

Prof. Dr. Klaus Wälde
Mainz School of Management and Economics
www.macro.economics.uni-mainz.de
www.waelde.com

Wealth Distributions, Taxation and Redistribution

GSEFM 2nd year PhD programme

Seminar announcement (field course) - Summerterm 2015

1 Background and organization

- Background

Properties of the distributions of income, consumption or wealth for a certain country have always received a lot of public interest. This is equally true for research in labour economics, public economics and macroeconomics. While the rise in wage inequality has been a very much studied topic at least since the 1990s, understanding the distribution of wealth and consumption has interested macroeconomists also for a very long time. A proof of the importance the public attaches to this topic can be seen in the enormous success of the book by Thomas Piketty (2014) – see also Piketty (2015).

When thinking about taxation and redistribution, one needs to first understand why there are distributions in the first place. Afterwards, one needs to understand how economic policy affects these distributions. While some papers try to work both with endogenous distributions and then study the effects of redistributive policies, this is rarely the case. Most papers in the literature treat one or the other issue. The following references therefore mostly refer to either the first or the second of these points. The references are not comprehensive and students are welcome to add papers they find of interest.

It is the objective of this seminar to understand how distributions of income or wealth can be influenced by economic policy measures. In their term papers, students can survey the literature or develop own ideas. In any case, students are strongly encouraged to combine two or three papers from the literature such that one paper analyses the emergence of distributions of income or wealth and the other analyses distributional issues. When students read papers, the question they should ask when reading these papers is: How can we redistribute income at the lowest efficiency costs possible? The result of a term paper would then be to discuss a framework that would allow to combine an analysis of distribution with an analysis of redistribution.

- Organization

The seminar is organised such that there will be a first meeting at the beginning of the term (29 April 2015 at 12:15 in HoF/1.27 Dubai) where topics/ papers are briefly presented by the course organizer Prof. Klaus Wälde. Students can then chose a topic. April and May can be used to work on the essay and the presentation. Discussions with the organizer is of course

possible and actually strongly encouraged. In June or July there will be two to three meetings (depending on the number of participants) where students present the topic they chose.

A typical essay and presentation would present one paper from the literature in depth, i.e. it is essential to understand each step in the paper and to include the intermediate steps in the essay to be written. Suggesting potential extensions or adding own thoughts, maybe even presenting related own work is also more than welcome. As this seminar is a field course in GSEFM language, successful participation in a PhD seminar will earn a student 4 CP.

If you want to be kept up to date about the organizational details of the seminar, please send an email to waelde@uni-mainz.de.

2 Topics for the seminar

The following broad areas of interest can be identified. It would be useful for an informative seminar if each of these areas could be covered by at least one student.

1. Perceived, desired and true wealth distribution in US – There is a surprising discrepancy between what people in the US would like the wealth distribution to look like, what they believe that it looks like and what it actually looks like. This finding is based on a study that is featured in a video. Students should present this study, discuss its merit and relate it to economic analysis.
2. Bewley-Huggett-Aiyagari models – This literature is inspired by a mimeo by Bewley entitled “Interest Bearing Money and the Equilibrium Stock of Capital”, by Huggett (1993) and Aiyagari (1994). It allows for idiosyncratic shocks to earnings (as opposed to aggregate shocks) and studies the optimal response of risk-averse individuals. In the absence of insurance schemes against these earnings shocks, individuals self-insure by accumulating savings. This self-insurance is characterised by precautionary savings which allows to smoothen consumption more than in their absence. Depending on the history of good and bad luck in earnings shocks, individuals endogenously differ in their wealth level. The models therefore predict a distribution of wealth.
 - (a) Analyses in this tradition include Dávila et al. (2012), Castaneda et al. (2003), Diaz et al. (2003) and Castaneda et al. (1998). More descriptive papers include Quadrini and Rios Rull (1997), Rodriguez et al. (2002) and Diaz-Gimenez et al. (2007).
 - (b) See Ljungqvist and Sargent (2004, ch. 17) for a textbook treatment and Heathcote et al. (2009) for an excellent survey explaining the background and the various strands of this literature. A paper that looks at how well these models describe the wealth distribution (mostly of the US) is by Cagetti and De Nardi (2008).
 - (c) One of the many questions that can be analysed with models of this type is how much wealth inequality is due to luck and how much it is due to inborn characteristics of a person. Huggett et al. (2011) use such a framework to estimate the importance of endowment (inborn abilities) vs luck for determining life-time inequality.
3. Wealth distributions with aggregate shocks – Going beyond frameworks with pure idiosyncratic risk, one can study the effect of aggregate shocks and their interaction with idiosyncratic shocks. A very influential paper in this literature is by Krusell and Smith (1998). They show that tiny differences in impatience are sufficient to obtain a wealth distribution in the model that corresponds to real world wealth distributions according to measures based on Gini coefficients.

4. Wealth distributions and taxation – One can go beyond idiosyncratic labour income risk as a source of uncertainty and allow for idiosyncratic risk in capital income. This might result from differences in returns to investment e.g. in the housing market or in entrepreneurial activity. Some of these papers then analyse the origin of wealth distributions and how taxation can affect it. Papers include Benhabib, Bisin and Zhu (2011), Benhabib, Bisin and Zhu (2013) and more recent work by these authors.
5. Wealth distributions in search and matching models – Search and matching models are extremely popular to understand labour market issues. An integration of labour market analysis with precautionary savings has been started by Andolfatto (1996) and Merz (1995). More recent analyses include Bayer and Wälde (2010 a, b), Krusell, Mukoyama and Sahin (2010) and Lise (2013).
6. Principles of redistribution – Redistribution has always been a characteristic of any real-world state system. One can take a positive view and ask what the distributional effects of existing tax systems are. Or one can take a normative view and try to understand how redistribution can optimally be implemented, given a certain criterion for optimality.
 - (a) Optimal taxation in the Ramsey tradition often asks how a given path for government expenditure is optimally financed. Lump-sum taxation is routinely excluded to make the analysis non-trivial. See Ljungqvist and Sargent (2004, ch. 11 and 15) as a starting point.
 - (b) The analysis by Mirrlees (1971) has raised the question, which types of tax instrument can be used by the government given incomplete information on the side of the government about characteristics of tax payers. This literature produces interesting results compared to the Ramsey tradition (like e.g. the optimality of taxing capital income). These basic findings and general features of the “new dynamic public finance” is surveyed inter alia in Golosev et al (2007) and in Kocherlakota (2010). As Michau (2014) puts it, however, the main focus of this literature is not redistribution per se.
 - (c) Optimal redistribution is explicitly analysed by Saez (2002), Michau (2014) and the papers cited therein. See Diamond and Saez (2011) for an overview. Golosov et al. (forthcoming) study how taxation can redistribute residual income inequality (as opposed to total inequality). Labour market policies that reduce unemployment while *not* reducing net income of the unemployed are studied by Lingens and Wälde (2009).
7. Various topics in redistribution – The effect of tax progressivity on income inequality is studied by Slemrod (1994). An extensive survey on taxes and labour supply is provided by Keane (2011). Piketty et al (2014) study the association between changes in tax rates and changes in wealth inequality across various OECD countries. The effect of the earned income tax credit on inequality is studied by Chetty et al. (2013) or Mofitt (2003). A comparison to the German “Aufstocker” or wage-subsidy system is provided by Berthold and Coban (2014).

Other areas of interest can of course be identified and can be worked on by students.

References

- Aiyagari, S. R. (1994): “Uninsured Idiosyncratic Risk and Aggregate Saving,” *Quarterly Journal of Economics*, 109, 659–84.

- Andolfatto, D. (1996): “Business Cycles and Labor-Market Search,” *American Economic Review*, 86, 112–32.
- Bayer, C., and K. Wälde (2010a): “Matching and Saving in Continuous Time: Proofs,” CESifo Working Paper 3026-A.
- (2010b): “Matching and Saving in Continuous Time: Theory,” CESifo Working Paper 3026.
- Benhabib, J., A. Bisin, and S. Zhu (2013): “The Wealth Distribution in Bewley Models with Investment Risk,” Working Paper.
- Benhabib, J., A. Bisin, and S. Zuh (2011): “The Distribution of Wealth and Fiscal Policy in Economies with Finitely Lived Agents,” *Econometrica*, 79(1), 123–157.
- Berthold, N., and M. Coban (2014): “Kombilöhne gegen Erwerbsarmut: Warum die USA erfolgreicher sind als Deutschland,” *Wirtschaftsdienst*, 2, 118–124.
- Cagetti, M., and M. De Nardi (2008): “wealth Inequality: Data and Models,” *Macroeconomics Dynamics*, 12(S2), 285–313.
- Castaneda, A., J. Diaz-Gimenez, and J.-V. Rios-Rull (2003): “Accounting for the U.S. Earnings and Wealth Inequality,” *Journal of Political Economy*, 111, 818–857.
- Chetty, R., J. Friedman, and E. Saez (2013): “Using Differences in Knowledge across Neighborhoods to Uncover the Impacts of the EITC on Earnings,” *American Economic Review*, 103(7), 2683–2721.
- Diamond, P., and E. Saez (2011): “The Case for a Progressive Tax: From Basic Research to Policy Recommendations,” *Journal of Economic Perspectives*, 25(4), 165–90.
- Diaz, A., J. Pijoan-Mas, and J. Ríos-Rull (2003): “Precautionary Savings and Wealth Distribution under Habit Formation Preferences,” *Journal of Monetary Economics*, 50(6), 1257–1291.
- Golosov, M., P. Maziero, and G. Menzio (2014): “Taxation and Redistribution of Residual Income Inequality,” *Journal of Political Economy* forthcoming.
- Heathcote, J., K. Storesletten, and G. Violante (2009): “Quantitative Macroeconomics with Heterogeneous Households,” *Annual Review of Economics*, 1, 319–354.
- Huggett, M. (1993): “The risk-free rate in heterogeneous-agent incomplete-insurance economies,” *Journal of Economic Dynamics and Control*, 17, 953–969.
- Huggett, M., G. Ventura, and A. Yaron (2011): “Sources of Lifetime Inequality,” *American Economic Review*, 101(7), 2923–2954.
- Keane, M. (2011): “Labor Supply and Taxes: A Survey,” *Journal of Economic Literature*, 49(4), 961–1075.
- Kocherlakota, N. (2010): *The New Dynamic Public Finance*. Princeton University Press.
- Krusell, P., T. Mukoyama, and A. Sahin (2010): “Labor-Market Matching with Precautionary Savings and Aggregate Fluctuations,” *Review of Economic Studies*, 77, 1477–1507.
- Krusell, P., A. A. Smith, and Jr. (1998): “Income and Wealth Heterogeneity in the Macroeconomy,” *Journal of Political Economy*, 106, 867–896.

- Lingens, J., and K. Wälde (2009): “Pareto-Improving Unemployment Policies,” *FinanzArchiv*, 65, 220 – 245.
- Lise, J. (2013): “On-the-Job Search and Precautionary Savings,” *Review of Economic Studies*, forthcoming.
- Ljungqvist, L., and T. J. Sargent (2004): *Recursive Macroeconomic Theory* 2nd ed. MIT Press.
- Merz, M. (1995): “Search in the labor market and the real business cycle,” *Journal of Monetary Economics*, 36, 269–300.
- Michau, J.-B. (2014): “Optimal redistribution: A life-cycle perspective,” *Journal of Public Economics*, 111, 1–16.
- Moffitt, R. A. (2003): “The Negative Income Tax and the Evolution of U.S. Welfare Policy,” *Journal of Economic Perspectives*, 17, 119–140.
- Piketty, T. (2014): *Capital in the 21st Century*. Harvard University Press.
- (2015): “Putting Distribution Back at the Center of Economics: Reflections on Capital in the Twenty-First Century,” *Journal of Economic Perspectives*, 29(1), 67–88.
- Piketty, T., E. Saez, and S. Stantcheva (2014): “Optimal Taxation of Top Labor Incomes: A Tale of Three Elasticities,” *American Economic Journal: Economic Policy*, 6(1), 230–71.
- Quadrini, V., and J. Ríos-Rull (1997): “Understanding the U.S. Distribution of Wealth,” *Federal Reserve Bank of Minneapolis Quarterly Review*, 21(2), 22–36.
- Rodríguez, S., J. Díaz-Giménez, and J. Quadrini, V. and Ríos-Rull (1998): “Exploring the Income Distribution Business Cycle Dynamics,” *Journal of Monetary Economics*, 42, 93–130.
- Rodríguez, S., J. Díaz-Giménez, and J. Quadrini, V. and Ríos-Rull (2002): “Updated Facts on the U.S. Distributions of Earnings, Income, and Wealth,” *Federal Reserve Bank of Minneapolis Quarterly Review*, 25(3), 2–35.
- Saez, E. (2002): “Optimal Income Transfer Programs: Intensive Versus Extensive Labor Supply Responses,” *Quarterly Journal of Economics*, 117(3), 1039–1073.
- Slemrod, J. (1994): *Tax Progressivity and Income Inequality*. Cambridge University Press.