A New Yale Tale

The Yale Endowment Fund has excelled through all kinds of markets. Is it possible to build a similar portfolio that is accessible to everyone? By Craig L. Israelsen

The venerable Yale Endowment Fund serves as a performance benchmark for pension managers, endowment fund managers and money managers. Many of the assets it uses so successfully aren't available to the public—and those that are may carry prohibitive costs—but it offers lessons nonetheless.

The Yale Endowment Fund is so successful because it has two kinds of diversification—deep and wide. We wondered how close we could come to replicating that performance and diversification within a reasonably low-cost, systematically managed portfolio.

This article compares the performance of the Yale Endowment with a multi-asset portfolio of ETFs over the past 10 years. The comparison also includes the Vanguard Balanced Index, a classic 60/40 balanced fund. The 60 represents a 60% allocation to equities, and the 40 represents a 40% allocation to fixed income. The Vanguard 500 Index Fund represents the performance of the S&P 500 Index.

The performance of each portfolio in this study covers years that end on June 30, the date on which the Yale Endowment reports its performance. Some of the raw data utilized in this study was obtained from Morningstar Principia.

AND THE WINNER IS...

Over the past decade (2000-2009), the Yale Endowment Fund turned an initial $10,000 investment on July 1, 1999 into just over $30,000 by June 30, 2009 (see "Ivy League Winner" on page 70). Second place went to the multi-asset portfolio, which deploys 12 passively managed ETFs to create exposure to seven distinct asset classes and had an ending balance of $18,412. Vanguard Balanced Index had a final balance of about $12,000, and Vanguard 500 Index was underwater with a balance of $7,930.

Yale's fund usually maintains a 15% to 25% allocation to private equity in its portfolio. The multi-asset portfolio, on the other hand, is built with publicly available components and is therefore available to everyone. Vanguard Balanced and Vanguard 500 Index are universally available too, but they fail to include the wide variety of asset classes needed to provide true diversification.

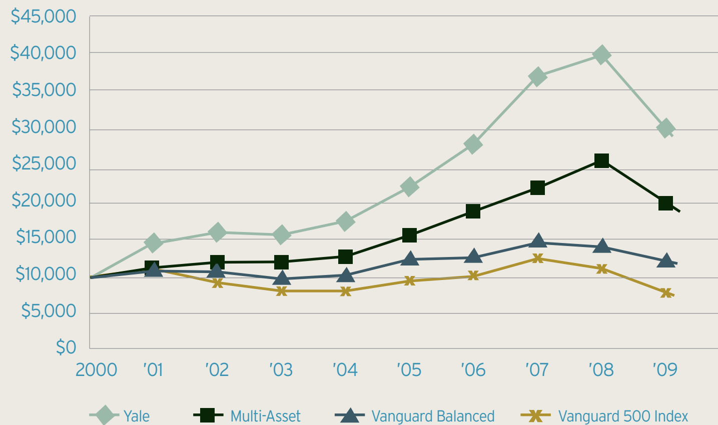
The importance of broad asset-class diversification is evident in the year-to-year returns of the four different portfolios (see "Diversify, Diversify, Diversify," page 72). The broadly diversified multi-asset portfolio and the Yale Endowment had only one 12-month period with a negative return over the past 10 years. Not surprisingly, that negative return occurred for the 12-month period ending on June 30, 2009.

By contrast, Vanguard Balanced Index experienced four negative 12-month returns. Vanguard 500 Index also had four negative 12-month returns, but in each case they were at least twice as large as the losses in Vanguard Balanced.

IVY LEAGUE WINNER

Over the past 10 years, the Yale Endowment Fund tripled an initial $10,000 investment.

Value of $10,000 over a decade



Source: Author

DEEP AND WIDE

Comparing these four portfolios illustrates two vitally important principles when building investment portfolios: They should have diversification depth and diversification breadth.

First, a diversified portfolio needs to use diversified ingredients. The multi-asset portfolio uses 12 different ETFs that are themselves individually diversified—that is, each individual fund holds hundreds of components (stocks, bonds, commodities, etc.). Each separate component of the portfolio is a diversified basket of stuff. This type of diversification represents depth. Investors who use mutual funds to build their portfolios usually have sufficient diversification depth because mutual funds are collections of hundreds or thousands of one type of specific asset (large U.S. stocks, small non-U.S. stocks, etc.).

Second, a diversified portfolio needs to invest across many different asset classes. This represents diversification breadth. Most portfolios lack sufficient breadth because investors (or their advisors) assume that diversification depth is all that is needed. But that deeply diversified portfolio does not protect you from an equity shock, as investors discovered the hard way in 2008 and 2009.

The best way to achieve diversification depth and breadth is to build a portfolio with a wide variety of individually diversified components. The Yale Endowment Fund and the multi-asset portfolio represent blueprints for achieving diversification depth and breadth.

The breadth of the Yale Endowment covers the following seven asset classes: absolute return, domestic equity, fixed income, foreign equity, private equity, real assets and cash. Seven asset classes also comprise the breadth of the multi-asset portfolio: U.S. equity, non-U.S. equity, real estate, resources, U.S. fixed income, non-U.S. fixed income and cash. Beneath the seven core asset classes in the multi-asset portfolio are 12 ETFs in the following sub-asset classes: large-cap U.S. equity, mid-cap U.S. equity, small-cap U.S. equity, developed non-U.S. equity, emerging non-U.S. equity, global real estate, resources, commodities, U.S. aggregate bonds, U.S. Treasury inflation-protected securities, non-U.S. bonds and U.S. money markets. The 12 ETFs have equal weights and are rebalanced annually.

The multi-asset portfolio can be built with actively managed, publicly available mutual funds or index-based ETFs. The multi-asset portfolio in this study used passively managed ETFs, with monthly rebalancing. Annual rebalancing produces slightly higher returns most years.

THE ALTERNATIVE

Both the Yale Endowment and the multi-asset portfolio invest in what are referred to as alternative or nontraditional assets. The *2008 Yale Endowment Report* describes its strategy this way:

"Over the past two decades, Yale reduced dramatically the Endowment's dependence on domestic marketable securities by reallocating assets to nontraditional asset classes. In 1988, nearly 75% of the Endowment was committed to U.S. stocks, bonds and cash. Today, target allocations call for 14% in domestic marketable securities, while the diversifying assets of foreign equity, private equity, absolute return strategies and real assets dominate the Endowment, representing 86% of the target portfolio.

"The heavy allocation to nontraditional asset classes stems from their return potential and diversifying power. Today's actual and target portfolios have significantly higher expected returns and lower volatility than the 1988 portfolio. Alternative assets, by their very nature, tend to be less efficiently priced than traditional marketable securities, providing an opportunity to exploit market inefficiencies through active management. The Endowment's long time horizon is well suited to exploit illiquid, less efficient markets such as venture capital, leveraged buyouts, oil and gas, timber and real estate."

Both the Yale Endowment and multi-asset portfolio view alternative assets as critically important components of a well-diversified portfolio. Why? Because including nontraditional assets enhances performance and reduces risk.

"Alternative Choices" (see page 72) shows that when nontraditional assets are added to a portfolio in a meaningful

way (meaning that the allocation is large enough to have a significant impact), the performance of the portfolio not only increases, but stabilizes as well. Over the past 10 years, the three-year rolling returns of the Yale Endowment and the multi-asset portfolio have been higher and more consistent than a typical 60/40 portfolio or a portfolio that mimics the S&P 500.

The brutal reality is this: Investors often measure their portfolios in time periods of less than 10 years. For this reason, portfolio performance needs to be both strong and consistent. The typical 60/40 balanced portfolio and the S&P 500 have not achieved performance strength or consistency over three-year periods during the past decade. On the other hand, the broadly diversified Yale Endowment and the multi-asset portfolio have achieved both strength and performance consistency, which keeps investors in place so that they can experience beneficial 10- and 20-year returns. When investors jump from fund to fund and asset allocation model to asset allocation model, they undermine their own investment experience.

Alternative assets (such as real estate and commodities) tend to bolster portfolio returns because their performance typically has a low correlation to traditional assets. In other words, the performance of alternative assets tends to zig when the performance of traditional assets (U.S. stock, bonds, cash) zags. This is critically important if the goal of an investor (or advisor) is to enhance and stabilize the performance of an investment portfolio.

It should be noted that Yale University Endowment suffered a 25% investment loss in the fiscal year ended June 30, 2009, which the school blamed on its big investments in "real assets." Real estate and commodities (traditional real assets) don't always exhibit low correlation to the other asset classes in a portfolio. The last quarter of 2008 was one of those moments when nearly all asset classes sank. So while alternative investments usually zig when traditional equities zag, a portfolio can be vulnerable when they zag together. Fortunately, we haven't seen that very often. FP

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DIVERSIFY, DIVERSIFY, DIVERSIFY

The broadly diversified multi-asset portfolio and the Yale Endowment had only one 12-month period with a negative return over the past 10 years.

Annual Performance (%)

Year ending June 30	Yale Endowment	Multi-Asset Portfolio	Vanguard Balanced Index	Vanguard 500 Index
2000	41.00	10.28	8.00	7.31
2001	9.20	1.85	-4.72	-14.85
2002	0.70	2.12	-7.27	-18.12
2003	8.80	4.35	5.15	0.23
2004	19.40	21.05	12.29	18.91
2005	22.30	17.67	7.76	6.19
2006	22.90	14.38	5.40	8.49
2007	28.00	15.05	14.44	20.41
2008	4.50	5.63	-4.86	-13.19
2009	-24.60	-22.30	-13.68	-26.16
Annualized % Return				
3-Year (2007-09)	0.28	-1.89	-2.05	-8.27
5-Year (2005-09)	8.68	4.91	1.31	-2.32
10-Year (2000-09)	11.81	6.29	1.86	-2.29
Value of $10,000 after 10 Years	$30,533	$18,412	$12,025	$7,930

Source: Author

ALTERNATIVE CHOICES

Adding alternative investments to the portfolio helped the Yale Endowment and the multi-asset portfolio generate higher and more consistent three-year rolling returns.

Rolling Returns (%)

3-year period ending June 30	Yale Endowment	Multi-Asset Portfolio	Vanguard Balanced Index	Vanguard 500 Index
2000-2002	15.7	4.7	-1.6	-9.2
2001-2003	6.2	2.8	-2.4	-11.3
2002-2004	9.4	8.9	3.1	-0.8
2003-2005	16.7	14.1	8.4	8.2
2004-2006	21.5	17.7	8.4	11.1
2005-2007	24.4	15.7	9.1	11.5
2006-2008	18.0	11.6	4.7	4.3
2007-2009	0.3	-1.9	-2.0	-8.3

Source: Author