Monetary Tightening: The Unintended Consequence of the Fed's QE Programs

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The Federal Reserve Bank's Balance Sheet has ballooned from $750 billion in 2007 to $4.5 trillion in October 2014. **That is a $3.75 trillion, 500 percent, increase in their balance sheet in seven years.** How did they do that and why does it matter? They did it by printing dollars out of thin air (using a computer of course), declaring it acceptable money by fiat, and then exchanging this newly printed money for Treasury Bills, Notes and Bonds and Mortgage Backed securities that were once held in the economy, including in the accounts of major Wall Street Banking firms. Think of yourself printing dollars that never before existed in your basement and then exchanging those dollars for interest bearing securities. Quite a neat trick. Wrong if you do it. You go to jail. Right if the Fed does it, cheered by Wall Street. Hmmm.

This program of Fed printing dollars, and then using them to purchase U.S. Treasuries and Mortgage Backed securities was known as QE 1, QE 2, and QE 3, quantitative easing. Isn't that a grandiose description for printing money and exchanging it for interest bearing liabilities of the U.S. Treasury and Wall Street MBS. Instead of having nothing, the Fed suddenly found itself with over $4.0 trillion of securities that pay interest to the Fed, creating income from nothing.

What is important to understand is a very basic concept: Think of a huge barrier, a giant wall that separates the Fed from the economy. If money is at the Fed, then it is not in the economy, cannot be used by federal, state or local governments, large corporations, small businesses, or households. **If dollars are at the Fed, they are not part of the economy.** They cannot be spent, loaned, or invested by any entity that counts its activities as part of the U.S. economy, part of Gross Domestic Product, GDP, which is the measure of all spending in the United States each year by non Federal Reserve entities. **If dollars move from the Fed to the economy**, then the Fed is increasing the money supply, providing dollar liquidity from a printing press rather than from the other source of money creation, which is bank lending to borrowers who then spend it, which ends up as bank deposits. **If dollars move back to the Fed from the economy, then money is tightening**, there is less money in the economy than before.

Since 2007, this QE 1, QE 2, and QE 3 program meant that the Fed injected an additional $3.75 trillion of dollars into the economy. **Dollars that never before existed were exchanged for securities that owe the holder interest, and a promise to repay those dollars upon maturity**. Now, this money never really made it to households, or small businesses. It went to the holders of the securities that the Fed bought them from, large money center Wall Street banks mostly. What the sellers of these securities did with all these dollars was arbitrage, trade, invest in stocks, do some high level lending and underwrite stock offerings of huge corporations, improve their earnings and benefit their employee compensation packages and the revenue of lucky local vendors and businesses that these people frequent at lunch time or during their off hours. The theory of these QE programs was that the $3.75 trillion of new dollars printed by the Fed and now in the hands of Wall Street would trickle down to small businesses and households to create jobs and improve the economy as a whole, increasing GDP. The Fed kept interest rates low through this process, expecting consumer borrowing to pick up and employment to improve. Well, part-time jobs sure increased, but good luck getting a loan today.

Let's talk about GDP. In 2007 GDP was $14.5 trillion. In 2013 it grew to $16.7 trillion, so a reasonable estimate for 2014 will be around $17.0 trillion. So the Fed injected $3.75 trillion over the seven years from 2007 to 2014, about a quarter of one year's GDP. That is a lot of printed money. **Think of all the dollars spent by everyone in the U.S. during the course of a year. Using a printing press, the Fed unilaterally created a quarter of that money and used it to buy stuff, in this case U.S. Treasury and Mortgage Backed securities stuff**.

An estimated value in terms of total market cap, for the entire stock market, comes from the Wilshire 5000 index. On October 11th, 2007, before the Fed initiated its $3.75 trillion QE programs, the Wilshire Index's value was approximately $15.9 trillion. On October 31st, 2014, the Wilshire's value is approximately $21.2 trillion. **The stock market has grown $5.3 trillion in value since 2007, while the Fed handed**

$3.75 trillion of dollars to Wall Street, 70 percent of the rise in the stock market over the past seven years. Think about that. Is this a coincidence? Or, is Fed printing dollars the key causation of the rise in the stock market the past seven years? If from the Fed, it means the stock market was artificially propped up by the Fed. **If it is from the Fed, and QE injections of more printed dollars are no longer coming, what does this say about the future upside prospects for the stock market?**

And, if the Fed has stopped its unprecedented QE programs as of October 31st, 2014, what does this mean for growth in GDP? GDP grew from $14.7 trillion per year in 2008, the first year the Fed did a QE program, to $17.0 trillion in 2014. **The Fed had to do $3.75 trillion of money printing to generate $2.3 trillion of GDP growth per year. Will GDP growth come to a screeching halt?**

Let's take a look at what the Fed bought with the dollars they printed deep within those subterranean caverns shielding their electronic computer presses. Up until 2009, the Fed only bought and sold U.S. Treasuries. They changed that in 2009 during QE. They decided they would start buying mortgage backed securities for the first time in their 96 year history at that point. Instead of buying interest bearing IOUs from the U.S. Treasury where they would collect interest on those Treasuries from U.S. taxpayers, they would now buy packaged mortgage loans owed by U.S. households and receive interest from homeowners. Think about that. Individual mortgage holders, homeowners, who make their monthly mortgage payments, would be sending those payments through a servicer to the Federal Reserve. **Instead of household money, their payments, being reinvested in the economy by the lenders of those mortgages, the money would be leaving the economy and going on the other side of that great wall, to the Fed.**

As of October 22nd, 2014, $1.7 trillion of the $3.75 trillion of QE dollars were held by the Fed in interest bearing mortgage backed securities. The remaining $2.05 trillion of QE purchases were held in interest bearing Treasuries.

But, the actual amount of Fed securities holdings at October 22nd, 2014, is more than the $3.75 trillion of QE dollar printed securities purchases. The Fed balance sheet at October 22nd, 2014 shows the Fed holds $4.2 trillion of interest bearing securities issued by the U.S. economy.

Enough background. Let's get to the point of this article. The economy owes the Fed a lot of dollars in the form of coupon interest payments and maturing securities from this $4.2 pile of securities now at the Fed. As long as the securities held by the Fed are good quality securities, the Fed has been receiving and will continue to receive a ton of cash from these securities every month of every year they hold them. **Here is the rub: These cash payments are leaving the economy, are a monetary tightening by the Fed** by virtue of holding these securities and receiving these payments. It was not a big deal as long as the Fed was continuing to do new QE programs that exceeded the amount of interest and principle maturity payments going to the Fed from securities the Fed held. **But like a Ponzi scheme, the more securities the Fed purchased from its latest and greatest QE program, the more dollars and greater monetary tightening would eventually have to occur from the ever burgeoning portfolio of Treasuries and Mortgage Backed securities the Fed was adding in that latest QE program.** It is like a person who borrows, then borrows more to pay the interest on what he borrowed, then borrows more because his interest payment requirements have risen because he borrowed more. It spirals out of control.

The Fed now will be pulling interest and principle from the U.S. economy on $4.2 trillion of securities. Remember, it only held about $750 billion back in 2007. This is a new problem because of their QE policies.

So, the next question is, **how much interest and principle will the Fed receive each year from the economy?** Now that they have stopped their QE programs, are no longer replacing cash coming to them from the economy with new QE purchases, **the Fed is no longer mitigating the natural monetary tightening from these securities holdings on their balance sheet.** So, how much monetary tightening is now going to occur as cash leaves the economy and returns to the Fed?

Page 5 of the Fed's 2013 year end financial statement shows they received $79 billion of interest income from $4.0 trillion of securities holdings. We know they hold $4.2 trillion now, so it is reasonable to conclude that the interest on $4.2 trillion will be around $83 billion per year. So, **$83 billion will be withdrawn from the economy to the Fed for interest payments owed to the Fed for securities it holds, starting now**.

Next we need to analyze how much in principle payments will be heading to the Fed from scheduled maturities from Treasuries the Fed holds and from scheduled and prepayments from underlying mortgages passed through to the Mortgage Backed securities the Fed holds. The maturity aging schedule provided by the Fed on page 34 of its 2013 Financial statement shows that an average of $152 billion per year will mature in U.S. Treasuries over the next five years. That's when the Fed held $2.2 trillion of Treasuries. Now it holds $2.7 trillion. So **a reasonable estimate of maturing Treasuries each year for the next five years would be $180 billion per year from maturing Treasuries**.

Next we want to analyze the dollars we can expect to flow into the Fed each year from scheduled payments and unscheduled prepayments from the underlying mortgages behind the MBS securities the Fed holds. This time, the aging does not help us because all they give us are the scheduled principle payments from long term mortgages, which substantially underestimate prepayments because a lot of mortgages will be refinanced long before the contract term ends, or mortgagees (homeowners) will sell their homes and move long before the contract term on their mortgages expires, which creates an early payoff. So, we need to come up with an acceptable average life expectancy for these mortgages and estimate the probable principle repayments per year going forward. If we assume that 8 percent of these mortgage securities will see principle reductions per year, which figures an average life of 12 years for these 30 year mortgages, and the Fed holds $1.7 trillion as of October 22nd, 2014, we come up with **expected principle retirements of $136 billion per year from MBS held by the Fed.**

So, what this tells us is that if we total expected interest going to the Fed each year plus scheduled Treasury securities maturities plus expected annual MBS prepayments of principle, we come to a figure of $399 billion in cash flowing from the economy (the securities issuers and their underlying indebted) to the Fed starting this year. If we want to adjust the amount of interest down because the maturing and prepaid principal from securities shrinks the Fed's balance sheet, a reasonable estimate would be to reduce interest cashflow by 7 percent, or 6 billion. That gets us to $393 billion, which rounded is $400 billion.

This is a quantification of the unintended tightening consequence per year of the Fed's QE programs. **This means the Fed will now potentially be pulling $400 billion per year out of the economy**.

This is a conundrum for the Fed. So what can it do? Well we know that all of the Fed's interest income has to be sent over to the U.S. Treasury. If the U.S. Treasury takes that $83 billion it will get this year and spends it on stuff, defense, or something inside the U.S., does not give it away overseas or does not bank it to reduce future debt obligations it was planning on issuing to run the country, then that reduces this tightening by up to 83 billion per year. However, if the money is wasted, given overseas, or banked, then it is not returned to the economy and is a legitimate tightening of the money supply. If the Treasury spends it domestically, then the tightening is reduced from $400 billion per year to $317 billion per year.

With $180 billion of U.S. Treasury funds heading over to the Fed to retire the Treasury securities the Fed holds, the only way this monetary tightening event can be reversed is if the Fed buys back another $180 billion of different Treasuries to replace those that were on its balance sheet, in effect, doing another QE program, possibly on an unannounced stealth basis. If they do that, it should be easy enough to spot, because the amount of securities held on the Fed's balance sheet will not change when it should have decreased by $180 billion. If the Fed does not replace these securities with more securities, it is a tightening.

As for the $136 billion in payments and prepayments on MBS held by the Fed, that also will be a tightening unless that amount is mitigated by one of the following: 1) The Fed actually bought garbage Mortgage Backed securities, mostly mortgages far in delinquency or foreclosure, in which case those will not prepay, but rather the Fed will now find itself in the real estate business and must reclassify these MBS to other assets or must write their value down based upon the new true values those MBS securities hold. 2) Or, the Fed can do a stealth replacement of those prepaid securities by purchasing more securities from the economy.

If the Fed reinvests the dollars it receives from maturing Treasuries and MBS in an equivalent amount of different securities, its balance sheet assets figure will remain the substantially the same, and it would mean the Fed is kicking the can down the road, a problem to be dealt with in a future year.

So, any way we cut it, the Fed has a big problem because of its past QE programs with the unintended consequence of paying the piper with a tightening of the money supply, perhaps at the worst time possible, when the economy remains sluggish. The Fed can hope the economy miraculously picks up steam, enough to justify the Fed dumping these securities as part of a planned tightening that the economy can handle, however, as we saw with the GDP and stock market analysis, it sure looks like GDP and stocks did well primarily because of QE programs which have now been stopped. This is a mess to be reckoned with and could be a significant contributor to the coming Bear Market in stocks.

"Jesus said to them, "I am the bread of life; he who comes to Me shall not hunger, and he who believes in Me shall never thirst.

For I have come down from heaven,
For this is the will of My Father, that everyone who beholds
the Son and believes in Him, may have eternal life;
and I Myself will raise him up on the last day."

John 6: 35, 38, 40

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