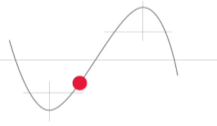

Applied Insights

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Feature Insight

Quantitative easing is ending .... Should you care?

Our answer to this question is: "No. Concerns about the end of QE are overblown." Many believe QE programs have played an outsized role in the buoyancy of stock prices in recent years. If this were true, then it would be reasonable to ask about the possible market risks of a winding down of QE. What are these risks?

First, it would be useful to describe how QE has supposedly benefited stock prices. Then we can comment on the potential market risks:

QE Effect 1: To the extent that QE has had the effect of driving long-term interest rates lower, purchases of fixed income securities by the Fed have had a positive effect on stock prices. Lower bond yields mean that expected stock returns, ceteris paribus, compare more favorably to bond alternatives, causing investors to increase the valuation applied to equities as result of a lower discount rate.

Comment: We agree with this argument. Low interest rates have been an important favorable factor for the stock market in recent years. However, as long as interest rates are not "significantly" higher, a favorable environment for equities can continue. This can occur because initial increases in interest rates reflect an improving economy – which is an offsetting favorable factor for the equity market. For example, long Treasury rates are materially higher than two years ago – yet stock prices are higher as well. Probably more importantly, long-term interest rates reflect primarily expectations for future short-term rates. The end of QE does not mean that expectations for the future course of short-term rates will significantly change.

QE Effect 2: QE changes the composition of private sectors financial assets. The private sector loses the bonds which the Fed purchases and, in return, gains bank reserves or bank deposits. To the extent these assets are redeployed into alternative assets, a "portfolio rebalancing effect" has favorably impacted stock prices.

Comment: Asset prices in general have benefited from this effect. However, the impact on stock prices has been uncertain yet likely immaterial. First, bond investments typically move to alternative fixed income securities. Second, even if a relatively large part of the $85B a month found its way into the stock market (say $20B), this number pales in comparison to average monthly market volume (well over $1 trillion), as well as other potential sources of market demand. In any case, this "portfolio rebalancing" effect may have been a modest positive but we would not be concerned about its disappearance.

> *" ..... the direct impact of QE actually* ***removes*** *money from the system."*

QE Effect 3: QE has benefited stock prices because the Fed has been "printing money", thus increasing liquidity in the overall system.

Comment: This increase in "liquidity" is mythical. While the Fed has been "printing money" to fund bond purchases, these purchases have only amounted to a change in the composition of private sector financial assets, not an increase. Bond purchases by the Fed are, in effect, an asset swap. When the Fed purchases

bonds, bank reserves or deposits are created ex-nihilo (out of thin air) and become a liability on the Fed's balance sheet. However, while the Fed is creating a private sector asset ex-nihilo, they are also removing ("unprinting", if you will) from the private sector a real asset which had previously existed (the bonds) so there is no increase in private sector financial assets overall – despite the "money printing". Further, since the reserves yield less than the bonds, the banks (the private sector) lose interest income. Hence, the direct impact of QE actually **removes** money from the system. We estimate that a cumulative $500 billion (the Fed's "profit") has been removed since 2008. Former Fed Chairman, Ben Bernanke, has said so himself, "We actually make a very nice profit on these LSAPs (large scale asset purchases)." Over the last three years, the Fed has transferred roughly $200 billion in profits to the Treasury Department (*"Bernanke Seeks to Dispel Fed Myths"* – American Banker, 3/30/2012).

Thus, the direct effect of QE acts as a tax and it is mildly deflationary, not inflationary as many pundits believe. Needless to say, given this reality, there is no reason to be concerned about the withdrawal of the mythical "liquidity" impact of QE on asset prices. Indeed, when QE is discontinued, the ongoing interest income drain on the economy which it creates will be removed and thus will be mildly stimulative to economic growth.

QE Effect 4: QE has resulted in an enormous increase in bank reserves. This has led to concerns that bank loans could potentially increase dramatically, similarly boosting

> *"We actually make a very nice profit on these LSAPs" – Ben Bernanke, 2012.*

the stock market at least initially but also the money supply and inflation. A withdrawal of QE will mean that bank reserves should stabilize but they will not necessarily decline. Thus this potential concern would remain.

Comment: Yes, while bank reserves have grown, increased loan activity (which would boost the money supply) has not materialized. Bank loan activity is not a function of bank reserves. That too is a myth. Loan activity is a function of loan demand, credit standards, and loan profitability.

When the banking system makes a loan, it expands its balance sheet, increasing its assets (the loan) and its liabilities (the deposits from the loan). It does not "lend" deposits or reserves. Consequently, concerns about the level of bank reserves are unwarranted. The Federal Reserve itself has acknowledged these facts, most notably in their paper, *"Money, Reserves, and the Transmission of Monetary Policy: Does the Money Multiplier Exist?"* (Seth Carpenter, Associate Director of Monetary Affairs, Federal Reserve Board, Washington D.C. 2010). Among other things, the paper concluded "Changes in reserves are unrelated to changes in lending, and open market operations do not have a

> *"Changes in reserves are unrelated to changes in lending ….. the textbook treatment of money in the transmission mechanism can be rejected."*

direct impact on lending. We conclude that the textbook treatment of money in the transmission mechanism can be rejected." More recently, the Bank of England published a similar paper with the same conclusion: *"Money Creation in the Modern Economy"* (BOE Quarterly Bulletin Q1 – 2014).

Today, bank reserves are 30 times the $80 billon which existed in 2007. Yet loan activity is lower than in 2007, demonstrating the point.

Conclusion: The winding down of QE is essentially a non-event in terms of its potential impact on equity prices. To the extent that stock prices decline because there is a "perception" that QE's end has removed an important equity market support, this would present a possible opportunity for investors.