Muhlenkamp**Memorandum**

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Quarterly Letter

By Ron Muhlenkamp

My first draft of this letter, which I wrote three weeks ago began with:

- Europe has not solved its problems;
- Nor has Japan;
- Nor has China;
- Nor has the U.S.

The rest of that draft is now obsolete.

Since mid-September, several items have changed—some economic, some market-related, some psychological.

Economically…

1. The International Monetary Fund (IMF) has lowered its estimate of world Gross Domestic Product (GDP) growth going forward.
2. Germany (the strongest economy in Europe) has reported disappointing numbers, particularly in capital goods. It looks like Europe is back in recession.
3. The U.S. Federal Reserve Bank (Fed) lowered its estimates of U.S. GDP growth for the next four years.
4. Crude oil, which was trading in a range of $100-$110/barrel, fell to $82/barrel. The surprise was an announcement by Saudi Arabia that they would not try to keep the price above $100/barrel. This is a change from their prior policy.

Markets…

1. Many hedge funds are having a poor year and are facing redemptions. CalPERS (California Public Employees' Retirement System) announced that they were withdrawing $25 billion from hedge funds. This drives "forced selling" by those funds. The difficulty is estimating the size of the forced selling.
2. Ten-year U.S. Treasury bond yields fell from a range of 2.40%-2.6% to (briefly) below 2 percent. A huge move in a short period of time, the headline is "A Flight to Quality."

(Mostly) Psychological…

1. The battle against ISIS in the Middle East.
2. Ebola and the Centers for Disease Control (CDC): It appears that the Center is not prepared for disease control.

All of this together resulted in stock market declines of 7%-12% in a month, depending on which index you measure. The size of this "correction" was not unexpected, but the short timeframe was unusual. On some days the forced selling appeared to feed on itself and bordered on panic liquidation. As I write this letter on 10/17, this selling has abated, at least for the time being.

The good news is that we raised some cash coming into this period, and that we're seeing more and better values than we did 2-3 months ago. The bad news is that we didn't raise enough cash (in a downturn, you never do) and the prices of our holdings fell with the marketplace. It remains true that although economic data changes gradually, the markets' response to that data can be rapid.

The comments made by Ron Muhlenkamp in this commentary are opinions and are not intended to be investment advice or a forecast of future events.

One cannot invest directly in an Index.

[1] Source: http://www.federalreserve.gov/monetarypolicy/fomcprojtabl20140917.htm

Muhlenkamp & Company, Inc.
Intelligent Investment Management

Game Changers in Biomedical Science

by Tammy Neff, Investment Analyst

Advances in biomedical science continue to transform the way medicine is being practiced. Since the 1950s, we have experienced a steady stream of breakthrough innovations, ranging from vaccines for the masses to precision medicines based on one's unique genetic makeup. In a 50-year span, we've gone from characterizing the double-helix structure of DNA to a complete mapping of the human genome. Hand-in-hand with this increased understanding, scientists are developing "next generation" therapies in a more efficient and effective manner. For some consumers, the widespread accessibility of new treatments won't come soon enough. Investors, however, can begin participating now—and, if you are one of our clients, you have been participating.

As a consumer, we're living in an era of near optimal diagnosis and treatment to manage most diseases. There are specialists, high-tech diagnostic equipment, and treatments for just about everything that ails us: orthopedic surgeons who perform hip and knee replacements, surgeons who use robots to assist with procedures, and oncologists who prescribe medicines that target cancer cells, while sparing healthy ones.

But we still don't have all of the cures…

Historically, in response to ailments, doctors would prescribe a course of action to diagnose and treat what is wrong. While the predominant model of healthcare remains curative, advances in biomedical science are shifting this model of care toward one of probability, prevention, and personalized medicine. Today, there are genetic tests for a variety of diseases. For example, the BRACAnalysis® is a genetic test that confirms the presence of BRAC gene mutations associated with future development of a specific type of breast and ovarian cancer.

"Providing doctors and patients ("consumers") with more effective treatment options and improved outcomes is the goal of personalized medicine."

Genetic testing is also available for other types of cancer, including prostate and thyroid, just to name a few. The Prolaris® test measures the level of genes involved in prostate tumor proliferation. This test helps doctors determine disease aggressiveness, as well as prescribe personalized treatments. The Afirma Thyroid FNA Analysis®, a 142-gene expression test, allows doctors to determine if the thyroid nodules in question are benign or cancerous. This test can prevent unnecessary invasive surgery, along with life-long thyroid replacement medication.

When cancer is detected, diseased tissue and blood can now be analyzed using next-generation genomic sequencing technology. As an example, the FoundationOne® test decodes a tumor's DNA, compares it with all genes known to be relevant in human cancers, and matches any mutations with known targeted cancer therapies. This is significant because, historically, cancers were categorized and treated based on where they occurred in the body: lung, breast, colon, pancreas, skin, blood, etc. With advances in biomedical science, cancers are now being categorized and treated based on their underlying genetic mutations.

Providing doctors and patients ("consumers") with more effective treatment options and improved outcomes is the goal of personalized medicine.

As biomedical companies work to develop and deliver new products, investors have more choices. Publicly traded companies run the gamut, each with their own risk/return profile:

- Small, start-up "R&D" companies with few or no FDA approved products and little to no revenues or earnings;
- Mid-sized companies with niche FDA approved products and modest revenues and earnings; and
- Mature, fully integrated global companies, with multiple FDA approved products that are profitable.

To narrow our universe, we are focusing on those companies that we think will ultimately provide cost savings to the healthcare system through the following game changers:

- Transforming the model of healthcare from disease management to disease prevention through personalized medicine;
- Rethinking the approach to the war on cancer; and
- Curing diseases that were previously life-long conditions.

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"Short term, the stocks of biomedical companies may trade on daily "headlines." Longer term, we believe they trade on business economics. So our goal remains the same: buying Cadillac companies at Chevy prices—good companies at cheap prices."

Short term, the stocks of such companies may trade on daily "headlines." Longer term, we believe they trade on business economics. So our goal remains the same: buying Cadillac companies at Chevy prices—good companies at cheap prices. Our primary screening metric is return on shareholder equity (ROE), but we also look for companies with solid balance sheets, positive free cash flow, and sustainable revenues and earnings growth. We are also mindful that you can turn a good company into a bad investment by paying too much for it. So, when it comes to price, we like companies that trade at a price-to-earnings ratio (P/E) that is less than its ROE. We are willing to pay up for growth, but we must have conviction in their underlying story—dig deep into the scientific insights and business environment in which they operate.

There are dozens of biomedical companies with promising science, but no earnings or return on equity. To take advantage of their potential, we own a couple of global companies that collaborate with "new frontier" ones. This permits us to participate in the upside and limit the downside—allowing our clients (and us) to sleep at night. One such company is Celgene. In addition to FDA approved products for the treatment of cancers and immune disorders, Celgene has multiple partnerships that furnish a broad and deep pipeline of cutting-edge compounds that are in clinical research trials.

Finally, while we don't believe that a holding period of "forever" is appropriate in all cases, we are comfortable holding companies as long as they continue to meet expectations.

To learn more about the advances in biomedical science and how you, our clients, are participating in related investment opportunities, join us on November 12, 2014 at our next investment seminar. (Details are included on the backside of this newsletter.)

Holdings and sector allocations are subject to change and should not be considered a recommendation to buy or sell any security.

Earnings growth is not a measure of future performance.

Tammy joined Muhlenkamp & Company, Inc.in September 2003. Her responsibilities are primarily research oriented, including evaluating company financial statements, annual reports, and proxy statements; analyzing industry and company research reports; interviewing and visiting company management teams; and making investment recommendations for inclusion in the Muhlenkamp portfolios.

Tammy has 14 years of experience in the healthcare industry as a Psychiatric Nurse Clinician and Healthcare Administrator. Before joining Muhlenkamp & Company, she served as Director of Operations for the University of Pittsburgh, Department of Psychiatry Faculty Practice Plan.

Tammy received a dual Bachelor of Science in Nursing and Psychology from Carlow College in 1989. She completed a Master's in Business Administration from the University of Pittsburgh in 1994. Tammy holds a Chartered Financial Analyst (CFA) designation and maintains Series 6, 63, and 65 securities registrations.

GLOSSARY:

Return on Equity (ROE) is a company's net income (earnings) divided by the owner's equity in the business (Book Value);
ROE = Earnings/Book Value. This percentage indicates company profitability or how efficiently a company is using its equity capital.

Balance Sheet is a financial statement that summarizes the assets and liabilities of a company or individual.

Free Cash Flow represents the cash a company is able to generate after paying out the money required to maintain or expand its business.

Earnings are revenues minus the cost of sales, operating expenses, and taxes, over a given period of time.

Price-to-Earnings ratio (P/E) is the current price of a stock divided by the (trailing) 12 months earnings per share

The Second Great Economic Experiment: An Update

by Ron Muhlenkamp

At our June 3, 2014 investment seminar, I addressed **The Second Great Economic Experiment: How's It Going?** *(A seminar archive is available at www.muhlenkamp.com). As new data become available, I will furnish updates on this topic.*

In October 2009, I first voiced my opinions on current fiscal policies in my *Quarterly Letter*:

> *In the area of rules and regulations, I don't believe anyone can state what the tax rules will be a year from now, or what the regulations will be on companies providing health insurance or carbon dioxide emissions. I do suspect that people will be reluctant to start or expand a business, at least until the rules are known—and not just business people. As a result of proposed rules, we know doctors who are considering retiring and others who are discouraging their kids from becoming doctors.*[1]

I have continued to express my thoughts on this topic (some think it's become a rant) in Quarterly Letters, conference calls, and investment seminars over the past five years. We are now seeing data that confirm my fear:

- When it was begun 40 years ago (1974), the Wilshire 5000 Total Market Index comprised the stocks of about 5,000 companies. The number grew to 7,500 in 1998. Currently, that list of companies is more like 3,700. (We're trying to fill in the gaps in the data; we will report to you when we do.)

- In 2013, the fraction of families that owned a privately held business fell to 11.7%, the lowest level recorded in the Fed's triennial *Survey of Consumer Finances*, dating back to the 1989 survey. While the mean value of family-owned businesses increased from $844,800 in 2010 to $973,900 in 2013, it remained below the 2007 level.[2] (The businesses included in this category are sole proprietors, limited partnerships, S corporations, and other types of corporations that are not publicly traded.)

Bottom line: Today there are fewer businesses, including both publicly and privately owned companies, and, therefore, fewer employers. Some argue this is the result of aging baby boomers selling their business, but they sell to someone. And, of course, corporate mergers and acquisitions always lower the number of companies outstanding, but in the past these combinations were more than offset by new companies being formed.

When do you expect it to be easier to find a job: when the number of businesses is expanding or contracting?

The rise in regulations to the financial services industry began with Eliot Spitzer, who was Attorney General of New York state from 1999-2006 and spread to other industries with Sarbanes-Oxley in 2002. Dodd-Frank was passed in 2010, but only half the regulations have been published to date. (If you are interested in reading Alan Greenspan's comments on "regulatory over-reach," visit: http://www.thinkadvisor.com/2014/09/12/9-reasons-why-economy-stinks-according-to-alan-gre?eNL=541c7aef160ba09d17d59ace&utm_source=topstories092114&utm_medium=enewsletter&utm_campaign=topstories&_LID=106356294)

We are not alone.

While the Federal Reserve has a dual mandate (stable prices and maximum employment), its tools are limited and not always beneficial. Allan Meltzer, author of *A History of the Federal Reserve* and professor of political economy at Carnegie Mellon University, sums it up nicely in a July 2012 "op-ed" in *The Wall Street Journal*:

> *Today's economic problems are serious, but the Fed can't do much about them if these problems are not monetary. Very expansive monetary policies did help during the crisis of 2008-09, but they're not what is needed now. To get out of our bad economic situation, we need coherent long-term fiscal policy, especially entitlement reform.*
>
> *With mortgage rates lower than ever and housing showing very sluggish recovery, what can be gained by dropping the mortgage rate another small fraction? Business investment is held back by uncertainty. No one can reliably calculate tax rates, health-care costs, and the regulatory burden until after the election, if then. How can corporate officers calculate expected return when they cannot know these future costs? How is more monetary stimulus today supposed to help?* [3]

It's long past the November 2012 elections and nothing has improved. At her *Semiannual Monetary Policy Report* to the Congress on July 15,

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[1] *Muhlenkamp Memorandum, #92; Ron's Quarterly Letter;* October 2009
[2] Source: Federal Reserve Bulletin; September 2014; Vol. 100, No. 4
[3] *What's Wrong with the Federal Reserve?; The Wall Street Journal;* July 9, 2012

2014, Janet Yellen, Federal Reserve Chairwoman, acknowledges using monetary policy to compensate for the inaction of Congress:

> *Fiscal policy for a number of years has been a drag on growth. We can translate that into a factor that has necessitated lower-than-normal interest rates to get the economy moving back on track.*

So the Fed is trying to offset bad fiscal policy with monetary policy. In my opinion, it can't be done. If I read Professor Meltzer correctly, he said it can't be done. And we can find no evidence that the Fed's policy is working. Low interest rates have not served to boost the economy or employment. The economy is growing at the lowest sustained rate since at least WW II and employment continues to decline as a percent of the work force. (The unemployment rate is declining because the calculation of the number ignores whose who quit quit looking for work; refer to Figure 1.)

Low interest rates have not reflated the housing market, business investment, or employment—all of which require a measure of long-term faith by individuals and/or company executives. Low interest rates have encouraged short-term financial engineering by hedge funds and company executives, resulting in increases in borrowing and in mergers, acquisitions, and stock repurchases. But that does not create additional production capacity.

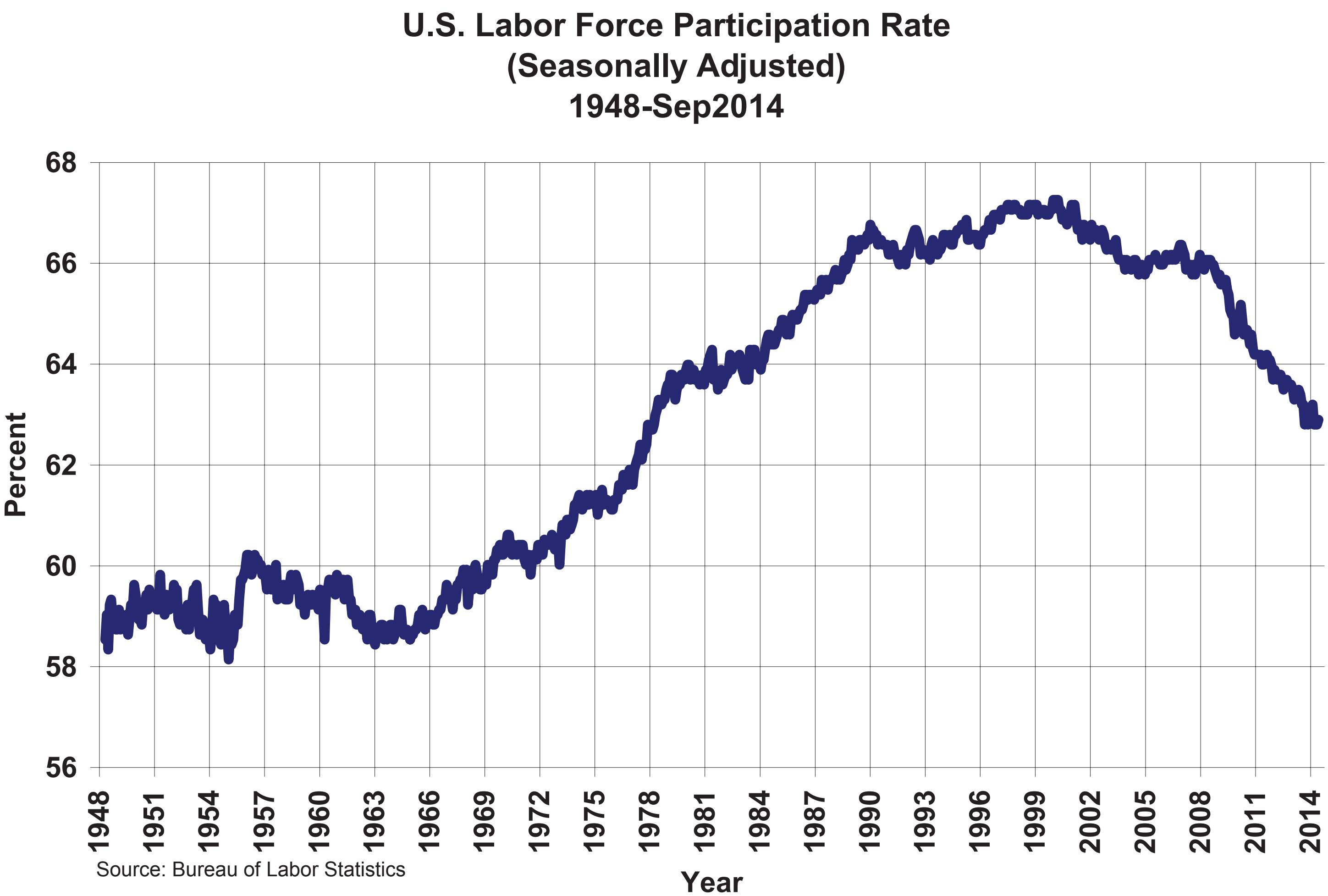
Wilshire 5000 Total Market Index is a market capitalization-weighted index composed of publicly-traded companies that meet the following criteria:

1. ***The companies are headquartered in the United States.***
2. ***The stocks are actively traded on an American stock exchange.***
3. ***The stocks have pricing information that is widely available to the public.***

One cannot invest directly in an Index.

Stay tuned for the next update on **The Second Great Economic Experiment** *in our next quarterly newsletter.*

Figure 1 Labor Participation chart, 1948-Present



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