QUANTITATIVE FINANCE SOCIETY

Intro to Value Investing

Brain Teaser

I have three six-sided dice; one is red, one is blue, and one is green.

The red die has sides: 3, 3, 3, 3, 3, 6
The blue die has sides: 2, 2, 2, 5, 5, 5
The green die has sides: 1, 1, 4, 4, 4, 4

We decide to play a game. As a courtesy, I let you pick which die you want first, and then I pick second. We then both roll our die, and whomever rolls the higher number wins. The winner receives one dollar from the loser.

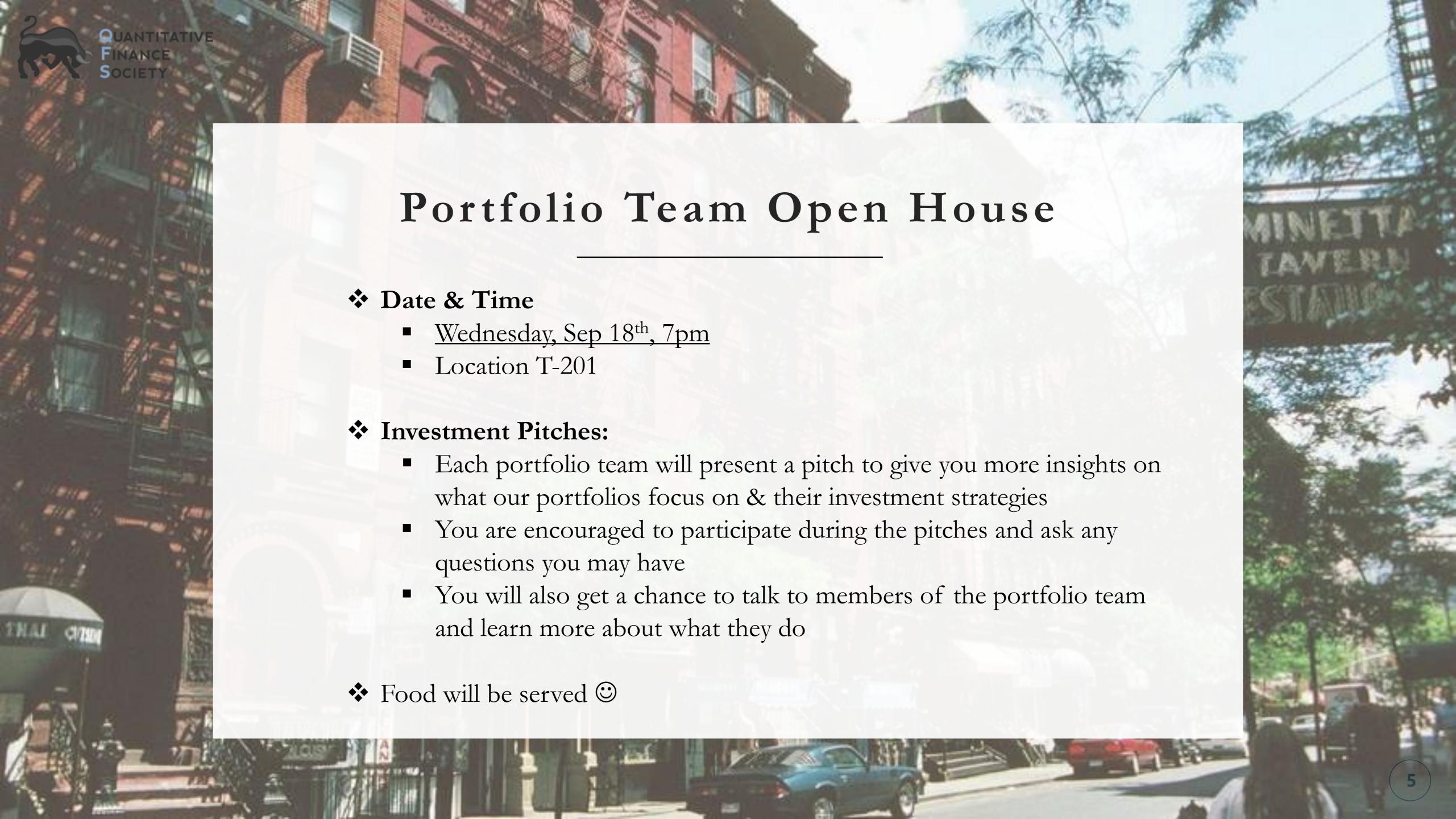Which die should you pick? What is the probability you win? How much do you make in the long run?

Solution: Brain Teaser

Answer:

These are called nontransitive dice. The Red die beats the Blue die with probability 7/12, the Blue die beats the Green die with probability 2/3, and the Green die beats the Red die with probability 5/9. Because of this, no matter which die you pick, you will on average lose money!

Because the Red die loses at the slowest rate, you should pick the Red die. I will then pick the green die, and you will only win 4/9 of the time. However, winning 4/9 ≈ 44% of the time is preferable to winning 5/12 ≈ 42% of the time or 1/3 ≈ 33% of the time. You will lose $1/9 ≈ $0.11 per game on average in the long run.

Portfolio Team Application

❖ **Timeline:**
- Currently open
- 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**
- <u>Wednesday, Sep 18th, 7pm</u>
- Location T-201

❖ **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 ☺

Value Investing

❖ "Buying a dollar for 50 cents"

❖ Identifying businesses that are:
  ❖ Fundamentally good
  ❖ Mispriced by the market

❖ Investing with a long-term time horizon, does not rely on speculation

Thought Exercise

❖ What do we think about this stock? Is it a good company?

242.81 USD Sep 16, 2019

Thought Exercise

❖ How about now?

Thought Exercise

❖ How about now?

Thought Exercise

❖ What do we now think about this company?

Market Summary > Tesla Inc
NASDAQ: TSLA

242.96 USD −2.24 (0.91%) ↓
Sep 16, 2:54 PM EDT · Disclaimer

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

259.32 USD Sep 19, 2014

Open	246.00		Div yield	-
High	247.43		Prev close	245.20
Low	241.17		52-wk high	379.49
Mkt cap	43.52B		52-wk low	176.99
P/E ratio	-			

Takeaways

❖ We cannot predict the future

❖ You can't determine whether a company is a good investment just by looking at the stock chart

❖ Have to analyze the fundamental value (value of the core competency) of the business

❖ Cannot rely on short-term market movements or speculation

What Makes a Good Business?

❖ **Economic Moat**: a business' ability to maintain competitive advantages over its competitors in order to protect its long-term profits and market share from competing firms
  ❖ What are some examples of economic moats?

❖ **Quality of Management**
  ❖ Historical behavioral of the management team
  ❖ What makes a good management team?

❖ **Nature of the Industry**
  ❖ How competitive is the industry? How many players are in the industry? Is the industry growing or declining?

Economic Moat

❖ Is there a fundamental difference between the two products?
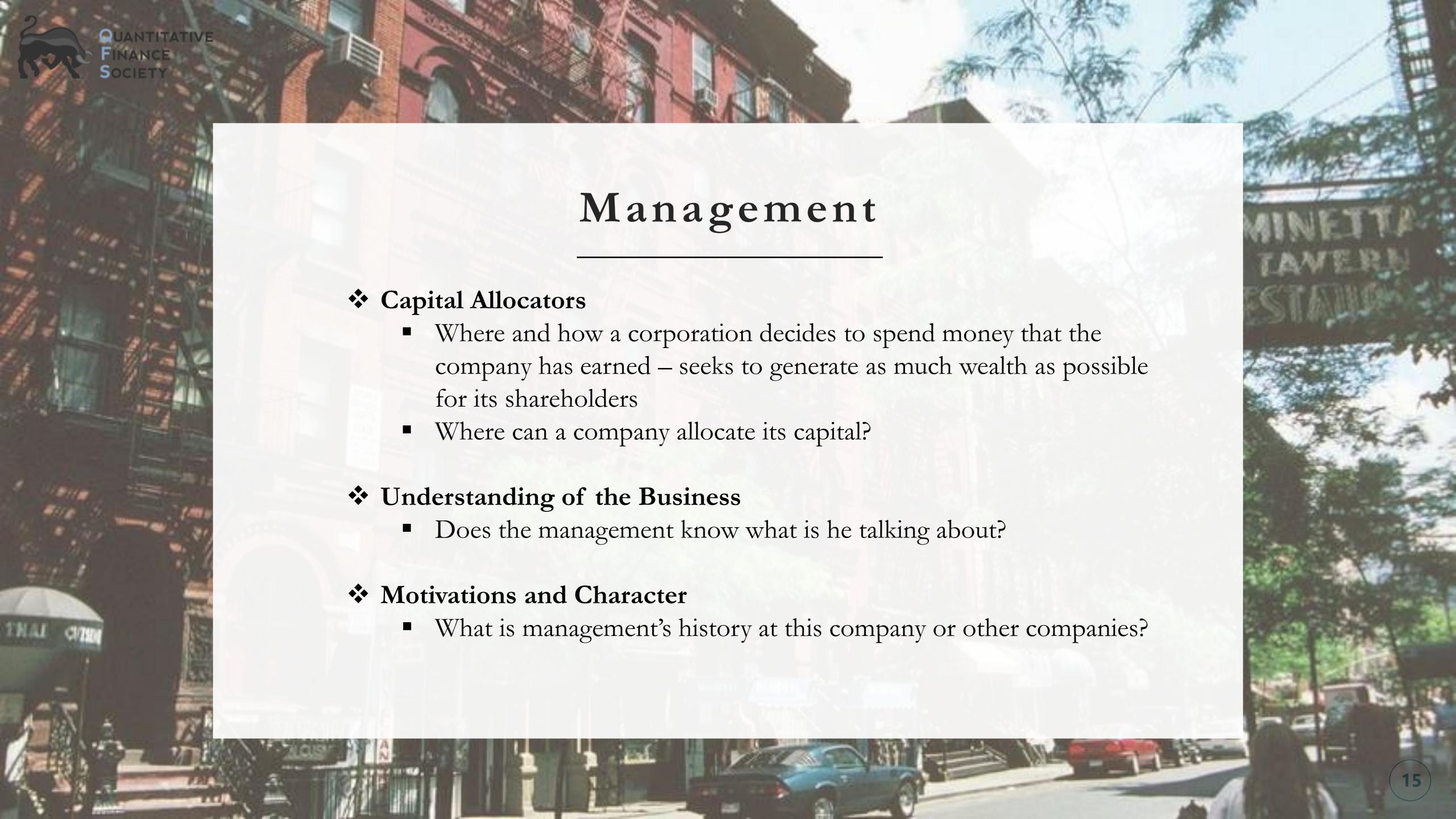
Economic Moat

❖ Economic moat can extend beyond just the product itself
- Brand name/Customer relationships
- Bargaining Power
- Economies of Scale
- Diversification
- Product Margin

Management

❖ **Capital Allocators**
- Where and how a corporation decides to spend money that the company has earned – seeks to generate as much wealth as possible for its shareholders
- Where can a company allocate its capital?

❖ **Understanding of the Business**
- Does the management know what is he talking about?

❖ **Motivations and Character**
- What is management's history at this company or other companies?

Nature of the Industry

❖ Which of the two companies faces greater competition? Which of the companies has greater pricing power?

Google   H&M

Some Golden Rules

❖ Being Conservative

❖ Margin of Safety

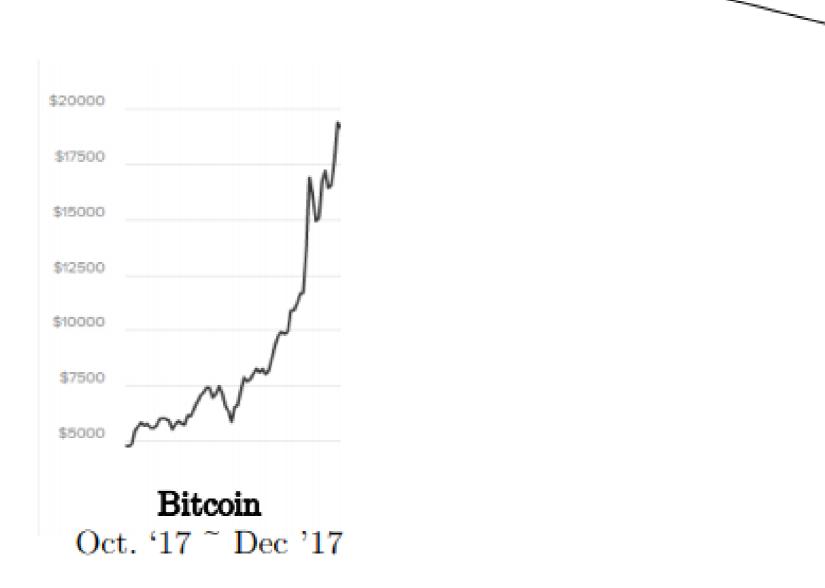❖ Circle of Competency

❖ Swing Once, Swing Well

Being Conservative

❖ Tune out optimism bias

❖ Conduct thorough due diligence

❖ Most important rule: **Do Not Lose Money!**
  ▪ Trying to play a game that we win majority of the time (only need to be correct 51% of the time)

"Dude. Cryptocurrency is the FUTURE. General ledgers! Decentralized money! We need to invest now – have you SEEN these returns??
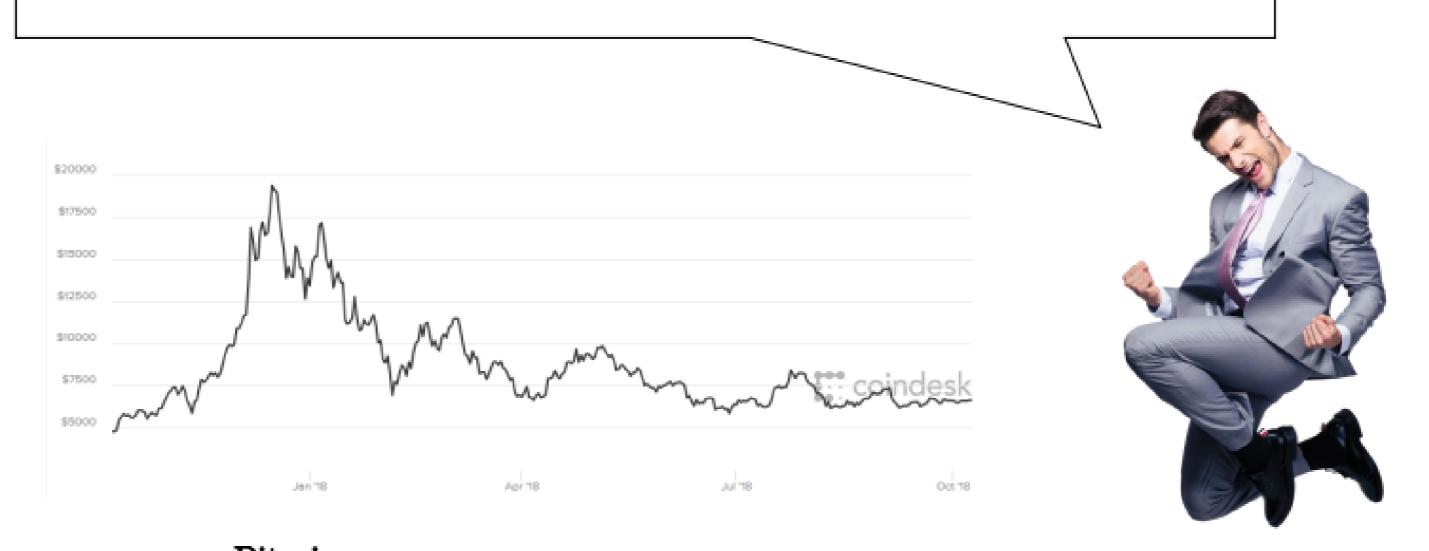
Bitcoin
Oct. '17 ~ Dec '17

"Dude. Cryptocurrency is the FUTURE. General ledgers! Decentralized money! We need to invest now – have you SEEN these returns??

Bitcoin
Oct. '17 ~ Oct '18

Margin of Safety
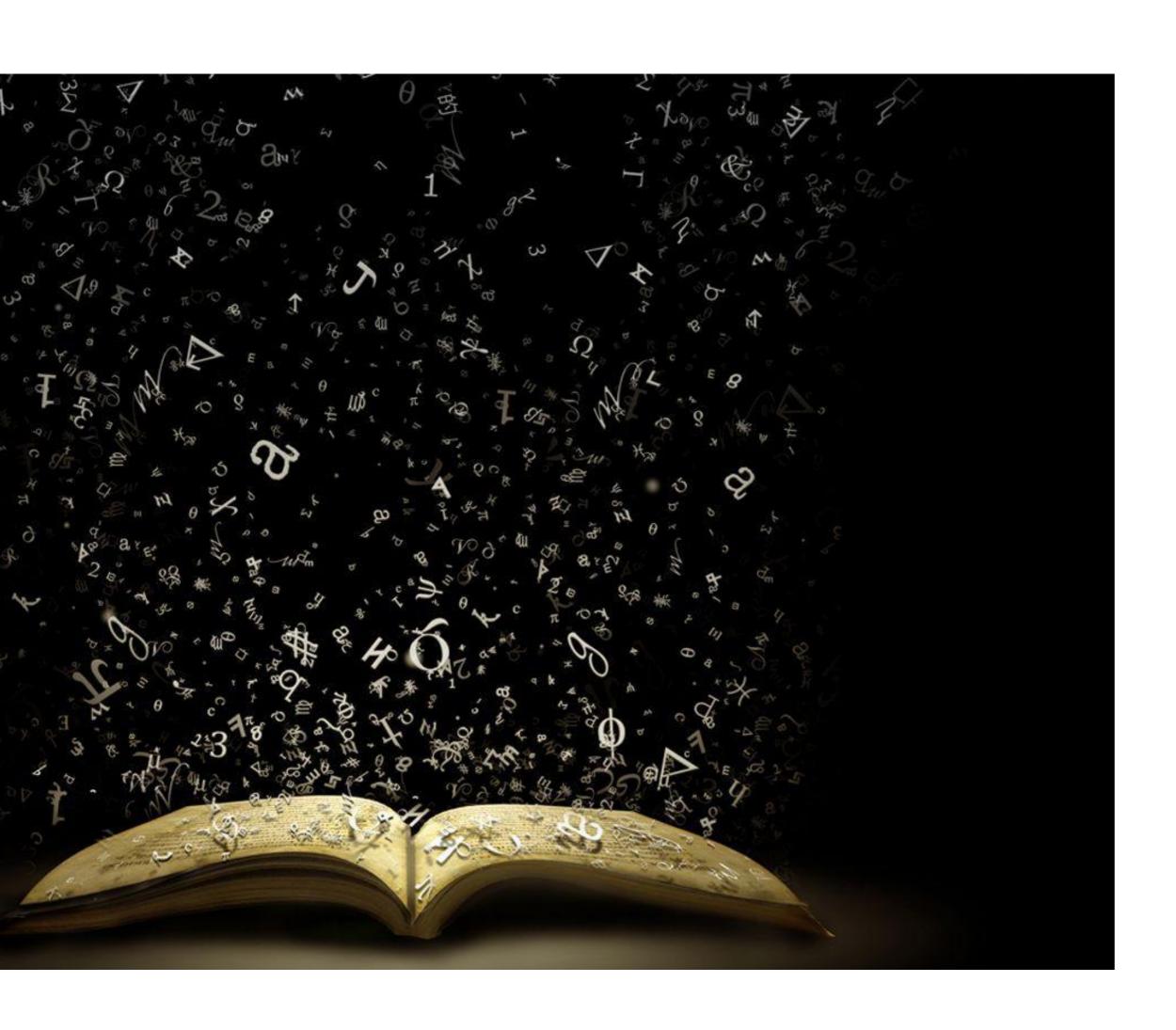
❖ Buy at a discount – account for possibility that things just don't go the way you expect them to

❖ What do you think is an acceptable margin of safety?

Circle of Competency

❖ Know what you know, know what you don't know

❖ "The most important thing in terms of your circle of competence is not how large the area of it is, but how well you've defined the perimeter"

- Warren Buffet

Swing Once, Swing Well

❖ "What's nice about investing is you don't have to swing at pitches. You can watch pitches come in one inch above or one inch below your navel and you don't have to swing. No umpire is going to call you out. **You can wait for the pitch you want**."

- Warren Buffet

Being Contrarian & Market Pricing

❖ Be careful about big names that are heavily covered

❖ Structural opportunities
- Small-cap equities → Fund restrictions
- Short-term market exaggerations → Be wary of bull market, search for mispricing in bear markets
- Differences in mindset

❖ Hidden assets & hidden liabilities

❖ Be creative & track research

❖ Understand how the market is pricing the security
- Equity research, news, press releases

Common Pitch Types - Longs

❖ **Competitive business with barriers to entry**
  ▪ Awesome businesses that you want to hold forever

❖ **Smart management teams**
  ▪ Strategically create value

❖ **Extreme hidden value**
  ▪ Good assets, weird accounting, catalysts

❖ **Hidden opportunities**
  ▪ Margin expansion, cost-cutting

❖ **Dirty, ugly, but cheap**
  ▪ Bad businesses at an amazing price

Common Pitch Types - Shorts

❖ **Structural business issues on the horizon**

❖ **Frauds / Accounting Gimmicks**
- Companies that are over-earning on the book, but don't generate that much cash

❖ **Companies with crazy high expectations, popular fads**

❖ **Sketchy sell-side coverage, pump & dumps**

❖ **Overleveraged companies**

Common Pitch Types – Special Sits

❖ **Event-driven**
- Spin-offs, Carve-outs
- Distressed / Turnarounds
- Busted IPOs
- Opportunities in credit
- Merger-Arbitrage (Pennies in front of a steamroller)
- Fallen Angels / Rising Stars

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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