

Diversification = Investor Success

--Andrew D. Martin

If variability of portfolio returns is primarily attributed to asset class performance, and not to individual security selection or timing as Brinson, Beebower, and Hood (Brinson) proposed in 1986; and if asset returns are capricious, as Callan Associates colorfully demonstrates with its *Periodic Table of Investment Returns* charts, then how is it possible to build better than average investment portfolios? How do we reconcile what we know about the primacy yet unpredictability of asset class choice?

Brinson, et al. came to their conclusions by separating investment *policy* (asset selection), market timing, and securities (or manager) selection to isolate *performance attribution* of these factors for 91 large trustee directed US pension plans from 1974-1983. They re-tested their hypotheses five years later with similar results. Among their original findings: “(I)nvestment policy dominates investment strategy (market timing and security selection), explaining an average 93.6 percent of the variation in total plan return.”

To be clear Brinson was not literally saying that the total return of a portfolio is attributable to asset allocation (though many investment companies miss this detail per their sales literature), rather as Roger Ibbotson wrote later: “Brinson is measuring the relationship between the movement of a portfolio and the movement of the overall market. He finds that more than 90 percent of the movement of one’s portfolio from quarter to quarter is due to market movement of the asset classes in which the portfolio is invested.”

Ibbotson believed, though, that the investor's time horizon has an impact on the performance attribution of security selection, timing, and asset allocation. *“For the long-term, passive investor, the asset allocation decision is by far the most important. For the short-term investor who trades more frequently, invests in individual securities, and practices market timing, asset allocation has less of an impact on returns. The impact of asset allocation on performance is directly correlated with investment style.”*

This becomes clearer the more you think about it. Certainly the force of the underlying asset is going to have an inexorable pull the longer you are in it. The corollary is that if you are a trader, the security you select and the time that you buy and sell it are paramount. So, as an advisor, pause and think about what kind of client you are advising. The longer term their horizon the more policy (asset class) oriented you should be; the shorter term, the more timing and security sensitive you should be. Otherwise you just may never be a good fit for your client. Investors should reflect on this as well.

What impact does diversification have? Are investors diversified enough? No. William Goetzmann of Yale University, and Alok Kumar of the University of Texas determined that a *“large proportion of individual investors are under-diversified.”* Further, *“Barber and Odean (2000), report that a typical individual investor holds a portfolio with only four stocks. Additionally, using data from the Survey of Consumer Finances (SCF), Polkovnichenko (2005) provides evidence of under-diversification among U.S. households. These results indicate that, on average, individual investors hold under-diversified portfolios.”*

How do we integrate what we know about performance attribution and diversification? I believe that Wellington Management created a durable template for investing in 1929 with a well known diversification model they invented called the *balanced fund*: 60% US stocks, 40% US bonds. How has it compared to the Vanguard 500 Index Fund, the first S&P 500 fund (which incidentally turned 33 on 8/31/09)? For the last 33 years a \$10,000 investment in the Wellington Fund grew to \$318,000 vs. \$253,000 for the Vanguard 500 Index Fund. Additionally, Wellington currently yields 3.54% vs. 2.43% for the 500 Index Fund, and has a beta of .56. The lesson? Diversification fostered greater returns, higher yields, and lower risks. You might say that I am kicking the S&P 500 when it is down—we know that it suffered in 2008; here I am comparing its entire life as a fund.

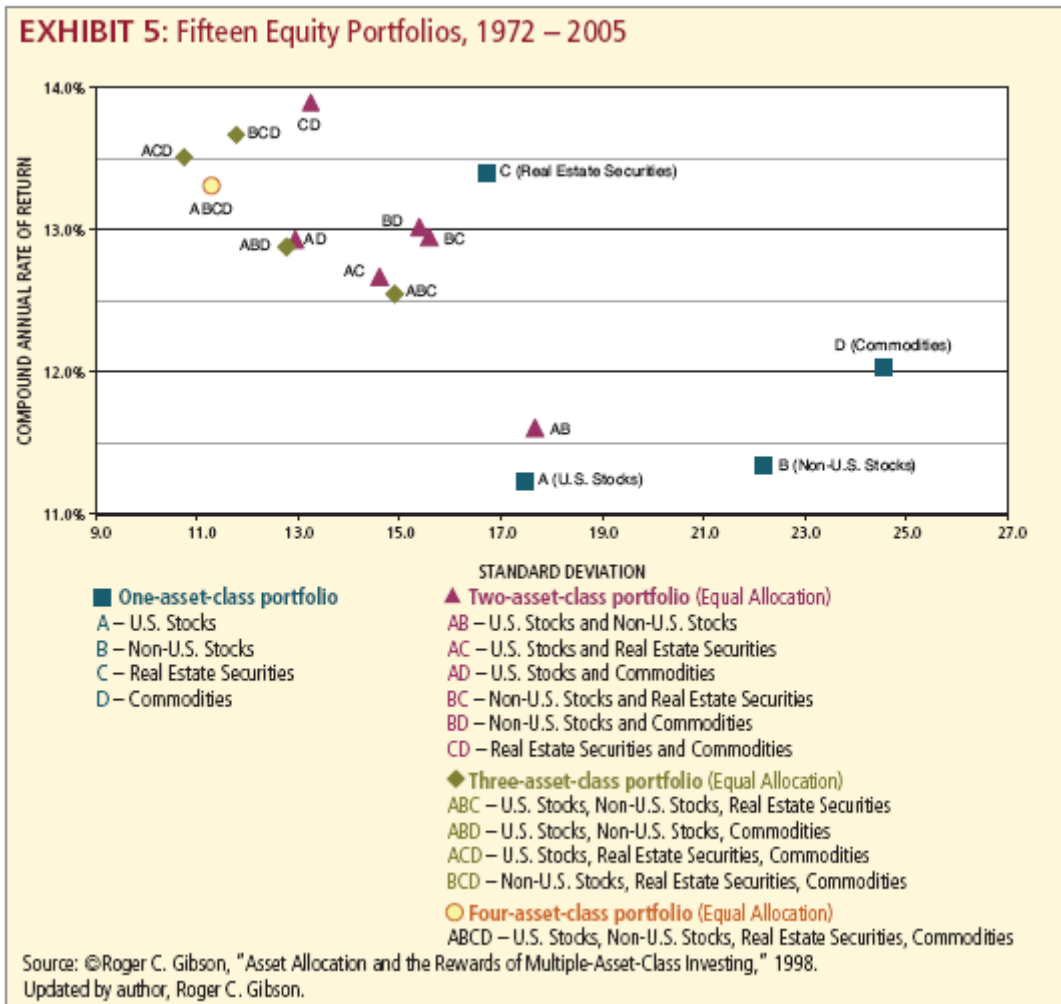
1 asset fund vs. 2 assets fund	Vanguard 500 Index	Vanguard Wellington
Annual Return	10.28%	11.05%
Cumulative Return	2429.86%	3082.25%
\$10,000 investment =	\$252,986	\$318,225
10 year <i>beta</i>	1	0.56
10 year <i>alpha</i>	-0.07	4.19
Worst 1 year	-43.32%	-28.71%
Worst 3 years	-16.14%	-5.78%
Yield	2.43%	3.54%
Expense Ratio	0.18	0.35

source: Morningstar Advisor Workstation, 8-31-76 to 8-31-09
 Past performance no guarantee of future returns

Could this be a harbinger for the demise of single asset investing when an aging 80 year-old two assets fund out-performed the vaunted single asset S&P 500 fund in almost every category? (Side note: for all those who answer *low cost* to every investment question, the Wellington Fund is twice as expensive as the Vanguard 500 Index Fund.)

Why stop here? When the Wellington Fund was created there were only two investable assets: stocks and bonds. What happens if we add non-US stocks and bonds, cash, real estate, and commodities? After all, commodities or real estate were the # 1 performing asset class for 8 of the last 10 years ending 2008, and non-US stocks and bonds were more likely than US stocks and bonds to rank in the top two performing categories in the last 20 years.

Notice what happens to returns and volatility as you combine asset classes, from the chart by Roger C. Gibson, CFA. As you diversify and add assets, performance tends to increase and standard deviation tends to decrease.



Here is a simpler way to look at it from Craig Israelsen, PhD. Notice how average returns increase, slightly, and risk drops significantly, as assets are added to the conventional US stock portfolio.

Building a Less Wobbly Nest Egg

Reducing volatility is critical for a retiree withdrawing money from his nest egg. A recent study tracking various portfolios for 37 years ending in 2006 showed how volatility was reduced with more diversification. The data below assume a 5% initial withdrawal rate that increased 3% a year for inflation. In each portfolio all asset classes are given equal weight.

Portfolio	Average annual rate of return	Standard deviation*	Worst year's value decline**
Large cap and small cap U.S. stocks	10.7%	18.0%	-30.8%
Add foreign stocks to above portfolio	10.9	17.2	-29.8
Add U.S. intermediate term bonds to above	10.6	13.0	-22.0
Add cash to above	10.0	10.5	-16.9
Add REITs to above	10.4	10.6	-18.8
Add commodities to above	11.3	8.7	-10.2

* Measures how widely each portfolio's annual returns varied from the 37-year average annual return.
 ** The decline takes into account the retiree's annual withdrawal.
 Source: Craig Israelsen, Brigham Young University

There are many conclusions from this research. One is that as an investment manager you should separate policy (asset class selection) from strategy (timing and security or management selection). My guess is that most advisors and money managers spend too much time on strategy and too little time on policy. Another take away is that asset classes (stocks, bonds, cash, real estate, and commodities) matter. Remind yourself that more fundamental to the nature of your fund choice such as the *small-cap international stock fund* is the fact that you are investing in stocks, and stocks tend to move together regardless of their sub-category: *small-cap international*. *Stock* is the operative word in the fund description.

Further, if you believe that Brinson, Hood, and Beebower are right then model your portfolios accordingly. Diversification is healthy, leads to fiscal longevity, and is a law from which few investors can escape. If you believe that being in the right asset class is fundamental to returns, and if you believe that you can't know which asset will outperform, you should own *all* assets in some proportion. Vanguard's recent reminder is simple but clear: "Maintaining a balanced, well-diversified portfolio is a sensible way to prepare for the uncertainties and volatility that accompany investing in the stock and bond markets."

More analysis is needed to differentiate between asset, security (or manager), and timing contributions to return. Brinson warned in 1986 that "*Performance attribution, while not new, is still an evolving discipline.*" 23 years later, I am not sure the industry has evolved much. Per the recent dismal performance of money managers, many of whom chase the S&P 500 where ever it goes, and the continued industry bias against diversification, I believe it would pay for all of us who were *experts* at the end of 2007 to remember what became of us by the end of 2008, and diversify.



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