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**WK 14195/2024 INIT**

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**WORKING DOCUMENT**

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**From:** EUROPEAN CENTRAL BANK  
**To:** Working Party on Financial Services and the Banking Union (Digital Euro Package)  
Financial Services Attachés

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**Subject:** Single Currency package - Digital euro - ECB Presentation - Update on the methodology for calibrating holding limits

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EUROPEAN CENTRAL BANK

EUROSYSTEM

# Update on the methodology for calibrating holding limits

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18 November 2024



# The Eurosystem workstream on the methodology for the calibration of the holding limit

The individual holding limit is a key - though not the only - design feature to mitigate the digital euro's impact on bank intermediation.



Workstream's objective: developing a **methodology which would be necessary for calibrating the individual holding limit.**

It also aims to



➤ Build the **necessary expertise** for a complex technical exercise;



➤ facilitate open and factual discussion on **all relevant factors** based on **methodological considerations** and **granular data**;



➤ increase **predictability** regarding potential individual holding limits ahead of the potential launch.

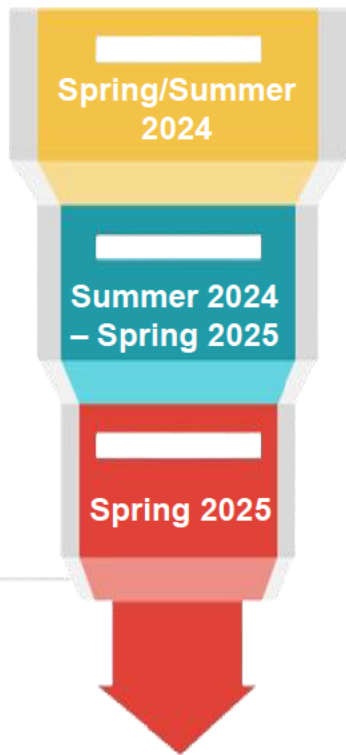
## A truly *Eurosystem* workstream



- Research done by experts from relevant **business areas of ECB and Single Supervisory Mechanism** with diverse background in e.g., payments, monetary policy, financial stability, market operations and banking supervision
- Contributions by seconded experts from **National Central Banks** and **National Competent Authorities** to account for **national specificities** and **country-specific knowledge**.
- Eurosystem **full day workshop in September 2024 to present and discuss NCBs' work** and with external participation from European Commission, non-Eurosystem NCBs, IMF, BIS, etc.

## A three-step approach till the conclusion of the workstream

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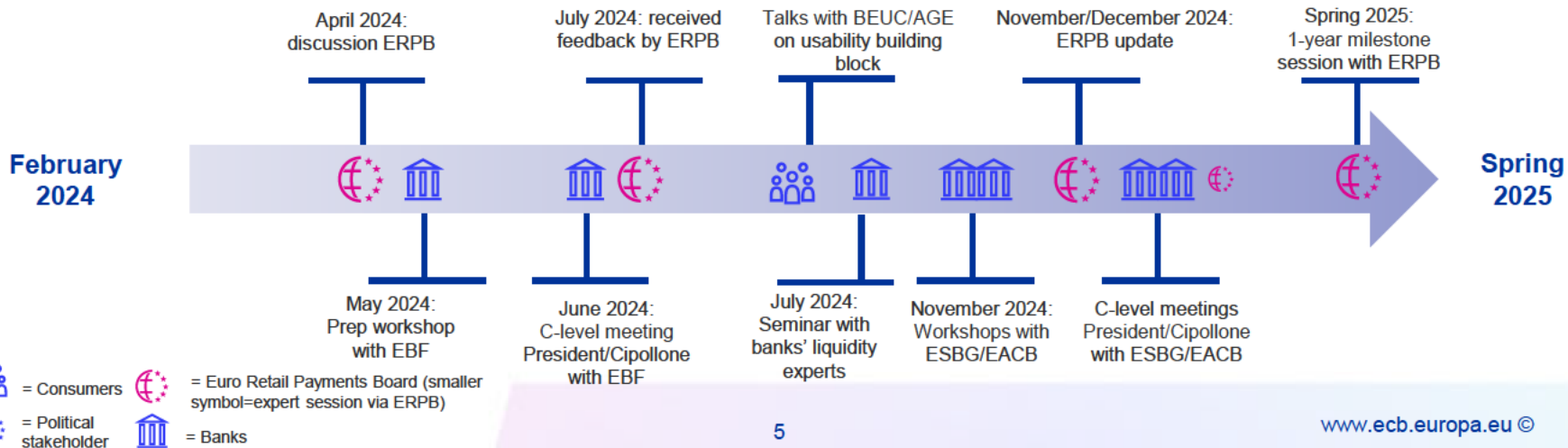
1. Identifying **key parameters** that influence the calibration based on multi-disciplinary analysis and market engagement
2. Collecting **granular data** and **refining models**
3. Establishing a **coherent framework** based on these parameters

Market engagement

... that will allow for setting the individual holding limit – in line with Article 15.1 and Article 16 of the proposed Regulation – and calibrating it over time in a predictable way.

## Constant involvement and co-exploration with the market

- Market engagement to **cross-check assumptions** and **confirm the comprehensiveness of the factors to consider** and the **validity of the balance sheet optimization model**
- Structured discussions with and feedback by the **ERPB**, then published on the ECB's website.
- Ongoing **bilateral engagement with banks and banking associations**, as well as **consumer groups**
- **Several interactions with banks' liquidity experts in the context of the ERPB**, complemented by **physical full-day workshops** with banks associations (EBF/ESBG and EACB) and **bilateral deep-dives**.



## Feedback received by market\*



Generally **welcomed the attention to user experience, monetary policy implications, and financial stability**, as per the proposed Regulation



Overall **agreed on the comprehensiveness of the factors** considered for the calibration



**Provided suggestions for further additions** which were taken onboard in the ongoing work of the workstream (e.g. internal liquidity targets, importance of benchmarking against current access to cash, impact on usability, value of predictability, effects of deposit remuneration)



**Further market interactions** and feedback foreseen till Spring 2025

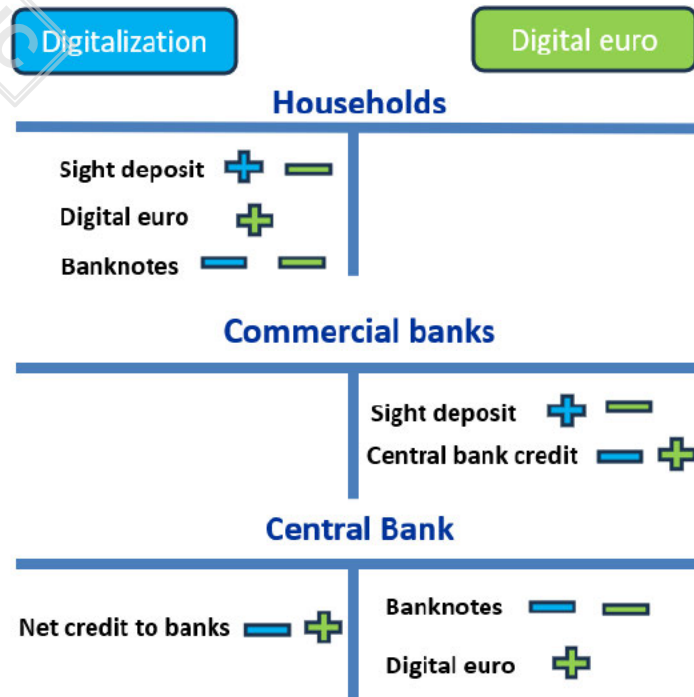
\* See summary of the market feedback here:

[https://www.ecb.europa.eu/euro/digital\\_euro/timeline/profuse/shared/pdf/ecb.deprep240723\\_item4\\_feedback\\_holding\\_limit\\_factors.en.pdf](https://www.ecb.europa.eu/euro/digital_euro/timeline/profuse/shared/pdf/ecb.deprep240723_item4_feedback_holding_limit_factors.en.pdf)

## The importance of the right counterfactual: looking at the world of tomorrow, not the world of today

Assessing the overall impact of the digital euro on the financial system and the conduct of the ECB's monetary policy should involve:

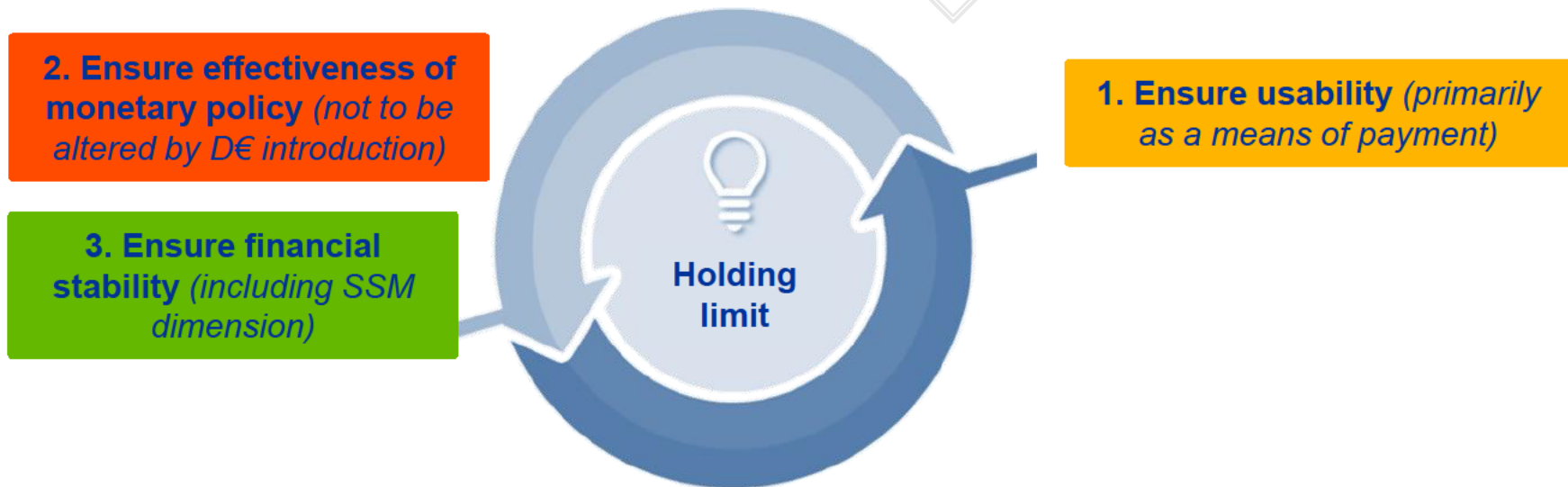
- *anticipating how the **financial sector might change**, including how **digitalisation is reshaping it** (e.g., change in deposit stickiness, instant payments, stablecoins, etc.), and how it functions in the case of **idiosyncratic bank runs***
- *evaluating **the usage of cash going forward***



Note: Stylised presentation based on observed trends.

# The proposed Regulation as basis for the preliminary methodology

## Key pillars based on Article 15.1 of the proposed Regulation



Limits to be set in line with the principle of proportionality and respecting the principle of an open market economy with free competition (cfr. Recital 32).

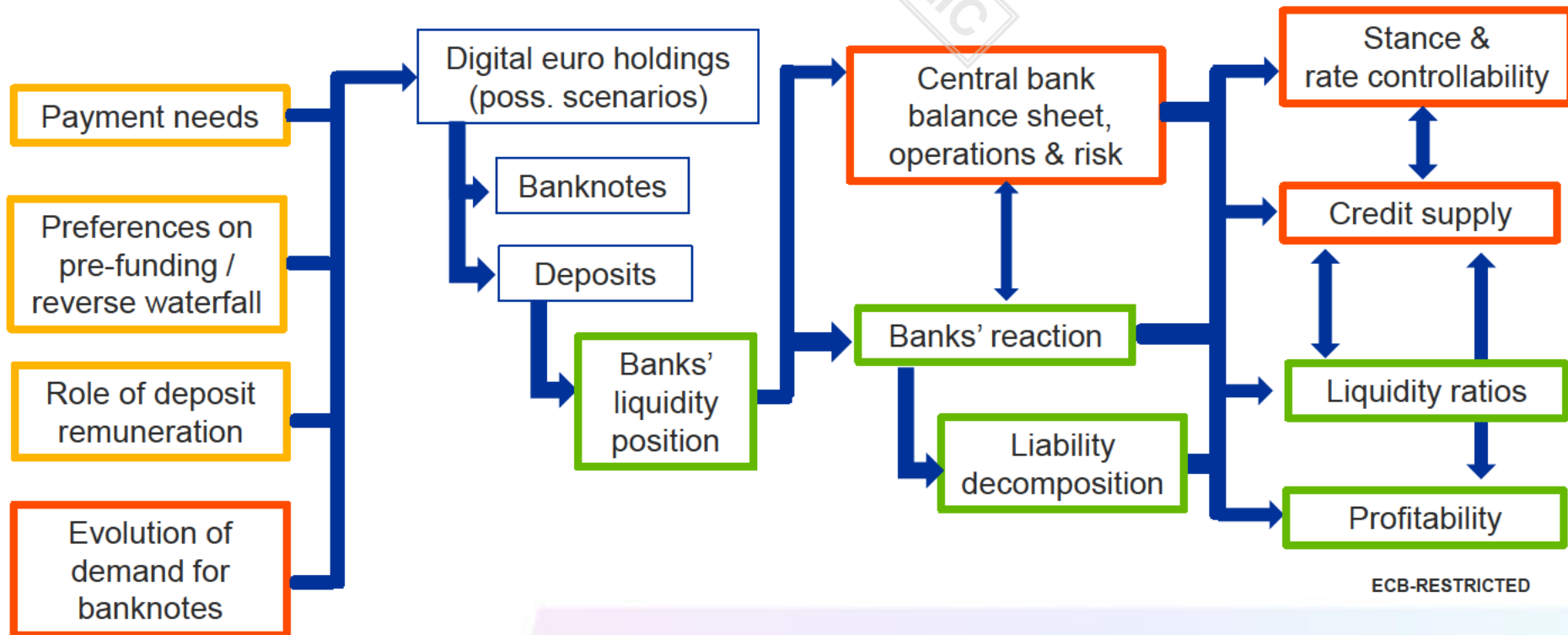
Preliminary

# Relevant parameters for the calibration of the holding limit

Pillar 1: Usability

Pillar 2: Monetary policy

Pillar 3: Financial stability



ECB-RESTRICTED

Preliminary

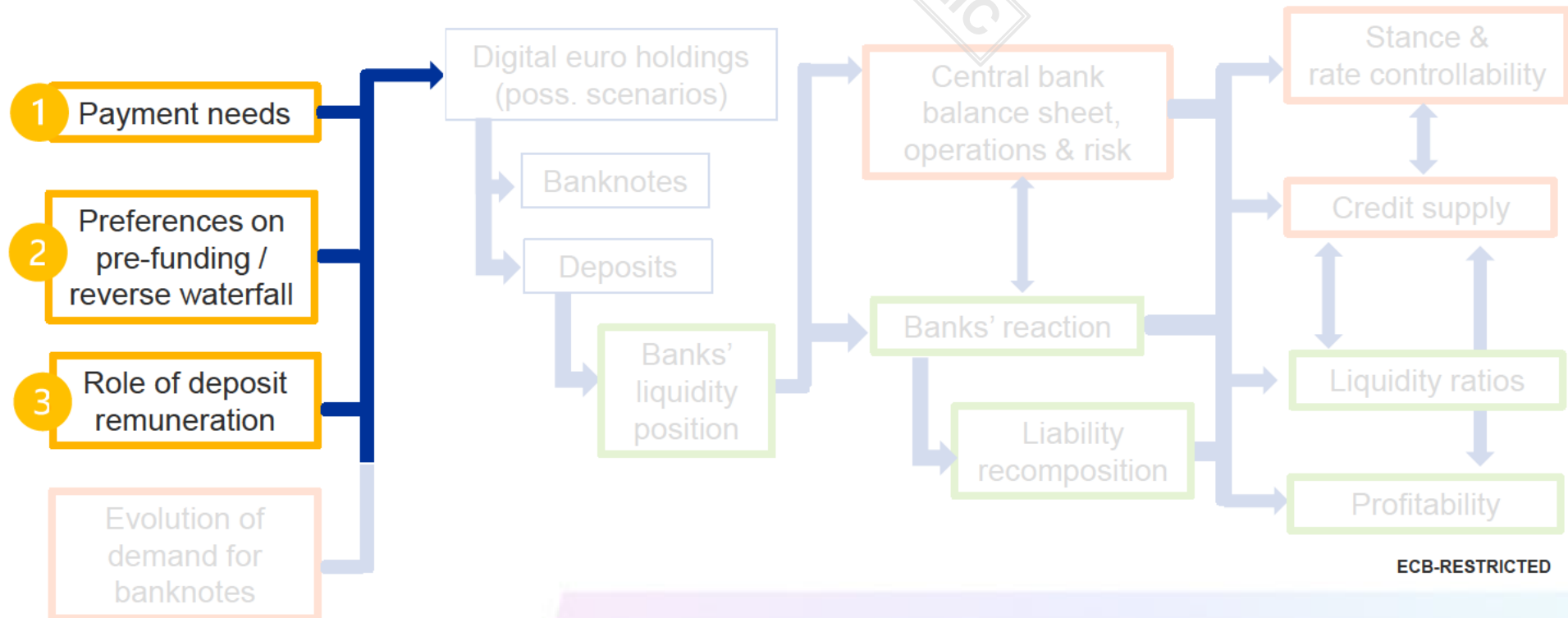
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## Progress update on 1<sup>st</sup> building block: Usability

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Evaluate **users' needs and behavior** using **existing survey data** to be complemented by **dedicated pan-European survey**:

- 1 • Identifying key payment use cases and consumer behaviour patterns to gauge typical **monthly expenses**
- 2 • Learn about **users' preferences** regarding, e.g., pre-funding over reverse waterfall, substitution with banknotes and deposits
- 3 (considering e.g., deposit remuneration)

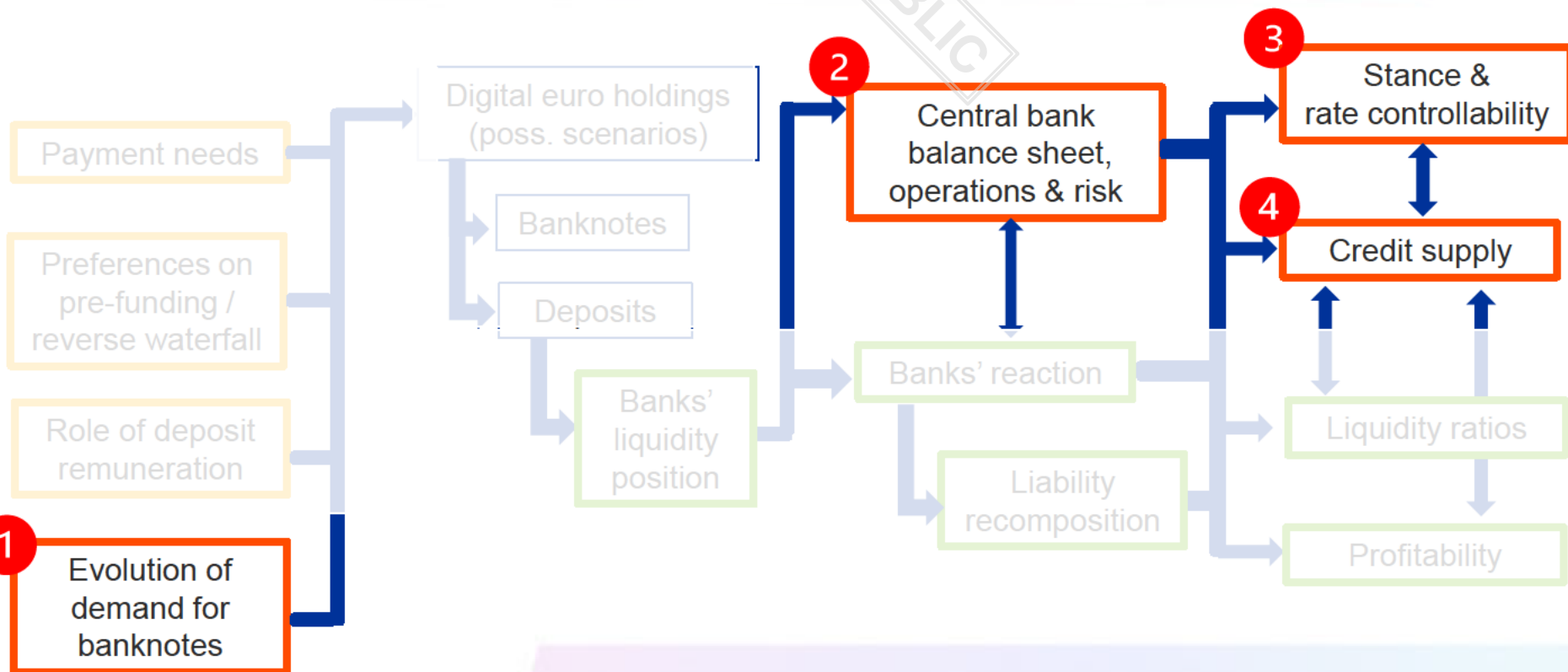
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# Relevant parameters for the calibration of the holding limit

Pillar 1: Usability

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Pillar 3: Financial stability



# Progress update on 2<sup>nd</sup> building block: monetary policy

- 1** Development of the **demand for banknotes / base money**
- Identify the **key drivers of cash holdings**, factoring in e.g., digitalisation

Impact of digital euro on the **Eurosystem balance sheet and rate controllability**

- 2**
- **Modelling based on balance sheet projections**, hypotheses regarding standard refinancing operations, and banks' demand for standard refinancing operations,
- 3**
- **Analysing effects on central bank reserves** and its implications for, inter alia, balance sheet length, excess liquidity, total structural operations size, structural liquidity deficit, collateral availability, financial risk and profitability.
  - Assessing possible impact on **money market functioning** and **collateral availability**.

- 4** Possible impact on **credit supply** to the economy
- Assess possible impact on loan provision, building upon the regular analysis on credit supply ahead of monetary policy decisions.

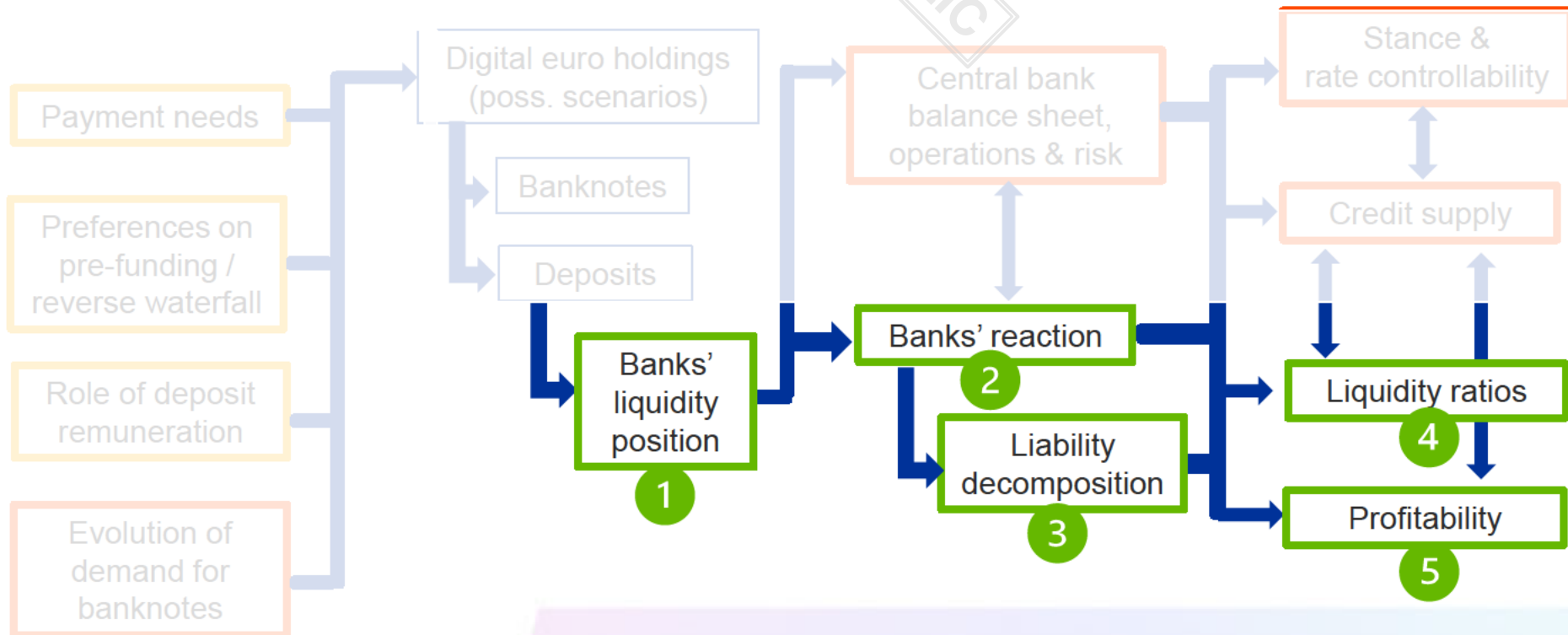
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# Relevant parameters for the calibration of the holding limit

Pillar 1: Usability

Pillar 2: Monetary policy

Pillar 3: Financial stability



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# Progress update on 3<sup>rd</sup> building block: Financial stability and banking supervision

## 1 Collecting confidential, supervisory data on banks' liquidity positions and remuneration practices

- **Bank-level data for 112 SIs and 1897 LSIs**, combined with SSM data collection for 98 SIs
- **Recent agreement with NCAs** to collect data on sight deposits in less significant institutions (which is important to improve representativeness of business models / country specificities)

Evaluation of banks' response to deposit outflows using a well-established balance sheet optimization model

- 2
- 3
- 4
- 5
- accounting for **different business models** and based on cost considerations; bank's reaction constrained by the (current and future) **availability of reserves and collateral**, both at the individual bank level and system-wide,
- accounting for different levels of **liquidity risk tolerance, ability to access the market, and other banks' specific characteristics** (e.g., cooperative banks / IPS).
- impact on banks' **SSM Key Performance Indicators** (e.g., return on equity, liquidity ratios beyond LCR), accounting for differences between individual banks and business models.

## Outlook

- November 2024 – Spring 2025: Incorporating feedback by stakeholders, progressing on user research, and refining the models.
- Spring 2025: Conclusion of workstream / final methodology, providing predictability for stakeholders in terms of the calibration of the holding limit.

### ***The ECB will***

- ***engage closely with the market to gather their input***
- ***discuss and engage with co-legislators on the progress of the workstream.***



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# Thank you