



Saïd Business School cases

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Oxford University Endowment Management: June 2009

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Introduction

It was mid 2009, and Sandra Robertson was preoccupied as she walked from the Oxford University Endowment Management (OUEM) office to one of the 15th Century Oxford colleges through the city's streets. Her mind was distracted by the presentation she was about to give to the OUEM Investment Committee. It was a critical meeting to review the strategic asset allocation for the Oxford Endowment Fund. Nearly two years ago, in October 2007, when Oxford had embarked on its new approach to investing, a target allocation of 20% to private equity had been agreed. But rather a lot had happened since that time, and Sandra anticipated that serious questions would be raised about the private equity allocation.

She sighed as she thought how easier her task might have been 10 years ago, a time when she worked as part of the Alternative Asset programme at the Wellcome Trust, and a period that was a far cry from the current financial crisis and recession that had hit the private equity industry hard.

Her thoughts raced through her mind. Private equity potentially had an important contribution to make to a long term Endowment Fund concentrated on producing inflation-beating total returns. But many funds (General Partners, or GPs), and indeed their investors (Limited Partners, or LPs), had recently experienced considerable levels of financial distress. Many claimed that the private equity industry had become too large, too reliant on deal fees and leverage, and had not produced returns that were any better than simply investing in the stock market. However, Sandra also knew of many groups that had fascinating, niche approaches to private investing, which could offer unique benefits to the Endowment Fund. She had also been exploring various opportunities to purchase – at large discounts – existing commitments to excellent private equity funds from LPs who were facing liquidity or over-allocation problems. Oxford had cash to invest. This *could* be an usual opportunity to make money.

However, Sandra was winding up Oxford's holdings in private equity funds at a time when many in the financial community were openly questioning the "Endowment Model". With many US University Endowments posting losses of almost 30% in their 2008 financial years, from programmes that were known to allocate significant sums to private equity, there was currently considerable consternation over use of the asset class. There was also a balance of managing liquidity across the total fund, and the clear lessons of "liquidity risk" that the financial crisis had taught. All of this would be heavily weighing on her Investment Committee's minds.

She smiled as she knew that being the University's first CIO would never be easy, but trust her luck to begin during such a period of turmoil.

OUEM and Oxford University

University Financial Background

Oxford University is one of the oldest and most famous educational institutions in the world. Teaching in Oxford existed in some form as early as 1096, the first Chancellor was recognised in 1201, and a collective *Universitas* was recognised in 1231.

The University grew up as a federation of independent colleges and halls, and these foundations were created both by religious orders (such as Dominican, Franciscan and Augustine monks) and private benefactors (such as William of Durham, who founded University College in 1249). In this sense, the University has had private “endowment capital” right from its inception. Such benefactions were often in the form of direct money or in the form of agricultural land, which generated income. However over a long period of time both the Colleges and the University diversified into owning commercial property, bonds and equities¹.

At the start of 2009, the University had approximately £900m of long-term investable capital (both endowment gifts and its own long term capital notwithstanding), and the Colleges had approximately £2.7bn in total.² These figures are low compared to some international Universities, particularly in the US, but this has its roots in UK universities being substantially state-funded institutions, where the concentration has habitually been on receiving yearly income primarily from state sources and managing expenses to match this, rather than the building up of a private surplus.³ Linked to this there has also been a comparatively low rate of alumni giving to British Universities compared to practices in the US. As state funding has weakened over time, the University has diversified its income streams, but has also become more reliant on the long-term management of its capital in-house.⁴

The Central University's income is made up of government funding, fees paid by students, grants from charitable and commercial research bodies, gifts, investment income and private enterprise. The latter example of private enterprise is Oxford University Press, a world famous publisher which is wholly owned by the University, and which has annual revenues of around £580m.⁵ Expenditure is substantially staff and research costs.

The constituent weights of income and expenditure are shown in Exhibit 1. It can be seen that investment income is only 4% of total income. Growing the size of the investment portfolio is an important part of tackling a spending deficit, particularly at a time of government austerity.

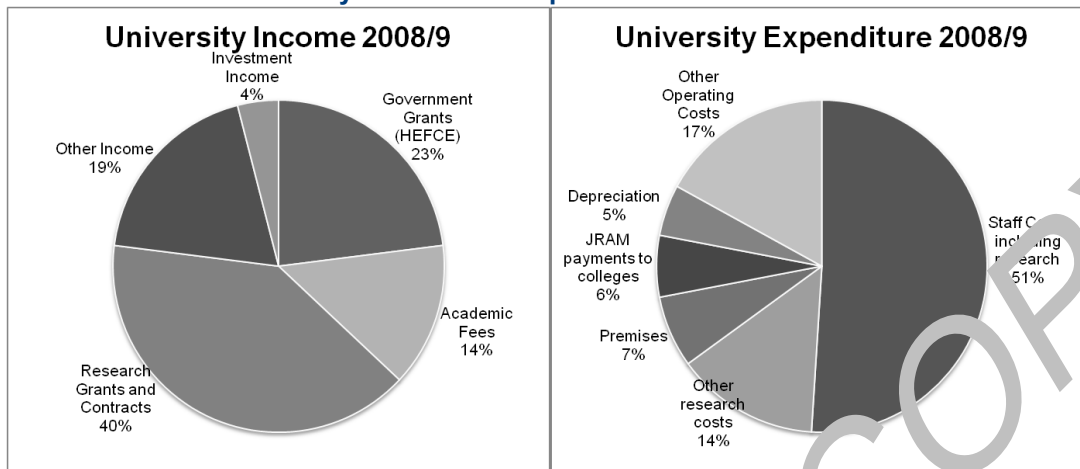
¹ A separate and much more detailed history of Oxford's University and College Endowments can be found in “Endowment Asset Management – Investment Strategies in Oxford and Cambridge”, Acharya and Dimson, Oxford 2007.

² Publicly released facts and figures: http://www.ox.ac.uk/about_the_university/facts_and_figures/index.html#aofxford_finance

³ As an example, in the Academic year 2008-2009, total University income was £862.5m and total expenditure was £866.8m. Ibid.

⁴ A separate and more detailed comparison of US and UK University endowment sizes and financial situations can be found in “Endowment Asset Management”, Acharya and Dimson, mentioned above

⁵ Publicly released facts and figures: http://www.ox.ac.uk/about_the_university/facts_and_figures/index.html#aofxford_finance

Exhibit 1: Oxford University Income and Expenditure

Source: http://www.ox.ac.uk/about_the_university/facts_and_figures/financial_statements.html and "University Financial Statements: The University of Oxford 2008/2009" available on the University website.

Genesis of OUEM Ltd

Up until 2007, the University invested its long-term capital with instructions from an Investment Committee that met quarterly, and was made up of University academic staff on a voluntary basis. They invested in third party funds with the aim of delivering long term, diversified investment returns.

By the end of 2006, the University had felt that the investment task was outgrowing the quarterly committee structure, based on:

- The growing size of the endowment
- The complexity of the investment task versus the time and resources available to the committee
- The size and diversity of the investment universe, both geographically and by product
- Acknowledgement of the apparent success of US University professional investment offices
- A broader desire from the University to encourage more donations by showing professional financial management of the gifts given

A review was undertaken by Sir Alan Budd⁶, recommending that the existing committee be disbanded and a new Investment Committee, made up of investment professionals, be formed. This occurred in 2007, and its first chairman was Richard Oldfield⁷. Other members were appointed, and the current investment committee, including many of the original members, can be found on OUEM's website⁸. This Committee was mandated by Oxford University's Council to set and implement an investment strategy. It decided that a full time, professional investment

⁶ Prominent British economist, founder member of the Bank of England's Monetary Policy Committee, and Provost of The Queen's College, Oxford

⁷ Founder of Oldfield Partners, a value-style asset management firm with over \$2bn in assets under management. He was previously Chief Executive of Alta Advisers, one of the largest family offices in the UK. Until 1996 he was a Director of Mercury Asset Management International

⁸ Members and backgrounds are available here: <http://www.ouem.co.uk/oxford-university/investment-committee.html>

office for the University was required, based on the issues identified above.⁹ After an extensive search, Sandra Robertson was appointed as the University's first CIO in May 2007. She was previously at the Wellcome Trust for 14 years, latterly being Co-Head of Portfolio Management. The Wellcome Trust is the largest charitable foundation in Europe and invests around £13bn across asset classes, including a substantial private equity portfolio. This experience in long-term, multi-asset class management was rare in the UK at that time.

OUEM Formation and Strategy

Oxford University Endowment Management Ltd was created as an FSA-registered, separate company but whose share capital was wholly owned by the University of Oxford, and with the mandate to work only for the 'Collegiate University' of Oxford (the Central University, the Colleges, and Trusts with the aim of benefiting the University of Oxford). Central University capital is managed by OUEM, and Colleges and independent Trusts can invest alongside this capital with OUEM if they wish. The Investment Committee is responsible for setting an investment objective, and guideline asset allocations. The OUEM investment team is responsible for meeting this objective within the guidelines, but is otherwise able to invest in any strategy or geography to achieve this. It was envisaged that the team would substantially (but not exclusively) use outsourced investment solutions.

OUEM created two portfolios (established as unlisted vehicles) in order to balance the differing objectives of risk, return and liquidity needs within the collegiate University:

1. The Endowment Fund. This is designed to manage capital that is truly perpetual in nature, in that it is designed never to be spent, and exists to generate total returns which can be distributed for consumption. This fund can therefore take long-term, illiquid positions.
2. The Capital Fund. This is designed to manage long-term capital that is explicitly earmarked for spending in the future. For example, the University may know that it needs to spend a substantial sum on a large building project in 5 years time. This therefore requires shorter-term liquidity, and an asset class such as private equity is inappropriate for this.

The advantage of this split approach is that it forces the investors of capital to think carefully about liquidity. Unlike many US universities, Oxford would only invest true perpetuity capital in the Endowment Fund, rather than mixing in different types of financial resources with differing liquidity needs.¹⁰ At the start of 2009, the Endowment Fund and the Capital Fund had assets of around £650m and £350m respectively. Approximately 1/3 of the Endowment Fund's assets came from investors independent of the Central University, such as the Colleges and independent Trusts.

⁹ It is interesting to note that Cambridge University came to a similar conclusion at about the same time. Example press coverage can be found here: <http://www.cambridgenetwork.co.uk/news/article/?objid=16328>

¹⁰ It should be noted that the central Finance Department of the University continued to manage the University's day-to-day cash balances and working capital itself, separately.

Investor objectives and endowment fund investing

The University exists to provide education and to undertake research. In order to do this, it has expenses to meet each year, such as:

- Academic salaries
- Utility costs
- Depreciation of buildings
- Expenditure on consumables

Over and above these perennial expenses, it also has the aspiration to grow its provision of educational resources, research activity, teaching staff, and scholarships and bursaries to students who might require them. This might include the building of new facilities and even the creation of new schools (such as the Said Business School in 1996).

The portfolio's required return can be defined as keeping pace with the inflation rate of the University's liabilities (or phrased differently, to preserve the real spending power of the endowment), and then, if possible, to generate real returns above this. An optimal portfolio that sits on the "efficient frontier" is then constructed with the target level of return being achieved at the lowest possible risk (as measured by volatility). This liability-driven approach can be further enhanced by a spending or distribution policy that is smoothed over the years by taking an average of the endowment's value over time. This averaging of fund values dampens the effect of yearly portfolio volatility on spending or distribution rates.¹¹

One way of thinking about the liabilities that Oxford is exposed to is to use the UK's Higher Education Purchasing Power Index (HEPPI).¹² The constituents of HEPPI, as of 2009, are shown in Exhibit 2 and the recent growth of HEPPI, relative to the general index of retail prices, is shown in Exhibit 3.

Using this approach, the Investment Committee set a return and risk (volatility) objective for the Endowment Fund for the long term. It also set a guideline asset allocation for the Fund across asset classes. A set yearly percentage payout ratio was given, based on an average of fund value over the preceding 5 years. Finally it set liquidity terms for the fund, defining when and how many of their holdings investors (including the Central University) could redeem.

¹¹ A separate and more detailed analysis of how required and aspirational returns could be set, and spending policies formulated, can be found in "Endowment Asset Management", Acharya and Dimson, mentioned above. This also contains a factual survey of how several Oxbridge colleges assess and define their investment objectives, risk tolerances and spending policies.

¹² This is published annually by *Universities UK* on their website www.universitiesuk.ac.uk

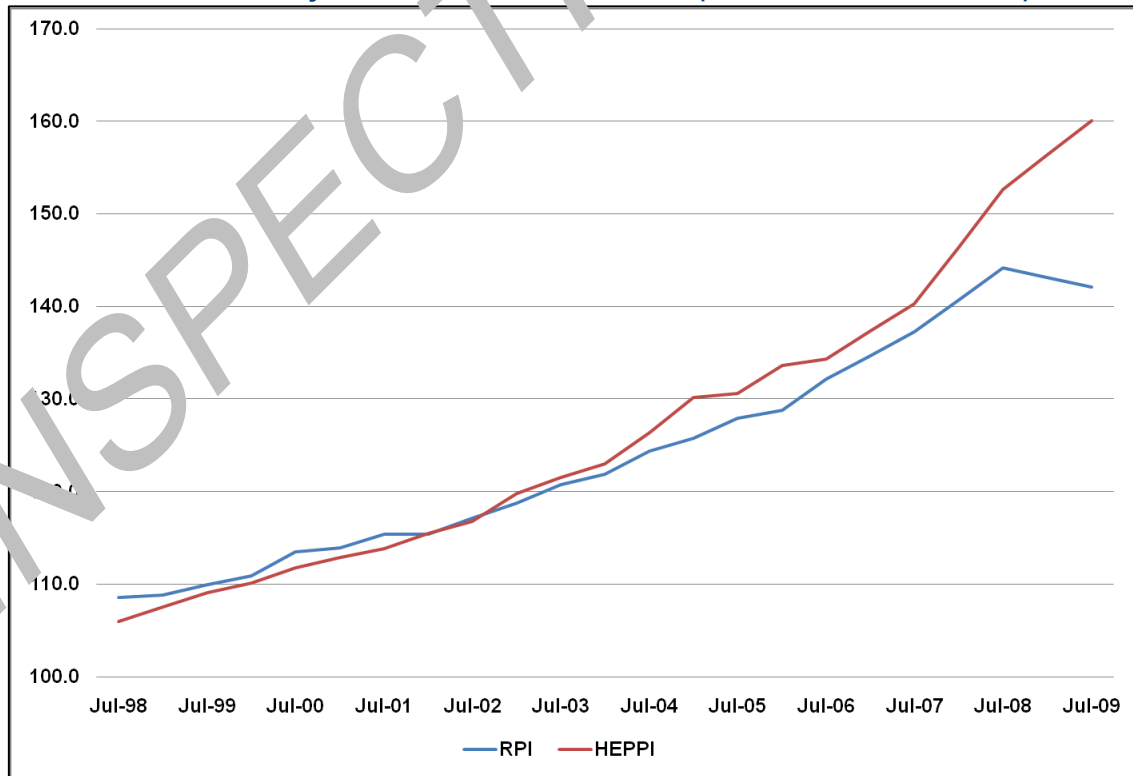
Exhibit 2: U.K. University Costs and Inflation

The Higher Education Pay and Prices Index, 1 July 2009

Item	Weights used in 2009	Price Index % change 1 July 2008 to 1 July 2009	Price Index 1 July 2009 (1 Jul 1997=100)
1. Salaries	56.7	6.3	170.4
2. National Insurance	4.7	4.6	176.2
3. Libraries	1.7	8.4	217.9
4. Office/Laboratory consumables & equipment	8.2	4.4	197.7
5. Telephone and postage	1.2	3.2	199.5
6. Travel and subsistence	3.6	0.5	147.4
7. Fellowships and studentships	6.6	2.6	224.0
8. Advertising	1.3	0.0	149.6
9. Professional fees	5.7	1.1	241.5
10. Energy, water and sewerage	2.0	0.9	277.8
11. Repairs and maintenance	2.6	1.9	219.4
12. Rents, rates and insurance	1.7	3.7	150.9
13. All other expenditures	4.1		
Total	100.0	4.9	160.1

Source: "Higher Education Pay and Prices Index – Research Report Universities UK, 1 July 2009, p.4.
<http://www.universitiesuk.ac.uk/Publications/Pages/HEPPI1Jul2009.aspx>

Exhibit 3: U.K. University Inflation vs General Inflation (U.K. Retail Price Inflation)



Source: as for Exhibit 3, .p.12. For both series Jan 1996 = 100.

U.S. endowments and private equity

Professional U.S. University Endowment Management has been in existence for significantly longer periods than in the U.K. U.S. Endowments have been credited for pioneering the “Endowment Model” of investing, in particular the Chief Investment Officer of Yale University’s Endowment, David Swensen. He began managing the Yale Endowment in 1985, and has articulated his investment philosophy in his book “Pioneering Portfolio Management”.¹³ His philosophy includes the following characteristics:

- Having a diversified portfolio across asset classes
- Whilst being diversified, maintaining an equity bias as equities are a claim on real income, as opposed to the nominal income of other financial instruments such as bonds
- Seeking out asset classes that are inefficient, and that therefore have the potential for excess returns compared to their level of risk
- Exploiting the perpetuity nature of endowment capital, and to benefit from the “illiquidity premium” given for investing a proportion of capital in illiquid assets.

Exhibit 4 shows the 10-year annualised returns of a broad sector of US endowments up until the financial crisis. It shows that the average endowment has performed well, and that performance improved with both size and the proportion invested in “non-traditional” asset classes (such as real assets, private equity and non-directional strategies including hedge funds). Asset allocations for Average Endowment funds and Endowments larger than \$10bn are shown in Exhibit 5.

Exhibit 4: Returns Achieved by U.S. Endowments

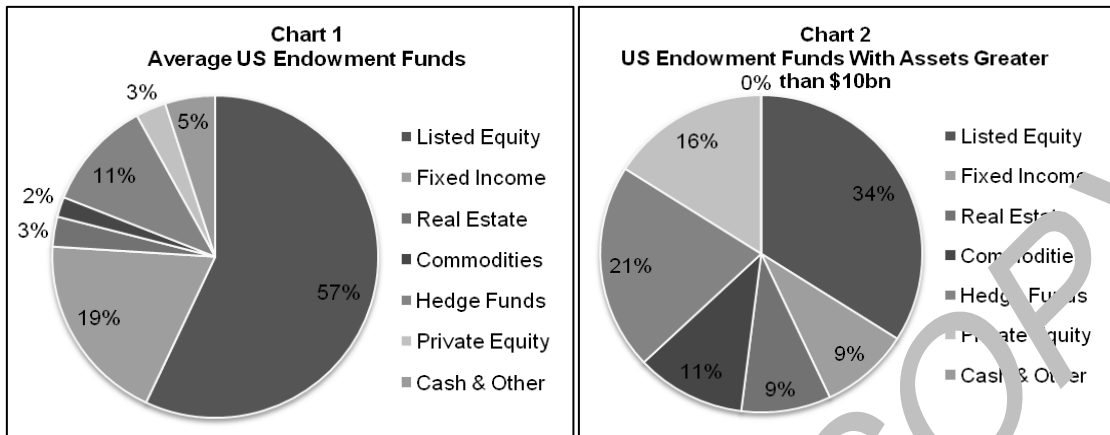
10yr Annualised Returns by Endowment Fund Size to June 2007

	US Equity/Bond Portfolio	UK Equity/Bond Portfolio	Average endowment funds	Endowment funds with assets greater than \$1bn	Endowment funds with assets greater than \$10bn
10yr Annualised	6.6%	7.4%	8.6%	11.1%	14.6%
Traditional Assets % of total	100%	100%	79.7%	55.4%	42.9%

Source: NACUBO (2007); various university annual reports; Bloomberg; Frontier Capital Management. See article published at http://www.advisorsperspectives.com/newsletters08/Investing_Like_the_Harvard_and_Yale_Endowment_Funds.pdf

¹³ David Swensen, “Pioneering Portfolio Management: An Unconventional Approach to Institutional Investment”, 2000

Exhibit 5: Asset Allocation in U.S. Endowments



Source: as for Exhibit 4

In the two largest University endowments in the US, Yale and Harvard, private equity has been a significant part of the investment portfolio. The rationale for this heavy allocation to private equity is articulated by Yale in Exhibit 6, which is taken from the Yale Endowment's 2008 Annual Report.¹⁴

Exhibit 6: Private Equity and Endowments

Private equity offer extremely attractive long-term risk-adjusted return characteristics, stemming from the University's strong stable of value-added managers that exploit market inefficiencies. Yale's private equity investments include participations in venture capital and leveraged buy-out partnerships. The University's target allocation to private equity of 21.0 percent far exceeds the 8.6 percent actual allocation of the average educational institution. In aggregate, the private equity portfolio is expected to generate real returns of 11.2 percent with risk of 27.7 percent.

Yale's private equity program, one of the first of its kind, is regarded as among the best in the institutional investment community, and the University is frequently cited as a role model by other investors. Since inception, private equity investments have generated a 30.9 percent annualized return to the University. The success of Yale's program led to a 1995 Harvard Business School case study – "Yale University Investments Office" – by Professors Josh Lerner and Jay Linton. The popular case study was updated in 1997, 2000, 2003, and again in 2006.

Yale's private equity assets concentrate on partnerships with firms that emphasize a value-added approach to investing. Each firm works closely with portfolio companies to create fundamentally more valuable entities, relying only secondarily on financial engineering to generate returns. Investments are made with an eye toward long-term relationships – generally, a commitment is expected to be the first of several – and toward the close alignment of the interests of general and limited partners. Yale avoids funds sponsored by financial institutions because of the conflicts of interest and staff instability inherent in such situations.

Over the years the share of private equity in the Yale endowment had varied (see Exhibit 7), but had increased significantly in the last few years. Yale had been early to invest in private equity, but the 1980s and 1990s were a significantly different investing environment to that pertaining in mid-2009.

¹⁴2008 Yale Endowment Report, p13. This can be found at: www.yale.edu/investments/Yale_Endowment_08.pdf

Exhibit 7: Yale University Investment Office Asset Allocation

	2008	2007	2006	2005	2004
Absolute Return	25.1%	23.3%	23.3%	25.7%	26.1%
Domestic Equity	10.1%	11.0%	11.6%	14.1%	14.8%
Fixed Income	4.0%	4.0%	3.8%	4.9%	7.4%
Foreign Income	15.2%	14.1%	14.6%	13.7%	14.0%
Private Equity	20.2%	18.7%	16.4%	14.8%	11.5%
Real Assets	29.3%	27.1%	27.8%	25.0%	19.8%
Cash	-3.9%	1.9%	2.5%	1.9%	3.5%

Source: 2008 Yale Endowment Report, p13. Reported figures are as of 30 June each year

In particular, with the benefit of hindsight, the 1980s and 1990s private equity market were substantially:

- Inefficient with fewer bidders for assets, fewer auctions, and therefore the ability to buy assets at low entry valuations
- Attractive due to a period of rising equity valuations where exit valuations were normally higher than entry valuations for businesses, regardless of deal specific factors
- Less competitive for LPs as there were fewer LPs willing or able to invest in the asset class, making competition for skilled funds smaller

This sizeable allocation to private equity was justified, of course, by Yale's views about expected returns. Swensen's analysis of the historical evidence, and the modifications he made for the purposes of constructing an efficient portfolio for Yale, are presented in Exhibit 8. Sandra knew that the evidence on those returns – both realized returns and the likely future returns – was a subject of vigorous debate, particularly in asset classes such as private equity and absolute return where access to the best managers was so important.

Exhibit 8: Expected Returns**Historical Capital Markets Data Provide a Starting Point for Quantitative Analysis**

Historical Data Inflation Adjusted Using the Higher Education Price Index

	U.S. Bonds	U.S. Equity	Developed Equity	Emerging Equity	Absolute Return	Private Equity	Real Assets	Cash
Observations	80	80	36	21	17	25	25	80
Arithmetic return	2.5%	10.6%	8.3%	11.9%	9.9%	12.8%	6.2%	0.7%
Standard Deviation	6.8%	22.4%	22.1%	30.0%	8.2%	23.1%	6.8%	4.0%
Growth rate	2.3%	8.2%	6.1%	8.1%	9.6%	10.9%	6.0%	0.6%

Quantitative Model Inputs Rely on Modified Risk and Return Assumptions

Model Data Inflation Adjusted Using Higher Education Price Index

Expected return	2.0%	6.0%	6.0%	8.0%	6.0%	12.0%	6.0%	0.0%
Standard deviation	10.0%	20.0%	20.0%	25.0%	10.0%	30.0%	15.0%	5.0%
Expected growth	1.5%	4.1%	4.1%	5.1%	5.5%	8.1%	4.9%	-0.1%

Source: David Swensen, D., 2009, Pioneering Portfolio Management, 2nd Edition, p 109-10

Regarding private equity returns, a recent report from Cambridge Associates had provided some interesting historical evidence for both venture capital and leveraged buyouts (see Exhibits 9 and 10), although Sandra wondered whether the sample of funds for which Cambridge Associates reported data were representative of the whole sector.

Exhibit 9: U.S. Venture Capital Returns, as of 30 June 2009

Vintage Year	Internal Rate of Return (IRR)					Money Multiple			
	Pooled Mean Net to LPs (%)	Median Net to LPs (%)	Equal-weighted Pooled Mean Net to LPs (%)	Upper Quartile Net to LPs (%)	Lower Quartile Net to LPs (%)	Cash Returned /Paid In Net to LPs	Residual Value/Paid In Net to LPs	Total Value/Paid In Net to LPs	Number of Funds
1981	8.5	7.9	9.0	13.2	5.9	1.76	0.00	1.76	9
1982	7.4	8.0	7.4	9.1	4.9	1.78	0.00	1.79	11
1983	10.2	8.7	10.1	12.5	7.1	2.01	0.00	2.01	28
1984	8.6	6.3	8.1	12.9	3.4	1.76	0.00	1.76	32
1985	12.9	12.7	12.8	18.0	4.7	2.68	0.00	2.68	25
1986	14.6	9.5	9.4	13.0	5.4	1.88	0.01	2.89	31
1987	18.3	15.7	15.9	22.2	8.7	2.22	0.00	2.72	34
1988	21.1	12.0	15.4	21.9	6.8	2.22	0.03	2.61	27
1989	19.2	13.3	18.9	28.8	6.8	2.59	0.00	2.59	37
1990	33.0	21.4	26.4	31.8	11.6	3.17	0.00	3.18	16
1991	29.0	20.1	25.9	27.8	11.8	3.08	0.00	3.08	18
1992	34.8	23.0	37.8	38.9	11.4	3.19	0.01	3.20	24
1993	47.1	17.7	39.8	41.1	9.9	3.99	0.02	4.00	38
1994	55.7	26.5	45.3	49.3	7.1	5.31	0.02	5.33	42
1995	86.1	43.3	75.3	71.8	10.1	5.98	0.07	6.06	36
1996	94.3	33.0	87.1	85.7	6.9	4.36	0.08	4.45	42
1997	85.2	8.6	70.6	56.1	(3.4)	2.79	0.10	2.89	75
1998	12.4	(1.7)	15.4	18.0	(8.4)	1.29	0.16	1.45	80
1999	(2.5)	(5.4)	(2.6)	2.3	(15.5)	0.62	0.26	0.88	115
2000	(1.8)	(6.8)	(3.1)	2.5	(9.7)	0.46	0.47	0.92	159
2001	(0.5)	(0.0)	0.1	5.6	(10.4)	0.37	0.61	0.98	55
2002	0.7	(1.2)	(0.3)	5.3	(6.8)	0.39	0.64	1.02	30
2003	3.7	(4.7)	0.6	6.0	(11.2)	0.31	0.78	1.09	35
2004	(1.6)	(5.0)	(0.8)	0.6	(11.7)	0.14	0.84	0.98	62
2005	(4.7)	(7.8)	(5.6)	0.4	(14.7)	0.09	0.83	0.92	56
2006	(5.1)	(8.7)	(8.0)	(3.1)	(14.7)	0.03	0.89	0.92	66
2007	(14.9)	(17.1)	(19.3)	(11.7)	(26.8)	0.00	0.84	0.84	50
2008	(20.0)	(18.7)	(23.6)	(8.0)	(30.6)	0.00	0.87	0.88	44

Note: Based on data compiled from 1,277 U.S. venture capital funds, including fully liquidated partnerships, formed between 1981 and 2008. Returns are net of fees, expenses and carried interest. Vintage year funds formed since 2005 are too young to have produced meaningful returns. Source: Cambridge Associates LLC, June 30 2009. U.S. Venture Capital Index and Selected Benchmark Statistics

Clearly, if one had invested in certain years, the returns to both venture capital and leveraged buyouts had been excellent. But recent losses had been spectacular. And Sandra wondered to what extent the private equity returns for funds with significant residual values (i.e. investments in portfolio companies that had not been exited) had been marked-to-market. In general, the financial crisis had raised important questions about the case for investing in private equity.

Exhibit 10: U.S. Leveraged Buyout Returns, as of 30 June 2009

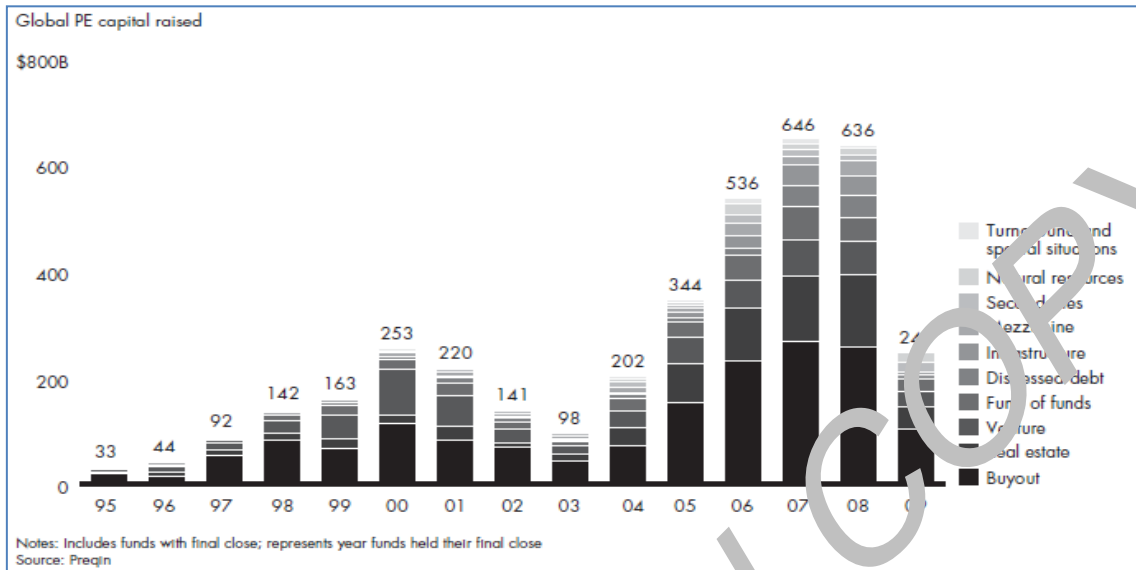
Vintage Year	Internal Rate of Return (IRR)					Money Multiple			
	Pooled Mean Net to LPs (%)	Median Net to LPs (%)	Equal-weighted Pooled Mean Net to LPs (%)	Upper Quartile Net to LPs (%)	Lower Quartile Net to LPs (%)	Distribution /Paid In Net to LPs	Residual Value/Paid In Net to LPs	Total Value/Paid In Net to LPs	Number of Funds
1986	19.1	11.0	13.0	17.7	6.6	3.45	0.00	3.45	10
1987	10.8	11.3	14.7	18.0	8.6	1.89	0.00	1.89	13
1988	14.5	12.0	13.0	15.2	10.0	1.90	0.01	1.91	16
1989	22.9	20.5	23.0	29.2	12.6	2.58	0.00	2.58	18
1990	14.4	15.1	15.2	19.2	10.6	1.74	0.06	1.77	8
1991	30.9	32.6	28.2	42.0	12.6	3.23	0.01	3.24	10
1992	27.3	16.1	23.3	27.6	12.7	2.41	0.01	2.42	12
1993	26.0	21.1	23.2	33.0	11.3	2.30	0.04	2.34	23
1994	8.9	9.8	10.6	21.6	(0.1)	1.43	0.08	1.52	22
1995	20.3	10.9	17.8	30.4	0.5	1.90	0.00	1.92	32
1996	9.8	8.7	9.2	13.2	(0.6)	1.41	0.10	1.51	36
1997	6.1	7.4	6.3	12.5	(1.7)	1.14	0.09	1.33	45
1998	6.7	9.3	11.0	14.4	0.8	1.17	0.20	1.35	49
1999	14.5	11.2	12.9	18.0	5.0	1.48	0.26	1.74	54
2000	14.5	11.2	12.3	20.5	3.9	1.09	0.49	1.58	67
2001	27.9	22.2	24.6	39.7	9.4	1.21	0.50	1.71	23
2002	21.6	21.4	19.6	28.7	0.5	0.92	0.68	1.60	30
2003	14.6	13.2	13.8	20.4	3.7	0.61	0.78	1.38	27
2004	4.9	4.7	7.5	11.3	(2.8)	0.25	0.87	1.12	61
2005	(6.2)	(3.4)	(2.4)	3.0	(12.5)	0.10	0.79	0.89	73
2006	(11.8)	(8.5)	(8.7)	3.1	(16.8)	0.05	0.76	0.81	63
2007	(20.4)	(15.6)	(12.2)	(6.3)	(26.7)	0.02	0.77	0.79	62
2008	(24.6)	(23.8)	(11.8)	(8.9)	(45.8)	0.00	0.82	0.82	33

Notes: Based on data compiled from 787 U.S. private equity funds, including fully liquidated partnerships, formed between 1986 and 2008. Returns are net of fees, expenses and carried interest. Vintage year funds formed since 2005 are too young to have produced meaningful returns. Source: Cambridge Associates LLC, June 30 2009. U.S. Private Equity Index and Selected Benchmark Statistics

Private equity during and after the final crisis

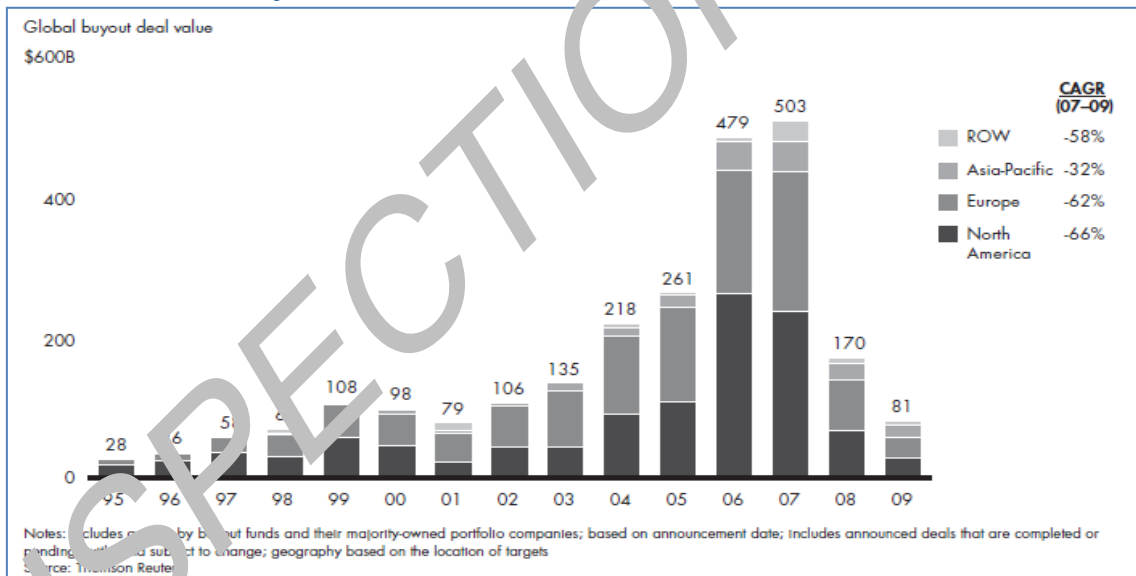
The Financial Crisis in 2008 had a severe impact on the private equity industry from both a GP and an LP's perspective. Over the previous few years, private equity funds had been growing rapidly and like Yale – investors globally allocated increasing amounts to the sector (see Exhibit 11). Within the private equity sector, leveraged buyout funds grew the fastest, as reflected in the growth in the scale of their buyout transactions (see Exhibit 12). Over 2008, the majority of existing private equity funds were suffering performance problems. Many had bought firms at historically high valuations, and during the recession many portfolio companies began to underperform the plans that formed the basis of their debt financing. Consequently, many portfolio companies became financially distressed which required complex negotiations between lenders and the GPs. In some high-profile cases the banks ended up owning the portfolio companies as the equity became worthless.

Exhibit 11: Global capital raised



Source: Bain Consulting, Global Private Equity Report 2010”, Bain & Company Inc.

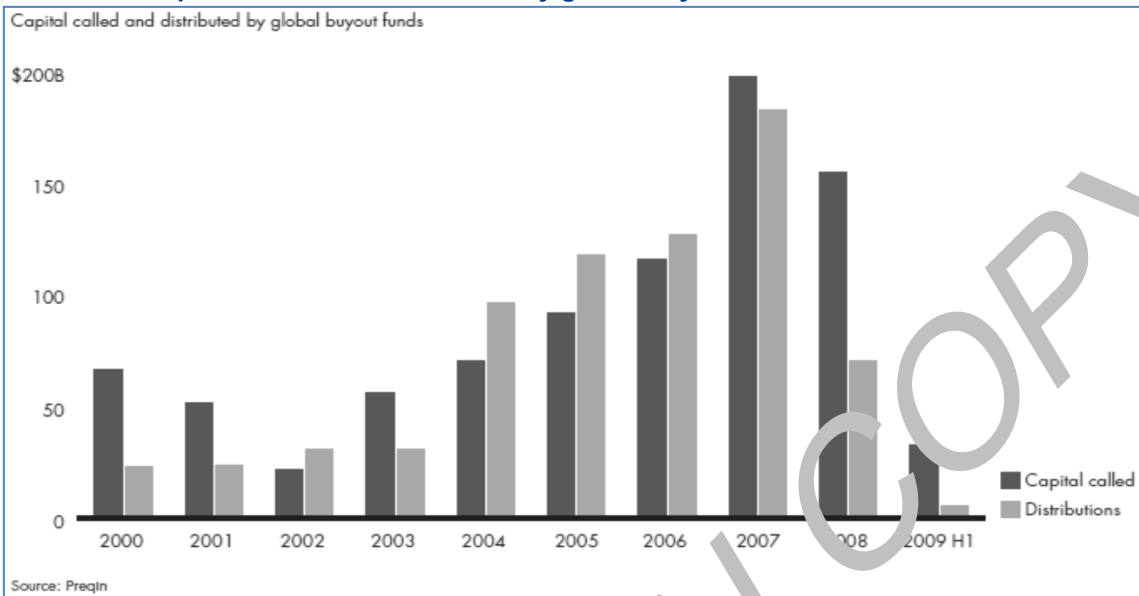
Exhibit 12: Global buyout deal value



Source: as in Exhibit 11

Many LPs began to question the private equity model. Could all that money that had been raised find attractive investment opportunities? They also questioned the reliance on loose bank financing, the potential lack of operational improvement to the companies invested in, and the high number of deals done between private equity players (“secondary” transactions) where funds appeared to pass assets amongst themselves. Furthermore, whilst GPs had been able to return large amounts of capital quickly to the LPs during 2004-07, exits became extremely difficult after the financial crisis (see Exhibit 13). This created severe liquidity problems for those LPs that had based their allocations to private equity on recent rapid re-cycling of capital.

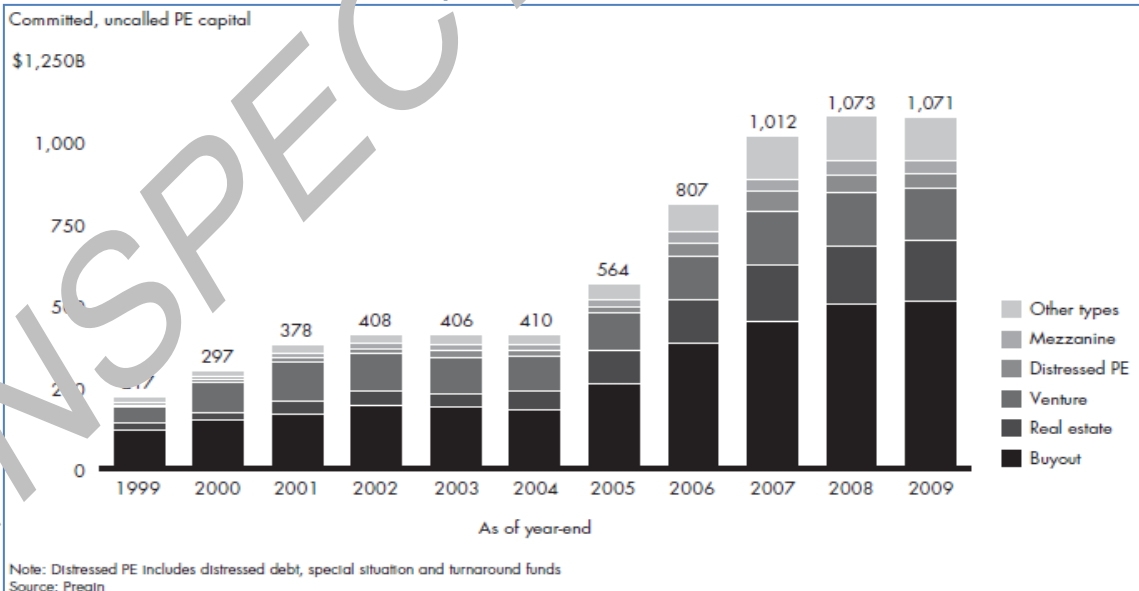
Exhibit 13: Capital called and distributed by global buyout funds



Source: as for Exhibit 11

This sequence of events had resulted in an unprecedented amount of committed but uncalled capital waiting to be invested in deal opportunities (see Exhibit 14). This created a risk of “too much money chasing too few deals” for the next few years, as funds attempted to draw down their committed capital within their investment periods (usually 4-6 years after the inception of the fund). Historically, such periods of excess capital resulted in poor returns.

Exhibit 14: Committed, uncalled capital



Source: as for Exhibit 11

The crisis had placed strains on GPs working in the industry and some long-established teams began to fray. Large funds scaled back their fund-raising efforts and some returned capital to investors. High profile incidents included:

- The significant scaling back of large fund-raising targets, such as Blackstone VI from \$20bn to \$15bn, and the allowance of a reduction of LP commitments and the return of some fees, such as with TPG VI in December 2008
- The problems at European group Candover, which habitually raised finance from a large public feeder vehicle, which was then unable to meet capital calls for new investments
- Significant portfolio companies apparently in close breach of their banking covenants, such as Terra Firma and Gala Bingo
- The quick bankruptcy of Washington Mutual in March 2009, the largest bank failure in US history, after TPG had injected some \$2bn into the company in April 2008

Furthermore, some LPs also suffered financial distress, including many university endowments, who found themselves over-committed to illiquid investment strategies as the value of liquid assets fell. Returning to Yale and Harvard, from July 1, 2008 to June 30, 2009, the Yale Endowment declined by 25% to \$17bn, and Harvard declined by 30% to \$25bn (see Exhibit 15). Furthermore, Barrons estimated that in June 2009, in illiquid commitments across asset classes, Harvard had \$11bn (44% of the Endowment value), Yale had \$8.7bn (51% of the Endowment value) and, as another example, Princeton \$6.1bn (54% of the Endowment value). This represented considerable liquidity risk, as the scale of such drawdowns would be difficult to finance if commitments needed to be honoured in a short period.

Exhibit 15: Less Money, More Stress

Major university endowments probably fell 25% to 30% in the past year, meaning guaranteed commitments to private-equity funds and others will equal a greater proportion of assets.

University	Harvard	Yale	Stanford	Princeton
Endowment Size (bil)				
On 6/30/2008	\$36.9	22.9	17.2	16.3
Current Estimate	\$25.0	17.0	12.0	11.4
Decline	-30%	-25%	-30%	-30%
Investment Commitments (bil)*	\$11.0	8.7	NA	6.1

Booming endowments were major contributors to expanding budgets at Harvard, Yale, Princeton and Stanford in recent years. With investment values down, a new austerity is underway.

Annual Budget (bil)	\$1,100**	2,280	3,500	1,360
Contribution From Endowment				
Dollars (mil)	\$600	850	1,000	653
Percentage	55%	37	29	48
Academic Year	2008-9	2007-8	2008-9	2008-9

*Commitment to private equity, real estate and other funds. **Faculty of Arts and Sciences.

Sources: School reports, Barron's estimates. See Barrons Article "The Big Squeeze", June 29, 2009.

Reviewing the strategy

Despite the turmoil, OUEM was in an interesting position in mid-2009. It had been gradually, and carefully, building up its private equity commitments, but in total these currently represented only around 5% of total assets, as compared to the strategic target of 20%. So, on the one hand, it would be relatively straightforward to change tack at this point. On the other hand, the endowment had a substantial amount of liquid assets to deploy, and so was in a position to build up its private equity investments as good opportunities arose.

Furthermore, despite the investment team being small, OUEM was in a competitive, attractive position to get access to funds. Sandra Robertson had extensive private equity experience through her prior work at the Wellcome Trust. Both recently-recruited Investment Directors working for her had significant experience in private equity, including one who had worked as a GP, so the capability to perform due diligence on opportunities existed in-house. Finally, the Oxford University name was an attractive “brand” for GPs to have on a reputational basis, and despite the distress in some university endowments, universities were seen by GPs as long-term and stable investors in preference to many fund of funds and private wealth managers. Sourcing and accessing funds was therefore not a significant barrier for OUEM.

However, Sandra anticipated some probing questions from the Investment Committee. After all, the financial crisis had produced some spectacular losses across virtually all asset classes (see Exhibit 16). This had caused some commentators to question the attractions of an equity-based strategy as well as the extent of the fund alpha/risk-adjusted excess returns – produced by the growing number of “alternative” asset managers running hedge funds and private equity funds. However, David Swensen was not for turning – as was clear from his recent commentary on the performance of the Yale portfolio to the end of June 2009 (see Exhibit 17). But it was hard to believe that lessons could not be learnt from recent events.

Sandra had arrived at the college 10 minutes early for the meeting. A key part of her presentation confronted the issues head-on, asking the question “should OUEM’s private equity strategy change?” Rather than review it a final time, she decided to put herself in the shoes of the investment committee. What were the likely questions she would be asked? Although she saw a good case for sticking to the 20% target allocation for private equity, she suspected some of the committee would need some convincing.

Exhibit 16: Returns on Equities, Bonds, Property, Commodities & Cash**Capital Market Returns (Sterling), Periods Ended 30 June 2009**

	Total Return (%)				Average Annual Compound Return (%)		
	One Month	Three Months	2009, year to date	One Year	Three Years	Five Years	Ten Years
Global Equities							
MSCI World	-2.53	5.09	-7.15	-14.80	-4.39	1.58	-1.27
MSCI World GDP	-2.94	5.96	-7.50	-16.65	-4.57	2.73	-0.38
MSCI World Small-Cap*	-1.13	10.86	-0.96	-13.15	-7.46	1.15	3.42
MSCI Europe	-4.00	9.02	-6.56	-20.89	-4.78	4.33	0.86
MSCI Europe Small-Cap*	-2.90	17.61	9.53	-23.01	3.36	1.41	3.63
MSCI UK	-3.33	10.17	-1.31	-20.50	6.52	2.49	-0.54
MSCI US	-1.91	0.69	-9.79	-11.95	1.02	-1.67	-3.41
S&P 500	-1.89	0.90	-9.94	-10.81	-4.00	0.34	-2.65
Dow Jones U.S. Small-Cap	-1.06	8.78	-5.90	-11.14	5.29	1.23	3.87
Nasdaq Composite*	1.27	4.48	1.59	-3.21	1.74	-0.27	-4.16
MSCI Pacific ex Japan	0.64	14.83	12.63	-12.58	4.37	11.95	6.13
MSCI Japan	-0.36	7.09	-10.43	-7.09	-6.62	1.34	-1.60
MSCI Emerging Markets	-3.38	17.36	18.93	-12.77	7.34	17.33	8.54
Global Bonds							
Barclays Capital Global Aggregate Bond	-1.68	-8.67	-1.37	22.18	10.90	7.59	5.59
Citigroup World Govt Bond	-1.97	-9.94	-14.71	25.68	12.02	8.12	6.06
J.P. Morgan Emerging Markets Bond Index	-0.87	-4.30	-1.61	23.78	10.63	11.14	10.67
Barclays Capital U.S. Aggregate Bond	-1.53	-11.41	11.03	28.16	10.63	7.06	5.52
Barclays Capital Euro-Aggregate: Corporate	0.21	0.98	-5.66	12.45	9.17	7.57	6.90
FTSE British Govt All Stocks	0.95	-1.11	-2.12	12.94	6.00	6.02	5.44
Barclays Capital Sterling Corporate	4.32	10.97	2.09	-3.92	-1.78	1.66	---
Barclays Global Inflation-Linked	1.21	-6.83	-6.76	12.08	9.21	7.59	6.91
FTSE British Govt-Index Linked All Stocks	0.91	2.93	1.56	0.51	6.00	6.30	5.47
Barclays Capital Global High-Yield Bond	0.16	7.87	14.38	16.85	6.75	7.61	6.53
Barclays Capital Pan-Euro High Yield Bond	2.36	22.72	29.31	9.16	6.98	8.64	---
Merrill Lynch Sterling High-Yield Bond	7.16	32.74	40.86	8.51	3.75	7.16	6.08
Property							
Investment Property Databank (U.K.) ¹	-0.89	-4.89	-9.46	-26.53	-10.03	0.79	5.81
Commodities							
S&P GSCI™ Index	-1.52	3.78	-6.98	-51.27	11.83	1.57	5.86
Cash							
LIBOR	0.11	0.37	0.97	3.89	5.28	5.16	5.10
Inflation							
Consumer Price Index – UK ²	0.54	1.00	1.10	2.22	2.70	2.45	2.31

Sources: Barclays Capital, Bloomberg L.P., Citigroup Global Markets, Dow Jones & Company, Inc., FTSE International Limited, Investment Property Databank Ltd., J.P. Morgan Securities, Inc., Merrill Lynch & Co., MSCI Inc., Office for National Statistics, Standard & Poor's, Thomson Datastream, and *The Wall Street Journal*. MSCI data provided "as is" without any express or implied warranties.

* Capital gain only

Notes: Total returns for MSCI developed markets indices are net of dividend taxes. Total returns for MSCI Emerging Markets indices are gross of dividend taxes.

¹ Investment Property Databank(U.K.) results are as of 31 May 2009.

² U.K. CPI inflation data as of 31 May 2009. U.K. inflation data are represented by the U.K. RPI until November 2003 and U.K. CPI from December 2003 to the present

Modified from: Cambridge Associates LLC Quarterly Market Update June 30, 2009

Exhibit 17: Commentary on Yale's Performance and Strategy

Fiscal 2009 Performance

Yale's Endowment produced a negative 24.6 percent return in the fiscal year ending June 30, 2009, a period marked by a financial crisis during which global equity markets declined by nearly 30 percent.

During this period, equity exposure hurt results, diversification failed to protect asset values, and illiquidity further detracted from performance. With more than 95 percent of assets invested to generate equity-like returns, the portfolio's performance suffered in an environment characterized by widespread declines in marketable and non-marketable equity values.

Among Yale's asset classes, marketable assets performed relatively well, with absolute return, domestic equity, foreign equity, and fixed income in aggregate declining by 13.1 percent. As in previous years, active management added substantial value to the University's portfolio. Absolute return posted a credible -9.1 percent return. Even though the University's absolute return managers failed to achieve the goal of producing a positive return in fiscal 2009, the hedged portfolio produced results far superior to returns generated by equity markets. The University's domestic equities fell by 18.6 percent, surpassing their Wilshire 5000 benchmark by 7.5 percent. Foreign developed equities shrank by 14.4 percent, posting a 17.0 percent advantage over the MSCI EAFE Index. Emerging market equities decreased by 19.2 percent, outperforming the MSCI Emerging Markets Index by 8.8 percent.

Yale's private equity holdings in leveraged buyouts and venture capital posted 24.3 percent loss. Real assets, Yale's large asset class, produced the worst performance with a decline of 33.9 percent, thereby accounting for the largest portion of the Endowment's losses. Notably, in a year when oil prices dropped from \$147 on July 1, 2008 to \$72 on June 30, 2009, Yale's energy investments dropped a commensurate 47.4 percent.

Diversification and Equity Orientation

Based on the substantial decline in Yale's Endowment during the financial crisis, some observers questioned the University's investment philosophy, which rests on the principles of diversification and equity orientation. While the diversification provided by the absolute return asset class mitigated the damage caused by declines in marketable equities, the most profound portfolio protection comes from holdings of U.S. Treasury securities. Unfortunately,

the high opportunity costs of holding government bonds in normal markets force sensible long-term investors to limit holdings of the low-expected-return assets, thereby limiting their portfolio impact.

If diversification fails to protect a portfolio in the face of a financial panic, why bother to diversify? The answer lies in the diversified portfolio's lower risks and higher returns. Consider the case of Japan in 1989. An undiversified portfolio invested 100 percent in Japanese stocks would have experienced a decline from a peak level of 38,816 in December of 1989 to 10,546 in December of 2009, corresponding to a loss of 72.9 percent and an investment result of -6.3 percent per annum. Diversification matters.

As to equity orientation, history teaches us that over reasonably long holding periods, higher-risk equities outperform lower-risk bonds. In fact, for the capitalist system to function properly, expected returns for equities must exceed expected returns for bonds. Both practice and theory point to long-term investors toward portfolios with significant holdings of equity positions. Equity orientation makes sense.

Liquidity

Investors frequently encounter opportunities to generate excess returns by accepting illiquidity. Of course, the correct conclusion is not to pursue every premium return associated with illiquid assets and thereby create a completely illiquid portfolio. Prudent investors maintain sufficient liquidity to meet the full range of portfolio commitments, which, in the case of an endowment fund, include annual spending distributions and contractual commitments to external money managers.

In many cases, portfolios characterized by high percentages of long-term assets contain more liquidity than might be immediately apparent. Consider a fund that holds marketable bonds and equities, absolute return positions, real assets (real estate, oil and gas, and timber), and private equity (leveraged buyouts and venture capital).

Even with a zero allocation to cash in the portfolio, investment holdings generate a fair amount of natural liquidity. For instance, bonds pay interest, stocks pay dividends, real estate produces rents, energy reserves provide returns on capital as well as returns of capital (through depletion), and private equity partnerships distribute proceeds from realizations.

Holdings of marketable securities provide a source of non-disruptive liquidity, namely, liquidity generated in a manner that does not change the Endowment's asset class exposure. For example, fixed income positions and equity positions can be used as collateral for short-term loans. (Technically, bond transactions are structured as sales and repurchases, known as "repos," while equity transactions are structured as loans, known as "security lending.") The owner of the securities retains the economic exposure associated with the securities and receives the proceeds produced by the securities, thereby generating liquidity.

External borrowing represents another source of non-disruptive liquidity. For example, for nearly two decades, Yale has tapped the commercial paper market to provide funds for operations, capital projects, and investments. During the recent financial crisis, the University had access to nearly \$2 billion of fully supported commercial paper funding. The program produced exceptionally attractive financing; from July 1, 2008 to June 30, 2009 Yale's commercial paper costs averaged 1.76 percent, substantially below the three-month LIBOR rate of 2.21 percent. Other sources of non-disruptive liquidity for endowments include internal transfers and gifts.

Marketable securities also provide a source of disruptive liquidity, namely, liquidity generated in a manner that changes the Endowment's asset class exposure. Outright sales of bonds or stocks generate liquidity, but alter portfolio characteristics. Withdrawals from absolute return managers constitute another source of disruptive liquidity. Private equity and real assets represent a third source of disruptive liquidity. However, even under the best of circumstances, sales of illiquid partnerships take place at meaningful discounts to fair value. In the heart of a financial crisis, sales of illiquid holdings should be pursued only as a last resort, since transactions generally take place at dramatic discounts to fair value.

Liquidity matters, even to portfolios with modest spending requirements and long-term horizons. By putting in place mechanisms to tap a variety of internal and external sources of liquidity, endowment managers provide the means for educational institutions to satisfy the full range of portfolio commitments.

Source: 2009 Yale Endowment Report, p. 3