The Diversified Portfolio Index ™

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Investment rates of return that are average but consistent are the products of exceptional performance. Over longer time horizons, these returns become increasingly difficult to outperform. One such example is the Diversified Portfolio Index — a buy-and-hold strategy deployed across all major asset classes.

After 40 years of working on Wall Street, absorbing all the data and information I could consume on the subject of investing, I found it did not provide me with the knowledge required to be a successful long-term investor. The anticipated wisdom from all this knowledge and data remained elusive. In time, the en vogue investment styles and asset classes eventually succumbed to mediocrity, or worse, total collapse.

Although many post highly successful trades for some time, almost all investors ultimately face a few bad trades, resulting in very mediocre overall performance. Even after picking a series of securities that work well, an active trader continues to make trades until reaching the point where doing nothing would be better.

Even hindsight could not provide me with a particular style that would have provided better-than-average performance for a portfolio invested in a particular asset class. While equities were favored for the long run up to 2000, an investor would yearn to have been in bonds during the poor stock performance since 2000.

The problems of where to be and how to invest going forward remained mysterious to me, no matter how long I was in the investment business.

The Diversified Portfolio Index

Then, I accidentally came up with something smart. Past performance and hindsight revealed the investment solution: a simple asset allocation methodology for an investment portfolio that can be used effectively by the common individual investor. The answer was the Diversified Portfolio Index™ (DPI).

Own everything — all asset classes. The average growth rate of the DPI, containing all the investment asset classes, provided a rate of return that I originally suspected would outperform most investment funds *most of the time*. After analyzing historical data, it became clear that there is enormous value to the DPI methodology. The average growth rate of the DPI produced returns that exceeded most investment funds *all of the time*.

I compared the results of the DPI to those of the mutual fund universe. The average annual performance of the DPI was typically over the 50th percentile (arithmetic mean is higher than the median), outperforming most of the individual funds in each year. By consistently achieving the average rate of return year after year, the DPI shows truly exceptional performance. This cumulative long-term result generates superior relative performance, doing better each year compared to competitors, as time goes on.

If it is to be believed that the investment markets are efficient and that no one can beat the markets in the long run, then one should simply own all the markets: U.S. stocks, international stocks, bonds, real estate, and precious metals and commodities. If all markets are represented by a haystack, and you are always trying to find the needles in that haystack to own in a portfolio, then you should buy the haystack to own all the needles.

This is accomplished by first defining an encompassing diversified asset class mix, which represents all investment markets, and then securitizing this with a spectrum of exchange-traded funds. The DPI achieves this. The asset allocation, which I determined based on my personal experience, is summarized here.

Asset Allocation of the Diversified Portfolio Index	
U.S. Stocks	40%
International Stocks (ex-U.S., weighted by GDP)	10%
Bonds (all maturities)	30%
U.S. Real Estate	10%
Precious Metals	5%
Commodities	5%

The DPI is comprised of 30 ETFs. Information about those ETFs or the DPI's construction is available via the URL at the end of this article.

The DPI is best used as a tool to weigh the relative performance of any investment portfolio. Managers of pension funds and large institutional funds understand the merits of diversification in all asset classes and can execute these well-diversified strategies. Their tremendous funding allows them to purchase securities in the full spectrum of asset

classes. Investment managers then assess relative performance to a chosen index according to the particular style of investing being implemented.

However, retail investors need to have a metric to compare their own portfolios, either to other possible portfolios or to actual portfolios of other investors. It is a simple, straightforward problem. Unfortunately, the answer has never been simple or straight-forward — that is, until now. Using the DPI as a comparative portfolio index creates an effective reference for both the institutional manager and the individual investor.

While we know from academic research that asset allocation explains most of a portfolio's variation in returns, my study of the DPI's past performance further shows that minimum adjustments can achieve superior performance.

The net effect of active management can be measured by comparing actual results to the DPI. Such a comparison would offer even the largest institutional investments a simple method of measuring the value of their management by checking their positive or negative deviations from the DPI.

Historical performance of the DPI

My historical results were calculated using Thomson Investment View 2010, which has 23,342 (including A, B and C share classes) with funds with which to make comparative performance studies. This data represents the results of the universe of strategies employed in those funds, from active to passive, traditional to creative. The DPI results — constructed using low-cost ETFs and index funds — are net of fees.

There are outliers in each individual year, but the truly excellent fund pulls ahead over the long run.

The data below demonstrate the DPI's superiority over increasingly longer time horizons:

PERIOD	YRS	DPI RETURN	FUND RANKING OF 23,342	PERCENTILE RANKING
2010	1	13.23%	9,884	57.7%
2008-2010	3	2.80%	5,131	78.0%
2005-2010	5	6.05%	2,469	89.4%
2000-2010	10	5.58%	3,140	86.5%
1995-2010	15	6.69%	1,963	91.5%
1990-2010	20	8.11%	1,300	94.4%

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Comparing the results in cumulative periods yields these percentile ranking results. In the chart below, each row represents the combined performance across all time periods indicated. For example, in the second row, the rankings are measured based on the results of one-year and three-year periods. The DPI was in the 92.6th percentile based once performance for both those time periods was considered.

CUMULATIVE PERIODS FROM 1990-2010						INDIVIDUAL PERIOD RETURN	FUND RANKING OF 23,342	PERCENTILE RANKING
1y	3y	5y	10y	15y	20y			
☑						13.23%	9,884	57.7%
☑	☑					2.80%	1,721	92.6%
☑	☑	☑				6.05%	998	95.7%
☑	☑	☑	☑			5.58%	550	97.6%
☑	☑	☑	☑	☑		6.69%	222	99.0%
☑	☑	☑	☑	☑	☑	8.11%	92	99.6%

Some may argue that the advantage is due to the fact that the last 20 years saw an ideal stock market in the first 10 years of the study followed by another 10 years of an optimum bond market. But future behavior may not show the same historical distributions of relative performance for each asset class. Also, data from the last 20 years shows that DPI performance was high during a decade of poor bond market performance followed by another decade of poor stock market performance. It is not the performance so much as the consistency of performance that produces a true advantage.

It is not only the average of the annual returns that matter. Two funds or strategies may vary from each other year to year but still have the same average annual return. One might expect the end result to be that they both produce the same total return, but this is not true. The fund with the higher volatility, meaning a greater range of individual annual returns, will produce a lower total return over the same period than a fund with lower volatility. This is crucial to real success in investment management.

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To demonstrate the value of the DPI methodology, consider the results if the DPI performance for each period is reduced by 20% (e.g., if the DPI in one year earned 10%, it is reduced to 8%).

CUMULATIVE PERIODS FROM 1990-2010						INDIVIDUAL PERIOD RETURN (-20%)	FUND RANKING OF 23,342	PERCENTILE RANKING
1y	3y	5y	10y	15y	20y			
☑						10.58%	13,583	41.8%
☑	☑					2.24%	2,589	88.0%
☑	☑	☑				4.84%	1,785	76.0%
☑	☑	☑	☑			4.46%	1,017	95.6%
☑	☑	☑	☑	☑		5.35%	470	97.9%
☑	☑	☑	☑	☑	☑	6.49%	228	99.0%

These are quite remarkable figures, which the investment industry would be wise to consider. Even a 20% reduction in the DPI's annual returns still provides the investor with superior long-term results. Annual rebalancing keeps the asset allocation aligned with target weightings, while minimizing performance drag induced by trade activity.

The lay individual investor would be well served to become familiar with the DPI. It is a basis for formulating a personal portfolio methodology and comparing the results to the investable universe to see if the strategy is adding value. The investor gains a better understanding of portfolio asset management. By comparing your portfolio to the DPI, you can determine whether it is just transient luck that has allowed you to catch a seasonal trend.

To be a successful investor, you must also choose your entry and exit points. Studies show how poorly the average investor can do so, as pointed out by the Dalbar numbers. From 1984 to 1998, the S&P 500 gained 17.6%, while equity fund investors gained only 7.3%. Countering this issue of poor timing by most investors is difficult. For example, if from March 1997 to March 2002 one remained fully invested in the S&P 500, one would have achieved a 10% rate of return. However, if one missed the best 10 days of the market, one would experience almost a 90% loss of return, leaving only 1.07%. This shows again that it is time in the market — not timing of the market — that adds value.

Conclusions

The timeless wisdom of investing is encompassed in the DPI. We are aware of the Efficient Market Hypothesis by Eugene Fama, the asset allocation study by Harry Markowitz and William Sharpe, A Random Walk on Wall Street by Burton Malkiel and more recently, the writings of Nassim Nicholas Taleb in his books *The Black Swan* and *Fooled by Randomness*. All of these works value diversification.

Diversification stabilizes portfolio performance where consistency of performance is more valuable over time than attempts to seek superior returns through speculation on which asset class will outperform over shorter periods of time. Instead of trying to find the needles in the haystack, one can use the uniqueness of the DPI methodology to capture the entire haystack. Own all the markets, all of the time. By doing so, you increase the total returns over time.

The individual investor must overcome human nature to increase performance results. The DPI eliminates the human folly of trying to time the markets and the insidious tendencies to buy on hot trends and sell low when all looks gloomy. The average investor would be well served to avoid letting such habits routinely affect investing behavior. In contrast, the DPI's annual rebalancing mechanism objectively resets the asset allocation and helps the index stay the course.

The academics are correct: The market is efficient yet random, and much more is attributable to luck than we care to admit. Accomplishing an average yearly return each year in your investment portfolio is a very difficult and rare accomplishment. The probability that humans will err over a lifetime of investing outweighs their judgment on how to actively invest successfully. Therefore, performance is better served with passive asset allocation and a simple rebalancing system.
