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U.S. Market Commentary

Why Did I Diversify?

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Why Did I Diversify?

While simple 100% U.S. equity and stock/bond portfolios have outperformed highly diversified portfolios recently, highly diversified portfolios have delivered consistently superior returns over decades.

"But he over-slept himself, it seems, for when he came to wake, though he scudded away as fast as 'twas possible, the Tortoise got to the Post before him, and won the Wager."

—Aesop (translated by Sir Roger L'Estrange)

Central banks are setting asset prices, correlations remain stubbornly high, and U.S. equities are outperforming just about everything, causing many investors to ask themselves, "Why did I diversify?" Diversification concerns have been particularly acute for U.S. investors, given the strong performance of equities and bonds in their home market.

While simple U.S. equity or stock/bond portfolios have outperformed highly diversified portfolios recently, the long-term track record is clear. Highly diversified portfolios have delivered consistently superior returns over decades. In fact, since 1990, $100 million growing at the rate of the average large college and university endowment would have increased to $791 million (9.2% average annual compound return [AACR]) in nominal terms through fiscal June 30, 2013.[1] The same $100 million invested in an undiversified portfolio including 70% U.S. equities and 30% in U.S. bonds[2] would have appreciated to $700 million (8.6% AACR) in nominal terms over the same period—*a difference of $91 million!* Diversification is the tortoise and concentration is the hare. The tortoise is slow and steady and often wins the race, while the hare takes big leads and then falls behind, rarely winning over the long haul.

In this commentary, we review the rationale for diversification, looking at the historical periods during which simple portfolios dominated. While the history of modern, highly diversified, equity-dominated portfolios is relatively short, our analysis suggests that such periods are transitory and set the stage for diversified investors that stay the course to outperform in subsequent periods. Investors willing to take contrarian positions in cheap assets also tend to benefit as underperforming, undervalued asset classes ultimately recover as the value of assets drives market pricing over the long term.

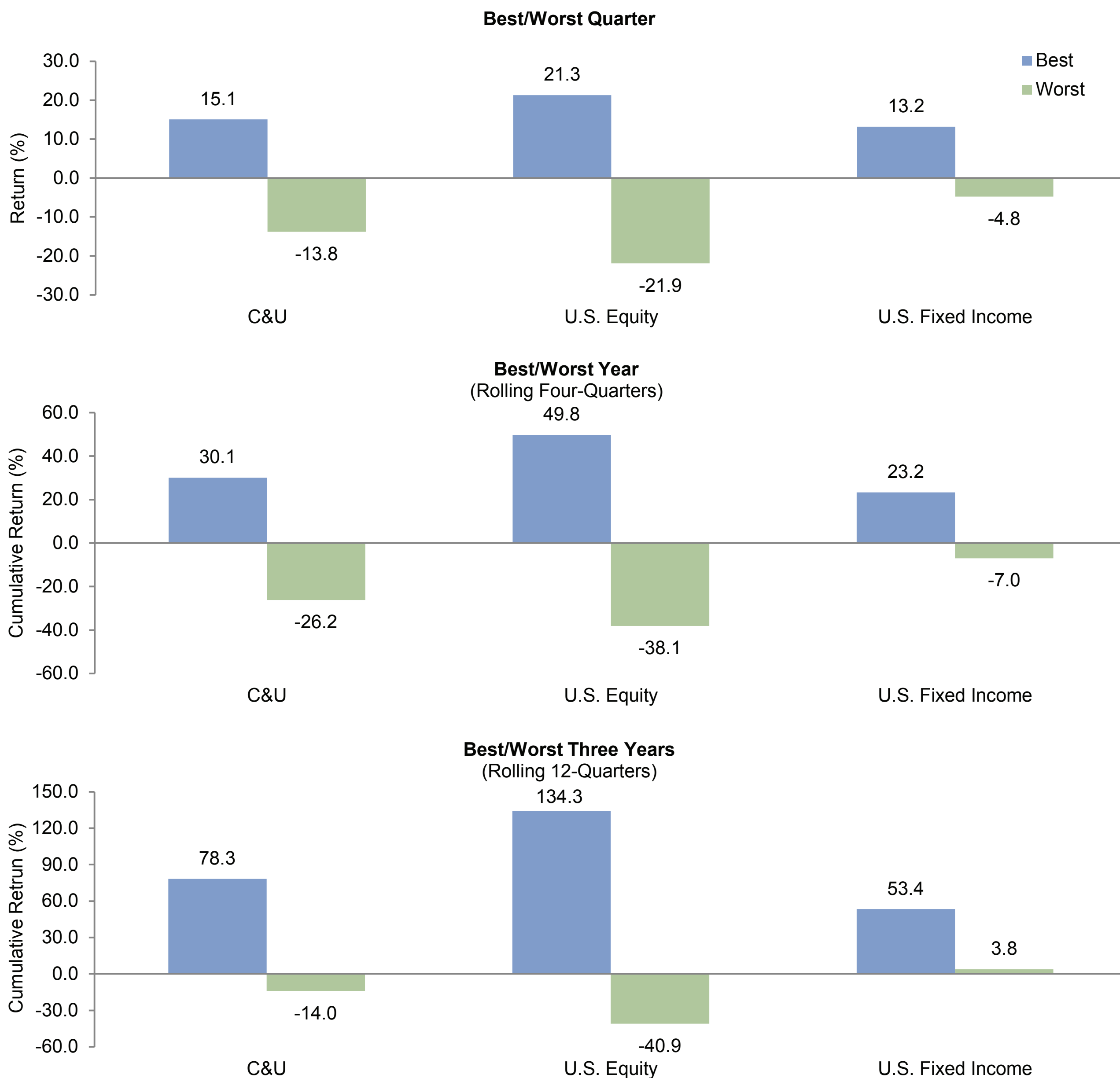
Slow and Steady Wins the Race

Diversified portfolios, such as those held by mid-sized to large college and university endowments, outperform simple portfolios of 100% stocks, or stocks and bonds, for two main reasons. First, they tend to suffer less than equities during down markets while participating in more of the upside than high-quality bonds (Figure 1). In other words, by never suffering the worst returns, they can still register strong performance without experiencing the best returns. Second, they typically diversify into investments with higher return potential, seeking value-added returns through

[1] Returns for second quarter 2013 are preliminary, as we anticipate more non-taxable institutions will provide their returns. In addition, those returns reported do not reflect final valuations for private investments in second quarter 2013. Institutions use a variety of practices in estimating private investment returns including holding market values at their levels from the prior quarter and adjusting for contributions and distributions, lagging performance by a quarter, and estimating returns often incorporating guidance from managers.

[2] Throughout, U.S. equities are represented by the S&P 500 Index and U.S. bonds by the Barclays Government/Credit Index. Simple stock/bond portfolios are rebalanced quarterly.

Figure 1. Best and Worst Performance for Stocks, Bonds, and the Large C&U Mean
December 31, 1989 – March 31, 2013



Sources: BofA Merrill Lynch, Cambridge Associates LLC, and Standard & Poor's.
Notes: The large C&U mean return (C&U) is the mean return of 39 colleges and universities with assets greater than $500 million that provided quarterly returns for all time periods. U.S. equity is represented by the S&P 500 Index, while U.S. fixed income is represented by a blend of 50% BofA Merrill Lynch Intermediate-Term U.S. Treasuries Index and 50% BofA Merrill Lynch Long-Term U.S. Treasuries Index.
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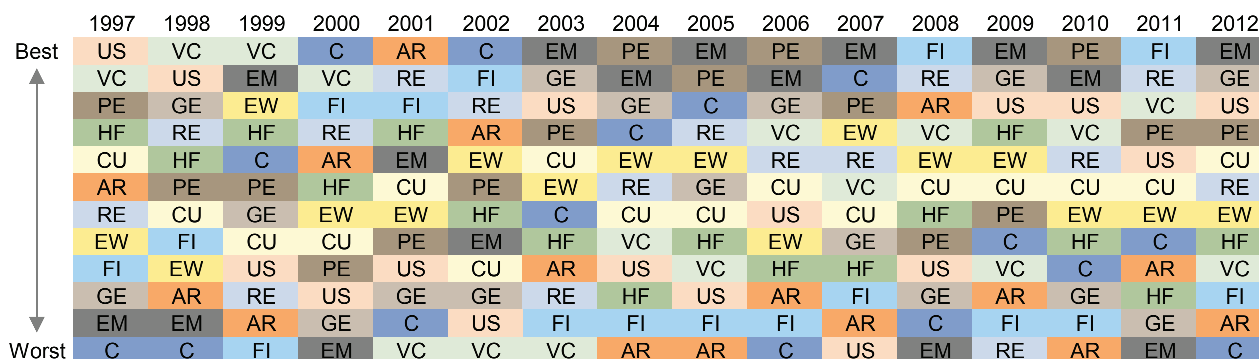
strong manager selection, particularly in alternative assets.

Looking at the performance of ten asset classes over 1997–2012, most individual asset classes had a year as the best or worst performer (Figure 2). In contrast, diversified portfolios never had a year in the top or bottom three. Yet an equal-weighted portfolio of the ten asset classes was the fourth-best performer over the full period, trailing only private equity, venture capital, and long/short equity hedge funds. Large U.S. college and university endowments also fared well over the full period.

Diversification into alternative assets has also been a meaningful source of value added for such investors. Private investments move in cycles, and will tend to spend time as the best performers and the worst performers over relatively short horizons, but over the long term, such investments have added value to skilled

Figure 2. Annual Return Ranking of Ten Major Asset Classes, an Equal-Weighted Portfolio, and the Large C&U Mean Return



	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Best	US	VC	VC	C	AR	C	EM	PE	EM	PE	EM	FI	EM	PE	FI	EM
	VC	US	EM	VC	RE	FI	GE	EM	PE	EM	C	RE	GE	EM	RE	GE
	PE	GE	EW	FI	FI	RE	US	GE	C	GE	PE	AR	US	US	VC	US
	HF	RE	HF	RE	HF	AR	PE	C	RE	VC	EW	VC	HF	VC	PE	PE
	CU	HF	C	AR	EM	EW	CU	EW	EW	RE	RE	EW	EW	RE	US	CU
	AR	PE	PE	HF	CU	PE	EW	RE	GE	CU	VC	CU	CU	CU	CU	RE
	RE	CU	GE	EW	EW	HF	C	CU	CU	US	CU	HF	PE	EW	EW	EW
	EW	FI	CU	CU	PE	EM	HF	VC	HF	EW	GE	PE	C	HF	C	HF
	FI	EW	US	PE	US	CU	AR	US	VC	HF	HF	US	VC	C	AR	VC
	GE	AR	RE	US	GE	GE	RE	HF	US	AR	FI	GE	AR	GE	HF	FI
	EM	EM	AR	GE	C	US	FI	FI	FI	FI	AR	C	FI	FI	GE	AR
Worst	C	C	FI	EM	VC	VC	VC	AR	AR	C	US	EM	RE	AR	EM	C

December 31, 1989 – December 31, 2012

(Cumulative Wealth Rebased to 100 at December 31, 1989)

Asset Class	Abbreviation	Cum Wealth	AACR
Private Equity - CA	PE	2,251.35	14.5
Venture Capital - CA	VC	2,079.38	14.1
L/S Equity Hedge Funds	HF	1,544.42	12.6
Equal-Weighted Portfolio	EW	952.80	10.3
Emerging Markets Equity	EM	864.06	9.8
Large C&U Mean Return	CU	761.14	9.2
U.S. Equity	US	660.08	8.6
Fixed Income	FI	547.21	7.7
Real Estate	RE	504.19	7.3
Absolute Return	AR	361.59	5.7
Commodities	C	258.46	4.2
Global ex U.S. Equity	GE	245.84	4.0

Sources: BofA Merrill Lynch, Cambridge Associates LLC, Hedge Fund Research, Inc., MSCI Inc., National Council of Real Estate Fiduciaries, and Standard & Poor's. MSCI data provided "as is" without any express or implied warranties.

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investors' portfolios. Indeed, a comparison of the top and bottom deciles of endowments, sorted by performance over the last decade, reveals that the top performers had significantly lower allocations to U.S. stocks and bonds and higher allocations to hedge funds and private investments of all sorts (Figure 3). Such a strategy is necessarily long term—private investment funds take years to draw down committed capital, dampening early portfolio returns by requiring cash outflows (i.e., the J-curve effect). At the same time, it often takes time, in some cases as long as a decade, before profits are fully realized in the underlying investments. Investors singularly focused on short-term horizons should not participate in such investments.

Figure 3. Average Asset Allocation: Comparison of Top and Bottom Decile Performers
Fiscal Year 2002–12 • Selected Asset Classes

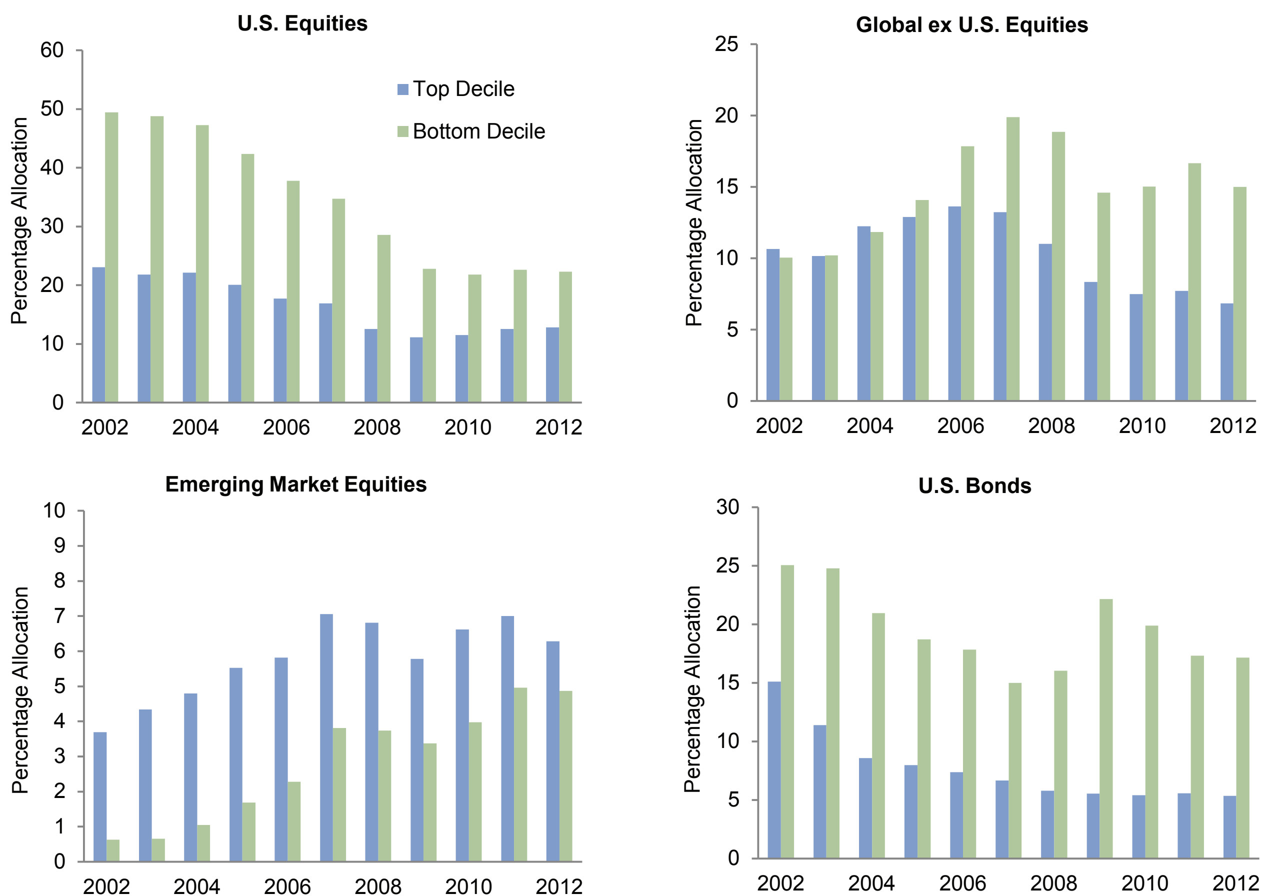
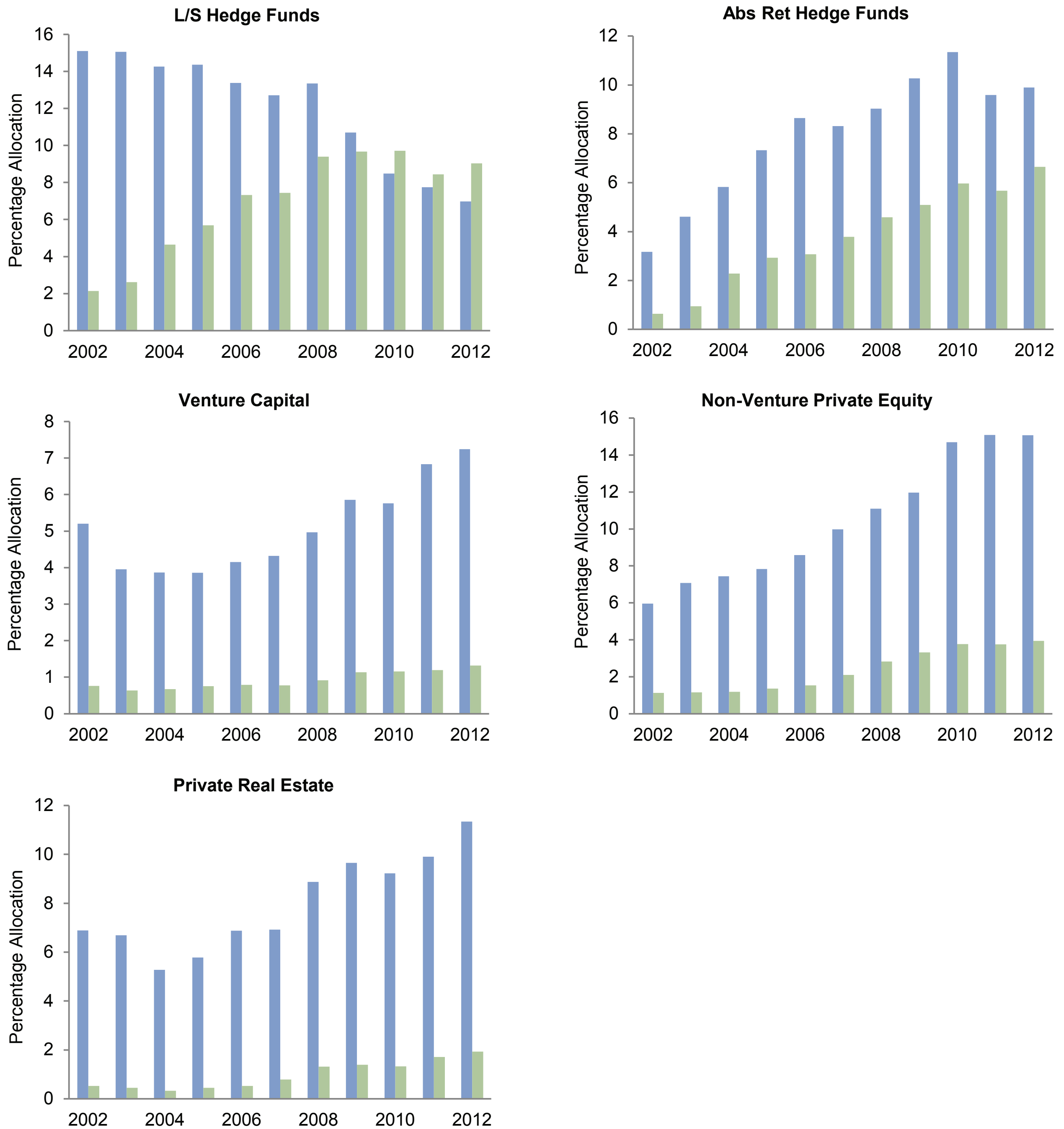


Figure 3. Average Asset Allocation: Comparison of Top and Bottom Decile Performers (continued)
Fiscal 2002–12 • Selected Asset Classes



Source: Cambridge Associates LLC.
Notes: Analsyis based on 230 endowments for which we had ten years of data. Each decile included 23 institutions.

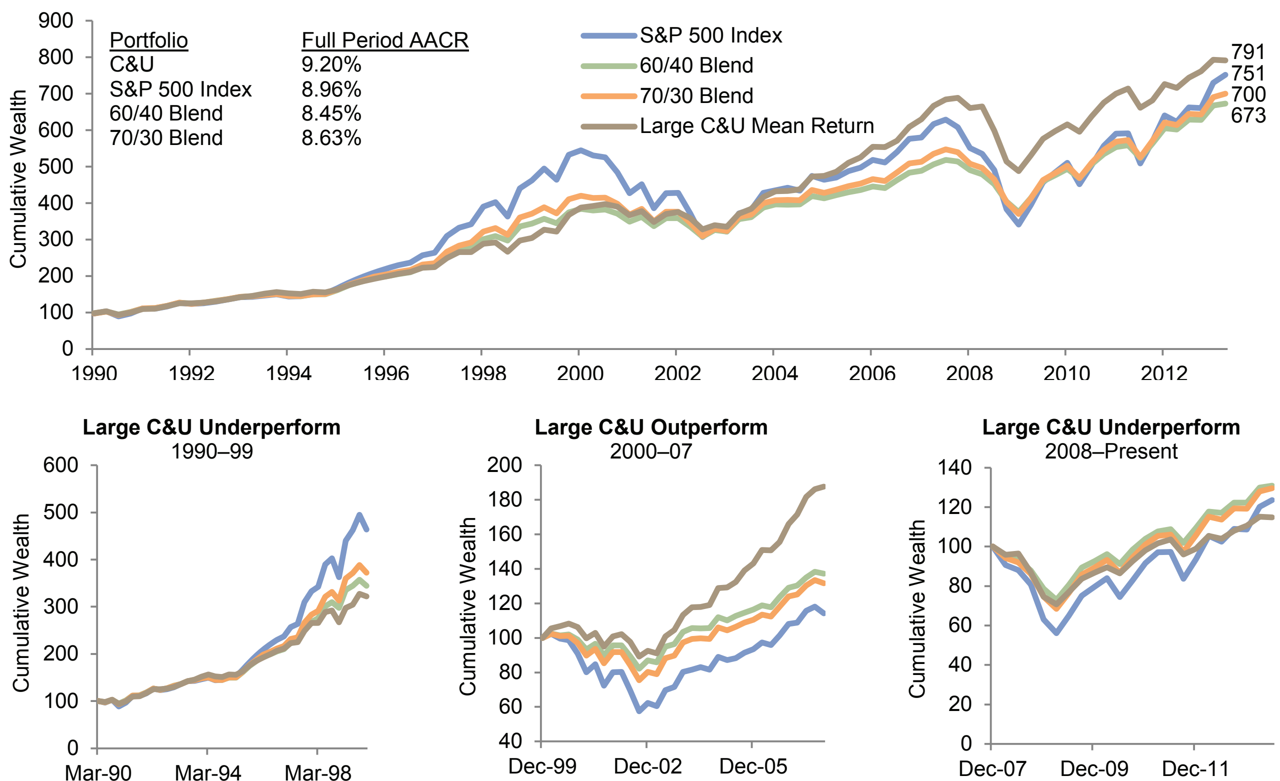
A Look at the Cycles

A simple stock/bond portfolio outperformed the average large college and university endowment during two pronounced periods since 1990: 1996–99 and 2008–present (Figure 4). Yet over the full period, as noted above, diversified portfolios significantly outperformed simple 100% equity and stock/bond portfolios. For institutions that spend, a diversified strategy has allowed for both an increase in market values *and* an increase in spending, providing more support to both current and future generations. For example:

- An investor that earned the average return of college and university endowments over the full period, and spent 5% of a 12-quarter moving average of trailing market values, could have increased spending 4.1% annualized in nominal terms and 1.5% annualized in real terms without depleting

Figure 4. Cumulative Wealth of Various Portfolios

First Quarter 1990 – Second Quarter 2013 • U.S. Dollars • December 31, 1989 = $100.00



Sources: Barclays, Cambridge Associates LLC Investment Pool Returns Database, and Standard & Poor's.

Notes: Graph represents quarterly data. The large C&U mean return (C&U) is the mean return of all colleges and universities (>$500 million) for which we have data back to 1990. In the blended benchmarks, U.S. equity is represented by the S&P 500 Index, while U.S. fixed income is represented by the Barclays Government/Credit Index. The 60/40 blend is 60% U.S. equity and 40% U.S. fixed income. The 70/30 blend is 70% U.S. equity and 30% U.S. fixed income. The Q2 2013 return is preliminary, based on the median return of the 16 colleges and universities with assets of $500 million or greater that had reported performance by June 30, 2013.

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the purchasing power of the portfolio. Such a portfolio would have ended the period up a cumulative 39.8% in real terms and 158.9% in nominal terms after spending.

- Similar success could not be claimed for the undiversified portfolios. The 70% U.S. equities/30% bond portfolio could have increased spending by 3.2% annualized in nominal terms and 0.7% annualized in real terms over the period. The portfolio would have risen after spending only by a cumulative 21.8% in real terms and 125.6% in nominal terms.
- Reviewing this analysis from a starting point of 2000, the diversified portfolio maintains more of its value and is able to spend more than the less diversified portfolios, but both portfolios experienced significant declines in real terms after spending. Still, in nominal terms, the $100 million invested in the diversified portfolio stayed relatively stable, ending the period at $109.7 million after spending, compared to only $85.3 million for the undiversified portfolio.

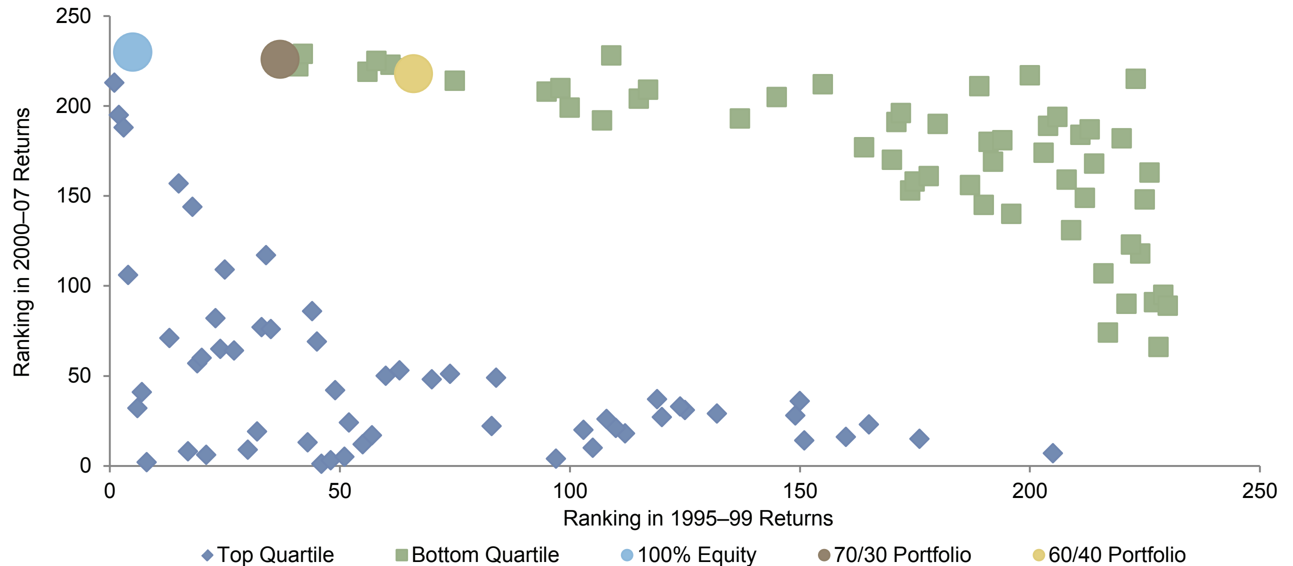
Even the top-performing endowments had trouble keeping up with a simple 100% U.S. equity portfolio or stocks/bonds portfolio during the buildup of the tech bubble. The S&P 500 returned 28.6% annualized over 1995–99, its second-strongest five-year showing since 1900. However, as is often the case, the next five years were disappointing, as U.S. equities returned -2.3% from peak valuations when investors discovered that we were not in a new paradigm that could support ever-rising valuations even for high-flying tech companies with no or negative earnings. Figure 5 shows the performance of the top- and bottom-quartile performers over 1995–2007 for two sub-periods: 1995–99 and 2000–07. The S&P 500 and two simple stock/bond portfolios are also shown. Only four institutions in the top quartile outperformed a 100% U.S. stock and only about 60% outperformed a 70/30 stock/bond portfolio during the 1995–99 period. However, when the tides turned, the entire top quartile of endowments handily outperformed the U.S. equity and simple stock/bond portfolios over 2000–07.

Will the Current Period End Differently?

Today, returns have been lower, but simple portfolios are again in the lead for the time being. Over the five years ended June 30, 2013, U.S. equities returned 7.0% annualized and U.S. bonds returned 5.3%, while other developed markets equities earned negative returns. A simple portfolio constructed of U.S. stocks and bonds rebalanced quarterly would have returned 7.0% with a 60% stock/40% bond mix and 7.1% with a 70%/30% mix—returns tough for diversified portfolios to beat. Based on preliminary performance reported by roughly 116 U.S. non-taxable institutions, for the period ended June 30, the median five-year return was 3.7%; the 75th percentile, 2.9%; and the 25th percentile, 4.2%.

In a period of financial repression, in which central banks are setting asset prices by keeping interest rates low, valuations can remain distorted for longer than has been typical historically. The most direct impact has been on bonds, which have seen yields fall to historical lows. Even as yields are generally up from their lows in early May as expectations for an earlier end to U.S. quantitative easing have risen, bonds remain unattractive. As a result, investors have moved out the risk spectrum in search of higher returns, and the equity markets viewed as the safest have

Figure 5. Ranking of Top Quartile and Bottom Quartile 1995–2007 Endowments Over Subperiods: 1995–99 and 2000–07
December 31, 1994 – December 31, 2007



	Full Universe			Top Quartile 1995–2007			Bottom Quartile 1995–2007		
	1995–2007	1995–99	2000–07	1995–2007	1995–99	2000–07	1995–2007	1995–99	2000–07
Average Return	11.8	18.7	7.8	14.4	21.6	10.1	9.7	15.9	5.9
Median Return	11.5	18.0	7.7	13.8	21.3	10.5	9.9	16.0	6.1
Average Ranking	-	-	-	-	66	50	-	165	175

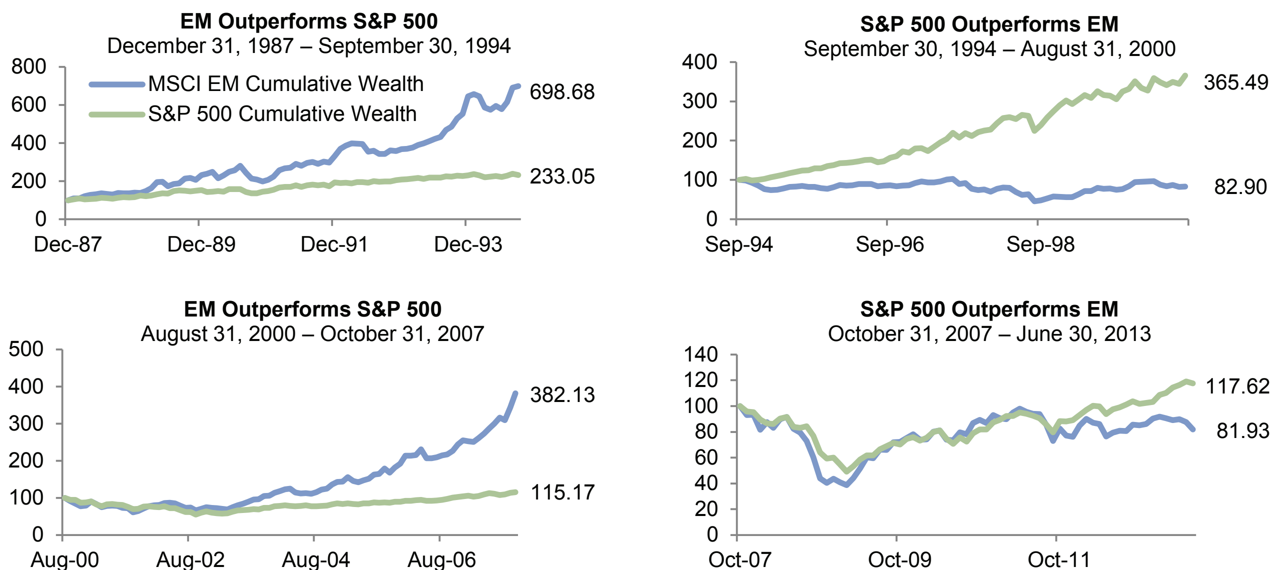
	S&P 500			60/40 Portfolio			70/30 Portfolio		
	1995–2007	1995–99	2000–07	1995–2007	1995–99	2000–07	1995–2007	1995–99	2000–07
Average Return	11.3	28.6	1.7	10.0	20.2	4.1	10.4	22.3	3.5
Median Return	15.8	28.6	5.2	11.0	20.9	5.0	12.2	22.8	5.1
Ranking	139	5	230	196	66	218	178	37	226

Sources: Barclays, Cambridge Associates LLC, Standard & Poor's, and Thomson Reuters Datastream.
Note: Full universe of clients represented (including the three simple indexed portfolios) totals 230.

benefitted the most. U.S. equities have been one of the main beneficiaries.

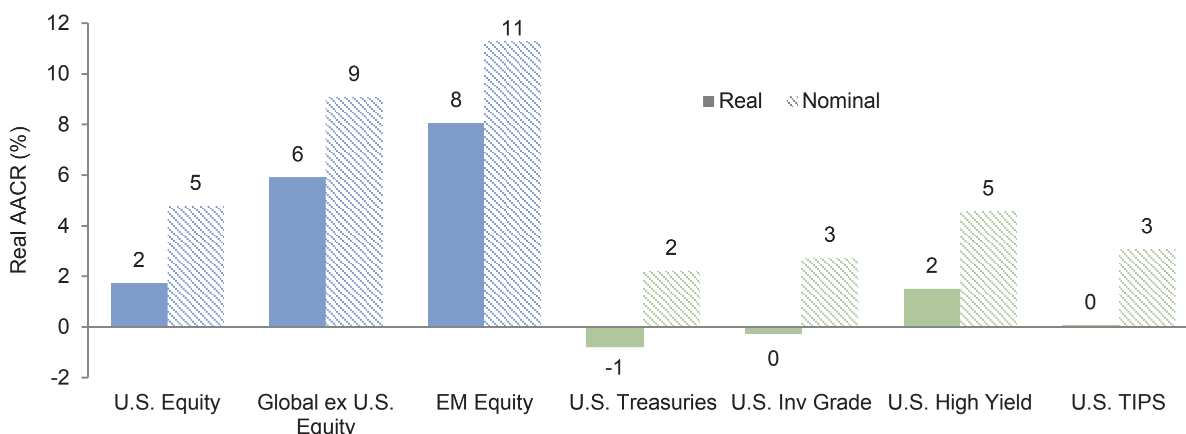
Investors are enthusiastic about improvements in home prices, increased supply of domestic energy, and persistently high profit margins among U.S. corporations. For now, investors are willing to put aside risks to U.S. equities, which include the long-term impact of high fiscal deficits, swelling government debt, and a burgeoning Federal Reserve balance sheet; potential for earnings disappointment given historically high profit margins in a slow global growth environment; and high, although not extreme, equity valuations. At the same time, equities outside the United States are lagging on the whole. This is particularly the case for emerging markets, which are experiencing a number of negative crosscurrents. Fears of an end to quantitative easing have likely contributed to the exodus of capital from emerging

Figure 6. EM Versus S&P 500: Equity Performance Over Various Time Periods
December 31, 1987 – June 30, 2013 • U.S. Dollar



Sources: MSCI Inc., Standard & Poor's, and Thomson Reuters Datastream. MSCI data provided "as is" without any express or implied warranties.

Figure 7. Ten-Year Real and Nominal Return Scenarios: "Return to Normal"
As of July 31, 2013



Assumptions:
Inflation: 3%; Real EPS Growth: 2% for U.S. and Global ex U.S., 3% for EMs;
Ending Ten-Year U.S. Treasury Yield: 3.8%; Ending Ten-Year U.S. TIPS Yield: 1.7%

Sources: Barclays, Cambridge Associates LLC, Global Financial Data, Inc., MSCI Inc., and Thomson Reuters Datastream. MSCI data provided "as is" without any express or implied warranties.

markets as investors tend to repatriate capital in times of stress, particularly from risky markets. At the same time, markets have been concerned over the slowdown in China, and its potential impact on emerging markets and demand for commodities. Large demonstrations by a dissatisfied populace (e.g., in Brazil, Egypt, and Turkey) have added fuel to the fire. As these trends play out, valuations may become more differentiated and extreme before they reverse course. Emerging markets equities are already undervalued, and while they could certainly decline more given current conditions, from a long-term perspective returns should be strong when these markets ultimately revert toward fair value (Figure 6).

It remains to be seen how well diversified portfolios will fare relative to simple portfolios from a starting point of year-end 2008, following the sharp and widespread downturn at the heart of the global financial crisis. As of June 30, diversified portfolios lag, with more concentrated, simple portfolios firmly in the lead. Given valuations of U.S. equities are climbing and those of U.S. bonds are already overvalued, we would not bet on their outperformance persisting into the long term. In fact, if valuations for U.S. equities were to revert to fair value and fundamental conditions were to return to normal over the next decade, we would expect them to return only 5% annualized in nominal terms (and 2% in real terms, assuming 3% inflation over the period). In contrast, emerging markets would return roughly 11% nominal (8% real) if conditions were to return to normal over the same period. As for bonds, most varieties are so expensive that we believe it will be challenging for them to generate positive returns after inflation (Figure 7). We also remain constructive on alternative assets and the ability of skilled investors to add diversification and value added through thoughtful portfolio construction and manager selection.

Over the long term, we're betting on the tortoise. ■