Professional Training Course

Florence School of Banking and Finance

Macro-Prudential Policy: A Quantitative Approach

Instructor:

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Programme

23 September

08.45 - 09.00	*Welcome coffee and registration of participants*
09.00 - 09.30	**Introduction of the Florence School of Banking and Finance and *Tour de Table***
09.30 - 11.00	**Session 1. Introduction and Workhorse Models Part 1**

- Debt & wealth dynamics in open economies with complete and incomplete asset markets
- Workhorse model 1: Deterministic (complete markets) endowment economy model
- Dynamic and steady-state features of consumption, net foreign assets and external accounts
- Extension with production and investment

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- Effects of shocks: Showing that even transitory shocks have permanent effects

11.00 - 11.30	*Coffee break*
11.30 - 13.00	**Session 2. Workhorse Models Part 2** • Deterministic (incomplete markets) endowment economy model • Aiyagari's Natural Debt Limit • Stochastic Stationary Equilibrium, precautionary savings and importance of global approach • Implications for quantitative solutions and limitations of perturbation methods
13.00 - 14.00	*Lunch break*
14.00 - 15.30	**Session 3. Stylised facts of Booms and Crashes** • Measuring credit booms • Credit booms in macro and micro data in advanced and emerging economies • Financial crises in emerging economies (Sudden Stops)
15.30 - 16.00	*Coffee break*
16.00 - 17.30	**Session 4. Lab Session: A Primer on Global Methods for Financial Crises Models – Session led by Matthias Rottner (EUI)** • Classic and advanced global methods • Basics of Coleman's time iteration method • Mendoza-Villalvazo Fixed-Point iteration (FiPIt) method • Applying the FiPIt Matlab algorithm to an RBC model with and without credit constraints (example based on model calibrated to Mexico) • Business cycle and crisis dynamics, effects of precautionary savings, and measures of financial amplification
After the course - 20.00	*Wine Tasting at the Osteria Armanda 1926 (Via dei Macci, 74r 50122 Firenze)*

24 September

09.30 - 11.00 **Session 5. Fisherian Models of Financial Crises: Introduction and Positive Analysis**

- Importance of global, nonlinear approach to modelling financial distress
- Analytical foundations of Fisherian models
- Workhorse Fisherian model with a debt-to-income constraint
- Two quantitative applications: Surge in foreign reserves and Sudden Stops

11.00 - 11.30 *Coffee break*

11.30 - 13.00 **Session 6. Macroprudential Policy (MPP) Part 1**

- Analytical foundations of optimal MPP: market failure in Fisherian models
- Example with debt-to-income constraints
- Effectiveness of the optimal policy (frequency and severity of crises)
- Complexity of the optimal policy

13.00 - 14.00 *Lunch break*

14.00 - 15.30 **Session 7. Macroprudential Policy Part 2**

- Housing or assets as collateral (loan-to-value constraints) example
- Time inconsistency of optimal MPP under commitment
- Optimal MPP with and without commitment
- Effectiveness of optimal MPP without commitment
- Comparing optimal v. simple policies

15.30 - 16.00 *Coffee break*

16.00 - 17.30 **Session 8. Lab on Solution of Optimal MPP in DTI model – Session led by Matthias Rottner (EUI)**

Matlab algorithm with application to solve DTI model

- Fixed-point iteration method for solving unregulated competitive equilibrium
- Fixed-point iteration method for solving regulator’s optimal MPP problem
- Computation of optimal debt taxes and policy evaluation

After the course - 19.30	*Guided tour in the city centre on the History of Banking and Finance in Florence*

25 September

09.30 - 11.00	**Session 9. Financial Innovation and Learning in Fisherian Models** • Financial innovation as structural change with imperfect information • U.S. housing boom and 1990s financial reforms as case study • Quantitative application of Fisherian model with learning, calibrated to U.S. case • Implications for optimal MPP
11.00 - 11.30	*Coffee break*
11.30 - 13.00	**Session 10. Interactions between Financial and Monetary Policy** • Policy interactions in the Bernanke-Gertler-Girlchrist Neo-Keynesian DSGE model • Quantitative relevance of Tinbergen's rule • Quantitative relevance of strategic interaction between policy authorities
13.00	*Sandwiches will be served after the session*