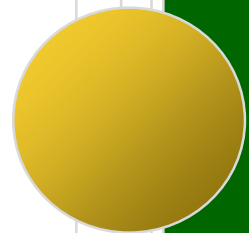




# 2020 GMU SMIF ANNUAL REPORT

GEORGE MASON UNIVERSITY  
STUDENT MANAGED INVESTMENT FUND



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## Investment Strategy and Process

The George Mason University Student Managed Investment Fund operates under a value-based investment approach. The Fund currently manages roughly \$300K and is diversified across six sectors that provide a benchmark for comparative analysis against the S&P 500 Total Return, our fund's benchmark index. The Fund's investment strategy seeks to preserve and enhance assets over time by outperforming the benchmark index, while minimizing risk and transaction costs. The Fund's goal will be met by assessing future economic conditions, including inflation and interest rate levels when determining investment positions within the portfolio.

The fund is actively managed by both the investment and risk committees alongside student analysts and we aim to change our positions only at the end of each semester, as stated by our Investment Policy Statement. Our process begins at the beginning of the semester when student analysts are assigned a specific sector within the S&P 500. Once each sector has been assigned to a team of analysts, the semester starts with each group analyzing the performance of the holdings picked within their sectors from the previous semester. This allows our analysts to become familiar with the methodology of previous analysts as well as identify key drivers within their sectors. This preliminary research gives our analysts the opportunity to begin to identify holdings that they may wish to remove.

Once past performance has been sufficiently reviewed, our analysts will conduct a macro-level analysis of their individual sectors, the S&P 500, and various global markets. This process gets each team more familiar with their respective sectors and allows them to identify domestic and global macro-economic risks to be used in future analysis. This allows analysts to identify key catalysts within their sectors that will help them avoid firms that may remain undervalued for long periods of time. At this point our analysts begin to identify potential firms that they may wish to add to the portfolio at the end of the semester.

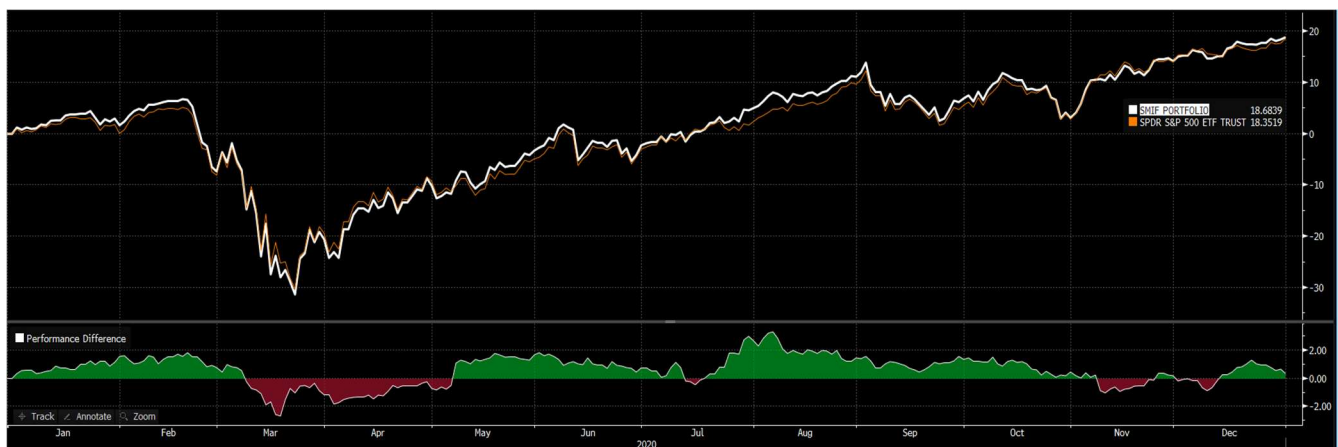
After each team of analysts concludes which holdings they would like to remove from their sectors, and their respective replacements, they will present their findings to the class. At this point the class will then vote whether to accept the changes proposed by each sector, or to hold the current position. Additionally, the class can vote to move the position into a sector ETF if they do not find the current position, nor the proposed changes made by the presenting team to be in-line with our investment objectives. Holdings being added to the portfolio cannot represent more than a 5% weight of our total holdings as stated by our Investment Policy Statement.

## Portfolio Highlights

The SMIF portfolio entered the year 2020 with a market value of \$258,784 and its largest risk bets having been placed in Advanced Micro Devices, Fortinet, and Paypal. Throughout January and February, the fund was able to consistently outperform the S&P 500 until the sharp selloff that took place caused the SMIF to begin underperforming its benchmark in mid-March. This underperformance continued until the submission of the spring semester trades helped restore the fund's alpha to positive territory. Over the course of the year the fund received \$4,793 in dividend income payments which, combined with the fund's capital gains, helped the market value at year-end reach \$307,230. A look at the portfolio's active management shows that the student analysts' stock picks were responsible for the fund's outperformance. The effect that security selection had on the SMIF's active return was 1.77%. This is compared to the effect that active sector allocation decisions had and/or the interactive effect of simultaneously making active selection and allocation bets, which had attributions of -0.26% and -1.17% respectively. A risk analysis of the portfolio reveals that the SMIF's risk levels were in line with its benchmark with a beta of 0.99. The volatility of the portfolio over 2020 was 34.21%, while the S&P 500's was 36.39%. The daily expected shortfall is \$8,944 or 2.91% while the portfolio's value at risk is \$8,183 or 2.66%. Given these risk measures, the portfolio was able to outperform its benchmark on a risk adjusted basis, with a Sharpe Ratio of 0.74 compared to the benchmark's 0.73 and a Jensen Alpha of 0.62%.

## Performance Analysis

Overall, we outperformed our benchmark by 33 bps over the period 1/1/20-12/31/20, as the fund returned 18.68%, in comparison to 18.35% for the S&P 500. The biggest contributor to this outperformance was the Technology sector which saw a 64.18% increase over the period, compared to its benchmark's (XLK) return of 43.89%. PayPal (+116.51%) and Advanced Micro Devices (+99.89%) played a large part in this sector's success. Other notable contributors to our outperformance were the Consumer Staples (+20.17% vs. benchmark's +10.75%) and Consumer Discretionary (+40.25% vs. benchmark's +34.38%) sectors. The Energy Sector struggled the most with a return of -32.12% compared to the benchmark's 33.68%. Phillips 66 (-42.28%) was the biggest contributor to this underperformance.



## **2021 Investment Outlook:**

The U.S. Economy has struggled since the onset of Covid-19 precautions, while the stock market made a miraculous recovery from the low point it reached last March. Sentiment going into 2021 has been largely positive as the prospect of quarantine restrictions being eased seems to be drawing closer with the initial roll out of vaccines. We expect the stock market to continue riding the upwards trend that it has been on coming out of 2020. There are several risks of a downturn in 2021 however, primarily centered around distrust of the American market (people feel the stock market does not resemble the current economy), slow economic growth, and resurgence of the coronavirus. Also, with the appointment of a new presidential cabinet underway, whom have ambitious goals toward policy change ranging from environmental regulations to tax increases 2021 is poised to be a volatile year for the markets.

US stocks had a great year in 2020 with the S&P 500 growing 18.35% but this performance was mainly driven by a very strong technology sector with exceptional levels of volatility; both of which were also characteristics of the Student Managed Investment Fund. There were many reasons for the high volatility and dominance of technology, and they centered around the coronavirus. With the coronavirus forcing people to stay home they have mainly been using applications and technology to communicate and interact with the rest of the world. This has driven revenues for the major technology companies and caused their values to skyrocket. It has also caused the government to look toward regulating them more which forced heavy down days on their stock and added to their volatility throughout the year.

In addition to the management of the coronavirus, the growth rate of the United States economy out of this economic recession will have a significant impact on the market in 2021. Investors will be carefully watching to see if consumers begin to leave their homes and go back to a normal life. If so, the other sectors that have continuously lagged throughout the year like energy and transportation should begin to come back and catch up with the technology sector; therefore, driving major growth in the market all through the year 2021.

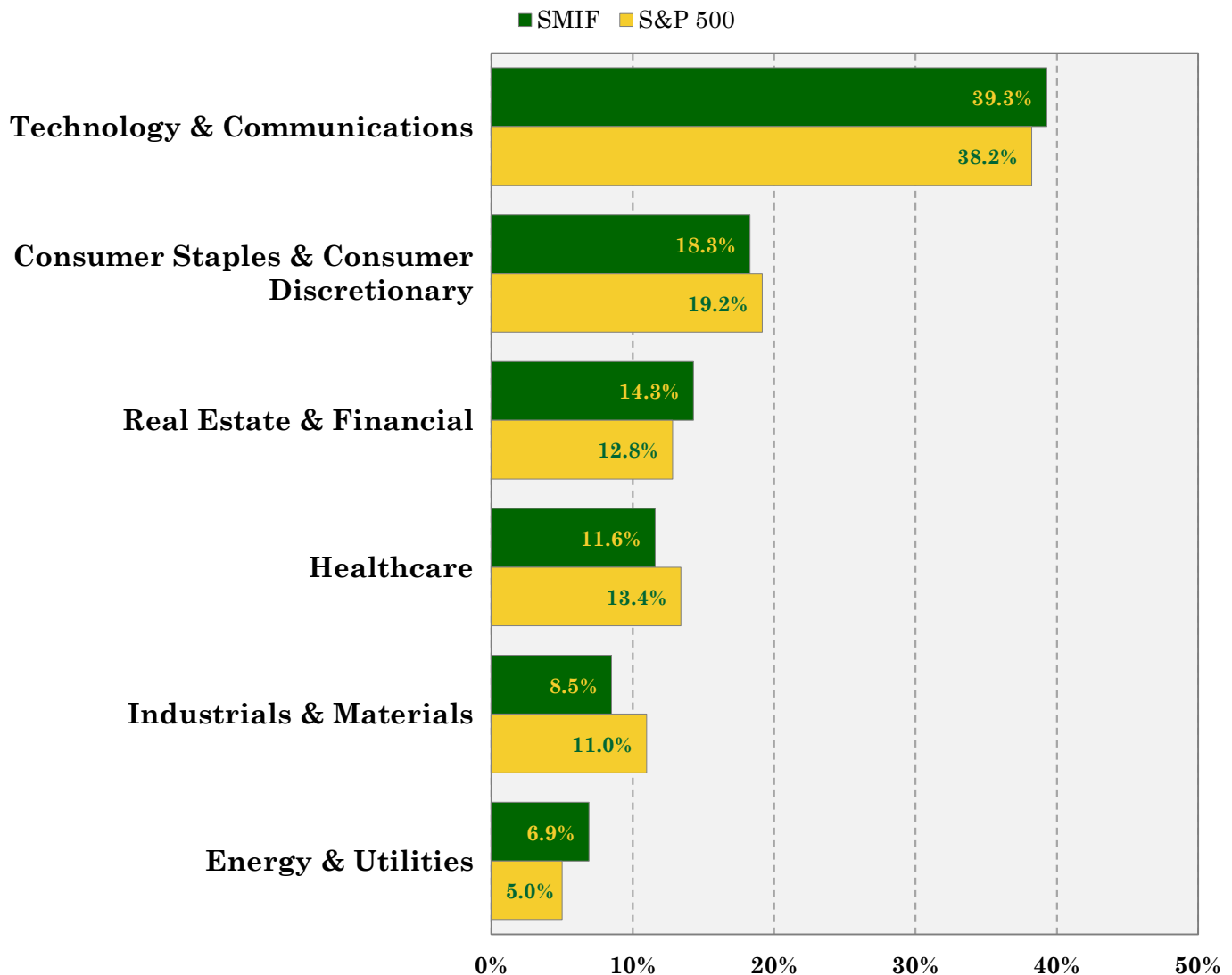
Other components that have widely impacted the market have been reliably low interest rates and a growing amount of retail investors joining the market. All of 2020 the Federal Reserve has kept interest rates low and we expect that to stay true throughout 2021. These low rates will hopefully increase consumer spending which will in turn support stock prices. Then with more and more retail investors joining the market while they have been home all through 2020, we expect them to keep stock prices growing through 2021 as they continue to invest their money.

## GMU SMIF Sector Reports:

GMU SMIF is comprised of six sectors that represent the benchmark for a comparative analysis. Each sector is analyzed in the following pages which detail: current holdings, sector performance over the analyzed period, statistical highlights and upcoming investment expectations. The six sectors represent the benchmark are: Energy & Utilities, Consumer Staples & Consumer Discretionary, Healthcare, Industrials & Materials, Financial & Real Estate, and Technology & Communications.

### Portfolio Allocation

As of 12/31/20



## Sector Performance

Due to COVID-19, the Energy Sector was the worst performing sector in the S&P 500 in 2020. However, due to our active selection of stocks, the fund was able to reduce the impact of the downturn in the Energy Sector by 156 bps compared to market. The overweight on Utilities while reducing our holdings in energy allowed us to outperform the Energy and Utilities sectors by 1.56% and 18.08%, respectively.

## Sector Summary

The COVID-19 pandemic caused one of the most unprecedented collapses in oil prices ever seen. As lockdowns and other restrictions were put in place throughout the country, demand for oil cratered. This coincided with disagreements amongst OPEC nations on production cuts, and ultimately lead to an oversupply of oil in the market causing prices to briefly fall below zero in April 2020. Although oil prices stabilized due to production cuts by OPEC in the following months, oil prices continued to be weighed down by lower demand and uncertainty as to when or if demand levels would return to where they were prior to Covid-19.

As of yearend, the Energy and Utilities Sectors make up 6.90% of the portfolio. On average, Energy and Utilities were weighted at 9.53%, with Energy being underweight and Utilities overweight. The fund sold off Valero Energy to conform with the IPS and also sold Chevron Corp. and Phillips 66 due to a poor outlook on performance. In December, the fund opted to instead move into First Trust Nasdaq Clean EDG, a diversified ETF focused on clean energy, which has since been a top performer. In Utilities, we maintained an overweighed position as NextEra continued to show positive results. Following a dismal performance over Q4 2020, we recently sold all shares of Dominion and reallocated the proceeds into the SPDR Utilities ETF.

## Upcoming Investment Expectations

As the United States looks to invest in “green” energy sources, Utility and Energy companies are on a multiyear evolution phase which offers investors much room for growth. The EPA predicts reliance on renewable energy recourses will grow from the current 10% to 39% in total US energy mix by 2030. The sector offers a significant investment opportunity as Utility companies are replacing coal-powered fleets with renewable energy-based plants. In 2021, we expect oil prices to remain instable due to COVID-19 restrictions and market trends towards electric vehicles (EVs). We are holding a slightly overweight portfolio of companies moving towards renewable energy sources, which is both environmentally friendly and financially attractive over the long-term.

Energy & Utilities	Weight	HPR
FIRST TRUST NASDAQ CLEAN EDG	2.98%	14.62%
NEXTERA ENERGY INC	2.74%	30.08%
DOMINION ENERGY INC	1.18%	-5.27%
<b>Total</b>	<b>6.90%</b>	

## Sector Performance

In 2020, the Consumer Discretionary Sector outperformed of its benchmark by 10.62% (40.25% versus the XLY's return of 29.63%). The Consumer Staples Sector of the fund's portfolio also experienced a favorable performance against its respective benchmark with an excess return of 10.02% (20.17% versus the XLP's return of 10.15%). With the Consumer Sector being one of the overall top performers of the S&P for the year of 2020, companies such as Amazon (+76.26%), Target (+63.21%), and Wal-Mart (+23.34%) all experienced great returns because of economic conditions surrounding the COVID-19 pandemic and the businesses being deemed essential during lock-down periods. In March, we decided to introduce the XLP and XLY into the portfolio to minimize risk surrounding the uncertainty of the virus and its potential effect on markets in general. This also led to us selling our position in Tapestry (+0.81%) as the stock price fell to the 20% threshold relative to the XLY and the S&P 500.

## Sector Summary

The year of 2020 was filled with uncertainty surrounding conditions presented by the Coronavirus. In the Consumer Sector, we experienced a shift in the importance of services like e-commerce. Fortunately, the portfolio's holdings leading up to the market's lows in March were well suited to be able to withstand the economic conditions experienced, with e-commerce and essential businesses being amongst the year's outperformers. We also experienced the Federal Reserve lowering interest rates to historical all-time lows to support expansionary monetary practices. Along with interest rates lowering, fiscal support resulted in a \$1,200 stimulus which helped aid the economy as well as providing a surge in consumer goods. With the lockdown came the new trends of teleworking, as we saw a mass exodus of individuals inhabiting some of the biggest cities in America, in turn relocating to homes outside of the city in the suburbs. The fund currently has a position in Lennar (+38%) and it will be important to monitor the holding in relation to the expected continuation of low interest rates as well as how businesses place importance on if employees can continue to work from home.

## Upcoming Investment Expectations

Due to the favorable performance of the Consumer Sector amid a pandemic, we felt it was appropriate to sell the holdings we had in the XLY and XLP ETFs at the end of the year and take on more single stock risk. In the summer of 2020, we introduced Coca-Cola (+16.57%) to the portfolio and saw a favorable return in relation to the XLP. With the introduction and distribution of a vaccine currently underway, we are anticipating the return of live events as well as dining out, both in increasing capacities. These are large drivers of Coca-Cola's revenue streams. At the latter end of 2020, we also introduced Nike to the fund's portfolio in hopes to take advantage of a growing trend in athleisure wear that is estimated to reach a market value of \$247.1 billion by 2025. With a second stimulus expected at some point in the near future, we feel extremely favorable about the consumer sector as well as our holdings going into 2021

Consumer Staples & Discretionary	Weight	HPR
AMAZON.COM, INC	5.31%	76.26%
LENNAR, CORP.	4.37%	38.00%
NIKE INC -CL B.	2.44%	
TARGET CORP	2.24%	63.21%
COCA-COLA CO/THE	2.02%	16.57%
WALMART, INC.	1.88%	23.34%
<b>Total</b>	<b>18.27%</b>	



## Sector Performance

The SMIF saw a yearly return of -1.43% in the Healthcare Sector compared to the S&P's Healthcare Sector return of 13.37%. It is our belief that the uncertainty surrounding the COVID-19 pandemic, vaccine development and deployment, along with political and legal questions surrounding the healthcare system, has contributed to underperformance in the Healthcare Sector.

## Sector Summary

The SMIF divested a number of holdings in the Healthcare Sector this year. We were long on Stryker as they were the top performer. Bristol-Meyers Squibb, which was a top performer from 2019-2020 was stagnant in 2020. The SMIF cut Biogen Inc. as it passed the -20% threshold compared to the sector ETF. During the end-of-the-year rebalancing, the SMIF discarded Abbott Laboratories, and Quest Diagnostics at a loss. We also sold our remaining shares of Johnson & Johnson as their performance was starting to lag behind the rest of the portfolio and the S&P Healthcare Sector as well. Although it was expected that these companies would benefit from an increase in Coronavirus testing and the imminent release of new COVID-19 vaccines, their performance was underwhelming. CVS was added at year-end. As one of the nation's largest pharmacy chains, CVS will be instrumental in the delivery of the COVID-19 vaccines. CVS earnings has beat estimates the last 3 quarters and is expected to meet estimates this quarter. When the portfolio was rebalanced, multiple lots of the SPDR Healthcare ETF were purchased and sold to keep the sector weight in line with the S&P 500.

## Upcoming Investment Expectations

As the Biden administration takes over from the Trump administration, there will likely be more funding for the vaccine roll-out. Companies that will be receiving this funding will likely see a rise in their stock price as the focus shifts from medical research and tech companies to pharmacies. When the vaccine has been distributed and the economy starts to fully reopen, we expect there to be great opportunity in the sector as many medical procedures had been skipped due to the pandemic. This has cut earnings and stock prices in most of the Healthcare Sector. Another macro factor to be mindful of is the anticipated ruling from the Supreme Court on the Affordable Care Act. The ruling, whether for or against, is sure to have major implications for Healthcare Sector.

Healthcare	Weight	HPR
CVS HEALTH CORP	3.23%	
BRISTOL-MYERS SQUIBB CO	3.07%	0.39%
HEALTH CARE SELECT SECTOR	2.96%	10.63%
STRYKER CORP	2.40%	18.15%
<b>Total</b>	<b>11.66%</b>	

## Sector Performance

The Industrials Sector underperformed its benchmark by -10.27%. Raytheon was the largest contributor over the period with an HPR of -49.06% and contribution of -1.81% to the overall portfolio return. The Materials sector has underperformed its market counterpart by -15.36%. Together, Industrials & Materials contributed -0.63%, or -\$547, to the overall portfolio return.

## Sector Summary

Despite the underperformance of the Industrial Sector, Kansas City Southern and Honeywell International Inc. both had notable gains of 34.55% and 22.97%, respectively. With the expectation that they continue to overperform in the future, at yearend the 3.29% weight previously held by the sector ETF was redistributed between these two equities as well as a new holding, Masco Corporation. All shares of Boeing were sold in January, allowing the Fund to avoid further losses due to global travel restrictions. All shares of Raytheon were sold in the third quarter and Lockheed Martin, TransDigm, and Royal Gold were sold in the fourth quarter. As of 12/31/20, Industrials & Materials has a daily expected shortfall of 0.27% and comprises 8.58% of total portfolio risk.

## Upcoming Investment Expectations

Disruptions from the pandemic have led firms to assess weaknesses in their supply chains and look for ways to improve flexibility of their networks and operations. Investment in technologies such as digital twins and digital supply networks will make it easier for manufacturing firms to adapt to future changes. Exploration of domestic and regional markets is likely to occur as firms consider the risks associated with complex, global supply chains and look to reduce their dependency on China. Increasing demand for sustainable products is expected to influence firms' behavior, including investing in new chemical recycling technologies and focusing on materials used in the development of electronic vehicles such as copper and lithium. Regarding current holdings, KSU should continue to benefit from cost reductions due to precision-scheduled railroading as well as opportunities for growth of their cross-border network. Masco has shifted its product mix to focus on lower-cost repair and remodeling products, which will increase sales as the home improvement industry is expected to remain strong. With \$15 billion in cash, Honeywell plans to invest in their digital strategy as they focus on becoming an industrial-software enterprise. Technology-oriented M&A, such as their recent acquisition of Sparta Systems, may provide opportunities for growth and access to new end-markets.

Industrials & Materials	Weight	HPR
KANSAS CITY SOUTHERN	4.26%	34.55%
HONEYWELL INTERNATIONAL INC	2.70%	22.97%
MASCO CORP	1.50%	
<b>Total</b>	<b>8.47%</b>	

## Sector Performance

The Real Estate Sector returned -4.28% during the holding period, while the Financial Sector returned -12.15%. Resulting in underperformance of -2.04% and -10.41%, respectively. Morgan Stanley was the top performing holding in the sector with a contribution to return of 1.11%.

## Sector Summary

The losses were driven by the pandemic leading to near zero interest rates, a weakening U.S dollar, and less demand for commercial real estate. After the annual stress test found that capital levels could fall dangerously low, restrictions were placed on buybacks, dividends, and reserves, further hindering the financials' recovery. After a good deal of divesting, the Real Estate & Financial Sectors represent 14.34% of the current SMIF portfolio. We have scaled back the Real Estate Sectors to only one holding, Boston Properties Group whose financials have remained strong and is beginning to see increasing revenues once again. JPMorgan and Morgan Stanley, two leaders in multiple financial sectors, now carry most of the weight in the financial sector. State Street Corp. provides a valuable hedge to banking because of their focus on investment services, while holding cost advantages over competitors. The Financial Sector had the most significant negative contribution to the portfolio's return, primarily due to losses suffered in PNC and Citigroup. PNC was divested due to underperformance while Citigroup was divested after it had a -20% return relative to the XLF. This was due to a number of issues, such as concern for the health of Citi's balance sheet highly publicized banking error in which Citi transferred \$900million to the wrong firm. 17.97% of the overall portfolio's risk was attributable to these two sectors and averaged a combined weight of 13.58% in 2020 with the heaviest average weightings having been in JPM and PNC

## Upcoming Investment Expectations

We project as the vaccine becomes readily available Americans will return to somewhat normal life, which will include at least an option to return to work in the office. Increases to interest rates may come sooner than expected given the potential threat of inflation. This will help the banks in the portfolio, who have already survived the worst of the pandemic related volatility. In fact, investment banking activity has already begun to increase as investors draw weary of an overvalued market. Given the recent strength and influence that retail investors have shown by driving stocks such as GME and AMC way up, we project an influx of young new investors joining the market. This could lead to better-than-expected growth for Financial services firms, especially if there are further stimulus packages. However, several risks remain such as loan defaults, increased regulatory requirements, and a continued low interest rate environment.

Real Estate & Financials	Weight	HPR
JPMORGAN CHASE	4.76%	-5.52%
MORGAN STANLEY	3.66%	37.10%
FINANCIAL SECTOR SPDR	1.52%	12.17%
AFLAC INC	1.51%	-1.44%
BOSTON PROPERTIES INC	1.51%	-4.94%
STATE STREET CORP	1.38%	8.18%
<b>Total</b>	<b>14.34%</b>	

## Sector Performance

The Technology Sector was the highest performing sector by far in 2020 with the SMIF's holdings providing a return of 64.18%; compared to its benchmark's return of 43.89%. The Communications sector had a positive return of 22.25% for the year but underperformed its benchmark by 1.36%. Of the 11 companies that were held in the Technology Sector at different points throughout the semester, all except Automatic Data Processing had positive HPRs. As such, the SMIF's investment selections in the Technology Sector can be attributed with an active return of 4.23%. The combination of Paypal and Advanced Micro Devices' impressive returns and heavy weightings were critical to the overall portfolio's return; the two holdings alone contributing 10.66% to the overall portfolio return of 18.68%.

## Sector Summary

As the two sectors that had the heaviest average weightings in 2020, it is unsurprising that Technology and Communications made up a significant portion of the portfolio's risk; together accounting for 37.08%. At year end, the Risk and Investment Committee took an overweighted position in Communications and underweighted in Technology after deciding to reduce the number of shares held in AMD due to the holding making up an inordinate amount of the portfolio's active risk. During the year end rebalancing, it was decided to take on positions in T-Mobile and Disney after both demonstrated tremendous growth potential for the upcoming year. The SMIF also decided to divest its positions in IBM and VISA. It was concluded that IBM be sold because of continued uncertainty surrounding the restructuring, with the expectation that the change would not take place in a time frame that justified continued investment. VISA was sold because of concerns that it would likely see an increase in payment defaults as a result of increasing levels of unemployment and the sauntering economic environment brought on by the COVID-19 epidemic. ADP and Fortinet were also sold in accordance with the IPS's 20% rule.

## Upcoming Investment Expectations

We believe there is an opportunity to capitalize on the increasing need for cybersecurity and cloud technologies. With new cloud technology being established there will be a need to monitor the servers from malware or other nefarious attacks creating a need for superior cybersecurity. This in turn should generate profits for computer chip manufacturing companies. These chip manufacturers are also involved in the new 5G installment across the entire network which is currently in the process of being rolled out on a widespread basis.

Technology & Communications	Weight	HPR
PAYPAL HOLDINGS INC	5.95%	116.51%
MICROSOFT CORP	5.37%	42.53%
APPLE INC	4.02%	8.96%
TECH SELECT SECT SPDR	3.81%	21.23%
NVIDIA CORP	3.57%	16.64%
ADVANCED MICRO DEVICES	3.53%	99.98%
COMM SERV SELECT SECTOR SPDR	3.55%	22.25%
ALPHABET INC-CL C	5.62%	31.03%
WALT DISNEY CO	1.70%	25.27%
T-MOBILE INC	2.46%	
<b>Total</b>	<b>39.32%</b>	

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### Officers of Investment Committee

President	<b>Beau Fitzpatrick</b>
Vice-President	<b>Chaitanaya Vij</b>
Vice-President II	<b>Brian Peirce</b>

### Officers of Risk Committee

President	<b>Michael Brynda</b>
Vice-President	<b>Aidan Eccles</b>
Vice-President II	<b>Stephanie Fincher</b>

## University Information

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