The ECB’s role in financial stability and macroprudential policy

Fatima Pires
Directorate General Macroprudential Policy and Financial Stability

XIII ECB Central Banking Seminar
1 July 2019
Financial stability and macroprudential policy

• **Financial stability definition**
  
  – “… a condition in which the financial system – which comprises financial intermediaries, markets and market infrastructures – is capable of withstanding shocks and the unravelling of financial imbalances”

  *ECB Financial Stability Review*

• **Macroprudential policy aims to:**
  
  – prevent the excessive build-up of risks, smoothening the financial cycle (time series dimension)
  
  – make the financial sector more resilient and limit contagion effects (cross-section dimension)
Comparison between price and financial stability

**Price stability**
- **Main indicator:** HICP inflation
- **ECB definition:**
  “maintain inflation rates below, but close to, 2% over the medium term”
- **Main instrument:** Policy rates same for all euro area countries

**Financial stability**
- **Many indicators** needed
- **ECB definition:**
  “Financial stability can be defined as a condition in which the financial system – which comprises financial intermediaries, markets and market infrastructures – is capable of withstanding shocks and the unravelling of financial imbalances”
- **Many instruments** available, most implemented at national level
Financial stability analysis and macroprudential policy at the ECB

Risk identification → Vulnerability → Risk assessment → Material risk → Communication → Meriting action → Policy recommendations/action

Surveillance vulnerabilities & triggers
- Financial stability indicators
- Analytical tools and models
- Market intelligence
- Expert judgment

Assessment of identified risks
Severity of risks identified and system’s ability to absorb shocks
- Scenario analysis (stress tests)
- Propagation channels

Public communication:
- Semi-annual ECB Financial Stability Review (since 2004)
- Macroprudential Bulletin

... complemented by:
- Other publications (e.g., Report on Financial Structures)
- Speeches
- Working/Occasional papers
- Conferences/workshops

Soft and hard powers
European Systemic Risk Board (ESRB) risk warnings and recommendations → EU (since 2011)

Macroprudential policy instruments from SSM Regulation → SSM area (since 2014)
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Risk identification – analysis of financial system and external environment
<table>
<thead>
<tr>
<th>1. Chartpacks and dashboards</th>
<th>2. Analytical tools and models</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Euro area wide-level</td>
<td>- Composite indicators to detect and monitor risks</td>
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<td>- Country-level</td>
<td>- Early warning models</td>
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</tbody>
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<thead>
<tr>
<th>3. Topical analysis and deep dives</th>
<th>4. Market intelligence</th>
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</thead>
<tbody>
<tr>
<td>- Continuous monitoring and analysis of new potential sources of risks</td>
<td>- Regular dialogues</td>
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<td>- Deep-dives into specific topics</td>
<td>- Market missions</td>
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<td></td>
<td>- Desk-based intelligence gathering</td>
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</table>
Rubric

Risk identification

Risk assessment

Communication

Surveillance vulnerabilities & triggers

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ECB/SSM conduct stress test exercises/analysis to assess resilience of the banking sector with different purposes:

- **Microprudential perspective**: Results used to assess individual institutions and their risk management (e.g. EBA system-wide and SREP stress test).

- **Macroprudential perspective**: Results used to gauge resilience of financial system as a whole and identify potential feedback loops within the banking sector (contagion), with other sectors or with the real economy\(^1\) (e.g. EBA system-wide stress test and top-down analysis in the framework of the Financial Stability Review).

In 2018, EBA system-wide stress test on 48 EU banks (33 from SSM area) covering roughly 70% of total banking sector assets in the euro area.

\(^1\)See Dees, S., J. Henry and R. Martin (eds.), “STAMPE: Stress-Test Analytics for Macroprudential Purposes in the euro area”, ECB, February 2017
Risk assessment – from the scenario to solvency analysis

Four-pillar structure of ECB solvency analysis framework

Scenario
- Funding shock
- Financial shocks
- Macro models

Satellite models
- Credit risk models
- Market risk models
- Profit models

Balance sheet
- Balance sheet and P&L tool => Solvency
- Loan loss models

Feedback
- Contagion models
- Insurance + shadow banks
- Fire sales
- Macro feed back models
- Micro house-holds and NFC data

Dynamic adjustment model
Main achievements of recent system-wide exercises from the cooperation of macro- and microprudential authorities:

• Greater **transparency** of banks’ balance sheets via
  – a systematic and centrally-led quality assurance process
  – a stress test, performed in close cooperation with the EBA

• **Banks’ balance sheet strengthening** by reviewing the quality of banks’ assets, including the adequacy of asset and collateral valuations and related provisions

• Improved **confidence** in the European banking sector
Financial stability analysis and macroprudential policy at the ECB

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Communication – informing about the ECB’s views on risks

Regular publications

- Financial Stability Review

  ![Financial Stability Review](image)

Ad hoc reports and research papers

<table>
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<th>Publications on Financial stability</th>
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<td>24/05/2018</td>
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</table>


- Macroprudential Bulletin

Speeches and presentations

“ECB's De Guindos urges build-up of banks' macro buffers” – Reuters

“ECB warns eurozone increasingly vulnerable to financial shocks” – Financial Times

“ECB must not turn blind eye to stability risks: Lautenschläger” – Reuters
Communication – informing about the ECB’s views on risks

**Communication trade-offs**

- **Audience**
  - **Breadth** (Publications, e.g. Financial Stability Review) vs.
  - **Confidentiality** (Internal reports)

- **Timing**
  - **Early warning** (too low thresholds create excessive public warning) vs.
  - **Late warning** could destabilise

- **Credibility**
  - **False alarms** (Type II error) vs.
  - **Missing crises** (Type I error)

- **Frequency**
  - **Low frequency** reduces timeliness vs.
  - **High frequency** reduces relevance
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Macroprudential policy: shared responsibility between the ECB and National Authorities in the SSM / euro area

### Institutional framework for prudential policies in the EU

**SSM / euro area**

- **National Authorities and ECB**
  - (“top up” powers for CRD and CRR tools; National Authorities only for other tools)

- **European Systemic Risk Board (ESRB)**

- **ECB (direct supervision of SIs) and National Authorities**

- **European Supervisory Authorities (EBA, ESMA, EIOPA)**

**Macroprudential Supervision**
- (financial stability)

**Microprudential Supervision**
- (soundness of individual institutions)
- **“Designated”** authority:
  - In charge of implementation of CRD and CRR measures.
  - 13 Central Banks, 5 Supervisory Authorities and 1 Committee in the SSM area

- Member states may set up separate institutions or committees with a general macroprudential policy mandate (“macroprudential authority”).

- Macroprudential authorities may provide guidance, recommendations on macroprudential policy issues to other authorities

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Source: ESRB, ECB
Macroprudential policy - the role of the ECB

• With SSM Regulation (4 November 2014), ECB was granted macroprudential policy tasks and tools to tackle the emergence of possible systemic risks in the financial system

• ECB has two mandates in the field of macroprudential policy:

1. To comment and object
   - National designated authorities notify ECB when they intend to implement or change a macroprudential measure.
   - ECB assesses planned measures and can object.
   - National authorities consider ECB’s comments before proceeding with the decision

2. To apply more stringent measures
   - ECB may, instead of national designated authorities, apply higher requirements for capital buffers and apply more stringent measures aimed at addressing systemic or macroprudential risks
Preventing macroprudential policy decisions in the SSM

Financial Stability Committee (FSC)
- Assess risks and elaborate proposals

Supervisory Board
- Submits draft proposal for decision

Governing Council
- Final ECB decision

Macroprudential Forum
### Macroprudential Policy - The Role of the ECB

#### Broad Set of Instruments with Varying Legal Basis

<table>
<thead>
<tr>
<th>Capital Based Measures</th>
<th>Capital Requirements Directives (CRD) IV Tools</th>
<th>Capital Requirements Regulation (CRR) Tools</th>
<th>Other Tools</th>
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<tbody>
<tr>
<td>• Countercyclical capital buffer (CCB)</td>
<td>• Risk weights for selected exposures</td>
<td>• Leverage ratio</td>
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<tr>
<td>• Systemic risk buffer (SRB)</td>
<td>• Capital conservation buffer</td>
<td>• Non-stable funding levy</td>
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<td>• G-SII &amp; O-SII capital buffer</td>
<td>• Own funds level</td>
<td>• Loan-to-value ratios</td>
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<td></td>
<td>• Liquidity requirements</td>
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<td>• Loan-to-income ratios</td>
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<td>• Debt service-to-income ratios</td>
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<th>Borrower-based Measures</th>
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<td>• Loan-to-deposit ratios</td>
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<th>Other Measures</th>
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<tr>
<td>• Large exposure limits (incl. intra-financial sector)</td>
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<td>• Margin and haircuts requirements</td>
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<td>• Disclosure requirements</td>
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</table>

Can be used by national authorities and the ECB (for SSM countries)

Can only be used by national authorities
Macroprudential policy - selecting instruments

Relative strength of instruments

- Borrower-based measures:
  - DSTI
  - LTI/DTI
  - LTV

- Capital-based measures:
  - CCB
  - Risk Weights
  - Leverage Ratio
  - G-SIB O-SII

Smoothing of financial cycle

Enhancing resilience of financial system
Broad complementarity and synergy...

...but also occasional substitution
### Enacted macroprudential policy measures in the SSM

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<td>AT</td>
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<td>CCyB: 0.5% RW</td>
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<td>FI</td>
<td>BBM: LTV + Maturity RW SyRB</td>
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<td>FR*</td>
<td>CCyB: 0.5%</td>
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</table>

Source: ECB. OSII and GSII buffers not included in the table. For borrower based measures, also non-legally binding measures are included in the table. Legenda: BBM: borrower-based measures; CCyB: countercyclical capital buffer; SyRB: systemic risk buffer; LTV: loan-to-value ratio; LTI: loan-to-income ratio; DSTI: debt service-to-income ratio; RW: risk weights.
Fatima Pires
Directorate General Macroprudential Policy and Financial Stability

The ECB’s role in financial stability and macroprudential policy

XIII ECB Central Banking Seminar
1 July 2019
Background slides
Chartpacks and dashboards

- **Euro area-wide dashboards**

<table>
<thead>
<tr>
<th>Non-financial sector</th>
<th>Financial markets</th>
<th>Banking sector</th>
<th>Non-bank financial intermediaries</th>
</tr>
</thead>
<tbody>
<tr>
<td>Macro environment</td>
<td>Government debt markets</td>
<td>Solvency and leverage</td>
<td>Solvency and leverage</td>
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<td>Household sector</td>
<td>Corporate credit markets</td>
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<td>Market valuation</td>
<td>Market valuation</td>
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</table>
### Chartpacks and dashboards

- **Country-level** dashboards for macroprudential policy making

- The risk typology in the MPR is linked to macroprudential instruments:
  - **Cyclical risks** – relevant for CCyB setting
  - **Commercial and residential real estate risks** – for macroprudential instruments for real estate risks
  - **Structural risks** – for setting of structural macroprudential buffers (SRB, O-SII buffers)

#### Example - Residential real estate dashboard

<table>
<thead>
<tr>
<th>Country</th>
<th>Residential real estate price index, 12m growth, %</th>
<th>Residential price index relative to peak prior to 2014</th>
<th>RRE valuation measure, house price to income</th>
<th>RRE valuation measure, econometric model</th>
<th>Loans to HH for house purchases, 12m growth, %</th>
<th>Loans to HH for HP relative to peak prior to 2014</th>
<th>HH Loan spread</th>
<th>HH debt, % of GDP</th>
<th>HH financial assets to debt, %</th>
<th>Debt service to income ratio for HH, %</th>
<th>Average rating across indicators</th>
<th>Composite indicator</th>
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<tbody>
<tr>
<td>A</td>
<td>7.6</td>
<td>1.1</td>
<td>24.0</td>
<td>12.0</td>
<td>4.7</td>
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<td>24.0</td>
<td>1.0</td>
<td>10.6</td>
<td>1.2</td>
<td>1.9</td>
<td>59.5</td>
<td>496.6</td>
<td>10.6</td>
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<td>1.1</td>
<td>2.0</td>
<td>0.0</td>
<td>3.6</td>
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Analytical tools and models

- Indicators and tools for **system-wide and country-level** risk identification

- **Cyclical systemic risk indicator (CSRI)** to assess the likelihood and severity of financial crises
  - All euro area countries + euro area aggregate
  - Domestic NFPS vulnerabilities
  - Cross-country risk spill-overs

![Indicators Graph](image)

**Indicators:**
- Bank credit-to-GDP ratio, 2-year change
- Real total credit, 2-year growth rate
- Debt Service Ratio (DSR), 2-year change
- Current account balance, % of GDP
- RRE price-to-income ratio, 3-year change
- Real equity prices, 3-year growth rate

*Carsten Detken, Stephan Fahr and Jan Hannes Lang, “Predicting the likelihood and severity of financial crises over the medium term with a cyclical systemic risk indicator”, ECB Financial Stability Review, May 2018*
Analytical tools and models

- Indicators and tools for banking sector and bank-level risk identification
- Bank Early Warning Model (B-EWM)
  - Identify build-up of risk in banking sectors
  - Identify vulnerable systemic banks

Most vulnerable SSM banks in Q2 2014

Topical analysis and deep dives

- Continuous monitoring and analysis of new potential sources of risks
- Deep-dives into specific topics for thematic notes, boxes and presentations
- Some recent examples from Financial Stability Reviews
  - Assessing the risks to the euro area financial sector from a no-deal Brexit
  - Policy uncertainty and the risk of market repricing
  - CLOs: a financial stability perspective
  - Recent developments in and the outlook for global bank ratings
  - Gauging systemic risks from hard-to-value assets in euro area banks’ balance sheets
  - The Eurosystem’s asset purchase programme, risk-taking and portfolio rebalancing
  - Insurers’ investment in alternative assets
  - Explaining the slowdown in portfolio flows to EMEs
  - Liquidity conditions in the Italian sovereign bond market
  - ESTER – the new overnight rate for the euro money markets
  - Bond funding of euro area banks: progress in the issuance of loss-absorbing instruments
  - Insurance companies and derivatives exposures: evidence from EMIR data