



Don't Limit Your Fama

Jeff Troutner, Equius Partners

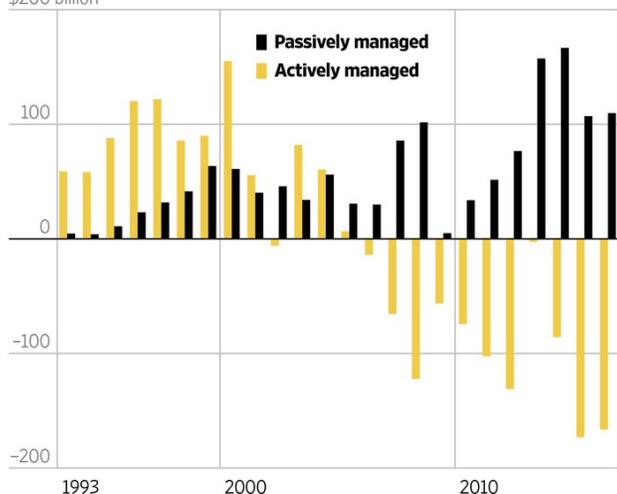
I challenge anyone to name an academic in the field of economics or finance who has had a greater positive impact on the financial well-being of the average person than Eugene Fama of the University of Chicago.

Fama's research on stock market efficiency is why The Vanguard Group manages in excess of \$3.5 trillion for individual investors and 401(k) plans. It's also why *The Wall Street Journal* has (finally!) decided to do a series of articles on the extraordinary shift of assets out of actively managed funds and into index funds.¹

Actively Departing

Net flows of U.S. stock mutual and exchange-traded funds

\$200 billion



Source: Morningstar

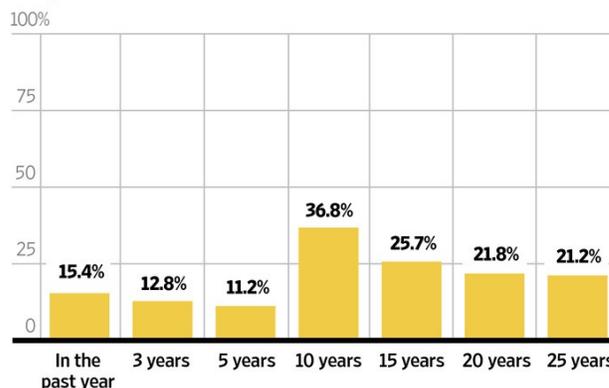
THE WALL STREET JOURNAL.

Except for the once-a-year token article on indexing by writers like Jason Zweig, *The Wall Street Journal* and every other mainstream financial publication has virtually ignored Fama's research and its implications for over 50 years. As a result, the amount of wealth that has shifted from the average American (particularly from their retirement accounts) to the charlatans on Wall Street and their loyal army of stockbrokers,

insurance agents, and financial advisors around the country is staggering.

Tough to Beat

Percentage of U.S. large-company mutual funds outperforming the Vanguard 500 Index Fund



Note: Data through June 30, 2016

Source: Wharton Research Data Services, CRSP Survivor-Bias-Free US Mutual Fund Database
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But better late than never, right?

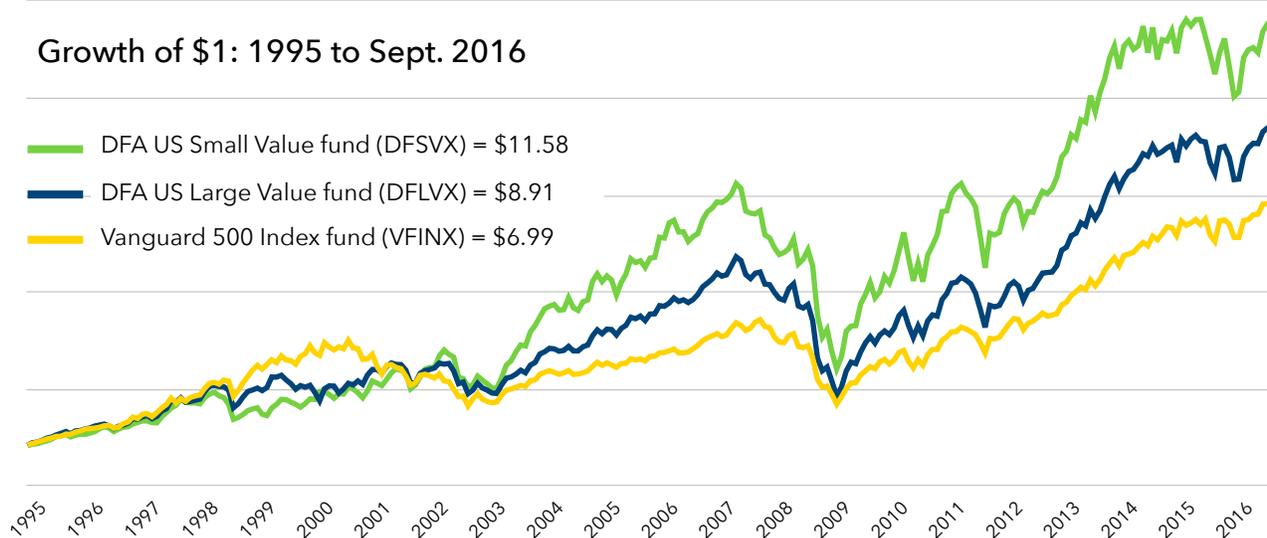
Well, sure, but it's also been almost 25 years since Fama and his academic colleague Ken French published additional research on the dimensions of stock market returns, referred to generally as "The Three Factor Model." Will it take *The Wall Street Journal* 25 more years to announce the benefits of this research?

In one of its rare articles on indexing in 1996, a *Wall Street Journal* writer named Jonathan Clements included a quote from me regarding Fama's (then) new research and how it could be used to significantly enhance returns of a traditional indexed portfolio for long-term investors.² We've heard crickets ever since—despite the very important fact that after the bloom came off large growth stocks (and, by default, the S&P 500 index) in 2001, small cap and value stocks have performed so much better.

That's 20 years!

Continued...

Growth of \$1: 1995 to Sept. 2016



In the meantime, Dimensional Fund Advisors, the *only* mutual fund company to have fully scrutinized and implemented the principal conclusions of the Fama/French three-factor research in its funds, has grown from about \$5 billion under management (when we first included their funds in clients' portfolios) to over \$400 billion today.

Come on, Jason, be a hero!

Hey, Jason Zweig, there's a good story here! And since you and I share a respect and admiration for the "Father of Value Investing," Ben Graham, how can you *not* jump on this while the paper you write for is just now pulling its head out of 50-year-old sand?

A challenge we face at Equius today is that the S&P 500 index (large growth stocks) has outperformed U.S. large and small value stocks over the last couple of years. With the current media focus on traditional indexing, it's unlikely

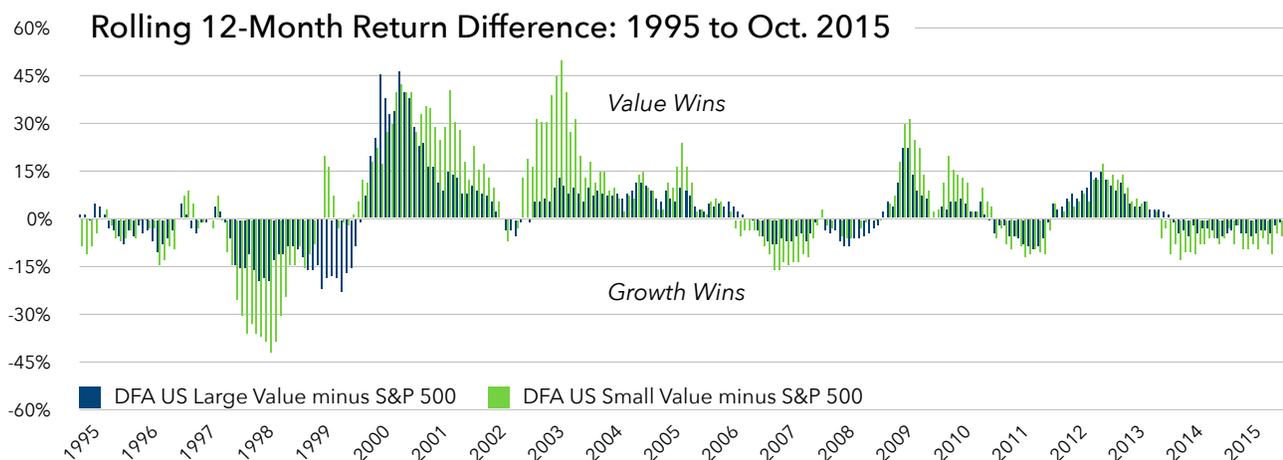
that Zweig or anyone else in the mainstream will write about the potential benefits of adding large and small *value* asset class funds to a traditional indexed portfolio anytime soon (particularly if they limit the discussion to inferior Vanguard funds). But if history is a guide, they should.

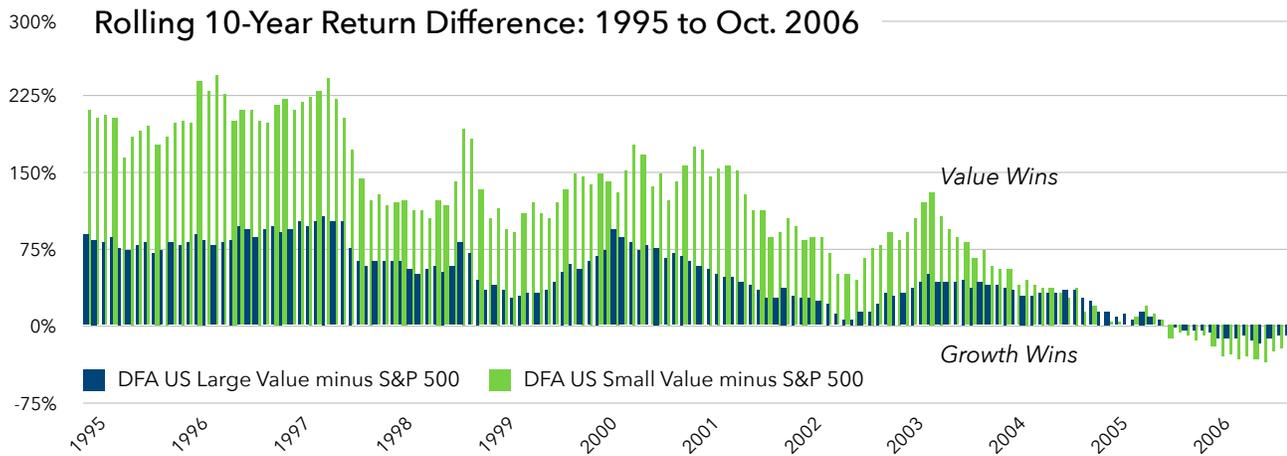
The charts below show the performance difference between the S&P 500 and U.S. large and small value stocks since 1995. The first chart shows rolling 12-month returns.³ You can see that in the short run, neither growth nor value is more likely to outperform (large value outperformed over 52% of the periods and small value, 54%).

The next chart shows rolling 10-year returns. Extending the length of the rolling period results in large and small value outperforming growth 89% of the time. *This is consistent with Dimensional index data going back to 1928 that shows value beating growth 88% of the time.*

Continued...

Rolling 12-Month Return Difference: 1995 to Oct. 2015





Now, granted, there's a lot more to this story that should be considered when you develop expectations for the future—particularly the near future. Growth stocks could dominate value stocks for several more years. That's what happened from 1995 to 2000. But as the 10-year chart shows, value stocks eventually won out.

This is why, when building client portfolios, we analyze the risk and return history of financial markets (both U.S. and foreign) as far back as the data allows and consider risk/return implications a level deeper than just the “total market.”

In the case of the value (relative price) and small cap (relative size) stock factors, we, like Fama, believe the reason for their outperformance over time is due to additional risk. Since we and our clients are long-term investors, the challenge is to manage this additional risk effectively, accept only an amount that is appropriate to each client's personal risk/return profile, and manage client (and our) expectations along the way.

The “Roach Motel” Effect

Another important issue not discussed in articles promoting traditional indexing is that market-cap weighted indexes, like the S&P 500 and any “total market” index, will be dominated by the performance of a relative handful of very large companies. The names change very little year to year (they “check in, but they don't check out”). So performance of the index is driven by how well a certain set of very large stocks does over time.

Not so with well-structured and well-managed *value* “index” funds like Dimensional's. As the prices of low-priced value stocks increase to the point they no longer qualify as value stocks, they're sold and replaced by new low-priced stocks. This “self-flushing” is what drives performance over time.

Conclusion

As *The Wall Street Journal* is only now announcing loudly to the world—based on 50-year-old Fama research—indexing is superior to active management.

And as we will continue to announce to our more limited (but exclusive!) *Asset Class* world—based on 25-year-old Fama research—asset class investing with calculated tilts to large and small value stocks is superior to traditional indexing.

We believe our clients will continue to benefit greatly by not “limiting our Fama,” as most of the indexing world unfortunately does.

We look forward to more outstanding research from Prof. Fama and all those he affects, including colleagues like Ken French and his current and former students (many of whom run the best mutual fund company in the world, Dimensional Fund Advisors).

¹*The Wall Street Journal*, “The Dying Business of Picking Stocks,” Anne Tergesen and Jason Zweig, October 7, 2016. Part of a series called “The Passivists” that explores the current rise in popularity of passive investing.

²*The Wall Street Journal*, “Index-Fund Investing Demands a Plan of Attack, Not Just a Blindfolded Shot,” Jonathan Clements, June 11, 1996.

³Calculating *monthly* rolling periods is useful because it answers the question, “What if I started investing in this month rather than the first day of the year” (as most performance simulations assume), or “What if I invest every month over a certain period of time” (which should be the experience of most 401(k) participants). The rolling 12-month chart represents 250 different starting points since 1995. The 10-year rolling period covers 142 different scenarios.

Note: As this article went to print, The Wall Street Journal published additional articles on indexing, including one highlighting Dimensional Fund Advisors and advisors who use their funds.

Fund Profiles (as of 9/30/2016)

The table below shows the differences in key metrics for select Dimensional and Vanguard index funds as of September 30, 2016. Note in particular the differences in price-to-earnings (P/E) and price-to-book (P/B) ratios. The DFA US Large Company fund mirrors the S&P 500 index. The DFA US Large Cap Value and DFA US Small Cap Value funds have outperformed the S&P 500 index by 1.0% and 2.3% annually, respectively, since the first full month after each fund's inception. Those funds have outperformed their Vanguard counterparts by 1.3% and 1.0%, respectively, since inception.

Facts	DFA US Large Company (DFUSX)*	DFA US Large Cap Value (DFLVX)	Vanguard Value Index (VIVAX)	DFA US Small Cap Value (DFSVX)	Vanguard Small-Cap Value Index (VISVX)
Inception Date	9/23/1999	2/19/1993	11/2/1992	3/2/1993	5/21/1998
Expense Ratio	0.08%	0.27%	0.22%	0.52%	0.20%
Total Holdings	505	322	326	1,123	858
Median Market Cap	\$81 billion	\$11 billion	\$74 billion	\$447 million	\$3 billion
Market Cap %	Giant (50.7%) Large (36.0%) Medium (13.2%) Small (0.1%)	Giant (39.2%) Large (37.1%) Medium (23.1%) Small (0.6%)	Giant (50.4%) Large (34.4%) Medium (15.2%)	Large (0.3%) Medium (7.5%) Small (58.2%) Micro (34.0%)	Large (0.3%) Medium (36.9%) Small (52.7%) Micro (10.2%)
% in Top 10 Holdings	19.3%	29.9%	27.8%	8.4%	5.1%
Annual Turnover	2%	16%	8%	17%	16%
Price-to-Book	2.8	1.7	2.1	1.2	1.9
Price-to-Earnings	19.4	15.7	19.2	15.9	23.3
Top Sectors	Information Tech. (21.2%) Health Care (14.7%) Financials (12.8%) Consumer Disc. (12.5%)	Financials (20.3%) Information Tech. (14.7%) Energy (14.2%) Consumer Disc. (12.5%)	Financials (22.5%) Health Care (12.8%) Industrials (12.2%) Information Tech. (11.1%)	Financials (25.8%) Industrials (19.3%) Information Tech. (14.0%) Consumer Disc. (13.6%)	Financials (30.4%) Industrials (20.7%) Consumer Disc. (10.5%) Information Tech. (8.3%)
Top Holdings	Apple, Alphabet, Microsoft, Exxon, Amazon, J&J, Facebook, Berkshire Hathaway, GE, AT&T	AT&T, Exxon, Intel, JP Morgan, Comcast, Cisco, Pfizer, Chevron, Citigroup, CVS	Microsoft, Exxon, J&J, Berkshire Hathaway, GE, AT&T, JP Morgan, P&G, Verizon, Pfizer	SYNNEX, Patterson-UTI Energy, Convergys, WPX Energy, Fresh Del Monte, Endurance Specialty, Aspen Ins., PDC Energy, Associated Banc-Corp, Wintrust Financial	Arthur J. Gallagher, Westar Energy, Broadridge Financial, UGI, Targa Resources, Atmos Energy, Valspar, National Retail Properties, CDW, Telefax
Source	Vanguard/ Morningstar	Dimensional/ Morningstar	Vanguard/ Morningstar	Dimensional/ Morningstar	Vanguard/ Morningstar

*This is the lower expense successor fund to DFLCX, which had an inception date of January 1991. We include the "Investor" series of Vanguard funds (which have higher expense ratios) in this list because of earlier inception dates (from which inception-to-date performance is calculated). Vanguard funds with lower expense ratios, but much higher minimum investments, are available to advisors like Equius.

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