



Would QE2 Have a Significant Effect on Economic Growth, Employment, or Inflation?

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The Federal Reserve significantly increased bank reserves and the monetary base after Lehman Brothers announced on September 15, 2008, that it had filed for chapter 11 bankruptcy protection. The Fed took additional steps toward quantitative easing (QE) on March 18, 2009, when it announced that it would purchase up to \$1.725 trillion in mortgage-backed securities and government and agency debt. Recent speculation that the Federal Open Market Committee (FOMC) may purchase an additional large quantity of government debt to stimulate economic growth, increase employment, and prevent deflation has prompted considerable debate over the effectiveness of additional quantitative easing (QE2). This synopsis analyzes some of the central issues in this debate.

One key issue is whether additional large-scale securities purchases by the Fed would cause interest rates to decline significantly. Recently Gagnon et al.¹ used several methods to investigate the effect of the FOMC's announced securities purchases (\$1.725 trillion) on the 10-year Treasury yield, which they estimate to be in the range of 38 to 82 basis points. Some might conjecture that an FOMC commitment to purchase, say, an additional \$1 trillion in securities could reduce the 10-year yield by a comparable amount (22 to 48 basis points). These estimates may be too large and need to be confirmed by further research. Moreover, some commentators (e.g., Narayana Kocherlakota, president of the Minneapolis Fed²) have suggested QE2's effect on Treasury yields may be "muted" because financial markets are functioning much better than they were in the spring of 2009.

There is another reason that the effect on interest rates could be small. Banks are currently holding about \$1 trillion in excess reserves rather than making loans and increasing the supply of credit to the non-banking segment of the credit market. It is possible—perhaps even likely—that almost all of any increase in the supply of credit associated with QE2 simply would be held by banks as excess reserves. If so, the effect of QE2 on interest rates could be small and

limited to an announcement effect—the effect associated with the FOMC's announcement—independent of the effect of the FOMC's actions on the credit supply.

Even if QE2 did affect interest rates, many believe that the effect on output or employment would be small. For example, Charles Plosser, president of the Philadelphia Fed and a nonvoting member of the FOMC, recently suggested that "[I]t is difficult...to see how additional asset purchases by the Fed, even if they move interest rates on long-term bonds down by 10 or 20 basis points, will have much impact on the near-term outlook for employment."³ One reason is that even in normal times, investment spending is not particularly responsive to changes in interest rates: Investment spending depends more on the economic outlook. Consequently, some analysts believe that reducing interest rates modestly from their already historically low levels is unlikely to stimulate aggregate demand: Little effect on aggregate demand implies a corresponding small effect on output and, hence, employment.

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Furthermore, even if QE2 significantly affected output, its effect on employment would likely be somewhat smaller than usual for two reasons. First, at least some of the current unemployment is likely to be structural (i.e., there is a mismatch between the skills of the unemployed and the skill needs of employers). There is little monetary policy can do about structural unemployment. Second, employment growth has been particularly sluggish in the previous two recessions, suggesting that post-recession employment dynamics differ greatly from those before the late 1980s, which suggests that the labor market has fundamentally changed. Hence post-recession employment growth could

remain relatively slow regardless of the FOMC's policy actions.

The effect of QE2 on inflation or inflation expectations is also uncertain. According to modern macroeconomic theory, inflation is determined by (i) economic agents' inflation expectations and (ii) the gap between actual and potential output. Currently, the estimated gap between actual and potential output is negative and large. Consequently, in order to affect inflation by the gap mechanism, QE2 would have to significantly increase output relative to potential, but (as noted above) the effect on output is questionable.

Based on statements by Chairman Ben Bernanke and other FOMC members there is widespread belief that the FOMC's longer-run inflation objective is about 2 percent, well above both current inflation and market-based measures of inflation expectations. Hence it seems unlikely that QE2 would raise inflation expectations unless the FOMC signaled that it was seeking inflation above the implicit 2 percent objective, at least in the short run.⁴

Some analysts and market participants believe inflation is the consequence of excessive money growth. That is, excessive money growth increases inflation independent of the size of the output gap or inflation expectations. Growth of the M1 and M2 monetary aggregates accelerated sharply after the Fed began QE in September 2008, but then declined as banks increased their holdings of excess reserves. If banks decide to hold most or all of QE2 as excess reserves, there would be no corresponding increase in the money supply and, consequently, no increase in inflation. Some analysts are already concerned about the potential inflation consequences of the Fed's previous QE measures. To the extent that QE2 would exacerbate those

concerns, it could raise inflation expectations. However, it is questionable whether inflation expectations would rise appreciably without either a corresponding increase in actual inflation or the FOMC signaling a higher inflation objective.

Finally, it should be noted that QE2 could have adverse effects. For example, Plosser has expressed concern that if the FOMC undertakes QE2 and the actions are ineffective, it could damage the "Fed's credibility and possibly erode the effectiveness of our future actions to ensure price stability." He suggests that QE2 might also raise concerns that "the Fed is seeking to monetize the deficit [which] might make it more difficult to return to normal policy" in the future. ■

¹ Gagnon, Joseph; Raskin, Matthew; Remache, Julie and Sack, Brian. "Large-Scale Asset Purchases by the Federal Reserve: Did They Work?" Staff Report No. 441, Federal Reserve Bank of New York, March 2010; www.newyorkfed.org/research/staff_reports/sr441.pdf.

² Kocherlakota, Narayana. "Economic Outlook and the Current Tools of Monetary Policy." Presented at the European Economics and Financial Centre, London, England, September 29, 2010; www.minneapolisfed.org/news_events/pres/speech_display.cfm?id=4555.

³ Plosser, Charles I. "Economic Outlook." Presented at the Greater Vineland Chamber of Commerce, Vineland, NJ, September 29, 2010; www.philadelphiafed.org/publications/speeches/plosser/2010/09-29-10_vineland-chamber-of-commerce.cfm.

⁴ For example, see Thornton, Daniel L. "The Lower and Upper Bounds of the Federal Open Market Committee's Long-Run Inflation Objective." Federal Reserve Bank of St. Louis *Review*, May/June 2007, 89(3), pp. 183-93; <http://research.stlouisfed.org/publications/review/07/05/Thornton.pdf>. Thornton shows that inflation and inflation expectations increased dramatically following the announcement by the FOMC in late spring and summer of 2003 that the Committee was concerned that inflation was too low when it was at the midpoint of what was then considered the FOMC's implicit inflation objective: a range between 1 and 2 percent.