

# POSITION PAPER



## **A Digital Euro: what does it mean for savings and retail banks?**

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## 1. Executive Summary

The European Savings and Retail Banking Group (ESBG) welcomes the Digital Euro from the viewpoint that having digital money issued by the central bank would provide an anchor of stability for the monetary system. We also believe that the Digital Euro would also strengthen the monetary sovereignty of the euro area.

However, we predict that the introduction of a Digital Euro could also have some major unintended consequences impacting savings and retail banks if not addressed properly. This ESBG Position Paper addresses some of the concerns the members of ESBG have with respect to the possible introduction of a Digital Euro.

We highlight three areas where the introduction of the Digital Euro could have a negative impact on our members. Firstly, the Digital Euro can severely affect our balance sheet activities – the core business for savings and retail banks. Detailed work is still needed to identify a suitable model for distributing, storing and exchanging digital currencies that balances the needs of maintaining the effectiveness of monetary policy transmission mechanisms, customer service and regulatory compliance. Otherwise, and if the Digital Euro becomes “too successful”, the deposit outflow could reduce the balance sheets of banks and eventually their capabilities to finance the economy – as a result, possibilities for consumer finance, mortgages and SME financing will be reduced and the potential impact on banks’ liquidity positions is very relevant. Secondly, lots of obligations and requirements will be put on savings and retail banks as envisioned institutions for the distribution of the Digital Euro, whilst a sustainable long-term business model is questionable. Finally, cashless payments in the euro area are flourishing and are showing healthy growth rates. Under a push from regulators, banks are already heavily investing in payment solutions (notably based on instant payments) that address the need for European sovereignty in payments. These new solutions under development will need to find their place in the already competitive payments mix – adding yet another competing payment product by positioning the Digital Euro as such is a game changer. At any rate a level playing field needs to be present.

Therefore, although supportive of the Digital Euro, we are of the opinion that many legitimate and reasonable questions still need to be answered and a successful implementation needs to properly address the above concerns. In order to achieve this, we argue for significantly lower maximum caps on holdings. For the distributors of the Digital Euro, a long-term sustainable business model will be required. And if the Digital Euro will be positioned as a retail payments product, it should not use its privileged position as a public-money funded



product by mandatory acceptance requirements that distort the competitive retail payments market.

This paper will outline our views in more detail.

## **2. Introduction**

This paper addresses three main concerns that ESBG member savings and retail banks have with respect to the possible introduction of a Digital Euro. Although ESBG welcomes the Digital Euro from the viewpoint that having digital money issued by the central bank would provide an anchor of stability for monetary systems, and although we believe that the Digital Euro would strengthen the monetary sovereignty of the euro area, we also believe that some concerns need to be highlighted and addressed in the Digital Euro project.

In chapter 3, we describe the unintended impact the introduction of the digital could have on banks bottom lines, notably that of savings and retail banks whose main business models revolve around using their balance sheets for financing the economy. Furthermore, the impact on banks' liquidity is covered in this chapter.

In chapter 4, the argument for a long-term sustainable business model is brought forward. Savings and retail banks, in their envisioned capacity as distributors of the Digital Euro, will have to prepare significant for the roll-out of the Digital Euro and will have to perform lots of customer-facing activities in that capacity. Whilst it is clear that consumers will not have to pay (much) for these services, it is very unclear who else is going to remunerate these banks for their activities.

Chapter 5 presents the current payments landscape in the euro area. If the Digital Euro will be positioned as a retail payment product, it can become an unfair competitor in an already competitive payments area.

In chapter 6, we present possible solutions that can address our concerns. We argue for low maximum caps on holdings. For the distributors of the Digital Euro, a long-term sustainable business model will be required, and if the Digital Euro will be positioned as a retail payments product, it should not use its privileged position as a public-money funded product with mandatory acceptance requirements to distort the competitive retail payments market.

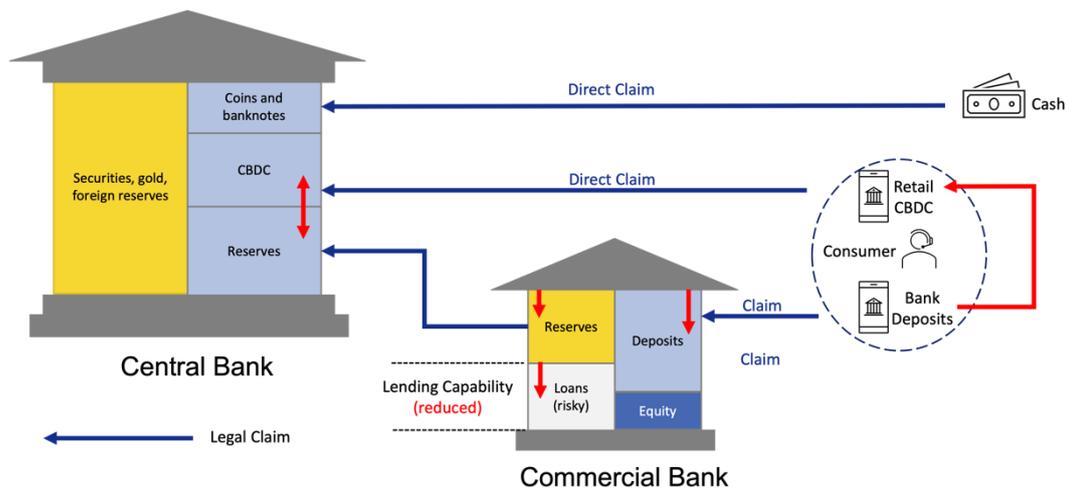
Finally, the paper contains some ANNEXES with more in-depth details sustaining our arguments.



### 3. Unintended consequences on financing the economy: impact on banks' balance sheets

As banks are the envisioned institutions for the distribution of the Digital Euro, this means that those banks need to perform the conversion function from commercial bank money into Digital Euro. In layman terms, this means that consumers will have to withdraw money from their payment, savings or deposit accounts to obtain Digital Euros. Or, in other words this actually means that every Digital Euro that is being distributed, the deposit outflow causes that commercial bank holdings are reduced with the same amount, and hence banks' balance sheets are reduced accordingly. We acknowledge that holdings in Digital Euros can also be converted back into accounts held at banks, however, this still allows for (capped) amounts to be held outside the banking system. It is that holdings in Digital Euro that is of particular concern.

## A successful CBDC could impact (savings) banks capabilities to finance the economy



Such a deposit outflow will have a negative impact, not only on savings and retail banks, but also on the rest of the economy. Savings and retail banks would see an impact on their profitability: either they reduce their balance sheet and lose the interest margin they would have earned on those deposits, or they substitute those deposits with another source of funding which will be more expensive and probably more volatile. The economy would also face negative consequences in the form of a reduction of mortgage financing, consumer loans or SME financing (either because the reduction in savings and retail banks' balance sheets imply less capability to provide credit or because the increase in funding costs translates in higher prices of loans).

Besides, possible negative impact of a deposit outflow is expected on banks liquidity management, notably on two ratios that are important: on the Liquidity



Coverage Ratio (LCR) and on the Net Stable Funding Ratio (NSFR). Banks always have to comply with these ratios. Both will be changed by the introduction of a Digital Euro on an incremental basis: based on our calculation, the introduction of a Digital Euro will cause the decline of both LCR and NSFR on average, the higher the amount of Digital Euro holdings will be allowed, the stronger the decline of both LCR and NSFR. Lower LCR levels may require banks resorting to other, usually more expensive, funding sources, whilst lower NSFR levels may require banks to involve the use of capital market instruments, to which some intuitions have little to no access. Both options are expensive, if possible at all, and will negatively impact banks bottom lines.

Both reasons, the impact on the balance sheet as well as the impact on liquidity call for a low cap on holdings.

The detailed impact on liquidity is described in Annex a).

#### **4. What's in it for banks? The need for a business model**

To meet its intended public policy objectives, a Digital Euro would need to be adopted and used at sufficient scale, considering that more network effects (scale) of the Digital Euro would have a negative impact on the existing networks (increase of pricing). The system would require some capital investment, including the costs of the central bank to set up the core system as well as some costs borne by the private sector to interoperate and provide services on top of the core system. These investments would likely be predicated on a level of adoption sufficient to achieve a scale that allows network effects. A broad CBDC ecosystem would allow more efficient operations and to be offered at a low cost to its users. The wide use also implies user access in all present payment channels where credit transfers, instant payments, p2p transfers, card payments are used today. It will need significant investment by banks, payment service providers, payment initiation service providers, atm operators, public authorities, merchants and e-commerce entities to offer a wide enough availability to attract users. The investment range can be expected to be very high, but much remains uncertain, as many aspects of the concrete model are still being analysed, and therefore is difficult to make valid assumptions as each solution would require different cost estimations.

Further, a distinction should be made between implementation costs and maintenance costs, which likely will run simultaneously for many years. Following calculations in Annex b), we estimate costs to be between 1 and 2 billion euro on the Eurosystem's side and similar total amount on Member State's side, including National Central Banks and intermediaries. We consider that a large part of the investments would be required on the acceptance acquiring side, especially in



countries where the acceptance network is partly controlled by non-bank companies.

From [materials](#) shared by the Eurosystem, we understand that for consumers, the prime target clients of savings and retail banks, the foreseen compensation models envisions easy access for Europeans to 'public good' features they enjoy with cash, also for digital payments, meaning that the Digital Euro should always be an option for the payer and that it should be free for basic use by private individuals – within these constraints our member banks are expected to operate. The Eurosystem envisions economic incentives for Payment Service Providers (PSPs) to actively distribute the Digital Euro. However, our understanding so far is that the envisioned compensation for consumer banks is based on transactional income stemming from merchant banks (and hence capped merchant fees) only.

This could possibly not compensate for all the required investments and activities that consumer banks are expected to put in (the Eurosystem mentions as example activities to be offered for free for example:

- Onboarding to Digital Euro, opening and holding of a Digital Euro wallet/account;
- Funding and defunding the Digital Euro wallet/account from the payment account which the person associates it to;
- Provision of a basic instrument to pay with Digital Euro;
- Making and receiving Person-to-Person (P2P) payments;
- Making payments to merchants, businesses, or governments;
- (i.e., POI, including POS, e-commerce, and P2G);
- Receiving payments from governments (G2P);
- Combinations of the above elements such as waterfall (i.e., receiving a payment and defunding) and reverse waterfall (i.e., funding and making a payment).

Apart from the examples mentioned by the Eurosystem above, we also understand that funding and defunding via cash needs to be supported. Lots of questions around these cash scenarios – including the associated costs – still exist.

It follows that banks will need to put in lots of efforts for the introduction of the Digital Euro. Banks cannot be expected to make significant investments without a positive business case; hence, a proper business model is a key requirement.

## **5. Retail payments and Digital Euro – a solution looking for a problem?**

In Annex c), we made an analysis of cashless payments in the euro area and from there we can derive that we have a flourishing cashless payments market in the euro area. Payment statistics collected for 2021, as published by the European Central Bank (ECB), show that over 114 billion non-cash payments were made in



the euro area, equalling a compound annual growth rate (CAGR) of 8,1% over the past five years. Over 56 billion (49%) of these transactions were made with cards, which showed an even higher CAGR of 11,4% over the past five years. Credit transfers and direct debits accounted for 22% and 20% respectively.

Despite these increases in cashless transactions, the ECB SPACE 2022 Study, released in 2022, shows that consumers still predominantly use cash for point of sale (POS) payments. Cash was the most frequently used payment method at the point of sale (POS) in the euro area and was used in 59% of transactions, down from 79% in 2016 and 72% in 2019. Card payments were used in 34% of POS transactions, up from 19% in 2016 and 25% in 2019. Other payment methods were used for 7% of POS transactions. The share of payments using mobile apps increased from less than 1% in 2019 to 3% in 2022.

This tells us that citizens in the euro area are used to pay cashless, and that at first glance there doesn't seem to be a problem that needs fixing other than that a majority of the card transactions (and hence a majority of all cashless transactions) or executed under the governance of schemes that do not reside in the EU - this has made that both the Eurosystem and the European Commission in their respective Retail Payment Strategies have in common is that they believe that retail payment solutions for the euro should be rooted in the EU. And as instant payments are home grown in Europe, the EC sees these clearly as a, if not the, possible building block for the creation of a European champion in payments.

In anticipation of this Europeanisation of payments, various market initiatives have emerged. Notably, the European Payments Initiative (EPI), set up by a group of European banks and acquirers, has the ambition to create a unified, innovative pan-European payment solution leveraging instant payments. The solution aims to become a new standard in payments for European consumers and merchants across all types of retail transactions including in-store, online, cash withdrawal and "peer-to-peer", as an alternative to existing international payment solutions and schemes. Both the ECB and the EC have expressed their support for EPI.

Such initiatives, relying on private funding and facing similar investment costs as quoted in a previous section, will already have challenges finding its place in the already busy arena of payment methods - even with the help of the proposed Regulation for Instant Payments as published by the Commission. Bringing a new competitor in the form of a Digital Euro to the scene may distort the level playing, notably if the Digital Euro is a competitor that is being funded by public money and if it can benefit from mandatory acceptance stemming from its expected legal tender status. This may hamper private initiatives in their efforts to build European champions in payments going forward, as some parties already pull back such investments.



The possible obligation posed on PSPs to distribute the Digital Euro, as well as the possible regulation (or capping) of the prices that PSPs can charge towards the merchants could also unlevel the playing field.

If the Digital Euro will be positioned as a retail payment product, it can become an unfair competitor in an already competitive payments area.

## **6. ESBG asks for a manageable Digital Euro**

For all the issues outlined before, ESBG and its members would appreciate it if the Digital Euro would not become too successful – therefore, the Digital Euro needs to be introduced carefully with a legal framework and design that will not do any harm to financial stability. Such framework can safeguard this by limiting the amount of Digital Euro in circulation and by imposing caps on holdings in Digital Euro. It should provide for a proper compensation model, and it should safeguard a level playing field with other payment solutions.

### **Limiting the Digital Euro**

Limiting the amounts of Digital Euro that citizens can hold in their wallets is necessary for various reasons. First, a fixed limit will ensure a controlled outflow of deposits and ensures that banks will be able to continue to finance the economy. The ECB could solve this by refinancing the deposits lost, however this would actually overhaul current business models in banking which is probably not desirable – commercial banks are expected to hold reserves at central banks, and not vice-versa. Second, a significantly lower holding limit could be of assistance in vulnerable times as it would limit a potential bank run. Third, fixed limits could also help limiting the risk of possible fraud losses occurred by the public.

Since the holding limit would help to prevail financial stability, we believe that said limit must be understood per person and not per wallet – assuming that a citizen could hold more than one wallet. Apparently, most participating ERPB members, including consumer associations, are of the same view and support a single Digital Euro holding per citizen. This ensures implementing holding limits by intermediaries more efficiently.

From our analysis in Annex d) we derive that citizens in the euro area withdraw on average of € 187,31 from an ATM (for the EU this amount is € 184,49). With their cards, average transaction values are € 40,05 and € 36,11 respectively. If we use these as possible proxies for transactions with the Digital Euro this means that a significantly lower cap on holdings than currently envisioned by the ECB suffice.

### **Compensation Model**

For the distributors of the Digital Euro, a long-term sustainable business model will be required. In regards of the compensation model, the business case depends



on how the roles of infrastructure settlement/recording operator and scheme owner will be shared between public and private entities. The following actors shall be considered, aside to the above two governing bodies:

- Payer & Payee - supposed to have pricing corresponding to debit card usage
- PSPs - scheme fee + processing cost (+waterfall transaction related fees)
- Merchant - Interchange fee + operations fee + cost for acceptance device

Overall, the model shall be built under following considerations:

- The Digital Euro payment should not be more costly to use for the citizens than the debit cards and SEPA credit transfers are
- Provide payer and acceptor pricing that encourage commercially efficient behaviour by merchants and end users.
- Support the distribution and use of the Digital Euro and the associated network effects to promote the voluntary uptake of the Digital Euro across the euro area.
- Align with best market practices for electronic payments to avoid disruption and minimize the possibility of market failure for the Digital Euro.

However, various use cases might require different business models and/or pricing levels, each to contribute to the objectives set by the Digital Euro program and in line with Eurosystem strategic direction. The topic is still on large and will have to be adjusted in correlation with the investments and running costs.

We consider that the Eurosystem shall carefully analyse the impact that various models would have on the intermediaries layer: service providers and merchants.

Facing a distress regarding the disintermediation plus the liquidity and profitability risk, the banks shall not be overburden with additional high financial requirements. The Eurosystem shall cover the involved funding requirements and leave to intermediaries the decision on investments volume for additional value added services. The Digital Euro shall follow the fulfilment of strategic, long term objectives of the European Union.

### **Level Playing Field**

Finally, if the Digital Euro will be positioned as a retail payments product, it should not use its privileged position as a public-money funded product with mandatory acceptance requirements to distort the competitive retail payments market. The possible obligation posed on PSPs to distribute the Digital Euro, as well as the possible regulation (or capping) of the prices that PSPs can charge towards the merchants, further accentuates this question. Such possible regulations should be carefully considered.



## 7. ANNEXES

### **a) Annex: Impact on liquidity: effects on Liquidity Coverage Ratio (LCR) and Net Stable Funding Ratio (NSFR)**

When assessing the impact of holding limits for households on the balance sheet of banks, it is crucial to also understand that the shift from commercial bank deposits will also have effects on the Liquidity Coverage Ratio (LCR)<sup>1</sup> and on the Net Stable Funding Ratio (NSFR)<sup>2</sup>. Together, the LCR and the NSFR are liquidity measures tackled in the Internal Liquidity Adequacy Assessment Process (ILAAP) and (to some extent) even disclosed to the public in order to add to trust in the banking industry by both investors and end users.

Both measures must be 100% fulfilled on a daily basis. All supervised institutions have internal buffers in place which reflect their risk appetite framework in terms of liquidity risk. Both will be changed by the introduction of a Digital Euro on an incremental basis: based on our calculation, the introduction of a Digital Euro will cause the decline of both LCR and NSFR on average, the higher the amount of Digital Euro holdings will be allowed, the stronger the decline of both LCR and NSFR.

#### **Impact on the Liquidity Coverage Ratio**

The LCR is a stressed cashflow oriented short-term liquidity measure with detailed regulatory parameters and assumptions. The Non-Maturing Deposits (NMD) that would be directly affected by the limits of a Digital Euro have usually an outflow-rate amounting to 5%. Hence, simply looking at the reduced amount of NMD (less outflow) is too short-sighted.

Credit institutions invest volatile, highly liquid positions in liquid assets. The LCR defines them as High Quality Liquid Assets (HQLA) which increase the ratio by “market value - (a small) haircut”.

For compliance reasons, credit institutions shall always apply a conservative approach when calculating this liquidity metric. Hence, the limit of Digital Euro

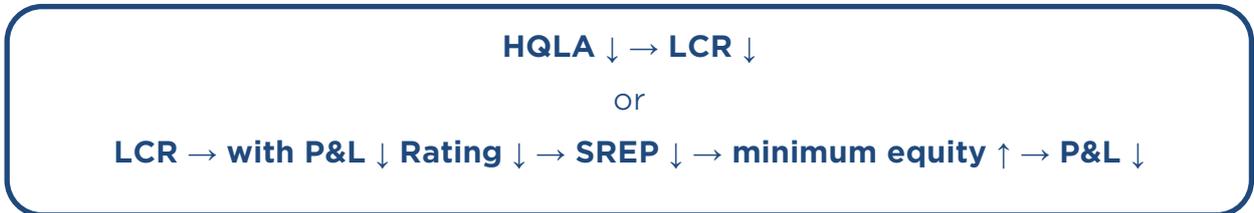
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<sup>1</sup> The liquidity coverage ratio refers to the proportion of highly liquid assets held by financial institutions, to ensure their ongoing ability to meet short-term obligations. This ratio is essentially a generic stress test of a 30 calendar day idiosyncratic and market-wide liquidity shocks. Passing it aims to make sure that financial institutions possess a suitable counterbalancing capacity, to ride out any short-term liquidity disruptions.

<sup>2</sup> The net stable funding ratio is a liquidity standard requiring banks to hold enough stable funding to cover the duration of their long-term assets under normal conditions. For both funding and assets, long-term is mainly defined as more than one year, with lower requirements applying to anything between six months and a year to avoid a cliff-edge effect. Banks must maintain a ratio of 100% to satisfy the requirement. Introduced as part of the post-crisis banking reforms known as Basel III, the ratio ensures banks do not undertake excessive maturity transformation, which is the practice of using short-term funding to meet long-term liabilities. It was finalised by the Basel Committee in October 2014.



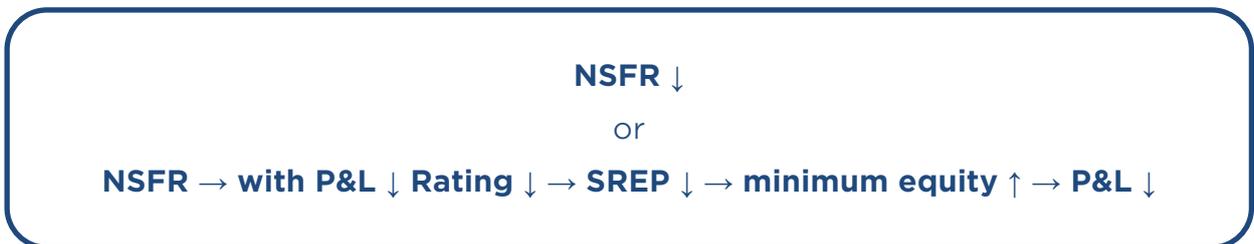
holdings is binding for calculating the LCR. While a limit of e.g. 1000 € would solely mean a small reduction of the LCR, a limit of 3000 € and above would involve liquid but stable portions of NMD. As a consequence, the total amount of available HQLA will fall significantly. That is why the following chain holds true:



Therefore, credit institutions will have to make a choice: either accepting lower levels of LCR or compensating the loss of NMD and HQLA by resorting to other, usually more expensive, funding sources.

**Impact on the Net Stable Funding Ratio**

The NSFR follows a one-year horizon balance sheet approach. NMD do usually provide at any time 95% factor of available stable funding. HQLA as the counterparty asset solely needs the (small) haircut as required stable funding (if not encumbered). A fall in NMD results in an immediate and significant decline of the NSFR. The chain of effects is as follows:



While the LCR can be adjusted with cash management techniques, the achievement of higher levels of NSFR is far more complex and expensive. Hence, credit institutions will have to either accept lower levels of NSFR or need to compensate the loss of NMD by other funding sources and a new funding strategy. The latter option will always involve the use of capital market instruments, to which some intuitions have little to no access.

**b) Annex: Investments (without a business case) and compensation for running costs and one-off investment**

We propose below a list of categories which shall be considered when building up the cost bucket. A T-shirt size model is used: S= up to 1 million, M= up to 10 million, L=up to 100 million.

	Investment category	Size
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Investment level		S	M	L
<b>Central</b>	Digital Euro scheme			
	Building up the business/operational model (rules, legal, team etc)	x		
	Technical setup of the scheme			2*
	Authorisation (like format, fraud, compliance validations) and processing rules ("routing")			x
	Settlement & recording infrastructure			x
	Wallet/back-end system			x
	Wallet app front		x	
	Distribution forms (NFC, QRcodes etc)			x
	Contracts, legal, SLAs etc	x		
	Communication & marketing			2*
	Wallet holder technology			
	Acceptance technology investments			2*
<b>Country</b>	Digital Euro scheme			
	Technical setup for interoperability		x	
	Settlement & recording infrastructure (if the recording database will be shared at local level)		x	
	Wallet/back-end system	x		
	Wallet app front: 0			
	Contracts, legal, SLAs etc	x		
	Communication & marketing	x		
<b>Participants</b>	Intermediaries (e.g. banks)			
	Digital Euro scheme: Technical setup + Authorization (like format, fraud, compliance validations) and processing rules ("routing")	x		
	Onboarding, validation, etc	x		
	Own wallet development and integration with back-end system & or integration with ECB wallet	x		
	Contracts, legal, SLAs etc	x		
	Communication & marketing	¼		
	Value added services (programmability, e-commerce etc)	¼		
	Merchants (entire EEA)			2*
	Public authorities acceptors			
	Public authorities as payers			

The above estimations are made under the consideration that no ATM nor physical Digital Euro will be made available.

In a nutshell, summing up the costs, the estimation amounts to 1-2 billion euro on the Eurosystem's side and similar total amount on Member State's side, including National Central Banks and intermediaries. We consider that a large part of the



investments would be required on the acceptance acquiring side, especially in countries where the acceptance network is partly controlled by non-bank companies.

It follows that banks will need to put in lots of efforts for the introduction of the Digital Euro. Banks cannot be expected to make significant investments without a positive business case; hence, a proper business model is a key requirement.

### c) Annex: Cashless payments in the EU

The following text is an updated excerpt from the article ‘Instant payments and cards: Apples and oranges or a possible substitute?’ by Bruggink, D. and Benevelli, A. in the Journal of Payments Strategy & Systems, Vol. 15, No. 4 2022, pp. 398-409 by Henry Stewart Publications, 1750-1806.

#### Retail payments in the euro area: state of play

Non-cash payments are extremely relevant in the euro area and the number of these transactions increases year-over-year. Payment statistics collected for 2021, as published by the European Central Bank (ECB), show that over 114 billion non-cash payments were made in the euro area, equalling a compound annual growth rate (CAGR) of 8,1% over the past five years. Over 56 billion (49%) of these transactions were made with cards, which showed an even higher CAGR of 11,4% over the past five years. Credit transfers and direct debits accounted for 22% and 20% respectively. These figures cover the entire euro area and when looking at these in more detail, significant differences can be observed at individual country levels. Figure 1 contains a graphical representation of these ECB numbers.

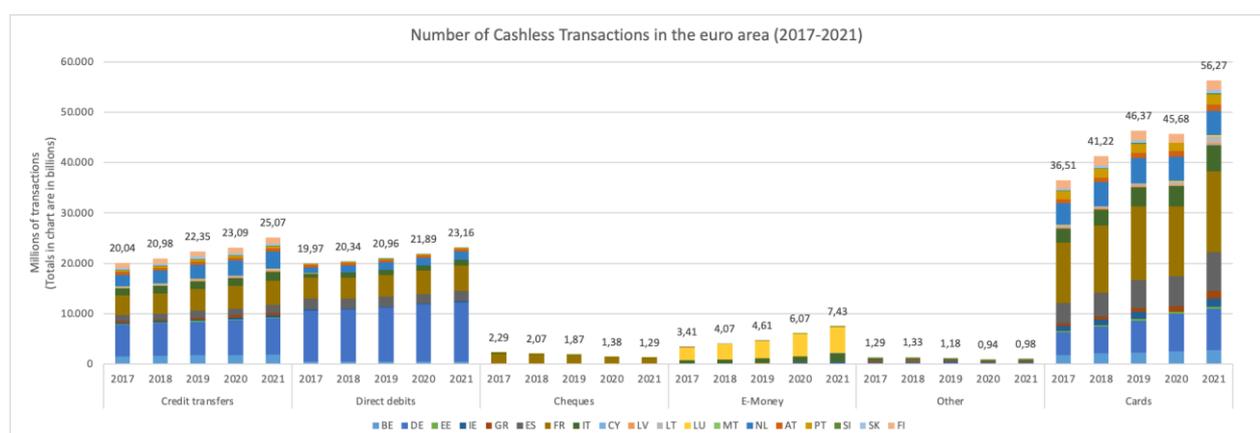


Figure 1: Number of cashless transactions in the euro area, 2017-2021 (source: ECB Statistical Data Warehouse)

As Figure 1 reveals, the number of cashless transactions and their growth rates are significant, and despite the challenging environment in 2020, the number of cashless transactions continued to increase, be it at a slightly lower pace - the



year-on-year growth from 2019 to 2020 were 5,4% and 6,1% for the total number of cashless transactions and for transactions with cards respectively.

Despite these increases in cashless transactions, the ECB SPACE 2022 Study, released in 2022, shows that consumers still predominantly use cash for point of sale (POS) payments. Cash was the most frequently used payment method at the point of sale (POS) in the euro area and was used in 59% of transactions, down from 79% in 2016 and 72% in 2019. Card payments were used in 34% of POS transactions, up from 19% in 2016 and 25% in 2019. Other payment methods were used for 7% of POS transactions. The share of payments using mobile apps increased from less than 1% in 2019 to 3% in 2022.

In terms of value of payments, cards (46%) accounted for a higher share of transactions than cash payments (42%). This contrasts with 2016 and 2019, when the share of cash transactions was higher than the share of card transactions (54% compared to 39% in 2016 and 47% compared to 43% in 2019).

Contactless card payments at the POS increased considerably in three years, from 41% of all card payments in 2019 to 62% in 2022.

Cash was most frequently used for small value payments at the POS, in line with previous comparable surveys. For payments over €50, cards were the most frequently used method. Cash was the dominant means of payment in person-to-person (P2P) transactions in the euro area. However, its share in the total number of payments declined from 86% in 2019 to 73% in 2022, and from 65% to 59% in terms of value.

Cashless means of payments, particularly mobile phone apps, increased in P2P payments. Between 2019 and 2022, the share of mobile payments more than tripled in terms of number from 3% to 10%, and rose from 4% to 11% in terms of value.

In the SPACE 2022 questionnaire, 55% of euro area consumers expressed a preference for cards and other cashless payments when paying in a shop, while 22% preferred cash and 23% had no clear preference. Nevertheless, the majority of euro area consumers considered having cash as a payment option to be important or very important.

At the end of 2019 and in the Summer of 2020, the ECB (or actually the Eurosystem) and the European Commission (EC) presented their respective Retail Payments Strategies, the latter being more comprehensive than the former. The key themes of these strategies are summarised in Table 1, and what these strategies have in common is that retail payment solutions for the euro should be rooted in the EU. As instant payments are home grown in Europe, the EC sees



these clearly as a, if not the, possible building block for the creation of a European champion in payments.

<b>Eurosystem</b>	<b>European Commission</b>
Pan-European reach and customer experience	European payment solutions that work cross-border
Convenient and cost-efficient	Competitive and innovative payments market
Safety and security	Payment and other support Infrastructures: unrestricted access and interoperability
European identity and governance	Improved International payments supporting the international role of the euro
Global acceptance	

*Table 1: Key Themes within the Retail Payments Strategies of the Eurosystem and the European Commission*

Payments are the oil in the economy and if not organised properly are the first barrier to the creation of internal markets. Payments are also one of the tools to strengthen the international role of the euro, for example, when international trade and international financial contracts are cleared in euros. Given the important role that payments perform for the economy, payments have been and always will be under the scrutiny of regulators. Regulatory initiatives can help regulators to achieve their geopolitical agenda; can foster innovation and/or competition; can have effects on end-user protection, end-user pricing and transparency; and can also be used in the fight against financial crime. PSPs will have to stay abreast of these developments and be sufficiently flexible to cope with future regulatory initiatives as well. If the mix of objectives, as mentioned, is applied in the right doses, it can certainly assist in making European payments fit for the future.

In anticipation of the Europeanisation of payments, various market initiatives have emerged. Notably, the European Payments Initiative (EPI), set up by a group of European banks and acquirers, has the ambition to create a unified, innovative pan-European payment solution leveraging instant payments. The solution aims to become a new standard in payments for European consumers and merchants across all types of retail transactions including in-store, online, cash withdrawal and “peer-to-peer”, as an alternative to existing international payment solutions and schemes. Both the ECB and the EC have expressed their support for EPI.

#### **d) Annex: Possible limits to holdings and limits to transactions (cumulative)**

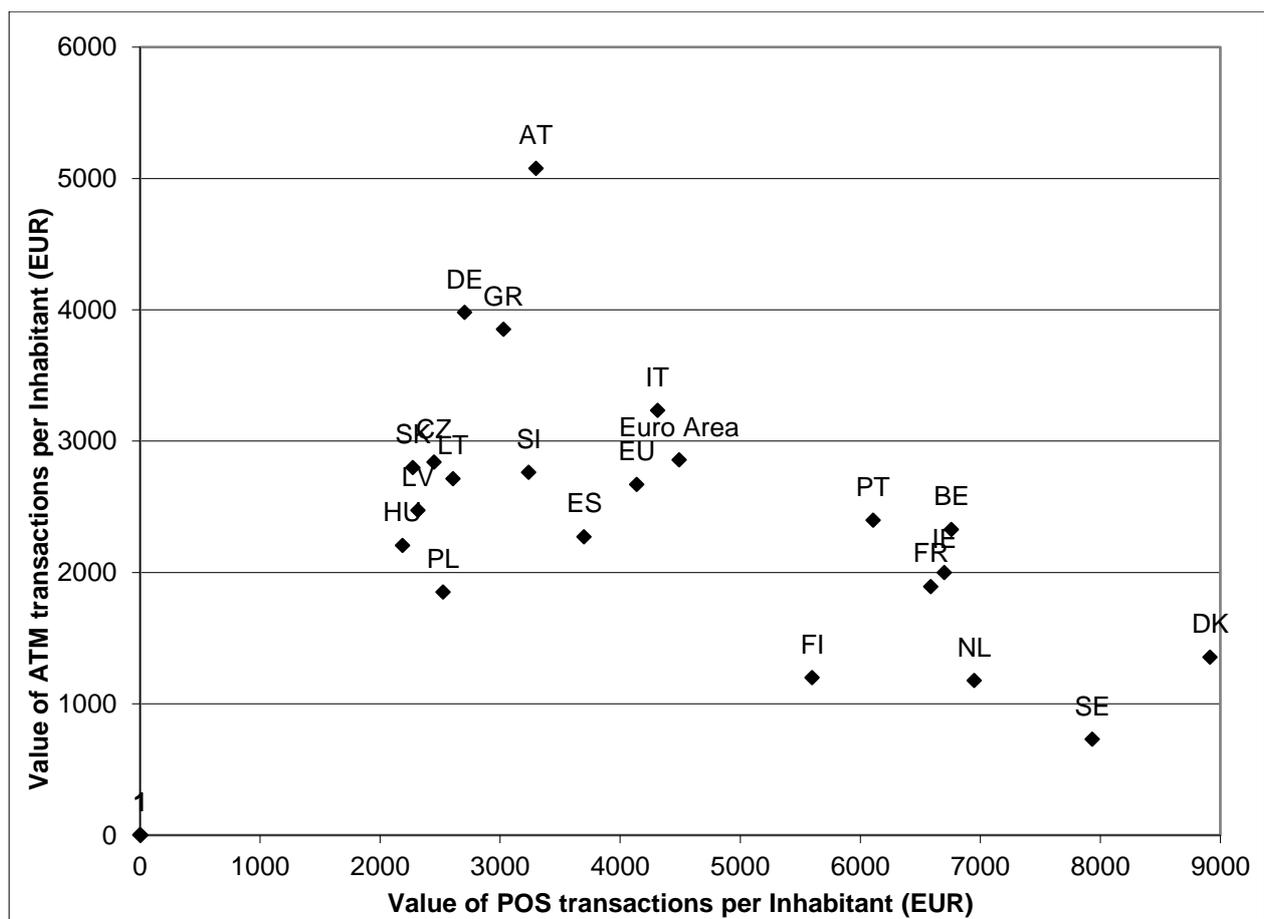
The impact on bank deposits and on financial stability is strongly correlated to the level of the holding limit that will be put in place. An upper limit to the average income of citizens, a probable hypothesis given the level mentioned by the ECB today (€3,000), would have harmful consequences for banks since the majority of



the citizens could elect to keep all their assets including salary/pension pay-out to the wallet.

For banks to be able to anticipate the effects of the introduction of the Digital Euro, more clarity would be appreciated/helpful already at this stage on maximum upper limit of the Digital Euro (both for individuals and corporates) and other planned mechanisms with the aim to limit financial stability impact.

If the Digital Euro would mainly be used for transactional usage, it is fair to look at current transactional behavior by consumers. Figure 1 below plots how EU citizens use their cash and cards respectively. This chart is based on 2021 data derived from the Statistical Data Warehouse (SDW) of the European Central Bank, and plots countries against the total annual spending by cards at POS on the horizontal axis versus the total amount withdrawn at ATMs on the vertical axis. Please note that in the figures that follow only those countries are plotted that reported complete 2021 data to this SDW - as a result, some countries are missing from these overviews.

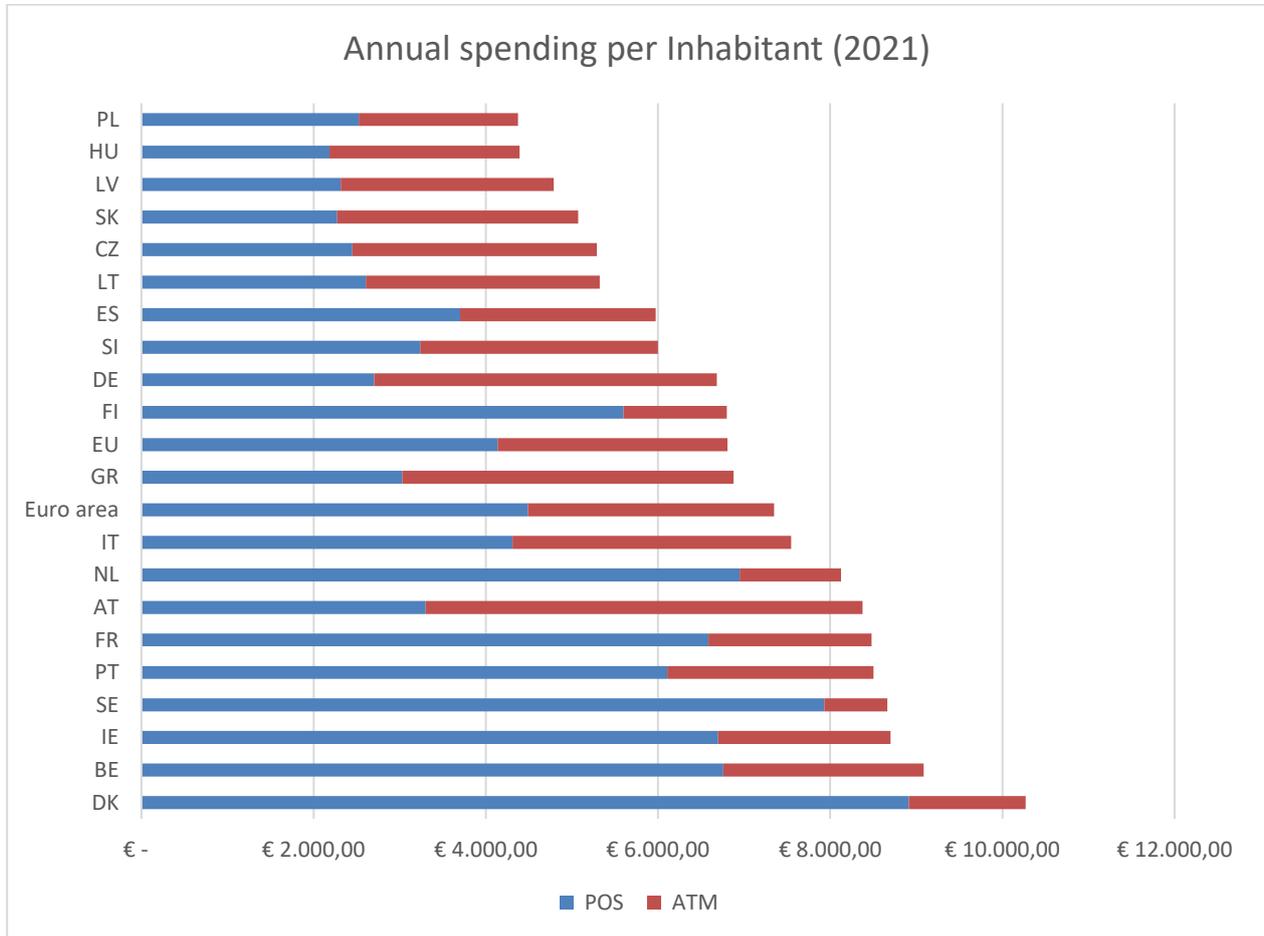


**Figure 1: Value of ATM and POS transactions per inhabitant compared (2021)**

It shows that there is no uniform behavior across the EU, and that some countries are more cashless than others.



Figure 2 below provides another representation of the same data, also highlighting the differences in consumer spending in absolute terms.



**Figure 2: Value of ATM and POS transactions per inhabitant in absolute terms (2021)**

The Figures 1 and 2 have been presenting annual figures though. If individual transactions are being considered, Figure 3 looks at individual withdrawals at ATMs.



Some average figures on ATM usage per country in 2021			
Based on ECB data (Statistical Data Warehouse)			
To note that these figures are just derived by dividing the total number of ATM transactions by the total number of inhabitants and the total value of ATM transactions by the total number of ATM transactions respectively.			
Country	Number of ATM withdrawals per inhabitant	Average Value per ATM withdrawal	Total amount withdrawn per inhabitant per year
BE	13,1	178,10 €	2.327,59 €
BG	17,0	153,32 €	2.608,70 €
CZ	13,0	218,55 €	2.841,12 €
DK	5,6	243,90 €	1.355,93 €
DE	17,0	233,86 €	3.979,57 €
IE	10,4	192,31 €	2.000,00 €
GR	17,7	217,53 €	3.850,47 €
ES	13,4	169,32 €	2.272,73 €
FR	16,3	116,12 €	1.892,96 €
HR	24,3	122,36 €	2.974,36 €
IT	14,2	227,34 €	3.233,50 €
LV	16,3	151,61 €	2.473,68 €
LT	13,3	203,75 €	2.714,29 €
HU	8,9	246,54 €	2.206,19 €
AT	22,8	222,93 €	5.077,78 €
PL	11,9	156,00 €	1.850,79 €
PT	30,7	78,14 €	2.398,06 €
RO	13,9	179,31 €	2.500,00 €
SI	19,0	145,36 €	2.761,90 €
SK	12,5	223,19 €	2.800,00 €
FI	9,9	121,32 €	1.200,00 €
SE	5,4	134,51 €	730,77 €
Euro area	15,3	187,31 €	2.856,89 €
EU	14,5	184,49 €	2.669,57 €

**Figure 3: Figures on ATM usage per country (2021)**

In Figure 4 similar data is provided for total card spending. These totals differ from Figures 1 and 2 as in these first two figures the total spending at POS is used whilst in Figure 4 the total spending on cards is used.

Some average figures on POS usage per country in 2021			
Based on ECB data (Statistical Data Warehouse)			
To note that these figures are just derived by dividing the total number of card transactions by the total number of inhabitants and the total value of card transactions by the total number of card transactions respectively.			
Country	Number of card transactions per inhabitant	Average Value per card transaction	Total amount spent on cards per inhabitant per year
BE	212,0	43,28 €	10.318,97 €
BG	31,0	32,00 €	1.318,84 €
CZ	136,7	25,29 €	4.186,92 €
DK	374,6	38,42 €	14.966,10 €
DE	90,5	47,62 €	4.727,16 €
EE	275,2	20,35 €	6.000,00 €
IE	272,7	44,95 €	14.780,00 €
GR	104,6	30,01 €	4.186,92 €
ES	126,7	33,46 €	5.403,81 €
FR	203,7	41,28 €	9.718,48 €
HR	105,2	27,22 €	3.384,62 €
IT	66,4	51,57 €	4.538,07 €
LV	187,8	18,57 €	3.631,58 €
LT	185,6	23,33 €	10.285,71 €
LU	378,0	54,03 €	23.666,67 €
HU	109,9	23,26 €	3.082,47 €
NL	271,7	28,39 €	7.765,71 €
AT	122,7	42,30 €	5.933,33 €
PL	159,4	14,84 €	2.827,23 €
PT	159,1	48,96 €	9.174,76 €
RO	52,9	25,96 €	1.812,50 €
SK	102,9	26,85 €	3.163,64 €
FI	326,6	30,11 €	10.363,64 €
SE	326,0	31,06 €	10.567,31 €
Euro area	139,8	40,05 €	6.569,51 €
EU	142,5	36,11 €	6.010,27 €

**Figure 4: Figures on card spending per inhabitant**



From Figure 3 we derive that citizens in the euro area withdraw on average of € 187,31 from an ATM (for the EU this amount is € 184,49). With their cards, average transaction values are € 40,05 and € 36,11 respectively. If we use these as possible proxies for transactions with the Digital Euro this means that a significantly lower cap on holdings than currently envisioned by the ECB will cater for these transactions too.



## About ESBG (European Savings and Retail Banking Group)

ESBG represents the locally focused European banking sector, helping savings and retail banks in European countries strengthen their unique approach that focuses on providing service to local communities and boosting SMEs. ESBG members have total assets of €6,38 trillion, provide 313 billion euros in loans to SMEs and serve 163 million Europeans seeking retail banking services. ESBG unites at EU level some 871 savings and retail banks, which together employ 610.000 people driven to innovate at more than 41.000 branches.



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