Macroeconomics 4:
Heterogeneity in Macroeconomics

Lecturer: prof. Marco Maffezzoli
TA: Alexey Gorn

Goal and scope of the course
(PRELIMINARY version, 10/4/15)

The course is meant as an introduction to the contemporaneous general-equilibrium approach to modelling heterogeneity in macroeconomics, In particular, it aims at providing the essential theoretical and quantitative tools needed to master some of the current workhorse models. Furthermore, a relatively broad overview of the most interesting and relevant contributions is provided.

Detailed program

Lecture 1: Cross-sectional facts for macroeconomists. References: Slide set #1*, Krueger et al. (2010)*, Heathcote et al. (2010), Jappelli and Pistaferri (2010), Stone et al. (2013), and D'Alessio (2012).

Lecture 2: Aggregation. References: Slide set #2*, Section 1* in Guvenen (2011), Section 5.2* in Acemoglu (2008) (download from `http://press.princeton.edu/chapters/s5_8764.pdf`), and Ogaki (2003).

Lecture 3: Heterogeneity under complete markets. References: Slide set #3*, Chatterjee (1994)*, Obiols-Homs and Urrutia (2005), and Carroll and Young (2009)*.

Lecture 4: Income fluctuations - Part I. References: Slide set #4*, Sections 4.2, 4.4* (skip 4.4.3) in Krueger (2014), and Sections 18.3-18.5* in Ljungqvist and Sargent (2012).

Lecture 5: Income fluctuations - Part II. References: Slide set #5*, Sections 4.4* (skip 4.4.3) and 4.5* (skip Remark 35) in Krueger (2014), and Section 18.14 in Ljungqvist and Sargent (2012).

Lecture 6: Markov chains. References: Slide set #6*, Section 2.2* in Ljungqvist and Sargent (2012), Tauchen (1986)* (skip Section 3).

Lecture 7: Occasionally binding constraints - Part I. References: Slide set #7*, Sections 4.2-4.5* in Ljungqvist and Sargent (2012).

Lecture 8: Occasionally binding constraints - Part II. References: Slide set #8* and Rendhal (2013).

Lecture 9: Bewley-type models - Part I. References: Slide set #9*, Section 18.2* in Ljungqvist and Sargent (2012), Huggett (1993), Aiyagari (1994), Section 3 in Guvenen (2011).

Lecture 10: Bewley-type models - Part II. References: Slide set #10*.

Lecture 11: Bewley-type models - Part III. References: Slide set #11*, Section 6.3 (in particular 6.3.3*) in Krueger (2014), and Section 4 in Guvenen (2011).

Lecture 12: The Krusell-Smith model. References: Slide set #12*, Section 18.15* in Ljungqvist and Sargent (2012), Sections 6.4.1-6.4.4 in Krueger (2014), and Sections 5-6 in Guvenen (2011).

The asterisk identifies the **absolutely essential** readings. The slides used in class will be made available online, and should be considered a study guide designed to help students find their way through the material.

References

Acemoglu, D. (2008). *Introduction to Modern Economic Growth.* Princeton University Press.

Aiyagari, S. R. (1994, August). Uninsured Idiosyncratic Risk and Aggregate Saving. *The Quarterly Journal of Economics 109*(3), 659–84.

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Chatterjee, S. (1994, May). Transitional dynamics and the distribution of wealth in a neoclassical growth model. *Journal of Public Economics 54*(1), 97–119.

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Heathcote, J., F. Perri, and G. L. Violante (2010, January). Unequal We Stand: An Empirical Analysis of Economic Inequality in the United States: 1967-2006. *Review of Economic Dynamics 13*(1), 15–51.

Huggett, M. (1993, September). The risk-free rate in heterogeneous-agent incomplete-insurance economies. *Journal of Economic Dynamics and Control 17*(5-6), 953–69.

Jappelli, T. and L. Pistaferri (2010, January). Does Consumption Inequality Track Income Inequality in Italy? *Review of Economic Dynamics 13*(1), 133–153.

Krueger, D. (2014, February). An Introduction to Macroeconomics with Household Heterogeneity. manuscript.

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Obiols-Homs, F. and C. Urrutia (2005, February). Transitional dynamics and the distribution of assets. *Economic Theory 25*(2), 381–400.

Ogaki, M. (2003, October). Aggregation under Complete Markets. *Review of Economic Dynamics 6*(4), 977–86.

Rendhal, P. (2013). Inequality Constraints and Euler Equation based Solution Methods. *The Economic Journal*, forthcoming.

Stone, C., D. Trisi, A. Sherman, and W. Chen (2013, December). A Guide to Statistics on Historical Trends in Income Inequality. Technical report, Center on Budget and Policy Priorities. http://www.cbpp.org/files/11-28-11pov.pdf.

Tauchen, G. (1986). Finite state markov-chain approximations to univariate and vector autoregressions. *Economics Letters 20*(2), 177–181.