



Towards a **public digital euro?**

The banks support further research and experimentation



The Dutch Banking Association (the NVB) represents the collective interests of the Dutch and non-Dutch banks operating in the Netherlands. This document is intended for anyone interested in the public digital euro, and the views of the banks on this issue.

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Summary



There is a broad debate ongoing at national and European level regarding a central bank digital currency, or CBDC. The Dutch Banking Association (the NVB) in principle takes a positive stance in this debate. But the debate is still at a very early stage, and there are various aims and ambitions for a potential publicly available digital euro. What would a digital euro look like? How it takes shape will depend very much on the choices made. A public digital euro could contribute to European sovereignty and the euro's international role, in the eyes of the NVB. At the same time we call for attention to the stability of the financial system and the social costs. We support the initiative of the European Central Bank (ECB) for further research and experimentation with a public digital euro.

● ● The possible aims of a public digital euro

The ECB and the national central banks have defined various scenarios in which a public digital euro could play a part.

The public digital euro could for instance:

- be an alternative within the eurozone for global stablecoins and foreign central bank digital currencies;
- provide support for the international role of the euro;
- act as an addition to – or a replacement of – coins and bank notes;
- facilitate payments traffic into and out of other currencies;
- enable programmable money;
- act as a backup for existing payments infrastructure;
- promote financial inclusion.

● ● The preconditions for introduction of a public digital euro in the financial system

Depending on its chosen design, the introduction of a digital euro would be a fundamental change to the monetary system in the eurozone. The aims listed above involve specific design choices that vary widely from one application to another and may even be mutually contradictory. In addition, there are in our opinion several general preconditions that a public digital euro would have to meet.

In the opinion of the banks, a public digital euro has to:

- safeguard financial stability;
- add to and encourage innovation in the payments infrastructure;
- be subject to a clear governance framework;
- be associated with a cost-effective solution and involvement of the private sector;
- be part of a secure, efficient and robust payments infrastructure.

Key message of the NVB

The Dutch Banking Association supports innovation and the improvement of the European payments infrastructure. It also welcomes the studies by DNB and the ECB into how a public digital euro could be introduced and the reasons for its introduction, from the perspective of the wider public. There are currently many ideas circulating regarding the potential aims of a public digital euro. The design of a public digital euro – and therefore the potential consequences for the financial system – depends very much on which of these aims are chosen. It is important that this fundamental debate is pursued further.

Our advice regarding the next step in the debate is first of all to define the aims that a public digital euro should achieve. This should also involve testing to see whether market failure would be involved. In other words, would private parties not be able to efficiently achieve the desired solution? This would help to establish a framework and make the project manageable. Design choices could then be made on a more focused basis. The ECB and the national central banks have identified various scenarios in which a public digital euro could play a part.

We welcome the opportunity to pursue the discussion of the potential applications and design options for a public digital euro. Not only with the government, policymakers and supervisors, but with other social parties as well. If the Euro-system initiates a pilot project, the Dutch Banking Association is ready to further research the concept of a public digital euro.

1 The possible aims of a public digital euro

Should central banks issue digital currencies to households and businesses, as a supplement to cash and deposits with commercial banks? This is now the subject of a global debate. In 2020, DNB and the ECB published reports on a digital central bank currency, referred to hereinafter as the ‘public digital euro’.¹

This debate has arisen for various different reasons. Firstly, in most countries funds transfer payments using accounts at ‘regular’ banks are rapidly becoming increasingly important. The use of physical cash on the other hand is declining. The volume of cash in circulation is generally surprisingly stable. This trend has been in force for several years, driven by innovation in the payments infrastructure, especially due to PIN payments and subsequently contactless and mobile payments. The recent global pandemic has accelerated this trend. The appearance of private parties and foreign central banks with aspirations to introduce their own digital currencies and payments infrastructure internationally emphasises the necessity for the Eurosystem to think about monetary sovereignty, financial stability and the international role of the euro. The ECB and other central banks have identified various scenarios in which a public digital euro could play a part.

First define the objectives, then consider the design choices

The Dutch Banking Association welcomes the studies by the Dutch central bank (DNB) and the European central bank (ECB) into how a public digital euro could be introduced and the reasons for its introduction, from the perspective of the wider public. Our observation is that – given the wide range of possible objectives – there is still much uncertainty regarding the design of a potential digital euro. In some forms, a digital euro could have a significant impact on the financial system. To move on to the next step in the discussion, our advice is first of all to establish the objectives that a public digital euro is intended to achieve. This should also involve testing to see whether market failure would be involved. In other words, would private parties not be able to efficiently achieve the desired solution? This will help to establish a framework and make the project manageable. Design choices can then be made on a more focused basis.

¹ The ECB has presented its CBDC as the ‘digital euro’. Since digital euros have already been in circulation since 2001 in the form of bank accounts and electronic money, in this paper we have referred to the public digital euro. Our reference to ‘public digital euro’ or ‘digital central bank currency’ concerns money issued by the central bank that is accessible to the public at large, as distinct, for example, from existing central bank accounts accessible for commercial banks, bank accounts held at commercial banks, or projects with new forms of digital money initiated by commercial banks.

● ● Alternative to global stablecoins and foreign digital central bank currencies

The Eurosystem wishes to avoid a situation in which digital currencies not denominated in euros and/or managed by private or public parties outside the eurozone become dominant inside the eurozone. A public digital euro would offer an alternative for use by European citizens that is at least as attractive as the stated alternatives. In the online payments world, we note that there is a greater need for a harmonised European payment method rather than a new central bank currency.

Our recommendation therefore is to study whether this objective could not also – or even more effectively – be achieved with infrastructures developed by private parties, in combination with clear regulation and supervision. The main aim is that the Eurosystem retains full monetary sovereignty, including the basic money supply (M0) and supervision of the commercial money-creating institutions.

● ● Support for the international role of the euro

The global dominance of the US dollar is increasingly becoming contested. In future, this could also be due to a digital renminbi.² We understand and share the desire to maintain the euro as a relevant and attractive currency in this geopolitical arena. However, we see problems in this scenario for which there are as yet no solutions. From this point of view, a public digital euro would also have to be made available to non-European citizens. Its use for cross-border trade or financial transactions would also require that it is opened up for non-private use. This conflicts with the requirement that financial stability in the eurozone is safeguarded (see below). Further research would thus be needed to develop a public digital euro for this objective.

● ● An addition to – or a replacement of – coins and bank notes

The Netherlands has an efficient digital payments infrastructure, as a result of which a high proportion of payments here are in digital form. There has been a further visible decline in the proportion of cash used in point-of-sale payments in recent years.³ An independent study of the medium-term outlook for the cash transaction infrastructure commissioned by DNB is currently ongoing. The development of a public digital euro should also be considered with this in mind. However, it is not likely that coins and bank notes will disappear in the Netherlands any time soon.

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² [The Chinese central bank is engaged in the development of its own digital currency.](#)

[This project is known as DCEP \(Digital Currency Electronic Payment\).](#)

³ [DNB study: Contant geld moet goed bereikbaar en bruikbaar blijven](#)

The situation is similar to that in countries such as Sweden. If a decline in acceptance of physical cash payments leads to financial exclusion, there may be reason for the central bank to take action (see below).

A public digital euro as an addition to or a replacement of physical cash would require specific design choices. These would include the necessity of building in the option of making payments fully or to some extent anonymously. The digital euro could also then be used offline. But there is an inherent conflict between the anonymous nature of cash and the regulation in relation to AML/CFT and CDD that would require specific solutions at the infrastructure level.

● ● Facilitation of cross-currency transactions

A public digital euro could not directly help to make transactions into and out of other currencies be effected more efficiently. This involves conversion into other currencies (indeed, in its Retail Payments Strategy the European Commission wants to encourage SEPA Instant Credit Transfer). ‘Wholesale’ multi-currency digital infrastructure projects could play a part here, but this involves a different direction from that of the public digital euro, which is primarily aimed at the retail market in the eurozone.

● ● Enabling programmable money

Building an entirely new infrastructure, such as could happen for the public digital euro, offers the opportunity of including programmable features at a fundamental level. But it is also just as possible to add these features to *existing* infrastructures. Whether this inclusion would be easier in a separate public digital euro infrastructure depends on the design choices. Furthermore, this raises the fundamental question of whether the conditionality of transactions (the basis of *smart contracts* and programmability) would be appropriate for a public digital euro, which as legal tender has to be universally accepted at all times.

● ● A backup for existing payments infrastructure

A design aimed at providing a backstop in the event of disruption of regular funds transfers and point-of-sale payments would mean that the infrastructure would have to be completely separate from existing structures, and that it could also be used offline. Problems with existing payment systems have not always concerned the availability of payments settlement services themselves, these are usually due to issues in communications channels or power supply. These problems would equally affect a public digital euro that was solely implemented online. Cashless payments also act as an effective backstop for point-of-sale payments in practice. Coins and notes are also currently an alternative.

● ● Promoting financial inclusion

Lack of financial inclusion is a serious issue in many parts of the world, and a digital currency could improve the accessibility of financial services to a certain extent. But this is less of an issue in the eurozone, where over 95% of the population has direct access to banking services.⁴ Financial inclusion would be boosted by the provision of digital financial services, but it is not clear that a public digital currency is needed for this. The problem has more to do with preconditions, such as possession of a telephone or other data carrier, the possibility of digital identification, the determination of creditworthiness and the affordability of the service.⁵

Pilot project to establish added value and obtain experience

Looking at the potential applications of a public digital euro, we see opportunities but also barriers and conflicts between objectives and restrictions that would have to be imposed on a public digital euro. Definition of the objectives that a public digital euro is intended to achieve is important for clarifying the necessary design choices. Given these objectives, one or more pilot projects could be initiated in order to obtain greater insight into the added value of a public digital euro for a specific application and also experience regarding the advantages and disadvantages. The Dutch Banking Association welcomes the opportunity to engage in the dialogue on this issue.

Our advice regarding the next step in the debate is first of all to determine the objectives that a public digital euro is supposed to achieve.

4 [Global Findex 2017 \(worldbank.org\)](https://www.worldbank.org/)

5 [IMF Financial Access Survey 2020](https://www.imf.org/)

2 The preconditions for introduction of a public digital euro in the financial system

Depending on its chosen design, the introduction of a digital euro would be a fundamental change to the monetary system in the eurozone. The objectives mentioned above involve a number of specific design choices that vary widely from one application to another and may even be mutually contradictory. In addition, there are in our opinion several general preconditions that a public digital euro would have to meet.

● ● Safeguarding financial stability

The most important precondition concerns the safeguarding of financial stability. Wrong design choices could be a serious threat to the stability of the European banking system.

- 1 The most acute threat concerns *bank runs*. Even given the generally very low risk of bank deposits and the availability of deposit guarantee systems and a bank resolution framework, in crisis situations retail and business customers would be tempted to safeguard their money by holding it in the form of public digital euros. This could rapidly and severely deteriorate the banks' liquidity positions. While *bank runs* can also occur in the current system, their rapidity and potential scale would be markedly increased by the availability of a public digital euro.
- 2 In addition, a public digital euro could be an alternative to holding a regular current or savings account for the public. This could remove an important source of finance for the banks and increase their dependence on funding from the capital markets. This could hinder the transformation function of the banks.
- 3 In addition to permanently less availability of bank deposits, these deposits could become less stable if money flows easily into and out of the public digital euro. This would further increase the liquidity and balance sheet management requirements for the banks. Managing intra-day liquidity positions would become more difficult, as would meeting the *liquidity coverage ratio* (LCR) if the situation persists. Greater dependence on alternative sources of funding (mainly bond issues or funding from the money market) would also reduce the *net stable funding ratios* (NSFR) of the banks.

One way of addressing these problems would be to limit the function of a public digital euro to a means of payment and not to allow it to be used for savings or investments. The ECB could limit the total available supply of CBDC, for example by linking this to the supply of cash money. A transaction ceiling could also be an option. This would safeguard financial stability by limiting the flows between traditional bank deposits and the public digital euro.

It is a paradox that the central bank cannot serve as a safe haven for retail customers in a crisis precisely because this would exacerbate the crisis. Mechanisms would have to be introduced to resist political pressure during a crisis to allow the public digital euro to be actually used as a safe haven.

Limiting or increasing the volatility of bank deposits is seen by some people as an effective means of '*disciplining*' bank lending. Regardless of whether this is a desirable objective, we would say that this is a risky (for the reasons stated above) and also indirect (because it affects the wrong side of the bank's balance sheet) way of managing lending. If lending is seen as problematic, it would be better to apply policy instruments that address this directly. The macro-prudential toolkit of the ECB and DNB is appropriate for this.

● ● Adding to and encouraging innovation in the payments infrastructure

The payments landscape is developing at a rapid pace. The infrastructure in the Netherlands is efficient and reliable, and is under constant redevelopment. For instance, *instant payments* were widely introduced in the Netherlands and there are several other initiatives designed to further increase the efficiency of European payments infrastructure. It is important to determine the correct division of roles between the public and the private sector, and to look for and use synergies. Only this way can we ensure that a public digital euro will not displace any private infrastructure solutions or discourage new private initiatives – including initiatives designed to increase European autonomy in the payments market.

● ● A clear governance framework

A public digital euro would fundamentally change the role of the Eurosystem, commercial banks and non-bank financial services providers in the financial system. The delineation of roles between these parties needs to be fully transparent. A clear governance framework will be needed to establish who owns which parts of the infrastructure, who is responsible for their management and development, and who is responsible for any problems that occur. But this also affects areas such as the gate-keeping function, transaction monitoring, responding to and dealing with phishing and spoofing and reporting (the provision of information to the Tax & Customs Administration). Not only would the central bank have to obtain the necessary expertise to do this, it is also not currently organised as a bank for retail customers. This would also call the independence of the central bank into question, raising the issue of who is responsible for supervising the central bank in its role as a payments services provider. In any case, the central bank would have to delegate the offering of CBDC services to the public to private parties, and should not become a competitor of the private parties.

- ● A cost-effective solution and involvement of the private sector

A public digital euro could improve the efficiency of payments infrastructure, especially payments traffic across borders or currencies. For this, close attention needs to be paid to an optimal division of responsibilities between the public and the private sector. There needs to be an adequate opportunity for the private sector to develop attractive and viable services. We accordingly argue that there should be a cost/benefits analysis before any decision for a public digital euro is taken that should include consideration of any alternative private infrastructure solutions. The costs for the development, roll-out and operation of the infrastructure for the public digital euro should be borne by the Eurosystem, and not by the private sector.

- ● A secure, efficient and robust payments infrastructure

A public digital euro will require a modern, secure and *compliant* infrastructure from the ground up. This infrastructure will have to meet the highest standards of security, speed and efficiency. Regulation, such as that relating to anti-money laundering and CTF, has to be respected, as for any other financial service. Furthermore, the Eurosystem, like the commercial banks, could become an attractive target for cyber crime. If a central bank is hacked, this could seriously damage public confidence. Moreover, a situation in which a compromised central bank could infect or disable the entire system must be prevented.

Depending on its chosen design, the introduction of a digital euro would be a fundamental change to the monetary system in the eurozone.



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