

Stockholm Doctoral Program in Economics 2014  
Macro II.2 - Frictions in the Standard Model

Preliminary Syllabus

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**Aim of the course:**

This last part of the first year Macro sequence aims to generalise some of the simplifying assumptions made in the macro sequence so far. We will thus look at models of unemployment, models where the lack of insurance against household-specific shocks leads to a non-degenerate equilibrium distribution of wealth and consumption, and some simple alternatives to the rationality / rational expectations assumption. At the end of the course, students are expected to:

• **Labour markets and unemployment**

- Understand simple search models of unemployment.
- Understand the determination of frictional unemployment in the Mortensen and Pissarides (1994) model
- Understand the Shimer (2005March)-puzzle and possible solutions
- Understand the extension by Mortensen and Pissarides (1994) to endogenous job destruction

• **Heterogeneous Agents in Macroeconomics**

- Be familiar with the main summary facts about the (US) distributions of income, consumption and wealth
- Know the conditions under which macroeconomic models can abstract from the underlying heterogeneity of consumers and firms
- Understand the observable implications of different market structures for consumption paths and the evolution of cross-sectional distributions
- Understand the main elements and features of the stationary equilibrium in an economy with idiosyncratic income risk, incomplete markets and borrowing constraints as in Huggett (1993) or Aiyagari (1994)

**Course Website:** *http://www.mondo.su.se/*

**Course Organisation:** 8 lectures, May 2014.

**Office hours:** Tuesday and Thursday at 2pm.

**Assessment:** 2 graded problem sets, 1 exam.

## General Reading

### 1. Labour market and unemployment

- 
- Hornstein et al. (2005)
- Pissarides (1985)
- SargentLjungqvist ()
- Pissarides, Christopher (2000). *Equilibrium Unemployment Theory*, MIT Press, 255 pages.
- See also the documentation for the 2010 Riksbank prize in memory of Alfred Nobel at [www.nobel.org](http://www.nobel.org)

### 2. Heterogeneity and Inequality in Macro

- Heathcote et al. (2009)
- Guvenen (2011)

## Preliminary Course Outline

### I. Equilibrium Unemployment Theory

#### 1. Frictional Unemployment: Stylised Facts and Basics

- Readings
  - Pissarides (1985)
  - Hornstein et al. (2005)
  - Pissarides, Christopher (2000). *Equilibrium Unemployment Theory*, MIT Press, 255 pages.
  - Elsby et al. (2010)

## 2. Search Models

- Readings
  - Hornstein et al. (2011December)

## 3. The Shimer (2005) puzzle

- The lack of unemployment volatility in a business cycle version of Mortensen and Pissarides (1994)
- Readings
  - Shimer (2005March)
  - Hornstein et al. (2005)
  - Andolfatto (1996March)
  - Hagedorn and Manovskii (2008September)
  - Merz (1995November)

## 4. Endogenous Job Destruction

- Extension by Mortensen and Pissarides (1994) to endogenous job destruction

# II. Heterogeneity and Inequality in Macroeconomics

## 1. Introduction and Facts

- Definitions
- Characteristics of inequality Measures
- Facts about the US distribution of income, consumption and wealth
- Readings
  - On Gini: Xu (2003)
  - For US Facts: Heathcote et al. (2010),Daz-Gimnez et al. (2011)
  - For Sweden: Domeij and Floden (2010January)

## 2. The theory behind the representative consumer

- Gorman Aggregation
- Existence of a representative consumer with complete markets
- Empirical Implications of the complete markets assumption
- Readings
  - Constantinides (1982)
  - Chatterjee (1994)
  - Gorman, William (1961) "On a class of preference fields", Metroeconomica.

- See also Mas Colell, Chapter 4.
- On empirical tests of the complete market assumption see Guvenen (2009) and references therein.

### 3. Theories of consumption and wealth inequality with exogenous income

#### (a) The income fluctuation problem

- The pure Permanent Income Hypothesis
- Empirical tests of the PIH vs Complete Markets
- Precautionary Savings with prudence and borrowing limits
- The general income fluctuation problem
- Readings
  - SL Chapter 16

#### (b) Stationary Equilibrium in Economies with idiosyncratic risk and incomplete markets

- Existence
- Computational Algorithm
- Readings
  - SL Chapter 17
  - On constrained efficiency: Dvila et al. (2012November)

#### (c) Applications of Bewley models

- Precautionary Savings
- Redistributive taxation: Floden and Lind (2001July)
- The optimal quantity of debt: Aiyagari and McGrattan (1998October)
- Readings
  - Aiyagari (1994), Huggett (1993)
  - Floden and Lind (2001July)
  - Aiyagari and McGrattan (1998October)
  - SL Chapter 17

#### (d) Theories of Income Inequality

- Skill-biased Technological Change
- Readings
- ?Kruseletal2000 ()
- Violante (2008)

## III. Learning and bounded rationality

- Some other time

## References

- Aiyagari, S Rao. 1994. *Uninsured idiosyncratic risk and aggregate saving*, The Quarterly Journal of Economics **109**, no. 3, 659–84.
- Aiyagari, S. Rao and Ellen R. McGrattan. 1998October. *The optimum quantity of debt*, Journal of Monetary Economics **42**, no. 3, 447–469.
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- Shimer, Robert. 2005March. *The cyclical behavior of equilibrium unemployment and vacancies*, American Economic Review **95**, no. 1, 25–49.
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- Xu, Kuan. 2003. *How has the literature on gini's index evolved in the past 80 years?*, Technical Report howgini, Dalhousie, Department of Economics.