American Radio Relay League

Treasurer's Report
Rick Niswander, K7GM
For the six months ending June 30, 2016

Total returns (price appreciation plus dividends) for domestic stocks rose a modest 3.62% for the six months ending June 30, 2016 with the second quarter providing most of that increase.

That modest increase masked a significant intra-quarter convulsion in each quarter. In the first quarter, the US market increased just shy of 1%, however, in the first part of the quarter, stocks were down significantly with the S&P 500 recording a loss of 10.5% through February 11. From that point, the S&P and other US markets made up that loss plus a little bit. That was the most severe intra-quarter drop and recovery in well over 30 years.

In the second quarter, the market was somewhat stable until June 23 when Britain voted to leave the EU, much to the surprise of most everyone in the finance world. The pound fell from $1.50 to $1.35 in a day (a huge swing in that market), to a level not seen since 1985. European stock markets tumbled with the FTSE 100 (a UK index similar to the DJIA) falling over 5%, and the STOXX 600 (a European DJIA-like index) falling almost 11%. In the US, over two trading days (Friday and Monday), the Dow Jones and the S&P500 both dropped 5%. These drops pushed markets into negative territory for the quarter. Then, people took a deep breath, realized that the world was not coming to an end, and pushed domestic market prices back up in the last few days of the quarter to end around where they were prior to the Brexit vote.

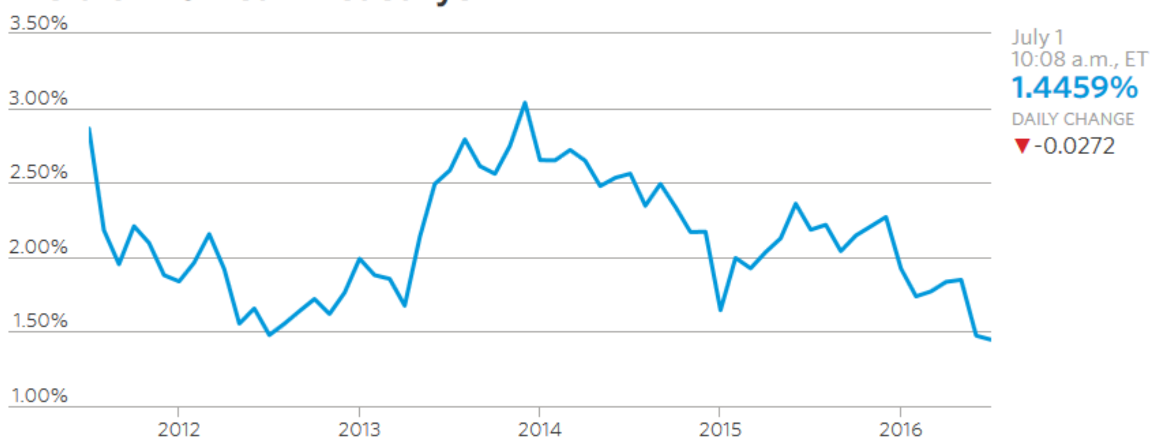
The two market convulsions can be seen on the chart below which shows the DJIA for the first half of 2016. Overall, the DJIA increased by about 500 points in the first six months. The first quarter was a downward ride until February 11 when it turned around through early April. The index then traded in about a 500 point band until the sharp Brexit gyrations at the right side of the chart.

Internationally, stock markets recorded a small loss in both quarters in part because of the continued strength of the dollar and in part because the post-Brexit drop was not fully recovered by the end of the second quarter. Emerging markets did quite a bit better than developed markets for the first half and post-Brexit.

Net earnings of S&P 500 companies (as reported under Generally Accepted Accounting Principles) fell 12.7% in 2015 according to an analysis by the Wall Street Journal. While much of the drop was driven by the profit collapse in the energy sector, the overall reduction was the worst since 2008. That drop continues in 2016 with the first quarter (actual) and second quarter (expected) recording lower earnings for S&P 500 companies, making it five straight quarterly drops. While the relationship between stock prices and corporate earnings can sometimes get out of whack, in the long run, changes in stock prices are positively related to changes in earnings. The steady erosion of corporate earnings cannot be a good sign for a market that is already long in the tooth. Some suggest that the worst is behind us and that earnings will grow in the last half of the year. If so, that will clearly be beneficial.

Bonds with 1-5 year maturities (the kind we buy) were up 2.55% for the first half of 2016 with a 1.58% increase in the first quarter and 0.96% in the second. A six month bond return of 2.55% is nothing to sneeze at – that's 5.1% for a year. But since 5-year AA-rated bonds only yield about 1.7% today, that means the rest of that return can only come from interest rates that continue to drift downward (recall that falling rates means increasing prices).

That's exactly what happened. Early in the year, we were able to buy 5-year A- and AA-rated corporate bonds that yielded 2.5%-2.8%. By the end of June yields were about 1% lower. The chart below shows the yield on 10-year Treasurys for the last five years. Yields have been sliding since the end of 2013 and have dropped from about 2.0% in January 2016 to less than 1.5% today. In fact, on July 1, the 10-year Treasury yield fell to 1.41%, an all-time low on an intra-day basis.



The danger of dropping rates is three-fold. One is the risk that rates continue to drop. You might think that zero is the bottom, but it is not. An estimated $11 trillion (not misspelled) of international government debt is traded at negative interest rates – the holder of the debt does not receive interest income, the bond holder effectively PAYS interest payments. In fact, ALL of the government debt of

Switzerland trades at negative rates including their 40-year maturities. Just think about that, investors are willing to PAY to park their money in Swiss bonds for the next 40 years.

The second risk is a reduced ability to combat a future recession. One of the historical tools used by central banks is to reduce interest rates to jump start an economy. If rates are already near zero, the ability to reduce rates is constrained.

And the third risk is the real or paper losses that will be incurred when rates rise and prices fall. We have had a long ride – since 1982 actually – of falling rates and increasing bond prices. At some point that is highly likely to reverse. Since we hold our bonds to maturity, it does not matter much to us, but not every investor will be in that position. It could be ugly, especially with long maturity bonds.

ARRL Portfolio

In the first quarter, our portfolio recorded a total return (price changes plus interest and dividends) of $396,174 or a 1.82% increase. The portfolio benchmark (45% US stocks, 5% international stocks, 45% bonds, 5% money market) rose by 1.13%.

In the second quarter, we had a total return of $529,807, or 2.37%. The portfolio benchmark increased by 1.60%.

Thus, we outperformed the benchmark by 0.69% in the first quarter, 0.77% in the second, and 1.47% in the first six months. For the most part, we beat the benchmark because our stock portfolio has a bit more emphasis on value stocks and that category outperformed in the first half. As noted in the chart below, value stocks increased 7.97% in the first half of 2016 while growth stocks decreased by 0.98%. In effect, we had more of the equity pie that went up and less of the piece that went down.

		Value	Core	Growth
	US Market 3.71%	7.97%	4.58%	-0.98%
Large Cap	3.17%	7.95%	4.11%	-1.94%
Mid Cap	5.34%	8.39%	5.34%	2.34%
Small Cap	4.80%	7.20%	6.38%	0.89%

Data as of 06-30-16

Another less significant contributor to portfolio outperformance relative to the benchmark was that we increased our stock exposure during the first quarter, adding about $400K to stocks in mid-February, right around the low point for the quarter. That increment benefited from the subsequent recovery.

When comparing benchmark return to actual return, variability from quarter-to-quarter or year-to-year should be expected. Comparisons should be made with caution over three-to-five year time horizon. Further, comparison indexes do not include any transaction/holding costs (trading commissions and annual fees). While our transaction/holding costs are low, they are not zero.

The following chart illustrates the percentage change in various market and portfolio total return indicators for the first and second quarters of 2016 and the first half of 2016.

	Q1 2016		Q2 2016		First Half 2016
Total Return Indices:					
US stock – Russell 3000 (broad market)	0.97%		2.63%		3.62%
Foreign stock – FTSE All World ex-US	(0.36%)		(0.35%)		(0.71%)
Bonds – Barclays US Agg 1-5yr Bond	1.58%		0.96%		2.555
Vanguard Money Market	0.01%		0.01%		0.02%
Portfolio Benchmark (total return)	1.13%		1.60%		2.74%
Actual Portfolio Return (total return)	1.82%		2.37%		4.21%

As noted in Appendix A, the portfolio ended the first half of 2016 at $23,274,151. That is up $1,447,294 from year end 2015. In the first half of 2016, we added contributions of $521,313 to the portfolio and we earned $925,981 from interest, dividends, and market returns.

The top of Appendix B provides detail concerning the dispersion of investment portfolio assets across investment classes. The composition of the investment portfolio conforms to the asset allocation policy.

The rest of Appendix B provides detail on the total portfolio return with respect to the portfolio benchmark. The portfolio benchmark is a blend of total return indices in proportions consistent with the asset allocation policy. The benchmark proportions are 45% broad domestic stock, 5% international stock, 45% bonds, and 5% money market.

Appendix A

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Portfolio Flow

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	Investment Portfolio Market Value
Balance, June 30, 2014	22,217,131
Additions from contributions	336,193
Subtractions	(800,000)
Total Return	(18,775)
Balance, September 30, 2014	21,734,549
Balance, September 30, 2014	21,734,549
Additions from contributions	202,949
Subtractions	(500,000)
Total Return	317,013
Balance, December 31, 2014	21,754,511
Balance, December 31, 2014	21,754,511
Additions from contributions	182,444
Subtractions	(50,000)
Total Return	143,499
Balance, March 31, 2015	22,030,454
Balance, March 31, 2015	22,030,454
Additions from contributions	96,327
Subtractions	0
Total Return	(77,797)
Balance, June 30, 2015	22,048,984
Balance, June 30, 2015	22,048,984
Additions from contributions	300,262
Subtractions	(500,000)
Total Return	(733,318)
Balance, September 30, 2015	21,115,928
Balance, September 30, 2015	21,115,928
Additions from contributions	204,205
Subtractions	0
Total Return	506,724
Balance, December 31, 2015	21,826,857
Balance, December 31, 2015	21,826,857
Additions from contributions	158,943
Subtractions	0
Total Return	396,174
Balance, March 31, 2016	22,381,974
Balance, March 31, 2016	22,381,974
Additions from contributions	362,370
Subtractions	
Total Return	529,807
Balance, June 30, 2016	23,274,151

Two-Year Summary	
Beginning Balance, June 30, 2014	22,217,131
Cumulative Additions from contributions	1,843,693
Cumulative Subtractions	(1,850,000)
Cumulative Market Returns	1,063,327
Ending Balance, June 20, 2016	23,274,151

Appendix B

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Portfolio Composition as of June 30, 2016

	Fair Value	Percentage	Amortized Cost
Investment Portfolio			
Stock (of which $1,075,017 is international)	10,910,576	46.9%	8,156,718
Bond	11,355,447	48.8%	11,229,057
Cash	1,008,128	4.3%	1,008,128
Total Investment Portfolio	23,274,151	100.0%	20,393,903

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Portfolio Return and Total Return Metrics

	2016 1st Quarter	2016 2nd Quarter	2016 First Half	Calendar Year 2015	Calendar Year 2014	Calendar Year 2013	Calendar Year 2012
Applicable Total Return Indices							
US Stock - Russell 3000 TR	0.97%	2.63%	3.62%	0.48%	12.56%	33.55%	16.42%
Foreign Stock - FTSE AW Ex US TR	-0.36%	-0.35%	-0.71%	-4.46%	-3.04%	15.63%	17.80%
Bonds - Barclays US Agg 1-5Yr TR	1.58%	0.96%	2.55%	1.07%	1.69%	0.25%	2.21%
VG Prime Money Market	0.01%	0.01%	0.02%	0.04%	0.04%	0.04%	0.04%
Benchmark Blended Total Return (45% us, 5% intl, 45% bonds, 5% mmkt)	1.13%	1.60%	2.74%	0.48%	6.26%	15.99%	9.28%
Benchmark Bended Total Return (above)	1.13%	1.60%	2.74%	0.48%	6.26%	15.99%	9.28%
Actual Total Return							
In Percent	1.82%	2.37%	4.21%	-0.74%	5.77%	14.66%	11.04%
In Dollars (from page 1)	396,174	529,807	925,981	(160,892)	1,220,626	2,654,016	1,769,299

Notes:

Returns for greater than one quarter will be different than the sum of the quarterly returns because of compounding

The Russell 3000 Index is a measure of the total US stock market.
The FTSE index measures the World (AW) stock market, minus the US market
The Barclays index measures the aggregate US bond market for maturities of 1-5 years (the type of bonds in which we invest)
The Vanguard Prime Money Market is a proxy for the overall US money market

The Benchmark Blended Total Return is calculated from the above indexes in the proportions noted. It represents the expected return on the portfolio.
The Actual Total Return is calculated based on the dollar amount of Total Return relative to the original principal amount for the period calculated.
If there are significant increases or decreases to the investment portfolio in the period, the calculated Actual Total Return is adjusted accordingly.