Undergraduate Student Managed Fund

Fall 2018 Portfolio Report
Team Gilson
Introduction

Leadership Positions

Co-Lead Managers: Aniello Infante & Richard Traub
Portfolio Manager: Joel Thomas
Communication Manager: Anna Simos
Web Manager: Jilleen Livingston

Managers
Daztar Pagdiwala
Kayla Reuben
Ryan Harrington
Stephen Grammatico
Shirley Gu

Faculty
Supervisor: Paul Gilson
Fund Director: Chinmoy Ghosh
Agenda

Fund Methodology
Investment Process & Risk Management
Economic Overview & Impact
Portfolio Performance & Individual Holdings
Looking Forward & Lessons Learned
Fund Methodology

**Philosophy**
As value investors, we seek understandable, well managed, and competitively advantaged businesses trading at a discount to their intrinsic value with a suitable margin of safety.

**Objective**
Our objective is to construct a portfolio that will outperform our benchmark, the S&P 500, over a 10-year investment horizon, while maintaining our fiduciary responsibility to the UConn Foundation.

**Approach**
Managers will find suitable investments in two assigned industries while maintaining a conservative risk profile to carry out the investment philosophy. We use a bottom-up analysis to find investment opportunities.
Investment Analysis -- What We Look For

We perform both quantitative and qualitative analysis on our potential investments before adding them to our portfolio.

### Quantitative Analysis

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Portfolio Average</th>
<th>S&amp;P 500</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dividend Yield</td>
<td>2.2%</td>
<td>2.0%</td>
</tr>
<tr>
<td>Operating Margin</td>
<td>32.6%</td>
<td>19.0%</td>
</tr>
<tr>
<td>ROIC</td>
<td>20.6%</td>
<td>8.4%</td>
</tr>
<tr>
<td>Debt/EBITDA</td>
<td>1.94x</td>
<td>3.95x</td>
</tr>
<tr>
<td>P/E</td>
<td>15.83x</td>
<td>18.37x</td>
</tr>
<tr>
<td>Beta</td>
<td>0.92</td>
<td>1.00</td>
</tr>
<tr>
<td>FCF Yield</td>
<td>5.4%</td>
<td>5.2%</td>
</tr>
</tbody>
</table>

### Qualitative Analysis

#### Market Leader
- BLACKROCK
- BOEING
- Constellation Brands

#### Innovation
- WM

#### Brand Strength
- J&J
- Constellation Brands

#### Diversified Business Model
- UNION PACIFIC
Investment Process & Risk Management
Investment Process and Risk Management

Allocation Strategy

➢ 7 out of 10 vote minimum for investment purchases
➢ Initial Full Stake = $80,000 or 6.25%

Voting Design:
➢ 7/10 Votes: 70% of a Full Stake
➢ 10/10 Votes: 100% of a Full Stake

Purchase Strategy: Cost Averaging

➢ Consider short-term volatility, large price movements
➢ Tranching to lower cost average using multiple limit orders
➢ Patience and discipline

Risk Management

➢ Stop Losses at 25% for all investments
➢ Rigorous Q&A discussions addressing risks and concerns
➢ Disciplined cost averaging approach
➢ Margin of safety at a reasonable level
Economic Overview & Impact
U.S. Economic Overview

- Real GDP Growth
  - 3.5% for Q3
  - Revised down from 4.2% in Q2
- Lowest unemployment rate in 50 years
  - 3.7% as of October
- New data from today raises concerns
  - Week-end 12/1/18 jobless claims missed expectations for 4th straight week
  - Q3 increase in hourly pay revised down 400 bps
- Big Picture
  - 2% growth in Core Personal Consumption Expenditures (CPE) - on target
  - Interest rates are near their neutral level
  - Global growth might be slowing
### Economic Impact

#### Oil Prices
- Lower oil prices directly affect our investments in the industrial sector
- Oil down 31% from October peak

#### Consumer Confidence
- Down slightly from its 18-year high of 137.9 in October
- 10% decrease in single family homes last month

#### Trade Risk
- Global trade is a concern considering tariffs and global tensions
- Some holdings are particularly impacted by China
- Protectionism

#### Interest Rates
- Yield curve inverting (3 and 5yr)
  - Strong indicator for L-T economic outlook
- Impact on our future investment considerations
Portfolio Performance & Individual Holdings
## Sector Overview

<table>
<thead>
<tr>
<th>Sector</th>
<th>% of Total Portfolio</th>
<th>% of Invested Portfolio</th>
<th>S&amp;P 500 Sector Weight</th>
<th>Target Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consumer Staples</td>
<td>7%</td>
<td>17%</td>
<td>7%</td>
<td>7%</td>
</tr>
<tr>
<td>Financials</td>
<td>6%</td>
<td>14%</td>
<td>14%</td>
<td>14%</td>
</tr>
<tr>
<td>Industrials</td>
<td>19%</td>
<td>49%</td>
<td>9%</td>
<td>9%</td>
</tr>
<tr>
<td>Healthcare</td>
<td>7%</td>
<td>19%</td>
<td>15%</td>
<td>15%</td>
</tr>
<tr>
<td>Basic Materials</td>
<td>0%</td>
<td>0%</td>
<td>3%</td>
<td>3%</td>
</tr>
<tr>
<td>Consumer Discretionary</td>
<td>0%</td>
<td>0%</td>
<td>10%</td>
<td>10%</td>
</tr>
<tr>
<td>Energy</td>
<td>0%</td>
<td>0%</td>
<td>6%</td>
<td>6%</td>
</tr>
<tr>
<td>Information Technology</td>
<td>0%</td>
<td>0%</td>
<td>21%</td>
<td>21%</td>
</tr>
<tr>
<td>Communication Services</td>
<td>0%</td>
<td>0%</td>
<td>10%</td>
<td>10%</td>
</tr>
<tr>
<td>Real Estate</td>
<td>0%</td>
<td>0%</td>
<td>3%</td>
<td>3%</td>
</tr>
<tr>
<td>Utilities</td>
<td>0%</td>
<td>0%</td>
<td>3%</td>
<td>3%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>39%</strong></td>
<td><strong>100%</strong></td>
<td><strong>100%</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>
Total Portfolio Performance as of 11/30/2018

Total Portfolio Performance vs S&P 500

<table>
<thead>
<tr>
<th>Total Portfolio</th>
<th>$1,139,071.20</th>
<th>S&amp;P 500</th>
<th>$2,896.72</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beginning Value</td>
<td>$1,139,071.20</td>
<td>Beginning Value</td>
<td>$2,896.72</td>
</tr>
<tr>
<td>Current Value</td>
<td>$1,076,034.43</td>
<td>Ending Value</td>
<td>$2,760.17</td>
</tr>
<tr>
<td>Absolute Change</td>
<td>$63,036.72</td>
<td>Absolute Change</td>
<td>$136.55</td>
</tr>
<tr>
<td>% Change</td>
<td>-5.53%</td>
<td>% Change</td>
<td>-4.71%</td>
</tr>
<tr>
<td>Difference in Performance</td>
<td>-0.82%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Total Portfolio Performance Breakdown: as of 11/30/2018

**Total Portfolio Unrealized Gains**

<table>
<thead>
<tr>
<th>Ticker</th>
<th>Name</th>
<th>Shares</th>
<th>Price</th>
<th>Cost Basis</th>
<th>Market Value</th>
<th>% of Portfolio</th>
<th>Change</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>BLK</td>
<td>BLACKROCK INC</td>
<td>142</td>
<td>$428.01</td>
<td>$62,004.30</td>
<td>$60,777.42</td>
<td>5.65%</td>
<td>$ (1,226.88)</td>
<td>-1.98%</td>
</tr>
<tr>
<td>WM</td>
<td>WASTE MANAGEMENT INC</td>
<td>895</td>
<td>$93.75</td>
<td>$80,039.85</td>
<td>$83,906.25</td>
<td>7.80%</td>
<td>$3,866.40</td>
<td>4.83%</td>
</tr>
<tr>
<td>BA</td>
<td>BOEING CORP.</td>
<td>200</td>
<td>$346.76</td>
<td>$71,576.00</td>
<td>$69,352.00</td>
<td>6.45%</td>
<td>$ (2,224.00)</td>
<td>-3.11%</td>
</tr>
<tr>
<td>STZ</td>
<td>CONSTELLATION BRANDS INC</td>
<td>371</td>
<td>$195.76</td>
<td>$74,177.74</td>
<td>$72,626.96</td>
<td>6.75%</td>
<td>$ (1,550.78)</td>
<td>-2.09%</td>
</tr>
<tr>
<td>UNP</td>
<td>UNION PACIFIC CO.</td>
<td>335</td>
<td>$153.78</td>
<td>$49,563.25</td>
<td>$51,516.30</td>
<td>4.79%</td>
<td>$1,953.05</td>
<td>3.94%</td>
</tr>
<tr>
<td>JNJ</td>
<td>JOHNSON &amp; JOHNSON</td>
<td>525</td>
<td>$146.90</td>
<td>$76,135.50</td>
<td>$77,122.50</td>
<td>7.17%</td>
<td>$987.00</td>
<td>1.30%</td>
</tr>
<tr>
<td>SPY</td>
<td>SPDR S&amp;P 500 ETF</td>
<td>2397</td>
<td>$275.65</td>
<td>$671,847.94</td>
<td>$660,733.05</td>
<td>61.40%</td>
<td>$ (11,114.89)</td>
<td>-1.65%</td>
</tr>
</tbody>
</table>

|                      | Canadian Total                           |        |        |            |              | 100%           | $ (9,310.10) | -0.86%    |

|                      | **Total**                                 | $1,085,344.58 | $1,076,034.48 | 100% | $ (9,310.10) | -0.86% |
# Equity Portfolio: Unrealized Gains as of 11/30/2018

<table>
<thead>
<tr>
<th>Ticker</th>
<th>Name</th>
<th>Shares</th>
<th>Price</th>
<th>Cost Basis</th>
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<th>Change</th>
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<td>$346.76</td>
<td>$71,576.00</td>
<td>$69,352.00</td>
<td>16.70%</td>
<td>$(2,224.00)</td>
<td>-3.11%</td>
</tr>
<tr>
<td>STZ</td>
<td>CONSTELLATION BRANDS INC</td>
<td>371</td>
<td>$195.76</td>
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<td>-2.09%</td>
</tr>
<tr>
<td>UNP</td>
<td>UNION PACIFIC CO.</td>
<td>335</td>
<td>$153.78</td>
<td>$49,563.25</td>
<td>$51,516.30</td>
<td>12.40%</td>
<td>$1,953.05</td>
<td>3.94%</td>
</tr>
<tr>
<td>JNJ</td>
<td>JOHNSON &amp; JOHNSON</td>
<td>525</td>
<td>$146.90</td>
<td>$76,135.50</td>
<td>$77,122.50</td>
<td>18.57%</td>
<td>$987.00</td>
<td>1.30%</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>100%</td>
<td>$1,804.79</td>
<td>0.44%</td>
</tr>
</tbody>
</table>

**Equity Portfolio Unrealized Gains**
### Basic Metrics

<table>
<thead>
<tr>
<th>Metric</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purchase Date</td>
<td>9/26/2018</td>
</tr>
<tr>
<td>Average Purchase Price</td>
<td>$89.43</td>
</tr>
<tr>
<td>Current Price</td>
<td>$93.75</td>
</tr>
<tr>
<td>Return</td>
<td>4.83%</td>
</tr>
<tr>
<td>Market Capitalization</td>
<td>$39.6B</td>
</tr>
<tr>
<td>Dividend Yield</td>
<td>2.03%</td>
</tr>
</tbody>
</table>
## Waste Management

<table>
<thead>
<tr>
<th>Thesis</th>
<th>Risks</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Steady Cash Flows</strong></td>
<td><strong>Rising Fuel Costs</strong></td>
</tr>
<tr>
<td>They have a strong commitment to increasing revenue while reducing costs</td>
<td>This is a risk because most of their fleet runs on diesel</td>
</tr>
<tr>
<td><strong>Low Leverage</strong></td>
<td><strong>Decline in Recycling Revenue</strong></td>
</tr>
<tr>
<td>When researching the financial data behind the company, we found high performance and low leverage</td>
<td>Changing standards worldwide are a threat to traditional revenue sources</td>
</tr>
<tr>
<td><strong>Stable Performance</strong></td>
<td><strong>Commodity Risk</strong></td>
</tr>
<tr>
<td>We saw WM as being a stable company and a market leader with consistency that would help our portfolio</td>
<td>Prices on recycled materials are subject to market fluctuations</td>
</tr>
</tbody>
</table>
## Boeing (NYSE: BA)

### Basic Metrics

<table>
<thead>
<tr>
<th>Metric</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purchase Date</td>
<td>10/29/2018</td>
</tr>
<tr>
<td>Average Purchase Price</td>
<td>$357.88</td>
</tr>
<tr>
<td>Current Price</td>
<td>$346.76</td>
</tr>
<tr>
<td>Return</td>
<td>-3.11%</td>
</tr>
<tr>
<td>Market Capitalization</td>
<td>$189.4B</td>
</tr>
<tr>
<td>Dividend Yield</td>
<td>2.15%</td>
</tr>
</tbody>
</table>
### Boeing

<table>
<thead>
<tr>
<th>Thesis</th>
<th>Risks</th>
</tr>
</thead>
</table>
| **Shareholder Value**  
Proven commitment to increasing shareholder value through buybacks and dividends | **China and Global Trade**  
⅓ of all 737 planes are sold to China  
Commodity risks for input costs (steel, oil) |
| **Profitable Business Model**  
As part of an oligopoly, they have tremendous pricing power | **Airline Specific Growth and Profitability**  
Government spending on defense impacts contracts |
| **Industry Growth and Positive Outlook**  
Positive outlooks in commercial airline growth and defense, space and security | **Asset-Specific Risk: Plane Crash**  
Plane crash and uncertainty as to Boeing’s responsibility |
# Nvidia (NASDAQ: NVDA)

### Basic Metrics

<table>
<thead>
<tr>
<th>Metric</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purchase Date</td>
<td>10/4/2018</td>
</tr>
<tr>
<td>Average Purchase Price</td>
<td>$262.61</td>
</tr>
<tr>
<td>Stop Out Price (10/26/18)</td>
<td>$199.35</td>
</tr>
<tr>
<td>Return (selling at stop loss)</td>
<td>-24.00%</td>
</tr>
<tr>
<td>Return (without selling at stop loss)</td>
<td>-39.00%</td>
</tr>
<tr>
<td>Market Capitalization</td>
<td>$97.6B</td>
</tr>
<tr>
<td>Dividend Yield</td>
<td>0.44%</td>
</tr>
</tbody>
</table>
## Thesis

### Necessity
Nvidia’s products are essential to current computer systems in a variety of industries because of their position as a leader in computing.

### Growing Demand in each Market
New markets in technology such as AI, VR and autonomous transportation will all need Nvidia’s products.

### Financial Stability
Nvidia is a stable company with a large amount of free cash flow.

## Risks

### Political Risk/Trade War
Political tensions especially in Asia have the potential to harm output.

### Losing Competitive Advantage
Need to look out for other technology companies developing similar products.

### What happened to Nvidia?
We learned about asset-specific risk as we saw Nvidia decline 39% from our purchase price from factors such as a decline in crypto mining and an oversupply in the secondary market.
Nvidia Recent Decline

Overview

- Q3 2018 revenue miss
  - $3.18b vs $3.24b consensus.

- Cryptocurrency crash

- Economic slowdown or trade war effects
  - Long term impact limited

- Semiconductor Industry Decline
  - GPU’s essentialness

- Lowering Forecasts: 2018 Q4 revenue revised down $3.4b to $2.7b
  - Gaming slowdown

- Proven demand -- Nintendo Switch, Cyber Monday
### Lessons Learned

#### Going Forward
- 9-1 vote in favor of re-entry = 72k stake
- Tranching approach more spread out, based on price and time
- Recognize the volatility of NVDA stock
  - 1-2 tranches before earnings
  - 2-3 tranches after earnings if long term thesis holds

#### Lessons Learned
- Value of tranching investments on price vs. price + time
- Investing through market and sector cycles
- Maintaining conviction and strategy through adversity
- Seek the positives in negative situations
Looking Forward & Lessons Learned
Looking Forward

<table>
<thead>
<tr>
<th>Current Holdings</th>
<th>Future Investments</th>
</tr>
</thead>
<tbody>
<tr>
<td>● Stay informed on company specific performance</td>
<td>● Increased focus on CSR</td>
</tr>
<tr>
<td>● Continuous evaluation of industry trends and economic indicators</td>
<td>● Focus on profitability over long-term investment horizon</td>
</tr>
<tr>
<td>● Ensure theses remain consistent with overall investment strategy</td>
<td>● Seek investment opportunities in underallocated sectors</td>
</tr>
</tbody>
</table>

- Increased focus on CSR
- Focus on profitability over long-term investment horizon
- Seek investment opportunities in underallocated sectors
Lessons Learned

Seek out investments with a strong qualitative advantages
Evaluate companies based on financial data
Develop presentation and verbal reasoning skills
Resist behavioral market movements
Exercise fiduciary responsibility of Foundation’s endowments
Questions
Appendix
Johnson & Johnson (NYSE: JNJ)

Johnson & Johnson was accepted and is expected to create long-run value due to:

- Core focus on innovation through the development of new drugs and advanced medical technology
- Continual support of its products through various educational and technical services
- Well-recognized brand that is sustainable through fluctuations in economic cycles

NYSE: JNJ
Closing Price 11/2/18: $140.68
Target Price Range: $156 to $173
Margin of Safety: 11% to 23%
Analysts: Jilleen Livingston and Daztar Pagdiwala
Constellation Brands (NYSE: STZ)

Constellation Brands was accepted and is expected to create long-run value due to:

- Significant competitive advantage through strong brands
- Demonstrated its ability to innovate and adapt to changing consumer tastes
- Operational efficiency found in the company, excellent leadership, and high returns on equity and capital
BlackRock (NYSE: BLK)

BlackRock was **accepted** and is expected to create long-run value due to:

- Key positioning as the industry leader in asset management
- Wide range of innovative platforms and products
- Steady and sustainable long-term growth and profitability

**NYSE: BLK**
Close Price 10/3/18: $477.13
Target Price: $537.14
Margin of Safety: 13%
Analyst: Aniello Infante & Richard Traub
Union Pacific (NYSE: UNP)

Union Pacific was **accepted** and is expected to create long-run value due to:

- Key positioning as the industry leader in the railroad industry
- Cost efficiency from its industry leading metrics
- Steady and sustainable long-term growth and profitability

NYSE: **UNP**
Closing Price 11/2/18: **$141.34**
Target Price: **$169.42**
Margin of Safety: **20%**
Analysts: **Kayla Reuben and Joel Thomas**
An investment in T-Mobile was **denied** due to:

- Firm’s inability to be a market leader in innovation and technology
- Highly saturated market that leaves little room for company to increase the revenue
- Too much uncertainty regarding firm’s future mergers and overall growth

**Price at Pitch (10/9): $68.25**
**Target Price: $77**
**Closing Price (11/27): $67.49**
An investment in The Coca-Cola Company was **denied** due to:

- Firm’s inability to meet changing consumer taste and preference
- Slow growth in firm’s highest weighted revenue segment

**Price at Pitch (9/25):** $45.38  
**Target Price:** $49  
**Closing Price (11/30):** $50.40
### Sector Breakdown

<table>
<thead>
<tr>
<th>Sector</th>
<th>Team Members</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial Institutions</td>
<td>Aniello Infante and Richard Traub</td>
</tr>
<tr>
<td>Consumer Staples</td>
<td>Joel Thomas and Daztar Pagdiwala</td>
</tr>
<tr>
<td>Information Technology</td>
<td>Stephen Grammatico and Anna Simos</td>
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<td>Industrials</td>
<td>Ryan Harrington and Kayla Reuben</td>
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<td>Healthcare</td>
<td>Jilleen Livingston and Daztar Pagdiwala</td>
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<td>Kayla Reuben and Anna Simos</td>
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<td>Real Estate</td>
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<td>Utilities</td>
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</tr>
</tbody>
</table>
Portfolio Allocation as of 11/30/2018
We have 3 stocks in the industrial sector: Waste Management, Boeing and Union Pacific.

They are in the sub-sectors: Waste Disposal, Aerospace and Defense and Railroads.

The risks in this sector include trade, oil prices and current position in the economic cycle.

We recognize the risks of being too allocated in a sector but also see these companies as sufficiently different enough to not be very over-correlated.
Researching Investment Opportunities -- WM Example

Equity Screen:
- In the S&P 500
- Market Cap > $10bil
- EPS Growth over past 5 years > 0
- Dividend Yield > 2%
- Net Profit Margin over 10%
- Beta between 0.5 and 1.5
- P/E under 30
- EPS growth next 5 years > 0%
- Sales growth past 5 years > 0%
- EPS growth this year > 0%
- Return on Investment > 15%
- Return on Equity > 20%
- Gross Margin > 25%
- Operating Margin > 15%
Future Investment Ideas

- The Home Depot
- Adobe
- McCormick
- O’Reilly Auto Parts
- Starbucks Coffee