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Effective Diversification: More Than Meets the Eye

Most investors understand the need to diversify their portfolios. However, while most of us accept the general concept, implementing it is not always quite as straightforward.

To understand why, it helps to recognize what influences a stock's returns. Professors Eugene Fama and Kenneth French focused on this topic in their paper, The Cross-Section of Expected Returns, in the June 1992 *Journal of Finance*. Their work demonstrated that the returns of stocks in the same asset class were almost entirely explained by the returns of their respective asset classes (such as large-cap growth or small-cap value). Thus, the more you diversify your portfolio among asset classes, the more the diversification can be expected to impact returns. Several other studies have lent further evidence in support of this conclusion.

There are several ways investors can be lulled into believing they are holding effectively diversified portfolios when they are not:

1. Numbers Don't Always Count

Among the most common mistakes is to believe that effective diversification has been achieved simply by purchasing a large number of stocks or mutual funds. In reality, it is not the *quantity* of investments as much as their allocation that makes the difference.

Consider this actual portfolio of 14 stocks and 11 mutual funds, typical of the ones we see new clients bring us for analysis and potential reconfiguration:

A Typical Investor Portfolio: How Diversified Is It?

14 "Diversified" Stock Holdings:
AOL, Bank of America, Charter Communications, Coca-Cola, Compaq, E-Trade, Eastman Kodak, Intel, Lucent, Pfizer, Schlumberger, Transocean Sedco Forex, Walmart and Walt Disney

11 "Diversified" Mutual Funds:
Alliance Technology, Capital World Growth & Income, Euro Pacific Growth, Fundamental Investors, Goldman Sachs Internet B, Growth Fund of America, New Economy, New Perspective, Phoenix-Engelman Cap Growth, Smallcap World and Washington Mutual Investors

At first glance, you might assume this many holdings would result in diversification. But in examining the portfolios, we can demonstrate otherwise. When the client brought us this portfolio in the summer of 2000, we used the University of Chicago's Center for Research in Security Prices (CRSP) definitions to classify each holding's asset class category. Stocks ranked in deciles 1-5 by market capitalization are considered large-cap, while deciles 6-10 are considered small-cap. Stocks ranked in deciles 1-3 by book-to-market (BTM) are

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The S&P 500 Index is generally regarded as the most common measure for performance of US large-cap stocks. However, based on how stocks are selected for inclusion and how their presence in the index is weighted, the S&P 500 has become skewed toward the larger of the large-cap stocks. How skewed? As of year-end 2001, the 50 largest stocks held by the S&P 500 represented what percentage of the total index?

a. 56 percent of the index
b. 46 percent of the index
c. 36 percent of the index

Turn to page 4 for the Investor Tester Instant Answers

What's Inside?

- Managing Expectations
- Spending Time On What Matters

Managing Expectations

"Blessed is he who expecteth nothing," quipped British author G.K. Chesterton in the early 1900s, "for he shall enjoy everything." Of course few would expect nothing for their investments; there'd be no point to saving. But there are ways to ground your ambitions in what you can reasonably expect to achieve.

Establish an Investment Policy

An important step to build appropriate expectations is to establish an investment policy, preferably in the form of a written Investment Policy Statement (IPS) compiled by you and your investment advisor. A carefully crafted IPS results in an asset allocation and rebalancing table that reflect your unique risk profiles, including:

- Your ability to take risk
- Your willingness or tolerance for risk
- Your need to take risk
- Your ability to accept "tracking error," or the degree of discomfort you will feel when your portfolio doesn't track common market indices such as the S&P 500

Your IPS is a living document you and your advisor should review periodically and whenever your plans may have changed.

Taking Calculated Risks

To calculate your need to take risk, you must estimate expected returns for your portfolio. A common error is to estimate future returns by simply extrapolating historical returns. From 1926-1990, S&P 500 returns were 10.1 percent annualized; by 1999, long-term returns had increased to an annualized 11.3 percent. Yet you would be doing yourself a disservice to expect such returns to continue or increase on average. Financial economics reveals that a period of high returns more typically leads to lower (not higher) future expected returns.

That is why your investment advisor often uses tools such as Monte Carlo simulation. These computer-based tools run thousands of random return variations, simulating the random nature of actual market behavior, and then calculate a likelihood for possible outcomes to occur. The approach helps you and your advisor more accurately plan for your retirement, education or other major savings objectives.

Keep an Eye on the Objective

How you allocate your investments across the major asset classes also should be reviewed regularly. For example, during a lengthy bull market, your stock holdings might grow faster than expected, reducing your need to continue taking the same level of risk to achieve the same objectives. If that has happened, you might consider changing your asset allocation from 80 percent stock/20 percent fixed income to a 70/30 mix, lowering your level of risk moving forward.

Unfortunately, we see too many investors lulled into overconfidence by a long period of growth. They forget that the risk inherent in equity investing is real. If you have already acquired enough to live what you consider a comfortable lifestyle, which would you rather achieve:

EITHER ...

1. Increase your likelihood of keeping what you've already accumulated (but reduce your odds of outperforming) by reducing your allocation to riskier asset classes?

OR ...

2. Try to surpass your original goal (but also increase your odds of falling short of it) by maintaining or increasing your allocation to riskier asset classes?

The decision is up to you, but be aware that it is a trade-off, and that asset allocation is the overwhelming determinant of which choice you are most strongly pursuing.

Be Prepared to Choose

Speaking of decisions, it is important to realize that current expected equity returns are now lower than they have been since the late 1960s, at the end of the penultimate major market bubble. If your current investment plans are based on unreasonably high expected future returns (even if those expectations were considered reasonable in the past), you may fall short of achieving your financial goals. You then have difficult choices to make:

- Save more
- Lower your expected retirement lifestyle or delay your retirement
- Increase your allocation to equities (which are expected to earn higher returns over time in compensation for increased risk)
- Tilt your portfolio more toward value and small-cap asset classes (with the understanding that their higher expected returns also mean even greater economic and tracking-error risks).

By helping you regularly review your investment decisions, asset allocations and future expected market returns, your advisor can perform a valuable service, offering you the greatest opportunity to "expecteth something" ... and achieve it as well.

In a world where it's often harder to find free time than to obtain free money, the passive investment approach that we recommend is not just a good choice for your finances, but also for your lifestyle.

As a passive investor relying on capturing entire asset class returns rather than hunting down the next winning investment trend, you no longer have to spend as much time managing your portfolio, leaving you with more time to spend on the things that really matter to you. This is especially true for investors who have a trusted advisor to help ensure that their portfolio remains within its target allocations, and that the portfolio is managed for tax efficiency.

To succeed at the minimalist approach to investing, the first step is to avoid constantly checking your portfolio. Overattention leads to two possibilities:

1. You'll check the value and decide to do nothing. In that case, the time spent could have been better used.

2. You'll be tempted by recent market events to execute trades, even when the long-term prudent action is to avoid reacting to recent market swings.

In other words, excess attention to your portfolio can cause you to listen too closely to the noise of the market's daily ups and downs. Making investment decisions based on the latest hot sector or asset class is called "recency," and is typically based more on emotional reactions and less on careful planning or prudent, long-term judgment.

One reason many investors make the mistake of recency is that they succumb to what is known as risk aversion. Behavioral economic studies have indicated that risk aversion, or the negative pain of a loss, is significantly greater for most of us than the positive pleasure we receive from a gain. Too much pain from too much bad news (even if the bad news turns out to be a temporary blip in an otherwise upward trend) can lead to bad investment decisions.

The following example provided by author Nassim Nicholas Taleb illustrates why checking your financial statements too frequently subjects you to unnecessary pain, resulting in a potential to panic that could easily be avoided by simply avoiding the analysis to begin with.[1]

Imagine that you are presented with the opportunity to build a portfolio that will earn a long-term return of 15 percent per annum, but with a standard deviation (measure of volatility) of 10 percent per annum. Clearly this is a highly optimistic scenario. You would probably gladly accept and adhere to an investment plan that yields 15 percent annually.

Or would you? A 10 percent standard deviation will result in about two-thirds of the annual returns falling between 5 percent and 25 percent (15 percent, plus or minus 10 percent). All but 5 percent of the years will have returns between –5 percent and +35 percent. Thus, how easily you can adhere to your original investment plan might depend on how often you check your portfolio's performance.

If you checked performance annually, you could expect to feel the pain of a loss just 7 percent of the time, probably allowing you to remain steadfast in your commitment to the portfolio. However, as you checked your portfolio more frequently, the likelihood of pain would increase. At quarterly intervals, the likelihood of observing a loss would increase to 23 percent. At monthly intervals, it would increase to 33 percent. If you checked your statement daily, as many investors do, you could expect to feel the pain of a loss almost half of the time. That is a lot of unnecessary — and actually counterproductive — pain that could easily cause you to abandon your well-planned strategy.

Taleb comments that, over short horizons, the investor is observing the *variability* of returns, rather than the returns themselves. He observes that human emotions are simply not designed to understand the difference, and that the typical investor is unable to "rid himself of his humanity … Most of us know pretty much how we should behave. It is the execution that is the problem, not the absence of knowledge."[2]

Understanding our humanity leads us to the winning strategy. Perhaps the greatest favor you can do for your investments is to spend more time ignoring them.

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[1] Nassim Nicholas Taleb, **Fooled By Randomness.** TEXERE Publishing Ltd, Copyright 2001.
[2] Ibid.

Effective Diversification (cont.)

considered growth stocks, and those in deciles 8-10 are considered value stocks. The same measurements hold true for funds that hold the stocks.

By these measurements, all 14 stocks and all 11 mutual funds were large-cap holdings (including the mutual fund that deceptively contained "smallcap" in its name). When ranking by BTM, nine of the 14 stocks and all of the mutual funds were growth stocks. Only one was considered a value stock and the three remaining stocks fell into the fourth decile, just barely missing a growth stock classification.

Thus, despite the number of holdings, the portfolio was not diversified by asset class; it was almost entirely large-cap growth. It had been performing well in 1998-1999, when large-cap growth stocks exhibited strong performance, but then came March 2000 and a severe bear market for large-cap growth stocks. The investor was understandably concerned about his portfolio's performance and wanted to know why all of his assets seemed to begin underperforming at the same time.

2. It's All in the Family

Another way to be tricked into a false sense of diversity is by holding many different actively managed funds within the same fund family. While their names may differ, these funds may often end up being close cousins to one another. For example, we have seen portfolios in which an investor owned 20 different funds from the same fund family, but with every one of the funds in the large-cap growth asset class. Further, because a fund's marketing description often varies significantly from its actual holdings, it is only through careful analysis that its true nature can be revealed. The preferred implementation is to seek mutual fund providers who offer passively managed families of funds, each of which are designed to capture the returns of a specific asset class.

3. Even 500 May Be Too Few

Yet another common investment approach that fails the diversification test is to place all or most of your portfolio into an S&P 500 Index fund. Yet again, you would hold positions in a diverse number of holdings, but you would enjoy little if any asset class diversification, as the S&P is heavily skewed toward the largest and "growthiest" large-cap growth stocks.

Professors Fama and French and other financial economists have demonstrated that the way to achieve effective diversification is by investing across all the asset classes of small-cap, large-cap, growth and value, and across both domestic and international holdings. We believe that the best building blocks to achieve such positions are index or passive asset class funds. They are low cost and tax efficient, and they enable you to best control asset allocation, the single greatest determinant of returns.

Instant Answer
(from page 1)

(a) 56 percent of the S&P 500 Index is represented by its 50 largest stocks. In other words, more of the S&P 500 Index is represented by its 50 largest stocks than in all of the remaining 450 stocks combined. The reason is that the index includes stocks according to their market-cap weights, so that the larger holdings receive greater representation. For example, at year-end 2001, the market-cap–weighted average of the S&P 500 was $105.2 billion, but only 18 of the 500 stocks were larger than average. If the stocks in the index were instead equally weighted, the market-cap average would drop to just $20.8 billion.

Our Basic Tenets

Our objective is to design portfolios using passive asset class funds that maximize investors' returns within their tolerance for risk. Here is what sets us apart:

- Fee-only investment management
- A disciplined investment strategy
- Access to institutional no-load passive asset class funds
- Fixed income expertise
- An academic Nobel Prize-winning investment approach
- Continued access to academic research
- A tax-efficient focus, with valuable tax and estate-planning ideas
- Risk tolerance assessment
- Periodic portfolio rebalancing
- Regular communications and state-of-the-art reporting
- MOST IMPORTANT ... A TRUSTED ADVISOR RELATIONSHIP

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