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Author	櫻川, 昌哉(Sakuragawa, Masaya)
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SAVING BOOST AND THE BOOM-BUST CYCLE OF BUBBLES

Masaya SAKURAGAWA

Faculty of Economics, Keio University, Tokyo, Japan

During the past three decades, there have been numerous episodes of asset market bubbles around the world. Japan, Finland, Norway, and Sweden experienced bubbles in their real estate and stock markets in the late 1980s. In the early 1990s, Thailand, Malaysia, and Indonesia experienced a surge in real estate prices and stock prices. The US experienced bubbles in stock prices in the late 1990s and in housing prices in the 21st century. As mentioned by Kindleberger (1978), the emergence of bubbles is associated with the investment boom followed by credit expansion, but the bursting of bubbles most often leads to a recession or even depression.

Modern macroeconomics has not fully succeeded in incorporating these recent experiences into the analysis of asset price bubbles. The aim of this paper is to study the mechanisms behind the boom–bust cycle of bubbles and to improve our understanding of bubbles in macroeconomics.

Tirole (1985) develops a growth theory of rational bubbles, where bubbles crowd-out investment. Many bubble episodes, however, seem to contradict the crowding-out view, but rather highlight the mania in real estate and stocks, and an associated investment boom.

Recently an expanding literature develops models of financial friction that explain the investment boom when bubbles arise. We depart from the literature in that we highlight the role of the boost in savings that is empirically relevant. Much empirical literature reports evidence that is consistent with the story of the boost in savings. Peek (1983) and Juster, et al. (2005) investigate the impact of capital gains on household savings in the US and report that when capital gains are large, savings increase significantly. Horioka (1996) finds that when the saving rate is defined in terms of income that includes land capital gains, households' saving rate rose by about 30% in the late 1980s during the land-price bubble in Japan.

We introduce the story of the saving boost into the model of Farhi and Tirole (2011), an overlapping-generations model with three-period-lived agents subject to borrowing constraints imposed by limited pledgeability. This model differs from theirs in three respects. First, agents consume every period with log utility, and secondly they receive endowments when middle-aged as well as when young. These two modifications enable young people to save more when bubbles occur, and are central to main results. Third, they assume an environment of three assets, securities issued by firms, bubbles, and the non-bubbly asset, while in ours the former two assets are available to investors. Sakuragawa (2012) provides a rigorous analysis of the model.

We have four important findings. First, introducing the channel of the boost in savings supported by the strong motive of self-finance provides a simple condition under which bubbles crowd investment in or out. Bubbles are more likely to crowd investment in, the more sensitive with respect to the interest rate are the savings that finally become the net worth of debtors.

Second, bubbles can crowd investment in, but do not always strengthen the crowding-in effect when they are abundant. This paradoxical finding arises from the feature that bubbles are abundant when financial market imperfections are severe.

Third, several patterns for the boom-bust cycles of bubbles exist. The strong saving boost leads to the investment boom, while abundant bubbles are the source of the heavy recession when bubbles burst. The widely believed presumption that the high peak is followed by the deep trough is not always true. The government should be better to leave "good" bubbles to grow and react when bubbles burst. The effects of wealth redistribution from creditors to debtors and tightening leverage on the bubble cycle are stated.

Finally, the allocation of the competitive equilibrium with bubbles Pareto-dominates the one without bubbles when bubbles crowd investment in. This arises when the economy is dynamically efficient according to the Abel, et al.'s (1989) condition for dynamic efficiency.

This paper provides a number of policy implications. ((There are two "First" below.)) First, understanding the determinants of the magnitude of the boom and the bust will be a first step to approach the macro-prudence policies. Also, establishing the better financial system and organized asset markets ex ante eventually contribute to making bubbles "better". Furthermore, whether the central bank should raise the interest rate upon the emergence of bubbles depends on whether bubbles are "good" or "bad". Finally, the abundance of bubbles/liquidity will itself reveal that further provision of liquidity by the government and/or the central bank has only a small effect on stimulating the economy.

The final remark is concerning savings. Why the marginal propensity to consume is smaller in bubble periods than in bubbleless periods is an interesting subject of theoretical and empirical analysis. Although we explained this behavior using a simple saving function that is increasing in the interest rate, other explanations are also possible. For example, Sinai and Souleles (2005) emphasize the specificity of housing (and land) as an asset, arguing that the aggregate wealth effect from house price fluctuations is relatively small. If this hypothesis is valid, crowding-in is more likely to be linked to real estate bubbles. The concept of "mental accounting" proposed by Thaler (1990) may give a hint to the solution. People will find it difficult to solve the dynamic optimization problem for their lifetime consumption when their asset values rapidly appreciate, and mat((??)) save almost all the wealth in the form of bubbles.

REFERENCES

Abel, A. B, N. G. Mankiw, L. H. Summers, R.J. Zeckhauser, 1989, Assessing dynamic efficiency: Theory and Evidence, *Review of Economic Studies* 56, 1–20.

Farhi, E., and J. Tirole, 2011, Bubbly liquidity, *Review of Economic Studies, forthcoming.*

Horioka, C. Y., 1996, Capital gains in Japan: their magnitude and impact on consumption, *Economic Journal* 106, 560–77.

Juster, F. T., J. P. Lupton, J. P. Smith, and F. Stafford, The decline in household saving and the wealth effect, The Review of Economics and Statistics, 2005, 87, 20–27.

Kindleberger, C, P., 1978, *Manias, Panics, and Crashes, A history of Financial Crises, 3ed edition, 1996,* London, Macmillan.

Peek, J., 1983, Capital gains and personal saving behavior, *Journal of Money, Credit, and Banking* 15, 1–23.

Sakuragawa, M., 2012, Savings and Bubbles, Keio University, mimeograph

Sinai, T., and N. S. Souleles., 2005, Owner-occupied housing as a hedge against rent risk, *Quarterly Journal of Economics* 120, 763–789.

Thaler, R. H., 1990, Anomalies; Saving, Fungibility, and Mental Accounts, *Journal of Economic Perspectives* 4, 193–205.

Tirole. J., 1985, Asset bubbles and overlapping generations, *Econometrica* 53, 1499–1528.