Macroececonomics with Household Heterogeneity: Syllabus

Dirk Krueger and Kurt Mitman

Konstanz, May 2017

1 Organization

Time of Class:	9:00-12:00 and 13:00-16:00
Room	V 1001
Instructor:	Dirk Krueger (mornings) and Kurt Mitman (afternoon)
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2 Suggested Background Readings

1. Angus Deaton "Understanding Consumption" Oxford University Press, 1992

2. Orazio Attanasio "Consumption, " in Handbook of Macroeconomics, Vol. 3B, Elsevier, 1999.

3. J. Heathcote, K. Storesletten and G. Violante (2009), "Quantitative Macroeconomics with Heterogeneous Households," *Annual Review of Economics*, 1, 319-354.

4. F. Guvenen (2012), "Macroeconomics with Heterogeneity: A Practical Guide," *Federal Reserve Bank of Richmond Economic Quarterly.*

5. D. Krueger (2017), "An Introduction to Macroeconomics with Household Heterogeneity," *Manuscript*

3 Course Outline and Overview

This is a course in quantitative macroeconomics with heterogeneous households. We will first review the basic literature, but then quickly turn to applications of the baseline models as well as their computation. We will cover three broad topics. During the *first day* we will discuss *stationary models* with rich household heterogeneity, explain how they are computed efficiently and apply them to topics in public finance (social security and tax reforms, more specifically).

During the *second day* we will exposit models with *household heterogeneity and aggregate fluctuations*, again explain how these are best computed and apply them to the study of the aggregate and distributional consequences of large recessions. The *third day* is devoted to models with (the threat of) *consumer default* and personal bankruptcy. We explore the role of default for the insurance of idiosyncratic shocks and extend them to models of the housing market and foreclosure decisions. For details see the attached table of contents for the course.

4 Goal of the Course

We want to prepare you to write your first research paper and, eventually, a dissertation in this area, which is overlaps the fields of macroeconomics, labor economics and applied microeconomics. After having taken this course you will know how to write down dynamic consumption models, solve them (numerically, if required) in general equilibrium, map these models to the data and use them for applied policy question. We also hope

expose you to open research questions in this area so that you, if you wish, can apply the techniques acquired and the substance studied in this course to start your own research agenda. **Most importantly, we want to have fun with this course!!!**

5   Tentative Outline of the Course

Date	Time	Topic
Monday, May 22, 17	09:00-12:00	Standard Incomplete Markets Model in Partial and General Equilibrium, Applications Blundell and Preston (1996), Aiyagari (1994), Conesa & Krueger (1999, 2006), Kindermann & Krueger (2016)
Monday, May 22, 17	13:00-16:00	Computation of Heterogeneous Household Models Hagedorn, Manovskii & Mitman (2017), Hedlund et al. (2017)
Tuesday, May 23, 17	09:00-12:00	Incomplete Market Models with Aggregate Risk Krusell and Smith (1998), Krueger, Mitman and Perri (2016a,b)
Tuesday, May 23, 17	13:00-16:00	Computation and Applications of Incomplete Market Models with Aggregate Risk Maliar, Maliar and Valli (2010), Kaplan, Mitman and Violante (2017)
Wednesday, May 24, 17	09:00-12:00	Models with Default 1: Limited Commitment Models Alvarez and Jermann (2000), Kehoe and Levine (2001), Krueger and Perri (2006), Krueger and Uhlig (2006, 2017)
Wednesday, May 24, 17	13:00-16:00	Models with Default 2: Standard Incomplete Markets Models with Equilbrium Default Athreya (2002), Chatterjee et al. (2007) Jeske, Krueger and Mitman (2013), Mitman (2016)

References

[1] Aiyagari, R. (1994), "Uninsured Risk and Aggregate Saving," *Quarterly Journal of Economics*, 109, 659-684.

[2] Alvarez, F. and Jermann, U., 2000, Efficiency, Equilibrium and Asset Pricing with Risk of Default, *Econometrica,* 68 ,775-797.

[3] Athreya, K. (2002) "Welfare implications of the Bankruptcy Reform Act of 1999", *Journal of Monetary Economics*, Vol 49(8).

[4] Blundell, R. and I. Preston (1998), "Consumption Inequality and Income Uncertainty, *Quarterly Journal of Economics*, 113, 603-640.

[5] Chatterjee, S., D. Corbae, M. Nakajima and V. Rios-Rull (2007), "A Quantitative Theory of Unsecured Consumer Credit with Risk of Default," *Econometrica*, 75, 1525-1590.

[6] Conesa, J. and Krueger, D. (1999), "Social Security Reform with Heterogeneous Agents," *Review of Economic Dynamics*, 2, 757-795.

[7] Conesa, J. and Krueger, D. (2006), "On the Optimal Progressivity of the Income Tax Code," *Journal of Monetary Economics*, 53, 1425-1450.

[8] Hagedorn, M., I. Manovskii and K. Mitman (2017) "The Fiscal Multiploer", *Working Paper*

[9] Hedlund, A., F. Karahan, K. Mitman and S. Ozkan (2017) "Monetary Policy, Heterogeneity and the Housing Channel", *Working Paper*

[10] Jeske, K., D. Krueger and K. Mitman (2013) "Housing, Mortgage Bailout Guarantees and the Macroeconomy "*Journal of Monetary Economics* Vol. 60(8).

[11] Kaplan, G., K. Mitman and G. Violante (2017) "Consumption and House Prices in the Great Recession: Model Meets Evidence", *Working Paper*

[12] Kehoe, T. and D. Levine (2001), "Liquidity Constrained Markets versus Debt Constrained Markets," *Econometrica*, 69, 575-598.

[13] Kindermann, F. and D. Krueger (2016), "High Marginal Tax Rates on the Top 1%? Lessons from a Life Cycle Model with Idiosyncratic Income Risk," *Mimeo.*

[14] Krueger D. and F. Perri (2006), "Does Income Inequality Lead to Consumption Inequality: Evidence and Theory," *Review of Economic Studies,* 73, 163-193.

[15] Krueger, D. K. Mitman and F. Perri (2016a), "Macroeconomics and Household Heterogeneity," *Handbook of Macroeconomics.*

[16] Krueger, D. K. Mitman and F. Perri (2016b), "On the Distribution of the Welfare Losses of Large Recessions," *NBER Working Paper 22458.*

[17] Krueger, D. and H. Uhlig (2006), "Competitive Risk Sharing Contracts with One-Sided Commitment," *Journal of Monetary Economics*, 53, 1661-1691.

[18] Krueger, D. and H. Uhlig (2006), "Continuous Time Competitive Risk Sharing Contracts with One-Sided Limited Commitment in General Equilibriumt," *Work in Progress.*

[19] Krusell, P. and Smith, A. (1998), "Income and Wealth Heterogeneity in the Macroeconomy," *Journal of Political Economy*, 106, 867-896.

[20] Maliar, L., Maliar, S. and Valli, F., 2010. "Solving the incomplete markets model with aggregate uncertainty using the KrusellSmith algorithm", *Journal of Economic Dynamics and Control*, 34(1), pp.42-49.

[21] Mitman, K. (2016), "Macroeconomic Effects of Bankruptcy and Foreclosure Policies ", *American Economic Review*, Vol 106(8).