# NBS Occasional paper No 2/2024

## **Survey of Potential Users of the Digital Euro: New Evidence from Slovakia**

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# Survey of potential users of the digital euro: New evidence from Slovakia\*

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October 12, 2024

#### **Abstract**

This paper presents the findings from a novel survey examining awareness and interest in the future usage of the digital euro in Slovakia. Approximately 34% of the respondents have already heard or read about the digital euro. Around 26% express an intention to use this new digital currency. The likelihood of its usage depends on political preferences, trust in institutions such as the central bank, and preferences for cash payments, in addition to standard socio-economic factors. The survey also reveals that privacy and transaction security are among the top concerns for potential users. The majority of respondents plan to allocate nearly 20% of their net monthly income to digital euro holdings. These insights may provide valuable guidance for shaping the operational framework of the digital euro and informing future communication strategy.

**JEL codes:** D14, E42, E51, E52.

Keywords: Central Bank Digital Currency, Digital euro, Preferences, Survey data,

Slovakia.

<sup>\*</sup>We would particularly like to thank Martin Summer and colleagues from the Oesterreichische Nationalbank for granting us access to the survey questions of the Austrian Central Bank ("OeNB Barometer 2021/1"), which to a large extent motivated our survey design. We would also like to thank the referee and the participants of the National Bank of Slovakia's research seminar for their helpful comments and suggestions. The views and results presented herein are those of the authors and do not necessarily represent the official opinion of the National Bank of Slovakia or the Eurosystem. All remaining errors are our own.

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### **NON-TECHNICAL SUMMARY**

The digital euro project in the euro area is currently in a two-year preparatory phase, during which the national central banks of the ESCB, together with the ECB, are assessing the possibilities for its technical implementation, parameters setting, and defining the overall operational framework for this digital complement to cash.

Understanding consumers' attitudes and preferences towards a digital cash solution is a crucial part of ensuring its successful implementation. Clear and open communication about the next steps in the project and details of the overall framework will be essential. Therefore, we present the results of a recent survey conducted among the adult population in Slovakia. The survey primarily aimed to determine to what extent are people aware of the digital euro, whether they would consider using this new form of money in the future, and their opinions on its various features or their potential worries.

We find that approximately 34% of survey respondents have already heard or read about the digital euro, and 26% could imagine using it in future. More than 16% of respondents are unsure whether they would find a use for the digital euro. However, since the specific parameters and settings of the digital euro are still being assessed, and no communication campaign has yet been conducted, it is natural that consumers lack sufficient information. The primary goal of the survey was to help understand public attitudes towards digital form of euro, so that the final solution can better reflect consumer needs and also could potentially help shaping future communication.

The survey indicates that younger and more educated consumers would more likely tend to use digital euro. Apart from standard socio-demographic factors, digital euro more appeals to those who trust institutions (e.g. the central bank) but also factors as attitude towards cash, or the use of social media are those which matter. Potential demand for a digital cash solution would also be affected by political preferences. Indi-

viduals who lean toward liberal values tend to be more positive towards the use of the digital euro, while respondents who are sceptical about the European Union express less interest in using such a digital form of money.

Additional survey results show that privacy and transaction security would be the most important factors if they were to use the digital euro. In addition, the majority of respondents indicated that they plan to allocate up to 20% of their net monthly income to digital euro holdings.

While the results presented in this paper should be treated with a degree of caution due to the non-random nature of the survey, they offer several interesting insights, particularly in comparison with similar studies conducted in other countries. For example, the current interest in using the digital euro seems to be about half of the level observed in Austria or the Netherlands. This is also consistent with different levels of financial literacy across countries. These findings make it all the more important for us to monitor public awareness, attitudes, and sentiment on this issue. This survey represents the first step in this process.

### 1. Introduction

Central Bank Digital Currency (CBDC) is a new form of money, to be used by the general public (similar to cash), existing only electronically. CBDC is being explored to some extent by more than 100 countries and currency unions around the world. Currently only 3 countries have fully launched an institutionally-backed digital currency, but almost 70 are in an advanced stage of exploration or pilot projects (see Figure 1). The Eurosystem and the digital euro project is now in the 2-year preparation stage, discussing and assessing various technical solutions, thresholds and parameters of the operational framework. This stage will be concluded in autumn 2025.<sup>1</sup>

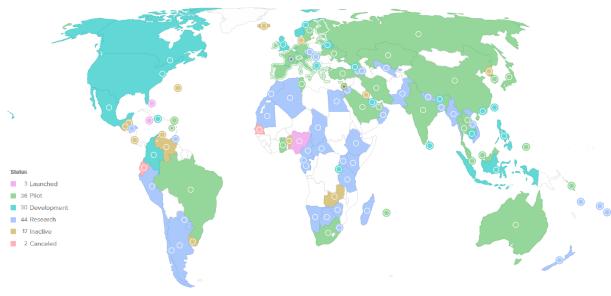


Figure 1: Implementation of CBDC around the world

*Notes*: The digital Euro project is still in the development phase. Green labeling applies to certain wholesale experiments within the BIS Innovation Hub and some national central banks (NCBs). *Source*: Atlantic Council, last update: May 2024.

CBDCs are versatile in their design, often tailored to address specific challenges or objectives within a given economy or geography. In many countries that are in advanced stages of implementing digital currencies, the primary motivation has been to improve financial inclusion. In these regions, significant portions of the population

<sup>&</sup>lt;sup>1</sup>More information about the digital euro development, including its design options is available in the ECB Press release and the accompanying stocktaking report.

were unbanked, leaving them at risk of being excluded from economic opportunities and growth. By introducing a digital currency, these countries aim to bridge the gap, ensuring broader access to financial services and fostering greater economic participation among all citizens.

In contrast, the digital euro project is primarily driven by the Eurosystem's desire to enhance the efficiency, resilience, and security of payment systems across the euro area.<sup>2</sup> While many CBDC initiatives globally focus on financial inclusion, the digital euro aims to optimize the already robust payment infrastructure, enabling faster and more secure transactions, especially for cross-border payments. This would not only make everyday transactions more seamless but also provide a robust alternative in times of economic stress, ensuring that the financial system remains stable and resilient. Additionally, as the use of physical cash continues to decline, the digital euro would ensure that central bank money remains accessible to all citizens in a digital format, preserving the role of public money in the economy.

Furthermore, the digital euro is part of a broader strategy to bolster the financial stability and innovation within the euro area (Arner et al., 2020). By introducing a secure, institutionally-backed digital currency, the Eurosystem seeks to offer a reliable alternative to emerging private digital currencies, reducing dependency on non-sovereign digital assets (Kosse and Mattei, 2023). This initiative also aligns with the goals of fostering digital innovation, as it would provide a foundation for new fintech developments while potentially reducing transaction costs. Moreover, the digital euro positions the euro area as a key player in the global digital currency landscape, helping to set standards and practices that will shape the future of digital finance worldwide.

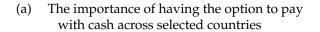
If the decision is made to implement the digital euro, it will be essential to understand the attitudes and perceptions within society to ensure the project's success. Clear and open communication about the steps forward and about the details of the new frame-

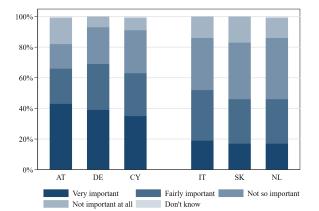
<sup>&</sup>lt;sup>2</sup>Minor advances in financial inclusion may emerge from reducing the gap between the digitally savvy population and others, a divide that was widened by the pandemic, as documented by Kotkowski and Polasik (2021).

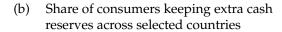
work will be crucial. With this objective in mind, we have developed a survey to gain a deeper understanding of household payment habits and attitudes toward digital solutions, specifically those that align with our current vision for what a digital euro could be. Such surveys could help us tailor our approach and communication strategies to meet the needs and expectations of the public effectively.

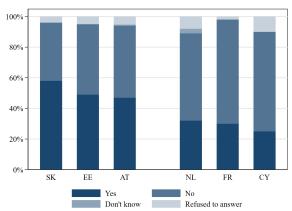
Within the preparatory stage, a thorough evaluation of the potential impact of the digital euro on financial stability is essential.<sup>3</sup> The key question is to what extent the introduction of the digital euro will shift funds away from retail deposits rather than from cash reserves held by households. This is particularly relevant for Slovakia, which has one of the highest preferences for digital payments, while also having a significant portion of households that prefer to keep extra cash reserves at home (see Figure 2).

Figure 2: Individual preferences for holding cash vs. paying with cash









Notes: The question related to the left figure is "How important is it for you to have the option of using cash?", the question related to the right figure is "Do you personally keep extra cash that is not in your wallet, purse or pocket?". The graphs show the first and last three countries in the list of euro area countries. Source: Study on the payment attitudes of consumers in the euro area, ECB, 2022.

This means that households tend to store extra cash at home even when they do not need to use it for transactions, i.e. the store of value function of money is more important than its medium of exchange function. This is in striking contrast to the main goal of the digital euro. If the preference for the store of value function is similarly

<sup>&</sup>lt;sup>3</sup>A number of papers assess the potential impact of CBDC on financial stability and banking (e.g. Andolfatto, 2020; Fernández-Villaverde et al., 2021; Gross and Letizia, 2023; Schilling et al., 2024).

applied to the digital euro as it is to paper-based cash, the demand for digital cash in Slovakia might be higher than in other economies. This feature is generally present in all CEE economies in the euro area. Combined with higher share of deposits to total assets of banks, we presume risks to financial stability are disproportionate to average European economy and therefore (digital) cash demand needs to be more closely monitored.

In this paper, therefore, we present the results of a recent survey among Slovak individuals about their awareness of and attitudes towards the digital euro. These results can help shedding light on some of the above-mentioned questions and show individual's preferences related also to their different socio-demographic characteristics. Our paper joins a short list of studies that make use of novel survey data on the attitudes of the population towards the possible use of digital euro. For example, Abramova et al. (2022) show that more than 50% of the population in Austria indicate a potential demand for such digital currency. The results also show that the propensity for future use is mainly correlated with cash affinity, trust in the central bank and experience with cryptocurrencies. In another related study, Bijlsma et al. (2024) using data from a representative panel of Dutch consumers find that around half of the public says it would open a CBDC current / savings account. Potential demand for the CBDC utilising Canadian surveys is predicted by Li (2023). The author finds that the aggregate CBDC holdings out of households' liquid assets could range from 4% to 52%, depending on whether households would perceive CBDC to be closer to cash or deposits. The results further reveal that important design attributes include budgeting usefulness, anonymity, bundling of bank services and rate of return.

Our results suggest that around 34% of the respondents have already heard/read about the digital euro. Some 26% of the survey participants hypothetically plan to use this new digital currency, but more than 16% of respondents don't know or can't answer this question. Propensity of usage strongly correlates with political preferences, trust in institutions such as central bank, as well as social media usage, in addition to standard

socio-economic factors. The results also show that privacy and transaction security are among the top concerns of the potential digital euro users. This is in line with the findings of the public consultation of the European Central Bank on the digital euro, as privacy was considered the most important feature (ECB, 2021) as well as a recent study conducted in South Korea (Choi et al., 2023). The results also show that the majority of respondents would spend up to 20% of their net monthly income on digital euros. Here, the results show heterogeneous effects of the main explanatory variables of interest across the distribution of the ratio of monthly digital euros to individual monthly net income, as revealed by the quantile regression analysis.

The main contribution of our paper is twofold. First, we present the results of a novel survey on awareness and attitudes towards the digital euro for Slovakia, a country of particular interest in the context of attitudes towards cash holdings, which may have a direct impact on attitudes towards the adoption of the digital euro. Secondly, we enrich the list of main determinants for the potential use of CBDC. This is the first study (to the best of our knowledge) that also examines the importance of political preferences for CBDC attitudes, although this question has already been considered for general individual economic and financial behaviour (e.g. Kaustia and Torstila, 2011; Ke, 2024).

The remainder of this paper is as follows: Section 2 describes the survey data along with the main variables used in the empirical analyses. Econometric specifications together with empirical results are presented in Section 3. Finally, Section 4 concludes and discusses policy implications.

### 2. Data

This paper employs microdata from Slovakia from a non-probabilistic quota-based survey focusing on the respondent's awareness of and attitudes towards the adoption of the digital euro.<sup>4</sup> The survey also collects information on general attitudes towards

<sup>&</sup>lt;sup>4</sup>The survey was administered by FOCUS, a leading agency in the field of marketing and surveys in Slovakia. While part of a regular survey, the questions about the digital euro were to a large extent designed by Národná banka Slovenska.

payments. Data collection took place during the last two weeks of April 2024 as Computer Assisted Personal Interviews (CAPI) with over 1,200 successful interviews at individual level.<sup>5</sup> Although the present survey on the digital euro in Slovakia provides new insights into consumer types and their willingness to potentially use such a digital currency, the results may be subject to non-randomized selection, and therefore should be interpreted with caution.<sup>6</sup>

Despite some caveats, a major advantage of the present survey – compared to other existing surveys on the CBDCs – is that it does not only monitor the economic and financial aspects of respondents' attitudes towards the digital euro, but also includes a number of variables that capture political preferences and trust in institutions such as the Central Bank and the European Union.

Following the previous literature (Abramova et al., 2022), we construct two main outcome variables for the purpose of our analysis. First, we consider a dummy variable that takes the value 1 if respondents have read/heard about the digital euro. Second, we create a dummy variable that takes the value 1 if respondents would be interested in using the digital euro in the future. Furthermore, in line with Li (2023), we also consider a set of variables on attitudes towards the attributes of the digital euro (e.g. privacy protection, anonymity of payments, offline payments, etc.). Our final outcome variable – the share of the individual's net monthly income allocated to digital euros – serves to verify the potential outflow of financial resources to digital euros.

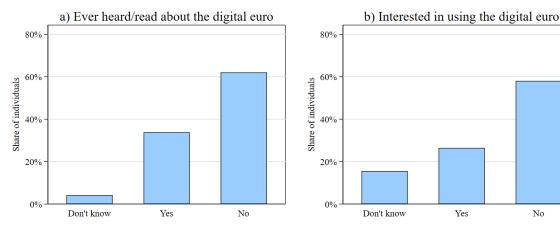
Summary statistics for the two main variables of interest used in our empirical analyses are presented in Figure 3. Overall, around 34% of respondents answered they had already heard / read about the digital euro. Around 26% of respondents would even

<sup>&</sup>lt;sup>5</sup>More information about the survey and data collection is detailed at: https://omnibus.focus-agency.cz/capibus-680.

<sup>&</sup>lt;sup>6</sup>The non-probabilistic sample design limits the ability to draw conclusions for the entire population due to potential biases and non-random selection. Nevertheless, the survey seeks to approximate sample representativeness by applying weights adjusted to population totals from the latest census data, considering standard socio-demographics such as gender, age, education, employment status, municipality size, and region. A comparison of the quota-based survey sample (both weighted and unweighted) with official population statistics is provided in Table A.1.

use this new currency. Around 16% of respondents did not know or did not answer this question, suggesting that there is still a large uncertainty around the digital euro and further potential for future use of this CBDC.

Figure 3: Distribution of responses regarding awareness of the digital euro and interest in its potential use



*Notes*: Statistics computed using survey weights. *Source*: Survey on digital euro, FOCUS, 2024.

Descriptive statistics for the two other variables (attitudes towards the digital euro design attributes and the share of digital euros relative to monthly net income) are presented in Figure 4 and Figure 5. The results suggest that, overall, potential digital currency users are mostly concerned with the privacy and anonymity of payments, and less concerned with the attributes of offline payments or the ability to communicate effectively with public institutions (e.g. paying taxes, receiving social transfers, etc.). In addition, the majority of respondent would allocate up to 20% of their net monthly income to the digital currency, with a median allocation of 16%.<sup>7</sup>

The granularity of the survey microdata allows us to control for a large number of factors that may influence awareness and interest in using the digital euro. First, we consider a set of variables that capture political attitudes and trust in the EU integration. The rationale for this is the finding in the previous empirical literature that political preferences can affect the overall economic and financial behaviour of households (e.g.

<sup>&</sup>lt;sup>7</sup>The ratios have been winsorised at the 1st percentile due to the presence of outliers that exceeded the plausible range of values.

a) High privacy protection b) Guaranteed anonymity of payments 80% Share of individuals Share of individuals 60% 40% 40% 20% Somewhat agree Strongly agree Somewhat agree Strongly agree Disagree c) Option to reverse the transaction d) Instant settlement of payments 80% Share of individuals 40% 50% Share of individuals 60% 40% Disagree Somewhat agree Strongly agree Don't know Somewhat agree Strongly agree Disagree e) Offline payments f) Better communication with institutions Share of individuals 40% 50% Share of individuals

Figure 4: Interest in the attributes of the digital euro

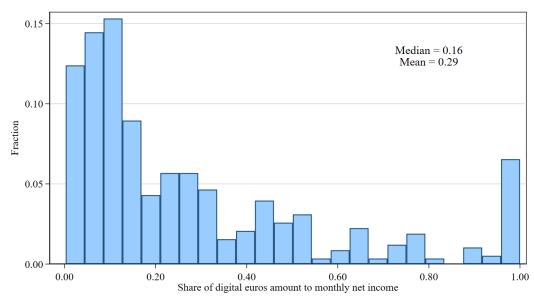
*Notes*: Statistics computed using survey weights. The category 'Don't know' also includes the category 'No answer', which we do not distinguish. *Source*: Survey on digital euro, FOCUS, 2024.

Somewhat agree Strongly agree

Don't know

Somewhat agree Strongly agree





*Notes*: Values top-coded at the value of 1 due to identified outliers. *Source*: Survey on digital euro, FOCUS, 2024.

Kaustia and Torstila, 2011; Ke, 2024). Second, motivated by the prior literature (e.g. Fungáčová et al., 2019; Abramova et al., 2022), we control for the respondents' trust in banks and the central bank. Third, to account for different preferences of individuals, we include an indicator for the frequency of internet/social media use and an indicator for the preference to hold cash. We also include control variables to test for the importance of different asset holdings. Other related studies (e.g. Abramova et al., 2022) show that holding crypto-assets positively influences the likelihood of future potential demand for the CBDC. Finally, we take into account a wide range of individual socio-demographic characteristics considered in the personal finance literature, such as gender, age, education, employment status, etc.

Summary statistics for all control variables used in regression analyses are detailed in Table A.2, while the details of the variables and the questionnaire can be found in Appendix B and C, respectively.

### 3. EMPIRICAL ANALYSIS AND RESULTS

## 3.1. BASELINE ESTIMATES OF DETERMINANTS OF THE DIGITAL EURO AWARENESS AND ITS POTENTIAL USE

The main objective of this paper is to examine the determinants of awareness and attitudes towards the digital euro. To achieve this, we estimate a simple linear probability model<sup>8</sup> using cross-sectional survey microdata:

$$\Pr(DE_i^{A,I} = 1|x) = \alpha + \sum_{j=1}^{J} \beta_j \cdot POLI\_PREF_{ij} + \gamma \cdot TRUST\_CB_i + \delta' \cdot X_i + \sum_{k=1}^{8} \lambda_k \cdot REG_{ik} + \varepsilon_i, (1)$$

where  $DE_i^{A,I}$  are dummy variables taking the value of 1 if the *i*-th respondent has awareness (A) about the digital euro, or is interested (I) in using this digital currency

<sup>&</sup>lt;sup>8</sup>We also re-estimate the relationships using probit regressions, which give very similar marginal effects. The results are available upon request.

in the future. Political preferences (i.e. liberal, centrist, conservative; and attitudes towards the EU integration) of individuals are captured by a set of dummy variables  $(POLI\_PREF_{ij})$ . Another important variable of interest  $(TRUST\_CB_i)$  captures the overall trust in the central bank.  $X_i$  presents a set of explanatory variables including a broad array of factors commonly used to predict individual financial behaviour, such as education, gender, age, employment status, holding of assets, family composition and number of children, as well as the degree of urbanisation.  $REG_{ik}$  is a set of dummy variables capturing regional fixed effects.

Our overall empirical strategy relies on a step-wise inclusion of covariates of interest, where we check the stability of the estimated effects. We take into account the potential problem of heteroskedatsicity by robust standard errors. Furthermore, while there is a debate in the empirical literature on whether to use weights in regression analysis (e.g. Cameron and Trivedi, 2005), we use weighted regressions to account for the representativeness of the survey sample as much as possible.

Results on determinants of digital awareness The estimated results for the determinants of digital euro awareness are presented in Table A.3. We estimate 9 specifications gradually adding covariates in blocks. First, we consider variables capturing political preferences (1), followed by a set of variables related to attitudes towards EU integration (2). Next, we extend the model by incorporating variables that reflect trust in the central bank (3) and the use of social media or the Internet (4). We also consider preferences for cash payments (5) and variables capturing ownership of major types of financial assets (6). Subsequently, we add individual socio-economic characteristics such as income (7), along with demographic factors such as gender, age, education, and employment status (8). Finally, we estimate a full specification that includes regional fixed effects (9). The estimated determinants of awareness resulting from the (latter) full specification are shown in Figure 6.

Overall, the explanatory power of the considered determinants in explaining the prob-

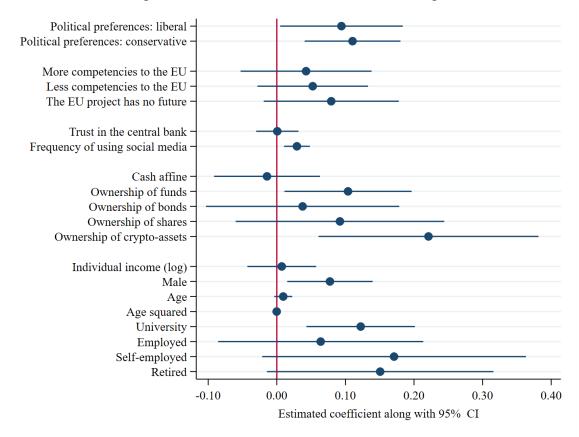


Figure 6: Estimated marginal effects of the determinants of the digital euro awareness

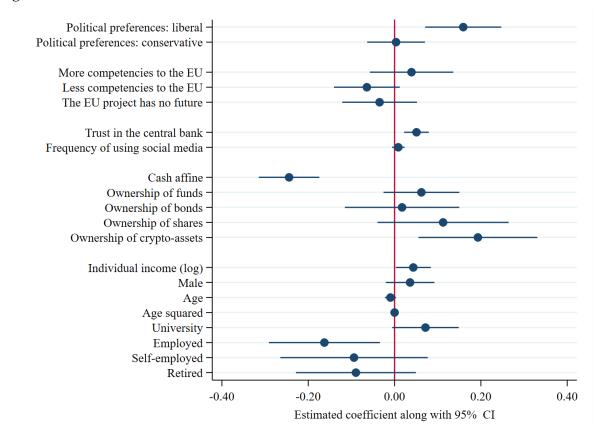
*Notes*: This figure shows the estimated regression coefficients of the linear probability model (equation 1) of the determinants of digital euro awareness. The estimated marginal effects are accompanied by 95% confidence intervals. The estimated regression takes into account survey weights and regional fixed effects. More detailed results are available in Table A.3. *Source*: Survey on digital euro, FOCUS, 2024.

ability of having read/heard about the digital euro is rather low, with R-squared ranging from 2% to just under 18% in the full specification. There are only a few significant variables within the range of available covariates, but they are relatively robust to different specifications. Individuals identifying themselves as liberals are aware of the digital euro with a higher probability compared to those that are more centered; this result is robust across all specifications. Interestingly, conservatives are also more likely to have read/heard about the digital euro in almost all specifications. Unsurprisingly, those who use the internet or social media more often are also more aware of the digital euro, and this result holds across all relevant specifications. Individuals more active in investments, i.e. those investing into funds or crypto-assets have a higher propensity to be aware of the digital euro. This outcome is in line with other similar

surveys (see e.g. Abramova et al., 2022). Focusing on the standard socio-demographic variables, the propensity to be aware of the digital euro is higher among males, the younger population and those with a university education.

Results on determinants of the potential use of the digital euro. The estimated results for the determinants of interest for the use of the digital euro are presented in detail in Table A.4. Similarly to the previous estimations, 9 specifications are estimated, in which we gradually add covariates in blocks. The results of the full specification are summarized in Figure 7.

Figure 7: Estimated marginal effects of the determinants of the interest in digital euro usage



*Notes*: This figure shows the estimated regression coefficients of the linear probability model (equation 1) of the determinants of the interest in digital euro usage. The estimated marginal effects are accompanied by 95% confidence intervals. The estimated regression takes into account survey weights and regional fixed effects. More detailed results are available in Table A.4. *Source*: Survey on digital euro, FOCUS, 2024.

The estimated models of potential use of the digital euro have quite good explana-

tory power, with R-squared ranging from 15% to 36%. Again, a notable result is that individuals who identify themselves as liberals have a higher propensity to use the digital euro. Not surprisingly, respondents who are more "EU sceptical", i.e. those who would devolve fewer powers to the EU or see no future for the EU, have a lower propensity to use the digital euro in the future. The same goes for those who are more in favour of using cash (cash affine respondents). This observation suggests that it will be mainly deposits and less cash that will be converted into digital euros. On the contrary, trust in the central bank increases the propensity to opt for the digital currency. Investors who are more interested in sophisticated and novel products, such as crypto assets, have a higher propensity to plan using the digital euro. The lower demand of cash affine investors and the higher demand of crypto-asset investors is in line with the results of other similar surveys (e.g. Abramova et al., 2022).

In terms of standard socio-demographic factors, people with higher incomes and university education are more likely to use the digital currency. The results suggest that, on average, employed people are less likely to plan to use the digital euro than the reference category. It should be noted that the reference category consists mainly of students, which may explain this result.

## 3.2. Preferences for the digital euro design at-

Next, in line with the previous literature (e.g. Li, 2023), we examine the attitudes of the respondents to the attributes of the digital euro. Respondents were asked to rate the following issues: i) privacy, ii) anonymity of payments, iii) ability to reverse the transaction, iv) immediate settlement of payments, v) offline payments, and vi) better communication with institutions. The descriptive results of this exercise were summarized in Figure 4 and suggest that, overall, potential digital euro users are mostly concerned with the privacy and anonymity of payments, and less concerned with the

attributes of offline payments or the ability to communicate effectively with public institutions (such as paying taxes, receiving social transfers, etc.).

Overall, this observation is strongly supported by other empirical studies. For example, Li (2023) shows that important design attributes of the CBDC in the sample of Canadian households include usefulness for budgeting, anonymity, bundling of banking services and rate of return. Privacy was considered the most important feature also by the participants of the public consultation of the ECB on the digital euro (ECB, 2021).

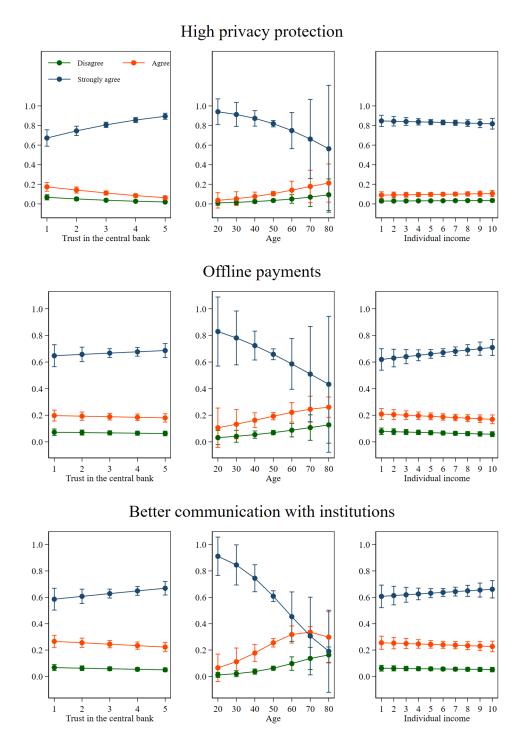
Furthermore, we extend these descriptive results by examining the impact of the covariates of interest, which are the same as in the baseline regressions, on the probability of different outcomes (i.e. disagree: 1, somewhat agree: 2, strongly agree: 3) for the selected attributes of the digital euro. To do this, we estimate a standard ordered logit model with cross-sectional data.<sup>9</sup>

The results of ordered logit regressions are presented in Figure 8, where we plot the predicted probabilities of the outcome categories along with their 95% confidence intervals for selected variables of interest (trust in the central bank, respondents' age, and individual income categories).

The results suggest that, as with the baseline estimates of awareness and potential future use of the digital euro, attitudes towards its features are significantly influenced by individual characteristics. For example, positive preferences for high privacy protection are positively correlated with higher trust in the central bank. The results also show that the predicted probability of positive preferences gradually decreases with the age of the respondent. It seems that the income of the individual does not play a role in the attitude towards the privacy function of the digital euro. The results for the other two attributes considered, i.e. offline payments and better communication with public institutions, suggest very similar probability plots as in the case of the privacy attribute (Figure 8).

<sup>&</sup>lt;sup>9</sup>For details on estimating such models, see for example Wooldridge (2010).

Figure 8: Probability plot of ordered logit regressions along with 95% confidence intervals



*Notes*: The vertical axes show the predicted probabilities of categories along with their 95% confidence intervals, while the horizontal axes show the selected covariates. Regressions are estimated using survey weights and the same set of covariates as in the baseline models. *Source*: Survey on digital euro, FOCUS, 2024.

## 3.3. ALLOCATION OF FINANCIAL RESOURCES TO DIGI-

Finally, we follow Li (2023) and try to quantify the amount of disposable monthly financial resources that individuals would allocate to digital euros. While Li (2023) considered holdings of CBDCs out of total household liquid assets, we lack this information in the survey and use net monthly income as a base. The distribution of the planned holdings of digital euros as a share of individual net monthly income suggests that the majority of the respondents would invest up to 20% of their monthly net income in the digital currency, with a median of 16%. This ratio is in line with Li (2023), who estimates that around 20% of households' liquid assets would flow into the Canadian CBDC, as long as the banks would endogenously respond to its specific properties.

We also estimate the main determinants of the willingness to transfer disposable monthly net income into digital euros by estimating the following OLS regression:

$$\frac{DIGITAL\_EUROS_{i}}{NET\_INCOME_{i}} = \alpha + \sum_{j=1}^{J} \beta_{j} \cdot POLI\_PREF_{ij} + \gamma \cdot TRUST\_CB_{i} + \delta' \cdot X_{i} + \sum_{k=1}^{8} \lambda_{k} \cdot REG_{ik} + \varepsilon_{i},$$
(2)

where the notation of the right-hand-side variables remains the same as in equation (1) expect the new outcome variable  $\left(\frac{DIGITAL\_EUROS_i}{NET\_INCOME_i}\right)$  that stands for the ratio between digital euros and the net individual monthly income.

To explore the results beyond the mean, which are given by the OLS estimates, we also estimate the effects of the main explanatory variables of interest at different parts of the outcome variable's distribution. We do this by estimating the Unconditional Quantile Regressions (UQR) based on the concept of Recentered Influence Functions suggested by Firpo et al. (2009).<sup>10</sup>

The results of this analysis are shown in Figure 9. The OLS estimates, together with

<sup>&</sup>lt;sup>10</sup>More details on the empirical application of the UQR is detailed, for example, in Cupak et al. (2022).

Trust in CB Social media usage Cash affine 0.20 0.00 0.05 -0.20 0.10 0.00 -0.40 0.00 -0.05 -0.60 -0.10 -0.10 -0.80 -0.200.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 0.9 0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 0.9 0.2 0.3 0.4 0.5 0.6 0.7 0.8 0.9 Ouantile Ouantile **Ouantile** Male Net income (log) Age 0.00 0.05 0.30 -0.200.20 0.00 0.10 -0.60-0.05 0.00 -0.80 -0.10-1.00 0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 0.9 0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 0.9 0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 0.9

Figure 9: OLS and UQR estimates of the determinants of the allocation of net monthly income to digital euros

*Notes*: This figure shows the estimated marginal effects of OLS (black solid lines) along with the 95% CI (black dashed lines) and the estimated marginal effects of UQR (dark blue lines) along with the 95% CI (blue shaded areas). Regressions are estimated using survey weights and the same set of covariates as in the baseline models. More detailed results are available in Table A.5. *Source*: Survey on digital euro, FOCUS, 2024.

Ouantile

the estimated 95% confidence intervals, are shown by the black solid and black dashed lines respectively. The results of the UQR, together with their 95% confidence intervals, are shown in the navy and blue shaded areas. Further detailed results on the UQR estimates are presented in Appendix, Table A.5.

The baseline OLS results suggest that the share of net disposable income allocated to digital euros decreases with greater cash affinity, higher income levels, and increasing age. Cash preference and age are negatively correlated with the willingness to use digital euros, as indicated by the regression analysis in the previous subsection. However, the decreasing share of income allocated to the digital euro as income rises does not imply a reduction in the absolute amount of money transferred. In fact, the total amount allocated to the digital currency generally increases as income grows.

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The UQR results reveal that the average effects estimated by the OLS mask significant heterogeneity (see Figure 9). The impact is particularly more pronounced in the upper part of the outcome variable's distribution. Although there is greater uncertainty around those estimates, the negative effect of cash affinity and net income becomes more substantial for individuals allocating the highest share of their income to the digital euro. These findings emphasize the negative correlation between cash preference and potential digital euro usage. With respect to income, the results confirm that higher-income individuals allocate a smaller proportion of their income to the digital euro, even though the absolute amount of funds transferred is higher compared to lower-income groups.

### 4. Conclusions

This paper presents the results of a novel survey on the awareness and attitudes towards the digital euro, and the potential demand for it among Slovak adults. A major strength of this survey is its comprehensive scope, which not only captures awareness and attitudes towards the digital euro but also examines political preferences, attitudes towards the EU integration, and trust in institutions. These insights are critical for identifying key focus groups that may respond differently to the introduction of the digital euro. Understanding the preferences, concerns, and trust levels of specific demographic segments allows further work on the design of the digital euro and crafting more effective and targeted messaging.

The survey found that 34% of respondents have already heard or read about the digital euro and approximately 26% of participants express a hypothetical intention to use this new digital currency. However, more than 16% of respondents remain uncertain or unable to answer this question. The likelihood of using the digital euro is strongly correlated with trust in institutions, such as the central bank, affinity for cash and social media usage, alongside standard socio-economic factors like age or education.

Interestingly, political preferences also play a role in shaping potential future demand

for the digital euro. Individuals who identify as liberals are more inclined to consider using the digital euro, while EU skeptics are significantly less likely to do so. Other findings highlight that privacy and transaction security are top concerns for potential users of the digital euro. In addition, the majority of consumers plan to allocate up to 20% of their net monthly income on to digital euros. These results are closely related to the recent findings of Li (2023).

Overall, our empirical results suggest that the current demand for the digital euro among Slovak respondents (around 26% of the participants) is about half the level of interest observed in other countries such as Austria or the Netherlands (where approximately 50% of the population has shown interest) (see Abramova et al., 2022; Bijlsma et al., 2024).

These finding could be valuable for policymakers not only in designing the specific properties of the digital euro, but also in better tailoring communication strategies to raise general awareness of its benefits. Additionally, findings about attitude towards the digital euro provide another perspective in the ongoing discussion about potential outflows of deposits from banks, albeit this is conditional on the current level of information. More comprehensive research is necessary to thoroughly assess the implications of the digital euro introduction for financial stability.

While the results presented in this paper should be treated with a degree of caution due to the non-random nature of the survey, they offer several interesting insights, particularly in comparison with similar studies conducted in other countries. Beyond continued monitoring of awareness and attitudes towards the digital euro, these findings raise follow-up questions that can be explored and tested in future research using more advanced sampling methods. Such research could help draw broader conclusions for the general population and contribute to the improved design of the digital euro.

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### **APPENDIX**

### A. ADDITIONAL TABLES

Table A.1: Distribution of the main socio-demographic characteristics in the survey sample compared to the external source

	Census 2021	Survey data (raw)	Survey data (weighted)
Sex			· · · · ·
Male	48.4	48.2	48.3
Female	51.6	51.8	51.7
Age group			
18-24 years	8.7	9.8	8.8
25-34 years	17.0	17.9	17.5
35-44 years	20.0	21.4	20.2
45-54 years	17.2	17.7	17.2
55-64 years	16.1	15.9	16.0
65+ years	21.0	17.3	20.3
Education			
Primary	13.1	10.0	13.2
Secondary without a high school diploma	24.4	26.1	24.4
Secondary with a high school diploma	38.5	38.2	38.5
Tertiary	24.0	25.7	23.9
Municipality size			
Up to 1 thousand	15.2	15.1	15.3
1-5 thousands	30.5	29.4	30.5
5-20 thousands	16.7	15.9	16.6
20-99 thousands	24.6	26.1	24.6
100 thousands +	13.1	13.5	13.1
Region of residence			
Bratislava region	13.1	13.4	13.1
Trnava region	10.6	10.2	10.5
Trenčín region	10.9	10.7	10.8
Nitra region	12.8	11.9	12.8
Žilina region	12.7	12.6	12.7
Banská Bystrica region	11.6	11.9	11.8
Prešov region	14.3	14.5	14.3
Košice region	14.0	14.8	14.0
Employment status			
Employed for wage	49.7	51.5	49.9
Self employed	8.1	6.5	8.3
Retired	24.7	25.9	25.4
Student	3.3	4.6	3.2
At home (maternity / parental leave)	8.8	5.7	8.0
Unemployed	5.4	5.9	5.2

Source: Survey on digital euro, FOCUS, 2024; Census, Statistical Office of the Slovak Republic, 2021.

Table A.2: Summary statistics

	N	Mean	SD	Min	Max
Outcome variables					
Ever heard/read about digital euro*	1,179	0.35	0.48	0.00	1.00
Potential usage of digital euro*	1,027	0.31	0.46	0.00	1.00
Digital euros to net monthly income ratio*	581	0.29	0.29	0.00	1.00
Attitudes towards digital euro attributes					
High privacy protection*	1,152	2.82	0.47	1	3
Guaranteed anonymity of payments*	1,145	2.74	0.55	1	3
Option to reverse the transaction*	1,132	2.74	0.54	1	3
Instant settlement of payments*	1,134	2.71	0.56	1	3
Offline payments*	1,109	2.66	0.61	1	3
Communication with public institutions*	1,110	2.61	0.62	1	3
Independent variables					
Political preferences: liberal*	1,188	0.24	0.43	0.00	1.00
Political preferences: center*	1,188	0.39	0.49	0.00	1.00
Political preferences: conservative*	1,188	0.36	0.48	0.00	1.00
More competencies to EU*	1,195	0.22	0.41	0.00	1.00
Same competencies to EU as today*	1,195	0.28	0.45	0.00	1.00
Less competencies to EU*	1,195	0.33	0.47	0.00	1.00
EU project has no future*	1,195	0.17	0.37	0.00	1.00
Trust in the central bank*	1,198	3.43	1.02	1.00	5.00
Frequency of using social media (Facebook, Twitter, etc.)	1,224	4.68	1.93	1.00	6.00
Cash affine	1,224	0.41	0.49	0.00	1.00
Ownership of funds*	1,198	0.16	0.37	0.00	1.00
Ownership of bonds*	1,199	0.05	0.22	0.00	1.00
Ownership of shares*	1,194	0.06	0.23	0.00	1.00
Ownership of crypto-assets*	1,197	0.05	0.22	0.00	1.00
Individual income (Eur)*	1,153	864.18	470.72	0.00	1900.00
Male	1,224	0.48	0.50	0.00	1.00
Age	1,224	47.65	16.30	18.00	85.00
Age squared	1,224	2535.55	1586.31	324.00	7225.00
University	1,224	0.24	0.43	0.00	1.00
Employed	1,224	0.50	0.50	0.00	1.00
Self-employed	1,224	0.08	0.28	0.00	1.00
Retired	1,224	0.25	0.43	0.00	1.00
Other empl. status	1,224	0.17	0.37	0.00	1.00
Bratislava region	1,224	0.13	0.34	0.00	1.00
Trnava region	1,224	0.11	0.31	0.00	1.00
Trenčín region	1,224	0.11	0.31	0.00	1.00
Nitra region	1,224	0.13	0.33	0.00	1.00
Žilina region	1,224	0.13	0.33	0.00	1.00
Banská Bystrica region	1,224	0.12	0.32	0.00	1.00
Prešov region	1,224	0.14	0.35	0.00	1.00
Košice region	1,224	0.14	0.35	0.00	1.00

Notes: Weighted summary statistics of variables entering the regression analysis. \* The options 'don't know' and 'no answer' are not taken into account for the marked variables, so these variables are unimputed.

Table A.3: Determinants of digital euro awareness

		(3)	(4)	(5)	(6)	(7)	(8)	(9)
Political preferences: liberal 0.164*** 0	).157***	0.159***	0.123***	0.117***	0.099**	0.102**	0.081*	0.094**
	(0.044)	(0.045)	(0.045)	(0.045)	(0.046)	(0.048)	(0.048)	(0.046)
	0.062*	0.066*	0.101***	0.107***	0.101***	0.104***	0.110***	0.110***
	(0.036)	(0.036)	(0.036)	(0.036)	(0.036)	(0.036)	(0.037)	(0.036)
More competencies to EU	0.034	0.036	0.032	0.026	0.048	0.062	0.055	0.043
	(0.049)	(0.049)	(0.049)	(0.049)	(0.049)	(0.051)	(0.051)	(0.049)
Less competencies to EU	0.001	0.001	0.017	0.019	0.055	0.065	0.073*	0.052
	(0.040)	(0.041)	(0.041)	(0.041)	(0.040)	(0.042)	(0.042)	(0.041)
EU project has no future	0.007	0.001	0.026	0.035	0.089*	0.094*	0.106**	0.079
	(0.050)	(0.051)	(0.050)	(0.050)	(0.049)	(0.050)	(0.049)	(0.050)
Trust in the central bank		0.000	-0.004	-0.006	-0.004	-0.005	0.000	0.001
F ( ' ' 1 1'		(0.016)	(0.016)	(0.016)	(0.016)	(0.016)	(0.016)	(0.016)
Frequency of using social media			0.056***	0.051***	0.047***	0.045***	0.029***	0.029***
C 1 (C			(0.007)	(0.008)	(0.008)	(0.008)	(0.009)	(0.010)
Cash affine				-0.063	-0.043	-0.040	-0.015	-0.014
Oran analysis of from do				(0.038)	(0.039) 0.165***	(0.040) 0.144***	(0.040) 0.119**	(0.039) 0.104**
Ownership of funds								
Orum analysis of hamida					(0.049) 0.007	(0.049)	(0.049)	(0.047) 0.038
Ownership of bonds					(0.073)	0.009 (0.072)	0.011 (0.071)	(0.072)
Ownership of shares					0.073)	0.072) $0.107$	0.119	0.072)
Ownership of shares					(0.079)	(0.081)	(0.077)	(0.077)
Ownership of crypto-assets					0.274***	0.256***	0.226***	0.221***
Ownership of crypto-assets					(0.080)	(0.087)	(0.084)	(0.082)
Individual income (log)					(0.000)	0.030	0.010	0.002)
marviatia meome (10g)						(0.019)	(0.025)	(0.026)
Male						(0.01)	0.075**	0.077**
Hate							(0.033)	(0.032)
Age							0.010	0.009
1190							(0.007)	(0.007)
Age squared							-0.000**	-0.000**
81							(0.000)	(0.000)
University							0.115***	0.122***
							(0.041)	(0.040)
Employed							0.034	0.064
1 7							(0.081)	(0.076)
Self-employed							0.150	0.171*
1 7							(0.103)	(0.098)
Retired							0.133	0.151*
							(0.088)	(0.084)
Regional FE No	No	No	No	No	No	No	No	Yes
R-squared 0.018	0.019	0.019	0.063	0.066	0.113	0.111	0.144	0.176
N obs 1,144	1,123	1,104	1,104	1,104	1,075	1,021	1,021	1,021

Notes: Robust standard errors presented in parentheses. Regressions estimated using survey weights. 'Political preferences: center', 'Same competencies to EU as today' and 'Other employment status' are reference categories of the respective dummy variable set. \* p < 0.10, \*\* p < 0.05, \*\*\* p < 0.01.

Table A.4: Determinants of interest in using the digital euro

Comperence   Compensation   Compen
Political preferences: conservative
More competencies to EU
More competencies to EU         0.067         0.069         0.067         0.047         0.046         0.053         0.048         0.           Less competencies to EU         (0.051)         (0.051)         (0.050)         (0.048)         (0.049)         (0.050)         (0.049)         (0.048)         (0.049)         (0.048)         (0.040)         (0.038)         (0.049)         (0.038)         (0.049)         (0.038)         (0.049)         (0.038)         (0.049)         (0.048)         (0.049)         (0.048)         (0.049)         (0.048)         (0.044)         (0.042)         (0.045)         (0.043)         (0.042)         (0.042)         (0.045)         (0.045)         (0.047)         (0.055)         (0.055)         (0.055)         (0.055)         (0.055)         (0.056)
Countribute
Less competencies to EU  -0.135*** -0.107*** -0.094** -0.076** -0.072* -0.072* -0.060 -0.  (0.042) (0.041) (0.040) (0.039) (0.038) (0.040) (0.038) (0.  EU project has no future -0.181*** -0.139*** -0.116*** -0.068 -0.054 -0.056 -0.035 -0.  (0.044) (0.045) (0.043) (0.042) (0.042) (0.042) (0.045) (0.043) (0.  Trust in the central bank -0.061*** 0.057*** 0.049*** 0.050*** 0.047*** 0.050*** 0.05  Frequency of using social media -0.041*** 0.014) (0.014) (0.014) (0.014) (0.015) (0.015) (0.015) (0.015) (0.016)  Cash affine -0.276*** -0.252*** -0.258*** -0.244*** -0.2  Ownership of funds -0.047*** 0.026*** 0.034) (0.035) (0.036) (0.035) (0.036) (0.035) (0.036) (0.035) (0.036) (0.035) (0.036) (0.036) (0.035) (0.036) (
Compact   Comp
EU project has no future
(0.044) (0.045) (0.043) (0.042) (0.042) (0.045) (0.043) (0.043) (0.042) (0.045) (0.043) (0.044) (0.044) (0.045) (0.045) (0.044) (0.045
Trust in the central bank 0.061*** 0.057*** 0.049*** 0.050*** 0.047*** 0.050** 0.050
(0.015)   (0.014)   (0.014)   (0.014)   (0.015)   (0.0
Frequency of using social media       0.047***       0.026***       0.026***       0.009<
Cash affine       (0.006)       (0.006)       (0.007)
Cash affine       -0.276*** -0.252*** -0.258*** -0.258*** -0.244*** -0.2         Cownership of funds       (0.034)       (0.035)       (0.036)       (0.035)       (0.         Ownership of bonds       (0.044)       (0.044)       (0.045)       (0.045)       (0.         Ownership of shares       0.022       0.008       0.030       0.         Ownership of shares       0.049       0.088       0.106       0.
Ownership of funds       (0.034)       (0.035)       (0.036)       (0.035)       (0.         Ownership of bonds       (0.044)       (0.043)       (0.045)       (0.045)       (0.         Ownership of shares       0.022       0.008       0.030       0.         Ownership of shares       0.049       0.088       0.106       0.
Ownership of funds       0.073*       0.061       0.057       0.         (0.044)       (0.045)       (0.045)       (0.         Ownership of bonds       0.022       0.008       0.030       0.         (0.075)       (0.074)       (0.066)       (0.         Ownership of shares       0.049       0.088       0.106       0.
Ownership of bonds     (0.044)     (0.045)     (0
Ownership of bonds       0.022       0.008       0.030       0.         (0.075)       (0.074)       (0.066)       (0.         Ownership of shares       0.049       0.088       0.106       0.
(0.075)     (0.074)     (0.066)     (0.074)       Ownership of shares     0.049     0.088     0.106     0.088
Ownership of shares 0.049 0.088 0.106 0.
(0,076) (0,077) (0,077)
(0.070) $(0.077)$ $(0.077)$ $(0.077)$
Ownership of crypto-assets 0.232*** 0.226*** 0.208*** 0.19
(0.074)  (0.080)  (0.070)  (0.080)
Individual income (log) 0.005 0.045** 0.0
(0.017) $(0.020)$ $(0.020)$
Male 0.035 0.
(0.029) $(0.029)$
-0.010 -0.
(0.007) (0.
Age squared 0.000 0.
(0.000) $(0.$
University $0.074^*$ 0.0
(0.039) (0.
Employed -0.150** -0.1
(0.066) (0.
Self-employed -0.085 -0.
(0.088) (0.
Retired -0.077 -0.
(0.071) $(0.$
Regional FE No
R-squared 0.157 0.187 0.207 0.241 0.304 0.320 0.314 0.350 0.
N obs 998 979 963 963 963 944 899 899 8

*Notes*: Robust standard errors presented in parentheses. Regressions estimated using survey weights. 'Political preferences: center', 'Same competencies to EU as today' and 'Other employment status' are reference categories of the respective dummy variable set.

\* p < 0.10, \*\* p < 0.05, \*\*\* p < 0.01.

Table A.5: OLS and UQR estimates of the determinants of the digital euro allocation out of net income

	(1)	(2)	(3)	(4)	(5)	(6)
	OLS	Q(10)	Q(25)	Q(50)	Q(75)	Q(90)
Political preferences: liberal	0.039	-0.010	-0.016	0.033	0.091	0.105
The last of the same of the sa	(0.032)	(0.016)	(0.021)	(0.027)	(0.082)	(0.131)
Political preferences: conservative	-0.015	-0.002	-0.028	-0.011	-0.031	-0.007
	(0.032)	(0.018)	(0.024)	(0.030)	(0.080)	(0.123)
More competencies to EU	0.022	-0.029	-0.017	-0.021	0.114	0.155
T	(0.035)	(0.018)	(0.022)	(0.030)	(0.088)	(0.138)
Less competencies to EU	0.000	-0.010	-0.026	-0.012	0.021	0.073
	(0.034)	(0.016)	(0.021)	(0.029)	(0.083)	(0.131)
EU project has no future	0.060	-0.031	-0.032	0.011	0.283**	0.217
	(0.050)	(0.027)	(0.036)	(0.045)	(0.143)	(0.219)
Trust in the central bank	0.014	0.010	0.018*	0.021	0.026	0.009
F ( ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' '	(0.016)	(0.008)	(0.010)	(0.014)	(0.037)	(0.060)
Frequency of using social media (Facebook, Twitter, etc.)	0.000	0.009	0.017**	0.013	-0.008	-0.003
Cool office	(0.010)	(0.007)	(0.007)	(0.008)	(0.024)	(0.036)
Cash affine	-0.127***	-0.046**	-0.052**	-0.078***	-0.202**	-0.397***
Ownership of funds	(0.033) 0.034	(0.021) 0.016	(0.023) -0.009	(0.029) 0.017	(0.084) 0.135	(0.130) 0.061
Ownership of funds	(0.034)	(0.018)	(0.025)	(0.031)	(0.091)	(0.142)
Ownership of bonds	0.007	-0.008	0.023)	0.063	0.006	-0.051
Ownership of bonds	(0.044)	(0.027)	(0.034)	(0.043)	(0.116)	(0.206)
Ownership of shares	0.100*	-0.025	0.024	0.043	0.086	0.432*
Ownership of shares	(0.052)	(0.028)	(0.035)	(0.044)	(0.129)	(0.241)
Ownership of crypto-assets	-0.002	-0.008	-0.002	-0.052	-0.018	0.209
ownership of crypto assets	(0.049)	(0.025)	(0.032)	(0.041)	(0.113)	(0.222)
Individual income (log)	-0.176***	-0.039**	-0.060***	-0.096***	-0.313***	-0.505***
marriada meome (108)	(0.040)	(0.017)	(0.023)	(0.029)	(0.086)	(0.177)
Male	0.046*	0.030**	0.009	0.048**	0.113*	0.067
	(0.027)	(0.014)	(0.017)	(0.023)	(0.066)	(0.105)
Age	-0.009	0.002	0.003	-0.008*	-0.027	-0.017
O .	(0.007)	(0.003)	(0.004)	(0.005)	(0.017)	(0.032)
Age squared	0.000	-0.000	-0.000	0.000	0.000	0.000
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
University	0.050	-0.016	-0.022	0.013	0.058	0.294*
·	(0.036)	(0.015)	(0.019)	(0.027)	(0.079)	(0.150)
Employed	-0.022	-0.000	0.016	0.031	-0.075	-0.344
	(0.063)	(0.028)	(0.043)	(0.051)	(0.150)	(0.298)
Self-employed	0.088	-0.016	0.028	0.106	0.142	0.118
	(0.084)	(0.044)	(0.057)	(0.068)	(0.198)	(0.387)
Retired	-0.083	-0.026	0.036	-0.017	-0.186	-0.604*
	(0.078)	(0.043)	(0.054)	(0.063)	(0.191)	(0.331)
Regional fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.214	0.095	0.086	0.124	0.157	0.179
N obs.	544	544	544	544	544	544

*Notes*: Robust standard errors presented in parentheses. Regressions estimated using survey weights. 'Political preferences: center', 'Same competencies to EU as today' and 'Other employment status' are reference categories of the respective dummy variable set. \* p < 0.10, \*\* p < 0.05, \*\*\* p < 0.01.

### B. DESCRIPTION OF VARIABLES ENTER-

### ING THE REGRESSION ANALYSES

- **Digital euro awareness**: 1 if an individual has ever read/heard about the digital euro, and 0 otherwise.
- **Digital euro usage**: 1 if an individual would be interested in using the digital euro in the future, and 0 otherwise.
- Allocation of monthly income to digital euros: The ratio between planned digital euro holdings (transactions with digital euro) and individual monthly net income. This ratio is top-coded at 1 due to outliers.
- Attitudes towards digital euro attributes: A set of score measures ranging from 1 'Disagree' to 3 'Strongly agree' on the following attributes of the digital euro: high privacy protection, guaranteed anonymity of payments, option to reverse the transaction, instant settlement of payments, offline payments, better communication with public institutions (e.g. paying taxes)
- **Political preferences**: Dummy variables set for basic political preferences: liberal, center, and conservative.
- **EU integration**: Dummy variables set for the views on the European Union (EU) integration: more integration, about the same, less integration, EU project has no future.
- **Trust in the central bank**: Score ranging from 1 to 5, where 1 means very little trust in the central bank, and 5 means very high trust in the central bank.
- **Social media usage**: Frequency of using the social media (such as Twitter, Facebook, etc.). Score ranging from 1 to 6, where 1 means a rare usage of social media, and 6 means everyday usage of social media.

- Cash affinity: 1 if an individual prefers cash payments, and 0 otherwise.
- Ownership of funds: 1 if an individual currently owns any mutual funds, and 0 otherwise.
- Ownership of bonds: 1 if an individual currently owns any bonds.
- Ownership of shares: 1 if an individual currently owns any shares/stocks.
- **Ownership of crypto-assets**: 1 if an individual currently owns any crypto-assets.
- **Individual monthly net income**: Individual monthly net income in Euros. 'Continuous' income is generated as mid points from very detailed income intervals asked to respondents: 0; 0–400; 401–500; . . ., 1,601-1,800; 1,800 and above. Hence, measured income is top-coded.
- Male: 1 if male, and 0 otherwise.
- **Age**: Age of the respondent.
- **University**: 1 if an individual has completed university education, and 0 otherwise.
- Employment status: Dummy variables set for employment status categories: employed, self-employed, retired, other employment status.
- Region: Dummy variables set for 8 main regions in Slovakia: Bratislava, Trnava,
   Trenčín, Nitra, Žilina, Banská Bystrica, Prešov, Košice.

## C. THE SURVEY QUESTIONNAIRE

This appendix presents the basic structure of the questions that were asked to respondents. Some (less important) questions have been omitted for reasons of space.

## F1. How often do you pay per week by credit card/phone or other form of cashless payment?

- -2: No answer
- -1: Don't know
- 1: Every day or almost every day
- 2: 4-5 times a week
- 3: 2-3 times a week
- 4: 1 time per week
- 5: Less frequently
- 6: I don't use cashless payments at all (I only pay with cash)

## F2. Have you encountered any technical problems when you wanted to make a cashless payment?

- -2: No answer
- -1: Don't know
- 1: Yes
- 2: No

### F3. How often do you pay per week in cash?

- -2: No answer
- -1: Don't know
- 1: Every day or almost every day
- 2: 4-5 times a week
- 3: 2-3 times a week
- 4: 1 time per week
- 5: Less frequently
- 6: I don't pay cash at all (I only pay cashless)

### F4. Do you prefer cash or non-cash payment?

-2: No answer

- -1: Don't know
- 1: Cash
- 2: Cashless payment

### F6. Estimate how much euro cash did you take with you and spend abroad last year?

- -2: No answer
- -1: Don't know
- 1: None
- 2: Up to 500 EUR
- 3: 500 1,000 EUR
- 4: 1,000 5,000 EUR
- 5: More than 5,000 EUR

### F7. Have you ever heard or read about the digital euro before this interview?

- -2: No answer
- -1: Don't know
- 1: Yes
- 2: No

### F8\_1. Trust: Retail banks

- -2: No answer
- -1: Don't know
- 1: Don't trust at all
- 2: Rather don't trust
- 3: Neutral attitude
- 4: Rather trust
- 5: Very trusting

### F8 2. Trust: Central bank

- -2: No answer
- -1: Don't know
- 1: Don't trust at all
- 2: Rather don't trust

- 3: Neutral attitude
- 4: Rather trust
- 5: Very trusting

### F8\_3. Trust: Insurance companies

- -2: No answer
- -1: Don't know
- 1: Don't trust at all
- 2: Rather don't trust
- 3: Neutral attitude
- 4: Rather trust
- 5: Very trusting

### F8\_4. Trust: Mutual/investment fund management companies

- -2: No answer
- -1: Don't know
- 1: Don't trust at all
- 2: Rather don't trust
- 3: Neutral attitude
- 4: Rather trust
- 5: Very trusting
- F9. Would you open a digital euro account if there were no fees associated with maintaining it and no interest accrued? This is a no-fee, no-money appreciation account, allowing free payment transactions.
  - -2: No answer
  - -1: Don't know
  - 1: Yes
  - 2: No

## F10\_1. The importance to you of the following feature of a digital euro account: High privacy protection

- -2: No answer
- -1: Don't know

- 1: Not important
- 2: Moderately important
- 3: Important

## F10\_2. The importance to you of the following feature of a digital euro account: Guaranteed anonymity of payments

- -2: No answer
- -1: Don't know
- 1: Not important
- 2: Moderately important
- 3: Important

## F10\_3. The importance to you of the following feature of a digital euro account: Feeling secure

- -2: No answer
- -1: Don't know
- 1: Not important
- 2: Moderately important
- 3: Important

## F10\_4. The importance to you of the following feature of a digital euro account: Ability to make payments without internet access

- -2: No answer
- -1: Don't know
- 1: Not important
- 2: Moderately important
- 3: Important

## F10\_5. The importance to you of the following feature of a digital euro account: Instant settlement of payments

- -2: No answer
- -1: Don't know
- 1: Not important
- 2: Moderately important

### 3: Important

- F10\_6. The importance to you of the following feature of a digital euro account: Possibility of more efficient communication with public institutions (payment of taxes, receipt of social benefits, etc.)
  - -2: No answer
  - -1: Don't know
  - 1: Not important
  - 2: Moderately important
  - 3: Important
- F10\_7. The importance to you of the following feature of a digital euro account: Ability to reverse a transaction
  - -2: No answer
  - -1: Don't know
  - 1: Not important
  - 2: Moderately important
  - 3: Important
- F11. The digital euro could be used in different ways: via smartphone, with specially designed cards or with specially designed mobile devices, which would be provided free of charge. The digital euro would be used alongside cash or other means of payment as an additional form of payment. The digital euro would be deposited in newly opened digital euro accounts and the balance would not bear interest. Would the introduction of the digital euro be an interesting proposition for you?
  - -2: No answer
  - -1: Don't know
  - 1: Yes
  - 2: No
- F11b. For what purpose can you imagine using the digital euro?
  - -2: No answer
  - -1: Don't know
  - 1: Just as a test (in the sense of just trying it out)
  - 2: For a few small payments

- 3: For direct payments between individuals
- 4: For some part of payments
- 5: For most current payments
- 6: For no payments

## F11c. In such a case, how much euros would you pay monthly from your digital euro account in this way?

- -2: No answer
- -1: Don't know
- ... [Amount in Eur]

## F12. If the digital euro also guaranteed transactions abroad without fees, would you change your behaviour towards using the digital euro or would it change your payment habits?

- -2: No answer
- -1: Don't know
- 1: I would change my behaviour towards using the digital euro
- 2: It would not change my payment habits

### F13\_1. Ownership of: Household main residence

- -2: No answer
- -1: Don't know
- 1: Yes
- 2: No

### F13\_2. Ownership of: Other real estate (house, flat, land, garage, etc.)

- -2: No answer
- -1: Don't know
- 1: Yes
- 2: No

### F13\_3. Ownership of: Mortgage loan

- -2: No answer
- -1: Don't know

- 1: Yes
- 2: No

### F13\_4. Ownership of: Non-mortgage loan

- -2: No answer
- -1: Don't know
- 1: Yes
- 2: No

### F13\_5. Ownership of: Credit card

- -2: No answer
- -1: Don't know
- 1: Yes
- 2: No

### F13\_6. Ownership of: Current account

- -2: No answer
- -1: Don't know
- 1: Yes
- 2: No

### F13\_7. Ownership of: Savings account

- -2: No answer
- -1: Don't know
- 1: Yes
- 2: No

### F13\_8. Ownership of: Investment funds (mutual funds, ETFs, etc.)

- -2: No answer
- -1: Don't know
- 1: Yes
- 2: No

### F13\_9. Ownership of: Shares/Stocks

- -2: No answer
- -1: Don't know
- 1: Yes
- 2: No

### F13\_10. Ownership of: Bonds

- -2: No answer
- -1: Don't know
- 1: Yes
- 2: No

### F13\_11. Ownership of: Crypto-assets

- -2: No answer
- -1: Don't know
- 1: Yes
- 2: No

### F13\_12. Ownership of: Other assets

- -2: No answer
- -1: Don't know
- 1: Yes
- 2: No

### R1. Sex

- -2: No answer
- -1: Don't know
- 1: Male
- 2: Female

### R2. Age in years

- -2: No answer
- -1: Don't know
- ... [Years]

#### **R4.** Education

- -2: No answer
- -1: Don't know
- 1: Primary or incomplete primary
- 2: Secondary education without matriculation (apprenticeship)
- 3: Secondary education with matriculation
- 4: University education

### **R5.** Nationality

- -2: No answer
- -1: Don't know
- 1: Slovak
- 2: Hungarian
- 3: Other

#### **R6.** Economic status

- -2: No answer
- -1: Don't know
- 1: Unskilled or manual worker in agriculture, industry, services
- 2: Skilled manual worker (artisan, repairer, machine and equipment operator, grower/keeper...)
- 3: Operational or service worker in services and commerce (salesman, hairdresser, driver, cook, carer,
- 4: Clerical or clerical worker (secretary, accountant, counter clerk post office, bank
- 5: Executive professional worker (health/nurse, educator, technician, professional clerk, customs officer...)
- 6: Creative (university-educated) professional (doctor, teacher, lawyer, scientist, analyst, computer scientist, artist
- 7: Manager/executive, company/business director, deputy, senior civil servant, politician, army commander
- 8: Self-employed (entrepreneur, sole trader) without employees
- 9: Self-employed (entrepreneur, sole trader) with employees
- 10: Pensioner, totally disabled pensioner

- 11: Student, pupil
- 12: Housewife or on maternity (parental) leave
- 13: Unemployed

### R7. Number of household members

- -2: No answer
- -1: Don't know
- ... [Number, top-code at 10]

### R10. Marital status

- -2: No answer
- -1: Don't know
- 1: Single
- 2: Married
- 3: Companion (living together without marriage)
- 4: Divorced
- 5: Widow/widower

### R11. Individual net monthly income (in categories)

- -2: No answer
- -1: Don't know
- 0: Without income
- 1: less than 400 EUR
- 2: 401 EUR to 500 EUR
- 3: 501 EUR to 600 EUR
- 4: 601 EUR to 700 EUR
- 5: 701 EUR to 800 EUR
- 6: 801 EUR to 900 EUR
- 7: 901 EUR to 1,000 EUR
- 8: 1,001 EUR to 1,200 EUR
- 9: 1,201 EUR to 1,400 EUR
- 10: 1,401 EUR to 1,600 EUR
- 11: 1,601 EUR to 1,800 EUR

### 12: 1,801 EUR and more

### R12. Size of the village/city

- -2: No answer
- -1: Don't know
- 1: Less than 1,000
- 2: 1,000 1,999
- 3: 2,000 4,999
- 4: 5,000 9,999
- 5: 10,000 19,999
- 6: 20,000 49,999
- 7: 50,000 99,999
- 8: 100,000 and more (Bratislava, Košice)

### R13. Region of residence

- -2: No answer
- -1: Don't know
- 1: Bratislava
- 2: Trnava
- 3: Trenčín
- 4: Nitra
- 5: Žilina
- 6: Banská Bystrica
- 7: Prešov
- 8: Košice

### X1. How often do you use the internet?

- -2: No answer
- -1: Don't know
- 1: Every day
- 2: Several times a week
- 3: About once a week
- 4: 2-3 times a month

- 5: Less frequently
- 6: I don't use at all

## X2. How often do you use social networks (such as Facebook, Twitter/X, Instagram, Tik-tok, etc.)?

- -2: No answer
- -1: Don't know
- 1: Every day
- 2: Several times a week
- 3: About once a week
- 4: 2-3 times a month
- 5: Less frequently
- 6: I don't use at all

## Y1. On political issues, people often talk about the "left" and the "right". Where would you put yourself?

- -2: No answer
- -1: Don't know
- 1: Clear left
- 2: Rather left
- 3: Centre
- 4: More to the right
- 5: Clear right

## Y2. Do you consider yourself more of a liberal or more of a conservative minded person?

- -2: No answer
- -1: Don't know
- 1: Clearly liberal
- 2: Rather liberal
- 3: Centrist
- 4: Rather conservative
- 5: Clearly conservative

### Y3. Which of the following best describes your attitudes towards the EU?

- -2: No answer
- -1: Don't know
- 1: I believe that the project of European integration should continue, integration should be deepened in other areas and the EU's competences should be further strengthened
- 2: I think it should remain as it is today that is, the EU's competences should not be strengthened, but neither should nation states demand a weakening of the EU's decision-making power in areas that the EU already has today
- 3: I believe that the voice of nation states in the European Union should be strengthened and that some of the competences that are now decided by Brussels should be returned to nation states
- 4: I think that the European Union has no future

### Y4. Overall, which type of politics do you like the most?

- -2: No answer
- -1: Don't know
- 1: Conservative, which emphasizes traditional values and stability
- 2: Liberal, which emphasises freedom and the free market
- 3: Progressive, which emphasises pro-Europeanism, equality of gender, races and different groups, multiculturalism
- 4: Social democratic, which emphasises the need for a strong state, social policy and social justice
- 5: National, which emphasises the priority and protection of the nation and its interests
- 6: Other