Dear OSIF Board of Directors,

It has been an honor to manage the O'Neill Student Investment Fund. This last semester presented us with invaluable experience managing real money for a real portfolio. We truly enjoyed the responsibility of making impactful decisions for the betterment of the fund. With the rapid market expansion of the previous semester and market volatility and macroeconomic events of the current semester, we have grown as investors in a variety of environments, giving us the real excitement and pain that comes with money management. We sincerely thank you for this unique learning opportunity.

Macro Events

COVID-19 and Supply Chain Issues

COVID-19 will continue to play a central role in global economic activity. We have remained fairly optimistic about the U.S. market recovery as the worst appears to be behind us, with nearly 70.7% of Americans being fully vaccinated. Yet we are wary of the global risks at play because economies vary in terms of the spread of the delta variant. In economies where the spread of the virus is well contained and tolerance to infection has risen, such as in Europe and non-Asia emerging markets, the pace and economic activity are strong. In contrast, in economies where cases of the delta variant have surged, such as the U.S. and Southeast Asia, confidence has declined and growth has slowed. The U.S. was struck with a rise in cases during September and the seven-day average of new cases climbed to over 175,822 on Sept.13th. This rivaled the numbers from late 2020. The market reflected this and the portfolio was hit with a loss. However, the demand for travel services also maintained strength and recovery as companies like Airbnb and Bookings remained strong. Ultimately leading us to take a profitable position in both companies as of November 20.

Not only are we seeing the effects of new cases, but the loss of a workforce. Despite efforts of vaccines and safety measures, the global supply chains around the world are facing ongoing logistic challenges as a result of the COVID-19 pandemic. Supply chains everywhere are slowing down for multiple reasons but not limited to labor and material, shipping lanes, and the ever-fluctuating demand. Every sector is seeing the effects of this to certain degrees. The most affected are the automotive, tech, and medical supply industries. According to the Bureau of Labor Statistics (BLS), over 4.3 million U.S. workers left their jobs as of August 2021. This was a 3% drop in the workforce affecting the supply of truck drivers and warehouse workers the most. With the COVID-19 variants spreading throughout the globe, vaccine mandates and required testing are leaving employers working to stay within the regulations while losing large amounts of staff. Ports are facing up to 80% increases in congestion due to the lack of workforce to transport goods. Some ports like the Port of Los Angeles are operating 24 hours, 7 days a week to reduce bottlenecks. Increased lead times and prices of raw materials, particularly in the auto space, are expected to cause a high disruption. The reduction of this global supply chain issue remains to be seen as this answer is industry-specific. Yet it doesn't appear these problems will be resolved before the end of 2021.

Inflation and Interest Rates

Inflation and interest rates have been one of the main macro topics this fall. Since COVID and the very short recession, we haven't experienced any dramatic changes to interest rates. But due to the evolving inflation this fall, the Fed on several occasions began to send signals and right out stated that rising interest rates will be used as a tool to bring down inflation.

Earlier this year the Fed anticipated the inflation to be transitory, meaning that it wouldn't have any major long-term effects on the economy. We are now seeing indications that inflation rates could be rising faster than expected. The CPI for all items rose 6.2% year over year for October 2021 and is the largest increase since November 1990. One of the most dominant components of this result has been rising energy prices, which have risen 30% year over year. As we learned in the Investments class, this could be warning signs of a recession due to business cycles. Experts don't think it is at a point yet where we should be worried about a recession because of the oil shock we have seen this fall.

Apart from the rising CPI, there has been quite a lot of talk about shadow inflation. This being reduction of the quality of products and services, instead of raising prices. Examples of this we have seen since COVID-19 could be hotels reducing the frequency of cleaning rooms or restaurants only offering take-out. It is not quantifiably visible like in the CPI, but a shadowing factor is that we pay "more" for products and services.

For now, the only real action we have seen from the Fed is tapering its purchases of assets and is thereby slowing down the flow of capital to the market. This is done to slowly reduce the economy before raising interest rates. The tapering will be $10 billion of treasury securities from $80 billion and $5 billion from $40 billion and will be done around the middle of next year.

While we didn't see any major drops in the market yet due to the news of rising inflation, we did experience days with overall red markets. We are certain that inflation is not moving in the right direction and that the risk of rising interest rates is higher now than when we started this term. We will touch upon this later in this letter, but we propose that the following class follow this as one of the main risks for the portfolio. Additionally, to factor it in the allocation of capital between equity, bonds, and cash

Energy and Oil

Creating more clean energy and moving away from oil and other fossil fuels has become of increasing importance during this semester. The largest taken for the US and internationally happened at the Glasgow Climate change conference.

The increasing importance of renewable resources has led to a large-scale shift in the automotive industry towards creating alternative sourced vehicles, most of which have been electric. As we continue to move forward, the automotive industry will shift towards completely oil-free vehicles. As we know, Tesla is the leader in this space however many of the largest automakers have already released or are planning to increase production of EY's including Toyota, Hyundai, Ford, General Motors, Volkswagen, and more. Along with this, the recently passed infrastructure bill will increase the number of charging stations to further push the electric vehicle revolution.

The oil market has had a tough time during COVID-19. However, with the lighter restrictions, many economies are starting to recover with demand for oil skyrocketing faster than it could be produced. Due to COVID-19, many countries had to produce significantly less than their quota and capability which has severely hampered the restarting process as we near the end of the pandemic. These shortages have caused prices to rise and peak at the start of November to $84.66 and currently sits at $80. In response to the rising prices, Biden has released a US supply of oil in conjunction with other countries around the world to lower the price during Thanksgiving and the holiday and travel season. However, due to forecasted demand for crude oil steadily increasing and countries unable to produce at maximum capacity, prices are expected to continue rising in the tight market. Additionally, the long-run view of oil is not positive which is why prices may continue to stay high in order for countries to maintain large-scale profits due to an increasingly uncertain future for the fuel.

Evergrande

Evergrande, once a perfect example of a freewheeling era of borrowing and building, is now the world's most indebted property developer. The China-based giant has been stumbling from deadline to deadline as it attempts to tackle over $300 billion in liabilities, $19 billion is in international market bonds. If they fail to make debt payments they risk becoming the largest debt default by a company in Asia. Despite the company's ability to sell assets and find ways to make payments in time, many experts still think their massive debt will catch up with them. The business model is ineffective as they are unable to sell new homes which are its main driver. Despite coming to an asset deal to raise $273 million, the company's shares struggle. The real effect could be seen when $3.5 billion comes due for U.S. dollar-denominated notes in March and April next year. The effects of Everegrande heavily impacted the portfolio as well. The Evergrande situation caused the entire US stock market to sink for multiple days in a row.

Investment Guidelines and Allocation

We inherited a portfolio of cash, bonds, and ETFs with exposure to the S&P, QQQ, tech, and international equities. We used this initial allocation as a baseline to construct holdings according to policy guidelines. This consisted of:

- U.S. Equity (30-75%)
- International Equity (3-15%)
- Emerging Markets Equity (0-15%)
- Marketable alternatives (3-15%)
- Fixed income (20-50%)
- Cash (5-40%)

Individual stocks have an allocation of 1-5% of the total portfolio.
MALTS include: cryptocurrency

Investment Decisions

	BOUGHT				SOLD			
Date	**Ticker**	**Quantity**	**Price**	**Total**	**Ticker**	**Quantity**	**Price**	**Total**
09/09/2021	SHOP	6	$1.518,29	$9.109,74				
	BKNG	4	$2.335,17	$9.340,68				
	ABNB	30	$164,76	$4.942,80				
09/16/2021	URI	28	$350,51	$9.814,28	F	-720	$13,18	-$9.489,60
09/23/2021	RTX	116	$86,48	$10.031,68	BSV	-150	$82,01	-$12.301,50
	DIS	57	$176,12	$10.038,84	LQD	-150	$135,39	-$20.308,50
09/27/2021	SPY	27	$442,63	$11.951,01				
09/30/2021	LIT	182	$82,45	$15.005,90	BABA	-40	$147,66	-$5.906,40
	CVS	58	$86,48	$5.015,84				
10/05/2021					MVST	-1649	$7,86	-$12.961,14
10/07/2021	RDSA	210	$45,93	$9.645,30	PYPL	-36	$267,43	-$9.627,48
10/14/2021	VALE	345	$14,50	$5.002,50	LQD	-0,442	$133,54	-$59,02
					LQD	-37	$133,54	-$4.940,98
10/21/2021	CCL	445	$22,51	$10.016,95	QQQ	-27	$374,17	-$10.102,59
11/04/2021	FB	30	$333,48	$10.004,40	CVS	-58	$96,28	-$5.584,24
					AMZN	-3	$3.444,53	-$10.333,59
11/18/2021	SPY	10	$469,23	$4.692,30	SHOP	-6	$1.646,00	-$9.876,00
					ABNB	-30	$199,43	-$5.982,90

Market Driven Investments

Along with the increase in vaccination rates and awareness, companies like Pfizer are opening up vaccination to children over the age of 5 years old. This led to pharmacies around the states gaining foot traffic for these vaccines. Companies like **CVS** and **Walgreens** have a massive presence in California and we felt like this was a good opportunity to take a position in **CVS Pharmacy** to give us exposure to this market**.** At the start of the semester we believed that the economy would start to recover more and as COVID-19 began to slow down. Travel would start to increase dramatically. Due to this we invested in **Bookings** and **AirBNB** which performed well as travel increased. **Disney** on the other hand did not perform so well despite our initial analysis that it would do so. With the increased movies, shows and subscribers we thought Disney plus would perform very well to go along with the holiday boom and increased travel with restrictions being lifted. However, they missed their earnings quite severely causing them to fall drastically.

Alternative Equity Investments

These investments were made not necessarily with the market in mind, but rather with a positive outlook on the company and its performance. As well as its future prospects in the long run. The first of these was **Shopify**, which is very stable and has had steady growth while being the only real competitor to amazon in the e-commerce industry. Due to this, we felt they would not falter and not be bought out making them a good addition. Our second addition was the **Global X lithium & Battery ETF** which is an alternative ETF which we used to stay in the electric vehicle market as the market has a much greater upside. We bought **Facebook** because of their size and limited competition. They also announced a rebrand and shifted their focus on to the "metaverse". As a long-term investment, we chose this as a good option and the returns are already being seen. We used **VALE** who focuses on mining and exploration as a way to hedge our bets and enter the natural resources market.

Performance and Benchmarks

To address and analyze the OSIF portfolio's performance this term, we have blended some of the major benchmarks to match the portfolio. This was done by weighting out the returns of our benchmark indices by the same amount of each of the bonds we held LQD and BSV. The amount of cash held over time was also blended into the benchmark.

We have chosen to benchmark against the S&P 500, Russell 2000 and ACWI, to compare the portfolio to both a large cap, small cap and global index.

As the team overall was bullish on the US equity markets, we chose to deploy the cash we inherited relatively quickly to US equities. We also shifted some of our exposure from bonds to equity. After a couple of weeks, our asset allocation was therefore around 5% cash, 25% bonds and 70% equity.

Portfolio	Return
OSIF	1.94%
S&P 500 Blended	3.38%
Russell 2000 Blended	6.14%
ACWI Blended	2.53%

As we look at our portfolio and the performance of the benchmark above, we can quickly determine that markets have shown positive returns this fall. As of November 16th, we were sitting at a return of 1.94% or $10,416. Although we made a positive return, we see that our benchmarks overperformed us. So why is this?

Inherited positions

We inherited a position in a large-cap cryptocurrency fund from a company called Grayscale. This position had run up a lot over the summer and was sitting at a positive return of 113% when we inherited it. We chose to keep this position as we wanted to keep a small exposure to the cryptocurrency markets. This equity, unfortunately, went south on us just a couple of weeks into the term and has been sitting at a return of about 30% since. While the fund hasn't realized any losses in terms of cost basis on this position, the big decrease in our return in this position has hurt our performance and cost us about $4.5k.

Time frame

One of the biggest obstacles of this class is the time frame. While it is possible to gain positive returns in 3 months it is difficult to outperform the market without taking on a considerable amount of risk. While we kept a considerable amount in bigger ETFs such as SPY (S&P 500), IWM (Russell 2000), QQQ (Nasdaq 100), we did invest in some single company equities. The reality though is that, when we at best have 3 months of runway, it is very hard to pick out the winners for such a short time frame.

Looking back

We can see that our bullish expectations didnt fail and that markets rose considerably this term. The Russell 2000 Blended portfolio ended at a return of 6.14%. Out of the three benchmarks, the ACWI Blended portfolio performed the lowest at 2.53%. A takeaway from this and a lesson that could be learned here is that we could have turned more towards balancing our indices in the portfolio. Throughout the term, our SPY position was weighted at around 20-25% of the total portfolio, while IWM was around 3%. Looking back, we could have shifted more value into IWM to take on some more systematic risk and raise our beta without having as much exposure to the idiosyncratic/company-specific risks we took.

Outlook

The last two years have been dominated by the conversations of COVID-19, and this hasn't changed to a certain degree. While the majority of the U.S. is well underway to being fully vaccinated, other major regions and countries struggle to catch up and this is a major global concern. While the U.S. may see COVID-19 uncertainties slowly start to drift away, we as a country are facing new challenges, such as the rising debt ceiling and the overwhelming oil prices. Treasurer Secretary Janet Yellen mentioned how it is estimated that the U.S. will reach its debt ceiling on the extended date of Dec 15th, giving Congress more time to strike a deal. This comes just over 2 months after she stated the economy would "fall into a recession if Congress fails to address the federal government's borrowing limit before an unprecedented default on the U.S. debt. Raising the debt ceiling becoming an efficient way to "raise the country's credit card balance." We ask ourselves questions like "when will this end?" and ask the future students to take caution and be aware of the progress congress makes.

Sectors like Energy (83%), Financials (59%), and communication services (38%) were sectors that had great performance for the year coming into the fall term. The rise in energy usage and oil prices did lead us to take a position in Royal Dutch Shell. Though this position did not see much performance, the class felt this was a great way to gain some exposure to the oil markets.

A Note of Thanks

Thank you to the O' Neill family, faculty, and board for the opportunity to manage the O' Neill Student Investment Fund. It has been an invaluable experience that has taught us the value of diligent research, spirited debate, and how putting the pieces of the economy together is a difficult but rewarding endeavor. We thank you for your confidence and appreciate your continued trust.

Sincerely,

The OSIF Fall 2021 Team