Union College Endowment

An Analysis and Evaluation of Investment Strategy and Performance

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The purpose of this report is to analyze and evaluate the investment performance of the Union College endowment. We find that for the period 2006-2019 Union paid an average annual amount of about $6.5 million in investment management and incentive fees. For the same period, the rate of return on Union's investments, on an average annual basis, was 3.4 percentage points below an S&P 500 index fund.

Background

The Union College administration announced, in the course of the spring and summer of 2020, a series of substantial cost-cutting measures because of the COVID-19 crisis. These included, but were not limited to, a one-year "pause" in the College's contribution to its employees' pension fund (11% of salary), and hiring freezes. These were a result of concerns about revenue shortfalls. Whereas several revenue-enhancement and cost-saving measures have been considered, to our knowledge, these considerations have not included an examination of the College endowment's investment performance. The purpose of this report is to fill that gap. It is also inspired by the College's Strategic Plan, "Activity 2: Build a culture of financial rigor, transparency and holistic, data-driven analysis that guides financial decision-making and the strategic use of resources."[1]

The market value of Union's endowment, as of June 30, 2020, was $478 million. The same figure as of June 30, 2019 was $470 million. "Our endowment is managed by an investment committee comprised of volunteer trustee executives who have significant depth and investment expertise. We do not have our own Chief Investment Officer (CIO). The investment committee is mindful of keeping fees as low as possible with a focus on high net returns."[2] Also, "The Investment Committee of the College's Board of Trustees continually monitors investment market conditions and the impact on the College's investment portfolio."[3] And, more generally:

"In accordance with NYPMIFA [New York Prudent Management of Institutional Funds Act], the Investment Committee of the College's Board of Trustees considers the following factors in making a determination to appropriate or accumulate endowment funds:

- The duration and preservation of the fund
- The purposes of the College and the endowment fund
- General economic conditions
- The expected total return from income and the appreciation of investments
- Other resources of the College
- Where appropriate and where circumstances would otherwise warrant, alternatives to expenditure of and endowment fund, giving due consideration to the effect that such alternatives may have on the College
- The investment policies of the College"[4]

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* *I am grateful to the many colleagues who provided invaluable feedback on earlier versions of this report. I am solely responsible for its contents.*

[1] *The Power of Union: Strategic Plan for Union College, 2020-2025,* p. 15. Here.

[2] E-mail response to the author's query from Michele M. Gibson, Vice President for Administration and Finance, 5/27/2020.

[3] *Union College Financial Statements*, KPMG, June 30, 2019, p. 9. Here.

[4] *Union College Financial Statements*, KPMG, June 30, 2019, p. 20. Here.

Data

All of our Union-related data were extracted from the College's annual *Audits* and *Financial Statements* prepared by the accounting firm KPMG. They are available here and here. *Financial Statements* for years 2006-2014 are available from the author.

For S&P 500 data, for benchmarking purposes, we consulted here.[5] Table 1 includes the core data that we used for our analysis in this report. The choice of the time period, 2006-2019, is dictated by data availability on a consistent, comparable basis.

Table 1: Basic Endowment-Related Data, Union College, 2006-2019

Years	***Endowment***	***Fees***	***RoI***	***RoR***	***S&P 500***	***Deviation***	***Fees(%)***
	millions of $	***millions of $***	***millions of $***	***%***	***%***	***% points***	***%***
2006	324	3.5	37.2	13.4	15.8	-2.4	1.1
2007	379	4.9	59.9	18.4	5.5	13.0	1.3
2008	400	7.3	12.0	3.5	-37.0	40.5	1.8
2009	291	3.2	-94.0	-23.7	26.6	-50.3	1.1
2010	297	4.9	34.3	11.1	15.1	-4.0	1.6
2011	328	6.9	50.90	18.0	2.1	15.9	2.1
2012	322	5.6	5.7	1.6	16.0	-14.4	1.7
2013	359	6.2	36.1	12.2	32.3	-20.1	1.7
2014	416	8.6	66.3	17.9	13.6	4.3	2.1
2015	441	8.0	33.6	8.6	1.4	7.2	1.8
2016	389	5.6	-38.4	-9.8	11.9	-21.7	1.4
2017	428	6.9	59.4	15.2	21.8	-6.6	1.6
2018	457	9.1	50.5	11.9	-4.4	16.3	2.0
2019	470	10.6	31.8	6.5	31.5	-25.0	2.3
Averages 06-19	***379***	***6.5***	***24.7***	***7.5***	***10.9***	***-3.4***	***1.7***
Averages 15-19	***437***	***8.0***	***27.4***	***6.5***	***12.4***	***-5.9***	***1.8***

Notation:

Endowment Amount as reported by KPMG under "endowment and similar funds balances."
Fees "Investment management fees (including any incentive fees)." KPMG
RoI "Total return on investments." KPMG
RoR "The pooled endowment total return." KPMG
S&P 500 "Yearly [total] investment returns, Vanguard 500 Index Fund Admiral Shares (VFIAX)"
Deviation *RoR* minus *S&P 500.*
Fees(%) *Fees* as a percentage of *Endowment.*

All KPMG data are as of June 30 of the respective years.

[5] We used the performance of the "Vanguard 500 Index Fund Admiral Shares (VFIAX)" as a benchmark. This is regarded in the industry as one of the most reputable funds. Other, similar, funds do exist. Our results are robust with respect to the choice of alternative S&P 500 index fund benchmarks.

Analysis

We used an S&P 500 index fund as a benchmark to evaluate Union College endowment's investment performance.[6] This was based on three considerations: (1) A substantial amount of evidence and analysis by investment advisors and academics about the optimality of index funds for endowments of Union's size.[7] (2) Advice from a senior financial analyst in New York City who is familiar with Union's endowment. And (3) a recommendation by the AAUP regarding the "use [of] a passive investment strategy to manage endowments."[8]

Analysis of Returns.

As can be seen from the *Deviation* column of Table 1 on page 2, for the period 2006-19, whereas Union outperformed the S&P 500 index fund in six years, it underperformed it in eight years. Overall, Union underperformed the S&P by an average annual of 3.4 percentage points. During the more recent five-year period, Union underperformed S&P by an average annual of 5.9 percentage points. Table 2 shows Union's under-performance by various sub-windows—anywhere from 14 years in duration to 2 years.

Table 2: The Extent of Underperformance for Sub-windows During 2006-19: Average Annual Deviations of Union's Performance from S&P500 Vanguard Index Fund

Time Period	***Underperformance***
2006-19	-3.4
2007-19	-3.5
2008-19	-4.8
2009-19	-8.9
2010-19	-4.8
2011-19	-4.9
2012-19	-7.5
2013-19	-6.5
2014-19	-4.2
2015-19	-5.9
2016-19	-9.2
2017-19	-5.1
2018-19	-4.3

[6] See footnote 5 for details.
[7] See, for example, (a) Lorin, Janet, "A Small College's Endowment Manager Beat Harvard With Index Funds." *BloombergBusinessweek*, May 4, 2018. Here (also, archived here). (b) McDonald, Michael, "Harvard Alums Have Idea to Boost Endowment: Buy Index Funds." *Bloomberg*, February 15, 2018. Here. (c) Perry, Mark J., "What's even sadder about Greg Mankiw's chart – Harvard got a 1.7% return over 5 years vs. a 7% return on the S&P 500." *AEI*, June 28, 2014. Here. And (d) Swedroe, Larry, "Index funds 43 College endowments 0." *TEBI*, July 13, 2020. Here.
[8] Recommendation by Howard Bunsis, professor of accounting, Eastern Michigan University, and Rudy Fichtenbaum, professor of economics, Wright State University, and past president of the AAUP (presentation on July 28, 2020, slide #102).

Risks and Returns: the Sharpe Ratio

It might be argued that a lower rate of return on Union's investments is justified by risk considerations. To address this issue, we calculated the Sharpe Ratio for Union's investments and for our benchmark S&P 500 fund. "The Sharpe ratio characterizes how well the return of an asset compensates the investor for the risk taken. When comparing two assets versus a common benchmark, the one with a higher Sharpe ratio provides better return for the same risk (or, equivalently, the same return for lower risk)."[9]

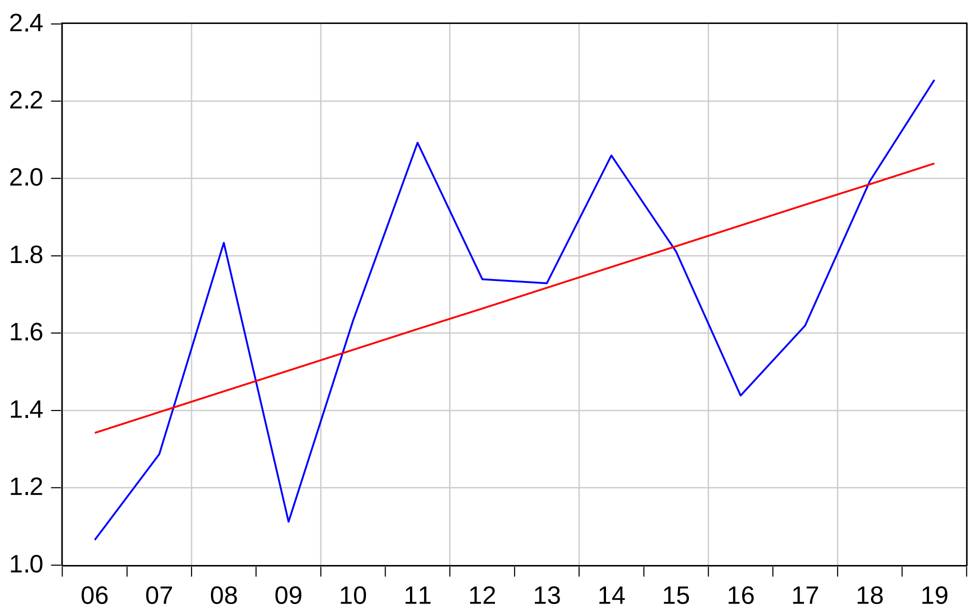
We used the 10-year US Treasury bond as our benchmark "safe" asset. The average Sharpe Ratio for Union, for the period 2006-19, is 0.40; and for our S&P index fund it is 0.44. Put simply: all else equal, "the greater a portfolio's Sharpe Ratio, the better its risk-adjusted performance." In other words, if the endowment consistently underperformed the S&P but had a much higher Sharpe Ratio, that might be a reasonable tradeoff. However, this is not the case here. In fact, the Sharpe ratio for Union is *lower* than that for our benchmark fund.

Therefore, even taking into account both risk and return considerations, we do not see an optimal performance by Union's investment managers.

Trends

We observe that Union's investment management and incentive fees are high.[10] Of equal concern is the fact that, even scaled for the size of the endowment, these fees have been increasing over the 2006-19 period. The vertical axis in Figure 1 measures Union's investment management and incentive fees as a percentage of Union's endowment. The blue line represents actual percentages, while the red line indicates the time trend.

Figure 1
Investment Management and Incentive Fees as Percentage of Endowment



[9] See Sharpe, William F., "The Sharpe Ratio," *Journal of Portfolio Management*, 1994, pp. 49-58. For a quick reference, and the above quote, see, Wikipedia.
[10] See appendix I, especially section A, for details of what we mean by "high".

Note that there is no trend in "underperformance". So, while investment and incentive fees as a percentage of the endowment show an upward trend, the investment performance of the endowment has remained below par. (See also the *Fees(%)* column in Table 1 on page 2.)

Therefore, Union's investment performance, as compared to an S& P 500 index fund, analyzed for the 14-year period, 2006-19, is superior neither in terms of average annual rates of return, nor in terms of risk-return considerations. Moreover, investment management and incentive fees, as a percentage of the endowment size, have been increasing, while performance of investment managers has shown no upward trend.

Conclusions

Our computations and conclusions are based on publicly available data. We did not have access to the deliberations of the Board of Trustees investment committee, however. Therefore, given these limitations, our results should be regarded as tentative and suggestive, rather than definitive. Nonetheless, given the large magnitude of investment management and incentive fees—average annual $6.5 million; $10.6 million for 2019--and what appears to be sub-par performance of the College's investment managers, we think that a careful examination of the College's investment strategy could potentially save the College millions of dollars per year. Just to give an example of the orders of magnitude: the College need not have "paused" the 11% contribution to its employees' pension funds. If, starting from 2006 through 2019, Union had simply invested its endowment in S&P 500 index funds (as, effectively, recommended by AAUP, and many others—see footnote 7) and saved the investment management fees every year, and invested those investment management fees in S&P 500 as well, it would have accumulated $189 million by the end of 2019 on top of its endowment. That is approximately 34 times what is needed to fund the "paused" retirement contribution.[11] Even if the College had paid only 10% less on its annual investment management fees, the savings would have been $18.9 million; again, more than enough to fund the "paused" 11% contribution to retirement. Indeed, with the money left over ($18.9 - $5.5 = $13.40 million), the College could have invested in the faculty and its future.

We find no plausible explanation for the trend increase in investment management fees (see Figure 1 on page 4), especially given the fact that the College's investment performance, compared to our benchmark, appears to have deteriorated in the past five years (see the last two rows of Table 1 on page 2).

If the College's investment performance has, in fact, been considered as satisfactory by the President and the Board of Trustees, then it would be beneficial to the College community's morale to know the metrics by which the investment management and incentive fees pass the cost-benefit test.

It might be argued that, as compared with the Board's own chosen sample of "peer" institutions, Union's rate of return on endowment has been high. This might be one way to justify high investment management and incentive fees. However, the evidence presented in this report demonstrates that with zero fees Union would have done better. For the sake of the financial sustainability and health of the College, and its ability to invest in its human capital, should the Board not consider alternative investment strategies for the College endowment?

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[11] All calculations for this report are available from the author. To arrive at the figure of $189 million, we made the very conservative assumption that the College's investment performance, for the period 2006-2019, was **not** inferior to our S&P 500 index fund. Rather, we assumed that it was as good as that index fund. On a separate technical issue, we are aware that calendar years and financial years are not co-terminus. Our results will remain substantially the same if the relevant adjustments were to be made.

Appendix I: Benchmarking Union's Investment Management Fees

A. Consider this study. Note that under "**Group 1: The Normal Nine**", the "mean" for investment management fees, as a percentage of endowment, is 1.43%. For the comparable period for Union (2013-2015), the "mean" is 1.87%, which is *higher* even than the *maximum* of 1.76% in the **Group 1** table. It should be noted that even seemingly small differences among these percentages (e.g., 1.87 – 1.43 = 0.44) translate to millions of dollars. For example, the cumulative savings in investment management and incentive fees, only for these three years, would have been $5.4 million if Union had paid 1.43% annually.

B. We ran the investment management fee numbers by 6 independent experts/scholars and solicited their assessment.[12] Here are their comments, made independently of one another, on Union's investment management fees:

- "Atrocious." *A senior financial analyst in NYC.*
- "To emphasize this point and illustrate how punitive the fees are for the endowment …." *A financial analyst in NYC.*
- "The investment management fees are indeed substantial." *A professor of accounting.*
- "A 2% fee for a 6.5% rate of return seems exceedingly high." *A professor of economics.*
- "We got lower returns for more fees in 2018." *A professor of economics.*
- "I was shocked to see the 2% fee range when I looked at the numbers." *A professor of economics.*

[12] We are not entering Section B into evidence. Rather, we report these comments for the sake of the transparency of our methodology. The author has complete confidence in the integrity and expertise of these consultants.

Appendix II. Discrepancies between "investment management fees (<u>including any incentive fees</u>)" as reported by the KPMG audits, and "investment management fees" as reported to the IRS on form 990

Years	***Fees KPMG***	***Fees IRS 990***	***Discrepancy***	***Fees KPMG***	***Fees IRS***
	millions of $	***millions of $***	***millions of $***	***%***	***%***
2008	7.3	1.1	6.3	1.83	0.26
2009	3.2	1.2	2.1	1.11	0.41
2010	4.9	1.1	3.7	1.63	0.38
2011	6.9	1.1	5.7	2.09	0.34
2012	5.6	1.0	4.6	1.74	0.32
2013	6.2	1.0	5.2	1.73	0.28
2014	8.6	1.1	7.4	2.06	0.27
2015	8.0	1.4	6.6	1.81	0.31
2016	5.6	1.5	4.1	1.44	0.39
2017	6.9	2.1	4.8	1.62	0.50
Averages	***6.3***	***1.3***	***5.0***	***1.71***	***0.35***

*Notes: "**Fees KPMG**" denotes "investment management fees (including any incentive fees)" as reported by Union's annual audits done by KPMG. "**Fees IRS 990**" denotes "investment management fees" as reported on annual IRS form 990, Part IX, section 11.f. The percentages in the last two columns are the respective fees as a percentage of the endowment. The period covered is determined by the availability of both data sources (KPMG and IRS).*

There are substantial discrepancies between the way Union reports "investment management fees" on its annual IRS-990 forms vs. in the annual audits done by KPMG. The IRS figures are significantly lower than the KPMG figures. After some consultations with a tax expert, the following has transpired:

1. The discrepancy is some cause for concern. The tax expert whom we consulted states that if Union did have a Chief Investment Officer (as many colleges and universities do), there would be no discrepancy between the IRS numbers and the audit numbers. Because in that case Union would have to report to the IRS *any and all* investment management fees and incentive fees, due to the fact the CIO would be an employee of Union. The IRS instructions are silent on the subject of "incentive fees" paid to *outside* contractors for portfolio management.

2. There is an even more concerning issue. The "investment management fees" reported to the IRS are "reasonable" according to a senior financial analyst whom we consulted. They are in the 0.40% (40 basis points) ballpark of the endowment value. Whereas, the "incentive fees" (as distinct from "investment management fees") are not only high; they fall into some kind of opaque zone.

Based on the above, and keeping in mind the fiduciary responsibilities of the Board of Trustees, some logical questions arise: How does one explain the above-mentioned discrepancies? And what is the explanation for the large "incentive fees", as distinct from "investment management fees"? Also, wouldn't it be more in keeping with Union's commitment to greater transparency in financial management to have a CIO?