

# **The Lessons of History – Endowment and Foundation Investing Today**

**Remarks by  
John C. Bogle, Founder, The Vanguard Group  
Before  
The NMS Investment Management Forum  
Washington, DC  
September 12, 2011**

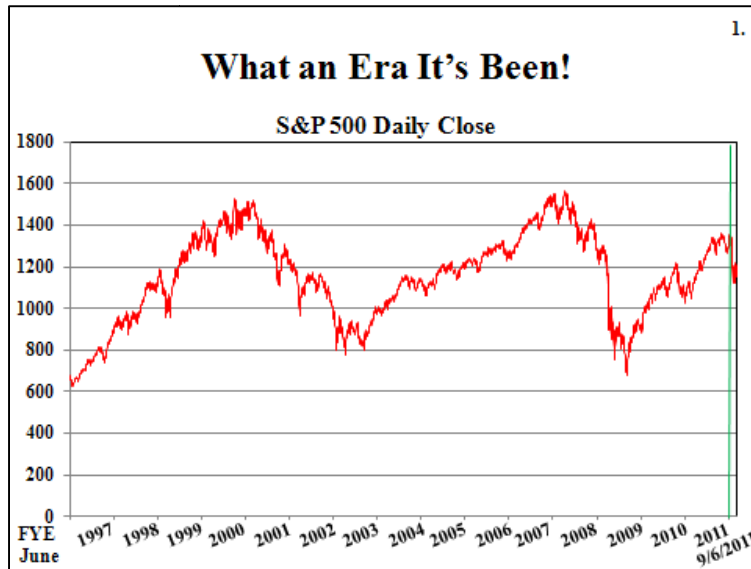
I'm honored to have the opportunity to address you this morning, during these troubled days for our nation and our financial markets. Perhaps I can bring a certain perspective, focused on history and reality, to you who hold such solemn responsibilities for the financial health of the vital institutions you represent.

Shortly after I agreed to join you, I recalled that it was exactly fifteen years earlier when I had written an essay for the Common Fund entitled "If I Managed My Alma Mater's Money." With the help of the man who invited me to write that essay, John Griswold, now Executive Director of the Commonfund Institute, I located a copy. This morning, as I discuss "The Lessons of History," I thought it would be fun, interesting, and provocative to examine what's happened over the exciting era since I made my policy recommendations.

Now fifteen years of history have rolled by—a history replete with waves of greed, fear, and hope in the stock market. What an era it's been! An era that began with a market boom, followed by a 50 percent bust, a solid recovery, yet another 50 percent bust, and another nice recovery, albeit one that seemed to fall apart after the June 30, 2011, fiscal year ended. So it seems a perfect moment to look back and see how the investment strategies that I recommended to "my alma mater" worked out, and how they compared with the actual results of the average endowment fund tracked by The National Association of College and University Business Officers (NACUBO).

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Note: The opinions expressed in this speech do not necessarily represent the views of Vanguard's present management.



Perhaps we can learn something from that past, or perhaps not. For in the field of investing, the past—as I imagine everyone in this room realizes—is rarely prologue to the future. But if we look ahead, not from the perspective of the summer of 1996, but from the perspective of this moment late in the summer of 2011, we can learn more from financial history than we might otherwise expect. I'll then discuss the sources of the historical returns on bonds and stocks. I'll then close by walking “where angels fear to tread,” laying out some reasonable expectations for investment returns during the decade ahead and some implications for your investment strategies.

### “If I Managed My Alma Mater’s Money”

It turns out that the 1996 Common Fund publication also included essays by a number of eminent financial pros on how *they* would invest the money of *their* alma maters. Most of you, even you younger people in the audience this morning, will probably recall some of these names, many of whom were then, and remain today, among the most respected members of their profession. Let me briefly summarize their recommendations.

## **If I Managed My Alma Mater's Money**

**Peter L. Bernstein**  
**Barton Biggs**  
**John Biggs**  
**William H. Donaldson**  
**Michael Price**  
**George J. W. Goodman ("Adam Smith")**  
**John M. Templeton**  
**Peter Williamson**  
**Charles R. Schwab**  
**George Putnam**  
**John C. Bogle**

The first essay in the series was written by the late great economist and author Peter L. Bernstein. He was far from certain about what he would do . . . certain only about what he would *not* do—he would *not* allocate the portfolio by “flying on automatic pilot,” and warned against the idea that “common stocks, regardless of how high they sell, are destined to be attractive investments.” Perfectly good (if imprecise) advice, I’d say.

Like Peter Bernstein, market strategist and author Barton Biggs, was “terribly wary of the conventional wisdom” that relies on “steering the investment vehicle from the vantage point of the steep, winding mountain road by looking in the rear view mirror at the road over which we have just passed.” He foresaw a “bleak environment.” Also good advice, if some years early.

John Biggs, former leader of TIAA-CREF, would be “aggressive in asset class allocation” (a lot in stocks; a little in bonds—10 percent to 20 percent), which didn’t turn out all that well. But he was (in my opinion) right in keeping “my investment plan simple . . . very well diversified and low-cost.”

William H. Donaldson, co-founder of Donaldson, Lufkin, and Jenrette and founder of the Yale School of Management; Chairman of the New York Stock Exchange; and later on Chairman of the U.S. Securities and Exchange Commission (now there’s a resume!), would hire a full-time investment professional, pay him generously, and make him responsible to an investment committee comprised of a few qualified trustees. That small group would appraise the endowment fund’s results over the long term. And that’s just what Yale did, having selected David Swensen as its leader. Over the 15 years that

followed, Swensen would earn a compound annual return of some 13 percent on the Yale University endowment fund, likely the highest among all of its peer institutions. A truly brilliant choice!

Michael Price, for many years the guiding light of Mutual Shares, recommended heavy reliance on equities, focusing on those companies selling at a 30 or 40 percent discount from what other companies would pay to acquire them. “The whole goal is to compound at 15 percent . . . even when the market is up 25 percent (annually).” During the challenging 15 years that followed, neither Mutual Shares (which Mike Price hasn’t managed since 2001) nor the market came anywhere near these returns. But Mutual Shares compounded at 8.1 percent, well ahead of the 6.8 percent annual return for the Total Stock Market Index Fund, a splendid achievement.

The recommendations of “Adam Smith” (George J.W. Goodman), trustee, author and publisher, are a bit hard to replicate. He recommended hedge funds and especially “Julian” (presumably Julian Robertson), a good choice for a while. But Robertson’s firm ceased operations in 2000, and we can’t know who came next. “Hire talent whenever you find it,” was “Adam Smith’s” message. Fine! But as we know, talent is hard to identify, and—as in “Julian’s” case—frequently evanescent.

John M. Templeton, Dartmouth Professor Peter Williamson, and Charles R. Schwab were all true believers in equities. Templeton was unequivocal: “invest 100 percent in common stocks.” (The 6.9 percent annual return on his Templeton Growth Fund for the period, in fact, would barely outpace the bond market return of 6.2 percent, despite assuming twice the risk.) Nor did Williamson accept any need for “an anchor to windward” (in bonds or cash) to modify volatility. Schwab described equities as “the investment of choice,” and—surprising as it may seem for this marketer focused on managed funds with good past performance—favored the use of index funds.

Finally, both George Putnam and yours truly recommended a balanced approach. With bonds then yielding 7 percent and stocks but 2 percent, we both liked the concept of earning more income for endowments that must pay out returns to their universities, as well as the likelihood of substantially reduced volatility. I also urged endowment managers not to rely on “history and computers” to forecast stock and bond returns. My major recommendation couldn’t have been more specific: a 50/50 portfolio using U.S. stock and bond index funds, a balanced portfolio with extraordinary diversification and remarkably low costs—“on automatic pilot,” if you will.<sup>1</sup> Simplicity writ large.

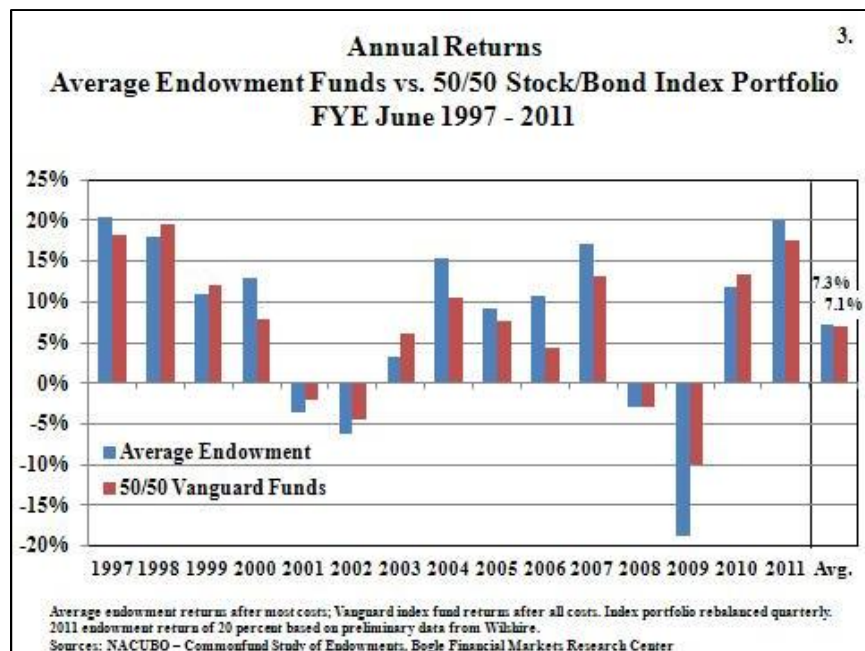
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<sup>1</sup> I also mentioned a 60/40 stock/bond portfolio and a 55/40/5 portfolio (the 5 in emerging markets), but all three portfolios provided similar returns and carried roughly comparable risks.

## Looking Back

So there you have it. Lots of opinions; lots of common themes too. So let's cut to the chase, look back, and now see how the portfolio I recommended worked out in hindsight, compared to the returns achieved and risks assumed by the average college and university endowment fund over the subsequent era, the fifteen fiscal years ended in June of this year. During that period, the average endowment fund earned a return of 7.3 percent compounded, a return far lower, I suspect, than most, if not all, of the commentators that I just cited would have anticipated.

My principal recommendation would obviously have been best implemented with the lowest cost stock and bond index funds, so I had no choice but to rely on Vanguard Total Stock Market Index Fund and Vanguard Total Bond Market Index Fund, rebalanced each quarter to 50/50. Our institutional shares—net of all fund expenses—provided an annual rate of return of 7.1 percent—6.2 percent for the bond fund and 6.0 percent for the stock fund, itself a surprising outcome. (That the total portfolio provided a higher return than either of its components is explained by the quarterly rebalancing.)



While that 7.1 percent return was not quite equal to the 7.3 percent return of the average endowment, it was at least competitive, and—taking into account other important measures of

performance—even superior. For, looking solely at total returns always conceals more than it reveals. Consider, for example, the substantial downside protection offered by the index portfolio in fiscal years 2001, 2002, 2003, and especially 2009, when the average endowment portfolio tumbled 19 percent, nearly double the 10 percent drop for the balanced portfolio

Given those differences, we cannot and should not ignore **risk**. The indexed portfolio had a standard deviation of annual returns of 8.9 percent, exposed to some 20 percent less risk than the 11.3 percent volatility of the average endowment. As a result, the **risk-adjusted return** of the 50-50 portfolio, measured by the Sharpe Ratio was 0.45, well above the 0.38 Sharpe Ratio for the average endowment.

4.

### Average Endowment and 50/50 Vanguard Index Portfolio

	Average Endowment	50/50 Index Portfolio
Average Annual Return 1997 - 2011	7.3%	7.1%
Standard Deviation of Annual Returns	11.3%	8.9%
Sharpe Ratio	0.38	0.45

Note: Sharpe ratios based on annual returns and annual standard deviations.

Another risk, of course, is the risk of differing from the average, and the **dispersion of returns** among the endowment funds is significant. Today’s 990 endowment funds in the sample are not “a group.” Performance among individual endowment funds has diverged widely. While we don’t have nearly enough data on this point, one study limited to just 28 endowment funds for the period 1999-2009 showed that, with average annual return for the decade of 6.3 percent, their standard deviation of returns was 1.7 percentage points. One-sixth of the funds earned returns of 8.0 percent or more, and one-sixth earned returns of less than 4.7 percent. (The absolute range, even for this limited sample, ranged from 10.5 percent to 4.3 percent.)

As we look behind these figures, we observe a substantial advantage in returns for the largest endowment funds, with only a modest upward bias in risk. (Princeton University, my alma mater, earned just shy of 13 percent per year, ranking at or near the top among the largest endowments. PRINCO President Andy Golden was wise not to follow my recommendations!) But perhaps the 50/50 index portfolio would have been an especially attractive option for endowment funds below the \$1 billion asset level—having provided not only significantly higher *risk-adjusted* returns, but in some cases competitive, or even higher, *absolute* returns as well. As I’ve often conceded, “the 50-50 index strategy may not be the best strategy ever devised, but the number of strategies that are worse is infinite.”

5.

### Endowment Returns by Size\*

	Over \$1 Billion	\$501 Million – \$1 Billion	\$51 Million – \$500 Million	Under \$50 Million
Average Annual Return 1996 - 2011	10.0%	8.2%	7.0%	6.5%
Standard Deviation of Annual Returns	12.8%	12.1%	11.3%	10.8%
Sharpe Ratio	0.54	0.42	0.35	0.32

\*Note: Returns for 2002 to date are for the indicated asset ranges. For 1997 – 2001, returns for each group are order for each grouping from largest asset groups to smallest.

Some of the edge in favor of large endowments has almost certainly been earned by their heavier use of alternative investments such as hedge funds and private equity funds. It will hardly be news to you that the past decade has witnessed a virtual revolution in the asset allocations of endowment funds. For endowments as a group, 50 percent of your assets are now invested in these “alternative investments,” compared to just 25 percent ten years ago. Last year, the largest funds had (to me) an astonishing 60 percent in alternatives, with the traditional basic stock/bond allocation down to 26 percent stocks (and mostly international stocks, at that) and 10 percent bonds. For the smallest endowments, alternatives averaged about 20 percent of portfolio market value, with stocks at about 50 percent and fixed-income at 25 percent.

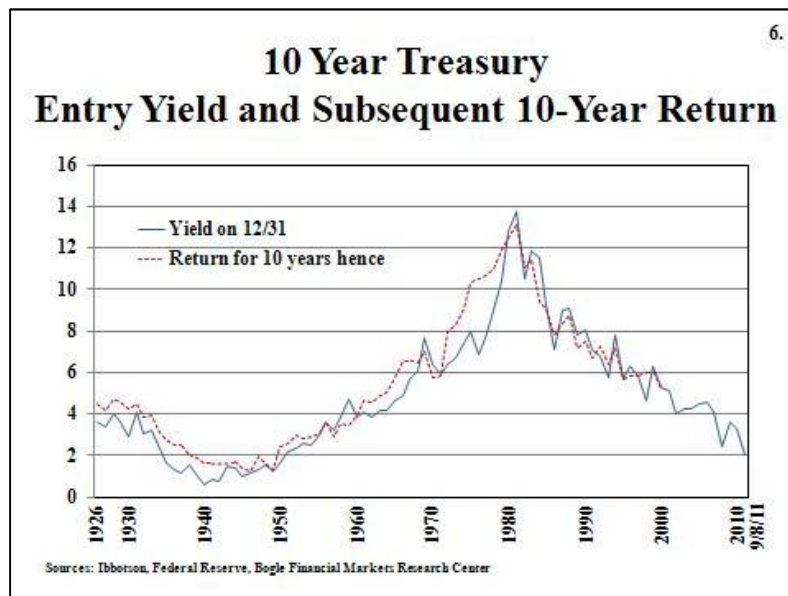
However one appraises the results achieved by the various investment strategies followed by endowment funds over the past 15 years, I urge caution about projecting either absolute or relative returns

into the future. As I emphasized at the outset: *In investing, the past is not necessarily prologue to the future.*

## The Sources of Investment Returns

*Properly used*, however, the record of past returns earned in the financial markets can be extremely useful. But not because of the returns themselves. Rather, sound analysis demands that we understand the *sources* of past returns. More than 80 years ago, with these timeless words, the great British economist John Maynard Keynes got it exactly right: “*It is dangerous to apply to the future inductive arguments based on past experience unless we can distinguish the broad reasons for what it (the past) was.*”<sup>2</sup>

While he was then speaking of the prospective returns on stocks, his logic can easily be applied to the prospective returns on bonds—with arithmetic that is even simpler than for stocks. Put bluntly, we should pay little, if any, attention to the past returns on bonds. Over time, these returns are accounted for almost entirely by the interest coupons that bonds generate during any given period. (That may seem obvious, but it is so often ignored.) For example, let’s look at the yield on the 10-year U.S. Treasury note at each year-end since 1926 and compare that entry-point yield to the notes return over the subsequent decade. The correlation is a truly remarkable 0.96, frighteningly close to a perfect correlation of 1.00.



<sup>2</sup> Keynes, John Maynard, 1925. Review of *Common Stocks as Long Term Investments*, Edgar Lawrence Smith.



Past returns tell us absolutely *nothing* about the return that a Treasury note purchased at the end of any period would earn during the subsequent decade. For example, the returns on the 10-year Treasury note. During 1926-1981, its return averaged 3.8 percent. But with the entry yield in 1981 at 13.7 percent (!), the return over the 1981-1991 decade turned out to be 13.1 percent. So both our arithmetic and our logic confirm that the current yield of a bond has been—and should almost certainly continue to be—a highly reliable guide to its future return. (The correlation between year-end yield and subsequent ten-year return for Vanguard Total Bond Market Index Fund is a still impressive 0.80.)

## Stock Returns

The methodology for stock returns is similar but more complex. Keynes focused on the two broad sources that explain the returns on stocks. The first was what he called *enterprise*—“forecasting the prospective yield of an asset over its entire life.”<sup>3</sup> The second was *speculation*—“forecasting the psychology of the market.” While Keynes made no attempt to quantify the relationship between enterprise and speculation in shaping stock market returns, however, it occurred to me, decades later, to do exactly that.

What Keynes had described as “enterprise,” I defined as *investment return*—the initial dividend yield on stocks plus the subsequent annual rate of earnings growth. What Keynes termed “speculation,” I defined as *speculative return*—the change in the price investors are willing to pay for each dollar of earnings (essentially, the return that is generated by changes in the valuation or discount rate that investors place on future corporate earnings).

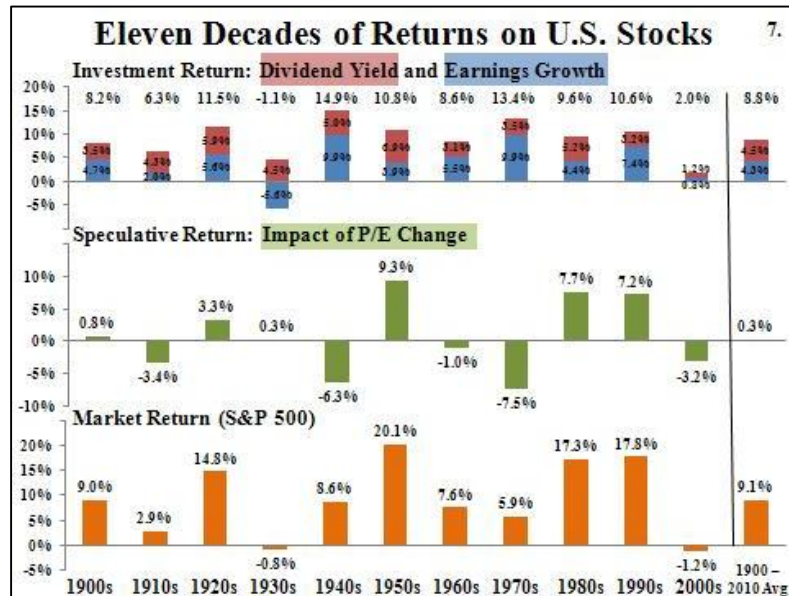
Simply adding speculative return to—or subtracting it from—investment return produces the *total* return generated by the stock market. For example, if stocks begin a decade with a dividend yield of 4 percent and experience subsequent earnings growth of 5 percent, the *investment* return would be 9

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<sup>3</sup> Keynes, John Maynard. *The General Theory of Employment, Interest, and Money*, 1936.

percent.<sup>4</sup> If the price-earnings ratio rises from 15 times to 20 times, that 33 percent increase, spread over a decade, would translate into an additional *speculative* return of about 3 percent annually. Simply adding the two returns together, the total return on stocks would come to 12 percent. It's not very complicated!

This remarkably simple metric of separating enterprise and speculation (i.e., investment return and speculative return) has been borne out in practice. Indeed I have the temerity to suggest that Lord Keynes would respect this mathematical extension of his concept. Decade after decade over the past century-plus, we can account, with remarkable precision, for the total returns actually earned by U.S. stocks.



The *investment* return on stocks proves to be remarkably susceptible to reasonable expectations. The initial dividend yield (RED)—which remains a crucial but underrated factor in shaping stock returns—is a known factor. The steady contribution of dividend yields to investment return during each decade has always been a positive, only once outside the range of 3 percent to 5 percent. (That horrific 1.2 percent yield in 1999 augured ill for future stock returns!)

Earnings growth (BLUE), while hardly certain, has proved to be relatively stable. With the exception of the depression-ridden 1930s, the contribution of earnings growth was positive in every decade, usually running between 4 percent and 7 percent per year. But if we recognize that corporate

<sup>4</sup> I understand that the numbers should in fact be multiplied together, i.e.  $1.05 \times 1.04 = 1.092$ , or 9.2 percent. But given the inevitable imprecision of projections, I elect the simple expedient of summing them up, in this case to 9.0 percent.

earnings have, with remarkable consistency over time, grown at about the rate of the U.S. Gross Domestic Product, this relative consistency is hardly surprising. Combining dividends and earnings, the total *investment* return (TOP LINE) on stocks averaged almost 9 percent. In only two decades (the 1930s and the 2000s) was the investment return less than 6 percent annually, and only two others were more than 12 percent.

*Speculative* return is, well, speculative, and has alternated from positive to negative over the decades. (GREEN) But note the powerful tendency of volatile P/E multiples toward reversion to the mean (RTM). Indeed, in each decade in which P/Es *fell* significantly—the 1910s, 1940s, and 1970s—was followed by a rise of almost identical magnitude in the subsequent decade—the 1920s, 1950s, and 1980s. That second consecutive blow-out decade for speculative return in the 1990s was totally without precedent. (A *nice* Black Swan! Such is the nature of our financial markets.) RTM is a fundamental law of the markets, and, as I'll discuss shortly, RTM may well apply to alternative investments as well.

Applying reasonable expectations to future investment returns and speculative returns, and then combining them has been a sensible and effective approach to projecting the total return on stocks over the decades. (ORANGE) The point is this: Over the very long run, it is the durable *economics* of investing—enterprise—that has determined total return; the evanescent *emotions* of investing—speculation—so important over the short run, has ultimately proven to be virtually meaningless.

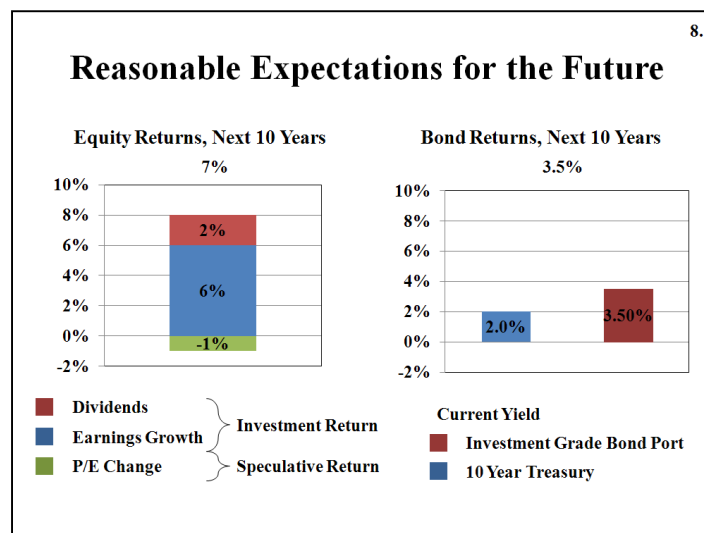
In the eleven decades shown in the chart, for example, the 9.1 percent average total annual return on U.S. stocks has been dominated by those 8.8 percentage points of investment return (an average dividend yield of 4.5 percent plus average annual earnings growth of 4.3 percent), and only 0.3 percentage points of speculative return, borne of an inevitably period-dependent increase in the price-earnings ratio from 12.5 times to 22 times, amortized over the decades.

## Looking Ahead

So, armed with the powerful evidence provided by the sources of past returns on bonds and stocks, let's look ahead, just as I tried to do in recommending a strategy in the article I wrote for college

and university endowment managers 15 years ago. First, times have changed, so relying on past returns in the bond and stock markets to be prologue would, as always, be unwise to a fault. This time *is* different, but not in a positive way.

This difference is most obvious in the case of bonds. On June 30, 1996, the yield on the U.S. bond market index was 7 percent; today it is only about one-third of that level—2.3 percent. **(RIGHT)** Yes, that index is heavily weighted (70 percent) by those now-extremely-low-yielding U.S. Treasurys and mortgage-backed obligations, with but a 30 percent allocation to corporate and other investment grade bonds, the total portfolio provides a short-to-intermediate-term duration (5 years). But a portfolio that is more heavily weighted with longer-dated investment-grade corporates could produce a yield of something in the 3 ½ percent range, suggesting a return of about that level in the coming decade.



The stock arithmetic is also sobering. **(LEFT)** First, investment return: the yield on common stocks today is 2.3 percent, about the same as in 1996. Corporate earnings grew at a 6 percent rate during the previous 15 years (about the same, as we might have expected, as the 5.5 percent growth in nominal GDP); perhaps 6 percent is a reasonable, if perhaps a tad optimistic, expectation for earnings growth in the coming decade (barring Armageddon!). Adding to that earnings growth the current yield of a bit more than 2 percent would provide a total *investment* return in the 8 percent range for stocks.

Speculative return is tougher to ascertain, depending (as it does) on investor psychology and future expectations. But with stocks now at 20 times earnings, they currently appear more expensive than the long-term norm of 17 times, (using the Schiller 10-year average P/E ratio in both cases). My guess is

that the P/E will be a bit lower a decade hence. If it were to fall to, say 18, that would result in *speculative* return reducing the *investment* return by one percentage point. Result: reasonable expectations suggest an annual *total* return on stocks of 7 percent in the coming decade, well below the long-term norm, largely because the contribution of dividend yields look like it will be only about one-half of the historical level.

At 3.5 percent, then, our (longer-term) bond portfolio would produce about a 50 percent return over the coming decade; at 7 percent, the stock portfolio would grow by 100 percent. If so, the 50-50 portfolio might earn a gross return of around 5 ¼ percent. Hardly a disaster, but surely a scenario in which endowment funds might want to reconsider the 4 ½ percent payment ratio that the typical endowment fund distributes currently.

## **Alternative Investments**

Why, you may wonder, have I focused so heavily on future stock returns and future bond returns when these two asset classes represent a distinct (and shrinking) minority of endowment assets? Alternatives are clearly “where you’re at” (in this audience), the dominant portion of endowment fund assets today. But while it is relatively easy to analyze the sources of stock and bond returns, the sources of returns in alternative investments are highly idiosyncratic and widely diffused. That said, despite their importance in endowment portfolios as a group, when risk is taken into account, endowment fund annual returns bear a significant correlation with the returns on balanced bond/stock portfolios. (In fact, the 15-year correlation is an amazing 0.94.)

Why? Because ultimately, hedge funds are merely combinations of stock and bonds, differentiated largely by their use of leverage, short-selling, idiosyncratic strategies, widely-varying manager skills, and, of course, the staggering fees that they charge. The impacts of these extraneous elements—except for the fees!—are almost impossible to predict with any kind of accuracy. So you’ll have to look to wiser heads than mine for recommendations about selecting the “best” hedge funds for the coming decade. But, given my confidence in the power of mean reversion, I’d be especially careful about assuming that yesterday’s champions will be tomorrow’s victors.

Indeed, because of RTM, I would not reject out-of-hand the possibility that conventional portfolios could outpace hedge funds as a group. Further, I must report that hedge fund returns are greatly

overstated in most data that are reported. If we delete from the database the returns produced “on paper” *before* a hedge fund started public operations, and include in the database the returns of hedge funds that have failed and were then excluded, we find a very different outcome. During 1995-2003, for example, the typical hedge fund in the Tremont TASS database provided an average *reported* return of about 13 percent. But according to a study by Princeton’s Burton Malkiel, the *actual* average was 9.3 percent, about the same as a typical 65/35 balanced mutual fund, which carried far less risk. Of course some hedge funds did better; a few (those that we read about!) considerably better. But how many will do so in the coming decade? How many successful managers will call it quits after they’ve made their fortunes? What will be the impact of the “inside information” scandals, or the presumed permanent elimination of the pervasive hedge fund strategies using mutual fund “market timing?” Indeed, how many of today’s hedge funds will even survive the coming decade?

While hedge funds seem to dominate the alternative investment allocation of endowment funds, private equity is also another major component. But private equity is largely common-stock based, if heavily leveraged. Indeed, according to Yale’s Swensen, the return on venture capital investments have pretty much paralleled the return on the S&P 500 over time. (In the 20-years ended in 2000, venture capital funds slightly *lagged* the index despite the substantially higher risks involved.) This experienced expert’s conclusion: “suppliers of funds to the venture capital industry generally realize poor risk-adjusted returns.”

It is no secret that in the years before the bull market peaked in 2007, many of the larger endowment funds made substantial advance commitments to private equity deals, and in the ensuing crash were pressed to maintain sufficient liquidity to complete those transactions. In recent years, a market has emerged to relieve the endowments of some of those commitments, but at nothing like 100 cents on the dollar. (Perhaps 50 cents would be more like it.) In any event, the whole issue of market valuations vs. book values (usually the cost basis of the commitments) raises complex questions regarding the precision of reported endowment fund returns. My conclusion: use private equity *only* if you have the staff, skill, and the skepticism about future projections to do so, and don’t over commit. You may come to find that liquidity can become priceless (no pun intended!).

## Summing Up

Yes, alternatives have provided a solid plus for many endowment funds, especially the largest funds, but remember that the past is not necessarily prologue. Remember reversion to the mean.

Remember Warren Buffett's warning about new concepts that offer the promise of delivering superior returns. "First the innovator; next the imitator; finally the idiot." Above all, don't be the idiot! Be careful of stars that so often turn into comets.

In the years ahead, our colleges and universities will need your expertise, your experience, your steadfastness, and above all your wisdom. Of course our financial markets face high risks and great opportunities, but are not likely to earn the high returns that have characterized what we have come to accept as historical norms. *This time is different*. Now perhaps there's a premise on which we can all agree.