The University of Delaware Endowment
Annual Report 2018

Fiscal Year 2018 Performance

I am pleased to report that the University of Delaware’s Endowment gained +7.3% for the fiscal year ending June 30, 2018. Following the strong +12.5% return in the prior fiscal year, our financial position has been strengthened by returns over the last two years that have exceeded the University’s inflation-adjusted spending rate. Our twenty-two-year annualized return of +7.8% surpasses both the +7.0% return for the policy portfolio benchmark and the +7.1% return for our endowment peers. We are very proud of the fact that we have achieved these market beating results while taking less risk than our benchmark and our peers over this period, as seen in the chart below.

The latest fiscal year was characterized by a return of volatility and uncertainty to the world’s capital markets. Global stock markets continued to march higher into the end of January as the positive impact of corporate tax cuts in the United States began to show up in corporate earnings. Volatility spiked in February, however, as investors worried that rising global interest rates, a strengthening economy and higher inflation would prompt the world’s central bankers to raise interest rates at a faster-than-expected pace. The stock market returns in February made clear that after fifteen straight months of rising stock prices, things were about to get more challenging for investors going forward. Volatility remained elevated throughout the remainder of the fiscal year as interest rates continued to march higher and global stock markets moved sideways to lower.

The pooled Endowment fund ended the fiscal year with a record market value of $1.59 billion which represents an increase of nearly $52 million over the twelve-month period, net of $62 million in distributions to the University’s operating budget. Leading the way last year were the Endowment’s holdings in private investments which posted a net return of +8.8%. The best performance relative to benchmark came from the Endowment’s investments in fixed income where we achieved a +1.7% return while the benchmark declined -0.40% during the fiscal year.

22-year performance for the UD endowment, benchmark and endowment peers as of 6/30/18
The Endowment Mission

The Endowment provides perpetual funding to support the University’s educational goals while preserving real value for future generations. To that end, the University’s Board of Trustees, Investment Visiting Committee, and Administration have a shared mission to maximize the Endowment’s total return consistent with the University’s prudent investment risk constraints. This mission requires an expected long-term return that exceeds the inflation-adjusted annual spending rate. In order to pursue that goal, the University maintains an equity-biased portfolio and seeks to partner with best-in-class management firms across diverse asset categories while also managing some Endowment assets in-house. The Investments Office manages the Endowment under the guidance of and within the policies authorized by the Investment Visiting Committee of the University.

The target spending rate for the Endowment is 4% to 5% of the three-year average market value as determined annually by the University’s trustees. In Fiscal 2018, the spending distribution from the pooled Endowment to the University was a record $61.6 million, providing financial support and flexibility to the University’s operating budget. In recent years, the Endowment’s role in supporting the University has become more meaningful as funding from the State of Delaware has declined. This support is likely to become even more important in the coming years given the challenges facing higher education today. The ongoing generosity of our alumni and friends has helped to ensure the long-term financial health of the University through the establishment of endowed gifts. A strong Endowment allows the University to fund initiatives that will have a lasting impact on the student experience and the overall institution.

Historical State Operating Appropriations as a Percentage of Operating Revenue

![Graph showing historical state operating appropriations as a percentage of operating revenue.](Image)
The Endowment Purpose

The Endowment supports a variety of aspects of University life. There are more than 1,180 Endowment accounts that make up the overall University Endowment that have been established by our generous alumni and friends. The largest number of these accounts were established to support the College of Arts & Sciences, which is the intellectual and cultural heart of the University. Other schools that enjoy a substantial benefit from having annual support from endowed accounts include the College of Engineering, the College of Health Sciences, the Alfred Lerner College of Business and Economics, the College of Agriculture and Natural Resources, the College of Earth, Ocean, and Environment and the College of Education and Human Development. Other Endowments have been established to support our strong Athletics programs and other critical institutions on campus such as the Library.

As the chart below illustrates, the majority of these Endowment accounts were established for the support of our students through student aid so that young people of every background can attend the University of Delaware. Diversity is a core educational value and a guiding principle of the 2015 Delaware Will Shine Strategic Plan. Research shows that campus communities with meaningful diversity practices significantly increase the quality and value of education for all students. These transformative learning experiences enhance critical thinking, promote civic responsibility, enrich formal and informal exchanges amongst students from various backgrounds, and prepare our students to navigate in an increasingly diverse and global world.

Other Endowments have been created for instruction and department research as well as the general ongoing operational needs of the University. Since the Endowment is a permanent pool of capital, it is designed to provide a reliable source of income in perpetuity for the various causes that each account was established to support.

Number of Endowment Accounts by Purpose as of 6/30/18
Compounding Growth Over the Long Term

Due to the perpetual nature of the investment program, the long-term performance results are a true reflection of the Endowment’s long-term investment horizon. Longer term performance has been strong on both an absolute and relative basis despite challenging market conditions. The Endowment recorded an annual return of +7.8% in the twenty-two years ended June 30, 2018, exceeding the +7.0% annual return for the benchmark and the +5.9% annual return for a portfolio index of 60% global stocks and 40% global bonds. This significant annual outperformance confirms that the endowment model’s long-term investment approach has worked well for the University of Delaware.

The chart below illustrates that the compounding of excess returns can have a significant impact on the University over time. An endowment of $1 million established twenty-two years ago would have grown to a compounded value of $5.2 million compared to a value of only $3.6 million invested in a global portfolio of 60% stocks and 40% bonds. It is interesting to note that the $1.6 million in excess investment gains is more than the original $1 million gift amount. Illustrating the power of an endowed gift to the University, the $258,000 distribution in the 22nd year would represent a payout of 26% of the value of the original gift amount. The Endowment allows the University to make life changing investments in the education and development of a greater number of University of Delaware students.

Growth of $1 million invested in the UD endowment as of 6/30/18
Asset Allocation

The University has developed asset allocation guidelines based on its total return objectives, income requirements, and capital market expectations. These guidelines are long-term oriented and are consistent with the Endowment’s risk posture and investment objectives. Over the last twenty-two years, the University has dramatically reduced the Endowment’s investments in domestic stocks and bonds by re-allocating to international stocks and nontraditional asset classes. In 2000, more than 80% of Endowment assets were invested in US stocks and bonds with 20% in international assets and 0% invested in hedge funds and private investments. Today, less than 40% of assets are invested in U.S. stocks and bonds while 23% are invested in international stocks, 15% in hedge funds and 22% in private investments. As a result, the Endowment is now more diversified across asset classes. The broader opportunity set should not only provide higher returns in a greater variety of investment environments but also help to control risk.

We made additional progress toward our asset allocation targets in the latest fiscal year by reducing our allocation to public equities and increasing our allocation to private investments to better compete with endowment peers with assets of greater than $1 billion. As the chart below shows, we still have more work to do to get these allocations in-line with targets. The long investment periods associated with private investments means that it will take some time to achieve these targets. In addition, we are taking advantage of rising interest rates over the last year to increase our allocation to fixed income at the expense of hedge funds.

Endowment Asset Allocation vs. Target Allocation as of 6/30/18

<table>
<thead>
<tr>
<th>Asset Class</th>
<th>UD Allocation</th>
<th>Target Allocation</th>
<th>Peers &gt; $1bn</th>
</tr>
</thead>
<tbody>
<tr>
<td>Global Equity</td>
<td>49.5%</td>
<td>45.0%</td>
<td>48.2%</td>
</tr>
<tr>
<td>Hedge Funds</td>
<td>21.5%</td>
<td>25.0%</td>
<td>29.8%</td>
</tr>
<tr>
<td>Private Investments</td>
<td>16.5%</td>
<td>17.5%</td>
<td>21.6%</td>
</tr>
<tr>
<td>Bonds &amp; Cash</td>
<td>12.5%</td>
<td>10.4%</td>
<td>10.4%</td>
</tr>
</tbody>
</table>
Capital Market Expectations

Developing risk and return assumptions for the various asset classes offers a guide to the range of possible investment performance over a given period. These assumptions help the Investment Visiting Committee to guide the asset allocation and risk levels that are chosen to meet the University’s investment performance goals over the long-term. In prior annual letters we have noted that we expect the capital markets to become more subdued over the next decade due to lower interest rates, lower economic growth, heavy debt loads, the unwinding of accommodative monetary policy and inflated market valuations. These same challenging conditions are still with us today as we look at the investment landscape for opportunities. We believe that setting realistic capital market expectations leads to good asset allocation decisions and a better performance outcome for the Endowment.

The chart below can provide some guidance as to where the University of Delaware’s Endowment will be looking in the future in order to achieve strong risk-adjusted returns. The prospect for fixed income returns have improved significantly over the last year due to rising interest rates around the world, but rates are still subdued compared to their history. The outlook for private investments suggests that this is the area with the most performance potential for the Endowment which is why we are actively making commitments to increase our overall exposure to this asset class. Global equities also have strong return expectations, but increased volatility in this asset class suggests that we will maintain a more neutral position going forward. Hedge funds continue to provide diversification benefits to the Endowment, but the recent increase in interest rates make it more compelling to shift some of the allocation from hedge funds to fixed income assets.

Despite generally lower return forecasts across most asset classes, we maintain our positive view on the capital markets. Our analysis suggests that the Endowment will produce a 7.8% annual return over the next twenty years. We will continue to invest for the long-term and make strategic adjustments to the asset allocation based on changes to our capital market expectations.

Twenty-year Capital Market Expectations for Major Asset Classes
Notes from the Road

Although China is the world’s second largest economy and an important engine of global growth, most investors only have a small allocation to Chinese equities. When you consider that the Chinese economy is more than two-thirds the size of the US economy, it seems odd that an investor in a global equity index fund today would have an allocation to Chinese stocks that is less than 10% of the allocation to US stocks. The Chinese equity markets have made tremendous progress over the last fifteen years growing from a weight of less than 1% in the MSCI AC World Index to more than 5% of the index today. Investors are not giving China the respect that it deserves on the world stage.

With the launch of the Shanghai and Shenzhen stock exchanges in the early 1990s, the importance of Chinese equity markets really started to grow. The stocks that trade on these two exchanges are called “A” shares, and now that index providers are finally adding these shares to their benchmarks, investors are taking notice. Progress has been slow, however, since MSCI is currently including these “A” shares at just 5% of their adjusted market caps which limits their representation in the benchmarks. The plan is to grow this percentage to 20% by August 2019 and eventually to full inclusion at some point in the next decade. This slow adoption is discouraging since there are all indications that the Chinese authorities are committed to the further liberalization of the country’s financial markets in line with developed world standards.

Investors that get ahead of these changes to the global equity benchmarks will be rewarded with a first-mover advantage. We are asking ourselves where China’s equity market will be in ten years and allocating toward that goal. In addition, we are now considering China alongside the US, Europe and Japan rather than mixing China into the emerging markets category as most investors do. When you consider the technological improvements, rapid economic growth and dynamic market conditions in China, it is easy to see why it is a good idea to have a meaningful allocation to this market.

USA and China as a percentage of the World
Blue Hen Investment Club ("BHIC")

One of the benefits of working in the Investments Office at the University of Delaware is that we are the administrative advisor for the BHIC, which gives us the opportunity to work with talented students. The BHIC is a student-run investment fund that invests University money in the stock market and provides a valuable experience to its members by allowing them to manage a real-world investment portfolio. The BHIC was founded in 1996 when the University’s Board of Trustees entrusted the club with $500,000 to learn how to manage a real investment portfolio, making it one of the oldest and largest student-run investment clubs in the country. Twenty-two years later, I am pleased to report that the club is stronger than ever with a fund balance of $2.19 million as of the end of June 2018. BHIC members learn about the most important aspects of finance and investing while developing strong teamwork, public speaking and analytical skills. The Executive Committee of the BHIC presents its results annually to the Investment Visiting Committee of the University of Delaware. I am always amazed at the professionalism with which the club is run and the sophisticated investment tools that the students use to manage the portfolio. These students are getting a leg-up on the competition as they leave the University to interview for sought-after positions in the investment management industry because they are already developing the skills that they will need to be successful in the future. The Investments Office has a former BHIC member on staff in the analyst role and we offer a paid internship opportunity to juniors looking to learn more about the investment management industry and further develop their investing skills. A new development in the last year, the BHIC is now rotating incoming analysts across all economic sectors over a six-week period to increase cross-sector capabilities while exposing new members to multiple industries. This will only help to strengthen the educational component of the club while also allowing for better networking among the BHIC members.
New Initiatives

The Investments Office will continue to focus on the long-term initiatives outlined in prior annual reports that will seek to improve performance and reduce costs over the next ten years. We estimate that these initiatives will add more than $180 million in additional Endowment assets over a ten-year period due to cost savings alone. They include cost reductions from the elimination of fund-of-funds, the use of index funds for core equity allocations and bringing reporting and due diligence functions in-house. Performance improvements will mostly come from creating a more streamlined portfolio that has a focus on high conviction ideas. Greater concentration should help us to achieve better returns over the long-term by adding some unsystematic risk back into the program after years of over-diversification. This reduction of our portfolio holdings will also improve our monitoring capabilities making us better stewards of the Endowment. In addition, by allocating more to private investments in-line with our larger endowment peers will also improve performance as we capture the illiquidity premium in this asset class.

A new initiative established in the last year is the Venture Capital Leaders portfolio. Venture capital is a market where those companies with the brightest prospects tend to gravitate to the same top performing venture capital firms. Unfortunately, these firms have little capacity for new limited partners in their top-performing funds and have remained closed to new investors for many years. When looking at the performance of the best-performing University endowment peers over the last twenty years, it is the allocation to Venture Capital that stands out as the largest differentiator of returns. The Venture Capital Leaders portfolio was developed to allow us to gain access to these funds. It is still early days, but we are looking forward to seeing the positive contributions that these funds provide to the Endowment in the future.

Ten Largest Privately Held Venture Capital Investments ($ billions)

<table>
<thead>
<tr>
<th>Company</th>
<th>Value</th>
</tr>
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<tbody>
<tr>
<td>Uber</td>
<td>44</td>
</tr>
<tr>
<td>SPACEX</td>
<td>23</td>
</tr>
<tr>
<td>Airbnb</td>
<td>22</td>
</tr>
<tr>
<td>Nature</td>
<td>14</td>
</tr>
<tr>
<td>Lyft</td>
<td>13</td>
</tr>
<tr>
<td>Pinterest</td>
<td>11</td>
</tr>
<tr>
<td>Coinbase</td>
<td>7</td>
</tr>
<tr>
<td>magic leap</td>
<td>5</td>
</tr>
<tr>
<td>SoFi</td>
<td>5</td>
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</tbody>
</table>
Looking Ahead

The Endowment is designed to provide the University with greater independence, increased financial stability and the means to become a center for academic excellence. Understanding this fundamental purpose is important to understanding the long-term nature of the Endowment’s investment process. This global multi-asset class investment framework has proven to be able to exceed public benchmarks over the long term, despite the occasional short-term underperformance. While we are pleased with the recent performance results, we are prepared for a more challenging market environment in the years ahead. We expect that the markets will rise at a mid-single digit pace over the next twenty years as interest rates continue to rise globally and economic growth rates stabilize at a lower rate. Given the challenges facing higher education today, we will pursue long-term investment returns that enable the University to achieve its goals and maintain its excellence far into the future.

Sincerely,

Keith Walter
Chief Investment Officer

Anthony Bartocci – UD class of 2002
Investment Officer

Christopher LeRoy – UD class of 2013
Investment Analyst

Dr. Dennis Assanis
University President

Alan Brangman
EVP and University Treasurer

Keith Walter
Chief Investment Officer

Greg Oler
Vice President, Finance