Monetary Trends

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Monetary Policy, Bubbles, and Goldilocks

Emerging signs of stronger economic activity and the Federal Open Market Committee (FOMC)'s second round of quantitative easing (QE2) have raised concern among some analysts that expansionary policy might be causing bubbles in financial and commodity markets—bubbles that might harm the economy if they burst. Prices for bonds, equities, and commodities have increased sharply since late August: The Reuters Jefferies/CRB weekly futures commodity price index increased by 22 percent (in U.S. dollars) through the week of November 9 (but fell sharply the following week), oil prices by 22 percent, the *Economist* food-price index by 20 percent, the Russell 2000 Index by 22 percent, and the broader S&P 500 Index by 15 percent. Given these increases, the concern over bubbles is reasonable, but it is difficult to distinguish beforehand the line between aggressive ("just right") monetary policy and *overly* aggressive ("too hot") monetary policy that generates bubbles.

Rapid increases in commodity and financial market prices by themselves, however, are not reliable indicators of potential bubbles because such increases also occur as part of normal monetary policy. How exactly does policy operate in normal times when the federal funds rate is well above zero? The path begins with a reduction in the target rate, continues with changes in longer-term interest rates, and is followed by increases in real economic activity.[1] Disappointingly low returns on short-term, low-risk investments prompt investors to move to longer-term, higher-risk investments in financial instruments, commodities, and durable goods. In turn, bond and equity prices rise, decreasing corporate borrowing costs and increasing household wealth. There also is a price effect: Broad expectations of higher prices for goods and services in future periods induce firms and households to spend money now rather than later. And there are lags: Increasing the production of residential and nonresidential durable goods (including structures and durable equipment) takes time. During this "time to build,"[2] both the *size* and *duration* of the difference between the contemporaneous prices of financial and real assets and their long-run values are larger, *ceteris paribus*, when monetary policy is more aggressively expansionary and increases in aggregate demand are stubbornly slow. Eventually, as the economy rejoins its balanced growth path, bond prices fall (yields increase) as real interest rates and expected inflation increase.

Commodity price movements are more complex and involve several factors. One factor is the potential success of expansionary monetary policy: If economic activity expands, demand for commodities likely will increase, pushing futures prices upward, which, in turn, tends to increase current-period prices. Further, some analysts have suggested the expansion of hedge funds and similar investments over the past decade may have increased the speed and volatility of commodity price changes.[3] A second factor is the decreased foreign exchange value of the dollar as a result of aggressive monetary policy. Because most commodities are freely traded in international markets, commodity prices in U.S. dollars tend to increase as the dollar's value against other currencies falls. As James Hamilton discussed in his blog on November 10, 2010, recent data show that changes in the U.S. dollar price of oil closely approximate changes in the dollar's exchange value against our trading partners.[4]

As long as the FOMC's pursuit of highly expansionary policy continues, households and businesses remain pessimistic, and demand is sluggish, the potential exists for asset prices to deviate from their long-run levels by large amounts and for long periods. Such increases per se are not bubbles but a commonplace reaction of the monetary transmission mechanism. Yet, monitoring of prices is essential lest future adjustments be misunderstood by the public as part of the dynamics of aggressive monetary policy. Whether bubbles have been generated remains to be seen.

—Richard G. Anderson

[1] During the mid-2000s, it was suggested that the transmission mechanism might have changed because longer-term market yields were dominated by international financial flows (e.g., see Thornton, Daniel T. "The Monetary Policy Transmission Mechanism?" Federal Reserve Bank of St. Louis *Monetary Trends*, September 2005; http://research.stlouisfed.org/publications/mt/20050901/cover.pdf). Even if true then, the apparent success of the FOMC's QE program between March 2009 and March 2010 suggests this is no longer the case.

[2] Kydland, Finn E. and Prescott, Edward C. "Time to Build and Aggregate Fluctuations." *Econometrica*, November 1982, *50*(5), pp. 1345-70.

[3] Basu, Parantap and Gavin, William. "What Explains the Growth in Commodity Derivatives?" Federal Reserve Bank of St. Louis *Review*, January/February 2011, *93*(1) (forthcoming).

[4] Hamilton, James. "Commodity Inflation." Econbrowser; November 10, 2010; www.econbrowser.com/archives/2010/11/commodity_infla_2.html.