BUCKNELL UNIVERSITY STUDENT MANAGED INVESTMENT FUND

SPRING 2023 NEWSLETTER



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INTRODUCTION

The Student Managed Investment Fund (SMIF) is a twosemester experiential course that gives students the opportunity to manage approximately \$3 million of Bucknell University's endowment. There are twenty student analysts that sit on a committee and cover a sector. The committees include Fixed Income, Derivatives, Econ and Strategy, PAR (Portfolio Analytics and Reporting), Corporate Governance, Stakeholder Communications, and Administration.

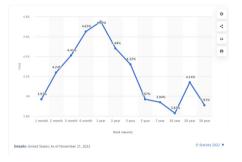
The SMIF portfolio has a 90/10 asset allocation. 90% Equities which is benchmarked to the S&P 500 and 10% Fixed Income which is benchmarked to the Barclay's Aggregate Bond Index. This allocation was chosen by the class considering record-high interest rates, a hawkish Fed, and the recessionary market environment. Although equity prices are depressed, SMIF saw an opportunity to invest considering our perpetual time horizon.

Sector coverage is based on the S&P 500 sectors. The sectors include Technology, Communication Services, Health Care, Industrials, Materials, Energy, Utilities, REITs, Financials, Consumer Staples, and Consumer Discretionary. Analysts are responsible for understanding their respective sector companies and the companies' impact on the overall portfolio. Each analyst is responsible for pitching a security that best fits the portfolio given our market outlook and asset allocation. Each trade proposal must be approved by two-thirds of the analysts in order to be included in the portfolio.

MARKET OUTLOOK

Interest Rates

With respect to the yield curve, we believe that it will remain inverted. For reference, we expect that it will remain inverted at around 50 basis points on the 2yr-10yr spread through year end. Looking at the outlook and sentiment of the Fed, we believe that they are willing to remain aggressive to deal with high inflation, such as steeper rate hikes in the Federal Funds Rate through end of year and being willing to have an economic slowdown and increase in unemployment rate as they attempt to control inflation through monetary policy. As the economy slows from this hawkish activity, we would expect the Fed to begin cutting rates in 2024 leading to declines in short term rates and thus producing a positive yield curve.



GDP

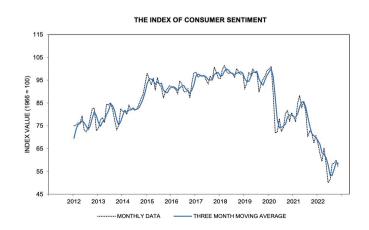
Given our class's conviction that we are going into a recession, we believe that real annual GDP growth for 2022 will be 1-2%. As further economic downturn continues into next year, we believe that there will be no real annual GDP growth (0% growth) in 2023. These forecasts are based on trends seen in the 2008 recession as well as a combination of other analysts' projections.

Employment

Our class believes that the Fed will remain aggressive with monetary policy to control high inflation. Therefore, we believe that they will be willing to have an economic slowdown and an increased unemployment level through at least the end of the year. However, we expect the jobless rate will peak around 4.5%, which at a historical standard is still low. The area we expect to see the most labor shortages is in in-person service sectors.

Consumer Spending

With our class consensus heading into a recession. we feel that consumers will be spending more on everyday essentials, thus consumer staples not consumer discretionary. According to the Michigan Index of Consumer Sentiment, as of October 2022 the number was 59.8, compared to 58.6 in September of the same year. This is a 2.0% increase from the previous month, but a 16.6% decline from the year prior. This measurement looks at consumer attitudes in relation to the overall business climate. Within 2022, the index is tracking lower than it has in the last 10 years, as it is normally around 100 in times of economic expansion. The decline began in 2020, with some recovery in 2021, followed by a significant decline into 2022. This indicates that consumer confidence of the economy is diminishing, and as a result we believe consumer spending will continue to decline. or at best remain constant into 2023.



MARKET OUTLOOK

Housing

With respect to the housing market, we believe that it will continue to slow down. In 2021, the housing market was at all-time highs with very low interest rates. In order to slow down inflation, the Fed has increased interest rates. As we believe there will be more increases in interest rates, we believe the increased rates will slow down the housing market going into 2023. Mortgage rates have been increasing throughout 2022 and will continue to increase into 2023.

International

With respect to economic growth, we expect it to pose a global issue, meaning not only the US. Inflation and supply chain issues are strongly affecting the broader global economy in addition to the US. Inflation has posed a global threat, with the US implementing more aggressive monetary policy actions than most other nations (such as the European Central Bank) in an attempt to control it. As seen in Germany, Europe's largest economy, it is far more out of control due to the lack of aggressiveness when attempting to combat it. Additionally, there is a large amount of international political turmoil given the war in Ukraine, England having its third prime minister in the past year alone, and the reelection of Xi Jinping. A strong dollar has also appeared hurting corporate earnings in the US, as dollars are more expensive to other countries with several currencies making new lows. However, other economies are being affected severely by this as well posing a strong threat of a global recession.

Consumer Staples

With our understanding that we are entering a recession, we are relatively optimistic about the potential of the Consumer Staples sector, given its relative resistance to economic cycles. It is a non-cyclical sector, and has outperformed the S&P 500 during the last three recessions. This is due to less price elasticity of demand that the sector experiences. As a result, it encompasses low volatility. While raw material input costs have been rising, companies that successfully pass on the costs to consumers, through price increases, are remaining steady. Given our conviction in the sector, we have decided to overweight it by 3.00%.

Within the last year the sector has seen a return of -3.27% while the entire S&P 500 experienced a return of -17.82%. The outperformance of the sector thus far has been in line with our continued predictions, that Consumer Staples will once again outperform the benchmark in times of economic uncertainty. Our current holdings in the consumer staples sector include Walmart, Procter & Gamble, Coca-Cola, Estee-Lauder and Clorox.

Consumer Discretionary

SMIF chose to be underweight the Consumer Discretionary sector by 50 bps versus the S&P 500 weighting. This underweight allocation reflects our bearish economic outlook for the next year which will likely hurt consumer spending on discretionary items.

Our current holdings in the sector include Amazon (AMZN), Tesla (TSLA), Home Depot (HD), Chipotle (CMG), and Target (TGT). The class recently voted to close our Nike (NKE) position yielding a holding period return of -32% since being added to the portfolio in April 2021 and to trim our Amazon position which had a holding period return of 177%,

originally purchased in November 2016. Amazon remains the 5th largest individual equity holding in our portfolio. We maintained a covered call position in Etsy to limit our active risk in the stock, which was called away in late November as we elected not to roll given our bearish outlook on Etsy. This yielded a holding period return of -15% since being added to the portfolio in May of this year. The class also voted to sell out of Marriott in October, despite selling high, in order to hedge against potential future losses which resulted in a holding period return of -12%.

SMIF also uses a covered call strategy to capitalize on particularly volatile holdings and reduce our active risk in the Consumer Discretionary sector. We continue to roll forward and maintain a covered call position on Tesla, aiming for an active risk of 0%. We also sold 2 covered calls for Amazon in order to hedge against rising interest rates and reduce our active risk in Amazon.

Communication Services

The Communication Services sector comprises companies that provide content and communication services through fixed-line, cellular, wireless, highbandwidth, and fiber optic cable networks.

Due to our bearish economic outlook, the SMIF class has chosen to underweight the Communication Services sector to -1.00% compared to the S&P 500. Previously, we were overweight the S&P 500 by 0.18%. Within this sector we hold Meta Platforms, Inc. (META), Alphabet Inc. Class C (GOOG), and T-Mobile US, Inc. (TMUS). In order to get closer to our target asset allocation, we have decreased our position in META to -0.41% active risk. By comparison,

META's weighting in the S&P 500 is 0.92%.

The companies in this sector that we currently hold in our portfolio are primarily growth stocks. This means that they rely on consistent expansion and investment in order to see results in their bottom line. On 10/24, SMIF decided to sell out of the Comcast position to get closer to our target active risk in the sector of 1.00%. By selling out of Comcast, SMIF was able to purchase Elevance Health (ELV) which was pitched by a SMIF analyst this semester. Considering record-high inflation and a hawkish Fed, we believe that being underweight the Communications sector compared to the S&P gives us the opportunity to make investments in other sectors that we have more conviction in considering the current market environment.

Health Care

Given the economic uncertainty of the markets, SMIF continues to see opportunity within the Health Care Sector, adopting a bullish outlook. The class voted to overweight the sector by 3.00% relative to the S&P 500. As recession fears are imminent and the Health Care Sector tends to be relatively stable in economic cycles, being overweight in the sector may allow for outperformance. We expect lower sensitivity to market volatility compared to other industries across the S&P. The sector includes pharmaceuticals, biotechnology, life sciences, equipment and suppliers, providers and services, and technological innovation. Our current holdings are Amgen, Bristol Myers Squibb, Cigna Corporation, Dexcom Inc, Elevance Health, Johnson & Johnson, Thermo Fisher Scientific Inc, and UnitedHealth Group. SMIF also holds XLV, the Health Care Select Sector SPDR, to help us achieve our desired active risk.

So far this semester, SMIF has voted to purchase shares in Bristol Myers Squibb and engage in a buywrite strategy to enter the Elevance Health position. To fund the position, we sold out of Abbott Laboratories. After posting earnings on October 19, Abbott dropped nearly 7%. The company reported lower-than-expected growth in international medical device sales as it is exposed to both foreign exchange and supply challenges in China, and its reliance on COVID-19 tests to bring in sales is worrisome as the demand has been shrinking significantly. The shutdown of a baby formula factory in Michigan introduced even more challenges. Exiting Abbott when we did allowed us to realize some gains before a further drop-off. Additionally, SMIF voted to sell out of Merck & Co. on December 5 to fund the Delta position in the portfolio. Our rationale was to lock in some gains as Merck is currently at a high and analysts do not anticipate further increases in the short-term.

Industrials

The Student Managed Investment fund has elected to underweight Industrials by 50 basis points this semester. We expect the headwinds facing the industry to persist, and the ongoing risks to continue. Input costs have been increased due to the recent rise in global inflation, and an inability to pass those prices onto consumers has limited profitability. Tightening monetary policy is also a macro economic factor, and increasing costs of capital and decreased economic growth will limit growth in the industry. Our holdings are Boeing, Caterpillar, Generac, Fedex, Honey Well, and the industrials select SPDR XLI. All of these positions have faced downdraws due to reasons listed above. For the time being, we do not expect conditions to change. As inflation wanes, input prices decrease, and monetary policy inevitably loosens, these positions will become appealing to add to, as they will likely provide extensive upside and decreased risk due to the drawdowns they have faced recently.

Materials

The Materials sector makes up roughly 2.5% of the S&P 500 and comprises five industries: chemicals, construction materials, containers and packaging,

metals and mining, and paper and forest products. This year's SMIF class is bearish on the sector as our portfolio is currently underweight materials by roughly 100 basis points. Since we believe that we are heading into a recession, we have chosen to be underweight materials because of the sector's cyclical nature.

The SMIF portfolio currently holds two positions in this sector, Scotts Miracle-Gro (SMG) and Newmont Corporation (NEM). Scotts Miracle-Gro is a leading producer of horticultural and turf materials as well as a manufacturer of fertilizers, pest controls, plant foods and other products. While SMG's stock is down substantially year to date, we continue to hold SMG as we believe that it has significant upside potential in the long term. Newmont Corporation produces and markets gold as well as other precious metals. Since NEM's

stock is strongly correlated with the price of gold and since gold is often seen as a hedge against inflation, we believe that NEM is a good investment in the coming months.

Technology

The Information Technology (IT) sector comprises companies operating in three broad areas: Software & Services, Hardware & Equipment, and Semiconductors & Semiconductor Equipment Manufacturers. SMIF strategically maintains a -1% active risk target on the IT sector relative to the S&P 500. As of October 24th, 2022, the IT sector accounts for 24.86% of the SMIF equity portfolio and 25.94% of the S&P 500. SMIF maintains a bearish outlook on the IT sector for the near future due to continued rising inflation and interest rates in the United States. We see IT stocks struggling in the future due to many IT firms being growth companies that struggle during hard economic times.

SMIF's top holdings in the IT sector are Apple, Microsoft, Visa, AMD, Nvidia, and Adobe. SMIF recently purchased 200 shares of SolarEdge with a cost basis of \$237 per share. To decrease risk exposures within the semi-conductor industry especially with the rising geo-political tension between the US and China and the decreasing demand on PC, SMIF is still considering decreasing positions on either AMD or Nvidia. However, with the solid foundations on revenues, integrated development in Technology, and positive outlook in the long horizon, we will continue to maintain a fair amount of positions in the Technology sector with -1% active risk. With the hopes that our negative active risk will lead to outperformance when compared to our benchmark for the current fiscal year.

Financials

Given the current economic outlook, the class has a near-term bearish outlook on the Financial sector as a whole, citing headwinds as a result of a hawkish Federal Reserve, real GDP growth, and the 2-10 spread yield curve inversion. Although hawkish action by the Federal Reserve (who has a current target range of 450 - 475 bps) typically leads to greater net interest income for these companies, we believe that the decline in capital markets and investment banking revenue (and fee based revenue overall) will be larger than the gain in NII. As a result, SMIF originally decided to underweight the S&P 500's Financial sector weighting by 2.50%. However, as economic conditions improved, we decided to shift our underweight to only 1.50%. As of October 28th, 2022, our Financials portfolio includes Berkshire Hathaway (Class B), Goldman Sachs, Citizens Financial Group, Blackstone, American Express, and the S&P 500 Financials ETF (XLF).

As an initial action to reach this target weighting, SMIF sold out of its Ally position of 940 shares at \$30.67 per share. This decision was made due to Ally's sensitive interest-bearing deposit account and auto-heavy loan portfolio going into a recessionary environment. For these aforementioned reasons, we have shortened our focus to institutions with less sensitive interestbearing deposit betas and firms who have a diverse/healthy loan portfolio to withstand a potential recession.

REITs

The REITs analysts believe that REITs stocks could be a strong play for the looming recession. To be classified as a REIT, a company must pay out 90% of its income to shareholders. Therefore, REITs often have a high distribution yield that allows for some cushion for an investor during times of bear markets or recession. The SMIF portfolio is currently made up of 1.30% REITs, compared to the 2.65% carried in the S&P 500.

In our current market, the Fed has shown that they are more than willing to implement strict monetary policy by increasing interest rates. This could have a negative effect on REITs as investors might think to invest their money in these high yielding 2-year and 10-year interests rates rather than risking their money in REIT stock that might become more volatile due to the impending recession. Although this is a concern, the analyst's belief is that these interest rates will begin to normalize and REITs will be an attractive option for investors at this time.

Utilities

Historically, the utilities sector has performed well during recessionary times. Over the past year it has outperformed the S&P 500 by 10%.

Although utilities have performed well YTD, we believe much of that is driven by investors flocking to historically safe assets with fears of recession looming. As a result, we do not see much upside in the future. Additionally, dividend yields are weak when compared to less risky assets like 10 year treasury notes. Because of these two factors, we have decided to underweight utilities by 100 bps. Currently, our utilities exposure is 79 bps, which we believe is well positioned to outperform the sector because of its scale and geographic diversity.

Energy

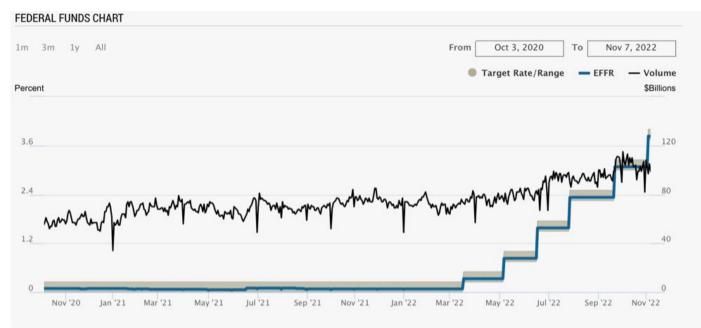
The Energy sector is comprised of companies in the oil, gas and consumable fuel, energy equipment and service industries. The Energy sector makes up 5.35% of the S&P 500. The SMIF portfolio is neutral in the sector as energy has a weighting of 5.3%. This year's SMIF class is bullish on the Energy sector as we voted to have an active risk of 1.00% but our Schlumberger position got called away resulting in the sector being equal weight.

Since the sector has a smaller weighting in comparison to other sectors, SMIF now only has two holdings: ConocoPhillips (NYSE: COP), and Kinder Morgan (NYSE: KMI). SMIF also voted on a put onboarding strategy for Chevron (NYSE: CVX). Additionally, SMIF aims to have a diverse portfolio within the sector and we believe we obtain that diversity with our holdings.

SMIF believes in the near future, the energy sector will continue its strong performance due to multiple macroeconomic factors. We believe there will be a major demand for oil as OPEC recently announced it will be reducing its oil output by 2 million barrels a day. Additionally, the U.S. Strategic Petroleum Reserve has been releasing millions of barrels of oil over the past few months, resulting in the Reserve

to reach its lowest levels in decades. A large increase in demand will be seen in the future when the U.S. decides to replenish its supply which will greatly affect oil prices. However, we will remain very observant of the state of the global economy as energy is strongly correlated with the economy. As we believe the economy will most likely enter a recession in the near future, SMIF will be prepared to adjust our energy sector ratings accordingly.

10% of Portfolio in Fixed Income



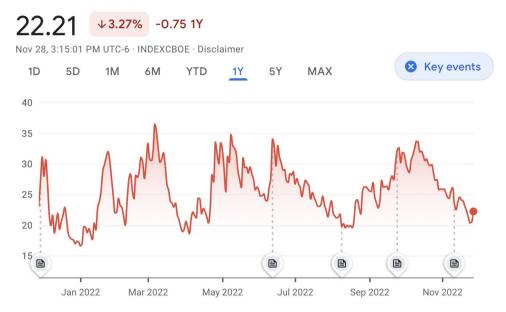
A portion of the portfolio is allocated to fixed income. SMIF voted to have 10% of our portfolio in fixed income. SMIF invests into different fixed income ETFs. We currently hold the following bond ETFs: TIP, LQD, VCIT, GOVT, VCSH, AGG, SCHO.

We have seen continued rate hikes from the Fed and as a class, we believe these hikes will continue until inflation slows. We believe by the end of 2023, the Fed funds rate will be above 5%. Additionally, U.S. interest rates have risen significantly

this year due to increased inflation. With the 10-year treasury currently up 158% YTD (3.96% today) and the 2year treasury up 459% YTD (4.86% today), the 2-10 spread is -27bps. As a result, SMIF increased our position in short term treasuries. This corresponds to the class view of an impending recession which explains the decision to be more bullish in fixed income this semester. As a result the fund has seen outperformance of our benchmark AGG, as of late October. Together as a class we decided to ratchet down our duration in comparison to our benchmark. This is in an attempt to protect the portfolio from interest rate increases in the uncertain economic environment.

DERIVATIVES

CALL & PUT STRATEGIES TO SHAPE OUR ACTIVE RISK



SMIF utilizes a variety of call and put option strategies to shape our active risk in the equity portfolio while benefiting from additional portfolio income. Our charter allows us to implement the following strategies: covered call, protective put, and put onboarding. Given the elevated level of volatility in the market, as measured by the VIX index, we have focused on being a net seller of options to benefit from elevated premium levels. The vast majority of our outstanding short options have implied volatilities greater than 50%. When determining what stocks to write calls on and what strikes to analyze, some of the main factors include implied volatility, time to expiration, option delta (and resulting active risk), next earnings date, and the next ex-dividend date.

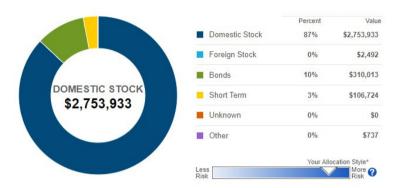
Since May 1, 2022, we have implemented various covered call strategies on TSLA, AAPL, AMZN, MAR, AMD, ETSY, META, SLB, CFG, ELV, NEM, and SPY. Once the class determined our desired active risk in each sector in September, we were able to utilize these covered calls to further shape our sector weightings. All of our covered calls have been sold with out-of-the money strikes expiring in less than 2 months. By continuing to sell calls with short times to expiration, SMIF has benefited from the significant time premium decay occurring as the expiration dates approaches. In the near-term, we plan to continue to be a net seller of options due to the high implied volatilities. We also have implemented a put onboarding strategy for CVX.

To highlight one of our recent strategies, we have been utilizing covered calls to limit our active risk in Tesla (TSLA) to 0% (matching the weight in the S&P 500), we have implemented a covered call strategy and rolled the call on various occasions. On a per-share basis, the covered calls we have since closed on TSLA have led to an additional \$25.25 in premium earned since August 1, 2022.

PORTFOLIO ANALYTICS & REPORTING

As of the beginning of March 2023, the SMIF Portfolio is valued at slightly over \$3.1 million. 87% (\$2.76 million) of the SMIF Portfolio is allocated to equity, 10% (\$310 thousand) is allocated to fixed income, and 3% (\$107 thousand) is held in cash. The benchmark used for the SMIF Portfolio is a blended 90% SPY, 10% AGG portfolio. The asset allocation of our benchmark is set by matching the initial asset allocation of the SMIF Portfolio.

Asset Allocation 100% (\$3,173,882)



Performance Summary

Overall, the SMIF Portfolio has modestly underperformed relative to our benchmark. A large contributor to this underperformance is significant exposure to the IT sector during a general market decline that began in December 2021. SMIF reduced our portfolio's exposure to the IT sector in the Fall of 2022 in anticipation of further decline in the IT sector and the broader equity market due to rising interest rates and inflation. Similarly, SMIF strategically shortened the duration of our fixed income portfolio in the Fall of 2022. Maintaining shorter duration relative to AGG has driven the outperformance of our fixed income portfolio. This outperformance has partially offset the underperformance of our equity portfolio.

Portfolio Return vs. 90/10 Benchmark

During the period April 2022 to December 2022, the SMIF equity portfolio underperformed the S&P 500 by 2.64%. For the same period, the SMIF fixed income portfolio has outperformed AGG by 2.17%. The combined SMIF Portfolio has underperformed our 90/10 blended benchmark by 2.35% during this period.

Top Holdings

Our top equity holdings are AAPL, MSFT, GOOG, BRKB, AMZN, and JNJ, with the current market value of (as of 12/05/22) \$234,608, \$171,887, \$125,836, \$77,642, \$72,808, \$68,830, respectively. Our top fixed income holdings are AGG and BSV, valued at \$191,109 and \$40,689, respectively.

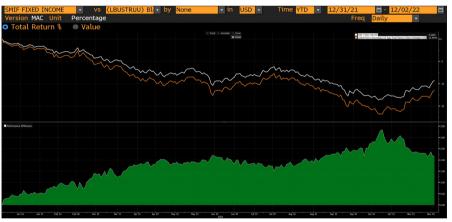
PORTFOLIO ANALYTICS & REPORTING

Recent PAR Committee Developments

The PAR committee implemented a python script into our workflow to automate key areas of gathering market data. This script has allowed the PAR committee to more efficiently compile data and spend more time on critical decision making rather than data fetching. As the finance industry increasingly relies on the use of large data sets, the PAR committee believes automation of workflow is necessary to remain competitive with other investors.

Equity Total Return YTD







Fixed Income Total Return YTD

Portfolio Return YTD

ESG & CORPORATE GOVERNANCE

The Corporate Governance committee is responsible for encouraging the class to examine the current portfolio holdings and new holdings against a corporate governance lens. This semester, the Student Managed Investment Fund had the pleasure of welcoming Carolyn Miles as a guest speaker. Miles was the President and CEO of Save the Children, a British charitable organization. She's also a Professor at the University of Virginia Darden Business School. During our conference, Carolyn gave a talk on the importance of ESG principles and how companies in the United States have made a significant shift in that direction. She provided examples of companies such as Best Buy (BBY) and Morgan Stanley (MS) that she believes have made a name for themselves in terms of ESG advancement. Most importantly, especially as SMIF analysts prepare for stock pitches, Carolyn told us about the MSCI ESG Ratings & Climate Search Tool. This tool allows analysts to gain a comprehensive look at the ESG rating of companies and to understand where a business may be strong or lacking with regard to this metric.

Following this great opportunity to meet Carolyn Miles, the Corporate Governance committee incorporated this information in a presentation to the analysts. The aim of this presentation was to reiterate Carolyn's key points, the value of the MSCI ESG Ratings & Climate Search Tool, and where the SMIF portfolio currently stands with regard to ESG. According to this tool as of 10/4, 18 companies in the portfolio were ranked as industry leaders (AAA, AA), 32 as industry average (A, BBB, BB), and only 1 as an industry laggard (B, CCC). After considering Carolyn's points and reviewing the class portfolio, the analysts of SMIF deliberated and motioned to pass the ESG statement on 10/4. Although the statement itself was not modified, save for the date it was last reviewed, the class had an insightful conversation regarding ESG and the value behind these investing principles when it comes to considering a company for a stock pitch. It's worth noting that while not all companies pitched by SMIF will exemplify the ESG investing principles, it's a factor that all analysts must holistically consider when looking at a potential company to pitch. Since multiple stocks have been pitched and sold throughout the semester, the ESG ratings of SMIF's holdings have also changed. Since 10/4, and as of 12/4, 19 companies in the portfolio have been ranked as industry leaders (AAA, AA) which is up from 18. Meanwhile, the amount of industry average and industry laggard holdings have remained the same.

solaredge

Garrett Kiesel'23 evaluated SolarEdge Technologies(NASDAQ: SEDG) on October 3rd, 2022. SolarEdge is a leading global solar company focused on optimizing renewable energy. Founded in 2006 and headquartered in Herzliya, Israel, SolarEdge revolutionized the solar industry by inventing a better way to harvest and manage energy in photovoltaic systems (PV). The SolarEdge ecosystem consists of solar inverters, power optimizers, energy storage, smart energy management, and software. They have installed over 2.6 million inverters across 133 countries. Garrett's investment thesis was focused on the future need for renewable and solar energy, recently enacted government policies that provide incentives to switch to solar energy, SolarEdge's innovative and differentiated product line, and consistent revenue growth. SMIF voted to buy 200 shares of SolarEdge (SEDG) at market price, funded through the sale of Lam Research (LRCX) and PayPal (PYPL).

lu Bristol Myers Squibb™

Molly See'23 evaluated Bristol Myers Squibb (NYSE:BMY) on October 17th, 2022. Bristol Myers Squibb is a pharmaceutical company that produces life-saving drugs for critical diseases. The company was founded in 1887 in Clinton, NY, and went public on the New York Stock Exchange in 1929. Revenue is generated in one business segment, Pharmaceuticals, and operations are divided into six therapeutic areas, hematology, cardiovascular, immunology, neuroscience, fibrotic diseases, and solid tumors. The company is headquartered in New York, NY and operates globally, with a primary focus in the United States. Given the pharmaceutical industry's inelastic demand, Bristol Myers Squibb has remained defensive in times of economic uncertainty. Molly's investment thesis focused on their robust product line, business development initiatives, ESG focus, and ability to return capital to shareholders. SMIF voted to buy 600 shares of Bristol Myers Squibb (BMY) at market price, funded by the sale of Nike (NKE) and 200 shares of Amazon (AMZN).

Elevance Health

Georgia Shell'23 evaluated Elevance Health (NYSE:ELV) on October 24, 2022. Elevance Health is the largest health insurer in the United States in terms of medical membership, serving over 47 million medical members through its affiliated health plans. Elevance Health was founded in 1946 and is headquartered in Indianapolis, Indiana. Georgia's investment thesis was focused on increasing membership, growing investments in technology, and strategic acquisitions as strong growth catalysts for the company. Health care companies have held their own this year against a challenging macroeconomic environment. Given the size of the aging population and the increase in chronic diseases, there is reason to believe that health care will be even more indispensable. As the stock jumped after the Q3 2022 earnings release, Georgia proposed a buy-write

strategy. SMIF voted to buy 100 shares of Elevance Health (ELV) at market price and simultaneously sell 1 ELV January 520 call, funded through the sale of Abbott Laboratories (ABT) and Comcast (CMCSA). In order to increase active risk in the Health Care Sector, SMIF also voted to buy 140 shares of the Health Care Select Sector SPDR (XLV) at market price, funded with cash in the portfolio.

XX Citizens Financial Group, Inc.

Paul Danenberg'23 evaluated Citizens Financial Group(NYSE: CFG) on October 31st, 2022. Citizens Financial Group is a high-growth commercial bank serving clients across the United States and particularly in the Northeast, expanding both organically and acquisition-based through net interest margin expansion (3.24% in 3Q22) and recent M&A activity. The company is headquartered in Rhode Island with \$225 billion in total assets and more than 1,200 branches spread across 14 states. The company offers deposit, lending, capital markets, wealth management, foreign exchange, derivatives, and a variety of other services to its consumer and commercial clients. Acquisitions of similar regional banks and financial institutions have become core to CFG's successful growth, including HSBC, Investors, JMP Group, and DH Capital in 2021 and 2022. Through their recent Investors and HSBC acquisitions, CFG has grown its geographic reach to the strategic NYC metro area. These acquisitions have helped support efficiency ratio improvements and ROTCE growth. Overall, Paul's investment rationale focused on 5 main areas: asset sensitivity, balance sheet diversity, efficiency saves in acquisitions, strong dividend payout and share repurchases, and a consistent common equity tier 1 capital ratio. SMIF voted to buy 1200 shares of Citizens Financial Group (CFG), 300 shares of the Financial Sector ETF (XLF) and simultaneously sell 6 CFG January 42.50 calls, funded through the sale of J.P. Morgan (JPM).

🔰 Chevron

Rob Herrmann'23 evaluated Chevron Corporation (NYSE:CVX) on November 7th, 2022. Chevron Corporation and its subsidiaries operate as one of the largest integrated energy and chemicals operations worldwide. Chevron is headquartered in San Ramon, California, and employs around 42,000 people in over 180 countries, Founded on September 10th, 1879 as Pacific Coast Oil Co. Chevron has provided energy solutions throughout the world for over a century. Chevron operates in two segments, upstream and downstream. Chevron's upstream segment explores for, develops, and produces crude oil and natural gas. The downstream segment focuses on refining crude oil into various petroleum products as well as the sale and marketing of other liquid and renewable fuels. Rob's investment thesis was focused on the long-term global demand for liquid fuels, supported through various trends including but not limited to GDP growth, population growth, the energy transition, and energy security. Chevron has also remained committed to shareholder returns, growing their dividend for the past 35 years, which displays financial fortitude and discipline through strong and weak times. With this current commodity cycle potentially just beginning, it is important to own an integrated oil company to capture all aspects of potential upside, while receiving strong shareholder returns. Due to a significant increase in share price after deciding to pitch, Rob elected to use a put onboarding strategy. SMIF voted to sell 3 contracts of the January 20th, \$175 put, funded by buying back our SLB calls and selling those respective shares.



Hunter Shields'23 evaluated Raytheon TechnologiesCorporation (NYSE: RTX) on November 14th, 2022. Raytheon Technologies is an aerospace and defense company that provides products and services for commercial, military, and government customers worldwide. Raytheon Technologies is made up of four core subsidiaries: Collins Aerospace, Pratt & Whitney, Raytheon Missiles & Defense, and Raytheon Intelligence & Space. Raytheon Technologies is headquartered in Waltham. Massachusetts and employs over 170.000 employees. Collins Aerospace provides aerospace and defense products, along with aftermarket sales, for commercial and military aircrafts. Pratt & Whitney supplies wide and narrow body engines for commercial and military aircraft manufacturers. Raytheon Intelligence & Space is a leading developer and provider of integrated space, communication and sensor systems for multiple U.S. organizations. The Raytheon Missiles & Defense is a leading defense integrator for the U.S. Department of Defense, including the U.S. Navy, U.S. Army, Missile Defense Agency, and U.S. Air Force. Hunter's investment thesis was based on the Raytheon Technologies unique balance between commercial aerospace and defense. The lifting of air travel restrictions resulted in the increase of commercial air travel. This increase in demand has led to aircraft manufacturers' need for original equipment and aftermarket sales. Also, the geopolitical uncertainty surrounding the war between Russia and Ukraine has led to many countries, including the United States, to increase their defense budgets, SMIF voted to sell their 490 shares of the Industrial ETF (XLI) and purchase 475 shares of Raytheon Technologies (RTX).



George Fox Savin'23 evaluated Iron Mountain Incorporated(NYSE: IRM) on November 14th, 2022. Iron Mountain is a global leader in innovative storage, asset lifecycle management, and information management services. Founded in 1951 and publicly traded in 1996, Iron Mountain is trusted by more than 225,000 customers worldwide. Iron Mountain has a real estate network of more than 90 million square feet across approximately 1,450 facilities in 63 countries. Iron Mountain stores and protects billions of valued assets, including critical business information, sensitive data, and cultural and historical artifacts. Through a range of services, including digital transformation, data centers, secure records storage, information management, asset lifecycle management, secure destruction, and art storage and logistics, Iron Mountain helps businesses bring light to their dark data, enabling customers to unlock value and intelligence from their stored digital and physical assets at speed and with security. SMIF voted to sell 121 shares of the S&P 500 ETF (SPY) to fund the purchase of 910 shares of Iron Mountain (IRM).

The Blackstone Group[®]

David Fink'23 evaluated The Blackstone Group (NYSE: BX) on November 28, 2022. Blackstone is the largest manager of alternative assets in the United States with Total Assets Under Management of \$950.9 billion as of their most recent quarter. The company was founded in 1985 and operates globally with headquarters in New York, NY. Blackstone operates within four main segments: Real Estate, Private Equity, Hedge Fund Solutions, and Credit & Insurance. Given the company's diverse operations, Blackstone is well positioned for any market environment. Despite the recent economic turmoil, Blackstone is advancing through its largest fundraising cycle ever, successfully providing clients with capital protection, growing their AUM, and continuing to complete transactions. Overall, David's investment rationale was focused on strong fee related earnings growth, the private equity cycle, potential inclusion in the S&P 500, and a strong dividend yield. SMIF voted to sell 1200 shares of their Financial Sector ETF (XLF) position and buy 500 shares of Blackstone (BX) using the proceeds, in addition to cash in the portfolio.



Mike Ryan '23 evaluated Roper Technologies (NYSE: ROP) on December 5, 2022. Roper is headquartered in Sarasota, FL and is a diversified technology company that designs and develops software-as-a-service and technology enabled products. The company is highly acquisitive andcurrently operates 27 market leading businesses that provide vertical software to niche end markets. Roper operates within three main segments: application software, network software and technology enabled products. Overall, Mike's investment rationale focused on Roper's sustained organic growth as a result of their high percentage of recurring revenue, Roper's vast inorganic growth opportunities given their ~\$4 billion of M&A capacity going into 2023 and their minimal downside risk because of their diverse range of end markets and low customer concentration. SMIF voted to buy 110 shares of ROP using cash and the proceeds from selling 110 shares of the Information Technology Sector ETF (XLK).



Caroline Frank '23 evaluated Delta Airlines (NYSE: DAL) on December 2, 2022. Founded in 1924, Delta is an Atlanta based airline offering scheduled air transportation for passengers, freight, and mail over a network of routes in the United States and internationally. Delta is part of the SkyTeam alliance allowing it and its partners to collectively reach over 900 destinations and 140 countries, boosting international demand, as it allows customers to book flights to destinations Delta does not directly service, with certain legs of the trip being operated by a partner. In 2019, prior to the onset of the COVID-19 pandemic, Delta offered more than 5,000 daily departures and as many as 15,000 affiliated departures and recovered to 4,000 and 5,500 in 2021. Overall, Caroline's investment rationale focused on Delta's global network, diversified and premium revenue streams, and operational reliability. SMIF voted to sell 400 shares of Merck (MRK) and buy 60 shares of the Health Care Sector ETF (XLV) to maintain their desired active risk in Health Care as well as buy 1,000 shares of Delta (DAL) and sell 10 January \$35 Call options.

CAROLYN MILES '83 VIRTUALLY VISITS SMIF



Carolyn Miles '83 joined the Student Managed Investment Fund (SMIF) via zoom as a guest speaker on September 26, 2022. Carolyn is the former Chief Executive Officer of Save the Children, an organization that gives children in the United States and around the world a healthy start, the opportunity to learn, and protection from harm. Prior to Save the Children, Carolyn worked in Hong Kong for American Express and has served on numerous boards including Doerr Institute, Blackbaud, FSG, and the Darden School of Business where she received her MBA. This interactive discussion fostered conversations about sustainability and ESG, a critical element to Carolyn's work as a professor at Darden. Students explored concepts such as maximizing value to stakeholders, the triple bottom line, as well as performing ESG analyses when pitching a stock.

We thank Carolyn for taking the time to speak with SMIF and for offering such insightful thoughts about sustainability from a corporate perspective.



RYAN BERNICKER Committee: Econ & Strategy Sector Coverage: Utilities



JOSHUA BUCKMAN Committee: Fixed Income Sector Coverage: Consumer Discretionary



MEET THE ANALYSTS

Ryan Bernicker is a senior finance major at Bucknell University. After spending two summers working for South Mountain Merger Corp, a SPAC focused in FinTech, Ryan gained some equity capital markets experience. Additionally, Ryan worked for Credit Suisse in its M&A group this past summer, where he developed modeling and equity valuation.

Josh is a senior Managing for Sustainability major from Westport, CT. On campus, he is a member of the environmental club, outing club, plays on the club soccer team, and is a member of the Sigma Alpha Epsilon fraternity. Last summer, Josh interned in New York at Macquarie within their Risk Management Group, specifically working on their Credit Transactions team and will be returning following his graduation in the Spring.

David is a senior from Raritan, NJ studying Finance with a concentration in Computer Science and Economics. On campus, he is the captain of the club tennis team, a former recruitment chair of Chi Phi, and a member of the Bucknell Finance Society. During the summer of 2020, he interned at ABR Dynamic Funds. In the fall of 2020, he then joined a startup named SafeStamp as an intern where he remained through the summer of 2021. Most recently, he interned at Jefferies as a Summer Investment Banking Analyst in the Financial Institutions Group this past summer and will be returning in the full time analyst role following graduation.



CAROLINE FRANK Committee: PAR Sector Coverage: Consumer Discretionary



BRENT JACKSON Committee: Derivatives Sector Coverage: Energy



HAYLEY KOENIGSBERG Committee: Stakeholder Communications Sector Coverage: Health Care Caroline is a senior Finance and Computer Science major from Kansas City, MO. On campus, Caroline is a MGMT100 Freeman Fellow, a member of the Freeman Student Advisory Board, Former President of the Bison Finance Society, and a member of Alpha Delta Pi Sorority. During the summer of 2021, Caroline was a Girls Who Invest Scholar and interned at GCM Grosvenor in their Absolute Return Strategies group. Last summer, Carolineinterned at Houlihan Lokey in their Financial Services Group where she will be returning full-time.

Brent is a senior Finance major from Denton, Texas. On campus, he is a captain of the Bucknell Football Team. Also, he is a member of the Bison Business Alliance and Bison Athletes of Color. This past summer, Brentcompleted an internship at BMO Harris Bank, specifically within the Treasury and Payment Solutions group in Chicago. Following graduation, Brent will be pursuing a fifth year option to continue playing football and continue receiving an education. He will be returning to BMO to complete an internship next summer within the Global Markets group in the New York City office.

Hayley is a senior Finance major from Belmont, Massachusetts. On campus, she is a leader of Women in Finance, member of the Freeman College of Management Student Advisory Board, Bison Finance Society, Alpha Lambda Delta honor society, and Alpha Xi Delta sorority. Previously, she has served as a Freeman Fellow and Teaching Assistant for Economics Principles and Problems. This past summer, Hayley worked as a private banking analyst at JPMorgan in their San Francisco office and will be returning full time in their Boston office following graduation.



LAUREN MALONEY Committee: Econ & Strategy Sector Coverage: Consumer Staples



TREVOR MUTOLO Committee: PAR Sector Coverage: Technology



ROBERT O'NEILL Committee: Stakeholder Administration & Fixed Income Sector Coverage: Technology Lauren is a senior finance major from Westchester, NY. On campus, she is involved in the Bison Finance Society, Women in Finance, and her sorority, Kappa Alpha Theta. This past summer, Lauren was a summer analyst at JPMorgan Chase & Co in the Private Bank and will be returning full-time in NYC after graduation.

Trevor is a senior finance major from Summit, NJ. Within the Freeman College of Management, Trevor serves as a Freeman Fellow to first-year students. Trevor is also a member of Sigma Phi Epsilon, Bison Finance Society, and Alpha Lambda Delta Honor Society. Last summer, Trevor interned at LLR Partners, a growth equity fund in Philadelphia, PA. Following graduation, Trevor will join LLR as a full-time analyst on the Software team.

Robert is a senior Finance & Political major from Blauvelt, New York. On campus he is involved with the Bison Finance Society, Club Lacrosse, Club Golf, and a member of the fraternity, Phi Gamma Delta, FIJI. As a junior, Robert served as a Freeman Fellow where he taught and mentored first year management students. For the past two summers, Robert interned at UBS Financial Services with Exchange Trade Funds (ETF) & Unit Investment Trust (UIT) Product Management & Due Diligence and Mortgage Product Management & Change within Global Wealth Management. Robert is returning to UBS full-time after graduation from Bucknell this May.



MIKE RYAN Committee: Econ & Strategy Sector Coverage: Materials



MIRANDA SEGRAVE Committee: Stakeholder Communications Sector Coverage: Communications Mike Ryan is a senior Accounting major from Fort Washington, PA. On campus, he works at the Bucknell Small Business Development Center as a student consultant for small businesses. Mike is also a member of the Phi Gamma Delta fraternity and the Beta Gamma Sigma Honor Society. This past summer, he worked as an Investment Banking Summer Analyst at KeyBanc Capital Markets in their industrials group in New York City. Mike plans to return to KeyBanc this summer as a full-time analyst.

Miranda is a senior Finance major from Harrison, NY. On campus, she is a member of Women in Finance, Alpha Lambda Delta Honor Society, and is an assistant in the Freeman College of Management. She is a member of Delta Gamma, and previously served as Vice President of Finance. This past summer, Miranda worked at Citigroup as a Markets Summer Analyst in New York City and will be returning next summer fulltime.



PAUL STANLEY Committee: Corporate Governance Sector Coverage: Communications Paul is a senior Economics major from Dubai, UAE. Although a US citizen, Paulhas spent his entire life abroad in London, Hong Kong, and Dubai. On campus, he is a member of the Bison Finance Society and the Academics Chair of the Chi Phi fraternity. Last summer, he worked as an Investor Relations Intern for Koch Communications.



CRISTIANO WEI Committee: PAR Sector Coverage: Technology



PAUL DANENBERG Committee: Derivatives Sector Coverage: Financials



GEORGIA SHELL Committee: Derivatives Sector Coverage: Health Care Chris (Luyuan) Wei is a senior Finance major from Ningbo, China. On campus, Chris works in the Teaching Learning Center as a study group facilitator for Corporate Finance and Accounting I. He is a member of Alpha Lambda Delta and Beta Gamma Sigma Business Honor Societies. This past summer, he worked as a strategic consulting intern at Accenture Consulting helping companies in transition to IT auditing and governance. He is still looking for full-time positions in Finance after graduation or going to graduate school next year.

Paul is a senior Finance major from Chatham, NJ. On campus, Paul is the President of the Bison Finance Society, the Business & Consulting Intern for the Center for Career Advancement, and the TA for Investments (ACFM 362). He has previously served as the President of the Alpha Lambda Delta honor society. This past summer, Paul interned in KBW's, a Stifel company, Investment Banking Division and will be returning to their New York City office as a full-time Investment Banking Analyst focusing on financial institutions.

Georgia is a senior Finance major from Ho-Ho-Kus, NJ. On campus, she is a Teaching Assistant for Accounting I, a former Teaching Assistant for Financial Statement Analysis, and a member of Women in Finance and Kappa Kappa Gamma sorority. This past summer, Georgia worked as an Investment Banking Summer Analyst at KeyBanc Capital Markets in their New York City office. Following graduation, Georgia will join Cain Brothers as an Investment Banking Analyst focusing on healthcare mergers and acquisitions.



HUNTER SHIELDS Committee: Econ & Strat Sector Coverage: REITs



GEORGE SAVIN Committee: Fixed Income Sector Coverage: REITs



MOLLY SEE Committee: Econ & Strategy Sector Coverage: Consumer Staples Hunter is a senior Finance major from Wellesley, Massachusetts. On-campus, he participates in the Bison Finance Society and is also a member of the Phi Gamma Delta fraternity. In Phi Gamma Delta, he holds the position of Mental Health Chair. This past summer, Hunter worked as a financial services business consulting intern at Ernst & Young.

George is a Senior from Vail, Colorado majoring in Finance with a minor in Real Estate. On campus, he is a member of the Men's Squash Team, a member of the Real Estate Club, the President of the Backgammon Club, and has served as the Vice President, Treasurer, and Recruitment Chairman for his fraternity, Phi Gamma Delta. This past summer, George worked at Ares Management Corporation's Real Estate Group in Denver, CO and he will be returning full-time after graduation.

Molly is a senior Accounting and Political Science major from Fort Lauderdale, FL. On campus, she has served as a Teaching Assistant for Intermediate Accounting I and a TLC study group leader for Corporate Finance. She is a member of the Bucknell Women's swim team, Alpha Lambda Delta honor society, Bison Finance Society, Women in Finance, and the College of Management DEI committee. Previously, she has served as Treasurer for her sorority, Chi Omega. This past summer, Molly worked as a Private Equity analyst on the software team at LLR Partners in Philadelphia and will be returning full time following graduation.



GARRETT KIESEL Committee: Fixed Income Sector Coverage: Energy



ROB HERRMANN Committee: PAR Sector Coverage: Industrials Garrett is a senior Accounting major and Classics minor from Chappaqua, New York. On campus, he is the captain of the Bucknell Men's Swim Team and has served as a teaching assistant for Intermediate Accounting I. He is also a member of the Beta Sigma Gamma honor society. He interned at Albert Tucker & Associates LLC the summer of his sophomore year and this past summer he interned at Deloitte in their Audit and Assurance practice in New York City. He is currently seeking opportunities in banking and consulting following graduation.

Rob is a senior finance major from Wayne, PA. On campus, Rob leads the Bucknell Fly Fishing Club, is a member of the club golf team, and is involved in the Bucknell Finance Society. This past summer Rob worked as a summer intern at Franklin Templeton in their New York City office.

BUCKNELL UNIVERSITY STUDENT MANAGED INVESTMENT FUND



MES HALL

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