

Annual Report

2021

The Student-Managed Endowment for Educational Development (SEED)

Compiled By:
Lukas Khodayar, Co-CEO
Charlie Setash, Co-CEO
Mason Moriarty, CIO
Evan Stahl, CQO

Virginia Tech Pamplin
College of Business

<https://seed.pamplin.vt.edu/>



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Notable Placements

Full Time:

Emma Roby -
RBC, DCM

Derek Stoughton -
EY, Consulting

Shloak Patil -
Truist, IBD

Mason Moriarty -
BAML, ECM

Vraj Patel -
BAML, Software Engineer

Joseph Mazzone -
BAML, ECM

Demitri Gamble-
Citi, S&T

Jacob Cohen -
Wells Fargo, IBD

Reena Medavarapu -
Boston Consulting Group,
Management Consulting

Grayson Pierpoint-
PWC, Assurance

Jake Cullen -
Morgan Stanley, Wealth
Management

Chase Harding -
KPMG, Securitization

Jack Sweeney -
EY, Finance Consulting

Daniel Pentrenko-
PWC, Tech Consulting

Christian Parana-
2nd Order Solutions, Business
Analyst

Tyler Renner -
Aronson LLC, Tax Associate

Garrett Scranton -
Wealthspire Advisors,
Wealth Management

Harrison Wiger -
Homrich Berg, Financial
Planning

SEED 2021 Operating Highlights

Financial Highlights

In 2021, the Student-Managed Endowment for Educational Development (SEED) delivered a total return of 19.79%. The S&P 500 Index, our benchmark, returned 28.70% over the same year, giving us an active return of -8.91% for 2021. Thus, SEED underperformed the benchmark by a considerable margin. We concluded 2021 with \$5,347,324 in assets under management (AUM). SEED's risk-adjusted return using Jensen's Alpha was -9.26% based on our portfolio beta of 1.01. With a 19.79% absolute return, a risk-free rate of 0.01% based on the one-month yields on U.S. Treasury bills in the year 2021, and a weighted portfolio beta of 1.01, we concluded 2021 with a Treynor ratio of 19.54. This underperformed the market on a risk-adjusted basis as the S&P 500 Treynor ratio was 28.69. Exhibit 1 portrays SEED's performance vs. the S&P 500 for the year 2021.

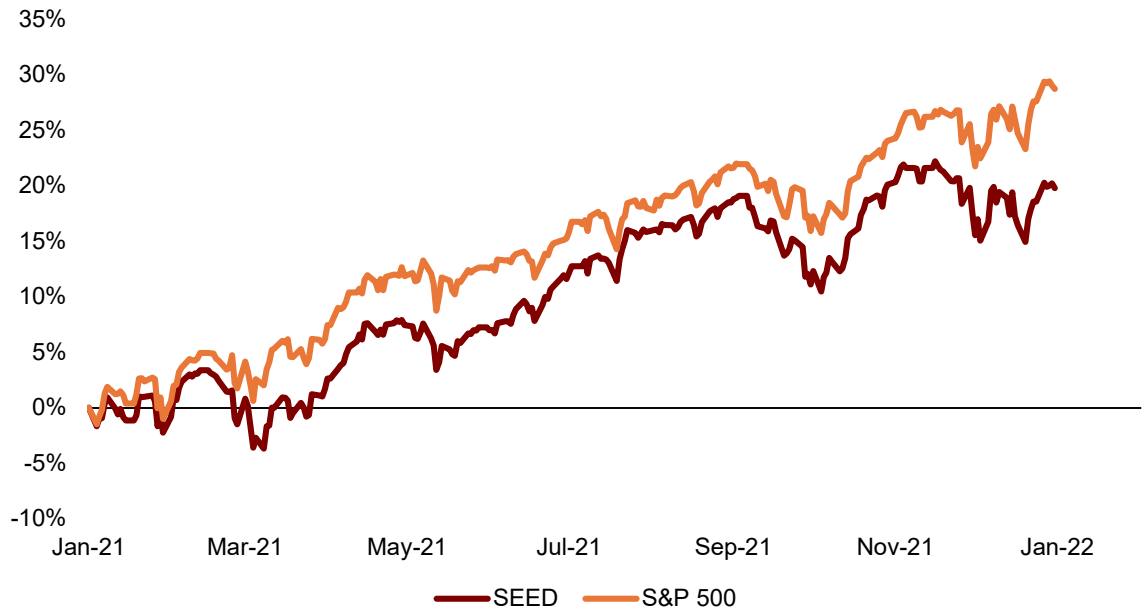


Exhibit 1
SEED vs. S&P 500 Return in 2021

Exhibit 2 shows SEED's absolute performance and compares it with the S&P 500's return and the CAPM return to find the absolute performance and risk-adjusted performance.

Risk-Adjusted Performance		SEED vs. S&P 500 Return	
SEED Return	19.79%	SEED Return	19.79%
<u>CAPM Return</u>	<u>29.05%</u>	<u>S&P 500 return</u>	<u>28.70%</u>
SEED Alpha	-9.26%	SEED Raw Relative Performance	-8.91%

Exhibit 2
Risk-Adjusted Performance vs. Relative Performance

Notable Placements

Internships

Lukas Khodayar -
Raymond James, IBD

Charlie Setash -
EY, Accounting Advisory

Christopher Royal -
Goldman Sachs, IBD

Wes Stone -
Microsoft, Corporate
Finance

Alex Noufal -
BAML, Rates and
Currencies

Olivia Isley -
Wells Fargo, IBD

Justin Smith -
Deloitte, Risk and Financial
Advisory

Jake Alley -
Leidos, Finance and
Business Operations

Mason Cobbler -
Wells Fargo, IBD

Bryce Dunleavy -
HSBC, S&T

Matt Zayas-
Citi, S&T

Shravan Mohan -
BAML, S&T

Nate Doggett -
Amazon, Software
Engineering

Jackson Oleyar-
EY, Technology Risk
Consulting

Ian Johnson -
Deloitte, Risk and Financial
Advisory

Tyler Phillips -
KPMG, Cyber Response

Timothy Smith -
Peraton, Software
Engineering

For analyst coverage purposes, SEED condenses the eleven sectors of the S&P 500 into six sectors. Real Estate is included in SEED’s Financials sector, Materials is included in Industrials, Utilities is included in Energy, Consumer Staples and Consumer Discretionary make up Consumers, and Information Technology and Communication Services make up Technology. Exhibit 3 shows our respective relative weightings in each of the six condensed sectors in SEED as of the end of 2021. Exhibit 4 shows our respective relative weightings in each of the eleven sectors in the S&P 500. We ended 2021 with 5.56% and 9.60% in cash and ETFs, respectively (15.16%). This is higher than last year’s total cash and ETFs of 7.14%. This figure also includes a 4.27% position held in SPY at year end 2021. This position was opened due to concerns that much of the market was either fully-priced or overvalued. However, as it is one of SEED’s primary goals to develop our human capital, we intend to actively seek out undervalued areas of the market and consequently reduce the amount of our portfolio held in SPY and other ETFs.

SEED vs. S&P 500 Sector Weightings

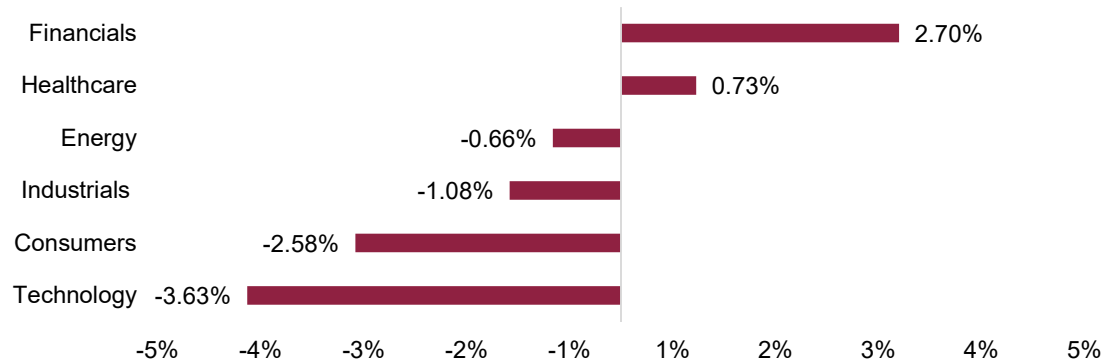


Exhibit 3
SEED vs. S&P 500 Sector Weights in 2021

SEED vs. S&P 500 Weightings by GICS Sector

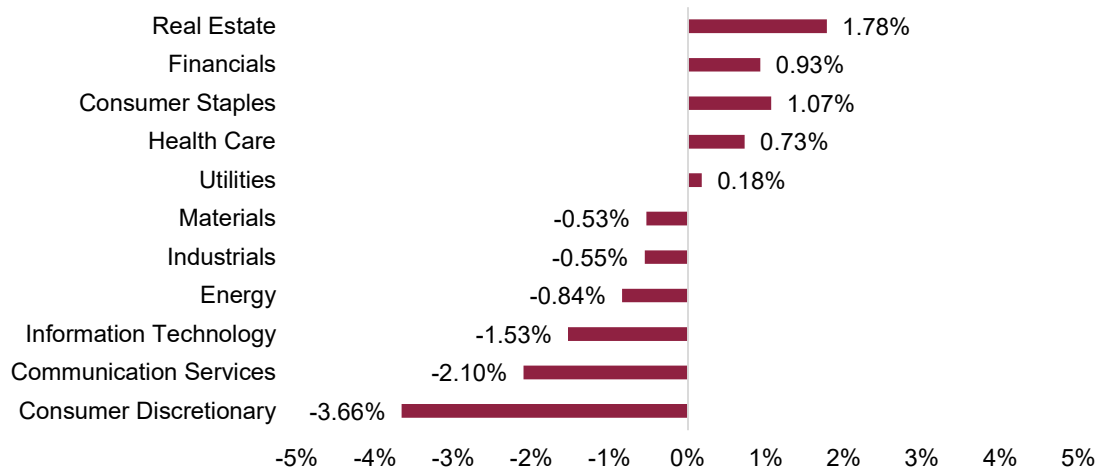


Exhibit 4
SEED vs. S&P 500 Weights by GICS Sector in 2021

In 2022, we plan to focus more on actively managing our sector weightings relative to SEED's benchmark, subject to the requirements of our Investment Policy Statement (IPS). Our goal is to allocate more capital to the sectors we expect to outperform our benchmark and allocate less capital to the sectors we expect to underperform. For instance, SEED successfully overweighted the financial sector in 2021, which was our best performing sector in 2021. However, we could have allocated more capital to the sector, still adhering to our IPS, and could have generated better overall portfolio returns by doing so. Both consumers and technology greatly outperformed industrials but were underweighted by much more. Therefore, SEED could have improved its overall returns by underweighting industrials more than those two sectors in 2021. As we have continued to develop our human capital over time, we developed a greater understanding that sector allocation decisions should be an active management decision. SEED continues to focus on selecting the best equities to invest in.

Similar to 2020, we found that the returns of the S&P 500 were concentrated around a small number of stocks that drove the majority of the benchmark's returns in 2021. Five stocks accounted for 8.8 percentage points, or about 30%, of the S&P 500's total return. Interestingly, 55% of the stocks in the S&P 500 underperformed the index in 2021. SEED's portfolio had limited exposure to those five top-performing equities and this contributed significantly to underperformance.

Looking forward, the current five largest holdings by market cap in the S&P account for 23% of the index, making it a very high relative weighting historically. This is in contrast to the bottom 250 stocks that account for just about 10% of the index. Alternatively stated, only 1% of the stocks in the S&P 500 contributed about 30% of the index's total return. Therefore, the returns on those top five stocks are expected to have a great impact on the performance of the index to which we are benchmarked. SEED acknowledges this fact and intends to keep it in mind as we strive to outperform our benchmark. Exhibit 5 displays the concentration of the S&P 500 returns by the top five contributors compared with the rest of the index in 2021.

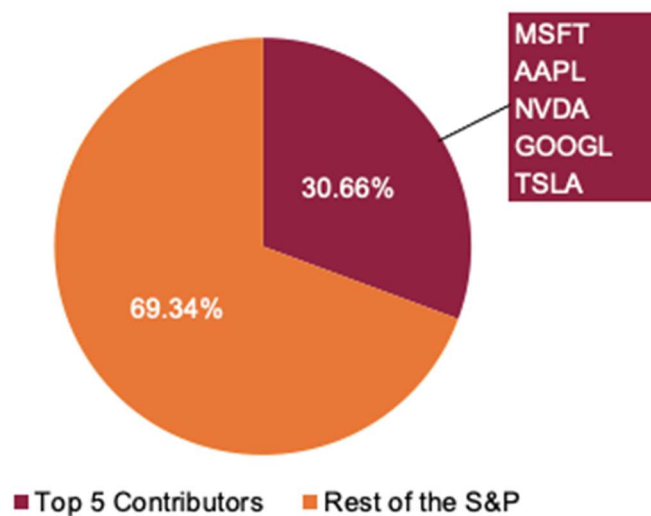


Exhibit 5
S&P 500 Concentration of Return Contribution in 2021

Organizational Structure

SEED closed out the year with 42 members and 14 analysts in training. Our previous co-CEO's, Derek Stoughton and Emma Roby, CIO, Shloak Patil, and CQO, Vraj Patel all concluded their terms on the SEED executive team. We are grateful for their hard work and dedication towards SEED and wish them the best as they graduate and begin their full-time roles.

SEED had 3 members graduate in December 2021. Shloak Patil, former CIO, will be working in investment banking with Truist full-time in Atlanta. Grayson Pierpoint, former healthcare lead analyst, has begun working as an Assurance Associate with PwC in Charlotte. Lastly, Reena Medavarapu, former value and momentum analyst, is working as a management consultant with Boston Consulting Group. We wish them all the best as they begin their full-time roles.

Looking Ahead

Looking ahead to 2022, SEED is extremely excited to be celebrating its 30th anniversary! Founded in 1992, SEED has about 500 alumni from the past 30 years. Since its inception, SEED has continued to grow and learn while attracting talented Virginia Tech students with a passion for investing and a desire to contribute to the betterment of the organization. SEED would not be where it is today without the overwhelming support it has received from the Virginia Tech Foundation in general and Dan Ward, CIO, in particular. Dean Sumichrast and Professor Singal, head of the Department of Finance, have also been incredibly supportive of SEED and the organization's goals. We also greatly appreciate alumni who continue to give back and support the organization. Furthermore, the support of the SEED Advisory Board continues to be valued and helpful.

We will be hosting the 30th anniversary celebration from June 10 - 12, 2022, in Blacksburg to celebrate all SEED has accomplished. This will help connect current SEED members with alumni and give alumni an opportunity to hear from current students on what has been accomplished in the organization and what the future of SEED holds. The event details are being finalized as of the writing of this report. We look forward to planning the event with our Advisory Board and being able to reconnect with former members of SEED.

In 2021, SEED began working on improving Diversity and Inclusion (D&I) within the organization. We have worked on including all members of SEED in the process and have encouraged discussions regarding D&I. We met with Virginia Tech's then Director of Diversity Engagement, Blane Harding, to discuss D&I as an organization and how we can improve our efforts going forward. Additionally, we are working closely with our new Director of Recruitment, Bryce Dunleavy (Junior, Finance), to engage with more organizations on campus to promote D&I within SEED. We hope to continue to engage with various cultural and community centers at Virginia Tech to further the discussion regarding D&I and how we can create a more diverse environment within the organization. Through becoming increasingly diverse and inclusive, SEED will bring a variety of backgrounds and perspectives to the organization.

Our newly appointed Co-CEOs, Charlie Setash (Junior, Finance) and Lukas Khodayar (Junior, Finance), are excited for the opportunity to lead SEED and look forward to the year ahead. Also joining the executive team is our new CIO, Mason Moriarty (Senior, Finance) and CQO, Evan Stahl (Senior, Industrials and Systems Engineering). Mason and Evan look forward to adding value to SEED through their positions, and we look forward to the ideas that they bring to the table. At the sector level, we are welcoming six new lead analysts: Wes Stone, Consumers Sector; Chris Royal, Energy Sector; Olivia Isley and Justin Smith, Financials Sector; Jake Alley, Healthcare Sector; Alex Noufal, Tech Sector.

We would like to especially thank the SEED Advisory Board for their willingness to serve and support the organization and its members. Looking forward to 2022, we plan to work more closely with the Advisory Board through a potential mentorship program with analysts-in-training (AITs) to provide them with invaluable learning opportunities and perspectives. We furthermore plan to incorporate Advisory Board members into our weekly meetings to interact and connect SEED with these distinguished members more frequently and directly. The members of the SEED Advisory Board are listed below:

SEED Advisory Board

Trey Snow, Senior Equity Research Analyst, The London Company, Chair of Advisory Board

Kevin Bennett, Research Analyst, First Vice President, Davenport & Company

Vanessa Bradford, Origination, Private Side, Managing Director, NatWest Markets

Tracy Castle-Newman, COO, Global Institutional Equity Distribution, Managing Director, Morgan Stanley

Nick Cullen, recently retired, Managing Director, Goldman Sachs

Duffy Fischer, Executive Director, U.S. Equity Research, Chemicals and Agriculture, Barclays

Chad Meade, Partner and Portfolio Manager, ArrowMark Partners

Patrick Moody, Associate, S3 Ventures

James Rosenstock, Chief Financial Officer, Infinite Acquisition Corporation

Christina Todd, Vice President & Financial Advisor, Cary Street Partners

Daniel Ward, CIO, Virginia Tech Foundation

Investment Strategy and Process

SEED is a long-only equity fund manager, and our job is to outperform the S&P 500, our benchmark, on a relative and a risk-adjusted basis. We aim to do so by investing in undervalued stocks and exploiting the difference between intrinsic value and market value. Our investment process combines qualitative research with quantitative valuation analysis. Identification of potential investments is done using a top-down approach. Starting with the macroeconomic environment, we identify attractive industries and sectors by thorough research. We then use equity screening tools such as Morningstar Direct, Bloomberg, and AlphaTheory to find individual companies worthy of additional analysis. After an individual company is selected as a potential investment, we proceed with qualitative and quantitative analysis that include both relative and absolute valuation methods.

Quantitative modeling is integral to our investment process as it helps us arrive at an intrinsic valuation range. The qualitative analysis helps us understand the potential reasons for any hypothesized disparity between the intrinsic and the market price. The narrative of this disparity also clarifies our understanding of the valuation and helps us detect potential risks that might prevent the intrinsic value and market values from converging. The qualitative analysis involves detailed fundamental research that includes understanding the economy, the company's business model, and the company's industry on a granular level. Our quantitative analysis focuses on projecting the company's cash flows over its life cycle to arrive at its intrinsic value and using relative valuation to find its pricing position in the market. The primary model we use for valuing companies is the discounted cash flow (DCF) model. Recently, in order to offer a more holistic valuation that seeks to derive value from different viewpoints, we have begun to also value companies utilizing the Residual Income model (RIM), the Net Asset Value Model (NAV), and/or the Dividend Discount Model (DDM). This has been especially useful in sectors such as Financials, where the DCF model may be insufficient or not appropriate to assess value. In applying our models, we run a sensitivity analysis showing Bear, Base, and Bull case scenarios and how intrinsic value is affected under each circumstance.

The relative valuation analysis helps us correctly place the selected company among its competing peers. This allows us to view the selected company within its competitive sphere and identify further characteristics that signify its potential for being undervalued. Once analysis indicates that a company's stock is undervalued, it is presented to the full SEED group. After the pitch, each respective sector discusses their thoughts on the company and the investment opportunity. Subsequently, our executive team and the six lead analysts representing their sector vote on whether we should invest in the presented company.

Strategic Initiatives

SEED is currently continuing the development and implementation of factor-based quantitative investing strategies in our portfolio. SEED began developing more quantitative strategies prior to the Pandemic. In Spring 2021, the strategies were being developed using the Python programming language and Equities Lab. Due to the convenience, SEED decided to first develop the models in Equities Lab because it allows for easy back-testing and access to reliable data. In the future, we plan to optimize the models in both Equities Lab and Python.

Factor-based investing selects securities that exhibit traits commonly associated with outperformance. The two strategies SEED is exploring are quantitative value and quantitative momentum. A long-only quantitative momentum strategy forms a portfolio of equities that have appreciated highly over an intermediate period, which the research literature shows is the most recent 11 out of the last 12 months. The rationale for the strategy is that investors frequently underreact to good news. Relying on the work of Gray and Vogel (*Quantitative Momentum*, 2016), this strategy is implemented using five steps: (1) identify universe of investible stocks, (2) core momentum screen, (3) momentum quality screen, (4) seasonality screen, and (5) invest with conviction.

The long-only quantitative value strategy seeks to generate attractive risk-adjusted returns by identifying undervalued equities based on extensive fundamental analysis. Research finds that a systematic and consistently applied approach to investing outperforms many human "experts". This approach is also implemented using Gray and Carlisle's (*Quantitative Value*, 2013) five steps: (1) identify investible universe, (2) remove outliers,

(3) screen for value, (4) screen for quality, (5) invest with conviction. SEED is currently refining its quantitative value strategy.

After developing the momentum strategy, SEED invested \$125,000 in a 10-stock portfolio in April of 2021. The strategy took the top 20 percent of highest returning stocks and sorted them by event discreteness to determine continuous and consistent momentum. The top 10 stocks were selected from that list. The portfolio consisted of the following tickers: TSLA, PTON, ETSY, WSM, RH, GNRC, FCX, TTD, IIVI, and TSM. Following the investment, a 20 percent stop loss was placed on each holding. As five positions stopped out, the executive team and the Value Momentum team decided to liquidate the portfolio on May 19, 2021. The holding period return of the portfolio was -13.1%. The team analyzed the underperformance and realized that a rotation occurred from momentum stocks to value stocks during the time of investment. The momentum index, SPMO, began to underperform the S& P 500 index, SPY, by 5.64% during this time. As the plan of the strategy was to rebalance quarterly, the holding period return would have improved if the positions were not liquidated early. But early liquidation mitigated SEED's risk exposure when momentum stocks dropped significantly and was appropriate considering the reduced staff during the approaching summer.

After researching historical performance, the team realized that when momentum outperforms, value tends to underperform and vice versa. Consequently, the team is currently working to develop a value strategy that explicitly serves as a hedge for the momentum strategy. The goal is to run both strategies simultaneously to better optimize risk and outperform the benchmark, the S& P 500 index. In 2022, the quantitative team will continue to improve the long-only quantitative value strategy and the long-only quantitative momentum strategy. Once deemed suitable, the team will begin to monitor and anticipate appropriate market conditions for the simultaneous implementation of the strategies.

SEED is also developing a portfolio performance attribution model to support proper sector weighting decisions in the SEED portfolio. Furthermore, the team will also begin to explore using @RISK, which is an add-in to Microsoft Excel that provides risk analysis using Monte Carlo simulation. This software will be used to fit distributions to SEED's predictions within the valuation models of current and potential future holdings. This information will then be used to apply probabilities to the bear, base, and bull cases within the valuation models. The probabilities will be entered into AlphaTheory, which is a software that gives portfolio managers a framework to leverage their instinct and research to build a repeatable system for efficiently sizing positions in real. AlphaTheory allows SEED to enter the position valuation and probability of its bull, bear, and base cases to improve position sizing and reduce the number of alpha-harming mistakes.

Year in Review

Recruitment

SEED continues to recruit new analysts in both the spring and fall semesters. Additionally, freshmen in their second semester at Virginia Tech are now eligible to apply to SEED. We have three rounds of interviews in the application process. The first round consists of a written questionnaire and the submission of a resume and transcript through our website. During the second round, we give the applicants just over one week to prepare a 30-minute stock pitch on a company of our choosing. The small group that is selected for the final round then participates in a 30-minute behavioral interview where we evaluate their knowledge of markets and current events. In the spring of 2021, recruitment was conducted virtually due to COVID-19 restrictions. Despite this, SEED received a record 132 applicants in the spring, resulting in 10 new analysts joining the organization. SEED was able to recruit in-person again in the fall semester of 2021. We received 80 applicants during the fall semester and accepted 15 students into our analyst-in-training (AIT) program. The 15 students, with a median GPA of 3.73, are comprised of 11 finance students, 3 engineering students, and 1 marketing student. Our co-CEOs, Lukas Khodayar and Charlie Setash, are looking forward to training and incorporating the new AITs into the organization in the coming semester.

Training

Our AIT program is a rigorous process that plays a key role in SEED as we develop well-versed members. Throughout the semester-long program, AITs are taught the skills needed for success in SEED. AITs attend weekly meetings covering the process of conducting investment research, performing financial analysis/valuation, and other key components of SEED's investment strategy. AITs also rotate through SEED's 6 sectors as well as Value and Momentum throughout the semester, completing assignments that expose them to each sector. We continue to rely on the group pitch, discounted cash flow modeling project, and capstone to gauge their progress and ultimately make the decision on their acceptance into SEED as analysts.

Last semester, the group pitch project was expanded to include having the AITs build out a DCF model. Giving them more practice with valuation earlier on than in previous semesters proved to help them build a stronger understanding of our models. This is the aspect of the training process that AITs struggle the most with and we are committed to continuing the efforts of the past executive team in improving the foundation of valuation skills in our AIT classes.

Trips & Competitions

Due to the COVID-19 Pandemic, the annual SEED trip up to New York City in Spring 2021 was canceled. In years past, this trip has provided great opportunities for members of SEED to network with alumni on Wall Street. Events such as Hokies on Wall Street have enabled members of SEED to gain exposure to notable alumni and listen to speakers with valuable industry insights. While we are unsure that we will be able to make the trip up to New York City this spring, we hope to begin hosting more in-person events with guest speakers and alumni this year to connect with current members.

This past year, the group participated in both the UGA Terry Stock Competition as well as William & Mary's Women's Stock Pitch & Leadership Summit. We are looking forward to

Ian Johnson, Mason Cobbler, Kyle Canestra, and Piyush Pokala competing in the UGA Terry Stock Competition again this year. We look forward to participating in more stock pitch competitions throughout 2022.

2022 Investment Outlook

In 2021, activity in the financial markets was shaped by a few major themes surrounding economic activity both domestically and abroad. Most importantly, we saw inflation garner much more attention as concerns began to mount. In November, at a 6.8% rise from the year prior, the consumer price index (CPI) increased the most in almost four decades. We see this surge as a result of a two-part story involving extraordinary consumer demand coupled with pandemic-related supply constraints. Demand was heavily supported by unprecedented levels of fiscal stimulus that included the \$1.9 trillion American Rescue Plan Act, signed into law by President Biden on March 11, 2021. This, in conjunction with the accommodative money policies continued by the Federal Reserve, drove demand throughout 2021 and supply chains were not able to keep up. Supply side struggles may be starting a wage-price spiral phenomenon in which prices outpace wages, thus generating demand for higher salaries. As a result, firms have set aside an average of 3.9% of total payroll, the most since 2008, to enact these wage increases. This may result in a pass through of these higher wages into higher prices for the consumer.

Transitioning into 2022, many of these themes will continue to affect the financial markets and we will continue to digest and understand their economic implications on the SEED portfolio. On November 26, 2021, the World Health Organization (WHO) declared Omicron a variant of concern as cases were just beginning to be seen in the United States. The variant caused concerns in the markets as it seemed to be a much more transmissible variant than previous ones. Looking forward, we intend to monitor the now slowing variant, along with the possibility of other variants popping up that could trigger shutdowns and slow economic activity. Vaccination rates domestically have continued to improve, aiding our economic recovery and, as of January of 2022, 75% of Americans have received at least one dose, 63% are fully vaccinated, and 37% are fully vaccinated with a booster shot.

We believe the relationship between inflation and interest rates will be a key driver of market activity throughout 2022. Back in November of 2021, the Federal Reserve dropped the term “transitory”, which was being used to describe the hot inflationary environment throughout all of 2021 and took a hawkish pivot on its policies in an effort to tame inflation. They declared the planned reduction in their \$120 billion bond-buying program at double the initial pace, with all purchases likely to end in March. Additionally in a recent Federal Reserve meeting they stated: “With inflation well above 2 percent and a strong labor market, the Committee expects it will soon be appropriate to raise the target range for the federal funds rate.” The consensus seems to be that rates will hike beginning in March of 2022 with an initial increase of 25-50 basis points in the target Federal Funds Rate. This is expected to be followed by a number of hikes throughout the remainder of 2022. While these increases could signal a more difficult environment for equities, we remain optimistic about the investment opportunities in certain sectors like financials or energy that could help drive outperformance in 2022. Furthermore, the S&P 500 has delivered positive returns in the last 11 out of 12 Federal Reserve rate hike cycles since the 1950s. Exhibit 6 displays these returns over the described historical rate cycles. Additionally, we intend to monitor the growing geopolitical tensions in Eastern Europe as it could potentially have stark economic implications that could affect certain holdings in the portfolio such as our energy or technology sectors.

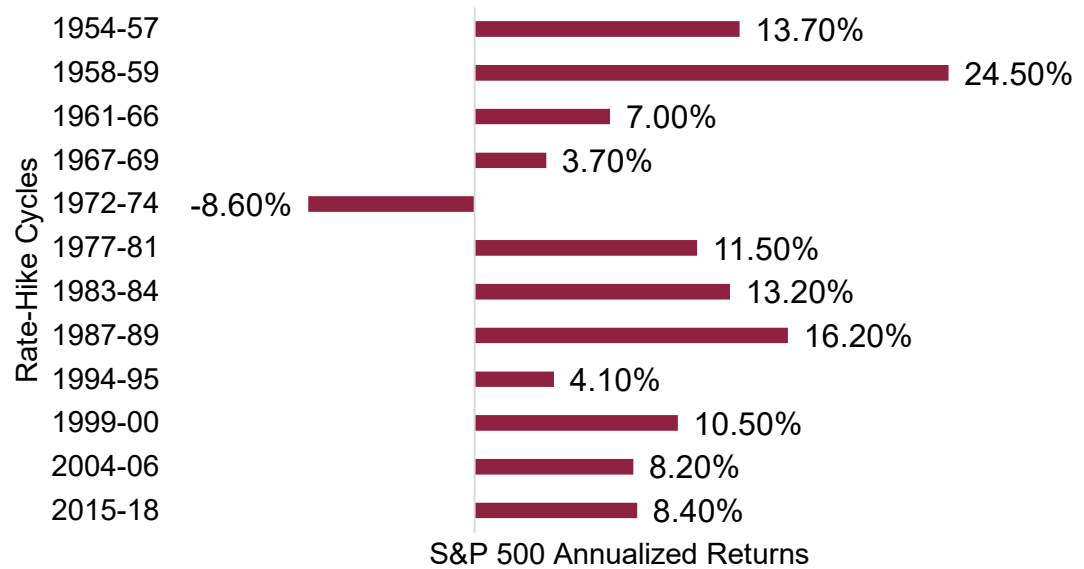


Exhibit 6

S&P 500 Average Annualized Returns During Previous Rate-Hike Cycles

Over the last 10 or so years, the equity markets have moved away from value towards growth stocks. Yet over the last year, value stocks have been outperforming growth stocks. We believe this trend will likely continue given projected increasing interest rates. We see better opportunities in some traditionally value-oriented sectors, like financials, as higher rates tend to increase their spreads. Also, as oil supply continues to be constrained and demand is sustained, we also expect opportunities in the energy sector, whose companies are highly sensitive to changes in oil prices. Yet, we recognize the negative implications high rates can have on growth industries like technology, whose index has been struggling in 2022 so far. SEED will potentially underweight or better position the sector to protect it from an unfavorable macroeconomic environment. As SEED moves forward into 2022, we will be monitoring all our sectors looking to either capitalize on these trends or better position them for the year.

As we plan SEED's 2022 investment strategy, we want to strike a balance between growth and value stocks. As noted above, we also want to focus on actively managing our portfolio's sector weightings, which will allocate more capital to sectors we believe are most likely to outperform given the current macroenvironmental outlook. We continue to study how to best optimize our portfolio position sizing to achieve attractive risk-adjusted returns more efficiently. Our acquisition of the AlphaTheory platform is providing useful guidance. We acknowledge that the current environment could pose challenges to the equity market this year, but still see significant upside potential in various areas of the market, like the value sectors described above, and are working continuously to find and exploit these opportunities.

Sector Highlights

It is important to explore the trends that influenced each sector over the past 12 months and how SEED performed in response. As previously noted, inflationary pressures was one of the major themes surrounding the market in 2021. Despite these growing concerns, the broader indexes were able to post healthy, double-digit returns in 2021. We believe this performance is a testament to how the market viewed inflation concerns in 2021. As reports of hot inflationary figures continued to come out in 2021, the market continued to push higher despite these historically high numbers. It seemed the market was much more concerned with the tone of the Federal Reserve and its Chair Jerome Powell. For the majority of 2021, Powell used the term “transitory” to describe the high inflation numbers. This seemed to ease investors’ fears, as they foresaw easy money policies to stay in place and inflation cooling down on its own. Only when the tone of the Fed changed to a hawkish stance, did markets start reacting negatively to inflation concerns, as seen with some of the pullback in 2022 so far.

In 2021 the market environment was supported by a strong economic recovery as GDP spiked and unemployment fell to the low single digits. As a result, we sought to sell off underperforming assets, whose intrinsic values offer little upside, and move into firms positioned in strong industries with ample upside that we believed the market was undervaluing. This year allowed us to reevaluate our holdings and make appropriate changes to sector allocations and compositions. For instance, in the financials sector, we exited our position in Everest RE Group as opportunities in the insurance industry flattened and moved into firms like Fifth Third Bank as their strong net interest income is set to benefit from the rising rate environment we forecasted then. In Technology, we sold our holding in Take-Two Interactive after developing a bearish outlook on the company due to the lack of blockbuster game releases, weak exposure to mobile gaming relative to their peers, persistent game delays, and a high reliance on the GTA franchise. Consequently, we opened a position in Taiwan Semiconductor Manufacturing Company given the global importance of the industry as well as heightened demand due to supply chain disruptions and new product releases.

In the consumers sector, we made the decision to reduce our Alibaba position to mitigate the potential downside of uncertain regulatory scrutiny that could have resulted in a delisting of its ADR in the U.S. Consequently, we decided to use the available funds to take a position in Deckers Outdoor Corporation. We believed the consumer discretionary sector and global footwear industry are both well positioned to capitalize on the post-pandemic recovery. This is supported by rising consumer mobility and healthy global consumer balance sheets. In our industrials sector, we decided to move out of aerospace & defense and into materials and renewables, seeing greater growth opportunities there. 2021 was a crucial year for developing our human capital and taking advantage of the many learning opportunities presented to us. We believe that this year has allowed for us to broaden our understanding of shifts in market trends and recognize how to adapt appropriately.

In the sector reports below, a company bought in 2021 is denoted by a “*” and a company sold is denoted by “**” next to its name. For positions exited in 2021, the listed returns are the January 1, 2021, through sell date return, which are shown with an end of year weight of 0%. For positions entered in 2021, the listed returns represent the purchase date through December 31, 2021, return.

ENERGY SECTOR

LEAD ANALYST: CHRISTOPHER ROYAL

ANALYSTS: CHRISTIAN PARANA, JACK SWEENEY, TYLER BETRO, JACKSON OLYEAR

Sector Overview:

Both WTI and Brent Oil barrel prices have steadily ticked up from ~\$50.00 in January to ~\$75.00 in December 2021 with a sharp decline at the end of the year. The availability of COVID-19 vaccinations helped rejuvenate the travel industry and transition consumers back to in-person activities. OPEC+ reaffirmed their plan to produce 400,000 barrels of oil per day indicating continued demand optimism despite rising fears from the Omicron variant.

Statistical Highlights

Sector Value: \$227,669.09

% of Portfolio Allocated: 4.26%

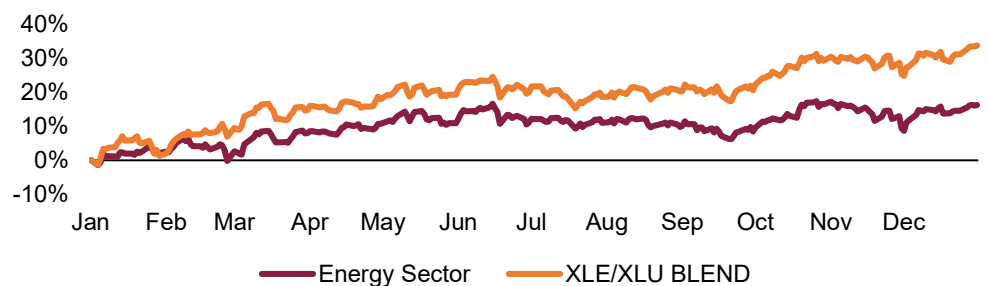
Holding Period Return: 16.19%

Sector Benchmark: 33.78%

Active Management Return: -11.80%

Risk Adjusted (CAPM) Return: 27.99%

SEED Energy vs. XLE/XLU Benchmark



Holdings	2021 Return	Weight
Chevron Corp	38.53%	8.81%
Dominion Energy	6.32%	29.64%
Duke Energy	16.93%	29.90%
Exxon Mobil Corp	47.45%	3.70%
Kinder Morgan	16.96%	3.63%
Renewable Energy Group	-38.79%	3.53%
XLE	46.21%	20.79%

Portfolio Update

The Energy sector underperformed the blended benchmark in 2021. Two primary factors led to this underperformance: 1) The negative returns of Renewable Energy Group and 2) Tracking error from both the XLE and XLU due to differences between SEED's holdings and those in these indices.

Renewable Energy's stock first fell in 2021 following a class action lawsuit filed against them regarding the company's diesel additive system failure. This resulted in them not being the proper claimant of biodiesel mixture excise tax credits ("BTC") and a \$38.2mm restatement of revenue hurting the company's financials and reputation shortly after they were bought in late 2020.

Additionally, the Energy sector closely tracks both the XLE and XLU. Not only does the sector currently hold 1/5 of its weight directly in the XLE, but also notable weights in XOM, CVX, and KMI which make up ~45% of the XLE combined. The sectors two utilities holdings also are significantly weighted in the XLU with DUK (~8%) and D (~6%). That leaves REGI as our only holding not in the top 25 weights of either index.

Looking Forward:

With industry consensus being bullish on oil prices reaching triple digits by end of Q1'22, we want to take advantage of potential opportunities to differentiate our sector from the benchmarks. Specifically, we want to add a mid-stream international company to focus more on less mature economies, a market to which we currently have little exposure. Additionally, we want to look for a European supermajor with a strong focus on transitioning towards clean energy to replace one of two our current US holdings. This will also help reduce our exposure to the US market while adding another attempt at a long-term renewable approach. Finally, we want to increase our exposure and understanding of utilities focused on water distribution as we see it as an industry with high potential upside as global population increases.

FINANCIAL SECTOR

LEAD ANALYSTS: OLIVIA ISLEY, JUSTIN SMITH

ANALYSTS: COLE LAWSON, TYLER RENNER, PIYUSH POKALA

Sector Overview

Our sector thrived in the post-COVID market conditions categorized by quantitative easing measures implemented by the Fed to fuel economic growth. With rates set near zero, borrowing costs remained low, which led to heightened deal flow within investment banking and more frequent acquisitions among REITs. The unprecedented fiscal stimulus allowed for impressive market returns and a strong consumer, increasing revenues for wealth managers and banks.

Statistical Highlights

Sector Value: \$816,138.18

% of Portfolio Allocated: 15.25%

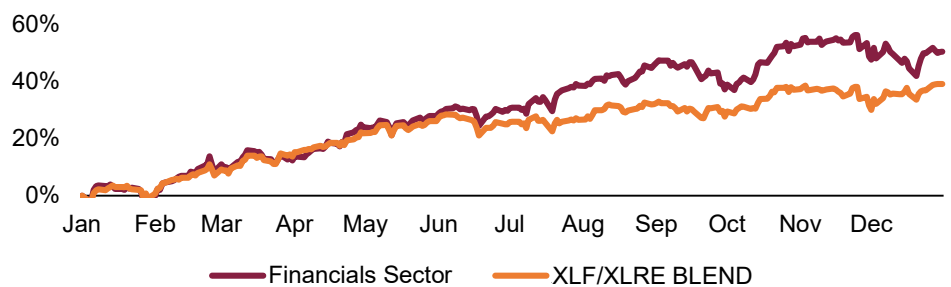
Holding Period Return: 50.58%

Benchmark Return: 39.26%

Active Management Return: 14.84%

Risk Adjusted (CAPM) Return: 35.74%

SEED Financials vs. XLF/XLRE Benchmark



Holdings	2021 Return	Weight
Blackstone	99.65%	22.69%
Morgan Stanley	43.24%	17.33%
First Republic Bank	40.55%	20.34%
Fifth Third Bancorp*	-0.01%	11.51%
Prologis	68.93%	12.19%
VICI Properties*	-3.46%	7.99%
Welltower	32.73%	7.95%
Everest RE**	18.05%	0.00%

Portfolio Update

Outperforming the benchmark blend (65% XLF, 35% XLRE) by 11.32% for the 2021 calendar year, the SEED Financials sector owes much of that success to the low-rate environment. Such favorable macroeconomic conditions drove profitability within the real estate segment of Blackstone, causing their total AUM to exceed \$880 billion. Additionally, a strong IPO market boosted investment banking revenues by 43% for Morgan Stanley, while impressive market appreciation attracted new clients to First Republic, increasing their wealth management revenues by over 40%. Continued e-commerce demand and rising inventory levels enabled Prologis to rent out 98.2% of their portfolio. Welltower achieved 77.7% occupancy, recovering much of their pandemic losses, thanks to high vaccination rates among staff and residents. VICI Properties lagged behind with their MGP acquisition announcement that should result in future growth by nearly doubling the current AFFO per share. Fifth Third Bancorp finished the year flat after our Dec 2 purchase but stands to benefit in a rising rate environment.

Looking Forward:

Towards the end of 2021, inflation took off due to increased demand for goods and supply chain bottlenecks, exacerbated by the heavily stimulated economy. The market reacted quickly, pricing in multiple rate hikes for 2022 and an eventual winding down of the monthly asset purchase program. Thus far, the Fed indicated a likely 25 basis point rate hike in March with more to follow, in conjunction with an orderly shrinking of their balance sheet. Most experts expect four different rate rises this year, suggesting another period of outperformance for financials thanks to significant net-interest income expansion. Such quantitative tightening measures require time to take effect, meaning inflation will likely remain elevated through 2022, emphasizing the positive outlook for our value-driven sector.

HEALTHCARE SECTOR

LEAD ANALYST: JAKE ALLEY

ANALYSTS: CONNOR JORDAN-HYDE, CHASE HARDING, TYLER PHILLIPS, GIORGIO SAADE

Sector Overview

The healthcare sector was still largely impacted by the pandemic despite vaccines being introduced in late 2020. Many companies focused their research and diagnostics towards Covid-19 as hospitals continued to battle capacity issues. Additionally, President Biden's plan to implement healthcare coverage for over 2 million low-income Americans failed to go through, causing a large opportunity of domestic revenue to not materialize.

Statistical Highlights

Sector Value: \$707,908.51

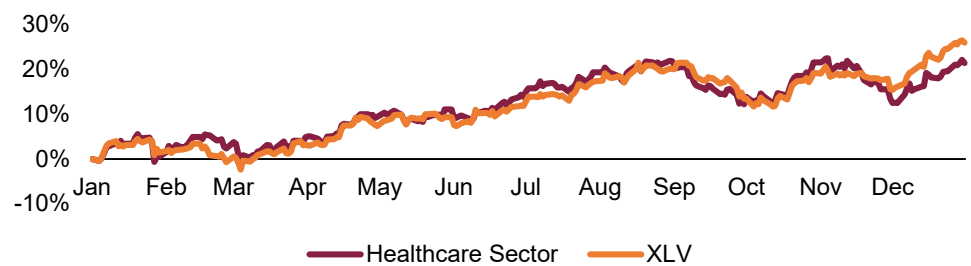
% of Portfolio Allocated: 13.23%

Holding Period Return: 21.26%

Benchmark Return: 26.04%

Active Management Return: -5.58%

Risk Adjusted (CAPM) Return: 26.84%

SEED Healthcare vs. XLV Benchmark

Holdings	2021 Return	Weight
AbbVie	32.40%	16.17%
Cooper Pharmaceuticals	15.33%	15.42%
Lab Corp.	54.37%	23.89%
Merck & Co.	1.81%	14.78%
United Health	45.21%	13.42%
Veeva Systems	-6.16%	15.61%
Organon & Co.*	-8.42%	0.71%

Portfolio Update:

The XLV healthcare benchmark returned 26.04% and underperformed the S&P 500 by 2.67% in 2021. The SEED Healthcare Sector underperformed the XLV by 5.58% over 2021. Our performance largely deviated away from the XLV towards the end of the year due to our holdings in Merck (MRK) and Veeva Systems (VEEV).

Our best performer and largest holding was Lab Corp. (LH) who was able to grow revenues over 30% YoY due to a mix of organic business growth and Covid-19 testing. We will review their potential to sustain revenue levels over the next years.

We had no buys occur in 2021 with our only pitch, Royalty Pharma (RPRX) not approved due to concerns regarding the overly uncertain valuation. The low number of pitches was due to our belief that our portfolio was well-positioned. We also had no sells occur as we believed no holding reached a selling point based on our continued assessments throughout the year. We are looking to change our portfolio makeup to better align with our expectations for the upcoming year.

Looking Forward:

The healthcare sector has seen an increase in innovation and a transition to a modernized system while the average age of the US population is increasing. Consumers are looking for easy and efficient care, while providers are better able to analyze more of their patients' data improve overall care experience. We plan to pitch a diagnostics company that is well positioned to take advantage of these trends. We will also consider selling Merck (MRK), Veeva Systems (VEEV), and AbbVie (ABBV) because of cost concerns, business model performance, and non-recurring revenue risk respectively. With failure of Biden's initial healthcare reform proposals, there are no anticipated imminent changes to healthcare pricing that will have effects on our holdings domestically.

INDUSTRIALS AND MATERIALS SECTOR

LEAD ANALYST: JACOB COHEN

ANALYSTS: EMMA ROBY, DANIEL PETRENKO, SHRAVAN MOHAN, MATT ZAYAS, MASON COBBLER

Sector Overview

The industrials and materials sectors have continued to face supply chain bottlenecks following the turmoil in 2020 while still seeing optimism from the infrastructure bill that was signed in November of 2021. The outlook for industrials is mixed as supply chain issues roar on and labor shortages persist, however certain industries like automation, shipping, and upstream chemicals have a positive outlook due to macroeconomic tailwinds.

Statistical Highlights

Sector Value: \$467,089.98

% of Portfolio Allocated: 8.74%

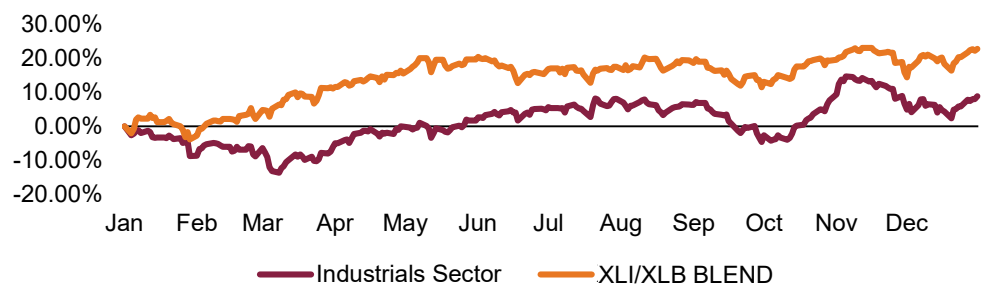
Holding Period Return: **8.69%**

Sector Benchmark Return: 22.67%

Active Management Return: **-21.32%**

Risk Adjusted (CAPM) Return: 30.00%

SEED Industrials vs. XLI/XLB Benchmark



Holdings	2021 Return	Weight
Ameresco*	59.97%	23.50%
Roper Technologies	17.24%	18.74%
EnerSys*	-2.54%	15.78%
CRH*	24.00%	14.73%
Honeywell	-0.27%	14.28%
XLB*	25.17%	7.26%
XLI*	22.45%	5.71%
Lockheed Martin**	0.12%	0.00%

Portfolio Update

In FY2021, the industrials and materials portfolio underperformed its blended benchmark, driven by most holdings lagging their index. There were several key trades during the year, including a buy of AMRC, ENS, CRH, XLB, XLI. LMT was sold on 9/15 because of limited growth opportunities and difficulties with M&A and programs. Ameresco (AMRC) performed well in the year from their growing recurring revenue segments. Roper's (ROP) shares underperformed the XLI despite plans to invest in developing companies in the coming year. EnerSys (ENS) has underperformed since its purchase in May due to labor shortages slowing integration of their NorthStar facility. However, the outlook for ENS remains positive due to investments in mega-trends like 5G, IoT, & EV charging. CRH lagged its index by a small margin but had a successful year with several acquisitions in water infrastructure and building products. Honeywell (HON) performed poorly relative to the XLI in 2021 as it suffered badly from input shortages. Lastly, the sector decided to index a portion of the portfolio into the XLB and XLI as a hedge.

Looking Forward:

On 2/2/22, the industrials/materials sector will be pitching ZIM, a marine shipping company focusing on serving nontraditional ports in underserved markets. The basis of this pitch aligns with the booming demand for a global supply chain, strong partnerships, and excellent cash flow utilization. In addition, the sector is looking into areas including but not limited to Air Freight & Logistics and machinery, which, in addition to ZIM, will all be funded through gradual divestment from HON. However, given the macro-economic environment as of January 2022, their diverse revenue streams provides some hedging protection for the portfolio.

CONSUMERS SECTOR

LEAD ANALYST: WES STONE

ANALYSTS: BRYCE DUNLEAVY, DEMITRI GAMBLE, HARRISON WIGER, JOEY MAZZONE, KYLE CANESTRA, VANSHIKA VIJAYRAM

Sector Overview:

Over the past year, many structural changes brought by COVID-19 have affected the consumer sector significantly and the everyday life of consumers has changed. Such changes largely affected spending habits, which were supported by healthy consumer balance sheets, pent-up demand, government stimulus, and low interest rates. This in turn lead to substantial demand for goods, both durable (e.g., recreational goods and vehicles) and non-durables (e.g., food and beverages), while services still have yet to pick up. The Consumers sector was well equipped to take advantage of such fast paced changed, while also having a defensive nature of our holdings due to the possibility of many ongoing risks. While currently underperforming, we see considerable upside with our holdings in 2022.

Statistical Highlights

Sector Value: \$799,682.71

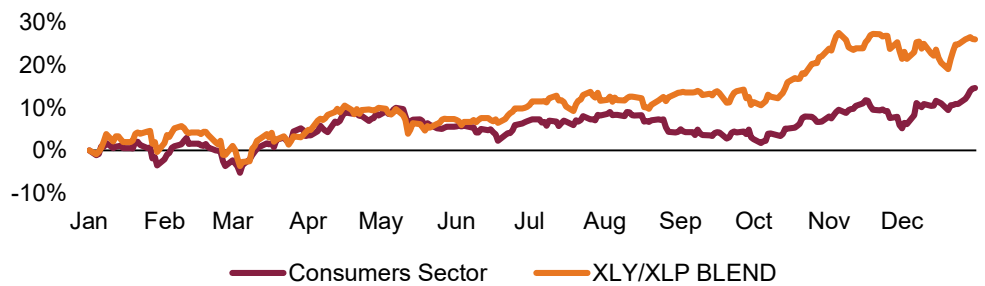
% of Portfolio Allocated: 14.94%

Holding Period Return: 14.69%

Sector Benchmark Return: 26.03%

Active Management Return: -14.30%

Risk Adjusted (CAPM) Return: 28.99%

SEED Consumer vs. XLY/XLP Benchmark**Holdings****2021 Return****Weight**

Alibaba	-48.96%	5.85%
AutoZone	76.84%	20.36%
Conagra Brands	-2.53%	13.13%
Constellation Brands	16.11%	16.50%
Deckers Outdoor*	1.08%	7.76%
Dollar General	13.01%	14.45%
TJX Companies	12.87%	9.73%
Yum! Brands	30.05%	12.22%

Portfolio Update

The SEED Consumers Sector underperformed our blended benchmark by 11.34%, due to the XLY having significant weighting towards Internet and Direct Marketing Retail and Automobiles. We hope to gain more exposure to such industries as the year moves along, as we see increasing growth potential in those markets. Breaking down our current holdings, AutoZone (AZO) was the top performer of the Consumers Sector due to substantial tailwinds in the auto replacement parts industry as consumers drove more miles, average Americans keeping their cars longer, and the used car market seeing peak demand. Yum! Brands (YUM) also has outperformed as strategic investments in digital technology have paid off. Our consumer staples holdings proved to be resilient this past year, offering defensive positions in uncertain times. Constellation Brands (STZ) especially has been able outpace the industry as robust consumer demand in the adult beverages space continued, and a recent partnership with Coco-Cola will also provide ample room for revenue growth. Conagra Brands (CAG) has underperformed as well as Constellation, as supply chain issues and higher commodity prices have weighed heavily on the company. Alibaba (BABA) remains the greatest loss in the Consumers portfolio, but we will continue to heavily monitor and assess the changing regulatory environment. We plan on downsizing some of our current positions, such as AutoZone, and gaining more exposure to other markets we believe still have yet to benefit from pent-up demand (e.g., hospitality & tourism).

Looking Forward:

In 2021 U.S. consumers' Pandemic splurging on goods was slowing down as supply-chain constraints, inflationary pressures, and declining stimulus affected aggregate demand. As economies open up more and socialization rises this coming year, we see eventual shifts in consumer spending to services in 2022. We see travel, restaurants, and entertainment industries as the some of the winners in 2022 due to these trends. We also believe inflationary headwinds faced today in the US has a labor market structural component unique to that of other countries due to the US's approach to supporting laid off workers directly while other countries utilized furlough schemes, leading to many US workers to transition to new jobs and new industries. We have yet to see labor participation pick up as well, due to caregiving responsibilities, retirements, and higher healthy anxiety amongst Americans. Such large challenges faced have led us to want greater exposure to international markets. We believe we can gain gradual exposure to international markets through luxury brands that are benefiting from rising global disposable income. With an optimistic outlook, we will continue to structure our portfolio to take advantage of these key economic trends.

TECHNOLOGY AND COMMUNICATIONS SECTORS

LEAD ANALYST: ALEXANDER NOUFAL

ANALYSTS: GARRETT SCRANTON, NATE DOGGETT, IAN JOHNSON, CARSON KABANCE

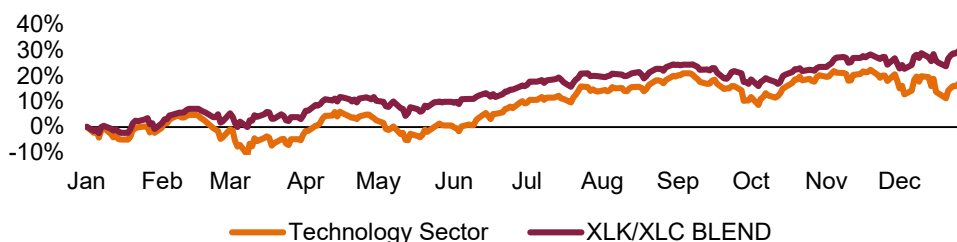
Sector Overview

The Technology and Communications Sectors had a very strong 2021, with companies across the board putting up strong YoY growth and earnings. The liquidity of the market and low interest rate environment has allowed for valuations in high-growth tech names to boost the overall market to all-time highs. Unfortunately, 2022 gains have been withered due to the Fed recently indicating they will cut their bond purchasing program and raise interest rates from current levels, likely starting in March of 2022.

Statistical Highlights

Sector Value: \$1,803,055.19
 % of Portfolio Allocated: 33.70%
 Holding Period Return: 15.76%
 Sector Benchmark Return: 29.05%
 Active Management Return: -12.22%
 Risk Adjusted (CAPM) Return: 27.98%

SEED Technology vs XLK/XLC Blended Benchmark



Holdings	2021 Return	Weight
Adobe	13.38%	14.81%
Apple	38.06%	17.33%
Meta Platforms	23.13%	12.74%
Microsoft	53.98%	19.60%
Oracle	36.90%	2.45%
Service Now	17.93%	15.73%
Block Inc.	-25.79%	6.20%
TSMC*	12.09%	1.29%
XLC*	-4.85%	9.85%
Take-Two**	-17.36%	0.00%

Portfolio Update

Everything from fintech, to cloud software, to cybersecurity returned tremendous gains in 2021. Over the past year, the Infotech(XLK) and Communications sectors(XLC) returned 34.56% and 15.9%, respectively.

On October 19th, we executed a full sell of Take-Two due to their mediocre pipeline of games, further delaying of GTA VI, and weak exposure to mobile gaming. The funds were placed into the XLC fund near its 2021 highs of \$81.95, while we began creating the pitch deck for Activision Blizzard. ATVI has an industry-leading pipeline of both PC, console, and mobile games. SEED decided to hold off on the buy order due to management facing controversies over workplace misconduct.

Microsoft has recently acquired Activision Blizzard and the 30% jump was a missed opportunity for SEED. It is hard to conclude that we should have bought Activision Blizzard amid all the bad sentiment. And the Microsoft acquisition was a surprise.

Selling TTWO after a weak 2021, holding the XLC at market highs, not purchasing ATVI, and Block Inc's(SQ) haircut all lead to our 12.22% underperformance from the benchmark.

Looking Forward:

The FED tightening money supply and raising rates will be the key determinants of the Technology and Communications sectors' performance. Growth companies that performed exceptionally well in 2021 are trading at all-time high valuations, and we believe the market may shift towards value in 2022. We are searching for a new target in either advertising or streaming to replace our XLC position. We also plan to reposition our IT holdings to take advantage of the innovation we are going to see over the next few years. Industries we are looking into include artificial intelligence/machine learning, cybersecurity, and fintech. We plan to reduce our exposure to big tech companies this year in order to identify smaller companies that are at forefront of key trends in the technology and communications sectors in order to outperform our benchmark.

Contact Information



Lukas Khodayar

Co-Chief Executive Officer

Phone: (425) 246-0070

Email: lkhodayar@vt.edu



Charlie Setash

Co-Chief Executive Officer

Phone: (703) 713-2116

Email: charlessetash@vt.edu



Mason Moriarty

Chief Investment Officer

Phone: (804) 938-0473

Email: mason00@vt.edu

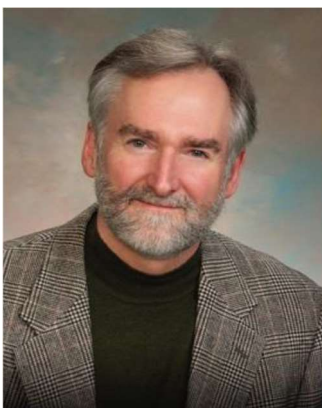


Evan Stahl

Chief Quantitative Officer

Phone: (513) 302-5928

Email: evanstahl6@vt.edu



Professor Randy Billingsley

Faculty Advisor

Phone: (540) 231-7374

Email: r.billingsley@vt.edu

University Information

Virginia Tech Pamplin College of Business

<https://seed.pamplin.vt.edu/>

Facebook.com/VirginiaTechSEED

