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What Caused Long-Term Rates to Rise?

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On March 18, 2009, the Federal Open Market Committee (FOMC) announced that it would purchase longer-term securities (Treasuries and mortgaged-backed securities) in an apparent attempt to reduce longer-term rates (i.e., to flatten the yield curve).[1] There was an immediate announcement effect: Longer-term yields declined dramatically, by about 50 basis points. This is shown in Figure 1, which includes the Treasury coupon yields on March 17 and 18. Since then, however, longer-term rates have risen sharply; the yield curve is now more steeply sloped than it was before the FOMC's announcement. This is also illustrated in Figure 1, which compares the coupon yields for March 17 and 18 and June 25. As I explain in this essay, the marked rise in longer-term rates is reflected in a rise in both real rates and expectations for inflation.

Figure 2 shows implied 5- and 10-year inflation expectations—obtained by subtracting the yields on 5- and 10-year inflation-indexed government securities from the yields on comparable nominal coupon Treasuries—over the period March 2 through June 25, 2009. (The vertical line denotes March 18.) As shown, 5- and 10-year inflation expectations increased by about 80 basis points between March 18 and June 25.

Figure 3 shows the estimated zero-coupon, inflation-indexed Treasury yield curve for maturities ranging from 2 to 20 years for March 17, March 18, and June 17, 2009, the most recent date for which estimates are available. The March 18 announcement effect was associated with about a 50-basis-point reduction in real long-term rates. Hence, all of the announcement effect appears to be due to an expectation effect on real long-term yields. Figure 3 also shows that

Figure 1
Treasury Coupon Yield

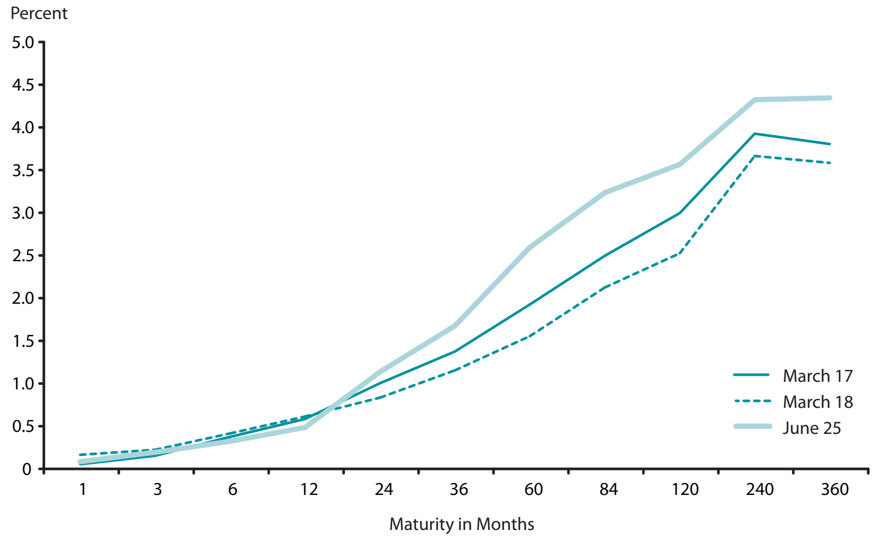


Figure 2
Inflation Expectations (5- and 10-year)

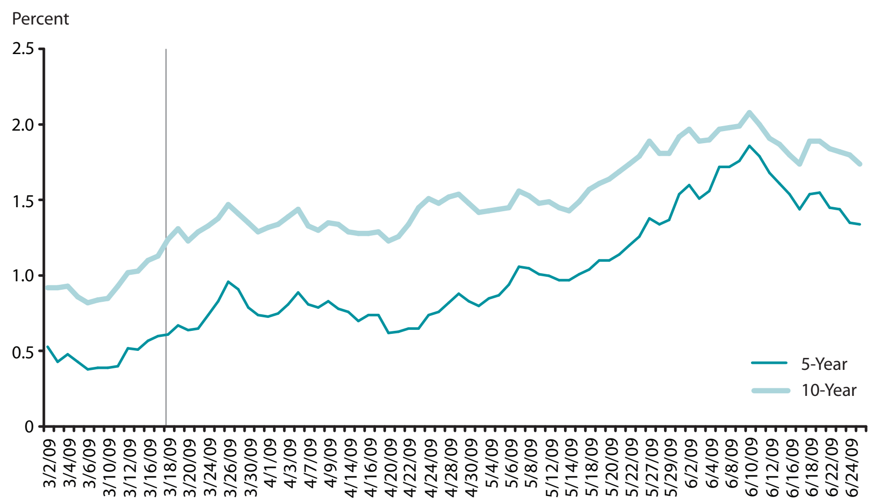
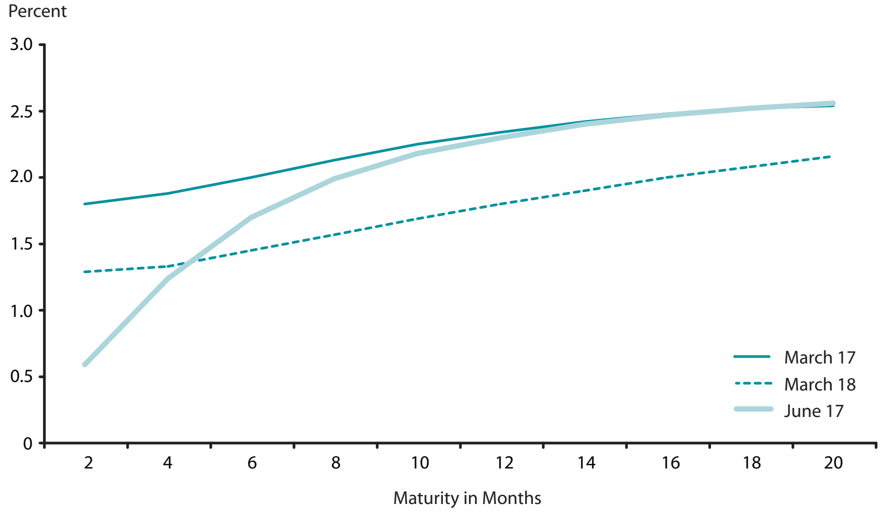


Figure 3
Zero-Coupon Yield



since March 18 real interest rates have risen, except at the shorter end of the yield curve, where they have declined. For maturities of 10 years or longer, real long-term yields have essentially returned to their pre-announcement level.

The marked rise in longer-term rates is reflected in a rise in both real rates and expectations for inflation.

Together these figures suggest that the recent rise in long-term yields is due to heightened expectations for inflation and a rise in real rates. For example, the nominal yield on 10-year coupon bonds increased nearly 115 basis points between March 18 and June 17. Over this same period, estimates of the real rate (see Figure 3) indicate that the real 10-year yield has increased about 50 basis points and 10-year inflation expectations (see Figure 2) have increased by about 60 basis points. The rise in real rates likely reflects improved expectations about the real economy. The rise in inflation expectations likely reflects (i) the fact that several inflation measures have risen recently and (ii) concerns that the recent marked increase and expected future increases in the monetary base will ultimately lead to higher inflation.[2] ■

[1] See Thornton, Daniel L. "The Effect of the Fed's Purchase of Long-Term Treasuries on the Yield Curve." *Economic Synopses*, Number 25, May 18, 2009; http://research.stlouisfed.org/publications/es/09/ES0925.pdf.

[2] See Bullard, James. "Effective Monetary Policy in a Low Interest Rate Environment." The Henry Thornton Lecture, Cass Business School, London, March 24, 2009, http://www.stlouisfed.org/newsroom/speeches/2009_03_24.cfm.

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