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JEFFREY ROGERS HUMMEL San Jose State University, jeff@jrhummel.com

David R. Henderson Hoover Institution

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Was Money Really Easy Under Greenspan?

BY DAVID R. HENDERSON AND JEFFREY ROGERS HUMMEL

Pormer Federal Reserve chairman Alan Greenspan has become everyone's favorite scapegoat. His policies allegedly caused, or at least contributed to, the current financial crisis. He is attacked from the left for lax financial regulation, from the right for loose monetary policy, and from the middle for both. Yet

two years ago, on leaving office, Greenspan was widely heralded as a financial wizard whose wise, discretionary macromanagement had brought an unprecedented two decades of low inflation, high prosperity, and infrequent and mild recessions. Both viewpoints, in reality, are mistaken.

During the Keynesian dark ages persisting through the mid-1970s, no one—except a few monetary cranks and monetarist economists cloistered in their academic ivory towers—believed that the Federal Reserve's monetary policy even mattered. This was a period when

Paul Samuelson, who would go on to win the 1970 Nobel Prize in economics the second time it was awarded, could proclaim in a 1969 *Newsweek* column that "there is no sight in the world more awful than that of an old-time economist, foam-flecked at the mouth and hell-bent to cure inflation by monetary discipline. God willing, we shan't soon see his like again." Today almost everyone—economists, investors, and the general public alike—seems to have swerved to the opposite extreme. The Fed controls not only inflation, they seem to think, but also everything else that hap-

Today almost everyone seems to think the Fed controls not only inflation but also everything else that happens to the American economy, whether good or bad.

pens to the American economy, good or bad. The truth, however, is somewhere in the middle.

We are not arguing that Greenspan's policies were perfect. Nor should anything that follows be construed as a defense of central banking or of the Federal Reserve. Particularly alarming is the way the lender-

> of-last-resort function has been expanding the moral-hazard safety net and mispricing risk—trends to which Greenspan no doubt contributed. Our ideal would combine abolition of the Fed and unregulated free banking.

> Nonetheless Alan Greenspan stands out as the most competent—arguably the only competent—helmsman of U.S. monetary policy since creation of the Federal Reserve System. As Milton Friedman observed on Greenspan's retirement, "For the first 70 years after it opened in 1914, the Fed did far more harm than good, presiding over inflation in two World Wars, converting a moderate recession into the great

David Henderson (davidrhenderson 1950@gmail.com) is a research fellow with the Hoover Institution and an economics professor at the Graduate School of Business and Public Policy at the Naval Postgraduate School in Monterey, California. Jeffrey Rogers Hummel is an economics professor at San Jose State University, where he also teaches history. A version of this article first appeared as Cato Institute Briefing Paper 109, "Greenspan's Monetary Policy" (November 3, 2008). The original paper, with citations, is online at http://tinyurl.com/6njtgx. They received helpful suggestions from Less Antman, Mark Brady, Gregory Christainsen, Williamson Evers, Fred Foldvary, Roger N. Folsom, Warren Gibson, Gerald P. O'Driscoll, Jr., Benjamin Powell, George A. Selgin, Edward Stringham, Richard H. Timberlake, Jr., Lawrence H. White, and Christian Wignall. None of them bear any responsibility for the final content.

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depression, and then, in the 1970s, producing the most serious peacetime inflation in our nation's history." By contrast, Greenspan's "performance has indeed been remarkable."

Greenspan oversaw relatively low and stable inflation and ushered in a striking decline in the volatility of real gross domestic product. Although defenders of macroeconomic intervention often suggest that government policies after World War II dampened business cycles, the truly significant change should be dated at 1987, the year Greenspan assumed office. The current fuss about a recession that, according to standard indicators, still is no worse than the minor recessions of 1990 and 2001 testifies to how high his legacy has raised the bar.

Until a year or so ago many observers had therefore credited Greenspan with being the best at reading the economic tea leaves. But as we will demonstrate, the source of Greenspan's apparent success has little to do with monetary discretion.

Freezing Total Reserves

Recently-converted critics are now charging Greenspan with having carried on an excessively expansionary monetary policy, particularly following the recession of 2001 and possibly during the dot-

com boom that preceded it. But an objective examination of his record of nearly two decades shows that he did not. Instead, however unintentionally and unwittingly, he came close to freezing the *domestic* monetary base and deregulated the broader monetary aggregates.

Why do people now believe Greenspan was an "inflationist"? For one main reason: They note how low interest rates were from 2002 through 2004. But interest rates have never proved an adequate gauge of what the Fed is doing—not during the Great Depression, when rates were very low despite a collapsing money stock; not during the Great Inflation of the 1970s, when rates were high despite an expanding money stock; and not under Greenspan. A focus on interest rates ignores the simple fact that interest rates

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can change as a result of real factors involving supply and demand and are not simply "set" by the Fed.

The market ultimately determines interest rates. While central banks are big enough players in the loan market (and the quintessential noise traders to boot) that they can push short-term rates up or down somewhat, that ability is increasingly diminished—even for a major central bank like the Fed—as globalization integrates world financial markets. In defending his actions, Greenspan is correct in attributing the unusually low interest rates early this decade mainly to a massive flow of savings from emerging Asian economies and elsewhere.

A better, although now unfashionable, way to judge

monetary policy is to look at the monetary measures: MZM, M2, M1, and the monetary base (see chart, p. 36). From 2001 to 2006 the annual year-to-year growth rate of MZM fell from over 20 percent to nearly 0 percent. During that same time M2 growth fell from over 10 percent to around 2 percent and M1 growth fell from over 10 percent to negative rates. Admittedly the Fed's control over the broader monetary aggregates has become quite attenuated, for reasons elucidated below. But even the year-to-year annual growth

rate of the monetary base since 2001 fell from 10 percent to below 5 percent in 2006. When all these measures agree, it suggests that monetary policy was not all that expansionary during 2002 and 2003 under Greenspan despite the low interest rates.

The key to what was really going on is the monetary base, which the Federal Reserve controls directly. The base consists of reserves held by the banks and other depositories, either in their accounts at the Fed or as vault cash, plus currency in circulation among the general public. Between December 1986—eight months before Greenspan became Fed chairman—and December 2005, the monetary base rose by a hefty amount, from \$248 billion to \$802 billion (no figures are seasonally adjusted). True, that doesn't sound like a freeze. But virtually the whole increase was in currency

Money Definitions

M1: currency in circulation, travelers' checks, and transaction deposits (accounts that permit unlimited checking).

M2: M1 plus savings deposits, small time deposits, money-market deposit accounts, and retail money-market mutual fund shares.

M3 (which the Fed ceased reporting in March 2006): M2 plus bank-issued repurchase agreements, Eurodollar deposits held by U.S. residents in foreign branches of U.S. banks, large certificates of deposit (over \$100,000), and institutional money-market mutual fund shares.

MZM (Money of Zero Maturity and reported only by the St. Louis Fed): M2 minus small time deposits plus institutional money-market mutual fund shares.

in circulation. (See the graph of the monetary base and its two components on p. 37.) During that same time total bank reserves grew from \$65 billion to \$73 billion, for an average annual growth rate of a mere 0.65 percent. (These figures are unadjusted for any changes in reserve requirements and-unlike the somewhat misleading reserve totals reported by the Fed's Board of Governors-include all vault cash, clearing balances, and float.) In some years aggregate reserves rose; in others they fell, with the major bump surrounding Y2K, when the accumulation of reserves by banks appears to have induced the Fed to accommodate a 40 percent jump followed by a 30 percent drop. Total reserves are also the one monetary measure whose growth rate shows a slight uptick into 2003, when interest rates were down. But that is thin backing for the extravagant accusations that "easy Al" was conducting an exceptionally expansionary monetary policy.

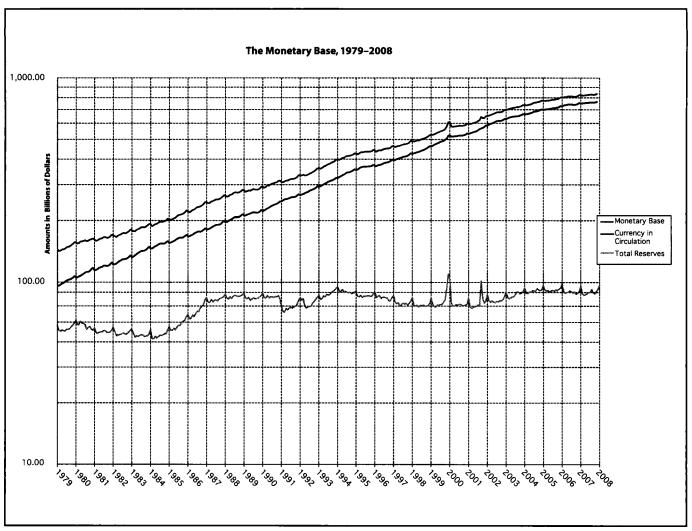
Currency in Circulation

During the same 19 years, currency in circulation exploded faster than the monetary base—at an annual rate of 7.54 percent. Before this explosion currency was less than three-quarters of the total monetary base; by the end of Greenspan's tenure it was over 90 percent. In a period when debit cards and possibly ATMs were reducing currency demand, analysts were aware that all this new cash was not bulging in the wallets and purses of the average American. It was going abroad as a stable dollar evolved into an international currency. These growing foreign holdings of Federal Reserve notes became an additional factor increasing money demand and keeping U.S. inflation in check during the 1990s.

Ideally we should adjust the monetary base and monetary aggregates downward to account for this drain abroad. Richard G. Anderson of the St. Louis Fed estimates that the proportion of U.S. currency held abroad doubled between 1986 and 2005, from 25 to nearly 50 percent. Although his estimates may be too low, the Fed makes no such adjustment. Doing so would reduce the average annual growth rate of the monetary base between December 1986 and December 2005 from 6.4 to 4.9 percent.

Furthermore, in a fully deregulated monetary system, private banks-not the Fed-would be the institutions issuing currency. Currency would become an additional bank liability like deposits and respond to market forces. In our current system, the public still determines how much of the base becomes currency in circulation by their decisions to withdraw and redeposit cash. The Fed controls only the total base whereas currency passively expands to accommodate people's preferences. This suggests that a more meaningful approximation of the base would be simply to subtract all currency in circulation, leaving us with only aggregate reserves as our proxy. Thus the virtual freezing of reserves turns out to be the most salient yet ignored feature of Greenspan's tenure. Interestingly, the late Milton Friedman had recommended in the 1980s something similar to what Greenspan did de facto: freeze the base.

Greenspan also helped deregulate the broader monetary aggregates: M2, MZM, and M3. The Depository



Since the total monetary base and currency in circulation increased in line with one another, total reserves were more or less frozen under Greenspan.

Institutions Deregulation and Monetary Control Act of 1980 had begun phasing out interest-rate ceilings on deposits and modified reserve requirements in complex ways. Combined with later administrative deregulation under Greenspan through January 1994, these changes left all the financial liabilities that M2 adds to M1—savings deposits, small time deposits, money market deposit accounts, and retail money-market mutual fund shares—utterly free of reserve requirements and allowed banks to reclassify many M1 checking accounts as M2 savings deposits. M2 and the broader measures became quasi-deregulated aggregates with no legal link to the size of the monetary base.

A result noted by Milton Friedman in 2003 is that fluctuations in the velocity of M2 were offset by

fluctuations in the amount of M2. Interestingly, this is similar to what monetary economists George A. Selgin and Lawrence H. White predicted would happen under free banking—or a market-determined monetary system void of government involvement. They argued that free banking would automatically adjust the quantity of money to changes in velocity. If velocity rose, signaling a fall in money demand, market mechanisms would cause banks to reduce the quantity of money they created. And if velocity fell, signaling a rise in money demand, banks would enlarge the quantity of money. The response of M2 to changes in velocity in the 1990s offers stunning confirmation of this claim. The result was that inflation was held in check. Thus during the dot-com boom of the 90s the velocity of M2 rose as people shifted into stocks. But this was offset by the declining growth rate of M2, which fell to near zero between 1994 and 1996. Assorted Fed watchers reached opposite conclusions depending on which variable they chose to focus on. Some warned that Greenspan's policies were deflationary. Others looked at the higher growth rates of the base and M1, which remains more closely tied to the base and more distorted by currency going abroad, and predicted higher inflation. Both were wide of the mark, of course, but not because of Greenspan's miraculous central-bank discretion. The result was a product of the

market process, and when the collapse of the dot-com boom burst the M2 velocity bubble it induced a new spike in M2 growth.

Why Any Inflation?

If Greenspan approximately froze total reserves, why was there any inflation at all during his tenure? Rather than averaging 2.5 percent annually, shouldn't prices have remained constant or actually fallen? Indeed, in a thoughtful critique of an earlier version of this article, Selgin denied that the broader monetary measures were responding to changes in velocity, since productivity growth would have therefore generated just such a gradual deflation. The answer relates to the market's extraordinary capacity for financial innovation.

Until the recent, extraordinary changes in Fed operations, bank reserves in the United States paid no interest, giving banks a strong incentive to economize on their use and maximize lending. They figured out ways to do so even under reserve requirements, as amply illustrated by the origins and growth of the Federal funds market, where banks regularly lend each other excess reserves.

Financial deregulation gave the process an additional boost. From December 1986 to December 2005—the same period during which aggregate reserves remained

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almost constant—the aggregate de facto reserve ratio of the banking system as a whole backing M2 fell by half, from 2.52 percent to 1.23 percent. So the quantity of M2 deposits grew at a secular rate of 4.6 percent, enough to generate mild, sustained inflation. And the quantity of *domestically held* currency grew alongside at an accommodating rate.

This steady, long-term decline of reserve ratios cannot easily be halted and confronts government fiat money with a fatal long-run problem. Re-tightening of reserve requirements would only burden banks with an implicit tax not faced by other financial institutions, encouraging the development of new, highly liquid

> money substitutes that effectively avoid the requirements. Congress has, moreover, moved in the opposite direction, permitting the Fed to eliminate all remaining reserve requirements in 2011, thereby bringing the United States into line with such countries as Australia, New Zealand, Canada, the United Kingdom, and Sweden, which have already done so. True, the Fed has now started paying interest on bank reserves, which has enormously increased demand for them in the short run. Nonetheless banks will still be able to earn greater interest on loans and securities under normal economic circumstances. Moreover, paying interest on reserves in effect transforms that portion of the monetary base into Treasury securities payable in fiat money, rather

than genuine fiat money itself.

In short, the ongoing spread of electronic funds transfers and assorted cashless payments is essentially replacing money with a sophisticated network of computerized barter. The demand for fiat money will thus approach zero asymptotically. So long as the money base is built on a fiat foundation with no other source of demand, the price level will slowly but inexorably head toward infinity. Only a commodity base with a nonmonetary demand—say gold, although it could just as well be silver, some combination of the two, or a

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more complex basket of commodities or financial assets—will anchor the price level over the long haul. Under free banking, the expansion of monetary substitutes would drive down the demand for gold-asmoney, but gold's value can never drop below its commodity value. Gold would continue to provide the unit of account, the common numeraire in nearly all transactions, without ever needing to be used as a medium of exchange.

Greenspan cannot be held responsible for this ultimate unviability of fiat money, although his deregulation accelerated the inflationary bias. A steady, secular contraction of total reserves could in theory have offset

the declining reserve ratio, delivering a constant price level or even secular deflation over the last two decades. But the continued fall of base-money demand is itself inevitable as long as developed economies wish to capture the enormous welfare gains of financial innovation and a more efficient allocation of savings.

An Ironic Legacy

So what did cause the current financial crisis? That is similar to

asking what caused the minor recessions of 1990 and 2001. Unlike the cause of inflation the cause of business cycles is not obvious, which is why economists still vigorously debate the question. Minor blips in total reserves under Greenspan may have played some poorly understood role in any of these three events. Because Greenspan only imperfectly implemented Friedman's rule of freezing the monetary base, without intending to do so, his policy may have ended up slightly *too* discretionary. But that possibility hardly justifies the "asset bubble" hubris of those economic prognosticators who, only well after the fact, declaim with absolute certainty

Greenspan, like the Wizard of Oz,was a lousy wizard—but he was a good deregulator. And that made all the difference.

and scant attention to the monetary measures how the Fed could have pricked or prevented such bubbles.

The misunderstanding of Alan Greenspan's management of the U.S. money stock has an ironic coda. Before his appointment the Federal Reserve had proved so palpably inept as to all but discredit discretionary monetary policy. Both monetarist rules and free banking were gaining adherents among economists. But today, despite the recent financial turmoil, most interpret Greenspan's record as showing either that discretionary policy can be done right or that what is needed is some activist pseudo-rule such as that developed by John B. Taylor of Stanford University. Central

> bankers, after half a century or more of failure, have allegedly learned from their past mistakes. Finally, according to this view, they have the knowledge to plan the money stock properly.

> In a review of Greenspan's memoirs Harvard economist Benjamin Friedman claims that Greenspan was a practitioner *par excellence* of monetary discretion (despite paying lip service to laissez faire) and that Greenspan's major failing was that he was not more of a regulator. Fried-

man is wrong on both counts. Greenspan, like the Wizard of Oz, was a lousy wizard—but he was a good deregulator. And that made all the difference. His success stemmed from weakening Fed discretion with the unintentional approximation of a rigid monetary rule and the very deregulation that Benjamin Friedman deplores. Rather than demonstrating that monetarist rules are obsolete and free banking unnecessary, Greenspan's policies suggest that the more thoroughly either of those two objectives is implemented, the greater the macroeconomic stability our economy will enjoy.