Do Most "Do It Yourself" Investors Really Make Any Money In Stock Funds?

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Since 1994, Boston fund consulting firm Dalbar has released an annual study that blends sales figures with mutual fund returns to measure the average investor's actual dollar performance. The results consistently show that investors underperform the stock market by huge margins.

Last year's edition found that the average stock-fund investor eked out a paltry **5.3%** annual gain from 1984 through 2000, compared to 16.3% for the S&P 500 stock index[1]. Interestingly the study also revealed that investors, having missed out on much of the bull market, lost more money than the average fund and the overall market in the recent bear market[1].

Benchmark	1984-2000	2000 To March 2002	1984 To March 2002
S&P 500	16.3%	-9.5%	14.3%
Average Fund	13.1%	-8.7%	11.5%
Average Investor	5.3%	-9.9%	4.2%

Source: Dalbar and Bogle Financial Markets Research Center

Recent experience starkly highlights how performance chasing can equate to buying at a peak. In 1999, for instance, the average technology fund rang up a 135% gain. The next year tech funds, which are supposed to be 10% or less of a diversified portfolio, took in more than 30 cents of every dollar sunk into U.S. stock funds. Unfortunately, that money showed up just in time for the bubble in tech company's profits and stock prices to burst. Many investors were late in jumping on the growth-fund bandwagon too. In the five years ending Dec. 31, 2001, the average shareholder in Janus stock funds earned a 2.2% annualized return[1]. A $10,000 investment on Jan. 1, 2000 in the T. Rowe Price Science & Technology fund, then the nation's largest tech fund, would've been worth less than $3,700 just two years later[1].

Many experts in the fund business hoped that "do it yourself" investors would fare better in index funds. In the late 1990s, many investors thought they had an easy option for stashing away long-term money in the stock market[2]. Just put it in an index fund and forget about it.

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[1] Clements: **Fundholder's Lament: All Bear Market, No Bull Market**; April 25, 2002, © *The Wall Street Journal*, Dow Jones, Incorporated.
[2] Lucchetti: **Index Funds Lose Investors As Market Breeds Doubts**; March 30, 2001, © *The Wall Street Journal*, Dow Jones, Incorporated.

Indexing for the average investor should have been a simple and, in hindsight, a theoretically rewarding choice. The Standard & Poor's 500-stock index rose an average 28.6% a year from 1995 through 1999, producing historically high returns for index funds, which mimic the broad stock-market benchmarks. The Vanguard Index 500 Fund became the largest mutual fund in the world, and dozens of new index funds were rolled out each year.

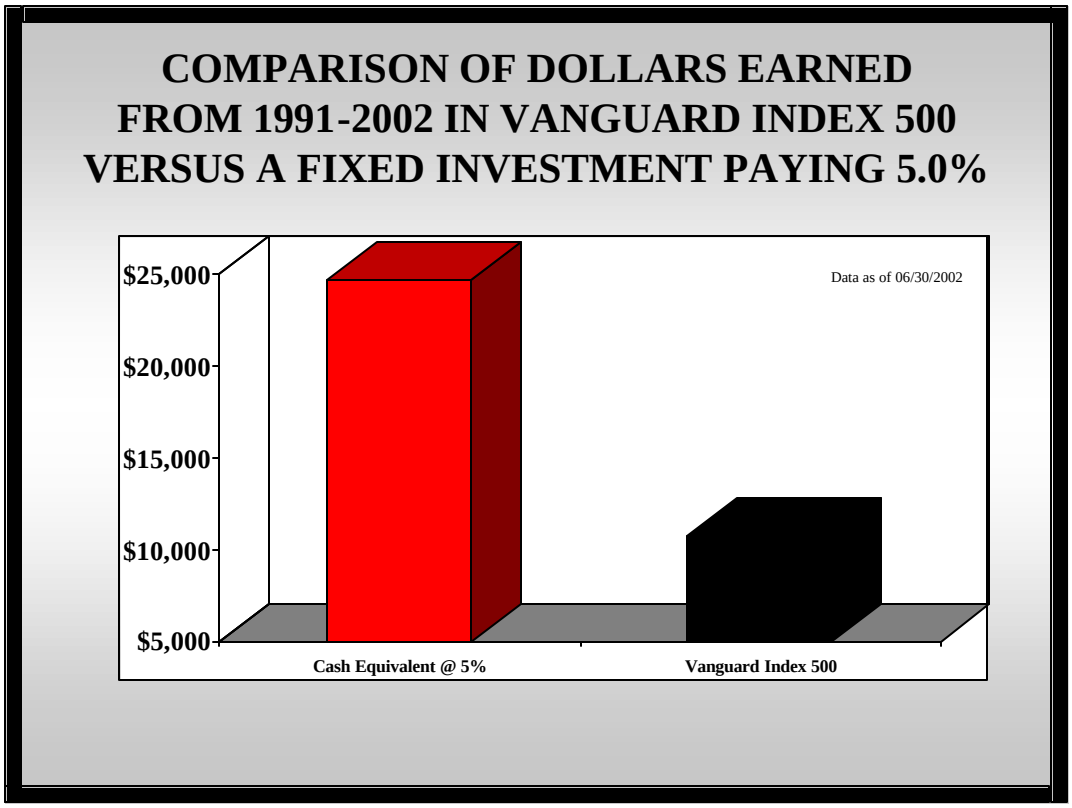
Vanguard encouraged investors not to be market timers, but rather to be long-term investors. The flagship "long-term investor" fund at Vanguard is the Index 500 fund. Vanguard actively discourages investors who time the market from using this fund. We thought it would be interesting to see how most non-professional investors in Vanguard Index 500 actually fared over the past 10 years on their invested dollars. We found they did quite poorly.

Methodology

We looked at the annual return of Vanguard Index 500 from 1991 to 1992. In addition we looked at cash flow in and out of the fund to see what return was actually earned on the dollars that went into the fund. Next, we substituted a 5.0% cash equivalent return to look at which group ***earned the most dollars***. The dollar return an investor earns is not only dependent on the long-term average return of the fund, but also when they placed their dollars in the fund.

Results

From 1991 to 2002 Vanguard Index 500 had an annualized time weighted return of +12.4%. Over the 1991 to 2002 time period, a total of $50,370 (in millions) was added to the fund. However, the total dollars earned in Vanguard Index 500 ***were much less that from a fixed investment paying 5.0%.*** ($10,731 versus $24,656 @5.0%) This dollar shortfall was due to the fact that investors placed their money in Vanguard Index 500 too late.



Vanguard Index 500
Asset Flow Study

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	Totals
Beginning Assets	$2,788	$4,345	$6,547	$8,272	$9,356	$17,371	$30,331	$49,357	$74,228	$104,652	$96,477	$87,013	
Ending Assets	$4,345	$6,547	$8,272	$9,356	$17,371	$30,331	$49,357	$74,228	$104,652	$96,477	$87,013	$63,889	
Fund Return	30.2%	7.4%	9.8%	1.1%	37.4%	22.8%	33.2%	28.6%	21.0%	-9.0%	-12.0%	-20.0%	**150.5%**
Net Cash Flow	$715	$1,880	$1,083	$993	$4,516	$8,999	$8,956	$10,755	$14,836	$1,244	$2,113	-$5,721	**$50,370**
Net Dollars Earned	$842	$322	$642	$91	$3,499	$3,961	$10,070	$14,116	$15,588	-$9,419	-$11,577	-$17,403	**$10,731**

All dollars in millions.

Vanguard Index 500
Twelve Year
Total Dollar Weighted Returns

$10,731
$50,370 =21.3% = 1.7% per year

The time weighted arithmetic average return was +12.4%.

CASH EQUIVALENT INVESTMENT RETURN
Vanguard Index 500
Asset Flow Study

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	Totals
Beginning Assets	$2,788	$4,345	$6,547	$8,272	$9,356	$17,371	$30,331	$49,357	$74,228	$104,652	$89,393	$96,477	
Ending Assets	$4,345	$6,547	$8,272	$9,356	$17,371	$30,331	$49,357	$74,228	$104,652	$89,393	$96,477	$96,477	
Fund Return	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	**60.0%**
Net Cash Flow	$715	$1,880	$1,083	$993	$4,516	$8,999	$8,956	$10,755	$14,836	$1,244	$2,113	-$5,721	**$50,370**
Net Dollars Earned	$139	$217	$327	$414	$468	$869	$1,517	$2,468	$3,711	$5,233	$4,470	$4,824	**$24,656**

All dollars in millions.

Vanguard Index 500 Cash Flow
Twelve Year
Total Dollar Weighted Returns

$$\frac{\$24,656}{\$50,370} = 48.9\% = 4.1\% \text{ per year}$$

The time weighted arithmetic average return was +5.0%.

Note: In this example, a 5.0% return is substituted for the actual annual return of Vanguard Index 500.
The same annual cash flows are used as in Vanguard Index 500 from 1991-2002.