Report from the Bogleheads 10 (BH-10) Reunion

Philadelphia, PA
12-14 Oct 2011

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1 Introduction

The 10th Bogleheads Reunion (BH-10) took place in Philadelphia PA on 12-14 October 2011. The Forum and the Reunions are named in honor of **John Clifton "Jack" Bogle**, the founder and former CEO of The Vanguard Group[1] and President of the Bogle Financial Markets Research Center[2].

2 Day-1 - 12 Oct 2011 - Registration and Reception

The registration took place from 2:00pm to 4:00pm. It was followed by the *Welcome Wine and Cheese Reception* from 4:00pm to 6:00 pm, where the Bogleheads saw old friends and met new ones.

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[1] http://www.vanguard.com/
[2] http://www.vanguard.com/bogle_site/bogle_home.html

3 Day-2 - 13 Oct 2011

3.1 Introductions and Forum Operations

Mel Lindauer introduced some notable Bogleheads, and then the microphones went around the room, with participants stating their names, locations and interesting facts of their Bogleheads life. Mel also introduced Mike Nolan, Mr. Bogle's new assistant.

3.2 Presentation by Professor Ed Tower

Ed (tower@econ.duke.edu) distributed a handout of a paper, "Reflections on Jack Bogle's First Mutual Fund," prepared especially for the Bogleheads 10th Reunion. The paper was co-authored by Ed Tower and Yunze Chen. The most recent version of the paper is provided in the Appendix to this report.

The study compared the performance of Wellington, a Vanguard balanced fund, with the performance of a mix of the Vanguard Stock and Bond Indexed Mutual Funds that mimic Wellington's style.

Then the study used the same approach to look into the performance of another Vanguard balanced fund, Wellesley, which holds only about 30% in stocks. Both Wellington and Wellesley outperformed collections of Vanguard index funds mimicking their respective styles, when the clone portfolios were modeled with constant portfolio weights. But when the weights of the clone index portfolios changed quarter by quarter, the outperformance was less. This leads Tower and Chen to conclude that tactical asset allocation, i.e., changing weights to take advantage of changing opportunities, contributes to the Wellington's and Wellesley's outperformance.

The study then looked into other Vanguard balanced funds. These funds did not do as well as Wellington and Wellesley. For example, Vanguard Asset Allocation fund underperformed the comparable mix of index funds by 0.77% per year (i.e., it performed at -0.77% in comparison to the mix).

The study also looked at a sample of funds from other major fund companies that Morningstar lists as "moderate allocation." All selected Vanguard funds are regular ("Investor") shares, i.e., not higher-minimum ("Admiral") shares. Likewise, the least expensive no load share class was used for funds from other families. The *average* outperformance of all listed funds in comparison with corresponding mixes of index funds is 0.20% per year. So, should we invest in balanced funds?

It turns out that the balanced fund *out*performance is specific to the way the data is presented. If you break the periods into half years, the balanced funds have *under*performed their corresponding index mixes by 0.12% per year. The difference is most likely attributable to the tactical asset allocation. A regular investor in index funds could achieve the same level of *out*performance as the balanced funds have displayed by reallocating assets when markets move.

Furthermore, Bogleheads should be cognizant of Mr. Bogle's EMH, which is the Expenses Matter Hypothesis. Figure 3 of the paper shows the performances of the index clones after the Expense Ratios (ER) are subtracted. It turns out that a 1% increase in the ER results in a 0.74% loss in performance. However, when we account for different swings in asset allocation, when going from a balanced fund with a low ER to an equivalent fund with a high ER, a 1% increase kills performance by 1.6%. Bill Bernstein explains this phenomenon by the fund managers' general attitude, "When they rip their customers off with high ERs, they rip them off in other ways, too; you just don't see that."

Jack Bogle likes to say, "You get what you don't pay for." Tower and Chen conclude that, "You get 1.6 times what you don't pay for."

<u>Mel Lindauer</u>: Vanguard is killing the Asset Allocation Fund, and it will be pulled from the Life Strategy funds. You never knew what your asset allocation really was, and that's why we have never recommended them. With the elimination of the Asset Allocation Fund from the Life Strategy funds, Vanguard's Life Strategy funds will offer an excellent conservative package. It is a great move, and Vanguard deserves our praise.

<u>Ed Tower</u>: We, Bogleheads, deserve praise, too. In Table 1, Asset Allocation fund had the worst performance of the Vanguard balanced funds.

<u>Steve Dunn</u>: You are saying that balanced funds outperform. So, what is *bad* about that?

<u>Ed Tower</u>: Tactical asset allocation seems to work in the cases we have examined. This means that "stay the course" needs to be modified to "pay at least some attention to fundamentals."

<u>Steve Dunn</u>: Is it just the momentum that explains this (net) outperformance? Nobody here rebalances on a monthly basis.

<u>Ed Tower</u>: We have incorporated some monthly and some daily rebalancing in our calculations, because our data have allowed us to do so.

<u>David Grabiner</u>: How did you calculate gross alphas? I am surprised that the difference between net and gross alphas for each fund show between 0% and 0.1%. [A discussion on Friday confirmed that the wrong data had been copied into the handout; the corrected version in the Appendix fixes this error.]

<u>Rick Ferri</u>: Which index funds did you use to mimic balanced funds?

<u>Ed Tower</u>: We looked for the best fit. [Table 1 of the Appendix has that information.]

Question: Did you mix load and no-load funds?

Ed Tower: We used the Morningstar Principia Mutual Fund database (pro disk) from January 2011, which allowed us to choose only no-load funds.

Allan Roth: Several years ago, I conducted a similar study. I performed regression of S&P500 funds in comparison to the index. I came to the same conclusion as Professor Tower that every 1% in ER decreased the returns by about 1.44%.

Question: How do you use this study for decision making? Let's assume that if over the last 12 years I did something different, I'd get 0.2% greater returns. At what level of additional expected returns do you make the change?

Ed Tower: I don't have a specific recommendation, except that based on what I saw, I'd dab into Wellington.

Bill Bernstein: Vanguard occasionally kills funds but mostly they maim them, i.e., change the investment strategy. I think this is what they did to Wellington.

Ed Tower: Jack has a nice article with a graph showing Wellington's performance. He is very forthright about Wellington's failures as well as its successes.

Bill Bernstein: Do you know how the *investors* in Wellington did. We know that the *investor* performance may vary significantly from the *fund* performance.

Ed Tower: I don't have the answer. More work is needed to answer this question than what we did. [Tower wishes he had responded, "If investors have trouble avoiding performance chasing and have trouble rebalancing in a timely fashion, investment in balanced funds like Wellington looks even better."]

Bill Bernstein: William Sharpe has said that balanced asset allocation is a bunch of hooey, because the whole world cannot do it.

Ed Tower: We used Sharpe's methodology. I thought I had discovered it, but a colleague pointed out to me that I was 20 years too late.

Question: Two funds stand out in the table on the last page with particularly high values of alpha, BlackRock Global Allocation (3.53%) and T. Rowe Price Capital Appreciation (3.48%). Are these funds worth considering?

Bill Bernstein: That's noise.

3.3 Jack Bogle's Presentation

At 09:30 Mr. Bogle entered the room. Everybody stood up and greeted Jack with a long round of applause.

Jack: It is nice to be here, nice that you have confidence in me. I am a bit embarrassed by all these awards. But I'll press on regardless. I'll take an hour for my presentation; I presume that that's what you want. Obviously, I am glad to be here. With the 16-year anniversary of my heart transplant, I am happy to be anywhere ☺. Kevin Laughlin [Jack's former assistant] moved to the Vanguard mainstream in June, and Michael Nolan started working for me on 1 June 2011. Mike had a short time to come up to speed. Emily Snyder is my other assistant for the past 25 years. Mel said that there are 60 new people in this room in comparison with the last year. I welcome you all. But it also means that 60 people did not want to come back ☺.

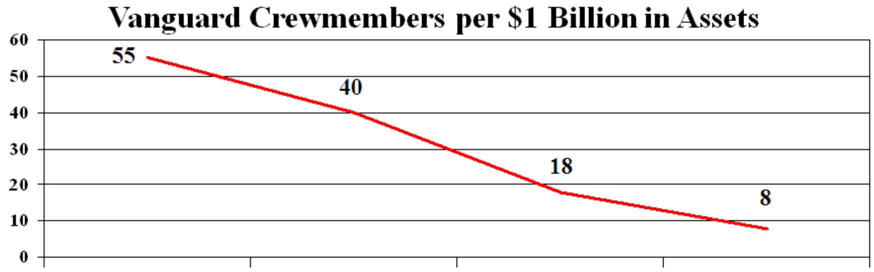
It is 51 years since my first heart attack in 1960. It happened on a tennis court. But I did win that game ☺. At this stage of my life, I have two phases. Most of the time, my energy summons me; occasionally, I summon my energy. Today, my energy has summoned me to come here.

I just had a new book "Don't Count On It!" I do a lot of op-eds and interviews; they call me mostly in down markets ☺. If you want to follow my activities, go to www.johncbogle.com . I call it eBlog, because it is an anagram of Bogle ☺. This year is full of anniversaries, such as my 60 years of service on 5 June 2011. On 28 December 2028, we will have the 100th anniversary of Wellington Fund, which was the beginning of what has become Vanguard.

IBM has published a report "IBM at 100" about Thomas Watson founding it in 1911 and the need to reinvent itself many times during these years. IBM's motto is "Onward;" Vanguard's motto is "Press on regardless." Vanguard is the place where judgment has at least occasionally prevailed over process, which is different from other large companies. I don't agree with everything, and when I don't, I speak out. The management team has to make tough choices. I am not constrained the way they are, which enables me to speak out.

2.

Asset Growth and Increasing Efficiency, 1980 – 2011



	1980	1990	2000	2011
Assets	$3.0 b	$55.8 b	$564 b	$1,607 b
Expenses	$8.2 m	$130 m	$1.4 b	$2.8 b
Exp. Ratio	0.59%	0.35%	0.27%	0.17%
Crew Members	165	2,230	10,150	12,500

Slide-2 shows that we grew rapidly. Our growth in expenses was much slower than our growth in assets, which over the years enabled us to reduce fund expenses from 0.59% to 0.17% of assets. In the mean time, our crew grew from 165 in 1980 to 12,500 in 2011. The next chart illustrates “the tyranny of compounding:”

3.

Vanguard’s Growth

Vanguard's Assets Under Management

Today	$1.607 trillion
1974	$1.4 billion
Annual Growth Rate 1974 - 2000	25%
2000	$564 billion
Annual Growth Rate 2000 - 2011	10%

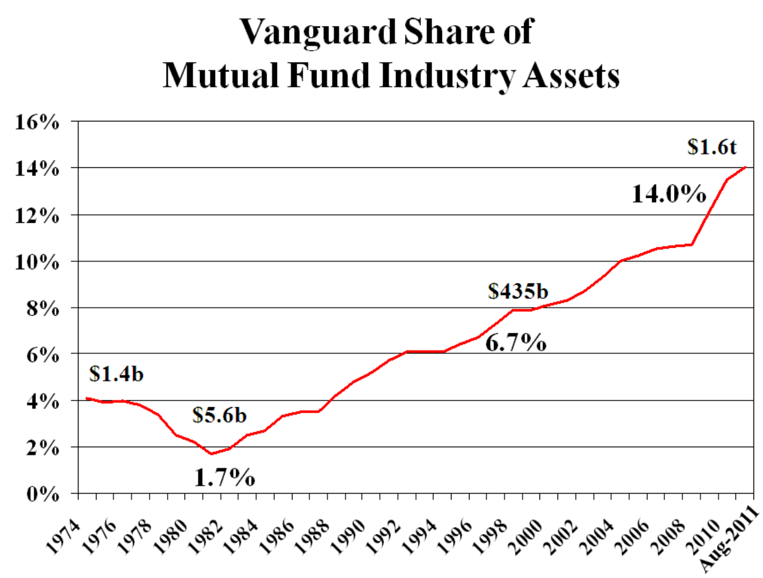
At a 7% annual growth rate,
Vanguard’s assets would grow to…

2015	$2.1 trillion
2020	$3.0 trillion
2025	$4.1 trillion

In the 25 years from 1974 to 2000, we have experienced 25% annual growth; the last 11 years (2000-2011) it was 10%. For the next 14-15 years, if we assume a 7% annual growth rate, Vanguard's assets will grow to $2.1T in 2015, $3.0T in 2020, and $4.1T in 2025. Note that I favor organic growth rather than growth for the sake of growth.

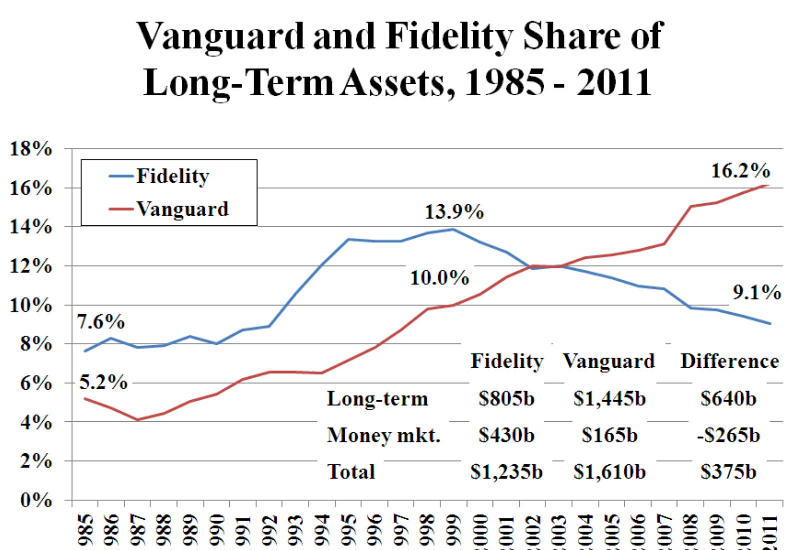
Now, let's take a look at the Vanguard's share of all mutual fund assets:

4.



And compare it to that of Fidelity:

5.



You can clearly see that Vanguard is growing, while Fidelity is losing market share. Fidelity calls this a "war," which creates bad feelings. But for me this is a friendly competition. Fidelity began losing market share in 2000 when the technology bubble burst.

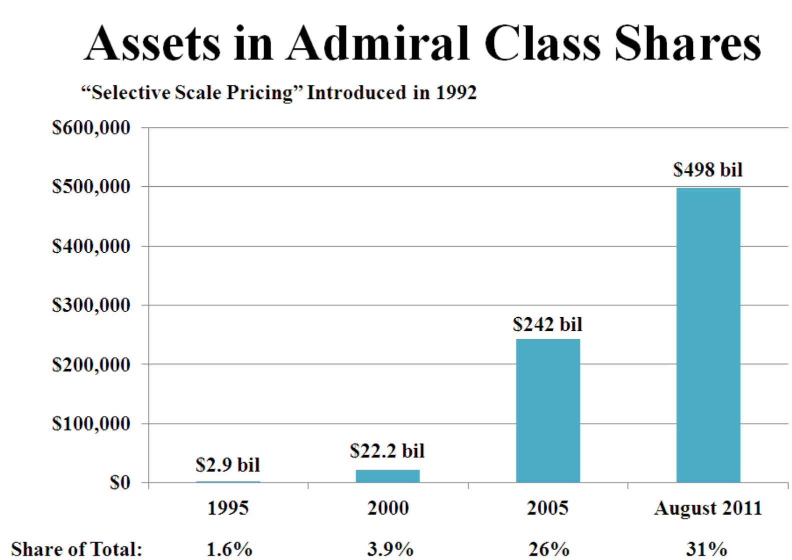
And it is not just Fidelity that has lost market share, as the next chart shows. We (Vanguard) are wearing the crown. You can see what has happened to the market shares of the leaders of the old days. They have lost market share and have earned every penny of that ☺.

The Competitive Landscape When Vanguard Began 6.
"Uneasy Lies the Head that Wears the Crown"

	1980			Today			
	Long-Term			Long-Term			
	Rank	Assets (bil)	Share	Rank	Assets (bil)	Share	
Fidelity	1	7.3	13.2%	3	805	9.1%	
IDS (Columbia)	2	4.9	8.9%	8	151	1.7%	
Capital Research (American)	3	4.3	7.8%	2	887	10.0%	
Dreyfus	4	3.1	5.6%	26	64	0.7%	
T Rowe Price	5	3.0	5.4%	7	269	3.0%	
MFS	6	2.7	4.8%	18	85	1.0%	
Vanguard	7	2.6	4.7%	1	1,443	16.2%	
Putnam	8	2.3	4.2%	31	53	0.6%	
Merrill Lynch (BlackRock)	9	1.9	3.5%	4	594	6.7%	(merger)
Lord Abbett	10	1.9	3.4%	24	67	0.8%	

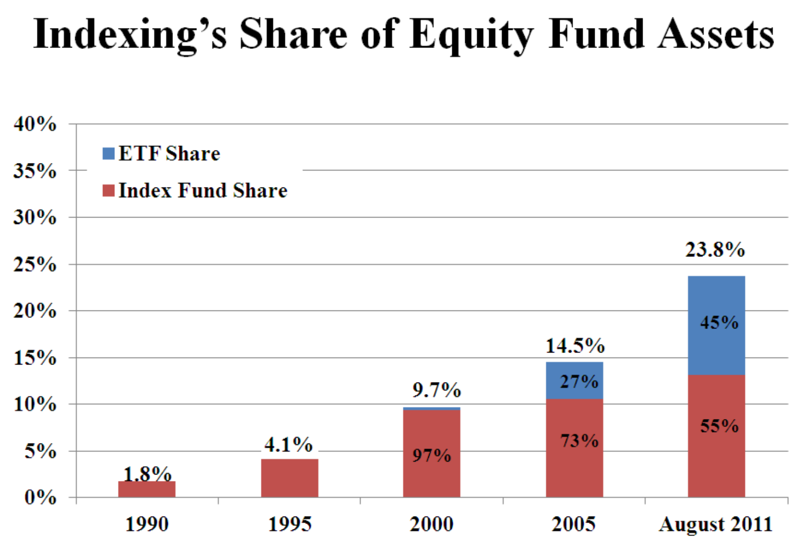
Our performance has been good. People trust us. It is hard to see where the competition will be coming from. We have become popular with large investors. In 1992 we started Admiral shares with "selective scale pricing" to account for the pricing reality of this business. Slide-7 (below) shows the history of the Admiral shares at Vanguard.

7.



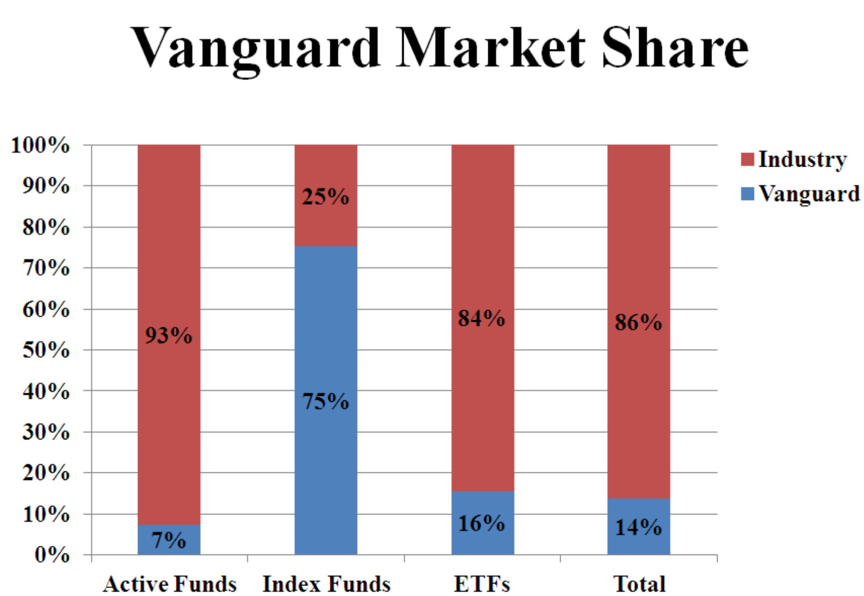
For larger investors, our expenses are lower and that enabled us to cut their Expense Ratio (ER) in 1992, which was the right thing to do. But the key to our growth is index funds.

9.



Indexing started in the 1970s. We were not the first ones to do indexing; there were many ideas before us. But ideas are a dime a dozen. The key is doing it, and we did it in 1975. The next index fund did not appear until 16 years later. So yes, I started the first index fund, and yes, I was not the first one to come up with the idea. When a suitable index is not available, we try to make our funds behave as close to an index as possible. The next chart shows Vanguard's market share in comparison to the industry.

10.



The next chart shows correlations (R^2) of Vanguard's funds with corresponding indexes in each category.

Vanguard Funds Correlations (R^2) 10 Years Ended 9/30/2011

11.

	10 Year Average Annual Returns	R^2
Bond Funds		
Index	5.8	0.99
Virtual Index	4.9	0.93
Active	5.4	0.84
Balanced Funds		
Index	4.7	1.00
Virtual Index	4.7	0.99
Active	5.3	0.92
Equity Funds		
Index	5.2	1.00
Virtual Index	4.8	0.96
Active	7.6	0.92

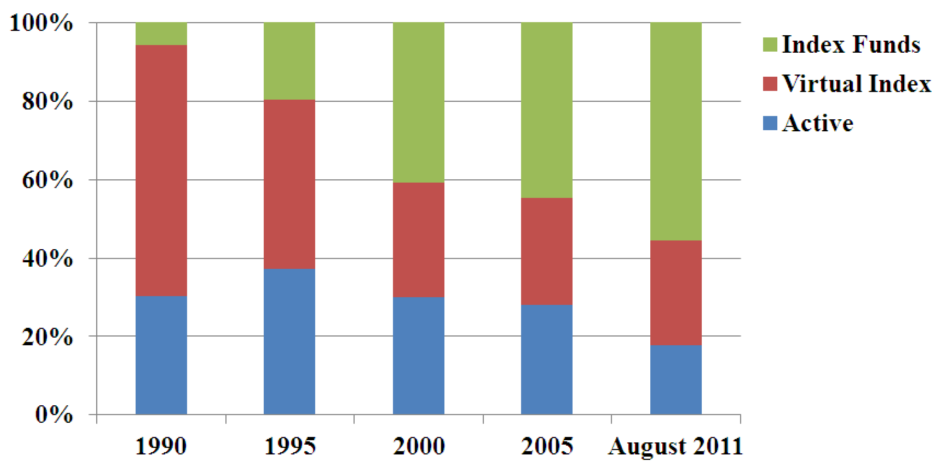
We match indexes very closely. Virtual indexes have high correlation, and so do active (multi-managed) funds. People like "hot" managers, but if a manager is hot, he quickly burns out ☺. We use a multi-manager approach, so there is no need for us to have hot managers. The next chart shows correlations and ERs of various funds, including Index funds, Virtual Index funds, and Actively-Managed funds.

Index Funds, Virtual Index Funds, and Actively Managed Funds 12.

Index Funds	Correlation (R^2)	Expense Ratio
500 Index	1.00	0.06%
Total International	0.99	0.20%
Total Bond Market	0.99	0.11%
LT Bond Index	1.00	0.22%
Virtual Index Funds		
LT Tax-Exempt	0.91	0.12%
LT Treasury	1.00	0.10%
STAR Fund	0.99	0.34%
High-Yield Corporate	0.94	0.13%
Actively Managed Funds		
Wellington	0.96	0.22%
Windsor II	0.96	0.27%
Strategic Equity	0.98	0.30%
PRIMECAP	0.93	0.36%
Industry Avg. – Equity Funds	0.95	1.54%

The industry's average ER (shown on the bottom line) is 1.54%, which is much higher than that of Vanguard's funds. On the next chart we see the composition of Vanguard's assets in 1990-2011.

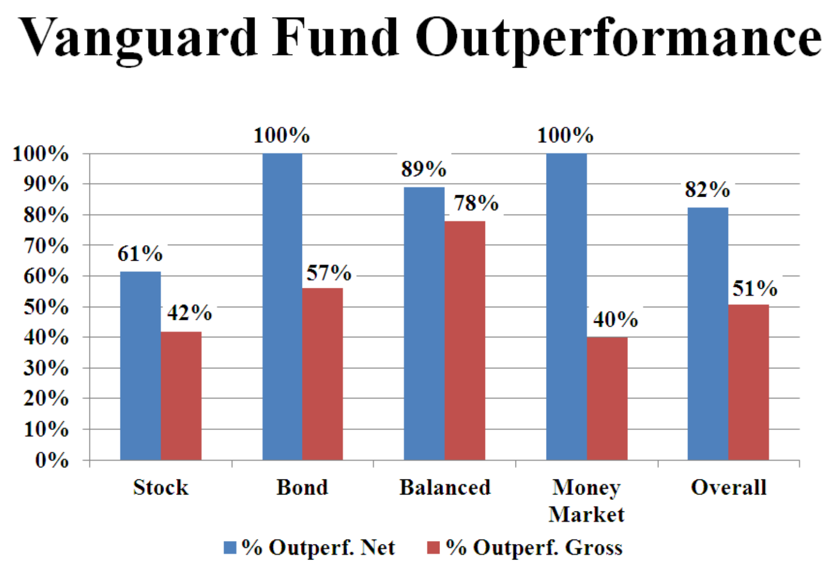
Composition of Vanguard's Assets, 1990 – 2011 13.



	1990	1995	2000	2005	August 2011
Active Share	30%	37%	30%	28%	18%
Index/Virtual Share	70%	63%	70%	72%	82%

The next chart shows Vanguard funds' outperformance.

14.

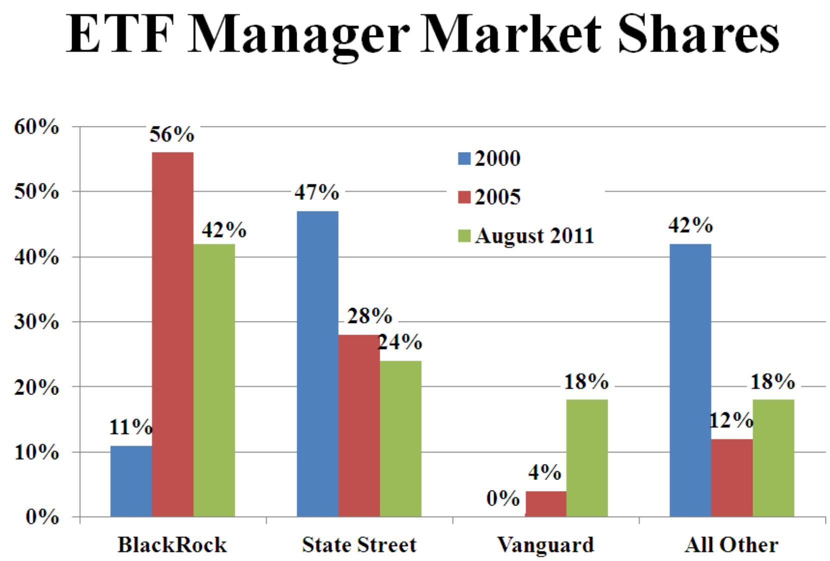


Note: Returns for active Vanguard funds vs. Lipper peer group, 10 years ended June 2009.

The blue bars represent our net outperformance; the red ones are gross. It is all due to our low costs. You see a drop in the Money Market's outperformance, because we stayed with higher quality Money Market funds. Again, this is not because we picked top managers; this is because of our low costs. A top manager moving to a fund with a high ER becomes a bottom manager ☺.

Now, let's talk about Exchange Traded Funds (ETF). There is nothing wrong with buying an ETF and holding it forever. But ETFs hold a temptation and are broadly used for trading. It is the sign of the times that New York Times wrote "Volatility, Thy Name is E.T.F." Especially, when people are trading double, triple, and reverse lattes ☺. I once saw a car in front of me with the license plate "IDX TRDR." The car was a Jaguar ☺. The next chart shows ETF Managers' market shares.

18.



Note – Year-to-date Cash Flow (in billions): Vanguard $23.2 (33%), BlackRock $10.3 (15%), State Street $9.7 (14%), Van Eck $6.5 (9%), ProFunds $5.7 (8%), Other $14.1 (20%)

We at Vanguard are trying to avoid ETF trading. The next chart shows the enormous shareholder turnover in ETFs. Holding periods are very short.

Shareholder Turnover of Select Leading ETFs 19.

Fund	Ann. Turnover	Holding Period (Days)
ProShares Ultra S&P 500	17669%	2.1
SPDR S&P 500	11322%	3.2
ProShares UltraShort S&P 500	10691%	3.4
PowerShares QQQ	5618%	6.5
iShares FTSE/Xinhua China 25	3433%	10.6
iShares MSCI Brazil Index	2946%	12.4
iShares MSCI Emerging Markets	2572%	14.2
SPDR Gold Shares	1544%	23.6
iShares MSCI EAFE Index	944%	36.7
Vanguard MSCI Emerging Markets	757%	48.2
Vanguard Total Stock Market	312%	116.9
Vanguard Financials	237%	154.0

Vanguard is doing better than others. Still, Vanguard's MSCI Emerging Markets ETF has 757% turnover, which is too high. This raises the issue of whether or not turnover is good for investors. We ought to be examining investors' returns rather than the returns of the funds. The next chart shows investors' returns.

20.

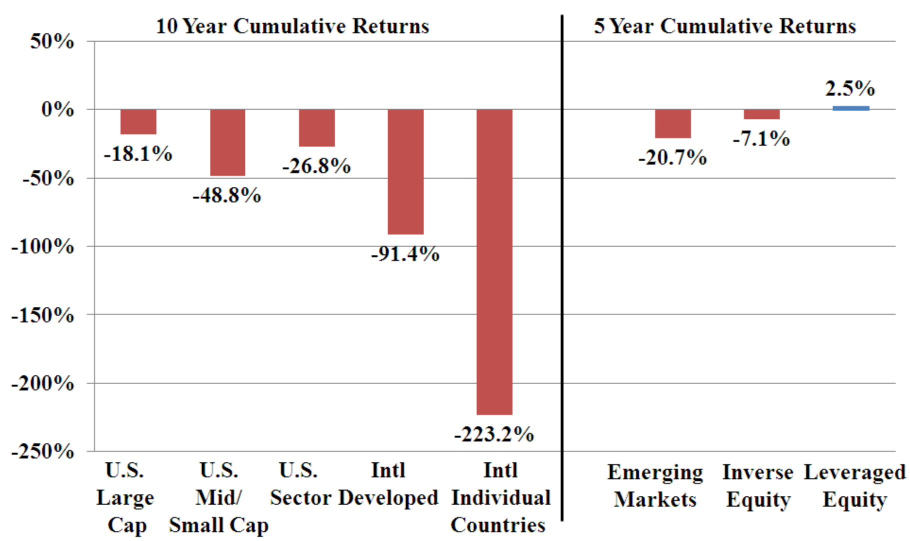
ETF Investor Returns – 9/30/2011

	Category	Average Investor Return	Average Time Weighted Return	Average Investor Lead/Lag	Cumulative Investor Return	Cumulative Time Weighted Return	Cumulative Lead/Lag
10 Years	U.S. Large Cap	1.7%	3.2%	-1.5%	18.3%	36.4%	-18.1%
	U.S. Mid/Small Cap	3.8%	6.9%	-3.0%	45.8%	94.6%	-48.8%
	U.S. Sector	1.7%	3.8%	-2.1%	18.0%	44.8%	-26.8%
	International Developed	-1.4%	5.9%	-7.4%	-13.2%	78.1%	-91.4%
	International – Individual Countries	4.6%	14.3%	-9.7%	56.7%	279.9%	-223.2%
5 Years	Emerging Markets	2.5%	6.0%	-3.5%	13.4%	34.1%	-20.7%
	Inverse Equity	-15.2%	-12.6%	-2.6%	-56.0%	-49.0%	-7.1%
	Leveraged Equity	-5.4%	-6.0%	0.6%	-24.1%	-26.7%	2.5%

You can see that the average investors have lost! Take, for example, the International Developed funds. The cumulative fund return is 78.1%, but the cumulative investor loss is 13.2% (i.e., investors lagged the fund by 91.4%!). This is a huge gap, but it is even worse for individual countries. I have been saying since 1996 that funds should have to report how much their investors earn. They should not take advantage of investors' behavioral trends. The next chart shows the cumulative investors' lead and lag data.

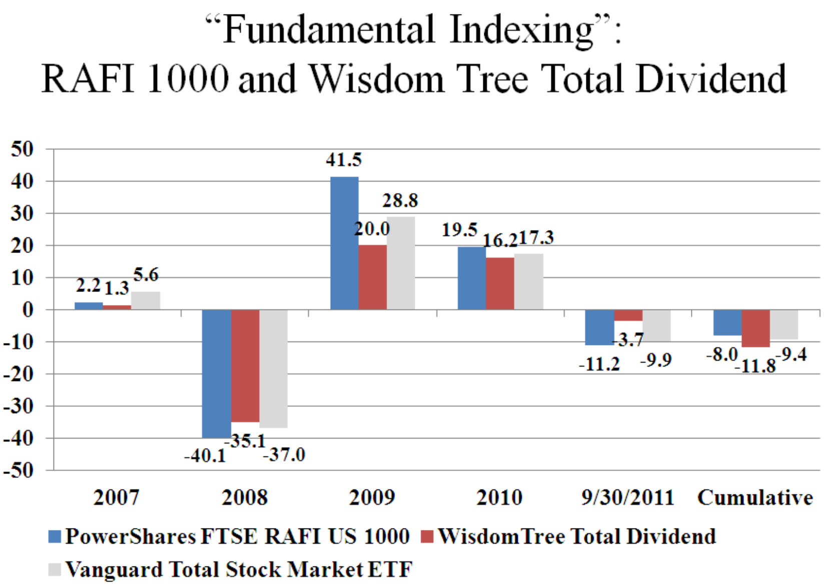
21.

Cumulative ETF Investor Lead/Lag



Jeremy Siegel is quoted as saying that this is a new paradigm, but it is really not. The next chart shows fundamental indexing.

22.



I like Siegel's "Wisdom Tree," but it has not fulfilled the promise of fundamental index advocates. In my opinion, the industry went in the wrong direction. There is no value in rapid trading. Eventually, ETF gamblers will have no money left, and that would be the end of ETFs. ETFs have their uses, but legitimate users account for only 5% of the total ETF use. Now, I will talk about my books and reflections.

24.

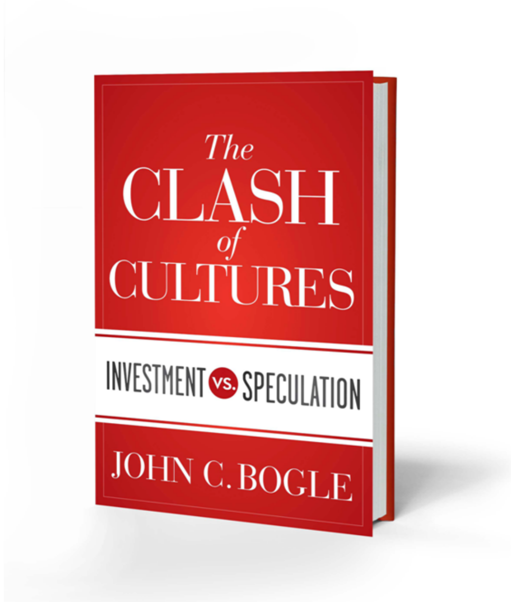
Bogle Books

1. **1993 - Bogle on Mutual Funds: New Perspectives for the Intelligent Investor**
2. **1994 - Common Sense on Mutual Funds: New Imperatives for the Intelligent Investor**
3. **2000 - John Bogle on Investing: The First 50 Years**
4. **2002 - Character Counts: The Creation and Building of The Vanguard Group**
5. **2006 - The Battle for the Soul of Capitalism**
6. **2007 - The Little Book of Common Sense Investing: The Only Way to Guarantee Your Fair Share of Stock Market Returns**
7. **2009 - Enough.: True Measures of Money, Business and Life**
8. **2009 - Common Sense on Mutual Funds: Fully Updated 10th Anniversary Edition**
9. **2010 - Don't Count on It!: Reflections on Investment Illusions, Capitalism, "Mutual" Funds, Indexing, Entrepreneurship, Idealism, and Heroes**
10. **2012 - The Clash of the Cultures: Investment vs. Speculation**

Nobody in this industry, except Peter Lynch, writes books, and he wrote just one. Is everybody out of step with me? ☺ Someone has commented on my previous books, "He writes as a novelist, not as an economist." Nothing is wrong with that. Another person wrote, "Good analysis, poor conclusions. That's what you'd expect from an MBA." The thing is that I don't have an MBA ☺.

Here is my next book, due to be published in 2012, "The Clash of the Cultures: Investment vs. Speculation."

25.



The tentative contents of the book are as follows:
Introduction
1. The Clash of the Cultures – Investment vs. Speculation
2. The Happy Conspiracy (of an unprecedented dual agency society)
3. The Silence of the Funds (corporate governance, executive compensation, political contributions)
4. The Changed Character of Mutual Fund Industry
5. Index Funds for Investment? Index Funds for Speculation?
6. Fiduciary Duty: Clues to its Measurement
7. Fixing Our Nation's Retirement Plan System
8. Simple Rules for Long-Term Investment Success
9. The Rise, Fall, and Renaissance of Wellington Fund – A History
10. Looking Ahead

Agents always have problems with putting the interests of their principals before their own. But now we have agents of agents. We have dual agents, for the lack of a better term. We still see insane executive compensation. The retirement system has changed. One example of what happens is when a fund changes from investment to speculation, and that's what has happened to Wellington. It's a chapter I am most proud of, "The Rise, Fall, and Renaissance of Wellington Fund – A History," it's an important story.

The next chart shows how the financial markets look in 2011.

27.

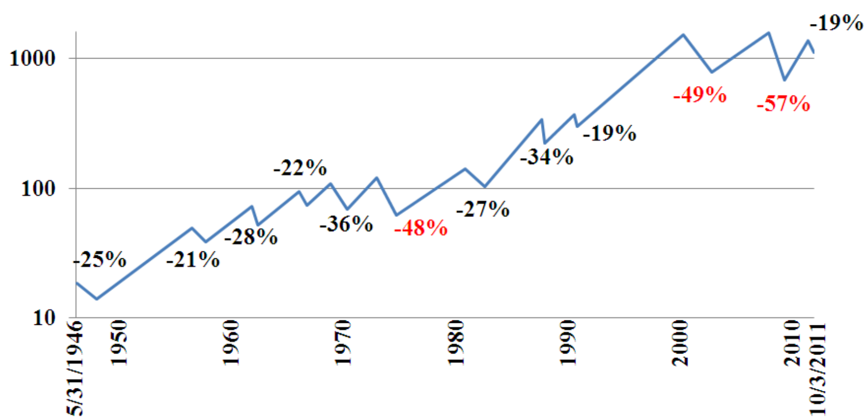
Financial Markets in 2011

		Bear Market Decline	YTD 9/30/2011	YTD 10/12/2011
US	500 Index Fund	-18.7 %	-8.8 %	-2.6 %
US	Total Stock Market Index Fund	-20.4	-9.9	-3.6
Developed	Developed Markets Index Fund	-25.5	-15.9	-9.5
Emerging	Emerging Markets Index Fund	-29.8	-23.4	-17.4
International	Total International Stock Index Fund	-26.6	-18.0	-12.1
Bonds	Total Bond Market Index Fund	--	6.6	5.4
Bonds	Intermediate-Term Tax-Exempt Fund	--	7.2	5.8
Bonds	PIMCO Total Return	--	1.6	0.7

Bear markets are all over the world. S&P500 has declined 18.7%, the U.S. Total Stock Market Index has declined 20.4%. And then there was an enormous recovery. This shows again the wisdom of "Don't do something, just stand there" ☺. This was also a great year for the bond index funds, mostly because they are overweight in the Treasuries. Bill Gross of PIMCO is a genius, but his bet against the Treasuries has caused him to underperform the Total Bond Market Index Fund by 500 basis points this year. The next chart shows bull and bear markets over time.

28.

S&P 500
Bull Market Highs, Bear Market Lows



I don't like bear markets - not because of the losses, but because of the behavioral problems they cause. They often cause investors to abandon stocks at the bottom, so that they miss out on the eventual recovery. The next chart shows what you can control.

29.

Control what you can…

- **TIME**
- **RISK**
- **COST**

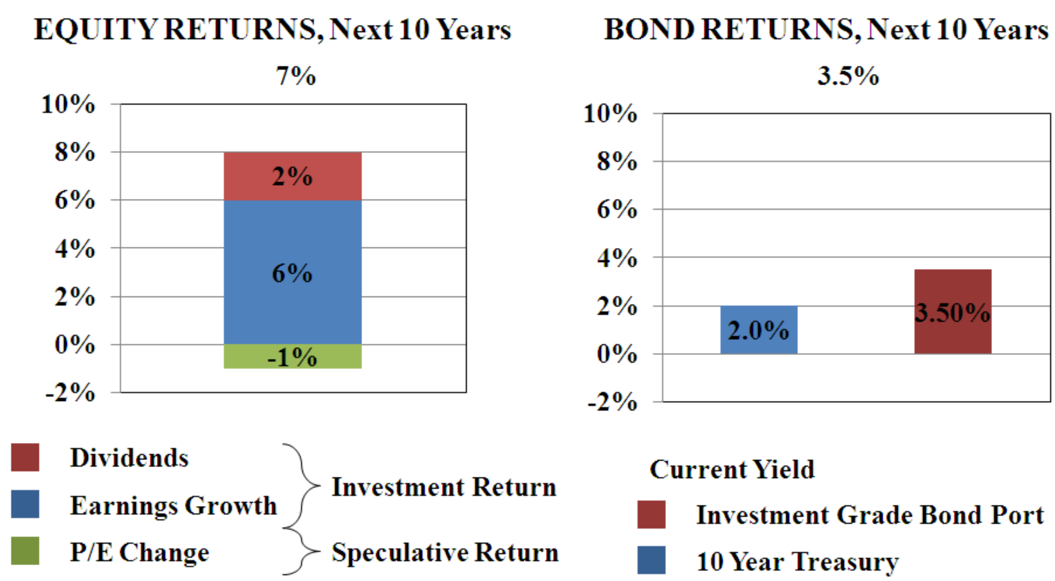
Have rational expectations for what you can't…

- **RETURNS**

And here are the reasonable expectations for returns:

30.

Reasonable Expectations for the Future



Note: These are nominal return expectations.

For stocks, the expected 10-year returns are about 7%, and for bonds they are about 3.5%. For stocks, 8% (2% dividend yield and 6% earnings growth) are the investment return, and -1% is the speculative return. These are *nominal* returns. Don't forget inflation. With such relatively low expected returns, costs matter!

31.

Yields are Hard to Come by…

Money Market Funds	**0.1%**			

Vanguard Funds	**Short**	**Intermediate**	**Long**	**High Yield**
Corporate Bond	**1.9%**	**3.2%**	**4.9%**	**7.2%**
Municipal Bond	**0.5%**	**2.4%**	**3.2%**	**3.7%**
U.S. Treasury Bond	**0.2%**	**1.0%**	**2.3%**	**--**
U.S. Treasury (actual)	***0.3%***	***2.2%***	***3.0%***	**--**
Inflation Protected Bond Fund	**--**	**-0.3%**	**--**	**--**
Total Bond Market Index Fund	**--**	**2.3%**	**--**	**--**
Total Stock Market Index Fund	**--**	**2.1%**	**--**	**--**

And when you talk about foreign investing, don't just call it "international," look at what you are buying.

32.

"International" Market Weightings

MSCI EAFE Index

Country	Percentage	Cumulative
Japan	23.1%	23.1%
United Kingdom	22.2	45.3
France	9.1	54.4
Switzerland	8.6	63.0
Australia	8.4	71.4
Germany	7.7	79.1
Other	20.9	100.0

MSCI Emerging Markets Index

Country	Percentage	Cumulative
China	16.8%	16.8%
Korea	14.7	31.5
Brazil	14.6	46.1
Taiwan	11.5	57.6
South Africa	7.8	65.4
India	7.5	72.9
Russia	6.4	79.3
Other	20.7	100.0

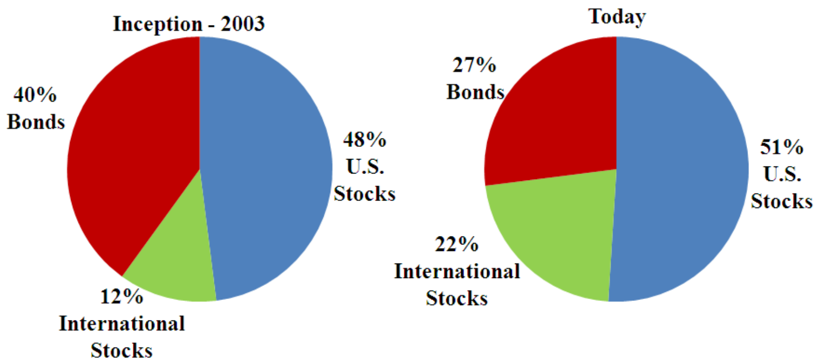
Note: As-of 9/30/2011

Look at the composition of MSCI EAFE. The bulk of it is invested in Japan, UK, and France. With MSCI Emerging Markets, it is Brazil, etc. I don't favor international investing, but if you do, at least see what you are buying.

Now, let's take a look at Target Retirement Funds.

33.

Target Retirement Funds



Target Retirement 2025 Returns

Return Since Inception - 2003	Actual Return	Hypothetical Return with Original Asset Allocation
Cumulative	37.9%	51.5%
Annualized	4.1	5.4

This is much discussed on the Bogleheads Forum. You see a large change of international holdings from 12% in 2003 to 22% now. I would like to know the reason for that change. Is it because we wanted to be competitive? They did it at a bad time. It's not to say that this was wrong, but I would like to get an explanation.

I believe in simplicity and in simple math. We have a leadership vacuum. Index funds, buy and hold forever, and being active in corporate management. And so here I stand at age of 82, with a few simple innovations, which are towards my goal of making life better for investors.

Recently I have been reading about Steve Jobs' life, which is really amazing. I was also struck by the similarities. For Steve, being fired from Apple was the best thing that happened to him. For me, it was being fired from Wellington. We follow the marching orders: simplify, simplify, simplify. And we both do not ask customers what they want; we provide what they need.

3.4 <u>Q&A with Jack</u>

Mel read the questions to Jack that were submitted earlier.

Q. Jack, you are very active in politics. How can we help you in your activities?
A. Our politics are a mess. I wrote a long paper to testify before Congress, but they want a short summary. Go to your Congressmen, tell them what you think. The issues about which I speak are not particularly interesting. I spoke to pretty high up people in the White House, and some of them were receptive to my message. It is important to speak out, but be prepared to be ignored.

Q. What do you think about Money Markets "breaking the buck"?
A. Some Money Markets are Treasury MM, which are fine, if incredibly low yielding. But I don't see it remotely possible to keep the current system. Other MM funds (non-Vanguard) want to be high-earning. But they can do it in one of two ways: (1) slash costs or (2) slash quality. Guess which one they slash? Some highly intelligent people say that the system "should change." I say, "it will be changed." The change is coming. I don't think the system is sound as some think it is.

Q. What do you think about the book "The House That Bogle Built"?
A. I have not read the book, but Kevin, my assistant, has. On Amazon.com everybody loved the book, but the sales are low. The author has little credibility in the discussion of Vanguard's future. I like the picture on the cover. I may look into it at some point. I am protecting myself by not reading it ☺. How many people in this room have read it? [About 30% of the people raised their hands.]

Q. What is your opinion about international holdings?
A. I just talked about it. Emerging markets will grow faster; this is not news. If they produce 3% return and are 20% of the portfolio, that's 3% x 20% = 0.6%. There are better ways to get 0.6%. Furthermore, it is no longer true that international markets perform differently from the U.S. markets. Third, advisers like talking about diversification now; they did not talk about it 20 years ago. We save in dollars, we pay bills in dollars. With the international investments, changes in currencies bring additional volatility to your portfolio. However, there is nothing wrong with holding 20% in international. A secret of my success is that I don't succumb to these temptations.

Q. Is 4% Safe Withdrawal Rate (SWR) a good objective?
A. 5% is too high. Look at the market return projections, 7% for stocks, 4-5% for a portfolio of stocks and bonds. If you have 3% inflation it eats into the returns. I'd stick with 4% SWR, but 3.5% is better.

Q. If you had a magic wand, how would you run Vanguard and influence the investing atmosphere in the country?
A. Investing has become a "product" business, and we should not be in the product business, this should not be retail. We need fewer products, not more. Funds should not be like Starbucks with various lattes. Don't complicate things. The first rule of shooting is "Don't shoot yourself" ☺. The second rule is that if you shoot somebody, make sure to kill them. I don't think the second rule applies here ☺.

I talk with the Vanguard crew. They are wonderful people. We discuss the bureaucracy. As you get big, you become ruled by processes. When Vanguard started, we had 28 crew members. Later today, when you visit Vanguard, 30 crew members are scheduled to be there, so you'll see more people than we had in the entire company in the beginning! We are trying to fight bureaucracy as best we can. The key is not to make stupid investments. Market share is a terrible driver; market share must be earned, not bought. Vanguard is trying to be competitive, and I am a competitive guy.

As for the investing atmosphere in the country, it is crazy. Speculation prevails over investment. Investments are ill chosen. 90% of what you see is speculation. People are trading with each other. A half of S&P500 is owned by investors, the other half is owned by speculators. Investors don't trade, only speculators do. It's all mathematics.

We recently have seen a drop in the market value from \$16T to \$14T. This drop cannot be attributed to the state of the industry, it was pure speculation.

Q. This question is from your friend Kathleen Ryan, who could not be with us this year. Kathleen is asking, "Jack, you were born in 1929, the year when the Great Depression started. Has that influenced your investing approach?"
A. To state the obvious, I was pretty young in 1929. I saw the look on my father's face when I was six months old, and I knew something was wrong. In 1930, my family lost a lot in the crash; so, growing up in the aftermath of the Depression did affect me. I don't like to spend money, period. I bought some khakis last summer, at my wife's insistence. I don't enjoy buying things, spending money.

Waiting on tables is one of the best things you can do. I was a poor student in Princeton, waiting on rich students in Princeton dining halls. You can't get angry when you are waiting tables, the customer is always right. You have to smile no matter what.

Q. What's your opinion on the value of the Ivy League education? You went to Princeton. Was it worth it in comparison to going to Rutgers?
A. People ask me to write recommendations when they apply to Princeton. I am very clear when I am writing that the father has asked me and I have interviewed a potential student, and this is what I think of the student. I tell students that the real admission rate at Princeton is 4%, after you account for athletes and others. If they don't make it, it is not the end of the world. I know many great people who never went to Princeton ☺. I loved it when I was in Princeton. It is even better now with women and ethnic minorities. But you can get a good education at Rutgers and other public universities.

Q. What kind of a slide rule do you use?
A. Aluminum, the wooden ones become sticky. I have three of them, one of which is a mini-slide rule. I used a slide rule to calculate yields of my portfolio. Later, I've got a calculator that showed that GE yielded 6.375%. What can I do with that precision?! The slide rule showed 6.4%, and I liked that better. I'd rather be approximately right than precisely wrong.

Q. What is your highest priority for the next few years?
A. Every day something pops up. I want to finish the book; it is my highest current priority. I don't think I will be writing books anymore. Travel does not appeal to me anymore. I now only travel by train to New York City, Washington DC, and Boston.

Jim Grant asked me to participate in his conference later this month. Even simple TV interviews are incredibly difficult. You have to be prepared for questions about every single thing that is going on in the world. A day does not go by without me thinking of an op-ed for New York Times or other publications. I can write an op-ed in a day, but first I need to finish the book.

Q. What would you do differently?
A. Two things. One I will talk about, the other one I won't. When you put a company together, you sometimes have to be abrupt. I was much more of a dictator than I probably should have been. Perhaps, I should have been kinder and gentler. But then Vanguard probably would not exist.

3.5 Visit to Vanguard and the Panel

On Thursday afternoon, the Bogleheads were invited to a reception and information Expo at Vanguard headquarters. The expo included booths on advice services, retirement income, education savings, ETFs, the Vanguard Charitable Endowment Program, and social media. At each booth, visitors had the opportunity to talk with Vanguard crew and pick up information.

Then the Bogleheads came to a large auditorium for the Vanguard Panel discussion. Rebecca Katz, Principal, Public Relations, introduced the senior Vanguard staff panel, as follows:

- Gemma Wright-Casparius, Principal, Fixed Income Group,
    - Portfolio manager of the Vanguard Treasury Inflation Protected Securities (TIPS) Fund, and recent Vanguard addition, with 30 years experience in fixed income portfolio management and research.
- John Ameriks, Principal, Investment Counseling and Research Group,
    - Vanguard's expert on retirement issues.
- Bob Auwaerter, Principal, Fixed Income Group,
    - Overseeing more than $560 billion in assets.
- Joel Dickson, Principal, Investment Strategy Group,
    - Vanguard's thought leader on the Exchange Traded Funds (ETF) issues.
- Gus Sauter, Vanguard Chief Investment Officer (CIO),
    - Gus just celebrated his 24th year with Vanguard (yes, he started two weeks before the crash of 1987). Gus has a prior commitment and needed to leave by 6:30. Vanguard made sure the questions for him were near the beginning of the discussion.

Rebecca: I've been privileged working with Mr. Bogle. Bogleheads are among Vanguard's most loyal clients. No fund company has such a loyal following. Bogleheads.org has real solid information. Other sites scream "Buy Gold!" whereas on 4 August 2011, when the markets went down, people were writing in the Bogleheads Forum, "Today's a really bad day. But does it impact our investment approach?"

We received some questions for the panel ahead of time. The first question is for Gus.

Q to Gus: What wisdom do I need to have to keep my faith in investing?
Gus: The economy will grow very modestly into the foreseeable future. Ben Bernanke does not intend to raise short-term interest rates until 2013. At Vanguard, we think that low-interest rate environment will persist even longer. The performance depends on the point of entry. For example, a bond may have a 5% original coupon but 10% yield to maturity. Stocks are trading relatively low now. Equities usually compensate for volatility. I started at Vanguard in 1987, 24 years ago. We had a series of high volatility periods since then, and we still did well. You have to think longer term. At the age of 65, you still have a 30-year horizon.

Q. to Bob: How should we invest in fixed income with a 10-year horizon?
Bob: We are in a low-interest rate environment. One important question is what the long-term environment will be like. We now have this Congressional super-committee of 12, and we are waiting for their recommendations. I recommend a combination of short-term and intermediate-term bonds. Right now the yield curve is very steep. There is very little cushion against rising rates, and so I recommend keeping a bit less in long-term bonds.

Q. to Joel: Please comment on the tax efficiency of ETFs in comparison with their index funds.
Joel: I was amazed by the Bogleheads debates about ETFs vs. index funds. It reminds me of Bugs Bunny, 'Duck season! Rabbit season!' At Vanguard, ETFs and index funds are the same. They share 95% of their DNA. Passive management is responsible for most of the tax efficiency of ETFs. In-kind redemption is not unique to ETFs. Traditional mutual funds can do it, too. ETFs are just a little more efficient in this. The Total Stock Market ETF started in 2001, but no capital gains were distributed since the tech bubble burst. I consider the debate about ETF and fund efficiency superfluous; both are tax efficient. Tax efficiency is not about the amount of tax you pay, but how much you keep – after tax. This depends on your tax bracket.

Q. to Gemma: What would happen if the Treasury discontinued TIPS?
Gemma: This is a $630B market, 7% of marketable debt is outstanding. I don't expect the program to go away.

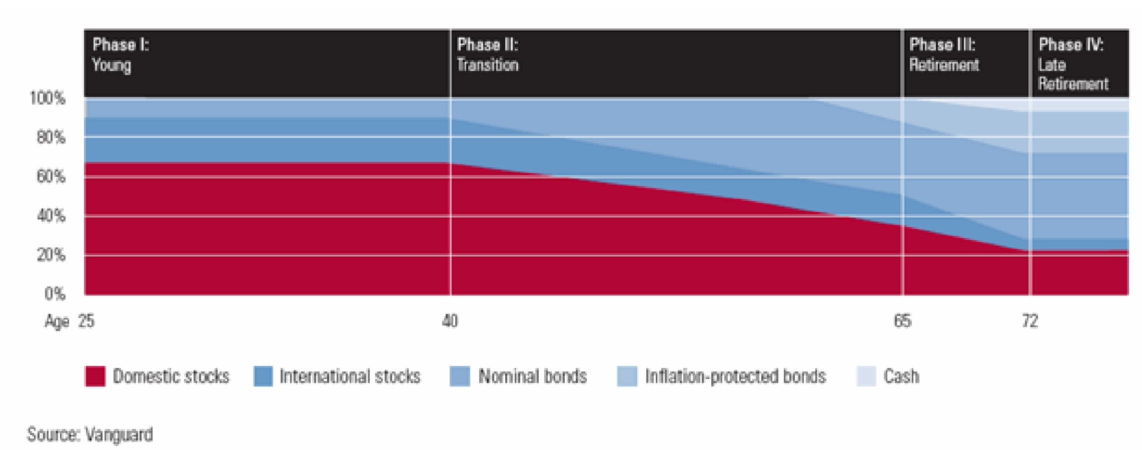
Q. to John: Please comment on moving 401(k) funds to IRA in order to convert them to Roth-IRA, e.g., to reduce Required Minimum Distributions (RMD).
John: Let's start with costs. If your 401(k) has high costs, move to an IRA with lower costs. One is subject to RMD the year after one turns 70.5 years old. You can accumulate Roth-type funds within your 401(k), and thus if the 401(k) is good, there is no need to take money out of it. If you have a good reason to believe that your retirement taxes will be higher than during your working years (or in some cases, even the same as during the working years), it may be appropriate to convert to Roth.

In general, it is worthwhile having both Roth and non-Roth accounts in retirement. For example, if you expect large medical expenses that would exceed the tax deduction threshold, you can take money out of a Traditional IRA.

Another consideration is that 401(k) funds have stable value funds that you cannot get elsewhere. Another thing to consider is that if you are holding the company's stock in your 401(k), accounting for it could be tricky.

Q. to Gus: Why did you lower Admiral shares minimums rather than reducing the expense ratios for existing account holders?
Gus: We operate at cost. Our communications have over time moved to the web, and so our cost of maintaining even small accounts has dropped dramatically. It was appropriate to reduce costs for those customers whose accounts became cheaper for us.

Q. to John: Please comment on the Target Date Funds structure. Why they don't hold commodities and Real Estate funds?
John: The structure of our Target Date Funds is straightforward and the glide paths are aligned with the age. [The figure that follows is extracted from Vanguard's web site[3], to illustrate John's point.]



Young investors (under the age of 40) are 90% in stocks and 10% in bonds. As they are approaching the age of 65, this ratio is gradually changing from 90/10 to 50/50. Over the next seven years (from the age of 65 to the age of 72) the asset allocation changes further to 30/70, and then remains the same into the Late Retirement phase. We start with Total Stock/Total Bond/Total International Stock mix, and at age 60 we start introducing TIPS into the mix. All these are, of course, low-cost index funds.

Many investors do not understand the difference between the futures exposure and the commodities. The theoretical evidence is not strong enough for including these investments into Target Retirement Funds.

[3] https://institutional.vanguard.com/VGApp/iip/site/institutional/investments/mutualfunds/article?File=TargetRetirementGlidePath

Q. (follow-up) to John: But REITs are an index.
John: REITs are already represented in the TSM. Young investors have human capital; they can take risk with equities. As people age, they have their own houses, and they don't need additional housing exposure with REITs beyond what they already have in TSM.

Q. to Gus: Any plans for Vanguard to offer an International Bond Fund?
Gus: We have not filed for one. Vanguard does not look at international bond funds as the way to hedge currency exposure but as the means to diversify bond holdings.

Q. to Bob: Can you comment on 'Operation Twist'?
Bob: The Fed is selling short-term securities and is buying anything in the 6-20 year range in the hope that it will help the economy by lowering the cost of borrowing. For example, the Fed will create a demand for 10-year Treasuries, their price will rise, their yields will drop, and the interest rates tied to 10-year Treasuries will drop, too.

The Fed is running out of bullets. We have a liquidity trap. The private economy is deleveraging, i.e., reducing the amount of their debt. Individuals are also trying to pay off their debt. The Fed is pushing dollars into the economy, but people are using this money to lower their debt. Something like that was taking place in the 1960s. But keep in mind that we now have huge budget deficits.

Quantitative Easing (QE) aims to increase the money supply, but it does not increase the demand for goods and services.

Q. to Gemma: Are TIPS also a part of 'Operation Twist'?
Gemma: Yes. Long-term TIPS rates will move even lower than the current ~1% due to the Fed's purchases. Real rates may be pushed as low as possible and be held there. That means that the TIPS funds will fluctuate. Don't expect returns beyond the rate of inflation in the short term.

Q. to John: Please comment on the value of Single Premium Immediate Annuities (SPIA) in the current low-interest-rate environment.
John: Right now interest rates are low, and the SPIA payouts are relatively low, too. If interest rates rise, you can purchase more in SPIA. Vanguard provides an annuity service with binding quotes from eight providers. We see an increase in demand for this service, because of the changing demographics and because people cannot get enough income from the current low interest rates.

Q. to Gus: Is Vanguard going to use its status as a large equity holder (by proxy) to vote against high executive compensation?
Gus: We already do it. We need companies to create long-term shareholder value. We negotiate with them behind the scenes. We own 5-6% of virtually every U.S. company. Our index funds hold these shares forever; and our active funds hold shares for a long time, too. We see a real opportunity for Vanguard to affect change.

Q. to Joel: For high tax-bracket investors, would you recommend a "backdoor" Roth IRA or municipal funds?
Joel: "Backdoor" Roth IRA means that if you cannot put money into Roth IRA directly due to the income exceeding the Roth IRA *contribution* threshold, you can first put money into a non-deductable traditional IRA and then immediately convert the T-IRA into a Roth IRA, because the income limits on the *conversion* have been removed. One complication arises when, during the conversion, you have to account for all your Traditional IRA holdings and pro-rate your conversion.

When markets drop, if the cost basis of your T-IRA holdings is not much lower than the current cost, it becomes advantageous to convert to Roth, because your tax liability is small. By converting to a Roth you eliminate future taxes. Some investors were reluctant to make non-deductable T-IRA contributions, because of the pro-rata calculation I mentioned. Again, look at the overall after-tax assets rather than at the amount of tax you would pay per se.

Tax-free munis are less flexible than Roth IRAs. They may not even be appropriate for taxable accounts, which you should use for holding tax-efficient securities such as equities.

Q. to Bob: Do TIPS reflect the inflation rate?
Bob: We have about 2.1% core inflation excluding food and energy, and 2.18% yield on 10-year Treasury bonds. This is what Gemma said, the Fed is trying to accomplish a zero real rate. The Fed is also trying to drive people to more risky assets. When risky assets do well they can create a "wealth effect," which causes people spend more. This is the Federal Reserve's current goal.

Q. (follow up) to Bob: What is the interest rate outlook longer term?
Bob: It depends on how you define "longer term." The economy will recover, but we will see slow growth. A lot depends on the Federal budget deficit. Marginal investors and foreign investors are putting money towards U.S. Treasuries. Some people worry that the Chinese will be dumping their U.S. Treasury bond holdings. But that would lead to mutual destruction. If they started dumping bonds, the bond prices would drop, and it would become self-defeating. We are more interested in what is happening at the margin.

Q. to Gus: We see some companies that are paying only 1% dividend but are engaging in 4% buy-back. Does it make sense?
Gus: Buy-backs are important. Companies that buy back tend to outperform.

Q. to Gus: Why is there no value and small tilt in your Target Retirement Funds?
Gus: Are you talking about the factor exposure or factor plus alpha? The factor exposure is what Morningstar uses in their quadrants. The historical view would indicate the preference for mid-cap value tilt. But should you take that tilt? I have mixed feelings about this. Fama-French have come up with this based on the analysis of the historical data, but I don't know if the same trend would hold into the future. Small-value tilt could

be made for behavioral reasons, e.g., when the pendulum swings too far towards large-cap. We want to keep our Target Retirement Funds straight-forward. If you want to take the tilt, do it in the most efficient manner and don't give into the hype.

[Gus Sauter left the Panel at 6:30pm.]

Q. to John: Is 20% stocks and 80% bonds an overly conservative allocation for a 60-year old?
John: If an investor is risk-averse, 20/80 may be just fine. I'd like to go over their risks. If inflation is a risk factor, I'd like to see a portion of their portfolio in TIPS.
Joel: Remember that Social Security provides an inflation-linked source of income. Even if you keep all your liquid assets in stocks, your overall allocation, including Social Security, is about 50/50.
John: 50/50 seems high for a 60-year old, but considering Social Security as a fixed-income equivalent makes allocation to stocks more tolerable.

Q. to Joel: What is your opinion about active ETFs?
Joel: We are already there. It is a wolf in sheep's clothes. The genesis of active ETFs is active strategies. The trend has obfuscated passive-active discussions. All these are private-label indexes. Once you create a strange index, it is essentially an active strategy. When you get it into an ETF, you can pass the SEC gates. The SEC has been demanding transparency on portfolio holdings. Furthermore, I don't understand the endgame on active ETFs. Traditional mutual funds can be closed. But how do you close an active ETF? Active ETFs can become victims of their own success.

Q. to Gemma: Please comment on International TIPS.
Gemma: International TIPS risks include currency, sovereign debt, and lack of liquidity. The global TIPS index is $2T, of which $1.6T is in developed countries, of which the U.S. and the U.K. constitute 60%. You can invest in the U.S. and the U.K on your own just as well. Emerging markets TIPS are mostly Brazil. The best diversification is through a fund, not through buying country-by-country TIPS.

Q. to John: Why do you add TIPS only at the later stages of the Target Retirement funds?
John: Younger investors are in equities; they don't have the need to respond to an immediate inflation shock. Their income rises with inflation. Older investors are more concerned about inflation.

Q. to the Panel: Will Vanguard consider offering a TIPS ladder?
Bob: People are asking for the TIPS ladder, but the reality is that nobody puts money into it.
John: This is related to my old blog post. What if the Treasury had removed the limit (currently 30 years) on TIPS durations? It would become a source of a guaranteed income. But the duration would be very high, and the principal would fluctuate. There is no good way to resolve the need for a combination of a high income stream and stable principal.

Q. to Gemma: Please comment on TIPS and inflation.
Gemma: They are currently priced at a 2% yield. If, in the next few years, we address the problems of the economy, inflation will rise. Right now, TIPS are priced a bit low with respect to inflation.

Q. to the Panel: Will Vanguard offer a rebalancing service?
John: We are thinking about it but have no specific plans.
Joel: Target Date Funds do it automatically.

Q. to Joel: What should be the proper ratio of the percent of International holdings to the percent of Emerging Market holdings?
Joel: I am a professionally trained economist, and so the answer is "it depends." ☺ We have raised the International allocation from 20% to 30%, but on the Emerging Markets side we saw performance chasing. We go with the market cap-weighted Emerging Market exposure. Most investors should have some international exposure, e.g., 20%. I have 50%. Some argue that because many U.S. companies are multinational, you get sufficient international diversification just with U.S. equities. But international companies also have significant revenue sources in the U.S., e.g., Toyota has many plants here. Some argue that the diversification effect is reduced, because the correlations between foreign and domestic equities are high. However, even if the U.S. and International equities were precisely correlated, a case can be made for diversification, that is the diversification of returns, not the diversification of volatility.

Q. to Bob: Are you considering municipal bond ETFs?
Bob: We are not moving forward with municipal funds. We thought of ETFs but decided this was not a good time for them.

Q. to Joel: Is it better to invest in Admiral shares or ETFs when the expense ratios are the same?
Joel: If you have less than $10k you cannot get Admiral shares, and the choice is between regular shares and ETFs. This is a qualitative, not a quantitative discussion. Funds have "value certainty." No matter when you make a request, you get the value corresponding to the 4pm close. ETFs, on the other hand, have "price certainty." You are getting the price in effect at the time you placed the trade. But with ETFs you don't have value certainty – they may be trading at a premium or discount from the fund intrinsic value. Traditional funds have other advantages, e.g., dividend reinvestment the same day rather than four days later, when all funds are buying and prices are more volatile. Auxiliary services are also much easier on the fund side. People assume that ETFs are cheaper, but this is not always true. Funds may protect investors from some advisers who may be tempted to trade ETFs but would not do that with funds. Some other companies do not have much experience with either ETFs or funds. Vanguard has both, and my advice is to focus on your specific needs.

Q. to the Panel: Please comment on the safeguards of Vanguard's web site?
Rebecca: I will take this question. The most common financial fraud is a family fraud. Tokens would not solve this. We are looking into voice-based biometric authentication.

Signature guarantees will go away. We will be the first fund company in the U.S. to offer voice authentication. We take security seriously. We track who accesses accounts, but note that I cannot see your Social Security number on Vanguard's internal systems.

Q. to Bob: Given that we live in the age of interconnected markets, how vulnerable is the U.S. to specific countries, e.g., Greece?
Bob: You are right, we are interconnected. We look at the risk of the contagion. Every morning I run to Bloomberg to find out how the French and the Germans will be injecting money into their banks. Greek bonds are trading with a 65% yield, but you will not get that yield. We are looking to banks writing off the Greek debt and injection of money into banks.

If in 2008, the U.S. Treasury and the Federal Reserve had not implemented their plan, we would have a situation worse than the Great Depression. Now we would like Europe to do something similar.

Q. to John: Should we be investing more aggressively when equities are depressed?
John: Young investors should have a high equity allocation. Interest rates are low, because everybody is looking for safety. There could be an expectation of a higher risk premium, but the key word is "expectation." Increasing equity allocation may be OK, if the investor is willing to put up with increased volatility.
Joel: We have been discussing what to do in an environment of low yields. The yields should be considered in combination with predicted low inflation. If you look at stocks and bonds and a relatively low inflation, the real yields are not that low.

[End of the Panel discussion.]

4 *Day-3 - 14 Oct 2011*

4.1 *Fireside Chat: Jack and Bill*

Jack: Given that we have 60 new people here, I would like to start with the story of how the Boglehead Reunions started.

Jack and Taylor Larimore met at an investment conference and were chatting. A presenter made a statement that was wrong, and Jack corrected him. The presenter got very angry. Taylor thanked Jack for standing up for small investors. A year later, there was a conference not far from Taylor's house, and Taylor invited Jack to visit him. As Jack entered the hotel lobby, he saw a sign saying "Vanguard Diehards meet here," and Jack thought that this was getting out of hand. But the meeting was very nice, and soon Bogleheads reunions became an annual event.

When the concept of Bogleheads first became known at Vanguard, it was not appreciated by everyone. When the Bogleheads were meeting in Philadelphia for the first time, they were initially told that they would not be allowed to visit the Vanguard's campus.

However, an article was published about Bogleheads converging in Philadelphia, and Vanguard management changed their minds. Last year, Vanguard stepped up their support for Bogleheads reunions. Now, they have a formal program of welcoming Bogleheads. The Bogleheads are now an integral part of Vanguard. It is important for Vanguard to see over a hundred of their shareholders at once.

And so now it's onward. I have never thought that my name would be trademarked[4]. ☺

Bill: I received a letter a few years ago from Jack. It was 1.5 pages, single-spaced, and it told me why I was wrong in my article on why Vanguard does not offer International bonds. How many company chairmen would respond in such detail?!

Bill: Let's start with a question; is age in bonds appropriate for a 70-year old?

Jack: Age in bonds is a useful shortcut. When you are young, you have human capital; when you are older, you need an income stream. In the current environment, 4% withdrawal may be a bit high, 3.5% is better. You cannot control returns. Be careful reaching for yield. You can control risk and a few other things. With high-yielding securities, default levels could be high. You have to consider not only probabilities but also consequences.

Remember to take Social Security into account. It will be there in the foreseeable future. Its capitalized value, typically, is about $300k (if you consider a lump sum equivalent).

In 2008, dividend yield went down 23%, the largest decline in history. In horse races you may lose everything. If you have $100 left and you bet it on the long shot in the 12th race, you may lose everything. Investing is not like that.

Bill: I was looking at Moshe Milevsky's strategy that in retirement you need only income consisting of four parts:

1) Social Security that you have mentioned
2) TIPS
3) Single Premium Immediate Annuity (SPIA)
4) Insurance rider with various annuities.

With Social Security and TIPS you still have the risk of the government reneging on its promises and/or fiddling with the inflation formula, however small. With SPIA, the risk is that the company may go belly up. These first three parts of Milevsky's strategy are possibly all a retired investor needs for income.

The flip side of not annuitizing is that you may die at age 70 with more money than you bargained for. I don't mind leaving my money to the government.

[4] Mel Lindauer has earlier announced that the name "Bogleheads" had been trademarked.

<u>Bill</u>: When I look at the markets, it is not people trading with other people; it is computers trading with other computers. Ken French does not believe that all this trading improves liquidity for investors. What do you think?

<u>Jack</u>: For a long-term investor it does not matter. Throw away your annual statement without reading it. I don't see today's volatility as a negative for passive long-term investors. Passive investors do not do any transactions. Commissions have come down in this business; however there are tax consequences to trading.

As for matching your income to your expenditures, make sure that your assets are rising in step with your liabilities. There is nothing wrong with this. I saw a recent Zvi Bodie article, and there is nothing in it that I would disagree with.

<u>Bill</u>: Let me throw in a small bomb. I spent the last year thinking about TIPS. They are a fascinating asset class. The long TIPS dropped by about 25% in 2008. They are very risky in a short term and are riskless in the long term. The ideal strategy it to offset future liabilities by building a TIPS ladder, which is practical, at least in principle.

And so my conclusion is <u>not</u> to invest in TIPS funds but in individual TIPS because:
(a) You can do it cheaper by buying TIPS directly
(b) You may need the money at some point in time, and that could be the time of a significant TIPS decline due to short-term volatility like what we saw in 2008.

<u>Bill</u>: I would like to revisit Kathleen Ryan's question that we have heard yesterday. You were born in 1929. My father started his law practice in 1926. A lot of the Great Depression mentality has rubbed off on me. Do people ever learn?

<u>Jack</u>: We can teach and teach and teach, but ultimately people learn from their own experience. The greatest trick is to learn from other people's experience.

I also would like to make a clarification about the charts I presented yesterday. 3.5% for bonds and 7% for stocks are my projected *nominal* returns. The real returns will be 2-3% lower. Then consider the expenses. There is difference between fund returns and investor returns. There is a large behavioral aspect here: your bad behavior is offset by somebody else's good behavior.

<u>Bill:</u> I have concluded that a mild Asperger's syndrome is an enormous advantage for an investor. I read Michael Lewis' "The Big Short" about convex and concave investors who balance each other. In the world dominated by the emotional momentum investors, people who hold and rebalance win.

<u>Bill</u>: In 2002-2003 you predicted nominal 10-year returns of zero, and people gasped. And you were right! You were right, minus 1%.

<u>Jack</u>: I am more accurate than others, because I use operating earnings year after year, which are more accurate. I don't use much precision, back to the slide rule comment.

Bill: Here is a joke. How do you know that an economist has a sense of humor? He uses decimal points.

Bill: You said that you listen to NPR programs about economics. Who do you have respect for among media commentators?

Jack: Jim Cramer. ☺ When I made my predictions in 2002, it was just after my heart surgery. I predicted 7-9% investment earnings over the upcoming 10 years, and it turned out 8.3%. I have been reading new Bill's (Bernstein) book on how to deal with the Armageddon, but Kevin stole my book. He said he borrowed it.

Technology impacts us. How to deal with this? My grandchildren help me dealing with technology, but how to deal with Armageddon?!

Bill: Canned goods and ammo. Sometimes you are helpless. If you were in Hungary or Germany at the time of high inflation, the time when the market disappeared all together, etc., there was nothing you could do. That is why that one should aim for no more than 95% survival of their retirement portfolio over 30-40 years in retirement. There are things that are beyond your control.

As a book author, I must say that I don't always have control over the title[5].

Jack: In "The Birth of Plenty" you wonderfully showed that the world economy went for hundreds of years without any growth. The American empire looks to me like the Roman Empire. I wrote that I wanted the Gibbon's footnote about the Roman Empire on the same page where I was discussing the American empire. The Princeton University Press said that they always put footnotes on the back of the book. I said that then I will find another publisher. And so they put the quote where it belongs. No empire exists forever.

Bill: I don't think technology advancement will slow down. Technology will continue to advance.

Bill: We are not going to lose our place as the leader of the world. The world will not get swamped by developing countries. Our share of the pie will decrease, while the size of the pieces of the pie itself will increase. In 1900, the U.K. was the world leader. Now, they've lost their leadership status, but they live much better.

Jack: I worry about high unemployment, long-term. The budget deficit is a huge problem. I still see some good signs. We have more stability, better property rights than anywhere else in the world, and still… The movement "Occupy the Wall Street" is symptomatic. The quest for bigness bothers me. Companies merge. Corporate managers

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[5] "The Investor's Manifesto: Preparing for Prosperity, Armageddon, and Everything in Between ," http://www.amazon.com/Investors-Manifesto-Prosperity-Armageddon-Everything/dp/0470505141/ref=sr_1_1?s=books&ie=UTF8&qid=1319571529&sr=1-1

are divorced from the interests of their shareholders. Fiduciary duty to the society is imperative.

Bill: I could not agree with you more. The truck I see that is going to hit us is the world's extraordinarily complex and linked economic system. It is the economic equivalent of Three Mile Island. It can spin out of control. The Flash Crash of May 2010 is an example of how systems out of control behave.

The Troubled Asset Relief Program (TARP) of 2008 was the right thing to do. In retrospect, the right thing would have been to send Elizabeth Warren to banks to liquidate them. Now we still have N minus 2 banks in comparison to 2008.

Jack: I agree. But no banks have been repurchased. I'd like to bring back the Glass-Steagall Act. They did not bring it back. We have the Volcker Rule, but this act has several thousand pages, and dozens of lobbyists are trying to modify it. Paul Volcker is also discouraged. I ran into him, and he said that he now comes to Washington only for photo ops.

Jack: I am privileged to be associated with Bill. Read his wonderful books.

If I have been able to accomplish anything, it's because I focus on investors. You are trusting me, you are trusting Vanguard. Shaking hands with you helps me keep going. You are individuals; you are not just a large group.

I received a letter from Florida, and I responded in several pages. The author of the letter turned out to be an author of an investment letter, and he now writes good things about me. I received another letter from a doctor who wrote that Vanguard had ruined his father's investments. I wrote to him and admitted that we were at least partially at fault. Later he became my cardiologist!

4.2 BH Expert Panel Q&A

Mel Lindauer introduced the panel:

- Christine Benz ("**Christine**")
- Bill Bernstein ("**Bill**")
- Laura Dogu ("**Laura**")
- Rick Ferri ("**Rick**")
- Mel Lindauer ("**Mel**")
- Allan Roth ("**Allan**").

Mel: I will start with questions we received from the Bogleheads prior to the meeting.

Q. The amount of the national debt in several nations is so serious that austerity measures were called for, e.g., in Greece and Ireland. What should investors in equity index funds expect in terms of volatility?

<u>Rick</u>: More volatility. Fewer people will be investing in equities. Risk premium will be higher. My opinion is that the stocks have a 6% risk premium over the next decade.

<u>Allan</u>: Does the market look more volatile now? Last decade it was 4.7%. Previous 30 years it was 4.6%. This time is different. Last time was different. Next time will be different.

<u>Bill</u>: I largely agree with Rick and Allan. I favor International stocks. European stocks are selling at near single-digit multiples. Emerging Markets from time to time become really cheap.

<u>Bill</u>: Regarding the 6% risk premium, are we there, or should the markets drop more to get there?

<u>Rick</u>: We are already there. Dividend yields over 10 years will be 2.5%. Even if the real GDP growth is below normal, the GDP will still grow at 2.5%. That's 5% right there. Jack has subtracted 1% for the speculative returns; I add 1% for expansion. That's how I get 6%.

<u>Christine</u>: I was at Vanguard yesterday before the others arrived. We discussed a paper on Economic Growth and Market Performance. There is no correlation between the two. It is tempting to pay attention to headlines but do not adjust your portfolio based on that.

<u>Q</u>. With respect to the Trinity study authors' update of their results, do the Panel members recommend changing the Safe Withdrawal Rate (SWR) from 4%?

<u>Mel</u>: It is ridiculous to assume that we will set a withdrawal rate at retirement and never change it if conditions require it. We've made adjustments all of our lives when required, and we will adjust in retirement if necessary.

<u>Christine</u>: I agree with you in general. I discussed adjustments to the SWR with Hal Levinsky. He said that when you ask retirees to do it, they cut out the things that contribute to the quality of life in their later years, e.g., going out for dinner.

<u>Bill</u>: 2% is bullet-proof, 3% is usually safe, 4% is getting risky.

<u>Allan</u>: 2 years ago I did Monte Carlo simulation for Money Magazine. Bill Bernstein agreed with it. 4% assumes 50/50 asset allocation in low cost index funds, and it assumes rebalancing. If the investor pays average expenses and average emotions then the SWR drops to only about 2.5%.

<u>Rick</u>: About 3.5%. It could be 4%, but the Fed is getting in the way with low bond fund earnings. I agree with Allan that other factors come in. Do you want your children to inherit every dollar of your principal? At the age of 90, you don't spend as much as you

do at the age of 65. Cash flow requirements go down, and only the base living expenses remain.

And so I advise my clients to spend now, when they are 65, because they will not be spending when they are 95. Some planners say, "Cut your magazine subscriptions, you will live until 117."

Mel: Trinity looks into the past, not into the future. At later years, people can spend a lot on assisted living, as my father does at the age of 96.

Rick: But your father has you. You won't put your father on the street.

Laura: Trinity gives you the feel for how much you need; it is an estimate. The farther you are from retirement, the rougher this estimate can be as a tool. You use it to gauge how much you spend, how much you need to save, etc.

Bill: Another aspect of the Trinity study is that at the range of asset allocations from 25/75 to 75/25 the portfolio survival rates are about the same.

Allan: I see many potential clients chasing income. For many of them the total return is negative.

Q. What is better to use for planning one's resources, Monte Carlo simulations or historical data?

Laura: None of the above.

Rick: I agree with Laura. Many people have enormous expectations of returns based on the past data.

Allan: I believe in Monte Carlo. Problems are with the situations of garbage-in and garbage-out. Assumptions must be reasonable. We have reliable data only since 1926.

Q. What is the time frame for increasing cash reserves for retirement? Right now I have 3-months reserves, when should I start increasing them?

Bill: Tomorrow. Three months is not enough unless you have spectacularly good job security and disability insurance.

Christine: Yields on CDs and Money Market accounts are low. I recommend the reserves to include three months in true cash and some money in short term bond fund with some principle fluctuation. Retirees need two years worth of their expenses in true cash to avoid selling stocks during market declines to get income needed for their living expenses.

Laura: Three months is too low.

Allan: Ally Bank CDs are yielding 2% with a two-month interest withdrawal penalty. People can also get Home Line Equity Credit (HELOC), returnable CDs, and other cash equivalents.

Rick: I am 53. My cash is covering three months of my expenses. I also have nine months worth of "permanent liquid assets." You can be very aggressive with "permanent liquid assets." They also include some equities. This may sound strange, but I will have a year to use this resource. Once I retire at about the age of 65, I will have two years worth of emergency resources, and I will have lower expenses.

Bill: I'd put Money Markets, CDs and other cash-like assets into the emergency fund, but not corporate bonds.

Mel: I-Bonds belong in there, especially, if you had bought them when I told you to do so. ☺

Christine: I ask people what was their greatest surprise in retirement. And they say, 'I-Bonds.' Thank you, Bogleheads!

Q. Should TIPS be in a portfolio of a younger person, say under the age of 40?

Mel: It is a good investment.

Rick: Barclays Aggregate Bond market index is missing TIPS and high-yield corporate bonds. I put 20% in TIPS and 20% in high-yield bonds to get the total bond index. I recommend this regardless of one's age. Age is reflected in the allocation between bonds and stocks, not in the composition of the bond portfolio. TIPS give you an edge against an unanticipated spike in inflation.

Mel: Vanguard told us yesterday that they don't have TIPS in Target Retirement portfolios of younger investors.

Allan: In 2008, TIPS should have saved some investors, but they dropped. Right now, TIPS rates are negative. In the current environment, I believe in taking money from TIPS and putting them in CDs.

Bill: For younger investors TIPS are neither fish nor fowl. 20% is fine. 0% is fine.

Mel: The negative TIPS rates are the fixed component, on top of the inflation component. You have to think in terms of real rates. To compare TIPS and bank CDs you have to use the same type of rates, either real or nominal, but the same.

Q. I sit on a corporate board. Our plan advisers are providing calculations under an assumption of 8% returns. What sources should I show to them to illustrate that they are wrong?

Bill: Check if they are on medication. For a 60/40 portfolio, where bonds return 3%, stocks would have to return 18% to get the average of 8%.

Rick: 6% is realistic number for pension funds. 8% is not *completely* unrealistic.

Allan: It's a case of the reality vs. company investment policies.

Christine: Look at what they invest in. State of Illinois has been shifting their assets, which is dangerous.

Q. How do you compare the recent volatility with the volatility in the past?

Bill: Volatility of the S&P500 reached 85% during the 2008-2009 crisis. It was probably the same in the 1930s. The question is whether we will see it going forward. I give it a good chance. Europeans are good about this. ☺ Keep a lot of cash to buy stocks on the cheap.

Q. Is it greed or common sense?

Allan: Greed is here to stay. I liked Jack's "Greed is fun" chart yesterday.

Bill: I agree with that completely. People in the brokerage field are scared. They are trying to rebrand themselves as "Rick Ferri."

Rick: I see people coming to us who used to market active funds, and now they are trying to do indexes and tactical asset allocation, to help justify their fees. They don't know how to do it. Advisers take money from American funds and put them into ETFs, mostly into alternative junk. Indexing itself grows organically, by word of mouth, from the grassroots, Vanguard-like. Other "indexes" have to be sold to you. The funds that are collecting assets are TSM and Vanguard's S&P500; the rest are junk.

Christine: I agree that tactical asset allocation is where advisers collect their fees. They squeeze fees by moving money from active funds to indexes. Tactical asset allocators beat rebalancers only in 6% of cases.

Bill: I want to ask about fund flows.

Christine: My colleague covers "unloved funds," the greatest asset losers. Unloved funds strongly outperformed markets, and they have definitely outperformed "loved" funds. But you have to buy all 3 categories of unloved funds.

Rick: Annual naïve rebalancing is buying unloved funds.

Allan: If markets decline, people will be taking money out. In 2002-2007, national equities doubled and international tripled. But investors did not do even nearly that well. Fear and greed are with us.

Bill: As markets drop, people take money out.

Q. Recent threads on the Bogleheads Forum question if valuations matter.

Rick: When you are close to retirement what are you shooting for? You may shoot for 8% and may catch a bull market rising at 16% as was the case in the 1990s. Say, you need $2m to retire, and an unexpected bull market puts you at $1.9m. You can just coast from there to $2m without taking risk. You then lower your stock allocation, because you received unexpected returns.

Bill: If you win, quit the game. If you save continuously throughout your career you buy a lot of stocks cheaply. If an unexpected bull market strikes, you can make out like a bandit.

Mel: Some people want to jump into and out of asset allocation as PE-10 hits certain levels.

Laura: I try to keep it simple. It is behavioral. I want to avoid temptations that come with the constant changing of one's allocation.

Mel: If the bell really rang, and if it really worked, perhaps. But it is not like that. And the numbers keep changing.

Rick: Because of the changes in the corporate structure, companies started reducing their dividends. Eventually, dividend yields dropped to 3% and stayed there. Then we had the Fed Model; they had all these models about relationships between bond yields and P/E. Today, bonds yield 2%, and the Fed Model would indicate a P/E of 50! At the actual current P/E of 20 it would be a screaming buy! In reality nobody knows which model would work going forward.

Bill: I was fascinated last night to see Gus basically endorsing the small and value premia; his main caveat was that he was not willing to bet the company on it.

Christine: Disciplined rebalancing would get you there.

Allan: I can predict the past with incredible accuracy.

Q. What do you see as the ideal amount of inflation-indexed securities?

Rick: We have addressed the amount in another question. I disagree with Bill here. I don't want to bother with individual TIPS, give me the Vanguard's TIPS fund.

Mel: Bill, I would like to get back to your response to Jack. If you needed money, you'd be selling individual TIPS just as you would be selling parts of the TIPS fund at a time when both are low. What is the difference?

Bill: The idea is that you have a ladder covering four years of expenses.

Q. This question is from a Forum member who lives in Fiji. What do you think about buying an annuity?

Laura: I have to visit him in Fiji personally to answer this question. ☺

Mel: The only annuity most Bogleheads approve of is a Single Premium Immediate Annuity (SPIA). It can go well together with Social Security to guarantee that basic expenses would be paid. I personally would not put more than 50% of my assets into an annuity. An insurance company could go under. The longer you hold out before buying one, the higher the payout would be.

Christine: Annuities are a great idea to diversify. One topic that comes up is the adverse selection. Insurers see a lot of people living longer, and it may depress payouts in the near future.

Allan: The major issues are the risk of insurance companies' default and the interest rate risk. Inflation protection included in the annuity reduces its payouts.

Bill: Moshe Milevsky did some good work that is intuitively appealing. The sources of one's income should include stocks, bonds, TIPS, and SPIAs. SPIAs should be purchased from 2-3 companies for diversification of their default risk. Do not bet your farm on any single entity. And to repeat what I have said before, the best SPIA is delaying Social Security to the age of 70.

Q. There is a high probability that Greece will default. The survival of the Euro zone is in question. Should we reduce our equity holdings in anticipation of a collapse?

Laura: The answer is 'no.' There is always some type of uncertainty.

Bill: This means that you can visit Greece on the cheap.

Laura: I will do that on my way back from Fiji.

Rick: I was in Greece recently. We went for lunch, and the Vice President of Greece was there. He did not indicate that Greece was going to default. ☺ All the talk in Europe now is how to stop the Greek default, which is similar to what we had with TARP a couple years ago.

It was also interesting to observe the demonstrators. I was there at 3:15pm. Police come out. The protesters come out. Protesters protest. The cameras film them. Then at 3:30, the protesters go back to work and the police leave. What you see on TV is the action during those 15 minutes, not what is happening in Greece during the rest of the day. When you see the protesters on TV next time, look just behind them, and you will see tourists with cameras. The protesters are the sign that the right steps are being taken. Just as "Occupy Wall Street" is symptomatic of the right things happening here.

Mel: Now I would like to give the panelists a few minutes to discuss their latest projects.

Allan: I got my MBA in 1982, where I learned how to beat the market. In hindsight, I was irrational. Now I am writing books. A contract with a deadline is difficult. My second book will be broader and it will address the common sense which is not as common.

Bill: I was lucky; I paid only $1,550 per year for my undergraduate education. My graduate school was free. I started working in 1980. I used to feel sorry for the children who are doing it now, but not anymore. Today, young people can today invest at good levels. I am always writing. My current project is "Communications Technologies and Politics." It is 93% done. I am printing books on my own. Books are a social contract. If a 10,000-word book sells for $25; a 2,000-words sells for $2. Why not? This is similar to what Mike Piper (Oblivious Investor[6] in the Bogleheads Forum) is doing.

Rick: Mike Piper is 27 years old, and he is the future of our organization. Mike is unusual. When I first read him, I thought that he was in his 40s or older. His writing is that mature; and Mike was only 25 at the time. Younger people are clustering around the web, and Mike is in the middle of it. I agree with Bill about smaller books. If I have a 300-page book, I will break it into 60-80 page books and sell them separately. Also, I recommend that people read the Bogleheads' Wiki, it has a wealth of information.

Christine: I'll also endorse the Bogleheads' Wiki. It is a tremendous achievement. I have been with Morningstar and realized that whether they choose large or small cap funds, paled in comparison with the right approach to investing. Now I am doing more important things related to the overall financial planning. I also look into declining cognitive functioning as people age and how to accommodate it in financial planning. I observe it with my father, and I want to help people preparing for their cognitive-declining years. Some people may get offended by the stuff I write, but I believe this is a very important topic.

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[6] http://www.obliviousinvestor.com/

Mel: Laura and I share a bi-weekly column at Forbes, which means that I have to write one column per month. Christine is my idol. Every time I go to Morningstar's front page, there's Christine's smiling face on yet another column. She just seems to do column after column. I don't know how she does it. It is a lot of work. I hate having deadlines; I thought I stopped having deadlines when I retired. ☺

Alex Frakt: I see more and more new people on the Wiki. They come to view complex topics, e.g., non-deductible IRAs. We have a lot of high-quality topics on the Wiki. When we look at the Forum posts, we really don't see a lot of the Wiki activity that is going on.

Q. What about low-cost variable annuities?

Bill: I am not sure what role variable annuities should play in retirement. These are non-qualified annuities. First, the person should be young; 15 year old is perfect. ☺ Second, the person should have no room in his tax-deferred accounts. Third, these annuities should hold only tax-inefficient assets, i.e., junk bonds and REITs.

Allan: My answer is almost always "no." And we are talking here about *low-cost* variable annuities.

Alex Frakt: I specifically asked about Vanguard's annuities, because some people cannot live off 4% SWR. They have TIAA-CREF.

Bill: Until recently, TIAA-CREF offered an amazing deal to IRA investors; the TIAA Traditional account is essentially a money market that yielded 3%.

Rick: I asked Vanguard about annuities. If taxes on dividends and capital gains go up to the level of income tax rates (hypothetically), Vanguard's variable annuities may become very attractive. Vanguard is working on letting advisors like me manage low-cost variable annuities efficiently. Right now these annuities are not attractive, but that may change.

Mel: It could also be advantageous to doctors and others who are subject to lawsuits.

Q. Role of small-value in a portfolio?

Rick: The core portfolio is very simple; it is stocks and bonds. With a simple portfolio, you would do better than 90% of investors. Then you start making small enhancements. You may add global stocks. As you get more interested in how the markets work, you may start tweaking your portfolio to slightly increase your returns. Small-value tends to outperform the market. Excess returns you get from the risk premium would compensate you for the extra expenses.

Bill: Yesterday at Vanguard I was fascinated with Gus. I basically agree with Rick. There is also a behavioral component, and for that a simple approach is fine. I'd also note that I like the DFA 60/40 Global portfolio, and I recommend it to those who have access to it within their 401(k) plans. This one fund would do everything for them.

Allan: I agree with the Fama-French 3-factor model, but don't forget that any extra return you get is for extra risk, which is the essence of the risk premium.

Bill: 60/40 has lower return than 40/60 when 40% are small-cap, but you have to bear more variability.

Rick: Follow the U.S. economy (based on its GDP composition) rather than the stock market. By adding small-value you are closer to the U.S. economy composition.

Bill: This is a deep thought that I have not thought about. ☺

Rick: I can go home now. ☺

Q. As we are meeting here in Pennsylvania, Harrisburg, Pennsylvania's state capital, has filed for bankruptcy. Is this a harbinger of the domestic crisis, or just noise?

Rick: Rhode Island, where I was born, has fixed it. The state comes and takes over a city.

Mel: But this is the state capital, where all the Pennsylvania politicians gather.

Christine: It makes the case for funds rather than individual bonds.

Allan: I avoid munis. States have large unfunded liabilities using aggressive assumptions. If stocks have a bad run for the next 8-10 years, these municipalities will have problems. This is not a prediction but consequences of a low-probability situation.

Bill: So what percent of munis do you recommend? 0%? 20%?

Allan: It depends ☺. I would not go above 12%.

Q. This question is about the current state of the bond market. Bill seems to say that taking risks above cash and short-term bonds is a fool's errand.

Bill: I can't be right about everything. But now is certainly not the time to capitulate. I'd stay the course. I have always been a believer that bonds should be short. It is a good strategy going forward.

Q. Bill, are you still an investment asset junkie?

Bill: Yes.

Allan: Gold is the best investment I ever made when I was very young. In the past 2-3 years people have been chasing performance.

Bill: As Jack said, people buy assets that have strong trailing returns. Equities of precious metals are easier to invest in, but this is not a good time to be buying precious metals in any form.

Rick: My best investment in gold is my wedding band.

Christine: Gold increases risk of one's portfolio. Gold could be a part of a long-term strategy, but now is not the right time to buy it.

Bill: You have to ask, "who is the patsy?" If you are buying gold now, it is from someone who bought it for $300; who's the patsy there?

Rick: In the long run, the price of gold follows the inflation rate. If the gold bugs are right we will see terrible inflation. Based on the reasonable calculation of inflation, gold should be trading at $600.

[The meeting adjourned.]

5 *Appendix: Ed Tower's Paper "Reflections on Jack Bogle's First Mutual Fund"*

Reflections on Jack Bogle's First Mutual Fund

Prepared for the Bogleheads 10 reunion. October 12-14, 2011.

By
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Tower is a professor at Duke University and a visiting professor at Chulalongkorn University. This paper is the start of Chen's undergraduate honors thesis at Duke University, advised by Tower. It is work in progress.

We wrote this paper because Tower wondered whether it made sense to invest in a balanced fund or Vanguard's index funds, given that he finds it hard to control his emotions enough to convince himself to rebalance when the stock market is falling or rising. A natural place to look for a balanced investment is Vanguard's oldest fund: The Wellington fund, which has celebrated its 82nd birthday. Here is what Jack Bogle wrote about the choice of the fund's name.
(http://www.vanguard.com/bogle_site/sp2004wellingtonbth.html)

> I had chosen the name Wellington for the management company for a variety of reasons. I had been a student and admirer of the life of Wellington for years, and was fascinated with the history of his military campaigns. My admiration for the "Iron Duke" carried over to many things English, especially antique silver and furniture. The Wellington name, furthermore, had not been used by other American financial institutions, which was not the case with the well-known United States heroes—Washington, Jefferson, Hamilton, Lincoln, and others. Most important of all, Wellington was a name easy to remember; it was distinctive; it had a magical ring to it, a sort of indefinable air of quality about it that made it almost perfect as a name for a conservative financial organization.

So now we know why the big financial contributors to Duke University's athletics are called the "Iron Dukes."

And here is what Jack wrote about the Wellington fund itself.

> [The] WELLINGTON [Fund's] Management in the summer of 1929 believed that stocks could not advance much farther and that the price level was highly vulnerable, being away out of line with intrinsic values and earnings.
>
> By the time the market had reached its high point in September, 1929, as the following table shows, we had built up a large cash reserve and reduced common stocks to 41.77% of assets as compared with 78.02% on June 30th.

	Cash	Bonds	Preferred Stocks	Common Stocks
June 30, 1929	7.99%	None	13.99%	78.02%
July 31, 1929	39.31%	10.37%	17.19%	33.13%
Sept. 3, 1929	37.89%	4.84%	15.50%	41.77%

We wonder whether the Wellington fund still managed later in its history to make prescient decisions like this wise one. Here is our list of questions.

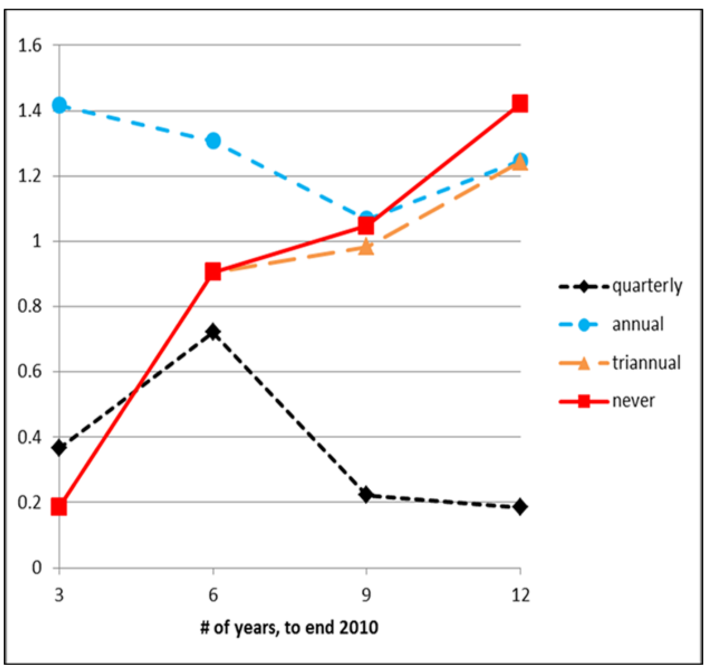
1. Has Vanguard's Wellington Fund done as well as the Vanguard stock and bond Index mutual funds that mimic its style?
2. Has Vanguard's Wellesley Fund done as well as the Vanguard stock and bond index mutual funds that mimic its style?
3. What accounts for their outperformance: Is it tactical asset allocation: changing the mix of stocks and bonds at the right time?
4. Do Vanguard's other four balanced mutual funds also outperform?
5. How about other companies: have their balanced funds outperformed the Vanguard stock and bond index mutual funds that mimic their styles?
6. How about other companies in the short run?
7. Do expenses matter?
8. Are high expenses a marker for moral turpitude in mutual funds?

Answers:

1. Over the last 12 years (1999-2010 inclusive), Wellington has outperformed the basket of Vanguard's index and near index funds which mimic its style with constant portfolio weights by 1.42 % / year. (throughout %/year is shorthand for % age points per year).When we break up the period into three month periods, so each quarter the weights of the index fund basket change to reflect Wellington's portfolio that quarter, the outperformance is only 0.19 %/year: 1.23 % /year less. Thus, Wellington does not outperform its index clone by much on average over each quarter, but over time it adjusts its portfolio wisely, so it outperforms the constant-weight index basket that mimics its style. We measure the outperformance as a geometric average rate and we term this outperformance "net α." The "net" reflects the fact that returns are measured after fund expenses are subtracted [see Endnote].

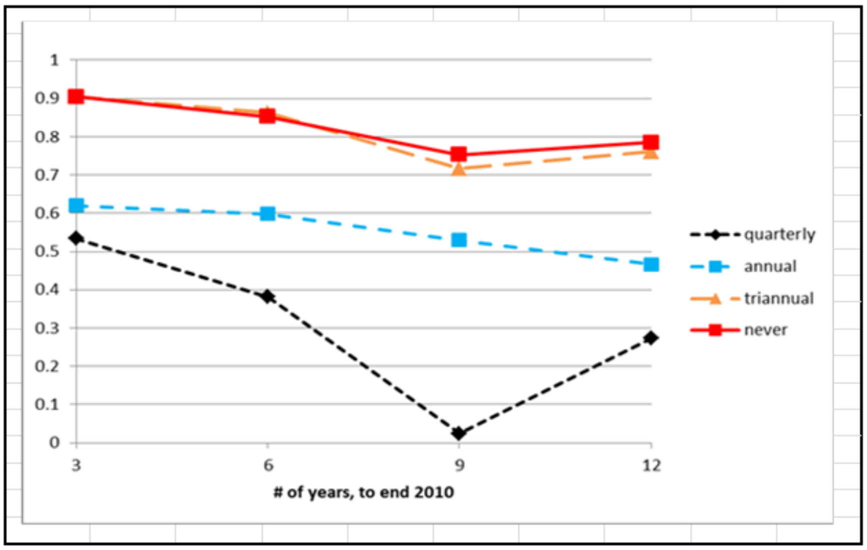
The red line in Figure 1 shows the geometric average constant-weight net alpha of Wellington over the last 3 years, 6 years, 9 years, and 12 years, assuming that within those periods the portfolio weights do not change. The orange shows the same assuming the weights change every three years. The blue assumes the weights change annually, and the black assumes the weights change quarterly. Over the last 6, 9 and 12 years, Wellington has outreturned its constant-weight clone by more than it has outreturned its quarterly clone on average. The difference, which we interpret as the gain from tactical asset allocation over the entire 12 year period is 1.23% age points per year. Over the last three years there was a loss from tactical asset allocation. We cannot explain why.

Figure 1. Net alphas for the Wellington Fund (%/year). Red minus black is gain from tactical asset allocation. Gain over 12 years is 1.23 % points per year.



2. Over the last 12 years (1999-2010 inclusive), Wellesley has outperformed its constant-weight clone by 0.78%/ year. Over the same period, it has outperformed its quarterly clone by only 0.27%/year on average: A 0.58 % age point difference. But here, unlike for Wellington, there is a gain from tactical asset allocation even over the last three years. The 12 year wedge between the two alphas is smaller than for Wellington. We think this is because Wellington holds more stocks on average and the gains from changing stock styles are bigger than from changing bond styles.

Figure 2. Net alphas for the Wellesley Fund (%/ year). Red minus black is gain from tactical asset allocation. Gain over 12 years is 0.51% age points per year.



3. We think the difference is tactical asset allocation: at each point in time the outperformance almost disappears, but over the long haul these two funds perform substantially better than their average constant-weight index clones predict.

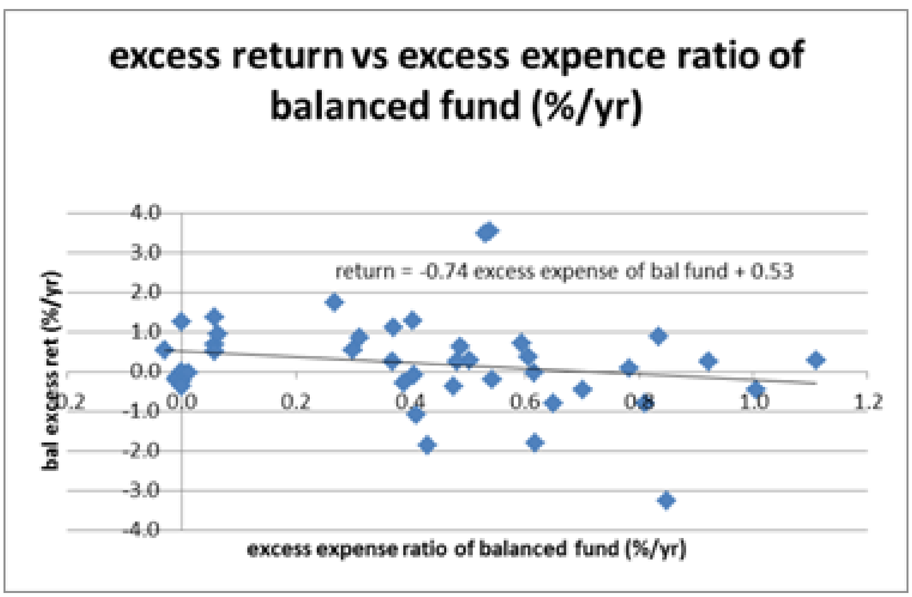
4. The four other Vanguard balanced funds underperformed. Here are the net alphas for the finds compared with their constant-weight index clones. Over 12 years: Vanguard Asset Allocation -0.77 %/year. Vanguard Balanced: -0.04 %/year. Vanguard Lifestrategy Moderate Growth Inv -0.26 %/year, Vanguard Star -0.37 %/year. The Vanguard average constant-weight net alpha for the six balanced funds is 0.14%/year, and the Vanguard average constant-weight gross alpha is 0.19% per year. These are close because the Vanguard balanced funds do not have expense ratios that are much higher than their index funds. Each gross alpha adds back in the excess of the expense ratio for the balanced fund minus that of its index clone. It indicates what excess performance of the balanced fund would have been if it had the same expense ratio as its index clone.

5. We examined an equally weighted portfolio of a sampling of the moderate allocation balanced funds of the biggest 20 companies. Our sample consisted of the asset class of each fund with no front end load and the lowest expense ratio. For Vanguard we always used the Investor class, since the Admiral class funds were born only recently. The calculations are described in Table 1. The portfolio outperformed its constant-weight clone by the average net alpha = 0.20%/ year. The average gross alpha is 0.61%/year. The big difference reflects the high average expense ratios of balanced funds. This looks bad for index funds. However, as Steve Dunn noted at the reunion, we have not corrected for survivorship bias. Fund families tend to kill badly performing funds. When we account for this, as we are intending to do, we expect lower outperformance.

6. When we divide up the period into half year chunks, and calculate a new clone benchmark every six months the balanced fund portfolio has a net alpha of -0.12% per year (not shown in the figures). Thus it underperforms the six month clone by an average of 0.12 %/year. This looks good for index funds. Balanced funds have higher expense ratios than Vanguard index clones by 0.41 %/year. Thus, gross of expenses: balanced funds outperformed their constant-weight clones by 0.20% + 0.41% = 0.61% per year. The constant-weight alpha is higher than the six-month average alpha by 0.20% minus negative 12% = 0.32%. Thus tactical asset allocation increases both the net and the gross alpha by 0.32 %/year, but the high expenses of the typical managed fund cuts the net whole period alpha to 0.20 %/year.

7. The regression shown in Figure 3 shows that Every 1% age point increase in the expense ratio of a balanced fund relative to that of its clone kicks down the net alpha by 0.74% age points. Bogle's EMH operates. (Expenses Matter Hypothesis). Remember for each fund we picked the no load class with the lowest expense ratio.

Figure 3. Excess return of balanced funds versus the excess expense ratio of the balanced fund.



8. We were surprised that the minus 0.74 figure wasn't between minus 1 and minus 2 as other studies had shown. So we estimated another equation. We discovered the balanced fund performs better relative to its index clone with the constant portfolio shares when its expenses are relatively low and when the constant-weight clone predicts the balanced

fund return badly. Bad prediction means the fund is changing style to take advantage of opportunity.

Bad prediction is measured by high mean square error of prediction and low correlation between balanced fund and clone.

Here is the equation:

Excess return of the balanced fund = -1.6*[excess expense ratio] + 1.4*[mean square error of prediction] -0.2* [correlation between fund and clone return] + a constant.

The p values of the coefficients from a one tailed test are 1.8%, 1.0% and 0.84%. The first p says the odds that luck alone would have given us such a big or bigger negative impact of the excess expense ratio on return is only 1.8%.

As Jack Bogle might say in seeing this result, “you get 1.6 times what you don’t pay for.” Fund families which rip off their clients through high expenses apparently rip them off in other ways as well. High expenses predict moral turpitude.

This equation also says: **Changing style has been beneficial**.

<u>Table 1</u>. The sample of balanced funds used, along with net alphas, gross alphas, the average stock share of the funds (calculated from the Sharpe style analysis) and the shares of the Various Vanguard index and near index funds in the clone.

Name. **α's are % points per year.** **Stock share and shares of Vanguard Investor class index and near index funds are in %.**	Net α %	Gross α %	stock share	500 Index	Emg Mkt Stk x	Euro Stk Ix	Extd Mkt Ix	Growth Idx	Hi-Yield Corp	Int-Tm Bnd Ix	Intl Explorer	Intl Growth	Intl Value	L-T Invst-Grd	Mid Cap Idx	Money Mkt	Sht-Tm Bond x	Smll Cp Grow x	Small Index	Tot Bnd Mkt x	Tot Intl Stock x	Value Index	Sum
AllianceBern Balancd Shares Adv	-0.21	0.34	58	0	0	0	0	6	22	20	0	0	0	0	6	0	0	0	0	0	0	47	100
American Century Balancd Inv	-0.45	0.25	59	30	0	0	2	12	0	1	0	0	0	0	3	7	0	1	0	33	0	9	100
American Century Strat Mod Allc	0.09	0.88	60	18	2	0	7	3	0	3	3	16	0	0	6	10	28	5	0	0	0	0	100
American Funds Amer Balancd A	1.27	1.67	60	0	0	0	0	0	7	2	0	0	6	0	0	0	30	0	0	0	0	49	100
American Fds Inc Fnd of Amer A	0.86	1.17	54	0	0	1	0	0	21	15	0	0	12	1	0	10	0	0	0	0	0	35	100
BlackRock Asset Allocation Inv A	-0.46	0.55	65	4	2	0	0	0	1	0	0	18	1	0	29	7	27	5	0	0	0	6	100
BlackRock Balanced Capitl Inv A	-1.81	-1.19	63	0	0	0	0	6	12	0	0	0	2	0	17	11	14	0	0	0	0	38	100
BlackRock Global Allocatn Instl	3.53	4.07	63	0	11	0	0	0	0	1	6	0	21	0	0	0	37	0	0	0	0	26	100
Columbia Asset Allocation Z	-0.79	0.02	63	0	0	0	0	31	8	0	0	0	1	5	3	11	0	0	0	13	7	19	100
Columbia Balanced Z	0.27	0.77	63	33	0	0	0	18	4	0	0	6	0	0	2	0	15	3	0	19	0	0	100
Columbia Liberty Z	-0.82	-0.17	64	0	0	0	0	28	1	0	0	0	0	0	2	5	0	4	0	30	9	20	100
Columbia LifeGoal Balcd Grow Z	0.54	0.51	59	1	0	4	0	10	10	0	0	15	0	0	7	0	10	10	2	21	0	9	100
DFA Global 60/40 I	-0.14	-0.15	64	22	0	0	4	0	1	0	8	0	0	0	0	9	23	0	0	2	17	0	100
Dodge & Cox Balanced	1.73	1.99	68	0	0	0	0	0	16	8	0	0	11	1	4	0	7	0	0	0	0	43	100
Fidelity Advisor Balanced I	-1.87	-1.44	61	0	4	0	0	27	14	12	0	0	6	0	7	0	13	0	0	0	0	17	100
Fidelity Asset Manager 50%	-0.37	0.10	55	30	0	0	0	13	19	3	4	3	0	4	3	0	18	4	0	0	0	0	100
Fidelity Balanced	0.67	0.73	64	0	3	0	0	10	11	16	0	0	8	0	16	8	0	0	0	0	0	28	100
Fidelity Puritan	0.24	0.61	58	0	0	0	0	6	15	6	0	0	8	0	5	13	8	0	0	0	0	38	100
Franklin Templtn Modrate Allc A	-0.09	0.32	54	0	5	1	37	1	0	0	5	5	0	0	0	21	7	0	0	18	0	0	100
GMO Global Blncd Asset Allctn III	1.26	na	56	0	14	0	1	0	0	0	2	0	14	0	3	12	32	0	0	0	0	13	100
Invesco Balanced Y	-0.02	0.59	65	0	0	0	0	0	0	0	0	0	3	9	0	10	16	0	0	0	0	61	100
Janus Aspen Balanced Instl	1.11	1.48	52	0	3	5	6	28	1	17	1	2	0	3	0	0	28	4	0	0	0	0	100
Janus Balanced T	0.70	1.29	50	0	3	6	7	26	0	17	1	1	0	2	0	0	31	3	0	0	0	0	100
JPMorgan Diversified Instl	-0.30	0.09	66	15	1	1	3	16	2	5	1	7	0	1	0	0	6	0	3	20	4	15	100
JPMorgan Investor Blncd Select	-0.19	-0.20	47	13	0	2	1	9	8	0	0	2	1	2	13	2	37	0	0	3	0	7	100
Legg Mason Lifestyle Allcn 50% A	-1.10	-0.68	46	0	0	0	0	10	29	0	0	5	1	6	10	0	19	1	0	0	0	19	100
Lord Abbett Balanced Strategy A	0.50	0.56	58	4	0	3	0	0	27	0	0	5	3	0	9	15	0	0	0	0	0	34	100
MFS Global Total Return I	0.89	1.73	50	0	0	36	0	0	0	26	0	0	0	0	0	0	24	0	0	0	0	3	100
MFS Total Return I	0.55	0.85	54	0	0	0	0	0	2	26	0	0	5	0	7	18	0	0	0	0	0	43	100
Oppenheimer Balanced A	-3.26	-2.41	60	0	4	0	0	11	36	3	0	0	0	0	20	0	0	4	0	0	0	22	100
Oppenheimer Global Allocation A	0.28	1.39	76	0	0	0	0	8	23	0	0	0	0	0	0	0	0	0	0	0	0	68	100
Oppenheimer Qust Opprtny Val Y	0.24	1.16	61	0	0	0	0	0	0	0	0	0	6	0	3	26	13	0	0	0	0	52	100
T. Rowe Price Balanced	0.25	0.73	60	0	0	3	0	19	13	13	0	2	5	0	4	0	13	0	0	0	3	24	100
T. Rowe Price Capital Appreciatn	3.48	4.01	58	0	0	0	0	0	28	12	0	0	7	0	8	0	2	0	0	0	0	33	100
T. Rowe Price Personal Strat Blcd	0.36	0.96	59	0	0	6	0	10	16	9	0	0	11	0	12	0	16	2	0	0	0	17	100
VALIC Company I Asset Allocation	0.64	1.13	59	39	0	2	0	8	0	0	0	0	0	8	0	5	22	1	0	5	1	7	100
Vanguard Asset Allocation Inv	-0.77	-0.60	60	26	0	6	0	17	0	10	0	1	0	4	0	0	0	2	0	4	0	27	100
Vanguard Balanced Index Inv	**-0.04**	**-0.03**	59	45	0	0	13	1	0	4	0	0	0	0	0	1	4	1	0	31	0	0	100
Vanguard LifeStrategy Md Gr Inv	**-0.26**	**-0.26**	65	35	1	5	1	6	0	6	2	1	0	0	0	0	0	3	3	29	1	6	100
Vanguard Star	**-0.37**	**-0.37**	55	30	0	0	0	13	19	3	4	3	0	4	3	0	18	4	0	0	0	0	100
Vanguard Wellesley Income Inv	**0.92**	**0.99**	32	0	0	0	0	0	0	43	0	0	1	10	0	4	12	0	0	0	0	31	100
Vanguard Wellington Inv	**1.37**	**1.43**	60	0	0	0	0	0	4	27	0	0	14	0	0	5	4	0	0	0	0	46	100
Vanguard Average	**0.14**	**0.19**	55	23	0	2	2	6	4	16	1	1	2	3	0	2	6	1	1	11	0	18	100
Average	0.20	0.61	59	8	1	2	2	8	9	7	1	2	3	1	5	5	13	1	0	5	1	22	100

References

Wellington is Vanguard's oldest mutual fund. Jack Bogle writes about it in his essay: Bogle, John. 2005. "Reflections on Wellington Fund's 75th Birthday." Bogle Financial Markets Research Center. http://www.vanguard.com/bogle_site/sp2004wellingtonbth.html. Now it is 82 years old. It is also the nation's oldest balanced mutual fund.

The method used in this paper is described in Edward Tower and Wei Zheng: "Ranking Mutual Fund Families: Minimum expenses and Maximum Loads as Markers for Moral Turpitude." *International Review of Economics.* 55:4. December 2008. Pp. 315-350. http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1265103

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Endnote

The calculations were done using Microsoft Excel Solver. To answer questions 1-3 we used daily return data, and to answer questions 4 and 5 we used monthly returns data. We write the daily return of the balanced fund as the sum of the daily returns of the index funds plus a constant term and a random error. So

Return of balanced fund = $a + \sum \beta_i$*[Return of the I'th index fund] + μ,

where a is a constant and the β's are constants and μ is a random error term with mean zero. The β's are all positive and sum to 1. We ask solver to tell us which set of β's minimizes the standard deviation of μ subject to the constraints on the β's and an additional constraint to be explained below. If, for example, the β for Vanguard's value index fund is 0.6 and the β for Vanguard's total bond market fund is 0.4, and all the other β's are zero, we say the balanced fund is cloned by a basket rebalanced every day which consists of 60% Vanguard's Value index and 40% Vanguard's total bond market index fund. This is a method that was developed by Nobel laureate William F. Sharpe. He calls it "style analysis" and describes it in Sharpe (1992). It is also described in Bodie, Kane and Marcus (2008, pp. 875-879). Sharpe writes "style analysis provides measures that reflect how returns act, rather than a simplistic concept of what the portfolios include." His paper is on line and easy to read.

Our additional constraint is that the standard deviation of return of the balanced fund equal that of its clone portfolio. This increases the likelihood that the clone fund will have the same stock/bond mix as the balanced fund. It also means that we are comparing each balanced fund with an index clone that has the same risk.

To find the geometric average returns of each balanced fund and its clone, we convert the daily returns to continuously compounded rates of return, where the continuously compounded rate of return equals ln(1+ the actual return). Then we average the daily returns. The nice thing about geometric average returns is that the geometric average return over a long period is the average of the geometric average returns over the shorter periods.

Some of the results appear inconsistent. That is because we used daily return data in answering questions 1-3 and monthly data in answering 4-6.

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Thanks to Mel Lindauer for encouraging us to work on this project and for suggesting the title too. Rick Ferri clarified our terminology by pointing out that tactical asset allocation is changing asset allocation to take advantage of opportunities, while strategic asset allocation is keeping one's portfolio shares constant. David Grabiner noted at the presentation that our gross alphas did not make sense. He was right. We had copied the gross alphas from the spreadsheet incorrectly. We corrected the error in this draft.