HAVERFORD
COLLEGE

Haverford College
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November 15, 2016

We are pleased to present our annual letter on Haverford's endowment to the College community. This letter will follow the same basic approach as prior letters, so forgive us if we sound repetitive at times. We'll touch on investment philosophy, asset allocation and performance, along with a few other topics relevant to the past year.

The Haverford endowment returned -2.8%, net of fees, for the fiscal year ended June 30, 2016. In addition to this investment result, the endowment received approximately $15 million in gifts during the year and paid out almost $24 million in support of the College's operations, ending the year at approximately $465 million.

The negative performance for this fiscal year is reflective of endowment returns across a wide universe of institutions. With a similar relative result as last year, Haverford's performance was just above the -2.9% median of the Cambridge Associates Endowment Universe of approximately 440 institutions. The negative performance for the year was echoed across the industry, with most institutions reporting negative returns. Industry leaders have cited a narrow opportunity set and market volatility as presenting challenges for producing positive overall returns. "This has been a disappointing year for endowments," noted Jagdeep Bachher, CIO of the University of California's $9.3 billion endowment, while adding, "we are faced with a low-growth and low-return environment going forward and are working closely with our stakeholders to set realistic return expectations for the future."

Philanthropy is an equally important factor in growth of endowment over time as is investment performance, along with reasonable spending from endowment.

When the market produces negative returns or even very strong positive returns in a single year, we like to provide a reminder that year-to-year volatility is expected, as we pursue solid long-term investment returns. Rarely does a single year's performance closely match long-term average returns. For example, our five-year and seven-year annualized returns as of June 30, 2016 are 5.6% and 7.6%, respectively. As we said last year, periods of volatility can provide opportunities to improve the portfolio, either by keeping exposures at desired levels through rebalancing or accessing specific investment managers. This past year's market volatility provided an opportunity to both access a previously closed fund, as well as rebalance into relatively undervalued areas of the market, per our rebalancing policy, which we'll describe later in the letter.

We'd also like to thank all of our donors who contributed to the College during the year and throughout the years. Philanthropy is an equally important factor in growth of endowment over time as investment performance, along with reasonable spending from endowment. All three of these factors work together to build endowment over time, which, in turn, supports the financial and academic strength of the institution.

Investment Philosophy

As this is our fourth annual letter, and our investment philosophy remains consistent, this section of the letter seems to get shorter and shorter each year. As a reminder, we focus on a long-term investment horizon, partnerships with high-quality investment managers, and the view that market exposure (or "beta") can be accessed inexpensively through passive index funds. We seek active management where it provides a different type of market exposure compared to the broad market, or is expected to generate significant risk-adjusted returns in excess of active management fees. Our initial letters from 2013 and 2014 offer a bit more discussion on philosophy, so please refer to those letters for more detail.

Next, we'll provide some details on the 2015-16 fiscal year.

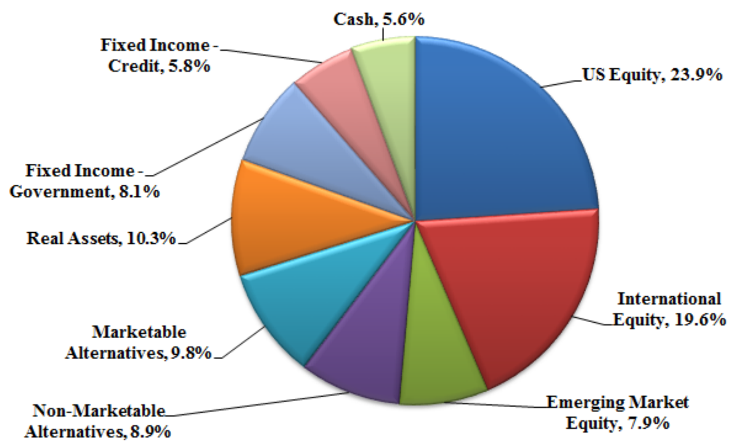
Asset Allocation

The endowment's asset allocation remains very close to policy targets, as should be expected. While the allocation does not usually change significantly from year to year, the most significant changes during the year were declines in alternative asset classes (non-marketable alternatives, marketable alternatives and real assets), and increases in marketable equities and fixed income. As has been the case in recent years, the declining allocations in non-marketable alternatives and real assets were primarily due to large cash distributions from private investment funds, while the decline in marketable alternatives was due to our redemption from two hedge funds. The increased allocations in marketable equities and fixed income are a result of the relative performance of different asset classes during the year and deploying some cash through our rebalancing process.

The asset allocation as of June 30, 2016 is shown on the following page, and is categorized based on our policy allocations across global public equities, fixed income and alternative investments. However, we also consider the function of each investment in the portfolio, such as capital growth, capital preservation, inflation-sensitivity and diversification benefits, and the overall level of equity market exposure in the portfolio.

Haverford College Asset Allocation as of June 30, 2016

Asset Class	Allocation	Policy Target	Policy Range
US Equity	23.9%	22%	18% - 26%
International Equity	19.6%	18%	15% - 21%
Emerging Market Equity	7.9%	6%	4% - 8%
Non-Marketable Alternatives	8.9%	12%	6% - 18%
Marketable Alternatives	9.8%	14%	8% - 17%
Real Assets	10.3%	12%	5% - 18%
Fixed Income - Government	8.1%	8%	6% - 10%
Fixed Income - Credit	5.8%	6%	4% - 8%
Cash	5.6%	2%	1% - 10%



As we described in last year's letter, we continued to expect the non-marketable alternatives and real assets allocations to decline due to ongoing distributions from private funds that began in 2008 or earlier. In order to allow the illiquid portion of the portfolio to decline toward policy targets, we made very few new commitments to illiquid funds from 2009 – 2013, but began actively investing in private funds again in 2014 after the allocation was closer to targets. While this approach was the prudent and necessary path to reduce the allocation, it leaves us to manage the overall portfolio with a relatively "barbelled" private portfolio of legacy investments from pre-2009 and newer commitments since 2014. While the invested portfolio remains 70% in legacy funds, the unfunded commitments are mostly to newer funds. In other words, we expect the portfolio will better balance cash flows out of legacy investments and into newer investments over time.

The marketable alternatives (hedge fund) allocation also declined during the year. In this case, the decline was due to our redemption from two funds that we felt became materially different from when we initially invested, in terms of approach, personnel, portfolio allocations and/or market perspectives. In cases in which our reasons for investing are no longer valid, we decide to exit the investment as soon as practical. The entire hedge fund industry has had a difficult time in recent years, with disappointing performance in both up and down markets, while continuing to charge very high fees. Various institutional investors, particularly pension funds, have reduced or eliminated hedge funds from their portfolios and the industry is evolving as investors seek less expensive ways to obtain specific market exposures that are sought from hedge funds.

We maintain a rebalancing policy in which we estimate the equity beta of the portfolio, and rebalance the portfolio if the calculated beta strays too far from the target. The fiscal year was a tale of two markets, with significant declines from June 30, 2015 through January 2016, and some recovery from January through June. In fact, markets began the fiscal year with significant declines of about 10% for developed markets and 20% for emerging markets in the first few months of the year. As the market declines, our portfolio beta declines, but these declines early in the year did not trigger our rebalancing policy. When we created the policy we performed extensive analysis on the beta range in which we'll let the portfolio fluctuate. We sought to balance both market trends and reversals – we didn't want the policy triggered too often, but we also didn't want the range too wide to result in little or no rebalancing, as markets could change direction prior to our taking action.

Our policy beta range provided enough leeway to avoid triggering portfolio rebalancing during the initial declines during the fiscal year. This was fortunate, as markets continued their up and down movements, but declined further into the year, bottoming out in mid-January. However, before markets bottomed, our rebalancing policy was triggered, as developed international markets declined 15% and emerging markets declined 25% from June 30, 2015 to mid-January 2016. In mid-January we moved more than 2% of cash to equity, to bring our equity beta back into policy range. In hindsight, the timing was excellent, reflecting a well-designed policy. Reflecting upon our asset allocation and relative valuations at the time, we directed the cash into international and emerging markets. While rebalancing is incremental, during the period from our rebalancing through the end of the fiscal year, emerging markets gained more than 20%, while developed international markets gained about 5%, having been impacted by the Brexit vote at the end of the fiscal year. There will likely be future rebalancing in which markets do not so quickly cooperate after we take action, but we continue to believe in the efficacy of this approach to maintain consistent exposures over full market cycles. Overall, we feel the rebalancing policy provides a reasonable balance between following market trends and taking advantage of reversals, and the success of the rebalancing during the year supports this view.

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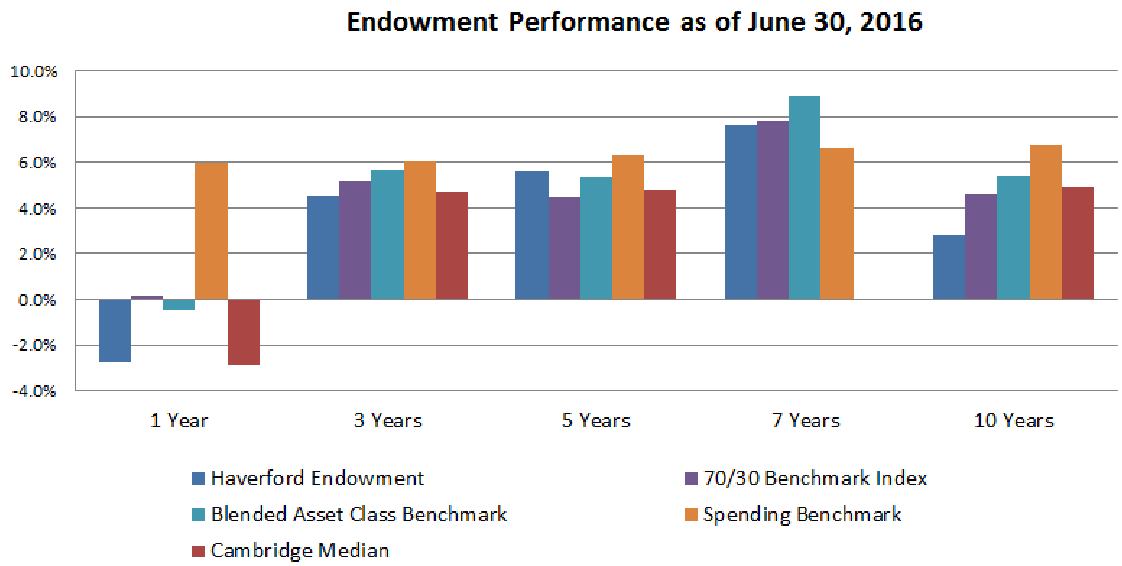
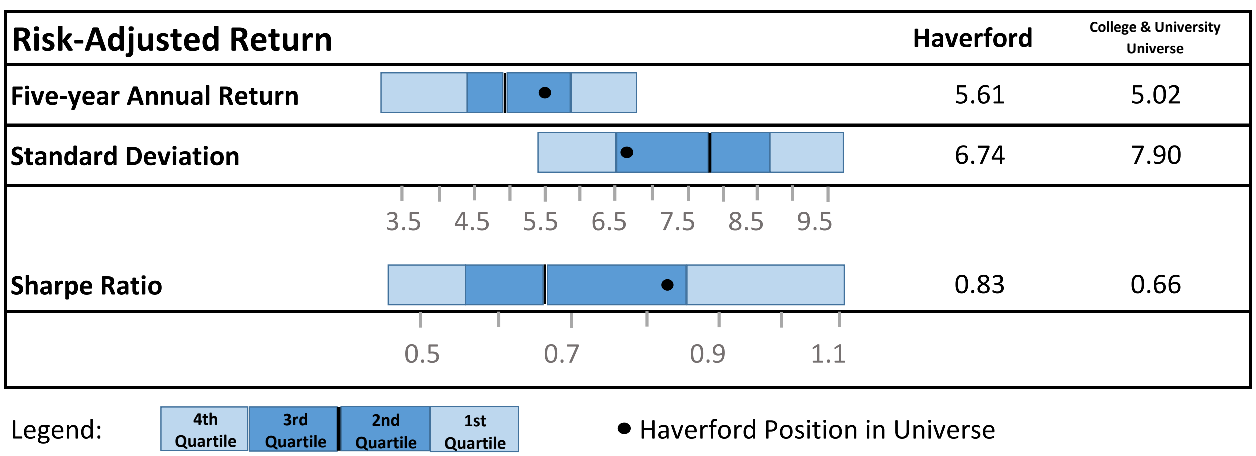
Investment Performance

Historical endowment performance is shown in the figure below. A primary goal in managing the endowment is to preserve its purchasing power for future generations, which requires us to generate a net return equal to or in excess of our spending rate from the endowment plus inflation. We approximate this "spending benchmark" to be inflation + 5%, given that spending over time has tended to be in the range of 5%. We also compare performance to a simple global benchmark of 70% equity / 30% fixed income, which is reflective of a traditional, balanced allocation, and to a benchmark that is representative of our strategic policy targets across asset classes. For comparison to a broad universe of institutions, we provide the Cambridge Associates Endowment Universe median as well (not available for seven-year performance). Performance over the past seven years has been competitive with benchmarks, while 10-year performance remains impacted by the difficult 2008-09 period. This time period was discussed in our first letter from 2013.

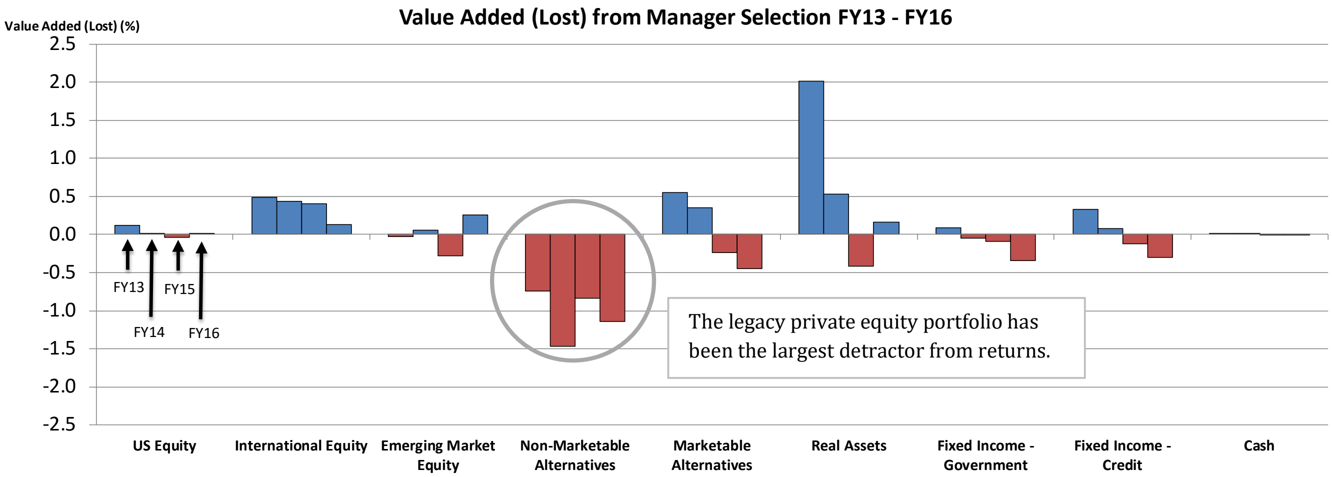


The figure below shows a risk-adjusted return comparison for our five-year performance. Compared to the Cambridge Associates College and University universe over the past five years, our return is in the second quartile of the universe, while risk (standard deviation) is near the bottom of the third quartile, producing a risk-adjusted return (Sharpe ratio) near the top of the second quartile. Given that five years is approximately the time period since we revised our investment approach after the global financial crisis, and given the continued overhang from legacy illiquid investments, we are pleased with these results.



Source: Cambridge Associates

We examine our selection of investment managers by looking at performance versus their respective asset class benchmarks. We shared the figure below with readers last year and have updated it for FY16. The message from this figure is that the legacy private equity portfolio continues to be the largest detractor from relative returns. In addition, our newer private equity investments are still early in their lives, and thus in their "J-curve", in which cash is going in, but no returns are being produced yet, which also can result in negative returns in a single year. One-year performance of private equity portfolios must be taken with a grain of salt, but in this case we use it to provide some attribution for the year. The negative relative performance in the fixed income holdings is primarily due to our low-duration positioning during the year, as intermediate and long-term rates actually declined during the year as the yield curve flattened. Our selections in marketable equity have performed very well, and represent more than 50% of the portfolio. Real assets also showed positive relative performance, partly due to fund selection and partly due to an underweighting in energy-related assets. Note that while we describe the past year here, we focus on long-term relationships with fund managers and there will typically only be a small amount of turnover in the portfolio, so most of the holdings remain consistent from year to year.



Further detail on asset classes is provided in the table on the following page.

Fiscal Year 2015-16 Performance and Allocation by Asset Category

Asset Category	June 30, 2016 Allocation	FY16 Return	Comments
U.S. Equity	23.9%	2.2%	The majority of our U.S. equity allocation is passive exposure to the broad equity markets, and should perform generally in line with broad market indexes.
Developed International Equity	19.6%	-9.1%	The developed international equity portfolio consists of both passive and active management. Our active managers provided strong returns during the year relative to their benchmarks, even though absolute returns were negative.
Emerging Market Equity	7.9%	-8.2%	Our emerging markets equity portfolio has a value-bias across both active and passive exposures. The value exposure was positive after being a detractor the prior year, and our portfolio outperformed the benchmark, even though absolute returns were negative.
Non-Marketable Alternatives	8.9%	-7.1%	The non-marketable private equity portfolio is about 70% legacy funds from pre-2009. These aged funds are no longer experiencing as many markups as the overall market, leading to underperformance in recent years. Our newer non-marketable funds are also in their "J-curve" and too young to materially contribute to performance. The majority of forward commitments are to newer funds, and the portfolio will balance out over time.
Marketable Alternatives	9.8%	-9.4%	The hedge fund portfolio lagged overall in FY16. Our portfolio was reflective of some of the difficulty the entire hedge fund industry is suffering. As fundamentals are better reflected in the market, performance has recovered in FY17 with our hedge fund portfolio leading the index by 150 bps in the first three months of the year.
Real Assets	10.3%	8.6%	Our real asset portfolio consists primarily of real estate and, to a lesser degree, energy-related funds. Real estate funds have generally performed well, while the pre-2009 legacy traditional and alternative energy funds were a detractor. However, our underweight in energy proved to be a positive position during the year.
Government Fixed Income	8.1%	1.7%	The return environment for government fixed income securities remains subdued, given the low interest rate and high valuation environment. For these reasons, we remain positioned with a low-duration profile. However, this positioning proved costly during the year as intermediate and long interest rates declined and the broad bond market index outperformed short duration bonds.
Credit Fixed Income	5.8%	2.3%	The credit fixed income asset class includes both investment-grade and non-investment grade credit. The investment grade credit, along with the government fixed income allocation serve to provide liquidity and diversification to the overall endowment. The non-investment grade allocation was impacted by declines in high-yield, while emerging market debt was a positive contributor.
Cash	5.6%	0.0%	Cash has remained relatively steady for the past several years, above our targets due to continued distributions from private funds. The excess cash balances the overweight in marketable equity and underweight in marketable alternatives. We rebalanced the portfolio during the year to put cash to work and maintain our portfolio beta target.

Follow-up on Sustainability

Last year, we discussed the campus and nationwide campaign that is seeking the divestment of fossil fuel companies from institutional portfolios. This discussion at Haverford has been ongoing for many years, with last year's letter providing background on this topic. While the College had previously decided not to divest the endowment of fossil fuels (see announcement here), divestment and sustainability in general were discussed this past year in an open forum hosted by the campus Council on Sustainability and Social Responsibility (CSSR) and facilitated by Board Member John Taylor '83. Following the forum, the Investment Committee responded to the concerns on sustainability within investment policies by integrating sustainability factors into the investment process. In particular, we codified within the College's Investment Policy Statement that sustainability factors will be considered alongside the many different factors that we consider when researching an investment strategy. This statement does not mean that sustainability will be the primary driver of decisions, as the Committee must fulfill its fiduciary responsibility, but an investment manager's approach to sustainability within their investment process will be evaluated equally with all the various factors that we consider. While we have been discussing sustainability topics with investment managers for years, the approach is now officially stated in the investment policy.

As a reminder, the endowment invests entirely in commingled funds, and does not hold the securities of any companies directly, including those of fossil fuel producing companies. However, we have established a separate donor "Green Fund for Sustainability" that will be invested in a fossil-fuel-free vehicle, and will support sustainability work at the College.

A Final Word

As always, we want to thank the Investment Committee of the Board of Managers for their continued significant role in managing the College's endowment. They donate their knowledge, expertise, time, and financial support and help ensure that the endowment provides substantial current income to the College in support of the current generation, while preserving and growing endowment capital for future generations. We want to thank Seth Bernstein '84 for chairing the committee for the last three years, and are grateful that he will remain a member of the committee as current member Roger Kafker '84 becomes chair. We also welcome and thank Steve Begleiter '84 who joins the committee after several decades in the financial services sector. Committee membership is recommended by the Nominations and Governance Committee of the Board of Managers and approved by the Board annually. However, we welcome conversations and connections with all Haverford alumni who have particular areas of investment expertise.

We began this letter with discussion of the current and prospective low-return environment and we'll end there as well. Generating returns in excess of annual spending is no easy feat these days, with historically low interest rates, relatively expensive equity markets, and simply a lot of money out there trying to find returns in alternative investments (which inevitably drives down returns). So, we'll maintain our long-term perspective as the College continues to use resources intelligently in order to maintain and grow our position as a leading academic institution. In the end, it is all about balance – from risk/return balance in the portfolio to spending balance to maintain purchasing power of the endowment—while ensuring that Haverford continues to enroll and graduate an ever-stronger and more diverse student body. And as always, we thank the people of this community, who make Haverford the extraordinary place that it is.

Thank you for your continued support,

Michael H. Casel, CFA, CAIA	Roger Kafker '84
Chief Investment Officer	Chair of the Investment Committee
Haverford College	Managing Director
	TA Associates

Investment Committee of the Board of Managers

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