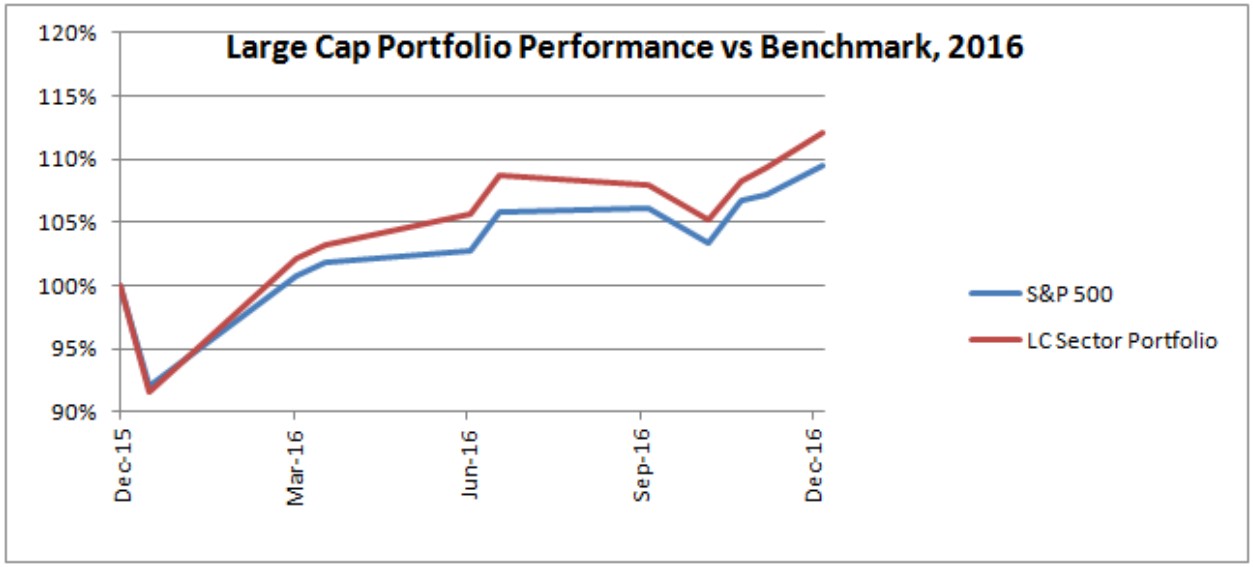
The FRED Report

The FRED Report Portfolio Report Card – Through 2016

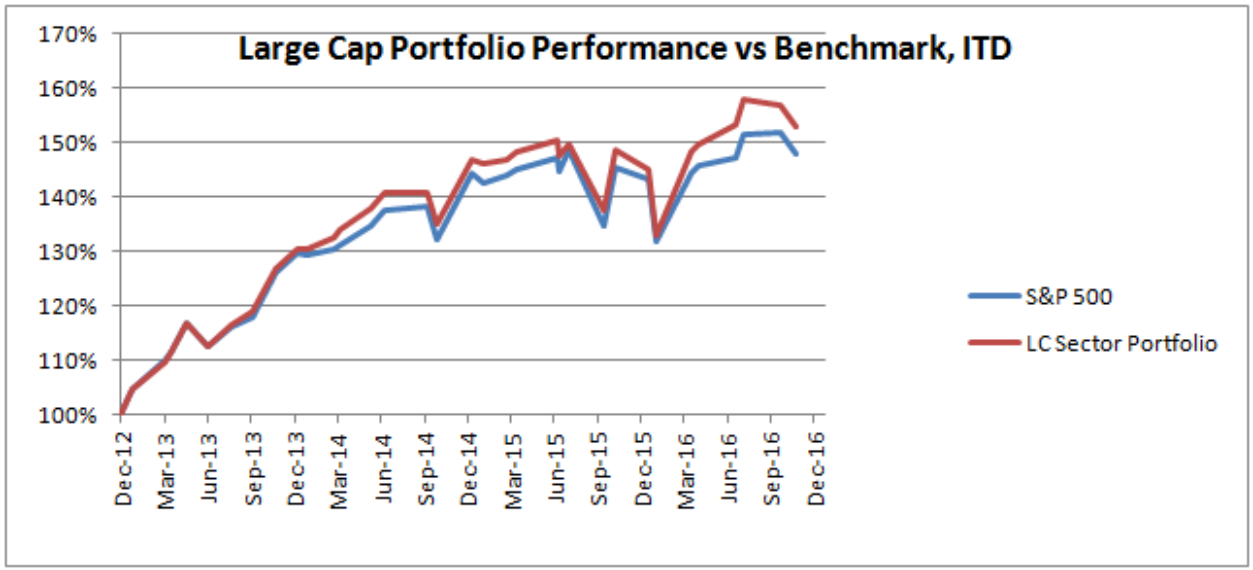
Observations, Full-Year 2016 and Inception to Date

- **Large Cap Sector Portfolio**
  - The Large Cap Sector portfolio was up 12%, and beat the benchmark S&P500 by 2.5% in 2016. Portfolio performance beat the benchmark in 3 of the 4 quarters.
  - A "Best Sector Strategy" each quarter would have over weighted the two best performing sectors, and underweighted the two worst performing sectors, and returned 20.6%. The FRED Report's sector-picking performance was not as good in 2016 as in years past. Overall, the FRED Report allocations had fewer over weights/ under weights on the "right" side of such a "Best Sector Strategy" (4) as on the "wrong" side (5). Oddly enough, the portfolio's worse quarter vs. the benchmark was Q3 (+2.2% vs. +3.3% for the S&P), when the FRED Report allocations were the most accurate (overweight Industrials and underweight Telecom, with no picks on the "wrong" side of a "Best Sector Strategy").
  - Several sectors with heavy weightings in the benchmark were relatively poor performers during Q1 and Q2 (XLF and XLV in Q1, IYW and XLY in Q2), and XLV was the worst-performing sector for the full year. In addition, sectors with low weightings in the benchmark (telecom, utilities, materials, energy) had very good years. This contributed to a slight decrease in relative performance by the benchmark vs the more equally weighted Large Cap Portfolio, and may be one reason portfolio performance has beaten the benchmark despite a less-than-stellar sector-picking performance.
  - Several sectors exhibited somewhat erratic relative strength performance during 2016. Technology, Telecom, Financials, and Utilities all exhibited at least one "top-two" and at least one "bottom-two" quarterly ranking during the year. Telecom was actually either a "top-two" or "bottom-two" sector in all four quarters.
  - The Real Estate sector ETF (XLRE) gained 1.4% since being added to the Large Cap Portfolio on 11/1/16.
  - Inception to date, the Large Cap Portfolio is up 57% (12.9% annualized), vs. 52% (11.9% annualized) for the S&P500.



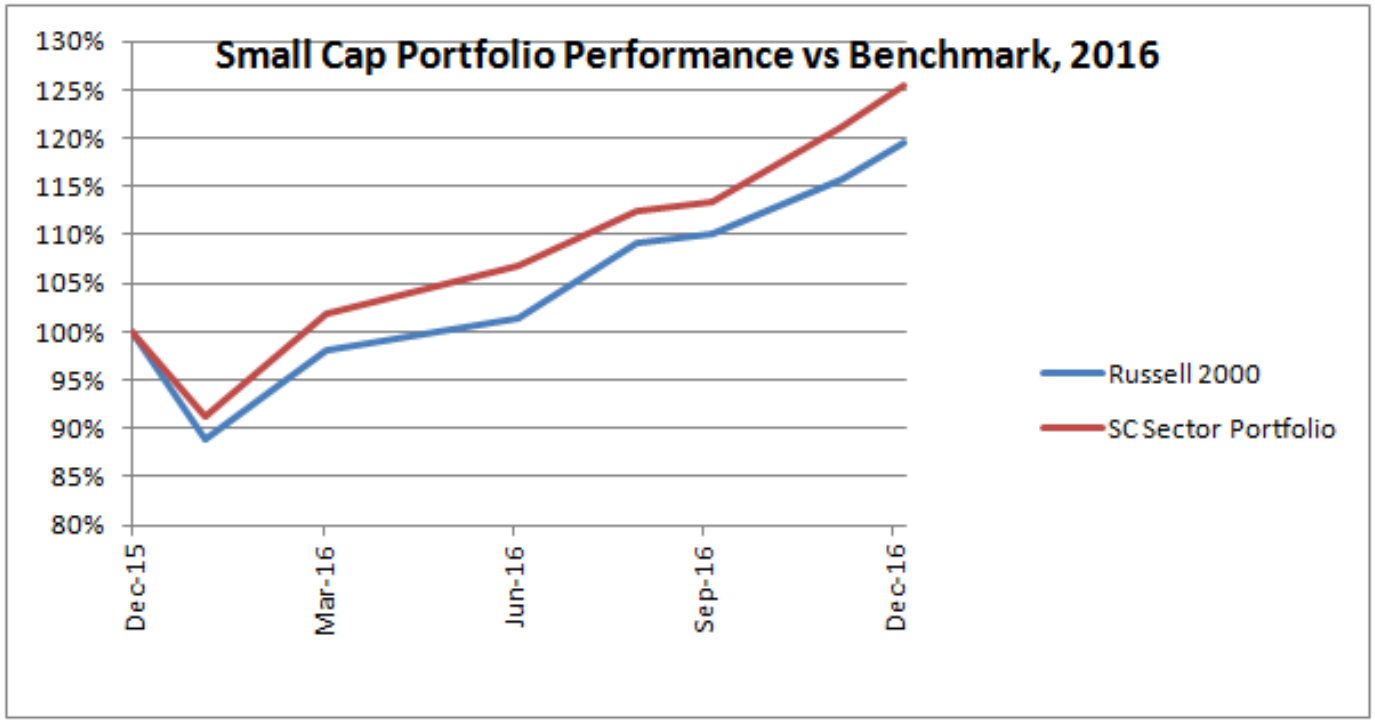
Performance by Quarter, 2016

	Q1	Q2	Q3	Q4
Large Cap Portfolio	2.1%	3.4%	2.2%	3.8%
Benchmark ($SPX)	0.8%	1.9%	3.3%	3.3%



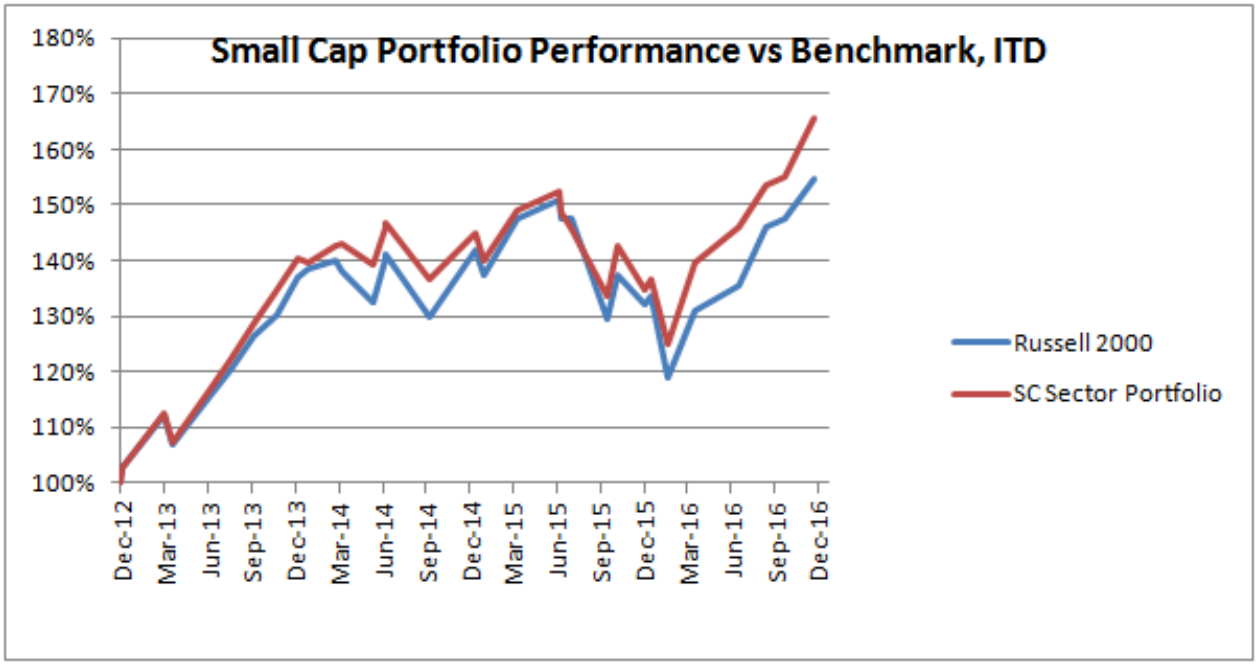
Large Cap						
Performance By Year	2013	2014	2015	2016	ITD	annual
LC sector portfolio	30.5%	12.4%	-1.0%	12.0%	62.7%	12.9%
Benchmark ($SPX)	29.6%	11.4%	-0.7%	9.5%	57.0%	11.9%

- **Small Cap Sector Portfolio**
  - The Small Cap Sector portfolio had an outstanding year, up 25.5%, beating the benchmark Russell 2000 by 6%. It was the best performing of all the FRED Report portfolios in 2016. Portfolio performance beat the benchmark in 3 of the 4 quarters.
  - However, even though the small cap portfolio outperformed the benchmark, sector-picking performance was only mediocre. A "Best Sector Strategy" would have returned 37%. Overall, the FRED Report allocations had 4 over weights/under weights on the "right" side of a "Best Sector Strategy" and 5 on the "wrong" side.
  - Utilities were unusually volatile. They showed the highest percentage gain of any sector in both Q1 and Q2, and the largest percentage loss of any sector in Q3.
  - Each of the Small Cap sector ETFs performed better than its corresponding Large Cap sector ETFs, with outperformance ranging from 4% for Healthcare to 37% for Materials. Performance of Technology stocks showed the most disparity of performance vs market capitalization. In addition to beating IYW by 20%, small cap technology (PSCT) was one of the top three performing small cap sectors, whereas IYW was the 4th worse performing large cap sector.
  - Inception to date, the Small Cap Portfolio is up 72% (14.5% annualized), vs. 60% (12.4% annualized) for the Russell 2000.



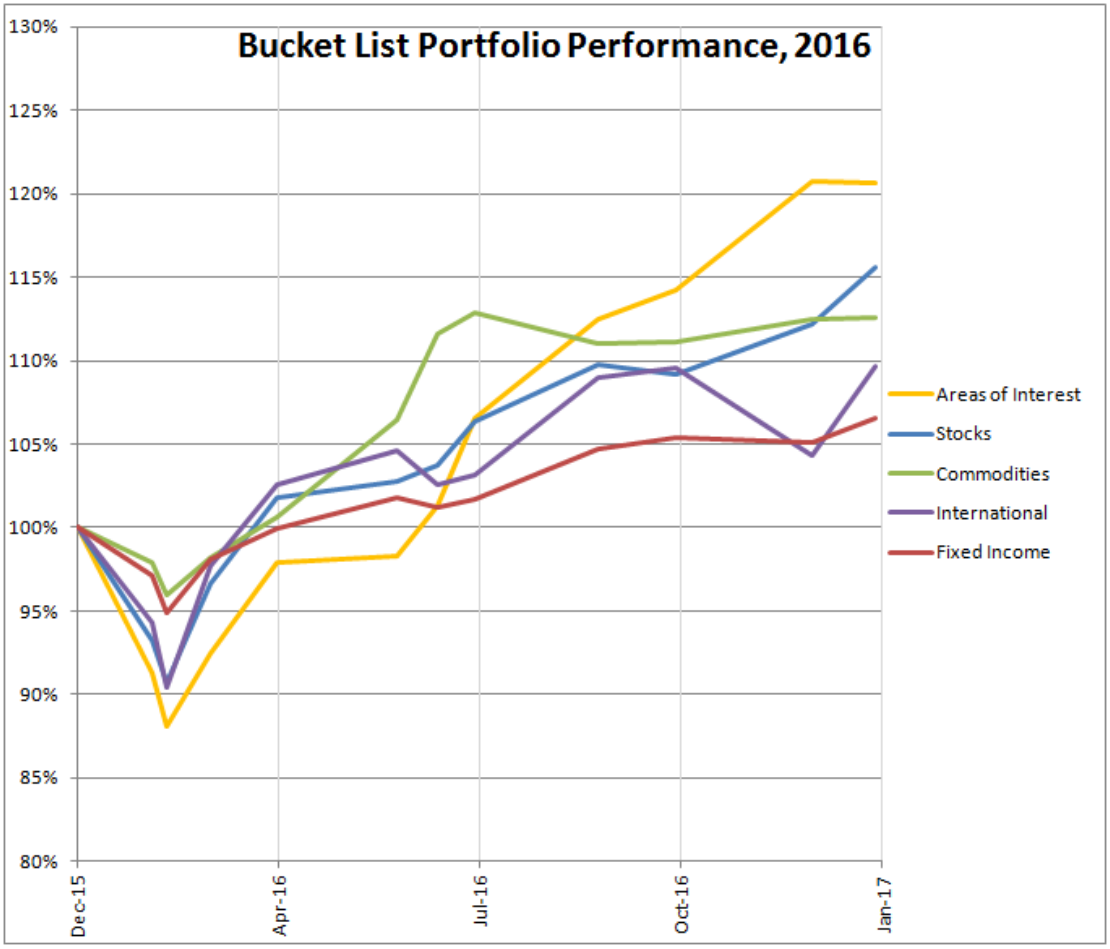
Performance by Quarter, 2016

	Q1	Q2	Q3	Q4
Small Cap Portfolio	2.0%	4.7%	6.3%	10.6%
Benchmark ($RUT)	-1.9%	3.4%	8.7%	8.4%



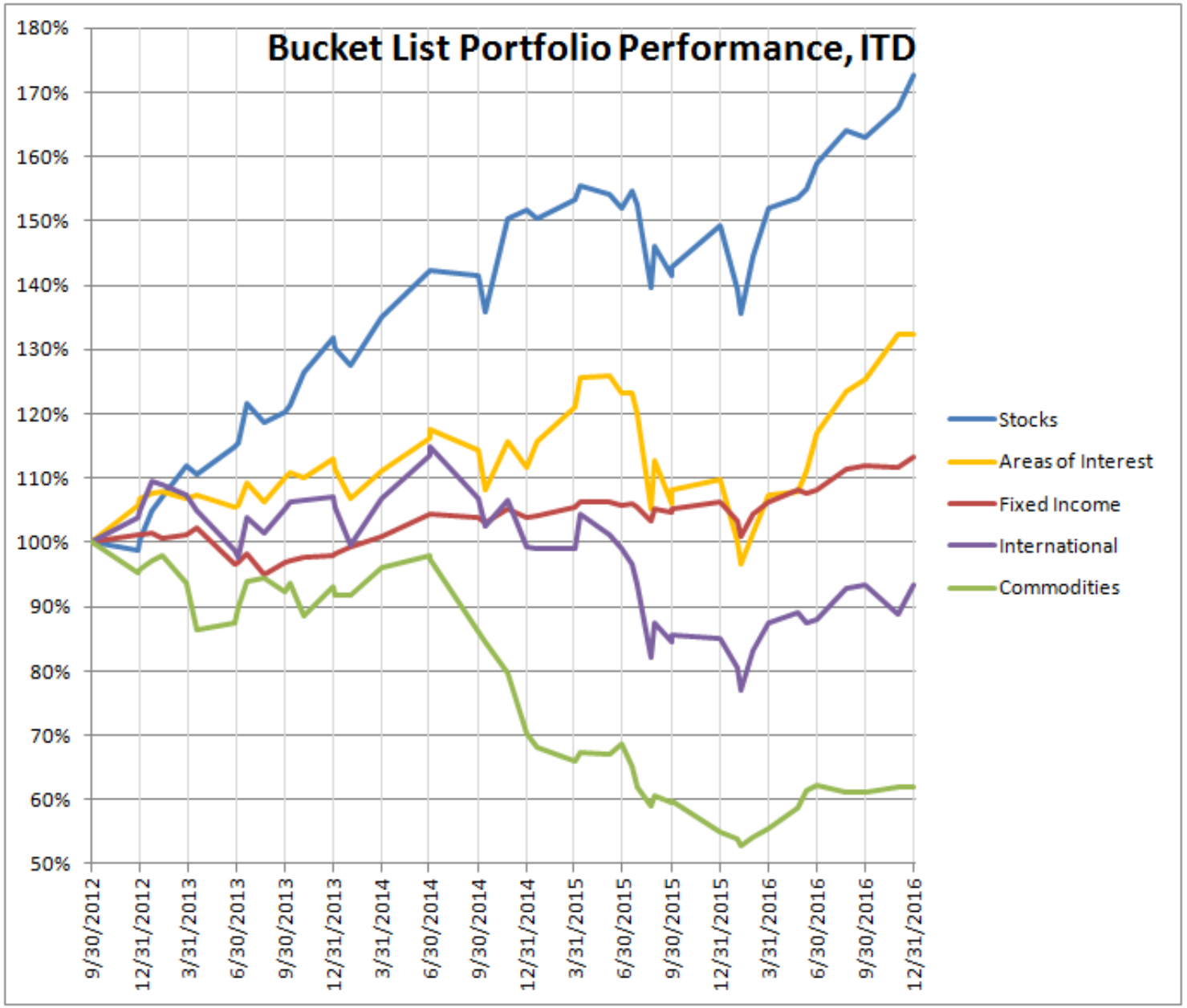
Small Cap						
Performance By Year	2013	2014	2015	2016	ITD	annual
SC sector portfolio	40.3%	3.2%	-5.5%	25.5%	71.7%	14.5%
Benchmark ($RUT)	37.0%	3.5%	-5.7%	19.5%	59.8%	12.4%

- **Bucket List Portfolios**
  - The Areas of Interest Portfolio showed the best gains in the Bucket List. It gained 20.9% for the year, largely due to 1) a full-year hold of PXH (fundamentally-weighted Emerging Markets ETF), which gained 33%, 2) a 77% gain in KOL (coal stock ETF) from February through August, and 3) a 25% gain in SLX (steel stock ETF) from August through year-end.
  - The Bucket List Stock Portfolio was up 15.6%, and beat its benchmark by 6.1%. It benefitted from a strong 4th quarter in XSLV (Small Cap Low Volatility), up 13%, which was added in August.
  - The Commodities Portfolio was up 12.6% and beat its benchmark by 3.4% in 2016. This year's gain reversed 3 straight years of losses. The very heavy weighting in DBC, which was up 19% in 2016, helped portfolio performance.
  - The International Portfolio was up 9.7%, vs. a 5% gain for the VEU benchmark and 16% gain for the EEM benchmark. Canadian stocks (EWC) were the best performer, up 24% for the year.
  - The Fixed Income Portfolio was up 6.5% and beat its VBMFX benchmark by 4% in 2016. It was the worst-performing asset class in the Bucket List for 2016.
  - Inception-to-date, the stock portfolio's performance leads all asset classes (+73%), followed by Areas of Interest (+32%), Fixed Income (+13%), International (-7%), and Commodities (-38%). Only the International Portfolio has failed to beat its benchmark.



Bucket List Performance in 2016, by quarter

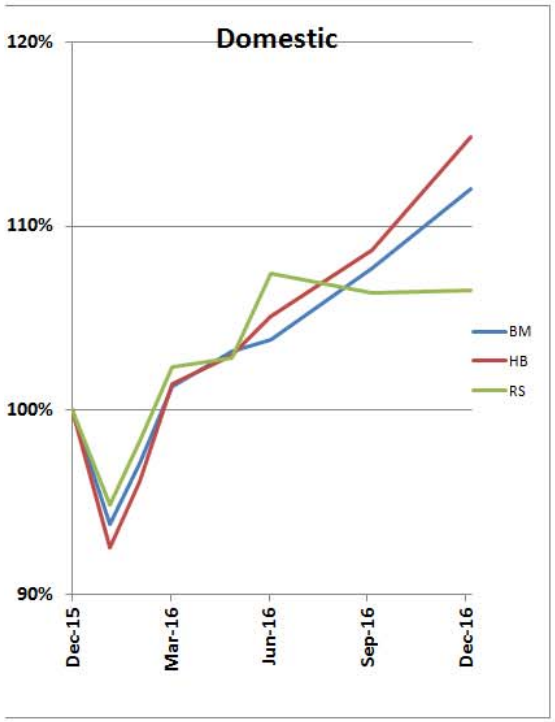
	Q1	Q2	Q3	Q4
Stock	1.8%	4.5%	2.6%	5.9%
Fixed Income	0.0%	1.7%	3.6%	1.1%
Commodity	0.6%	12.2%	-1.6%	1.3%
International	2.6%	0.6%	6.2%	0.1%
Areas of Interest	-2.1%	8.8%	7.1%	5.6%

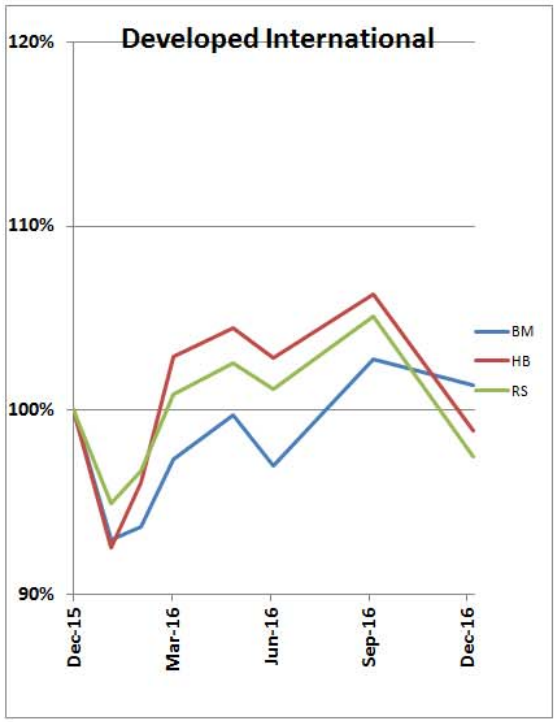

Bucket List Portfolio Performance, ITD
180%
170%
160%
150%
140%
130%
120%
110%
100%
90%
80%
70%
60%
50%
9/30/2012
12/31/2012
3/31/2013
6/30/2013
9/30/2013
12/31/2013
3/31/2014
6/30/2014
9/30/2014
12/31/2014
3/31/2015
6/30/2015
9/30/2015
12/31/2015
3/31/2016
6/30/2016
9/30/2016
12/31/2016
Stocks
Areas of Interest
Fixed Income
International
Commodities

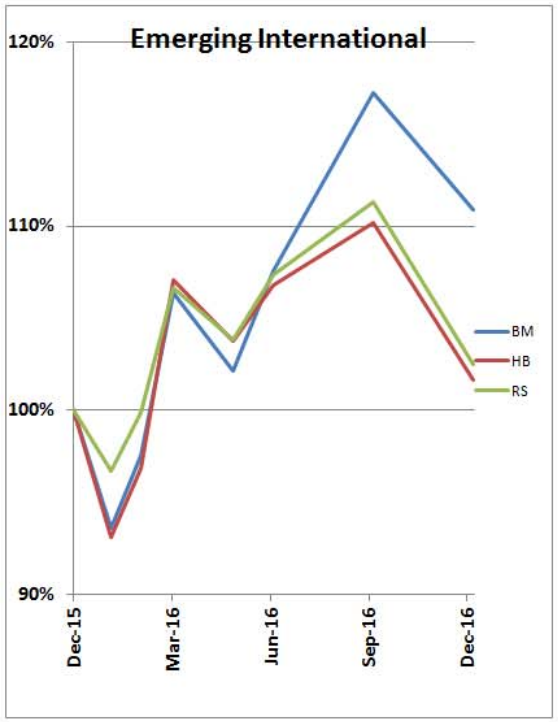
		Stocks	Fixed Income	Commodities	International (VXUS BM only)	Areas of Interest
2013	Portfolio	33.4%	-3.3%	-2.4%	3.0%	6.8%
	Benchmark	31.8%	-2.2%	-5.0%	16.1%	N/A
2014	Portfolio	15.1%	6.2%	-24.7%	-7.3%	-1.3%
	Benchmark	11.4%	5.8%	-17.9%	-4.5%	N/A
2015	Portfolio	-1.4%	2.3%	-21.5%	-14.2%	-1.8%
	Benchmark	-0.7%	0.3%	-23.3%	-4.8%	N/A
2016	Portfolio	15.6%	6.5%	12.6%	9.7%	20.6%
	Benchmark	9.5%	2.5%	9.2%	4.9%	N/A
ITD	**Portfolio, ITD**	**72.7%**	**13.2%**	**-38.0%**	**-6.6%**	**32.3%**
	Benchmark, ITD	**55.0%**	**6.3%**	**-38.2%**	**16.4%**	**N/A**

- **Timing Models – overall**
  - Very few changes were made in the timing model portfolios during 2016. All the portfolios started and ended the year with a Neutral stance.
  - The cautious approach taken by the Timing Model Portfolios since 2013 continued in 2016. In those 4 years, NONE of the timing models has ever adopted a bullish or full-bullish stance. Except for a short bearish stance from April through October/November 2013 in the two aggressive International Portfolios, all the Timing Model Portfolios have been either Neutral or Defensive since their inception.
  - For the first time since inception, all of the Relative Strength components of the Less Aggressive portfolios (PDP, PIZ, and PIE) lagged their respective benchmarks for the full year. When the Less Aggressive timing model portfolios were designed, it was assumed that "in an ideal world" the relative strength components would rally more than the benchmark, but not as much as the high beta components in an up market; conversely the relative strength components would decline less than the benchmarks and the high beta components in down markets. Using the relative strength ETF was, by design, a less aggressive strategy than using the high-beta ETFs. The performance of the three Relative Strength ETFs has not consistently met these expectations, and in 2016, these ETFs uniformly failed to meet expectations, lagging their benchmarks by 9-11%. As a consequence, all the Less Aggressive portfolios did poorly and lagged their benchmarks by 4-7%.
  - The Domestic – Aggressive Portfolio was the only portfolio to beat its benchmark, and it did so by 2.8%. The other portfolios underperformed their benchmarks by 2.5 to 9.2%.
- **Timing Models, Domestic**
  - Both domestic portfolios were Neutral most of the year, except for a Defensive stance from 3/1/16 – 5/25/16.
  - Both high-beta and relative strength portfolios gained; high-beta beat the benchmark (SPY) by 2.8%, but relative strength lagged the benchmark by 5.5%.
  - The Aggressive portfolio (high beta) outperformed the Less Aggressive portfolio (relative strength).
  - The Low-volatility component (SPLV) "hit a wall" during Q3 and Q4, after having outperformed the benchmark for the previous 3 quarters, and posted a decline in the second half.
  - The relative-strength component (PDP) lagged the benchmark in the first half of the year, then went flat in the second half. It has underperformed the benchmark in each of the last four years.
  - The high-beta (SPHB) component faltered early in the year, but then got back on track with a vengeance and ended the year up 26%, its best year since 2013.
- **Timing Models, Developed International**
  - The Developed International Portfolios were mainly Neutral in 2016, except for the period 2/3/16 – 5/25/16, when the high-momentum portfolio had a Defensive stance.
  - Both high-momentum and relative strength portfolios lost money in 2016 (1.1% and 2.5%, respectively), and both underperformed the benchmark (EFA), which showed its first yearly gain since 2013, up 1.5%.
  - The Aggressive portfolio (high momentum) underperformed the Less Aggressive portfolio (relative strength).
  - Low-volatility (IDLV) beat the benchmark by 2%, but the high-momentum (IDMO) component was down 1.5% for the year, lagging the benchmark by 2.9%.
  - The relative-strength component (PIZ) lagged the benchmark by a considerable amount (9.2%).

- **Timing Models, Emerging International**
  - The Emerging International Portfolios were mainly Neutral in 2016, except for the period 2/3/16 – 5/25/16, when the high-momentum portfolio had a Defensive stance.
  - For the first time since inception, the emerging markets benchmark (EEM) showed an annual gain (10.9%); however, both high-momentum and relative strength portfolios lagged considerably, up only 1.7% and 2.5%, respectively.
  - The Less Aggressive portfolio (relative strength) slightly outperformed the Aggressive portfolio (high momentum)
  - Low-volatility (EELV) and high-momentum (EEMO) components lagged benchmark performance significantly (by about 6% and 8%, respectively).
  - After slightly outperforming the benchmark for the last three down years, the relative-strength component (PIE) lagged benchmark performance by a lot in 2016 - almost 11%. It closed almost exactly flat for the year, adjusted for distributions.







		Domestic, High-Beta (Aggressive: SPLV/SPHB; BM=SPY)	**Domestic, Relative Strength** (Less Aggressive: SPLV/PDP; BM=SPY)	**Developed International, High-Beta** (Aggressive: IDLV/IDMO; BM=EFA)	**Developed International, Relative Strength** (Less Aggressive: IDLV/PIZ; BM=EFA)	**Emerging International, High-Beta** (Aggressive: EELV/EEMO; BM=EEM)	**Emerging International, Relative Strength** (Less Aggressive: EELV/PIE; BM=EEM)
2013	Portfolio	21.7%	25.1%	9.9%	21.7%	-6.1%	0.1%
	Benchmark	32.3%	32.3%	21.4%	21.4%	-3.6%	-3.6%
	LV Component	23.1%	23.1%	15.1%	15.1%	-1.8%	-1.8%
	HB/RS Component	40.7%	31.7%	19.8%	35.5%	-12.7%	-1.1%
2014	Portfolio	14.1%	14.2%	-1.0%	-1.3%	-2.5%	-3.9%
	Benchmark	13.5%	13.5%	-6.2%	-6.2%	-3.9%	-3.9%
	LV Component	17.3%	17.3%	1.2%	1.2%	-4.9%	-4.9%
	HB/RS Component	12.7%	12.2%	-7.3%	-8.0%	5.3%	-2.8%
2015	Portfolio	-4.7%	1.2%	-9.2%	-2.8%	-24.6%	-16.4%
	Benchmark	1.2%	1.2%	-1.0%	-1.0%	-16.2%	-16.2%
	LV Component	4.0%	4.0%	-4.0%	-4.0%	-18.8%	-18.8%
	HB/RS Component	-12.9%	1.1%	-11.8%	-0.3%	-30.6%	-14.2%
2016	**Portfolio**	**14.8%**	**6.5%**	**-1.1%**	**-2.5%**	**1.7%**	**2.5%**
	Benchmark	**12.0%**	**12.0%**	**1.4%**	**1.4%**	**10.9%**	**10.9%**
	LV Component	**10.1%**	**10.1%**	**3.4%**	**3.4%**	**5.3%**	**5.3%**
	HB/RS Component	**26.2%**	**2.3%**	**-1.5%**	**-7.8%**	**3.1%**	**0.0%**
ITD	Portfolio	53.1%	53.6%	1.3%	15.6%	-24.7%	-12.3%
	Benchmark	69.1%	69.1%	23.0%	23.0%	-8.0%	-8.0%
	LV Component	63.7%	63.7%	16.2%	16.2%	-15.3%	-15.3%
	HB/RS Component	85.3%	55.8%	9.3%	20.6%	-27.2%	-11.6%

Timing Model Portfolios Are Being Discontinued

At The FRED Report, we have decided not to continue maintaining the Timing Model Portfolios. We suspect that few of our subscribers are using these models anyway; however, the reasons for eliminating the portfolios are more involved than that.

The portfolios were designed to give aggressive investors a tactical sleeve to deploy for market timing, that would be able to adjust risk to appropriate levels based on the technical condition of the market, while remaining fully invested at all times. The idea was to use "intelligent indexing" ETFs, and a weighting strategy between the Powershares® Low Volatility (LV) ETFs and two other more aggressive choices (high-beta (HB) ETFs and Relative Strength (RS) ETFs) so that advisors could have various levels of risk. When the Timing Models were created, we stated, "Over time, these should provide the levels of risk we assume, but of course there can be no guarantees that this will in fact occur and that these models will perform as intended."

The design basis for the Timing Model Portfolios was that the LV ETF would track the benchmark, but decline less in a down market, and rise less in an up market. Conversely, the HB and RS ETFs would rise more than the benchmark in an up market, but they would also fall more in a declining market. Between the HB and RS units, the high-beta ETFs were seen as having a higher risk (hence more potential upside and downside) than the relative strength ETFs.

It has become apparent that the LV, HB, and RS ETFs have not consistently performed as we expected when we designed the portfolios. Here are some examples:

- The relative strength components of the portfolios (PDP, PIZ, PIE) have consistently NOT performed as we expected they would over the last 4 years, at least on an annual basis; of 12 opportunities (3 ETFs x 4 years), only twice did a RS ETF beat a benchmark in an up year or decline more in a down year. In the up market of 2016, all three RS ETFs lagged their respective benchmarks by 9-11%.
- High-beta components (SPHB, IDMO, EEMO) have only performed as we expected half the time on a full-year basis.
- Only the Low-Volatility ETFs performed as we expected more than half the time (58%).
- The two higher-risk ETFs, High-Beta and Relative Strength, have performed as we expected relative to each other about 2/3 of the time (i.e., HB beats RS in an up market and RS beats HB in a down market).
- Overall then, on an annual basis, the LV, HB, and RS components have only performed as we expected 47% of the time.

This is by no means a suggestion that the ETFs we have been using are not performing the way THEY were designed. But because more than half the time, the ETFs do not perform the way WE EXPECTED when we designed the portfolios, portfolio returns are essentially random, and do not have much correlation to the level of risk (i.e., bullish-bearish stance) that we advocate. It is hard enough to outperform the market by figuring out when it's going to go up or down; when you also have a situation where the portfolio components only "act right" less than half the time during the expected advance/decline, it makes it almost impossible. That is why we are retiring the Timing Model Portfolios.

For example, this year emerging markets had a decent up year, but LV outperformed HB, and both lagged the benchmark by 6-8%. Let's look at the Emerging Markets Aggressive Portfolio specifically, and see what one would have had to do to have "perfect timing," and how much that perfect timing would have beaten the performance of EEM.

a. In Q1, EEM was up 6%, but the Best Timing Strategy (BTS) was to be bearish, because EELV gained 11%. The "system" – LV gaining less than the BM and HB gaining more – did not work, but taking a bearish stance when the market was bullish did beat the benchmark.
b. In Q2, EEM was flat, up 1%. The BTS was full bullish, and that beat the benchmark. And to an extent, the system worked (though EELV was down on the quarter).
c. In Q3, EEM was up 9%. The BTS was actually full bullish, and that did reflect market direction, but EEMO underperformed EEM by 5%, so again, the system on which the portfolio design was based did not work. Of course, it's actually hard to say WHAT the model performance would have been, because EEMO didn't even trade for almost two months, from 9/9 through 11/4!
d. Q4 was like Q3 in reverse. EEM was down 5%. The BTS was a bearish stance, but both EELV and EEMO underperformed EEM. So even being right on a bearish strategy did not beat the benchmark.
e. In the end, a Best Timing Strategy was aligned with the market's direction in 3 of the 4 quarters. But the BTS beat the market in only 2 quarters. And the LV/HB system worked as designed in only 1 quarter. And if you could have foreseen all of these moves and played them each quarter for the highest return, you would have beaten EEM's performance BY A HALF A PERCENT (11.4 vs. 10.9% return for the year). It hardly seems worth it.

We believe it makes more sense for us to concentrate on the Large and Small Cap Portfolios, and the Bucket List Portfolios in the future, and drop the Timing Models altogether.

	EELV	EEMO	EEM	Mkt direct.	Best strategy	system "worked"	BTS beat
Q1	11.1%	5.9%	6.4%	up	bearish	no	yes
Q2	-1.2%	3.1%	1.1%	flat	full bullish	yes	yes
Q3	2.6%	4.0%	9.0%	up big	full bullish	no	no
Q4	-6.5%	-9.2%	-5.4%	down	bearish	no	no
Full yr	5.3%	3.1%	10.9%				