
- **Indexed funds/ETFs**
 - Dow, NASDAQ, S&P500
- **Bear market**
- **Bull market**



NATIONAL ECONOMIC
EDUCATION DELEGATION

28

28

BULL OR BEAR MARKET

WHAT
HOW THE STOCK MARKET IS DOING

BULL MARKET
ECONOMY **IS** DOING WELL

- UNEMPLOYMENT LOW
- STOCKS RISING
- PRICES GOING UP

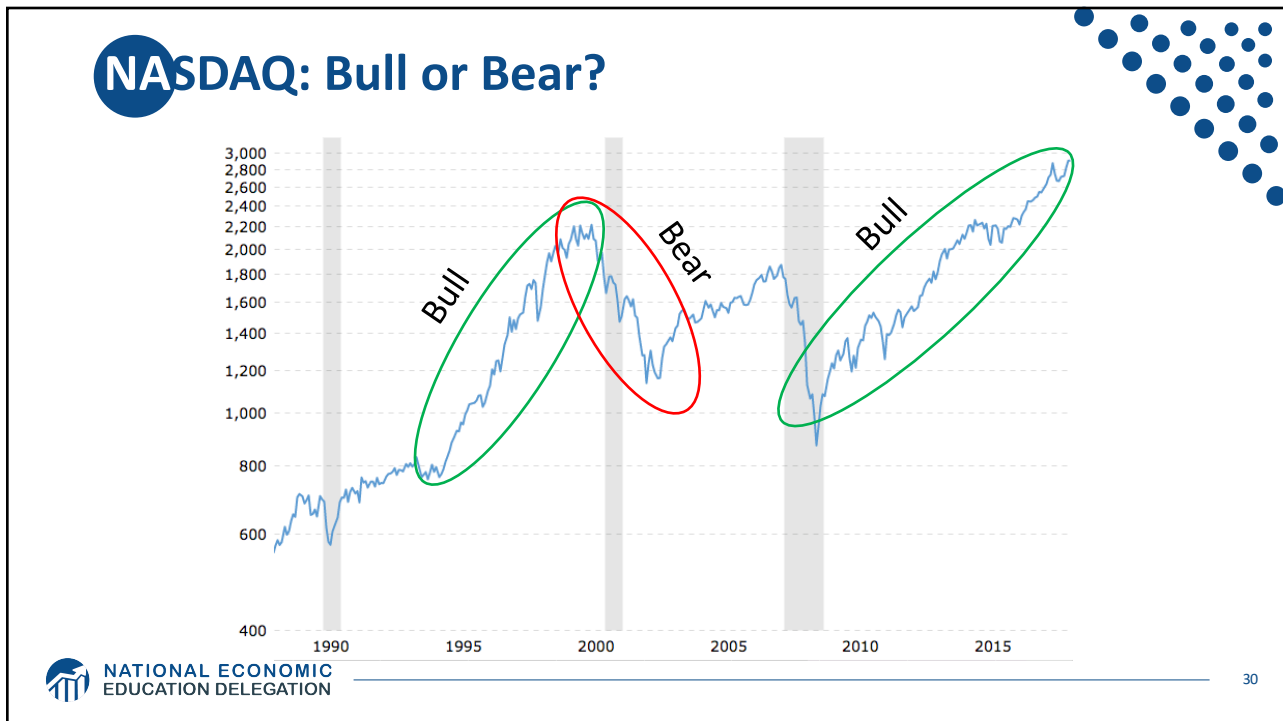
BEAR MARKET
ECONOMY **NOT** DOING WELL

- UNEMPLOYMENT HIGH
- RECESSION APPROACHING
- PRICES GOING DOWN

NATIONAL ECONOMIC EDUCATION DELEGATION

29

29



30

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**



NATIONAL ECONOMIC
EDUCATION DELEGATION

31

31

Thank you!

Any Questions?

www.NEEDelegation.org

Jon Haveman, Ph.D.

Contact NEED: Jon@NEEDelegation.org



NATIONAL ECONOMIC
EDUCATION DELEGATION

32

32