

## VI Course on Financial Stability

Madrid, Spain, October 21 - 25, 2024

Banco de España. Meeting room: Hemiciclo I

Monday  
**21**  
October  
**2024**  
(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*

Matías Ossandon Busch, Director of Financial Stability, *CEMLA*

09:30 – 10:30 **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:** Ignacio Colomer, *Banco de España*

10:30 – 11:00 **Coffee break**

11:00 – 12:00 **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.

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- 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:** Matías Ossandon Busch, *CEMLA*

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

12:00 – 12:30 **Break and group photo**

12:30 – 13:30 **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:** Matías Ossandon Busch, *CEMLA*

13:30 **Lunch (at the Banco de España)**

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## Day 2: Empirical methods for financial stability analysis

09:00 – 10:15

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

This session familiarizes participants with the use of network analysis in applications related to financial stability and the quantification of systemic risk. After a general overview of 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:** Matías Ossandon Busch, *CEMLA*

10:15 – 10:45

**Coffee break**

10:45 – 12:15

**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:** Matías Ossandon Busch, *CEMLA*

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

12:15 – 12:45

**Break**

12:45 – 13:45

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

This exercise aims at familiarizing participants with the use of cross-border banking data for the identification of financial stability risks. Note: a laptop with Microsoft Excel is required for the exercise.

**Speaker:** Matías Ossandon Busch, *CEMLA*

13:45

**Lunch (at the Banco de España)**

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### Day 3: Financial stability and non-bank financial institutions

This module introduces the role and impact of non-bank financial institutions (NBFIs) on the financial system. The sessions begin with an overview and typology of NBFIs. The module will further examine the linkages between banks and the non-bank financial sector, the channels connecting NBFIs to financial stability, and policy approaches to address financial stability risks.

09:00 – 10:00 **Introduction to non-bank financial institutions (NBFI)**

- An overview and typology of non-bank financial institutions
- Linkages between banks and the non-bank financial sector
- Channels connecting NBFIs and financial stability

**Speaker:** Thorsten Beck, Florence School of Banking & Finance and EUI

**Chair:** Matías Ossandon Busch, *CEMLA*

10:00 – 10:30 **Coffee break**

10:30 – 12:00 **Regulatory frameworks for the non-bank financial sector**

- Overview of regulatory approaches
- Systemic risk and regulatory gaps
- Policy responses and international standards

**Speaker:** Thorsten Beck, Florence School of Banking & Finance and EUI

**Chair:** José Alonso Olmedo, *Banco de España*

12:00 – 12:30 **Break**

12:30 – 14:00 **Monitoring risks in the shadow banking sector**

- Risk identification and assessment
- Implications of financial digitalization
- Cross-border activities and international cooperation

**Speaker:** Thorsten Beck, Florence School of Banking & Finance and EUI

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

14:00 – 15:30 **Lunch (at the Banco de España)**

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

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

09:00 – 10:15 **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

**Speakers:** Alejandro Ferrer Pérez, Javier Delgado Rodríguez, *Banco de España*

**Chair:** Matías Ossandon Busch, *CEMLA*

10:15 – 10:45 **Coffee break**

10:45 – 12:00 **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:** Gabriel Jiménez Zambrano, *Banco de España*

12:00 – 12:30 **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 for 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

**Speaker:** Javier García Villasur, *Banco de España*

**Chair:** Nadia Lavín San Segundo, *Banco de España*

13:45

**Lunch (at the Banco de España)**

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## Day 5: Cyber and environmental threats to financial stability

09:00 – 10:30 **Understanding cyber risks and financial stability**

This session discusses the links between cyber risks and financial stability, introducing concepts that can be used to assess the impact of cyber risks on banks and the financial system in general.

- Introduction to cyber risks
- Systemic implications of cyber risks
- Case studies of cyber incidents
- Implications for prudential regulation

**Speaker:** José Ramón Martínez Resano, *Banco de España*

**Chair:** Matías Ossandon Busch, *CEMLA*

10:30 – 11:00 **Coffee break**

11:00 – 12:30 **Financial stability implications of climate and environmental risks**

This session introduces the concept of climate and environmental-related financial risks and their implications for financial stability. The session focuses on explaining transmission channels connecting these risks with financial stability as well as on metrics that can be used for climate-risk assessment.

- A typology of climate-related financial risks
- Contagion mechanisms with the financial sector
- Metrics and climate-risk assessment

**Speaker:** Matías Ossandon Busch, *CEMLA*

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

12:30 – 12:45 **Closing remarks**

Matías Ossandon Busch, *CEMLA*

Carlos Pérez Montes, *Banco de España*

12:45 **Lunch (at the Banco de España)**