MISSING THE MARK

How Hedge Fund Investments at University of California Shortchange Students, Staff and California Taxpayers

1000 11 FE2	
"Using all of the publicly-available information about U	IC's hedge fund investment strategy since its
inception, this study documents that is has provided alm	ost no hedging in bad times and below-market
returns in good times. Moreover, this complete lack of pro	omised hedging performance is compounded by
enormous fees which come at the exper	nse of the UC's stakeholders."
— Thomas Gilbert, Assistant Professor of Fig.	nance & Business Economics at the
University of Washington's Fost	ter School of Business.
<u></u>	
"High fees and disappointing returns are all too com	nmon for institutional investors in a largely
unregulated marketplace. There needs to be much r	more transparency and public engagement
around the merits of these products, in particular	r, at public institutions where students,
staff and taxpayers wind up footing th	ne bill when they fall short."
 Alexis Goldstein, Senior Policy Analyst, 	Americans For Financial Reform

CONTENTS

▶ EXECUTIVE SUMMARY	2
▶ INTRODUCTION	5
PART 1: Hedge Funds: An Overview	7
What is a Hedge Fund?	7
The Cost of 'Two and Twenty'	7
PART 2: UC's Hedge Fund Investments: Origins & Growth	9
Introduction to UC Investments	9
Controversial Beginnings	9
Growth of Hedge Fund Investments at UC	0
PART 3: Estimating the Cost to UC Stakeholders	1
The Cost in Estimated Fees	1
Estimating Fees for Fiscal Year 2014-15	1
Total Estimated Hedge Fund Fees Since 2003	2
Estimating the Cost of Lower Net Earnings	2
Lower Earnings for the General Endowment Plan (GEP): 2003 to 2015 1	2
Lower Earnings for UC Retirement Plan (UCRP): 2008 to 20151	3
What's Been Lost: A Comparison of Returns & Fees	4
PART 4: Evaluating UC's Hedge Fund Experiment: Promise versus Reality	5
The False Promise of Absolute Returns	5
Disappointing Returns1	5
The Myth of Uncorrelated Returns1	6
Shifting Benchmarks & Lowering Expectations	7
PART 5: Conclusion and Recommendations	9
ENDNOTES:	1

EXECUTIVE SUMMARY

he Great Recession of 2008 had an unprecedented impact on the funding for higher education, especially for public institutions reliant on taxpayer dollars. At the University of California (UC), deep cuts in state support led to extraordinary austerity measures: the slashing of educational programs and student support services, staff furloughs and layoffs, benefit cuts, and unparalleled student tuition hikes.

While the collapse of state funding brought the budgetary crisis to the surface, underlying pressures were already afoot. These include excessive growth in the ranks of UC administrators vis-à-vis faculty and other frontline staff, as well as growth in capital spending at the expense of operations. Today, these trends provide a more complete and accurate explanation for the ensuing programmatic cuts, benefit reductions and tuition hikes at the UC.

Less consideration has been given to a university's investment policies, and how such policies may contribute to its underlying financial pressures. This paper attempts to address this gap.

Over the past decade, hedge fund managers have persuaded institutions to invest billions of dollars from public pension plans and university endowments. An entire industry has sold hedge funds on the twin promises of superior returns and downside protection. In exchange for high fees, hedge funds are said to target consistent, positive returns not tied to the whims of the stock market.

A lack of regulation and disclosure has insulated hedge funds from scrutiny by independent observers. Yet, a mounting body of evidence is challenging the promises on which hedge funds have been sold. Over the past decade, hedge fund performance has declined dramatically, and their effectiveness at

protecting investors against market losses has fallen short of expectations.

Growing public concern is increasingly focused on hedge funds and their fees, particularly for public pension plans with a fiduciary responsibility to both their beneficiaries and taxpayers. A columnist for *Bloomberg View* bluntly states that hedge funds' inflated return expectations are "creating an even bigger shortfall in the future for pension funds. The sooner they figure this out, the better off they will be."²

In 2014, the California Public Employees' Retirement System's (CalPERS) announced it would divest its \$4 billion stake in hedge funds (slightly more than 1 percent of total assets) because they were too complicated and expensive. When the nation's largest pension plan—looked to "as a model because of its size and the sophistication of its investments" — divests from hedge funds, what should we expect for similarly-situated public institutions?

This paper seeks to address this question by putting the spotlight on another large California institutional investor, the University of California. The UC began investing in hedge funds in 2003, and today, invests over \$6 billion in hedge funds through its pension plan, working capital, and centrally-managed general endowment funds.

In our analysis, we review the entire history of UC's hedge fund investments over 12 years to estimate the fees UC paid out to hedge fund managers, and the cost of lower returns associated with these investments. Since neither the University of California, nor the hedge funds in which it invests, publicly disclose these fees, we estimate these costs by applying a fee structure even more conservative than the industry's standard '2 & 20' structure.

Our analysis is limited to hedge fund investments in UC's \$55 billion Retirement Plan (UCRP) and centrally-managed \$8.9 billion General Endowment Pool (GEP). Had we expanded our analysis to include the additional \$1.9 billion invested in hedge funds through UC's working capital fund (Total Return Investment Program) or local campus foundations, the investment totals and associated costs would be even greater.⁴

The main findings of our analysis are:

By conservative estimates, UC has paid hedge fund managers approximately \$1 billion in management and performance fees through UCRP and GEP over the course of 12 years. All told, UC has paid hedge

UC Has Paid \$1 Billion in Hedge Fund Fees Alone:

the course of 12 years. All told, UC has paid hedge fund managers \$1 dollar for every \$2 dollars in net returns. If UC had instead invested the same amount of money in more traditional asset classes, it could have saved an estimated \$950 million in fees during the same period.

Lower Net Returns Have Cost UC \$783 Million:

Steep hedge fund fees also lowered UC's net investment returns. After the extraction of fees from gross returns, hedge fund investments underperformed compared to net returns for GEP in 10 out of 12 years, and for UCRP in five (5) out of seven (7) years. If instead hedge fund assets had been invested alongside the other assets in the GEP and UCRP's portfolios, UC would have earned an estimated \$783 million in higher returns.

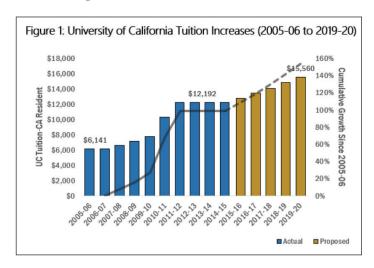
▶ Hedge Fund Returns Fall Short of Expectations: UC's main hedge fund program was partly sold on the expectation of generating returns "close to common stocks," yet over the last 12 years, the S&P 500 Index has outperformed UC's hedge fund investments by 52 percent.

▶ Hedge Funds Have Not Provided Adequate
Protection Against Market Losses: While hedge

funds promise greater portfolio stability and diversification by providing returns "uncorrelated" with the whims of the market, fiscal year returns reveal a surprisingly strong positive correlation (0.87) between UC's hedge funds and the market—in bear and bull markets alike. UC has paid upwards of a billion dollars in fees for returns that largely mirror the trends in the stock market.¹

▶ Instead of Changing Investment Strategy, UC Changed Benchmarks: Even though UC's hedge fund investments fell well short of their original expectations, the UC Board of Regents responded by lowering the benchmarks against which these investments are compared.

Our findings raise the question: Could UC's recent austerity measures have been minimized if it were not funneling hundreds of millions of dollars in fees each year to hedge fund managers? And, looking forward, could UC avoid a new round of proposed staff cuts slated for this year or "predictable" student tuition increases planned for 2017?⁵



We believe it can. But it requires that the UC Board of Regents review its hedge fund investment policies with greater public accountability and stakeholder engagement. The UC Regents govern the University's investment policy, and therefore, they decide whether or not to invest in hedge funds. II

 $^{^{}m I}$ In fact, 75 percent of UC's hedge fund program returns can be explained by movements of the S&P 500 Index.

^{II} The Regents determine general investment policy, such as whether or not to invest in hedge funds, and, if so, what percentage of the total fund to allocate to this investment strategy. The University's Office of the Chief Investment Officer (CIO), on the other hand, is responsible for specific investment decisions, such as choosing and negotiating contract terms with individual hedge fund managers.

While our calculations are intended to be informed, conservative estimates, the aim of this report is to spur a certain level of transparency that exposes the total cost of hedge fund fees and their drag on investment returns. Given the complexity of hedge fund investments and their associated costs, greater transparency would enable UC to make informed investment decisions that best serve the interests of UC students, staff and California taxpayers.

More transparency is particularly urgent in today's lowreturn environment where every dollar lost in excessive charges is a dollar lost in returns.⁶ Just last year, UC's pension plan paid out an estimated \$97 million in hedge fund fees. This is slightly more than what UC expects to receive from the State in 2016 to help pay down the plan's unfunded liability—in exchange for the second round of pension cuts at UC since 2013.

Ultimately, decisions around UC's investment policies lie with the UC Regents, who have a fiduciary duty, not only to their plans' beneficiaries, but also to California taxpayers. We recommend the UC Board of Regents and University Administrators do the following:

- 1. Conduct an asset allocation review to examine less costly and more effective diversification approaches. This includes a complete public analysis of past net performance of hedge fund investments, as well as a comparison of low-fee alternatives.
- **2. Require full and public fee disclosure from hedge fund managers and consultants.** This includes complete disclosure of historical investment management and incentive fees captured by hedge funds since 2003.
- **3.** Work with stakeholders on state legislation to ensure more transparency around fees from firms doing business with public pension plans. In response to State of California Treasurer John Chiang's call for more fee transparency, UC should work closely with trustees of other public pension plans on legislation that requires more disclosure and transparency from hedge funds and private equity firms.

The status quo comes with a high price tag. Each year the UC Regents fail to act, hundreds of millions of dollars may be squandered. Without greater transparency that captures the true cost of investment fees, the possibility of more austerity measures—including cuts to faculty and staff benefits, as well as tuition increases—could invite irreparable damage to the University's ability to recruit top staff or fulfill its missions of access and affordability for California students.

INTRODUCTION

ver the past decade, hedge fund managers have persuaded institutions to invest billions of dollars from public pension plans and university endowments. An entire industry of financial consultants, many with vested interests in promoting the growth of the hedge fund industry, have sold hedge fund investments with the twin promises of superior returns and downside protection.

In exchange for high management and performance fees, hedge funds target consistent, positive returns not tied to the whims of the market. By seeking to generate returns with a low correlation to other assets, hedge fund managers claim that these "alternative" investment vehicles can help diversify investors' portfolios.⁷

The industry's sales efforts have paid off handsomely. Today, hedge funds have grown into a \$2.87 trillion market,⁸ with sixty-six (66) percent of global assets coming from institutional investors such as pension funds, and university and nonprofit endowments.⁹ Yet, despite the industry's growth, hedge funds remain largely unregulated by the Securities and Exchange Commission (SEC), the federal agency that oversees securities trading and US stock exchanges.

This lack of regulation and disclosure has insulated hedge funds from scrutiny by independent observers.

The tides are shifting. A mounting body of evidence is challenging the very promises on which hedge funds have been sold. Over the past decade, hedge fund performance has declined dramatically. A tremendous influx of money into the industry has crowded opportunities to exploit "market inefficiencies" and realize "excess" returns. The net return to investors, after deducting the high cost of fees, has been mediocre, if not dismal.

Hedge funds are also failing to effectively protect investors against stock market losses. Before the 2008 financial crisis, hedge funds were sold on the premise of generating "absolute" (positive) returns in all market conditions. Failing to realize this goal, many hedge fund advocates shifted their pitch to "uncorrelated returns." Yet, in recent years, hedge funds have become significantly more correlated with the overall stock market, and less likely "to perform as a hedge against a balanced portfolio's other holdings."

Today, growing public concern is focusing attention on hedge funds and their fees. This is particularly true for public pension plans with a fiduciary responsibility to both their beneficiaries and taxpayers. It turns out, over the past decade, most hedge fund investors would have been much better served investing in simpler, traditional, low-cost funds.¹³

This paper puts the spotlight on the University of California, one of the largest public university systems in the US, with more than 238,000 students and 190,000 employees. UC began investing in hedge funds in 2003, and today, it invests \$6 billion in approximately 35 hedge funds through its pension plan, working capital, and centrally-managed general endowment funds. IS

In our analysis, we review 12 years of investment data, the entire history of UC's hedge fund investments, to evaluate the promise versus the reality of UC's hedge fund program. Ultimately, we seek to answer the question, "Would the University of California's pension plan and endowment funds have fared better had UC administrators not invested in hedge funds?" We believe they would have.

The report is structured in five parts:

PART 1: Hedge Funds: A Brief Overview

gives an overview of what a hedge fund is and of the industry's typical fee structure.

PART 2: UC's Hedge Fund Program

looks at the origins of the University of California's decision to invest in hedge funds.

PART 3: The Cost to UC Stakeholders

estimates the fees generated by hedge fund managers since 2003, and evaluates 12 years of investment data to estimate how UC's pension and endowment funds would have performed with simpler, less expensive traditional investments.

PART 4: Evaluating UC's Hedge Fund Experiment: Promise versus Reality

examines the promises on which consultants originally sold hedge fund investments to the UC Board of Regents, how those promises measure up to actual performance, and how UC responded to disappointing returns by lowering performance standards.

PART 5: Conclusion & Recommendations

calls on UC's Board of Regents and administrators to review their hedge fund holdings, and to demand full and public fee disclosure from hedge fund managers.

HEDGE FUNDS: AN OVERVIEW



WHAT IS A HEDGE FUND?

edge funds are private, alternative investment vehicles typically available only to "sophisticated" investors, such as large institutions (pension funds or endowment plans) or very wealthy individuals. As their name suggests, hedge funds seek to increase gains and offset losses by 'hedging' their investments using a variety of sophisticated investment strategies not available to more traditional asset classes.¹⁶

Like mutual funds, hedge funds are run by professional managers who invest money on behalf of their clients in exchange for a fee. The key differences arise from how these funds are structured and regulated. Virtually every aspect of a mutual fund's structure and operation is shaped by a series of regulations enacted in response to the Wall Street Crash of 1929.¹⁷ In contrast, hedge funds are structured as private partnerships, and are limited to a small number of investors, which enables them to avoid many of these rules.

Hedge fund investments are typically managed much more aggressively, and employ significant leverage (or borrowing) to take on more speculative positions. Hedge fund managers place bets not only on those securities they expect to gain in value, but also on those they expect to decline. While expected winners may be purchased outright (known as taking a "long" position), expected losers are sold "short."

Although the use of leverage, short-selling, and other hedge fund techniques can be extremely risky, these tools provide opportunities to make money even in a down market. By combining short and long positions, these funds seek to "hedge" market risk.

Hedge funds have been sold on the promise of delivering "positive returns in up or down equity markets." While mutual fund performance is usually judged "relative" to a benchmark (such as the S&P 500 Index), hedge funds target "absolute" (i.e. consistent, positive) returns with "low correlation to other asset classes." Since the 2008 market crash, which forced nearly all hedge funds into the red, the industry sales pitch shifted to simply "reduced volatility."

Either way, while the promise of "downside protection" has proven to be a clear marketing success, actual hedge fund performance has arguably missed its mark.

The Cost of 'Two and Twenty'

Hedge funds are well known for their high fees. While hedge fund managers may not publicly disclose what they charge investors, the industry standard is referred to as the '2 & 20' fee structure.

This '2 & 20' structure is a flat management fee of two (2) percent of all assets under management (AUM), plus an additional performance fee of 20 percent on gross investment returns. This generous payment structure guarantees hedge fund managers a tidy profit irrespective of the fund's actual performance, and true windfalls when successful.

In the absence of greater transparency, applying the standard '2 & 20' industry fee structure offers a reasonable starting point for estimating the direct cost of hedge fund investments.

Let's compare the cost of investing \$1 billion in hedge funds versus traditional stocks for an investment that generates a gross return of 10 percent, or $$100 \text{ million.}^{\text{IV}}$$

A hedge fund managing \$1 billion in assets for a large institutional investor will earn a guaranteed \$20 million each year in management fees. In total, the investment will cost the investor \$36 million. In other words, a gross return of \$100 million generates a net investment return of \$64 million for the investor.

In contrast, for a large institutional investor, the cost of investing in more traditional assets, such as stocks or bonds, is unlikely to exceed 0.40 percent (or 40 basis points) of AUM.²¹ If the \$1 billion were instead invested in traditional assets, the investor would have paid only \$4 million in fees, or significantly less.

Investment of \$1 Billion with a Gross Return of 10%							
If Invested in Management Fees Performance Fees Total Fees							
Hedge Funds	\$20M	\$16M	\$36M				
Stocks & Bonds	\$4M		\$4M				

IIITo protect investors, hedge fund contracts commonly include a high-water mark provision. A high-water mark represents the highest peak in value of an account, and is used to calculate managers' performance fees. No performance fee is paid in a subsequent year if the fund does not exceed this value. With such a provision, a hedge fund manager who records an investment loss in one year would not receive a performance fee in the next unless the value of the fund exceeds the high-water mark. Hedge fund contracts may also stipulate a preset 'hurdle' rate, or a threshold return that needs to be exceeded before the performance fee is paid. While high-water mark provisions are common, hurdle rate provisions do not appear to be the norm. In addition to the fees stipulated in the contract, with little transparency around internal expenses, hedge fund investors may experience an assortment of "unseen costs." Even "sophisticated" investors often face significant challenges evaluating the full costs of a hedge fund investment.

 $^{^{}m IV}$ Gross investment return is the return generated by the investment before the extraction of either the management or performance fees.

^VThis example does not account for a possible hurdle rate provision. While not uncommon, such provisions do not appear to be the norm. We intend simply to highlight the cost disparity between investing in a typical hedge fund versus more traditional asset classes.

VI Therefore, a 10 percent gross return only generates a 6.4 percent net return for the investor.

UC's HEDGE FUND INVESTMENTS: ORIGINS & GROWTH



Introduction to UC Investments

he University of California system manages investments totaling more than \$100 billion. These include pension and savings funds for UC staff and retirees, working capital funds, and thousands of individual endowments. The Regents of the University of California, the 26-member governing body of the UC system, are the fiduciaries of its core funds: the UC Retirement Plan (UCRP), the General Endowment Pool (GEP), and the working capital pools. VII

UCRP is managed on behalf of approximately 220,000 current and retired employees and contains \$55 billion in assets.²² The \$8.9 billion General Endowment Pool, the primary investment vehicle for UC's endowed gift funds, consists of over 5,000 individual endowments that support the University's mission.²³

For each of these core funds, the Regents determine general investment policy, such as whether or not to invest in hedge funds, and, if so, what percentage to allocate. The University's Office of the Chief Investment Officer (CIO), on the other hand, is responsible for specific investment decisions, such as choosing and negotiating contract terms with individual hedge funds.

Controversial Beginnings

In 2002, UC began investing in hedge funds on the recommendation of investment consultant Wilshire Associates, a firm with controversial ties to former UC Regent Gerald L. Parsky. Regent Parsky, the multimillionaire founder of the Los Angeles investment firm Aurora Capital Group, had recently been elected Chair of UC's Committee on Investments.²⁴ The decision to invest in hedge funds was part of a broader overhaul of UC's investment policy under his leadership.

Up until that time, UC investments had been managed by an internal team of skilled career employees with near autonomy from the Regents. ²⁵ Patricia Small, a 29-year veteran of the Regent's investment office, had served as Treasurer for five years. During her tenure, she oversaw a period of investment performance that consistently outperformed peer institutions. ²⁶ VIII

The efforts to reorient UC's investment approach created friction between her office and the UC Regents. And, in 2000, Small was pressured to resign. Regent Parsky was widely viewed as the driving force behind her ouster.²⁷

In June 2001, the UC Regents hired Davis Russ as the University's new Treasurer. Russ moved rapidly to outsource a substantial portion of UC's pension and endowment assets.²⁸ Less than one year into his tenure, UC began investing

VII Short Term Investment Pool (STIP) and Total Return Investment Pool (TRIP) funds are working capital pools available to campuses to maximize returns on their short- and long-term capital needs, respectively.

VIII Over a period of 10 years ending June 30, 2000, UCRP generated compounded annual returns of 15.6 percent, easily beating the 13.5 percent balanced fund median, and placing UC's pension plan well above its peers.

in hedge funds,²⁹ and in August 2002, Russ laid off all of UC's in-house equity traders.³⁰ As of 2014, 80 percent of all of UC's pension assets and 91 percent of its endowment assets were still managed externally.^{31 IX}

UC's mediocre investment performance since this restructuring has generated substantial controversy. In 2014, a Center for Investigative Reporting (CIR) report concluded that UC's endowment returns over the last decade had "ranked last" among the largest college funds. James Ryans, a chartered financial analyst and doctoral candidate at UC Berkeley's Haas School of Business who analyzed UC's endowment returns for CIR, concluded that UC's investment in hedge funds was a drag on the fund's overall performance.³²

The Growth of UC's "Absolute Return" Hedge Fund Program — 2003 to 2015

End of Fiscal	Market V	alue for Hedge Fu	nd Investments (in Millions)
Year (June 30)	Endowment (GEP)	Pension Working (UCRP) Capital (TRIP)		Total Assets in Hedge Funds ^{XI}
2003	\$106	-	-	\$106
2004	\$250	-	-	\$250
2005	\$450	-	-	\$450
2006	\$519	-	-	\$519
2007	\$1,063	-	-	\$1,063
2008	\$1,317	\$645	-	\$1,962
2009	\$1,212	\$1,907	-	\$3,119
2010	\$1,432	\$2,056	-	\$3,488
2011	\$1,518	\$2,516	-	\$4,034
2012	\$1,548	\$2,482	-	\$4,030
2013	\$1,617	\$2,489	-	\$4,106
2014	\$1,870	\$2,960	\$766	\$5,596
2015	\$2,108	\$3,401	\$753	\$6,262

Growth of Hedge Fund Investments at UC

The UC Board of Regents formally adopted a new investment policy in 2002 to invest a percentage of its assets in hedge funds. The practice began with funds from UC's General Endowment Pool (GEP). In 2007, the Regents expanded the practice to its 220,000-person staff pension plan (UCRP), and then, in 2013, to its working capital pool (TRIP).

The University's principal hedge fund program is known as "Absolute Return," reflecting the program's original premise that its hedge fund investments would produce "absolute" ("consistent and positive") returns.^X

As of June 30, 2015, the Regents have moved more than \$6.2 billion into hedge funds. This includes 24 percent of the general endowment fund, 6 percent of the employee pension plan, and 10 percent of the TRIP working capital pool.³³

It is worth noting that UC's allocation in hedge fund investments increased by almost 40 percent immediately *after* the market crash of 2008. Investing in "downside protection" following a steep drop suggests reactive behavior not expected of a sophisticated, long-term investor.

^{IX}It should be noted that UC's new Chief Investment Officer, Jagdeep Singh Baccher, reportedly reduced the number of external equity managers from 80 to 30 in 2015.

^xIn 2010, UC initiated a second hedge fund program titled "Cross Asset Class" (CAC). While the CAC program still exists in policy, as of 2015, all program holdings have been "transferred to appropriate asset classes or liquidated."

XIFor simplicity, only hedge fund assets in UC's "Absolute Return" program are reflected in this table. Assets in UC's "Cross Asset Class" program, opened in 2010 and closed in 2015, are not included.

ESTIMATING THE COST TO UC STAKEHOLDERS



ext we estimate the real financial cost of UC's investment in hedge funds for UC stakeholders and California taxpayers since 2003.

To identify those costs, we ask how much:

- ▶ UC paid out in estimated fees to hedge fund managers;
- UC likely lost in returns from its investments in hedge funds; and
- UC would have earned had it not invested in hedge funds.

The Cost in Estimated Fees

Neither the University of California, nor the hedge funds in which it invests, publically disclose hedge fund investment fees. As a work around, it is reasonable to estimate these costs by applying the industry standard '2 & 20' fee structure to the aggregate investment asset and net return values reported each year by the University of California.

For our analysis, in recognition that UC may negotiate more favorable terms because of its size, we err on the side of caution and assume a more conservative fee structure: 1.8 percent of AUM and 18 percent of gross returns. XII

While calculating the 1.8 percent management fee is straightforward, estimating an 18 percent performance fee requires first calculating a gross return (to reflect the rate of return before the extraction of fees) from the net return values reported in UC's financial documents.³⁴ Our methodology mirrors that used by the authors of the recent "All That Glitters Is Not Gold" report published by the American Federation of Teachers (AFT) and The Roosevelt Institute.³⁵

In our analysis, we only estimate the fees associated with UC's hedge fund investments in UCRP and GEP. If we were to expand our analysis to include the additional \$1.9 billion invested in hedge funds through UC's working capital fund (TRIP) or local campus foundations, the costs would be greater. XIII

Ultimately, our calculations are intended to be an informed, conservative estimate. Only UC administrators and their consultants know the specific contract terms defining management fees, hurdle rates, high water marks, and other hedge fund investment costs, and should be responsible for calculating the total cost of fees captured by their managers. This report is an effort to spur this level of transparency given the complexity and high fees associated with hedge fund investments.

XII Using a more conservative fee structure also counterbalances possible preset 'hurdle' rates stipulated in UC's hedge fund contracts. A hurdle rate is the threshold beyond which a performance fee is paid.

XIII As of June 30, 2015, local UC campus foundations independently invested another \$1.16 billion in hedge funds. The UC Total Return Investment Pool (TRIP) invested another \$753 million.

Estimating Fees for Fiscal Year 2014-15

In UC's most recent fiscal year, the Absolute Return program returned 6.7 percent. The \$4.8 billion UC invested in hedge funds through GEP and UCRP^{XIV} generated an estimated total of \$158 million in fees for hedge fund managers: \$87 million in management fees and \$72 million in performance fees.³⁶

UC's pension plan specifically paid out an estimated \$97 million in fees to hedge fund managers last year. This is slightly more than what UC administrators expect to receive from the State of California in 2016 to help pay down the plan's unfunded liability. In a deal brokered between UC President Janet Napolitano and Governor Jerry Brown, UC is slated to receive \$96 million in exchange for the second round of pension "reform" [benefit cuts] undertaken by the University of California since 2013.

Hefty fees naturally eat into gross returns generated by hedge fund investments. To arrive at a net return of 6.7 percent, UC's hedge fund investments would have earned a gross return of 9.97 percent before the extraction of management and performance fees.

By calculating the difference between gross and net returns, we can estimate the division of profits between the investor (UC) and hedge fund managers. In fiscal year 2015, UC's investment in hedge funds generated \$481 million in gross profits, XV yet returned just \$323 million to UC. All told, we estimate that hedge fund managers took home a full third (33 percent) of all profits generated from UC's hedge fund investments.

Estimated '1.8 & 18' Fees, 2014-15								
(In Millions) GEP UCRP Total								
Management Fee	\$34	\$53	\$87					
Performance Fee	\$28	\$44	\$72					
Total Estimated Fees	\$61	\$97	\$158					

Note: Calculations are based on asset values reported June 30, 2014 and rate of return values reported June 30, 2015.

Estimated Hedge Fund Gross Returns, Net Returns & Fees, 2014-15								
(In Millions) GEP UCRP Total								
Gross Returns (Profits)	\$186	\$295	\$481					
Net Return to Investor	\$125	\$198	\$323					
Fees to Hedge Funds \$61 \$97 \$158								
Estimated Fees as % of Gross Returns/Profits 33%								

Note: Calculations are based on asset values reported June 30, 2014 and rate of return values reported June 30, 2015.

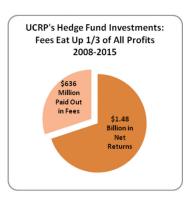
Total Estimated Hedge Fund Fees Since 2003

Using the same conservative methodology, over the past 12 years, we estimate the University of California

retirement and endowment funds paid more than \$1 billion in hedge fund fees. XVI Broken down by fund, UC's centrally-managed endowment fund paid \$445 million in fees to hedge fund managers, while UC pensioners paid another \$636 million. 37

Altogether, we estimate that the University of California paid approximately one dollar in hedge fund fees for every two dollars in net returns.





XIV The \$4.8 billion is the money UC invested in hedge funds through its GEP and UCRP funds at the beginning of FY 2014-15. It does not include the \$766 million invested in hedge funds through the working capital TRIP fund or the fees associated with liquidating the Cross-Asset Class program. For unexplained reasons, Absolute Return program assets in TRIP reported a 0% return.

xvA hedge fund's gross return is the investment return generated before the extraction of either management or performance fees. Gross return can also be thought of as the gross profit associated with an investment during a specified time period.

XVI The estimate includes both the "Absolute Return" and the now defunct "Cross-Asset Class" hedge fund programs.

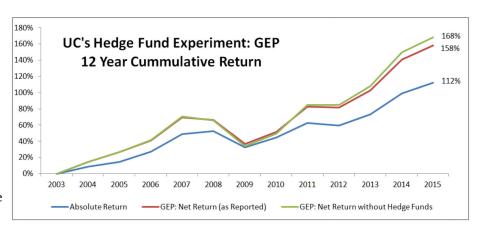
Estimating the Cost of Lower Net Earnings

Steep hedge fund fees lower the University of California's overall endowment and pension returns. The extraction of fees erodes net investment returns. UC's hedge fund investments underperformed the overall General Endowment Pool (GEP) portfolio in 10 out of 12 years, and the pension fund in five (5) out of seven (7) years—for a total cost of \$783 million dollars.

Lower Earnings for the General Endowment Plan (GEP): 2003 to 2015

Over 12 years, the University's Absolute Return hedge fund program has yielded a cumulative 112 percent in net returns. In contrast, the total GEP fund returned 158 percent. Low hedge fund returns dragged down the entire portfolio. If we were to exclude UC's hedge fund investments in GEP altogether, the GEP would have returned 168 percent.³⁸

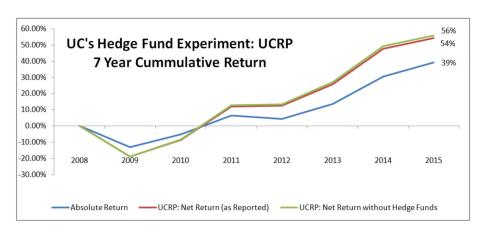
Stated in dollars, the GEP's hedge fund investments are estimated to have returned a total of \$841 million since the beginning of UC's hedge fund program. If these assets had instead been invested alongside the other assets in the fund's total portfolio, the same principal would have returned \$1.15 billion. In other words, since 2003, underperformance by hedge funds has cost UC's core endowment fund \$305 million.³⁹



Lower Earnings for UC Retirement Plan (UCRP): 2008 to 2015

Since 2008, when UC began investing pension plan assets in hedge funds, these investments have generated a cumulative return of 39 percent. During this same time period, overall UCRP fund performance was 54 percent. If we were to exclude hedge fund investments altogether, the pension fund would have returned 56 percent.⁴⁰

UCRP investments in hedge funds returned \$1.5 billion over seven years. If UC had instead invested the same amount of money alongside the other assets in the fund's total portfolio, we estimate that the pension plan would have returned nearly \$2 billion for UC staff and retirees. In other words, over the last seven years, UCRP's hedge fund investments have underperformed UC's other investments by an



estimated \$478 million. ⁴¹ This amounts to more than the \$436 million UC anticipates getting from the State Legislature over the course of three years to help pay down the pension plan's unfunded liability.

What's Been Lost: A Comparison of Returns & Fees

To truly get a full accounting of what has been lost, we should consider the difference in fees had UC not invested in hedge funds. The purpose of the charts below is to compare the fees charged by hedge fund managers (the estimated '1.8 & 18' fee structure) versus those of managers of more traditional asset classes, which we estimate to be 0.40 percent of assets under management.

Our assumption for the cost of traditional assets was chosen to provide consistency with the report, "All That Glitters Is Not Gold." Forty (40) basis points, or 0.40 percent, was selected to approximate the average fees paid by US pension funds and assumes no hedge fund fees.

It is worth noting that for an institution as large as the University of California, this number is likely too high. In fact, in the early 2000's, when the UC investment office still managed all stock and bond purchases internally, UCRP investment management and administrative expenses cost only "0.04% of average annual market value,"

or just one-tenth the amount assumed in this analysis. 42 Even individual investors can match S&P 500 market returns for 0.05 percent. 43

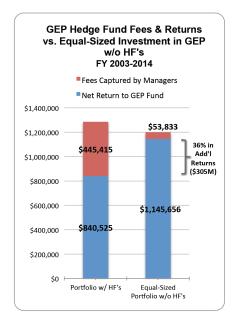
If instead of investing in hedge funds, UC had put the same money into more traditional assets classes, we estimate that over 12 years it would have paid \$392 million less in fees from its GEP fund, and \$563 million less from its pension plan—for a total savings of \$950 million.

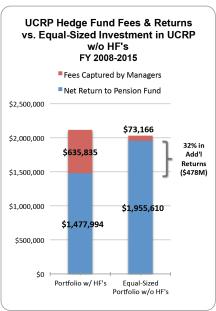
FEES (In thousands)	Invested in Hedge Funds	Invested Alongside Total Fund	Difference in Fees (\$)
GEP (2003-2015)	\$445,415	\$53,833	- \$391,582
UCRP (2008-2015)	\$635,835	\$73,166	- \$562,669
GEP & UCRP (2003-2015)	\$1,081,250	\$126,999	- \$954,251

The charts to the right show how hedge funds' high fees lower investment returns.

If instead UC had invested those same resources alongside its GEP and UCRP funds (excluding hedge funds), these investments would have generated an additional \$783 million in net returns over 12 years—a difference of 34 percent.

NET RETURNS	Invested in Hedge	Invested Alongside	Difference in	Difference in
(In thousands)	Funds	Total Fund	Returns (\$)	Returns (%)
GEP (2003-2015)	\$840,525	\$1,145,656	\$305,132	36%
UCRP (2008-2015)	\$1,477,994	\$1,955,616	\$477,616	32%
GEP & UCRP (2003-2015)	\$2,318,518	\$3,101,266	\$782,748	34%





EVALUATING UC's HEDGE FUND EXPERIMENT: PROMISE VERSUS REALITY



hen UC Regents were first considering changes to their investment strategies in the early 2000's, they were told hedge funds would provide "protection against market declines while offering returns close to common stocks." By using sophisticated investment techniques, hedge funds were said to target "consistent, positive returns" in "up or down equity markets." These "alternative" investments promised portfolio diversification and "excess returns with low correlation to other asset classes."

In brief, the UC Board of Regents were told:

- 1. Hedge funds would provide "absolute" ("consistent, positive") returns.
- 2. Hedge funds could offer returns close to common stocks.
- 3. Hedge funds would provide portfolio diversification by generating returns with low correlation to other asset classes, in particular common stocks.

Our analysis of all 12 years of UC's investment hedge fund returns punctures each of these claims. UC hedge fund performance has fallen far short of expectations.

The False Promise of Absolute Returns

A review of hedge funds' performance record quickly debunks the basic premise for which UC's hedge fund program takes its name. In mathematics, the "absolute value" of a number is always a non-negative value. Likewise, UC's "Absolute Return" program was expected to generate consistent, positive, absolute returns.

Yet, in two of the last ten years, UC's hedge fund investments still lost money. In fiscal year 2008-09, UC's Absolute Return program declined 13 percent, returning a loss of \$255 million for UC's endowment and pension funds. Although presumably no performance fees were paid out that year, ⁴⁷ UC was likely still on the hook for an estimated \$35 million in management fees.

One might argue that this loss was smaller than the 26 percent decline in stocks and the 19 percent drop in UC's pension fund. However, during this same period, US bonds—the "traditional" hedge against stock market losses—returned a positive 6 percent.⁴⁸ For a program premised on generating "absolute" returns, such a loss clearly falls far short of expectations.

In fiscal year 2011-12, the Absolute Return program again lost money, registering a negative two (-2) percent return. In contrast, the S&P 500 Stock Index generated 5.5 percent in total returns, while Barclay's US Aggregate Bond Index returned 7.5 percent.

Disappointing Returns

Hedge fund proponents also asserted that UC's Absolute Return program would generate returns "close to common stocks." When UC invested in hedge funds in 2003, Wilshire Associates forecasted an expected return of 8 percent for the Absolute Return program, just below the 8.75 percent return expected on US equity.⁴⁹

In truth, UC hedge funds have underperformed stocks by a significant margin. In the 12 years since the start of UC's Absolute Return program, hedge fund investments have returned a cumulative 112 percent, or a 6.5 percent annualized total return. In contrast, the S&P 500 Index has returned 171 percent, or 8.7 percent annually.50

In other words, in the 12 years since UC began investing in hedge funds, a similar investment in the S&P 500 Stock Index would have returned 52 percent more.

	Annualized Total Return							
	12 Year	10 Year	7 Year	5 Year	3 Years	1 Year		
tocks (S&P 500)	8.7%	7.9%	9.4%	17.3%	17.3%	7.4%		
bsolute Return	6.5%	6.4%	4.9%	8.0%	10.1%	6.7%		

The Myth of Uncorrelated Returns

In a period of market volatility, hedge funds have been sold on the promise of greater portfolio stability and diversification. They are supposed to provide returns "uncorrelated" with the whims of the market. Hedge funds take their name from the promise of "hedging" against market risk. This pitch persists today and helps explain why institutional investors, including public pension plans, continue to invest in hedge funds during a period of market uncertainty despite historically underwhelming returns.

While seductive in theory, the evidence is much less compelling. In fact, an empirical review of UC's performance data suggests that investing in traditional assets would have provided not only superior returns but also greater portfolio stability.

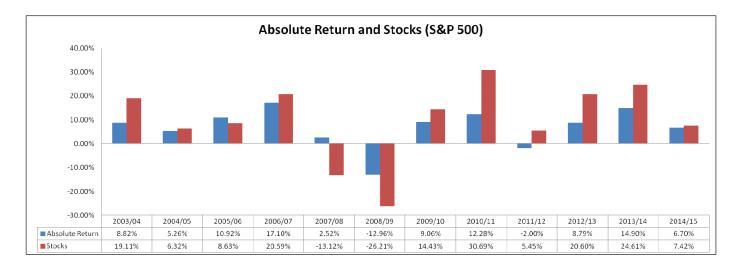
To protect against risk, investors seek to construct a diversified portfolio, with assets that do not consistently move in the same direction. Stocks and bonds have historically moved in opposite directions, and are said to have a negative correlation; when stock prices decline, bond prices rise, and vice versa. Due to this special relationship, bonds provide a particularly effective hedge against stock market volatility.

On top of a sizable management fee paid each year, UC pays another estimated 18 percent performance fee on returns that have largely just mirrored general stock market gains and losses.

In theory, a hedge fund that generates consistent, positive returns in both up and down markets would yield returns "uncorrelated" with either stock or bond performance. In practice, UC's hedge fund program has not realized anything close to uncorrelated returns. Instead, the University's "Absolute Return" program has closely shadowed the stock market.

An analysis of fiscal year returns confirms a strong, positive correlation of 0.87 between the performance of UC hedge funds and S&P 500 total returns. 51 In fact, general movements in the US stock market can explain 75 percent of the program's returns since the inception of the Absolute Return program.⁵²

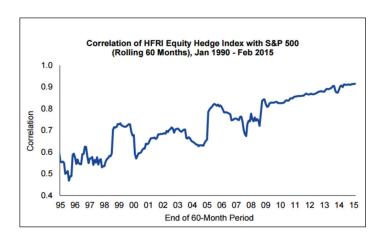
In other words, on top of a sizable management fee paid each year, UC pays another estimated 18 percent performance fee on returns that have largely just mirrored general stock market gains and losses.



The close relationship between UC's hedge fund performance and the stock market is not unique, but rather symptomatic of a more general trend. Morgan Stanley Research recently highlighted the growing correlation between hedge funds and the S&P 500 Index, which can be seen in the chart below.⁵³

If the rationale for investing in hedge funds is to provide greater portfolio stability, one could also argue that a small investment in bonds provides a simpler, less expensive, and more effective counterweight to stock market uncertainty. UC's Absolute Return program has not raised the risk-adjusted return of either GEP or UCRP portfolios. Rather than investing billions in high-cost hedge funds, had UC simply invested this money in low-cost index funds, both its general endowment and pension funds would have generated higher returns with lower volatility.⁵⁴

investment management firm.



Shifting Benchmarks & Lowering Expectations

The first signs of poor hedge fund performance at UC appeared as early as the second year, when Absolute Return program returns first fell short of their original benchmark. Then, during the 2008-09 crisis, hedge funds failed to protect UC against capital losses. In each instance, the UC Regents simply lowered performance benchmarks.

The Absolute Return program was originally sold on the promise of delivering "absolute" returns, and thus the original benchmark targeted an absolute, positive 4.5 percent premium, or excess return, over the "risk-free" rate. The original UC benchmark was therefore equal to the "30-Day US T-Bill + 4.5%." When, in just the second year of the program, hedge fund returns fell short, the benchmark was temporarily lowered by the Regents to the "30-Day US T-Bill + 2%." To be a solution of the program o

The program benchmark was further compromised following steep hedge fund losses in 2008-09. The very premise of absolute, positive returns was abandoned altogether. At the time, UC Regent Paul Wachter, vollage outgoing Chair

xVIII Representing what an investor can expect to earn without risk of capital loss, short-term treasury bills are commonly used to establish the "risk-free" rate. xVIII Wachter, founder and CEO of Main Street Advisors, a financial and asset management advisory firm based in Los Angeles, will step down as Chair of UC Regents' Committee on Investments on March 1, 2016. He will be replaced by Richard Sherman, CEO of The David Geffen Company, an

of the Committee on Investments, noted that the original benchmark "reflected the view that hedge funds could provide returns in various market conditions." However, he continued, while the "University's benchmark was appropriate ten years ago," the University should use the index to measure performance going forward.⁵⁶

From this point forward, in place of an *absolute* benchmark, UC hedge fund performance would be compared to an index of other hedge funds. XIX

Today, the benchmark against which the University of California measures hedge fund performance is virtually meaningless. Over the last five years, the hedge fund index has returned 1.4 percent annually, lower than any other asset class except cash.⁵⁷ Only in comparison to such an anemic standard could the performance of UC's Absolute Return program appear to be a success.

Performance Benchmar	ks: June 30, 2015					
Asset Class	Benchmark	1 Year	3 Year	5 Year	10 Year	20 Year
U.S. Equity	Russell 3000 Tobacco Free Index	7.3	17.9	17.5	8.0	9.2
Private Equity	Private Equity Benchmark (UCRP)	12.9	15.3	14.5	10.7	12.0
Real Estate -Private	NCREIF ODCE Index	12.9	11.7	13.7	2.4	
Pension (UCRP)	Aggregate Benchmark	2.2	9.8	9.9	5.7	7.9
Non-U.S. Developed	MSCI World ex-U.S.	(5.3)	11.2	8.9	5.1	
Endowment (GEP)	Aggregate Benchmark	3.5	9.9	8.9	6.5	8.3
High Yield Bonds	Merrill Lynch High Yield BB/B Cash Pay	(0.5)	6.7	8.4		
Emerging Markets (Bonds)	JP Morgan Emerging Markets Bond	0.5	4.2	6.2		
Emerging Markets (Stocks)	MSCI Emerging Market	(5.1)	3.7	3.7	8.1	6.1
Core Fixed Income	Barclays U.S. Aggregate Bond Index	1.9	1.8	3.3	4.4	6.2
TIPS	Barclay U.S. TIPS	(1.7)	(0.8)	3.3	4.1	
Real Assets	S&P GSCI Reduced Energy + Real Assets	(12.3)	0.3	1.7		
Absolute Return	50% HRFX Absolute Return + 50% HRFX Market Directional	2.3	4.9	1.4		
Cash	US 2 Year Treasury Note Income Return	0.5	0.3	0.4		
Opportunistic Equity	MSCI All Country World Index	0.7				

Source: Update On Investment Performance For Fiscal Year 2014-15

It is appropriate to question why such seemingly obvious warning signs have not led UC Regents to fully reconsider its hedge fund program. Is it that the UC Regents chose to ignore these signs, or simply didn't know what they didn't know? Regardless, the decision to continue investment in the Absolute Return program has ultimately cost UC stakeholders hundreds of millions of dollars.

In the end, UC's Absolute Return program has fallen short of expectations. The program has not generated returns close to common stocks, nor protected sufficiently against capital loss. Hedge funds have not delivered "absolute" returns, nor real portfolio diversification, but rather investment returns that have largely shadowed general movements in the stock market. UC's twelve-year hedge fund program has missed the mark.

The costs are clear—high fees, mediocre returns, and limited transparency. The benefits are not.

XIX Minutes from the February 2009 Regent's meeting illustrate how the decision to lower the Absolute Return program benchmark was shaped by concerns over public perceptions of UC's investment performance. Regent Wachter, who presided over the meeting, asserted, "When the news media or other outside entities examine the University's investment performance, they look at the University's benchmarks."

CONCLUSION AND RECOMMENDATIONS



his paper calls for a rethinking of the University of California's investment policies.

A reevaluation of UC's hedge fund program is particularly critical on the heels of the University's decision to lower its pension plan's assumed rate of return. The UC cannot afford to continue paying hundreds of millions of dollars in fees for a program that does not provide clear, definitive benefits. In today's low-return environment, controlling fees is especially urgent. Every dollar lost in excessive charges is a dollar lost in returns.⁵⁸

This recognition explains UC's decision to sell off \$1 billion in private equity funds last year, investments with a similar fee structure as hedge funds. As reported by Bloomberg Business, "[Jagdeep Bachher] convinced us that in a lower-return environment the fees are most important," says Daniel Hare, a faculty representative on the UC Regent's Committee on Investments.⁵⁹

More work remains to be done. The UC Board of Regents need to conduct a full and transparent review of the University of California's hedge fund program, including the fees paid to hedge fund managers. It would be good due diligence and governance that will help the UC better evaluate the terms and associated costs of its investments. By failing to do so, the UC will only continue to funnel potentially hundreds of millions of dollars away from its pension and endowment funds to the detriment of UC stakeholders.

Bloomberg Business gets right to the point. "Here's what US state and city pension funds are getting this year for the hundreds of millions of dollars in fees they're forking over to hedge funds. Almost nothing."

Sadly, UC staff, retirees, students and California taxpayers have already paid a steep price.

Since 2003, UC has paid close to an estimated \$1 billion in fees and generated an estimated \$800 million in lower returns because of its hedge fund investments. Hedge funds have failed to deliver their basic promise of: a) consistent, positive, "absolute" returns; b) returns close to common stocks; c) uncorrelated returns; or d) real portfolio diversification. In sum, we conclude that UC's hedge fund investments have not provided sufficient returns, nor adequate protection against market losses, to justify their extraordinary cost.

Ultimately, decisions around UC's investment policies lie with the UC Regents, who have a fiduciary duty, not only to their plans' beneficiaries, but also to California taxpayers. We recommend the UC Board of Regents and University Administrators do the following:

- 1. Conduct an asset allocation review to examine less costly and more effective diversification approaches. This includes a complete public analysis of past net performance of hedge fund investments, as well as a comparison of low-fee alternatives.
- 2. Require full and public fee disclosure from hedge fund managers and consultants. This

includes complete disclosure of historical investment management and incentive fees captured by hedge funds since 2003.

3. Work with stakeholders on state legislation to ensure more transparency around fees from firms doing business with public pension plans. In response to State of California Treasurer John Chiang's call for more fee transparency, UC should work closely with trustees of other public pension plans on legislation that requires more disclosure and transparency from hedge funds and private equity firms.

The status quo comes with a high price tag. Each year the UC Regents fail to act, hundreds of millions of dollars may be squandered. Without greater transparency that captures the true cost of investment fees, the possibility of more austerity measures—including cuts to faculty and staff benefits, as well as tuition increases—could invite irreparable damage to the University's ability to recruit top staff or fulfill its missions of access and affordability for California students.

ENDNOTES

- 1 Hedge Fund Research, Inc. (HFR) compiles the mostly widely used indices of hedge fund industry performance. The HFRX Global Hedge Fund Index (HFRXGL) is designed to be "representative of the overall composition of the hedge fund universe." The UC measures performance in relation to the HFRX Absolute Return Index (HFRXAR) and HFRX Market Directional Index (HFRXMD). All three indices, which date back to 1998, have performed significantly worse over the last 10 years than the preceding years. To state this differently, returns over the last decade (whether measured over the last 10, 7, 5, 3, or most recent year) have not lived up to cumulative returns "since inception." Hedge Fund Research, Inc., "Hedge Fund Indices," November 2015. https://www.hedgefundresearch.com/hfrx/docs/HFRX_indices profiles.pdf>
- 2 Barry Ritholtz, "The Reason Pension Funds Stick With Hedge Funds," *Bloomberg View*, November 11, 2015. http://www.bloombergview.com/articles/2015-11-09/the-reason-pension-plans-stick-with-hedge-funds>
- 3 Alexandra Stevenson and Michael Corkery, "Calpers, Nation's Biggest Pension Fund, to End Hedge Fund Investments," *New York Times*, September 15, 2014. http://dealbook.nytimes.com/2014/09/15/nations-biggest-pension-fund-to-end-hedge-fund-investments/
- 4 As of June 30. 2015, local UC campus foundations independently invested another \$1.16 billion in hedge funds. The UC Regent's Total Return Investment Pool (TRIP) invested another \$753 million. University of California, Annual Endowment Report, Fiscal Year Ended June 30, 2015. http://www.ucop.edu/investment-office/_files/report/UC_Annual_Endowment_Report_FY2014-2015.pdf; The Regents of the University of California, Committee on Investments, "Update On Investment Performance For Fiscal Year 2014-15," Office of The Chief Investment Officer, September 9, 2015. https://regents.universityofcalifornia.edu/regmeet/sept15/i1.pdf
- 5 Adam Tatum, "University of California Tuition Hikes: 5 Things You Must Know," *California Common Sense*, November 12, 2014. http://cacs.org/research/university-of-california-tuition-hikes-5-things-must-know/>
- 6 "Shining a New Light on Fees," *Pensions & Investments*, December 14, 2015. http://www.pionline.com/article/20151214/PRINT/312149986/shining-new-light-on-fees
- 7 The Regents of the University of California, Committee on Investments, "Update on UC's Absolute Return Program," Slide 4, February 14, 2006. http://regents.universityofcalifornia.edu/regmeet/feb06/603attach.pdf
- 8 FinAlternatives, "HFR: Hedge Fund Industry Assets Decline by Most Since Financial Crisis," October 20, 2015. http://www.finalternatives.com/node/31949>
- $9\ Managed\ Funds\ Association, "Hedge\ Funds:\ An\ Introduction,\ Understanding\ a\ Critical\ Tool\ in\ the\ Global\ Economy,"\ August\ 2014.\ < http://www.slideshare.net/Managed\ Funds/mfa-hedge-funds-101>$
- 10 Ibid 1.
- 11 Simon Lack, "The Hedge Fund Mirage: The Illusion of Big Money and Why It's Too Good to be True," *CFA Institute Conference Proceedings Quarterly*, December 2012, Volume 29, Issue 4. http://www.cfapubs.org/doi/full/10.2469/cp.v29.n4.4
- 12 Gretchen Morgenson, "A Hedge Fund Sales Pitch Casts a Spell on Public Pensions," The New York Times, November 6, 2015. http://www.nytimes.com/2015/11/08/business/a-hedge-fund-sales-pitch-casts-a-spell-on-public-pensions.html
- 13 Simon Lack, Update to *The Hedge Fund Mirage*, in Wall Street Potholes: Insights from Top Money Managers on Avoiding Dangerous Products, John Wiley & Sons, Inc, 2015, p. 81.
- 14 University of California, "The UC System," website. http://universityofcalifornia.edu/uc-system
- 15 It should be noted that UC's local campus foundations, with assets totaling \$6.2 billion, invest \$1.3 billion in hedge funds. The overwhelming majority of these assets, \$1.16 billion, are "directly" or independently managed at the local campus level. The remaining assets, or approximately \$127 million in 2014-15, are invested "indirectly" through UC's centrally-managed General
 - Endowment Pool. The scope of this report is limited to GEP and UCRP, and therefore, only the "indirect" portion of local campus foundations' assets (invested through GEP) is included in our analysis. University of California, Annual Endowment Report, Fiscal Year Ended June 30, 2015. http://www.ucop.edu/investment-office/_files/report/UC_Annual_Endowment_Report_FY2014-2015.pdf>
- 16 David Skeel, "Behind the Hedge," Legal Affairs: The Magazine at the Intersection of Law and Life, November/December 2005. https://www.legalaffairs.org/issues/November-December-2005/feature_skeel_novdec05.msp
- 17 Virtually every aspect of a mutual fund's structure and operation is subject to strict regulation under four federal laws: the Securities Act of 1933, the Securities Exchange Act of 1934,

UC Campus Foundations: Hedge Fund Investments as of June 30, 2015

Foundations	Funds under	Allocation to	Hedge	Hedge Fund Investments			
Foundations	Management	Hedge Funds	Total	Indirect	Direct		
UCLA Foundation	1,865	12%	218.9	1.2	217.6		
UC Berkeley Foundation	1,580	33%	525.7		525.7		
UC San Francisco Foundation	1,160	21%	245.3		245.3		
UC San Diego Foundation	548	20%	112.3	73.1	39.2		
UC Davis Foundation	335	21%	70.9		70.9		
UC Irvine Foundation	347	19%	64.4	30.8	33.6		
UC Santa Barbara Foundation	142	21%	30.4		30.4		
UC Santa Cruz Foundation	84	24%	19.7	19.7	-		
UC Merced Foundation	9	24%	2.2	2.2			
UC Riverside Foundation	129	0%			-		
Total	6,198	21%	1,290	127	1,163		
(In \$ millions)							
Indirect: From participation in Regent's General	Endowment Pool (GEF	P).					
Direct: Independent investments in hedge funds and direct additional investments in the Regent's "Absolute Return" hedge fund program.							

- the Investment Company Act of 1940 and the Investment Advisers Act. "The Differences Between Mutual Funds and Hedge Funds," ICI Investment Company Institute, April 2007. https://www.ici.org/files/faqs hedge>
- 18 While not strictly prohibited from using speculative techniques, SEC regulations require mutual funds to "cover" their positions. These rules, which limit the amount a portfolio can be funded by borrowed money, constrain the use of these strategies by mutual funds. Untitled Memo, Kramer Levin Naftalis & Frankel LLP, April 26, 2013. http://www.publicalternativefunds.com/files/upload/Overview_of_Key_Mutual_Fund_Regulations.pdf; Claire Boyte-White, "Can Mutual Funds Use Leverage?" Investopedia. http://www.investopedia.com/ask/answers/102215/can-mutual-funds-use-leverage.asp#ixzz3sLzquPe8
- 20 Simon Lack, The Hedge Fund Mirage. Hoboken: Wiley. 2012.
- 21 Our fee estimate of 40 basis points for traditional assets was chosen to provide consistency with the analysis in a recent report released by American Federation of Teachers (AFT) & Roosevelt Institute report. Elizabeth Parisian and Saqib Bhatti, "All that Glitters is Not Gold: An Analysis of UC Public Pension Investments in Hedge Funds," AFT and Roosevelt Institute, December 2015. http://rooseveltinstitute.org/all-glitters-not-gold-analysis-u-s-public-pension-investments-hedge-funds/
- 22 The Office of the Chief Investment Officer of the Regents also oversees the UC Retirement Program Savings Program, a voluntary employee retirement contribution program. Employees who participate in this program are responsible for selecting among a choice of funds. None of these funds invest in hedge funds.
- 23 University of California Office of the President, The Chief Investment Officer of the Regents, General Endowment Pool 2012-2013. http://www.ucop.edu/investment-office/_files/GEP_2012-2013.pdf
- 24 In a series of closed-door meetings, a special commission chaired by Regent Parksy to oversee the Treasurer's Office voted to award Wilshire Associates multiple consulting contracts. A week before Wilshire was awarded a \$350,000 no-bid contract, Dennis Tito, the firm's President, made an \$80,000 soft money contribution to George W. Bush's presidential campaign. Gerald Parsky was Bush's fundraising chairman for California. Lance Williams, "UC deal followed big gift to GOP," San Francisco Examiner, July 16, 2000.http://www.sfgate.com/news/article/UC-deal-followed-big-gift-to-GOP-3052588.php. Carla Marinucci, "Gerald Parksy/Reluctant Recruit has Bush's Ear on California/L.A. Financier Raises Lots of Cash, Gets Key Posts," SF Gate, May 7, 2001. http://www.sfgate.com/politics/article/NEWSMAKER-PROFILE-Gerald-Parsky-Reluctant-2923433.php
- 25 Tanya Schevitz, "UC Treasurer Expected to Step Down From Post/Conflict Over Different Investment Tactics," SF Gate, August 5, 2000. http://www.sfgate.com/education/article/UC-Treasurer-Expected-To-Step-Down-From-Post-2745516.php
- 26 University of California, *Treasurer's Annual Report*, 1999-2000. http://www.ucop.edu/investment-office/_files/report/UCTreasurer_AnnualReport 2000.pdf>
- 27 Chris Thompson, "Parsky's Party," *East Bay Express*, May 9, 2007. http://www.eastbayexpress.com/oakland/parskys-party/Content?oid=1083283
- 28 Initially, a portion of UC equity assets were simply moved into passively managed low-cost index funds. Shortly thereafter, funds were invested into higher cost actively-managed funds. The Regents of the University of California, Committee on Investments, Minutes of Meeting, July 20, 2000. http://regents.universityofcalifornia.edu/minutes/2000/invest700.pdf; The Regents of the University of California, Committee on Investments, "603 US Equity Manager Search Update," August 17, 2004 http://regents.universityofcalifornia.edu/regmeet/aug04/603attach.pdf>
- 29 University of California, *Treasurer's Annual Report*, FY 2002-2003, p.5. http://www.ucop.edu/investment-office/_files/report/UCTreasurer_AnnualReport_2003.pdf
- 30 Steven Brull, "Pensions Cap & Frown," Institutional Investor, September 17, 2007. Web. 13 Dec. 2015. http://www.institutionalinvestor.com/Article.aspx?ArticleID=1424035>
- 31 University of California, Office of The Chief Investment Officer, 2013/2014 Annual Report, pp.22 & 28. http://www.ucop.edu/investment-office/_files/report/uc-large-brochure-single-pages.pdf.
- 32 Jennifer Gollan, Lance Williams and Erica Perez, "UC Endowment has Worst Investment Returns Among Largest US College Funds," *The Center for Investigative Reporting*, February 20, 2014. http://cironline.org/reports/uc-endowment-has-worst-investment-returns-among-largest-us-college-funds-5929
- 33 The Regents of the University of California, Committee on Investments, "Update On Investment Performance For Fiscal-Year 2014-15," Office of The Chief Investment Officer, September 9, 2015. http://regents.universityofcalifornia.edu/regmeet/sept15/i1.pdf
- 34 Because hedge fund contracts *may* include a "high water mark" provision, which lowers or eliminates the performance fee when recouping losses, we have entirely excluded performance fees for three years of data (FY 2008-09, 2009-10, and 2011-12). The assumption that UC paid no performance fees during these years is overly conservative; it assumes that none of UC's 30-plus hedge funds generated a positive investment return during those years.
- 35 Investment returns and fee payments were estimated for each year based on annual market values and net return rates reported in publicly available UC documents. Market values reflect invested assets at the beginning of the fiscal year (end of the previous fiscal year),

and thus include annual contribution and distribution adjustments. This methodology does not take into account the potential impact of partial year contributions. Our analysis includes all investments in either of UC's two hedge fund programs: Absolute Return and Cross Asset Class (CAC) programs. This second, and smaller hedge fund program, was funded from 2010 until early 2015. Although still existing in policy, the Cross Asset Class program has been effectively liquidated. For Absolute Return calculations, performance returns and asset values are available for FY 2003-04 through FY 2014-15. For the Cross Asset Class calculations, available data includes FY 2010-11 through FY 2013-14. To account for potential high-water mark provisions we exclude performance fees for FY 2008-09, FY 2009-10, and FY 2011-12.

- 36 The Regents of the University of California, Committee on Investments, "Update On Investment Performance For Fiscal Year 2014-15," Office of The Chief Investment Officer, September 9, 2015. http://regents.universityofcalifornia.edu/regmeet/sept15/i1.pdf; The Regents of the University of California, Committee on Investments, "Investment Performance Summary," Office of The Chief Investment Officer, September 12, 2014. http://regents.universityofcalifornia.edu/regmeet/sept14/i2attach2.pdf
- 37 Our analysis draws upon the publicly available investment data from the University of California: University of California, Treasurer's Annual Report, 2002-2003, http://www.ucop.edu/investment-office/files/report/UCTreasurer AnnualReport 2003. pdf; University of California, Treasurer's Annual Report, 2003-2004, http://www.ucop.edu/investment-office/files/report/ UCTreasurer AnnualReport 2004.pdf>; University of California, Treasurer's Annual Report, 2004-2005, http://www.ucop.edu/ investment-office/ files/report/UCTreasurer AnnualReport 2005.pdf; University of California, Treasurer's Annual Report, 2005-2006, http://www.ucop.edu/investment-office/files/report/UCTreasurer AnnualReport 2006.pdf>; University of California, Treasurer's Annual Report, 2006-2007, http://www.ucop.edu/investment-office/files/report/UCTreasurer AnnualReport 2007. pdf; University of California, Treasurer's Annual Report, 2007-2008, http://www.ucop.edu/investment-office/files/report/ UCTreasurer Annual Report 2008.pdf; University of California, Treasurer's Annual Report, 2008-2009, http://www.ucop.edu/ investment-office/ files/report/UCTreasurer AnnualReport 2009.pdf; University of California, Treasurer's Annual Report, 2009-2010, http://www.ucop.edu/investment-office/ files/report/UCTreasurer AnnualReport 2010.pdf; University of California, Treasurer's Annual Report, 2010-2011, http://www.ucop.edu/investment-office/ files/report/UCTreasurer AnnualReport 2011.pdf; University of California, Treasurer's Annual Report, 2011-2012, http://www.ucop.edu/investment-office/files/report/UCTreasurer Annual Report 2012.pdf; University of California, Chief Investment Officer of the Regents Annual Report, 2012-2013, http://www. ucop.edu/investment-office/ files/report/UC CIO AnnualReport 2013.pdf; The Regents of the University of California, Committee on Investments, "Investment Performance Summary," Office of The Chief Investment Officer, September 12, 2014. http://regents. universityofcalifornia.edu/regmeet/sept14/i2attach2.pdf>; The Regents of the University of California, Committee on Investments, "Update On Investment Performance For Fiscal Year 2014-15," Office of The Chief Investment Officer, September 9, 2015. http:// regents.universityofcalifornia.edu/regmeet/sept15/i1.pdf>
- 38 For this chart, cumulative returns are calculated from reported annual returns and assume no change to the original principal on account of contributions or distributions. The calculation of GEP-without-hedge-funds excludes the contributions of both the Absolute Return program and the short-lived Cross Asset Class hedge fund program.
- 39 Dollar estimates were computed annually based on reported market values and thus include contribution and distribution adjustments. (See endnote #35.)
- 40 Ibid 38 but replace GEP with UCRP.
- 41 Ibid 39.
- 42 University of California, Treasurer's Annual Report, 2001-2002. http://www.ucop.edu/investment-office/_files/report/UCTreasurer_AnnualReport_2002.pdf
- 43 The Vanguard 500 Index Fund Admiral Shares (VFIAX) has an expense ratio of 0.05%. "Vanguard 500 Index Fund Admiral Shares," *Vanguard*, https://personal.vanguard.com/us/funds/snapshot?FundId=0540&FundIntExt=INT
- 44 The Regents of the University of California, Committee on Investments, "Approval Of Revision To General Endowment Pool Target Benchmark," prepared by Office of the Treasurer, May 15, 2002. http://regents.universityofcalifornia.edu/regmeet/may02/604.pdf; The Regents of the University of California, Minutes of Meetings, May 16, 2002. http://regents.universityofcalifornia.edu/minutes/2002/board516.pdf.
- 45 University of California, *Treasurer's Annual Report*, 2005-2006. <www.ucop.edu/investment-office/_files/report/UCTreasurer_ AnnualReport 2006.pdf>
- 46 Ibid 7.
- 47 Again, this assumption may be overly conservative. While UC's Absolute Return program returned an aggregate loss, it is not unreasonable to assume that some of the 30-plus hedge funds may have turned a profit, and thus, were paid a performance fee.
- 48 Bond values are represented by the Lehman/Barclays US Aggregate Index 12-month Total Return, July 1, 2008-June 30, 2009. Data available from iShares by Blackrock: http://us.ishares.com/tools/historical_returns/index.htm. Stock market returns are represented by the S&P 500 Index 12-month Total Return, July 1, 2008 June 30, 2009. Data available from S&P Dow Jones Indices. http://www.spindices.com/documents/additional-material/monthly.xlsx?force download=true; Total returns include capital gains and dividend payments.

- 49 The Regents of the University of California, Committee on Investments, "Approval Of Revision To General Endowment Pool Target Benchmark," prepared by The Office of the Treasurer, May 15, 2002. http://regents.universityofcalifornia.edu/regmeet/may02/604.pdf; The Regents of the University of California, Investment Advisory Board Committee, "UC GEP Asset Allocation," as presented by Wilshire Associates, May 15, 2002. http://regents.universityofcalifornia.edu/regmeet/may02/604attach.pdf; The Regents of the University of California, Minutes of Meetings, May 16, 2002. http://regents.universityofcalifornia.edu/minutes/2002/board516.pdf.
- 50 S&P 500 total returns include capital gains and reinvested dividend payments.
- 51 Total returns include both capital gains and dividend payments.
- 52 To measure the correlation between UC's Absolute Return program and the S&P 500 total return index, we compared twelve years of FY returns (FY 2003-04 through FY 2014-15). The computed Pearson product-moment correlation coefficient [r=0.8678, p=0.000254] identifies a strong positive correlation between UC's Absolute Return and S&P 500 returns. Variations in the S&P 500 index explain 75.3% of UC's Absolute Return program performance.
- 53 Morgan Stanley Research, April 7, 2015, US Equity Strategy. http://alfaalliance.info/wp-content/uploads/2015/04/Morgan-Stanley-on-US-strategy.pdf
- 54 Rather than investing in hedge funds, had UC simply invested 50% of these resources in bonds (Lehman/Barclay's US Aggregate) and the other 50% in stocks (S&P 500), the overall GEP and UCRP portfolios would have generated higher returns with lower volatility. Over twelve years, this stock/bond mix would have returned an annualized 6.8%, (with a standard deviation of 7.7%) compared with a 6.5% return (and 8.1% standard variation) for the Absolute Return program. When substituted into the GEP fund, the resulting portfolio would have returned 8.4% annually over 12 years, versus the reported 8.2% with hedge fund investments. The standard deviation of GEP annual returns would also have been slightly lower: 10.9% versus 11.0%. The same pattern is true for UCRP: Replacing hedge funds with this simple stock/bond mix would have generated a higher annualized total return (6.5% vs. 6.4% with hedge funds) with the same (13.7%) standard deviation.
- 55 The Regents of the University of California, Committee on Investments, Investment Advisory Group, Minutes of Meetings, February 14, 2006. http://regents.universityofcalifornia.edu/minutes/2006/invest206.pdf; University of California, Investment Performance Summary, Prepared for The Investment Advisory Committee of the Regents of the University of California, Second Quarter 2005. http://regents.universityofcalifornia.edu/regmeet/aug05/601attach.pdf; University of California, Investment Performance Summary, Prepared for The Investment Advisory Committee of the Regents of the University of California, Second Quarter, Calendar Year 2006. http://regents.universityofcalifornia.edu/regmeet/aug06/601attach.pdf>
- 56 The Regents of the University of California, Committee on Investments, Investment Advisory Group, Minutes of Meetings, February 24, 2009, p. 13. http://regents.universityofcalifornia.edu/minutes/2009/invest2.pdf
- 57 Ibid 33.
- 58 Ibid 6.
- 59 Michael McDonald, "University of California Boosts Gains After Sales of Funds," *Bloomberg Business*, January 21, 2016. http://www.bloomberg.com/news/articles/2016-01-22/university-of-california-boosts-gains-after-private-equity-sales
- 60 Darrell Preston, "Hedge Funds Leave U.S. Pensions With Little to Show for the Fees," *Bloomberg Business*, December 9, 2015. http://www.bloomberg.com/news/articles/2015-12-09/hedge-fund-rout-leaves-pensions-with-little-to-show-for-the-fees>



