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Has Fed Money Creation Fueled Artificial Stock Gains?

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J ust as many fixed-income strategists believe the Federal Reserve's massive purchases of U.S. Treasury bonds (via QE, or "quantitative easing") since 2007 must have artificially boosted bond prices (and reduced yields), many equity strategists believe the Fed's mass production of monetary base (defined as currency plus bank reserves) must have artificially boosted equity prices. But as we've shown, QE schemes have actually *reduced* U.S. T-Bond prices and *raised* yields, not lowered them.¹ Likewise, there's reason to doubt similar claims about the bullish impact of the Fed's QE schemes on equity prices.

Not easily fooled. In our view, profit-seeking marketmakers are much too smart to be so easily fooled by the Fed's monetary machinations; they can look through (and past) the Fed's artificial policies and unearth the *real* state of things. The opposite view, from "behavioral finance," holds that policymakers are omniscient and omnipotent preventers and fixers of "market failure"

In our judgment, U.S. nominal bond yields have declined in recent years not due to Fed money printing but due to three main factors: 1) steady disinflation,² 2) a persistent decline in market expectations of the long-term real return on capital,³ and 3) the Fed's seemingly interminable zero interest-rate policy (ZIRP).⁴ Likewise, we believe equity prices have increased due not to Fed money printing but to three fundamental factors, none of which depend on market-makers being deceived: 1) decent postrecession growth,⁵ 2) robust gains in earnings,⁶ and 3) a steady decline in corporate bond yields (the appropriate proxy for the rate at which analysts capitalize earnings).⁷

It's true, of course that since 2008 the Fed has monetized huge sums of U.S. federal debt and agency MBS, and in doing so it has enormously expanded the monetary base, to the point where its balance sheet has ballooned to \$3 trillion, more than triple its size in the pre-crisis year of 2007. As we've also recently documented, the Fed's policy has flooded the U.S. banking system with excess liquidity.⁸ Yet it doesn't necessarily follow that such liquidity creation somehow "spills over into the stock market," as we so commonly hear, or that the extra liquidity artificially boosts equity prices," such that *ending* QE would necessarily trigger a stock-price collapse. Below we consult cold, hard facts to see what's really going on.

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¹ "The Fed's QEs Have Raised U.S. T-Bond Yields, Not Lowered Them," Investor Alert, June 11, 2013.

² The core PCE inflation rate is now at its lowest level in a half-century (+1.1%, for the year ending May 2013), down from 1.7% a year ago (for the year ending May 2012) and from a rate of 2.5% for the year ending May 2008 (roughly a half year prior to the Fed's launch of QE and ZIRP).

³ This is best measured as the real interest rate on inflation-indexed Treasury bonds (or TIPS). The 10-year U.S. TIPS yield peaked at 2.89% in November 2008 and has declined steadily since then, averaging 1.66% in 2009, 1.15% in 2010, 0.56% in 2011, -0.48% in 2012 and -0.43% so far in 2013.

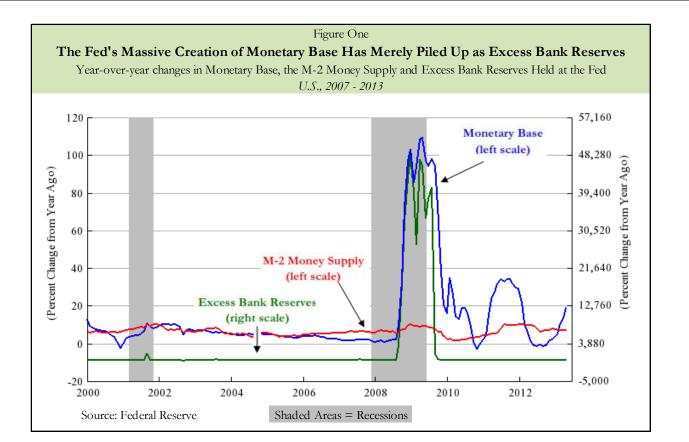
⁴ ZIRP isn't the same as QE, but it's a clear market price (a near-zero yield on inter-bank funds, and T-Bills) and in the "carry trade" ZIRP provides a strong inducement to "borrow short and lend long" – to secure a near-guaranteed profit (yield spread) by borrowing dirt-cheap and investing at higher bond yields. See "Fed Policy Mirrors the Bank of Japan – and Thus Depresses T-Bond Yields," *Investment Focus*, August 20, 2010 and "The Fed's Extension of ZIRP to Late-2014 Justifies Bullish Stance on U.S. T-Bonds," *Investor Alert*, January 25, 2012.

⁵ Many observers have complained about the sluggish U.S. economy since 2009. But the U.S. Industrial Production Index is now 18% above its level when the last recession ended four years ago (June 2009), and that exceeds the four-year growth rate of 10% registered after the previous U.S. recession (ending November 2001) and is identical to the four-year growth rates (18%) recorded after the two prior recessions (ending in March 1991 and November 1982).

⁶ The broadest measure of U.S. corporate profits (from NIPA, or National Income Product Accounts) shows that they've reached \$1.98 trillion in the past year (through 1Q2013), or *double* the level of 2008 (\$971 billion) and 20% above the pre-recession peak of \$1.66 trillion (in the year through 3Q2006). At S&P 500 firms, operating profits have reached \$100/share and are now two-and-a-half times larger than the low of \$40/share recorded in the year through 3Q2009, and 10% above the pre-recession peak of \$91.5/share in the year through 2Q2007.

⁷ The average yield on investment-grade corporate bonds in the U.S., rated Aaa and Baa, has declined from 7.69% in November 2008 to 4.61% this month. Thus much *lower* NIPA profits of \$977 billion in 2008 (see footnote 6) were discounted at *high* rate (7.69%), but today much *higher* NIPA profits (\$1.98 trillion) are discounted at *a low* rate (4.61%).

⁸ See "The Federal Reserve is Swamping the Banking System," *The Capitalist Advisor*, February 12, 2013.



Money doesn't go "in" or "out" of the market. First, the stock market is a system primarily for the secondary trading of shares that were already issued, years before, in return for newly invested cash; in a secondary market every buyer of shares on one side faces a seller of shares on the other side, each of whom are brought together by brokers and specialists. Technically, no money "goes in" or "out" of any stock market, certainly not in the way we'd say water might go into or out of a bathtub. The stock market isn't even analogous to a lockbox, and is not a repository of cash, nor a set of ships that rise or fall with the ocean's tides. Equity share prices rise or fall due not to shifts in "liquidity" but to shifts in fundamentals – in earnings, economic growth, interest rates.

Second, even if it were true that the Fed's vast creation of liquidity somehow gets "poured into" the stock market, recent evidence makes clear that since 2007 most of the increase in what liquidity the Fed directly creates and controls, namely the *monetary base* – currency plus bank reserves at the Fed – has simply accumulated inside the vaults (both physical and electronic) of the banks. This additional monetary base hasn't been delivered to Broad Street in armored vehicles and then ceremoniously dumped into the NYSE as a fuel for stock purchases.

Figure One (above) illustrates the huge percentage increase in the monetary base in 2009-2010 and the simultaneous huge increase in *excess* reserves at U.S. banks – which means reserves have been retained "in-house" and not lent out through additions to borrowers' checking balances. How do we know? Because most of the money supply is comprised of checkable deposits, and it hasn't increased nearly as much as the monetary base.

In fact, since 2007 the U.S. money supply (M-2: currency plus checking accounts plus savings accounts) has barely budged.⁹ Money can't possibly be described as having flowed into the stock market (or grocery stores, or gas stations) amid no material increase in the actual, spendable money supply. How can anyone claim that the U.S. money supply goosed stocks before 2008, then crashed them? In fact, M-2 increased 17% in the three years ending October 2007, while the S&P 500 was gaining 23%, but over the *next* three years, even as M-2 increased at a *similar* rate (17%), the S&P 500 nevertheless

⁹ We say "barely budged" because of our depiction in Figure One, but the change in M-2 looks minor mainly because it is compared to much larger changes in the monetary base and excess bank reserves since 2007. In fact, M-2 has increase 26% since the end of the last U.S. recession (4 years ago), but that's still slower than the average increase in M-2 (33%) recorded in six prior U.S. recessions over a half century (1961-2001).

plunged by 24%. More recently, over the past two-anda-half years (2010-2013), the S&P 500 has jumped 38%, but M-2 has increased only *half* as fast (21%). Given this pattern, can anyone claim the money supply was crucial?

In fact, as we all know, over the past dozen years the S&P 500 has peaked and materially plunged twice; yet on close inspection, we find that the money supply bore no obvious relation to either case. In the two years *before* the March 2000 peak the money supply increased 15% while the S&P 500 jumped by 31%; in the two years *after* that same peak the money supply *also* increased by 15%, yet stocks fell 24%. Likewise, in the two years before the October 2007 peak the money supply increased by 12% while the S&P 500 increased by 29%; then, in the two years after that second peak the money supply increased more so, by 14%, yet the S&P 500 plunged by 31%. Money supply changes were simply *too modest and stable* to have caused those booms and busts in stock prices.

In fact, long-term evidence reveals a *low* contemporaneous correlation between changes in the U.S. money supply and changes in the S&P 500, and an *inverse correlation* between changes in the money supply and *year-ahead* changes in the S&P 500. The evidence over the past 50 (1963-2013) years is summarized in Table One (below). If the conventional wisdom were true, we'd see *high* and *positive* correlations between changes in the money supply and in the S&P 500, not just contemporaneously, but with a time lag as well. We observe no such thing. At the end of the day, we reiterate, it is not shifts in the *money supply* that explain subsequent equity performance but shifts in *corporate profits* – from *fast*-rising to materially-plunging to fast-rising again (as we've seen so dramatically in recent years) – discounted by interest rates.

We've published many reports since 2007 on the link between Fed liquidity policy and equities, and have found good reasons to question the conventional wisdom, by consulting the historical facts.¹⁰ We believe our approach has proved more prescient than the monetarist (quantity-of-money) approach, as well as the Keynesian approach, which presumes that a ZIRP can be bullish in a sustainable and costless way. Here we reject the conventional claim that U.S. stock prices have advanced since 2009 due to "the Fed printing money and fueling artificial gains." If this consensus comes to observe a slowdown in money supply growth, it may falsely predict a collapse in stock prices; alternatively, this same consensus may fail to predict a collapse in stock prices if it sees the money supply rising at a normal pace, as occurred during the plunges of 2000-2002 and 2007-2009.

Table One Do Shifts in the U.S. Money Supply Forecast the S&P 500? U.S., 1963 - 2013			
Averages for years when	Change _	Change in S&P 500 Price	
the Money Supply (M-2)	<u>in M-2</u>	Same Year	Next Year
Increased less than 6.5%	4.2%	8.8%	8.3%
Increased between 6.5% & 9.5%	7.9%	7.5%	7.5%
Increased more than 9.5%	11.3%	5.7%	6.4%
Annual Correlations with M-2:		6%	-23%

¹⁰ See "The Quiddity of Liquidity," *Investor Alert*, August 13, 2007; "Do Fed Rate Cuts Necessarily Boost Equities?" *Investment Focus*, May 2, 2007; "The Myth of Bullish Rate-Cutting," *Investor Alert*, November 30, 2007; "The Fed's Liquidity Schemes Boost Commodities, Not Equities," *Investor Alert*, March 12, 2008; "Helicopter Ben's Paper Trail," *Investor Alert*, May 22, 2009; "QE2 and the Iceberg," *Investor Alert*, November 5, 2010; and "Investment Implications of QE to Infinity and Beyond," *Investor Alert*, September 14, 2012.