

Economic seminar (økonomisk øvelse) Spring 2007:

Speculative Bubbles and Business Cycle Fluctuations (Spekulative bobler og konjunkturbevægelser)

Aim: To allow students to get insight in theoretical and empirical aspects of speculative bubbles - with an emphasis on the macroeconomic perspective. Speculative bubbles may arise in an economic upswing and their bursting may trigger a downswing.

Some themes:

1. The concept of speculative bubbles. Different theories and types of bubbles.
2. Empirical “definitions” of speculative bubbles. How to test for bubbles?
3. Historical episodes of speculative bubbles.
 - (a) Famous first bubbles.
 - (b) The 1929 stock market crash.
 - (c) The rise and fall of the Nikkei.
 - (d) IT bubble in the roaring nineties in the US?
4. Empirical regularities of business cycle fluctuations.
5. What is the relationship between stock and housing prices and the economy as a whole?
6. What are the implications of a bust in the price of housing?
7. Can speculative bubbles be present in general equilibrium if agents have rational expectations?
8. Speculative bubbles and exchange rate crises.
9. Can and should fiscal policy be designed to reduce the probability of speculative bubbles?

10. Should monetary policy attempt to intervene if a speculative bubble seems underway? If so, how?

Very introductory literature

(the short references refer to the list below)

Blanchard, O., 2000, Bubbles, Liquidity Traps, and Monetary Policy. Comments on Jinnushi et al., and on Bernanke, http://econ-www.mit.edu/faculty/index.htm?prof_id=blanchar&ty

Journal of Economic Perspectives, vol. 4, no. 2, 1990. Symposium on speculative bubbles.

Shiller (2003).

Shiller (2005).

Sørensen, P.B., and H.-J. Whitta-Jacobsen, 2005, *Introducing Advanced Macroeconomics: Growth & Business Fluctuations*, McGraw-Hill, London, pp. 437-457.

Literature

The history of speculative bubbles

Blinder, A. S., and J. L. Yellen, 2003, The fabulous decade: macroeconomic lessons from the 1990s. In: *The Roaring Nineties. Can Full Employment Be Sustained?*, ed. by A. B. Krueger and R. M. Solow, Russell Sage Foundation, New York.

Garber, P. M., 1990, Famous First Bubbles. *Journal of Economic Perspectives*, vol. 4 (2), 35-54.

Gordon, R.J., 2000, Does the ‘New Economy’ Measure up to the Great Inventions of the Past? *Journal of Economic Perspectives*, vol. 14 (4), 49-74.

Hobijn, B., and B. Jovanovic, 2001, The Information-Technology Revolution and the Stock Market: Evidence, *American Economic Review*, vol. 91, 1203-1220.

Shiller, R.J., 2005, *Irrational Exuberance*, second ed., Princeton Univ. Press, Princeton.

White, E., 1990, The Stock Market Boom and Crash of 1929 Revisited, *Journal of Economic Perspectives*, vol. 4 (2), 67-84.

Theory and empirics of rational bubbles

Azariadis, C., 1993, *Intertemporal Macroeconomics*, Blackwell, Oxford.

Blanchard, O. J., and M. W. Watson, 1982, Bubbles, Rational Expectations, and Financial Markets. In: P. Wachtel (ed.), *Crisis in the Economic and Financial Structure*, Lexington Books.

Blanchard, O., and S. Fischer, 1989, *Lectures on Macroeconomics*, Cambridge (Mass.), Chapter 5.

Blanchard, O., and J. Simon, 2001, The Long and Large Decline in U.S. Output Volatility, *Brookings Papers on Economic Activity*, no. 1, 135-164.

Diba, B. T., and H. Grossman, 1988a, Explosive Rational Bubbles in Stock Prices? *American Economic Review*, vol. 78 (3), 520-530.

Diba, B. T., and H. Grossman, 1988b, The Theory of Rational Bubbles in Stock Prices. *Economic Journal*, vol. 98, 746-754.

Diba, B. T., and H. Grossman, 1987, On the Inception of Rational Bubbles. *The Journal of Political Economy*, vol. 102, 697-700.

Flood, R. P., and R. J. Hodrick, 1990, On Testing for Speculative Bubbles. *Journal of Economic Perspectives*, vol. 4 (2), 85-101.

Flood, R.P., and P.M. Garber, eds., 1994, *Speculative Bubbles, Speculative Attacks, and Policy Switching*, MIT Press, Cambridge (Mass.).

Groth, C., 2006, Forward-looking expectations and rational bubbles. Chapter 21 in Groth, Lectures Notes in Advanced Macroeconomics, forthcoming.

Malkiel, B. G., 2003, The Efficient Market Hypothesis and Its Critics, *J. of Economic Literature*, vol. 17 (1), 59-82.

Obstfeld, M., and K. Rogoff, 1996, *Foundations of International Macroeconomics*, Cambridge (Mass.)

- Santos, M. S., and M. Woodford, 1997, Rational Asset Pricing Bubbles. *Econometrica*, vol. 65 (1). (tough)
- Scheinkman, J.A., and W. Xiong, 2003, Overconfidence and Speculative Bubbles, *J. Political Economy*, vol. 111 (6), 1183-1219. (tough)
- Shiller, R. J., 1981, Do Stock Prices Move Too Much to Be Justified by Subsequent Changes in Dividends? *American Economic Review*, vol. 71, 421-36.
- Shiller, R. J., 1989, *Market Volatility*, MIT Press, Cambridge (Mass.).
- Shiller, R. J., 1990, Speculative Prices and Popular Models. *Journal of Economic Perspectives*, vol. 4 (2), 55-66.
- Stiglitz, J. E., 1990, Symposium on Bubbles. *Journal of Economic Perspectives*, vol. 4 (2), 13-17.
- Stock, J.H., and M. W. Watson, 2003, Forecasting Output and Inflation: The Role of Asset Prices, *J. of Economic Literature*, vol. 41 (3), 788-829.
- Tirole, J., 1982, On the Possibility of Speculation Under Rational Expectations. *Econometrica*, vol. 50, 1163-81. (tough)
- Tirole, J., 1985, Asset Bubbles and Overlapping Generations. *Econometrica*, vol. 53.
- Weil, P., 1987, Confidence and the real Value of Money in An Overlapping Generations Economy. *Quarterly Journal of Economics*, vol. 102, 1-22.
- “Non-rational bubbles”: fads and noise-traders
- Allen, F., and S. Morris, 2003, Beauty Contests, Bubbles and Iterated Expectations in Asset Markets, Working Paper, LSE. (tough)
- Barsky, R.B., and J. B. DeLong, 1993, Why Does the Stock Market Fluctuate? *Quarterly J. of Economics*, vol. 108 (2), 291-312.
- Ross, S. A., 2004, Review of The New Financial Order by Shiller, *J. of Economic Literature*, vol. 42, 1098-1101.
- Schleifer, A., 2000, *Inefficient Markets: An Introduction to Behavioral Finance*, Oxford University Press, Oxford.

Schleifer, A., and L. H. Summers, 1990, The Noise Trader Approach to Finance. *Journal of Economic Perspectives*, vol. 4 (2), 19-33.

Shiller, R.J., 2003, From Efficient Market Theory to Behavioral Finance, *Journal of Economic Perspectives*, vol. 17 (1), 83-104.

Shiller, R.J., 2004, *The New Financial Order: Risk in the 21st Century*. Princeton Univ. Press, Princeton.

Shiller, R.J., 2005, *Irrational Exuberance, second ed.*, Princeton Univ. Press, Princeton.

Zheng, Z., 2005, From Rationality to Bounded Rationality, *Australian Economic Papers*, December, 455-474.

Zwiebel, J., 2002, Review of Shleifer's Inefficient Markets, *J. of Economic Literature*, vol. 40, 1215-1220.

Stock prices and economic fluctuations

Beaudry, P., and F. Portier, 2004, When Can Changes in Expectations Cause Business Cycle Fluctuations in Neo-Classical Settings? NBER WP 10776.

Beaudry, P., and F. Portier, 2006, Stock Prices, News, and Economic Fluctuations, *American Economic Review*, vol. 96 (4), 1293-1307.

Caballero, R.J., E. Farhi and M.L. Hammour, 2006, Speculative Growth: Hints from the U.S. Economy, *American Economic Review*, vol. 96 (4), 1159-1192.

IMF, 2000, Asset Prices and Business Cycles.

IMF, 2003, When Bubbles Burst, *World Economic Outlook*, April, 61-84.

Poterba, J.M., 2000, Stock Market Wealth and Consumption, *J. of Economic Perspectives*, vol. 14 (2), 99-118.

Sandroni, A., 2003, Speculative Trade, Asset Prices and Investment Levels, *Economic Theory*, vol. 21, 423-433.

The real estate market

Glaeser, E.L., J. Gyourko and R.E. Saks, 2005, Why Have Housing Prices Gone Up? HIER DP No. 2061.

Terrones, Marco, What explains the recent run-up in house prices?, *World Economic Outlook*, Sept. 2004 (Washington: International Monetary Fund).

Terrones, Marco, 2005, Housing Prices and Macroeconomics. Research summary and a list of references, *IMF Research Bulletin*, vol. 6, (4), 1-3

Business cycle fluctuations with a view on asset prices

Blanchard, O., C. Rhee and L. Summers, 1993, The Stock Market, Profit, and Investment, *Quarterly J. of Economics*, vol. 108 (1), 115-136.

Blanchard, O., 2005, Fluctuations. Organization of the course, and facts. March, lecture note, <http://stellar.mit.edu/S/course/14/sp06/14.452/materials.html>

Stock, J.H., and M.W. Watson, 1999, Business Cycle Fluctuations in US Macroeconomics Times Series. In: *Handbook of Macroeconomics*, vol. 1A, ed. by J.B. Taylor and M. Woodford, Elsevier, New York.

Stock, J.H., and M.W. Watson, 2001, Vector Autoregressions, *J. of Economic Perspectives*, vol. 15 (4), 101-115.

Should monetary policy respond to asset prices?

Bernanke, B., and M. gertler, 2001, Should Central Banks Respond to Movements in Asset prices? *American Economic Review*, vol. 91 (2), 253-257.

Illing, G., 2001, Financial Fragility, Bubbles and Monetary Policy, CESifo WP No. 449.

Roubini, Nouriel, 2005, Why monetary policy should respond to asset prices and asset bubbles, Working Paper, New York University, September.

Less accessible (more technical)

Forecasting and how to model forward-looking expectations

Blanchard, O. J., 1979, Backward and Forward Solutions for Economies with Rational Expectations. *American Economic Review*, vol. 69, *Papers and Proceedings*.

Blanchard, O. J., and C. M. Kahn, 1980, The Solution of Linear Difference Models under Rational Expectations. *Econometrica*, vol. 48.

Broze, L., C. Gourieroux and A. Szafarz, 1990, *Reduced Forms of Rational Expectations Models*. New York.

Buiter, W. H., 1982, Predetermined and Non-predetermined Variables in Rational Expectations Models. *Economics Letters*, vol. 10.

Clements, M.P., and D.F.Hendry, 1999, *Forecasting Non-stationary Economic Time Series*, MIT Press, Cambridge (Mass.).

Evans, G.W., and Honkapohja, S., 2001, *Learning and Expectations in Macroeconomics*. Princeton Univ. Press, Princeton.

Gourieroux, C., J. J. Laffont and A. Monfort, 1982, Rational Expectations in Dynamic Linear Models: Analysis of the Solutions. *Econometrica*, vol. 50.

Pesaran, Hashem, 1987, *The Limits to Rational Expectations*, Oxford.

Shiller, R. J., 1978, Rational Expectations and the Dynamic Structure of Macroeconomic Models: A Critical Review, *Journal of Monetary Economics*, vol. 4.

Timmermann, A., 1996, Excess Volatility and Predictability of Stock Prices in Autoregressive Dividend Models with Learning. *Review of Economic Studies*, vol. 63, 523-57.

Whiteman, C. H., 1983, *Linear Rational Expectations Models*. Minneapolis.

Endogenous fluctuations, indeterminacy, sun-spots

Chiappori, P. A., and R. Guesnerie, 1988, Endogenous Fluctuations under Rational Expectations. *European Economic Review*, vol. 32.

Cycles and Chaos in Economic Equilibrium, ed. by J. Benhabib, Princeton 1992.

Endogenous Economic Fluctuations. Studies in Theory of Rational Beliefs, ed. by M. Kurz, Berlin 1997.

Farmer, R. E. A., 1993, *The Macroeconomics of Self-Fulfilling Prophecies*, Cambridge (Mass.).

Geanakoplos, J. D., and H. M. Polemarchakis, 1986, Walrasian Indeterminacy and Keynesian Macroeconomics. *Review of Economic Studies*, vol. 53.

Grandmont, J.-M., and P. Malgrange, 1986, Non-Linear Economic Dynamics: Introduction. *Journal of Economic Theory*, vol. 40 (introduction to a symposium on endogenous fluctuations).

Grandmont, J.-M., 1998, Introduction to Market Psychology and Nonlinear Endogenous Business Cycles, *Journal of Economic Theory*, vol. 80 (introduction to a symposium on endogenous fluctuations).

Xiao, W., 2004, Explaining Speculative Expansions, *Contributions to Macroeconomics*, vol. 4 (1), Article 7, 1-30.

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