Index Fund Strategies

ASSET CLASS

A monthly update of asset class performance, trends, & topics for long-term investors

Index Returns

	1996	1997	1998	Last 6 yrs.	9/13 1999
Bonds					
Short-term	5.8	6.0	5.7	5.4	**+ 3.1**
Intermediate	2.4	9.2	10.5	7.7	**- 3.4**
Long-term	-1.3	14.3	12.0	8.9	**- 7.1**
Global	10.8	8.3	8.4	8.3	**+ 2.5**
U.S. stocks					
Large Market	22.9	33.2	28.7	21.4	**+ 10.1**
Large Value	20.2	28.1	12.0	18.3	**+ 8.2**
Small Market	18.2	24.6	-5.5	12.4	**+ 10.0**
Small Value	22.3	30.7	-7.3	16.0	**+ 11.2**
Real estate	33.8	19.3	-15.4	8.2	**+ 1.3**
Int'l stocks					
Large Market	6.4	5.5	18.2	12.1	**+ 11.1**
Large Value	7.8	-3.1	14.9	13.5	**+ 13.7**
Small Market	2.6	-23.7	8.2	4.2	**+ 23.1**
Small Value	1.0	-22.7	5.3	3.7	**+ 24.8**
Emerg. Mkts.	11.4	-18.9	-9.4	5.4	**+ 39.6**

Descriptions of Indexes

Short-term bonds	DFA One-Year Fixed Income fund
Intermediate bonds	DFA Intermed. Gov't Bond fund
Long-term bonds	Vanguard Bond Index Long-term
Global bonds	DFA Global Fixed Income fund
U.S. Large Market	Vanguard Index 500 fund
U.S. Large Value	DFA Large Cap Value fund
U.S. Small Market	DFA US 6-10 fund
U.S. Small Value	DFA US 6-10 Value fund
Real Estate	DFA Real Estate Securities fund
Int'l Large Market	DFA Int'l Large Cap fund
Int'l Large Value	DFA Int'l Large Cap Value fund
Int'l Small Market	DFA Int'l Small Company fund
Int'l Small Value	DFA Int'l Small Cap Value fund
Emerging Markets	DFA Emerging Markets fund

"Last 6 yrs." returns for U.S. Large Value (3/93), U.S. Small Value (3/93), Int'l Large Value (3/93), Int'l Small Market (10/96), Int'l Small Value (1/95), and Emerging Markets (5/94) include simulated data prior to fund inception (in parentheses).

This information is obtained from sources we believe are reliable, but we cannot guarantee its accuracy.

Past performance does not guarantee future returns.

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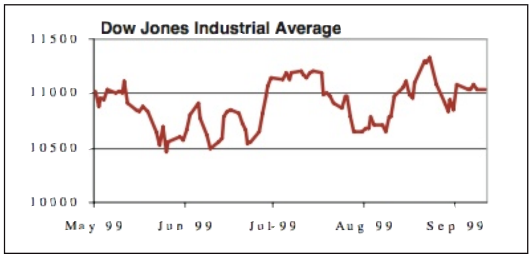
Markets Update — Wednesday, September 15, 1999



It's been a difficult five months for the Dow. After closing at 11,107 on May 13, the market has managed to lose an additional 77 points—with a lot of up and down in between. Unfortunately, large value stocks have declined even more. In a repeat of the past couple of years, large growth is now ahead of value for the year.

Small company stocks, especially value, continue to perform much better this year along with the international asset classes. Returns on Japanese stocks have been very good and have benefited from a fall in the dollar.

"Total Stock Market" Index Funds

A New Fad or Investment Nirvana?

Jeff Troutner, TAM Asset Management, Inc.

A new investment trend has emerged, fueled by recent stock market performance and given substantial creditability by none other than John Bogle, the Chairman of the Vanguard Group. The trend is toward investing in "total market" index funds rather than a diversified—sometimes tilted—blend of large, small, growth, and value stocks. It is a simple, foolproof, low cost strategy that can't fail, according to its most vocal promoters.

The current popularity of these funds is due primarily to investor perception that they offer much more exposure to small company and value stocks than the S&P 500 funds. If true, this would eliminate the need to "slice and dice" a portfolio among various asset classes to increase diversification while also increasing expected returns. It would also eliminate the need to ever change your portfolio strategy. One-stop shopping, in essence.

Ah, life (and investing) should be so simple! Unfortunately, the total market approach is based on two flawed premises: One, that total market index funds actually represent the total *market of stocks*, and two, that investors will stick with the strategy for any length of time.

Let's look at the first premise. A total market index fund is usually based on the very broad Wilshire 5000 index. The Vanguard Total Stock Market index fund is the leader in the category and owns about 3200 stocks weighted by market cap (3200 stocks is considered a good enough sample of the over 7000 stocks actually in the index). The 3200 *are not equally weighted*, so the largest companies make up the largest percentage of the index. As a result, the 100 largest companies, or about 3% of the total, represent almost 60% of the total value of the Vanguard fund!

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It should come as no surprise then that over the last 30 years the annual returns of the S&P 500 and the Wilshire 5000 index are within .10% of each other. The "Total Market Index" is really a large U.S. growth index: a wolf in sheep's clothing! Here's more proof using the CRSP[1] and Fama/French[2] data back to 1964.

Annual Returns: 1964-1998

CRSP 1-10 "Total Market" index	**12.3%**	
S&P 500 index	**12.3%**	
Fama/French Large Value index		15.1%
CRSP 6-10 Small Co. index		13.2%
Fama/French Small Value index		17.4%

It doesn't take a high-priced financial whiz to tell me that the total market index return is closer to the large growth stock-dominated S&P 500 then it is to large value, small growth, or small value stocks.

Now, let's consider the second premise: that investors will stick with a total market strategy for any length of time. In order to accept this premise, you have to believe that short-term performance, or cycles in asset class returns, will not influence investors, or that the total market approach will win most of these short-term cycles. If the past is any indication of the future[3], you will be wrong on both counts. We have already shown that the total market index is basically a proxy for the S&P 500. How many investors do you know who have had 100% of their stock portfolio invested in the S&P 500 for more than four years? How many do you think will be invested 100% in the S&P 500 over the next five years? My guess on both counts: Zero.

Why do I believe this? Because, out of 32 consecutive four-year cycles since 1964, the total market index won only 10 times over a diversified portfolio of 25% S&P 500, 25% large value, 25% 6-10 small, and 25% small value. One of those ten times is the last four years and the margin of victory for the total market over this period is 2.5 times its previous high margin. The diversified portfolio, on the other hand, won 22 times and its winning margin exceeded the total market's current historically high margin in *five* different periods

We haven't even considered the role short-term fixed income or international investments in a portfolio would have on debunking the second premise. How do you think you would feel if you held on to a total stock market fund for four years only to find out that you would have been better off in CD's? How about eight years later? Twelve years? Sixteen years!? Nineteen years!!? Yes, it happened, from 1966 to the end of 1984.

In contrast, for the first four years the diversified portfolio outperformed the CD return by over 4% per year. After the next four years, due to the severe bear market of 1973-1974, the diversified portfolio fell below the CD return slightly. But the following eleven years proved much more rewarding to the diversified investor.

Annual Returns

1966-1969	
Diversified Portfolio*	10.1%
One-Month CD	6.0%
Total Market (CRSP 1-10)	4.7%
1966-1973	
Diversified Portfolio	5.5%
One-Month CD	6.2%
Total Market (CRSP 1-10)	3.6%
1966-1977	
Diversified Portfolio	8.7%
One-Month CD	6.5%
Total Market (CRSP 1-10)	4.1%
1966-1984	
Diversified Portfolio	12.6%
One-Month CD	8.5%
Total Market (CRSP 1-10)	8.1%

25% S&P 500, 25 F/F Large Value, 25% CRSP 6-10 Small, 25% F/F Small Value

Investors (and advisors) who endorse such a simple strategy as buying a "total market" index fund are ignoring some of the most basic realities of investing. They live in a Land of Oz, a make-believe Nirvana inhabited by Munchkins, Lollipop Kids and, now apparently, John Bogle. Like the proponents of "portfolio optimization" software, they will eventually find out that they are still in Kansas. In other words, reality bites. And the reality is this: *the total market indexes are dominated by large growth companies, asset classes returns run in cycles, and most investors are extremely sensitive to these cycles*.

At the current prices for large U.S. growth stocks, we will soon find out just how sensitive they are over the next four years.

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[1] The Center for Research in Securities Price, University of Chicago

[2] Eugene Fama and Ken French, "The Cross-section of Expected Stock Returns," *The Journal of Finance*, June, 1992

[3] Not relevant if you believe we are in a "New Era" of investing.