



Oregon State Investment Group

2016-2017 Annual Report

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Letter from the President – Miles Johnston, Senior

After completing five years of active duty service in the Air Force, I knew I wanted to return home and go to Oregon State University. While completing the transfer student program on campus, I heard about the Oregon State Investment Group. After hearing about what the Group was all about, I set my sights on this fantastic opportunity. While in the Group over the last two years, I have learned more from the Investment Group and my peers than I could have ever imagined. OSIG is flush with bright minds, dedicated students, and an unwavering commitment to success from its members. I feel an enormous sense of pride when I can share with others what the Oregon State Investment Group is all about, and the incredible potential I see in all its members.



The Oregon State Investment Group allows students to take part in a truly unique organization. Generous donations from OSU alumni, along with the OSU Foundation allows students to engage in an incredible experiential learning opportunity. The Oregon State Investment Group now manages over \$2.2 million with three distinct portfolios. Each portfolio allows students to expand their knowledge and experience with differing investment strategies and asset classes. We employ three different portfolios: the Large Cap Portfolio, the D.A. Davidson competition portfolio, and the Synthetic Portfolio.

“The Oregon State Investment Group now manages over \$2.2 million with three distinct portfolios.”

This past year was certainly one of the most exciting times in recent history within the global markets. Volatility and uncertainty defined our year. With markets reacting wildly to BREXIT, and U.S. elections, the Group has been forced to make tough decisions and learn from a unique investment environment. Our fantastic analysts, sector leaders, and portfolio managers put us in a position to capitalize on opportunities throughout the market.

We had an incredible year with members securing both internships and full-time offers. Our fantastic OSU alumni and supporters have allowed us to show them what we are all about. Dedication, hard work, and discipline are not easily taught, but OSIG continues to inspire the next generation of professionals. The Group’s past and continued success is made possible by our incredible faculty, sponsors, and donors, who generously support the Group. Additionally, I want to explicitly thank Professor Jimmy Yang, on behalf of everyone who has the privilege to work with him. He has been an incredible influence on the Group and is always there to offer his wisdom and guidance.

Miles Johnston – Finance 2017

President, Oregon State Investment Group (2016-2017)

Large-Cap Portfolio Performance – Steven Miller, Junior

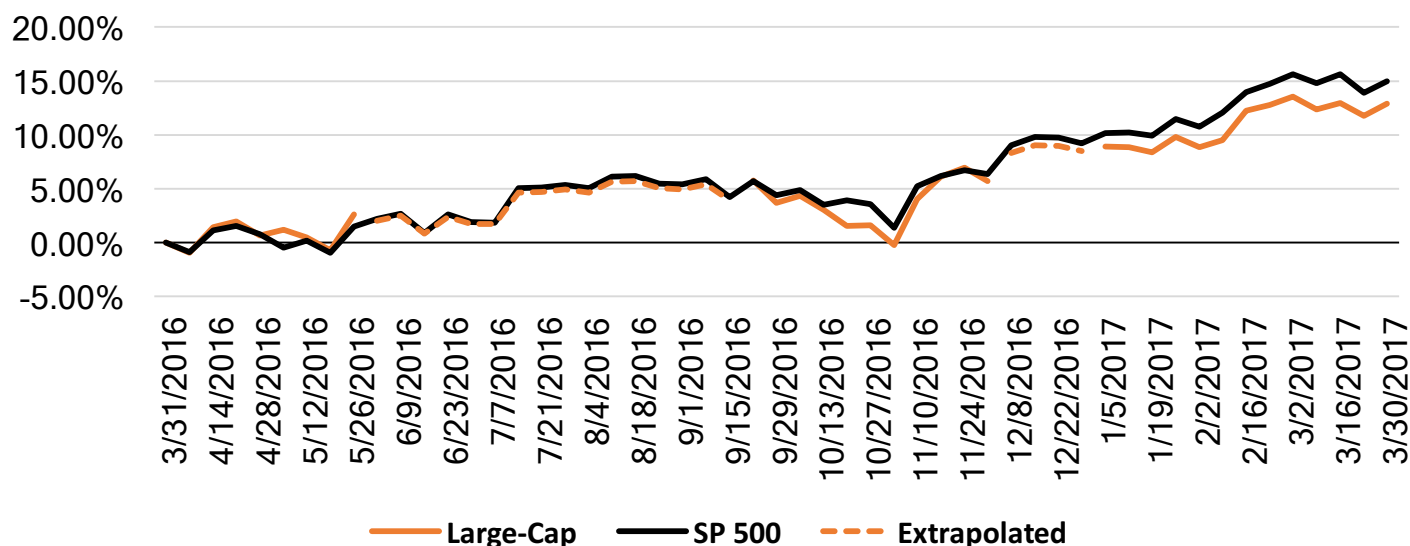
This year the portfolio broke the \$2 million threshold, marking an over 100% return since inception in 2007- 2008. This portfolio is the backbone of the Group, representing the efforts of several generations of brilliant, talented, and motivated students. Current members of the Group are thrilled by our continued success and look forward to producing results to improve opportunities for posterity.

Over the period March 31st 2016-2017 the Large-Cap Portfolio did not outperform its benchmark, the S&P 500 Index. With a beta of 1.15, we produced negative 390 bps of alpha during the period*. While this may be discouraging to some, we prefer to think of this as a valuable learning experience. We attribute this underperformance to our IMEU sector holdings, which experienced heightened volatility and poor earnings performance. Our top performing sectors for the period were Financials and Technology, just like the S&P 500. We added several key positions in these sectors based on recommendations from our analysts, in-line with the Group's macroeconomic forecast. This year saw a particularly strong performance from our holdings in JPM, AAPL, and GOOGL with unfortunately substantial underperformance from EQT, CBI, GILD, MYL, and KORS. New companies include ADBE, USB, RHT, and ASML. We broadened our exposure to financials in anticipation of rate hikes, while also attempting to capitalize on PaaS businesses that we believe have significant growth opportunities.



With events like Brexit and U.S. and Global Elections, the amount of geopolitical risk in the world is rising rapidly. Moreover, there are continued concerns over China's debt/GDP levels. Given the amount of increasing uncertainty, the Group decided to take a more defensive position in the portfolio, holding a large cash reserve as the market looks to be broadly overvalued.

Large-Cap Performance, 2016-2017



*Unfortunately, due to a recent data loss caused by file corruption, performance for the period may not be accurate. The Group is working tirelessly to repair the holes in our data to ensure data integrity and validity. Members have focused on restoring data at the beginning, end, and middle to recover as quickly as possible. Therefore, we are confident that our beta and performance calculations are within reason. Based on repaired sections we extrapolated missing data for this report. When members complete repairs, this report will be updated immediately. At such a time, further analysis will be conducted to offer a greater level of detail.

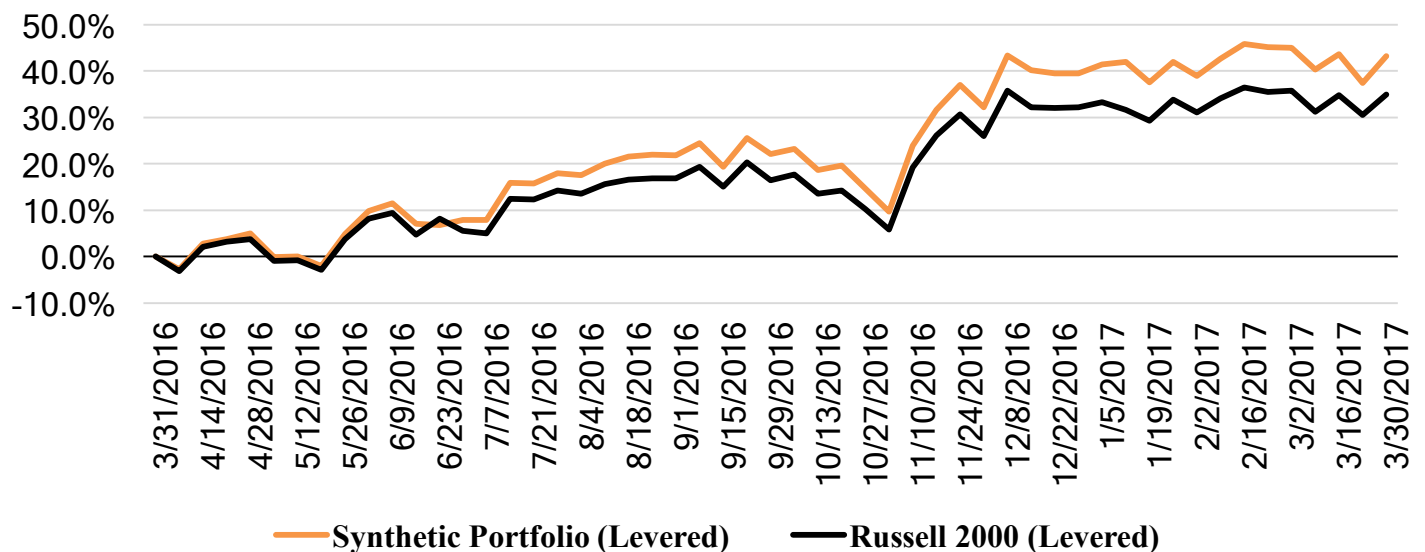
Synthetic Portfolio Performance – Francis Thelen, Sophomore

The Synthetic Portfolio consists of two primary investment vehicles; futures contracts and fixed-income ETFs. By using a portable alpha strategy, this portfolio offers leveraged exposure to the Russell 2000 Index via a quarterly e-mini Russell 2000 futures contract. Subsequently, to produce alpha, we operate an actively managed fixed income ETF portfolio. ETFs offer several advantages over buying individual bonds. Primary among these benefits is liquidity; if faced with a margin call, this eliminates all liquidity-related issues of typical bond holdings. Other advantages include greater flexibility, improved access to esoteric markets, and simulated fund-of-funds management experience.



This year may be considered a milestone for the portfolio, reaching over \$100,000 for the first time, doubling its value since inception. The Group created the Synthetic Portfolio in October 2013 with only \$50,000, aiming to capitalize on the relatively cheap exposure offered by Russell 2000 Index futures. Over the year, from March 31st 2016-2017, this portfolio performed extraordinarily well. Despite prevailing bond market conditions, the portfolio outperformed both benchmarks. While overall portfolio performance derives from leverage, changes made to duration protected our notional value while limiting downside.

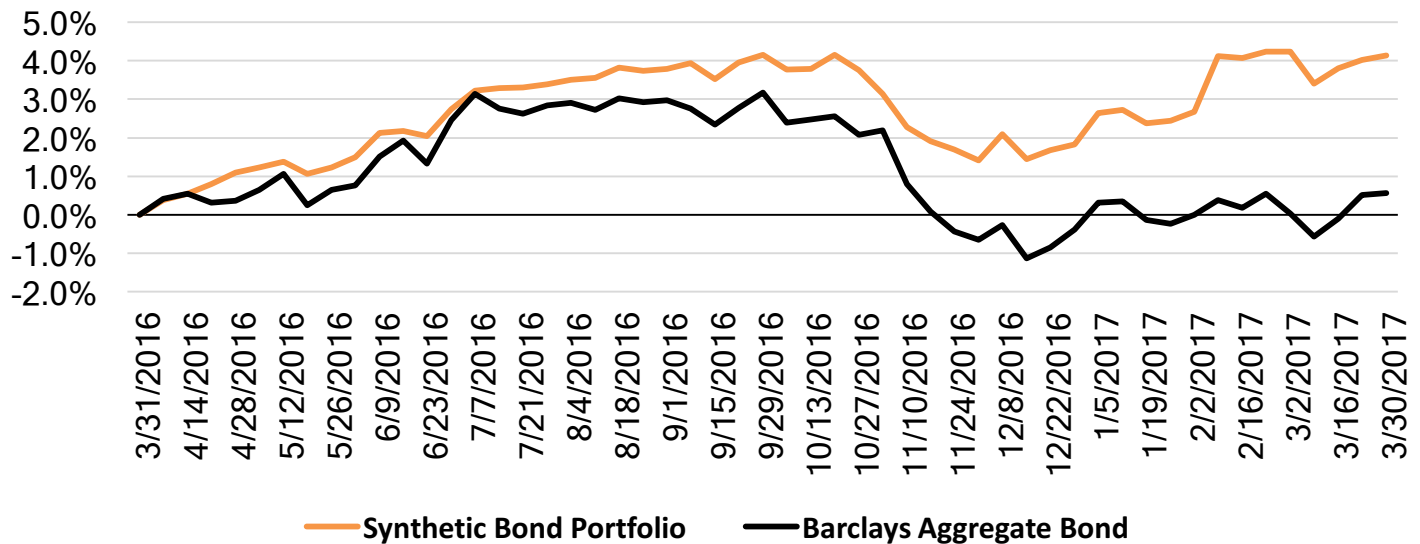
Risk-Adjusted Performance, 2016-2017



The Synthetic Portfolio beat its benchmark (the Russell 2000 Index) significantly this year. Both risk-adjusted and non-risk-adjusted returns were consistently above the benchmark. The portfolio generated 820 bps of risk-adjusted alpha, a big win for all students involved in the Group. However, alpha for the period should be primarily attributed to leverage and not the intended portable alpha strategy. Several changes made to the portfolio during the year reduced fixed-income exposure dramatically, protecting the fund value from volatility surrounding rate hikes. Unfortunately, this limited the portable alpha potential, which operates with the greatest effect when funds are fully invested. Fortunately, we effectively capitalized on post-election trades, which pushed the Russell 2000 index higher than any other major index on a percentage basis. The Russell 2000 Index holds a high weighting in small-cap biotech companies, which benefited from political sentiment

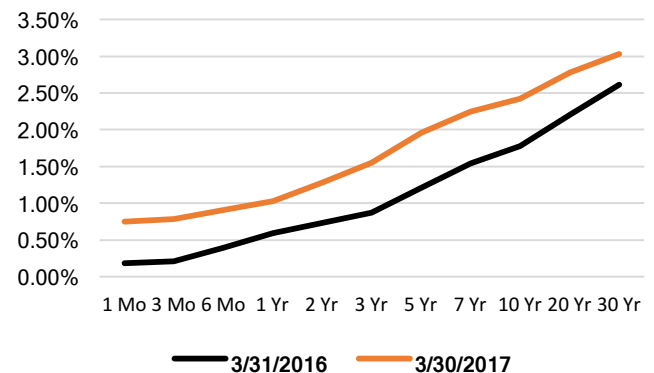
concerning tax policy. With decreased exposure to fixed-income, which could have potentially weighed down returns, these gains were outstanding.

Bond Portfolio Performance, 2016-2017



Within the Synthetic Portfolio, we track our bond holdings separately against the Bloomberg-Barclays U.S. Aggregate Index. This year we focused on reducing the portfolio duration below the benchmark. Our macroeconomic forecast included provision for multiple federal funds rate hikes. Changes in the federal funds rate often impact high duration bond greater than low duration. These changes to the yield curve over the year have been consistent with expectations of inflation and a rising rate environment. To counteract risk factors, significant changes to our holdings were made. We sold our position in SCHZ for two reasons: 1) the fund had a high duration, and 2) the fund is a tracker for the portfolio's benchmark, which did not match the investment strategy of outperformance. We also initiated a 10% position in VMBS, based on a positive outlook for U.S. employment, housing starts, and all time low prepayment risk factors. These changes brought the weighted average portfolio duration below four years. Also, this created a vast cash position accounting for over 50% of the portfolio value. This strategy proved to be effective over the period, earning over 300 bps of alpha—240 bps from dividends. This performance well exceeded the implied cost of our futures contract and therefore marks this as a successful year. We expect further rate hikes in coming months and feel that our strategy will allow us to continue outperformance.

Treasury Yield Curve, 2016-2017



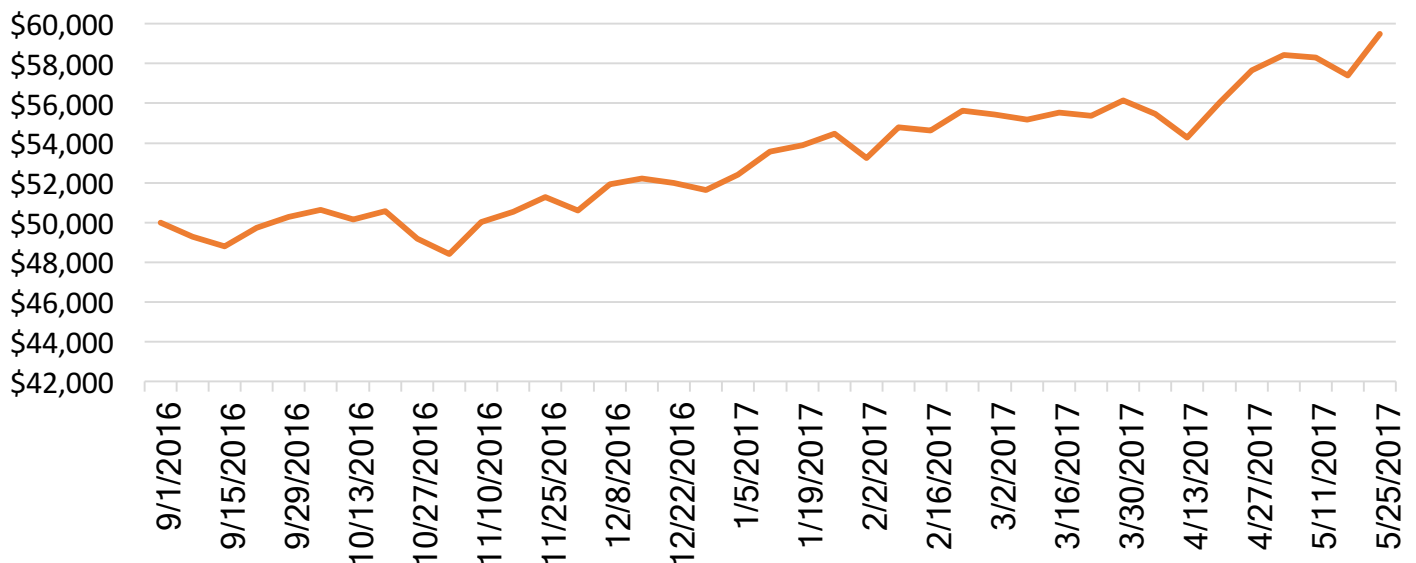
DADCO Portfolio Performance – Alex Dean, Senior

The D.A Davidson student investment competition is an annual competition among 20 west coast schools. The competition resets each year on September 1st, rebalancing all portfolios to \$50,000. Returns of more than 5% are evenly divided between D.A. Davidson and the school. Because our one-year investment horizon for this portfolio is particularly short, our goal is to have a portfolio with high standard deviation by holding a limited number of companies in the portfolio. Traditionally, the DADCO portfolio has held companies with smaller market caps that have 1) high growth potential due to given catalysts and 2) large, established companies that we believe are priced at opportunistic levels. Due to the September reset, we will highlight the results of the 2015-2016 competition and the year to date performance of the 2015-2016 competition.



To begin the 2015-2016 competition, we decided to rebalance our portfolio and sell our positions in Apple (AAPL) and Amgen (AMGN) and only hold Royal Caribbean (RCL) and cash. The reason we decided to hold onto RCL was based on oil prices continuing to deteriorate and the assumption that consumer spending would pick up for travel stocks. We initiated a position in Alaska Airlines (ALK) by purchasing 133 shares in October based on the same reasoning behind holding on to Royal Caribbean. In February, we initiated our third position in Commscope Holding Company (COMM) with the purchase of 395 shares. We later sold our COMM position just two months later in April, locking in a 20% gain over the period. We then used that cash to purchase shares of Martin Marietta Materials (MLM), a leading supplier of aggregates and heavy building materials, in May. Over the summer of 2016 we held MLM, ALK, RCL, and Cash due to our uncertainty around macro events like Brexit

DADCO Value, 2016-2017

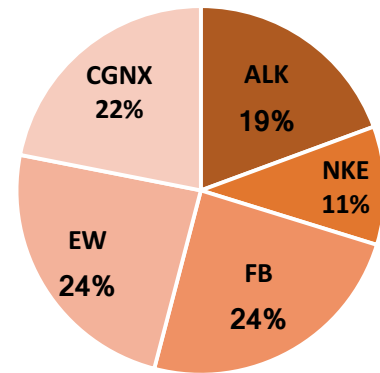


and the possibility of rising interest rates. We ended the 2015-2016 competition in 9th place with a portfolio value of \$47,532. MLM was our best performer while ALK and RCL were unable to materialize the benefits from increased consumer spending over the summer.

The 2016-2017 competition was a good year for all schools, as we have seen a tremendous bull market due to economic indicators like the unemployment rate being at a ten year low with rising wages, as well as Donald

Trump's promises to significantly cut corporate tax rates and stimulate U.S. businesses. We started the competition with the same holdings (MLM, ALK, RCL, Cash) but quickly sold out of RCL in October and purchased shares of Nike (NKE) as we believed the brand was priced at a discount due to negative analyst reports that focused too heavily on the short-term. We later trimmed our Nike holding due to speculation of Trump's border tax. In October, we also purchased shares of Facebook (FB) given its robust growth in advertisement revenue. We sold MLM at the beginning of November and locked in a 7% gain after trading to increase our cash position in the portfolio. For the next couple of months, the airline industry and our holding of Alaska Airlines performed extremely well, due to posting higher load rates, more traffic and purchasing Virgin America. We then purchased Edwards Lifesciences (EW), a medical equipment company specializing in transcatheter heart valves, in January 2017. In February, we purchased shares of Cognex (CGNX), a manufacturer of machine vision systems that primarily sells to Apple with high growth potential. As of the end of May 2017, we hold ALK, FB, EW, CGNX, and NKE with a total portfolio value of \$59,495. All our holdings have posted a return greater than 15% since their purchase except for NKE, which was flat. We are currently in fourth place of the competition between 20 west coast schools.

DADCO Portfolio Weights



Sector Analysis

Healthcare Sector – Alicia De Leon Mendoza, Senior

The past year was comprised of many ups and downs for the healthcare sector. Our healthcare sector holding included Celgene (CELG), Gilead (GILD), Johnson & Johnson (JNJ), Medtronic (MDT), and Mylan (MYL) at the beginning of 2016-2017. Johnson & Johnson held the largest sector value with 28.64% of the total healthcare sector value, followed by Medtronic at 27.29%, Gilead at 16.71%, Celgene at 15.36% and Mylan at 11.99%.

As demonstrated by the 34.05% annual return on the SPDR Biotechnology Fund (XBI), biotechnology once again was the biggest driver for the healthcare sector. Throughout the past year, we have had continued exposure to the biotech industry through our holdings Celgene (CELG) and Gilead (GILD), which returned an annual 22.83% and 25.15%, respectively. Celgene's performance was driven by consistent double-digit year-over-year net product sales and acquisitions that helped add to its portfolio of drugs. Revlimid was still a primary driver of net product sales increase, but there was an apparent slowdown in this growth. Foreseeing a possible downturn in Celgene's stock price and increased risk within the sector, we decided to close our position in Celgene. In early March 2017, 464 shares of the stock were sold at a price of \$122.94 per share, yielding a 22.83% annual return and a 16.87% return from inception. Gilead's business was hurt by public sentiment over the pricing of their drugs. Missing estimates in both 2016 Q3 and 2017 Q1 did not help build trust in Gilead's sales, pipeline, and future success. Even though we have an annual unrealized loss of 25.15% in Gilead this year, we are hopeful that future partnerships, potential acquisitions, and the movement of drugs through their pipeline will bring Gilead to a place where we can capitalize.

With an annual return of 32.45%, as represented by the SPDR healthcare equipment fund (XHE), the healthcare equipment industry soared. Our exposure to this industry continued with our position in Medtronic, which returned 10.15% for the year. Medtronic has been the only company to make medical devices used for deep brain stimulation, a therapy that treats symptoms of Parkinson's disease and other movement disorders. Accounting for \$500 million of its \$30 billion in annual revenue, deep brain stimulation is one of their fastest-growing areas. Another significant achievement for Medtronic includes the approval of the first and only leadless pacemaker in the U.S., which was named one of the greatest achievements in medicine by the U.S. News & World Report in 2016. Consistently exceeding earnings estimates paired with constant innovation and forward movement makes Medtronic a stock worth keeping.

According to the SPDR Pharmaceuticals Fund (XPH), pharmaceuticals showed an annual gain of 5.52%. Our representative stock for this industry, Johnson & Johnson, allowed for hearty unrealized gains of 17.52% as of the end of this year. A well-diversified company in and of itself, Johnson and Johnson provides the right amount of exposure to the pharmaceutical industry. Steady growth, consistent dividends, and consecutively exceeding earnings estimates makes JNJ a great blue-chip stock contender.

Mylan was purchased in January 2016, and the position was closed out February 2017. With just over a year our holdings in MYL decreased in value by 11.96%. Mylan quickly became the poster child for companies abusing drug pricing power. With all public and government eyes on Mylan, after an observed decline in stock price, our position in Mylan was closed as soon as upward movement in price was noted. To cut losses, 857 shares of Mylan were sold for \$42.40. MYL seemed promising as genetics have started to somewhat overtake the brand



markets, but until price disputes and healthcare laws are settled, Mylan's risk is not an equity we wanted to hold on to.

Macro trends still encompass the undeniable aging population in the United States. Baby boomers are a prime target market for healthcare companies. Opportunities for innovation, growth, and profits are becoming more readily available, and so is the risk of missing earning targets due to overestimation and failed forward pipeline movement. Changes in healthcare laws are foreseeable, which may have a significant effect on the operation of healthcare companies. Our healthcare sector holdings at the end of the period include Johnson and Johnson at 44% of total value, followed by Medtronic at 39%, and Gilead at 16%. Johnson and Johnson, as well as Medtronic, have proven to be successful even during tough industry times. While Gilead had a rough year, this is a stock with great potential so long as it does not lose any major patents.

Financial Sector – Travis Allen, Junior

The financial sector was one of the top performing sectors in the economy over the last year, a turnaround after financials were a bottom performing sector a year earlier. Using the Financial Select Sector SPDR ETF (XLF) as a proxy, the sector climbed 27.20%. The move higher was part of a broader market rally resulting from the U.S. Election in November. An improving global economic outlook boosted confidence and fueled "animal spirits," with optimism for higher economic growth on the back of policy proposals and fiscal stimulus from the Trump Administration. The financial sector outperformed the S&P 500 over the same period, which was higher by only 17.09%. Banks and other financial institutions saw their stock prices climb on the back of hopes for tax reform and deregulation. Combined with an improving economy, the labor market at full employment and inflation picking up, interest rates moved higher with the Fed hiking rates two times over the period, raising the Federal Funds Rate 50 bps to around 0.75%. The 10-year Treasury also rose to 2.20% from 1.70%. Higher interest rates are beneficial to financial institutions in this unprecedented low rate environment, a result of the financial crisis. Looking ahead, the market is pricing in a 96% probability of a rate hike at the June FOMC meeting and a 28% chance of another rate hike in September. This is despite the rally in equity markets stalling, due to investigations into the Trump Administration raising uncertainty whether the administration will be able to go through with its agenda. Financials and other cyclical sectors of the economy have retraced some of their earlier gains due to this pessimism.



Compared to the financial sector, OSIG's financial holdings outperformed the benchmark. This outperformance is due to a collection of well-diversified, quality financial holdings. For most of the year, the Large-Cap Portfolio was overweight financials. The decision was made due to expectations for rate hikes from the Fed and catalysts resulting from the election. Due to the rally in financial stocks, we initiated updates on all of our financial holdings. This resulted in selling out of MetLife (MET) in late April. The company displayed limited upside potential, and the stock price exceeded our price target. In November, we picked up U.S. Bancorp (USB) to get exposure to the banking sector and regional banks specifically, which contributed to our overweight position in financials. With the portfolio adjustments we made throughout the year, the current financial holdings consist of four companies: BlackRock (BLK), Blackstone (BX), JPMorgan Chase (JPM), and U.S. Bancorp (USB). With only four holdings, each offer exposure to almost every facet of the financial sector. JPMorgan remains the largest financial sector holding and third largest holding in the Large-Cap.

Looking forward, I expect the economy to continue to improve and interest rates to rise over the medium term. With the Fed on solid track to remove accommodation and normalize policy, I expect more rate hikes in the upcoming year and beyond. Also, with the Fed signaling a shrinking of the balance sheet, this suggests rates will

continue to move higher. Therefore, I recommend a slightly overweight position in financials as we move ahead. With all of our positions being updated this year, we should have limited updates next year except for JPMorgan. As the largest position in our portfolio, an update and trim may be warranted. New pitches should seek to identify companies in the fintech industry or that benefit from technological innovation in the financial industry. Considering we sold out of MetLife, we could also look to gain exposure to the insurance industry. I also recommend looking at payment processing companies such as Visa (V) or MasterCard (MA). These areas of the financial sector would offer increasing diversification benefits to our financial holdings and the overall portfolio.

Industrials, Materials, Energy & Utilities Sector – Elijah McGowen, Senior

2016 was the 6th year of an extended slow growth bull market (since the Great Recession), and it was marked by low returns and a hunt for yield among investors. This inflated the prices of securities in our utility holding DUK, which typically experiences very low volatility. Utilities were bid up until they declined to more normal levels as the Federal Reserve indicated they would raise rates by 25 basis points in December 2016, and as the 2016 U.S. presidential election ramped up growth expectations in the U.S. economy. Energy, on the other hand, experienced much less volatility from 2016-2017 than last year. This was due to an OPEC arrangement and a steady decline in the rig count, which constricted supply.



After the U.S. Presidential election, the overall stock market saw a massive surprise on the upside with the election of Donald Trump. More specifically, the industrial and materials sectors increased due to 1) a potential infrastructure bill, and 2) tax reform, and 3) a perceived easier stance on business regulation. In 2017, the expectations driving valuations leveled off -- or in some cases, declined. Some of this was due to scrutiny surrounding the infrastructure bill. Funding infrastructure spending would require historical growth of 3%, which the White House claims can be accomplished through tax reform. However, a divided party and numerous scandals have cast a shadow on tax reform, leaving the U.S. markets (specifically the Industrials and Materials sectors) in a period of low volatility and high valuations as investors wait for good news from Congress, or for the other shoe to drop.

Going forward the IMEU sector leader recommends the current OSIG management to unwind their positions in Exxon and CBI. With steady, to increasing gas and oil prices, going forward there are better positions with exposure to a rise in prices than Exxon, which is more of a bearish play due to its refinery business. CBI, on the other hand, has consistently underperformed, and there are few catalysts that signal OSIG could recuperate their heavy losses in this stock. Otherwise, OSIG's IMEU holdings have brought generous returns to the Group. If new legislation creates the possibility of tax reform or infrastructure spending, this sector could again experience high growth.

Current IMEU Holdings as of May 31st, 2017

Sector	Stock Holding	Percent of Portfolio	Holding Period Return	YTD Return (5/31/16-5/31/2017)
<i>Industrials</i>	CBI	.86%	-76.84%	-50.58%
	HON	3.57%	46.02%	16.93%
	FDX	1.22%	46.61%	17.42%
	GD	1.31%	58.47%	42.91%

<i>Materials</i>	PPG	4.08%	97.11%	-1.37%
	MLM	3.48%	33.58%	18.62%
<i>Energy</i>	XOM	2.61%	35.71%	-9.41%
	EQT	2.54%	-37.28%	-24.37%
<i>Utilities</i>	DUK	2.93%	24.13%	9.69%
	Total IMEU Weighting: 23.90%		Average HPR: 25.28%	Average YTD Return: 19.83%

Consumer Sector – Benjamin Dodge, Junior

The Consumer Goods sector can be benchmarked against key economic factors to get a broader understanding of the sector's performance. Key metrics that are used in evaluating performance are consumer confidence, disposable income, consumer expenditures, and the unemployment rate.

From March 31, 2016, to March 31, 2017, the Consumer Confidence Index experienced steady growth throughout the year from 96.2 to 124.9. Going forward, the index has since tailed off to 117.1. While consumers have been less bullish, confidence is still high and is expected to carry into the summer months. Disposable income has also seen steady growth over the past year. In March 2016, the disposable income sat near \$13,700. In March 2017, the amount grew to just over \$14,400, hitting a record. This increase is in line with the growth in the consumer confidence index and economic growth over the last year. Personal consumption expenditures have also experienced strong growth over the past year. Expenditures sat at \$12,510 in March of last year and hit \$13,137 in March 2017. The unemployment rate has been improving over the last year too. In March 2016, unemployment was at 5%. By March 2017, the rate had fallen to 4.5%, with the highest rate of the year being 5% in both in March and April 2016.



With each of the key indicators experiencing strong performance over the past year, the Consumer Goods sector has a considerable amount of momentum pushing it forward. Confidence remains high, disposable income and expenditures are growing, and unemployment is continually decreasing. All of these indicators will likely drive our Consumer Goods holdings upward into the next fiscal year if they continue the current trajectory.

Below is a breakdown of the Consumer Goods holdings:

<i>Holding</i>	<i>FY 2016 Performance</i>
AAPL	31.81%
CL	3.60%
COST	6.42%
DIS	14.18%
HD	10.04%
KORS	-33.09%
SBUX	-2.19%

Performance for the Consumer Goods sector in FY 2016 was positive. Compared to benchmarks, XLY, a consumer discretionary ETF, was up 11.23% from March 31, 2016 to March 31, 2017. XLP, a consumer staples ETF, was up 2.86% in the same period. We saw our strongest gain of the year with Apple, up over 31%. Much of the growth in the stock came from the company's continued success in iPhone sales. The company continued to beat quarterly earnings and set records for quarterly revenues this winter. Apple stock had been falling last spring and summer due to concerns over the growth potential of the tech giant, but recent quarters have proven that the company is still able to push sales of its products.

KORS was our lowest performing stock over the year, falling 33%. The stock witnessed a significant selloff after reporting their Q3 results in February. Missed expectations and lowered fiscal guidance were the main contributors of the selloff. Our consumer goods analysts updated the company after the news and the Group decided to hold onto the stock due to expansion into Asian markets.

Costco, Disney, Home Depot, and Starbucks all received full updates by consumer goods analysts over the year. The Group voted to hold each stock based on their respective future growth potential and continued success.

Technology Sector – John Schaer, Senior

The fiscal year of 2016 represented a volatile year for the Technology sector, as represented by the S&P North American Technology Sector Index. The sector showed gains of 2.2%, 12.2%, and 0.3% during Q1, Q3, and Q4, respectively, but suffered a loss of -1.4% in Q2. Much of this volatility is related to the unique election cycle that the U.S. recently completed. While President Obama seemingly embraced the technology industry and the value of the "start-up culture" during his time in office, President Trump has espoused several viewpoints that markets believe could negatively affect the technology industry. These policies include potential net neutrality roll-backs, the undoing of regulations safeguarding the privacy of internet users, and new restrictions on visas for highly-skilled workers from abroad. However, despite these political headwinds and market fear, technology companies have continued to roll out new products and innovation at a rapid pace, which has driven the sector to a 10.8% gain thus far in 2017.

Regarding technology trends, the rise of cloud computing that began in earnest in 2015 continued throughout 2016. With productivity relatively weak, companies are looking to technology upgrades to improve efficiency and cut costs. This often results in the divestment of owned information technology and data centers in favor of cloud solutions. Amazon currently dominates the cloud computing market through its AWS platform, which has grown at a 64% annual rate over the last three years and owned 37.1% of the market. Amazon's main competitors in this space are Microsoft Azure and Google Cloud Platform, which own 28.4% and 16.5% of the market, respectively. Other competitors include Softlayer and Rackspace, but no other company controls over 5% of the cloud computing market, and all are lagging quite far behind Amazon regarding growth.

Perhaps the largest trend in technology during 2016 was the explosion on to the scene of cyber security. As we have observed from recent mass cyber attacks on governments, political parties, corporations, and individuals, the current state of global cyber security remains chaotic, and attacks are not expected to slow down. Cybercriminals continue to be the most prevalent attackers, usually employing social engineering as their primary attack vector. As the rate of incidents continues to escalate, the magnitude of the related brand, reputation, and fiscal impact is driving organizations to address cybersecurity risk, with worldwide spending on cyber security products and services forecasted to eclipse \$1 trillion from 2017-2021. This in turn has generated large increases in M&A and venture capital activity in the subsector, notably including Symantec's \$4.65 billion

acquisition of Blue Coat Systems in August, Avast's \$1.3 billion acquisition of AVG Technologies in July, and \$3.1 billion of venture capital investments in a record 279 cyber security deals in 2016.

With all of the volatility in the technology sector over the year, 2016 was also a significantly busy year for our tech holdings regarding portfolio turnover. Relating to the exit of positions, we sold 3,530 shares of Applied Materials (AMAT) in May, realizing a 69.4% gain on the investment. We also sold exited our 726 shares in Cerner (CERN) in March of 2017, generating a 20.0% loss. We also sold 400 shares of our 796 share position in Qualcomm (QCOM) in February of 2017 for a 32.4% gain. In terms of new positions, we purchased 150 shares of Adobe (ADBE) at \$119.91 per share in March of 2017, 200 shares of ASML Holdings (ASML) at \$123.50 per share in February of 2017, 689 shares of Activision Blizzard (ATVI) at \$39.95 per share in November of 2016, and 501 shares of RedHat (RHT) at \$81.53 per share in February of 2017. At the discretion of the Large Cap Portfolio Manager, we purchased an additional 260 shares of Apple (AAPL) in October for \$117.06 per share in expectation of favorable earnings during the holiday season. We then sold 252 of these shares in February of 2017 at \$128.53 per share, reaping a 6.4% gain.

Our current holdings and returns since inceptions are as follows:

<i>Holding</i>	<i>Performance</i>
<i>AAPL</i>	57.18%
<i>ADBE</i>	9.60%
<i>ASML</i>	5.30%
<i>ATVI</i>	12.70%
<i>CSCO</i>	19.86%
<i>GOOG</i>	114.74%
<i>GOOGL</i>	119.44%
<i>QCOM</i>	43.53%
<i>RHT</i>	8.23%

Year in Review

9th Annual New York Trip

On Sunday, September 11th of last summer, seven of the Investment Group's top members embarked on the annual week-long trip to New York. This is one of the most anticipated and valuable opportunities for OSIG analysts as they get to cultivate existing relationships and create new relationships with firms and alumni located in the financial capital of the world. The ultimate goal is to create an ever-growing network of contacts that will lead to job opportunities and continuing education in the areas of interest among the members. The group visited The Federal Reserve, Strategas Research Partners, Morgan Stanley Fixed Income, Morgan Stanley Wealth Management, UBS, and TD Ameritrade.



Residing in the heart of Time Square for the week, members accompanied by faculty advisor Jimmy Yang experienced the bustling city at its finest. Being centrally located allowed the group to walk to the vast majority of firms and experience subway rides to those further out. While visiting the Federal Reserve, students observed a rare gold transfer inside the vault, as bricks were carted through. The Group later toured the Morgan Stanley building by Oregon State Alum Steve Zamsky where he offered career advice and insight into the world of fixed income. The following day another Oregon State Alum, Josh Bruegman, explained his journey from OSU and how he broke into New York Wealth Management. Every stop along the way presented value to each attending member and opened doors with potential future employers. The Group hopes to continue to capitalize on the success of the annual New York Trip for years to come. The New York trip is a fantastic opportunity which has only been afforded to us because of enormous generosity. This generosity has not and will not go unnoticed by the past and future members of the Group.

Civil War (U of O vs. OSU)

The Oregon State Investment Group and rival University of Oregon Investment Group joined again this year for the annual Civil War investment face off. Hosted by Oregon State University this year, this friendly competition allows students to network with like-minded peers and learn about different investment strategies utilized by both Groups.

The main event involves a pitch-off between representatives from each Group. This year's competitors were Justin Worthy and Jordan Shimabuku representing U of O with a buy recommendation for Cooper Tire & Rubber Company (CTB), and John Schaer and Francis Thelen representing OSU with a buy recommendation for Cognex Corporation. These teams put forth excellent work, presenting for over 30 minutes to defend their investment theses. While we do not know the final decisions made by U of O, we initiated a position in Cognex Corporation for our DADCO portfolio.

We hope to continue this tradition far into the future. While we may consider U of O our rival, our shared competitive spirit encourages students to go well beyond what is required of them in a classroom setting. We look forward to the 2017-2018 Civil War meeting, which will be hosted by U of O.

CFA Global Investment Research Challenge

This year five Oregon State Investment Group members competed in and won the final round of the Oregon State district competition for the first time in Oregon State's history! The team, Bradley Gaman, Steven Miller, Ben Dodge, Elijah McGowen, and Travis Allen, went head to head against the University of Oregon in the final round, winning first place. The competition focused on originating a detailed investment thesis for NW Natural, a local natural gas distributor based out of Portland. Based on research the team calculated an intrinsic value of \$57.26 and a margin of safety of -7% and pitched a sell for the



regional and national competition due to the risks associated with government regulation, poor long-term investment decisions and a steep run-up in the share price in the short run due to weather speculation. After winning at the Oregon level, the team then moved on to the America's Regional round held this year in Seattle. Competitors at the national round included teams from Canada, the United States, Central America, and South America—overall there were 52 teams represented. Though Oregon State did not advance past the national round, they nevertheless had a terrific experience being the first team from Oregon State to make it to the national stage for this competition in the history of the College of Business. The team would like to give a special thank you to Prem Matthew, head of the Finance Department and a Professor at Oregon State University, for his work as one of the Team's advisor. The team would also like to thank Shawn Narancich, an Executive Vice President at Ferguson Wellman. Without his valuable insights and assistance, the Group would not have been able to win the regional competition to represent Oregon in the Nationals.

USC Value Investment Competition

This year members took part for the first time in the 2nd annual USC Value Investment competition. Members Bradley Gaman, Michael Lukan, and Francis Thelen were accepted to compete based on a 2-page short investment thesis on Big 5 Sporting Goods. The competition included teams from other universities from across the U.S. and Canada. Schools in attendance included: USC, UC Berkeley, Notre Dame, ASU, University of Calgary, UT Austin, UBC, Washington University – St. Louis, Oregon State University, Grove City College, UC San Diego, University of Oregon, Pomona, San Diego State University, NYU, and University of Binghamton. Teams were allowed 10 minutes to convince judges, and a following 5 minutes to defend their theses. The judges offered students invaluable criticisms based on real-world experience and insights. We hope to send another team to this competition in 2017-2018. Our team would like to extend a personal thank you to Perm Mathew; this experience would not have been possible without the generous support of the Finance Department.

Analysts of the Year

Parker Snook, Junior, for QCOM, ADBE, and EMBH

Chiara Marzi, Junior, for CELG, GILD, and ZTS

Sector Leader of the Year

Travis Allen, Junior

Exiting Member's Full Time & Internship Positions

Will Schaer, Pacific Crest Securities Investment Banking Portland, OR – Internship

Miles Johnston, J.P. Morgan Asset Management, Cincinnati, OH – Full Time

Dylan Roach, Northwestern Mutual Portland, OR – Full Time

Elijah McGowen, RVK, Portland, OR – Full Time

Alex Markgraff, RVK, Portland, OR – Full Time

Returning Member's Internships

Parker Snook, Pacific Crest Securities Equity Research Portland, OR – Internship

Chiara Marzi, Pacific Crest Securities Equity Research, Portland, OR – Internship

Steven Miller, Vaquero Capital, San Francisco, CA – Internship

Bradley Gaman, Filament, Seattle, WA – Internship

David Neill, US Bank Wealth Management, Portland, OR – Internship

Justin Roach, KPMG, Portland, OR – Full Time

Leo Clarke, US Bancorp, Portland, OR – Internship

Miranda Stiver, Kroger Finance, Portland, OR – Internship

Special Thanks

As we have reached the Group's 10-year anniversary, there are countless individuals who have contributed to our success. From faculty to students, the group would not be able to function without the contribution from our Beaver Community. We would like to thank everyone who has ever been involved with the Oregon State Investment Group. The Oregon State Investment Group would not be possible without the continued support of some key individuals. The Group would like to extend a special thank you to Dean Montoya for her continued support of the Group allowing students to gain valuable experience. We would also like to thank D.A. Davidson for the fantastic opportunity to compete against regional schools investing real money. Our alumni and the Oregon State Foundation Board Members continue to provide invaluable ongoing support to the Group, and we sincerely appreciate their involvement. The Group would also like to extend a huge thank you and our deepest gratitude to Jimmy Yang. Jimmy has been with the Group for many years, through thick and thin, and continues his phenomenal support to the Group. We would not be where we are at today without Jimmy.

2017-2018 Management

President: Bradley Gaman

Vice President: Chiara Marzi

Large-Cap PM: Jack Davis

Synthetic PM: Travis Allen

DADCO PM: Ben Dodge

Healthcare Sector Leader: Adrian Ochoa-Garibay

Financials Sector Leader: David Neill

Consumer Sector Leader: Alexis Thompson

IMEU Sector Leader: Galen Chan

Technology Sector Leader: Parker Snook

Oregon State Investment Group, 2016-2017

