EUROPEAN CENTRAL BANK

EUROSYSTEM

A Eurosystem view on recent assessments of digital euro investment costs for the euro area banking sector

ERPB

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9 October 2025

Eurosystem complemented banking sector studies with key factors that could reduce investment costs

What this assessment focused on

- **Information available to Eurosystem**, **building on estimates from banking sector** studies
- European **payments IT landscape** and **market practices** of **outsourcing**
- **Significance** of **synergies** (e.g. relying on specialised service provider) and **cost mutualisation** (e.g. joining forces to mutualise effort)**,** which **are key** to containing investment costs
- **Review** of banking sector studies' **assumptions**

In which context this assessment was done

- Although undisclosed, **national banking associations** and **individual banks have also estimated** and discussed **investment costs** with Eurosystem
- **Eurosystem welcomed studies** and **dialogue** on measures to minimise investment costs – e.g. **invited authors to discuss findings**, understand **methodology** and **assumptions**, and **key cost drivers**
- **Eurosystem built on those studies**, **including undisclosed ones**, to identify key factors influencing investment costs and work with the market to reduce them as much as possible
- European banks' internal IT cost **remain uncertain** due to **design decisions that depend on the final Regulation**

External and Eurosystem-internal expertise tapped for a building-block approach to forming Eurosystem view

1

Assessment of **banking sector studies**, including any background material respective authors shared with Eurosystem

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Comprehensive European payment IT landscape assessment to gauge **synergies** and **cost mutualisation** potential (via external consultancy Roland Berger)

- Desk research
- Expert interviews
- Own payment project experience
- Complemented by NCB expertise

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Building on **euro area bank data from supervisory reporting** and **support** from **banking supervision** and **financial stability** experts

Three key factors that may reduce the informativeness of existing investment cost studies

Factor	Reasoning	
1 **Synergies** and **cost mutualisation**	• Central or specialised service providers can serve many banks (“develop once, deploy to many”) • Redundances in implementation efforts can be avoided • Substantial potential for synergy and cost mutualisation as documented by IT landscape assessment	Focus on European payment IT landscape assessment for banking group and market-wide synergies
2 Adjustments for **inaccurate** design and legislative **assumptions**	• Banking sector studies are built on certain incorrect assumptions on the digital euro design or legal requirements • Incorrect assumptions generally lead to upward-biased cost estimates	For example, incorrect assumptions about mandated ATM functionalities, which would require ATM replacements
3 Bank universe and **number of** necessary **implementations**	• Digital euro implementation should be expected to be done once per consolidated bank or banking group, not separately (and redundantly) for each of its licensed entities[1] • Basis for extrapolation is the universe of euro area supervised entities, as in holding limit methodology[2]	

1) While not all consolidated banking groups may have capabilities to “develop once, deploy to many” yet, efforts to achieve such capabilities are undertaken. In addition, digital euro requirements would be known well ahead of any issuance date and those requirements would apply uniformly to all euro area banks, facilitating efficiencies of developments within consolidated banks. Adding to the conservativeness of our extrapolation, estimated investment costs of consolidated banks also tend to be larger on average due to larger total assets at consolidated level

2) See also https://www.ecb.europa.eu/euro/digital_euro/timeline/profuse/shared/pdf/ecb.deprep241212_14erpb_Update_on_work_on_methodology_for_holding_limit_calibration.en.pdf. Please note that the holding limit bank universe also comprises 2025 banks in newest iterations

Existing synergies could be leveraged as payments are highly outsourced, and capabilities are often shared

1 **Payments is already a highly outsourced business**
Banks often rely on external providers for connectivity, authentication, compliance and operational tooling, creating substantial potential for shared solutions and sharing cost

2 **Shared capabilities exists in all major markets**
Major European markets, such as Spain or France, run common clearing and instant payment rails, align on standards and shared platforms that many banks use

3 **Banking groups are prime example of centralised IT capabilities**
Group-owned central IT providers, especially common for savings and cooperative banking groups, already follow “develop once, deploy to many” approach

4 **Being the same for all markets, the digital euro can enable providers to scale beyond individual markets**
A handful of systemic providers serve broad bank populations, they can scale solutions for the digital euro across multiple markets

5 **Digitisation has increased multi-bank solutions in general – increasingly provided by specialised players**
The realisation of synergy potentials and other advantages (e.g. faster time-to-market) is a strong driver for shared solutions in many banking segments

Two broad types of synergies were assessed and factored into the Eurosystem view

	I	II
Type of synergy	**Banking group synergies** Leveraging a single IT vendor serving an entire group, reducing duplication of effort and costs	**Market synergies** Outsourcing to external, systemic/shared vendors and utilities, covering multiple CIs
Applies to	**Banks belonging to** Institutional Protection Schemes (IPS, used as proxy)	**Banks not belonging** to Institutional Protection Schemes (IPS)
Exemplary players	Finanzgruppe Deutscher Sparkassen- und Giroverband; BVR; Grupo Caja Rural; Raiffeisen (Raiffeisen Südtirol IPS); Erste	Deutsche Bank; UniCredit; Santander; ING

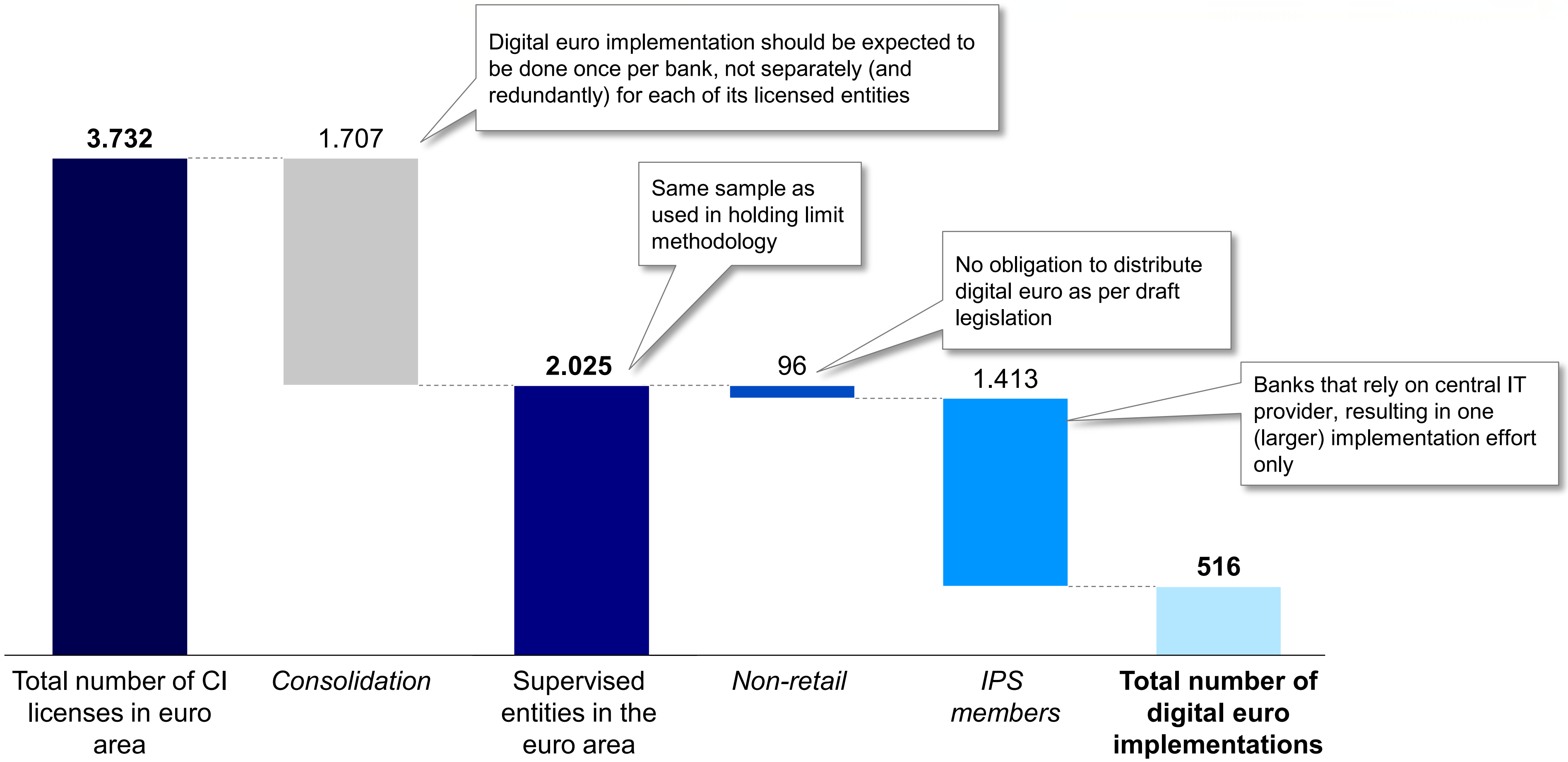
Synergy potential is high while sensitivity analysis caters for possible uncertainties

Scenarios

	High synergies	Base	Low synergies
Banking group synergies[1] (relative investment cost reduction for whole banking group with central IT provider compared with stand-alone estimates for each group bank)	**90-98%** • Same as base case, as synergies are already close to full mutualisation	**90-98%** • Representing the expected range when implementation is coordinated effectively within groups	**72-78%** • To reflect challenges in rolling out a central solution across all banking group members
Market synergies[2] (average euro area factor; relative investment cost reduction for banks not part of banking group)	**40%** • Reflecting synergies achieved in successful past mutualisation initiatives (e.g. CBI Globe)	**30%** • Derived from the structured assessment of market synergies	**25%** • Capture case of limited collaboration between banks and weaker reliance on shared vendor solutions

1) E.g., leveraging a single IT vendor serving an entire group, reducing duplication of effort and costs. Proxied by Institutional Protection Scheme membership; 2) E.g., outsourcing to external, systemic/shared vendors and utilities, covering multiple Cis.

Number of credit institution licenses in the euro area does not equal number of digital euro implementation efforts



Sources: ECB list of monetary financial institutions, as of 1 September 2025; ECB list of supervised entities and supervisory data on IPS

With the banking sector leveraging available synergies, total investment costs could match the COM's estimate

Total implementation costs (EUR billions), spread over a four-year period

Sensitivity analysis

Cost baseline *"which individual estimates are extrapolated to euro area"*	High synergies scenario *"best case with high banking group and market synergies"*	Base scenario *"synergies at expected level based on comprehensive assessment"*	Low synergies scenario *"banking sector foregoes available synergies"*
PwC *(adjusted for inaccurate assumptions)*	5.07	**5.77** (1.44 p.a.)	8.49
Other banking studies	*3.5 - 3.7*	***4.0 – 4.2*** *(1.00 p.a.)*	*6.1 – 6.5*

Available references for euro area banking sector:

COM assessment: €2.8bn – 5.4bn (for all non-consolidated credit institutions, including non-retail banks)

PwC: €18bn for euro area banking sector (dedicated offline digital euro not considered)

Key messages from the Eurosystem view

1. The ECB developed a view on digital euro investment cost for the banking sector given **the ask of the co-legislators**. The analysis is **based on cost studies received from banks and banking associations**

2. **Correcting** for incorrect **assumptions** and **existing synergies and cost mutualisation** within the banking system, **results in significantly lower estimates**

3. **Investment costs by banks** could range between **€4 bn and €5.8 bn**, or **€1 bn to €1.44 bn annually over four years**, upper bound of the 2023 **European Commission impact assessment**
   - **Comparable** to cost estimates for initiatives such as **PSD2** and **below SEPA**
   - Annual costs over 4 years correspond to approximately **3.4% of significant banks' annual IT upgrade** budgets and represent around **0.7% of the euro area banking universe's net income of approximately €197 billion in 2023**

4. This assessment provides a **reference point for evidence-driven discussions and a constructive dialogue with the banking industry** towards the shared goal of **minimising digital euro investment efforts**