

Message from the CEO OCTOBER 2019

Dear Members of the Harvard Community,

For the most recent fiscal year ended June 30, 2019, the return on the Harvard endowment was 6.5% and the value stood at \$40.9 billion. The endowment also distributed more than \$1.9 billion toward the University's operating budget, in support of financial aid, research funds, faculty support, and more.

Performance

ASSET CLASS	ALLOCATION	RETURN
Public Equity	26%	5.9%
Private Equity	20%	16%
Hedge Funds	33%	5.5%
Real Estate	8%	9.3%
Natural Resources	4%	-12.4%
Bonds/TIPS	6%	5.7%
Other Real Assets	2%	-8.3%
Cash & Other	2%	
Endowment	100%*	6.5%

^{*}Due to rounding, the approximate allocation adds up to more than 100.

As was the case in FY18, the past fiscal year was another in which asset allocation—or risk level—was a major factor in returns, albeit in a more nuanced manner. More specifically, all else being equal, greater exposure to venture capital (a high-risk/high-reward asset class) would have resulted in a significantly higher return. Harvard's exposure to venture capital is notably small in the context of leading endowments. Our ongoing assessment of Harvard's risk tolerance is discussed in further detail later in this letter.

While we are not pleased with this performance, we are mindful that HMC is an organization in the midst of <u>significant restructuring</u> and has a portfolio with certain illiquid legacy assets that weigh significantly on performance. There is also a solid base of strong legacy assets upon which we are building. Meaningfully higher or lower one-year returns would not impact the restructuring we continue to pursue. While some changes will take years to have an impact—and we are keenly aware that we are in a marathon and not a sprint—we can already detect positive indicators of progress.

HMC Progress and Challenges

At roughly the halfway point in the five-year restructuring, and with two full fiscal years complete, it is worth discussing our progress in HMC's turnaround and the challenges we still face.

OCTOBER 2019

Our early efforts have involved rebuilding the organizational structure and culture, constructing a generalist investment team, and establishing new investment processes. We have also recruited additional team members for both the generalist and support teams, and put in place incentives that reward collaboration, long-term investment thinking, and calculated risk-taking.

Culture, organizational structure, and incentives were central to the deep issues that HMC faced and are crucial to our solutions. Most importantly, we operate as one team, not as siloed specialists. We will succeed thanks to the dedication and skill of all team members. While we still have much work to do, we are well on our way and generally comfortable with the progress made to affect HMC's turnaround. To be sure, our efforts to improve and evolve do not end at the five-year mark; we will always strive to be better.

The past two years' reports have focused on these organizational changes, and while that work continues, I would like to focus this year's report on the progress and challenges within HMC's investment portfolio.

Portfolio Progress and Issues

The liquid and illiquid portions of HMC's portfolio are starkly different in terms of the time needed to see the effects of our changes. With regards to the more liquid parts of the portfolio, we have already had an impact and are generally pleased with the results. However, by definition, we cannot quickly impact the performance of the illiquid parts of the portfolio beyond asset sales. We continue to work diligently to build on the strengths of our illiquid assets and solve remaining problems. Not surprisingly, the five-year timeframe of our restructuring is needed primarily to address the issues in the illiquid parts of the portfolio.

Liquid Portfolio: Public Equities and Hedge Funds

Public equities and the majority of our hedge fund positions are the most liquid (although roughly 20% of our hedge fund allocations are illiquid, the remainder of this asset class is relatively liquid) and, therefore, are the areas in which the generalist investment team has had the most immediate impact over my time at HMC.

Here is some good news. Over two fiscal years, we have outperformed benchmarks for both asset classes. More importantly, on a combined basis, they outperformed the blended benchmark by more than 2.25% annualized over the same period. I regard this performance to be very good, albeit not excellent. While we do not fixate on benchmarks, I allude to them here simply to provide an illustration of our progress. If we think about benchmarks at all, it is in this context, as these two parts of the portfolio represent about 60% of the aggregate endowment.

We are particularly pleased with our hedge fund performance, as it was not driven by positive equity markets. By design, our current hedge fund portfolio has less exposure to equity markets than any such portfolio I have overseen during my twenty-one years in endowment management. Furthermore, as noted, about 20% of the hedge fund portfolio is illiquid. Since much of this legacy illiquid group has had unremarkable returns and has been a drag on performance, we are all the more pleased with our impact on the more liquid portion of the portfolio.

While we have been able to impact this portion of the portfolio and see the positive results, two full fiscal years is far too short a period to make a meaningful assessment of the true impact. As long-term investors, we think in terms of at least ten-year performance. As we build toward that timeframe in the liquid parts of the portfolio, there will be good and bad years. We understand the need to improve even further and I am highly confident that we are on a path to doing so. What is clear is that the early results provide a positive affirmation of our approach and represent a significant step forward for HMC.

OCTOBER 2019 2

Illiquid Portfolios: Private Equity, Real Estate, and Natural Resources

As many already know, the main challenges in the endowment's performance pertain to the illiquid assets. Prudently increasing the size of certain portfolios takes years to complete, as does reducing the size of others. In direct contrast to the more liquid parts of the portfolio, we can only have limited impact on performance in a short period of time. From the day of my arrival, we have been moving with a sense of urgency to implement the turnaround and reposition the illiquid investments.

Illiquid investments are an important component of long-term investment portfolios. HMC expects, to varying degrees, significant excess return from its illiquid assets above those available in public markets for three broad reasons. First, investors must be compensated for the greater risk of these investments. Second, investors must also be compensated for significant illiquidity—typically requiring multiple years to exit these assets. Third, certain strategies provide unique opportunities for significant alpha as well.

PRIVATE EQUITY (BUYOUTS, GROWTH, AND VENTURE CAPITAL)

Let us start with the good news. The private equity portfolio at HMC has historically been strong, a credit to both current and former HMC team members. Furthermore, we are excited about the portfolio additions and adjustments we have made over the last two years, but know that it will be years before we see the effects of those investments.

Today, our central concern is that HMC's allocation to buyouts, growth, and venture capital continues to be low relative to what likely makes sense for Harvard (see Risk Tolerance section). In this context, I expressed the goal of increasing such exposure when I joined. The goal of increasing private equity exposure was not made because private equity was performing well at the time (and has continued to perform particularly well since then). In fact, recent performance, and specifically the valuation environment, serve as a restraint. We certainly understand that private equity is a higher-risk/higher-return investment that will have difficult periods. Rather, we are stating our belief that some types of private equity — certainly not all — are generally a more attractive secular source of alpha and risk for HMC than some of the other higher-risk illiquid assets currently in the portfolio. We are early in the process of making this allocation transition.

A SOBERING THOUGHT

As many know, private equity funds draw down their capital over a period of years and then invest it for several more years before exiting. For now, and for the next few years, we will suffer the impact of the private equity "J-curve" — the natural progression of a fund's value in this space, where short-term losses precede long-term gains. Many peers dealt with these growing pains years, if not decades, ago. Early in my time, we modeled it to take 7–9 years to attain a meaningfully higher allocation to private equity in a prudent manner (i.e., subject to maintaining high manager quality, appropriate vintage year diversification, and being mindful of an aggressive valuation environment).

While we are making deliberate progress, we are obviously still early in the multiyear timeframe needed. Of note, some of the big IPOs of this past spring were backed by venture funds with vintage years from 2008 – 2013. Harvard did not participate in those funds in that era and therefore did not benefit significantly from those rewards in fiscal year 2019. Indeed, this is a long-term game.

REAL ESTATE

One goal from the outset was to reduce the size of our real estate exposure. We are pleased that HMC's real estate exposure is roughly half of the size it was in early 2017. We are also very fortunate that the dominant portion of that exposure continues to be managed by our former HMC colleagues, now with Bain Capital. Spinning-out the team to Bain Capital was a critical milestone for us as it secured stability in the expert management of this part of the portfolio.

OCTOBER 2019 3

The reduction in exposure was the result of significant asset sales early in my time and successful exits from assets by the Bain Capital team, as well as other external managers. We have also very selectively added commitments to other external managers. Like our recent private equity investments, it will take years to see the effects of our efforts.

NATURAL RESOURCES

Another portfolio goal was to reduce our exposure to natural resources. We are obviously disappointed with persistent negative returns in this legacy part of our portfolio; however, we are pleased to have cut our exposure by more than half—from 9% to roughly 4% of the overall endowment—since my arrival. Furthermore, we are pleased to have completely rebuilt an impressive team to manage this portfolio.

OUR PORTFOLIO CONSISTS OF THREE TYPES OF ASSETS:

- 1 Deeply troubled assets. We were forced to write-down or write-off approximately \$1 billion of these investments early in my time at HMC, in FY17. Since then, our natural resources team has worked hard to salvage or dispose of these remaining investments.
- **2** Good, but misaligned assets. These are assets that we believe have a risk/return/liquidity profile that is not particularly appropriate for an endowment. We have sold over \$1.1 billion of these assets to more appropriate investors. We expect to close on the sale of close to another \$200 million over the remainder of the current fiscal year.
- **3** Aligned assets. These are quality assets that are well suited for an endowment in terms of risk/return/liquidity and are now well positioned, having undergone significant management changes since the arrival of our new natural resources team. In addition, we have deployed over \$100 million in new, promising investments in this category.

After our initial large write-down in FY17, the performance of group 1 continued to be poor and still weighs on the overall performance of the natural resources portfolio. We should note that FY19's return includes an additional write-down in group 1 assets of about \$100 million. Even without this write-down, FY19 returns for natural resources would have still been -7%, largely caused by the troubled assets in group 1, described above.

Harvard Risk Tolerance

Another significant milestone of the first half of our five-year transition was to put in place a new risk framework at HMC. This is a critical tool in our portfolio management and a central input to our discussions with the University regarding Harvard's risk tolerance.

These discussions commenced this past spring and are the deepest such conversations that HMC has had in recent years with the University, involving HMC Board members and University leadership.

We are focused upon and aware that HMC generally takes lower risk and, therefore, will likely generate lower returns than many peers over a market cycle. During these discussions we will determine if this approach is appropriate or not. The tradeoff is of course higher returns versus a less volatile revenue stream. Perhaps stating the obvious, higher returns lead to a larger endowment in the long run, while lower volatility can be helpful in budgeting for an institution with significant fixed costs. I believe that we will conclude these discussions over the next eighteen months or so, which will help inform allocation decisions in future years.

OCTOBER 2019

Closing Thoughts

At this midway point in our transition I am encouraged by the path that we are on and our progress to date. The first half of this turnaround essentially operated on multiple tracks: HMC's organizational restructuring, process development, and the repositioning of the endowment's investment portfolio.

Thanks to the hard work of a talented and dedicated team, we have made good progress. From developing the investment processes and risk framework that allow us to make informed decisions, to the formation of a generalist team and spinning-out four internal investment platforms, these changes have been significant. However, the speed at which they have been adopted by the organization is impressive. While we implemented these changes expediently, we are constantly looking for opportunities to improve or adapt in ways that support long-term performance.

The evolution of our public equity and hedge fund portfolios is exhibiting a significant positive impact and the early returns are encouraging. That being said, we need to maintain this momentum and improve even further in the years ahead.

On the illiquid side, we are using the five-year restructuring period to work our way to the marathon's starting line. Significant parts of this portfolio are very strong—a credit to former and current team members. We must build on that strength and also prudently grow certain parts of the illiquid portfolio. Once again, we must be deliberate and strategic to maintain high-quality standards and avoid excessive vintage year concentration.

Equally important, there are still many illiquid anchors weighing down the portfolio and our performance. Put another way, parts of the legacy portfolio do not have a prospect of generating a return commensurate with the risk and the illiquidity entailed, and may not provide a return at all. Through a combination of write-downs and asset sales, this problem is much smaller than it was two years ago, but still remains a significant challenge and a major priority for HMC. As we have said, it will take some years to execute a full course correction.

The endowment is a vital resource that allows Harvard University to maintain its leadership in teaching and research. Current and future generations of Harvard students, faculty, and scholars rely on us to maintain this critical source of support. Our team is well aware that meeting those needs requires continuous improvement and overcoming the challenges referred to above. I remain highly confident in our ability to do both.

Best regards,

N.P. "Narv" Narvekar Chief Executive Officer

OCTOBER 2019 5