



European
University
Institute

ROBERT
SCHUMAN
CENTRE FOR
ADVANCED
STUDIES



TRAINING COURSE

FLORENCE SCHOOL OF BANKING AND FINANCE

MACROPRUDENTIAL POLICY: PROMISE AND CHALLENGES

Course Instructor: Enrique G. Mendoza | University of Pennsylvania

Conference Room

Villa La Fonte, Via delle Fontanelle, 18 - San Domenico di Fiesole

8-10 MARCH 2017

INTRODUCTION

This course studies macroprudential policy in quantitative dynamic general equilibrium models with collateral constraints, covering theoretical foundations, optimal policy design and evaluation, and implementation hurdles. The arguments and findings reviewed in the course suggest that macroprudential policy holds the promise of becoming a powerful tool for reducing the severity and frequency of financial crises and increasing social welfare. They also suggest, however, that macroprudential policy faces serious implementation challenges that can undermine its effectiveness significantly, and that careful evaluation of candidate policies with adequate quantitative tools is critical for overcoming these challenges.

PROGRAMME

8 MARCH

09.15 - 09.30 Welcome by **Pierre Schlosser** | Florence School of Banking and Finance

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
- 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**

- Workhorse model 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 - 16.45 **Session 4. Primer on Global Solution Methods for Incomplete Markets**

Models

- Classic and advanced global methods
- Value function iteration and policy function (Howard's) iteration methods
- Example: Workhorse Model 1 applied to Mexican Data
- Dynamics of NFA, effects of precautionary savings, and persistence of external accounts
- Basics of Coleman's time iteration method

17.30 - 18.30

Lecture on *The Public Debt Crisis of the United States* (optional)

9 MARCH

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 (liability dollarization or debt-to-income constraints)
- 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
- Liability dollarization (debt-to-income constraints) example
- 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

	<ul style="list-style-type: none"> ▪ Optimal MPP with and without commitment ▪ Effectiveness of optimal MPP without commitment ▪ Comparing optimal v. simple policies
15.30 - 16.00	<i>Coffee break</i>
15.30 - 17.30	Session 8. Lab on Solution of Optimal MPP in Liability Dollarization model <ul style="list-style-type: none"> ▪ Matlab algorithm with application to solve liability dollarization model ▪ Time iteration method for solving unregulated competitive equilibrium ▪ Time iteration method for solving regulator's optimal MPP problem ▪ Computation of optimal debt taxes and policy evaluation
18.00 - 21.00	<i>Social Activities outside the EUI</i>
10 MARCH	
09.30 - 11.00	Session 9. Financial Innovation and Learning in Fisherian Models <ul style="list-style-type: none"> ▪ 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	<i>Coffee break</i>
11.30 - 13.00	Session 10. Interactions between Financial and Monetary Policy <ul style="list-style-type: none"> ▪ Policy interactions in the Bernanke-Gertler-Girchchrist Neo-Keynesian DSGE model ▪ Quantitative relevance of Tinbergen's rule ▪ Quantitative relevance of strategic interaction between policy authorities
13.00 - 13.15	Concluding remarks