University of Dayton Hanley Sustainability Fund

2016 Annual Report

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ABOUT US

The Hanley Sustainability Fund (HSF) is a student managed equity portfolio that operates out of the Hanley Trading Center at the University of Dayton. HSF's goal is to outperform the overall stock market while investing in companies that embrace sustainable initiatives such as reducing greenhouse gas emissions, reducing waste and scrap, using resources in an efficient manner, limiting reliance on fossil fuels, or introducing and developing products that enable customers to do the same.

HSF's investment portfolio is divided into two branches: the discretionary branch and the non-discretionary branch. The discretionary branch utilizes fundamental analysis and economic research to make investment decisions through traditional stock pitches, while the non-discretionary branch operates a non-discretionary algorithmic investing model that was built, backtested, and continues to be improved by the members of the fund.

HSF provides a real world learning experience to its approximately 40 members from disciplines throughout the University, including biology, engineering, computer science, mathematics, and business. Upon completion of an eight week Junior Analyst development program, members contribute directly to the success of the fund. HSF provides endless opportunities whether it is directing one of five functional departments, leading a team, or participating on one or more functional teams.

Mission

Our mission is to outperform the S&P 500 while investing in companies embracing sustainable business models. The skills we develop and experiences we provide will prepare the members of the fund for a successful career upon graduation.

Vision

To be a premier student organization at the University of Dayton and prepare our members for success upon graduation both professionally and personally.

Values

We embrace an environmentally conscious future

With a changing world and an increasing spotlight on sustainability and going green, we are here to support the cause. With our portfolio full of green and transparent companies, we work to support our nation's corporations who share the same environmental values as we do. We acknowledge the significance of our environment and constantly work to adapt to changes. Not only do we pursue a healthier University of Dayton, but a healthier and cleaner world.

We encourage a pursuit of knowledge

As young, growing adults, we are grateful for our time here at the University of Dayton and work to take full advantage of our opportunities. As members of Hanley Sustainability Fund, we see firsthand the infinite knowledge within our grasp, and make it a responsibility of ours, as both a group and individuals, to prepare ourselves for our future.

We instill a welcoming culture

Not only do we work to better ourselves professionally, but we also make it a priority to enjoy each other and grow as friends. We understand our position is serious within HSF, but we understand that to create a healthy and successful atmosphere, we must form a bond outside of the fund. We turn long hours studying and researching into memories with friends and create a network that will last much longer than our time here at UD.

Our members are passionate

As one of over 200 clubs and organizations at UD, we take great pride in what we do here at HSF. Our members are driven individuals both within the fund and beyond. We love what we do, and that genuinely reflects in our work.

We develop professional skills and behavior

We understand the reason for us being here at UD; to better ourselves for the future in the real world. Everything we do in HSF, we attempt to apply to our life outside of UD. Whether at networking events, listening to guest speakers, or internships, we do our best to use HSF as a tool for our future.

LETTER FROM MANAGING DIRECTOR

To Whom It May Concern,

I am incredibly pleased to announce that HSF has completed its first year of full operations. 2016 was a year full of excitement for the members of the fund, and hopefully, after reading this report, you will feel that excitement as well. Over approximately the past two years, a great amount of work has been put into the development of the fund by both current and former students; this report will be highlighting the results of all this hard work.

Firstly, I would like to take some time to detail some major developments within the fund within the past year. After a brief demo period, the HSF made its first purchase on February 24th, 2016. This first transaction was composed of ten purchases totaling approximately $25,000 in the fund's non-discretionary branch. After these initial purchases, the fund spent the remainder of the year investing the majority of the remaining $75,000 in the fund's discretionary branch. The fund adopted the philosophy of "quality over quantity." As an organization, HSF was more interested in ensuring all purchases were well researched and wise investments rather than investing all of the fund's $100,000 as quickly as possible. HSF closed 2016 with 21 holdings and a final cash position of approximately $25,000. It is important to note financial performance will be reported in two manners (including and excluding cash). Other substantial developments within the fund during the year include the development of a methodology for determining the sustainability of a company, fine tuning the fund's investment policies and procedures, and improvements made to the non-discretionary model.

After starting with a net asset value of $100,000 in 2016, HSF finished the year with a net asset value of $110,072 as of December 31, 2016, representing a final 2016 return of 10.07 percent. While this performance is quite strong, it is heavily diluted by a large cash position held throughout most of 2016.

As the Managing Director of HSF, I can confidently say that 2016 was a resounding success. During my term as Managing Director, I had two main goals, to implement the procedures and systems that would allow the fund to succeed for many years to come, and return strong financial performance. These goals appear to be well achieved. Primary goals for 2017 include becoming fully invested, continuing to improve the non-discretionary model, and developing a reputation within the University of Dayton and the School of Business. We aim to be both an environmentally conscious and financially successful investment fund developing the strongest leaders, students, and professionals within the University. HSF is well on its way to proving it is possible to outperform the broad market while investing in companies that embrace environmentally responsible business practices. 2016 was successful, and I look forward to establishing a legacy with these foundational principles that we have set.

Grant Lyons
Managing Director

SUSTAINABILITY

HSF’s differentiating quality is sustainability. We distinguish ourselves from other student run investment funds by following our mission of maximizing returns for a better tomorrow. The companies we choose for our portfolio are vetted for compliance with our sustainability policies, which eliminates the possibility of oil or other companies that work against our mission of sustainability. We require companies in our portfolio to excel in their sustainable initiatives and show proactive means of managing their waste, water, and pollution.

We use a point system when considering a company for our discretionary or non-discretionary portfolio. Our system looks at Sustainability Reports or Corporate Social Responsibility Reports provided by the company; we also reference outside sources that have written about the firm’s dedication to the preservation of the environment. We award points to the company for providing information on their water consumption, waste, and pollution, as well as their efforts in decreasing consumption. Additional points are awarded for providing a plan to further better their sustainable initiatives in these areas. We award points to the company if they have received recognition or awards from an accredited environment agency for their impact. If the company is sustainable in nature or provides ways for its customers or employees to engage in sustainable practices, we give the company two points. When a company receives 7 points, we consider them for inclusion in our portfolio. This points system is a fairly rigorous process where many companies end up being excluded from the portfolio. We believe that our returns should not be the only positive but our environmental impact should be positive, as well.

DEPARTMENTS

Business Operations

The Business Operations Department handles internal processes and marketing for HSF. Responsibilities include communications, running the hiring process, planning community service events, and developing and displaying the HSF brand. The Business Operations Department requires members that are hard-working, detail oriented, and outgoing.

Financial Operations

The Financial Operations Department is responsible for the financial reporting of HSF. This includes tracking performance in an Excel spreadsheet and creating a monthly performance report. The success of the Operations department relies heavily on members that have strong Microsoft Excel and Word skills, as well as good time management.

Investments

The Investments Department manages the fund's discretionary portfolio. The Investments Department is divided into two teams, the Securities Team and the Economics Team. The Securities Team is responsible for all stock research, pitches, and voting on the discretionary portfolio holdings. The Economics Team produces a bi-weekly economic update that is presented to the entire Fund as well as determining appropriate sector weightings for the Securities Team.

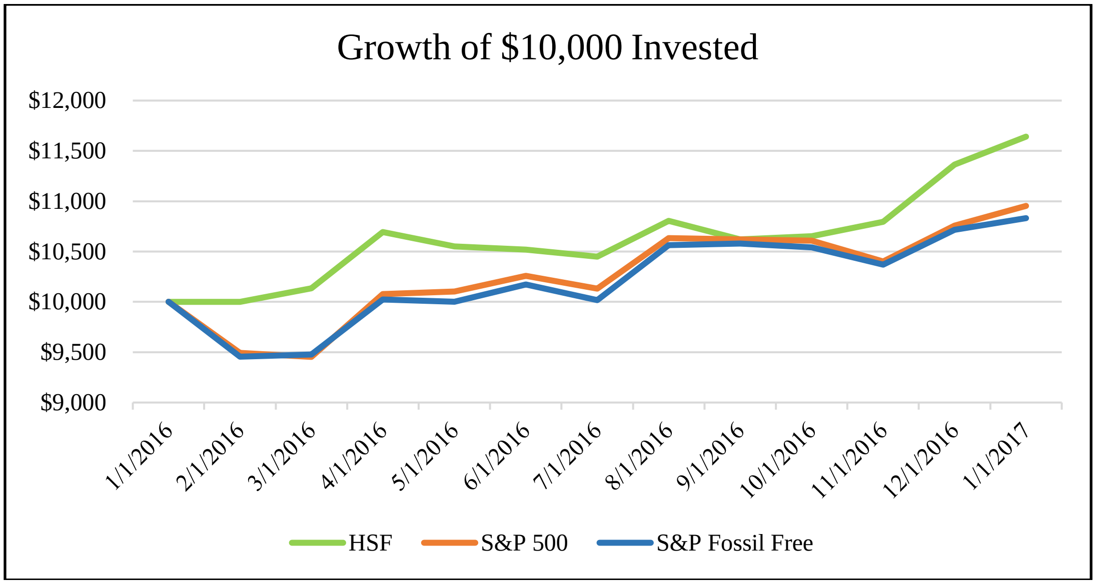
Modeling

The Modeling Department focuses on developing and improving the algorithmic trading model as well as other quantitative modeling projects. HSF members under the Director of Modeling work on developing and backtesting new model ideas, building and presenting model PowerPoints, and researching new indicators.

Risk Management

The Risk Department utilizes industry standard risk practices in order to gauge HSF's operational and trading risk. Standard risk measurements include: standard deviation (volatility), Sharpe ratio, Sortino ratio, among others. The Risk Department is pivotal in managing HSF's portfolio in a profitable and effective manner and relies on members with advanced math skills.

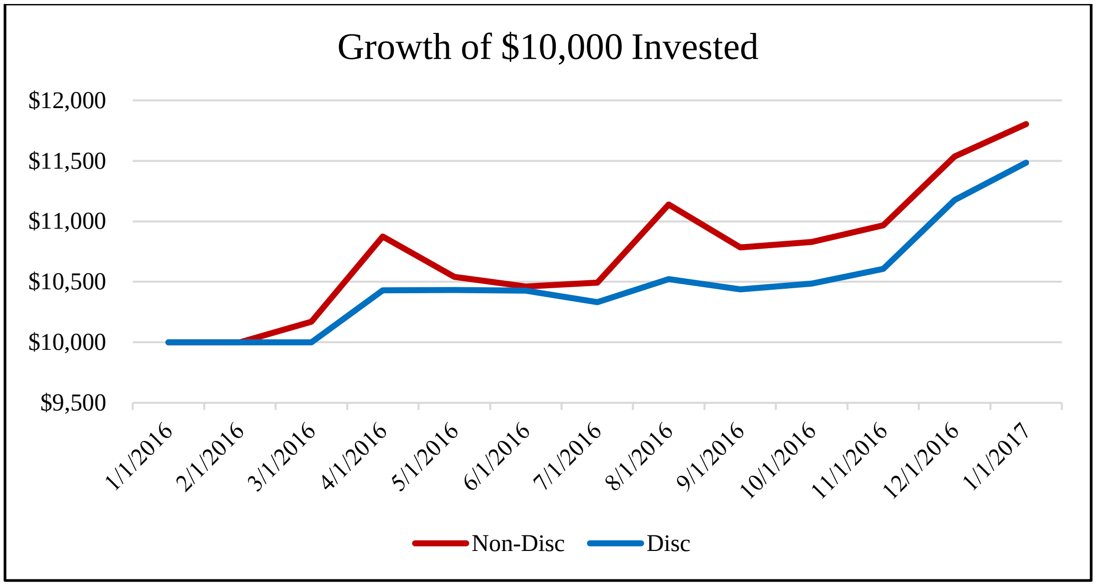
PERFORMANCE



HSF returns are calculated ex of cash

Market Value	2016 Return	2016 Return (ex cash)	S&P 500 YTD Return
$110,072	10.07%	16.42%	11.63%

Market value is the total cash and equity value of our brokerage account at the end of 2016. Our 2016 Return is the total return we gained on our original $100,000 of capital. 2016 return (ex cash) represents only the return on our invested assets. The S&P 500 2016 return is the total stock appreciation of the S&P 500 plus any dividends and interest and is net of fees. It is important to note that while the first purchases were completed during the end of February, purchasing activities were suspended for summer break during the entirety of May, June, and July as well as the bulk of August (this suspension will not occur in future years). As a direct result, HSF was holding an approximately 30 percent or greater cash position for the majority of the year. When analyzing performance on the basis of invested assets, performance is improved substantially. These numbers are designated with “ex cash”.



HSF returns are calculated ex of cash

Our discretionary branch of the portfolio returned 14.85% ex of cash. The non-discretionary branch returned 18.04% ex of cash. Both of those return numbers include dividends for their respective branches.

Non-Discretionary Holdings:

1. Delta Air Lines, Inc. 2.82%
2. Tyson Foods Inc. 2.63%
3. The Allstate Corp. 2.56%
4. Cisco Systems Inc. 2.53%
5. CA Inc. 2.51%
6. Cardinal Health 2.48%
7. Aflac Inc. 2.47%
8. Eaton Corp. 2.38%
9. Aetna Inc. 2.37%
10. Bed Bath & Beyond 2.18%

Discretionary Holdings:

1. Cash 22.10%
2. The Boeing Co. 6.22%
3. Spirit Airlines, Inc. 5.57%
4. Martin Marietta 5.43%
5. The Allstate Corp. 5.05%
6. Cisco Systems Inc. 4.94%
7. The Walt Disney Co. 4.83%
8. CGI Group Inc. 4.71%
9. Shire plc 4.64%
10. The Kroger Co. 4.01%
11. Medtronic plc 3.95%
12. PNC 3.61%

Our holdings at the end of 2016 with the appropriate allocations are shown above.

RISK ANALYSIS

	Stdev	Sharpe	Sortino	Average Return	Total Return
Total Portfolio	8.38%	1.233	4.812	1.30%	16.42%
S&P 500	10.90%	0.603	0.933	0.99%	11.63%
S&P Fossil Free	10.77%	0.505	0.743	0.89%	10.49%

Risk data is calculated on an ex-cash basis

Standard Deviation: The square root of the variance of the returns on a stock. Applied to the annual return of an investment to represent the volatility of a security. The portfolio's standard deviation of monthly returns was 8.38% compared to the S&P's of 10.90%. This shows that the fund was more stable within the month and the comparison is noteworthy considering we had a higher average monthly return than the S&P's while keeping a lower standard deviation.

Sharpe: The average return of the portfolio less the risk free rate divided by the standard deviation of the portfolio. This ratio shows the relationship between the return and volatility while excluding the risk free rate. The annualized Sharpe ratio of the fund's portfolio is 1.233 compared the S&P's Sharpe of .603. On a risk-adjusted basis, the comparison of Sharpe ratios show that our portfolio was appropriately compensated for the additional risk taken.

Sortino: This ratio uses the same numerator as the Sharpe ratio, but divides by the standard deviation of negative returns. The calculation reveals the returns of an equity or portfolio in only bad risk situations. Ideally, one would like to see a higher Sortino ratio that shows good performance in downside environments. The total portfolio's Sortino ratio was 4.812 for the year which represents our portfolio's ability to realize gains compared to the S&P taking into account negative standard deviation only. This is why our standard deviation of negative returns is significantly less than our standard deviation of monthly returns.

Average Return: The average return of all the companies in a portfolio while also taking into account the weightings of each holding. Average monthly return for our portfolio was 1.30%. Our average negative return was -1.00%. Compared to the S&P's of -1.98%, we saw less loss on an average basis. total portfolio average positive return was 2.80%, which outperformed the S&P's average positive return of 2.47%.

Total Return: The actual rate of return of an investment or portfolio over a given evaluation period. Includes interest, capital gains, dividends and distributions realized over the evaluation period. Total portfolio return was 16.42%. This return is ex-cash with dividends factored in. Relative to the S&P, which returned 11.63%, HSF outperformed 4.79% higher.

	Up Capture	Down Capture	Alpha	Beta
Total Portfolio	76.65	-33.29	4.54%	1.0150
S&P 500				1.0000
S&P Fossil Free				0.9500

Risk data is calculated on an ex-cash basis

Up Capture: A measure of how well a portfolio has performed relative to an index (S&P) during periods when that index has risen.

> Example: Up-market capture ratio of 120 indicates that the portfolio outperformed the market by 20% during the specified period.

Total portfolio up capture measured 76.65. Relative to the S&P, HSF underperformed in up-market periods by 23.35%.

Down Capture: A measure of how well a portfolio has performed relative to an index (S&P) during periods when that index has dropped.

> Example: Down-market capture ratio of 80 indicates the portfolio declined only 80% as much as the index during the period in question.

Total portfolio down capture measured -33.29. A negative down-capture indicates that while the S&P demonstrated negative returns, HSF demonstrated positive returns. During down-markets, the S&P 500 returned on average -1.98%, while HSF returned on average .67%.

Alpha: A measure of the excess returns of a fund relative to the return of a benchmark (S&P). Alpha represents the return on an investment that is not a result of a general movement of the greater market. HSF's end of the year alpha came out to 4.54%, which is essentially the difference between the total portfolio's return vs. the S&P's. HSF's alpha was calculated with our beta and the risk free rate factored in to account for the total portfolio risk as well. Despite taking on more risk, shown by a higher beta, we were still able to see significant risk adjusted returns over the S&P.

Beta: A measure of the volatility of a portfolio in comparison to the market as a whole.

> > 1 indicates that the portfolio is theoretically more volatile than the market.
> < 1 indicates that the portfolio is theoretically less volatile than the market

Total portfolio end of the year beta measured at 1.015, showing a slightly higher theoretical volatility than the total market. Breaking that down further, discretionary beta was 1.026 and non-discretionary was .989, showing slightly more volatility in the discretionary branch.

FINANCIAL OPERATIONS

The Financial Operations department of the Hanley Sustainability Fund is responsible for tracking the fund's performance as well as our benchmark, the S&P 500. We account for dividends, commissions, and buy/sell transactions in addition to traditional stock price appreciation in order to accurately access our fund's total portfolio return. We maintain a returns sheet on Microsoft Excel, where our total, non-discretionary, and discretionary portfolio returns are compiled, and our monthly and since inception returns are calculated.

Our fund's performance is presented to the members of the fund at the end of every month by the Financial Operations team through a monthly report presentation. This report details our performance against the S&P, our security allocations, and various risk metrics. In November, a monthly transaction page was added to supplement the standard monthly report and to give the entire fund transactional information in a clear, organized manner.

Moving forward, we will continue to focus on our primary goal of quantitative accuracy. We will improve the efficiency of our processes through various methods such as utilizing Excel formulas and skills to automate our returns calculations. As HSF's personnel changes, we will adjust in order to fit the current needs of the entire organization. This includes updating the layout and presented statistics in our monthly report to present clearer and more valuable information.

INVESTMENT ANALYSIS

The Hanley Sustainability Fund's Investments Team began a rigorous process to find companies that have green initiatives and are providing strong growth for the future. The Investments Team is made up of two sections, the Economics Team and the Securities Team. The Economics Team sets the weightings for each sector by providing specific macro trends of where we see growth and momentum for the coming semester. This information is then presented to the Securities Team, who takes the weightings and macro analysis to find specific companies that match this criterion. Throughout the semester, the Economics Team supports the investment process by delivering bi-weekly reports that focus on macro trends happening in the U.S., Europe, Asian, and Emerging markets. The Securities Team is divided into four sector teams whose purpose is to find strong companies that will generate alpha for the portfolio. Once the sector team has found a company, whose catalysts will benefit the overall portfolio, they will then present a buy pitch where they will describe their reasoning for why this company should become a part of the portfolio.

The Investments Team set a few goals for the year of 2016. Our focus was to streamline our operations, create the portfolio's weightings based off our benchmark, and add greater transparency to the investment process. These goals allowed us first to create our sell model, which focuses on specific criteria that includes: performance, valuations, dividends, and analyst recommendations. The sell model allows us to focus on our sell and trim discipline so that our analysts can reexamine the current holdings moving forward. Our desire for consistency is always a main driver for the Investments Team, and it is the reason for the creation of our quarter reports. These reports allow us to know what is happening with our holdings and give any details of what management might be hoping to accomplish for the future. As previously stated, our Economics Team has begun to process the weightings that we have set in place for our portfolio. These weightings provide an important factor for the Investments Team since they provide macro trends happening in our market cycles. Lastly, the Investments Team has begun to give detailed reports about the work that is happening with the team's purchases, sells, and updates to our full staff meetings on a weekly basis. The goals that we have accomplished are all thanks to the tremendous efforts put in place by the Investments Team. Our new goals will include building a buy side model to generate new ideas, provide more technical analysis in our pitches, and establish a more in-depth sustainable criteria report.

Healthcare Sector

Discretionary Holdings: Medtronic (MDT), Shire (SHPG)

The healthcare sector had a strong underperformance of -6.43% for 2016. The healthcare sector did not see the same kind return that the rest of the market saw after the election. This is due to the uncertainty of what actions the Trump administration will take in the coming months. There is pressure on pharmaceutical pricing and further regulation on the industry. The repealing of the Affordable Care Act also creates further uncertainty as a whole in this upcoming year, since there have been no talks of what will take its place. As a whole, the healthcare industry still seems to show solid balance sheets and fundamentals. Currently, the sector's performance is, in large part, affected by the government pressures. Trump's policy on imports has the potential to be a real detriment to Shire PLC (SHPG), a company that moved to Ireland from the US for tax purpose reasons, a move that Trump has always looked down upon. Medtronic (MDT), being a part of the medical equipment sector, fortunately stems away from the potential headline risk. Still, at this point, there is a lot of uncertainty about the future of the healthcare industry, and, until government policy is laid out, it is hard to tell where the industry is headed. For now, HSF will take a cautious approach on future investments.

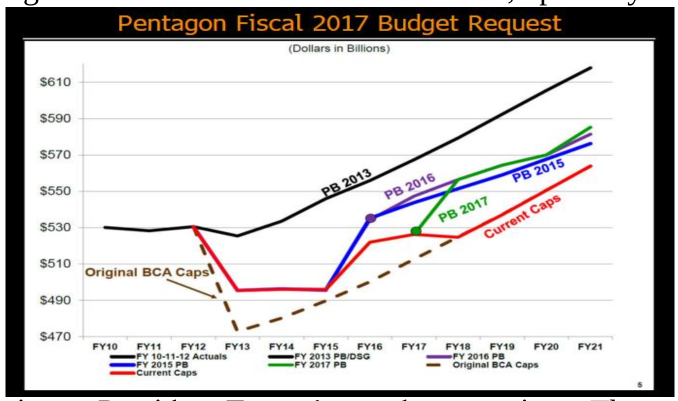
Materials Sector

Discretionary Holdings: Martin Marietta Materials (MLM)

The materials sector has been performing very well over the past few months, attributable in large part to the results of the presidential election. Martin Marietta (MLM) has followed that trend. Both Donald Trump and Hillary Clinton, advocated for large infrastructure spending plans during their campaigns. However, upon President Trump's election, the stock jumped as his infrastructure plan was stated to be twice as large as Clinton's. During his campaign, President Trump said he planned to spend nearly $1 trillion on the country's infrastructure, which would greatly benefit Martin Marietta. Additionally, the FAST Act was passed in December 2015 and granted hundreds of billions of dollars to states for infrastructure spending over the next few years. Texas and California will receive most of this money, which will greatly benefit Martin Marietta as they have a very strong presence in these areas. Overall, the materials sector has benefitted from several macro events and Martin Marietta has been no different, appreciating roughly 35% over the past few months.

Industrials Sector

Discretionary Holdings: Boeing (BA), Spirit Airlines (SAVE)



The industrials sector has also been performing rather well over the last few months, up nearly 15%. The sector's largest jump occurred right around the time of the election, due in part to President Trump's increased infrastructure spending plan. The fund will continue to closely monitor the interest rate level as this has a large impact on the sector due to the large amount of borrowing within the industry. The industrials sector is extremely sensitive to government regulations, therefore we will pay close attention to President Trump's regulatory actions. The fund has two holdings within the sector, Spirit Airlines (SAVE) and Boeing (BA), both up approximately 15%. This run up is due in large part to the Republican run Congress, who are looking to increase the Pentagon's budget. Topics like this and overall defense spending will be big issues moving forward that the fund will be monitoring. With the price of fuel beginning to rise from the lows experienced over the past two years, Spirit's price is rising as competitors will now be less equipped to compete with their low fares.

Information Technology Sector

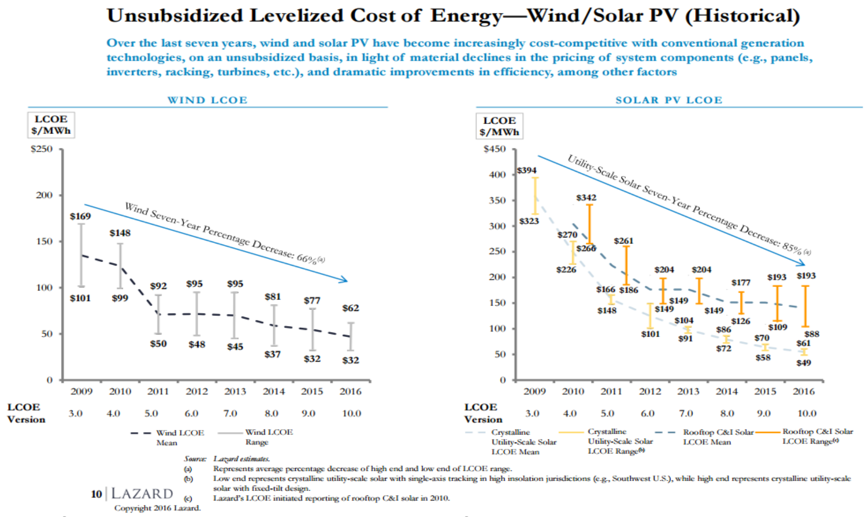
Discretionary Holdings: CGI Group (GIB), Cisco (CSCO)

The information technology sector grew 27.81% in 2016. The growth in cyber security is estimated at $170 billion dollars each year until 2020, which is approximately 9.8% growth YoY. With recent cyber-attacks, both foreign and domestic, this subsector will be a large portion of profit for technology companies who are moving into the market. These were some of the macro factors that focused our reasoning for buying CGI Group (GIB). CGI is focused on building and maintaining their strong hold in the cyber security space. Other areas of growth in the technology sector include Internet of Things, big data analytics, cloud computing, additive manufacturing, and cognitive computing. Cisco (CSCO) allows us to generate return due to its focus and diversification in cloud computing and its hand in the Internet of Things. We're already seeing rapid growth in Artificial Intelligence (AI) applications for commercial use, largely due to the availability of open developer platforms. HSF has also moved their investments abroad. At the beginning of 2017, the fund added Alibaba (BABA) to the portfolio; this will allow the fund to gain exposure to the Chinese market and more importantly the ecommerce space. With a growing middle class, a movement in their government to promote ecommerce and cloud computing along with a high barrier of entry makes China an enticing investment opportunity. We saw Alibaba as a great growth play within the industry. Currently, the technology sector is looking to add a small cap software company to the portfolio to continue diversification and growth.

Energy Sector

Discretionary Holdings: N/A

The energy sector has underperformed somewhat over the last few months relative to the previous two sectors mentioned, only appreciating roughly 8% over that time span. Currently, the fund has no exposure. As with many other aspects in the economy, the fund will be monitoring how new policie businesses. For example, President Trump recently signed a bill that would allow the construction of the Dakota Access Pipeline to resume, signaling his approval for energy that is not necessarily renewable. Additionally, Trump is expected to cut the Environmental Protection Agency's workforce and budget, further signaling his approval of nonrenewable energy. From the fund's standpoint, this puts investable energy companies at a disadvantage due to the increased competition that will be coming from other energy companies. Still, solar and wind are not commodities like natural gas and coal, they focus on technology innovation. In 2016, a report from Lazard came out highlighting how both energy sources have been consistently reducing their costs without help from government subsidies. Offshore wind generation declined around 22%, still not as cheap as its onshore counterpart, but taking strong leaps forward. As prices of renewables continue to fall we will see strong growth opportunities. As of now, the fund will continue to monitor the sector and evaluate companies in hopes of finding a sustainable energy company.



Utilities Sector

Discretionary Holdings: N/A

The utilities sector had an unprecedented run on the markets this past year due to fixed income products having low or even negative yields in some countries. The average investor began searching for high paying dividend companies. This created an aggressive bull market in which some of the companies in the sector were growing 30% to 40%. HSF currently has no exposure to this sector. We saw this run up as a short-term focus in the larger picture as investors sought dividend yield. Now that the 10-year treasury yield has risen over 2.4%, the sector has begun to lose steam. We will be looking to add a water utilities company in the coming future. We see this as a strong potential for growth, as they are developing some of the largest projects and investments. This is also a strong opportunity to continue to invest into our sustainable values.

Financials Sector

Discretionary Holdings: Allstate (ALL), PNC (PNC)

The financial sector is undergoing two large movements, the Fed's decision to raise interest rates and the desire for deregulation. The Federal Reserve Chairwoman, Janet Yellen, is looking to have 3 rate hikes in 2017. PNC Financial Services Inc. (PNC), will benefit from rate hikes as a rising rate environment will allow bank's profit margins to grow.

Meeting	Prob Of Hike	Prob of Cut	0.5-0.75	0.75-1	1-1.25	1.25-1.5	1.5-1.75
03/15/2017	32.0%	0.0%	68.0%	32.0%	0.0%	0.0%	0.0%
05/03/2017	48.6%	0.0%	51.4%	40.8%	7.8%	0.0%	0.0%
06/14/2017	71.4%	0.0%	28.6%	45.5%	22.4%	3.5%	0.0%
07/26/2017	76.3%	0.0%	23.7%	42.6%	26.4%	6.7%	0.6%
09/20/2017	84.4%	0.0%	15.6%	36.2%	31.9%	13.4%	2.7%
11/01/2017	86.6%	0.0%	13.4%	33.2%	32.5%	16.1%	4.2%
12/13/2017	93.0%	0.0%	7.0%	23.8%	32.8%	23.9%	9.9%

Allstate (ALL) will also stand to benefit greatly from rising interest rates. Insurance companies prosper more when interest rates are higher, leading us to be very optimistic about our position. Another milestone event from the year would be the election of President Trump. President Trump has proposed deregulating the sector, and since his election became official, financials as a whole has skyrocketed. Both our holdings, especially PNC, will benefit from President Trump's stance towards the financial sector, and we anticipate growth in both over the coming year. Moving forward, we will be looking to potentially add a multinational bank to our portfolio. The reason for this is that we are hoping to continue to grow in our financial allocation by allowing more exposure to the rising interest rate environment and deregulation.

Telecommunications Sector

Discretionary Holdings: N/A

Despite rising bond yield and rising interest rates, the telecommunications sector had a pretty good year compared to many other bond proxy sectors. This may be in part because they have some of the highest dividend yields of any sector, as well as reasonable valuations across the board. A key thing to look at in the coming year will be the industry's M&A activity. M&A has been steadily rising over the past two years in the industry and is not showing signs of stopping. With a new executive administration dead set on cutting regulation, we could see this picking up in the future. We have not been holding any telecommunications securities in our portfolio, but in the future may be looking into integrated telecommunication services that offer a wide range of services in an ever growing environment of Internet of Things.

Consumer Staples Sector

Discretionary Holdings: Kroger (KR)

Consumer staples is still viewed as a defensive sector in terms of its macroeconomic value. It continues to remain steady or react slightly better in times of economic distress than other sectors. With respect to our portfolio, we would like to see our holdings in this sector be a buffer to some of our more risky or volatile sectors, like financials and technology, when the economy is sluggish or in distress. Our only holding in this sector is Kroger (KR), which has underperformed for 2016. Much of Kroger's poor performance can be credited to the overall supermarket industry, where companies such as Whole Foods Market (WFM) and Sprouts Farmers Market (SFM) have all underperformed due to deflating food prices. Although they had a poor year, we still see much upside to Kroger in the upcoming year. First off, we believe that the industry's 2016 struggles like food price deflation, will bounce back due to domestic inflation from Trump's fiscal and trade policy initiatives. While the industry will benefit as a whole, we still believe that Kroger stands out amongst its peers through its growth initiatives, ability to cater to consumer needs with technological improvements, and their acquisition of Simple Truth. Kroger's 2015 announcement of the addition of ClickList, an online customer pickup service, has hit 550 stores nationwide, showing their ability to compete with ecommerce giant Amazon and their push to enter the grocery industry. Finally, Kroger's Simple Truth organic brand has proven successful for Kroger and has given them the ability to promote high quality food to compete with Whole Foods at relatively low prices, which we believe will increase margins in the upcoming fiscal year.

Consumer Discretionary Sector

Discretionary Holdings: Disney (DIS)

The consumer discretionary sector had relatively low returns for 2016. Still, the sector's indicators revolve around consumer confidence and overall wages, both of which seem to be improving giving this sector a more positive outlook for 2017. With low unemployment and a pretty successful holiday shopping season now over, the consumer discretionary sector seems to be on the rise. Consumer confidence has also steadily increased through 2016, ending the year at 98.2, the highest since before the recession. The Investments Team is looking to expand our holdings in this sector. Currently, the Investments Team holds Disney (DIS). We sought to benefit from Disney's strong growth in their parks and resorts, media networks, and studio entertainment. The cinema segment of Disney has been incredibly successful in 2016 and has more movies lined up. They successfully launched the Star Wars series and several other box office hits last year. As a result, the holding has seen a strong move in recent months. Our primary concern, however, is that ESPN subscribers are falling every month. We have also begun to see rising valuations that we feel are approaching a fair price. Due to these new developments, the Investments Team is taking active steps to reduce our risk. While this is happening, we are still bullish on the sector and are seeking new investments in the restaurant industry.

The Investments Team will continue to monitor and seek out new investments in 2017. Our main objective is to become fully invested for the year while maintaining a slight growth investment style. We expect 2017 to have multiple revisions on current holdings where we will be taking necessary steps to reduce our overall risk while continuing to have strong returns. Lastly the fund will take on a more aggressive dividend stance where we can have consistent returns during this 2017 period.

ECONOMIC ANALYSIS

United States

With the majority of HSF's discretionary holdings being U.S. based, a large portion of our team's efforts is dedicated towards indicating macro trends within this segment and positioning our portfolio accordingly. Although US equity markets pointed towards another year of a calm and elongated bull market, finishing the year +11.74%, the macro-environment painted a much different picture. Our HSF Economics team was successful in spotting a dichotomous theme developing within sector industries in 1H 2016, and a reversal creating opportunities for equity returns in 2H 2016.

"Bond proxy", the overused cliché used in the first half of 2016, proved to be playing out in perfection by the close of Q2 2016, with the Telecommunications and Utilities sectors returning +24.85% and +23.41% respectively, outpacing a market returning a meager +3.84%. This market divergence was mainly attributed to NIRP and ZIRP central policies across the board, with the largest being the Fed, ECB, and BOJ all enacting dovish monetary policies to ward off both negative and low inflation. GDP in the first half of the year was reported much better than expected, with a Q2 YoY reading of 2.5%. Our Economics team attributed the growth mainly towards a healthy, unlevered US consumer, with Business Investment being the biggest detractor. With our slight underperformance 1H 2016 due to a growth tilt and less exposure to the "bond proxies", we re-evaluated our Sector Allocation Recommendations at the beginning of 2H 2016, and concluded that our tilt towards growth sectors was reasonable and a reversal in this sector dichotomy away from higher-valuation, dividend-paying stocks was imminent.

Our Economic outlook for 2H 2016 was a large contributor towards our benchmark outperformance by year-end, as the "bond-proxy" stocks pulled back to reasonable valuations. After 5 consecutive quarters of negative growth in corporate earnings, an inflection point was finally visible heading into Q3, with less slack in business investment contributing to over 3% GDP growth by 2016 year end. Inflation re-gained steam in the US with CPI doubling from a 1.0% reading in Q2 to a year-end reading of a 2.1% growth in prices. Lastly, the Fed's most-watched PCE was approaching their 2% target, causing Yellen to take a more hawkish stance, push through one baseline rate hike, and raise the forward looking dot plot for 2017 and 2018.

The HSF Economics Team is continuing to evaluate the US Macro environment as we head into Q1 2017 with a warming economy, a new Trump administration, and equity markets breaking through all-time highs.

Europe

Throughout 2016, we have seen the European Central Bank's attempt of stimulating its economy through their quantitative easing, which began in March of 2015. The plan included a monthly asset purchase of 80 Billion Euros. Although this was an attempt by the Central Bank to revamp the economy, we saw a constant theme of contradicting opinions between domestic nations and their supportive bank. Multiple times throughout the year we heard Mario Draghi speaking out against nations such as Germany, accusing them of forgoing their fiscal surplus; yet on the other side, we heard Angela Merkel accuse Draghi of an unrealistic attempt of stimulating the economy. Through the political controversies surrounding the ECB's QE, we have seen rather flat data. The Euro area ended the year with a GDP growth rate of 0.3% and inflation rate of 1.1% (shy of their 2% goal). Along with the ECB's attempt of stimulus, they implemented a flat 0% interest rate across the board, and we have even noticed countries such as Germany adjusting to a -.0.4% deposit rate with the intent of encouraging consumer and business expenditures. Although there has been ill-defined data supporting the quantitative easing objective, Draghi announced in early December that they will taper their current QE from 80 Billion monthly asset purchase to 60 Billion, and increasing its deadline to December 2017 rather than March.

Brexit remains the most significant event in the EU area. With UK's vote to leave the EU on June 23rd for mostly political reasons, there will be severe long term economic consequences. In recent dialogue between Theresa May and the European Union and other organizations such as the ECB, it is speculated that Article 50 will result in a hard Brexit, expelling the UK from the single market. This will force the financial hub of Europe, currently in London, to move to either Luxembourg or Frankfurt. The UK will lose 250,000 high class jobs. Not only will they lose high end financial jobs, but roughly 7.1% of their workforce who are immigrants due to a closed border. The result of a hard Brexit will also decay British exports, since roughly 45% are sent to the EU. Since the announcement to secede from the EU, the Pound has fell roughly 18%, which has supported December's manufacturing PMI of 56.1, compared to November's 53.6; showing UK's potential to increase manufacturing in the wake of a hard Brexit.

Volatility and uncertainty have served as the two main themes in Europe from the ECB's QE, Brexit, the Italian referendum, and the Greek debt hysteria; however, the Eurozone managed to provide relatively strong data with GDP growth and inflation both at 1.8%. Looking forward into 2017, we can expect the same uncertainty with the continuations of Brexit and QE, along with the Netherlands, France, and Germany (combining for over half of the EU's GDP) all having elections. We still expect relatively strong growth of 1.5% GDP given the situation, led by the ECB's QE, which will continue to buy 60 Billion Euros a month, Germany's healthy labor markets, and Britain's increasing ability to manufacture its own goods.

China

Over the 2016 period, China continued to push from an emerging market to a more developed nation. They have dealt with multiple challenges along the way that stem primarily from China's structure as a command economy. Their lack of performance comes mainly from their trillion dollar size sub-economies. These economies vary on many levels, some are in bull markets, while others are bearish, and many are having a hard time competing on a global level. Due to this lack in communication under China, it has led to volatile periods this year that has caused many investors in China to seek new areas to invest.

China's GDP growth has been declining steadily, around 6.7% most of the year. This is stemming from their slow growth in their real estate area and their financial sector. There is a potential real estate bubble forming in China. This is due to their push for infrastructure spending, which allows China to artificially grow their economy. This has created ghost cities the size of New York all around the country. The problem being that the middle class has invested into these areas, but can find no one to rent these properties. This has been a large concern since these properties may end up being worthless. Another focus is their industrials sector where there is an overcapacity in steel, aluminum, and other commodities. This overcapacity has brought down prices and has hurt net exports in China, especially given a global decrease in demand. China is currently trying to bolster their economy by continuing to ramp up government investments. These investments are focused on infrastructure spending where they have put $36 Billion into urban transit to connect three major cities to form a mega city. This along with other pushes in cloud computing and ecommerce is where China is hoping to see growth for the future.

The Investments Team has purchased Alibaba at the beginning of 2017. Major catalysts for this investment are growth in ecommerce and high barrier to entry for other countries to enter this market. The Economics Team will continue to monitor these Macro environment, relations between Trump and China, and new policies that are being implemented moving forward.

MODELING

The Modeling department is responsible for managing all technical aspects of the HSF. Specifically, the Modeling branch is responsible for managing technology projects related to the continued development and operation of the non-discretionary portfolio. This includes the management and development of the multiple models used to algorithmically select equities for the portfolio on a quarterly basis. Additionally, the Modeling department is responsible for working collaboratively with the fund's other departments to develop technical models that assist in risk management, economic analysis, and any other necessary technical development.

The Modeling department is led by the Modeling Director and is comprised of multiple members that work in conjunction to perform the functions of the department. The individual responsibilities of the members of the department vary each semester and work on a per project basis.

In 2016, the Modeling department made great strides in the development of the non-discretionary backtest. Specifically, the team rebuilt the original model used to select equities, developing the programmatic model in Python. This re-development increased the backtest's efficiency and made future, more complicated upgrades, possible. Additionally, the Modeling team worked, in conjunction with other departments, to begin the development of a technical sell discipline that will be used to mitigate the potential loss of holdings in the non-discretionary portfolio. Overall, as outlined in the financial report, 2016 was a successful year for the Modeling department, returning 18.04% on an annual basis.

Looking forward, the Modeling department is set to expand in the year 2017, with an increase in membership, as well as a thorough plan to increase the effectiveness of the non-discretionary portfolio and other functions of the HSF. For 2017, the Modeling department will be focused on the improvement of the non-discretionary portfolio's selection process, the non-discretionary portfolio's construction, and the continued work with the risk department to finalize the sell discipline model.

BUSINESS OPERATIONS

In 2016, several initiatives were pursued to improve operations and market HSF. Formal methods of communication were implemented including consistent email reminders and a presentation, updated and presented by management weekly. Additionally, certain processes were standardized surrounding the approval of stock purchases and hiring. Furthermore, the fund made steps to attain recognition from students, faculty, the University, and surrounding community. This started with the creation of a mission statement, vision statement, and values.

Service Project

The fund also participated in a service project at the Marianist Environmental Learning Center. At this event, fund members helped in cultivating a garden with the purpose of growing safe foods with the intention of reducing food deserts. The outcome of participation at this event was a better understanding of the impact of our socially conscious principles.

HSF MEMBERS

Graduate Students

Andrew Collins - Head of Securities | MBA

Eric Steffey - Director of Business Operations | MBA

Seniors

Dan Berling - Director of Risk | Finance and Economics

Doug Carey - Director of Investments | Finance and Economics

Kevin Claffy - Head of Fund Development | Entrepreneurship

AJ Conway - Former Director of Investments | Finance

Jimmie D'Onofrio - Risk Team | Finance and Applied Mathematical Economics

Jay Fyda - Sector Leader | Finance and Economics

Bob Kirchner - Junior Analyst | Computer Engineering

Grant Lyons - Managing Director | Accounting and OPS

Tony Predey - Economics Team | Economics | German and Marketing Minor

Brian Rademacher - Former Managing Director | OPS and Finance | Industrial Engineering Technology Minor

Jack Schulte - Head of Econ | Finance

Micah Takagishi - Modeling Team | Finance | Computer Science Minor

Colin Wilson - Securities and Econ Teams | Accounting and MIS

Adam Wissman - Securities Team | Finance and Economics

Juniors

Sean Alexander - Head of Internal Affairs, Securities and Econ Teams | Finance and OPS

Mark Barrett - Econ Team | Accounting

Eric Bell - Head of Financial Reporting | Finance and MIS

Patrick Canning - Econ Team | Finance and Economics

Michael Capicotto - Securities Team | Finance and Accounting

Will Doorack - Securities and Econ Teams | Finance and MIS

Matt Forte - Junior Analyst | Mathematics and Economics

Adam Gorzelanczyk - Head of Econ | Accounting and Finance

Stephen Harvey - Director of Modeling | Finance and MIS

Matthew Hooper - Risk Team | Applied Mathematical Economics | Finance Minor

Tom Martin - Sector Leader | Finance and Economics

Matt McVicker - Securities Team | Finance and International Business

Ryan Menker - Director of Financial Operations | Finance

Jack Parsley - Lab Manager and Sector Leader | Finance and Marketing

Tom Pollock - Securities Team | Finance and Economics

Vidyaarthi Pugalenthi - Head of Sustainability | Economics | Computer Science Minor

Lee Spangler - Securities and Financial Operations Teams | Finance

Jake Strippy - Securities Team | Finance and Economics

Abby Weigel - Business Operations Team | Marketing and OPS

Sophomores

Jesse Carbonaro - Junior Analyst | Environmental Biology | SEE Minor

Connor Finn - Econ Team | Finance and Economics

Chrissy Fister - Securities Team | Finance and MIS

Ben Krajnak - Securities Team | Finance and Economics

Kyle McCauley - Junior Analyst | Finance

Nick Mylonas - Junior Analyst | Entrepreneurship and Finance

Ryan Ostrowski - Econ Team | Finance and Marketing

Kai Robinson - Junior Analyst | Finance

Matt Schneider - Head of Financial Reporting | Accounting and Finance | Business Analytics Minor

Sam Siampaus – Securities, Econ, and Business Operations Teams | Finance and Economics

Robert Smyjunas - Sector Leader | Finance and Economics

Freshmen

Nick Bruns - Junior Analyst | Finance

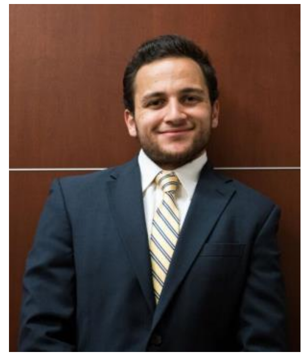
Ciaran O'Brien - Junior Analyst | International Business

HSF MANAGEMENT TEAM

Grant Lyons, Managing Director

Grant is an Accounting & Operations and Supply Management major from Hebron, Kentucky. Grant previously completed internships with KPMG as a Federal Tax intern during the summer of 2016 and as an Investor Relations and SEC Reporting Intern for Cincinnati Financial Corporation during the summer of 2015. Grant will be attending the University of Notre Dame pursuing a Masters of Science in Accountancy next year.

Doug Carey, Investments



Doug is a Finance and Business Economics major from Cleveland, Ohio. Doug previously interned at PNC Financial Services Inc. as an Enterprise Risk Management Intern in Pittsburgh during the summer of 2015 and was a Portfolio Management Intern at Glenmede Trust Company N.A. in Philadelphia during the summer of 2016. Doug is currently pursuing a career in Investment Management.

Eric Steffey, Business Operations

Eric is an MBA student from Cincinnati, Ohio. Eric will be joining Vantiv, a payment solutions provider based in Cincinnati, as a financial analyst in the Future Leaders Development Program in June.

Ryan Menker, Financial Operations

Ryan is a Finance Major from Dayton, Ohio. The previous two summers Ryan worked as an investment analyst intern at CYMI, a private family office. This coming summer he will be interning with JP Morgan's middle market banking team in Louisville, KY.

Dan Berling, Risk

Dan is a Finance and Business Economics major from Centerville, Ohio. Dan is currently working for UBS Financial Services as a Wealth Management Intern. He previously worked for Century Securities during the summer of 2015 as a Research Intern. After graduation, Dan is pursuing a career in Wealth Management or Equity Research.

Stephen Harvey, Modeling

Stephen Harvey is a Finance and MIS major from Detroit, Michigan. During the past summer Stephen completed an internship with Quicken Loans. This summer Stephen will continue with Quicken Loans.

HSF ORGANIZATION PHOTO