CAMBRIDGE ASSOCIATES LLC

INVESTMENT PUBLICATIONS HIGHLIGHTS

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Investment Publications Highlights

Summarized by Published Research Team

Editor's Note: *The summary below is included as it reflects much of the sell-side thinking we have encountered regarding the impacts of quantitative easing. As a reminder, we try not to include only summaries of research with which we are agree, but a variety of opinions on topics of importance.*

"Benefits and Costs of QE2" by Peter Hooper and Torsten Slok, Deutsche Bank, September 29, 2010

A new round of quantitative easing will likely be announced at the next Federal Reserve (Fed) meeting. Although there is a range of forecasts regarding its possible impact, the actions are likely to have beneficial effects on financial markets and the economy. There are, however, several potential and interrelated costs (e.g., potential revenue drain and capital losses). On balance, the benefits seem to more than offset the associated costs of the program.

The Fed will probably announce another round of large-scale asset purchases, or quantitative easing, at its next meeting. This program will most likely be focused on Treasuries, as the Fed's Agency mortgage-backed securities (MBS) holdings now amount to roughly 20% of the outstanding stock of MBS thanks to the quantitative easing program implemented in March 2009. The intention of quantitative easing is to push longer-term interest rates down and thus stimulate the economy, support inflation expectations, and keep inflation from falling further. The primary channels of transmission are via lowering the cost of credit, boosting asset prices, and depreciating the dollar.

Although most market participants agree that another round of quantitative easing is imminent, there is a range of forecasts regarding its potential size and impact on financial markets and the economy. For instance, estimates of the impact on ten-year note yields of $100 billion in quantitative easing range from a decline of 2 basis points (bps) to 7 bps, indicating a considerable degree of uncertainty. Assuming the Fed engages in a total of $1 trillion of new quantitative easing, the total decline in ten-year yields would be around 50 bps, based on 5 bps per $100 billion (near the middle of the range). However, some of this effect has already been priced into the market (i.e., the 20 bp drop in yields since quantitative easing became widely discussed suggests that the market is already assuming a quantitative easing program of roughly $400 billion).

With respect to equity prices, a 50 bp decline in the ten-year Treasury yield will lower the equity discount rate by about 35 bps, which could trigger a 9% jump in the S&P 500 Index (i.e., to 1,250). However, the announcement of quantitative easing may increase uncertainty about earnings prospects or the equity risk premium, as the implementation of another large-scale asset purchase may be interpreted as a sign that economic prospects are poor. Ultimately, any initial declines are likely to be more than offset in the longer term, as the beneficial effects from quantitative easing begin to reverberate through the economy. Thus, it seems reasonable to estimate a net positive impact of 5% on the equity market.

Turning to the broader economy, Macroeconomic Advisers has developed a reasonable forecasting model, which appears to generate broadly similar

results to the Fed staff's economic model. It indicates that a sustained 0.5% reduction in the ten-year Treasury yield would raise the level of GDP by about 0.7% over two years. The unemployment rate would be reduced by 0.2% and 0.5% after one and two years, respectively. Inflation would be raised only marginally. Lower long-term interest rates, meanwhile, also reduce debt service payments on existing debt, thus improving household cash flow and potentially boosting spending. At the same time, however, there is also an offsetting negative effect, as lower rates cause the interest income of households to drop. Since households in the aggregate hold about as much in fixed income assets as they owe in debt, the cash flow effect may be neutral or even slightly negative to the extent they have found it difficult to refinance mortgages recently.

There are several potential and interrelated costs associated with quantitative easing, including the exit challenge, the U.S. dollar, the Fed's credibility, and its potential revenue drain and capital losses. For instance, fears of debt monetization could easily emerge given that the national debt is spiraling toward historical levels. A loss of confidence in the Fed could also hit the dollar, with the risk that a slide could become a rout, disrupting foreign trade and generating protectionist reactions. The payment of interest on reserves, meanwhile, will rise as the Fed eventually begins to tighten policy. Currently, the Fed enjoys a substantial cash flow surplus. However, that surplus could diminish and quickly turn into a deficit as the Fed funds target returned to more normal levels. Finally, there are potential capital losses on additional purchases. As long as the Fed holds its assets to maturity, it does not have to record capital losses. But if the management of its huge stock of excess reserves proves insufficient to prevent a rapid expansion of credit and rising inflation expectations, the Fed could have to sell its Treasury and MBS holdings to counter these pressures. This would push rates up further, exacerbating its losses.

On balance, the gap between costs and benefits seems positive and large enough to justify Fed action against even the small risk of a slide into deflation. With that said, the cost side of the equation augurs in favor of a program that is flexible (i.e., without a large commitment announced up front), which is the most likely outcome, but also one that could diminish some of the benefits.

"The Recklessness of Quantitative Easing" by John Hussman, Hussman Funds, October 18, 2010

Following continued weakness in the U.S. job market, Fed Chairman Ben Bernanke recently confirmed the market's expectation that the Fed will resume quantitative easing as early as November. This will offer little relief, as it will not address the underlying problem of a lack of demand for credit. The best course of action that the Fed could take to increase economic output would be to focus on specific areas of the banking system where lending is constrained and take steps to encourage sound lending policies.

Following continued weakness in the U.S. job market, Fed Chairman Ben Bernanke recently confirmed what the markets have long expected—that the Fed will resume quantitative easing in the United States as early as November. The new round of quantitative easing, undertaken in an effort to increase U.S. output and lower unemployment, has two targets. The first is to lower long-term interest rates and to stimulate loan demand and discourage saving; the second is to increase the supply of lendable reserves in the banking system. It is helpful to assess the ability of the Fed to achieve its goals with the new round

of quantitative easing by using a constrained optimization framework. Relaxing a constraint only improves an outcome if that constraint is binding. Unfortunately for the Fed, the constraints on neither the demand side nor the supply side that they are trying to relieve are binding, and thus the success of quantitative easing seems unlikely.

Assessing the Fed's first objective of lowering long-term interest rates to increase loan demand shows that the United States is currently in a liquidity trap. Interest rates are already so low that further decreases are likely to have little effect on overall loan demand. The real problem is that neither businesses nor consumers can find attractive business opportunities in which to invest, as confidence is lacking that such projects will generate sufficient yields to make borrowing worthwhile. Instead of looking for new loans or borrowing to bring consumption forward, businesses and consumers are looking at their current debt levels and focusing on deleveraging. While this is prudent, it becomes a problem when everyone tries to save more and pay down their debts at the same time, as the increase in savings that occurs at the aggregate level does not funnel into productive investments, creating a drag on output.

On the supply side, the objective of the Fed is to increase the amount of lendable reserves. With U.S. commercial banks holding about $1.07 trillion worth of reserves with the Fed and another $1.63 in Treasury and Agency securities, there is already more than enough liquidity in the banking system to make new loans. Corporations have record amounts of cash and marketable securities on their balance sheets as a precautionary measure, and many are hesitant to undertake new, productive investments. It is hard to see the marginal benefit of another $1 trillion in excess reserves in the U.S. banking system.

Quantitative easing poses significant risks without clear, measurable benefits. Further doses will have little effect on economic activity as the objectives that it wishes to achieve are misguided and not binding at the present time. One result of the market's anticipation of further quantitative easing is the recent significant weakening of the U.S. dollar as markets predict a period of sustained low interest rates in the United States relative to other countries. This currency volatility threatens to destabilize international economic activity and confidence. At home, contrary to popular economic rationale, a falling dollar will not necessarily increase exports and reduce imports to close the trade deficit and contribute to growth in the United States. Over the last two decades, U.S. imports have been more responsive to the U.S. dollar than exports. This suggests that a depreciating dollar would likely have a negative wealth effect in the United States, as consumers face higher prices for imported goods. Thus, any improvement in the trade deficit would be largely offset by lower personal consumption and a drag on output growth.

How the Fed plans to unwind quantitative easing is a subject that could use more attention. As it is unlikely that quantitative easing will result in a greater utilization of the existing slack capacity and labor in the economy, when the economy eventually does turn around, the Fed will be faced with tough choices. Attempting to offload a large amount of its Treasury holdings into an expanding economy runs the risk of pressuring rates upward. Japan was able to successfully exit its quantitative easing in the past, but has a much higher savings rate and sells 95% of its debt domestically. Considering that over 50% of U.S. Treasury debt is held outside the United States, it may become increasingly difficult to entice foreign investors to bid on Treasuries, potentially pushing up rates. Any ensuing losses for bond holders might prematurely restrict renewed economic growth. The best course of action that the Fed can take to increase economic output and employment is to

focus on specific areas of the banking system that are constrained and work to encourage sound lending policies. By pursuing its current course, the Fed is seeking to relax constraints that do not exist. As such, the dollar weakens, international economic activity becomes increasingly volatile, and the "boom-bust" cycle of markets makes investments by corporations and individuals more difficult. Only when borrowers start to feel that they have sufficient opportunities and means to put capital to work in productive projects will they begin to do so.

"QE-20: The Global Monetary Analyst" by Joachim Fels, Manoj Pradhan, and Spyros Andreopoulos, Morgan Stanley, October 13, 2010

Taking advantage of the two-track global recovery and the U.S. dollar's status as the world's reserve currency, the Fed, by weakening the dollar or raising inflation expectations (or possibly both), can attempt to use further monetary policy as a way to stimulate growth in the United States and other developed markets economies.

The divide between emerging and developed markets is evident from the two-track nature of the global economic recovery. Industrial output in developed markets economies remains below the peaks reached before the recession, while output in most emerging markets economies has rebounded above prior peaks. A short-term economic boom in emerging markets countries could help narrow this divide, as the resulting increase in consumption would boost demand for exports from developed economies, which, in turn, would benefit from importing some inflationary pressures. However, this boom might require higher emerging markets inflation or currency appreciation, which curbs emerging markets enthusiasm to coordinate with developed markets on such an outcome. The Fed, with a new round of quantitative easing, or QE2 as the markets have coined it, may be able to unilaterally achieve a similar result.

By weakening the U.S. dollar and/or raising inflation expectations in the United States, the Fed is attempting to use further monetary policy as a way to stimulate growth. The Fed has made it known that it plans to continue to undertake aggressive and unprecedented monetary policy actions to ensure that deflation is avoided. As yields remain suppressed in the United States and other parts of the developed world, investors seeking yield should continue to pour capital into the emerging world. In exchange, emerging markets economies will export higher inflation through higher commodity and import prices aided by weaker currencies, helping developed markets work their way through their large and burdensome debt problems. How emerging markets economies handle rapid inflows of capital will be significant, but all things considered, the United States stands to gain by effectively exporting its monetary policy to the rest of the world.

There are two likely responses emerging markets economies will take to renewed monetary easing in the developed world. Emerging markets economies with a great amount of slack and low inflationary pressures will try to keep their currencies from appreciating through intervention in the foreign exchange markets or capital controls. The likely results of these actions would be higher domestic liquidity and rising asset prices, which fuel growth and boost demand for exports. Other emerging markets economies that are already fighting inflationary pressures may instead decide to let their currencies accelerate significantly. While this would limit domestic economic growth and subsequently curb a rise in incomes, U.S. exports would rise due to their improved affordability. Either way, the United States stands to benefit as loose monetary policy resulting in emerging

markets capital inflows leads to a weaker dollar and greater demand for U.S. exports.

The complicated interactions between developed and emerging markets economies are not without risks. Aggressive easing by the Fed may be met with equally aggressive action by emerging markets economies, which are hesitant to see their currencies appreciate too rapidly and their economies flooded with capital inflows. However, current concern about the risk of currency wars between emerging and developed markets economies is probably exaggerated. A separate risk for emerging markets economies is the risk of rising asset bubbles. While emerging economies have solidified their macroeconomic and financial stability in the last ten years, large financial inflows at a time of global economic weakness could pose significant unforeseen problems.

Whatever the response taken by emerging markets economies to efforts by developed markets countries to weaken their currencies, developed markets countries are likely to benefit via increased exports. The negotiating position of the Fed is especially strong, as it has potentially unlimited ammunition to try to keep rates low and weaken the value of its currency. However, one downside risk is the potential for an outbreak of trade wars, which may yield no clear victor. ■

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