EBF Written Feedback to ECB preliminary methodology for calibrating digital euro holding limits

28 January 2025

EBF general remarks:

The European Banking Federation (EBF) welcomes the opportunity to provide written feedback to item 3 of the ERPB technical session on digital euro of 10 December 2024 in which the ECB presented its preliminary methodology for calibrating holding limits.

Generally speaking, we believe that the analysis takes into consideration the most crucial aspects in relation to the calibration of the holding limits. It has however several flaws we would like to highlight, both in terms of process, approach and content.

On the process, contrary to what is stated on slide 2 of the ERPB presentation of 10 December of last year, the presentation does not provide *"a description of the tools being developed"*, because these tools are given for granted – only links to the research papers where they are described are provided. This imposes a substantial work to the reader to really grasp in depth the analysis.

Similarly, an *ad-hoc* survey on users' behaviour and their money demand conducted by an external service provider is mentioned but with no further detail about its outcome and validity for the analysis.

In some instances, it is difficult to follow some methodological steps. For example, at slide 7 the estimation of possible deposit outflows is presented, however its quantification depends on the money demand scenarios mentioned at slide 9.

Clearly, even when the model is fully understood, there is no possibility of rerunning it, as the data are available only to the ECB.

On the approach, the impact assessment and method to ascertain holding limits should be one of 'bottom-up' rather than the proposed 'top-down' to fully determine the complex idiosyncratic effects on banks' balance sheets and take into the equation the smaller retail banks.

In this regard, we positively note that 185 small banks out of nearly 2000 were included in the analysis. It would be interesting to know how these small banks were chosen to understand the analysis criteria.

However, in several parts of the presentation, the criteria used for analysing the demand for digital euro suggest that the digital euro could replace traditional bank accounts and means of payments in commercial bank money used today by euro area citizens for all their expenses, thus substituting the role of banks. This would be in complete opposition

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to what the ECB has repeatedly stated about the role of the digital euro which should only complement other payment solutions.

As for the content, while block 3 looks at the impact of the digital euro on banks' profitability, it does not consider the use of the digital euro as a wallet, competing with bank account, or as a payment means, competing with existing schemes and solutions. We elaborate on this point in the related section.

More visibility on risk scenarios is also needed. We would need to know if a forward-looking analysis is to be conducted considering future reserves, an interbank market closure, and ultimately a crisis scenario and lack of confidence that could pose a risk to financial stability.

Finally, we note that the proposed methodology remains silent as regards any adjustment of the holding limit over time, which cannot be excluded.

In general, we believe that only a low holding limit that remains stable over time would ensure financial stability and avoid that the digital euro is used as a store of value with a significant negative impact on bank deposits and their liquidity position, ultimately affecting their capacity to lend to the economy. This is even more important in times of market stress.

A low holding limit should match citizens' daily payment needs and ordinary day-to-day transactions in the context of the use cases envisioned by the ECB, i.e. P2P and PoS payments. Expenses such as rents, loan repayments and mortgage payments go beyond and shall therefore not be included in the usability assessment. A low holding limit will in no way prevent citizens from paying with digital euros as the 'reverse waterfall' functionality would allow them to make payments exceeding their holding limit. Besides, the digital euro should not aim to cover the full users' consumption needs, since the ECB stated objective is to complement and not replace existing means of payments.

The below comments refer to the specific slides of the presentation made by the ECB under item 3 of the ERPB technical session on digital euro of 10 December 2024.

Common assumptions (slide 6):

We believe that the scenarios should be modelled by considering at least a probable percentage adoption (step-up) based on current wallet and debit card deployment and a percentage usage per individual EU country, calculating an EU average and deriving a probable adoption curve (cutting outliers).

Other variables would also need to be considered, such as use cases that will be enabled by ECB, UX, perceived differential value compared to current electronic payment services.

The 'flight-to-safety' scenario should also consider bank runs that, if not affecting the entire banking system, do affect a relevant part of it, such as some large financial institutions in a specific market. In such a scenario, unless there is a sufficiently low holding limit, the digital euro could contribute to a bank run, as it might be perceived as a safer and more viable alternative to moving deposits to smaller financial institutions.

With regard to the *Nota bene* at the bottom of slide 6, in combination with all the expenses taken into consideration on slide 8, we believe it is too wide for not having a strong impact on banks deposits and balance sheets (please refer also to our comments under Block 1). We do think that under such assumptions the holding limit could be so high that bank runs should be modelled.

We also question the approach taken to identify the range of holding limits, in particular the bucketing of all SIs and the absence of data from LSIs. The size of European banks varies considerably and bucketing them all in only two categories (SIs and LSIs) does not help capture the risks faced by small banks.

Calculation of the scenarios (slide 7):

We seriously question the approach taken and believe the scenarios do not sufficiently capture the reality and could therefore lead to wrong assumptions and unrealistic conclusions that could have a significant impact on smaller financial institutions. The following two points illustrate our views.

First, the paper that is used as reference (Lambert, et al., 2024) adopts a macroeconomic approach similar to the one used in other ECB papers, using the total numbers of European eligible citizens and total deposits within the euro area to calculate a total cost for the euro area. As we have already pointed out, this approach does not capture important characteristics of individual banks and therefore does not cater for the risk of small banks failing. The 2024 paper also assumes decreases in the spending income of individuals based on assumptions around spending habits, which makes the approach very unrealistic. The available average deposit amount per person is reduced based on expected expenses and the calculated liquidity loss is reduced accordingly. The paper is referring to a limit of €3000. All these assumptions lead to an unrealistically optimistic outcome.

Second, the 'business-as-usual' scenario is very unlikely, especially during the first phase of introduction of the digital euro if a low holding limit is not set. The reality could be different, especially close to reporting dates. The results coming from the model should be recalibrated to take into consideration real market situations that occurred over the last few years. To replace the lost liquidity, banks will need to find alternative market funding sources with consequent possible stressed market conditions and concrete difficulties to access the market, especially for small and medium size banks. The expected effect is a related increase of the funding costs that will necessarily impact on the capacity of the banking system to provide lending to the most vulnerable subjects and will increase the price of lending. So, we believe that the first phase must be considered under the 'flight-to-safety' scenario.

The tendency of deposit outflows to the digital euro wallet may lead banks, especially smaller ones, in order not to lose deposits, into increasing deposit interest rates beyond the typical market conditions or drawing liquidity from inter-banking activities, thereby escalating their costs and reducing profitability. Consequently, an addition in funding costs will be passed on loan origination towards companies.

Block 1: Usability – objectives and tools (slides 8-9):

From the perspective of the proposed methodology and the criteria to be considered, we welcome the reference made to the demand of money to set holding limits for digital euro. The analysis should allow to define a 'maximum theoretical' level of usability that needs to be reduced having regard to the other two factors (financial stability and monetary policy). In this respect, we would like to make the following comments to the ERPB presentation of 10 December:

The digital euro cannot be the only payment means covering the full users' monthly income and monthly consumption needs as the analysis seems to imply. This does not reflect today's situation with cash - which the digital euro aims at complementing - where citizens

cannot in principle decide to receive and spend all their money in cash (e.g. salaries are not usually paid in cash). This is therefore not a good benchmark for the demand for digital euro if, as repeatedly stated by the ECB, the digital euro is not meant to replace existing payment instruments in commercial bank money and thus not displace the role of banks in the daily payment needs (like utility expenses) of euro area citizens. Moreover, if individuals would receive their income directly into their digital euro account, the paradigm account/wallet will have to be reconsidered as the services related to the digital euro (starting with funding and reverse waterfall).

The rationale for a two-step approach is unclear to us. If *"additional funds available for individual consumption"* are included, the analysis is not one based on expenses/consumption anymore but one that is based on income/revenue inclusion of additional potential use cases for digital euro spending.

Some items that we understand will further be included in the analysis (see *"work in progress"* on slide 8) such as rents, loan repayments and mortgage payments are not classified as 'household consumption' and shall therefore not be included in the usability assessment. These payments go beyond the use cases envisioned by the ECB for the digital euro, mainly P2P and PoS payments. Moreover, these debits are automatically done by banks on the traditional accounts and there would be no benefit in term of user experience and costs for users to move them to digital euro.

On the contrary, because of the waterfall functionality, the analysis should also look at shorter expenditure cycles (e.g. weekly, biweekly or even daily). To this end, data from the use of existing electronic payment methods (such as cards, instant payment solutions) could also be considered. In addition, given the cash-like nature of the digital euro, it would be useful to include in the usability analysis data from cash withdrawals and usage, including e.g. average cash held in a citizen's pocket.

If the range of consumption needs is as wide as described on slide 8 of the presentation, the holding limit would amount to several thousands of euros, making the digital euro the main payment method, close to a traditional bank account. We believe the analysis should only incorporate day-to-day digital payments and not go beyond.

Overall, there is a lot of uncertainty around spending behaviour and potential usage of the digital euro. It is also unclear if and how differences between countries in all the key variables will be addressed (e.g. whether average or median data will be used). Moreover, we wonder what usability preference threshold could lead to a modification of the holding limit in the future. Therefore, we would like to reiterate our call for a low and stable as possible holding limit which could be monitored over time for all banks, large and small.

Finally, we strongly recommend that the ECB refers to the SPACE survey it published last year when looking at the usability factor for the calibration of the holding limit. The survey shows that in 2024 the median amount of cash held by euro area citizens at the beginning of the day – which is a good indication of the amount of cash held for daily transaction purposes – was €59. This figure must be part of the analysis and should be considered as a key reference to gauge the 'usability' of the digital euro in a context where the ECB stated objective is – as recalled above – to complement and not to replace existing means of payments.

Block 2: Monetary policy – objectives and tools (slides 10-13):

The quantification of deposit outflows from SI banks is calculated as *"estimated average digital euro holdings multiplied by number of unique eligible sight depositors and adjusted for depositor balances"* (as indicated per slide 7). This appears to imply that the entire demand for digital euro would come from bank deposits and not from cash, differently from what the ECB has always stated, and from what is mentioned on slide 10.

Still on slide 10, the average value of ATM withdrawals should also be taken into consideration in the analysis, as it could be a useful data to analyse the trend of banknotes use/demand.

Collateral availability: the ECB should agree to extend as much as possible the Eligible Collateral categories, possibly by explicitly defining new rules to reduce the impact of haircuts, and based on the following conditions:

- Eligibility criteria need to be clear upfront and reliable.
- Framework extension needs to be permanent, not temporary.
- Not subject to changes from the monetary policy (regularly performed operational framework reviews allow the ECB to adjust the collateral framework if deemed necessary – this puts banks at risk as they cannot rely on certainty).
- Type of collateral, haircut, conditions, pricing, etc. need to be known to banks and must be stable and the infrastructure to post credit claims need to be established beforehand.

Liquidity facility: the implementation of a permanent dedicated and reliable ECB liquidity facility to compensate the outflows could potentially mitigate the above-mentioned effects. Under the point of view of the regulatory liquidity ratios, the inclusion of the balances of the wallets in the inflows for the purpose of calculating the LCR ratio could be an additional mitigation action to partially reduce the pressure with the same treatment in place for retail sight deposits.

In addition to analysing the impact of digitalisation on the demand for cash, it would be important to explore different scenarios of ECB balance sheet 'sizes', incorporating varying levels of reserves (such as cash, digital euro, deposits, and other components). While the inclusion of the specific topic related to €STR is valuable, the analysis should be expanded to cover a broader range of monetary policy objectives and tools. Additionally, the potential effects on the transmission of monetary policy should be addressed. In this respect, we would like to point out to the following:

- The ECB can change its monetary policy, i.e. change its demand driven policy. Now, we have full allotment and fixed rate. If the ECB were to change this to a bidding process and make it price driven, banks need to compete for ECB funding and cannot rely on volume and price.
- The digital euro is not a temporary, market shock driven event which requires temporary ECB support and can be phased out at a later point. Banks must permanently fund the loss of retail deposits and will need to structurally rely on ECB funding.
- A change in mindset from SSM is required as currently banks are getting penalized in the annual SREP for funding plan being reliant on ECB funding.

On slide 11, it is unclear whether the impact of reduced liquidity, resulting from deposit outflows, is implicitly considered within the reserves element. This aspect should be explicitly examined. Although liquidity is addressed in the financial stability section, a reduction in bank deposits affects the money supply, the monetary base, and the size of the central bank's balance sheet.

To conclude, while the variables used for the modelling go in the right direction, we do not support the 'top down' approach and believe it will not work on averages of all SI and all LSIs. In this respect, individual banks would be interested to see the results of the ECB's model applied to them, so that they can compare it with their internal models.

Block 3: Financial stability and banking supervision – objectives and tools (slides 14-17):

Slide 16 of the presentation made on 10 December 2024 mentioned that the model can be used *"To assess the distributional impact on individual banks and business models across various dimensions, including liquidity metrics (LCR, NSFR, liquidity survival period), SREP indicators, and net interest income".* This statement seems to imply that the only impact of digital euro on banks' profitability would come from interest income and not from other revenue sources, like fees on payment and current account services. Indeed, nowhere in the presentation reference is made to other components of banks' balance sheets, but interest income. In our view, this is a serious limitation of the analysis.

Banks' reaction: taking into consideration historical data, it is key to calibrate the borrowing in the model also according to:

1. Different types of ECB auctions (short *vs* medium-long term, targeted *vs* non targeted, full allotment or not, etc…).
2. Type of collateral accepted.
3. Rates applied to the auctions.
4. Stigma related to ECB borrowing in different circumstances (business as usual and stress scenarios).

Model: the model assumed that the central bank provides as much liquidity as banks demand. The total amount of liquidity would be the same drained from the system. Not only this is a zero-sum game from a volume perspective but with a cost burden (the rate) on the banking system. Commercial banks tend to fund their commercial investments (such as customer loans/mortgages) through liabilities received from their customers as well: in other words, internal processes are adopted because the commercial activities of business units must be self-financed to limit excessive borrowing on the financial markets, which is by nature more volatile and subject to higher rollover risk. In this respect, if banks' commercial lending volumes must not be affected by the introduction of the digital euro, the recourse to central bank funding to fund commercial investments must be admitted also as a temporary solution without additional costs for banks, unless new tools will be introduced and structurally adopted, not negatively perceived also in a business-as-usual environment. Otherwise, an increase in interbank funding to support lending activities would bring higher rollover risk.

Excess reserves: this is a key point in an environment that will soon be affected by the increase of instant payments and the expected impact on intraday liquidity management. The impact of digital euro will be very difficult to forecast for treasuries and without historical series, the possibility to use artificial intelligence to support the forecasting will not be enough. Therefore, the role of excess reserves could increase, and the remuneration of these reserves is expected to be defined to avoid a negative effect on interest rate margin.

Liquidity requirements – LCR and NSFR: taking into consideration that the digital euro will be sourced from the reduction of banks' retail deposits and from physical cash implies

that there will be a reduction of stable retail deposits that might impact banks' liquidity position and regulatory ratios unless a waiver is introduced in regulatory requirements.

Liquidity buffers: in such uncertain conditions, banks may also react by choosing to prudently raise the minimum internal buffers to face unexpected events not experienced before, thus limiting the lending provision of the excess reserves on the interbank market. A structural increase of the systemic reserves deemed necessary by banks would impact funding costs, forcing banks to pay higher rates to lengthen the maturities of their liabilities to comply not only with regulatory ratios but also with internal minimum survival periods thresholds.

Interbank market: to face unexpected outflow for digital euro request coming from customers, a new and efficient intraday interbank market (secured and unsecured) could mitigate the effects on liquidity position.

One additional point for further consideration is the profitability impact section, where no explicit mention is made of the cost differences between sight deposits and term deposits. It is noted that interest rate variables for assets and liabilities as of Q1 2024 are used. This may implicitly account for these cost differences, as they would be factored in for each type of liability/asset. However, it would be worth ensuring that this is the case. For banks in countries where the volume of term deposits is significantly higher, the introduction of the digital euro could have a smaller profitability impact (if replacing term deposits becomes necessary) because term deposits are more expensive than sight deposits. This would result in a smaller interest rate differential compared to other alternative funding sources.

Generally speaking, we believe that the definition of the holding limit and any change should be supported by a specific and detailed Quantified Impact Assessment (QIS). There are several factors that need to be considered:

- Loss of stable retail deposits could be replaced with costly unsecured term senior preferred bond funding which may stretch banks' market capacity – in particular sensitive to issuer rating.
- As a second funding option, banks may encumber additional collateral to obtain secured ECB financing if available (that will increase Asset Encumbrance ("AE")).
- A parallel second funding option would entail further issuance of covered bonds subject to pool capacity (that would also increase AE).
- Another funding option is to shrink the asset side either through reducing HQLA (if surplus exists) or shrink its loan book with adverse macro-economic impact.
- Banks might also be forced to increase deposit rates to keep or attract deposits.

The **impact assessment and method to ascertain holding limits should be one of 'bottom-up' rather than the proposed 'top-down'** to fully determine the complex idiosyncratic effects on banks' balance sheets. More specifically, the referenced top-down ECB approach 'Constrained balance sheet optimization' is unlikely to capture the full complexity of each bank's optimisation choices since – in order to be meaningful – it requires bank specific input with regards to binding constraints including market capacity and pool constraints respectively. Moreover, the incremental funding needs will presumably have an adverse impact on issuance spreads.

We believe that such 'bottom-up' method could be based on a 'delta approach' which enable a simple but still correct impact assessment of nominal Balance Sheet (BS), regulatory metrics and NII where the NII acts a goal function from an optimisation point of view.

The method we would like to propose include HQLA (assets) and deposits and wholesale funding (liabilities). All liabilities are presented excluding SFTs (repos, etc.). NSFR neutral management of loss of deposits plugging the gap with Senior preferred bonds and CD/CPs respectively – and optionally – with secured central bank facilities or covered bonds. Moreover, weighted average ASF-factors needs to be added. With regards to issued securities the ASF-factors should reflect steady state footprint at a particular standardised tenor. The change in net LCR outflows is managed by adjusting central bank cash (HQLA, L1A) to ensure that the targeted (i.e. bank-specific) LCR level is unchanged. Moreover, weighted average LCR outflow factors needs to be added. The approach could also include ascertaining effects of replacing deposits with covered bonds or funding securitisations (RMBS & CMBS). In addition, margin/spreads need to be ascertained for HQLA, deposits and issued securities. Moreover, it should be noted that aspects such as market capacity & rating implications which are idiosyncratic also needs to be considered.

Finally, banks individually would like to see the simulated result for them and compare it with their models. Some would also like to see a simulated result for a small retail bank as average results for SIs only do not bring much value.

One aspect that is missing from the analysis is the impact of the use of the digital euro as a wallet, that would then compete with bank account, or as a payment means, competing with existing schemes and solutions. While the holding limit will be key to reduce the impact on banks funding, it will also be very important to mitigate the impact on other banking services. If citizens decide not to use the waterfall but prefer moving once a month their transactional balance from their bank accounts to their digital euro account, then they will not be able to pay by debit card or by mobile payment wallets. Competition with other payment means starts when citizens decide to prefund their digital euro accounts, not only at PoS when they decide to pay with digital euro.

Way forward (slide 18):

As regards the proposed benchmarking of the results, we question whether there are historical episodes of such a magnitude and with an impact on all EU banks.

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Brussels, 27 January 2025

ERPB consultation on preliminary methodology for calibrating the digital euro holding limits

EACB response

The **European Association of Co-operative Banks** (EACB) is the voice of the cooperative banks in Europe. It represents, promotes and defends the common interests of its 26 member institutions and of cooperative banks in general. Cooperative banks form decentralised networks which are subject to banking as well as cooperative legislation. Democracy, transparency and proximity are the three key characteristics of the cooperative banks' business model. With 2,700 locally operating banks and 40,000 outlets co-operative banks are widely represented throughout the enlarged European Union, playing a major role in the financial and economic system. They have a long tradition in serving 227 million customers, mainly consumers, retailers and communities. The co-operative banks in Europe represent 89 million members and 720,000 employees and have a total average market share of about 20%.

For further details, please visit www.eacb.coop

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This paper presents the EACB comments in response to the ECB presentation on "Preliminary methodology for calibrating holding limits" at the ERPB technical session on 10 December 2024.

1. EACB position on the digital euro holding limits

First, we would like to reiterate the EACB position expressed in response to the earlier ERPB consultation on the methodology for the calibration of digital euro holding limits in Spring last year.

The EACB advocates for developments that do not undermine the competitiveness of the European banking system. A significant deposit outflow could have a detrimental impact on the EU economy and financial system. Specifically, banks – particularly cooperative ones with a retail-focused core business – would be forced to raise interest rates, reduce lending, which would ultimately hinder European economic growth. Moreover, reduced funding sources would increase liquidity risk, forcing banks to rely on liquidity markets. Many cooperative banks, due to their size and business model, have limited access to these markets, leaving them vulnerable to market risks. This could erode customer and market trust, potentially triggering additional regulatory measures to stabilize the system or requiring central banks to inject liquidity into the banking sector.

Keeping this in mind, we strongly support the necessity of holding limits in order to prevent the use of the digital euro as a store of value, adverse effects on bank deposits and credit provision to the economy by credit institutions, and ultimately prevent a negative impact on financial stability in the euro area. Without a (low) holding limit there is a substantial risk of deposit outflow, which leads to higher funding costs and subsequently to higher lending prices, which will negatively affect the European economy.

The **maximum holding limits should be specified in the Digital Euro Regulation**, i.e. subject to democratic scrutiny plus avoid changing the holding limits easily. We support setting the limit for businesses to zero, which should be a permanent limit, not subject to changes in future. For individuals we suggest setting the maximum limit in the Digital Euro Regulation at EUR 500. The role of the ECB should be to decide on the actual limit, that could be equal to or below the maximum holding limit set by the legislator.

Regarding the setting of the holding limit, it is worth stressing that the digital euro is being designed as a means of payment rather than a store of value, which means the holding limits have to be set at a low level. Furthermore, **with the design features such as waterfall and reverse-waterfall, citizens would be able to make and receive payments beyond the holding limit, thus there doesn't seem to be a justification for setting the holding limits at a high level**.

We would also like to emphasise how Europeans use euro banknotes – the other form of central bank money – on a day to day basis. **Since the digital euro would be *"an electronic form of cash for the digitalised world"*[1], we believe that the use of cash by citizens should serve as a benchmark for calibrating the holding limits for the digital euro**. Data across the euro area to be considered for that purpose include: average ATM withdrawal amounts, average amount of cash held in a wallet by individuals, average value of payments with cash. For example, in a survey conducted by the Deutsche Bundesbank in 2021, respondents on average had

[1] FAQ on digital euro, ECB: https://www.ecb.europa.eu/euro/digital_euro/faqs/html/ecb.faq_digital_euro.en.html#:~:text=A%20digital%20euro%20would%20be,format%2C%20complementing%20banknotes%20and%20coins.

approximately EUR 100 in their wallet[2]. In France, the average amount of ATM cash withdrawals in 2021 was EUR 113[3]. The ECB's 2022 study provides valuable data on payment attitudes and preference for cash by consumers across the euro area[4]. Data on cash usage just before and after the Covid pandemic could be taken into account to observe possible changes in consumer payment attitudes over that period[5].

2. Comments on the ECB presentation on preliminary methodology for calibrating holding limits

Common assumptions (slide 6)

- The statement *"Idiosyncratic bank run already feasible and even faster due to digitalization, so not specifically modelled given limited marginal impact of digital euro"* is interesting, but raises concerns regarding its plausibility.

Block 1: Usability (slides 8-9)

- Usability should not be factored into the calculation of the online digital euro holding limit. If, for example, we assume that consumers in countries or cities with the highest rents in the euro area must also be able to pay their rent with the digital euro, this would lead to extremely high holding limits. In such cases, the introduction of (reverese) waterfall functionality should ensure usability of the online digital euro.
- Usability should only play a role in the calculation of the offline digital euro holding limit. It should be determined for which payments the offline digital euro is intended to be used without any network connection. In case of an existing network connection, the usability could be the same as with an online digital euro, as long a reverse waterfall is configured.
- There should be a single holding limit rather than multiple limits based on the specific price levels of each member state. Aggregating across countries and intermediaries is problematic, especially given the diverse banking landscape and technical complexity. Basing the holding limit on usability is therefore not an appropriate starting point, as the holding limit may be suitable for some countries but too high for others. So considering factors like rent and travel expenses is impractical, given the significant price differences across euro area countries. Even if the holding limit is too low for the requested amount, the reverse waterfall functionality would allow to top up the funds to the requested amount to ensure that the transaction continues.

Block 3: Financial stability and banking supervision (slides 14-17)

The ECB proposal is based on a constrained balance sheet optimization model[6]. In its model the ECB makes several questionable assumptions, which explains:

[2] Payment behaviour in Germany in 2021, Deutsche Bundesbank, July 2022, page 9: https://www.bundesbank.de/resource/blob/894118/6c67bcce826d5ab16a837bbea31a1aa9/mL/zahlungsverhalten-in-deutschland-2021-data.pdf
[3] https://www.lafinancepourtous.com/decryptages/finance-perso/banque-et-credit/le-systeme-des-cartes-bancaires/
[4] Study on the payment attitudes of consumers in the euro area, ECB, 2022: https://www.ecb.europa.eu/stats/ecb_surveys/space/html/ecb.spacereport202212~783ffdf46e.en.html#:~:text=The%20SPACE%202022%20results%20show,2016%20and%2025%25%20in%202019.
[5] See, for example, the ECB's Occasional Paper Series "The use of cash by households in the euro area", 2017: https://www.ecb.europa.eu/pub/pdf/scpops/ecb.op201.en.pdf
[6] Know your (holding) limits: CBDC, financial stability and central bank reliance, Barbara Meller, Oscar Soons, ECB Occasional Paper Series, 2023

- Why it considers the availability - for all banks - of other liquidity options (such as interbank access or ECB's market operations with non-HQLAs) beyond using up existing liquidity (central bank reserves and HQLAs), thus reducing regulatory liquidity ratios (LCR and NSFR). These 'other' alternatives may not be accessible for many cooperative banks, and in any case one should consider the market signalling effects of HQLAs depletion/reduction of the regulatory ratios. If in a flight-to-safety the key concern is confidence in the system, drastic reduction of the ratios may even be a crisis catalyst.

- The lack of due consideration for interest rate risk as an additional lending restriction should a deposit flow happen: banks would use up first central bank reserves which by nature carry no interest rate risk (IRR). For banks that are not willing or able to manage their interest rate risk with more explosive (than core deposits) derivatives this means that the interest rate risk in the bank's assets will become too high for those banks to continue offering fixed-rate loans (such as mortgages) to its client base, which is an essential component of a well-functioning banking system (i.e. reducing the provision of fixed-rate interest loans, putting the interest rate risk directly at their customers). More specifically, the ECB paper mentions the impact on Net Interest Income (NII) but only in terms of absolute value, without linking this to the management of and prudential constraints on interest rate risk in the banking book (IRRBB), which is a fundamental element of the Pillar 2 framework (Art. 84 and 98 CRD). Especially for banks that pursue a so-called structural hedging of their assets and liabilities, the importance of the so-called non-maturity deposits (NMDs), and even more the core deposits, cannot be sufficiently emphasised. The outflow of deposits would need to be balanced not just by new more expensive funding but also by hedging using off market (i.e. expensive) derivatives. In addition, the smaller institutions may need to keep entering into swap transactions of small ticket (e.g. 10-15 million euros) that are typically more expensive. Moreover, the IRRBB requirements entail a double perspective under the so-called Supervisory Outliers Test (SOT): one that considers the Economic Value of Equity (EVE) and one that considers the NII. Therefore, retail banks may be forced to hedge “both sides” to both fulfil EVE- and NII-SOT under a scenario of massive deposit outflow. This could result that these institutions, in a crisis situation due to a huge outflow of deposits, have to build up a huge derivative portfolio at unfavourable off-market rates. As seen during the great financial crisis, one should consider that in a stress scenario the pricing to hedge IRRBB may skyrocket due to the simultaneous efforts of multiple institutions to enter swaps with a given number of counterparties. These elements would compound to the purely liquidity-driven effects, and this seems not to be covered in the ECB paper.

- The assumption that all banks have the ability to generate non-HQLA assets to post at ECB's market operations to obtain central bank reserves (that count as HQLAs and thus as numerator of LCR ratio, helping to recover the ratio).

- The conviction that even under a stressed scenario for digital euro use with a €3,000 holding limit, Eurozone's banks would not run out of liquidity (without properly considering the diversity of banks, the very uneven distribution of households deposits, and the specificities of cooperative banks).

- The assumption that liquidity changes follow a linear, gradual evolution without taking into consideration the reality of recent bank runs which show a non-linear, binary distribution that the digital euro can reinforce. Under this assumption the paper dismisses the impacts on banks and the economy of LCR's buffers reduction, and even of banks breaking LCR

and/or NSFR regulatory minimums (100%). It is very unlikely that such situations would not lead to a self-fulfilling liquidity drain.

- The assumption that banks' response to deposit outflows also follows a linear, gradual approach (against a more realistic scenario under which retail cooperative banks – with a huge reliance on the stickiness of their deposit base and few other alternative options – in fact react much earlier if they feel a threat to their deposit base, by restricting lending and/or reducing the duration of their loan origination.

Contact:

The EACB trusts that its comments will be taken into account.

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ESBG Digital Euro Feedback to ERPB: ECB Methodology for the Calibration of Holding Limits

1. General Comments

A well-defined holding limit is the key tool for limiting risks to financial stability. Without a well-defined and enforceable limit, the introduction of the digital euro could substantially reduce retail deposits. As is well known, retail deposits are the most stable and low-cost source of funding for banks. The ECB has made clear that the digital euro should be envisioned as a means of payment, and not a store of value. Put simply, we believe that, given that the aim of the digital euro is to resemble cash, holdings of physical euros (e.g.: the amount of cash carried in consumers' wallets), and cash-transactions amounts should be the basis for the calibration of the holding limits.

When it comes to holding limits it is of most importance to realise that commercial banks' necessary liquidity levels not only are restricted to formal requirements (LCR and NSFR). Banks have their own liquidity metrics in addition to the regulatory requirements, such metrics are for example management buffers. Moreover, liquidity levels are volatile by nature, meaning that banks need to hold a proper margin in relation to that metric (external and internal) to make sure no rules are breached. Therefore, the ECB cannot assume that LCR levels can be lowered.

It is important to anticipate how the financial sector may change, but it is inherently difficult to forecast. In this regard, how will expected changes (e.g. impact of stablecoins, instant payments, etc.) incorporated in this preliminary methodology. In particular, anticipating changes in the liquidity environment (e.g. less ample central bank liquidity) is also important. We would welcome more information or investigation into how such anticipated developments are being incorporated and how the future usage of cash in the EU is being modelled.

Block 1: Usability

In general, the objective of the methodology for calibrating the digital euro (D€) holding limits should be to ensure usability of the D€ as a means of payment while avoiding or refraining it becoming a store of value. In this regard, it is important to consider that the ECB envisions the D€ as an electronic equivalent to cash. In certain European countries, such as Spain, cash payments are subject to a legal limit (e.g. €1,000) for transactions. Essentially, **EU limits on POS and ATM withdrawals should be used as a point of reference** for the use of digital euro. Therefore, the methodology for calibrating D€ holding limits should take these cash limits into account, ensuring that it serves as a complementary payment instrument to cash. As a digital means of payment average transaction amounts in already existing instant payments scheme can also be used, to understand daily needs, but may not reflect the same funding model.

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We disagree with the approach used in this block 1, for two reasons. First, when assessing the usability of the D€ in relation to other payment methods, **the D€ should not be judged by its capacity to handle all payments** made by consumers on a monthly basis. Instead, the usability of a payment method (in this case, the D€) is evaluated by each consumer when making a transaction. Specifically, consumers choose their payment method depending on the context and the payment methods that are available to them. Therefore, usability **should be assessed on a transaction-by-transaction basis**. In the end, what will be relevant in these payment decisions is that the D€ can reliably compete with existing payment methods. From this point of view, analysing the value of individual transactions (and its distribution) is more relevant than the total monthly transaction value. In this regard, the limit should be set in relation to the average consumer transaction value, so that it captures X% of payments usually made by consumers (rather than in relation to the overall monthly expenditure).

Second, focusing on this aggregate monthly amount presumes that the D€ wallet will be used in a specific manner (i.e. it presumes that citizens will load an amount equivalent to their entire monthly spending into the wallet at the beginning of each month). However, the wallet could be employed in alternative ways. For instance, a low holding limit could be set, and the wallet could be automatically reloaded with the amount spent in the last transaction (without requiring any action from the customer), ensuring that the customer can always complete a certain percentage or use cases of their transactions with its D€ holdings. Otherwise, we would be setting a high holding limit only to enable the competitiveness of the D€ as a payment method in use cases that are exceptional within a month. We consider the waterfall functionality to be key to ensuring the necessary flexibility for consumers and do not consider a higher holding limit to be necessary for the intended purpose of the digital euro.

Further, some aspects shall be considered related to the analysis carried out for this block on usability.

On the **consumption and income analysis**, net monthly income is supplemented by the balance carried over from the previous month. This balance is calculated as the difference between monthly income and monthly consumption. It is therefore assumed that individuals can save in D€s on a monthly basis. Depending on the time horizon considered, savings and consumption may offset each other. Specifically, if a temporary time horizon is adopted, the savings generated in one month could be offset by the excess consumption in another month. However, under a permanent time horizon, any unspent income inherently translates into savings. After a certain period (x months), individuals may look at their accumulated savings in their D€ wallet and opt to put these funds into a savings product. Therefore, it is **necessary to define the time horizon for this assumption explicitly**. Furthermore, **the analysis should consider how much individuals want to save**.

On the **analysis of user preferences**, we understand that conducting a survey is an appropriate method for obtaining this information. However, it is essential to understand how the questions and response options are presented to participants. Furthermore, we believe that the **most effective way to test and comprehend the functionality of a D€ is by allowing survey participants to interact with a D€ prototype**. This hands-on experience would enable them to understand how they could use a D€ and demonstrate that **the limit on D€ holding does not necessarily restrict its usability as a means of payment** if a euro in a deposit can be converted instantly and seamlessly into a D€ (waterfall mechanism). Without the opportunity to test the D€ in practice, participant responses could be biased depending on their own individual experiences. For instance, in Spain, the Bizum wallet has a very high adoption rate among the population (~60%), and users do not preload the wallet. Instead, the wallet auto-loads when a payment is

made. Consequently, survey participants in Spain may base their responses on their experiences with Bizum.

Block 2: Monetary Policy

Any potential disturbances to the deposits' dynamics will inevitably contribute to **increase financial fragility**. To compensate deposits outflows stemming from the introduction of the D€, banks would need to increase their **reliance on ECB funding** or substitute by more **unstable funding sources**. Both options will seriously affect **banks' risk profiles** and ultimately impair **credit**, with a material impact on **P&L**. Banks with excess liquidity could adapt to the new reality by reducing holdings at the central bank, and liquidity constrained banks could reduce credit supply. Banks that do not have excess liquidity and have access to market-based funding will switch to market-based funding, meaning that they will not necessarily need to decrease their level of lending to households and corporates.

When examining the demand for cash as a store of value, it is important to consider that a **significant portion of the cash stock** (between 30%-50% of the cash value) **is held outside the eurozone**, for various reasons (e.g. underdeveloped payment infrastructures, lack of access to safe savings alternatives, lack of trust in local banks, habits…) as shown in this ECB article. Moreover, the same article concludes that **between 30% and 50% of the value of banknotes in circulation is thought to be stored in the euro area** (using data for 2019). However, this estimate includes people's holdings and cash held by monetary financial institutions and companies, and the article recognises that a breakdown has not been made yet. Therefore, caution is advised when identifying the factors behind the demand for cash, as not all this demand can be attributed to individuals in the euro area and for storing value. Additionally, it cannot be assumed that the cash individuals hold (for transactional purposes or as a store of value) would be converted into D€ (need to consider other factors, such as tax motives and privacy). Moreover, to accurately assess this potential substitution, **we recommend conducting a survey to evaluate individuals' cash preferences**.

In addition, when considering the potential conversion of banknotes into D€, the analysis should account for the substitution not only between cash and D€, but **also between cash, existing and future digital payment methods, and D€**. As with all these comparable payment methods, the digital euro should not be used for or considered as a means of investment, either as renumerated savings or an method of alternative investment (neither traditional investment or DeFi investment).

Regarding the impact on loan supply due to adjustments in bank balance sheets, it is also important to consider the **effect on credit supply resulting from banks' reduced ability to assess customers' credit risk**. This would occur if customers moved their transactions from bank to non-bank D€ wallets, leading to a loss of customer payment information.

Block 3: Financial Stability and Banking Supervision

The D€ is set to launch in a few years, and **the economic environment, market rates and bank balance sheets may be considerably different in the future**. As mentioned in this ECB paper, to properly gauge the actual impact of a D€ across euro area banks and EU Member States, it is therefore necessary to **repeat these simulations using data and accounting for the prevailing operational framework at the time of a possible D€ introduction**.

Deposits moving from commercial banks' balance sheet will impact liquidity metrics, LCR and NSFR. To ensure its intermediation capacity and proper levels of liquidity, banks will have to replace the lost deposits with market based funding. This may lead to increased funding rates because (i) banks will have to increase the share of market financing, and (ii) market financing as such may become more expensive. Increased funding costs could lead to increased lending rates for consumers and companies with negative impact on the economy.

2. ESBG Feedback to the ERPB Consultation of the Preliminary Methodology

Common assumptions and calculations of the scenarios (Slides 6 and 7)

As the data on outflows is informed by the data collection exercise performed in Q1 2024, it is crucial not to repeat the same mistakes made in Basel, such as the over-standardisation of assumed outflow rates in the Liquidity Coverage Ratio (LCR). We consider that **banks are in the best position to inform their deposit base behaviour and dynamics**. For that reason, it is relevant to **gather more data from LSIs to fully capture all business models** and the **asymmetric impact on retail banks**.

Also, important to **check responses from banks operating in various countries** as liquidity is not fungible across borders. **Have internal liquidity targets be reported on a group level?** If so, the binding liquidity target for each country may be quite different [see further comments on internal liquidity targets in Annex]. Country-specific effects should be considered in terms of propencity to use Digital Euro, depositor demographics as well as behavioral aspects. Clustering banks into "stylized funding models" should not only be a possibility but at the foundation of the methodology.

Regarding stress periods, there is significant uncertainty, with completely new scenarios emerging. High pressure is expected for the ECB to increase limits during these times. **This should be factored in to avoid feeding that pressure of a narrative that the D€ as "risk-free"**. The ECB based on "Lambert, et al., 2024" for building the BAU scenario. In this working paper no stress years (e.g. 2008-2010 for the EU, and stress years in specific countries or groups of countries, such as 2012 in Spain, Italy, Ireland, etc.) were apparently considered. **Greater analyses regarding the NII needs to be done and is important, with continued expanding input from specialists.**

Proposed Tools in the Preliminary Methodology (8-17)

Block 1: Usability

To analyse the consumption distribution the ECB use the "Household Finance and Consumption" survey whose consistency shall be contrasted with national surveys, such as those from Germany or Spain. In particular, in Spain, Banco de España (BdE) published a recent study on cash use habits which uses the database and surveys from BdE.

Once again, changes in behaviour are difficult to anticipate, representing an inevitable source of uncertainty that calls for a cautious and gradual approach. Moreover, according to this small and gradual approach, the use cases for the D€ should be strictly limited to basic cases only. In such a complex exercise, **it makes no sense to expand the assessment to include expanded types of payments** [see further comments on mortgate and rent payments in Annex]. Furthermore, we again emphasise the need for analysis to be conducted solely through the lens of the digital euro as a means of payment and not a store of value.

Per our opening remarks, we would like to inquire as to how the changes in financial sector and cash usage (slide 5) are being incorporated in this, and future, analysis.

Block 2: Monetary Policy

On the analysis of the impact of digitalisation on demand for banknotes, it is relevant to include all the key drivers. In particular, **one of the critical factors is privacy and we do not have evidence whether privacy has been adequately accounted for in the BVAR model**.

Additionally, the **impact on deposit remuneration must be examined**, particularly the assumptions regarding movements between deposits and reserves. This requires **analysing the remuneration spread between reserves and deposits and its subsequent effect on credit** [see comment in Annex on the various deposit rates, especially the importance of zero cost deposits for retail banks].

Reliance on central bank funding raises concerns, **as these assumptions may conflict with the objectives of liquidity standards such as the LCR and the Net Stable Funding Ratio (NSFR)**, which are designed to promote market-based funding rather than central bank reliance. Therefore, it is essential to assess the effects on market liquidity and funding, collateral costs, haircuts dynamics, and the potential fragmentation in sovereign bonds markets within the EU, especially with a common EU risk-free asset. An increase in expected outflows could lead to a higher demand for High-Quality Liquid Assets (HQLA), resulting in more sovereign bonds with a domestic bias, greater concentration in sovereigns, and increasing loop between sovereigns and banks.

"Unconventional monetary policy operations when a digital euro is introduced" - If a bank only needs these vehicles due to the introduction of the digital euro – which should be monetary policy neutral - it is unclear to us, why the central bank liquidity should only available at a penalty rate

Finally, it is necessary to address the diverse preferences of consumers and users, ensuring that the approach accommodates their heterogeneous needs.

Block 3: Financial Stability and Banking Supervision

The analysis of the impact on banks' liquidity through a **constrained balance sheet optimization offers an overly simplistic view of the normal functioning of banks**. Banks operate under a variety of business models, with differences in insurance activity, market activity, retail versus investment banks, and the social orientation in banks' objectives. These factors contribute to differences in other frameworks affecting banks' profitability, such as taxes, supervisory intensity, and the legal environment (e.g., fines). Additionally, structural differences across financial systems, such as market concentration and capital market development, also play a significant role.

Moreover, **net interest income (NII) alone does not fully capture the complexity of modern banking intermediation**. The traditional deposit-lending model is overly simplistic as a significant portion of banks' revenues comes from non-interest income, such as fees and commissions. Changes in the deposit base can significantly affect economies of scale and scope in banking services and products, acting as an amplification mechanism.

Finally, the LRC and the NSFR are regulatory constraints, but in practice**, banks set their own internal liquidity targets to ensure compliance and manage risks effectively**. Market

liquidity and funding must also be assessed from the international perspective and adopting a global perspective.
[This is addressed by using internal liquidity targets from SSM data collection exercise, but see comments in Annex]

3. The Way Forward (slides 18)

ESBG would firstly welcome more detail on the SSM data collection, its use and conclusions.

We would also welcome greater explanation on how heterogeneity across banks will be modelled: what exactly is assumed for deposit outflows and how bank's business model might be reflected.

Further the model (matlab code) could be shared with the banking industry together with sample data. That would help to better understand the model and its limitations. E.g. available collateral for an cluster of institutions or how counterparty risk concentration could come into play.

4. Feedback to Detailed Annex

Consumption and income analysis: the D€ is intended to be a complement to cash and a digital equivalent of cash (e.g. does not offer any remuneration). As such it is not clear why potential types of payments for the D€ like rent, loan and mortgage payments are not directly excluded from the analysis. The reason given for not including these types of payments are "data quality and data limitations". However, these types of payments are not typically settled in cash [is there data to show how these payments are typically made?], therefore they are not means of payments for the D€. These types of payments should be excluded from the analysis on the basis that they are currently not settled in cash, therefore, should also not able to be settled with a D€.

Similarly for the use case of receiving income directly into a D€ account. The D€ is not intended to be a replacement for bank accounts, but a complement to cash. As very few salaries are paid in cash, the functionality of receiving income on a D€ should not be included [is there data how income is received by citizens? How many citizens receive their income in cash?]

Survey on users' behaviour: Has the survey already been conducted? Can the results be shared?

Financial stability: depending on the uptake of the D€, deposit outflows may be large. How is the capital market's ability to fund these large needs modelled? Many smaller banks don't have funding programs—how are the costs of establishing funding programs are included?
Central bank funding depends on policy decisions. How is the uncertainty regarding the availability and conditions of central bank funding included in the analysis?

How many deposit rates are in the model? The D€ will replace the most stable, and lowest cost source of funding (with a zero interest rates in many cases). Does the model include various deposit rates and therefore captures the replacement of zero interest rate deposit with market funding rates (or is only one deposit rate assumed)?

Liquidity ratios: many banks now hold excess reserves (in excess of required reserves), because of a preference for liquid assets. Are the internal liquidity targets reported in

the SSM data collection exercise “binding” targets, or is there a preferred buffer in excess of these internal targets? For now, behaviour of smaller banks is assumed to mimic the behaviour of larger banks. It is important to gather data on all banks to clearly establish **effective liquidity preferences.**
Is it really a good assumption that in a flight to safety environment banks do not want to have a liquidity buffer and will reduce it down to the regulatory minimum? How would market funding costs react in this case?

Interbank market: how close to reality is the assumption of a perfectly competitive and frictionless interbank market? Is there data to support this, or are there meaningful frictions that matter for this analysis?

NII impact: as commented above, how many interest rates are included in this analysis? Does it correctly capture that D€ will draw on zero-cost deposits?

LSIs: "Since for LSIs we lack the data, we assume that they are willing to deplete the same share of their current liquidity buffers as the SIs with the business model of small market lenders. In the flight-to-safety scenario, we assume that banks are willing to deplete their liquidity buffers until the regulatory minimum." - this statement seems outdated. The data template for LSI did ask for business as usual and stress scenario LCR levels that are still comfortable. If there is still the need to estimate the willingnes to deplete shares, it should be noted, that the risk buffers tend to be faily higher for LSI compered to SI. The regulatory minimum of the LCR should be seen as too low (at least 105% LCR should be set as minimum).

Preliminary model: the annex should be updated to clearly show how the three blocks are represented. Which variables are endogenous, e.g. for Block 3 taken as exogenous.

Survival period: the survival period is missing. And henceforth the scenario specific estimation and challenge to fullfull regulatory and internal limits for stress sceanrios (e.g. 3M, 6M or even 9M) which are still present when Digital Euro is introduced.

Further analysis: Overall a thorough “Pillar 2 analysis” should be conducted.

European Payment Institutions Federation aisbl

Feedback

EPIF feedback on the

14th ERPB Technical Session on Digital Euro

Holding Limit Calibration

10 December 2024

In principle, EPIF is neutral on holding limit calibration. However, as we advocate for having multiple wallet accounts for the digital euro, what is truly important for us is that there is not a fixed limit on how much can be hold in one single account.

In fact, EPIF welcomes the European Commission's proposal to allow for one or more digital euro payment accounts (Article 2 (5)), and believes it to be a critical factor in the future success and widespread adoption of the digital euro. While we acknowledge there is an essential complexity to allocating holding limits (Article 15 (1)) across multiple accounts, the user experience can still be smooth, and does not require that the users directly orchestrate the process themselves. Specifically, the end user could, in a single app, specify their target holdings in each of their PSPs. Once confirmed, the DESP (Digital Euro Service Provider) could orchestrate the defunding and limit-setting actions in the required order, with the end user being notified to confirm in each respective app. Importantly, the level of complexity is a decision of the User - allowing the consumer the option to host multiple accounts creates no imposition on those who chose to use just a single account. On the other hand, a limit of one account only per consumer as originally proposed by the ECB, will hinder innovation and competition in the market for this payment method and negatively impact those consumers who may prefer to host multiple accounts for different use cases.

For EPIF it is important that the waterfall and reverse waterfall mechanisms work, i.e., that it is possible to make transfers in digital euro that are higher than any holding limits.

Moreover, the waterfall and reverse waterfall mechanisms should equally be possible from all payment accounts and other non-bank payment instruments.

Moreover, it is important that merchants and corporates are not held to holding limits or that these are tailored to their business. As part of this, merchants and businesses should not be required to cautiously and real-time have to reconcile their digital euro account with their commercial bank account, which again means the holding limits need to be sufficiently high.

BEUC response to ERPB written procedure on digital euro following ERPB technical session of 11th April 2024

BEUC response should be considered as feedback both for the ERPB working group and the rulebook development group given the overlap of topics presented.

Offline digital euro

BEUC welcomes the progress made on the offline solution which provides a strong added value from a consumer perspective. In particular, we welcome the work undertaken on a smartphone-independent solution covering both peer-to-peer payments and payments at the point of sale.

As regards peer to peer payments, there have been two technical solutions presented:

1. A bridging device where two cards can be inserted to allow a payment transaction between those cards.
2. Battery powered cards which allow for offline transactions between both cards without any additional device.

BEUC supports having further user research on both technical solutions to identify the most suitable one. Such research should carefully focus on the needs of consumers not using smartphones currently for different reasons. This includes notably the accessibility of such a solution:

- Is the display large enough for visually impaired people?
- Does the display allow for small instructions on next steps?

We consider that these challenges could be better addressed with a bridge device rather than with a card which provides very limited space for a display, size of buttons etc.

In terms of convenience, the card could be easily carried in the consumer's physical wallet. Open questions are: Would it be the same card as the payment card used for online payments? How do you need to exchange the battery, and can users do this themselves? The bridge device needs to be carried along, but we would expect it to be not much larger than a TAN generator. Could the TAN generator and the bridge device be offered as one device? Would a battery-powered card or the bridge device be able to show how many digital euros are stored on the card (this could help for budget management?

The selected solution should be provided free of charge to consumers, but we recommend taking costs into account to prevent high costs when a replacement is needed (i.e. card/device not working anymore or being lost). In addition, it is important that the smartphone-independent solution becomes available at a similar time than the smartphone-based solution to prevent discrimination of more vulnerable groups and misconception of the digital euro project.

As regards the online reconciliation: After a certain number of offline transactions, the user needs to go online so that certain yet to be defined data elements could be checked to prevent double spending of digital euros.

For consumers, convenience increases with the number of transactions which can be made in a row. It allows matters where such an online reconciliation could be made, in particular for those not using online banking at home. Could the online reconciliation take place at a payment terminal at Point of sale or only at an ATM?

The choice of data elements is highly important from a privacy perspective and should thus be carefully considered. In view of future legislative developments, an online version where transaction data is not stored should not be ruled out at this stage by technological decisions. In this regard, BEUC would be interested to know whether the presented offline solution would also work at distance or only for proximity payments.

In addition, the risk of double spendings raises liability questions. In case there is an issue with the settlement who is liable for the money lost?

Multiple accounts

BEUC welcomes the technical analysis on the feasibility of multiple accounts. We agree with the assessment that holding limits would have a significant negative impact on the user experience when using multiple accounts as the overall holding limit would then be split among multiple accounts reducing the flexibility for each account individually. The lower the holding limit, the more the user experience with multiple accounts will be compromised. The waterfall functionality is not a solution for all consumers and all use cases (*see joint accounts below*).

Against this background, it is important that the holding limit is counterbalanced by allowing for smooth account switching in the form of DEAN portability. Like this, consumers could easily switch accounts like they do today with phone numbers allowing for competition between different offers.

BEUC does see an added value for multiple accounts mainly in two regards:

- **Joint accounts** e.g. with partner in addition to an individual account. For joint accounts, the waterfall functionality will be more difficult to use as in case of a separation of accounts, the main purpose of a joint account is to set aside money for common expenses and keep them separate from individual expenses.
- **Accounts being used for a very targeted payment solution** as currently the case for certain specialized offers by FinTechs (e.g. an account being used solely for currency conversions/international transfers). In this regard, multiple accounts support the digital euro as a platform for innovation.

Calibration of holding limits

<u>Financial stability:</u>

A holding limit is considered as a safeguard for financial stability preventing consumers from withdrawing all their money from their payment and saving accounts to store it in digital euro accounts. An effective remedy against this potential withdrawal of money from payment and saving accounts would be to offer attractive interest rates on saving accounts and offer inducement-free retail investment products. A study commissioned by the ECON Committee of the European Parliament also comes to the conclusion that holding limits have not been investigated enough and explores further benefits of the digital euro without a holding limit.[1]

For the calibration of the holding limit, the following factors should be taken into account to draw a realistic picture on financial stability:

- **The capacity of PSPs to prevent deposit outflows**: PSPs can prevent deposit outflows by offering attractive retail saving and investment products providing an added value as compared to storing high amounts of deposits on digital euro accounts.[2]
- **The likelihood of deposit outflows towards a digital euro account**: Evidence on the adoption of a digital euro could be gained by consumer testing and evidence on consumer payment attitudes (e.g. ECB SPACE study, collecting evidence on switching bank accounts). It is unlikely that there is an adoption rate of the digital euro of 100% and it is unlikely that 100% of consumers store the maximum amount allowed. For the calibration of the holding limit a realistic scenario should be established.
- **The saving capacity and its distribution among European households**: Given that wealth is very unevenly distributed in European societies, many consumers will only punctually or not at all reach the holding limit[3] while other consumers might reach the maximum quite easily but dispose of much more deposits which will then be stored on bank accounts or in saving and investment products. This should be factored in to make a realistic assumption on how many consumers will reach the holding limit over a period of time which is long enough to have an impact on bank deposit outflows. The uneven distribution of wealth also means that for many consumers storing money on a digital euro account will not be used as an addition to storing money in cash but rather as an alternative.

Consumer experience

[1] European Parliament (2023): Digital Euro: An assessment of the first two progress reports. The case for unlimited holdings of digital euros. Available here: https://www.europarl.europa.eu/RegData/etudes/IDAN/2023/741511/IPOL_IDA(2023)741511_EN.pdf

[2] ECB Blog: Digital euro: Debunking banks' fears about losing deposits. https://www.ecb.europa.eu/press/blog/date/2024/html/ecb.blog20240219~ccb1e8320e.en.html

[3] See for example data from the EU SILC Survey: around 30% of consumers do not have enough savings to meet unexpected financial expenses: https://ec.europa.eu/eurostat/databrowser/view/ilc_mdes04/default/table?lang=en, vzbv data on the use of overdraft facilities: https://www.vzbv.de/sites/default/files/2023-02/Chartbericht_Dispositionskredit_final_0.pdf

A holding limit has a negative impact on the consumer experience. BEUC recommends setting the holding limit at a level where the digital euro account can be used as a **fully functional payment account**, independently from owning or linking a commercial bank account. To avoid discrimination, there should not be a differentiated holding limit depending on the level of spendings/income of different consumers.

The waterfall functionality would not be able to counterbalance a holding limit as explained in the following points:

- **Privacy***:* As noted by the European Data Protection Board, "the introduction of holding limits would affect the rights and freedom of data subjects by requiring additional data collections and controls."[4] In addition, a low holding limit would require a user to link their digital euro account with a commercial bank account which would transmit certain data points to the commercial bank account.
- **Budget management***:* As expressed in a study on the digital euro commissioned by the ECB[5], one added value of the digital euro would be to be able to set a certain amount of money aside (similarly to how this is often done with cash) and keep enough money for other purposes (e.g. incoming bills, rent) on a different account. In addition, the waterfall functionality was considered complex by consumers when managing their (limited) budget and see therein a risk of losing track of their expenses. To allow the digital euro to become a tool for budget management similarly to cash rather than the opposite, the holding limit cannot be set at a low level.
- **Enough space to receive incoming payments:** Consumers are not in full control of all incoming payments (e.g. government payments, refunds from merchants). When consumers do not want to use the reverse waterfall functionality, these payments would be refused in the absence of enough holding space on the digital euro. This would create an administrative burden for consumers, merchants and public administrations and systemic costs of refused transactions.
- **Limited possibility to use multiple accounts:** As expressed above, the added value of multiple accounts is significantly compromised by a holding limit. For joint accounts, the waterfall functionality cannot be easily used as explained above.
- **Limiting fraud:** Consumers might wish to keep the digital euro account separately (not linked to a commercial bank account) to limit the amount of money lost in case of payment fraud/loss of security credentials/card etc. Some consumers already today use a separate account when going on holidays/when they shop online. Using the waterfall functionality would be counterproductive

[4] Response of the EDPB to the European Commission's targeted consultation on a digital euro. Available here: https://edpb.europa.eu/our-work-tools/our-documents/other-guidance/response-edpb-european-commissions-targeted_en

[5] Kantar Public: Study on Digital Wallet Features, March 2023. Available here: https://www.ecb.europa.eu/press/pr/date/2023/html/ecb.pr230424_1_annex~93abdb80da.it.pdf (p. 74-75)

in these circumstances as there would be a link to the commercial bank account of the consumer. At the same time, a low holding limit would reduce flexibility.

EuroCommerce

Whilst we are relatively indifferent to the level of the holding limit, we would like to reiterate our point that we think consumer holding limits are not necessarily needed, provided certain conditions are met. Conditions such as 1) no interest on holdings, 2) simple digital euro use cases, etc. Financial stability can be preserved by guaranteeing that digital euro wallets will not be interest bearing as is already foreseen. This allows the banking sector to retain their deposits through attractive interest rates or other added value.

Holding limits make the digital euro ecosystem more complex and slower and much harder to support multiple wallets per citizen. As we've mentioned before, allowing multiple wallets per citizen, in our view would really be a game changer as it would enable citizens to connect more of their (bank) accounts and would promote competition between intermediaries on their (value added) services. The income thus generated would then obviate the need for an inter-PSP fee, simplifying the compensation model.