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The digital euro: awareness, adoption and household portfolios

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In this article, we draw on rich micro-level data from the ECB's Consumer Expectations Survey (CES), covering the 11 largest euro area countries. Our findings suggest that many consumers would be open to using central bank money in digital form – a digital equivalent of cash. Under normal conditions, this digital equivalent of cash would primarily be used, as intended, for transactions rather than as an investment or savings vehicle. Accordingly, the introduction of digital central bank money is estimated to lead to only a small reallocation of liquidity away from bank deposits. Different holding limits between €1,000 and €10,000 would have quite small and insignificant effects on the composition of households' liquid asset holdings. We also find evidence that effective communication can play an important role in informing consumers about this new form of payment and encouraging adoption.

Several central banks, including the European Central Bank (ECB), are pursuing plans to potentially introduce a central bank digital currency (CBDC) as a form of central bank digital money alongside physical money. Such plans are being drawn up in the context of a fast-changing payment landscape – marked by reduced usage of cash, rising geostrategic considerations, and the rise of fintech (Berg et al., 2024; and Cong and Mayer, 2025). At the same time, central banks are trying to avoid a potentially destabilising allocation of wealth into central bank digital money. In particular, it might result in financial disintermediation – a move away from traditional bank deposits into central bank digital money – and pose threats to financial stability (e.g. Andolfatto, 2021; Ahnert et al. 2023, 2024; Whited et al., 2023; Schilling et al., 2024; and Bidder et al., 2024). For this reason, in designing the digital euro, the Eurosystem has included several safeguards in the design of the digital euro design to avoid that it might result in financial disintermediation.[2]

In Georgarakos et al. (2025), we attempt to shed light on the potential effects of the prospective introduction of a digital euro and the role it could play in households' financial asset portfolios. First, we document how many consumers are aware of the ECB's plans to potentially introduce a digital euro and whether they would be willing to adopt it. Second, we look at the risks of financial disintermediation during non-crisis times. We do this by showing how the availability of a digital euro would affect households' portfolio allocation choices and how holding limits – i.e. the maximum amount of digital euro that could be held in a digital wallet at any point in time – would influence their choice to reallocate liquid wealth to a digital euro. Third, we demonstrate how effectively communicating the key features of the CBDC to consumers could increase the likelihood that they would adopt it. Throughout, we draw on rich micro-level data from the ECB's Consumer Expectations Survey (CES), covering the 11 largest euro area countries.[3]

Awareness and adoption: who would use a digital euro?

On 14 July 2021 the Governing Council of the ECB announced the launch of the investigation phase of the digital euro project. According to CES data collected back in 2021, only about 9% of respondents had heard about the digital euro (see Ehrmann et al., 2025). But this had increased to around 40% by March 2024, reflecting the ECB's public communication efforts (**Chart 1, panel a**). In addition, the CES results show that about 45% of all surveyed consumers indicate they would be likely to adopt a digital euro and use it in their daily lives (**Chart 1, panel b**).[4]

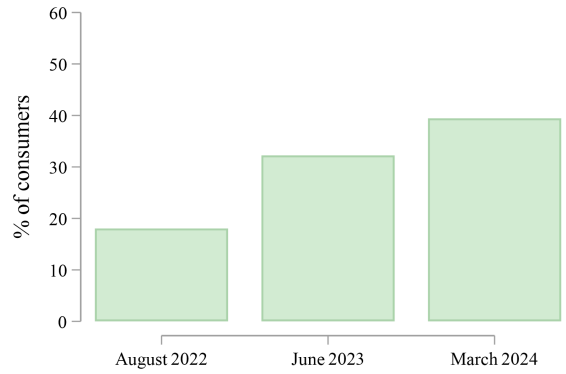
However, consumers' propensity to adopt digital central bank money differs across use cases and is highest for online and in-person retail payments (**Chart 1, panel b**). Looking at different groups of consumers, we also document substantial differences in their willingness to use a digital euro. For example, younger, higher-income and more educated consumers are more likely to adopt digital central bank money. Among consumers aged 18-34, about 55% said that they would probably use a digital euro for any of the different use cases, and among consumers in the highest income quartile, 53% said they would likely use digital central bank money for any of the use cases. There are also some less pronounced differences across groups of consumers with different levels of education; 48% of consumers who have a bachelor's degree or above would likely use a digital euro compared with 42% of consumers who do not have a bachelor's degree. Overall, the differences in adoption propensity across demographic groups highlight how important it is to consider financial inclusion when designing and introducing digital central bank money.

Chart 1

Awareness of, and willingness to adopt, a digital euro

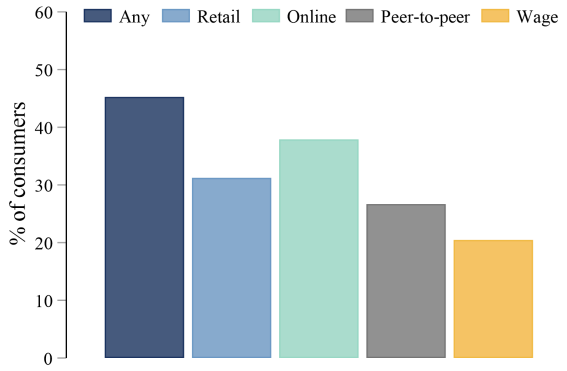
a) Digital euro awareness

(percentage of consumers)



b) Propensity to adopt a digital euro

(percentage of consumers)



Sources: ECB Consumer Expectations Survey (CES) and authors' calculations.

Notes: The chart shows pooled and population-weighted data from the 11 CES countries collected as experimental data in August 2022, June 2023 and March 2024 (panel a) and March 2024 (panel b). Panel a) shows the share of consumers who report having heard of the digital euro. Panel b) is based on CES data from the March 2024 survey round and displays the share of consumers who considered it "likely" or "very likely" (on a five-point Likert scale) that they would use a digital euro for four different use cases: (i) in-person day-to-day payments ("retail"), (ii) online purchases ("online"), (iii) peer-to-peer transactions ("peer-to-peer") and (iv) receiving their salary or wage ("wage"). The dark-blue bar indicates the share of respondents reporting "likely" or "very likely" for at least one of these use cases.

Household portfolio choices if digital central bank money were available

Another frequently discussed question is how the availability of digital central bank money – an unremunerated, highly liquid, safe asset directly issued by the central bank – might affect consumers' portfolio allocation. In this respect, earlier research by Keister and Sanches (2023) shows a liquidity-safety trade-off, with bank deposits yielding a return but involving default risk whereas central bank digital money, being risk-free, has the potential to crowd out deposits. Overall, while the introduction of central bank digital money could thus help improve liquidity allocation in the economy, if no safeguards are applied, there is also a risk that it might lead to a shrinkage in the deposit base, an increase in bank funding costs or, in extreme cases, disintermediate banks.

Therefore, a central question arises: how would households adapt their financial asset portfolios following the introduction of digital central bank money? In order to try and answer this question, we asked CES respondents to imagine they had received a windfall of €10,000 (e.g. a bonus, a gift or a bequest). We then asked consumers to report how they would allocate this unexpected gain in wealth

across different assets, including liquid asset holdings like physical cash and the digital euro. This approach is in line with recent developments in survey methodology (Stantcheva, 2023). Previous studies have used similar scenario questions to examine how consumption responds to hypothetical positive wealth shocks (e.g. Shapiro and Slemrod, 2003; and Christelis et al., 2025).

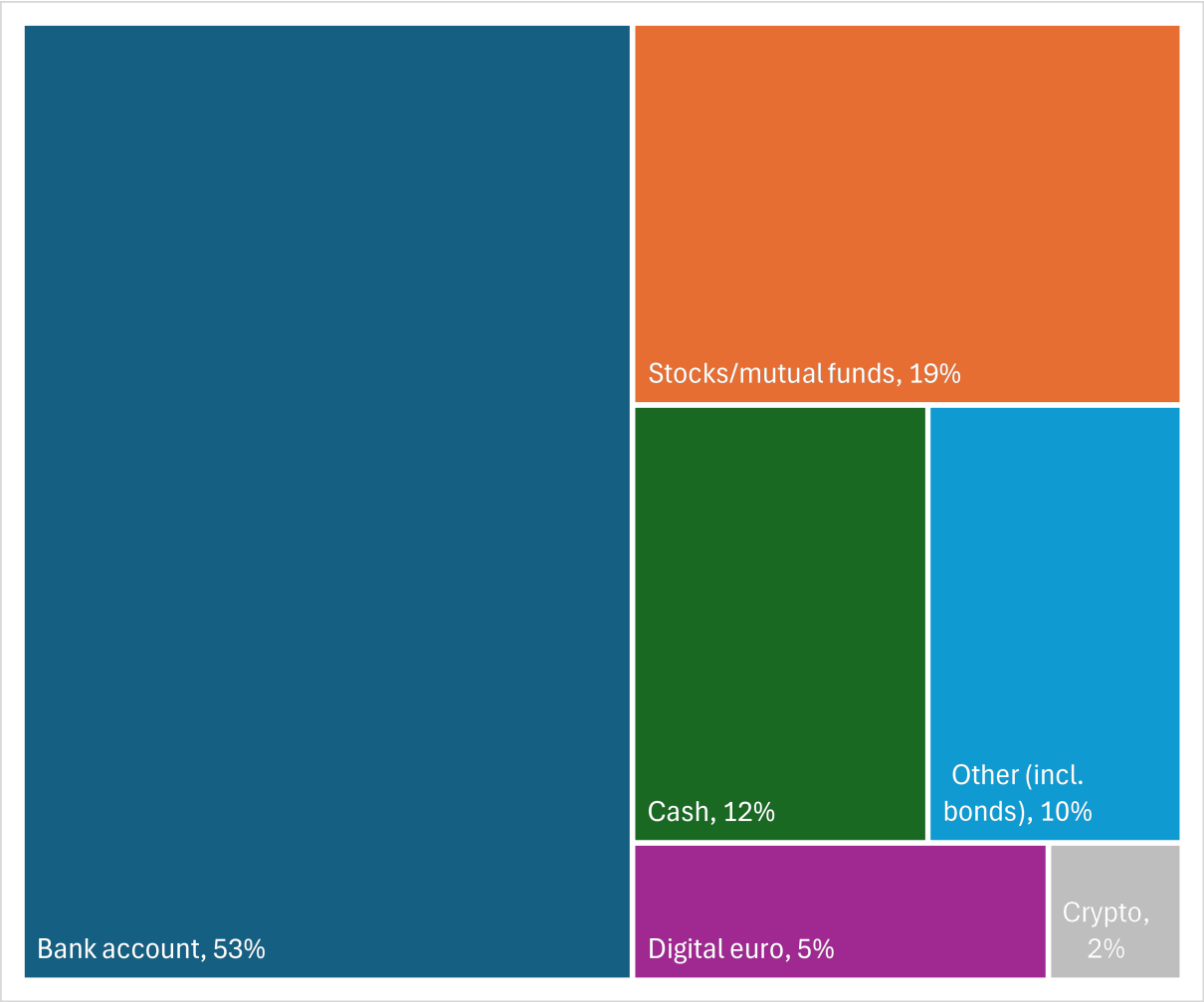
Our results indicate that consumers would only allocate on average about 5% of the hypothetical windfall of €10,000 to a digital euro (**Chart 2**). This level of allocation does not significantly crowd out other asset classes. In contrast, consumers would allocate more than half of the windfall to current accounts or savings accounts (53%). They also choose to allocate 12% to physical cash which is the closest substitute to a digital euro in the sense that both cash and the digital euro are central bank money, with the difference being that cash cannot be used as a substitute when it comes to paying digitally. But the average portfolio share allocated to digital euro exceeds the share allocated to highly risky, alternative digital crypto-assets. These results suggest that, under normal conditions, digital central bank money would act primarily as a transactional asset rather than an investment or savings vehicle. So the introduction of a digital euro would result in only a small reallocation of liquidity away from retail bank deposits.

One important design feature of a digital euro, aimed at addressing any possible unintended consequences for bank disintermediation, concerns the maximum amount of digital euros that could be held in a digital wallet at any point in time. To assess how such holding limits could affect portfolio allocations, we randomly assigned different possible holding limit values to CES respondents, ranging from a limit of €1,000 to limits of €10,000. Subsequently, we asked respondents how much money they would allocate out of their current liquid resources to a digital euro, subject to the holding limit they had been randomly assigned. This way, we could estimate the effect of the holding limits on the fraction of consumers' current total liquid resources (e.g. in current/savings bank accounts or in cash) that they would allocate to a digital euro. Our results suggest that the size of the holding limit made no noticeable difference to the allocation of current liquid resources to a digital euro. These findings are consistent with the view that, under normal conditions, CBDC adoption is unlikely to trigger large-scale financial disintermediation.

Chart 2

Portfolio allocation out of a hypothetical €10,000 wealth shock

(share of €10,000)



Sources: ECB Consumer Expectations Survey (CES), March 2024 round, and authors' calculations.

Notes: The chart shows pooled and population-weighted data from the 11 CES countries collected as experimental data. It shows how consumers would allocate a hypothetical windfall of €10,000 across cash, savings and financial assets.

Targeted communication can increase adoption

While 45% of consumers reported in 2024 that they were willing to adopt a digital euro, other consumers reported that they were unlikely to adopt it. This raises the question as to whether central bank communication can contribute to broadening adoption and use. To assess this, we made use of a randomised control trial embedded in the March 2024 CES web survey round. It provided a random sub-group of respondents with an official ECB video, which gave information about the digital euro's key features and potential uses. We could then estimate the effect of this video communication on the likelihood of consumers adopting a digital euro.

We found that the information in the video had sizeable and statistically significant positive effects on the propensity of adoption for each of the four possible uses. For example, it increased the propensity of adoption for offline retail payments by 13 percentage points. In fact, the video communication not only affected adoption propensities among consumers without any prior knowledge, but also among those who had already heard about the CBDC before watching the video. Nonetheless, there is also evidence of habit persistence in payment preferences. Some consumers, even after having watched the video, reported a low propensity of adoption. Additionally three months later, in June 2024, we asked all CES respondents whether they were aware of the digital euro. As in previous studies (e.g. Coibion et al., 2024), we found evidence that the effect of the information in the video seemed to fade quite quickly.

Conclusions

Understanding the possible future consumer response to the introduction of digital central bank money is an important research and policy priority. In our recent research, we provide several new insights. For example, our results suggest that many consumers would be open to using a digital euro. In addition, under normal conditions and as intended, a digital euro would primarily be used for transactions rather than as an investment or savings vehicle. Accordingly, the introduction of a digital euro is estimated to lead to only a small reallocation of liquidity away from bank deposits. Our findings also suggest that different holding limits from €1,000 up to €10,000 would have quite small and insignificant effects on the composition of households' liquid asset holdings. And last but not least, we find evidence that effective communication can play an important role in informing consumers about this new form of payment – and encouraging them to adopt it.

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2.

The ECB's digital euro webpage provides additional details on the ongoing design of the digital euro as well as the latest progress report

3.

This survey is described in detail in ECB (2021), Georgarakos and Kenny (2022), and on the ECB's CES webpage.

4.

In March 2024 we provided CES respondents with the following information: "The European Central Bank is considering the introduction of a digital euro. It would be a digital form of cash, issued by the central bank and available to everyone in the euro area." We then used these two sentences as background information to ask survey respondents how likely they would be to adopt a digital euro if it were to be introduced.