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## Money Matters, Ultra-Low Long-Term Interest Rates and Feeble Growth

While the underlying causes, vulnerabilities, triggers and amplification mechanisms of the global financial crisis are still being — and likely will continue to be — debated, its deleterious effects on the real economy and financial markets are quite clear.

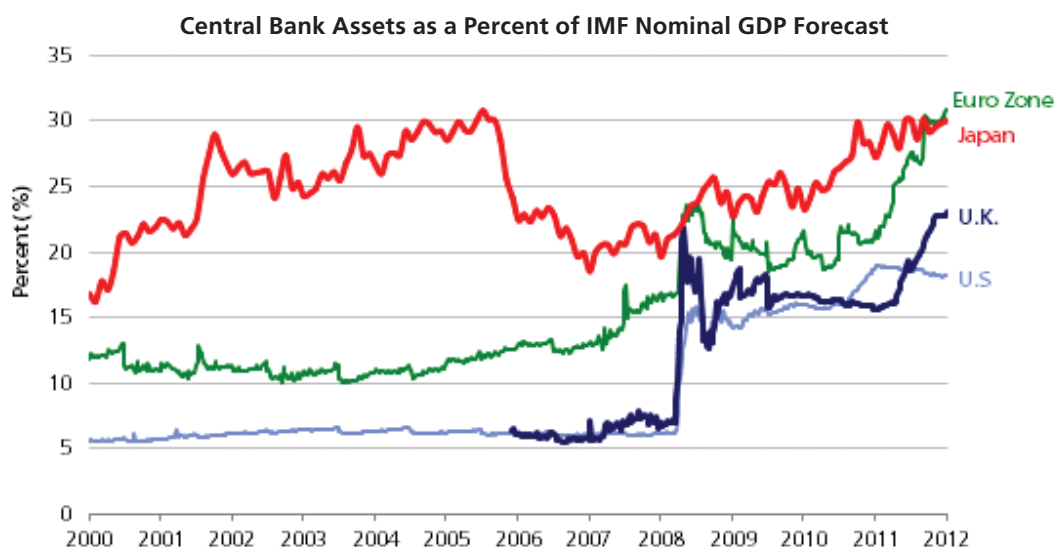
We witnessed a sharp and sudden decline in economic activity in advanced countries, as captured by the severe contraction in industrial production and the sharp increases in unemployment rates. Industrial production fell sharply from its early-2008 highs and has only partially recovered, remaining about 10% below its peak. The unemployment rate in the U.S. rose from less than 5% in late 2007 to above 10% toward the end of 2009; it remains north of 8% at the time of writing. Meanwhile, the turbulence in the financial markets had numerous and varied manifestations, among them a sharp increase in three-month Treasury/euro dollar spreads, problems in repo and asset-backed commercial paper markets and a correction in global equity markets.

### Central Bank Liquidity Has Not Jump-Started the Economy

In response to the financial shock and economic slowdown, the major central banks — including the Federal Reserve, the European Central Bank, the Bank of England and the Bank of Canada — lowered their target policy rates sharply; even the Bank of Japan's cut its already-low benchmark rate. But the banks' responses were not limited to mere reductions in policy rates; with the notable exception of Japan, they also substantially increased the size of their balance sheets (measured as a percentage of nominal GDP and shown in Figure 1). The expansion of the Federal Reserve's balance sheet was particularly dramatic and unprecedented. It rose from less than \$1 trillion before mid-2008 to more than \$2 trillion before the end of the same year; as of early July 2012, its balance sheet is just shy of \$3 trillion.

By expanding their balance sheets, central banks seek to ensure the proper functioning of the payments system, to promote financial stability and to save

Figure 1. Major Central Banks Expanded Their Balance Sheets



Source: Thomson Reuters Datastream

banks and assorted financial institutions. The scale of intervention has been huge. There have been various estimates of the total amount of funding provided by the Fed. As noted in Wray (2011), the most thorough and comprehensive estimates are provided by Felkerson (2011), who reports the findings of Matthews and Felkerson’s research based on three different methods for estimating the Fed’s total commitments in terms of standing facilities and large-scale asset purchases. Their methods included:

- the maximum outstanding commitment at any given time
- the total maximum flow of commitments over a short period of time
- the cumulative total of commitments during the entire period

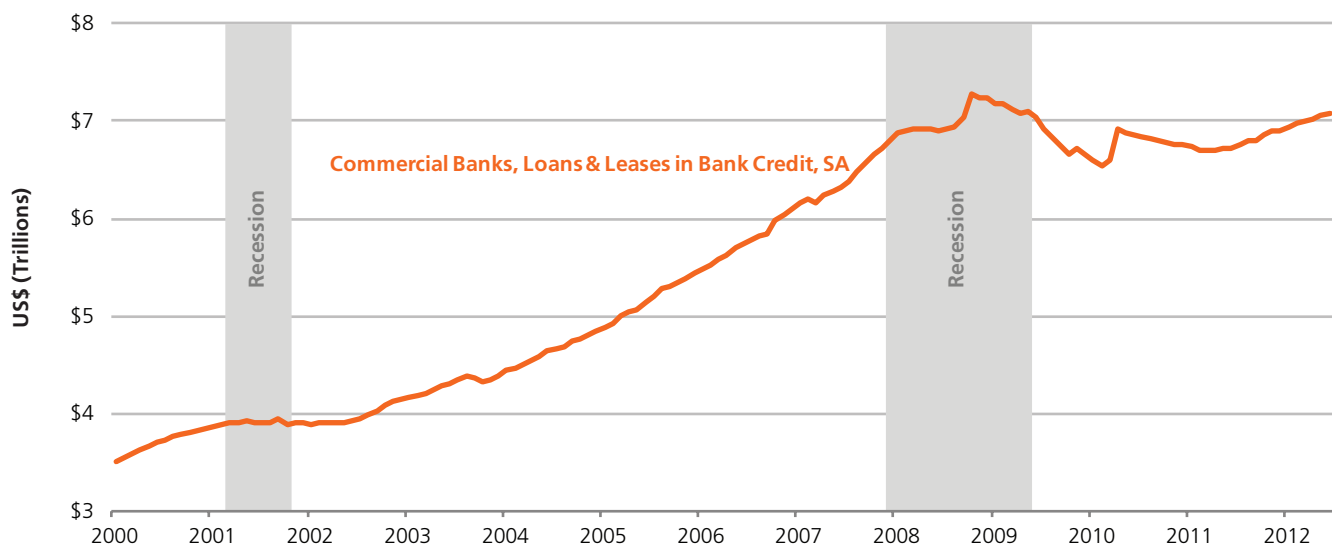
They report that the bailout amounted to nearly \$30 trillion, aggregating all Fed facilities created from January 2007 to November 2009 to address the crisis. During the financial crisis, the Fed and other central banks acted not just as the lender of the last resort, but as the dealer and market maker of the last resort as well (Mehrling 2011).

While the adjusted monetary base more than tripled from early 2008 to early 2012 due to the expansion of the Fed’s balance sheet, increases in monetary aggregates — as measured by

numerous measures of the money supply, such as M1, M2 and MZM — were far more restrained. More important, loans and leases in bank credit were essentially unchanged during this period (see Figure 2), suggesting that an increase in the monetary base does not *necessarily* imply higher bank lending and credit growth. Contemporary understanding of monetary policy (Bindseil 2004, Fullwiler 2008, and Lavoie 2009) makes it clear that the increase of reserves is merely an outcome of the expansion of the central bank’s balance sheet. As Keister and McAndrews (2009) have demonstrated, the total quantity of reserves in the banking system is due to the scale of Fed’s measures. They argued that the amount of central bank reserves do not affect bank lending or credit growth.

The evolution of so-called money multipliers also demonstrates that these various multipliers, which are merely ratios and do not imply any direct or necessarily causal linkages, *shrank* notably in the midst of the crisis. As Carpenter and Demiralp (2010) reveal in their examination of the institutional structure of the monetary transmission mechanism, starting with open-market operations through bank lending, reserves have no causal role on bank lending. The velocity of money — the mean frequency with which a unit of some monetary aggregates is spent on new goods and services in a specific period of time — also fell with the onset of the crisis,

Figure 2. Bank Lending Is Still Below Its Peak



Source: Reuters EcoWin

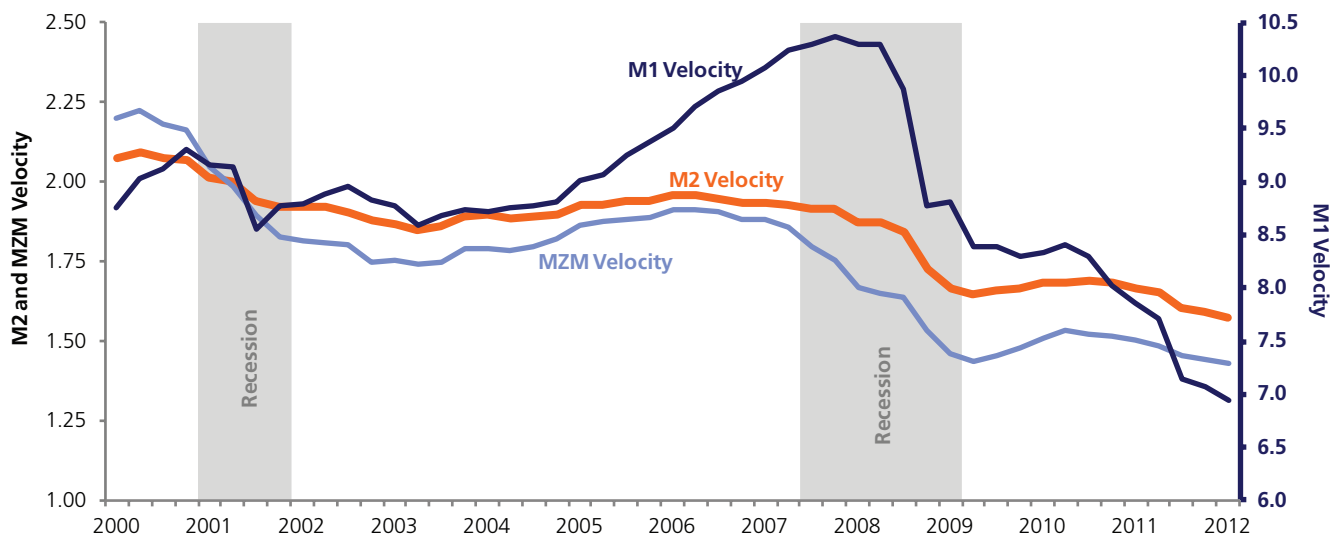
as shown in Figure 3. Bank lending peaked at around \$7.3 trillion as of late 2008; it currently stands at just a bit above \$7.0 trillion. Bank lending is rising on a year-ago basis, but at a fairly soft and subpar pace of about 5.0%; from 2005 to 2007, commercial bank lending grew more than 10% on a year-over-year basis. Commercial and industrial lending, which is particularly sensitive to business cycle conditions, is rising at a tepid pace. Mortgage originations and mortgage lending are still low, as mortgage applications have not spiked despite ultra-low rates and some signs of stabilization in house prices in several metropolitan areas. While there has been improvement in refinancing activity, applications for purchases have remained dismal due to tighter access to credit, weakness in the labor market, bleak outlook for house price appreciation and subdued growth in households' real disposable income.

The Fed's massive bailout of banks and major financial systems has been beneficial for the financial services industry, but the shadow banking system is still impaired. The shadow banking system — which a staff report of the Federal Reserve Bank of New York describes as “financial intermediaries that conduct maturity, credit, and liquidity transformation without explicit access to central bank liquidity or public sector credit guarantees”<sup>1</sup> and includes structured

investment vehicles, certain hedge funds and money market mutual funds, among others — grew stupendously in the years before the financial crisis due to financial innovations and a more supportive, tolerant and, indeed, lax policy environment that allowed non-bank entities to circumvent capital and regulatory requirements and to avoid regulations and take advantage of various financial innovations. The shadow banking system has shrunk by nearly a quarter since then, from a peak of about \$20.3 trillion in early 2008 to below \$15 trillion as of late 2011.

The private sector — and households, in particular — continue to deleverage. It is both rational and necessary for households to repair their balance sheets as quickly as possible; due to the financial crisis, households' total assets, net worth and total liabilities as a share disposable income fell. Non-financial businesses have also deleveraged, though less so than households. The macroeconomic consequence of collective household and private sector deleveraging could be adverse, as deleveraging implies feeble growth. Real GDP growth tends to decline when the expansion of real domestic non-financial debt slows. Real GDP growth is likely to remain meager in the coming years as long as households and businesses continue to spurn debt.

Figure 3. The Velocity of Money Has Declined Markedly



Source: Reuters EcoWin

<sup>1</sup> See Poszar et al (2011), “Shadow Banking,” [http://www.newyorkfed.org/research/staff\\_reports/sr458.html](http://www.newyorkfed.org/research/staff_reports/sr458.html)

**Contrary to Monetarist Mantras, Inflation Remains Tame**

Despite the monetarist fears of heightened inflation due to the rapid increase in base money, inflationary pressures have not materialized. Core inflation fell from above 2.5% year-over-year in the middle of the recession to less than 1.0% by late 2010; it has since increased to about 2.0%. Similarly, headline inflation, which was heading north in early and mid-2008, fell sharply in late 2008 and did not begin to rebound until late 2009. Until early 2011, headline inflation was confined to less than 3.0%. Briefly in mid-2011, headline inflation rose 3.0% or more, before falling once again (see Figure 4).

Headline inflationary pressures are declining due to lower energy, commodity and food prices. Various measures of core inflation show that this metric is within range as well. Lower inflationary pressures and the persistence of slack in the economy give the Fed the leeway to increase the size of its balance sheet through additional large-scale asset purchases in the coming months, which should keep long-term interest rates and mortgage rates, in particular, ultra-low. However, the beneficial effects of additional quantitative easing on the real economy, consumer spending and business investment will be limited, as the central economic problem is the lack of demand, slow growth in real disposable household income and weakness in the labor market.

The fear that bond market vigilantes would turn their attentions to the major economies and cause government bonds to suddenly sell off and yields to spike has proven to be spurious, particularly for those countries — like the U.S., Canada, United Kingdom and Japan — with a sovereign currency and a flexible exchange rate regime. The historical data show that long-term interest rates stay low when short-term rates are low and that changes in long-term interest rates are fairly tightly correlated with changes in short-term interest rates. Further, when core inflation is low, both short- and long-term interest rates tend to stay low. Besides short-term interest rates and inflation expectations, long-term interest rates are also driven by

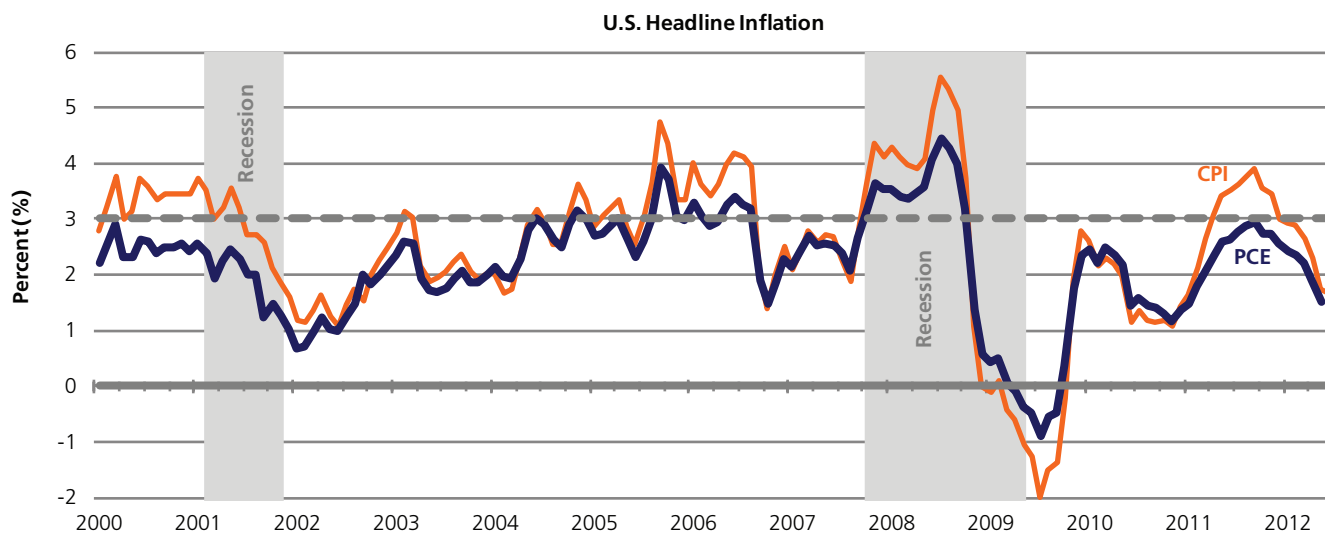
persistence, meaning that long-term interest rates tend to stay low once they become low and stay high once they turn high.

Long-term interest rates appear destined to stay ultra-low given diminished prospects of global economic growth, elevated downside risks and a wobbly financial system. While the central bank and the banking and financial system have greater control over short-term interest rates than long-term rates, long-term interest rates matter more for fixed investment and the real economy. That said, short-term rates tend to have a decisive effect on long-term rates. This was well understood by John Maynard Keynes (Keynes 1930 cited in Kregel 2011), who not only was a distinguished economist but also a shrewd speculator and investor. His conjectures on long-term interest rates were based on his own observations of financial markets and the empirical research of Reifler (1930). He noted that generally it is profitable to borrow short and lend long. The quest for yields and herding are other factors that keep long-term interests rates aligned with short-term rates. Fundamental uncertainty about the future and the effect of short-term realization on long-term expectations can keep long-term interest rates in harmony with short-term rates, whereas those factors that can cause fluctuations in short-term interest rates also drive investors’ long-term outlooks, according to Keynes. His observations, made more than 80 years ago, about the behavior of long-term interest rates are still valid and have proved to be prescient.

**Ultra-Low Rates and Feeble Growth Likely to Persist**

Central banks actively increased the scope of standing facilities and undertook large-scale asset purchases in response to the financial crisis and its aftermath, resulting in stupendous increases in the size of their balance sheets. In spite of an increase in the monetary base, credit growth remains subdued, reflecting sclerotic aggregate demand and the private sector’s lack of confidence and enthusiasm for fixed investment and hiring.

**Figure 4. The Evolution of Headline Inflation**



Source: Reuters EcoWin

Long-term interest rates are likely to stay ultra-low in those major economies with sovereign monetary policy and flexible exchange rates given low short-term interest rates, low observed inflation and contained inflation expectations. The fear of higher inflation due to large increases in the monetary bases is misplaced, in our view. However, central bank accommodations are unlikely alone to revive economic growth in the major advanced countries because demand remains feeble, unemployment rates are high, growth in real disposable income is weak, household interest incomes are stagnant and business appear unwilling to hire or investment in equipment, software and infrastructure for the long-term.

Meanwhile, fiscal deficits — induced by automatic stabilizers, progressive taxation, unemployment benefits and public policies — prevented a collapse in output but have not been able to reinvigorate growth and employment. However, the U.S. federal deficit is gradually declining from its 2010 peak above 10% of nominal GDP to a bit more than 8% in 2011. The reduction in government expenditures, without a concomitant increase in private sector spending, will be a drag on GDP growth in the developed economies in the coming years.

In conclusion, we believe that current circumstances and government/central bank policies together are likely to foster conditions that keep long-term interest rates low and growth rates feeble in the coming years.

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