

## V Course on Financial Stability

Madrid, Spain, October 23-27, 2023

Banco de España. Meeting room: Hemiciclo I

Monday

23  
October  
2023

(UTC + 2)

08:30 – 09:00

**Security check and registration**

### Day 1: Introduction

09:00 – 09:30

**Course opening**

Ángel Estrada García, Director General of Financial Stability, Regulation and Resolution, *Banco de España*

Manuel Ramos Francia, Director General, *CEMLA* (TBC)

09:30 – 10:15

**Interactive kickoff session — A Tabletop Exercise on Macroprudential Policy**

In this interactive simulation exercise, participants will discuss in groups the macroprudential policy tools available to authorities to react to a crisis scenario, as well as the transmission mechanisms involved in the activation of macroprudential policies.

**Chair:** Matias Ossandon Busch, *CEMLA*

10:15 – 10:45

**Coffee break**

10:45 – 11:45

**Introduction to financial stability analysis: definition and metrics**

This session introduces the concept of financial stability and its relevance as a policy objective. The session further familiarizes participants with the link between financial cycles and the macroeconomy and with examples of the multi-dimensional analysis approach followed to monitor financial stability risks.

- A primer on financial stability
- Financial cycles and the macroeconomy
- Dimensions of financial stability metrics

**Speaker:** Carlos Pérez Montes, *Banco de España*

**Chair:** Matias Ossandon Busch, *CEMLA*

11:45 – 12:00

**Transition break**

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12:00 – 13:00 **Foundations of macroprudential regulation I**

This session introduces the concept of macroprudential policy. Macroprudential policies are explained as a policy response to market failures, including principal-agent frictions in risk monitoring, maturity and liquidity transformation risks, and frictions derived from the political economy of banking regulation. The session discusses the evolution from the first regulatory approaches to micro- and macroprudential policy frameworks. Furthermore, the session familiarizes participants with the concept of systemic risk and the objective of minimizing it with prudential policy tools.

- Financial market failures and the need for regulation
- From micro- to macroprudential policy frameworks
- Systemic risk as a target of macroprudential policy
- Ultimate and intermediate objectives and instruments

**Speaker:** Matias Ossandon Busch, *CEMLA*

**Chair:** Carmen Broto Pelegrín, *Banco de España*

13:00 – 13:30 **Break**

13:30 – 14:30 **Foundations of macroprudential regulation II**

This session introduces the operationalization of macroprudential policies by describing policy instruments used to address structural market failures as well as cyclical risks derived from cross-sectional and time dimensions of financial stability. Moreover, participants will hear about the interaction between financial stability and monetary policy. The session will also cover key cross-border dimensions of macroprudential policy.

- Market failures, cyclical risks, and macroprudential policy instruments
- Interactions between financial stability and monetary policy
- Cross-border dimension of macroprudential policy

**Speaker:** Javier Mencía González, *Banco de España*

**Chair:** Matias Ossandon Busch, *CEMLA*

14:30 **Lunch (Marqués de Cubas Hall - Banco de España)**



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08:30 – 09:00

**Security check and registration**

**Day 2: Empirical methods for financial stability analysis**

09:00 – 10:00

**Financial network analysis: applications for financial stability**

This session familiarizes participants with the use of networks analysis in applications related to financial stability and the quantification of systemic risk. After a general overview of some basic concepts in graph theory, the session will focus on the role of networks as a mechanism for the propagation and amplification of shocks in financial systems.

- Introduction to financial networks
- Contagion channels and systemic risk
- Models of direct and indirect contagion

**Speaker:** Adrián Carro Patiño, *Banco de España*

**Chair:** Matias Ossandon Busch, *CEMLA*

10:00 – 10:30

**Coffee break**

10:30 – 12:00

**Panel data analysis in financial stability using microdata**

This session covers the use of microeconomic models to address questions of financial stability using granular financial-sector data. The session reviews common estimating approaches, identification techniques, and the use of panel-data methods to address identification challenges and omitted variables biases.

- Microeconomic settings with financial sector data
- Common estimators and identification techniques
- Applications for financial stability analysis

**Speaker:** Matias Ossandon Busch, *CEMLA*

**Chair:** José María Serena Garralda, *Banco de España*

12:00 – 12:30

**Break and group photo**

12:30 – 13:30

**Hands-on exercise on financial stability analysis**

This exercise provides an example for the use of the statistical package R to estimate a difference-in-difference model using global international banking data. *Note: a laptop is required for the exercise.*

**Speaker:** Matias Ossandon Busch, *CEMLA*

13:30

**Lunch (Marqués de Cubas Hall - Banco de España)**

Wednesday

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08:30 – 09:00 **Security check and registration**

### Day 3: Climate-related risks and financial stability

09:00 – 10:00 **Introduction to climate-risk scenarios**

- Why climate scenarios are different from ‘usual’ financial scenarios, and why a probabilistic dimension is more, not less, needed for climate scenarios
- Sources and different “types of” uncertainty in climate models
- A modular approach to scenario analysis

**Speaker:** Riccardo Rebonato, Scientific Director, *EDHEC-Risk Climate Impact Institute, EDHEC Business School*

**Chair:** Carmen Broto Pelegrín, *Banco de España*

10:00 – 10:30 **Coffee break**

10:30 – 12:00 **Modeling climate uncertainty**

- How to model the link between GDP/Person and carbon intensity, emissions/GDP, population growth, and savings
- How to model climate uncertainty
- How to model policy uncertainty

**Speaker:** Riccardo Rebonato, Scientific Director, *EDHEC-Risk Climate Impact Institute, EDHEC Business School*

**Chair:** Matias Ossandon Busch, *CEMLA*

12:00 – 12:30 **Break**

12:30 – 14:00 **Climate risk and policy applications**

- Obtaining and analyzing several condition distributions
- Reverse stress testing
- Implications for asset valuation and financial stability

**Speaker:** Riccardo Rebonato, Scientific Director, *EDHEC-Risk Climate Impact Institute, EDHEC Business School*

**Chair:** Sergio Mayordomo Gómez, *Banco de España*

14:00 – 15:30 **Lunch (Marqués de Cubas Hall - Banco de España)**

15:30 – 17:00 **Guided visit to the historical building of the Banco de España**



Thursday

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### Day 4: Financial stability monitoring, Growth-at-Risk (GaR) models, and stress testing

09:00 – 10:00 **Financial stability monitoring**

The risk of widespread financial externalities derived from systemic risk — from asset prices corrections to fire sales — can be mitigated by an effective financial stability monitoring framework. This session introduces monitoring frameworks, the metrics used to trace risks, and the tools used to monitor sectors contributing to systemic risk.

- The purpose and definition of monitoring
- Regular and ad-hoc monitoring, tools and examples

**Speaker:** Alejandro Ferrer Pérez, *Banco de España*

**Chair:** Matias Ossandon Busch, *CEMLA*

10:00 – 10:30 **Coffee break**

10:30 – 11:45 **Introduction to Growth-at-Risk models**

This session familiarizes participants with the use of Growth-at-Risk models and other related modeling tools to monitor financial stability risks and to evaluate the effectiveness of macroprudential policy interventions.

- From Value-at-Risk to Growth-at-Risk
- Quantile regressions and estimation challenges
- Applications for financial stability and macroprudential policy

**Speaker:** Jorge Galán Camacho, *Banco de España*

**Chair:** Matias Ossandon Busch, *CEMLA*

11:45 – 12:15 **Break**

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### **Applications and experiences from stress testing at Banco de España**

This session introduces macroprudential stress-testing frameworks, with a focus on Banco de España's stress testing approach. The session discusses the justification of the use of stress tests both as a monitoring and as a macroprudential policy tool; their objectives and implementations; and the results from stress tests conducted at Banco de España.

- Objectives and components of a stress testing framework
- Architecture of the Banco de España's stress tests
- The design of stress test scenarios and stress test methodology

**Speakers:** Javier García Villasur, Irene Pablos Nuevo, *Banco de España*

**Chair:** Matias Ossandon Busch, *CEMLA*

13:30

**Lunch (Marqués de Cubas Hall - Banco de España)**



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### Day 5: Recent and emerging challenges for financial stability

09:00 – 10:00 **The banking turbulences in 2023 and its effects on financial stability in Europe**

This session discusses the events around the banking sector stress in the U.S. and Europe in early 2023. This episode illustrates the material impact of interactions between monetary policy decisions and financial stability. Moreover, this stress episode highlights the growing impact of uninsured depositors in the banking system as well as the effects of the resolution of regional banks in the financial system. The session will focus on the following aspects:

- The banking crisis in the US
- The Credit Suisse crisis
- Impact on financial stability and MREL regulatory requirements

**Speaker:** Alberto Concepción González, *Banco de España*

**Chair:** Matias Ossandon Busch, *CEMLA*

10:00 – 10:30 **Coffee break**

10:30 – 11:45 **International framework to safeguard global financial stability: recent developments in the context of the Financial Stability Board (FSB) and the Basel Committee on Banking Supervision (BCBS)**

Global policy initiatives and cross-country cooperation are key to foster confidence in an increasingly globalized financial system. FSB and BCBS efforts contribute to setting global regulatory standards, exchanging information, and monitoring global trends that may affect systemic risk. This session introduces recent advances in the discussions taking place at these organizations and their impact on global coordination of financial stability policy actions.

- Global financial stability agenda in the context of the FSB
- Basel III and its implementation across countries
- Challenges ahead for international financial stability oversight

**Speakers:** Danae Durán Vicente, Begoña Gutiérrez-Barquín García, Covadonga Martínez Gómez-Galarza, *Banco de España*

**Chair:** Matias Ossandon Busch, *CEMLA*

11:45 – 12:15 **Break**

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### **Hands-on Exercise: Working groups presentations**

In this session, groups of participants will present their conclusions from the Hands-on Exercise discussed in Session 2 in short 10-minute presentations. Working groups will be required to discuss three aspects of their conclusions:

- Description of the data structure
- Discussion of the empirical exercise
- Policy implications

A separate working guide will be provided ahead of the course.

**Chair:** Matias Ossandon Busch, *CEMLA*

13:30 – 13:45

### **Closing remarks**

Matias Ossandon Busch, *CEMLA*

Carlos Pérez Montes, *Banco de España*

13:45

**Lunch (Marqués de Cubas Hall - Banco de España)**