The Quarterly Journal of Austrian Economics

VOL. 13 | N^O. 1 | 3–15
SPRING 2010

Austrian Business Cycle Theory and the Global Financial Crisis: Confessions of a Mainstream Economist

Jerry H. Tempelman

ABSTRACT: Austrian business cycle theory has a legitimate claim to being the most authoritative explanation of the recent global financial and economic crisis. Indeed, many mainstream economists have begun to analyze the crisis, perhaps unwittingly so, in terms that sound as if they were derived directly from the Mises-Hayek-Garrison theory of macroeconomic fluctuations. Even advanced economic research into financial leverage and liquidity does conceptually little more than develop the framework of Austrian business cycle theory.

Milton Friedman used to say that there is no such thing as Austrian economics—or Chicago economics, or Keynesian economics for that matter. Instead, he noted, there is only good economics and bad economics (Vaughn 1994, p. 105). What makes an economic theory good, Friedman (1953) argued, is the empirical accuracy of the predictions it generates. He rejected Austrian

Jerry H. Tempelman, CFA (www.jerrytempelman.com, j48t@yahoo.com) is an investment analyst in New York City.

business cycle theory because he did not believe it was an accurate explanation of economic recessions as they actually occurred in practice (Friedman 1993).

Not all economists agree with Friedman's criterion for the validity of an economic theory—indeed, many Austrians do not. Nonetheless, one wonders whether Friedman, who passed away in November 2006 shortly before the onset of the recent global financial crisis, might have felt differently today about the explanatory power of Austrian business cycle theory in light of that crisis.

This mainstream economist's understanding of Austrian business cycle theory is roughly as follows. An economic expansion is sustainable if it is the result of an increase in investment that is funded by an increase in saving. In contrast, an economic boom that is merely the result of credit expansion is not sustainable.[1] When credit creation by monetary authorities exceeds a society's structural saving rate, financial intermediaries end up lending money at interest rates that are below the rate where supply and demand clear in the market for loanable funds. As a result, the information embedded in market prices (including interest rates) is distorted, affecting entrepreneurial decisions and causing a misallocation of capital across the economy. Specifically, too many capital goods and not enough consumer goods end up being produced relative to ultimate consumer preferences. Eventually, as the lack of underlying demand for these capital goods becomes apparent, production capacity is idled, and the boom that was fed by the credit expansion turns to bust. Thus, credit expansion during an economic downturn will not help bring about a sustainable boom but will merely postpone it, as it causes a delay in the structural adjustments, such as business closures and other eliminations of unproductive uses of capital, that need to be made to bring about a sustainable economic expansion.

With the benefit of hindsight, the preceding paragraph would appear to be a summary description of what has happened to the financial system and the macroeconomy in recent years. The

---

[1] This starting point is a stumbling block for some non-Austrians, but can be grasped intuitively by realizing that although in the short run one's purchasing power may be constrained by the size of one's credit limit, in the long run it is constrained by the size of one's paycheck.

2002–2007 expansion was characterized by both monetary accommodation and a boom in residential real estate. The boom proved unsustainable, and was followed by a spectacular bust in both the financial markets and the broader economy.

Indeed, predictions by Austrian or Austrian-inspired economists such as William R. White, Economic Adviser and Head of the Monetary and Economic Department of the Bank for International Settlements from May 1995 to June 2008, have been uncanny not just in their accuracy but in their specificity. Just before the onset of the crisis, White (2006, p. 1) pointed out that "persistently easy monetary conditions can lead to the cumulative build-up over time of significant deviations from historical norms—whether in terms of debt levels, saving ratios, asset prices or other indicators of 'imbalances.'" To be sure, a financial crisis of sorts had also been forecast by many non-Austrian economists, such as Nouriel Roubini and Stephen Roach. But their predictions tended to focus more on macroeconomic imbalances such as the current account deficit or the federal government debt. White and other Austrians, on the other hand, were more precise in predicting that a crisis would be triggered by a collapse of an asset bubble, specifically the real estate bubble.

In August 2003, for example, in a presentation at the annual economic symposium of the Federal Reserve Bank of Kansas City in Jackson Hole, Wyoming, White argued that "the unusually buoyant behavior of housing prices in the current slowdown may well be related to the substantial monetary easing undertaken by central banks…. [This] has encouraged a further rise in indebtedness in the household sector in a number of countries, raising the risk of contributing to balance sheet overextension there, especially if housing prices were to soften." Eventually, "if the worst scenario materializes, central banks may need to push policy rates to zero and resort to less conventional measures, whose efficacy is less certain" (Borio and White 2003, pp. 172, 175). Just as White predicted, in December 2008 the Federal Reserve lowered the target for its conventional policy variable, the federal funds rate, to a range of 0 to 0.25 percent. And the Fed has resorted to less conventional policy measures, by providing support to specific sectors of the credit markets throughout the crisis and by targeting longer-term interest rates through the purchase of U.S. Treasury securities in 2009.

White's views were largely ignored by central bankers at the time he expressed them prior to the crisis, when they were often pitted against the views of then Federal Reserve Chairman Alan Greenspan. At that time, Greenspan was widely heralded for having recognized a major shift in the mid-1990s, namely a sharp increase in economic productivity. As a consequence, the Federal Reserve did not increase interest rates in the way it previously would have done. This is what was thought to have allowed the expansion of the 1990s to continue and become the longest in more than a century, as an earlier tightening of monetary policy might not have delayed the next economic recession until its eventual occurrence in 2001.

But the accommodative monetary policy of the 1990s was not without consequence, and amidst the praises lavished on Mr. Greenspan, some criticism could be heard as well. In a guest editorial in *Barron*'s in the summer of 2002, for example, even as the economy was still in the aftermath of the 2001 recession, William C. Dudley, then chief economist of the investment bank Goldman Sachs, attributed the late 1990s stock market bubble to the Fed's low-interest rate policy that coincided with it:

> In my opinion, the nation's monetary authorities should have tightened policy earlier and more aggressively during the 1996–1999 period. A tighter monetary policy might have helped to keep the investment boom from becoming so extended. As a consequence, the downward forces of adjustment that followed when the boom ended would not have been so intense. Also, the allocation of capital might have been improved. After all, with hindsight, it is pretty obvious that billions of dollars of investment spending in sectors such as telecom were wasted.

Mr. Dudley is today president of the Federal Reserve Bank of New York and vice chairman of the Federal Open Market Committee (FOMC). He is not typically considered among the more hawkish, hard-money members of the Committee, but an Austrian would find little with which to disagree in Mr. Dudley's analysis.

In September 2002, a survey in *The Economist* echoed Mr. Dudley's assessment: "Without easy credit the stock market bubble could not have been sustained for so long, nor would its bursting have had such serious consequences. And unless central bankers learn their lesson, it will happen again" (Woodall 2002). *The Economist* was explicit in acknowledging Austrian business cycle theory:

"The recent business cycles in both America and Japan displayed many 'Austrian' features" (ibid).

Four years later, *The Economist* would even cite Ludwig von Mises in pointing out that the Fed's overly stimulative monetary policy following the 2001 recession was not without longer-term consequences: "The words of Ludwig von Mises, an Austrian economist of the early 20th century, nicely sum up the illusion: 'It may sometimes be expedient for a man to heat the stove with his furniture. But he should not delude himself by believing that he has discovered a wonderful new method of heating his premises.'"[2] A year later, in the summer of 2007, those longer-term consequences would become apparent to everyone.

Since the crisis, Mr. Greenspan's luster has considerably diminished, while that of Mr. White has considerably increased.[3] The notion that the prosperity of the latter years of the Greenspan era was a succession of bubbles is now held even by many non-Austrians. Particularly noteworthy is the opinion of that Keynesian *par excellence* Paul Krugman, who once dismissed Austrian business cycle theory as a "hangover theory" (Krugman 1998) before going on to assert that "the Fed's ability to manage the economy mainly comes from its ability to create booms and busts in the housing market" (Krugman 2005).

The *Wall Street Journal* editorial page, which is ideologically not quite Mr. Krugman's soul mate, would subsequently use the "hangover" moniker in a 2006 editorial:

> After the party sometimes comes the hangover, which is what much of the country is now experiencing as the housing market comes back to Earth following several years of remarkable levitation.… This is the housing market the Federal Reserve built. That is to say, the current slump in sales, new construction and prices is the aftermath of the astonishing and unsustainable housing boom that began in 2002.… The Fed's mistake was staying too easy for too long.… One result is what now looks to have been a classic asset inflation in housing values.[4]

[2] "Danger time for America," *The Economist*, 14 June 2006, p. 15. The citation is from Mises (1998 [1949], p. 650).

[3] For an excellent background article on White, please see Balzli and Schiessl (2009).

[4] "The House the Fed Built," *Wall Street Journal*, 25 August 2006, p. A14.

Hangover or not, many Austrian economists would argue that, for better or for worse, Krugman and the *Wall Street Journal* editorial writer were correct in their assessment of the Fed's conduct of monetary policy following the 2001 recession.

It is not straightforward to demonstrate conclusively that the low federal funds rate of 2003 and the following years is indeed what caused the housing boom. Interest rates on residential mortgages that finance home purchases tend to track more closely to the 10-year U.S. Treasury yield, which the Federal Reserve neither targeted nor controlled at the time, than to the federal funds rate, which it did. In 2003–04, when the Federal Reserve brought the federal funds target rate all the way down to 1 percent, 10-year U.S. Treasury yields and both 1-year adjustable and 30-year fixed mortgage rates did not drop nearly as much. Arguably there were other factors that contributed to the crisis—the all-too-often used perfect storm analogy would appear to apply in this instance. Still, the coincidence of the low federal funds rate with the onset of the housing bubble in the spring of 2003 in, say, Las Vegas, where the housing boom and bust have been most pronounced, is remarkable.

Indeed, several mainstream scholars, using different methods of scientific inquiry, have concluded that the Fed's accommodative monetary policy following the 2001 recession caused, or at least was a principal contributor to, the housing boom that followed. Taylor (2007) argues that from 2002 through 2005, U.S. monetary policy was far more accommodate than a rule-based approach would have called for based on an interpretation of inflation and output data. Correlating historical housing starts and interest rates, he finds that housing starts during 2003–06 were meaningfully higher than they would have been if the Fed had followed the more restrictive rule-based monetary policy after the 2001 recession. Jarociński and Smets (2008), using a Bayesian vector autoregression estimate for the U.S. economy that includes a housing sector, conclude that there is

> evidence that monetary policy has significant effects on housing investment and house prices and that easy monetary policy designed to stave off perceived risks of deflation in 2002–04 has contributed to the boom in the housing market in 2004 and 2005. (p. 362)

Smithers (2009) blames the financial crisis on "the actions of incompetent central bankers, who provided excessive liquidity on which the asset price bubbles and their associated absurdities were built" (p. 3). This is because "interest rates affect asset prices and, as asset prices affect the economy, this is a major transmission mechanism whereby central banks influence demand in the real economy" (p. 5). Vogel (2010) finds that "interest-rate policy levers such as Fed funds rates appear to have some effect on the creation and sustainability of bubble conditions." This process runs approximately as follows: "bank credit creation begins with decreases in non-borrowed reserves that then work through to increases in business and/or consumer lending." But "once such lending exceeds what can be readily absorbed by or used for GDP transactions, the excess spills over into incremental demand for shares and/or other leverageable financial assets, including real estate and commodities" (p. 224).

MAINSTREAM ECONOMICS RESEARCH ON THE CUTTING EDGE

Economists both inside and outside the Federal Reserve today widely point to the Fed as the main culprit behind the two greatest economic calamities of the past century: the Great Depression of the 1930s, when—according to mainstream economic theory—monetary policy was essentially too tight (Friedman and Schwartz 1963, Bernanke 2002, Meltzer 2003), and the Great Inflation of the 1970s, when monetary policy was too accommodative (Meltzer 2009). It is too early to be definitive, but the idea that the Fed's accommodative monetary policy following the economic recession of 2001 was the main cause of, or contributor to, the housing bubble, the collapse of which triggered the broader financial and economic crisis, is becoming increasingly widespread even among non-Austrians.[5]

[5] Stanford economist John B. Taylor initially proposed his theory at the August 2007 Jackson Hole, Wyoming, symposium of the Federal Bank of Kansas City (Taylor 2007). Federal Reserve Chairman Ben S. Bernanke replied in a speech at the January 2010 annual meeting of the American Economic Association (Bernanke 2010), but in a survey by the *Wall Street Journal* shortly after that speech, 42 Wall Street and business economists agreed with Taylor's argument while only 12 sided with Bernanke's. A concurrent survey of members of the monetary economics program of the National Bureau of Economic Research

Even cutting-edge mainstream economic research, such as that in areas of financial leverage and liquidity, does conceptually little more than developing the framework of Austrian business cycle theory. For example, mainstream economists have begun to identify links between monetary policy and financial leverage, or debt. New York Fed President Dudley (2009) recently noted that "[t]here is a growing body of economics literature on this issue that links monetary policy to leverage." Dudley cited research by Tobias Adrian and Hyun Song Shin (2009), who identify what they call a "'risk-taking channel' of monetary policy," and find that short-term interest rates—the Fed's main monetary policy variable—are an important factor in influencing the amount of financial leverage employed by financial intermediaries. According to a recent *Wall Street Journal* article, "[Federal Reserve Chairman Ben] Bernanke has been following Mr. Adrian's work closely" (Hilsenrath 2009). These research efforts are to be applauded, but causal links between overly accommodative monetary policy, excessive financial leverage, insufficient saving, and unsustainable asset prices are, of course, a core part of the Austrian explanation of business cycles.

Likewise, research in liquidity, which finds that an asset's market liquidity (i.e., the ease with which an asset is bought or sold) and traders' funding liquidity (i.e., the ease with which traders can obtain funding) are related and mutually reinforcing (Brunnermeier and Pedersen 2009), is substantively no more than a fleshing out of the Austrian framework. Economist Markus K. Brunnermeier argues in a recent interview that "macroeconomics will change.... Its models ignored the main components of the crisis. What will happen is that macro will merge with the field of financial frictions, giving rise to a new economics" (Adler 2009, p. 25). Well, fine, but the integration of macro-, micro-, and financial economics into a single coherent theory has long been a distinguishing feature of Austrian economics.

Even so-called behavioral explanations of business cycles, including the recent financial crisis (e.g., Shiller 2008), may be viewed as complementary rather than contradictory to Austrian business cycle theory, although Roger W. Garrison's (1996, p.

---

found that 13 members agreed with Taylor's argument, while 14 agreed with Bernanke's (Hilsenrath 2010).

16) analogy of the 1906 earthquake of San Francisco applies. In that disaster, more damage was done by the fires that followed the earthquake than by the earthquake itself, but the fires were at best “a secondary phenomenon” that would presumably not have occurred if not for the earthquake. According to mainstream economic research, bubbles are characterized by an increase in trading volumes, especially by nonprofessional or inexperienced investors (Greenwood and Nagel 2008). Nonprofessionals do not enter a market just because the cost of funding is low. They enter a market because they are under the impression that making money is easy. But the reason why they are under that impression is that professionals have been making money in what in retrospect looks like an easy manner, and professionals have been able to do so in part because of a cheap cost of funding that made possible increased financial leverage. Thus, the sequence is from accommodative monetary policy to a low cost of funding to an increase in the use of financial leverage by professional investors, who buy assets and generate earnings in doing so, and are followed by nonprofessional investors who lack the skills to rationally value assets and end up bidding up asset prices accordingly. Even non-Austrians are likely to agree that this is not sustainable.

LESSONS LEARNED, LESSONS REMAINING

There are some positive signs that Federal Reserve officials are learning from the experience of the recent crisis. Current and former FOMC members have acknowledged that they kept monetary policy too accommodative for too long following the 2001 economic recession. In an interview on PBS’s Charlie Rose Show in May 2009, former FOMC Vice Chairman Timothy F. Geithner stated that “monetary policy around the world was too loose too long.”[6] Dallas Fed President Richard W. Fisher (2006) has said that because of poor inflation data, “the real fed funds rate turned out to be lower than what was deemed appropriate at the time and was held lower longer than it should have been.”

To their credit, members of the FOMC have also become mindful of the potential dangers of maintaining an ultra low federal

[6] Available at http://www.charlierose.com/view/interview/10278.

funds rate for an extended period. According to the minutes of the November 2009 FOMC meeting (p. 9), "[m]embers noted the possibility that some negative side effects might result from the maintenance of very low short-term interest rates for an extended period, including the possibility that such a policy stance could lead to excessive risk-taking in financial markets or an un-anchoring of inflation expectations."

In addition, the financial crisis appears to have made Fed officials more open to reconsidering previously held beliefs, for example with regard to whether the Federal Reserve should try to target not just consumer price inflation but also asset prices. One rather suspects that this notion is anathema to libertarian-minded Austrian economists, who can scarcely be deemed to favor a committee of twelve or fewer people, no matter how capable, how well supported, how well intentioned, and how politically diversified, determining what asset prices should be. It is one thing for central bank officials to consider a variety of both economic and financial indicators, in order to ascertain not just inflation and unemployment conditions but also trends in the magnitude of credit outstanding, as part of evaluating whether monetary policy is perhaps too restrictive or too accommodative. But it is quite another for central bankers to be able to detect and actively try to deflate a possible asset price bubble in the making.

A more useful idea currently gaining favor is of a more symmetrical application of monetary policy, in which central banks no longer raise interest rates less during an expansion than they lower them during a recession (White 2006, p. 15; Cooper 2008, pp. 35–36). Austrians propose even more drastic changes in monetary regime, such as the abolition of central banks entirely and their replacement with a gold standard and systems of free banking and currency competition. Mainstream economists have long objected to such ideas primarily on grounds of economic inefficiency. It is inefficient, for example, for an economy to have multiple currencies issued by multiple parties. Still, in the wake of the crisis, ideas for alternative monetary regimes have perhaps been dismissed too easily, just as Austrian business cycle theory was once dismissed. Considering that theory's accuracy in predicting and explaining the recent crisis, to this mainstream economist, at least, ideas for alternative monetary regimes merit greater consideration than they have received to date.

REFERENCES

Adrian, Tobias and Hyun Song Shin. 2009. "Financial Intermediaries and Monetary Economics." *Federal Reserve Bank of New York Staff Report No. 398*. http://www. newyorkfed.org (accessed March 29, 2010).

Adler, David. 2009. "A Flat Dow for 10 Years? Why It Could Happen." *Barron's*, December 28, 2009: 24–25. http://online. barrons.com (accessed March 29, 2010).

Balzli, Beat and Michaela Schiessl. 2009. "The Man Nobody Wanted to Hear," trans. Christopher Sultan. *Spiegel Online*, July 8, 2009. http://www.spiegel.de (accessed March 29, 2010).

Bernanke, Ben S. 2002. "On Milton Friedman's Ninetieth Birthday." Washington: Board of Governors of the Federal Reserve System, November 8, 2002. http://www. federalreserve.gov (accessed March 29, 2010).

——. 2010. "Monetary Policy and the Housing Bubble." Washington: Board of Governors of the Federal Reserve System, January 3, 2010. http://www.federalreserve.gov (accessed March 29, 2010).

Borio, Claudio and William R. White. 2003. "Whither Monetary and Financial Stability? The Implications of Evolving Policy Regimes." In *Monetary Policy and Uncertainty: Adapting to a Changing Economy*. Kansas City: Federal Reserve Bank of Kansas City, pp. 131–211.

Brunnermeier, Markus K. and Lasse Heje Pedersen. 2009. "Market Liquidity and Funding Liquidity," *Review of Financial Studies* 22, no. 6: 2201–38.

Cooper, George. 2008. *The Origin of Financial Crises: Central Banks, Credit Bubbles and the Efficient Market Fallacy*. New York: Vintage.

Dudley, William C. 2002. "Bubble Trouble for the Federal Reserve." *Barron's*, July 22, 2002: 26. http://online.barrons.com (accessed March 29, 2010).

——. 2009. "Still More Lessons from the Crisis." New York: Federal Reserve Bank of New York, http://www.newyorkfed.org (accessed March 29, 2010).

Fisher, Richard W. 2006. "Confessions of a Data Dependent." Dallas: Federal Reserve Bank of Dallas. http://dallasfed.org (accessed March 29, 2010)

Friedman, Milton. 1953. "The Methodology of Positive Economics." In *Essays in Positive Economics*. Chicago: University of Chicago Press.

——. 1993. "The 'Plucking Model' of Business Fluctuations Revisited." *Economic Inquiry*, 31, no. 2: 171–77.

Friedman, Milton and Anna Jacobson Schwartz. 1963. *A Monetary History of the United States, 1867–1960*. Princeton, N.J.: Princeton University Press.

Garrison, Roger W. 1996. "Introduction: The Austrian Theory in Perspective." In *The Austrian Theory of the Trade Cycle and Other Essays*. Auburn, Ala.: Ludwig von Mises Institute, pp. 7–24.

Greenwood, Robin and Stefan Nagel. 2008. "Inexperienced Investors and Bubbles." *NBER Working Paper No. 14111*. Cambridge, Mass.: National Bureau of Economic Research.

Hilsenrath, Jon. 2009. "Fed Debates New Role: Bubble Fighter." *Wall Street Journal*, December 2, 2009: A1.

——. 2010. "Bernanke Challenged on Rates' Role in Bust." *Wall Street Journal*, January 13, 2010: A2.

Jarociński, Marek and Frank R. Smets. 2008. "House Prices and the Stance of Monetary Policy." *Federal Reserve Bank of St. Louis Review* 90, no. 4: 339–65.

Krugman, Paul. 1998. "The Hangover Theory: Are Recessions the Inevitable Payback for Good Times?" *Slate*, December 3, 1998. http://www.slate.com (accessed March 29, 2010).

——. 2005. "Running Out of Bubbles." *New York Times*, May 27, 2005: A23.

Meltzer, Allan H. 2003. *A History of the Federal Reserve, Volume 1: 1913–1951*. Chicago: University of Chicago Press.

——. 2009. *A History of the Federal Reserve, Volume 2: 1951–1986*. Chicago: University of Chicago Press.

Mises, Ludwig von. 1949. *Human Action: A Treatise on Economics*. Scholar's Edition. Auburn, Ala.: Ludwig von Mises Institute, 1998.

Shiller, Robert J. 2008. *The Subprime Solution: How Today's Global Financial Crisis Happened, and What to Do About It*. Princeton, N.J.: Princeton University Press.

Smithers, Andrew. 2009. *Wall Street Revalued: Imperfect Markets and Inept Central Bankers*. Chichester, West Sussex, United Kingdom: John Wiley & Sons.

Taylor, John B. 2007. "Housing and Monetary Policy." In *Housing, Housing Finance, and Monetary Policy*. Kansas City: Federal Reserve Bank of Kansas City, pp. 463–76

Vaughn, Karen I. 1994. *Austrian Economics in America: The Migration of a Tradition*. Cambridge: Cambridge University Press.

Vogel, Harold L. 2010. *Financial Market Bubbles and Crashes*. New York: Cambridge University Press.

White, William R. 2006. "Is Price Stability Enough?" In *BIS Working Papers No. 205*. Basel: Bank for International Settlements. http://www.bis.org (accessed March 29, 2010).

Woodall, Pam. 2002. "The Unfinished Recession: A Survey of the World Economy." *The Economist*, September 28, 2002: 3–28.