

**American Radio Relay League**  
**Treasurer's Report**  
**Rick Niswander, K7GM**  
**For the 3<sup>rd</sup> and 4<sup>th</sup> quarters of 2105 and the year ending December 31, 2015**

In my comments at the July Board meeting I mentioned that I was concerned about China and how its economy and markets would react going forward. Specific concerns revolved around opaque data, slowing growth (from an annual 12% to 7% in the last 5 years...if you believe the data), and shadow debt loads.

Well, the third quarter was not nice to Chinese markets. In the quarter, Shanghai A and B shares were down a bit over 28% and the CSI 300 Index (a broad Shanghai and Shenzhen index) dropped almost 30%. The pain in China helped push emerging markets down 18% in the quarter. International developed markets (predominately Western Europe, Japan, and Australia) dropped almost 8% as well.

China was not the only source of downward pressure on worldwide stock markets. Significant losses in commodities, uncertainty as to when the Fed will raise short term rates, and modest softness in new job creation also contributed to market uncertainty and volatility in the third quarter.

All in all, in 3Q 2015, domestic and international stock markets had the worst quarter since the third quarter of 2011. Equity markets gave up their modest gains in the first half of 2015 and then some. The broad US market was down 7.25% for the third quarter while the broad international market dropped 11.96% in the quarter.

Bonds continued to plod along in the third quarter. The Barclays index of 1-5 year maturities earned 0.60% for the quarter. The third quarter was one of those quarters that we are thankful we have a substantive proportion of the portfolio in something that plods along to soften the drop in the equity component. Because our benchmark portfolio construction is roughly 50/50 stocks and bonds, returns on the portfolio as a whole will fall between the highs and lows of the individual components. When the stock market is on a tear, our portfolio will lag behind but when the markets fall through the floor we should still be able to sleep at night.

Overall, our portfolio lost \$733,318 for the third quarter, or a 3.33% loss. The portfolio benchmark (45% US stocks, 5% international stocks, 45% bonds, 5% money market) fell by 3.59%. We beat the benchmark by 0.26% primarily because our stock exposure was a bit less than the benchmark. So, we benefitted by owning a little less of the piece that went down (stocks) and a little more of the piece that went up (bonds). Given the volatility of the markets, I stayed cautious and did not adjust towards the benchmark as much as I might have at other times. I don't manage to the benchmark on a daily or weekly basis; it is more like every month or month and a half. Even though our transactional costs are very low, chasing the percentages will drive up those costs. A longer term approach is better.

In the fourth quarter, the equity markets recovered much, but not all, of the decrease they incurred in the third quarter. US stocks were up 6.27% (still 1% shy of the third quarter loss) and international stocks recovered about a third of the decline in Q3. The bond market lost a half percent, generally in response to the Federal Reserve action to increase short term rates at their December meeting. When you put Q3 and Q4 together, the equity markets were slightly negative and the debt market was flat.

In the fourth quarter, we lagged the total return benchmark by 0.38%, primarily because the Q3 advantages noted above related to a slightly-bond-heavy portfolio reversed in Q4.

The following chart illustrates the percentage change in various market and portfolio total return indicators for each quarter of 2015.

	Q1 2015	Q2 2015	Q3 2015	Q4 2015
Total Return Indices:				
US stock – Russell 3000 (broad market)	1.80%	0.14%	(7.25%)	6.27%
Foreign stock – FTSE All World ex-US	3.80%	0.96%	(11.96%)	3.56%
Bonds – Barclays US Agg 1-5yr Bond	1.03%	(0.06%)	0.60%	(0.50%)
Vanguard Money Market	0.01%	0.01%	0.01%	0.01%
Portfolio Benchmark (total return)	1.46%	0.08%	(3.59%)	2.78%
Actual Portfolio Return (total return)	0.66%	(0.35%)	(3.33%)	2.40%

Overall for 2015, the total return benchmark was slightly positive at 0.48%. Our total return was (0.74%) almost all attributable to the shortfall in the first and second quarters. As noted in my June report, our portfolio is tilted towards value stocks (down 2.16% this year) while the winners have been growth stocks (up 5.54% in 2015). In addition, we have a slightly higher weighting of energy stocks which were down in the first half of the year and have not yet recovered. Long term, the value tilt is a good play. As to energy stocks, at this point there is no rational reason to sell.

### **ARRL Portfolio Analysis**

As noted in Appendix A, the portfolio ended \$21,826,857. That is down \$222,127 from the end of June, and up \$72,346 from year end 2014. In the third quarter, contributions of \$300,262 were added to the portfolio and \$500,000 was transferred to the general operating account as usually occurs during the summer. In the fourth quarter, contributions were \$204,205 and there were no transfers.

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.

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.

## **Bond Portfolio**

Here is a little more detail about our individual bond holdings.

At the end of 2015, we owned almost \$9.4 million of individual bonds from 59 different companies. The majority of individual bond holdings are sized at \$100K or \$200K face value per company. The largest holdings, at \$400K face value each, are Merck (rated by S&P as AA) and GE Capital (AA+). Our bonds have remaining maturities of a few months to five years. As bonds mature, I purchase bonds with maturities of about five years. The maturities of our bonds by calendar year are as follows (amounts are face value):

2016 = \$ 800,000  
2017 = \$ 3,073,000  
2018 = \$ 2,800,000  
2019 = \$ 1,500,000  
2020 = \$ 1,200,000

We invest in bonds with investment grade ratings (S&P rating of BBB or better). A bond portfolio should have a mix of bonds with ratings spread across ratings levels. I am a bit conservative and lean towards investing in companies with higher rated bonds, on average. Over time, the average credit ratings of our individual bonds have increased as I replace new bonds with old. S&P ratings of our bonds are as follows, from high to low (S&P also uses a plus or a minus for each rating level letter. For purposes of this analysis, those modifiers are ignored).

AA rated = \$ 2,600,000  
A rated = \$ 3,700,000  
BBB rated = \$ 2,900,000  
BB rated = \$ 173,000

The single non-investment grade bond we own is \$173K face value from US Steel. That bond was purchased when issued by the previous treasurer about 8 years ago when it was low investment grade. It carries an interest rate of 6.05% and matures in June 2017. Our practice is to hold individual bonds until maturity and have done so with this bond.

Our bond ETF's own higher rated bonds. The Vanguard Short Term Government Bond ETF is all treasuries or agencies (AAA rating) with duration (similar to average remaining maturity) of 1.8 years. The Vanguard Short Term Bond ETF is 2/3 treasuries+agencies, 23% AA or A rated, and 11% BBB rated with a duration of 2.7 years. The Vanguard Short Term Corporate Bond ETF is 63% AA or A rated and 37% BBB rated with duration of 2.8 years.

## **Other**

The remaining approx. \$100K of preferred stock was sold in fourth quarter.

**Appendix A****American Radio Relay League  
Portfolio Flow**Page 1  
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	Investment Portfolio Market Value
<b>Balance, December 31, 2013</b>	21,157,075
Additions from contributions	161,681
Subtractions	0
Total Return (see note)	254,553
<b>Balance, March 31, 2014</b>	<u>21,573,309</u>
<b>Balance, March 31, 2014</b>	21,573,309
Additions from contributions	500,987
Subtractions	(525,000)
Total Return	667,835
<b>Balance, June 30, 2014</b>	<u>22,217,131</u>
<b>Balance, June 30, 2014</b>	22,217,131
Additions from contributions	336,193
Subtractions	(800,000)
Total Return	(18,775)
<b>Balance, September 30, 2014</b>	<u>21,734,549</u>
<b>Balance, September 30, 2014</b>	21,734,549
Additions from contributions	202,949
Subtractions	(500,000)
Total Return	317,013
<b>Balance, December 31, 2014</b>	<u>21,754,511</u>
<b>Balance, December 31, 2014</b>	21,754,511
Additions from contributions	182,444
Subtractions	(50,000)
Total Return	143,499
<b>Balance, March 31, 2015</b>	<u>22,030,454</u>
<b>Balance, March 31, 2015</b>	22,030,454
Additions from contributions	96,327
Subtractions	0
Total Return	(77,797)
<b>Balance, June 30, 2015</b>	<u>22,048,984</u>
<b>Balance, June 30, 2015</b>	22,048,984
Additions from contributions	300,262
Subtractions	(500,000)
Total Return	(733,318)
<b>Balance, September 30, 2015</b>	<u>21,115,928</u>
<b>Balance, September 30, 2015</b>	21,115,928
Additions from contributions	204,205
Subtractions	0
Total Return	506,724
<b>Balance, December 31, 2015</b>	<u>21,826,857</u>
<b>Two-Year Summary</b>	
Beginning Balance, Dec 31, 2013	21,157,075
Cumulative Additions from contributions	1,985,048
Cumulative Subtractions	(2,375,000)
Cumulative Market Returns	1,059,734
Ending Balance, Dec 31, 2015	<u>21,826,857</u>

## Appendix B

### American Radio Relay League Portfolio Composition as of Dec 31, 2015

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	Fair Value	Percentage	Amortized Cost
Investment Portfolio			
Stock (of which \$1,131,792 is international)	9,652,158	44.2%	7,361,798
Bond	10,835,553	49.6%	10,899,245
Cash	1,339,146	6.1%	1,339,146
Total Investment Portfolio	<u>21,826,857</u>	<u>100.0%</u>	<u>19,600,189</u>

### American Radio Relay League Portfolio Return and Total Return Metrics

	2015 1st Quarter	2015 2nd Quarter	2015 3rd Quarter	2015 4th Quarter	Calendar Year 2015	Calendar Year 2014	Calendar Year 2013	Calendar Year 2012
Applicable Total Return Indices								
US Stock - Russell 3000 TR	1.80%	0.14%	-7.25%	6.27%	0.48%	12.56%	33.55%	16.42%
Foreign Stock - FTSE AW Ex US TR	3.80%	0.96%	-11.96%	3.56%	-4.46%	-3.04%	15.63%	17.80%
Bonds - Barclays US Agg 1-5Yr TR	1.03%	-0.06%	0.60%	-0.50%	1.07%	1.69%	0.25%	2.21%
VG Prime Money Market	0.01%	0.01%	0.01%	0.01%	0.04%	0.04%	0.04%	0.04%
Benchmark Blended Total Return (45% us, 5% intl, 45% bonds, 5% mmkt)	1.46%	0.08%	-3.59%	2.78%	0.48%	6.26%	15.99%	9.28%
Benchmark Bended Total Return (above)	1.46%	0.08%	-3.59%	2.78%	0.48%	6.26%	15.99%	9.28%
Actual Total Return								
In Percent	0.66%	-0.35%	-3.33%	2.40%	-0.74%	5.77%	14.66%	11.04%
In Dollars (from page 1)	143,499	(77,797)	(733,318)	506,724	(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.