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To the memory of John Youngdahl
Valued Friend and Colleague

Bernanke Battles U.S. Deflation Threat

By John H. Makin

The U.S. inflation rate is falling, with the Consumer Price Index at 0.8 percent—down from 2.6 percent in 2006. Some observers are calling for tighter monetary policy, but students of the Great Depression know that such action in the face of rising deflation risks is dangerous. Additional quantitative easing, as proposed by Federal Reserve chairman Ben Bernanke, is a necessary, though not sufficient, measure to preempt deflation and a possible economic relapse.

Federal Reserve chairman Ben Bernanke has declared war on deflation by articulating an inflation target for the Fed and proposing additional quantitative easing, or creation of money. Opponents of Bernanke's bold step—including members of both the Federal Open Market Committee and the *Wall Street Journal* editorial board—are pressing for tighter monetary policy, claiming that rising gold prices, a weaker dollar, and rising inflation expectations are danger signals that the Fed should heed instead of pursuing further quantitative easing.

The inescapable fact, however, is that actual U.S. inflation keeps falling. The year-over-year change in the core Consumer Price Index (CPI) has dropped to 0.8 percent, well below the market level of inflation expectations—which has been above 2 percent—and far below the 2.6 percent inflation that prevailed in 2006 before the onset of the financial crisis. Moreover, the history of the Great Depression carries a serious warning against Fed tightening now. After the United Kingdom departed from its gold standard in September 1931, the U.S. gold stock fell as fears rose of a U.S. devaluation of the dollar against gold. Alarm about the gold outflow moved the Federal Reserve to boost the discount rate sharply during October and November 1931, first from 1.5 to 2.5 percent and then to 3.5 percent. In mid-1932, the Fed briefly pursued the equivalent of quantitative easing (purchasing about a billion dollars in U.S. securities) as inflation, output, and the money

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Key points in this *Outlook*:

- Zero interest rates, falling inflation, and large cash holdings by households and firms are symptoms of rising U.S. deflation pressures.
- Higher gold and commodity prices and a falling dollar have stoked fears that additional quantitative easing would be overly inflationary.
- The dangers of deflation outweigh the risks of inflation. While a second round of quantitative easing is no miracle cure, it is necessary medicine for an ailing economy.

supply continued to drop. During the spring of 1932, the House Subcommittee on Banking and Currency was pressing the Fed to purchase bonds in the open market until wholesale prices had risen back to their 1926 level—an early version of price-level targeting. While the Fed undertook open-market purchases in June 1932, once Congress adjourned for the summer, the Fed's activity tantamount to quantitative easing was stopped and bank reserves were allowed to fall again. Allowing a money-contracting drop in bank reserves, after boosting them in the face of the continued fall in prices and output, resulted in the banking panic of 1933, which substantially prolonged the Great Depression.

While there are differences today, insofar as output and prices are not actually falling, the ominous drift toward deflation—with interest rates already at zero—suggests the need for Fed action to preempt deflation, even though the integrity of the banking system is not in question, as it was in 1933.

There may be a close parallel in the United States today with the situation of Canada in the early 1930s. Unlike the U.S. banking system, the Canadian system was not impaired by the financial crisis that erupted in 1929. Canadian output fell as rapidly as U.S. output did between 1929 and 1933 because of the rush into cash that exacerbated the collapse in excess demand—similar to the rush into cash in the United States over the past several years, reflected by a sharp drop in money velocity. Rising "safe-haven" deposits in a stable banking system can accelerate a deflationary rise in cash hoarding.

In these circumstances, the following questions are fundamental: First, how serious are current U.S. symptoms of incipient deflation and the threat of a possible economic relapse? Second, and cutting in the opposite direction, why are gold prices rising as the trade-weighted dollar weakens, and how serious an inflationary threat do these symptoms signal? This *Outlook* addresses each of these questions, concluding that the risks of deflation in the United States substantially outweigh the risks of inflation—the rise in the price of gold and the fall in the trade-weighted dollar notwithstanding.

Liquidity Trap

On Saturday, October 16, Chicago Federal Reserve president Charles Evans finally said it: the United States is in a "bona fide liquidity trap," adding that the economy needs "much more" monetary accommodation.[1] The day before, Bernanke—addressing the same Boston Federal Reserve conference where he had, eleven years earlier, chided the Bank of Japan for being too timid in its battle against deflation—reiterated his rising concern about the falling rate of U.S. inflation: "[I]n effect, inflation is running at rates that are *too low* relative to levels that the [Open Market] Committee judges to be most consistent with the Federal Reserve's dual mandate in the longer run."[2]

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Better late than never—at least one hopes. Regular readers of the *Economic Outlook* are familiar with my heretofore unfashionable concern about the dangers of deflation. I learned it from reading John Maynard Keynes and from studying with Milton Friedman, who urged all of his students to carefully read Keynes's *General Theory of Employment, Interest, and Money* (1936). Friedman and Keynes were the two greatest monetary theorists of the twentieth century and, like Bernanke, were experts on the Great Depression who knew and taught that deflation is even worse than inflation.[3]

The speeches by Bernanke and Evans, with their focus on rising deflation risks, are notable more for their tardiness than for their prescience. While I am heartened by their clarity and I applaud their courage in a world still somewhat obsessed with inflation risks, it is disconcerting to note that their warnings have come after a period of glaring evidence that the United States is indeed in a liquidity trap. After the Federal Reserve cut interest rates to zero and expanded its balance sheet by over $1.7 trillion (from a base of $800 billion) and after an ill-designed fiscal stimulus program costing over $800 billion, U.S. growth—following a brief surge late in 2009—has slowed steadily to a pace likely to be about 1 percent during the current quarter. The unemployment rate has held close to 10 percent, and the broader underemployment rate has stayed at about 17 percent for well over a year. As Bernanke aptly observed, the unemployment rate is stuck about 5 percentage points above the rates that prevailed just before the 2007 onset of the financial crisis.

Yet most compelling of all for Bernanke's and Evans's call for more drastic monetary stimulus (that is, additional creation of money) is the steady, downward path of inflation. As noted above, the U.S. year-over-year core inflation rate, the best predictor of overall inflation (because it excludes volatile, mean-reverting food and energy prices), has dropped steadily from a precrisis high of 2.6 percent in

2006 to 0.8 percent as of September 2010. In fact, the latest evidence of falling inflation was released on the very day of Bernanke's important address to the Boston Fed.[4]

One of the key reasons the Federal Reserve prefers to target a level of measured inflation above zero is the well-known upward bias in most widely used measures of inflation. Specifically, inflation measures fail to reflect in a timely manner the fact that consumers buy more of things whose prices are falling most rapidly, and so official measures that ignore that fact tend to be upwardly biased. The Federal Reserve Bank of Cleveland attempts to correct for the upward bias in the official federal inflation statistics by regularly calculating a "median CPI inflation rate." As Bernanke noted in his Boston speech, that statistic has risen by only 0.5 percent over the past twelve months. This is perilously close to zero, and the downward drift is likely to continue given the substantial excess capacity evident in the U.S. economy.

Anyone shopping on the Internet is well aware of outright deflation in some sectors of the economy. Internet search-engine giant Google, under the guidance of its chief economist, Hal Varian, has reported that it is developing a real-time measure of price behavior based on its real-time access to a huge and growing volume of Internet transactions. Initial reports, yet to be published, indicate pervasive evidence of outright deflation based on Google's measurement techniques.[5]

Deflationary Drop in Velocity

The pervasive evidence of incipient and rising U.S. deflation pressure has been present since the onset of the financial crisis in mid-2007, that is, for more than three years. Beyond the classic liquidity-trap evidence of zero interest rates with no rise in lending and borrowing (credit growth), alongside steadily falling inflation, the velocity of money has collapsed. Friedman's famous construct "monetary velocity" is the ratio of gross domestic product (GDP) (measured in current dollars) to the money supply (currency and bank deposits). Since 2006, as U.S. households and firms have accumulated cash in the face of rising uncertainty while the growth of nominal GDP (output growth plus inflation) has slowed, the velocity of M2[6] has dropped by about 14 percent. The large pools of cash, often cited as potentially inflationary, are actually a sign of incipient deflation. Households and firms are holding a lot of cash because of rising uncertainty and fear.

The drop in velocity is ominous because falling inflation can accelerate the rise in cash holdings that has already occurred because of higher uncertainty—Keynes's precautionary motive for holding cash. As inflation falls, the cost of holding money (instead of spending it on goods and services or acquiring risky assets) falls, and households and firms hold more cash. If outright deflation occurs, the demand for cash rises further as cash holders are encouraged to wait for still-lower prices. Deflation means that holders of idle cash accrue more purchasing power simply by not spending and so, as deflation takes hold, velocity falls even further. The result is that a steady pace of money growth supports even less growth of nominal GDP. This parallels the phenomenon that emerged in Canada between 1929 and 1933 when velocity growth collapsed in the face of falling prices and output.

The "quantity theory of money" says that the sum of money growth and velocity growth is equal to the growth rate of nominal GDP. As velocity growth slows, inflation and real output growth slow and unemployment rises.

One way to compensate for falling velocity or rising demand for money is to boost the supply of money. Here the Fed has encountered problems anticipated by Milton Friedman and Anna J. Schwartz in their study of the Great Depression.[7] The growth of the money supply is governed by the growth of the monetary base—the currency and bank reserves controlled by the Federal Reserve—and the money multiplier—the quantity of money (cash and bank deposits) created by banks out of the monetary base. Since 2007, the money multiplier has collapsed despite the surge in the monetary base that was driven by the Fed's asset-buying program initiated in March 2009. Banks have failed to intermediate by creating additional loans and deposits from the rising monetary base because of the weak-to-nonexistent growth in the demand for loans in an environment of sharply reduced mortgage lending and the related sharp contraction of the U.S. real estate sector. As a result, money growth has stagnated.

The Fed has been "pushing on a string," to use the term developed to describe the dilemma of ineffective monetary policy in a liquidity trap. The Fed boosts the monetary base by purchasing assets, but the money supply does not grow because the drop in the money multiplier tied to disintermediation by banks leaves money growth static. As uncertainty rises and inflation threatens to fall below zero (crossing the critical dividing line into deflation), velocity falls. With a static or falling money supply and falling velocity, nominal GDP growth also falls because of a combination of falling output growth and, eventually, a falling price level or deflation. If deflation accelerates, the drop in velocity growth also accelerates and the negative

impact on nominal GDP growth becomes self-reinforcing. A deflation spiral emerges.

What about Symptoms of Higher Inflation?

As many have pointed out, particularly those citing higher gold and commodity prices and a falling dollar, the United States has not yet entered a deflationary spiral. The *Wall Street Journal*, speaking for the still-substantial contingent of those who fear that the Fed's targeting of higher inflation with additional quantitative easing will be overly inflationary, was sharply critical of Bernanke in its October 16 editorial. The *Journal* noted that a further rise in the price of gold and a weakening of the trade-weighted dollar have accompanied the Fed's march toward easier money, especially since its August 21 downgrade of the U.S. growth outlook, and the editorial argued that these symptoms are ominous signs of an impending inflation surge.

The Falling Dollar. The *Journal*, somewhat oddly, invoked Treasury Secretary John Connolly's aggressive challenge to grumbling Europeans and Japanese after the "Nixon Shock" of August 1971—"the dollar is our currency but your problem"—to chide Bernanke for not having mentioned the dollar in his speech the day before. In one sense, the *Journal* is right to point out that there are risks of higher inflation from additional quantitative easing. Indeed, inflation expectations have risen by about fifty basis points since August. However, the *Journal*'s grousing tied to Connolly's cavalier attitude about a weaker dollar in 1971, about five years into a damaging fifteen years of rising U.S. inflation, is misguided. The dollar standard and the dollar's link to gold broke down in 1971 because an acceleration of inflation had been underway since Lyndon Johnson's "guns and butter" decision in 1967 to simultaneously pursue an expansion of the Vietnam conflict and an ambitious agenda of social programs called the "Great Society." The U.S. inflation rate had risen from about 1.5 percent in 1965 to more than 5 percent in 1969 and was still rising at a rate above 4 percent at the time of the Nixon Shock. Connolly's push for a weaker dollar was adding to a rising U.S. inflation trend that was already underway.

In 2010, Bernanke's support for additional quantitative easing, the prospect of which has weakened the dollar and boosted the dollar price of gold, is a reaction to a persistent drop in U.S. inflation since the onset of a financial crisis comparable in magnitude to the ones that precipitated the Great Depression and its deflation, as well as two decades of disinflation and deflation in Japan. Today's underlying economic context, with its sharp disinflation, is the opposite of the context of Connolly's remark, which was uttered after a half decade of rising U.S. inflation that caused the Bretton Woods system of fixed exchange rates to break down in 1971.

U.S. inflation needs to stop falling in order to avoid the risk of deflation and its attendant pain. If the dollar weakness that has occurred so far—about 15 percent on a trade-weighted basis—is not reversed, it could add about forty basis points or 0.4 percent to the U.S. inflation rate over the next two years. Let us hope that it does, especially since additional quantitative easing has not even been initiated yet. Even if quantitative easing starts as expected on November 3, at the close of the Federal Open Market Committee's next policy gathering, the long and variable lags operating on the link between faster money growth and higher inflation mean that outright deflation is still possible in 2011, especially in view of slowing U.S. growth and the attendant, persistent rise in excess capacity.

The simultaneous rise in Treasury bond prices (signaling deflation fears) and gold prices (signaling inflation fears) reflects a basic difference of opinion regarding the best store of wealth in current circumstances.

Gold Prices. The price of gold is more a measure of rising expected inflation in Asia and other emerging markets than it is in the United States. The Fed's program of quantitative easing, both the initial phase begun in March 2009 and the second phase expected since August 2010, has spilled into China, India, and other emerging markets such as Brazil. The governments of those countries have stepped up their currency intervention to prevent a rise in the value of their currencies that would harm their traded-goods sectors, which are burdened with excess capacity. The rise in expected U.S. quantitative easing boosted China's foreign-exchange reserves by $194 billion during the third quarter, and the attendant rise in money and credit growth has boosted actual and expected inflation in China and other emerging markets. (China boosted short-term interest rates by twenty-five basis points on October 19, 2010, to cool the rise in inflation.) Negative real interest rates in China have increased the demand for wealth storage by

inflation-wary Chinese. The high-end apartment boom in China and the sharp rise in the price of gold are both a result of the Fed's largely unsuccessful effort to stimulate the U.S. economy through monetary expansion that has spilled into China and other emerging markets—boosting their economies instead. Lacking alternative wealth-storage vehicles as China's government has clamped down on real estate speculation, the Chinese have become more aggressive buyers of gold, thereby boosting its price.

Gold is a default asset for wealth storage in a period of great uncertainty. Those predicting that rising U.S. deficits will boost inflation and cause a collapse in U.S. credit markets and the dollar have bought gold, even as U.S. inflation and interest rates have dropped steadily, sparking a huge rally in the U.S. bond market. The simultaneous rise in Treasury bond prices (signaling deflation fears) and gold prices (signaling inflation fears) reflects a basic difference of opinion regarding the best store of wealth in current circumstances. During 1933, a similar phenomenon occurred, as investors anticipated—correctly—a dollar devaluation against gold, while uncertainty and persistent deflation drove them to buy Treasury notes and bonds. Targeting the quantity of gold, by raising rates to prevent the outflow proved disastrous in 1932, just as targeting the rising price of gold would prove today.

The *Wall Street Journal* view suggests that Bernanke should target the price of gold and the value of the dollar with U.S. monetary policy, including tighter money and asset sales by the Fed—the reverse of additional quantitative easing. Should these measures be pursued until the price of gold stabilizes or falls and the dollar firms?

Listening to Keynes. While I am tempted to say, "Let's try it and see," my knowledge of the disastrous results following the Fed's 1932 monetary tightening (discussed above) makes me grateful that Bernanke is moving in the opposite direction. If disinflation continues, the risk of a self-reinforcing deflation spiral rises, something Bernanke and the Federal Reserve definitely want to avoid. That is why Bernanke spoke for the first time on October 15 of a "mandate-consistent inflation rate [of] about 2 percent or a bit below." Given that the trend core inflation rate is well below 1 percent and perhaps close to zero, once problems of inflation-measure bias are factored in, his statement was barely preemptive and, one hopes, not too late.

This deflation-risk conclusion is reinforced by the fact that the component of the CPI that accounts for the imputed rent of housing (the component is known as the "OER," for owner equivalent of rent) shows the price of housing as virtually flat over the last year after having actually *risen* by a cumulative 5.5 percent since 2006. Surely, the de facto 35 percent *drop* in the price of houses—as opposed to the sticky, imputed rental value of housing services used in the CPI—has exacerbated the risk of deflation psychology. The expectation of falling house prices has already taken hold even with record-low mortgage interest rates, as anyone attempting to sell a house knows. The fact that a collapse in house prices has led more people to rent housing, thereby prompting a modest substitution-induced stabilization of rental costs, offers limited comfort to the American homeowners contemplating a steady drop in the value of their primary asset.

Perhaps the *Journal*'s gold-obsessed editors ought to read the enlightening chapter on the "Great Contraction" in Friedman and Schwartz's *A Monetary History of the United States*—or even just have a look at the actual path of U.S. inflation, low U.S. capacity utilization, the related fall in U.S. velocity, and the static money supply—rather than harping on the dangers of Keynesian economics. As Friedman well understood, Keynes was not to be ignored concerning the dangers of deflation. It was the Keyne*sians*', not Keynes's, postwar obsession with trying to boost growth with even more inflationary policies that was detrimental. That massive mistake began with Johnson's Great Society programs in 1967 and finally ended with Paul Volcker's courageous anti-inflation measures undertaken in 1980–81. Now it is time to move on and confront the rising threat of deflation that we face in 2010.

No Panacea

A second phase of quantitative easing by the Fed, aimed at stabilizing currently falling inflation, does not guarantee an immediate return to sustainable growth, as some in the equity markets seem to believe, given the 10 percent–plus rise in the stock market since its August lows. Quantitative easing is a necessary but not sufficient condition to avoid a negative outcome in which a persistent drop in prices enhances money hoarding further and thereby depresses demand growth faster, as occurred in the Great Depression and has—to the dismay of many, including Bernanke—occurred over the last decade in Japan.

A revival of U.S. growth—and global growth—will also require lower tax rates on broader tax bases, control of

wasteful government spending, and avoidance of policy mistakes like letting deflation and deflation psychology take hold. The Federal Reserve is trying a bold policy experiment to help the country return to sustainable growth. Let us hope the new Congress does its part by undertaking basic tax reform, curbing spending growth, and not pursuing a trade war with China.

Notes

1. Charles Evans, "Monetary Policy in a Low-Inflation Environment: Developing a State-Contingent Price-Level Target" (remarks delivered before the Federal Reserve Bank of Boston's 55th Economic Conference, Boston, MA, October 16, 2010), available at http://chicagofed.org/webpages/publications/speeches/2010/10_16_boston_speech.cfm (accessed October 29, 2010).

2. Ben S. Bernanke, "Monetary Policy Objectives and Tools in a Low-Inflation Environment" (remarks delivered before the Federal Reserve Bank of Boston's 55th Economic Conference, Boston, MA, October 15, 2010), available at www.federalreserve.gov/newsevents/speech/bernanke20101015a.htm (accessed October 27, 2010). The italics on the words "too low" are in the original, and the Fed's dual mandate that Bernanke refers to is to foster stable, low inflation and maximum employment growth consistent with price stability.

3. John H. Makin, "Inflation Is Better Than Deflation," AEI *Economic Outlook* (March 2009), available at www.aei.org/outlook/100012.

4. See U.S. Department of Labor, Bureau of Labor Statistics, "Consumer Price Index Summary," news release, October 15, 2010, available at www.bls.gov/news.release/cpi.nr0.htm (accessed October 28, 2010).

5. See Robin Harding, "Google to Map Inflation Using Web Data," *Financial Times*, October 11, 2010.

6. M2 is a measure of the total currency in circulation plus several types of bank deposits.

7. Milton Friedman and Anna J. Schwartz, *A Monetary History of the United States: 1867–1960* (Princeton, NJ: Princeton University Press, 1963), chapters 7–9.

8. John H. Makin, *Capital Flows and Exchange Rate Flexibility in the Post–Bretton Woods Era*, Essays in International Finance Series (Princeton, NJ: Princeton University Press, February 1974).