



## A Letter from Stephen Blyth PhD '92 President and CEO of Harvard Management Company

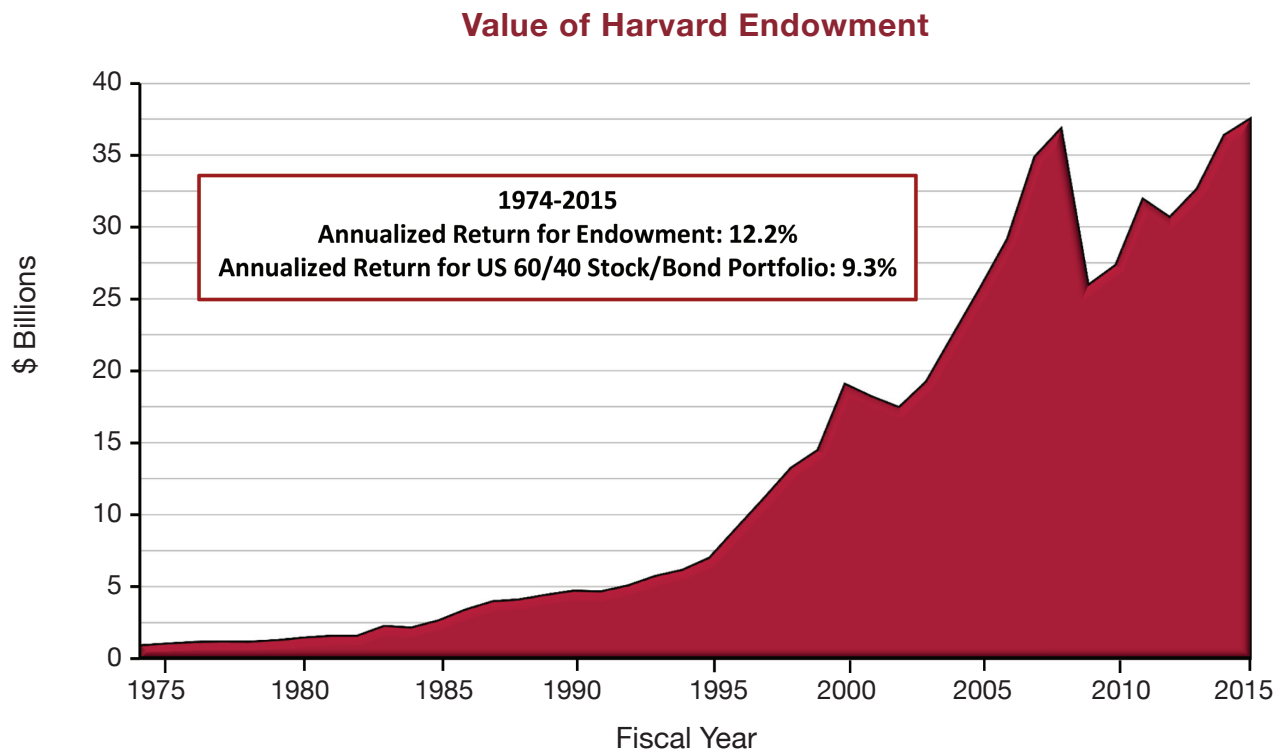
September 2015

Dear Alumni and Friends,

I write to share with you the performance of the Harvard endowment during the 2015 fiscal year, and to update you on work undertaken at the Harvard Management Company (HMC) since I took over as CEO designed to ensure we deliver improved investment performance for Harvard University in the future.

The endowment returned 5.8% from 1 July 2014 to 30 June 2015. The value of the endowment on 30 June 2015 was \$37.6 billion, an all-time high. However, the real (inflation-adjusted) value of the endowment remains below its peak level in 2008. The market value of the Harvard endowment since the formation of HMC in 1974 is shown in Figure 1, and the time series of the endowment's annual returns is shown in Figure 2. The performance of the endowment over one-year, five-year, ten-year and twenty-year periods is shown in Figure 3.

Figure 1



In the first part of this letter, I describe the performance for fiscal year 2015, attributing drivers of our return, highlighting areas of strength and noting sectors of disappointment. Secondly, I detail work that we have undertaken at HMC in the past nine months in order to set a course for the future, including: setting clear investment objectives; overhauling our asset allocation framework; reinvigorating our investment decision-making process; and reviewing our compensation plan. Thirdly, I provide an outlook on the investment landscape. I conclude with some reflections on my experiences of being CEO.

Figure 2

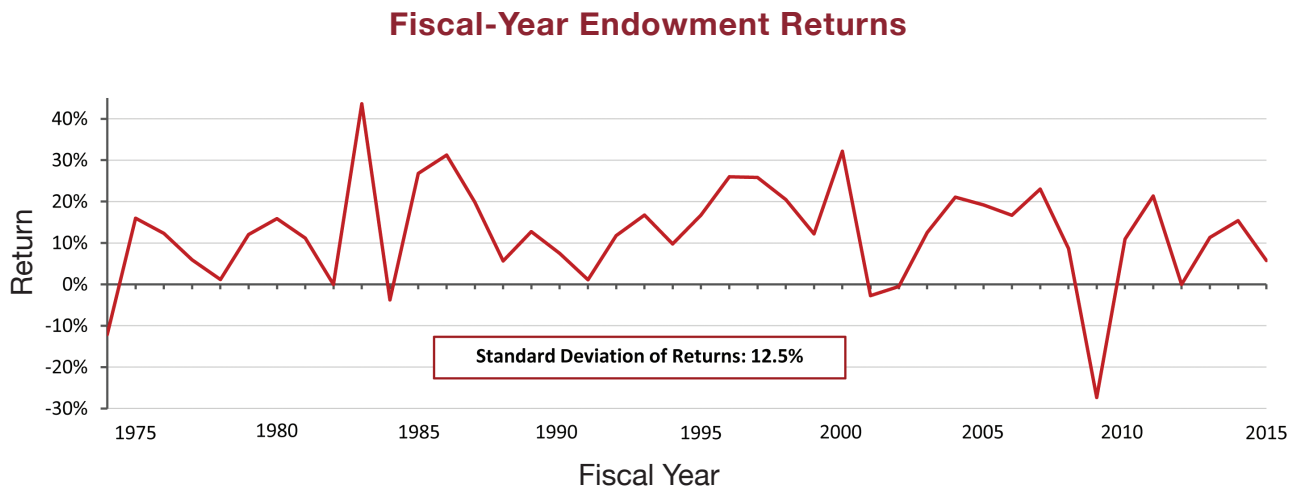
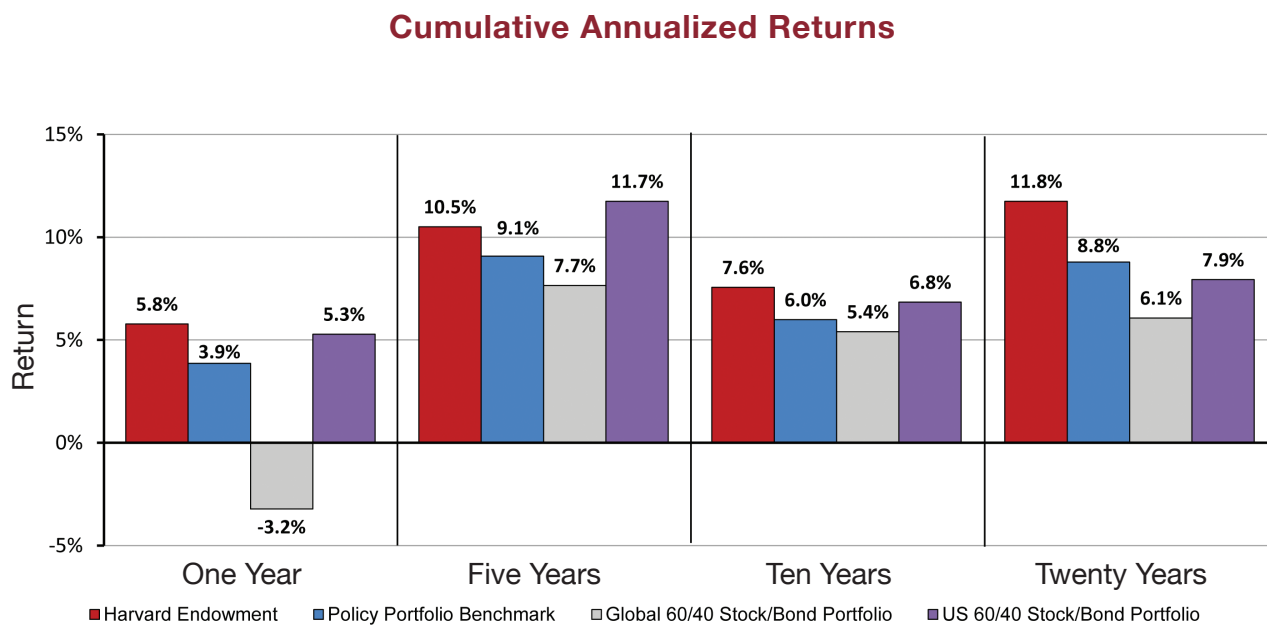


Figure 3



## 1. Fiscal Year 2015 Performance

The endowment’s return of 5.8% was comprised of the following individual asset class returns: public equities 2.9%; private equity 11.8%; public bonds 2.1%; absolute return 0.1%; natural resources and commodities 3.5%; and real estate 19.4%. These returns, along with accompanying asset class market indices or industry benchmarks, are displayed in Figure 4.

Figure 4

### Fiscal Year 2015 Performance

Asset Class	HMC Return	Benchmark	Relative
US Equity	<b>12.4%</b>	7.2%	5.2%
Foreign Equity	<b>(1.8)%</b>	(3.8)%	2.0%
Emerging Market Equity	<b>(2.2)%</b>	(5.1)%	2.9%
Total Public Equity	<b>2.9%</b>	(0.5)%	3.4%
Private Equity	<b>11.8%</b>	10.8%	1.1%
Public Bonds	<b>2.1%</b>	(2.5)%	4.7%
Absolute Return	<b>0.1%</b>	3.5%	(3.3)%
Natural Resources and Commodities	<b>3.5%</b>	3.1%	0.4%
Real Estate	<b>19.4%</b>	11.5%	7.9%
<b>Endowment</b>	<b>5.8%</b>	3.9%	1.9%

Note: benchmark and relative returns may not sum to HMC return, due to rounding.

The public markets platform, made up of internal portfolio management teams in fixed income, credit and commodities and a blend of internal and external portfolio managers in public equities, had a strong year. The fixed income teams at HMC continued their long-term, consistent run of outperformance. In particular, the international fixed income team, spearheaded by portfolio managers Graig Fantuzzi and Michele Toscani, generated over 12% of performance in excess of global bond indices, driven primarily by the identification of dislocations in bond and swap markets around the world. In addition, I am pleased with the performance of our overall public equity team, managed by our head of public equity, Michael Ryan. Whilst the strength of the US dollar versus other currencies led to lower nominal returns in developed and emerging markets, our hybrid portfolio outperformed all three markets by meaningful amounts. In particular, HMC's return in US equities exceeded the US stock market return by over 5%.

Our private equity portfolio led by Rich Hall '90 returned 11.8%. A key driver within the portfolio was the strong performance of 29.6% produced by our venture capital investments. Several of our venture capital partners delivered outsized returns, in particular in the technology and biotech sectors.

Our absolute return portfolio had a tough year, delivering only 10 basis points of return, compared to a hedge fund industry benchmark of 3.5%. Whilst there were both positive and negative performers within absolute return, the latter clearly dominated. A major theme was the poor performance of deep-value managers during the liquidity-supported conditions of fiscal year 2015. In addition, we experienced losses in our shipping investments, as a result of extreme distress in the dry bulk shipping industry.

The return of 3.5% from our natural resources portfolio and commodities team can be viewed from two perspectives. On the one hand, our decision in June 2014 to eliminate completely our exposure to commodity indices was a wise one. The GSCI and Dow Jones commodity indices were down 37% and 24% respectively during the fiscal year. Therefore, the positive return from our commodity relative-value team led by Satu Parikh was impressive, and indicative of our ability to extract value from volatile and distressed markets, agnostic of market direction. On the other hand, our natural resources portfolio had generally subdued returns. High performance from certain agriculture and timber assets was largely offset by lower soft commodity prices and weakness in land prices in areas of Latin America.

The real estate portfolio was our highest returning asset class. The return of 19.4% was driven primarily by the exceptional, continued success of our direct investment strategy, started in 2010 and led by Dan Cummings. In fiscal year 2015, the Harvard direct real estate program returned 35.5%, as our internal real estate team and their joint venture partners continued to create outstanding value throughout their portfolio.

## 2. Setting a Course for the Future

Since becoming CEO on 1 January 2015, my management team and I have identified and implemented several changes designed to improve HMC's long-term investment performance.

### (a) Goals and Objectives

HMC has had a long-stated goal of delivering superior risk-adjusted returns to support the activities of the University. However, we believe that explicit investment objectives, motivated by a clear statement of mission which captures the role HMC plays for the University, are essential in order to set investment strategy. In addition, any organization needs clear metrics of success. We have therefore established the following mission and investment objectives for HMC, which have been approved by the President and Fellows of Harvard College.

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**HMC Mission:** To help ensure that Harvard University has the financial resources to confidently maintain and expand its preeminence in teaching, learning and research for future generations.

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Note that our mission reflects two important notions. First, the endowment currently provides 35% of the operating budget of the University, thus we can only help ensure, rather than guarantee, that the University has sufficient financial resources. Secondly, we aim to help the University maintain and expand its preeminence. This naturally implies a notion of comparison with the financial performance of the endowments of peer institutions, which we explore further in our objectives below.

Based on this mission, we have established the following three investment objectives by which HMC should be judged in the years to come.

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**Objective 1:** HMC will aim to achieve a real return of 5% or more, with inflation measured by the Higher Education Price Index (HEPI)<sup>1</sup>, on a rolling ten-year annualized basis.

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The distribution rate from the endowment to the University has averaged 4.4% over the past twenty years, and 5% over the past five years. Given the continued heavy reliance on endowment distribution, and pressure on other funding sources, it is likely that a real return of 5% will be necessary to maintain the real value of the endowment for future generations. We measure this objective over ten years, as any real (or indeed nominal) investment return objective is only viable through a full market cycle. In order for Harvard to expand and not just maintain its preeminence, a real return in excess of the distribution rate will be required, and thus our goal is a minimum real return of 5%.

Figure 5 shows how HMC has performed versus this objective from fiscal year 2000 through fiscal year 2015. One can see how real returns have declined steadily over time. This can be attributed to a number of factors: (i) a steady and substantial decline in the risk-free real interest rate—for instance, the real yield of the ten-year TIPS (Treasury Inflation Protected Security) has declined from 4.3% in 2000 to 0.6% today; (ii) a reduction in risk premia across asset classes due to significant liquidity injections; and (iii) fewer opportunities for outperformance (or “alpha generation”) across markets. Delivering a real return of 5% will be more challenging in the current environment than in the past.

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<sup>1</sup> HEPI is designed specifically for use by institutions of higher education, and measures the average relative level in the price of a fixed market basket of goods and services purchased by colleges and universities. A comparison between HEPI and the Consumer Price Index (CPI) is given below.

Term:	Five years	Ten year	Twenty years
HEPI	2.2%	2.7%	3.2%
CPI	1.8%	2.1%	2.3%

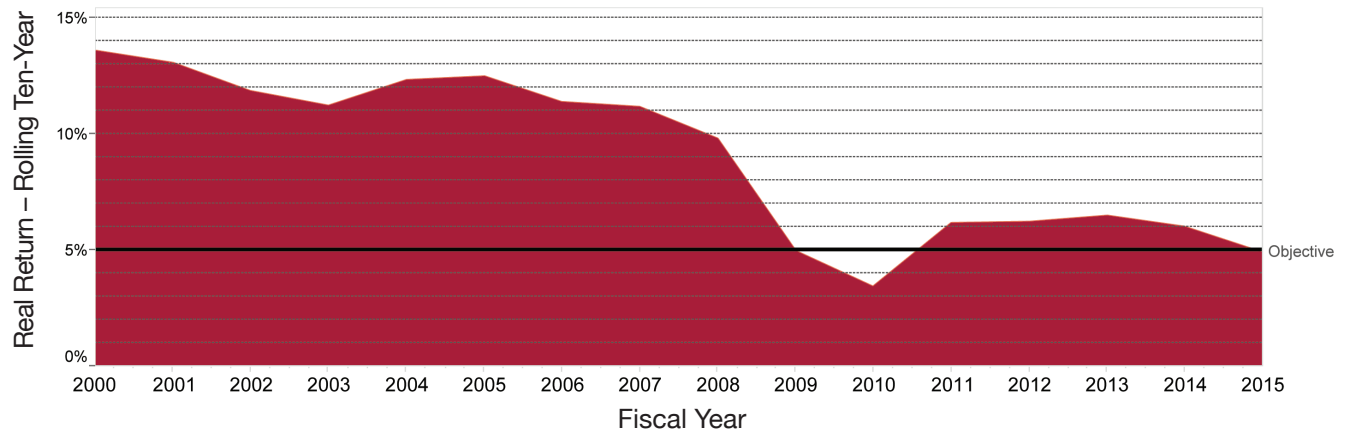
Source: Commonfund, Bloomberg.

Figure 5

### Real Return over Higher Education Price Index

(Rolling Ten-Year Annualized)

Objective: Real Return of 5% or more



**Objective 2:** HMC will aim to achieve aggregate outperformance of 1% or more over appropriate market and industry benchmarks, on a rolling five-year annualized basis.

Whilst HMC always strives to outperform market indices, one would not expect to do so each year. However, over a five-year period, we do believe that HMC should in the aggregate deliver consistent outperformance. I tend to agree with Lim Chow Kiat, CIO of GIC, the Singaporean sovereign wealth fund, that “The minimum time horizon for performance measurement is five years.”<sup>2</sup> Outperformance of 1% is, I believe, the minimum that we should expect from HMC, given the investment made in the capabilities and talent of our company, and our relationships with high-quality external managers.

Figure 6 shows how HMC has performed against this metric since fiscal year 2000. One can see the steady decline in outperformance over the past ten years. This may be due to an environment where there are fewer alpha-generating opportunities; a more crowded investment landscape with more competitors seeking the same opportunities; or less effective identification and execution of these opportunities by our portfolio managers. I aim to ensure that our hybrid portfolio consists of the best managers, whether internal or external to HMC, who are capable of delivering outperformance and strong investment returns through a diverse set of strategies across a broad range of market conditions.

Figure 6

### Aggregate Outperformance versus Market/Industry Benchmark

(Rolling Five-Year Annualized)

Objective: 1% or more Outperformance

	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Endowment Return	23.15%	16.94%	11.58%	10.07%	11.76%	9.46%	13.52%	18.44%	17.61%	6.19%	4.69%	5.51%	1.22%	1.72%	11.58%	10.51%
Benchmark Return	19.38%	12.33%	7.31%	5.66%	5.21%	4.42%	9.22%	13.78%	13.47%	3.87%	2.99%	4.26%	0.80%	1.22%	10.22%	9.07%
Relative Return	3.78%	4.61%	4.27%	4.41%	6.55%	5.04%	4.30%	4.66%	4.14%	2.32%	1.70%	1.25%	0.42%	0.50%	1.36%	1.44%

Achieved
  Did Not Achieve

<sup>2</sup> Perspectives on the Long Term

**Objective 3:** HMC will aim to achieve performance that is in the top quartile relative to a peer group consisting of the next ten largest university endowments<sup>3</sup>, on a rolling five-year annualized basis.

Like many, I believe that the annual “horse race” between endowment returns is counterproductive to fostering the appropriate long-term investment strategies suitable for Harvard. Nevertheless, it follows naturally from our mission that HMC must remain competitive for Harvard itself to confidently maintain its own preeminence as a University. Rolling five-year windows where we can judge ourselves versus peers is a reasonable metric of whether we are fulfilling this part of our mission.

One can debate the appropriate peer group to which HMC should compare itself. Our asset base of approximately \$38 billion, and hybrid investment structure involving both internally managed portfolios, direct investments and external managers, are more similar to that of large sophisticated pension funds or some sovereign wealth funds than to smaller endowments, which are generally fully externally managed. The assets under management (AUM) of the ten endowments in our peer group range from approximately \$25 billion to \$9 billion, the latter being less than 25% of Harvard’s AUM, so we are comparing ourselves to institutions of different size. Nevertheless, Harvard University aims to remain preeminent amongst its peer universities, and the comparison group we have established includes many of the universities that Harvard would likely consider its competitors for students, faculty and staff.

Top quartile performance over a rolling five-year period is a widely held goal for many investment organizations, and empirically has been achieved on five occasions by HMC in the past fifteen years. However, recent performance against this metric has been disappointing. Figure 7 shows how HMC has performed from fiscal year 2000 through fiscal year 2014.

Full peer data for fiscal year 2015 is not available at time of writing. HMC’s fiscal year 2015 return of 5.8% exceeds the median return of 3.4%, and falls just below the 95th percentile return of 6.2%, for the 104 TUCS<sup>4</sup> plans with over \$5 billion in AUM. However, we believe it is unlikely that our return in fiscal year 2015 will materially improve our performance relative to our endowment peer group.

Figure 7

### Quartile Performance versus Ten Largest US Endowments

(Rolling Five-Year Annualized)

Objective: Top Quartile

FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014
2nd	2nd	2nd	2nd	1st	1st	1st	1st	1st	3rd	3rd	4th	4th	4th	4th

### Risk Tolerance and Liquidity

Our objectives are to be achieved while maintaining a portfolio whose risk profile is in line with the University’s risk tolerance. Thus, in addition to these investment objectives, we have established an appropriate set of risk guidelines that provide suitable flexibility for a long-term endowment portfolio, yet maintain a prudent set of risk parameters within the portfolio. In addition, HMC will maintain portfolio liquidity so that at least 5% of the endowment (that is, a full year of distribution to the University) can be realized in liquid form within 30 days.

#### (b) Asset Allocation

Asset allocation is arguably the most fundamental strategic investment decision an institutional investor can make; it is also arguably the most challenging. At its core, the goal of our strategic asset allocation process is to settle on appropriate asset class targets and reasonable ranges that best suit the long-term risk and return objectives of the University. In past years, HMC has essentially employed a standard mean-variance framework. This approach, in which asset class return, risk and correlation

<sup>3</sup> As of 30 June 2014, these are: University of Texas, Yale, Stanford, Princeton, MIT, Texas A&M, Northwestern, Michigan, Pennsylvania and Columbia.

<sup>4</sup> Wilshire Trust Universe Comparison Service

expectations serve as the basis for optimization, has high uncertainty in its inputs, and often failed to provide motivating insights regarding how we should conceive of and shape our asset allocation. Upon taking over as CEO, I believed the time was right to revisit thoroughly our process for strategic asset allocation.

Spearheaded by our Chief Risk Officer Jake Xia and Senior Vice President Mark Szigety AM '00, DBA '08, our asset allocation research involved a thorough literature review; consultations with academic experts in the field; and meetings with a range of institutional investors. From this research we reached several conclusions, the most important of which is that all asset allocation approaches are imperfect in their own way. For example, mean-variance relies on highly uncertain risk and return assumptions for an often large number of asset classes. Others may be overly simple, or difficult to implement. On the other hand, many had enviable features: a “factor” (as opposed to an asset class) view promotes simplicity and clarity on major risk and return drivers, and a “best ideas” approach is attractive from a fundamental investor standpoint. Consequently, while no approach struck us as superior, we determined that a selective combination of various asset allocation frameworks may represent a meaningful improvement over our current process.

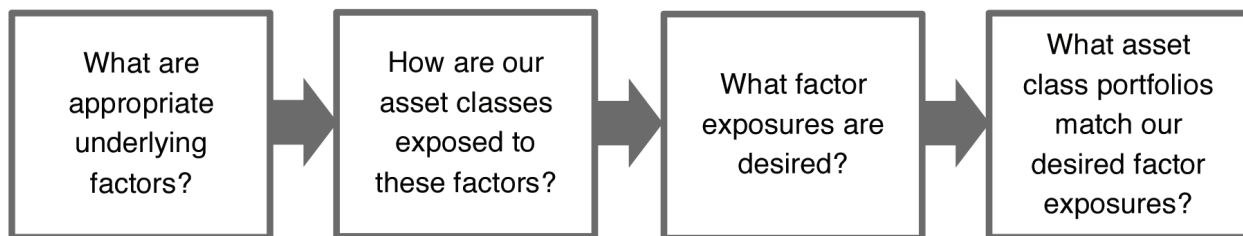
Additionally, we recognized that investors generally like to follow a tried-and-true formula for asset allocation, but at the same time understand that any such objective methodology will often fail to incorporate nuances and subtleties that investment expertise and judgment suggest are important. As my advisor in the Statistics Department, Professor Emeritus Arthur Dempster, wrote: a worthy practical approach “balances [the] objective and subjective, and puts aside an operationally spurious concept of [a] true model.”<sup>5</sup> Thus, we have aimed to build a process that is capable of expressing less quantifiable investment ideas and objectives around a rigorous core. The result is a comprehensive process that we term Flexible Indeterminate Factor-based Asset Allocation (FIFAA).<sup>6</sup>

The core of our proposal is an assumption that our strategic asset allocation, as expressed through asset classes, can be conceived of as a combination of a chosen systematic “factor” portfolio and a non-systematic “residual” portfolio. By conceptually partitioning in this manner, we hope to focus on the principle drivers of our risk and return while at the same time accommodating a variety of desirable portfolios.

FIFAA comprises the four steps shown in Figure 8: (i) selecting factors; (ii) measuring asset class factor exposures; (iii) choosing desirable factor exposures; and (iv) determining the most appropriate asset class targets and ranges for achieving our long-term investment objectives, which at the same time maintain our preferred factor exposures. Each of the four steps is briefly described below.

Figure 8

### Flexible Indeterminate Factor-based Asset Allocation



#### (i) Selecting Appropriate Factors

The selection of factors is a matter of informed judgment, and based on our research we believe there is no ideal set that is appropriate for every institutional investor. For our purposes, we have currently selected a parsimonious set of five factors—enough to span more of the primary risk and return drivers than solely equities and bonds (the so-called “reference portfolio”), but not too many so as to prevent increased simplicity and heightened confidence in our risk and return expectations.

<sup>5</sup> Dempster, A.P. (1998), “Logistic Statistics I: Models and Modeling.” *Statistical Science* 13, no.3, 248-276.

<sup>6</sup> For complete details, see Blyth, S.J., Szigety, M. and Xia, J. (2016), “Flexible Indeterminate Factor-based Asset Allocation”, *The Journal of Portfolio Management*, forthcoming.

Our five factors include world equities, US Treasuries, high yield credit, inflation and currency. In selecting these factors, we placed a premium on tradability (can we inexpensively manage risk or rebalance?) and suitability (will this capture our strategy?). Parsimony also demanded that we not include what we consider to be more asset-class specific factors, such as value, momentum, carry and illiquidity.

### (ii) Measuring Asset Class Exposures to Factors

The second step involves determining how asset classes or investment universes relate to the selected factors. One of the attractive features of FIFAA is that it gives us the flexibility to implement our factor exposures with any set of asset classes or investment opportunities. As just one possible example, we can separate emerging market equities into commodity exporters and commodity importers. This is a plausible approach because it is reasonable to believe that commodity exporters such as Brazil, South Africa, Mexico and Russia have different factor exposures than commodity importers such as China, South Korea, Taiwan and India.

Our analysis proceeded from two directions. First, we employed well-known empirical approaches to pin down a parsimonious set of estimated exposures. Secondly, together with our portfolio managers, we applied a market-informed overlay to ensure the estimates appear appropriate on a forward-looking basis. The end result of this step is a matrix of linear exposures (or so-called “betas”) for use in a variety of subsequent steps.

### (iii) Choosing Factor Exposures

The third step involves selecting appropriate factor exposures using insights from a variety of both return- and risk-based portfolio construction approaches. We believe that developing reliable capital market assumptions of our five factors is more tractable than for a full set of asset classes. For implementation, we leaned heavily on mean-variance analysis to inform us as to which factor exposures were most attractive. Our initial analysis from this step argued that we should: decrease our equity exposure; slightly increase high yield exposure; lower our inflation exposure; increase our exposure to the dollar; and increase bond exposure. These factor exposures form the basis of our strategic asset allocation and can be reviewed on a frequency consistent with long-term objectives.

### (iv) Selecting an Asset Class Portfolio

The fourth and final step involves setting the final target weights and ranges for the asset classes. The main challenge here is that, in general, there are an infinite number of portfolio solutions of twelve (or more) asset classes that satisfy the optimal five factor exposures. To tackle this problem, we computationally searched for a portfolio that maximizes our asset class specific return per unit of risk, penalizes illiquidity and satisfies the desired factor exposures. To establish target ranges, we ran many searches, each time adding a small amount of error to our asset class-to-factor mappings from step (ii). This explicitly acknowledges that there is uncertainty in the asset-class-to-factor mappings, and it allows us to establish the lower 5% and upper 95% bounds of the portfolio’s target asset class weights. The resulting portfolio parameters are shown in Figure 9.

The ranges for our asset classes reflect inherent uncertainty in mapping asset classes to factors, and are a manifestation of the natural uncertainty present in any asset allocation approach. The ranges provide us with appropriate flexibility to execute a variety of investment opportunities and strategies as they arise, while still maintaining the desired factor exposures. Note that asset allocations that match desired factor exposures are, for example, unlikely to have most asset classes at the top of their ranges.

Figure 9

**Fiscal Year 2016 Asset Class Ranges**

Asset Class	Range	
US Equity	6%	16%
Foreign Equity	6%	11%
Emerging Market Equity	4%	17%
Private Equity	13%	23%
Absolute Return	11%	21%
High Yield	0%	3%
Natural Resources and Commodities	6%	16%
Real Estate	10%	17%
Domestic Bonds	5%	9%
Foreign Bonds	0%	4%
Inflation-Linked Bonds	0%	6%



The goal of our strategic asset allocation review was to introduce a meaningful improvement over our current multi-asset class, mean-variance approach. We believe that we have made substantive progress in developing a flexible approach that accommodates necessarily subjective investment judgment within a rigorous, factor-based framework. Based on this new approach, we have set an asset allocation for fiscal year 2016, approved by the HMC Board.

### **(c) Reinvigorating HMC's Investment Process**

The Harvard Management Company has a remarkably powerful investment platform. After several years of necessarily dealing with the depths of the financial crisis and its aftermath, and the accompanying severe liquidity issues across the University as a whole, we are now in a position to harness that power to deliver on our objectives.

In order to increase the rigor of our investment debate and decision making process, I have charged my portfolio managers—whether they be managing internal investment strategies, participating in direct investments for Harvard or building and developing relationships with our suite of outstanding external managers—to focus on the following areas.

First, we will engage in more cross-asset class discussion and collaboration. Increasingly, investment opportunities lie at the border of traditional asset classes, or are informed by knowledge from different areas. For instance, the real estate market for laboratory space for life science companies is highly related to the biotech sector within venture capital, the willingness of public equity investors to fund mid- to late-stage companies as well as the development of the underlying science. We will develop a strong culture of constructive challenge and comparison of investment opportunities across the portfolio.

Secondly, I am encouraging our portfolio managers to be creative in considering new partnerships, vehicles and platforms for investing that provide the maximum benefit for Harvard, in terms of access to compelling opportunities, transparency to our investments, flexibility in and control of investment decisions and reduction in management fees.

In addition, we need to develop the conviction to invest in scale. HMC manages approximately \$38 billion of endowment assets. With the appropriate rigor of analytical work and open debate, deep market experience and the identification of investment opportunities that fulfil our objectives within our portfolio, we will be prepared to invest at the appropriate scale. This does not mean leveraging up, running higher risk or having a higher beta portfolio; indeed, it could mean the opposite depending on the market environment. We will do the depth of work to allow ourselves to take positions to the appropriate endowment scale when opportunities arise.

Finally, HMC will engage more fully both with our investment partners and with peer institutional investors globally. I have greatly enjoyed—and benefited from—meeting groups of our investment manager partners, where market insights can be shared both between HMC and our managers, and also between our external managers. I have also found it especially helpful to meet CEOs of several comparable investment institutions. I am grateful to them for their openness, insights and wisdom, and I look forward to developing a range of collaborative endeavors between our institutions.

### **(d) Compensation**

The compensation plan currently in place at HMC has served Harvard for many years. The majority of portfolio manager compensation is linked to long-term outperformance versus market indices or industry benchmarks. In particular, we do not pay for “beta” returns simply provided by the market. Overall, HMC’s compensation model has provided significant savings to the University over decades.

However, I also believe that we should align compensation more closely with the aggregate goals of HMC, as stated above, in addition to the success of individual portfolios. Fostering a deeper sense of ownership in the overall success of HMC amongst all our staff, and developing a true sense of partnership amongst senior investment professionals at HMC, are key priorities for me.

We have therefore undertaken a review of the compensation system at HMC. Whilst we will continue to have a significant component of compensation linked to outperformance of portfolios versus their market indices and industry benchmarks, I plan to introduce components linked to the overall success of HMC. Incenting all our staff to improve the aggregate performance of HMC can only increase the likelihood of us achieving our goals over the long term.

Designing a new compensation model is, of course, a complex and sensitive task, and I look forward to working with my colleagues, the Finance and Compensation Committee of the HMC Board and external experts, as we develop and implement this plan.

### IN MEMORIAM

#### James F. Rothenberg (1946-2015)

Jim Rothenberg was chair of the Board of Harvard Management Company from 2005 to 2015. It was Jim who, at 10:30am on 24 September 2014, called me to state that the Board would like me to become the next President and CEO of HMC. Since that moment, he provided me with support, kind encouragement and a calm guiding hand. His last message to me, sent the weekend before he so unexpectedly died in July, was: "I am on the same train as you are. Cheers."

Cheers Jim.

### 3. Outlook

I described briefly in my letter of introduction in April<sup>7</sup> that current market conditions present various challenges to investors. We are carefully monitoring market liquidity conditions, given that the risk capacity and shock absorption ability of sell-side market-makers is low, as a result of the new regulatory regime that has shrunk balance sheets and reduced risk appetite. The US Treasury "flash crash" of 15 October 2014, when the US ten-year Treasury note moved a total of 68 basis points in one day, was a stark manifestation of the evaporation of liquidity that can occur even when no material economic event has occurred. The recent high volatility in the US stock market is another indicator that market liquidity can be prone to rapid evaporation. To give an order of magnitude, from 1 January 2015 to 10 August 2015, the S&P had a trading range of 7%. On 24 August 2015, the Dow Jones industrial Average fell 6.6%, rallied 6.4% and then fell 4.7% within the trading day.

The new regulatory environment for financial institutions is having significant effects on the ability of banks to use balance sheets, warehouse risk, or act as market shock absorbers. Given Harvard's strong balance sheet, we view this as an opportunity, as price dislocations or stress in risk parameters (and hence the ability to generate alpha) is likely to increase when there is less capacity to accommodate and absorb these risk factors.

The debate about highly-valued assets continues to get louder: private equity valuations are now, on average, at higher levels than in 2007. There are over eighty "unicorns" (venture-capital portfolio companies with valuations over \$1 billion), as many as in the last three years combined. Venture capital continues to receive ample funding, and private company valuations are also bolstered by public mutual funds entering late stage funding rounds in significant size. This environment is likely to result in lower future returns than in the recent past.

Furthermore, it is hard to know the impact of the eventual rise of interest rates in the US on asset classes domestically and globally. Monetary accommodation in the US has been in place for almost eight years, since the first Federal Reserve intervention on 11 December 2007, the Term Auction Facility (TAF). An extensive number of policy interventions, with a long lexicon of acronyms, followed. As hard as it was to predict the impact of these policy actions, it will be equally hard to predict the effect of their removal. We are analyzing potential effects of higher rates throughout the portfolio, in particular examining the possibility of second order effects if many asset classes (e.g., bonds, high-yielding stocks, high-yield debt, emerging markets and real estate) were to decline simultaneously. An interesting question emerges: could rising interest rates in 2016 have an analogous impact to falling house prices in 2007, where a range of largely unanticipated second-order effects was triggered?

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<sup>7</sup> Letter of Introduction

We are proceeding with caution in several areas of the portfolio: many of our absolute return managers are accumulating increasing amounts of cash; we are being careful about not over-committing into illiquid investments in potentially frothy markets, while still ensuring we will be involved if market dislocations arise; and we are being particularly discriminating about underwriting and return assumptions given current valuations. In addition, we have renewed focus on identifying public equity managers with demonstrable investment expertise on both the long and short sides of the market. And we are concentrating on investment opportunities with idiosyncratic features that still offer value creation, such as the life science laboratory space, and the retail sector where transformation continues at rapid pace.

We are executing on these themes through a variety of instruments, including equity, debt, private securities and real assets. More broadly, across HMC we are developing new platforms, fund relationships and internal capabilities that will give us greater flexibility to respond to the changing market environment.

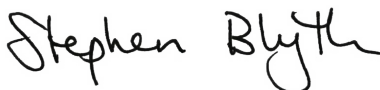
#### 4. Concluding Remarks

As Professor of the Practice in Statistics, within the Faculty of Arts and Sciences, I have had the privilege since 2010 to teach the class Statistics 123, “Applied Quantitative Finance”, to over 350 outstanding young women and men. Teaching Harvard undergraduates has been a joy; it is in fact my one regret about becoming CEO of HMC that I will be unlikely to teach in the near future. I often say that my experiences in the lecture hall, in office hours and at student-faculty dinners have “made flesh” the mission of HMC. I know that my colleagues at HMC share deeply the special role that HMC plays in the support of our great University.

We have clearly stated this mission and have laid out straightforward, ambitious investment objectives. I have found my first nine months as CEO to be intensely fulfilling and intensely enjoyable. I will do everything in my power to maximize the probability of HMC achieving its objectives over the coming years and decades. We have challenges ahead and much hard work to be done, but I believe we have gained significant traction in 2015, and I am highly optimistic that we can achieve our goals.

I thank you all for your support of Harvard University and of HMC, and in particular for the many personal messages of encouragement. I look forward to meeting many of you in the years ahead.

Yours sincerely,

A handwritten signature in black ink that reads "Stephen Blyth". The signature is written in a cursive, slightly slanted style.

Stephen Blyth PhD '92  
President and Chief Executive Officer  
Harvard Management Company