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ASSET ALLOCATION BY INSTITUTIONAL INVESTORS AFTER THE RECENT FINANCIAL CRISIS

Introduction

Asset allocation is the key to the long-term performance of institutional investors; it determines over 80% of their performance over several decades.[1] For example, if an institutional investor held a diversified portfolio of US stock during 1991-1999, it would have recorded excellent performance regardless of the individual stocks selected. Conversely, that institution would have recorded relatively poor performance during 2000-2008 if it held a diversified portfolio of US stock regardless of the individual stocks selected.

By asset allocation, we mean the division of an institution's capital among a variety of asset classes in accordance with the institution's long-term policy goals. These asset categories may be fairly broad-- such as stocks, bonds, alternative investments and cash. Alternatively, these asset categories may be fairly specific--such as US stocks, non-US stocks, government bonds, corporate bonds, hedge funds, private equity and real estate.

This type of long-term asset allocation should be distinguished from tactical asset allocation. Strategic asset allocation is aimed at fulfilling an institutional investor's policy goals over a full market cycle lasting at least 5 to 10 years. On the other hand, tactical asset allocation is an attempt to take advantage of short-term opportunities in the market when certain asset categories appear to be out of line with economic fundamentals. Tactical asset allocation may be performed quarterly, monthly or even daily.[2]

This paper will examine strategic asset allocations by institutional investors[3] globally after the financial crisis in 2008-2009, focusing on changes in asset allocation by corporate and governmental pension plans, foundations and university endowments. These institutional investors have considerable

discretion in setting their asset allocations. By contrast, changes in asset allocations by mutual funds, defined contribution plans and brokerage accounts are directed primarily by their retail customers and their advisors.

This paper will be organized into three main parts. The first part will delineate the main trends in asset allocation from 2007-2009 by institutional investors in various geographic areas—the US, Europe, Canada, the UK, Japan and Asia ex-Japan (hereafter referred to as Asia). The key trends include:

- decreased allocation to equities (together with a shift from home country to global equities),
- increased allocation to fixed income, and
- increased allocation to alternative investments.

The second part will evaluate these key trends in asset allocation in light of the policy objectives apparently driving them. The shift from domestic to global equities will probably fulfill the objective of more diversification of risk for institutional investors. While the shift from equities in the aggregate to high-quality bonds is likely to reduce portfolio volatility from year to year, this shift entails more interest rate risk – especially in the current environment of historically low rates. The sharp rise in institutional allocations to alternative investments does not appear likely to meet the objective of consistently positive returns in all market environments, though alternatives are likely to be less volatile on a year-to-year basis than stocks or possibly bonds.

The third part will analyze in depth the factors influencing the asset allocation decisions by their specific types of institutional investors—pension plans of S&P 500 companies, pension plans of state-local governments, and investment funds of foundations and endowments. Due to limits on data availability, these analyses are confined to institutional investors within the US. In an effort to "de-risk" their portfolios, corporate DB plans are moving allocations from stocks to bonds. However, as explained

above, these plans may be taking on considerable interest rate risk at the wrong point in the cycle. If interest rates rise, the value of their bond portfolios will be reduced, though their projected liabilities would also decrease. By contrast, public pension plans are taking a more aggressive stance by concentrating heavily on international equities and alternative investments. Although this approach is understandable because of the large funding deficits faced by many public plans, they run a substantial risk of not meeting their ambitious goals for investment returns. Last, endowments and foundations are also poised to expand their already heavy reliance on alternative investments, including hedge funds, private equity and real estate. However it is unclear whether alternative investments will meet their stated objective of absolute returns in the future since they failed to do so during the financial crisis.

I. GEOGRAPHIC TRENDS IN ASSET ALLOCATION

Institutional investors around the world have shifted their investment asset allocation in the aftermath of the global stock meltdown. While allocations to various asset classes remained relatively stable from 2005 to 2006, shifts began to emerge by 2007. Not all regions started with the same baseline for asset allocation in 2007. For instance, investors in Europe have traditionally had much lower allocations to equities than those in the US. Similarly, not all shifts in asset allocation are parallel across regions. Nevertheless, some common themes emerge among institutional investors globally, including reducing exposure to equities, especially domestic equities, increasing fixed income allocations and generally increasing alternative investment allocations such as hedge funds, private equity and real estate. While adjustments to portfolio asset allocation (calculated using market values) may have been a direct result of sharply declining equities during the stock market crash of 2008 and early 2009, thus far the data do not suggest that investors are looking to rebalance back to pre-crash allocations among asset categories.

A. Declining Equity Allocations

Institutional investors have reduced their exposure to equities since 2007. The UK and the US have undergone the steepest reductions. In the U.S., the equity allocation dropped from 59.6% in 2007 to 47.3% in 2009. Even regions with historically low preferences for equities (Japan and Asia) have reduced equity exposure over the past two years. (Chart 1)

Looking at the exposure more closely, the prevailing trend in every region around the world has been a reduction in exposure to domestic equities.[4] (Chart 2) In some regions, the allocation away from domestic equities started before 2007 and continued through 2009. For example, according to survey results, institutional investors in the US allocated nearly 47% of their assets to US equities in 2005, but

by 2009 allocated only 32%. Analysis of institutional asset data shows that net flows by institutional investors to US equities have been negative since 2007.[5]

UK institutions have similarly demonstrated a sharp fall-off in the allocation to UK equities, from 34% in 2005 to 19% in 2009. While Japanese institutional investors have not traditionally allocated a high percentage of their portfolios to equities, even there the allocation to domestic equities dropped from 11% to 6% between 2005 and 2009.

With global stocks off 50% in 2008, it is not surprising that equities became a smaller part of institutional allocations. Since institutional portfolios are measured by market values, equity allocations should have dropped by 50% from March of 2008 to March of 2009, all else being equal. Nevertheless, it is reasonable to assume that institutional investors, with considerable expertise and resources at their disposal, would have rebalanced their portfolios to reflect their policy objectives at the end of 2009. These policy objectives seemed to have called for lower equity allocations before 2008, though this trend was accelerated by the market crash. At the end of 2009, institutional investors either did not rebalance back to their prior target allocations, or they altered their targets since the decline was taking them in the direction they wanted to go anyway.

Survey data from 2009 regarding intentions with respect to asset allocation going forward indicate a continued preference for reducing home country equity exposure in the US, UK, Canada and Japan. When respondents were asked whether they expected to significantly increase or decrease their exposure to home country equities over the next three years, institutional investors in these four regions expecting to reduce their exposure far outnumbered those who indicated a preference for increasing exposure. (Charts 3 and 4) However, in Asia and Europe survey results reveal a preference for more equities. (Chart 5) A preference for more equities in Asia and Europe was also revealed in 2010 survey results.[6] In the case of Europe, exposure is low so that the expected increase is off a modest

base. In Asia, enthusiasm for economic growth prospects in the region may be fueling the continued appeal of domestic equities.

With respect to allocations to international and global equities, the picture is more mixed (chart 6). Since 2005, allocations across regions generally rose, but this trend was disrupted by the market crash. For example, exposure to international/global stocks for US based investors increased from 13.9% in 2005 to 17.9% in 2007. Yet, by 2009, the aggregate exposure for US institutions had fallen back to 15.1%, only slightly greater than the exposure in 2005. More recently, asset flows have been directed to international/global equities. According to Casey,Quirk analysis of eVestment Alliance data in the first quarter of 2010, "Non-US Equity products continue to be the beneficiaries of new asset flows as investors seek global diversification."[7]

Exposure to international/global stocks outside their home country for UK investors has been relatively consistent since 2005 at around 28% so investors appear to have rebalanced their portfolios in favor of international/global stocks after the market crash. International/global allocation by Asian institutions has declined to about 7% in 2009, where it remains currently.[8] The allocation for European investors dropped sharply to 6.5% in 2009 but subsequently partially rebounded to 10.5%, suggesting rebalancing occurred.[9]

With respect to intentions regarding exposure to international/global stocks, in the US, Canada, Europe and Asia, more investors said they were looking to "significantly increase" exposure than those who expect to "significantly decrease" exposure. (Charts 7 and 8) This appears to be a continuation of the trend that was interrupted by the stock market crash. In addition to the potential for diversification, there is a growing recognition among investors that globalization supports the argument in favor of investing outside of one's own country. Because industries compete with one another in a global economy, the best investment opportunities may lie outside of one's own home country. However, this

trend towards diversification is not universal. Within the US, while state and local government plans are increasing international/global allocations, Greenwich Associates concludes that corporate defined benefit plans are still looking to reduce exposure to global and international equities overall as their primary objective is to continue to de-risk their plans.[9a] In the UK and Japan, more investors look to significant decrease than significantly increase their exposure to international/global equities. (Chart 9) In a trend that parallels that in the US, UK corporate defined benefit plans expect to reduce international/global stock exposure while allocations for local authorities are on the rise. [9b]

B. Increasing Allocations to Fixed Income

A clear trend among investors globally is an increased preference for fixed income. (Chart 10) Allocations to fixed income by institutional investors remained relatively stable from 2005 until 2007 (except in Europe which posted a decline from 61% to 55% during that time period). After 2007, allocations rose. For example, UK allocations rose from 29% to 35% in 2009. In the US, the allocation increased from 23% to 28%. This may have been at least in part market driven since as stocks dropped globally, the overall percent of better-performing fixed income assets increased. However, according to Casey, Quirk, there was also a "flight to safety by institutional investors in late 2008 and early 2009, when investors sought protection in fixed income products as risk appetites diminished".[10]

This flight to safety is illustrated by significant purchases of U.S. Treasury securities by corporate and public plans. Data from the Federal Reserve indicates that from 2008 to 2009, outstanding public debt rose by 22%. Most of this increase was concentrated in instruments with 1-10 year maturities. During the year, state and local government retirement funds increased their ownership of these securities by 19.2%, commensurate with the increase in supply. However, the rise in ownership by defined benefit corporate pension funds was 85.3%, more than four times that of the public funds.[11]

Unlike equity investing, institutional investors do not appear to have significant exposure to fixed income outside their home country. This is not surprising because payout obligations of pension plans, university endowments and other institutional investors are usually denominated in the currency of their local country.[12]

Going forward, investors globally express a preference for higher allocations to fixed income. While surveys conducted by Greenwich Associates are framed differently by region (i.e., active /passive, domestic /global), the overall outlook is generally for more exposure to fixed income. (Charts 11, 12 and 13) This trend is especially pronounced outside the US. Expectations of higher fixed income allocations have been noted in other survey results, including an Institutional Investor survey of clients in the UK and Europe. This survey found that 51% of the clients surveyed expect to increase their use of liability-driven investment (LDI) strategies which typically involves heavy use of fixed income strategies.[13] Higher allocations to fixed income may be a lasting impact of the crash as investors determine that they cannot withstand the volatility of equities in their portfolios.

C. Increasing Use of Alternatives[14]

The last trend is an increase in the use of alternative investments, including real estate, hedge funds and private equity, albeit off a low base**.** (Chart 14) The one exception is Japan, where the use of these asset classes rose to 3% in 2006 but by 2009 fell back to only about 1% of asset allocation. In contrast, by 2009 the use of alternatives in the US rose to nearly 15% from under 10% in 2005 and from 8% to about 12% in the UK. Canadian investors also use alternative assets extensively (almost 16% in 2009), though the exposure in 2008 was even higher. Below the trends in each of these three alternative asset classes are discussed separately.

Chart 15 shows the trend for private equity investments by region. Historically, private equity has not been a significant part of institutional portfolios in general (with the exception of the

endowment and foundation marketplace in the US, discussed separately under section III C). Since 2007, the general allocation to this asset class appears to be increasing. For example, based on survey results US institutional investors reported a 5.8% allocation to private equity in 2009, up from 3.7% in 2007. However, because of the illiquidity of the asset class, returns for private equity are typically reported with a significant lag. Therefore, depending on the timing of the survey taken in 2009, the percent of overall portfolio allocation that institutional investors reported may not be fully reflective of asset mark downs resulting from declining equity values in 2008.

Despite the illiquidity of private equity, institutional investors globally demonstrate interest in increasing their allocation to this asset class. (Chart 16) Based on 2009 Greenwich survey results, across all regions, more than 10% of those surveyed expressed their intent to "significantly increase" exposure to private equity over the next three years. In Asia, half of all investors surveyed noted their intention to "significantly increase" their allocation. (Survey data for 2010 still show Asian institutional investors favoring continued increases in adding to private equity allocations, though the percentage declined to 23%.)[15] This broad-based preference for private equity seems inconsistent with two other trends. First, the illiquidity of private equity proved to be a challenge for certain institutional investors during the credit crisis of 2008-2009. Perhaps this characteristic of private equity was counterbalanced by the high liquidity of investment-grade bonds, which were increased by many institutional investors. Second, profitable exits by private equity depend heavily on a robust market for publicly traded equities -- an asset category that was reduced by most institutions over the last few years. Perhaps investors counted on an episodic surge in the initial public offering (IPO) market despite pessimism about long-term equity returns.

With respect to hedge funds, allocations by US and UK investors have steadily risen since 2005, albeit off a very low base. By contrast, investors in Asia and Japan report declining commitments to

hedge funds, and in 2009 reported less than 1% of their assets were allocated to this asset class. (Chart 17) Based on 2009 expectations data, however, in every region more respondents indicated they would significantly increase than significantly decrease hedge fund exposure. (Chart 18) In the US, for example, 15% reported they expect to significantly increase exposure vs. 5% who would significantly decrease exposure. In Asia, 42% of respondents reported their intention to significantly increase exposure, compared to 4% who expect to significantly decrease exposure. However, based on 2010 survey results, the enthusiasm for hedge funds among Asian investors waned. The percentage of respondents expecting to increase their exposure to hedge funds (18%) was about the same as those expecting to decrease exposure (19%).[16]

Last, allocations to real estate have remained fairly consistent since 2005 for many regions, including the UK at about 6% and the US at 4-5%. Canadian investors, though, increased allocation to real estate from 5.5% in 2006 to over 9% by 2009. (Chart 19) Here again, global investors surveyed reported far more interest in "significantly increasing" than "significantly decreasing" exposure to this asset class over the next three years. (Chart 20) Based on 2009 survey results, 38% percent of Asian investors said they would significantly increase their exposure vs. 10% who would significantly decrease exposure. In the US, 12% said they would significantly increase, compared to 4% who would significantly decrease. Canadians, who already have more assets committed to this asset class than those in other regions, continue to express robust interest in increasing their exposure (29% vs. only 2% who expect to significantly decrease). Based on 2010 survey results, investors in the UK, Europe and Asia also indicated a continued preference for adding to their real estate exposure.[17, 18]

II. EVALUATION OF THREE MAIN TRENDS IN ASSET ALLOCATION

As demonstrated in Part I, there were three trends in asset allocation among institutional investors throughout the world (with a few exceptions).

- Decreases in overall allocation to equities (with more of the equity allocation going to global equities and less to home country equities);
- Increases in fixed income (with emphasis on government and high-quality corporate bonds); and
- Increases in alternative investments (including hedge funds, private equity funds and real estate).

These three trends can be viewed together as one overarching shift in asset allocation by institutional investors – swapping out of equities (especially domestic stocks) into a combination of high-quality bonds and alternative investments. The policy objectives behind this trade seemed multifaceted: immunizing the liabilities of institutional investors, while generating higher returns with less volatility. Part II will evaluate these three asset allocation trends in light of the policy objectives apparently driving these changes in asset allocation.

A. Diversification Among Asset Categories and Within Equities Was Well Supported

Before the financial crisis of 2008-2009, it would often be taken for granted that diversification among asset categories had a beneficial impact on the risk-return relationship of an institutional investor's securities portfolio. The benefits of diversification by asset class were readily apparent over the long-term, with negative correlations among stocks and most types of bonds. Correlations among

U.S., non-U.S. and emerging equities as well as high-yield bonds have historically been positive but nevertheless have provided investors with some diversification benefit. (Chart 21)

But this conventional wisdom was thrown into doubt by the convergence of returns among asset classes during the financial crisis of 2008-2009. The returns of all asset categories plummeted, with the exception of US Treasuries and other sovereign bonds from advanced industrial countries, which became safe havens for investors. From April 1, 2008 through March 31, 2009, correlations among asset categories increased markedly – with the exception of long US Treasuries. (Chart 22)

This phenomenon of highly correlated returns among asset categories turned out to be short-lived. Within one year after the financial crisis, correlations among asset categories decreased significantly, though they were still higher than they had been over the last decade. (Chart 23) Thus, the benefits of diversification across all asset categories were generally realized by institutional investors if they were prepared to take a long-term approach to the positioning of their portfolios.

In particular, institutional investors that moved away from home country equities to a portfolio of more global equities did reap the benefits of diversification over the long term. For example, the correlation between the S&P 500 and the MSCI World ex US was 0.83 for the 10 years ending December 31, 2007, rose to 0.94 during the 12 months ending March 31, 2009, and fell back to 0.88 in the 12 months ending March 31, 2010. Similarly, the correlation between the S&P 500 and the Emerging Market Equity Index was 0.72 for the 10 years ending December 31, 2007, rose to 0.89 during the 12 months ended March 31, 2009 and fell back to 0.83 for the 12 months ending March 31, 2010.

Investors outside the US also benefitted from diversification outside their home country over the long term. The correlation between Japanese equities and the MSCI World-ex Japan index was .49 for the ten year period ending December, 2007. During the height of the crisis (one year period ending 3/31/09) it rose to .94. In the twelve subsequent months, though, correlations declined to .68, still

above the long term average but lower than during the peak of the crisis. The pattern of correlations was repeated for UK investors, though to a far more muted extent. For the ten year period ending in 2007, the correlation between UK equities and stocks outside the Europe was .87. The correlation rose to .93 for the one year period ending in March 2009 and subsequently declined to .90.[19]

In short, the move away from home country equities to a more global portfolio of securities made sense for institutional investors globally. While correlations converged during the crisis, they reverted back toward long-term relationships in the year after the crisis.

B. Shift to Fixed Income Was Understandable, But Short-Sighted

As the equity portfolios of institutional investors shifted from a home country to a global basis, their overall equity positions declined in favor of fixed income after the financial crisis. This decline appeared to be partly a decision to move to the safety of high quality debt, and partly a result of the steep drop in the market value of equities in the year before March, 2009.

During the financial crisis, liquidity in the securities markets declined sharply. To achieve higher levels of liquidity, many investors shifted assets to government bonds during the financial crisis. For example, institutional investors moved large sums out of money market funds holding commercial paper to those holding only US government paper.

This dramatic decline in liquidity during the financial crisis had a significant impact on certain institutional investors. For example, some university endowments were hard pressed to meet their funding obligations to sponsors of private equity funds; other pension plans were challenged to meet their payout requirements. Again it is quite understandable that these institutions favored government bonds, with their high degree of liquidity.

Government bonds also offered high returns with lower risks than equities during the peak of the financial crisis. In the 12 months ending March 31, 2009, the returns of the Barclay's long Treasury index and the Barclay's 3-5 Year Treasury index were 13.1% and 6.8% respectively, with volatility of 19.5% and 5.4% respectively. By contrast, for the 12 months ending March 31, 2009, the S&P 500 and the MSCI World Ex US were -38.1% and -46.0% respectively, with volatility of 25.9% and 29.4% respectively. (Chart 24)

However, these outstanding returns for US government bonds were short-lived; the volatility of these bonds increased, though they were still lower than the volatility of the stock indexes. During the 12 months ending March 31, 2010, the return and risk for the Barclay's Long Term index were -7.3% and 9.6%, while the return and risk of the Barclay's 3-5 year Treasury index were 0.6% and 3.9%. By contrast, during the 12 months ended March 31, 2010, the return and risk of the S&P 500 were 49.8% and 13.3%, while the return and risk of the MSCI World Ex US were 56.8% and 19.6%. (Chart 24)

Of course, it is difficult to predict the risk-return ratios of asset categories over the next 5 to 10 years. However, the low interest rates offered by 10-year US Treasuries during 2009 --between 2.2% and 4.0%-- were insufficient to meet the return assumptions required by many pension plans to avoid further contributions. Return assumptions for most pension plans have continued to hover close to 8% despite strong evidence that these assumptions are not realistic. (Chart 25)

Moreover, by increasing their holdings in long-term government bonds during 2009, institutional investors were implicitly taking on considerable interest rate risk over the next 5 to 10 years. Consider Chart 26, which shows interest rate levels for 5 and 10-year US Treasury bonds since 1960. This chart demonstrates that long-term interest rates were at historic lows in 2009 and 2010, so they are more likely to rise than fall over the next 5 to 10 years (absent deflation). If long-term interest rates rise, the bond portfolios of institutional investors would fall in value. But this fall may be offset to

some degree by the decrease in projected liabilities of public and private pension plans. The present value of the pension plans' obligations are heavily influenced by long-term interest rates.

C. Increase in Alternative Investments

In addition to fixed income, institutional investors generally increased their allocations to alternative investments – including hedge funds and private equity funds. In making such alternative investments, institutional investors were generally seeking absolute returns rather than relative returns. A manager promising absolute returns should deliver positive results even in down markets, often by taking significant short positions. By contrast, a traditional long manager seeks to achieve superior relative performance---higher returns than the relevant benchmark. For example, a long only strategy would be considered successful if it declined 5% when the benchmark declined 7%.

Although the managers of hedge funds promised absolute returns, hedge funds on average had large negative returns (-19%) in 2008. Yet institutional investors still allocated more to hedge funds during 2009 when they on average had positive returns of +20% -- much lower than the return of the global equities (+35%) in 2009. (Chart 27) The appeal of hedge funds most likely probably stems from the lower volatility and diversification benefit of the asset class, in addition to return potential.

Even this possible explanation of increased institutional allocations to hedge funds may be based on overstated performance results. Several studies have shown that average hedge fund returns were overstated by approximately 3% per year due to survivorship bias – when a failed fund is removed from a database along with its performance history.[20] Similarly, several studies have estimated that average returns of hedge funds are overstated by at least 2% per year due to backfill bias. Backfill bias occurs because when hedge funds begin reporting returns to databases, they may (or may not) include prior return history. Hedge funds typically include historic data only when returns have been good.

This selective reporting of the most favorable start date for returns therefore tends to elevate the overall level of hedge fund returns in the databases.[21]

In any event, we do know that fees are coming down for hedge funds and funds of hedge funds. In 2007, the norm for funds of hedge funds was a 1% base fee, a performance fee of 10% of realized gains. In 2009, the average performance fee for funds of hedge funds fell to 6.5% of realized gains, according to a data provider called Eurekahedge.[22] Similarly, institutional investors have been pressuring hedge funds to lower their fees, which had crept up from 2+20% to 2+30%, 3%+20% or even 3%+30%[23].

The objective of most private equity funds was different from the objective of most hedge funds. Most private equity funds aim to deliver over 5 to 10 years returns 4% to 5% above those generated by a broad base stock index like the S&P 500. But private equity funds do not promise positive returns every year, since their profitable exits heavily depend on IPOs into strong equity markets. Indeed, during the past few years the return pattern has mimicked that of hedge funds; i.e. not as bad during the down period but not as good during the upswing. The following chart shows the mean private equity manager return compared to the S&P 500 and the Russell 2000 small cap index for three recent annual time periods. (Chart 28)

On a longer term basis, Professors Kaplan and Schoar from the University of Chicago showed that the average returns of private equity funds, after all fees, matched or slightly underperformed the S&P 500 from 1980 through 2001.[24] Similar research by Professor Phalippou of the University of Amsterdam contended that private equity funds, after fees, underperformed the S&P 500 by 3% per year from 1980 to 2003.[25] On the other hand, independent studies by three firms, Cambridge Associates, Venture Economics (Thomson Reuters) and State Street, conclude that although private

equity funds underperformed the S&P 500 in 2009, they outperformed over 3, 5, 10, 15 and 20 years. (Chart 29)

Yet there is a general consensus that the returns of the top quartile of private equity managers are significantly better than those of the other private equity managers. Moreover, the above-average returns of the top quartile of private equity managers seem to be persistently superior.[26] In other words, by developing specialized skills in less efficient markets, these top private equity firms have avoided regression to the mean.

In the decades before 2005, a private equity deal above $15 billion was rare. In 2006 and 2007, however, private equity did at least 10 deals over $15 billion.[27] These megadeals were possible because the private equity funds had raised large amounts of cash and were able to borrow even larger amounts on very favorable terms.

Most of these megadeals fared poorly during the financial crisis. Furthermore, from mid-2008 thru the end of 2009, the largest private equity funds were not able to invest intelligently much of their capital; the 10 largest private equity firms each had more than $10 billion in "dry powder" as of June, 2010.[28] Only during the first half of 2010 did private equity firms start again to acquire new companies, and raised over $9 billion in IPOs to exit from old deals.[29]

As both sides of the private equity market began to pickup, institutional investors were prepared to provide more capital to seasoned managers. But large investors formed the Institutional Limited Partners Association (ILPA), which issued a set of best practices for managers of private equity funds to follow. These best practices called for greater transparency, lower fees and more generous profit sharing. As a result, annual management fees and special "deal fees" charged by private equity managers have started to decline.[30] Hurdle rates--i.e. the return rate above which incentive fees may be collected by private equity managers--have also become more common. From 2000-2002, 73% of

funds worth at least $1 billion had a hurdle rate, but that percentage has risen to 94% among funds raised in 2009 and 2010.[31]

In short, institutional allocations to hedge funds and private equity funds are rising significantly, while the fees paid by institutional clients of these funds are falling modestly. Moreover, under legislation that may pass Congress this year, managers of both types of funds would be required to pay taxes on "carried interest" at ordinary income rates (currently 35%) rather than capital gains rates (20%). This legislation would not increase the tax rates paid by institutional investors who are limited partners in private equity or hedge funds, and therefore should not directly lower the terms of the limited partners.

III. ASSET ALLOCATION TRENDS BY TYPE OF INSTITUTIONAL INVESTOR

While the three trends in asset allocation after the financial crisis applied generally to all financial institutions, there was significant variation among different types of institutional investors. Part III will discuss the asset allocation trends for corporate pension plans, public pension plans and endowments of foundations and universities. This discussion will focus on asset allocation trends for these types of institutional investors in the US because of limitations on the ready availability of data.

A. Corporate Pension Plans

At the end of 2009, defined benefit (DB) plans of US corporations held approximately $2.1 trillion in assets, according estimates by Cerulli Associates.[32] Most of these DB plans were established years ago by large US corporations. Due to increasing strict accounting and regulatory rules for DB plans, there are almost no new DB plans in the US; many existing DB plans have been frozen and closed to new entrants. Instead, most US corporations have come to rely heavily on DC (Defined Contribution) plans for their retirement programs.

Looking at DB plans in the companies comprising the S&P 500, their funding status was heavily affected by the rise and fall of stock markets before, during and after the financial crisis. Their funding status was also adversely affected by the decline in US interest rates from the fall of 2008 through 2010, leading to lower discount rates. At the end of 2007, these DB plans were funded at 107% of their required amounts. Their funding status fell to 79% at the end of 2008 as the stock market crashed, and rose to 82% at the end of 2009 due to the stock market rally that year.[33]

Moreover, these percentages in 2008 and 2009 are significantly overstated because many companies have not yet recognized losses from these two years in accordance with the smoothing rules of FAS 87. Under the Pension Act of 2006, new funding rules would have required plans to make contributions to amortize unfunded liabilities over seven years.[34] In response to the financial crisis, however, Congress in 2010 provided relief to DB plans by allowing them to use a 15-year amortization schedule or, alternatively, paying interest only for two years plus a 7-year amortization schedule. Both the 15-year schedule and the two years of interest payments would be available for underfunding in 2 out of 4 plans years during the period of 2008 thru 2011. If a 15-year amortization schedule were used by all S&P 500 companies with DB plans, their funding obligations would decline in 2011 from $56 to $48 billion. If the two years of interest plus 7-year amortization schedule were used by these companies, their funding obligations would decline in 2011 from $56 billion to $43 billion.[35]

Thus, even with Congressional relief, most DB plans in the US have substantial funding deficits, which will have to be met over the next ten to fifteen years. In general, DB plans will face substantial challenges in closing their long-term funding deficits. By shifting asset allocations from equities to fixed income with lower expected returns, these challenges could be even tougher. According to an analysis by Goldman, Sachs, equity allocation dropped from 56% in 2007 to 48% in 2009.[35b] In contrast to the general trend of institutional investors moving to global and international exposure, DB plans in the US

appear to be reducing all equity exposure, domestic and international/global. Over the same period, the fixed income allocation rose from 32% to 35%.[35c]

This shift from equities to fixed income seems income seems inconsistent with the return assumptions of most DB corporate plans, which have stayed stubbornly close to 8%. Perhaps DB plans expect to reach their return goals by combining lower equity allocations with enhanced exposure to alternative investments, as indicated by an increase from an 8% allocation to "other" in 2007 to a 14% allocation in 2009.[36] ("Other" in this instance includes any asset class other than equity, debt and real estate). According to analysis by Credit Suisse, larger DB plans (with over $1 billion in assets) saw the largest drops in equity allocations and relatively high allocations to alternative investments. Conversely, smaller DB plans (with less than $1 billion in assets) have tended to have relatively high allocations to equities and less to alternative investments.[37] This may be attributable to the relative lack of expertise on alternative investments in small DB plans.

There are other exceptions to the general move of corporate DB plans away from equities and toward fixed income. First, weak corporate DB plans with less than 69% funding maintained relatively high allocations to equities and relatively low allocations to fixed income.[38] This may be an attempt to close the large funding deficit by taking on more year-to-year volatility. Second, some of the largest corporate DB plans in the US have reportedly delayed a move out of equities and into fixed income because of their interest in converting to LDI (liability-driven investment) and similar strategies. Such strategies are not feasible until a plan becomes at least 90% funded.[39] This shift to LDI is a trend that is well underway in the U.K. and that DB fund administrators in the U.S. are seeking to emulate with the goal being to extricate themselves from the pension fund management business. (Indeed, the move to closing DB plans and shifting to DC plans is indicative of the overarching goal to get out of the DB business altogether.)

This general shift from stocks to bonds by corporate DB plans is understandable in light of recent events. Having experienced the freezing up of the short-term financing markets for commercial paper and asset backed securities, many pension managers sought safety by increasing their positions in US Treasuries. In addition, according to Greenwich Associates, US pension managers believe that mark to market accounting will be extended to US pension plans in the near future – perhaps along the line of the current proposal from the International Accounting Board. The proposed amendments to IAS 19 would do away with many of the smoothing mechanisms built into current pension accounting. Instead, companies would be forced to recognize changes in net value of pension obligations through the earnings statement or stored in "other comprehensive income".[40] In a mark to market environment, DB managers would have an incentive to hold more bonds and fewer stocks to reduce volatility of pension plan returns. Even if stocks earn significantly higher returns than bonds over the long term, the higher volatility of stocks may require a higher level of corporate contributions to a DB plan in any particular year.

Yet these advantages of high allocations to top-quality bonds entail significant risks to corporate DB plans. The expected annual return assumptions for US DB plans of S&P 500 companies on average are now around 8%.[41] It is hard to see how these expected returns can be met if these DB plans allocated half or more of their assets to fixed income. Moreover, the data suggests that significant purchases of U.S. Treasuries were made at a time when interest rates were historically low. If U.S. interest rates rise over the next 5 to 10 years, DB plans are likely to incur substantial long-term losses on their bond portfolios which could increase their unfunded deficits. On the other hand, rising interest rates would reduce the size of their overall projected obligations. The net result for any particular plan would depend on a variety of factors including how well matched the long-term bonds in the portfolio are to the maturity structure of its pension obligations.

B. Public Pension Plans

At the end of 2009, defined benefit plans of US states and municipalities held approximately $2.7 trillion in assets, according to estimates by Cerulli Associates[42]. Most of these DB plans were established years ago, and grew steadily as unions for public workers bargained for increasing benefits – sometimes in lieu of wage increases. While regulatory and accounting rules for corporate DB plans became much stricter between 1974 and 1999, these rules for public DB plans have only recently become more demanding and still are much less strict than those for corporate DB plans. Similarly, while corporate America has moved dramatically from DB to Defined Contribution plans, only a few states and municipalities have made this move, though some have supplemented DB plans with some type of DC plans.

As a result, the underfunding of state and local pension DB plans is substantially worse than in corporate DB plans. According to a Pew report entitled "The Trillion Dollar Gap",[43] at the end of fiscal 2008 (ending June 30, 2008), the total pension liabilities of public DB plans in the US was $2.8 trillion, of which $2.3 trillion (or 82%) was funded on average. But this average obscures the fact that eight states have funding levels below 66%. The Pew report clearly understates the funding shortfall in public DB plans because it does not reflect the sharp downturn in the markets during the second half of 2008. For example, Florida, which is one of only two states that thus far has reported 2009 results, realized a return of -18.96% for the fiscal year. Florida's funded status dropped from 106% funded at the beginning of the 2009 fiscal year to only 93% funded at the end of the fiscal year.[44]

Moreover, the funding deficits of public DB plans are understated because of the methodologies they are allowed to utilize under Government Accounting Standards Board (GASB) Statement #25. That allows public pension plans to discount future pension liabilities at the same rate they expect to earn annually on invested assets – as opposed to FASB which requires the discount rate to approximate the

rate on high-quality corporate bond. The Stanford Institute for Economy Policy Research compared the unfunded liabilities of Calpers and Calsters under their expected return assumptions (7.75% and 8% respectively) to what they would be using the "risk-free" rate of 4.14% for a 10-year US Treasury as the discount rate.[45] The difference was startling – the funding of Calpers went from 86.1% to 49.9%, and from 90.9% to 50.8% for Calsters.[46, 47]

The GASB has resisted efforts to move toward fair value of pension assets. While it has proposed in some cases to use a discount rate based on high-quality municipal bonds rather than expected returns, this is only applicable to cashflows needed to eliminate a plan's deficit. Expected returns can still primarily be used as the discount rate for existing plan assets. GASB also would require government plans to amortize some pension costs based on an employee's expected time until retirement, rather than on 30 years of service.[48, 49]

As big as the challenges for public pension plans, the challenges are much more difficult for public retiree healthcare – referred to as OPEB (other post-employment benefits). According to the Global Markets Institute at Goldman Sachs, the total liabilities for OPEBs in the US exceeds $1 trillion.[50] While others have somewhat higher or lower estimates for OPEBs, everyone agrees that there is almost no advance funding of OPEBs as distinct from DB obligations. For example, Pew Research estimated that only 3% of OPEBs were prefunded by states. Because of GASB #45, which is in the process of becoming effective, states and municipalities will have to report publicly on their OPEB liabilities for the first time. However, GSAB #45 does not require the prefunding of OPEB liabilities, though it reduces their present value to a significant degree if they will be prefunded in accordance with a definitive plan.

As the pension and OPEB obligations of states and municipalities have risen, their abilities to meet these obligations have declined due to the financial crisis. Moreover, many states have opted out of the Social Security system for some of their public employees, such as public school teachers. As a

result, states have adopted a variety of measures. In 2010, nine state legislatures have approved bills to reduce pension benefits and/or increase pension contributions for current workers. In some states, such as Vermont and Iowa, unions and workers have reluctantly supported these changes. In other states, such as Mississippi, the legislature increased the pension contributions of state workers despite their opposition.[51]

Colorado and Minnesota have reduced the annual cost of living increases for the pension benefits of current workers. Both states have been sued for violating state laws.[52] Accrued pension benefits of public employees have constitutional protection in certain states. In the state of Washington, for example, attempts to revise the long-standing method of calculating certain aspects of pension benefits for state employees were struck down as violating the State Constitution.[53] By contrast, there are generally no constitutional barriers to reductions in OPEBs. But the reductions in OPEBs may be subject to a legal duty or political pressure to bargain with unions representing state employees.

Given the dire situation faced by many states, it is not surprising to see that public DB plans are increasing the expected returns of their investment portfolios to very aggressive levels. For instance, municipal pension funds said they expect their investment portfolios to beat relevant benchmarks by 160 bps in 2009, as opposed to 132 bps in 2008. Public funds with assets of $500 million or less increased their expected outperformance even higher to 180 bps in 2009, as opposed to 135bp in 2008. Although public plans with assets between $500 billion and $1 trillion actually decreased their alpha projections from 2008 to 2009, they still expect their portfolios to outperform the market by an average of 174 bps annually.[54]

These higher return targets were reflected in significant changes in asset allocations by public pension plans. Both corporate and public plans in the US have been reducing their exposure to US equities. Public pension plans have continued to allocate to international/global stocks, in contrast to

corporate plans where the allocation is declining. On an overall basis, however, corporate DB plans are raising allocations to fixed income in order to de-risk their portfolios. By contrast, public DB plans are cutting their allocations to fixed income.[55]

So where are public DB plans increasing allocations beside international stocks? To alternative investments such as private equity and hedge funds. According to Greenwich Associates, 23% of public funds plan to make significant additions to private equity from 2010 to 2012, and 18% plan to significantly increase their allocations to hedge funds during that same period.[56]

This big plunge into alternative investments by public pension plans is understandable. Their executives may be "going for broke" to avoid legislative pressures to increase worker contributions or cut back their benefits. However, as discussed before in this paper, alternative investments do not consistently produce positive returns; they decreased in value significantly during the financial crisis. Moreover, it is important to select a top quartile fund in certain alternative investments such as private equity funds in order to achieve strong results.

C. Endowments and Foundations

At fiscal 2009 year end, endowments assets totaled $321 million and foundations assets were $583 million, according to Cerulli Associates[57]. Over the past few decades, endowments and foundations have pursued a substantially different asset allocation policy than public and private pension funds. Although all are similar with respect to the fact that their obligations are long-term, endowments and foundations have long demonstrated a greater commitment to investing in more esoteric, less liquid options than traditional stocks and bonds. For example, according to data from Cambridge Associates, at the end of fiscal 2009, the college and university mean equal weighted allocation to equities was approximately 36%, to fixed income 14.5% and to cash less than 5%. The

remaining 45% was invested in hedge funds, distressed securities, private equity, real estate, commodities and other alternative asset classes.

The asset allocation structure for endowments and foundations has probably been best exemplified by Yale University under the leadership of David Swenson. Yale's average annual return for the decade ending 6/30 2008 was 16.3%.[58] Many endowments emulated the Yale model in an attempt to deliver high returns over long periods of time. Yale has historically allocated a significant portion of its portfolio to alternative assets, including hedge funds and private equity. Chart 30 includes Yale's target portfolio at the end of fiscal 2009.

As was the case for all investors, 2008 was a challenging year for endowments and foundations. But it may have been worse for university and college endowments as the confluence of three negative factors created an extremely difficult environment. First, endowments dropped substantially with the decline in global markets. According to a 2009 NACUBO-Commonfund study, the average endowment return was -18.7% for fiscal 2009.[59] Second, student need rose as the weak economy impacted families' ability to pay tuitions. The third blow to endowments was a significant falloff in fund raising. Sixty percent of survey respondents reported a decline in gifts, compared to 26% who reported an increase. Of those who reported a decline, the median decrease was 45.7%.[60]

The impact of these events has been profound. Some universities, which were under political pressure to increase their spending during the good times, had moved from offering students loans to offering them scholarships, thus committing to a higher level of spending. Nor have higher tuitions for full-paying students been an alternative to raising funds. Although annual tuition increases have long been above the inflation rate, many private colleges and universities report that with tuition, room and board exceeding $50,000 annually, there is limited ability to put through further price increases above inflation rate. To handle higher student need and the ongoing expenses of the operating budget, forty

three percent of universities/colleges in the study reported that they increased their spending rate, despite the significant drop in endowment value. Fifty four percent of those surveyed increased their spending in dollar terms. Colleges and universities also resorted to higher debt. Average debt for the participants in the study rose from $109.1 million on 6/30/2008 to $167.8 million on 6/30/2009.[61]

Yale and Harvard, both early adaptors of a model heavily reliant on alternatives, have announced spending cuts to try to compensate for weak endowment returns. (Yale -24.6% and Harvard -27.3% in fiscal year 2009). These measures have included employee layoffs, salary freezes, reducing the number of graduate students and reduced support for research programs and delaying major construction projects.[62]

Commitments to private equity were also challenged. The particularly illiquid nature of the endowment pools meant that many colleges had trouble meeting their prior commitments to private equity funds, which typically line up commitments for investment some period of time before actually deploying the funds. These were in some cases re-negotiated and in other cases repudiated.

Despite the pitfalls of a highly illiquid portfolio, endowments seem not to have altered their asset allocation model. Indeed, Yale announced in September 2009 that it was increasing exposure to alternatives. The university increased its allocation to private equity from 21% to 26% and its target holdings of real estate and commodities from 29% to 37%.[63]

Data from Cambridge Associates shows that for college and university endowments, the exposure to hedge funds was little changed between June of 2008 and June of 2009 (14.7% compared to 14.1%). Similarly, the average exposure to other alternative strategies, (including private equity, real estate, venture capital, arbitrage, distressed securities and commodities) in aggregate rose modestly to 44.8% from 43.9%. At the same time, colleges and universities have continued to reduce their exposure to equities, especially US equities. The fixed income allocation rose during this time period from 12.3%

to 14.5%. Cash also increased from a mean allocation of 1.8% to 4.8% for colleges and universities according to Cambridge Associates analysis.[64] NACUBO studies also point to relatively high cash levels which stood at 4% for colleges and universities as of 6/30/2009.[65] Higher cash levels make sense given the continued commitment to illiquid asset classes and cash flow difficulties that ensued thereafter; however, with returns hovering around zero, higher cash levels will be a drag on performance.

Foundations also fared poorly during the market decline with an average return in 2008 of -26%, according to a Commonfund study. Although returns rebounded by about 21% in 2009, according to John S. Griswold, "returns in the 21% range were not enough to move trailing three year returns into positive territory and five year returns in the upper 3% range are well short of covering these nonprofit organizations' spending, inflation and costs."[66]

Independent and private foundations do not generally participate in fund raising so have little ability to recoup investment losses by other means. Under U.S. law, they must give away on average 5% of their assets over a series of years. Foundations responded to the financial crisis by cutting costs, including administrative expenses, and reducing disbursements. A Council on Foundations survey (March 2009) reported 60% of those who responded to the survey indicated plans to cut operating budgets and 45% indicated they would freeze salaries. Additionally, according to the survey, 48% of foundations reported plans to reduce the value of their grantmaking by 10% or more in 2009.[67] This, of course, comes on the heels of a particularly challenging time for many of the beneficiaries of foundation grants.

Nevertheless, like endowments, foundations do not show many changes with respect to their asset allocation policies. Between 2008 and 2009, foundation allocations showed little change, with continued high commitment to alternative assets. However, cash positions have risen, with foundations

over $1 billion reporting an increase from 2.8% in 2008 to 4.7% in 2009. Higher cash levels may represent a partial buffer to illiquid assets in the portfolio.

One trend apparent in the data for endowments and foundations that parallels a trend in corporate DB plans is the tendency for larger plans to have more exposure to alternative asset classes and correspondingly less exposure to traditional asset classes. Table 31 provides information about exposure to several key asset classes for endowments and foundations over $1 billion and under $1 billion in 2009. While endowments under $1 billion had nearly 21% exposure to US equities, their larger counterparts had only 14.1%. Conversely, exposure to hedge funds was 16% for larger funds compared to 12% for smaller endowments. Foundations display a similar pattern. Presumably, the greater reliance on traditional asset classes for the smaller endowments and foundations is related to the lower level of resources and expertise of in-home staff, who monitor and assess these non-traditional asset classes.

Given the difficulties encountered during 2008 – 2009 with the Yale model, it is surprising that the appetite of endowments and foundations for alternatives continues to remain hearty. In a survey conducted by Greenwich in 2009 of both foundations and endowments, respondents indicated a clear interest in increasing exposure to alternatives over the next three years. 21.1% said that they would significantly increase exposure to hedge funds, compared to 8.5% who said they would significantly decrease exposure. Similarly, 22% intend to significantly increase exposure to private equity vs. 7% who would significantly decrease exposure. Last, 20.3% noted their intention to significantly increase exposure to real estate, while only 3.3% would significantly decrease it. The source of funds for these increased allocations to alternative investments is likely to be US equity and US fixed income investments.[68]

Conclusions

The financial crisis of 2008-2009 involved the largest upheaval in the securities markets since the Great Depression of the 1930s. After this crisis, institutional investors changed their asset allocations -- both actively by shifting monies among asset categories and passively by not fully rebalanced their portfolios. Given the severity of the recent financial crisis, it is notable that these changes in asset allocation did not represent radical breaks with the past by most institutional investors. Instead, their changes in asset allocation reflected three trends that had been gradually building momentum over the last few years.

The first trend is a general decrease in the institutional allocations to equities, with international/global equities becoming a larger part of the overall equity allocation as the allocation to international/global equities declines less rapidly than the allocation to domestic equities or, in some cases, actually rises relative to historic levels. This represents a continuing trend among institutional investors away from home country bias and toward better geographic diversification. Although equity markets around the world converged during the height of the financial crisis, they have already decoupled to a substantial extent. In particular, the increased exposure to international equities may represent a rising recognition that the growth potential for companies is higher in the emerging markets than in the mature markets of US, Japan and Western Europe. Even so, the allocations to emerging market equities among many institutional investors remains below the proportion that such equities constitute of the total capitalization of global stock markets.

By contrast, the merits of the general decrease in equity allocations in favor of fixed income -- the second major trend noted in this paper -- are more debatable. The increase in fixed income allocations appears to be concentrated primarily in government securities and investment-grade bonds,

though it may also include high-yield bonds and emerging market bonds for specific institutions. This shift from equities to high-quality bonds is quite understandable, since such bonds were one of the few asset categories with high returns and good liquidity during the financial crisis. In addition, this shift reflects the nascent concerns about year-to-year volatility of equity returns among pension sponsors, who fear that they will be forced make up for any unrealized losses in pension portfolios marked to market on an annual basis.

Yet a significant shift from all types of stocks to high-quality bonds seems inconsistent with the expected return of 8 per cent per year assumed by most corporate pension plans. Increasing allocations to high-quality bonds in the current environment of very low interest rates exposes those corporate pension plans to considerable interest rate risk. Long-term government and investment-grade bonds acquired in 2009 or 2010 will show large unrealized losses over the next decade if and when interest rates rise. In a rising rate environment, however, these losses may be offset to some degree by a reduction in the overall benefit obligation of corporate DB plans.

Faced with huge funding challenges, public pension plans in the US have allocated assets from equities to alternative investments, rather than to high-quality bonds. However, hedge funds and private equity funds showed substantially negative returns during the financial crisis, despite their implied promises of positive returns in all market environments. While alternative investments have been less volatile than equities over the last few years, they have been more volatile than high-quality bonds. Public pension plans will need to ensure that they have the expertise and resources to find and access the best performing funds in the alternative investment area.

Like public pension plans, endowments and foundations now have relatively high allocations to alternative investments. But these allocations to alternative investments were made years before the financial crisis as many endowments and foundations followed the Yale model of diversifying into non-

traditional investment categories. For the same reason, many endowments and foundations decreased their allocations to publicly traded equities and bonds several years before the financial crisis. Although the portfolios of Yale and other large endowments in fact fared poorly during the financial crisis, there seems to be little inclination to reject the Yale model -- with the exception of higher cash levels to deal with funding commitments if another financial crisis should arise.

A heavy allocation of alternative investments is not just characteristic of public pensions and endowments in the US. The trend toward more alternative investments seems prevalent for all types of institutional investors in most parts of the world. This trend is based on hopes for higher returns with lower volatility together with improved diversification for alternative investments relative to traditional holdings in publicly traded stocks and bonds. However, it is by no means certain that institutional investors will be able to accomplish these objectives.

Lower fees charged by alternative funds would certainly help returns of investors. But more important than fees to achieving expected returns is accessing funds of top performing managers. In contrast to Lake Wobegon[69], not all alternative managers are above average. Going forward, delivering strong risk-adjusted returns will probably be more challenging even for alternative managers with top records in the past. The ability of those managers to deliver strong returns depends on their ability to find and take advantage of market inefficiencies. However, the generation of new opportunities is unlikely to keep up with the flood of new money pouring into the alternatives arena. Thus, there is a reasonable likelihood that the increased allocations to alternatives may not meet the high expectations of many institutional investors.

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End notes

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3. This paper will sometimes refer to "institutional investors" as "investors".

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12. There may be structural reasons why US corporate pension funds invest in bonds. Research by academic practitioners has highlighted the benefits of investing in bonds for corporate plans. Since income from bonds in pension plans is not taxed, and a corporation gets tax deductions for the interest it pays on bonds it issues, a company can take advantage of different tax treatment by selling equities in the pension fund and buying bonds, while issuing debt and buying back its own stock at the corporate level. However, this activity was probably not the motivation for higher allocations to fixed income after the crash. Instead, companies worried about their financial viability increased levels of cash and refrained from share repurchases.

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60. (see 59)

61. (see 59)

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    "$11 Billion Less." *Harvard Magazine,* Nov-Dec 2009, John Harvard's Journal section.

63. Yale University website.

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66. "Foundation and Operating Charity Investment Returns Rise in the Range of 21% in Fiscal Year 2009" *Commonfund News press release*, July 1, 2010. http://www.commonfund.org/InvestorResources/CommonfundNews/Pages/FoundationandOperatingCharityInvestmentReturns.aspx

67. "Foundations Respond to the Needs of Families Even as Their Assets Have Declined" *Council on Foundations survey,* March, 2009. http://www.cof.org/files/Bamboo/programsandservices/research/documents/09downturnreport.pdf

68. Greenwich data.

69. Garrison Keillor popularized the mythical "Lake Wobegon" in his weekly public radio variety show, "A Prairie Home Comparison". Keillor says that in Lake Wobegon, "all the women are strong, the men are good looking and all the children are above average".