

Comment on Jerome Stein's "A Tale of Two Debt Crises"

Prof. Stein provides an elegant and timely analysis of financial market bubbles based on theoretically relevant concepts which enable him to derive the ratio of optimal debt to net worth. He argues plausibly that the vulnerability of a firm to shocks to capital gains, the return to capital and the interest rate is related to the extent to which actual debt deviates from the optimal debt ratio. This work can be viewed as an extension of Prof. Stein's earlier research on the determinants of the equilibrium real exchange rate in which he developed a well-based theoretical framework which was usefully applied to assess exchange rates.¹ Of course, his ability to derive compact expressions for the optimal debt depends in part on simplifying assumptions that the underlying stochastic processes are either ergodic mean reverting or brownian motion with drift. While one can quibble with the realism of these assumptions, the resulting expressions for the optimal debt/net worth ratio in terms of the rate of return, the interest rate, and the variance of these variables, which are shown in Box 2 of the paper, certainly seem plausible.

Even if one does not buy into Prof. Stein's high-tech firepower to detect financial market bubbles, one has to appreciate how he has managed to distill his analysis into a few key variables. The recent financial market crisis and subsequent deep recession has, not surprisingly, sparked interest in more low-tech approaches to assessing when financial markets get out of line with fundamentals. Andrew Smithers, for example, has proposed two measures of the underlying value of stocks: the "Q" ratio which relates the market value of stocks to the net worth of companies, and the cyclically-adjusted price-earnings ratio.² One can use cruder measures still, such as the ratio of U.S. housing market value to household disposable income. This ratio rose from about 1.5 in 2000 to a little over 2.0 in 2006, surely indicating a housing price bubble.³

No measure of underlying or fundamental value will provide consistently accurate predictions of emerging bubbles, but the prior question is whether it is useful to even contemplate the exercise of assessing market values of assets. In light of the huge costs of the housing and credit bubble, the answer must be in the affirmative. Ultimately, such assessments need to be made by policymakers to help guide their actions to mitigate the magnitude of financial market bubbles. Up until recently, central banks – and particularly the Fed – have been loath to do this. Part of the reason would appear to be the apparent success of the monetary control paradigm of inflation targeting. The Great Moderation – the decline and stabilizing of inflation at a low level over the past twenty years – seems to have lulled central bankers into a sense of complacency that their work had been successfully accomplished and that they could rest on their laurels.

Another reason was that the mainstream economic models used by academics and at central banks were incapable of generating a financial bubble of the type recently

¹ See, for example, Chapter 4, "The NATREX model of the equilibrium real exchange rate," in Jerome L. Stein, *Stochastic Optimal Control, International Finance, and Debt Crises*, Oxford University Press, New York, 2006.

² See Andrew Smithers, *Wall Street Revalued: Imperfect Markets and Inept Central Bankers*, Wiley, 2009.

³ Martin Wolf, "How mistaken ideas helped to bring the economy down," *Financial Times*, 10/28/09.

experienced in the United States. And when one such model developed by Bernanke and Gertler was used to analyze the benefits of inflation targeting relative to targeting bubbles, the results suggested that inflation targeting was more effective in stabilizing the economy. In their view, the Fed should therefore stick to keeping inflation low; if a bubble burst on its own accord, interest rates could always be reduced to ameliorate the resulting negative macroeconomic impact. Such results may have afforded Bernanke a sense of security that the Fed could ignore financial market bubbles when he became a member of the Board of Governors of the Fed and subsequently Chairman. When the results of this paper were presented at the 1999 summer conference organized by the Federal Reserve Bank of Kansas City at Jackson Hole, Wyoming, it received a mixed reception.⁴ While Greenspan supported the conclusions of Bernanke and Gertler, the late Rudi Dornbusch pointed out that after a bubble burst, there could be a dearth of credit which could have significant negative consequences for the economy.

Perhaps the strongest reason for the Fed's aversion to dealing systematically with financial market bubbles is the difficulty of identifying them in a sufficiently timely manner. This difficulty was stressed by Don Kohn, Vice Chairman of the Board of Governors, in a paper presented last year at a Cato Institute conference.⁵ He argued there (page 5) that "The identification of bubbles in real time is tricky because not all the fundamental factors driving asset prices are directly observable; thus, any judgment by a central banker that an asset is overpriced is uncertain." Well, yes, but so is forecasting inflation. Kohn buttressed his argument by noting that research at the Federal Reserve System on whether house prices were overvalued came to a wide range of answers. In addition, he argued that even if a central banker were confident that a bubble had emerged, there remains the difficult problem of implementing a monetary tightening in a timely manner to deflate the bubble early enough so as not to reinforce the negative effects of the bubble's collapse on the economy. Again, true enough, but similar judgment calls are made by central bankers when they decide that the time has come to raise interest rates in an inflation targeting framework.

Almost one year later, Vice Chairman Kohn now seems somewhat more open to the idea that central banks should be more active in dealing with financial marker bubbles. In a speech at a Federal Reserve conference on October 9, 2009, he noted that central bankers are increasingly being encouraged to "lean against the wind" when confronted with asset price bubbles, but cautioned that:

"As researchers, we need to be honest about our very limited ability to assess the "fundamental value" of an asset or to predict its price. But the housing and credit bubbles have had a substantial cost – and the final bill is not yet in. Research on asset prices, credit, and intermediation should help to identify risks and inform decisions about the

⁴ See John Cassidy "Anatomy of a Meltdown – Ben Bernanke interprets the crisis," *The New Yorker*, December 1, 2008, page 51.

⁵ Donald L. Kohn, "Monetary Policy and Asset Prices Revisited," Cato Institute 26th Annual Monetary Conference: Lessons from the Subprime Crisis, November 19, 2008.

costs and benefits from a possible regulatory or monetary policy decision attempting to deal with a potential asset price bubble.”⁶

The last two sentences in the quote point to the realization that given the huge costs of the recent asset price bubble, there needs to be more focus on averting such bubbles. To this, one can only say “Amen.” Kohn usefully identifies areas of research which should enhance our understanding of the role of asset prices, credit, how they interact, and the implications of asset prices for monetary policy. Let us hope that the Federal Reserve devotes its considerable intellectual resources to this type of research so as to make a contribution to the avoidance of future financial market bubbles.

While research is needed in these areas, what is more important is recognition on the part of central banks, and the Fed in particular, that their responsibility extends beyond inflation control to asset and credit markets. We have learned that inflation targeting can stabilize the real economy. But we have also learned, unfortunately at great cost, that if asset prices get out line with fundamentals, the negative implications for the real economy can be huge. In this connection, it is worth remembering the remark about monetary policy by William McChesney Martin, the Fed chairman from 1951 to 1970: “the job of the Federal Reserve is to take away the punch bowl just as the party gets going.” Asset markets had a huge party and the hangover was intense. The Fed cannot allow this to happen again.

⁶ Donald L. Kohn, “Monetary Policy Research and the Financial Crisis: Strengths and Shortcomings,” speech at the Federal Reserve Conference on Key Developments in Monetary Policy, Washington, D. C. October 9, 2009.