

# Hoisington

INVESTMENT MANAGEMENT COMPANY

6836 Bee Caves Rd. B2 S100, Austin, TX 78746 (512) 327-7200  
www.Hoisington.com

## Quarterly Review and Outlook

First Quarter 2013

### Printing Money

“The Federal Reserve is printing money”. No statement could be less truthful. The Federal Reserve (Fed) is not, and has not been, “printing money” as defined as an acceleration in M2 or money supply. Just check the facts. For the first quarter of 2013 the Fed purchased \$277.5 billion in securities (net) as their security portfolio expanded from \$2.660 trillion to \$2.937 trillion. A review of post-war economic history would lead to a logical assumption that the money supply (M2) would respond upward to this massive infusion of reserves into the banking system. The reality is just the opposite. The last week of December, 2012 showed M2 at \$10.505 trillion, but at the end of March, 2013 it totaled only \$10.450 trillion which was an unexpected decline of \$55 billion. Printing money? No.

This broad misconception of the Fed’s ability to print money has been widely embraced since the Fed began its massive balance sheet expansion near the end of 2008. It was then that the Fed expanded the monetary base from \$840 billion to \$1.7 trillion in a matter of months. Further, from the initiation of this misguided program to the end of March 2013, the Fed has expanded the monetary base from \$840 billion to \$2.93 trillion. The money supply indeed went up (35%) but not in proportion to the increase in the monetary base (249%). Presently, the year-over-year expansion of M2 is only 6.8%, which is nearly identical to its year-over-year growth rate in March of 2008 before the Fed decided to “help out the economy” (Chart 1). In other words, there is no evidence that the massive security purchases by

the Fed have resulted in a sustained acceleration in monetary growth; nor is there evidence that economic conditions have improved.

### The Fed's Flaw

Not only does the Fed not control money, but it cannot determine velocity (V), the speed that money turns over, either. The great American economist, Irving Fisher, identified this connectivity between money and economic growth with a straightforward formula: Nominal GDP equals money (as defined by M2) times its turnover ( $GDP=MV$ ). Two flaws exist in the belief that the Fed can create rising aggregate demand. First, they do not directly control M2. Second, velocity is almost entirely outside their control. In order to understand how these two variables prevent the Fed from increasing aggregate demand, it is necessary to become conversant with a few terms: monetary base, bank reserves, and money multiplier.

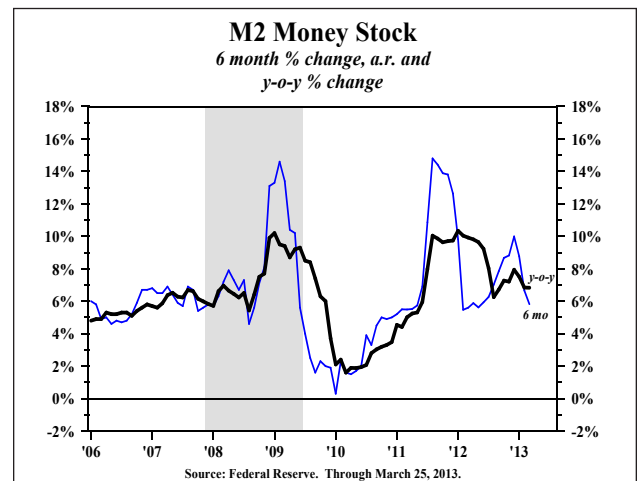


Chart 1

The monetary base, which is derived from a consolidated balance sheet of the Fed and Treasury, has an asset (source side), and a liability (use side). When the Fed purchases government securities, the asset side rises and the liability side, comprised of currency in circulation and bank reserves, increases commensurately. Bank reserves are funds that are held by banks on deposit at the Fed or in their own institution in the form of vault cash. These funds, or reserves, are available for lending. This process of lending reserves creates deposits and currency that constitute the definition of M2.

The monetary base is often referred to as “high-powered money” since the reserve component has the potential to expand deposits and therefore money. The operative word is potential, which may or may not be realized. The massive reserve injection since 2008 is therefore the primary reason why there has been an elevated fear of inflation since these funds could be loaned. However, the empirical evidence is clear that high-powered money is not causing an increase in M2. Why? A bank’s conversion of reserves into money is called the money multiplier (Chart 2, left scale). At the end of 2007, the money multiplier was 9.0. That meant that the monetary base of \$825 billion (Chart 2, right scale) was multiplied nine times to create the level of M2 that stood at \$7.4 trillion. At the end of March, 2013 the monetary base had exploded to \$2.9 trillion, but the money

multiplier had collapsed to only 3.6, creating an M2 balance of \$10.4 trillion. The Central Bank has very little control over the movement of the money multiplier; the actions of the banks and their customers primarily control this variable. This lack of control was evident in the first quarter of 2013 when the monetary base rose by \$264 billion and M2 fell because the money multiplier declined from 3.9 to 3.6. Therefore, the Fed’s balance sheet expansion was thwarted.

### Velocity

Referring back to Fisher’s equation  $GDP=MV$ , the other constraint on the Fed's ability to increase aggregate demand is velocity. If M2 actually expands, then velocity must remain stable in order for nominal GDP to be lifted in proportion to the rise of M2. While stable velocity was assumed in most of the post war academic work on monetary theory, clear empirical evidence is that velocity is woefully unstable (Chart 3). A host of factors influence velocity, but arguably the most important one is the type of borrowing and lending that occurs. For velocity to rise, any increase in debt needs to create a productive income stream. For the past several years, most of the borrowing and lending activities have related to daily consumptive needs, including borrowing by the federal government as well as much of the recent upturn in consumer lending. Borrowing to finance consumption does not generate a productive

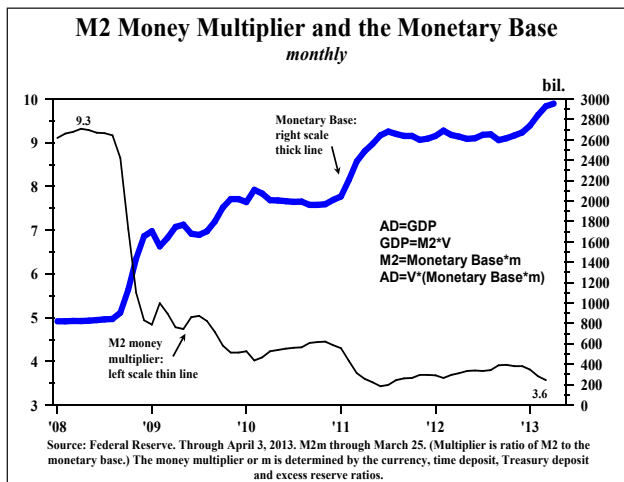


Chart 2

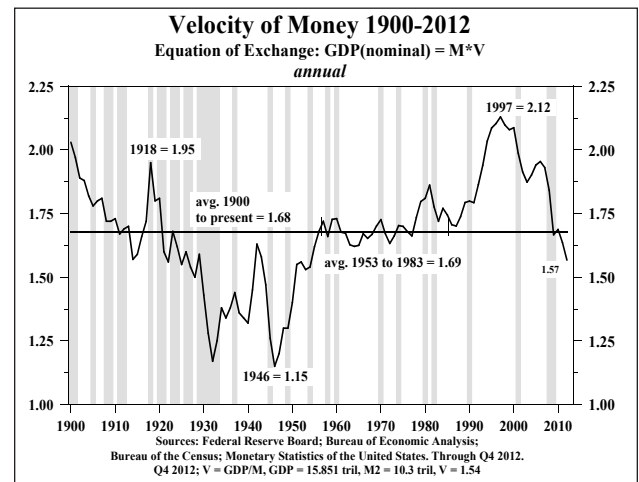


Chart 3

income stream nor does it create the resources to repay the borrowed funds. Consequently, velocity has collapsed and now stands at a six decade low.

### No Inflation

Inflation cannot ignite in such an environment. Incomes will languish and growth in aggregate demand, as measured by nominal GDP, will slow except for brief, intermittent periods. Some inflationists point to the vast pool of reserves and conclude that if borrowing and lending begin to accelerate, money will surge and so will nominal GDP, but this argument is invalid. First, the money multiplier could continue to contract, just as the most recent figures confirm. Even if, contrary to the latest data, the money multiplier were to stabilize, an extended period would still transpire before any meaningful change in economic conditions. Second, no sign suggests that credit creation is turning more productive. Hence, velocity will continue to fall. Research further indicates that there is a considerable lag between monetary change and altered economic conditions.

In the current setting, those historically long lags should be even longer. The intersection of the aggregate demand curve (AD) with the aggregate supply curve (AS) determines the price level and real GDP. In today's highly globalized markets, with services coming on-stream from all parts of the world, the AS curve could be in the process of continually shifting outward. Thus, the price level could fall even if there are small outward shifts in the aggregate demand curve. Additionally, the extreme level of indebtedness is a force entirely independent of the Fed, and it is restraining aggregate demand and serving to neutralize what minimal influence the Fed has on the economy. Moreover, this year's tax hike will serve to shift the aggregate demand curve inward, reducing demand, providing a second powerful counter-force to the Fed's feeble actions.

## Perspective

Our present economic situation is nearly unparalleled in American history (Chart 4). An examination of the real economic growth rate of each decade in the United States from 1790 to 2012 reveals the unprecedented sluggishness of our present economic environment. The 1.8% average rise in the thirteen years of this century is less than half of the 3.8% growth rate since 1790. The only decade that witnessed worse economic conditions was, of course, the 1930s.

### Debt Constrains Growth

Bad things happen when government debt exceeds 100% of GDP. Four studies published in just the past three years document this conclusion. These studies are highly relevant since OECD figures indicate that gross government debt exceeds 100% in the U.S., Europe, Japan as well as in other OECD member countries. Three of these studies were conducted by foreign scholars and published outside the United States thus avoiding attachment to the unfortunate domestic political debate. Here are the studies, starting with the one with the broadest implications:

(1) In *Government Size and Growth: A Survey and Interpretation of the Evidence*, Swedish economists Andreas Bergh and Magnus Henrekson find a "significant negative correlation" between size of government and economic growth.

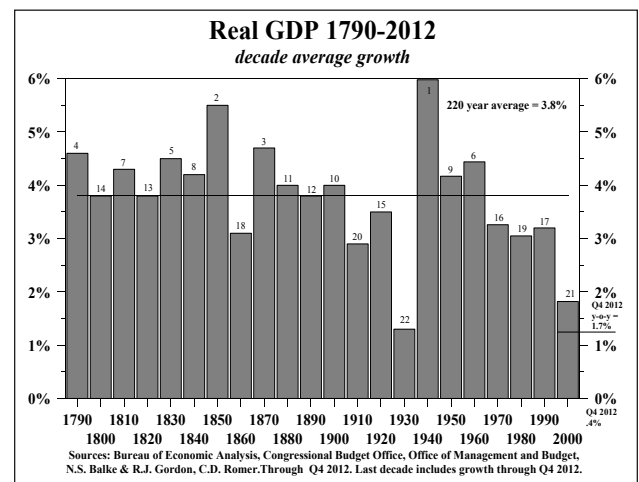


Chart 4

Specifically, “an increase in government size by 10 percentage points is associated with a 0.5% to 1% lower annual growth rate.” (Journal of Economic Surveys, April, 2011)

(2) In *The Impact of High and Growing Government Debt on Economic Growth, An Empirical Investigation for The Euro Area*, Cristina Checherita and Philipp Rother find that a government debt to GDP ratio above the turning point of 90-100% has a “deleterious” impact on long-term growth. Additionally, the impact of debt on growth is non-linear. This means that as the government debt rises to higher and higher levels, the adverse growth consequences accelerate. (European Central Bank, Working Paper 1237, August 2010)

(3) In *The Real Effects of Debt*, Stephen G. Cecchetti, M.S. Mohanty and Fabrizio Zampolli determine “beyond a certain level, debt is bad for growth. For government debt, the number is about 85% of GDP.” (Bank for International Settlements (BIS) in Basel, Switzerland, September, 2011)

(4) In *Debt Overhangs: Past and Present - Post 1800 Episodes Characterized by Public Debt to GDP Levels Exceeding 90% for At Least Five Years*, Carmen M. Reinhart, Vincent R. Reinhart and Kenneth S. Rogoff confirm that public debt overhang episodes are associated with growth over one percent lower than during other periods, and such episodes lasted an average of 23 years. They write “the long duration also implies that cumulative shortfall in output from debt overhang is potentially massive”. (National Bureau of Economic Research, Working Paper 18015, August 2012)

When private debt to GDP rises above 160% to 175% of GDP, growth is also stunted. This argument is also operative since private debt to GDP in the U.S. was 260% of GDP as of the fourth quarter of 2012. The point on private debt is a serious matter since it strikes at one of the core purposes of central banking – to promote private credit growth. But this is only valid for normal considerations and not when private

debt is excessively high. When private debt is excessive, efforts to promote more private debt are counterproductive, thus the Fed is destabilizing rather than facilitating economic growth. The two major studies on private debt, both completed in the past two years and published outside the United States, bear directly on this issue. The first is the 2011 United Nations Conference on Trade and Development (UNCTAD) study, *Too Much Finance*, authored by Jean Louis Arcand, Enrico Berkes and Ugo Panizza. They find a negative effect on output growth when credit to private sector reaches 104% to 110% of GDP. The strongest adverse effects are for credit over 160% of GDP. The second is the 2011 BIS study referenced above. It finds that these negative consequences, or what the BIS economic advisor Cecchetti refers to as the point at which debt levels turn “cancerous”, start at 175% just slightly more than the UNCTAD study.

### **Is Deflation a Continuing Risk?**

In their pioneering work, *This Time is Different*, Carmen Reinhart and Kenneth Rogoff (R&R) found that “In Depression-era defaults, deflation was the norm.” They, however, observed situations where extreme over indebtedness was followed by high inflation. For all its valuable contributions, R&R’s sample in this best selling 2009 book included both advanced and emerging economies. In later studies other researchers also separated advanced from emerging economies because the latter have options that the former do not. The emerging markets and very small economies in general can resort to currency devaluation when they become over-indebted which creates domestic inflation. Such adversarial action may succeed because the individual countries are too small and insignificant to harm others and thus would not evoke immediate retaliation. But inflation is optional for these smaller countries only. If advanced economies choose currency devaluation (“economic warfare”) to deal with a debt overhang, this evokes retaliation and a “race to the bottom”

that is globally deflationary (the 1927 to 1939 experience). As far as we know, all the debt studies of the past three years have confined statistical examination to the data on advanced economies, a procedure that is now widely supported.

### **Irrationality**

Credible academic research indicates that economic growth deteriorates when debt to GDP reaches critical levels - a condition that has now been met in countries that represent 75% of global GDP. When this reality is coupled with the Fed's inability to create money growth or inflation, the result will invariably be slow nominal GDP growth.

The financial and other markets do not seem to reflect this reality of subdued growth. Stock prices are high, or at least back to levels reached more than a decade ago, and bond yields

contain a significant inflationary expectations premium. Stock and commodity prices have risen in concert with the announcement of QE1, QE2 and QE3. Theoretically, as well as from a long-term historical perspective, a mechanical link between an expansion of the Fed's balance sheet and these markets is lacking. It is possible to conclude, therefore, that psychology typical of irrational market behavior is at play. This suggests that when expectations shift from inflation to deflation, irrational behavior might adjust risk asset prices significantly. Such signs that a shift is beginning can be viewed in the commodity markets. The CRB Commodity Index peaked about two years ago at 691, but now stands at 551, a 20% decline despite massive Fed balance sheet expansion. The ability of the Fed to arrest a downside irrational move in risk assets may be limited. Non-risk assets, such as long dated U.S. treasuries, should benefit from this shift in perception.

Van R. Hoisington  
Lacy H. Hunt, Ph.D.