



QUANTITATIVE
FINANCE
SOCIETY

Intro to Value Investing



Brain Teaser

There are 100 lightbulbs lined up in a row in a long room. Each bulb has its own switch and is currently switched off. The room has an entry door and an exit door. There are 100 people lined up outside the entry door. Each bulb is numbered consecutively from 1 to 100. Each person is numbered consecutively from 1 to 100.

Person 1 enters the room, switches on every bulb, and exits. Person 2 enters, flips every second switch, and leaves. Person 3 enters, flips every third switch, and leaves. This continues until all 100 people have passed through.

Which light bulbs will be open after everyone has passed through?



designed by freepik





Answer

- ❖ All the bulbs **numbered** with **perfect squares** are turned on.
- ❖ Every **person** is flipping **multiples** of their number.
- ❖ For a **lightbulb** to remain on, it must have had an **ODD number of flips** – in other words, an **ODD number of divisors**.

Divisors of Perfect Squares:

1: **1**

4: **1, 2, 4**

9: **1, 3, 9**

...

100: **1, 2, 4, 5, 10, 20, 25, 50, 100**



Portfolio Team Application

- ❖ **Timeline:**
 - Opens on Friday, 2/9 at 9:00 AM
 - Closes on Friday, 2/16 at 12:00 PM (Noon)

- ❖ **Eligibility:** open to all NYU students, no experience required

- ❖ **Application Process:**
 - Fill in Google form (admin details & portfolio preference)
 - Submit your application responses as a PDF/Word

- ❖ All instructions will be on the front page of our website, and emailed to everyone on our mailing list (<http://eepurl.com/hfg6ef>)

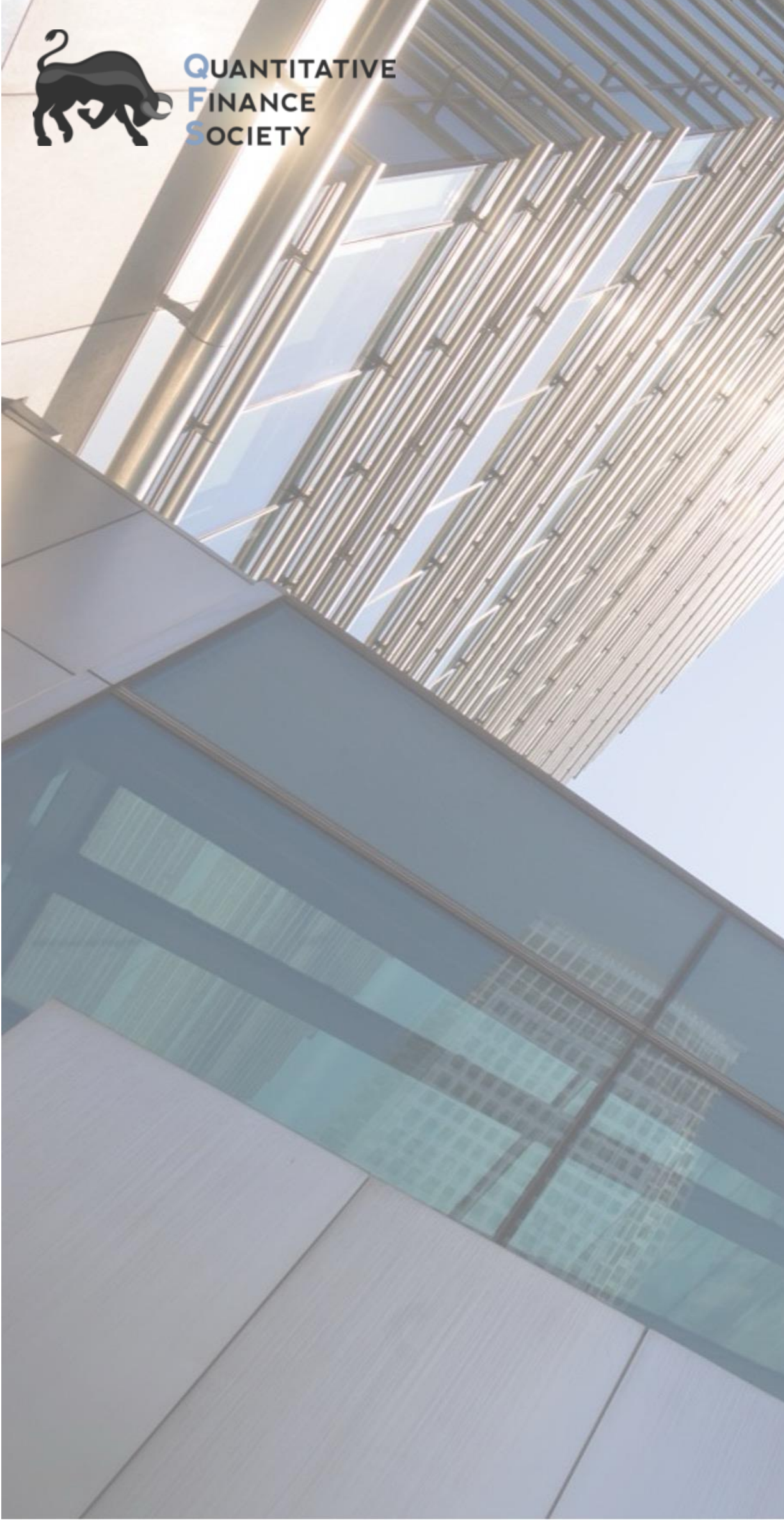
Portfolio Team Application Tips

- ❖ If you are an underclassmen, please answer all questions for your grade, regardless of portfolio interest
- ❖ Helpful if you cite sources (links are fine)
- ❖ 2 pages max for the three responses
 - ❖ Can easily be done in one page
- ❖ Try to submit as a PDF or Word, if you choose to submit as a google docs, please give quantfsnyu@gmail.com access
- ❖ Primarily looking for effort, not accuracy

QFS Open House

Wed. Feb. 14th | 7:00 PM – 9:00 PM | T-201

Come out to our open house to see what we do on our portfolio team! You'll hear pitches from all three portfolios and get the chance to ask questions and meet the members of our portfolio team



QFS Women's Social

Fri. Feb. 9th | 5:00 PM – 6:00 PM | UC-25

Come out to our Women's Social where we will host a panel and presentation about our experiences in finance and QFS as women!

We will have Mochi Donuts!





Value Investing

- ❖ Buying something for less than its intrinsic value
- ❖ “Buying a dollar for 50 cents”
- ❖ Identifying business that are
 - ❖ Fundamentally good
 - ❖ Mispriced by the market
- ❖ Investing with a long-term time horizon, does not rely on speculation





Not Value Investing

- ❖ Determining whether a company is a good investment just by looking at the stock chart
- ❖ Relying 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 behavior of the 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 these products



Economic Moat



- ❖ Economic moat can extend beyond the quality of the product itself
 - ❖ Brand Name (Customer Loyalty)
 - ❖ Bargaining Power – Product Margin
 - ❖ Economies of Scale
 - ❖ Diversification

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
 - ❖ What can a company use its capital on?
 - ❖ How would you want the CEO of Uber to allocate their capital?
- ❖ **Understanding of the Business**
 - ❖ Does the management know what he is taking about?
- ❖ **Motivation and Character**
 - ❖ Management history at other companies
 - ❖ Incentives

Nature of the Industry

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



H&M



Google



Some Golden Rules

- ❖ Being Conservative
- ❖ Margin of Safety
- ❖ Circle of Competency
- ❖ Swing Once, Swing Well



Being Conservative

- ❖ Tune out optimism bias
 - ❖ Sunk Cost fallacy
- ❖ Conduct thorough due diligence
- ❖ Most important rule: **Do Not Lose Money!**
 - ❖ Trying to play a game that we win the majority of the time (only need to be correct 51% of the time)
- ❖ Want bets where you make a strong return under conservative assumptions

Margin of Safety

- ❖ Buy at a discount – account for possibility that things just don't go the way you expect them to
 - ❖ Analyze downside case
 - ❖ Discount to intrinsic value
- ❖ What is an acceptable margin of safety?
- ❖ Seth Klarman book – Margin of Safety
 - ❖ Basis of value investing philosophy

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”
 - ❖ Biotech

Swing Once, Swing Well

- ❖ *Batting Average vs Slugging Average*
- ❖ “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**”
- ❖ Concentrated, high-conviction bets

Being Contrarian & Market Pricing

- ❖ Be careful about big names that are heavily covered
 - ❖ Know what you don't know
- ❖ Structural opportunities
 - ❖ Small-cap equities → **Fund restrictions**
 - ❖ Short-term market exaggerations → Be wary of bull market, search for mispricing in bear markets
 - ❖ Differences in time-horizon – (COVID winners today)
- ❖ Understand how the market is pricing the security
 - ❖ Equity Research, News, Press Releases

Common Pitch Types - Longs

- ❖ **Strong business with barriers to entry**
 - ❖ Awesome businesses that you want to hold forever
 - ❖ Market mispricing due to short-term fears
- ❖ **Smart management teams**
 - ❖ Strategically compound value over the long-term
- ❖ **Hidden opportunities**
 - ❖ Margin expansion, cost-cutting
- ❖ **Dirty, ugly, but cheap**
 - ❖ Bad business at an amazing price
- ❖ **Special Situations**
 - ❖ Event-driven situations that the market is mispricing for various reasons
 - ❖ Spin-off, Distress/Bankruptcy, Busted IPOs, Credit, Merger-Arb

Common Pitch Types - Shorts

- ❖ **Structural Share Donor**
 - ❖ Brick and Mortar retail
 - ❖ First-mover in high-growth industry without a moat

- ❖ **Frauds/Accounting Gimmicks**
 - ❖ Enron

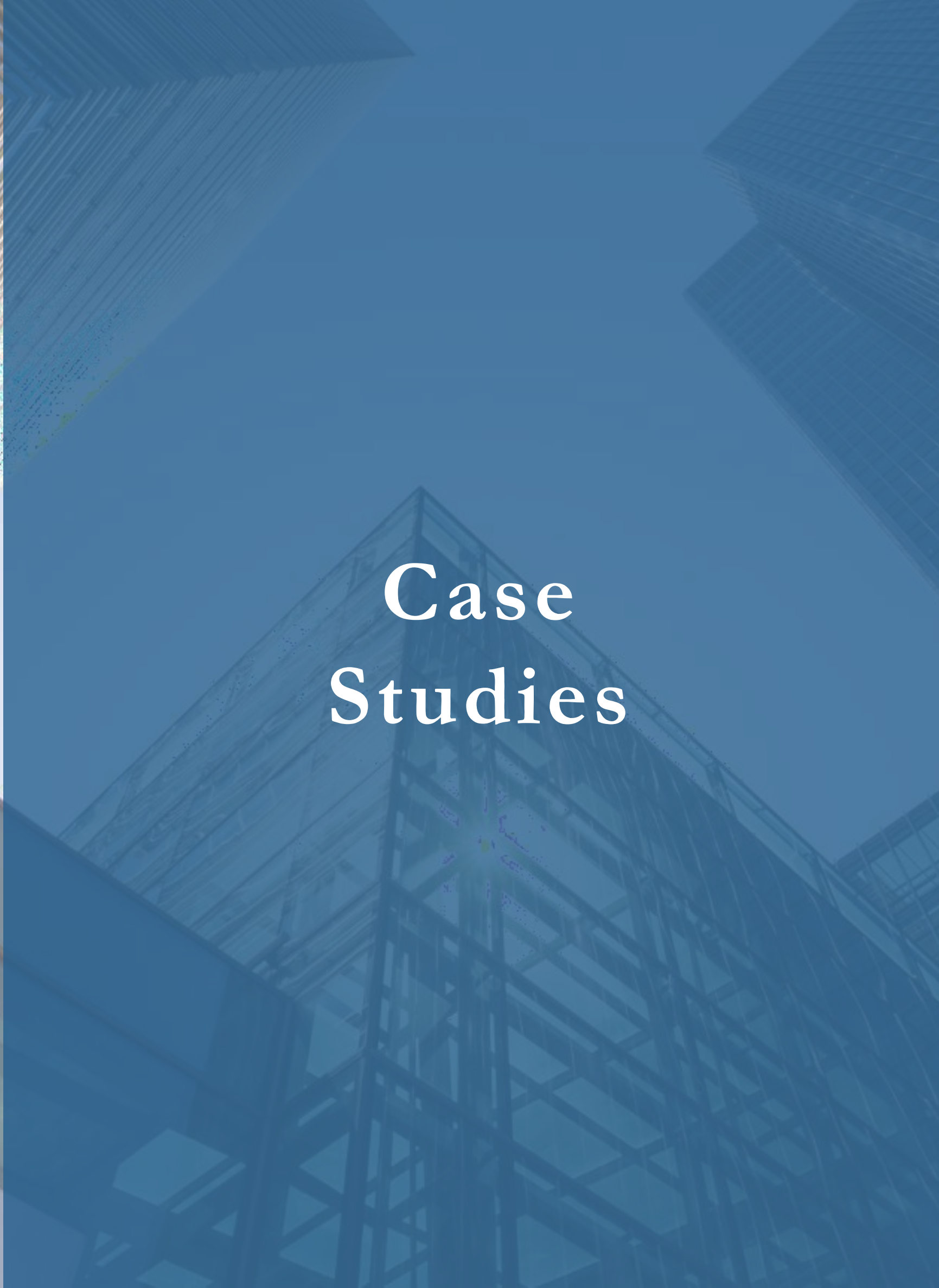
- ❖ **Companies with crazy high-expectations, popular fads**
 - ❖ Plant-based meat

- ❖ **Overearning Cyclical**
 - ❖ Industry in an upcycle (demand outstripping supply in the short-term), yet the market assumes this upcycle will last forever

- ❖ **Overleveraged Companies**
 - ❖ Difficulty servicing debt
 - ❖ Unrealistic expectations



Case Studies



Barriers to Entry: Starbucks (NASDAQ: SBUX)

Market Summary > Starbucks Corporation

90.73 USD

+90.39 (26,585.29%) ↑ all time

Sep 21, 12:00 PM EDT • Disclaimer

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1D | 5D | 1M | 6M | YTD | 1Y | 5Y | Max



Open	91.29	Mkt cap	104.11B	CDP score	B
High	91.52	P/E ratio	25.51	52-wk high	117.80
Low	90.54	Div yield	2.16%	52-wk low	68.39

Business Overview: Multinational chain of coffee stores

Situation Overview: In 1996, Starbucks had about 1000 stores and was trading at a 64x P/E multiple (market multiple tends to be around 20x). They were generating around \$700k in revenue per store

Thesis: Although the market gave Starbucks credit for its strength as a branded coffee store company with a significantly above market multiple, it repeatedly failed to underwrite the number of stores Starbucks could create over the next decade. If you were confident in Starbucks' long-term potential to be dominant, you could underwrite the amount of stores Starbucks could continue create based on population (500m target customers across wealthy European cities and the US) and penetration rates for similar chain concepts that were more mature (Need a store near 10% of the population and need to service 10% of customers per day, and each store can service roughly 180 people per day (15 hours of operation, 5 min per customer) you could derive about 28k stores as the long-term potential in steady-state for Starbucks stores). Although it was expensive near-term, over the long-term, their ability to continue to compound stores long-term resulted in an 18% IRR over 25 years

Special Sits: Tuesday Morning (NASDAQ: TUESM)

Business Overview: Discount store chain, similar to Ollie's Bargain Outlet

Situation Overview: In September 2020, the company had just filed for bankruptcy to break unfavorable leases and was struggling due to COVID store closures and general decline in brick-and-mortar retail spend. Company was trading on the OTC with a market cap of only \$47m and share price of \$0.35.

Thesis: Initially the company was struggling quite a bit and the bankruptcy judge believed there was no potential for a recovery to the equity. However, as the COVID situation continued to improve it was clear that the Company could return to EBITDA positive within the next year and there would likely be a recovery for the equity. Additionally, the bankruptcy overhang, OTC listing, and lack of market cap made it difficult for many institutional investors to get involved in size. This created a situation where a company had entered bankruptcy to improve its lease terms (reduce lease rent on 35% of leases which would lead to margin expansion) and had the benefit of recovery from COVID. From a math perspective, the company could potentially produce \$0.5-\$1 in EBITDA and could trade from 5-8x (compared to OLLI at 22x). Today, the company has emerged from bankruptcy and is trading at a share price of \$1.79, which represents 8x upside from September of 2020.

Tuesday Morning

Crazy Expectations: Vital Farms (NASDAQ: VITL)

Market Summary > Vital Farms, Inc.

11.50 USD

-23.76 (-67.39%) ↓ all time

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1D | 5D | 1M | 6M | YTD | 1Y | 5Y | Max



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Business Overview: Branded pasture-raised egg company. Eggs are produced in a more animal friendly manner and are sold for \$6 per dozen vs \$1-2 per dozen for normal eggs

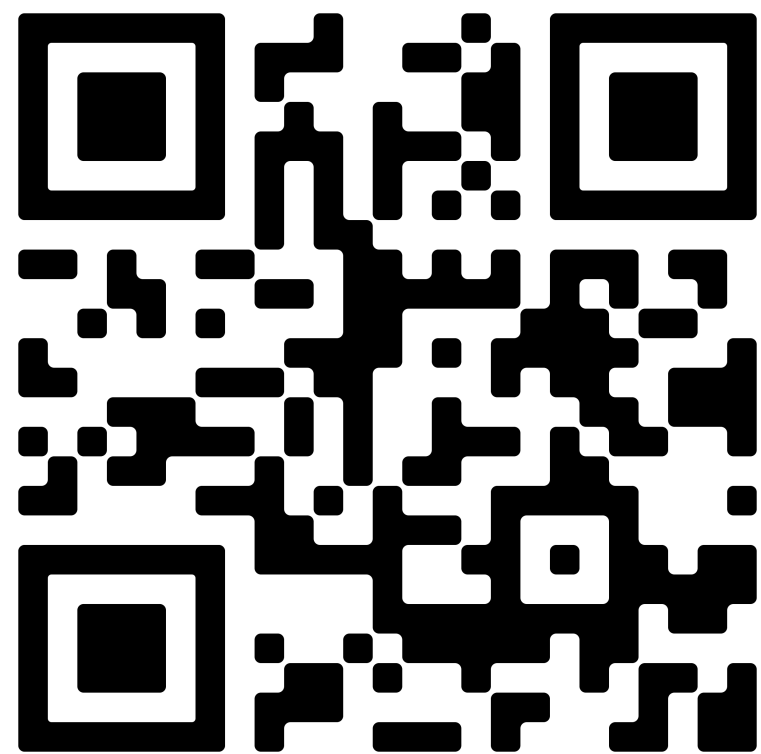
Situation Overview: Company IPO'd in July of 2020 and was doing extremely well on the back of COVID-induced stockpiling and ESG tailwinds leading to very bullish sell-side coverage

Thesis: Ultimately, on the back of their success in the last year due to stockpiling, the market assumed this company could maintain 70% market share over the next decade and the market could grow at a 20% CAGR for the foreseeable future. The market was valuing it as a growthy tech business, valuing it on sales despite 30% gross margins. Long-term, it was clear that the pasture-raised egg market could not CAGR at 20% for the next decade. Pre-COVID the market was seeing declining YoY velocities (sales per distribution points). Distribution points were going to be harder and harder to increase as Vital had already penetrated all of the nature store locations (Whole Foods, Sprouts). Meanwhile the remaining whitespace was at Target, Walmart where the customer base is significantly less affluent. Further, private-label competition was rapidly increasing in Whole Foods, Kroger etc. Valuing the company, it was clear that they would likely see a return to pre-COVID velocities. Giving the company credit for consensus estimates of ~15% CAGR in distribution points, but a -9% CAGR in velocities (largely driven by a return to pre-COVID, market share loss to private label and lower quality locations) as well as a more realistic multiple in-line with Cal-Maine Foods at 15x EBITDA led to significant downside

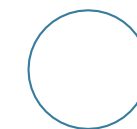


Links

Mailing List Link



Coffee Chat Link





Get in Touch

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

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