

UConn | STAMFORD

STUDENT MANAGED FUND



Spring 2019 Portfolio Report

May 3, 2019

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Spring 2019 Investment Report

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Fall Officer Positions

Co-Lead Manager: Anshul Manglani

Co-Lead Manager: Di Yang

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Team Stamford

Investment Philosophy

The University of Connecticut, Stamford Student Managed Fund team follows the investment philosophies of Benjamin Graham, David Dodd, and Warren Buffett. As investors, we are cognizant of the words of Warren Buffett; *“It’s far better to buy a wonderful company at a fair price than a fair company at a wonderful price”*. Considering the investment philosophies of these experts has been an integral part of the investment evaluation process. We conduct both qualitative and quantitative research to identify stocks that have a high margin of safety, a wide economic moat and an excellent business model. Our qualitative research focuses on understanding the business’ quality, management, corporate social responsibility, potential catalysts for long-term growth, position within the competitive landscape, and risks that could impact the business in the future. Our quantitative research aims to find the intrinsic value of a business by understanding the firm’s market performance, macroeconomic factors, financial information, and performance when compared to peers. When making investment decisions, the primary focus is on the qualitative factors that can drive long-term value creation for the business. We aim to invest in great businesses in each sector.

Investment Strategy

Our investment strategy aims to take advantage of the long-term time horizon mandated by the prospectus. As such, we consider a 10-year time horizon for all investments. We choose to invest in great businesses with wide economic moats and outstanding financial performance. Among other factors, a business is deemed ideal to invest in when it has: healthy financials, strong leadership, strong opportunities for growth, and sustainable

competitive advantages among its peers. We invest in a variety of industries in order to construct a diversified portfolio and lower the portfolio's risk.

We consider the following factors when evaluating investment opportunities:

Quantitative	Qualitative
<ul style="list-style-type: none"> • Dividend Yield • EPS growth rate • Return on Invested Capital • Enterprise Value to EBITDA • Price to Earnings ratio • Debt-to-EBITDA • EBITDA to Interest Expense • Discounted Free Cash Flow Model • Dividend Discount Model • Margin of safety • Key Accounting Ratios 	<ul style="list-style-type: none"> • Competitive Advantages • Management quality • Environment, Social and Corporate Governance • Merger and Acquisition considerations • Share Buyback considerations • Risk • Industry Outlook • Barriers to Entry

Risk Management

“Risk comes from not knowing what you are doing” - Warren Buffett.

Analysts conduct a thorough analysis of the risks that a company is currently facing or could face in the future. Companies might be impacted by idiosyncratic risks as well as systematic risks. Several risk metrics, such as Margin of Safety, Net Debt/EBITDA, EBITDA/Interest Expense are considered to measure the soundness of the investment.

Also, all investments were evaluated at an individual level as well as on a portfolio level. We added stocks in our portfolio that gave us higher risk-adjusted returns than the S&P 500. We also looked at the correlation matrix to ensure that the new investments added diversification on a portfolio level. The impact of dynamic capital structure and changes to the WACC were also considered before making investments that had comparatively higher leverage.

All of our investments had a minimum margin of safety of 15% and an appropriate stop loss (average is 15%-20%) was placed on each stock. However, some of our holdings had higher stop loss to account for stock's volatility and market conditions.

Also, before investing, we try to evaluate the value-at-risk (VaR) contribution in comparison to the portfolio weight contribution. Our equity portion weight is 76.78%, however, it contributed only 74.9% to the portfolio VaR. In comparison, the SPY ETF's weight is 23.22% but contributed 25.10% to the portfolio VaR. This analysis proves that our equity portfolio is less risky than the broader market.

Investment Process

Each analyst covers at least two sectors of the S&P 500. Each sector is covered by a team of two or more analysts who conduct thorough research and use both quantitative and qualitative criteria to identify attractive value investment opportunities within their sectors.

Teams pitch their investment opportunities to the Student Managed Fund at weekly investment meetings and are required to circulate their short-report, slide deck, and any other relevant material to the SMF team 48 hours prior to presenting.

At least 7/9 team members must vote in favor of an investment in order for it to pass. Furthermore, position size is discounted by 10% for each negative vote;

- For an investment with 9/9 favorable votes, 100% of the proposed position size will be allocated
- For 8/9 favorable votes, 90% of the proposed position size will be allocated
- For 7/9 favorable votes, 80% of the proposed position size will be allocated

If an investment is not passed, the team may allow a re-pitch at a later date or allow a second vote at a revised position size.

After an investment is made, the presenting analysts are responsible for following up on any news or developments and assessing any potential impact on their investments. If there are changes in the valuation assumptions or if the stock reaches its intrinsic value, the analysts are required to present a revised analysis of their investment. The analysts may propose to buy more or hold the current investment amount considering their revised valuation. The analysts may also propose to partially or fully sell the investment after their analysis. In any of the cases, the team will discuss and vote on the proposal. The required vote for approval is set at 5/9.

Sector Assignments

Basic Materials: Karthik Gurusamy, Anshul Manglani

Consumer Discretionary: Christian Escotto-Rosado, Yuan Gao

Consumer Staples: Jialian Li, Lindsey Loznyiak

Financials: Karthik Gurusamy, Sijie Hu

Energy: Yuan Gao, Anshul Manglani

Healthcare: Sijie Hu, Anshul Manglani,

Industrials: Chintan Shah, Di Yang

Information Technology: Jialian Li, Chintan Shah

Real Estate: Christian Escotto-Rosado, Lindsey Loznyiak

Telecommunications: Christian Escotto-Rosado, Yuan Gao

Utilities: Karthik Gurusamy, Di Yang

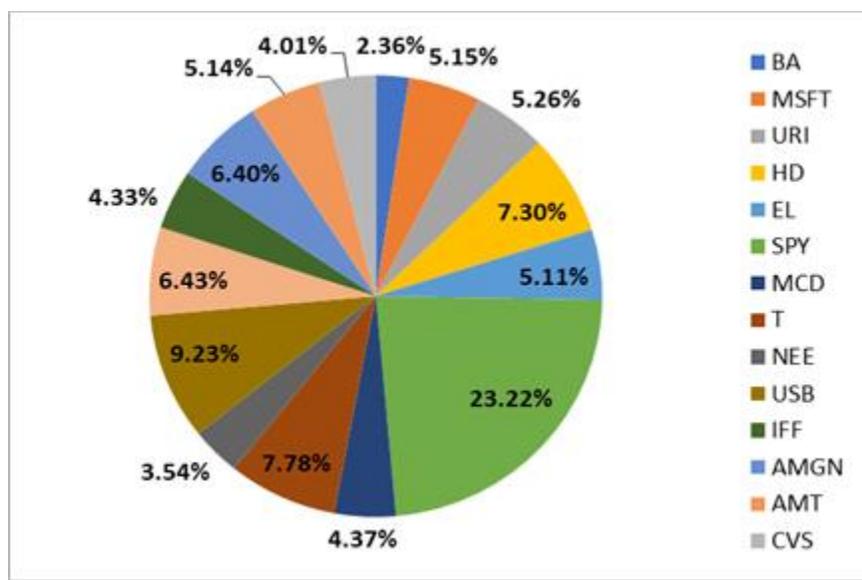
Portfolio Overview

Portfolio Allocation

The chart below illustrates the portfolio allocation based on the market value of the securities as of April 16, 2019:

Sector	% of Total Portfolio	% of Invested Portfolio	S&P 500 Sector Weight
Basic Materials	4.33%	5.66%	2.70%
Consumer Discretionary	11.68%	15.28%	10.10%
Financial Services	9.23%	12.08%	12.70%
Real Estate	5.14%	6.73%	3.10%
Communication Services	7.78%	10.18%	10.10%
Energy	6.43%	8.42%	5.40%
Industrials	7.61%	9.96%	9.50%
Information Technology	5.15%	6.74%	21.20%
Consumer Staples	5.11%	6.69%	7.30%
Healthcare	10.41%	13.62%	14.60%
Utilities	3.54%	4.64%	3.30%
Total	76.41%	100.00%	100.00%

Portfolio Allocation



Portfolio Performance

We were initially funded with \$500,000 in October 2018. The tables below depict our portfolio performance from Oct 16, 2018, to Apr 16, 2019:

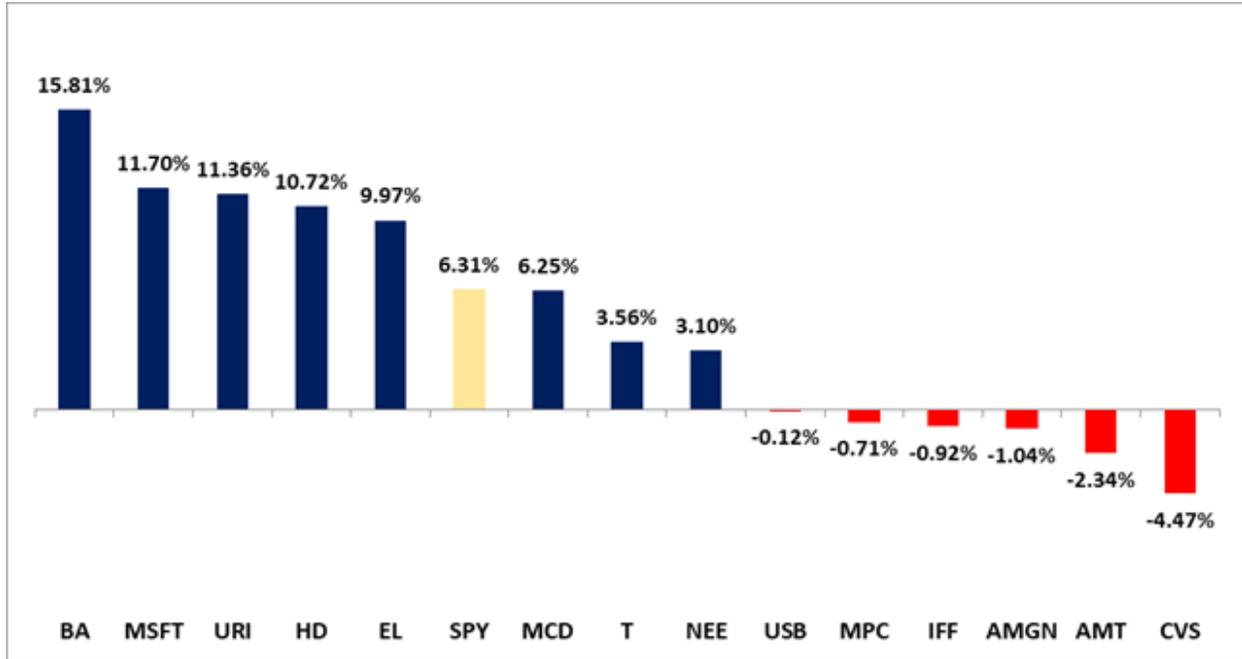
Total Portfolio Unrealized Gains/(Losses)

Stamford Portfolio		S&P 500 ETF (SPY)	
Beginning Value	\$ 500,049.32	Beginning Value	\$ 276.60
Current Value	\$ 534,809.48	Current Value	\$ 290.16
Absolute Change	\$ 34,760.16	Absolute Change	\$ 13.56
% Change	6.95%	% Change	4.90%
Difference in Performance		2.05%	

Equity vs S&P 500 Performance	
Total Portfolio Performance	6.95%
S&P 500 Performance	4.90%
Equity Performance	3.70%

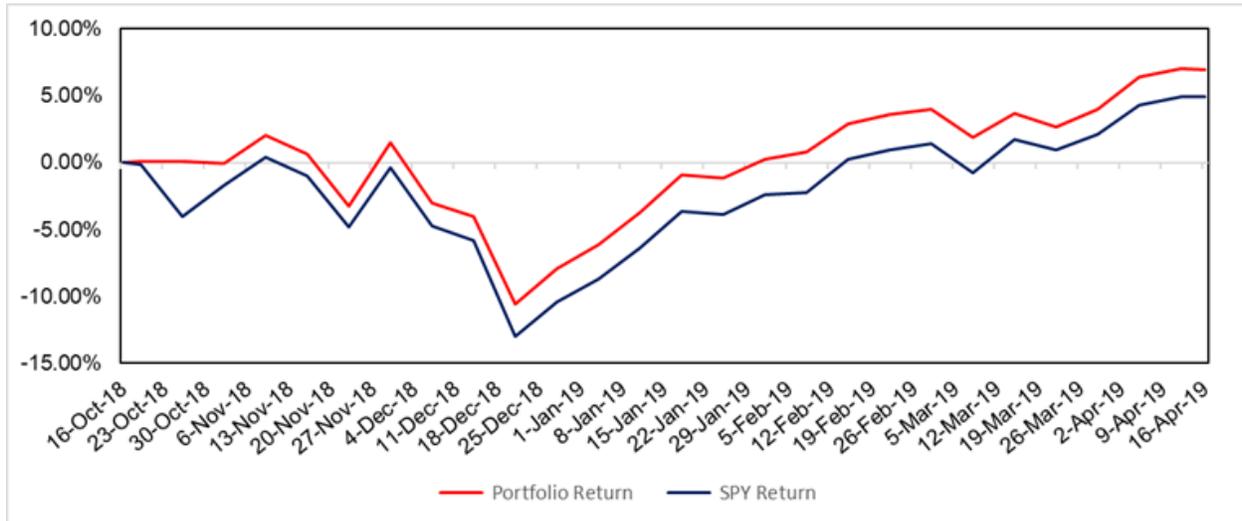
As of April 16, 2019, our portfolio had a positive return of about 7% which is 200 bps higher than the benchmark.

Portfolio Unrealized Gains/(Losses)



Name	Date Purchased	Shares Held	Purchase Price	Cost Basis	Current Price	Market Value	% Weight	\$ Change	% Change	Sector return	Stock Beta
Boeing Co	19-Nov-18	33	\$329.62	\$ 10,877.46	\$ 381.72	\$ 12,596.76	2.36%	\$ 1,719.22	15.81%	9.63%	1.33
Microsoft Corp	13-Nov-18	228	\$108.12	\$ 24,651.36	\$ 120.77	\$ 27,535.56	5.15%	\$ 2,885.11	11.70%	14.56%	1.21
United Rentals Inc	26-Mar-19	223	\$113.19	\$ 25,241.37	\$ 126.05	\$ 28,109.15	5.26%	\$ 2,867.29	11.36%	4.97%	2.49
The Home Depot Inc	8-Feb-19	191	\$184.67	\$ 35,271.97	\$ 204.47	\$ 39,053.77	7.30%	\$ 3,782.58	10.72%	11.75%	1.09
The Estee Lauder Companies Inc Class A	14-Feb-19	161	\$154.44	\$ 24,864.84	\$ 169.84	\$ 27,344.24	5.11%	\$ 2,479.29	9.97%	5.46%	0.72
SPDR® S&P 500 ETF	1-Nov-18	428	\$272.95	\$116,822.60	\$ 290.16	\$ 124,188.48	23.22%	\$ 7,366.39	6.31%	6.31%	1
McDonald's Corp	14-Feb-19	122	\$180.43	\$ 22,012.46	\$ 191.70	\$ 23,387.40	4.37%	\$ 1,374.80	6.25%	6.61%	0.53
AT&T Inc	29-Mar-19	1,290	\$ 31.14	\$ 40,170.60	\$ 32.25	\$ 41,602.50	7.78%	\$ 1,432.29	3.56%	4.95%	0.59
NextEra Energy Inc	14-Feb-19	100	\$183.83	\$ 18,383.00	\$ 189.52	\$ 18,952.00	3.54%	\$ 569.05	3.10%	3.67%	0.29
US Bancorp	8-Feb-19	982	\$ 50.34	\$ 49,433.88	\$ 50.28	\$ 49,374.96	9.23%	\$ (58.92)	-0.12%	6.67%	1.06
Marathon Petroleum Corp	15-Apr-19	573	\$ 60.45	\$ 34,637.85	\$ 60.02	\$ 34,391.46	6.43%	\$ (249.20)	-0.71%	0.64%	1.38
International Flavors & Fragrances Inc	16-Oct-18	171	\$136.60	\$ 23,358.60	\$ 135.34	\$ 23,143.14	4.33%	\$ (215.10)	-0.92%	6.40%	0.75
Amgen Inc	15-Apr-19	182	\$190.02	\$ 34,583.64	\$ 188.05	\$ 34,225.10	6.40%	\$ (358.03)	-1.04%	-2.03%	1.21
American Tower Corp	12-Apr-19	143	\$196.81	\$ 28,143.83	\$ 192.20	\$ 27,484.60	5.14%	\$ (659.89)	-2.34%	-2.97%	0.68
CVS Health Corp	18-Mar-19	398	\$ 56.42	\$ 22,455.16	\$ 53.90	\$ 21,452.20	4.01%	\$ (932.67)	-4.47%	-3.95%	0.94
Cash						\$ 1,969.16	0.37%				
Total						\$ 534,810.48			6.95%		

Portfolio Performance vs S&P 500



Below is the weekly performance comparison between our portfolio and the SPY ETF.

Date	Portfolio Value	SPY	Portfolio Return	SPY Return
16-Oct-18	500,049.32	276.60	0%	0%
19-Oct-18	500,480.42	276.25	0.09%	-0.13%
26-Oct-18	500,653.13	265.33	0.12%	-4.07%
2-Nov-18	499,804.75	271.89	-0.05%	-1.70%
9-Nov-18	510,216.10	277.76	2.03%	0.42%
16-Nov-18	503,096.64	273.73	0.61%	-1.04%
23-Nov-18	483,653.87	263.25	-3.28%	-4.83%
30-Nov-18	507,465.68	275.65	1.48%	-0.34%
7-Dec-18	484,803.84	263.57	-3.05%	-4.71%
14-Dec-18	479,797.59	260.47	-4.05%	-5.83%
21-Dec-18	447,186.78	240.70	-10.57%	-12.98%
28-Dec-18	460,289.61	247.75	-7.95%	-10.43%
4-Jan-19	469,295.35	252.39	-6.15%	-8.75%
11-Jan-19	481,358.61	258.98	-3.74%	-6.37%
18-Jan-19	495,270.07	266.46	-0.96%	-3.67%
25-Jan-19	494,112.64	265.78	-1.19%	-3.91%
1-Feb-19	501,452.57	270.06	0.28%	-2.36%
8-Feb-19	503,920.85	270.47	0.77%	-2.22%
15-Feb-19	514,362.65	277.37	2.86%	0.28%
22-Feb-19	518,068.27	279.14	3.60%	0.92%
1-Mar-19	520,006.41	280.42	3.99%	1.38%
8-Mar-19	509,546.84	274.46	1.90%	-0.77%
15-Mar-19	518,333.61	281.31	3.66%	1.70%
22-Mar-19	513,453.84	279.25	2.68%	0.96%
29-Mar-19	519,863.88	282.48	3.96%	2.13%
5-Apr-19	532,138.84	288.57	6.42%	4.33%
12-Apr-19	535,295.31	290.16	7.05%	4.90%
16-Apr-19	534,809.48	290.16	6.95%	4.90%

Our account was funded on Oct 3, 2018. We made our first investment in IFF on Oct 16, 2018. We were operating as per the information given in the prospectus and were under the assumption that our account was funded in SPY. We later realized we were holding cash. Due to some operational difficulties, it took a week for us to get invested in the SPDR S&P ETF, to be in accordance with the investment policy of the fund.

Weighted Average Stock Correlation

In March and April 2019, we added positions to our portfolio which reduced the weighted average stock correlation from 0.49 to 0.39.

Historical	IFF	SPY	MCD	BA	MSFT	HD	USB	EL	NEE	CVS	URI	T	AMT	MPC	AMGN
IFF	1	0.507	0.225	0.336	0.367	0.395	0.363	0.352	0.188	0.271	0.3	0.254	0.222	0.265	0.344
SPY	0.507	1	0.383	0.616	0.815	0.673	0.64	0.471	0.194	0.455	0.665	0.41	0.298	0.56	0.652
MCD	0.225	0.383	1	0.22	0.301	0.307	0.249	0.195	0.21	0.251	0.178	0.172	0.313	0.117	0.262
BA	0.336	0.616	0.22	1	0.477	0.428	0.353	0.331	0.077	0.217	0.471	0.281	0.105	0.371	0.283
MSFT	0.367	0.815	0.301	0.477	1	0.495	0.424	0.381	0.184	0.281	0.494	0.188	0.266	0.482	0.482
HD	0.395	0.673	0.307	0.428	0.495	1	0.387	0.308	0.13	0.356	0.493	0.303	0.217	0.382	0.407
USB	0.363	0.64	0.249	0.353	0.424	0.387	1	0.254	0.012	0.361	0.475	0.333	0.134	0.365	0.415
EL	0.352	0.471	0.195	0.331	0.381	0.308	0.254	1	0.107	0.201	0.316	0.199	0.128	0.26	0.26
NEE	0.188	0.194	0.21	0.077	0.184	0.13	0.012	0.107	1	0.092	-0.057	0.149	0.41	0.035	0.171
CVS	0.271	0.455	0.251	0.217	0.281	0.356	0.361	0.201	0.092	1	0.218	0.303	0.08	0.227	0.393
URI	0.3	0.665	0.178	0.471	0.494	0.493	0.475	0.316	-0.057	0.218	1	0.318	0.083	0.482	0.365
T	0.254	0.41	0.172	0.281	0.188	0.303	0.333	0.199	0.149	0.303	0.318	1	0.122	0.206	0.289
AMT	0.222	0.298	0.313	0.105	0.266	0.217	0.134	0.128	0.41	0.08	0.083	0.122	1	0.072	0.181
MPC	0.265	0.56	0.117	0.371	0.482	0.382	0.365	0.26	0.035	0.227	0.482	0.206	0.072	1	0.377
AMGN	0.344	0.652	0.262	0.283	0.482	0.407	0.415	0.26	0.171	0.393	0.365	0.289	0.181	0.377	1

Portfolio Return Attribution

When we made our first investment in October 2018, our portfolio was heavily weighted in the S&P 500 ETF. With subsequent investments, our portfolio became more diversified. Today, the weighting of our overall portfolio return has shifted significantly from S&P 500 ETF to individual holdings.



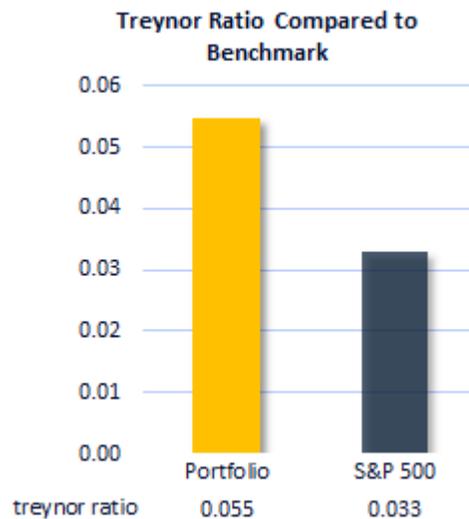
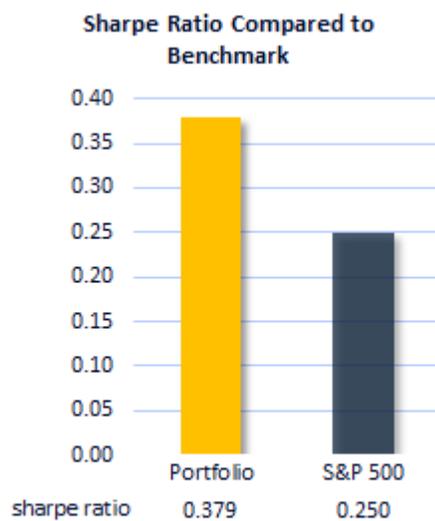


* Difference in total return is subject to rounding errors

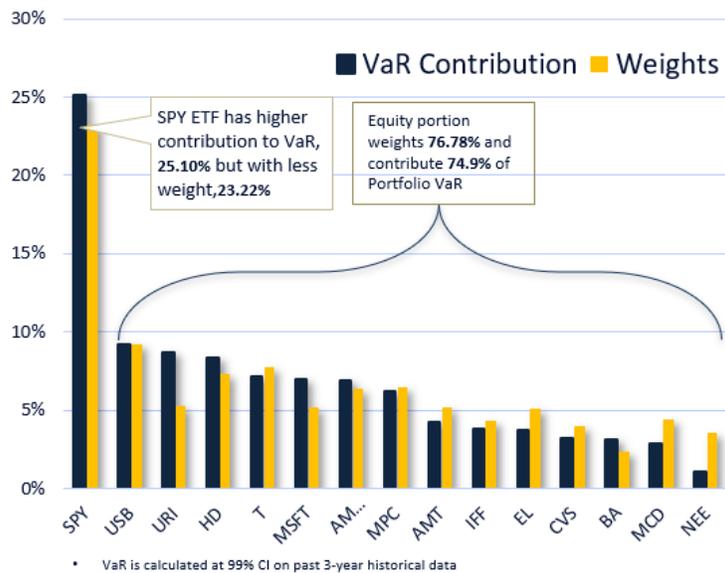
Performance Measures

Our portfolio has lower volatility and higher average return than the S&P 500. This means on a risk-adjusted basis, our portfolio performs better compared to the benchmark. This is also reflected in the higher Sharpe and Treynor ratios. In addition to volatility, we also look at Value at Risk (VaR) which is another risk measure. More specifically, the VaR per unit contribution of the equity portion of the portfolio is lower than that of the S&P 500. This clearly reflects that our equity portion of the portfolio is less risky than the broader market.

	Beta	Annualized Average Return	Volatility
Stamford Portfolio	0.83	16.04%	12.01%
S&P500 Benchmark	1	13.62%	13.13%



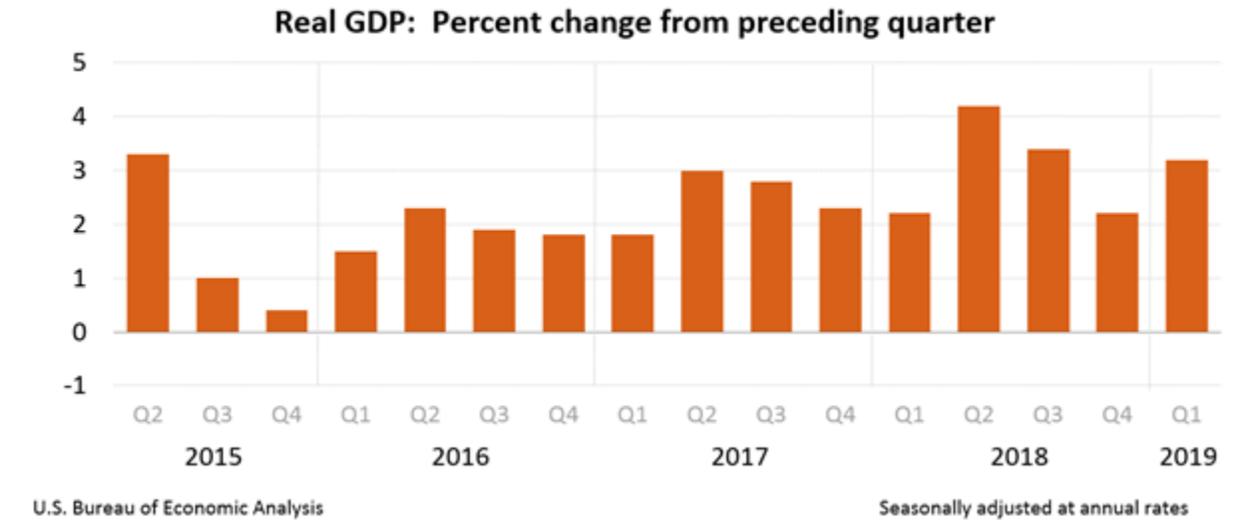
VaR Contribution



Economic Overview

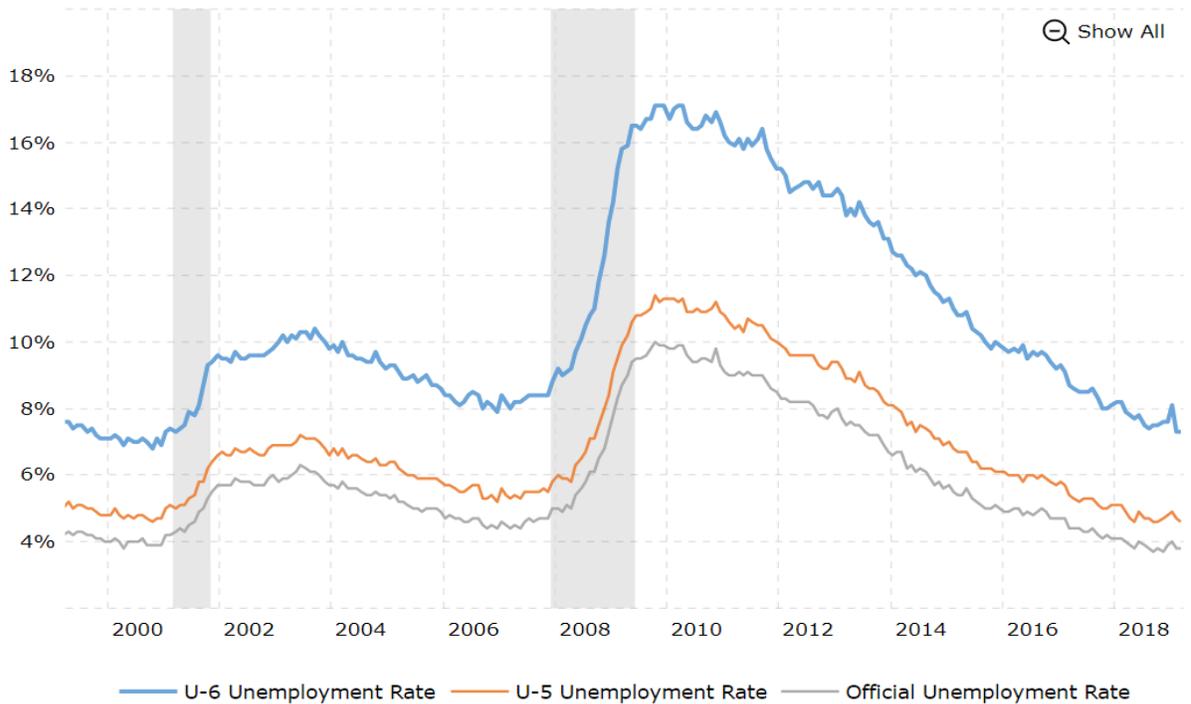
US Economy & Monetary Policy

GDP:



Despite the slowing growth indicated by retail sales numbers and PMI index (which fell to 55.3 compared with 60.8 post-GFC high), the U.S. economy is continuing to extend its longest expansion on record. The first quarter real GDP growth released by the U.S. Department of Commerce is 3.2%, mostly driven by rising personal consumption expenditure and private inventory investments. This is consistent with our expectation at the beginning of the SMF program and has benefited our investments such as HD, EL, CVS, and MCD. Although the first release of U.S. Q1 GDP result is subject to revision, according to Atlanta Fed's GDPNOW forecast, U.S. GDP is projected to be 2.7% in the first quarter as of April 25th. We believe that the U.S. GDP growth will face some downward pressure this year, but it will also be supported by a much more dovish central bank as Fed Funds Rate is likely to stay unchanged.

Employment



The Unemployment rate remains low with a slight improvement in the labor force participation rate. We believe that given the tightening of immigration policy, the smaller unemployment gap between U3 and U6, and increasing talks of a rising minimum wage, the labor market will remain tight. This is also supported by other forward-looking indicators, such as the Consumer Confidence Index (CCI), which is released from the University of Michigan. The CCI has been stabilizing since December but has remained at strong levels during the most recent years.

Inflation

April 29, 2019

Table 11. Price Indexes for Personal Consumption Expenditures: Percent Change From Month One Year Ago

Line	2018					2019			Line
	Aug.	Sept.	Oct.	Nov.	Dec.	Jan. ^r	Feb. ^p	March ^p	
1	2.2	2.0	2.0	1.8	1.8	1.4	1.3	1.5	1
2	1.0	0.4	0.8	0.2	-0.2	-1.0	-0.9	-0.3	2
3	-1.4	-1.6	-1.6	-1.2	-1.0	-1.0	-0.9	-1.4	3
4	2.3	1.4	2.0	0.9	0.2	-1.0	-0.9	0.3	4
5	2.8	2.7	2.6	2.6	2.7	2.5	2.4	2.3	5
Addenda:									
6	1.9	2.0	1.8	1.9	2.0	1.8	1.7	1.6	6
7	0.5	0.5	0.3	0.6	0.6	0.7	1.4	1.4	7
8	11.3	5.2	8.9	2.3	-0.4	-6.4	-5.9	0.3	8
9	2.1	1.8	1.8	1.7	1.6	1.3	1.2	1.4	9
10	1.7	1.7	1.6	1.8	1.8	1.8	1.6	1.5	10

^p Preliminary
^r Revised

Inflation has slowed down modestly since December. Headline CPI was about 1.8% in March and Core-CPI grew 2.0% YoY. Core PCE (excluding food and energy) decreased 10 bps to 1.6% in March. We believe there are various transitory factors which created a downward pressure to inflation and most of them are effects from foreign economies, such as the slowdown in EU economy, the uncertainty from UK Brexit, slower growth in China and the ongoing trade tensions. As we dissect the Personal Consumption Expenditure of the GDP report, most of the inflation pressure for the first quarter is from the services sector, which is most of the U.S. domestic output. As those transitory factors from overseas starts to wane, we expect inflation to move back to a higher level. The information we gathered from earnings reports across different sectors also suggests a similar story.

Global Economy

China

We find it imprudent to look at an economy in isolation. The recent developments in the economy outside of the U.S. have been our biggest concerns. The recent slowdown in the Chinese economy has been a large contributor to the recent global economic slowdown. The GDP growth reading was reported to be 6.4% but, according to the China Activity Proxy data from Capital Economics, the Chinese economy has worsened dramatically from post-GFC highs and continues to trend down. The PBOC has introduced another round of cuts in the required reserve ratio (RRR) to stimulate the economy and it has stabilized the downward trend. But given China's position as the second largest economy in the world, the slowdown has caused a significant impact on global businesses.

Eurozone

The slowdown has worsened in the EU area as well. The worry of a No-Deal-Brexit and slowdown in Germany's automotive sector has forced the ECB to bring the interest rate back to zero to encourage lending. This should help distressed companies borrow capital at a much lower rate and stimulate growth.

Given the strong commercial ties between EU and the U.S., the economic slowdown in EU could result in a direct impact on the U.S. In addition, a significant slowdown in China has created downward pressure on growth. We took a very cautious approach when selecting our investments based on their exposures to the macro changes and their long-term growth prospects.

Our Outlook

The fiscal stimulus effect from the Tax Overhaul, which was introduced last year, is fading away as expected. It contributed to the disappointing readings on economic indicators we saw in December 2018. In addition, the flattening of the yield curve has caused some market concerns. Historically the inverted yield curve has been a predecessor for a recession. The yield on the 10 years has dipped below the yield on 3 months. This has

been a debatable topic on whether to use the 10 year-3 months yield spread or the 10 year-2-year yield spread. In any case, the market reacts negatively. However, both the volatile financial market and soft readings from various economic indicators have changed the stance of FOMC from “hawkish” (monetary tightening) to “dovish”(accommodative monetary policy). The interest rate is likely to stay unchanged and the runoff of the Fed Balance sheet will stop in September 2019. Various Federal Reserve speeches have emphasized on the word “patient”. This would provide less monetary tightening pressure compared to 2018. We think this change would act as an ancillary force to growth, especially to companies with an already high cost of debt and high leverage. We expect the fundamentals of our investments to remain strong. The effect of yield curve fluctuation is transitional. We remain positive on the outlook of our invested businesses over the 10-year horizon.

Sector Outlook

Basic Materials

As of April 16, 2019, Basic Materials accounted for 2.7% in the S&P 500 index. There are 11 sub-industry segments in this sector. Specialty Chemicals is the largest, representing approximately 35.9% of the sector's market value, while Diversified Chemicals is the smallest, accounting for about 1.7% of the sector. The sector is projected to record a 2.8% YoY decrease in operating earnings per share in 2019, as compared with the S&P 500's estimated EPS gain of 3.9%. The sector's price-to-earnings ratio of 16.63x, based on next 12-month operating EPS estimates, is slightly lower than the S&P 500's forward P/E of 17.5x. The sector pays a dividend yield of 2.49% which is higher than that of the S&P 500.

Outlook

We have a neutral outlook on the Basic Materials sector. Mineral prices, along with trends in output, will continue to determine the performance of the Mining sector over the next five years. As the macroeconomic conditions improve, commodity prices will provide a tailwind for the industries in the Mining sector. Industry research tells us that both the production and price of crude oil are expected to increase over the next five years. This will significantly benefit the oil and gas extraction industries in the Mining sector. In regard to coal mining, fundamental demand changes and increased regulatory scrutiny are expected to keep the industry growth in check. Operators in the coal mining industry will continue to rely on exports to foreign markets for growth. Products in the Gold and Silver Ore Mining industry typically experience robust growth in times of economic uncertainty, as well as during severe economic crises. Over the next five years, slow economic recoveries in Europe and slower growth in China and other emerging markets may lead to increased investor uncertainty and we believe this can improve the demand for Gold and Silver products. International trade will continue to play a key role in the Mining sector moving forward. In regard to the Chemicals industry, the business environment is likely

to remain healthy and manufacturing volumes are likely to continue to expand in 2019. Specialty chemical companies are currently facing rising raw materials costs, but their competitive position should allow them to pass on the increased raw material costs by increasing product prices.

Current Holdings: International Flavors and Fragrances (IFF)

Consumer Discretionary

As of April 16, 2019, Consumer Discretionary accounted for 10.8% in the S&P 500 index. There are 4 sub-industry groups in this sector. Specialty Retailing is the largest, representing approximately 65.60% of the sector's market value, while Consumer Durables & Apparel is the smallest, accounting for about 5.1% of the sector. The sector is projected to record a 6.3% YoY increase in operating earnings per share in 2019, as compared with the S&P 500's estimated EPS gain of 3.9%. The sector's price-to-earnings ratio of 22.41x, based on next 12-month operating EPS estimates, is higher than the S&P 500's forward P/E of 17.5x. The sector pays a dividend yield of 1.29%.

Outlook

The indicators of continuous economic growth suggest a positive outlook for consumer discretionary in the long term. Continued low interest rates are supporting consumer borrowing and spending. Because of accommodative monetary policies, future increases in interest rates are expected to be slow and gradual, which allows consumers to absorb them relatively easily. The U.S. unemployment rate has been low since the beginning of 2019. According to the U.S. Bureau of Labor Statistics latest numbers, as of March 2019, the unemployment rate remained at 3.8%. Over the year, the unemployment rate and the number of unemployed persons declined by a 0.4 percentage point. Average hourly earnings have risen 2.9% over the past 12 months and total nonfarm payroll employment increased by 196,000. Additionally, wages are increasing in a growing number of areas. Based on the Conference Board Consumer Confidence Survey in March 2019, the Consumer Confidence Index is 124. Moreover, the report from the Census Bureau disclosed that July retail sales increased by a solid 6.4% year-over-year gain.

Technology has changed the consumer landscape in many ways—from retailers to media companies. Traditional brick-and-mortar stores are facing growing pressure on margins because of huge operational expenses, serious pricing competition, and changes in customers' habits. Many consumers have shifted their shopping habits and now use e-commerce to identify sellers, evaluate products and services, compare prices, and exert market leverage. According to the number from Census Bureau, U.S. retail e-commerce sales for the fourth quarter of 2018 increased by 14.5% from the same period of 2017. However, total retail sales increased by only 5.3% in the same period.

Current Holdings: McDonald's Corp. (MCD), The Home Depot, Inc (HD)

Communication Services

As of April 16, 2019, Communication Services accounted for 10.1% in the S&P 500 index. There are 4 sub-industry groups in this sector. Interactive Media and Services is the largest, representing approximately 49% of the sector's market value, while Media is the smallest, accounting for about 14% of the sector. The sector is projected to record a 7.2% YoY increase in operating earnings per share in 2019, as compared with the S&P 500's estimated EPS gain of 3.9%. The sector's price-to-earnings ratio of 18.88x, based on next 12-month operating EPS estimates, is slightly higher the S&P 500's forward P/E of 17.5x. The sector pays a dividend yield of 1.3%, as compared to the S&P 500 yield of 1.96%.

Outlook

We have a slightly negative outlook for the Communication Services sector. The sector is home to many exciting companies that are continuously innovating and finding new ways to engage customers. However, the sector is also home to fierce competition which we feel may drive down profit margins through increased cost of innovation or a decreased revenue size due to companies being forced to implement competitive pricing in order to attract customers. Oversaturation within the sector is another concern. Streaming has become increasingly popular amongst consumers of companies within the segment, resulting in a lot of “cord cutting” and consumer switching to streaming services such as Netflix or Hulu for its convenience and low prices. We believe that oversaturation could become an issue as companies rush to implement their own streaming services with exclusive streaming rights. It will also result in a reduction of benefits of low cost to consumers as they would need to subscribe to multiple streaming services.

Current Holdings: AT&T Inc. (T)

Consumer Staples

As of April 16, 2019, Consumer Staples accounted for 7.2% of the S&P 500 index. The Consumer Staples sector, also called the Consumer Defensive sector, comprises of companies whose businesses are less sensitive to economic cycles. There are 3 sub-industries in this sector, with food beverage and tobacco being the largest, representing 54.4% of the sector's market value, and food retailing being the smallest, accounting for 19.8% of the sector.

Year-to-date, the Consumer Staples sector has experienced positive growth, (approximately 11.8%), which is still relatively lower than SP&500 index (As of April 16, 2019). The sector's price-to-earnings ratio of 19.4x, based on the consensus of the next twelve-month operating EPS estimate, is above the S&P 500's forward P/E of 17.5x. The sector pays a dividend yield of 2.95%, compared to the S&P 500 yield of 1.96%.

Outlook

We have a positive outlook for the consumer staples industry. The sector is poised to benefit from positive economic growth, rising resident incomes, record low

unemployment, and tax cuts in the future. Digital marketing is a key factor for companies to drive revenue growth. Expanding into global markets, especially the emerging markets and aggressive cost-cutting initiatives will help consumer staples companies to support sales and improve profitability. However, competition continues to increase due to the emergence of low-cost emerging markets products. This could reduce the pricing power in the sector, but an increase in M&A activity is expected to moderate competition risk.

Current Holdings: Estée Lauder (EL)

Energy

As of April 16, 2019, Energy accounted for 5.4% in the S&P 500 index. There are 6 sub-industries in this sector. Specialty Integrated Oil & Gas is the largest, representing approximately 52.62% of the sector's market value, while Oil & Gas Equipment & Services is the smallest, accounting for about 5.1% of the sector. The sector is projected to record an 8.3% YoY decrease in operating earnings per share in 2019, as compared with the S&P 500's estimated EPS gain of 3.9%. The sector's price-to-earnings ratio of 17.01x, based on next 12-month operating EPS estimates, is roughly equal to the S&P 500's forward P/E of 17.5x. The sector pays a dividend yield of 3.45%.

Outlook

The Energy sector is sensitive to the business cycle and in 2019, so far energy equities have largely tracked oil and natural gas prices. One major factor contributing to the decrease in oil prices is that supply exceeds demand. The risk is increasing in this industry, due to various new restrictions that make the drilling and shipping of oil very expensive, eventually leading to lower profits in the long-run. Furthermore, energy market projections are subject to significant uncertainty, such as future development in technologies, demographics, and politics that cannot be foreseen with certainty. The continued depreciation of emerging market currencies will make the cost of crude oil imports more expensive. For refining business environment, we believe it is positive now according to the GDP growth estimation, global demand, crack spread and inventory data. In 2020, the crude oil price is likely to remain in the range from \$50 to \$70. From 2019-2025, oil product demand is likely to increase by 9% and gasoline demand is projected to increase by 4%.

Current Holdings: Marathon Petroleum Corporation (MPC)

Financials

As of April 16, 2019, Financials accounted for 12.7% of the S&P 500 index. There are 12 sub-industries in this sector, with diversified banks being the largest, representing 33.7% of the sector's market value, and reinsurance being the smallest, accounting for 0.3% of the sector. The Financials sector is projected to record a 9.1% YoY increase in operating earnings-per-share in 2019, compared to the S&P 500's estimated EPS gain of 3.9%. The sector's price-to-earnings ratio of 12.21x based on next 12-month operating EPS estimates is well below the S&P 500's forward P/E of 17.5x. This sector pays a dividend yield of 2.13%, compared to the S&P 500 yield of 1.96%.

Outlook

Our outlook for the financial sector is neutral. Slowing short-term interest rate growth and latent increases in deposit betas will likely decrease the bank's net interest margins. However, there are still plenty of positives for the industry. Balance sheets appear solid and dividend payments have been increased based on major institutions' announcement. We also expect increased M&A activity in the industry, driven by easing regulations and tax reform. The macroeconomy looks stellar with record-low unemployment and high consumer confidence. However, we think this shifts the odds of being closer to the top of the credit cycle.

Current holdings: US Bancorp (USB)

Healthcare

As of April 16, 2019, the Healthcare sector accounted for 14.6% of the S&P 500 index. The Healthcare sector contains six industries including Healthcare Equipment and Supplies, Health Care Providers and Supplies, Healthcare Technology, Biotechnology, Pharmaceuticals, and Life Sciences, Tools, and Services. Pharmaceuticals is the largest industry, representing 32.75% of the total sector, while HealthCare Technology is the smallest representing 0.63% of the sector. The sector's price-to-earnings ratio of 15.25X, based on the next twelve-month operating EPS estimates, is well below the S&P 500's forward P/E of 17.5X. This sector pays a dividend yield of 1.8%, compared to the S&P 500 yield of 1.96%.

Outlook

We have a positive outlook for the Healthcare industry. The demographics and innovations are two main drivers for future growth in the healthcare industry. We expect to see the development and commercialization of many new and innovative therapies and a decline of patents expiration in the Biotechnology and Pharmaceutical sub-sectors. In the long term, the global population is aging, and there is an increase in the 65 and over

age demographic. According to the U.S. Administration on Aging, using Census Bureau projections, people aged 65 and over are expected to make up 21.7% of the American population by 2040. By 2060, there will be about 98.2 million people over the age of 65, nearly twice the number in 2016 (49.2 million). This shift in demographics will increase the long-term demand for the healthcare sector. The drug-pricing debate will remain at the political forefront as a multitude of Democrats positions themselves for the 2020 presidential race. We do not see any major progress in the Act until now. We also expect the new drug approvals to reach record levels and research and development expenditure growth to continue to accelerate in the future.

Current Holdings: CVS Health Corp (CVS), Amgen (AMGN)

Industrials

As of April 16, 2019, the Industrials sector accounted for 9.5% in the S&P 500 index. There are twelve industries within the sector: a) Aerospace & Defense, b) Building Products, c) Construction & Engineering, d) Electrical Equipment, e) Industrial Conglomerates, f) Machinery, g) Trading Companies & Distributors, h) Commercial Services & Supplies, i) Professional Services, j) Air Freight & Logistics, k) Airlines, l) Road & Rail. Aerospace and Defense is the largest, representing approximately 27.3% of the sector's market value, while Construction and Engineering are the smallest, accounting for about 0.9% of the sector. The sector is projected to record a 7.9% YoY increase in operating earnings per share in 2019, as compared with the S&P 500's estimated EPS gain of 3.9%. The sector's price-to-earnings ratio of 16.55x, based on the consensus next 12-month operating EPS estimates, is below the S&P 500's forward P/E of 17.5x. The sector pays a dividend yield of 1.93%, compared to the S&P 500 yield of 1.96%.

Outlook

Our outlook for the Industrials sector is positive. We expect strong budgets for defense business. The U.S. military segment is a significant market, representing 40% of the global military spending. We expect the military budget to continue to increase in the next few years. The demand for commercial aerospace remains robust. The need to replace aging and less fuel-efficient aircraft in combination with the strong U.S. Airline industry profitability have contributed to record backlogs at Boeing and Airbus. We expect strong demand and healthy orders to fuel revenue growth throughout the Aerospace and Defense supply chain. We see a rebound in capital spending and a potential infrastructure spending plan as positive catalysts for improvement and growth in the Machinery subsector. Balance sheet health in the Machinery industry is also very stable.

Current Holdings: The Boeing Company (BA), United Rentals, Inc (URI)

Information Technology

As of April 16, 2019, Information Technology accounted for 21.2% of the S&P 500 index. The Technology sector comprises of six industries: IT Services, Software, Communications Equipment, Technology Hardware, Storage and Peripherals, Electronic Equipment, Instruments and Components, and Semiconductors and Semiconductor Equipment. Software is the largest, representing approximately 30.7% of the sector's market value, while Electronic Equipment, Instruments and Components is the smallest, accounting for about 2.2% of the sector.

Year-to-Date, the Information Technology sector has experienced positive growth, (approximately 24.4%), which is much higher than SP&500 index (As of April 16, 2019). The sector's price-to-earnings ratio of 20.1x, based on the consensus of the next twelve-month operating EPS estimate, is above the S&P 500's forward P/E of 17.5x. The sector pays a dividend yield of 1.5%, compared to the S&P 500 yield of 1.96%.

Outlook

We have a cautiously positive outlook for the Information Technology industry. Cloud Computing, Big Data, Artificial Intelligence, and Internet-of-Things have been the main drivers of the Information Technology sector. The industry is becoming more organized and mature after a slew of mergers and acquisitions in the past few years. The balance sheets of the companies in the Information Technology sector appear strong, with relatively low debt and large cash assets. However, increasing global competition is likely to be a negative factor which will compress profit margins. In addition, increased regulation and trade tensions with China are also the potential risks that can hurt the companies in the near term.

The traditional software publishing business model, in which publishers periodically release new software versions for customers to purchase, is being replaced by Software-as-a-Service (SaaS). SaaS produces more-stable cash flows than the traditional develop-and-release format. Overall the sector is expected to grow between 2.1% to 3.3% over the next six years.

Current holdings: Microsoft Corporation (MSFT)

Utilities

As of April 16, 2019, Utilities accounted for 3.1% in the S&P 500 index. There are four sub-industry segments in this sector. Electric Utilities is the largest, representing around 62% of the sector's market value, while Water Utilities is the smallest, accounting for 2.3% of the sector. This sector is projected to record a -1% YoY decrease in operating earnings-per-share in 2019, compared to the S&P 500's estimated EPS gain of 3.9%. The sector's price-to-earnings ratio of 18.76x based on the next 12-month operating EPS estimates is

well above the S&P 500's forward P/E of 17.5x. This sector pays a dividend yield of 3.38%, compared to the S&P 500 yield of 1.96%.

Outlook

The market outlook for this sector has recently seen some improvements. This is largely driven by a lower expectation on further interest rate hikes. As an alternative to treasuries, utility companies would be given a higher valuation as investors seek higher yields. We have a positive outlook for this sector, especially for the Electric utility industry. The fundamentals of the electricity demand are stable with large disruption from renewable energy. As many renewable technology breakthroughs continue to thrive, the Levelized Cost of Electricity (LCOE), measured as a given project's lifetime cost to lifetime electricity generation, has become cost-effective for renewable sources than for fossil fuel plants. In addition, significant government subsidies and favorable legislations towards green energy deals have boosted the growth in the renewable energy sector. We expect the outlook for renewable energy to remain very strong.

Current holdings: NextEra Energy, Inc (NEE)

Real Estate

As of April 16, 2019, Real Estate accounted for 3.1% of the S&P 500 index. There are nine sub-industries in this sector. Specialized REITs is the largest, representing 40.1% of the sector's market value, while Real Estate Services is the smallest, accounting for 2.0% of the sector. The sector is projected to record a 9.4% YoY decrease in operating earnings per share in 2019, as compared with the S&P 500's estimated EPS increase of 3.9%. The sector's price-to-earnings ratio of 42.82x, based on next 12-month operating EPS estimates, is well above the S&P 500's forward P/E of 17.5x. This sector pays a dividend yield of 3.3%, as compared to the S&P 500 yield of 1.96%.

Outlook

We have a neutral outlook for the overall sector. In addition to the recent disappointing readings from the housing market, this sector is also sensitive to changes in interest rates. The mortgage application survey released by the Mortgage Bankers Association also suggests that the housing market has experienced slow growth due to higher mortgage rates and housing prices are rising faster than wages. Therefore, demand has decreased significantly. We have also seen tepid growth in the housing inventory. This suggests that slow growth in the housing market will continue into 2019. Nevertheless, we have a positive outlook for certain specialized REITs such as telecommunication towers, which have a high growth prospect largely driven by increasing data usage.

Current holdings: American Tower Corporation (AMT)

Current Holdings

International Flavors & Fragrances, Inc. (NYSE: IFF)

International Flavors and Fragrances (IFF) is a leading innovator of sensory experiences, co-creating unique products that consumers taste, smell, or touch. The company operates in three business segments: Taste (previously "Flavors"), Scent (previously "Fragrances") and Frutarom. In 2018, the reported net sales of IFF and Frutarom was \$3.9 billion. On a pro-forma basis, combined sales of IFF and Frutarom was approximately \$5.1 billion which makes it the second largest company in the Taste, Scent and Nutrition industry. The Taste business represented 44% of the sales, the Scent business represented 47% of the sales, and the Frutarom segment represented 9% of the sales. IFF is geographically diverse with sales to customers in four regions: Europe, Middle East and Africa (35%), Greater Asia (25%), North America (25%), Latin America (15%). Sales in emerging markets represented 48% of 2018 sales.

The Flavors and Fragrances market is approximately \$24.8 billion (per management estimates) and is forecasted to grow approximately 4.2% by 2022. IFF holds the second highest market share in the industry behind Givaudan. Other competitors include Firmenich and Symrise. Together, these four companies hold three-fourths of total market share.

Our investment in IFF is based on 3 main factors.

- 1) Wide Economic Moat** - The company's highly valuable intangible assets in the form of proprietary formulations provide significant pricing power while switching costs help ensure the durability of economic profit generation. IFF's R&D spending of over 8% sales helps to stay ahead of the curve in identifying and servicing new customer trends. Widespread acceptance on customer core lists serves as an additional intangible asset.
- 2) Vision 2020 Strategy** - The four pillars of IFF's Vision 2020 strategy, originally announced in 2015 and refreshed in 2017, focus on building differentiation and accelerating growth to create shareholder value.
- 3) Frutarom Acquisition** - IFF and Frutarom merger creates a global leader in natural taste, scent, and nutrition and enriches its existing portfolio for a stronger product offering. Also, the acquisition provides access to attractive adjacencies and strengthens exposure to fast-growing mid-sized customers.

Investment Risks

We see four major risks for our investment in IFF.

- Disruption in manufacturing, operations, or in the supply chain
- Currency fluctuation or devaluation in the international markets
- Failure to comply with environmental protection laws
- Frutarom Integration

The integration of Frutarom represents a source of uncertainty as Frutarom per se has been highly acquisitive in recent years. This acquisition requires IFF to integrate a variety of product lines and a geographically widespread asset base.

Unrealized Loss on the Investment: (0.92%) (As of April 16, 2019)

McDonald's Corp (NYSE: MCD)

On 11/8/2018, we bought 61 shares of McDonald's at \$184.43, and on 2/14/2019, we added 61 shares at \$176.27. McDonald's Corporation operates and franchises over 37,600 McDonald's restaurants in 120 countries. McDonald's goal is to become its customers' favorite place to eat and drink. It is the largest company within the quick service restaurant industry bringing in over \$22.8 billion of revenue in 2017. McDonald's has two main streams of revenue: Company-owned stores where McDonald's recognizes 100% of revenue from sales of food and beverages, and franchised stores where they receive rent payments (typically 9% -11% of monthly sales) and initial fee (40% of the total cost) from its franchisees when they open new stores. McDonald's operates in the quick service restaurant industry and its top competitors include Subway, Yum! Brands, and Chipotle Mexican Grill. The quick service restaurant industry generates over half-a-trillion dollars worldwide and McDonald's, being the largest company in this segment, is well positioned to take advantage of catalysts, such as technology and the growing middle class in key growth markets.

We believe that McDonald's is one of the best companies in this industry. Our investment thesis is based on the following:

- **Dividend Yield:** The dividend yield of McDonald's is attractive and increases consistently. McDonald's has been increasing dividend for 41 years, and its 5-year growth rate is 5.7%. McDonald's potential for future dividend yield with its low-risk profile make it a solid high-yield-dividend stock to invest in.
- **Size and Brand Value:** McDonald's dwarfs its competition when it comes to brand value, with an estimated value of over \$126 billion, almost three times larger than the second most valued brand, Starbucks, worth just over \$44.5 billion.

- **EOTF and Delivery:** McDonald's has launched many major initiatives, one of which is Experience of the Future (EOTF). EOTF involves implementing technology into its chains to increase the number of customer visits as well as the average transaction amount. The newly implemented technologies will improve the speed of service and order accuracy, which should result in continually improving customer satisfaction scores. Wider options for ordering allow McDonald's to reduce its employee cost by decreasing the number of employees needed to run stores. McDonald's is the global partner of Uber Eats, whose delivery services add more accessibility for customers. Uber Eats Delivery increased US same-store sales by 3%.
- **Franchise System:** Franchisee System enables McDonald's to experience significantly faster expansion and growth, and to obtain higher profit margins by reducing costs associated with operating stores. McDonald's owns 45% of the land, and 75% of the buildings for its restaurants. The \$5.5 billion in land assets is such a large scale that it's difficult for competitors to replicate. As a company with a global presence, McDonald's always factors for indigenous conditions in its decision making.

Investment Risks

There are certain risks impacting McDonald's. One of the major risks is lower than the expected return on the EOTF implementation. McDonald's has invested heavily on EOTF in order to increase same-store sales and customer service via technology. An additional risk that McDonald's faces are the possibility of not being able to adapt to changes in consumer behaviors. This risk is moderate, due to a strong history of McDonald's understanding what consumers want and adapting its menu to meet the demands of specific markets. McDonald's prides itself on being a big company that is made up of many local entrepreneurs that understand the needs of its community and keep the company attuned to society.

Unrealized Gain on the Investment: 6.25% (As of April 16, 2019)

Boeing Co. (NYSE: BA)

The Boeing Company, including subsidiaries, is one of the world's leading aerospace firms. It is the largest in its industry sector by Market Cap (over \$200 billion). The company reports in four segments:

- The Commercial Airplanes segment, which develops, designs, produces and markets commercial jet airplanes and provide fleet support services worldwide.
- The Defense, Space & Security Segment, which engages in the research, development, production, and modification of manned and unmanned military airplanes and weapons systems.
- The Global Service Segment, which provides service and training to commercial and defense customers.
- Boeing Capital Segment, which supports financing services for customers and manages overall financing exposure.

We maintain an overall positive outlook for the Aerospace and Defense industry. This is mostly supported by robust air travel growth and positive defense budget outlook. The air travel growth is largely driven by rising middle class and robust demand for air travel. The average backlog orders for the single-aisle twin-engine aircraft (the most popular aircraft) was about 8-9 years production. Due to strong globalization and urbanization, air travel demand is supported in both developed markets and emerging markets. In the US and other developed nations, airlines continue to replace older and less efficient aircraft with the new ones (Average aircraft lifespan: 15-20 years). In under-flown markets, airlines are increasing their fleet size and aggressively gain market share. In addition, market liberalization and better regulatory environment are also growth contributors. More route entries, lower pricing, and higher service capability after a broad scale of airport infrastructure development have accelerated growth in air travel. The overall commercial aircraft market is worth about \$6.3 trillion and growing at 6.5% for the last five years, which exceed its long-term average of 5%. As Air Force aircraft are aging, the cost of operation increases until the plane, inevitably, becomes obsolete. Therefore, the demand for newer fighter jets in the U.S. Air Force has been one of the most important drivers for an increasing Defense Budget. We believe this segment of the industry will continue to grow moderately in the next ten years. This is also supported by the increasing defense export number in the past 5 years.

We expect the following three factors to be the major contributors to Boeing's growth:

1) Wide economic moat protects attractive margins and market position

Boeing Company is the global market leader in the Aerospace sector. The Aerospace industry has a very high barrier to entry, which creates a competitive advantage for the company. The Defense business is highly regulated, and Boeing bolsters its economic moat via its institutionalized knowledge of contracting rules governing international and domestic defense procurement.

2) Strong organic growth with great Industry Outlook

According to Boeing, the long-term outlook for the industry continues to remain positive due to the fundamental drivers of air travel growth: economic growth and the increasing propensity to travel due to increased trade, globalization, and improved airline services driven by liberalization of air traffic rights between countries. BA's 20-year forecast projects a long-term average growth rate of 4.7%

per year for passenger traffic and 4.2% for cargo traffic. Based on long-term global economic growth projections of 2.8% average annual GDP growth, Boeing projects a \$6.3 trillion market for approximately 42,700 new airplanes over the next 20 years.

3) Healthy Backlog order signals strong revenue growth

The total backlog rose to \$491 billion in 2018, with Commercial Airplanes accounting for \$412 billion and nearly 5,900 jetliners-worth about seven years of production. Boeing remains in a strong position to be competitive across addressable commercial airplane markets. The strong backlog provides growth opportunity for future revenue.

Investment Risks

We believe the current U.S. dollar strengthening and the trade tensions might impact Boeing's projected earnings and growth strategy in the medium term. Also, the uncertainty surrounding fiscal appropriations may affect the BDS segment. The supply chain failure could dramatically hurt the production rate and the quality image of Boeing, like the recent tragedy in Malaysia and reported engine problems. It's imperative to consider these risk factors along with its attractive returns from this investment.

Unrealized Gain on the Investment: 15.81% (As of April 16, 2019)

Microsoft Corporation (NASDAQ: MSFT)

On November 13, 2018, we purchased 228 shares of Microsoft at \$108.12 per share.

Founded in 1975 and operating in more than 190 countries, Microsoft is the world's largest software maker. Microsoft's revenue can be divided into three parts: intelligent cloud (include infrastructure as a service and platform as a service), productivity and business processes (applications in cloud), and more personal computing. About 38% of the revenue is personal computing, 29% is intelligent cloud, 33% is productivity and business processes. In 2018, Microsoft achieved sales of almost \$110 billion, realizing 14% growth. Microsoft also has the dominant market share in PC operating systems and office tools.

Microsoft is a financial giant with one of the most robust balance sheets in the world. Microsoft currently has approximately \$133 billion in cash and short-term investments, with total assets of about \$258 Bn. In the last five years, the company's revenue grew at around ~7.4%. This is accounting for the one-time anomaly in 2016 when there was negative revenue growth of about -2.6%. During the same period the average gross profit margin has been ~65.5%, the average operating income margin has been ~28.5%, EBITDA margin ~38%, EBIT ~30.2%.

Once known as the face of Windows OS (MPC) and Microsoft Office (PBP), the company has added Azure (IC) as the third big brand name to its portfolio. Though Azure came out in 2010, it was under Nadella that Microsoft started aggressively expanding in the IC and

PBP businesses. Microsoft has been radically modifying its offerings so that its new and existing products can have a seamless transition to its Azure cloud platform. Even Office and Windows products can now be availed or are in the process of being offered on the cloud. Led by Azure and Office 365, the IC and PBP businesses are expanding aggressively.

Microsoft's main competitors include Amazon, Alphabet, Oracle, and IBM. While these companies all operate on a global scale and compete in the cloud computing market, Microsoft's competitive advantage is that they have a strong EBITDA margin, profit margin and holistic solutions which have helped create a Microsoft ecosystem.

Our investment thesis is based on the following factors:

1) Wide economic moats - Microsoft is dominant in PC operating systems and office tools. Microsoft is the leader in SaaS and PaaS market, and second in IaaS markets. It has been closing the gap with Amazon in IaaS. Microsoft's public cloud will benefit from a wide moat largely due to pricing advantages and switching costs.

2) Rapid development in cloud computing - Cloud computing will be the future of enterprise IT. The global cloud computing market is expected to grow at a CAGR of more than 10% in the next five years.

3) Acquisition and partnerships - Microsoft plans to create a crucial synergy of the GitHub platform with its own products and cloud services and sees a huge growth potential to capitalize in the open source development segment. In the meantime, Microsoft is expanding partnerships with many large companies on the cloud.

Investment Risks

Microsoft has both systematic and unsystematic risks. The main systematic risks are forex risks and interest rates risks. Microsoft has ~50% of its revenues coming from international markets. Therefore, the forex and interest rate volatility can pose a significant threat to adverse circumstances. For 2018, hypothetical implications of ~10% reduction in forex rates would have negatively impacted Microsoft's revenues by about \$2.1Bn, whereas a 100 basis points hypothetical increase in US Treasury interest rates would have a negative impact of about \$2.7 Bn. These two risks are the main threats of systematic risks for Microsoft. Coming to unsystematic risks, higher weight in risk contributions can be attributed to the potential un-realization/loss in value for the recently made acquisitions; led by LinkedIn, GitHub, and other newer partnerships with the companies mentioned above. Another threat to the revenues comes from the internal oppositions the company faces for different government contracts.

Unrealized Gain on the Investment: 11.7% (As of April 16, 2019)

The Home Depot, Inc. (NYSE: HD)

The Home Depot, Inc. was founded in 1978 and is the world's largest home improvement retailer. They operate 2,284 stores across North America with locations in The United States, Puerto Rico, The Virgin Islands, Guam, Canada, and Mexico. Stores average approximately 128,000 square feet, with sales-per-square-foot averaging \$417, and an average ticket of \$63. Additionally, The Home Depot operates a network of distribution and fulfillment centers, as well as e-commerce sites. The Home Depot offers a wide selection of home improvement products, lawn and garden products, and décor products as well as numerous services including tool and equipment rental and home improvement installation services. Their three major customer segments are comprised of DIY customers (18.2%) and Professionals plus "Do-it-For-Me" customers (81.8%).

The US Home Improvement industry is commonly referred to as a duopoly between Lowe's and Home Depot. The two titans account for 78% of the industry's market share with Home Depot controlling 47% of the market and Lowe's controlling 31%. The business model and products of both companies are extremely similar. Despite similar business models and potential, The Home Depot has managed to gain a lead in market share and we believe this will remain the case due to Home Depot's culture and values.

Our investment thesis is based on the following factors:

- 1) Wide Economic Moat** - The Home Depot's wide economic moat is attributed to their bargaining power over suppliers. Due to their scale, Home Depot is able to cut immense deals with their suppliers. The leverage that Home Depot has over suppliers allows them to demand discounts on products, creating value that can then be passed on to Home Depot's customers in the form of everyday low prices that can effectively only be matched by Lowe's.
- 2) One Home Depot Initiative** - One Home Depot is the name of Home Depot's \$11 billion strategies to drive growth. The initiative was announced in late 2017 and aims to invest in their stores, associates, digital experience, and supply chain. The goal of this investment is to connect associates to customer needs, expand their interconnected experiences, and connect products and services to customer needs.
- 3) Current Industry Standing** - Home Depot quantitatively outclasses Lowe's in several comparative metrics. Two key metrics are the average ticket number and the total transactions per year. Lowe's has a slightly higher average ticket number at \$72, beating Home Depot's average ticket of \$63 by \$9. However, Home Depot produces \$6 million more transactions per year at 1.6 million compared to Lowe's 1 million transactions in a year. Home Depot manages to do this while only having 151 more stores than Lowe's.

Investment Risks

Our investment in Home Depot includes certain risks. The main risk is the possible failure of initiatives such as One Home Depot. Due to the \$11 billion dollars being invested by Home Depot, it would be extremely detrimental if the returns of the initiative are not as expected. The Home Depot has proved itself to be a nimble company through key strategic acquisitions and initiatives and we believe that the company will continue to be successful and drive growth over our 10-year investment horizon.

Unrealized Gain on the Investment: 10.72% (As of April 16, 2019)

US Bancorp (NYSE: USB)

U.S. Bancorp, with 74,000 employees and \$467 billion in assets as of December 31, 2018, is the nation's fifth-largest commercial bank with branches in 25 states in the Western and Northern United States. It is primarily funded by low-cost core deposits from the communities it serves. Company's major lines of business are Corporate and Commercial Banking, Consumer and Business Banking, Wealth Management and Investment Services, Payment Services, and Treasury and Corporate Support. U.S. Bank is committed to serving its millions of retail, business, wealth management, payment, commercial and corporate, and investment services customers across the country and around the world.

Our Investment Thesis is based on the following factors.

- 1) Wide Economic Moat** - We believe U.S Bancorp has a wide economic moat as it possesses sustainable cost advantages and switching costs.
- 2) Strong Financial Performance** - Return on equity has been significantly higher than its peers for several years and is also well above its cost of equity of 9%.
- 3) Diversified Business Mix** - U.S. Bank has a diversified business mix and derives about 45% of its revenue from non-interest income. Payments and Corporate trust businesses are very capital efficient and generate fees and deposits.
- 4) Strong Credit Quality** - U.S. Bancorp's other primary strength comes from its conservative underwriting culture. During the 2008 financial crisis, quarterly net charge-offs peaked at 2.5% of loans, while many peers saw 3% or more. Because of its strong credit quality, the company has best in class debt ratings which offers funding advantages when compared to its peers.

5) Digital Strategy - Additionally, we strongly believe the company's continued investment in technology to be the key driver for its future growth.

Investment Risks

We believe the macroeconomic backdrop is the primary risk for US Bancorp. The profitability of the bank is primarily determined by the interest rate, credit, and debt cycles. In addition, the bank is subject to the Federal Reserve's annual stress test and depending on the results, U.S. Bancorp may be subject to capital return restrictions. The management team has announced future acquisition plans, particularly for some of its non-banking segments, such as payments portfolios or the corporate trust segment. We do consider the risks arising from such future acquisitions.

Unrealized Loss on the Investment: (0.12%) (As of April 16, 2019)

Estée Lauder Companies, Inc. (NYSE: EL)

The Estée Lauder Companies, Inc. is one of the world's leading manufacturers and marketers of quality skin care, makeup, fragrance and hair care products. The owned top-selling brands include Estée Lauder, Clinique, Origins, M-A-C, Bobbi Brown, La Mer, and Too Faced. Estée Lauder is the top player which only focuses on cosmetics products and has a higher proportion of high-end products. The products have occupied the market of over 150 countries and have strong brand recognition amongst customers around the world. Skin care and makeup are the primary products of Estée Lauder and account for over 80% of sales in FY2018, the others being products in hair care and fragrance. The skincare segment posted a 24% year-over-year growth to nearly \$5.6 billion. Makeup sales were also up 11% for FY2018. The hero brands like Estée Lauder, La Mer, and M-A-C have very strong brand recognition and are major contributors to revenue for Estée Lauder. In FY2018, La Mer became the fourth billion-dollar brand. The diverse brand portfolio enables Estée Lauder to capitalize on opportunities in fast-growing and profitable areas. Estée Lauder's sales channels consist primarily of department stores, specialty multi-brand retailers, freestanding stores, travel retail and online sales. Online business rose 36% in FY2018, led by Asia-Pacific where sales were nearly doubled. Travel-retailing is one of the fastest growing channels due to the increased number of travelers.

Our Investment Thesis is based on the following factors

- 1) Brand Effect** – As one of the world's leading manufacturers and marketers, Estée Lauder has strong brand recognition and customer loyalty.
- 2) Diversified Portfolio** – Estée Lauder has a diversified product portfolio, from entry price point to premium price point, to meet the changing demands. Also, the

company's solid focus on the development of various channels (including freestanding stores, travel retail, and e-commerce sites) is another key catalyst.

3) Network Effect – Estée Lauder owns three of the top 10 global makeup brands and holds a 28% share of the global prestige makeup market.

4) Efficient Scale – Estée Lauder is one of the biggest cosmetics companies in the world which vests greater bargaining power over suppliers and customers.

Investment Risks

We see the following as major risks to our investment in Estée Lauder.

Inability to anticipate and respond to market trends and changes in consumer preferences. The cosmetics market is always uncertain as the customer tastes are constantly changing. If the company is unable to anticipate sudden changes in customer demands and make quick responses, the revenue will suffer and our long-term projections in the DCF model would not be met.

The company's long-term growth projection will be affected by a general economic downturn. Consumer purchasing power would be affected by currency volatility and economic challenges. Chinese tourists are the strongest engine for the growth of travel retail. Even though the Chinese yuan has devalued in 2019, it is unlikely to keep the Chinese travelers at home. However, it will affect the customers' spending power and encourage them to change their travel destinations to where the yuan is not relatively devalued. Beauty purchases are the priority of Chinese tourists and their average spending on cosmetics and perfumes increased by 46%, in contrast to 5% for all expenses. Chinese traveling consumers are driving the growth of the industry globally.

Unrealized Gain on the Investment: 9.97% (As of April 16, 2019)

NextEra Energy, Inc (NYSE: NEE)

NextEra Energy, Inc. is one of the largest electric power and energy infrastructure companies in North America and a leader in the renewable energy industry. NEE has two principal businesses: FPL and NEER. FPL is the largest regulated electric utility in Florida. It focuses on investing in generation, transmission and distribution facilities to deliver customer service and clean energy solutions to 5 million customers in Florida. NEER is the world's largest operator of wind and solar projects. It focuses on the development, construction, and operation of long-term contracted assets throughout the U.S. and Canada, including renewable generation facilities, natural gas pipelines, and battery storage projects.

Our investment in NextEra is based on 3 main factors.

- 1) The outlook for electric utilities is steady and increasing demand for renewable energy will continue to support growth.
- 2) As technology advances, the LCOE of renewable energy (e.g., Wind power and solar PVs) has been dramatically reduced within the LCOE for fossil fuels. This creates a strong growth outlook for the renewable energy sector.
- 3) NEE, as the leading firm in the renewable space, has strong technological advantages and a large market share. The economic scale for a renewable energy company is substantially large and effective to prevent new entrants.

Investment Risks

We closely monitor the following risks for this investment.

Operational risk - Given its business nature, safety is one of the largest components of the business. Any failure to maintain the best practices and strictly follow regulatory requirements could lead to catastrophic events and damage business outlook.

Market risk - Since utilities are “bond-like” assets that have a strong correlation to Treasury yields, we think the current macro environment is not concerning for rapid rate increase from the central bank. However, if Treasury yields become more attractive than utilities, the market could give a lower valuation to the whole sector and therefore would damage the prospect of this investment.

Severe weather conditions - Given the recent example of PG&E, we think the nature of the business implies that any geographical natural disaster could damage the company's operation. Although NEE has rich cash reserves for events like these and insurance hedges, since the degree of the damage cannot always be perfectly predicted, we see this as a significant risk to this investment.

Unrealized Gain on the Investment: 3.1% (As of April 16, 2019)

CVS Health Corp (NYSE: CVS)

CVS Health is comprised of three interrelated operating businesses; retail long term care, pharmacy services, and healthcare benefits. The retail long term care segment consists of CVS Pharmacy which today has more than 9,800 locations and a leading 25% share of the retail prescription market. This segment also includes MinuteClinic, a retail clinic offering which has more than 1,100 locations providing convenient access to high quality, low-cost care. CVS also operates Omnicare, a leading provider of pharmaceuticals to the long-term care market.

The pharmacy services segment consists of primarily Caremark, the largest pharmacy benefit manager in the country, now with 93 million members. CVS also operates a

leading specialty pharmacy with more than 35 billion in annually dispensed specialty revenues. CVS has spent the better part of the last decade positioning itself as a leader within healthcare services. The acquisitions of Caremark, Omnicare, and most recently Aetna has defined CVS' strategic direction. The combination of the leading PBM, retail pharmacy and a top managed care franchise form the three pillars that we think position the firm to better compete with a consolidating healthcare services sector over the next 10 years. The cost advantages and underlying network effects that support the firm's excess economic returns are only set to strengthen as the integration of Aetna continues over the coming years.

Our investment in CVS is based on the following factors.

1) Acquisition and partnerships - The strategic addition of Aetna should create meaningful cost synergies while also improving the company's firmwide product offering. Integrating medical and pharmaceutical benefits while maintaining access to a low-cost site of care seems to be the most direct path toward reducing the cost of care for clients, and CVS appears well on its way toward building a franchise focused on these opportunities.

2) Wide Economic Moats - CVS is a leader in Retail pharmacies and Pharmacy Business Management. It offers Integrated clinical solutions. The combination of PBM and retail pharmacy has helped create unique offerings that help keep costs down for the PBM client while creating value for the CVS enterprise. The largest managed care firms generate excess economic profits backed by cost advantages and network effects. We think CVS is pursuing the right strategy in building a more integrated service provider and should be able to add value to clients and shareholders by cross-selling medical and pharmacy benefits, providing low-cost retail and mail drug dispensing, and getting better utilization out of its urgent care assets. The Aetna acquisition puts CVS on more equal footing with industry leaders and gives the firm the right combination of assets to better lower the cost of care for patients and plan sponsors.

Investment Risks

Following the close of Aetna acquisition, CVS owns one of the leading pharmacy benefit manager, a sizable retail pharmacy, and a top insurer. These diverse segments should help de-risk the volatility of its underlying cash flows while increasing the opportunity for the firm to find cost and revenue synergies between its segments over time. That said, the regulatory risk remains ever-present for both healthcare payers and providers. The administration's push for increased transparency in the healthcare marketplace, particularly as it relates to the drug channel, poses a potential risk to the firm's PBM and retail operations. Management's increased disclosure around PBM rebates gives us some comfort in the firm's ability to weather potential changes, but regulation pushing structural changes to the pricing system throughout drug distribution would likely create headwinds to growth and profitability over the shorter term. On the other hand, we're encouraged by the opportunity for the company to marry its newly acquired insurance assets with its leading PBM to win new business and serve its insurance clients at an

overall lower price point. We think this will increase the competitiveness of the firm's offering and likely modestly improve the stickiness of its client relationships.

Unrealized Loss on the Investment: (4.7%) (As of April 16, 2019)

United Rentals, Inc. (NYSE: URI)

United Rentals, Inc. is the largest equipment rental company in the world. The company has an integrated network of 1,186 rental locations in North America and 11 in Europe. In North America, the company operates in 49 states and every Canadian province. The company's approximately 18,500 employees serve construction and industrial customers, utilities, municipalities, homeowners and other customer bases. The company offers approximately 3,800 classes of equipment for rent with a total original cost of \$14.18 billion. United Rentals is a member of the Standard & Poor's 500 Index, the Barron's 400 Index and the Russell 3000 Index® and is headquartered in Stamford, CT.

General Rental and Construction and Industrial Equipment Rental Industry is about 50 billion in size. Since 2009, the industry has grown 6.6% annually. Also, the equipment rental market has outgrown its underlying market by about 50%. In addition, the industry is highly fragmented as the top 10 rental companies make up only about 30% of the total industry. North American equipment Rental market is projected to grow at 5.4% CAGR until 2022. Several indicators such as ABI, Non-Residential Starts and Industrial Spending indicate that current construction cycle still has legs. Also, the equipment rental industry is facing a huge tailwind due to the secular shift of Rent vs Buy across industry verticals. This positive outlook provides strong optimism for United Rentals.

Our investment in United Rentals is based on 3 main factors.

- 1) The shared economy model is widely recognized across the industry verticals and its efficiency is proven. United Rentals is best positioned to leverage this economic model by utilizing its fleet management expertise.
- 2) Post financial crisis, United Rentals has significantly changed its strategy and operating model which has helped diversify its end markets as well as its customer base. This shift positions URI to weather the next downturn.
- 3) We have a positive outlook for equipment rental and leasing sector driven by strong macroeconomic factors.

Investment Risks

Our investment in URI also comes with several risks. Although we believe URI can weather a significant economic downturn given its diversified client base, it is sensitive to cyclical factors. We think a slowdown in general economic activity would have a big impact on its performance akin to all other companies in the industrial sector. The company has a high leverage ratio and any significant changes in interest rates could

result in a higher burden of interest expense. Since some of the URI's operations are involved in oil and natural gas production chain, it is sensitive to energy price fluctuation and any significant shift in this sector would have adverse effects on its revenue growth. URI has gone through a series of M&A transactions and failure to efficiently integrate acquired companies could lead to unexpected financial results.

Unrealized Gain on the Investment: 11.36% (As of April 16, 2019)

AT&T, Inc. (NYSE: T)

Incorporated on October 5, 1983, AT&T, Inc, is a leading global provider of telecommunications, technology, and media services with over 170 million direct-to-consumer relationships. Their four operating segments include Communications, Warner Media, Latin America, and Xander, which contribute 77%, 18%, 4%, and 1% of the company's revenue respectively. Within the communication segment, AT&T is the #1 provider of wireless service, provides over 25.3 million subscribers with broadband, voice, and television service, and secure IP-based business solutions. In 2018, AT&T acquired Time Warner for \$84.5 billion. Their newly former Warner Media segment includes Time Warner's portfolio of original content and valuable worldwide entertainment brands including 175 international networks under Turner, HBO and Cinemax's premium video service and ground-breaking original content, and Warner Bros., a global leader in entertainment and film and television production. AT&T Latin America provides mobile and entertainment to customers in Mexico, South America, and the Caribbean. Finally, Xander was introduced in 2018 as a platform which provided marketers with advanced advertising solutions using valuable customer insights and cross-screen advertising. AT&T boasted \$184 billion in 2018 revenue, up 5.5% from 2017. Additionally, their cash from operations totaled \$38.4 billion, a 15% year-over-year, and earnings-per-share has grown 24% since 2016 to \$3.52. They also have a 35-year history of dividend increases and a 6.47% dividend yield.

We believe that AT&T is a good investment because of three major factors:

1) Attractive Dividend Yield - AT&T's 6.47% dividend yield is attractive compared to its competitors, the S&P average of 2.2%, and its own BBB bonds with a 10-year maturity and 6.5% coupon. We believe that this investment will provide bond-like cash flows, with the ability to provide additional returns as the company grows.

2) Operating Scale and Diversified Business Segments - AT&T's operating scale and diversified business segments will allow them to adapt, innovate, and maintain their status as the industry leader. Over the last five years, AT&T has made over \$140 billion in capital investments and we believe that they will be one of the first to roll out 5G and will be able to adapt to changing entertainment trends.

3) Acquisition of Time Warner in 2018 - AT&T's Warner Media segment provides a wide economic moat for the company. Time Warner's world-class portfolio of

original content and highly recognizable brands include channels such as CNN, Cartoon Network, TruTV, TNT, an TBS, HBO, and Warner Bros. HBO provides premium video content and is known for its groundbreaking series including Game of Thrones, popular late-night programming, award-winning documentaries, sports shows, and Hollywood blockbusters. Warner Bros. is the leading producer of film and television programming, including the Lord of the Rings, Harry Potter, and DC Entertainment franchises. In addition to creating a wide economic moat, we also believe that the Time Warner acquisition will fuel revenue growth for AT&T.

Investment Risks

We see the following as major risks for this investment.

- **Inability to adapt to industry trends and consumer preferences** - There is a current shift in television viewership referred to as “cord-cutting” where viewers are unsubscribing to cable and choosing streaming services. AT&T will release its own streaming service and offers a cable alternative called DirectTV Now. There is an increasing number of streaming services available. The future of streaming will be competitive since, eventually, it will no longer be an economically efficient option if viewers need multiple subscriptions to access the content they want.
- **AT&T’s leverage has increased following the Time Warner acquisition** - There is a risk that AT&T would break its 35-year history of dividend increases if they were at risk of being downgraded from its current BBB credit rating.
- **Acquisition Risk** - If acquisitions and recent capital investments do not provide their intended benefit.
- **Competition and Industry Consolidation** - If other competitors successfully merged, AT&T could lose its ranking as the market leader and increase the level of competition within the industry.

Unrealized Gain on the Investment: 3.56% (as of April 16, 2019)

American Tower Corporation (NYSE: AMT)

Founded in 1995, American Tower Corporation, one of the largest global Real Estate Investment Trusts (REITs), is a leading independent owner, operator, and developer of wireless and broadcast communications real estate. The company's global portfolio includes approximately 171,000 communications sites, including approximately 41,000 properties in the United States and approximately 130,000 properties internationally. In addition to leasing space on wireless and broadcast towers, the company provides customized solutions through its in-building systems, outdoor distributed antenna

systems and other right-of-way options, managed rooftops, and services that speed network deployment.

We strongly believe that AMT is well positioned to benefit from the continually increasing demand for mobile data worldwide. U.S. mobile traffic growth is expected to grow north of 40% CAGR through 2023. To cope with this increasing demand, wireless carriers will have to increase their capital spending to strengthen the coverage and capacity of their existing networks. This will eventually lead to increased demand for communication sites. American Tower's international growth has been depressed recently due to the consolidation of mobile carriers in India, which has led to high churn. We expect conditions to improve after 2019. Long term, we strongly believe prospects are bright in American Tower's international markets, which are dominated by India, Brazil, and Mexico.

American Tower is the market leader in the U.S. Company's competitive edge arises from the following factors:

- 1) Diversified global footprint
- 2) Higher lease renewal rates (98-99%)
- 3) High scalability of the tower business
- 4) Low-maintenance CapEx requirements
- 5) Ability to accommodate more tenants with the increase in mobile data growth
- 6) Relatively low leverage when compared to its peers

Our investment in American Tower Corp. is due to the following major factors.

1) Positive industry outlook is driven by emerging markets and potential 5G opportunity. In emerging markets, such as Ghana, India, Kenya, Nigeria, and Uganda, wireless networks tend to be significantly less advanced than those in the United States. Carriers are focused on completing voice network buildouts while also investing in initial data networks as mobile data usage and smartphone penetration within their customer bases begin to accelerate. In advanced markets, carriers are focused on deploying 4G data networks to account for rapidly increasing wireless data usage among their customer base. Also, we believe that the network technology migration we have seen in the United States, which has led to significantly denser networks and meaningful new business commencements over several years, will be replicated in less advanced international markets over time.

2) Strong Financial Performance - Company has seen strong double-digit growth in the past several years and we believe this trend to continue in the future as well. This is further supported by growing data usage trend and high penetration potential in the high growth markets like India and Latin America.

3) Defensive Stock - AMT is a defensive stock and will provide portfolio diversification benefits. Given its low correlation with our existing investments, this

would reduce our weighted average correlation and reduce our portfolio VaR due to the benefit of diversification.

Investment Risks

We see 4 major risks for our investment in American Tower Corp.:

- Any change in current, future laws or regulation could restrict the operations and hence detrimental to the business.
- Significant consolidation among AMT's tenants will cause a consolidation to their coverage grid. This will cause a reduction in demand for communications infrastructure in the short term and may materially and adversely affect growth and revenues.
- The development and implementation of new technologies designed to enhance the efficiency of wireless networks could reduce the need for tower-based wireless services, decrease demand for tower space or reduce previously obtainable lease rates.
- AMT hasn't historically engaged in significant currency hedging activities relating to its non-U.S. Dollar operations and a weakening of these foreign currencies against the U.S. Dollar would negatively impact financial performance.

Unrealized Loss on the Investment: (2.34%) (As of April 16, 2019)

Amgen, Inc. (NASDAQ: AMGN)

Amgen is a biotechnology pioneer established in 1980. It has grown to be one of the world's leading independent biotechnology companies, has reached millions of patients around the world and is developing a robust and differentiated pipeline of medicines with breakaway potential. The company's strategy is to develop medicines in six focused therapeutic areas that meet primary unmet medical needs in addressing serious illness. The company has a presence in approximately 100 countries worldwide with a primary focus in oncology/hematology, cardiovascular disease, inflammation, bone health, nephrology, and neuroscience. Flagship drugs include red blood cell boosters Epogen and Aranesp, immune system boosters Neupogen and Neulasta, and Enbrel for inflammatory diseases. Amgen's acquisition of Onyx bolstered the firm's therapeutic oncology portfolio with Nexavar and Kyprolis. Recent launches include Repatha (cholesterol-lowering) and Aimovig (migraine).

We have a positive fundamental outlook on the biotechnology sub-industry. We expect to see the commercialization and development of many innovative therapies. Orphan Drug Sales will continue to expand. Analysts forecast 11.1% annual growth rate over the next four years, with total sales of \$209 billion by 2022. The pipelines within the industry appear

to be robust. Evaluate Pharma forecasts that biotech drugs will make up 52% of the top 100 drugs by 2024. For future drug price, we think the affordable care act will remain a talking point. The drug-pricing debate will remain at the political forefront as a multitude of Democrats position themselves for the 2020 presidential race. And we do not see any major progress for the act until now. Another trend for the industry is the increased competition especially caused by biosimilar drugs.

Our investment thesis in Amgen rests on the following key factors.

1) Wide Economic Moat - We believe Amgen has a wide economic moat as it markets several blockbuster biologic therapies in the oncology and immunology markets. The highly diversified portfolio can decrease the company's downside risk.

2) High Barriers to Entry - The high cost of clinical trials and product marketing have created high barriers to entry and limited the number of entrants.

3) Strong Financial Performance - Amgen offers investors a differentiated investment opportunity over other biotech companies given its capital allocation strategy and the relative consistency of its financial results. We believe recent cost-cutting should help the bottom line, and the company's position as one of the few dividend-issuing biotech stocks is likely to continue to attract generalist interest.

4) Biosimilars to drive growth - We expect biosimilars to be a crucial growth driver for Amgen, particularly as the company recently launched sales of Kanjinti (biosimilar to Herceptin) and Amgevita (biosimilar to Humira) out of the U.S.

Investment Risks

We believe Biosimilar uptake in the U.S. as the biggest risk to Amgen, with two biosimilars launching in 2019. Regulatory and reimbursement changes could continue. Amgen's sales depend on coverage and reimbursement from third-party payers, and pricing and reimbursement pressures may affect the company's profitability. The uncertainty of the development of the pipeline and new drug test also increases the downside risk. But we believe many patients, providers, and payers will continue to place a high value on the reputation, reliability, and safety of Amgen's products.

Unrealized Loss on the Investment: (1.04%) (As of April 16, 2019)

Marathon Petroleum Corporation (NYSE: MPC)

Marathon Petroleum Corporation is a leading, integrated, downstream energy company headquartered in Findlay, Ohio. With the acquisition of Andeavor on October 1, 2018, MPC is the largest independent petroleum product refining, marketing, retail, and midstream business in the United States. MPC operates the nation's largest refining system with a capacity of over 3 million barrels of crude oil per day across 16 refineries. MPC's marketing system includes branded locations across the United States. It also owns and operates retail convenience stores across the United States. MPC's operations

consist of three reportable operating segments: Refining & Marketing, Retail, and Midstream.

We believe Marathon Petroleum Corporation is a very good investment because of the following factors.

1) Diversified Portfolio - Marathon Petroleum Corp has a very diversified portfolio, not only focusing on its refinery business but also developing retailing and midstream business. From a revenue standpoint, refinery contributes 73.2%. However, when it comes to operating income, 44% comes from midstream business and only 39.8% is from the refinery business. Midstream business reduces commodity risk exposure and a diversified portfolio provides MPC with significant flexibility even through an economic downturn.

2) Capital Allocation Strategy - Since 3Q'11, annual dividends have grown at a 24% CAGR. Based on the disciplined investment in growth opportunities, the company's capital expenditure will stay at \$2.8 billion with an annual dividend growth target at least 10% in 2019. The company expects to return at least 50% of free cash flow to shareholders over the long term. In 2018, share buybacks were \$3.3 billion. \$5.6 billion share buyback will be potentially completed by year end 2020.

3) Attractive P/B ratio - For MPC, we focused on P/B ratio (price to book value per share) in addition to the P/E ratio, because refining is a capital-intensive industry. P/B of MPC is 1.19, lower than the industry average level of 1.57. MPC is well-positioned among U.S. refiners.

4) Higher Resid upgrading capacity - Resid upgrading is the way to produce low sulfur, higher-quality products. MPC's resid upgrading capacity is much higher than others, helping MPC to capture benefits from the adoption of low sulfur fuel regulations.

Investment Risks

The primary downside risk of MPC is the fluctuation in the prices of crude oil, gasoline, or diesel. Other risks include:

- Mid-Continent crude spreads or product cracks tightening versus other markets.
- Synergies from the Andeavor acquisition may not be fully realized or may take longer to realize than expected.
- In the long term, electric vehicle adoption, autonomous vehicles, and ride-sharing present challenges to the demand for Marathon's primary products.

Unrealized Loss on the Investment: (0.71%) (As of April 16, 2019)

Lessons Learned

The Student Managed Fund is a rare opportunity to gain hands-on experience in fiduciary management and investing under the guidance of experienced industry professionals. As the inaugural SMF team in UConn, Stamford, we are incredibly grateful for this opportunity and excited for the future of the Stamford campus.

We began the program eager to take full advantage of this opportunity and understood that in return, we had a fiduciary responsibility to the UConn endowment. In addition, we recognized our duty to uphold the legacy and reputation that the SMF program has established over its nearly 20-year history.

Since we began the program in August, our entire team has grown tremendously and learned several invaluable lessons. We've gained hands-on investment experience, developed and implemented our own investment process, learned qualitative and quantitative valuation techniques, and matured our thought process through professional skepticism and second-level thinking.

The Student Managed Fund has taught us quantitative valuation techniques, such as comparative analysis, DCF, DDM modeling, and free cash flow analysis as well as a qualitative valuation framework including Porter's Five Forces analysis, as well as evaluating a company's management, reputation, corporate social responsibility, and business model. Through our rigorous research process, we have also become industry experts, become more confident in our stock screening process, and developed an expertise in using various research tools such as Bloomberg, Morning Star, and Net Advantage.

With each stock pitch, our investment process started to evolve and became more thorough and sophisticated. Our earlier stock pitches and discussions were heavily model focused. As the year progressed, we realized that modeling is a useful tool, but qualitative analysis and other metrics are critical factors that deserve equal, or perhaps more, consideration. As our process shifted to a more balanced analysis of quantitative and qualitative analysis, we started having more sophisticated discussions about the company's capital structures and business models.

In addition to learning valuation techniques, we learned several impactful lessons that, perhaps, go beyond what we expected to learn from the program. Beginning with our first class, our advisor Blake Mather helped the team develop a sense of professional skepticism. We learned not to take information at face value, but to dig deeper, ask questions, and form our own opinions. We learned second-level thinking, and to consider the relationship between our individual holdings, portfolio, and economic events and trends. We learned that as fiduciaries, due diligence is required in our research process, but becomes even more important after the investment is made. We've learned to work effectively as a team, leverage each individual's unique strengths, and how to communicate our ideas effectively. Finally, we are well trained with a high level of discipline that is required of an investor, especially given a ten-year investment horizon.

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