# Annual Report

**2018**

*The Student-Managed Endowment for Educational Development (SEED)*

**Compiled By:**
**Grant Briers, Co-CEO**
**Danielle Link, Co-CEO**
**Logan Stone, CIO**
**Joseph Gallagher, CAO**

Virginia Tech Pamplin
College of Business

www.virginiatechseed.com

VIRGINIA TECH
SEED

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*Notable Placements*

**Full Time:**

**Ned Zawislak**
Citigroup, IBD

**Stephen LaRow**
Goldman Sachs, IBD

**Arjan Peters**
RSM, Management Consulting

**Caroline Rector**
Credit Suisse, IBD

**Justin Von Ahnen**
Deloitte, IBD

**Bryce Jackson**
BAML, DCM

**Rehan Ghani**
BP, Commodities Trading

**Gus Capace**
Deloitte, Consulting

**Sean Walsh**
KPMG, Valuation

**Justin Cone**
Vanguard

**Alexander Boelcskevy**
Capital One, MRP

**Stephen Brager**
KWC, Accounting

# SEED 2018 Operating Highlights

## Financial Highlights

The Student-Managed Endowment for Educational Development (SEED) had a total return of (7.85%) in 2018. Our benchmark, the S&P 500 Index returned (4.38%) during the year, resulting in an active return for the SEED portfolio of (3.47%) (Exhibit 1). Stock selection accounted for (3.38%) of our active return, while allocation effects accounted for (0.59%). The remainder can be attributed to the interaction between the effects of stock selection and portfolio allocation. We ended the year with $4,394,745.17 in AUM across 42 holdings.

After accounting for an average portfolio beta of 1.05 and a risk-free rate of 1.80% during the year, we calculated risk-adjusted performance for the portfolio of (3.12%). The technology sector contributed (0.08%) to our overall return and was the best performing sector during the year. Comparatively, industrials was the worst performing sector with a contribution of (2.29%) to the portfolio's return. The exceptional performance of our utility holdings, Duke Energy and Scana Corp, which returned 18.15% and 23.11%, respectively, was not enough to offset the broader decline throughout the rest of the industrials sector.

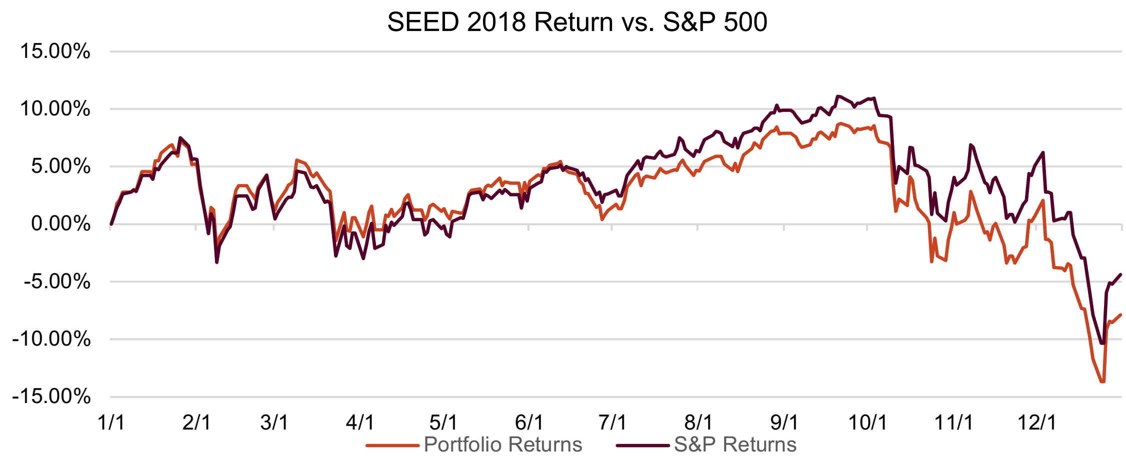



*Exhibit 1*

*Notable Placements*

**Internships:**

**Grant Briers**
Goldman Sachs, IBD

**Danielle Link**
BAML, ECM

**Logan Stone**
BAML, IBD

**JP Gallagher**
BP, Commodities Trading

**Bradley Ong**
Rothschild, IBD

**Michael Durrwachter**
DCS Advisory, IBD

**Ben Baumann**
JPM, MM IBD

**Elizabeth Barron**
BAML, DCM

**Charlotte Powell**
Morgan Stanley, S&T

**Justin Daves**
BP, Commodities Trading

**Maddie Mellenkamp**
BP, Commodities Trading

**Sean Bruestle**
KPMG, Securitization

Exhibit 2 displays SEED's sector allocation relative to the S&P 500 weightings. At the end of 2018, we were overweight in energy, technology, and industrials and we were underweight consumers, healthcare, and financials.

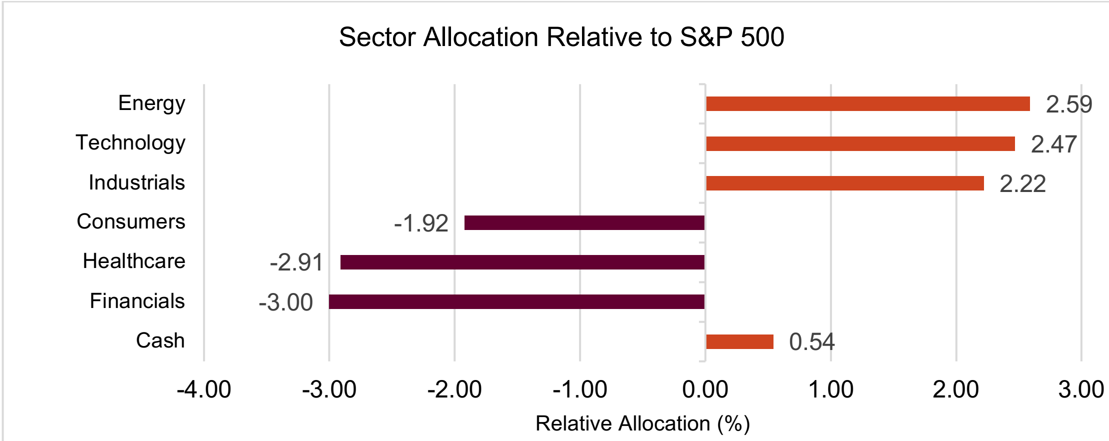



*Exhibit 2*

## Operating Highlights

SEED completed the year with 33 members and 12 analysts in training. In December of 2018, our Co-CEOs Ned Zawislak and Stephen LaRow, as well as our CIO Arjan Peters, concluded their tenure in their respective leadership positions. We wish them the very best as they enter the workforce this coming summer. Ned Zawislak will be returning to Citigroup to work full-time in their Investment Banking Division. Stephen LaRow accepted a return offer from Goldman Sachs to work full-time in their Investment Banking Division. Arjan Peters will be returning to RSM after graduation to work full-time in their Management Consulting Division.

In December, we had two graduates. One of our Energy sector Co-Lead Analysts, Justin Von Ahnen, is going full-time with Deloitte Corporate Finance in their Investment Banking Division. Our Consumer sector Lead Analyst, Bryce Jackson, is working full-time at Bank of America Merrill Lynch in Debt Capital Markets.

## Looking Ahead

Our newly appointed Co-CEOs Grant Briers (Junior, Finance) and Danielle Link (Junior, Finance) are looking forward to the year ahead. Logan Stone (Junior, Finance) and Joseph Gallagher (Junior, CMDA) are excited to serve in their new leadership roles of CIO and CAO, respectively. SEED added the Chief Analytics Officer position this year to provide more granular analysis of the portfolio. At the sector level, we are welcoming four new lead analysts: John Harsh, Technology Sector; Michael Durrwachter, Consumer Sector; Bradley Ong, Healthcare Sector; and Sean Walsh, Financial Sector.

SEED's continued success would not be possible without our dedicated alumni, whose continuous support provides members with invaluable mentorship and opportunities. During 2018, SEED established its first alumni advisory board. We are extremely grateful for these

*Notable Placements*

**Internships Cont.**

**Sammy Daoudi**
Capital One

**John Harsh**
RSM, Audit

**Jake Moore**
JCR Capital

**Eric Forderkonz**
Novelis

**Wes Hammerschmidt**
Northrop Grumman

alumni and their willingness to serve on the board, and we are excited to see what the future holds. The members of the SEED Advisory Board are listed below.

### SEED Advisory Board

**Trey Snow**, The London Company, Director of Research, Chair of Advisory Board
**Kevin Bennett**, Research Analyst, First Vice President – Investments, Davenport & Company
**Tracy Castle-Newman**, COO, Global Institutional Equity Distribution, Managing Director, Morgan Stanley
**Duffy Fischer**, Equity Analyst, Director, US Chemicals, Barclays Capital
**Chad Meade**, Partner and Portfolio Manager, ArrowMark Partners
**Patrick Moody**, Analyst, Corporate Insights Group, Credit Suisse
**James Rosenstock**, Chief Financial Officer and Chief Strategy Officer, ezCater
**Christina Todd**, Vice President & Financial Advisor, Cary Street Partners
**Daniel Ward**, CIO, Virginia Tech Foundation

# Year in Review

## Recruitment

SEED continues to recruit in both the fall and spring semesters with over 100 applicants both semesters. This past fall semester we had an extremely competitive applicant pool of 106 applicants. All applicants submitted their resume, transcripts, and a short questionnaire for review by our recruitment team. Historically, the second round consisted of a 30-minute stock pitch and a brief behavioral interview immediately following the pitch. Due to the volume of high-quality candidates during this recruitment cycle, we decided to add a third-round interview before extending analyst-in-training offers. In doing this, we were able to observe more pitches than in previous years. The interview team carefully evaluated each pitch and chose a select number to advance to the final round, which consisted of a more thorough behavioral and technical interview. From these applicants we accepted 12 students into our Analyst in Training (AIT) program.

## Training

Our rigorous and evolving analyst-in-training program is the cornerstone of our ability to develop well-versed members who can best contribute to the growth and improvement of the organization. All newly-admitted members are required to complete a semester of training that walks them through each step of SEED's investment process before becoming full-time analysts. AITs attend weekly meetings covering financial analysis/valuation, various reading assignments, career development, and the creation of high-quality investment deliverables. This year, SEED instituted a new sector rotation program. The AITs rotated through each of SEED's six sectors, completing industry specific assignments. Prior to extension of full membership as an analyst in SEED, AITs must successfully complete a capstone project. The capstone project requires AITs to apply the concepts and skills learned throughout the training process to deliver a full buy pitch to leadership. Those that successfully complete the capstone project are then extended offers as full-time analysts in one of SEED's six sectors.

## Trips

SEED made multiple trips during 2018 to both network with alumni and compete against peers in stock pitch competitions. At the beginning of the year, we sent four analysts to the University of Georgia to compete in its annual stock pitch competition. Our team pitched Adobe as an undervalued stock to a panel of portfolio managers and senior executives. In March, we sent analysts to Washington D.C. to attend a symposium hosted by Goldman Sachs. Analysts were given the opportunity to present an asset management case study to Managing Directors at the firm. Lastly, in fall of 2018, SEED traveled to New York City to visit eight firms. We were greeted by Virginia Tech alumni at Citigroup, Barclays, Bank of America Merrill Lynch, Goldman Sachs, Morgan Stanley, Credit Suisse, Alliance Bernstein, and JP Morgan. Due to the success of this trip, some SEED members were offered internship positions for the summer of 2019. Due to expedited recruitment timelines, in 2019 this trip will be taken during the spring semester.

## Investment Strategy and Process

SEED aims to succeed by finding undervalued stocks using fundamental equity valuation methods. Our investment process is two-pronged, combining qualitative research with quantitative valuation analysis. We are active managers with the goal of outperforming the S&P 500 index by selecting undervalued stocks that will provide superior risk-adjusted returns.
Our investment process begins with the identification of opportunities that align with our current portfolio strategy at an aggregate and sector specific level. A combination of equity screening tools and thorough industry analysis are used to zero in on a specific company that appears undervalued by the market. After selection, our investment process can be divided into two main analysis components: qualitative and quantitative.

SEED seeks to explain the driving forces behind the observed disconnect between a company's underlying value and its current market price. We believe that fully understanding a company's narrative is crucial when seeking to explain this disconnect. Through our qualitative analysis we strive to understand the company's business model and industry at a granular level, so that we can be confident in the assumptions input into our quantitative analysis.

Our quantitative analysis relies on the conclusions of our qualitative research to generate forecasts for the company that will drive future free cash flows. Generally, we use a Discounted-Cash-Flow ("DCF") model to conclude an intrinsic price. However, for certain equities, we use Net-Asset-Value ("NAV") and Residual-Income-Model ("RIM") valuation models. We then conduct a sensitivity analysis under bear, base, and bull case scenarios in order to ensure we thoroughly portray the risk of each investment.

In addition to finding the intrinsic value of each investment, we complete company comparable analysis. We use this to accurately identify the company's relative valuation to its peers and its competitive edge.

At the end of 2018 we had 42 holdings in our portfolio. SEED's portfolio is divided into six sectors that encompass the 11 sectors within the S&P 500 index. Our sectors in SEED are as follows: financials, healthcare, industrials (industrials, utilities, & materials), technology (information technology & communication services), and consumers (discretionary & staples).

## 2019 Investment Outlook

At the beginning of 2018, we were optimistic due to the strong current economic fundamentals underlying our economy. However, we were concerned about the high valuations caused by the market run-up in 2017. This concern was justified as was as SEED faced significant headwinds during 2018, especially during the market-wide sell-offs in early February and mid-December. This past year was marked by significant volatility spikes and geopolitical conflict throughout the world. The average level of volatility, measured by the CBOE Volatility Index, rose to an average level of 16.63 in 2018. This included spikes up to 37 in February and 36 in December, which are markedly different from the average level of volatility in 2017 of 11.

There were numerous causes for alarm, including major trade disputes between the United States and China and the worry of a "no-deal" British exit from the European Union. As many of our holdings are affected by global trade policy, a disruption in trade could have a large impact reflected in earnings through decreased consumer spending and increased costs due to tariffs. As we progressed through the year, we saw increased uncertainty in Europe, the U.S. and South America, compounded by the realization the Chinese economy was slowing down materially. Towards the end of the year and leading into the beginning of 2019, the U.S. government shutdown caused more anxiety by highlighting Congressional gridlock and economic data not being released that could show the U.S. economy's true status towards the end of the year. These factors combined to produce negative equity market returns in 2018 for the first time since 2008.

As we move into 2019, we remain aware of the risks that affected the market during 2018 and continue to assess the risk of a recession in the near future. As we cannot review economic data from the last quarter of 2018 yet due to the U.S. government shutdown, we cannot be certain the economy is still running as well as it had been the previous three quarters. However, the Bureau of Labor Statistics released strong numbers in its jobs report and unemployment report, both reported on February 1, 2019. Furthermore, the Federal Reserve's policy shift to pause rate hikes due to lower-than-expected inflation, indicated to the market the economy is growing at an ideal rate and will not intervene to slow down the economy further. This lifted the market's optimism, contributing to the S&P 500's positive return YTD in 2019.

Market valuations have decreased significantly since the beginning of 2018. Forward P/E and TTM P/E ratios for the S&P 500 ended 2018 1.28% and 1.45% below the five year's historical median (Exhibit 3), respectively. This positive sign for equities is partially offset by the probability of a recession occurring in the next 12 months rising to 25% from 14% last year, as taken from a survey of economists by the WSJ[1].

[1] Source for *WSJ* article reviewing survey of economist findings:
https://www.wsj.com/articles/economists-see-u-s-recession-risk-rising-11547132401

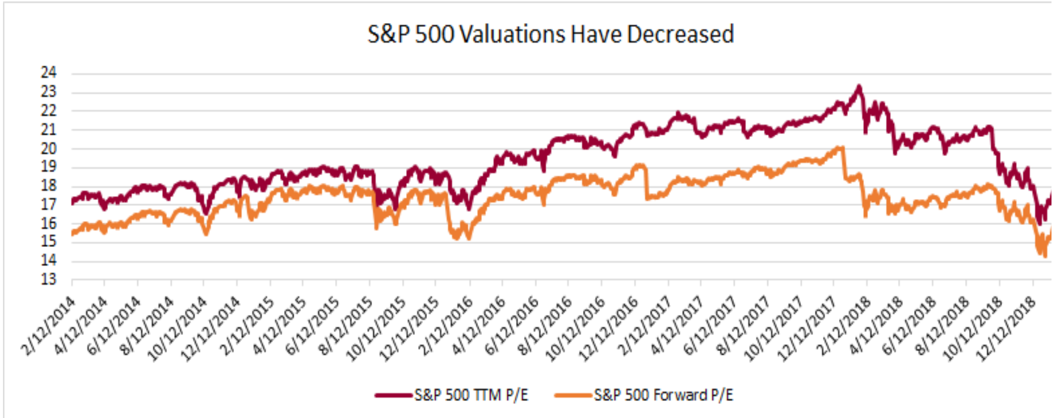



*Exhibit 3: S&P 500 TTM P/E and Forward P/E since February 2014*

During 2019, we plan to allocate our sectors' weightings more tactically, in addition to incorporating a more holistic portfolio fit analysis in the following three ways. (1) We will analyze more fully how a stock would fit in the overall portfolio, including its individual risk profile, the industry and sub-industry risks, and the correlation within its own SEED sector and the rest of the portfolio. (2) We found small market capitalization value positions to be our best performers in 2018 but note that our larger market capitalization positions were most of our portfolio. This coming year we will focus on diversifying our portfolio with smaller market value positions. (3) We plan to manage our sector weightings to a greater degree than in the past by better adjusting our exposures to reflect expected relative sector performance. Such sector rotation will remain subject to the limits indicated in SEED's investment policy statement. We are looking forward to continuing to build more human capital this year through the changes mentioned above and through the continuation of the rest of our investment strategies and processes.

## Consumer Sector

*Lead Analyst: Michael Durrwachter*

*Analysts: Ben Baumann, Stephen Brager, Faycal El Jai*

## Current Holdings: (As of 12/31/2018)

| Name | 2018 HPR |
|---|---|
| Dollar General Corp. | 2.59% |
| Hanesbrands Inc. | (38.04%) |
| Hilton Worldwide | (9.39%) |
| Hilton Grand Vacations | (37.09%) |
| The Home Depot | (7.32%) |
| Estee Lauder Companies | 3.38% |
| Toll Brothers | (30.69%) |

## Statistical Highlights

Sector Value: $674,082.40

% of Portfolio Allocated: 15.34%

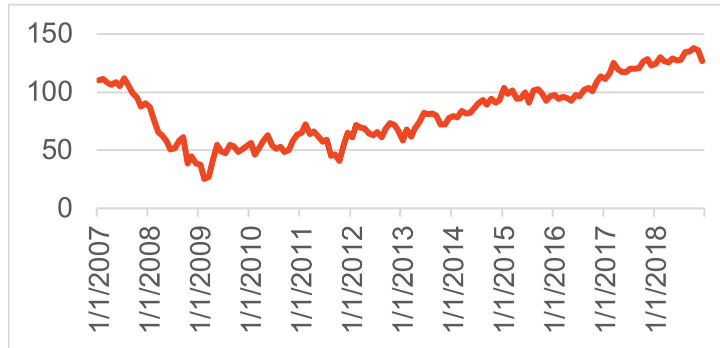
Holding Period Return: (10.68%)

Active Management Return: (7.68%)

## Sector Summary

Last spring, we sold our position in Dr. Pepper Snapple (DPS) shortly after news broke that Keurig planned to acquire the company. This provided an attractive exit opportunity (29.74% HPR) for DPS as they had been performing sluggishly prior to the announcement and growth in the soft drink industry was slowing. We also exited our positions in American Airlines (-26.37% HPR), Crown Holdings (-22.49%), and Diageo (-0.76%). Although we took losses on all positions, our sector believes our reason to sell was sound. American and Crown have both been extremely volatile since we sold in September and November, respectively. Exiting these positions also gave us the cash to purchase Dollar General, our second-highest performing company this year. We are confident in Dollar General's performance moving forward as the company is profitable in multiple macroeconomic environments, has strong growth prospects, and is well insulated from the threat of e-commerce.

## Consumer Confidence Index




## Sector Performance

2018 was a poor year for the Consumer Sector as our portfolio returned -10.68%. Our top two holdings were Dollar General (3.10% HPR) and Estee Lauder (2.25% HPR). The Home Depot and Hilton Worldwide, which returned -9.34% and -10.09% respectively, both beat the XLY discretionary index (-12.36% on the year). Hanesbrands was our worst performer, returning -40.08% in 2018. This largely stems from the company losing its Champion brand deal with Target, as well as inventory space among other retailers due to the threat of e-commerce. This has caused the company to lose market share and we anticipate they will struggle to find new ways to grow in the U.S. Toll Brothers' performance was also underwhelming (-31.42% HPR) as the housing market declined in 2018 and the company saw a decrease in orders. We anticipate that Toll can bounce back due to job and wage growth, baby boomers that will spur demand, and new projects that diversify revenue.

## 2019 Investment Expectations

Our sector will look to invest in more Consumer Staples in 2019 due to an aging economic cycle and slowing EPS growth. We believe there are several undervalued opportunities in this space (Altria and Constellation Brands) stemming from overreactions to recent acquisitions made by these companies. Key factors affecting discretionary companies will be consumer spending, tariff exposure, and the ability to respond to a trend of narrowing margins. Another macro factor affecting our sector is Consumer Confidence. We expect Consumer Confidence to bounce back early in 2019 because of increasing wage growth, rising equity prices, and an overall healthy economy. This should have a positive impact on our discretionary holdings and allow us to recoup some losses. The housing market will continue to be affected by rising interest rates, however, the Housing Market Index is up, and our sector believes consumer purchasing power will drive Home Depot and Toll Brothers up in the short-term.

## Energy Sector

*Lead Analyst: Caroline Rector*

*Analysts: Justin Daves and Jake Moore*

## Current Holdings: (As of 12/31/2018)

| Name | 2018 HPR |
|---|---|
| Suncor Energy | (21.46%) |
| Magellan Midstream Partners | (13.73%) |
| Marathon Petroleum Corp. | (8.19%) |
| Concho Resources Inc. | (30.67%) |

## Statistical Highlights

Sector Value: $346,248.39

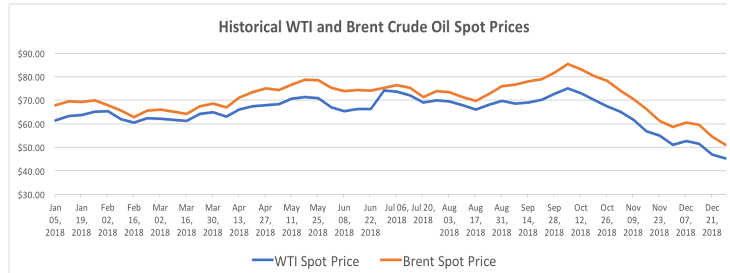
% of Portfolio Allocated: 7.88%

Holding Period Return: (8.79%)

Active Management Return: 9.33%

## Sector Summary

Over the last year, the Energy Sector made one buy, Magellan Midstream Partners, on 5/7/2018. In addition, we had multiple acquisitions between our current holdings. Marathon Petroleum Corporation (MPC) acquired Andeavor (ANDV) for $36.6 bn. The deal was at a 24.4% premium and is expected to create >$1bn in annual synergies over the next 5 years. The acquisition officially closed on October 1, 2018 making MPC the largest refiner in the United States and 48.16% of the Energy portfolio. Concho Resources (CXO) acquired RSP Permian (RSPP) on July 19, 2018 for $9.5 bn. The deal closed at a 29% premium and is expected to have >$2bn in operational synergies. Concho Resources is now the largest upstream company in the Permian Basin and makes up 14.48% of the Energy Portfolio. The current Energy Portfolio weightings are the following 48.16% Downstream, 19.22% Midstream, 18.15% Integrated, and 14.48% Upstream. Based off the sector weightings our HPR for 2018 was -14.74%. The energy sector outperformed the XLE index by 5.90% given the XLE's performance of -20.64% return during 2018.




## Sector Performance

The energy sector returned (8.79%) in 2018, significantly outperforming its benchmark, the XLE, which returned (18.12%). This performance can be attributed to the energy sector's 48% weight in the downstream segment. Our downstream holdings were successful in 2018 due to low crude oil prices. At the beginning of 2018, markets were bullish on crude oil prices, but did not see the $/bbl go above $75. As a result of the lower crude oil prices and higher company breakeven point, CXO saw a significant downward shift in their stock price during the second half of 2018. Our midstream holding, MMP, saw negative returns due to the current pipeline constraints within the Permian Basin. Also, Suncor Energy saw negative returns in the end of 2018 due to 2019 production level increase promises from management followed by mandatory production cuts in oil by the Alberta Government.

## 2019 Investment Expectations

Going forward, we plan to further diversify our upstream operations outside of the Permian Basin and increase the number of downstream positions in order to capture the <$55/bbl oil prices that have sustained since November 2018 off the high of $75 in October. Over the past several months, oil markets have been experiencing downward pressure due to the forecasts of weaker oil demand from China and the steady growth in alternative energy markets. Within the past month, crude oil prices have seen a slight uptick from OPEC supply cuts, U.S. sanctions on Venezuela, and lower U.S. oil rig counts. Although the energy sector does not foresee a significant decrease in domestic supply, we do expect OPEC to extend their current production cuts through all of 2019. We are considering upstream companies that have breakeven points below $30/bbl to maintain profitability amongst the expected WTI spot prices between $45 and $60/bbl.

## Financial Sector

*Lead Analyst: Sean P. Walsh*

*Analysts: Gus Capace, Mitchell Brazier, Daniel Malloy, Charlotte Powell*

## Current Holdings: (As of 12/31/2018)

| Name | 2018 HPR |
|---|---|
| AGO | 14.96% |
| DFS | (21.78%) |
| FCPT | 5.45% |
| PNC | (16.98%) |
| RE | 0.73% |
| WFC | (9.76%) |

## Statistical Highlights

Sector Value: $579,525.97

% of Portfolio Allocated: 13.19%

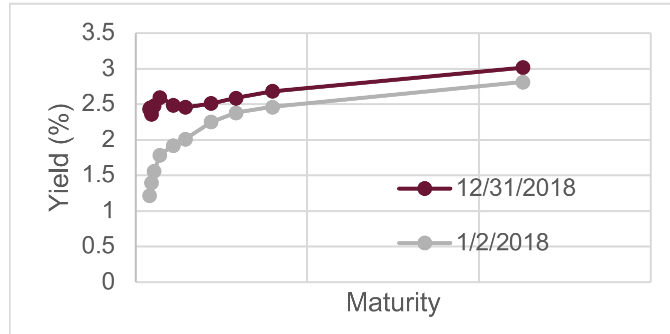
Holding Period Return: (13.24%)

Active Management Return: (1.99%)

## Sector Summary

Some of the main stories coming out of the financial services sector are President Trump reversing his approval of Federal Reserve Chairman, Jerome Powell, the inversion of the yield curve between the two-year and five-year maturities, and concerns about the health of the overall United States economy. These headlines were the drivers of a negative year as a whole, which saw the XLF lose around 15 percent of its value. However, SEED's laggards were sold off early in the year and the portfolio was not as exposed to as much credit risk as the rest of the market. Portfolio allocation is diversified across banks, credit card companies, insurance, reinsurance, and real estate (RE). RE struggled during the middle of the year based off revisions to catastrophe losses in 2017. FCPT's growth-through-acquisition strategy has led to some concerns about their leverage and allowed their competitors to outperform them in 2018.

## YTD Change in Yield Curve




## Sector Performance

We began the year trimming CBL, our worst performer in 2017, as well as ELS because we believed their niche target demographic was too risky for a low-growth REIT. We sold Bank United and Bank OZK due to a dispersion from our investment thesis. We saw both company's exposure to commercial real estate lending as a main growth driver, but over 2018 the industry became highly saturated and the prospects diminished. PNC and DFS were our two worst performers this year after being the strongest performers in 2017. PNC declined partially due to its conservative portfolio not yielding attractive returns compared to its peers, although we do believe they remain a strong position in our portfolio. DFS lost 23 percent in December following the initial inversion of the yield curve and finished 2018 within 5 percent of its 52-week low. AGO was the best performer in the sector primarily due to improving economic conditions in Puerto Rico, which was a major cause of their underperformance in 2017. Wells Fargo was purchased this year because their strong fundamentals were not damaged by the multiple scandals, but they have lost some value as the timeline of their asset cap limitation remains uncertain.

## 2019 Investment Expectations

Looking forward to 2019, we are looking into the Fintech space to hopefully capture some upside but limiting the size of our investment, so we are not overexposed. On the flip-side, we are hoping to increase our exposure to REITs because they tend to outperform other industries in the financial sector during a recession. We will continue to monitor our current holdings to verify their investment theses are still applicable. We are optimistic that the Fed will continue to hold off on interest rate hikes and allow the economy to continue to grow at a healthy rate.

## Healthcare Sector

*Lead Analyst: Bradley Ong*

*Analysts: Sean Bruestle, Kent Bommer, Bobby Frawley*

## Current Holdings: (As of 12/31/2018)

| Name | 2018 HPR |
|---|---|
| Biogen, Inc. | (5.54%) |
| Laboratory Corporation of America | (26.15%) |
| AbbVie, Inc. | (0.98%) |
| UnitedHealth Group, Inc. | 14.52% |
| McKesson Corporation | (28.39%) |

## Statistical Highlights

Sector Value: $551,123.14

% of Portfolio Allocated: 12.54%

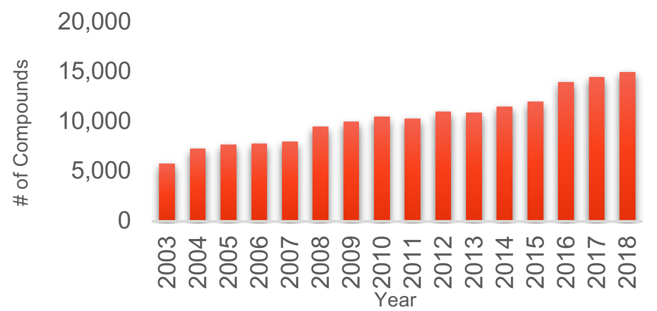
Holding Period Return: (10.26%)

Active Management Return: (16.60%)

## Sector Summary

The healthcare sector's positive performance in 2018 was primarily driven by medical devices, health insurance, and pharmaceuticals. AbbVie remains a concern with revenues heavily concentrated on their blockbuster drug, Humira. The patent for Humira expires in 2023 and we've seen minimal growth in the rest of their pipeline - suggesting that the horizon to sell may not be too far away. We still remain optimistic that AbbVie will reach our price target. AbbVie took a hit to earnings recently due to the write off of the $5.5B Stemcentrx acquisition. This acquisition had proved to be a failure – the lead drug, Rova-T, did not pass clinical testing. Exhibit 1 depicts how the number of drug candidates in biopharma pipelines continue to reach record levels every year. Despite the pricing pressures from the Trump administration, LabCorp's Covance segment will likely benefit from rising demand for clinical trial services and expanded R&D budgets from the biopharma industry.

## Total R&D Biopharma Pipeline Size (Exhibit 1)




## Sector Performance

The healthcare sector (XLV) generated a 4.3% annual return in 2018. LabCorp was providing promising returns but went into free fall in October. A ransomware attack, lowered guidance for its diagnostics segment, and an executive leaving has punished LH severely. UnitedHealth Group's Optum division has driven growth for the most dominant health insurer on the market. AbbVie experienced volatility this past year due to investor concern over reliance on Humira whose patent expires 2023. A lack of pipeline developments placed further pressure on the stock price. AbbVie's cancer drug, Imbruvica, hasn't been as successful as anticipated. Rova-T, the key target from the $5.5B Stemcentrx acquisition failed clinical testing. McKesson had a bumpy ride this year – In January 2018, Amazon, Berkshire Hathaway and JPMorgan Chase announced a new healthcare venture, scaring off many investors. In June, Amazon purchased an online pharmacy, PillPack, suppressing McKesson's share price even further. Despite lagging performance in 2018, it's worth noting McKesson, LabCorp, and Biogen have made strong comebacks and rallied with the market in 2019 so far (20.7%, 12.3%, and 12.6%, respectively).

## 2019 Investment Expectations

Looking forward into 2019, we expect increased volatility and plan to shift into more defensive sectors to mitigate our risk in Biogen (BIIB) and AbbVie (ABBV). Medical device companies were among the best performers in the healthcare space in 2018. We are currently examining opportunities in the medical devices sector to lower our portfolio beta and provide more insularity from a recessionary environment. Demographics such as the increasing obesity rate coupled with a U.S. aging population will continue to drive heavy healthcare spending into 2019. The sector will likely experience more volatility due to anticipated drug pricing pressures and political noise surrounding the Affordable Care Act. With a now divided congress, it's unlikely that we'll see any massive change to either of these issues.

## Industrials Sector

*Lead Analyst: Justin Cone*

*Analysts: Elizabeth Barron, Sammy Daoudi, Wes Hammerschmidt, and Eric Forderkonz*

## Current Holdings: (As of 12/31/2018)

| Name | 2018 HPR |
|---|---|
| SCANA Corp. | 23.11% |
| Duke Energy | 18.15% |
| Union Pacific Corp. | 5.27% |
| Honeywell | (8.18%) |
| Emerson Electric | (12.01%) |
| Huntington Ingalls Ind. | (18.21%) |
| Nucor Corp. | (14.91%) |
| Fluor Corp. | (36.61%) |

## Statistical Highlights

Sector Value: $764,050.75

% of Portfolio Allocated: 17.39%

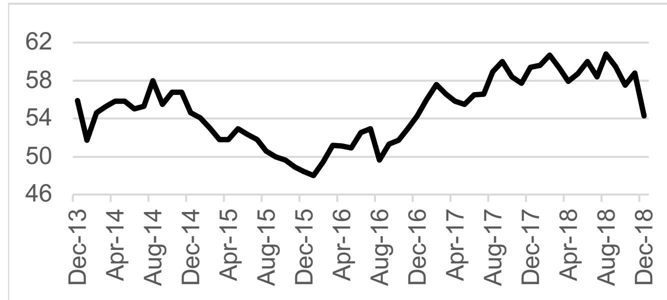
Holding Period Return: (13.22%)

Active Management Return: (3.08%)

## Sector Summary

The Industrials sector added several new positions to our portfolio throughout 2018. At the beginning of March, we were able to capitalize on a buying opportunity in the utility sector with the purchase of Duke Energy. Towards the end of 2017 and into early 2018, utilities were beaten down to relatively cheap levels amidst worries of rapidly rising interest rates. Just before the summer, we added exposure to the industrial automation industry with Emerson Electric Co. We believe Emerson's strong financial position and footprint in the Industrial Internet of Things industry made them a strong complement to our industrial conglomerate holding, Honeywell. Lastly, during the 4th quarter we purchased U.S. steel producing giant, Nucor Corp. Nucor stood out amongst others in the industry because of its potential for volume growth in the U.S. and strong shareholder-return initiatives.

## 5-Year ISM Manufacturing Index




## Sector Performance

In 2018, our utility holdings, SCANA Corp. and Duke Energy significantly outperformed our benchmark XLU index which returned just under 5% for the year. Duke's earnings were strong throughout the year as they remain focused on achieving growth of 4-6% per year through the core utilities. A strong second half was also boosted by favorable weather and two hurricanes handled quite well in the Carolinas. SCANA faced a volatile year but rebounded in the fourth quarter as the South Carolina based utility received positive support from regulators in its failed nuclear plant project and moved closer to completing its deal with Dominion. The XLI returned -13.5% in 2018 and with the exception of Union Pacific and Honeywell, all of our industrial companies underperformed this benchmark. Most notably, Fluor Corp. continued to struggle in the year losing nearly 40% of its value due to continued unprofitable projects and the company's inability to restore investor confidence at the November 19 investor day. Union Pacific was our best performing industrial stock fueled by NAFTA renegotiations and progress made on reducing its operating ratio.

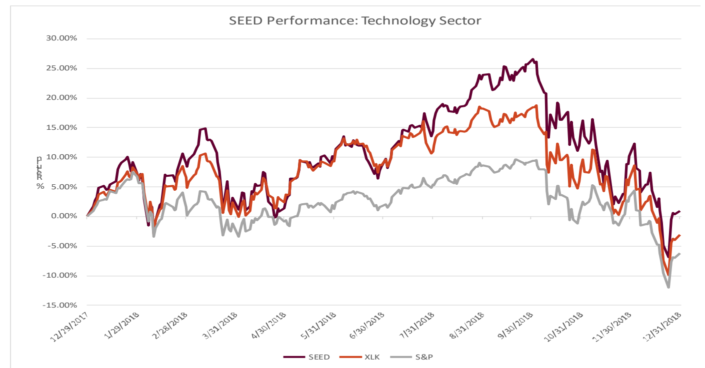
## 2019 Investment Expectations

As we move into 2019 our utility holdings will be a focus initially as Duke has now risen to historically high levels and SCANA has now officially been acquired by Dominion. Higher yields and rising rates remain a concern for the utility giants moving forward. We are currently seeking out opportunities for investment in gold mining companies. We believe this will help to diversify the industrials sector's portfolio and help hedge against future risk of an economic slowdown. We remain confident in our positions and decisions moving forward while our analyst team continues to research opportunities within the industrials and utilities sector.

## Technology Sector

*Lead Analyst: John Harsh*

*Analysts: Tanay Bheda, Alex Boelcskevy, & Rehan Ghani*




### Current Holdings: (As of 12/31/2018)

| Name | 2018 HPR |
|---|---|
| Adobe Inc. (ADBE) | -2.06%* |
| Apple Inc. (AAPL) | -5.39% |
| Cognizant Tech (CTSH) | -9.66% |
| Facebook, Inc. (FB) | -3.88%* |
| Lam Research (LRCX) | -24.36% |
| Oracle Corp. (ORCL) | -2.97% |
| Qualcomm Inc. (QCOM) | -7.59% |
| salesforce.com (CRM) | 33.98% |
| Take-Two Interactive (TTWO) | -0.11%** |

### Statistical Highlights

Sector Value: $1,430,140.72

% of Portfolio Allocated: 32.54%

Holding Period Return: 0.40%

Active Management Return: 0.54%

### Sector Summary

Salesforce is now SEED's largest holding at 5.89% of our entire portfolio value, and our stance on Salesforce grasping unchartered opportunities in the cloud industry has truly paid off. Apple empowers us to have exposure to consumer electronics, software and online services space. In the video game industry, we sold Electronic Arts (EA) for a total gain of 27% and bought Take-Two Interactive to replace it late this past year. Another one of our new holdings, Adobe, is one of the largest software companies in the world with a massive customer base and bolsters our position in the software as a service industry. Social media giant Facebook is also a new position that we added this year that maintains a stranglehold over the social media industry with over 2.6B users. Cognizant provides IT services to major corporations and businesses around the globe. Lam Research and Qualcomm both diversify our holdings in the semiconductor industry. Oracle offers a comprehensive stack of products in software services.

### Sector Performance

Early in the year, we saw some volatility in our holdings, especially in the software industry. We believe our sell of Electronic Arts was well-timed considering the massive drop in the stock price (down 50% from mid-July to December). Semiconductors did not have the best year as we saw demand for chips decrease from the previous year. In addition, the lawsuit between Qualcomm and Apple over allegedly stolen technology hampered Qualcomm's growth opportunities and recurring revenue streams. Moreover, Apple's guidance readjustment in December cut all our 2018 gains in Apple. On a bright note, salesforce.com continued to beat the Street's expectations and led to a stellar 2018 while many other software companies struggled to grow. Finally, the S&P's consolidation of companies into the new Communications sector led us to add Facebook and Take-Two in order to reap in some of the tremendous growth both companies are experiencing.

### 2019 Investment Expectations

Our past expectations of growth and opportunities in the cloud business and cloud-based services has garnered us a healthy return in Salesforce. However, we also believe that the growth numbers reported by companies in the cloud and semiconductor industry will be hard to replicate in the future given the threat of a slowdown in the Chinese economy. Saturation in the smartphone industry and lack of product differentiation has made Apple fall significantly from its all-time high. However, we still believe that with its growing services business, this company still has a lot of long-term growth potential. With significant growth in the technology sector, we expect a slowdown in the coming years, and we look to have a more defensive strategy towards investments.

*Exhibit 4: The 2018-2019 SEED Team*

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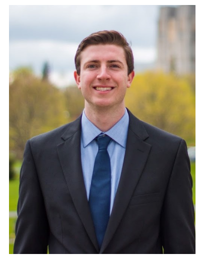

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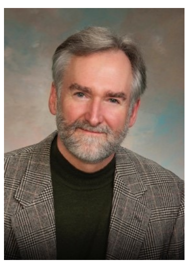

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