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Advanced Macroeconomics

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Klaus Wälde (lecture) and Jean Roch Donsimoni (tutorial)

www.macro.economics.uni-mainz.de

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1 Introduction

The Master lecture on advanced macroeconomics teaches macroeconomic topics whereby 'advanced' carries two meanings. First, more emphasis is put on model building and formal backgrounds of economic models than in Bachelor lectures. Students will learn about dynamic programming as a tool to solve maximization problems, will get a feeling for the role uncertainty plays in economic decision making and macroeconomics, and will learn some basics about stochastic processes required to understand e.g. the dynamics of innovation and growth or the dynamics of hiring and firing on labour markets.

Second, advanced is also understood in the sense of psychologically better founded decision processes of individuals. It has long been recognized that standard assumptions about preferences, which inter alia exclude conflicting motivations of an individual, time inconsistencies or emotions, are an obstacle to fully understanding human behaviour. This lecture will therefore teach classic models of macroeconomics and occasionally discuss extensions which take a more psychological approach to human behaviour.

The lecture will cover three macroeconomic topics: Economic growth, business cycles and unemployment. From the perspective of behavioural macroeconomics, we will discuss the role of conflicting motivations (dual-self models) for economic growth, of anticipatory emotions for understanding the aggregate capital stock in business cycle models and time-inconsistency for understanding the dynamics of unemployment.

2 Economic growth

2.1 The convergence debate

- Baumol (1986) "Productivity Growth, Convergence, and Welfare: What the Long-run Data Show,"
- BLS (2012) "International Comparisons of GDP per Capita and per Hour, 1960–2011"
- Sala-i-Martin (2006) "The World Distribution of Income: Falling Poverty and ... Convergence, Period"
- World Bank (2014) "World Development Report 2014"

2.2 Theory

- Aghion and Howitt (1992) "A Model Of Growth Through Creative Destruction"
- Aghion and Howitt (1998) "Endogenous Growth Theory"
- Cass (1965) "Optimum Growth in an Aggregative Model of Capital Accumulation"

- Grossman and Helpman (1991) “Innovation and Growth in the Global Economy”
- Koopmans (1965) "On the Concept of Optimal Economic Growth"
- Ramsey (1928) "A Mathematical Theory of Saving"
- Shell (1966) "Toward A Theory of Inventive Activity and Capital Accumulation"
- Solow (1956) “A Contribution to the Theory of Economic Growth“ (see Aghion and Howitt, 1998, ch. 1.1)
- Wälde (1999) “A Model of Creative Destruction with Undiversifiable Risk and Optimising Households”
- Wälde (2012) “Applied Intertemporal Optimization”

2.3 A growth model with dual selves

- Akerlof (2002) “Behavioral Macroeconomics and Macroeconomic Behavior”
- Camerer and Loewenstein (2004) “Behavioral Economics: Past, Present, Future”
- Fudenberg (2006) “Advancing beyond *Advances in behavioral economics*”
- Fudenberg and Levine (2006) “A Dual Self Model of Impulse Control“
- Rabin (2013) “Incorporating Limited Rationality into Economics”
- Rabin (2013) “An Approach to Incorporating Psychology into Economics”

3 Business cycles

3.1 Some numbers on business cycles

- Eurocoin (2014)
- GDP per capita OECD countries 1980 - 2010
- Jones (1995) “Time series test of endogenous growth models” (fig. I)
- Marczak and Beisinger (2013) “Real wages and the business cycle in Germany”
- NBER’s Business Cycle Dating Committee (2010)
- Schirwitz (2009) “A comprehensive German business cycle chronology”
- Wälde and Woitek (2004) “R&D expenditure in G7 countries and the implications for endogenous fluctuations and growth”

3.2 The real business cycle approach

- Kydland and Prescott (1980) “A Competitive Theory of Fluctuations and the Feasibility and Desirability of Stabilization Policy“
- Kydland and Prescott (1982) “Time to Build and Aggregate Fluctuations“
- Wälde (2012) “Applied Intertemporal Optimization“ (ch. 8.1)

3.3 Natural volatility

- Francois and Lloyed-Ellis (2003). "Animal Spirits Trough Creative Destruction"
- Wälde (2005) "Endogenous Growth Cycles"
- Wälde (2005) "Introduction to natural volatility"

3.4 Anticipatory emotions and business cycles

- Caplin Leahy (2004) "Psychological Expected Utility Theory And Anticipatory Feelings"
- Loomes and Sugden (1982) "Regret Theory: An Alternative Theory of Rational Choice under Uncertainty"
- Loomes and Sugden (1986) "Disappointment and Dynamic Consistency in Choice under Uncertainty"
- Wälde (2014) "Stress and Coping: An Economic Approach"

4 Unemployment

4.1 Facts about unemployment

- Krebs and Scheffel (2013) "Macroeconomic Evaluation of Labor Market Reform in Germany"
- Launov and Wälde (2012) Slides for "Estimating incentive and welfare effects of non-stationary unemployment benefits"
- OECD (2011) "Persistence of high unemployment: what risks? what policies?"
- Reinberg and Hummel (2005) "Höhere Bildung schützt auch in der Krise vor Arbeitslosigkeit"
- Strasser and Wälde "Unemployment stocks and flows for Germany"(see web site)
- DESTATIS (2012) "Beruf, Ausbildung und Arbeitsbedingungen der Erwerbstätigen in Deutschland"

4.2 Traditional theories of unemployment

- Akerlof (1982) "Labor Contracts as Partial Gift Exchange"
- Akerlof and Yellen (1988) "Fairness and Unemployment"
- Cahuc and Zylberberg (2004) Labor Economics
- Shapiro and Stiglitz (1984) "Equilibrium Unemployment as a Worker Discipline Device"
- Solow (1979) "Another Possible Source of Wage Stickiness"
- Donado and Wälde (2012) "How Trade Unions Increase Welfare"

4.3 The search and matching approach

- Burdett and Mortensen (1998) “Wage Differentials, Employer Size, and Unemployment”
- Moen (1997) “Competitive search equilibrium”
- Pissarides (1985) “Short-run Equilibrium Dynamics of Unemployment Vacancies, and Real Wages”
- Rogerson, Shimer and Wright (2005) “Search-Theoretic Models of the Labor Market: A Survey”

4.4 Behavioural views on unemployment

- Akerlof and Yellen (1988) “Fairness and Unemployment”
- DellaVigna and Paserman (2005) “Job search and impatience”
- O’Donoghue and Rabin (1999) “Doing it Now or Later”
- Paserman (2008) “Job Search and Hyperbolic Discounting: Structural Estimation and Policy Evaluation”

4.5 How to reduce unemployment without creating poverty

- Chetty, Friedman and Saez (2013), “Using Differences in Knowledge across Neighborhoods to Uncover the Impacts of the EITC on Earnings”
- Golosov, Maziero and Menzio (forthcoming) “Taxation and Redistribution of Residual Income Inequality”
- Heckman (2006) “Skill Formation and the Economics of Investing in Disadvantaged Children”
- Lings and Wälde (2009) “Pareto-Improving Unemployment Policies”
- Moffitt (2003) “The Negative Income Tax and the Evolution of U.S. Welfare Policy”
- Saez (2002) “Optimal Income Transfer Programs: Intensive versus Extensive Labor Supply Responses”

5 Conclusion: What did we learn?

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- CEPR (2014): “Eurocoin the real time indicator of the Euro Area economy,” <http://eurocoin.cepr.org/>.
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