

MASTERARBEIT | MASTER'S THESIS

Titel | Title

The Digital Euro and Its Potential Effects on Commercial Banks:
Deposit Funding and Liquidity Implications

verfasst von | submitted by

Devin Robert Lamhène BSc

angestrebter akademischer Grad | in partial fulfilment of the requirements for the degree of
Master of Science (MSc)

Wien | Vienna, 2026

Studienkennzahl lt. Studienblatt | Degree
programme code as it appears on the student
record sheet:

UA 066 914

Studienrichtung lt. Studienblatt | Degree
programme as it appears on the student
record sheet:

Masterstudium Internationale Betriebswirtschaft

Betreut von | Supervisor:

Univ.-Prof. Dr. Gyöngyi Lóranth

Acknowledgements

I would first like to express my sincere gratitude to my supervisor, Univ.-Prof. Dr. Gyöngyi Lóranth, for agreeing to supervise this thesis and for her understanding and help throughout the process. Without her, this thesis would not have been possible.

I would also like to thank my father and my girlfriend for their patience, encouragement and support throughout my studies and during the completion of this thesis. I am also grateful to my sister for her valuable help in distributing the survey and finding respondents.

Finally, I would like to dedicate this thesis to the memory of my mother, who sadly passed away before she could see its completion. Her love and support have shaped the person I am today, and I will always carry her in my heart.

English Abstract

The digital euro is a central bank digital currency currently being developed by the European Central Bank. This thesis examines how the adoption of the digital euro could affect commercial banks, especially through potential transfers from current and savings accounts into the digital euro. To investigate this question, a survey with 290 respondents was conducted. The survey had two versions of a description, with one version being framed neutrally and the other version being framed more positively and mentioning more potential benefits of the digital euro. Respondents were assigned to one of the two versions based on whether their year of birth was odd or even. After the respondents were shown the description, they were asked about their willingness to use and hold the digital euro, intended amounts, funding sources, trust in the ECB, perception of safety and privacy concerns.

The results showed moderate but uncertain adoption intentions. 46.6% of respondents were likely or very likely to use the digital euro, while 37.6% were willing to hold it and 42.1% remained unsure. Among those willing to hold the digital euro, 60.6% intended to hold €1,000 or less. Current and savings accounts were the main intended funding sources, which indicates that adoption could lead to a partial transfer of commercial bank deposits into central bank money. The positive framing did not significantly increase the willingness to use or hold the digital euro. On the other hand, trust in the ECB and perceived safety of the digital euro were positively associated with willingness to hold it, while privacy concerns were associated with lower adoption intentions. So, while the findings suggest that the digital euro is unlikely to replace commercial bank accounts entirely, it could still create some pressure on bank funding and liquidity. Holding limits, non-remuneration and the waterfall mechanism could reduce, but probably not completely eliminate, these effects. The true extent of the pressure felt by commercial banks can only be assessed after the introduction of the digital euro.

German Abstract

Der digitale Euro ist eine digitale Zentralbankwährung, welche derzeit von der Europäischen Zentralbank entwickelt wird. Diese Arbeit untersucht, wie sich die Einführung des digitalen Euro auf Geschäftsbanken auswirken könnte, insbesondere wenn Kunden einen Teil ihres Guthabens von Giro- und Sparkonten in den digitalen Euro übertragen würden. Zur Untersuchung dieser Fragestellung wurde eine Umfrage mit 290 Befragten durchgeführt. Die Umfrage enthielt zwei verschiedene Versionen einer Beschreibung des digitalen Euros. Eine Version war neutral formuliert und die andere war positiver dargestellt und es wurden zusätzliche potenzielle Vorteile des digitalen Euro hervorgehoben. Die Befragten wurden einer der zwei Versionen zugeteilt, je nachdem, ob ihr Geburtsjahr gerade oder ungerade ist. Nachdem ihnen die jeweilige Beschreibung gezeigt worden war, wurden sie nach ihrer Bereitschaft gefragt, den digitalen Euro zu nutzen, Geld im digitalen Euro zu halten, sowie nach den beabsichtigten Beträgen, den vorgesehenen Finanzierungsquellen, ihrem Vertrauen in die EZB, ihrer Wahrnehmung der Sicherheit des digitalen Euro und ihren Datenschutzbedenken. Die Ergebnisse zeigten eine moderate, aber unsichere Bereitschaft, den digitalen Euro zu nutzen und zu halten. 46,6 % der Befragten gaben an, den digitalen Euro wahrscheinlich oder sehr wahrscheinlich nutzen zu wollen, während 37,6 % bereit waren, ihn zu halten, und 42,1 % noch unentschlossen waren. Von denjenigen, die bereit waren, den digitalen Euro zu halten, beabsichtigten 60,6 %, einen Betrag von höchstens 1.000 Euro zu halten, wobei Giro- und Sparkonten dabei die wichtigsten vorgesehenen Finanzierungsquellen darstellten. Dies deutet darauf hin, dass die Einführung des digitalen Euro zu einem teilweisen Abfluss von Einlagen bei Geschäftsbanken in Zentralbankgeld führen könnte. Die positive Darstellung hat die Bereitschaft, den digitalen Euro zu nutzen oder zu halten, nicht signifikant erhöht. Das Vertrauen in die EZB und die wahrgenommene Sicherheit des digitalen Euro standen in einem positiven Zusammenhang mit der Bereitschaft ihn zu halten, während Datenschutzbedenken mit geringeren Nutzungs- und Halteabsichten verbunden waren. Die Ergebnisse deuten somit darauf hin, dass der digitale Euro Geschäftsbankkonten voraussichtlich nicht vollständig ersetzen, aber dennoch einen gewissen Druck auf die Finanzierung und Liquidität der Banken ausüben könnte. Obergrenzen für Guthaben, die fehlende Verzinsung und der Wasserfallmechanismus könnten diese Auswirkungen verringern, sie jedoch wahrscheinlich nicht vollständig verhindern. Das tatsächliche Ausmaß des Drucks auf Geschäftsbanken kann erst nach der Einführung des digitalen Euro beurteilt werden.

Contents

1 Introduction	1
1.1 Background and Motivation	1
1.2 Research Question	2
1.3 Contribution of the Thesis	2
1.4 Structure of the Thesis	3
2 Theoretical and Institutional Background	3
2.1 Central Bank Digital Currencies.....	3
2.2 The Digital Euro	7
2.2.1 Definition and Basic Characteristics	7
2.2.2 Objectives of the European Central Bank	8
2.2.3 User-Oriented Design Features	9
2.2.4 Banking Relevance and Safeguards	10
2.3 Implications for Commercial Banks.....	12
2.3.1 Deposit Substitution	12
2.3.2 Bank Funding and Financial Intermediation	14
2.3.3 Retail Payment Services and Strategic Responses	17
2.4 Liquidity Risks and Financial Stability	19
2.4.1 Liquidity Effects and Digital Bank Runs	19
2.4.2 Safeguards and Their Effectiveness	21
2.5 Previous Empirical Research.....	24
2.5.1 Awareness and Willingness to Adopt.....	24
2.5.2 Factors Influencing Adoption.....	26
2.5.3 Information and Framing Effects	28
3 Methodology.....	29
3.1 Research Design	29
3.2 Survey Design	30
3.2.1 Questionnaire Design	30
3.2.2 Direct Measures and Measurement Approach	30
3.2.3 Questionnaire Length and Respondent Burden	31
3.2.4 Survey Platform and Multilingual Design.....	32
3.2.5 Questionnaire Structure and Respondent Flow	33
3.3 Information Treatment (A/B Design).....	35
3.4 Survey Distribution and Sample.....	36
3.5 Hypotheses	37

3.6 Data Analysis.....	39
3.7 Limitations.....	40
4 Survey Results	41
4.1 Sample Description	41
4.2 Awareness and General Attitudes Towards the Digital Euro.....	43
4.3 Willingness to Use and Hold the Digital Euro	45
4.4 Intended Holding Amounts and Sources of Funds.....	45
4.5 Reasons for Adoption, Non-Adoption and Uncertainty	47
4.6 Comparison of the Neutral and Positive Framing Groups	50
4.7 Attitudinal, Demographic and Behavioural Differences	51
4.8 Summary of Main Results	56
5 Discussion.....	57
5.1 Interpretation of Survey Results	58
5.1.1 Adoption intentions and attitudes	58
5.1.2 Intended holdings and sources of funds	60
5.1.3 Information framing and subgroup differences	62
5.2 Implications for Commercial Banks.....	64
5.2.1 Deposit substitution, funding and liquidity	64
5.2.2 Safeguards and strategic implications	67
5.3 Limitations.....	69
6 Conclusion	72
6.1 Summary of Findings	72
6.2 Answer to the Research Question and Overall Conclusion.....	74
6.3 Future Research	75
7 References	77
8 Appendices	79
8.1 English Questionnaire.....	80
8.2 German Questionnaire.....	88
8.3 French Questionnaire.....	96
8.4 Hungarian Questionnaire.....	104
8.5 Additional Tables and Figures.....	112

List of tables

Table 1: Comparison of retail vs wholesale CBDCs.....	4
Table 2: Status of CBDC projects according to the Atlantic Council CBDC Tracker.....	7
Table 3: Hypothetical additional annual funding costs under different deposit replacement scenarios.	15
<i>Table 4: Age and gender composition of the sample</i>	41
<i>Table 5: Educational and occupational characteristics of the sample</i>	42
<i>Table 6: Country of residence of the sample</i>	43
<i>Table 7: Awareness of the digital euro and digital payment behaviour</i>	44
<i>Table 8: General attitudes towards the digital euro.</i>	44
<i>Table 9: Stated likelihood of using and willingness to hold the digital euro.</i>	45
<i>Table 10: Intended digital euro holding amounts among respondents willing to hold digital euro.</i>	46
<i>Table 11: Intended sources of digital euro holdings.</i>	46
<i>Table 12: Main reason for using the digital euro among respondents willing to hold it...</i>	47
<i>Table 13: Comparison of willingness to use and hold the digital euro by framing group..</i>	50
<i>Table 14: Willingness to hold the digital euro by trust in the ECB and perceived safety...</i>	52
<i>Table 15: Willingness to use and hold the digital euro by level of privacy concern.</i>	53
<i>Table 16: Selected behavioural and demographic differences in willingness to use and hold the digital euro.</i>	54
<i>Table 17: Summary of hypotheses and empirical findings.</i>	57

List of figures

Figure 1: Global status of CBDC projects. Source: Atlantic Council CBDC Tracker (Atlantic Council, 2025) https://www.atlanticcouncil.org/cbdctracker/	6
Figure 2: Structure and conditional routing of the survey questionnaire.	33
Figure 3: Reasons for not holding digital euro.	48
Figure 4: Reasons for uncertainty about holding digital euro.....	49
Figure 5: Jamovi output for the Mann–Whitney U test comparing likelihood of use between the framing groups	112
Figure 6: Jamovi output for the Pearson chi-square test examining the association between survey framing and willingness to hold the digital euro.	113
Figure 7: Jamovi output for the Pearson chi-square test examining the association between trust in the European Central Bank and willingness to hold the digital euro.....	114
Figure 8: Jamovi output for the Pearson chi-square test examining the association between perceived safety of the digital euro and willingness to hold the digital euro.....	115
Figure 9: Jamovi output for the Spearman rank correlation between privacy concerns and likelihood of using the digital euro.....	116
Figure 10: Jamovi output for the Pearson chi-square test examining the association between privacy concerns and willingness to hold the digital euro.	117
Figure 11: Jamovi output for the Mann–Whitney U test comparing likelihood of using the digital euro between respondents with and without prior awareness.	118
Figure 12: Jamovi output for the Pearson chi-square test examining the association between prior awareness of the digital euro and willingness to hold it.	119
Figure 13: Jamovi output for the Spearman rank correlation between comfort with digital payments and likelihood of using the digital euro.....	120
Figure 14: Jamovi output for the Pearson chi-square test examining the association between grouped digital-payment comfort and willingness to hold the digital euro.	121
Figure 15: Holm-adjusted p-values for the four exploratory analyses calculated using the Rj Editor in jamovi.	121

1 Introduction

1.1 Background and Motivation

The way that individuals and businesses process transactions has significantly changed over time due to continuous digitalization of payments. Cash usage has been declining steadily, and card payments, internet banking, mobile payment apps, and private digital wallets are becoming more and more common. Because of these developments, the role of digital payment infrastructures has become increasingly important. This raises questions about the future role of central bank money in digital form in an increasingly digital economy.

In response to these developments, the European Central Bank (ECB) is currently working on the possible introduction of a digital euro. The digital euro would be a new kind of central bank money that could be used by households and businesses for everyday payments. According to the ECB, the digital euro should complement cash and existing private payment solutions, not replace them. The digital euro would therefore be a further publicly available means of payment in the eurozone and could reinforce the role that central bank money plays in digital transactions (European Central Bank, 2025a).

However, the digital euro could have potential implications for commercial banks. If individuals decide to keep part of their money in the form of digital euro instead of commercial bank deposits, this could affect the deposit base of banks, which is an important source of funding for commercial banks. Such a shift could have consequences for bank liquidity and funding structures. The extent of these potential effects would depend on the technical design of the digital euro (e.g. holding limits, remuneration) as well as on the level of public acceptance, given that actual usage is likely to be one of the most important determinants of its real effects.

This banking perspective is one of the main motivations for this thesis. The digital euro is often primarily discussed as a new public digital means of payment, but its introduction could also affect the relationship between households, commercial banks, and central bank money. This is especially relevant for countries with large financial sectors. One example is Luxembourg, where the financial sector accounts for about one quarter of the country's GDP and around 10% of employment according to the OECD. This raises questions about the future role of commercial banks, deposit funding, and liquidity, especially in such a context (OECD, 2025).

Since the digital euro has not yet been introduced, the actual adoption numbers and resulting effects cannot yet be observed. For this reason, examining how potential users currently perceive the digital euro and whether they would be willing to use or hold it could provide useful insights into possible adoption patterns and their relevance for commercial banks.

1.2 Research Question

Based on the background information outlined in 1.1, the central research question of this thesis is:

How could the adoption of the digital euro affect commercial banks, particularly regarding deposit funding and liquidity?

To answer the main research question, this thesis also considers the following sub questions:

SQ1: To what extent are individuals willing to use and hold the digital euro?

SQ2: From which sources would potential digital euro holdings be funded?

SQ3: To what extent does the presentation of information about the digital euro influence stated adoption intentions?

1.3 Contribution of the Thesis

This thesis contributes to the discussion of the digital euro by looking at the link between potential user adoption and possible implications for commercial banks. The empirical contribution is based on a survey that examines potential users' awareness, attitudes, and stated behavioural intentions regarding the digital euro.

A key contribution of the survey is that it not only asks whether the respondents would be willing to use or hold the digital euro but also which sources would likely fund potential digital euro holdings. This is important because transfers from current accounts or savings accounts could indicate possible substitution of deposits from commercial banks to central bank money.

The survey additionally includes two different descriptions of the digital euro, which makes it possible to look into whether a more positive framing of the digital euro is

associated with different adoption intentions than a more neutral description. For that reason, the key contribution of this thesis is in combining the banking perspective with the survey based analysis of potential user behaviour and information framing.

1.4 Structure of the Thesis

The thesis is structured in the following way. Chapter 2 presents the theoretical and institutional background of the digital euro and discusses the potential implications for commercial banks. Chapter 3 explains the methodology of the empirical survey, including the questionnaire design, use of two different descriptions, sample, hypothesis, and methodological limitations. Chapter 4 presents the empirical results of the survey, while Chapter 5 discusses the findings in relation to the research question and implications for commercial banks. Chapter 6 concludes the thesis and outlines possible directions for future research.

2 Theoretical and Institutional Background

This chapter provides the theoretical and institutional background for the analysis of the possible effects of the digital euro on commercial banks. The digital euro has not yet been introduced, and its possible implications therefore can not be measured on the basis of observed adoption behaviour. For this reason, this chapter relies on the existing literature on central bank digital currencies, the current design proposals of the European Central Bank, and previous empirical studies on consumer attitudes and adoption intentions.

The chapter first places the digital euro within the wider context of central bank digital currencies and then explains the specific concept, objectives, and design of the digital euro. It then discusses the potential implications for commercial banks, especially in connection to deposit substitution, bank funding, liquidity risks, and financial stability.

2.1 Central Bank Digital Currencies

Central bank digital currencies, or CBDCs, are part of a broader international discussion on the future role of central bank money in a more digital financial system. Historically, there has only been cash available as central bank money to the general public, whereas a CBDC would allow central bank money to be used in digital form (Illes et al., 2025). The digital euro is one such project but CBDCs are being discussed by central banks in many different countries and jurisdictions and can take different forms depending on their intended purpose and institutional setting.

CBDCs are not a standardized tool, and their design is highly dependent on the objectives of the central bank issuing the CBDC and the structure of the financial system in which the CBDC would be introduced. Some CBDC projects are more oriented towards retail payments by households and firms, while others are oriented towards financial market infrastructure, settlement between financial institutions, or cross-border payments. This means that the economic impact of a CBDC cannot be evaluated in a general manner and is highly dependent on whether the CBDC is designed for retail or wholesale use, whether it is interest bearing, the maximum amount that users are permitted to hold, and the role played by commercial banks or other intermediaries in its distribution.

CBDCs are commonly divided into retail CBDCs and wholesale CBDCs. A retail CBDC would be accessible to the public, meaning individuals and businesses could use it for everyday payments. As it is currently envisioned by the ECB, the digital euro would fall under this category. A wholesale CBDC would be limited to financial institutions and would primarily be used for settlements between banks or other financial market actors (Illes et al., 2025). While wholesale CBDCs are not directly relevant for the general public, they could help to improve the efficiency, speed, and security of financial market transactions.

Dimension	Retail CBDC	Wholesale CBDC
Main users	Individuals and firms	Commercial banks, central banks, and other financial institutions
Main purpose	Everyday payments, access to digital central bank money	Settlement between financial institutions and financial market transactions
Relation to commercial banks	Could affect deposits, bank funding, and retail payment services	Mainly affects interbank settlement and financial market infrastructure
Relevance for the digital euro	The digital euro is designed as a retail CBDC	Not the focus of the digital euro project

Table 1: Comparison of retail vs wholesale CBDCs

Source: Own illustration based on (Illes et al., 2025) and (European Central Bank, 2025a)

This is an important distinction to make because retail and wholesale CBDCs would affect commercial banks differently. A wholesale CBDC would mainly impact interbank settlement processes and financial market infrastructure. A retail CBDC, on the other hand,

could directly impact the relationship between households, firms, commercial banks and the central bank. Because a retail CBDC could become an alternative to commercial bank deposits for some users, it is particularly relevant for analyzing potential effects on bank deposits, bank funding, and liquidity.

The introduction of CBDCs involves several policy trade-offs. Their impact depends strongly on design choices, because a CBDC can be designed in very different ways depending on whether the central bank wants to focus on retail payments, wholesale settlement, financial inclusion, cross-border payments, or payment system resilience. These different objectives mean that CBDCs cannot be assessed as one uniform instrument but have to be analysed in relation to their specific design and institutional context. This also explains why CBDC projects usually require extensive research and testing before implementation, as their effects may extend beyond payments and interact with the wider banking and financial system.

Consequently, the design of a CBDC is critical to its economic impact. Holding limits, remuneration, privacy features, offline functionality, and the role of intermediaries are not just technical details, but important policy choices (Illes et al., 2025). For example, a CBDC that pays interest and has no limits on how much one can hold may be more attractive as a store of value. In contrast, a CBDC with holding limits and without or with limited remuneration would be more clearly geared towards payments. The design decisions will determine whether a CBDC will primarily complement existing forms of money or whether it might compete more directly with commercial bank deposits.

All the different CBDC projects around the world vary greatly in regards to their stage of development and the goals that they want to achieve with the introduction of their respective CBDCs. While some countries have begun piloting their CBDCs and some even have already introduced CBDCs, others are still in the research or even only in the preparation stage (Atlantic Council, 2025; Illes et al., 2025). These examples demonstrate that CBDCs are not being explored for one reason but can be motivated by different priorities such as financial inclusion, payment efficiency, monetary sovereignty or the modernization of settlement systems. This also shows why the digital euro needs to be looked at in the specific context of the eurozone rather than as a universal CBDC model.

In some countries or currency areas, especially in emerging markets and developing economies, financial inclusion is also an important motivation for CBDC development, as a

CBDC could provide access to digital payments for individuals with limited access to bank accounts or formal financial services. In the euro area, however, this motivation is less central, since access to banking and digital payment services is already comparatively widespread. This difference is reflected in international financial inclusion data. According to the Global Findex 2021 report, account ownership in developing economies had risen substantially, from 42% of adults in 2011 to 71% in 2021 (Demirgüç-Kunt et al., 2022). However, this still meant that a significant proportion of adults lacked access to an account. The Global Findex 2025 report showed that in 2024, 75% of adults in low- and middle-income economies had an account, compared to a global average of 79% (Klapper et al., 2025). In comparison, an ESBG analysis based on Global Findex 2021 data estimates that around 4% of EU adults, or more than 13 million people, remained unbanked (European Savings and Retail Banking Group, 2022). From that information we can see that financial exclusion is not absent in Europe, but it is considerably less widespread than in many developing economies. However, for the digital euro, financial inclusion is more of a convenient additional advantage than a main policy rationale, with objectives such as preserving access to central bank money, payment resilience, and European payment autonomy being the main drivers for its introduction.

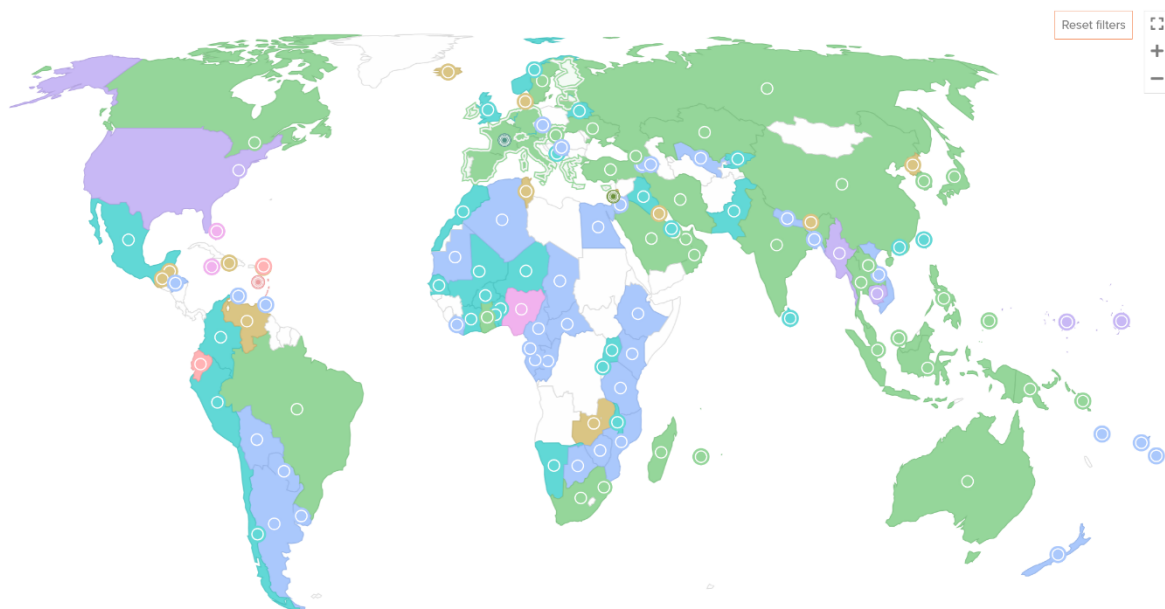


Figure 1: Global status of CBDC projects. Source: Atlantic Council CBDC Tracker (Atlantic Council, 2025) <https://www.atlanticcouncil.org/cbdctracker/>

Status	Number of countries / currency unions
Launched	3
Pilot	41
Development	33
Research	40
Inactive	15
Cancelled	9
Other	5

Table 2: Status of CBDC projects according to the Atlantic Council CBDC Tracker. Source: (Atlantic Council, 2025)

Figure 1 and Table 2 show that CBDC projects are being explored across a large number of countries and currency unions, but that they are at very different stages of development. While only a small number of CBDCs have been fully launched, many jurisdictions are still in the research, development, or pilot phase. This supports the view that the digital euro is part of a wider international CBDC development rather than an isolated European initiative.

In general, CBDCs can be seen as an attempt by central banks to modernize public money for a more digital financial system. The digital euro is therefore not a unique development, but one particular example of a larger debate about the future of money, payments and the role of central banks in the digital economy.

2.2 The Digital Euro

2.2.1 Definition and Basic Characteristics

The digital euro is a proposed form of central bank money that would be available to households and businesses to use for everyday payments in the eurozone. It would serve as a kind of publicly accessible digital form of money and would complement cash in an increasingly digital payment environment. The European Central Bank describes the digital euro as a digital form of cash that is backed by the ECB, free for basic use, and usable for person-to-person payments as well as retail payments both online and at physical points of sale (European Central Bank, 2025a).

Currently, cash is the only form of central bank money that is directly available to the general public. Commercial banks also hold central bank money in the form of reserves at the central bank, but these reserves are not accessible to households and businesses for

everyday payments. Most digital payments made by individuals therefore rely on commercial bank money, usually in the form of bank deposits. The digital euro would change this by giving the public access to central bank money in digital form.

A key characteristic of the digital euro is that it would be a liability of the central bank rather than a liability of a commercial bank. This distinction is important because the digital euro would give households and businesses access to digital central bank money, while existing digital payment methods are usually based on claims against commercial banks, claims against deposits in current accounts in particular. The digital euro would therefore extend access to central bank money into the digital payment environment and could provide the public with a digital means of payment that is directly backed by the central bank.

2.2.2 Objectives of the European Central Bank

The reason for introducing a digital euro is closely related to the change in the way we pay. Cash will still be available as physical central bank money, but its role in everyday transactions has diminished over time while online payments, card payments and mobile payment solutions have become increasingly important in people's everyday lives. This raises the question from the ECB's point of view as to how to keep central bank money available to the general public in an increasingly digital payment economy (European Central Bank, 2025a). This issue could be addressed with the digital euro by offering another form of central bank money that can additionally be used for digital payments, while remaining a complement to cash rather than a replacement.

The digital euro is also connected to broader questions of payment sovereignty and resilience in Europe. Most digital payment solutions currently used in the euro area are provided by private companies or international card payment providers. This dependence has become more relevant in the context of increasing geopolitical uncertainty, because payment infrastructures are not only technical systems but also part of the economic and strategic infrastructure of a currency area. The ECB therefore argues that a digital euro could support Europe's strategic autonomy by contributing to the development of a European public digital payment solution and by reducing dependence on non-European, mostly US, private payment providers. In this sense, the digital euro is not only a monetary project, but also part of a broader discussion about the future structure of the European payments landscape (Cipollone, 2025).

A further objective is to support a more integrated and standardized European retail payment infrastructure. The digital euro would not only be a new form of central bank money, but also a payment solution that could be accepted across the eurozone under common rules and standards. The digital euro rulebook and the development of a common acceptance framework will enable consistent payment services for users and merchants across countries and payment service providers (European Central Bank, 2025a). This is important because the fragmentation of European retail payments has limited the ability of European payment solutions to achieve sufficient scale across the euro area, which has contributed to internationally active private payment providers having a large market share in digital payments, since they can offer broad acceptance and standardized services across national borders (Cipollone, 2025).

2.2.3 User-Oriented Design Features

From the end users' point of view the digital euro would have to be simple and convenient enough to compete with existing digital payment methods. If the digital euro is too difficult to use or does not offer any clear benefits compared to current payment methods, actual adoption numbers could remain very limited. That is why the ECB places particular emphasis on aspects such as convenience, broad acceptance, free basic use, and the possibility of making both online and offline payments. Offline functionality is especially relevant as it would allow payments to be made even when internet access is temporarily unavailable, which ties back to payment system resilience and would make the digital euro more similar to cash in this respect. In practical terms, this means that users should be able to use the digital euro in a similar way across the euro area, regardless of their country, bank, or payment service provider.

Another important design issue is privacy. Compared to most digital payment methods, cash generally offers a higher degree of anonymity in everyday transactions because individual payments are not automatically recorded by a payment provider. Digital payments, on the other hand, typically generate data, and many consumers may be concerned about how such data is collected, stored, and used. For that reason, the ECB presents privacy protection as an important feature of the digital euro, especially because the digital euro is intended to complement cash in a digital environment. At the same time, the digital euro would still have to comply with legal requirements related to anti-money laundering and counter-terrorist financing. This creates a tension between privacy, regulatory compliance,

and operational security. The final design of the digital euro therefore has to strike a balance between the objective of protecting users' privacy and the need to prevent illegal use.

2.2.4 Banking Relevance and Safeguards

The role of commercial banks and other payment service providers is important for the practical implementation of the digital euro as the current design does not imply that the ECB would itself provide all services directly to users. Instead, the digital euro is expected to follow an intermediated model in which banks and payment service providers would remain involved in distribution, user access, wallet provision, customer onboarding, and payment services. This means that commercial banks would not only be affected through possible changes in deposits but could also play an operational role in providing digital euro services to customers, meaning that the digital euro would be relevant both as a potential substitute for some deposit holdings and as a new addition in the retail payments business (European Central Bank, 2025a).

For commercial banks, the digital euro is also relevant because it could affect the way households and firms hold liquid funds. The decision of users to shift part of their money from commercial bank deposits into digital euro holdings could reduce the deposit base of banks. As deposits are an important source of bank funding, such a shift of funds could have implications for bank liquidity, funding costs, and financial intermediation. This is one of the main reasons why the design of the digital euro is important from a banking perspective.

The ECB has laid out a number of safeguards designed to reduce any potential negative effects on commercial banks and on financial stability in the eurozone. Holding limits are an important protective measure, meaning that there would be a limit on how much digital euro a person could hold at one time. This would lower the risk of large outflows from commercial banks into the digital euro, especially during times of financial instability (European Central Bank, 2025a).

Another potential design feature is the waterfall mechanism, which would allow for payments received in digital euro that exceed the holding limit to automatically be transferred to a linked commercial bank account. In the same way, if a user wants to make a digital euro payment but does not have enough digital euro funds available, funds could automatically be drawn from the linked bank account. From an economic point of view, this mechanism would allow for automatic movement between central bank money (i.e. digital euro) and commercial bank money (i.e. commercial bank deposits). This would enable users

to make payments conveniently while still preventing the digital euro from becoming a large-scale store of value. In this way, the waterfall mechanism supports the view that the digital euro should be first and foremost a means of payment and not a substitute for bank deposits. Businesses and public-sector organizations could use the digital euro to make and receive payments but would not be allowed to hold digital euro balances. Incoming payments would be immediately transferred to a commercial bank account, and outgoing payments would be made from that account (Cipollone, 2024, 2026).

The question of remuneration, meaning whether users would receive interest on their digital euro holdings, is also important. While some earlier CBDC discussions considered interest-bearing designs, the current digital euro design is generally presented as non-remunerated. In the case that digital euro holdings were remunerated at an attractive interest rate, users might have a stronger incentive to shift money away from bank deposits and into the digital euro. This could increase the risk of deposit substitution and make the digital euro more attractive as a store of value. For this reason, the digital euro is generally only discussed as a payment instrument and not as an interest-bearing savings product. A design with no or limited remuneration would reduce the incentive to hold large amounts of digital euro and would further help to limit the potential impact on commercial bank funding (European Central Bank, 2025a).

Although several core elements are well established in the current design of the digital euro, the legal and technical framework has not yet been finalized. The legislation has yet to be adopted and the ECB will decide whether to issue the digital euro when it is in place. Details like the numerical holding limit and the final scheme rulebook may still change before its final implementation (European Central Bank, 2026). Consequently, the features presented in this thesis should be seen as features of a proposed design and not as final characteristics of an already approved digital euro.

In conclusion, the digital euro can be seen as an effort to preserve the role of central bank money in a digitalized payment environment. It is intended to complement cash by providing a public digital payment option while also strengthening European payment autonomy and ensuring that citizens continue to have access to central bank money. At the same time, the digital euro creates important questions for commercial banks because it could change how people allocate their liquid funds between bank deposits and central bank money. The digital

euro is therefore especially relevant for the analysis of deposit funding, liquidity and financial stability.

2.3 Implications for Commercial Banks

2.3.1 Deposit Substitution

Deposit substitution is one of the most direct and potentially most potent ways that the digital euro could impact commercial banks. Deposit substitution is when individuals move money from their accounts that they hold at commercial banks to holdings in the digital euro, which would be a switch from commercial bank money to central bank money. The liabilities would also change from the commercial bank being liable for the bank deposits to the central bank being liable for digital euro holdings. From the perspective of an individual, both could be used to make everyday payments, meaning that they would at least partially serve the same purpose and therefore could compete with each other in terms of usage.

The extent of deposit substitution would depend first and foremost on how many people decide to adopt the digital euro and how much money they choose to hold in it. The limited use of the digital euro for occasional payments would likely result in only small transfers from bank accounts, while if a large percentage of users maintained balances close to the allowed holding limit on a regular basis, the overall impact on deposits in commercial banks could be noticeably more significant. The expected adoption rate of a digital euro is therefore an important factor in determining the possible deposit outflows faced by the banking sector. ECB research similarly states that the degree to which the public converts commercial bank money into digital euro would determine the size of deposit outflows and could consequently affect commercial banks' capacity to intermediate credit (Adalid et al., 2022).

Not all bank deposits would be affected equally, as current accounts may be particularly relevant because they are commonly used for everyday payments and would therefore serve a similar purpose to the digital euro. This means that users could transfer portions of their current account balances into digital euro wallets to make online or point-of-sale payments or even person to person transactions. Deposits in savings accounts could also be affected if the digital euro is seen as a particularly safe way to hold money, especially in times of uncertainty. However, because of the non-remuneration and holding limits design choices, the attractiveness of the digital euro as a savings instrument would be reduced,

provided that these measures work as intended. For that reason, the digital euro would be expected to mainly substitute a limited portion of liquid deposits rather than long term savings or investment products.

However, there is a reason why CBDC holdings and bank deposits might not necessarily be a one to one substitution. In response to the introduction of CBDCs commercial banks could respond by adjusting the interest rates or the services offered on commercial bank deposits in order to retain customers. For example, a theoretical IMF analysis found that banks may increase their interest rates in response to competition from a CBDC which in turn could reduce the amount of money transferred away from commercial banks. At the same time, some individuals may still prefer to move their money because of payment convenience, accessibility, or the fact that the digital euro is a direct claim against the central bank (Chang et al., 2023). For that reason, the final effect on deposits would depend not only on the preferences of customers but also on the strategic response of commercial banks to this new competition.

The effectiveness of such measures taken by commercial banks may vary across individuals. Chang et al. (2023) highlight the role that fixed access costs, like costs associated with opening and maintaining access to a bank account regardless of the amount deposited, play. These costs include but are not limited to account fees, documentation requirements, minimum-balance conditions, or even the time and effort required in accessing banking services. Higher interest rates on deposits may not be enough to prevent some individuals from shifting to a more accessible CBDC, because such costs have a larger impact on users with relatively smaller balances. This factor may be more important in places with lower levels of financial inclusion, but it still shows that deposit substitution could differ across different groups of consumers.

As discussed in Section 2.2.4, the degree of deposit substitution would also depend on the design of the digital euro. In particular, its non-remunerated character would make it less attractive than interest-bearing bank deposits and would therefore limit its use as a store of value, just like holding limits would further restrict by placing a direct ceiling on the amount that each user could hold. The ECB's recent technical assessment concluded that hypothetical holding limits between €500 and €3,000 per person would restrict deposit outflows and that the effects would remain manageable even under highly conservative

assumptions. However, the ECB also stresses that these figures are illustrative and do not represent a final decision on the appropriate holding limit (European Central Bank, 2025b).

Deposit substitution should therefore not automatically be understood as the complete replacement of commercial bank deposits. More realistically, users may divide their liquid funds between bank accounts, cash, and digital euro holdings depending on the purpose for which the money is needed. The digital euro could be used primarily as a transactional balance, while bank deposits would continue to be used for salary payments, direct debits, savings, credit relationships, and other banking services. Research based on German household survey evidence nevertheless suggests that there could be non-trivial demand for digital euro holdings as a partial substitute for bank deposits during normal times. The slow movement of deposits into a CBDC has been described as “slow disintermediation” compared to the rapid withdrawal of deposits that could take place during times of financial stress (Bidder et al., 2025).

For this thesis, the source of potential digital euro holdings is especially important, as funding digital euro holdings from cash would not directly reduce the deposit base of commercial banks, while transfers from current or savings accounts would represent a direct substitution of commercial bank deposits with central bank money. The survey therefore does not just ask whether respondents would be willing to hold digital euro, but also where the money would come from. This requires respondents to consider their intended source of funding and allows the analysis to distinguish between general stated willingness and a more specific stated intention with more direct implications for bank funding and liquidity.

2.3.2 Bank Funding and Financial Intermediation

Given their role as a central source of funding for banks' operations, the potential loss of deposits could create significant funding pressure. Banks act as financial intermediaries because they receive funds from individuals or businesses in the form of deposits and use that money to finance assets such as loans and securities. By doing that, banks perform maturity and liquidity transformation by using relatively liquid and short-term liabilities (e.g. deposits) to fund long-term, less liquid assets, particularly loans (Deutsche Bundesbank, 2017). Customers diverting parts of their funds to the digital euro would mean that banks have less money to perform this process. Banks would have to decide whether they would try to replace the lost funding, reduce the size of their balance sheets, or adjust the composition of their assets and liabilities. For that reason, the following section examines

the main ways in which commercial banks could adjust their funding structures and lending activities following deposit outflows.

One way that banks could replace deposits is with alternative sources of funding such as issuing debt securities, borrowing from other financial institutions, obtaining funding in wholesale markets, or making greater use of central bank refinancing. The feasibility of maintaining existing levels of lending would depend on the cost and availability of these alternative funding sources. In the case that banks have access to such alternative sources, the effects on bank lending may remain relatively small, even if the introduction of a CBDC reduces the average amount of deposits (Chang et al., 2023). For that reason, a reduction in deposits would not necessarily translate into an equal reduction in lending.

However, the downside of replacing those deposits with other sources of funding is that the funding costs of the bank may increase. Deposits are usually considered a relatively stable and low-cost source of funding, especially if they are spread across a large number of individuals and businesses, while wholesale funding may be more sensitive to market conditions and therefore could become more expensive and more difficult to obtain during times of instability or uncertainty (European Central Bank, 2016). When using these market-based or central bank funding, banks may face higher costs, where the actual increase would depend on things such as prevailing interest rates, the creditworthiness of the bank, financial market conditions, and the availability of eligible collateral.

To illustrate how the additional funding costs could vary, *Table 3* presents several hypothetical scenarios based on different amounts of deposits being replaced and different cost differences between deposit funding and alternative funding. The calculations are intended only to demonstrate the underlying mechanism and should not be interpreted as estimates of the actual impact of the digital euro.

Deposits replaced	0.5% higher cost	1% higher cost	2% higher cost
€50 million	€0.25 million	€0.50 million	€1 million
€100 million	€0.50 million	€1 million	€2 million
€200 million	€1 million	€2 million	€4 million

Table 3: Hypothetical additional annual funding costs under different deposit replacement scenarios. Source: Own calculations

The results show that the additional annual funding cost increases with both the amount of deposits replaced and the difference between the cost of deposits and the cost of alternative

funding. Even a relatively small cost difference could therefore result in substantial additional expenses when a large volume of deposits has to be replaced. Depending on whether banks are able to absorb these costs, this could reduce profit margins or create pressure to adjust lending rates, fees, or the supply of credit.

An increase in funding costs could affect banks' profitability and lending conditions, as they could either take on the additional cost by accepting lower profit margins or pass the additional cost on to the borrowers through higher interest rates on new loans or higher fees. Alternatively, banks could raise the requirements for obtaining credit and reduce lending to borrowers whose expected returns no longer justify the higher funding costs, meaning that deposit substitution could indirectly hurt individuals and businesses that need financing. Lower deposit funding may affect several areas of the banking sector, such as credit supply, profitability, risk-taking and resilience, according to Adalid et al. (2022).

The extent to which higher funding costs are reflected in lending rates would not necessarily be immediate or complete because banks cannot adjust the interest rates on existing fixed-rate loans and may also be restricted by the competition in the lending market which could limit their ability to increase prices for new borrowers. Some banks may instead accept lower profit margins while trying to offset part of the impact by reducing operating costs or adjusting other parts of their balance sheets. The effect on lending will therefore depend on the degree of the funding loss, the bank's ability to find alternative sources of funding and the degree of competition in deposit and credit markets.

In response to deposit outflows, banks could reduce the assets on their balance sheets, e.g. by letting securities mature without reinvesting, selling liquid assets or by reducing new lending. A bank's ability to handle deposit outflows would depend on its liquidity buffers, diversification of funding, reliance on customer deposits, regulatory constraints and availability of collateral. Banks that hold more liquid assets and have more diversified funding sources would be less affected (Adalid et al., 2022). This would also mean that aggregate estimates of the effects could hide the real extent to which some individual banks would be affected.

The central bank could also influence how the banking sector adjusts to deposit outflows. When customers convert commercial bank deposits into digital euro, the bank's deposit liabilities are reduced, and an equivalent amount of central bank reserves may be transferred to settle the transaction (Group of Central Banks, 2021). The ECB and the

national central banks could provide additional liquidity through refinancing operations if these reserve outflows created broader liquidity pressures and thereby help banks replace part of the lost funding and continue their lending activities (European Central Bank, n.d.). However, greater reliance on central bank financing could change the composition of bank funding and would normally require banks to provide collateral that is accepted by the central bank (Bindseil et al., 2017). This means that central bank liquidity could reduce the immediate pressure caused by deposit outflows without necessarily restoring banks to exactly the same position as before.

In an attempt to retain deposits banks might increase interest rates on deposits or enhance service on deposit accounts (see Section 2.3.1) (Chang et al., 2023). This could, however, also drive up banks' funding costs and reduce the difference between the interest earned on loans and the interest paid on deposits, which means lower margins. This could be compensated by higher lending rates, more income from fees or lower operating costs elsewhere. The net effect on profitability would therefore depend on the extent to which banks could offset the higher cost of keeping deposits.

In general, deposit outflows would not affect all banks equally, because their impact would depend on each institution's response in terms of funding and balance sheet management.

2.3.3 Retail Payment Services and Strategic Responses

The implications of the digital euro for commercial banks would be more than just deposits and funding. The intermediated model, as it is currently proposed would have the Eurosystem, consisting of the ECB and the national central banks of the euro-area countries, provide the underlying settlement infrastructure and issue the digital euro, with commercial banks and other payment service providers offering many of the services directly used by customers. This could include customer identification and onboarding, opening and maintenance of digital euro accounts, making payments, linking digital euro holdings with commercial bank accounts and providing customer support. Users would access those services through their banks or another payment service provider's existing apps and through a separate digital euro app provided by the Eurosystem. The integration of the digital euro into existing banking applications could allow banks to maintain their role in the customer interface, but it would also require investment in terms of technical integration, security, compliance procedures and customer support (European Central Bank, 2024a, 2025a, 2026).

A common infrastructure and a unified set of rules for the digital euro could provide banks and other European payment service providers with strategic opportunities. One rulebook would establish common standards and procedures for digital euro services across the euro area, so that participating institutions are compatible with one another. These conditions would enable banks to provide cross-border payment services without establishing separate payment infrastructure in every country and could also reduce their reliance on non-European providers of card payments and technology companies, which currently play an important role in European retail payments (Cipollone, 2025; European Central Bank, 2025a).

At the same time, the digital euro could increase competition in the retail payments market. Given that basic digital euro services would be standardized and could be provided by both banks and non-bank payment institutions, banks may have less room for differentiation based on the basic payment product alone. The ability to transfer a digital euro account between providers could also make it easier for customers to switch service providers which could reduce switching costs and make it harder for banks to retain customers just because switching providers is inconvenient for them. For that reason, banks which currently earn income from payment fees or privately operated payment services could therefore face pressure on some existing sources of revenue. Even so, they could still continue to compete through the quality of their applications, customer support, security features, and additional services (European Central Bank, 2024a, 2025a).

The impact on banks would depend on the final fee and compensation structure as well. The proposed model would allow individual users to use basic digital euro services free of charge but providing them to users would involve operational and investment costs for payment service providers. These costs could include things like technical infrastructure, compliance, fraud prevention, system integration and customer service. The compensation model that was proposed would allow payment service providers to charge merchants for services related to the digital euro, within reason, to avoid excessive fees. Banks could also offer other services besides the ones needed for basic use. This means that the impact on profitability would be dependent on whether the banks would receive sufficient compensation and additional revenue to make up for the resulting higher operational and investment costs (European Central Bank, 2024a).

Commercial banks could respond by combining basic digital euro services with additional products. For example, digital euro accounts could be integrated with current accounts, budgeting tools, payment notifications, or other financial products. The digital euro itself would still be a liability of the central bank but the customer experience around it could still be provided by private institutions. Banks could therefore build on their current applications, customer relationships and knowledge of consumer needs to develop additional services and maintain their position in the market of everyday payments. The common infrastructure could also be a basis for new types of payment services and allow European providers to offer these on a larger geographical scale (Cipollone, 2025; European Central Bank, 2025a).

Costs and opportunities probably would not be evenly distributed across institutions with larger banks being able to integrate digital euro services into their existing systems and spread the related costs across a large customer base. The access to the common infrastructure could be beneficial for smaller banks but the costs of implementation and compliance could be more substantial for them in relation to their size. Banks with a large retail payment business could also be more vulnerable to changes in payment related revenue, while institutions with a smaller role in consumer payments may be primarily affected through the deposit and funding channels described in the previous sections.

Overall, the digital euro could create both challenges and opportunities for commercial banks in retail payments. The impact would depend on whether banks can manage the implementation costs, maintain customer relationships, and use the common infrastructure to offer competitive and additional payment services.

2.4 Liquidity Risks and Financial Stability

2.4.1 Liquidity Effects and Digital Bank Runs

The previous section dealt with a gradual replacement of deposits and ways in which commercial banks could adjust their funding structures in normal times. Another concern arises during periods of financial stress, when customers might want to move money rapidly out of commercial banks into assets they consider safer. As a direct liability of the central bank, the digital euro could potentially become an attractive destination for such funds in a banking crisis (Group of Central Banks, 2021).

In a traditional bank run, customers either take out cash or move their money to another commercial bank. Having access to a retail CBDC would give them another means

of converting deposits directly into central bank money, without the need to go to a branch or hold physical cash, which could speed up and simplify the movement of money, especially if the digital euro could be accessed using mobile banking apps or a dedicated digital euro wallet (European Central Bank, 2026). This means that the risk of a digital bank run cannot be ignored.

The effect would be different from the gradual substitution discussed in Section 2.3.1. In normal times, users could shift small amounts into the digital euro for payment or convenience, but in times of financial stress, the motivation could shift from using the digital euro for payments to protecting funds. If depositors become uncertain about the financial condition of their commercial bank, they may prefer a central bank liability. As discussed previously, Bidder et al. (2025) distinguish this “fast disintermediation” during periods of distress from the slower substitution that may occur in normal times.

The digital euro would not necessarily lead to the underlying loss of confidence that triggers a bank run. Banks can already see fast outflows of deposits as people transfer money online to other institutions or liquid assets, as the recent example of the 2023 failure of Silicon Valley Bank, which lost more than \$40 billion in deposits in a single day, showed. The Federal Reserve acknowledged that digital banking and social media helped accelerate the run, but they were not the root cause of the bank’s vulnerability (Barr, 2023). This shows how digital channels can speed up withdrawals once concerns about a bank have already been raised and become public. A CBDC could offer another place for these funds to go by providing a highly liquid and publicly issued alternative to bank deposits, which means that the risk is then not that the digital euro would independently cause bank instability, but that it could increase the speed or scale of withdrawals once confidence in a bank had weakened (Bidder et al., 2025; Group of Central Banks, 2021).

The effects could be especially important for individual banks rather than for the banking system as a whole. If customers transfer deposits from one commercial bank to another, the funds remain within the banking sector, although the weaker bank loses liquidity. A transfer from a bank deposit into the digital euro removes the corresponding deposit liability from the banking sector and requires settlement in central bank money. The affected bank may therefore experience both a loss of funding and an outflow of reserves. From the perspective of the Eurosystem, the central bank money remains within the

monetary system, but its distribution changes from commercial bank reserves to digital euro holdings of the public (Adalid et al., 2022; Group of Central Banks, 2021).

This distinction means that even sufficient aggregate liquidity in the banking system would not guarantee that every individual institution could withstand the same level of outflows, as banks differ considerably in their liquidity buffers, collateral availability, funding structures, and dependence on deposits. A strong bank with a large amount of liquid assets may be able to replace reserve outflows through refinancing with the central bank or through the sale of assets. A weaker bank with limited eligible collateral could face more severe pressure even if aggregate liquidity conditions stayed more or less the same (Adalid et al., 2022; European Central Bank, 2025b).

A rapid outflow of deposits could also contribute to concerns about a bank's stability. If customers see or expect that other depositors are withdrawing funds, they may have an incentive to withdraw early. This coordination problem could be made worse by the ease with which deposits could be transformed into a risk-free liability of the central bank. For that reason, the digital euro could affect not only the volume of potential withdrawals but also the speed at which confidence deteriorates (Bidder et al., 2025).

At the same time, the practical scale of this risk would depend heavily on the design of the digital euro. A strict holding limit would restrict the amount that each individual could transfer into digital euro, while non-remuneration would reduce its attractiveness as a long-term store of value. The existence of these safeguards means that the digital euro would not provide an unlimited destination for bank deposits, but the question remains whether the restrictions would be sufficiently strong to contain outflows during severe financial stress (European Central Bank, 2024a, 2025b).

2.4.2 Safeguards and Their Effectiveness

The digital euro is being designed with a number of safeguards to reduce risks to bank funding and financial stability. As discussed in Section 2.2.4, the main measures are the holding limits, non-remuneration, the waterfall mechanism and the continued involvement of commercial banks and payment service providers. Their effectiveness will depend on whether they can ensure that the digital euro is mainly used as a means of payment without letting it become a big store of value.

The direct form of protection against large outflows of deposits is to impose limits on holdings, i.e. the amount of digital euro that can be held by an individual. In the event of a crisis, if a depositor wanted to transfer a larger sum out of a commercial bank, only an amount up to the specified limit could remain in the digital euro wallet, preventing the digital euro from becoming an unlimited secure asset. The ECB conducted a technical analysis of hypothetical limits of up to €3,000 per person and found that aggregate liquidity indicators would still be above regulatory minimums even under conservative assumptions of stress, although the effects would vary across individual banks (European Central Bank, 2025b).

The effectiveness of holding limits would also depend on how they were applied. A low limit would provide stronger protection for bank deposits but could make the digital euro less convenient for users and merchants. A higher limit would improve usability but allow larger transfers from commercial bank accounts. The appropriate level therefore involves a trade-off between payment functionality and financial stability protection. The limits tested by the ECB are illustrative, and the final level has not yet been determined (European Central Bank, 2025b, 2026).

Non-remuneration could have the benefit of reducing the incentive to hold funds in the digital euro for the purpose of investment or savings and therefore complement the holding limit. In normal circumstances, people may prefer bank deposits that pay interest, but in a crisis, safety may be more important than interest income. Consequently, non-remuneration could help limit gradual substitution but may be less effective in preventing users from moving funds to safer assets in periods of severe stress (European Central Bank, 2024a).

The waterfall mechanism would ensure that any incoming payments which would put the wallet balance above the holding limit would be automatically transferred to a linked commercial bank account. This means that the digital euro could be used for payments without making it possible for users to accumulate balances above the limit, although the mechanism is primarily intended for normal payment flows (European Central Bank, 2024a). In the case of a crisis affecting a specific bank, its stabilizing effect could depend on whether the users are willing to keep the linked commercial bank account and whether the automatic transfer sends funds back to the same institution they are trying to withdraw from. Commercial banks and payment service providers' ongoing role in distributing the digital

euro and serving customers could also help to preserve existing banking relationships and limit disruption of the current payment system (Cipollone, 2026).

If banks lose reserves because clients convert deposits into the digital euro, central bank refinancing operations could provide additional protection, allowing the Eurosystem to provide liquidity against eligible collateral. Such support could reduce the effects of temporary outflows of reserves that would otherwise threaten banks with the need to limit lending or to sell assets at short notice, although differences between institutions could not be fully eliminated as access to refinancing depends on the availability of eligible collateral and the financial condition of the borrowing bank (Bindseil et al., 2017; European Central Bank, n.d.).

Deposit insurance would be very important, as eligible commercial bank deposits are covered up to the specified legal limit and this protection can increase depositor confidence and reduce the risk of mass withdrawals when concerns about bank failure arise (Directive 2014/49/EU on Deposit Guarantee Schemes, 2014; European Commission, 2026). Nevertheless, deposit insurance alone may not be enough to stop withdrawals if depositors are unable to tell whether they will be able to access their funds, if they have deposits above the insured limit, or if they prefer the security of a claim directly against the central bank.

These safeguards, in combination with each other, are intended to keep the digital euro focused on payments and limit its potential to contribute to financial instability. The maximum balance would be limited, non-remuneration would reduce the incentive to use the digital euro as a savings product, the waterfall mechanism would prevent the accumulation of excess balances, and central bank refinancing could support banks experiencing reserve outflows. Still, uncertainty remains, as the digital euro is not yet in circulation and actual behaviour in a crisis cannot be known beforehand. The effectiveness of the safeguards would depend on public confidence, the final holding limit, the ease and speed with which deposits can be converted into the digital euro, the availability of alternative safe assets, and the severity of banking stress. Under normal circumstances, the safeguards are intended to make sure that substitution of deposits is manageable, but in difficult circumstances, the key question would be whether rapid conversion into central bank money would place disproportionate pressure on vulnerable institutions. This makes determining the appropriate holding limit and ensuring the availability of central bank liquidity especially important.

2.5 Previous Empirical Research

Since the digital euro is not yet in circulation, empirical research cannot look at actual long-term adoption or observed transfers from commercial bank deposits into digital euro holdings. Existing studies are therefore mostly based on surveys, hypothetical choice questions and experiments investigating awareness, stated willingness to use the digital euro and factors that may influence its adoption. While stated intentions do not necessarily translate into actual future behaviour, this research provides useful evidence on current consumer perceptions of the digital euro and which characteristics are likely to drive acceptance.

2.5.1 Awareness and Willingness to Adopt

For the digital euro to be adopted, potential users need to know that it exists and understand what it is for. Evidence so far indicates that awareness is uneven across countries and sections of the population but has increased as the project has developed. This is important because respondents could form opinions about the digital euro based on limited or even potentially incorrect information.

The ECB Consumer Expectations Survey, which was carried out across eleven euro area countries, shows that awareness of the digital euro increased rapidly between 2022 and 2025, with 53.2% of respondents indicating that they had heard of it, in August 2025, compared to 19.8% in 2022 (Filippin & Pelli, 2026). There were still significant differences between countries that persisted. Awareness was at 71.4% in Austria and 62.5% in the Netherlands, but below 40% in France and 48.9% in Ireland, below the euro area average.

This increase in awareness does not necessarily lead to an equally strong increase in willingness to adopt the digital euro. By using data from around 19,000 consumers across eleven euro area countries, Georgarakos et al. (2025) found that awareness increased over time without a corresponding increase in stated adoption intentions, suggesting that simply having heard of the digital euro is not enough to increase adoption intention. Consumers may also need to understand its characteristics, see a reason for using it and believe that it provides benefits compared with existing payment methods before they would be more willing to adopt it.

Evidence from Germany also demonstrates the difference between awareness and potential acceptance. A representative Bundesbank survey of 2,012 people conducted in 2024 found that only 41% of respondents had previously heard or read about the digital euro. Still, approximately half of respondents could imagine using it as an additional payment method. The survey also found substantial misunderstandings with some respondents believing that the digital euro would replace cash or that it was a cryptocurrency, while only a relatively small share correctly understood that it would be issued by the ECB as an additional means of payment (Deutsche Bundesbank, 2024).

The reported levels of adoption intention also differ across the euro area. According to Filippin and Pelli (2026), in 2022, 23.1% of respondents in the euro area indicated that it was “likely” or “very likely” that they would use the digital euro in their everyday transactions. Greece, Italy and Portugal had the highest stated adoption intentions, while the Netherlands, Belgium and Austria had the lowest stated adoption intentions. The differences would suggest a regional pattern, with higher stated adoption intentions in several southern European countries and lower intentions in several northern and central European countries. The regional pattern may partly reflect cultural differences in attitudes towards payment methods, institutions and new financial technologies, although the survey does not directly test cultural factors.

Payment habits today may affect the propensity to use the digital euro. Smaller transactions and payments between people are still frequently done in cash and many consumers still want to keep it as a payment option. Almost one in ten respondents (9%) also said that they needed help when making online, card or mobile payments, suggesting that some consumers face difficulties when they use digital payment methods (European Central Bank, 2024b).

These findings suggest that different groups of consumers could respond differently to the digital euro. Some consumers already use mobile banking, digital wallets and online payments frequently and may find it relatively easy to adopt an additional digital payment method, while others may have limited familiarity with digital financial services or may see little advantage in changing from payment methods that they already use. For this reason, the empirical analysis in this thesis considers not only prior awareness but also the frequency of digital payment use and respondents’ comfort with digital banking and payment technologies.

2.5.2 Factors Influencing Adoption

The willingness to use the digital euro is likely to depend on several factors, including trust, perceived safety, convenience, acceptance, cost and privacy. Consumers may place different weights on these features, which means that no single factor is likely to explain adoption for all users.

Trust is especially important because the digital euro would be issued by the Eurosystem while many of the services provided directly to users would be provided by commercial banks and other payment service providers. Filippin and Pelli (2026) find that the stated willingness to use the digital euro is positively associated with attitudes towards the existing euro and with trust in the ECB, national central banks and commercial banks. Potential users may not be able to easily distinguish between the issuer of the digital euro and the wallet or payment service provider. A person may trust the ECB as the issuer but may not trust the commercial bank or payment service provider that provides access to the service. Similarly, a high level of trust in an established bank may increase customers' stated willingness to use the digital euro when it is embedded in a familiar banking application.

Perceived safety might also make the digital euro attractive as a direct claim on the central bank. However, safety may not be enough to encourage adoption if consumers do not see a practical use for it. Existing payment methods in the euro area are already widely available and generally function well. The digital euro would therefore have to provide sufficient convenience, acceptance or additional functionality to encourage consumers to use it alongside cards, cash and mobile payment applications.

Survey evidence suggests that consumers value practical design features considerably. Filippin and Pelli (2026) find that security and the lack of additional costs were among the most highly valued features in both Ireland and the broader euro area. Ease of use, business acceptance and privacy were also considered important. The results indicate that consumers' stated willingness to adopt the digital euro may be higher if it can be used conveniently, without extra fees and at a wide range of merchants.

Privacy is another important factor, with more than three quarters of respondents in the Bundesbank survey saying that privacy protection was "important" or "very important" for the digital euro. The offline version of the digital euro, which is expected to have privacy

characteristics similar to cash, was also considered to be "important" or "very important" to 59% of respondents (Deutsche Bundesbank, 2024). These results suggest that privacy protection might influence the stated willingness of consumers to use the digital euro, especially in the case of offline payments.

Privacy may influence adoption in different ways, as strong privacy protection could increase consumers' willingness to use the digital euro, while concerns about monitoring, transaction data or access by public institutions could discourage adoption. At the same time, some respondents may place greater importance on security, fraud prevention or convenience than on anonymity. The overall effect will therefore depend on how users evaluate the trade-off between privacy, safety and regulatory requirements.

Some consumers may also care about European payment autonomy. In the Bundesbank survey, 72% of respondents stated that it was important for the digital euro to operate through European infrastructure independently of global political events or decisions. However, this motivation may be less immediately relevant to everyday users than practical concerns such as convenience, cost and security. Consumers may support the wider policy goal without necessarily becoming regular users of the digital euro.

Adoption may also be affected by demographic and behavioural differences. Awareness and willingness to adopt vary modestly by gender, age, employment status and financial literacy, according to Filippin and Pelli (2026). In the Irish sample, awareness was generally higher among men, employed and retired respondents, and those with higher financial literacy. Financial literacy was also positively associated with familiarity with the digital euro, which suggests that people's ability to understand a new financial product may affect how they evaluate it.

The survey used in this thesis therefore measures several factors that previous research identifies as potentially relevant. These include trust in the ECB, perceived safety, privacy concerns, convenience, digital payment behaviour and comfort with digital banking. It also includes demographic variables to examine whether stated adoption intentions vary across different groups of respondents.

2.5.3 Information and Framing Effects

Information is especially important, as many consumers are not well informed about the digital euro and may not yet have well formed views on it. If respondents are unaware of a proposed payment method, the information they receive may influence the features on which they focus and how they think about potential benefits and risks.

In experiments included in the ECB Consumer Expectations Survey, Georgarakos et al. (2025) randomly provided respondents with different information about the digital euro. A short video describing its key features changed consumers' beliefs and increased their stated likelihood of adoption by about 12 percentage points relative to a control group that did not see the video. These findings indicate that providing clear and accessible information may influence attitudes even where awareness itself does not lead to greater adoption intentions.

The report also states that consumers may have some initial misconceptions about the digital euro. Some of these misconceptions could be addressed by providing information on privacy, security, offline use and the relation to cash, an idea supported by the Bundesbank survey, in which some respondents wrongly thought that the digital euro would replace cash, function as a cryptocurrency or monitor payments (Deutsche Bundesbank, 2024).

So the way facts are presented may matter in addition to the facts themselves. A description that emphasizes convenience, security, resilience and European payment autonomy may trigger a different reaction than one that just lays out the digital euro's basic features. This does not conclusively demonstrate that framed information leads to long-term behaviour change, but it can affect reported attitudes when opinions are still being formed.

This issue is directly relevant to the empirical design of this thesis. Respondents were shown either a more neutral description or a description that additionally emphasised potential advantages of the digital euro, with both versions containing the same basic information but the positively framed version giving greater attention to potential benefits. Comparing the two groups makes it possible to examine whether the presentation of information is associated with differences in stated willingness to use or hold the digital euro.

The previous literature therefore provides several expectations for the empirical analysis. First, awareness alone may not be sufficient to create adoption, but clear information may increase consumers' understanding and stated willingness to use the digital euro. Second, trust, safety, convenience, cost and privacy are likely to be important factors in individual attitudes. Third, stated adoption intentions may vary across demographic groups and according to existing digital payment behaviour. Finally, the source and amount of potential digital euro holdings remain important for assessing whether stated adoption intentions could have implications for commercial bank deposits, funding and liquidity.

3 Methodology

This chapter describes the methodological approach used in this thesis. It presents the research design, questionnaire development and data collection process. In the end, the limitations of the chosen methodology are discussed.

3.1 Research Design

The objective of this thesis is to examine how the introduction of the digital euro may affect commercial banks, with a particular focus on the liquidity and deposit holdings aspects. Since the digital euro has not yet been implemented, actual behavioural data on adoption as well as usage does not currently exist, which makes it impossible to directly observe the actual effects on commercial banks and their funding structures.

For that reason, this study focuses on the perceptions, attitudes, and intended behaviours of individuals regarding the potential adoption of the digital euro. These findings are used to infer potential implications and scenarios that could arise for commercial banks after the introduction of the digital euro.

To further investigate these questions, survey research was chosen as the primary empirical method. The survey allows for the collection of information on individual attitudes, perceptions, and intended behaviour in situations where direct observation is not possible. This makes it particularly suitable for studying the potential adoption of the digital euro before its actual introduction in the eurozone.

Although the attitudes, perceptions, and intended behaviour provided by participants do not necessarily translate into actual future behaviour, they do give some useful insights into how people currently perceive the digital euro and whether they would be willing to use or hold it. These perceptions are particularly relevant, as widespread adoption of the digital

euro could influence commercial banks through changes in deposit allocation and payment behaviour, which could lead to structural changes in how commercial banks operate.

3.2 Survey Design

3.2.1 Questionnaire Design

The questionnaire mainly consisted of closed-ended questions. The reason this format was selected is that responses could be collected in a standardized manner, which allows for comparison across participants and for quantitative analysis after the collection. By providing predefined answers, closed-ended questions reduce the ambiguity in the interpretation of responses and therefore improve the consistency of the collected data.

Closed-ended questions were considered particularly suitable for the study objectives, as the main goal was to measure general attitudes, perceptions, and behavioural intentions towards the digital euro for a large number of respondents. Standardized answer options allow for aggregation and comparison of results across demographic groups and different versions of the survey. (Dillman et al., 2014)

A possible limitation of closed-ended questions is that they might not fully capture the complexity of respondents' views or may not allow participants to express opinions not covered by the answer categories. To address this limitation, a number of questions included an "Other" response option, which allowed respondents to fill in their own answers if none of the predetermined options adequately reflected their views. Finally, the questionnaire included an optional open-ended comment at the end of the survey to give respondents the opportunity to include any further comments, concerns, or observations on the digital euro.

3.2.2 Direct Measures and Measurement Approach

Given that this study focuses mainly on respondents' attitudes, preferences and intended behaviour with respect to the digital euro, the questionnaire relied mostly on direct measures of these concepts. The respondents were asked directly about their familiarity with the digital euro, the likelihood of using it in their day-to-day payments, their willingness to hold money in the digital euro and the reasons for their decisions. This approach was chosen because the research wasn't meant to measure abstract psychological traits but, rather, to investigate specific perceptions and behavioural intentions related to the potential adoption of the digital euro.

Direct questioning has several advantages in the context of exploratory research on a subject that has not yet been implemented in practice. Because respondents currently have no experience with the use of the digital euro, many of the relevant variables of interest revolve around expectations, perceptions, and intended behaviour rather than observed behaviour. This means that direct questions offer a simple way of measuring these expectations and intentions. In addition, direct measures are generally easier for respondents to understand, which reduces the risk of misinterpretation and the overall survey experience.

The questionnaire had several questions that aimed at gathering the intended behaviour of respondents under hypothetical circumstances. Some example questions are whether respondents would hold digital euro, how much they would be willing to hold, and the source from which these funds would likely originate. While answers to these questions cannot be taken as actual future behaviour, they can still offer valuable insights into how people currently view the digital euro and how they believe they would respond to its introduction.

The questionnaire also consisted of several five-point Likert scale questions. However, these were mainly used to measure the level of agreement with individual statements relating to trust, privacy, convenience and safety. The survey was not designed to measure underlying constructs from multiple questions that measure the same thing. For that reason, formal construct validation techniques such as factor analysis were not used. Instead, the analysis focuses on each survey item and the relationships between them.

3.2.3 Questionnaire Length and Respondent Burden

Another variable in the design of the questionnaire was the total length of the survey. Multiple-item scales for each concept of interest would have significantly increased the number of questions and the time required to complete the survey. In order to keep the questionnaire short and to encourage participation, priority was given to direct and easily understandable measures that were close to the research objectives.

The final version of the questionnaire had a completion time between 3 and 4 minutes on average. Longer questionnaires may lead to respondent fatigue, which can negatively affect response quality (random clicking) and increase the probability of incomplete submissions (survey abandonment). In order to reduce the likelihood of respondents abandoning the survey and to encourage respondents with limited available time to

participate, an effort was made to keep the completion time relatively short. (Dillman et al., 2014)

The demographic questions were placed towards the end of the questionnaire as they generally require less cognitive effort. The most important questions were shown first while the participants' attention and motivation were highest. (Dillman et al., 2014)

3.2.4 Survey Platform and Multilingual Design

Microsoft Forms was selected as the platform for the survey because of its accessibility and support for multiple language versions within the questionnaire. Respondents were able to access the survey through a single link and select their preferred language using the integrated language selection feature. This heavily simplified the distribution process and reduced the risk of participants accessing different language-specific links that could inadvertently lead them to a version that does not have their preferred language. As respondents were encouraged to share the questionnaire with people they know, the fact that it was a single link proved to be particularly helpful as well.

The survey was available in four different languages: English, German, French and Hungarian. These languages were selected in order to maximize the accessibility among the most likely respondents that would be reached from the distribution channels used for the survey. English and German were meant to facilitate participation through university networks and French and Hungarian were included for outreach through personal and social networks.

The accessibility in multiple languages was intended to reduce the possibility of possible language barriers and to allow respondents to complete the survey in the language they felt most comfortable in. Significant effort was put into the translation of the different questions to ensure that the intent and meaning remained as consistent as possible across all language versions. The structure, response categories, and survey flow remained the same regardless of the selected language.

3.2.5 Questionnaire Structure and Respondent Flow

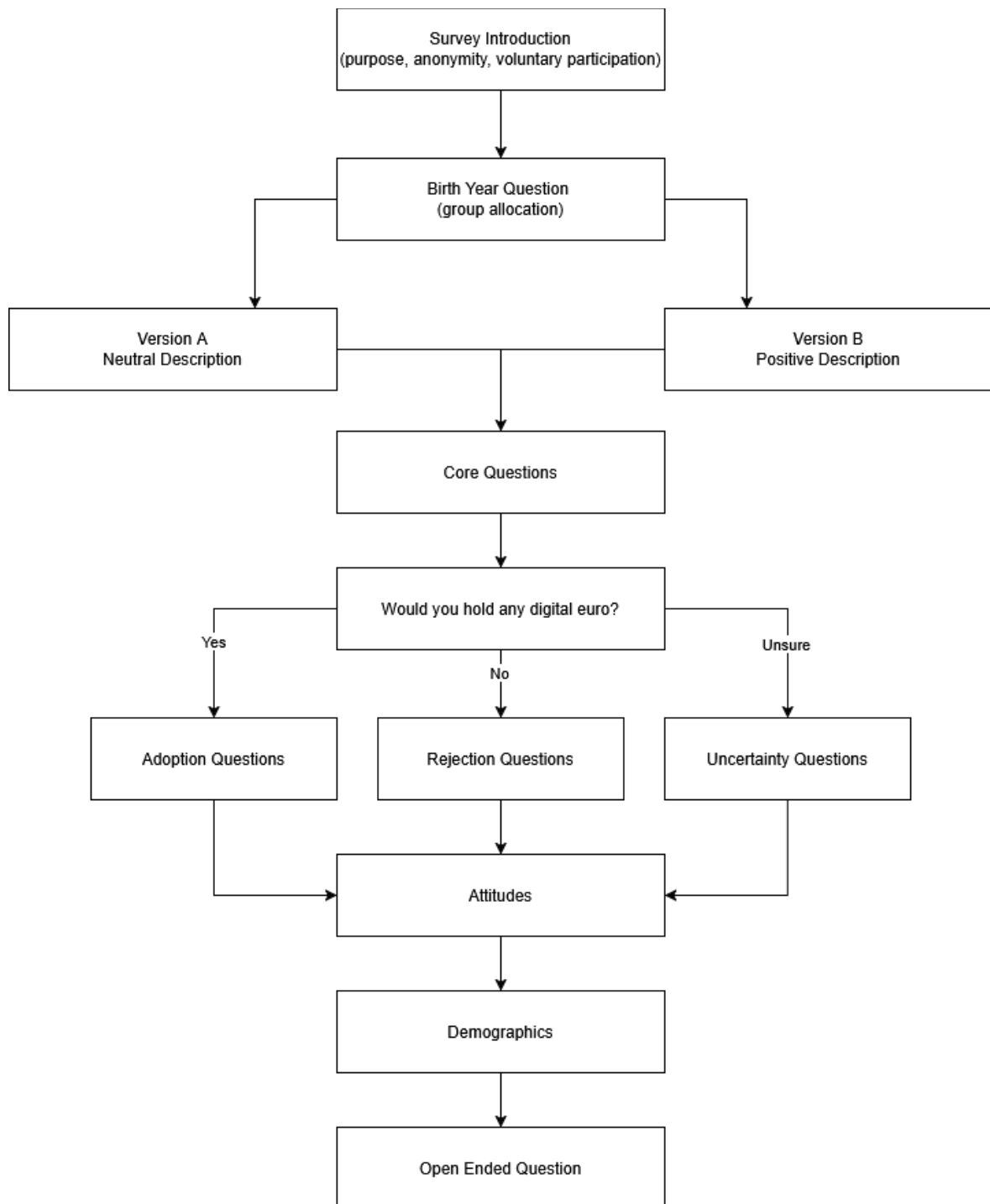


Figure 2: Structure and conditional routing of the survey questionnaire.

Source: Own illustration

In *Figure 2* you can see the structure of the survey designed to guide respondents through the survey in a logical manner. Where appropriate, conditional branching was used to make sure that participants only received questions that were relevant to their previous answers.

At the start of the survey, respondents were informed about the purpose of the study, that participation is voluntary and that their responses will be treated anonymously. Following this introduction, respondents were asked to indicate whether their birth year is even or odd. This question served as a simple way to allocate participants into 2 different groups which each get a different version of the description. Respondents were not informed about the existence or purpose of the two different versions of the description.

After respondents were allocated to one of the two groups, they were shown a short description of the digital euro. Both versions contained the same core information regarding the digital euro and its intended base purpose. However, one version additionally contained information that was framed positively by highlighting potential benefits associated with the digital euro.

After the description, both groups were asked the same set of initial questions. These questions covered prior awareness of the digital euro, the frequency of digital payment usage, the respondents' comfort with digital banking and payment technologies, the likelihood of usage of the digital euro for everyday payments, and whether they would be willing to hold funds in the digital euro. These questions were designed to capture existing payment behaviour and initial attitudes towards the potential adoption of the digital euro upon release.

At this point the conditional branching started. The branching was based on the respondents' answers regarding whether they would be willing to hold any money in the digital euro. Participants who indicated that they would hold some money in the digital euro received additional questions about the source of these funds (substitution), the amount they would likely be holding, and their primary reason why they would do so. Participants who indicated they would not hold any digital euro were asked about the reasons for why they wouldn't. Whereas participants that chose "Not sure / Don't know" received a separate set of questions designed to identify the reasons for their uncertainty.

After they completed their respective branching sections, all respondents were directed to a common section of the questionnaire again. This section contained several statements that related to trust, privacy, convenience, and safety, for which respondents indicated their level of agreement by using five-point Likert scales. Following these questions, demographic questions were asked that covered age, gender, educational attainment, employment status, and current country of residence. At the end of the survey,

respondents were given the opportunity to provide any additional comments, concerns, or observations regarding the digital euro through an open-ended question, which was marked as optional.

3.3 Information Treatment (A/B Design)

A central element of the survey design was the use of two different descriptions of the digital euro. This decision was influenced by the observation that knowledge of the digital euro among the general public still remains incomplete. Recent data from the euro area suggests that awareness has increased over time but that a substantial share of consumers still remains unaware of the digital euro. A survey from the Central Bank of Ireland found that 53.2% of respondents from the euro area were aware of the digital euro, which implies that a large minority was still unaware of it (Filippin & Pelli, 2026).

In this context, the way in which information is presented may play an important role in shaping the attitudes of respondents, especially for those with limited prior knowledge. This is consistent with the broader literature on framing effects, which shows how a different presentation of the same decision problem can affect preferences and choices (Tversky & Kahneman, 1981).

Both descriptions used the same core information about the purpose and basic characteristics of the digital euro. However, one version included additional positively framed statements that put emphasis on potential benefits associated with the use of the digital euro. The additional statements highlighted aspects like convenience, security, reduced dependence on private payment providers, payment system resilience, and potential benefits of a publicly issued digital payment instrument. The intent behind this second version was not to change the factual content presented to the respondents but to examine whether putting emphasis on potential benefits would influence the perceptions and behavioural intentions of the respondents.

The use of two versions allows for a comparison between respondents who received a more neutral description and respondents who received a more positively framed description. This comparison gives insights into the extent to which communication and information framing may affect attitudes towards the digital euro, including respondents' willingness to use the digital euro for everyday payments and their willingness to hold funds in digital euro. Recent ECB research also finds that clear information about key digital euro features can influence consumer beliefs and increase stated adoption likelihood, which

supports the relevance of testing information effects in this context (Georgarakos et al., 2025).

The assignment to the two groups was determined by whether their birth year was even or odd. This approach offered a simple and transparent way of dividing participants into two groups with a roughly balanced distribution of respondents for both versions. The allocation process was carried out before respondents saw the content of the survey. So, the allocation was neither based on the attitudes of the respondents towards the digital euro nor on their responses later in the questionnaire.

The respondents were not informed about the existence or purpose of the different descriptions. Even just informing participants about the presence of multiple versions of the description could have drawn attention to the differences in the information provided and potentially influenced their responses. By withholding this information, participants were more likely to react in a natural way to the information presented to them, which reduces the risk that responses would be influenced by awareness of the study design itself.

3.4 Survey Distribution and Sample

The target group for this survey was people that could be potential users of the digital euro. Because the digital euro is intended as a means of payment for the general public, the survey was not restricted to specific demographic groups, as the aim was to get responses from a broad range of individuals with different demographic backgrounds, payment habits, and levels of familiarity with the digital euro. While the main focus of the study is on potential users within the euro area, responses from participants outside the euro area were also collected (e.g., non-eurozone countries, non-EU countries). These responses were considered to be relevant because they may still provide useful insights into the general perception of the digital euro, even if these respondents would not be among its primary users at the time of introduction.

The survey was distributed online through several channels. In the beginning, the questionnaire was shared through personal networks and also university networks. This is where most of the responses came from. However, because this number of responses did not seem adequate yet, the survey was subsequently also distributed through social media and survey exchange platforms to further increase the number of responses. This also had the advantage of a more diverse distribution that was not in the immediate personal environment.

Respondents were also encouraged to share the survey with other people to help further generate responses for the survey.

Because of these conditions, the sampling approach can be described as non-probability sampling, more precisely as a combination of convenience sampling and snowball sampling. Convenience sampling was applied to the participants that were recruited from easily accessible networks and online channels, while snowball sampling played a role because of respondents being encouraged to forward the survey to others. While this approach helped considerably with the collection of responses within a reasonable time frame, it also means that the final sample cannot be considered statistically representative of the eurozone population.

Even though this limitation exists, the sample is suitable for the exploratory purpose of this thesis. The objective of the survey is not to produce statistically representative adoption estimates for the entire euro area population but to provide indicative evidence on stated attitudes and behavioural intentions concerning the digital euro. These aspects are considered the most relevant for discussing the potential implications for commercial banks, particularly with regard to deposit funding and liquidity.

Data collection took place in May and June over a period of 54 days. At the end of the collection period, a total of 290 responses had been collected. Before the analysis, the data was reviewed for completeness and plausibility, including missing answers to central questions, inconsistent response patterns and unusually short completion times. Although a small number of responses required closer examination, none of them showed sufficiently strong evidence of invalid or implausible responses to justify exclusion from the dataset. All 290 responses were therefore retained for the main analysis. Where an answer to a particular follow-up question was missing or incompatible with the applicable survey route, the response was excluded only from the analysis of that specific variable.

3.5 Hypotheses

The following hypotheses were formulated to guide the empirical analysis of the survey data. Since the sample is based on non-probability sampling, the hypotheses are not tested with the aim of producing representative conclusions for the entire eurozone population, but they are assessed based on the patterns observed within the sample. This includes differences between the two groups and relationships between survey variables.

The first hypothesis is related to the role of information framing. Since one group received a more neutral description while the other group received a more positively framed description of the digital euro, the expectation is for respondents exposed to the positively framed description to show a higher willingness to use the digital euro.

H1: Respondents who saw the positively framed description are more likely to indicate a willingness to use the digital euro for everyday payments than respondents who saw the neutral description of the digital euro.

The second hypothesis is about the willingness to hold funds in the digital euro. Similarly to H1, because the positively framed description includes potential benefits in regard to convenience, security, payment resilience, and reduced dependence on private payment providers, it is expected that this will also increase the respondents' willingness to hold funds in the digital euro.

H2: Respondents who saw the positively framed description of the digital euro are more likely to indicate a willingness to hold funds in the digital euro than respondents who saw the neutral description.

The third hypothesis is relevant because of the potential implications for commercial banks. If respondents are willing to hold funds in the digital euro, the source of these funds becomes important. Since the digital euro is especially designed as a means of everyday payment and potential storage for liquid funds, it can be expected that respondents would mainly transfer money from sources that currently serve similar functions. Therefore, current accounts are especially relevant because they are commonly used for everyday payment transactions, usually through use of a credit card or mobile phone, all while savings accounts may also be relevant if respondents want to hold larger amounts of money in the digital euro. Funds transferred from these accounts would be especially important to commercial banks, as this could imply a shift from commercial bank deposits to digital central bank money, which in turn could affect the commercial banks' deposit base and may have implications for liquidity and funding.

H3: Among respondents who indicated a willingness to hold funds in the digital euro, current accounts and savings accounts are expected to be important sources of their digital euro funds.

The fourth hypothesis relates to trust and perceived safety. Because the digital euro would be issued by the European Central Bank, trust in the ECB and the perception of the digital euro as a safe form of money are expected to be positively correlated with the respondents' willingness to hold the digital euro.

H4: Respondents with higher trust in the European Central Bank and a stronger perception of the digital euro as a safe way to hold money are more likely to indicate a willingness to hold funds in the digital euro.

The fifth and last hypothesis is about privacy concerns. Since privacy is frequently discussed in relation to digital payments as well as in relation to central bank digital currencies, privacy concerns may reduce the respondents' willingness to use or hold funds in the digital euro.

H5: Respondents who indicate stronger privacy concerns are less likely to indicate a willingness to use or hold funds in the digital euro.

3.6 Data Analysis

Jamovi was used to analyze the survey data and descriptive statistics, including frequencies and percentages, were used to present the sample characteristics, general attitudes, adoption intentions, intended holding amounts and expected sources of funds. Unless otherwise stated, percentages were rounded to one decimal place.

All inferential tests were conducted as two-sided tests using a significance level of 5% ($\alpha = .05$). Five-point response scales were treated as ordinal variables and coded from 1 to 5 where numerical coding was required. The Mann–Whitney U test was used to examine whether likelihood of using the digital euro differed between the neutral and positive framing groups. Pearson chi-square tests of independence were used to examine the relationships between survey framing and willingness to hold, between trust and perceived safety and willingness to hold, and between privacy concerns and willingness to hold. The relationship between privacy concerns and likelihood of use was examined using Spearman's rank correlation. H3 was assessed descriptively through the reported sources from which respondents intended to fund their digital euro holdings.

Rank-biserial correlation was reported as the effect size for Mann–Whitney U tests, while Cramér's V was reported for chi-square tests. For Spearman correlations, Spearman's

p indicated the direction and strength of the association. Expected cell counts were examined for all chi-square analyses to assess whether the assumptions of the test were satisfied.

In addition to the hypothesis tests, a limited number of exploratory analyses examined whether prior awareness of the digital euro and comfort with digital payments were associated with willingness to use and hold it. For the exploratory chi-square analysis involving digital payment comfort and willingness to hold, the comfort categories were combined into “Neutral or lower comfort” and “High comfort” because the original five category table contained insufficient expected cell counts. Holm adjusted p -values were used across the four exploratory tests to reduce the risk of false positive findings resulting from multiple comparisons. Complete statistical outputs are provided in the appendix.

3.7 Limitations

There are several methodological limitations to be considered in the interpretation of the results. First, the survey was done through non-probability sampling by the combination of convenience sampling and snowball sampling. Therefore, the final sample cannot be considered statistically representative of the euro area population and the results should be interpreted as exploratory rather than population estimates.

Second, it measures stated attitudes and intentions to behave in hypothetical situations, rather than actual behaviour. When the survey was conducted, the digital euro was not yet in circulation and its legal and technical design was not yet finalized. Therefore, real decisions of adoption could be different from the intentions of respondents, especially if the final features of the digital euro turn out to be different from those presented in the questionnaire. Moreover, the cross-sectional nature of the study allows for the detection of associations between variables but does not allow for the determination of causality.

Third, the questionnaire was mainly composed of closed-ended questions and direct single item measures of attitudes such as trust, safety, convenience and privacy concern. This allowed for a short completion time and standardized quantitative analysis but limited the depth of measurement possible for individual views and more complex underlying concepts.

Finally, the framing comparison only looked at the difference between a neutral description and a positively framed description that put more emphasis on possible advantages of the digital euro. It therefore represents one particular information contrast and does not reflect the wider range of media coverage, political debate and institutional

communication that could affect public attitudes in practice. The limitations and the consequences for the interpretation of the results are discussed in more detail in section 5.3.

4 Survey Results

In this chapter the results of the survey will be presented, beginning with a description of the sample and followed by the main findings on awareness, attitudes and stated adoption intentions.

Note: Percentages in this chapter are rounded to one decimal place and may not add up to exactly 100%.

4.1 Sample Description

This section describes the composition of the final survey sample with the final sample consisting of 290 respondents. *Table 4* presents the age and gender composition of the sample.

Variable	Category	n	%
Age	18-24	75	25.9%
	25-34	124	42.8%
	35-44	39	13.4%
	45-54	32	11.0%
	55-64	15	5.2%
	65 or older	5	1.7%
Gender	Female	188	64.8%
	Male	101	34.8%
	Other	1	0.3%

Table 4: Age and gender composition of the sample

Source: Own survey data

The largest age group was respondents aged 25-34, accounting for 42.8% of the answers, followed by 18-24 at 25.9%. Respondents below the age of 35 therefore represented more than two thirds of the sample, which means that the sample composition was on leaning towards the younger side, while the gender distribution was around two thirds of females.

Table 5 presents respondents' highest level of education and current employment or study situation.

Variable	Category	n	%
Highest level of education	Compulsory education (primary or lower secondary)	3	1.0%
	Vocational training or apprenticeship	14	4.8%
	Secondary education (high school diploma or equivalent)	67	23.1%
	University degree (Bachelor's degree or higher)	198	68.3%
	Other	8	2.8%
Current employment/study situation	Student	115	39.7%
	Employed full-time	112	38.6%
	Employed part-time	25	8.6%
	Self-employed	20	6.9%
	Unemployed or seeking employment	4	1.4%
	Retired	10	3.4%
	Other	4	1.4%

Table 5: Educational and occupational characteristics of the sample

Source: Own survey data

By far, the most respondents reported a university degree (Bachelor's degree or higher) as their highest level of education, representing 68.3% of the sample, followed by 23.1% that reported secondary education, while the remaining educational categories accounted for comparatively small shares. In terms of respondents' current employment or study situation,

students formed the largest group at 39.7%, closely followed by respondents that are employed full-time at 38.6%.

Finally, *Table 6* shows the respondents' countries of residence.

Country of residence	n	%
Austria	27	9.3%
Germany	107	36.9%
France	18	6.2%
Hungary	44	15.2%
Luxembourg	58	20.0%
Other Eurozone country	22	7.6%
Other EU country (Non-Eurozone)	5	1.7%
Non-EU country	9	3.1%

Table 6: Country of residence of the sample

Source: Own survey data

Germany was the most selected country of residence, accounting for 36.9% of the sample, while Luxembourg represented the second largest group with 20.0%, followed by Hungary at 15.2% and Austria at 9.3%.

4.2 Awareness and General Attitudes Towards the Digital Euro

This section examines respondents' prior awareness of the digital euro, their current digital payment behaviour, and their general attitudes towards the digital euro.

Variable	Category	n	%
Prior awareness of the digital euro	Yes	98	33.8%
	No	192	66.2%
Frequency of digital payments	Never	4	1.4%
	Rarely	9	3.1%
	Sometimes	17	5.9%
	Often	120	41.4%
	Always	140	48.3%
	Strongly disagree	7	2.4%

Comfort with digital payments	Disagree	3	1.0%
	Neutral	20	6.9%
	Agree	103	35.5%
	Strongly Agree	157	54.1%

Table 7: Awareness of the digital euro and digital payment behaviour

Source: Own survey data

Prior awareness of the digital euro was relatively limited, with only 33.8% of respondents indicating that they had previously heard of it, while 66.2% had not. At the same time, respondents were generally familiar with digital payment methods. A combined 89.7% reported using digital payments “often” or “always”, and the same proportion “agreed” or “strongly agreed” that they felt comfortable using digital banking and payment technologies.

Statement	Strongly disagree	Disagree	Neutral	Agree	Strongly Agree
Trust in the ECB	16 (5.5%)	27 (9.3%)	69 (23.8%)	121 (41.7%)	57 (19.7%)
Privacy concern	32 (11.0%)	71 (24.5%)	80 (27.6%)	73 (25.2%)	34 (11.7%)
Convenience	18 (6.2%)	18 (6.2%)	104 (35.9%)	104 (35.9%)	46 (15.9%)
Safety of the digital euro	22 (7.6%)	32 (11.0%)	124 (42.8%)	82 (28.3%)	30 (10.3%)

Table 8: General attitudes towards the digital euro.

Source: Own survey data

General attitudes towards the digital euro were mixed across the four statements. Trust in the ECB was comparatively positive, with 61.4% of respondents agreeing or strongly agreeing that they trusted the ECB to manage the digital euro responsibly. Convenience was also viewed relatively positively, with 51.7% agreeing or strongly agreeing that the digital euro would make everyday payments more convenient. Opinions regarding safety were more uncertain, as 42.8% selected the neutral response, while 38.6% agreed or strongly agreed that the digital euro would be a safe way to hold money. Views on privacy were more evenly divided, with 36.9% agreeing or strongly agreeing that they were concerned about the privacy of digital euro payments, 35.5% disagreed or strongly disagreed, and 27.6% selected the neutral response.

4.3 Willingness to Use and Hold the Digital Euro

This section examines respondents stated likelihood of using the digital euro for everyday payments and their willingness to hold money in the form of digital euro.

Variable	Category	n	%
Likelihood of using the digital euro	Very unlikely	31	10.7%
	Unlikely	37	12.8%
	Neutral	87	30.0%
	Likely	80	27.6%
	Very likely	55	19.0%
Willingness to hold digital euro	Yes	109	37.6%
	No	59	20.3%
	Not sure / Don't know	122	42.1%

Table 9: Stated likelihood of using and willingness to hold the digital euro.

Source: Own survey data

Regarding potential use, 46.6% of respondents stated that they were likely or very likely to use the digital euro for everyday payments. By comparison, 23.4% indicated that they were unlikely or very unlikely to use it, while 30.0% selected the neutral response. When asked whether they would be willing to hold money in the form of digital euro, 37.6% answered yes and 20.3% answered no, while the largest group, with 42.1% of respondents, remained unsure.

4.4 Intended Holding Amounts and Sources of Funds

This section examines the amounts that respondents, who expressed willingness to hold digital euro, would intend to hold, as well as the sources from which these funds would be drawn from.

Variable	Category	n	%
Intended holding amount	Less than €100	7	6.4%
	€100–500	30	27.5%
	€501–1,000	29	26.6%
	€1,001–2,000	22	20.2%
	€2,001–3,000	21	19.3%

Willingness to hold more than €3,000 if allowed	Yes	10	47.6%
	No	3	14.3%
	Not sure	8	38.1%

Table 10: Intended digital euro holding amounts among respondents willing to hold digital euro. *Source: Own survey data*

Note: The question concerning amounts above €3,000 was shown only to respondents selecting €2,001–3,000.

Among the 109 respondents willing to hold digital euro, the most frequently selected amount was €100–500, chosen by 27.5%, followed closely by €501–1,000 at 26.6%. Overall, 60.6% indicated that they would hold no more than €1,000, while 39.4% selected an amount above €1,000. Among the 21 respondents who selected the highest available category of €2,001–3,000, 47.6% indicated that they would want to hold more than €3,000 if a higher limit were permitted, while 38.1% remained unsure.

Funding source	Selected n	Selected %	Main n	Main %
Current account	85	78.0%	68	69.4%
Savings account	41	37.6%	14	14.3%
Cash	17	15.6%	3	3.1%
Other digital wallets	37	33.9%	13	13.3%
Other	0	0.0%	0	0.0%

Table 11: Intended sources of digital euro holdings. *Source: Own survey data*

Note: Respondents could select multiple funding sources, so the corresponding percentages do not sum to 100%. “Main source” percentages are based on 98 valid responses. 11 inconsistent “main source” responses were treated as missing.

Current accounts were the most frequently selected funding source, reported by 78.0% of respondents, while savings accounts were selected by 37.6%, other digital wallets by 33.9%, and cash by 15.6%. In total, **90.8%** selected a current account, a savings account, or both as a potential source of their digital euro funds.

Among the 98 respondents who provided a valid main source answer, 69.4% identified their current account as the main source and 14.3% identified their savings account. Current or savings accounts represented the main intended source for **83.7%** of

valid responses. These findings provide descriptive support for H3, as current and savings accounts were important intended sources of digital euro holdings.

4.5 Reasons for Adoption, Non-Adoption and Uncertainty

This section examines the main reasons of the respondents willingness, unwillingness and uncertainty regarding the digital euro.

Main reason	n	%
Convenience	32	29.4%
Use across Europe / wide acceptance	23	21.1%
Safety / risk-free nature	20	18.3%
Independence from private payment providers	16	14.7%
More privacy	10	9.2%
Trust in the central bank	8	7.3%

Table 12: Main reason for using the digital euro among respondents willing to hold it.

Source: Own survey data

Convenience was the most frequently selected main reason for using the digital euro, reported by 29.4% of respondents willing to hold it. This was followed by the possibility of using it across Europe and its expected wide acceptance, selected by 21.1%, and its perceived safety, selected by 18.3%. Independence from private payment providers accounted only for 14.7% of responses, while privacy and trust in the central bank were even less frequently identified as the principal reason for use.

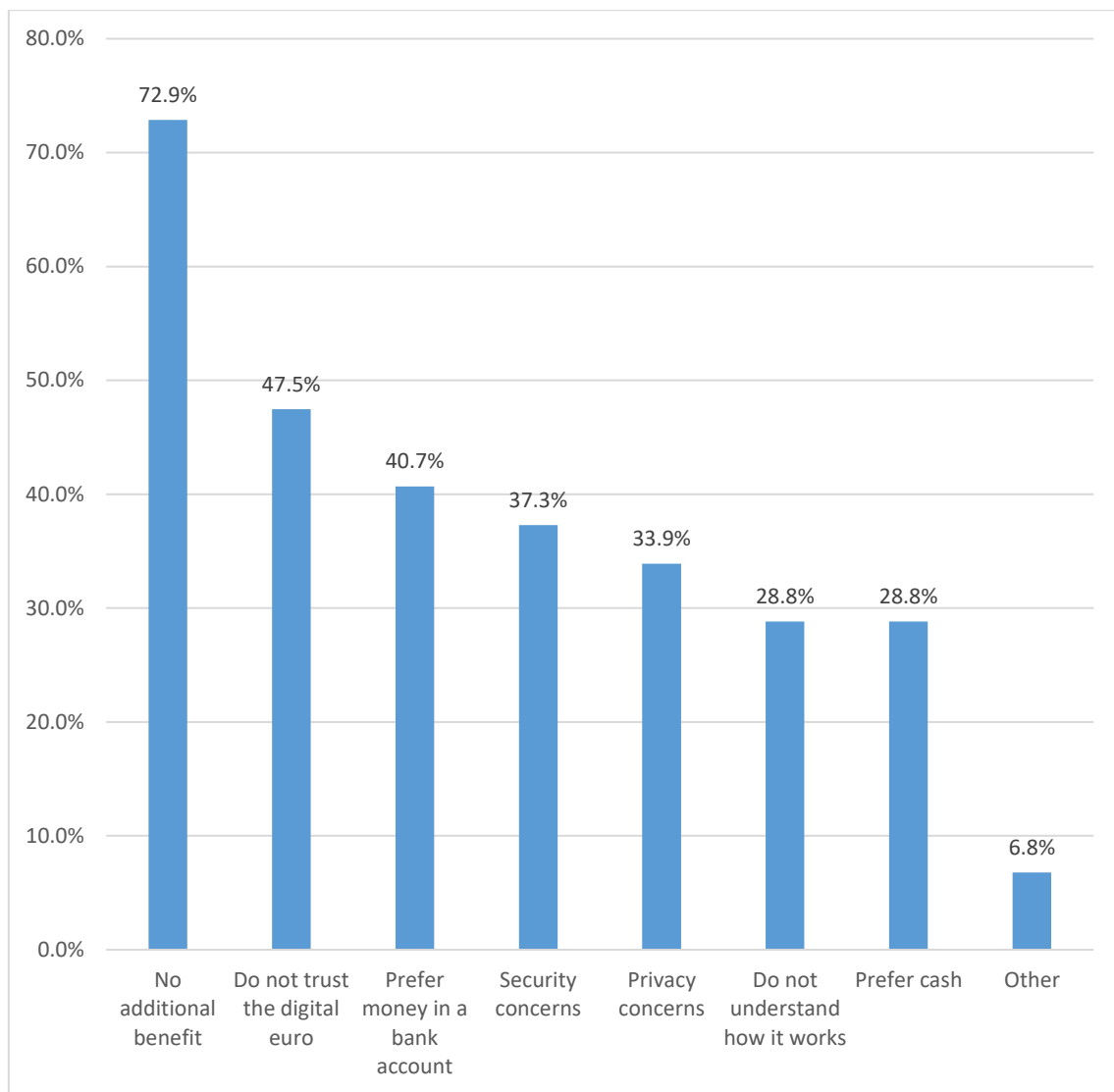


Figure 3: Reasons for not holding digital euro.

Source: Own survey data

Note: Respondents could select multiple reasons, percentages therefore do not sum to 100%.

Among respondents unwilling to hold digital euro, the most frequently selected reason was that they saw no additional benefit compared with their existing payment methods, reported by 72.9%. A lack of trust in the digital euro was selected by 47.5%, while 40.7% indicated that they preferred to keep their money in a commercial bank account. Security concerns were reported by 37.3% and privacy concerns by 33.9%. These findings show that

unwillingness was mainly associated with doubts about the practical value of the digital euro, although trust and perceived risks were also relevant.

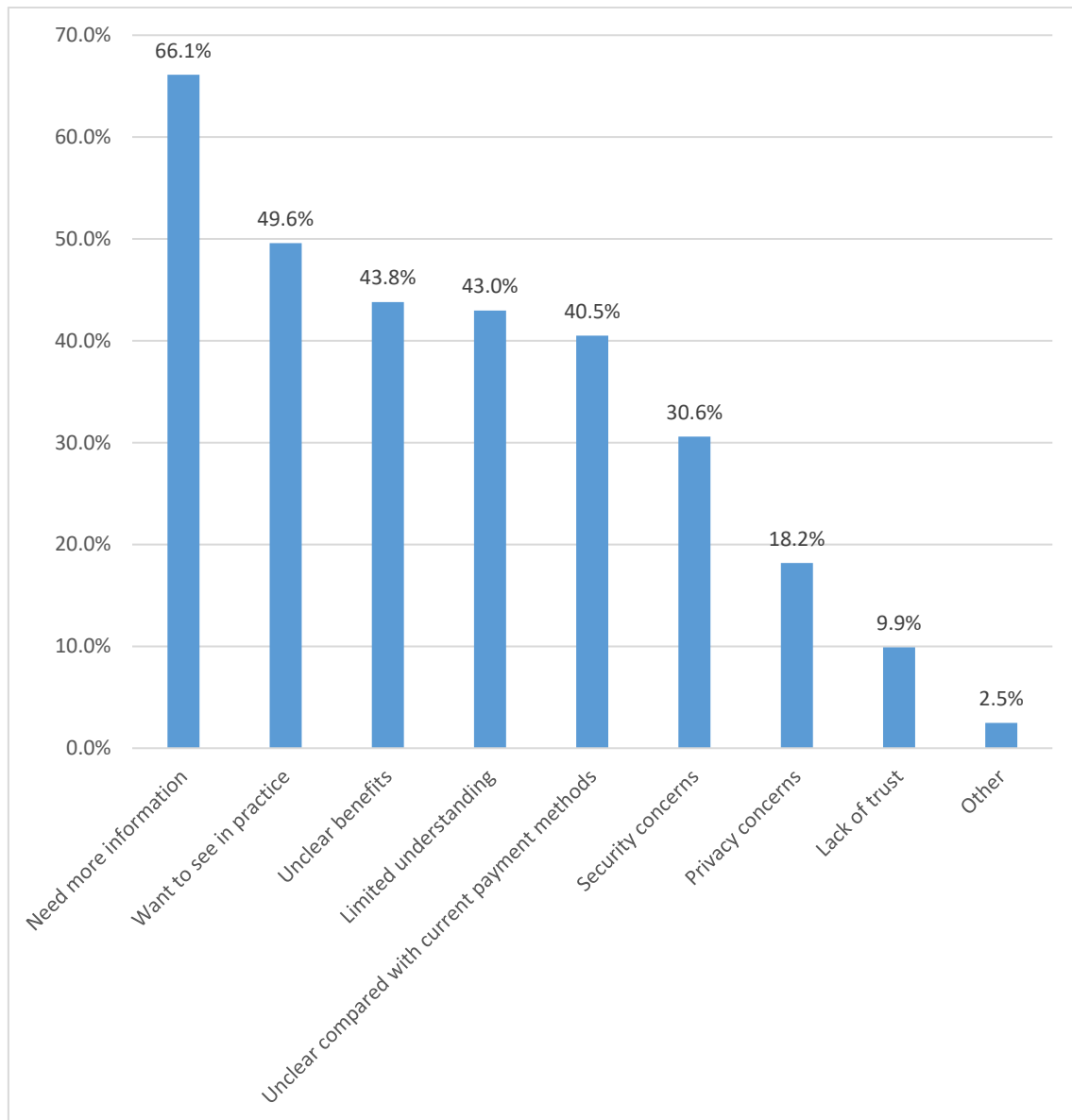


Figure 4: Reasons for uncertainty about holding digital euro. Source: Own survey data.

Note: Respondents could select multiple reasons, percentages therefore do not sum to 100%.

66.1% of respondents who were unsure about holding digital euro indicated the need for more information as the reason for not holding digital euro. Almost half of these respondents stated that they would first want to see how the digital euro worked in practice. Uncertainty regarding its benefits, understanding of how it would operate and comparison with existing payment methods were also frequently reported. Security and privacy concerns were present but were less often reported than the need for additional information and practical experience.

When respondents in the “unsure” group were asked which option they currently leaned towards, 60.3% stated that they would probably not hold digital euro, while 39.7% stated that they would probably hold some.

4.6 Comparison of the Neutral and Positive Framing Groups

This section compares the stated adoption intentions of respondents who received the neutral description of the digital euro with those who received the positively framed description. There were 141 respondents in the neutral framing group and 149 respondents in the positively framed description group.

Variable	Category	Neutral framing n (%)	Positive framing n (%)
Likelihood of use	Very unlikely	12 (8.5%)	19 (12.8%)
	Unlikely	16 (11.3%)	21 (14.1%)
	Neutral	44 (31.2%)	43 (28.9%)
	Likely	38 (27.0%)	42 (28.2%)
	Very likely	31 (22.0%)	24 (16.1%)
Willingness to hold	Yes	56 (39.7%)	53 (35.6%)
	No	29 (20.6%)	30 (20.1%)
	Not sure / Don't know	56(39.7%)	66 (44.3%)
Leaning among unsure respondents	Probably hold some	25(45.5%)	23 (34.8%)
	Probably not hold	30(54.5%)	43 (65.2%)

Table 13: Comparison of willingness to use and hold the digital euro by framing group. Source: Own survey data.

Note: Percentages for likelihood of use and willingness to hold are calculated within the respective framing group. Percentages for the leaning responses are calculated only among valid follow-up responses from respondents who selected “Not sure / Don't know.” One response was excluded from the leaning analysis because no valid follow-up answer was available.

The descriptive results do not show higher adoption intentions for respondents who received the positively framed description. In the neutrally framed group, 49.0% of respondents said they were likely or very likely to use the digital euro for everyday payments versus 44.3% in the positively framed group. The proportion of participants choosing very likely was also higher in the neutral group (22.0%) than in the positively framed group (16.1%).

To examine whether the information framing affected the likelihood of using the digital euro, a Mann–Whitney U test was conducted. The median likelihood of use was 3.00 in both the neutral framing group (n = 141) and the positive framing group (n = 149). The difference between the groups was not statistically significant, $U = 9,518$, $p = .155$, with a small rank-biserial correlation of $r_{rb} = -0.094$. H1 was therefore not supported.

A similar pattern was observed for willingness to hold digital euro. In the neutral framing group, 39.7% stated that they would be willing to hold digital euro, compared to 35.6% in the positively framed group. The proportion of unsure respondents was slightly higher under positive framing, at 44.3%, compared with 39.7% in the neutral group.

A Pearson chi-square test of independence was used to examine whether willingness to hold the digital euro was associated with the survey framing. The association was not statistically significant, $\chi^2(2, N = 290) = 0.699$, $p = .705$, Cramér's $V = .049$ and the effect size was very small. H2 was therefore not supported.

Overall, the results indicate that emphasizing the potential benefits of the digital euro did not significantly increase either the stated likelihood of use or the willingness to hold it compared to the neutral description.

4.7 Attitudinal, Demographic and Behavioural Differences

This section looks at whether willingness to hold the digital euro differs according to selected attitudes, behavioural characteristics, and demographic factors. The first comparison focuses on trust in the European Central Bank and the perceived safety of the digital euro, as these variables are directly related to H4.

Attitude	Category	Total n	Willing to hold n	Willing to hold %
Trust in the ECB	Strongly disagree	16	0	0.0%
	Disagree	27	3	11.1%
	Neutral	69	21	30.4%
	Agree	121	48	39.7%
	Strongly agree	57	37	64.9%
Perceived safety	Strongly disagree	22	1	4.5%
	Disagree	32	0	0.0%
	Neutral	124	28	22.6%

	Agree	82	55	67.1%
	Strongly agree	30	25	83.3%

Table 14: Willingness to hold the digital euro by trust in the ECB and perceived safety.

Source: Own survey data.

Note: Percentages indicate the proportion of respondents within each agreement category who stated that they would hold money in digital euro.

Table 14 presents willingness to hold money in digital euro across different levels of trust in the European Central Bank and perceived safety of the digital euro. For each agreement category, the table shows the total number of respondents, the number who stated that they would hold digital euro, and the corresponding percentage for that category.

A positive descriptive pattern can be observed for trust in the ECB. None of the respondents who strongly disagreed that they trusted the ECB stated that they would hold digital euro. The proportion increased to 11.1% among those who disagreed, 30.4% among neutral respondents, 39.7% among those who agreed, and 64.9% among those who strongly agreed.

An even more pronounced pattern was observed for perceived safety. The proportion willing to hold digital euro was 4.5% among respondents who strongly disagreed that it was a safe way to hold money and none among those who disagreed. This proportion increased to 22.6% among neutral respondents, 67.1% among those who agreed, and 83.3% among those who strongly agreed.

The descriptive results therefore indicate that willingness to hold digital euro was generally higher among respondents who expressed greater trust in the ECB and viewed the digital euro as safer. To test H4, Pearson chi-square tests of independence were conducted separately for trust in the ECB and perceived safety of the digital euro. Trust in the ECB was significantly associated with willingness to hold the digital euro, $\chi^2(8, N = 290) = 101, p < .001$, Cramér's $V = .418$. Perceived safety was also significantly associated with willingness to hold, $\chi^2(8, N = 290) = 170, p < .001$, Cramér's $V = .542$. The association was stronger for perceived safety than for trust in the ECB. Respondents expressing greater trust and stronger perceptions of safety were generally more likely to indicate that they would hold digital euro. H4 was therefore supported. Privacy concerns were examined in relation to both willingness to use and willingness to hold the digital euro.

Privacy Concern	Total n	Likely/very likely to use n	Likely/very likely to use %	Willing to hold: Yes n	Willing to hold: Yes %
Strongly disagree	32	18	56.3%	17	53.1%
Disagree	71	40	56.3%	35	49.3%
Neutral	80	43	53.8%	34	42.5%
Agree	73	28	38.4%	19	26.0%
Strongly agree	34	6	17.6%	4	11.8%

Table 15: Willingness to use and hold the digital euro by level of privacy concern. Source: Own survey data.

Note: Percentages indicate the proportion of respondents within each privacy concern category who were likely or very likely to use the digital euro or stated that they would hold money in digital euro.

Table 15 shows a negative descriptive relationship between privacy concerns and both measures of adoption intention. Among respondents who strongly disagreed or disagreed that they were concerned about privacy, 56.3% indicated that they were likely or very likely to use the digital euro. The corresponding proportion declined to 53.8% among neutral respondents, 38.4% among those who agreed and 17.6% among those who strongly agreed.

A similar pattern was observed for willingness to hold digital euro. The proportion willing to hold it decreased from 53.1% among respondents who strongly disagreed that they were concerned about privacy to 49.3% among those who disagreed, 42.5% among neutral respondents, 26.0% among those who agreed and 11.8% among those who strongly agreed. The descriptive results therefore indicate that stronger privacy concerns were generally associated with lower willingness to use and hold the digital euro.

To test H5, the relationship between privacy concerns and likelihood of using the digital euro was examined using Spearman's rank correlation. A statistically significant negative association was found, Spearman's $\rho = -.254$, $p < .001$, $N = 290$. This indicates that respondents with stronger privacy concerns generally reported a lower likelihood of using the digital euro.

A Pearson chi-square test of independence also found a statistically significant association between privacy concerns and willingness to hold the digital euro, $\chi^2(8, N = 290) = 48.6$, $p < .001$, Cramér's $V = .289$. As shown in Table 15, willingness to hold generally decreased as privacy concerns increased. H5 was therefore supported.

Finally, selected behavioural and demographic differences were examined descriptively. To avoid comparisons based on very small groups, digital payment frequency, comfort with digital payments and age were grouped into broader categories.

Variable	Category	Total n	Likely/ very likely n	Likely/ very likely %	Hold: Yes n	Hold: Yes %
Prior awareness	Yes	98	54	55.1%	50	51.0%
	No	192	81	42.2%	59	30.7%
Digital payment frequency	Less frequent	30	6	20.0%	6	20.0%
	Frequent	260	129	49.6%	103	39.6%
Digital payment comfort	Neutral or lower	30	6	20.0%	5	16.7%
	High comfort	260	129	49.6%	104	40.0%
Age	Below 35	199	92	46.2%	79	39.7%
	35 or older	91	43	47.3%	30	33.0%
Gender	Female	188	78	41.5%	58	30.9%
	Male	101	57	56.4%	51	50.5%

Table 16: Selected behavioural and demographic differences in willingness to use and hold the digital euro.
Source: Own survey data

Note: “Less frequent” digital payment use includes Never, Rarely and Sometimes, while “Frequent” includes Often and Always.

“Lower or neutral comfort” includes Strongly disagree, Disagree and Neutral, while “High comfort” includes Agree and Strongly agree.

The single respondent in the “Other” gender category is not reported separately because the category was too small to make meaningful comparisons.

To supplement the descriptive subgroup comparisons, four exploratory statistical analyses were conducted for prior awareness and comfort with digital payments. As several comparisons were made, Holm-adjusted p-values are reported.

Respondents who had previously heard of the digital euro reported a significantly higher likelihood of using it than respondents without prior awareness, $U = 8,031$, $p_{\text{Holm}} = .036$, with a small rank-biserial effect size of $r_{\text{rb}} = .146$. Prior awareness was also significantly associated with willingness to hold the digital euro, $\chi^2(2, N = 290) = 13.5$, $p_{\text{Holm}} = .003$, Cramér’s $V = .216$.

Comfort with digital payments was positively associated with the likelihood of using the digital euro, Spearman's $\rho = .192$, $p_{\text{Holm}} = .003$, $N = 290$. For the analysis of the willingness to hold, comfort was grouped into "Neutral or lower comfort" and "High comfort" because the original five category table did not satisfy the expected count requirements of the chi-square test. The grouped comfort variable was significantly associated with willingness to hold, $\chi^2(2, N = 290) = 19.0$, $p_{\text{Holm}} < .001$, Cramér's $V = .256$.

All four exploratory relationships remained statistically significant even after the Holm correction. However, these findings are only exploratory and should not be interpreted as evidence of causal effects.

Respondents who had previously heard of the digital euro reported higher adoption intentions than those who had not. Among respondents that were previously aware, 55.1% were likely or very likely to use the digital euro and 51.0% stated that they would hold some. Among respondents without prior awareness, the corresponding percentages were 42.2% and 30.7% respectively.

More frequent use of digital payments was also associated with higher adoption intentions. Among respondents who often or always paid digitally, 49.6% were likely or very likely to use the digital euro and 39.6% were willing to hold some. Among those who used digital payments less frequently, both proportions were 20.0%. A comparable difference was observed for comfort with digital banking and payments. Of respondents with high comfort, 49.6% were likely or very likely to use the digital euro and 40.0% were willing to hold some, compared with 20.0% and 16.7%, respectively, among respondents with neutral or lower comfort.

Differences between the two broader age groups were comparatively small. The likelihood of use was 46.2% among respondents below the age of 35 and 47.3% among respondents aged 35 or older. Willingness to hold was somewhat higher among respondents below 35, at 39.7%, compared to 33.0% among older respondents.

Differences were also observed regarding gender, where among female respondents, 41.5% were likely or very likely to use the digital euro and 30.9% stated that they would hold some. Among male respondents, the corresponding proportions were 56.4% and 50.5%. These subgroup comparisons are descriptive and exploratory and should not be interpreted as representative estimates for the wider euro-area population.

4.8 Summary of Main Results

The survey results showed moderate but uncertain adoption intentions. While 46.6% of respondents indicated that they were likely or very likely to use the digital euro, 37.6% stated that they would hold money in it and 42.1% remained unsure. Among respondents willing to hold digital euro, 60.6% intended to hold €1,000 or less. Current and savings accounts were selected by 90.8% as possible funding sources, while 83.7% of respondents with a valid main source answer identified one of these accounts as their primary source. These findings provide descriptive support for H3 and suggest that digital euro holdings could partly be funded through the conversion of commercial bank deposits.

Convenience, broad acceptance across Europe and perceived safety were the most frequently reported main reasons for adoption. Among respondents unwilling to hold digital euro, the most common reason was the absence of a perceived additional benefit compared with current payment methods. Respondents who remained unsure most frequently indicated that they needed more information or wanted to observe how the digital euro would work in practice.

The statistical tests showed that the positive framing did not significantly increase either the likelihood of using the digital euro or the willingness to hold it. H1 and H2 were therefore not supported. By contrast, trust in the ECB and perceived safety were significantly associated with willingness to hold the digital euro, while stronger privacy concerns were associated with a lower likelihood of use and a lower willingness to hold. H4 and H5 were therefore supported. The additional exploratory analyses also indicated that prior awareness and comfort with digital payments were significantly associated with adoption intentions after correcting for multiple comparisons. Table 17 provides an overview of the results for all five hypotheses.

Hypothesis	Main empirical finding	Assessment
H1: Positive framing increases the willingness to use the digital euro	Likelihood of use did not differ significantly between the neutral and positive framing groups ($U = 9,518$, $p = .155$)	Not supported

Hypothesis	Main empirical finding	Assessment
H2: Positive framing increases the willingness to hold the digital euro	Survey framing was not significantly associated with willingness to hold the digital euro ($\chi^2(2, N = 290) = 0.699, p = .705$)	Not supported
H3: Current and savings accounts are important intended sources of digital euro holdings	Current or savings accounts were selected by 90.8% as possible funding sources and by 83.7% of respondents as their primary source.	Descriptively supported
H4: Trust in the ECB and perceived safety are positively associated with willingness to hold the digital euro	Both trust in the ECB and perceived safety were significantly associated with willingness to hold the digital euro (both $p < .001$)	Supported
H5: Privacy concerns reduce willingness to use and hold the digital euro	Stronger privacy concerns were significantly associated with lower likelihood of use and lower willingness to hold the digital euro (both $p < .001$)	Supported

Table 17: Summary of hypotheses and empirical findings.

Source: Own survey data

5 Discussion

This chapter discusses the empirical findings in relation to the research questions, hypotheses and previous literature. First, it interprets the results on adoption intentions, attitudes, intended digital euro holdings and sources of funds. It then considers the implications of these findings for commercial bank deposits, funding and liquidity, and the relevance of the safeguards and potential strategic responses discussed in Chapter 2. Finally, limitations of the empirical analysis are considered.

5.1 Interpretation of Survey Results

The results of the survey provide insights into potential users' current perceptions of the digital euro and how these perceptions could affect their willingness to use it. Since the digital euro has not yet been introduced, the results are based on stated intentions under hypothetical conditions rather than on observed behaviour. However, they help to identify factors that could encourage or discourage adoption and provide a basis for assessing the possible implications for commercial banks.

5.1.1 Adoption intentions and attitudes

These results indicate that awareness of the digital euro was relatively low prior to the survey. Only 33.8% of respondents said that they had heard of it before participating in the survey. This is below the awareness level reported by Filippin and Pelli (2026) for the euro area in 2025, and is also below the 41% reported in the 2024 Bundesbank survey. However, direct comparisons need to be made with caution, as the present sample was not representative of the euro-area population and included respondents from several countries with different levels of public exposure to the digital euro.

Respondents were highly familiar with digital payment methods despite the relatively low level of prior awareness of the digital euro itself. Almost nine in ten respondents said they often or always used digital payments, and a similarly large proportion felt comfortable using online banking and digital payments. This implies that the low level of prior awareness of the digital euro was not necessarily related to a lack of familiarity with digital financial services in general. It may also be a sign that the digital euro remains an ongoing central bank initiative that is not yet very visible to all parts of the public.

Despite the limited awareness, 46.6% of respondents said they would be likely or very likely to use the digital euro for everyday payments. This shows a significant potential interest, but it does not imply universal adoption. A further 30.0% chose the neutral response category and 23.4% were unlikely or very unlikely to use it. The relatively large neutral group suggests that many respondents had not yet formed a strong opinion and may base their eventual decision on the final design, practical experience and the information available before implementation.

The willingness to hold money in the digital euro was lower and more uncertain than the willingness to use it. 37.6% indicated that they would hold money in the digital euro, while 42.1% stated they were unsure and 20.3% said they would not. This gap could reflect

the difference between the use of the digital euro as a means of payment and maintaining a balance in it. Respondents may be willing to use a new payment option even if they do not yet know whether they would regularly transfer funds into a digital euro wallet or how much they would hold.

The high level of uncertainty is consistent with the fact that the digital euro has not yet been introduced and that several design features have not been finalized. Among respondents who were unsure, the most common responses as to whether they would use the system were that they would need more information, that they wanted to see how the system would work in practice and that they were unsure about the benefits compared to existing payment methods. This means that uncertainty should not automatically be interpreted as refusal. Some of these respondents could end up choosing to use the digital euro once they understand how it works and identify a practical reason to do so, while others might stick to their existing means of payment if the final product does not offer a sufficiently clear advantage.

The importance of a clear practical benefit is also visible in the reasons given by respondents who did not intend to hold digital euro. The most frequently selected reason was that they saw no additional benefit compared with their current payment methods. This supports the argument made in Chapter 2 that the digital euro would enter a payment environment in which cards, bank transfers and private digital wallets already function relatively well. Consequently, the digital euro may need to offer more than technical availability. Broad acceptance, ease of use, offline functionality or other distinctive features may be necessary to encourage consumers to change established payment habits.

Convenience was the most frequently stated main reason for adoption, followed by broad acceptance across Europe and perceived safety. This is broadly consistent with earlier empirical research showing that practical features such as ease of use, security, cost and merchant acceptance are important for potential users. The result also suggests that wider policy objectives, such as European payment autonomy, may be relevant to respondents but may be less decisive than direct benefits experienced in everyday payments.

Trust and perceived safety were also closely related to stated willingness to hold digital euro. The descriptive results showed that willingness to hold increased as trust in the ECB and the perceived safety of the digital euro increased. This is consistent with the findings of Filippin and Pelli (2026), who report a positive relationship between trust in

monetary and financial institutions and stated willingness to adopt the digital euro. Since the digital euro would be a direct liability of the central bank, confidence in the issuing institution is likely to influence whether individuals regard it as a credible and secure form of money.

The relationship with perceived safety was particularly pronounced. Respondents who considered the digital euro a safe way to hold money were considerably more willing to hold it than those who disagreed. This indicates that the status of the digital euro as central bank money may be an important potential advantage. However, perceived safety may also have implications for commercial banks, because individuals who regard central bank money as safer than commercial bank deposits could have a stronger incentive to transfer funds, especially during periods of financial uncertainty.

Privacy concerns showed the opposite descriptive pattern. Respondents with stronger privacy concerns were less willing to use and hold the digital euro. This is consistent with the importance attached to privacy in previous studies, including the Bundesbank survey. Although the ECB presents privacy protection as a central design feature, some potential users may remain concerned about transaction monitoring, data access or the involvement of public institutions. The final level of adoption may therefore depend not only on the technical privacy protections included in the digital euro but also on whether those protections are communicated credibly and understood by the public.

Overall, the results indicate that adoption intentions depend on a combination of practical and institutional considerations. Familiarity with digital payments may make adoption technically easier, but it does not by itself create a reason to adopt the digital euro. Potential users also need to perceive convenience, safety or another additional benefit, while trust and privacy concerns can influence whether they are willing to hold funds in the new form of money. The statistical tests confirmed these relationships, with both H4 and H5 being supported.

5.1.2 Intended holdings and sources of funds

The amount that potential users would hold in the digital euro and the source of those funds are particularly important for assessing the possible implications for commercial banks. The use of the digital euro on an occasional basis would not automatically lead to large outflows of deposits. What this would mean for banks would depend on whether users kept regular

balances, and whether these were funded from commercial bank accounts, cash, or other sources.

Among those willing to hold the digital euro, the amounts planned were generally moderate. In total, 60.6% said they would hold €1,000 or less, suggesting many potential users may initially view the digital euro more as a transactional balance than as a major store of value. Nevertheless, 39.4% chose an amount higher than €1,000. Of the 21 respondents who chose the highest available category of €2,001 to €3,000, 47.6% said they would want to hold more if a higher limit were allowed. Although this was a relatively small subgroup, the result suggests that the holding limit could restrict some users' preferred holding amounts.

The results are relevant for the proposed holding limit in Chapter 2. A limit of €3,000 would restrict the maximum amount that each individual could transfer into the digital euro, which would decrease the potential loss of deposits for commercial banks. The results indicate that such a limit would not affect the preferred holding amounts of the majority of respondents, but could restrict a minority with stronger demand. Holding limits might therefore reduce deposit substitution, without limiting the ordinary payment use for most consumers.

The intended sources of funds are even more directly relevant to commercial banks. 90.8% of those willing to hold the digital euro said that they would fund it through current or savings accounts. Of the 98 respondents who answered the question about their main source, 83.7% identified one of these two types of bank account as their main source of funding. These results provide descriptive support for H3, suggesting that potential digital euro holdings would often be funded through a conversion of commercial bank deposits into central bank money.

The most direct substitution would be transfers from current accounts, which already serve similar transactional functions as the digital euro since they are used for everyday payments. Transfers from savings accounts would also decrease commercial bank deposits, although this source might become less attractive if the digital euro remains non-remunerated. Financing holdings of the digital euro with cash, on the other hand, would not directly reduce the deposit base of commercial banks, while the impact of transfers from private digital wallets would depend on how those wallet balances were funded.

The survey cannot measure the overall volume of deposit outflows caused by the introduction of the digital euro. The amounts and sources of the reported funding are hypothetical, and actual behaviour could vary when users gain practical experience with the new payment method. The evidence suggests, however, that if adoption takes place, there may be a partial reallocation of liquid funds away from deposits at commercial banks. The pressure on banks would depend on the number of users, average holding, the final holding limit and the capacity of banks to retain deposits.

5.1.3 Information framing and subgroup differences

The comparison between the neutral and positively framed survey versions was designed to test whether highlighting potential benefits of the digital euro would impact the stated willingness to use or hold it. The descriptive results found only few differences between the two groups. There was no clear evidence that respondents who received the positive description were more willing to use or hold the digital euro than those who received the neutral description.

In terms of willingness to use, 49.0% of respondents in the neutral framing group selected “likely” or “very likely,” compared with 44.3% in the positive framing group. In the neutral group, the willingness to hold the digital euro was also slightly higher at 39.7% and at 35.6% in the positive group. The group with the positive wording had a slightly higher proportion of unsure respondents. These descriptive results do not show the expected direction hypothesized in H1 and H2.

This result differs from the experimental evidence presented by Georgarakos et al. (2025), where stated adoption intentions increased when respondents received information through a short explanatory video. However, the two studies are not comparable. In the ECB experiment, respondents who received information were compared to a control group that did not receive the same explanation. In the current survey, both groups received the same basic facts, but the positive version highlighted possible benefits. The difference between the two treatment groups was more limited.

The results may suggest that when respondents already receive the key details they need to understand the product, providing additional positive emphasis is not enough to increase adoption intentions. Respondents may have evaluated the digital euro based on their existing attitudes towards the ECB, privacy, safety and the practical usefulness of the payment method rather than based on the wording of the description.

It is also possible that the positive description increased the respondents' attention to the persuasive nature of the information. Some participants might have been cautious about potential benefits especially if they already had concerns about public institutions or the digital euro. However, the survey did not directly measure respondents' perception of the framing, so this interpretation cannot be confirmed.

In addition to the framing comparison, the exploratory subgroup results indicated that prior awareness was associated with higher adoption intentions. Those who had heard of the digital euro before the survey were more likely to respond that they would use and hold it than those who had not heard of it before the survey. This could suggest that prior exposure leads to a better understanding of the description or that those already interested in monetary and financial topics are more open to the digital euro.

However, the result should not be interpreted as evidence that awareness alone causes adoption. Previous research found that increasing awareness over time did not necessarily produce a corresponding increase in adoption intentions. The relationship observed in the present survey may partly reflect self selection, because respondents who had previously encountered information about the digital euro may differ from other participants in their financial knowledge, interest in digital payments or trust in institutions.

Digital payment behaviour and comfort with digital banking were also associated with adoption intentions. Those who often or always paid digitally were more willing to use and hold the digital euro than those who paid digitally less often. A similar difference was found between respondents with high comfort using digital banking and those with neutral or lower comfort.

These results are consistent with the expectation that people who already use digital payment services regularly face fewer behavioural and technical barriers to adopting an additional digital payment method. They may be more familiar with mobile payment applications, digital wallets and online banking and therefore find the proposed use of a digital euro easier to understand. In contrast, individuals who use cash more frequently or feel less comfortable with digital payment technology may see fewer advantages in adopting another digital payment option.

The age comparison produced relatively small differences in willingness to use the digital euro. Respondents below the age of 35 and those aged 35 or older reported similar likelihood of use, although younger respondents were somewhat more willing to hold digital

euro. This result suggests that age alone may be less important than actual payment behaviour and comfort with digital technology. Nevertheless, the broad age grouping may conceal differences between individual age categories, and the relatively small number of older respondents limits the conclusions that can be drawn.

Gender differences were more pronounced in the sample. Male respondents reported higher willingness to use and hold the digital euro than female respondents. Previous empirical studies have also found some differences in awareness and adoption intentions by gender. Such differences may be connected to financial literacy, familiarity with financial technology, risk perceptions or trust, but the present survey does not provide sufficient evidence to identify the underlying explanation.

The gender comparison should also be interpreted cautiously because the sample contained substantially more female than male respondents and was not representative of the wider population. The findings describe differences within the collected sample and should not be interpreted as general evidence that men would necessarily adopt the digital euro more frequently than women.

Overall, the subgroup findings suggest that familiarity with the digital euro and with digital payments may be more closely related to adoption intentions than age alone. They also indicate that information campaigns may need to do more than raise awareness. Potential users may require clear explanations of the practical benefits, operation, safety and privacy characteristics of the digital euro before they are willing to change their existing payment behaviour.

5.2 Implications for Commercial Banks

The survey findings have implications for commercial banks mainly through the possible transfer of funds from commercial bank deposits into digital euro holdings. The scale of this effect would depend on actual adoption, average holdings, the final design of the digital euro and the response of commercial banks. The following sections discuss the potential consequences for deposit funding and liquidity before considering the role of safeguards and possible strategic responses.

5.2.1 Deposit substitution, funding and liquidity

The survey results suggest that the digital euro could lead to at least some substitution of commercial bank deposits. This conclusion is based not only on the stated willingness of

respondents to hold digital euro but, more importantly, on the sources from which they intended to fund those holdings. Current accounts and savings accounts were by far the most frequently selected sources, and most respondents with a valid main-source answer identified one of these two types of account as their primary source.

This means that the adoption of the digital euro would not simply represent the replacement of one payment application with another. Where users transfer money from current or savings accounts into digital euro balances, commercial bank liabilities would decline and would be replaced by liabilities of the central bank. The survey therefore supports the deposit-substitution channel discussed in Chapter 2.

Current accounts appear to be particularly relevant because they are already used for everyday payments and would therefore serve a similar transactional purpose to the digital euro. Respondents may transfer part of their current-account balances into digital euro wallets to make online, point-of-sale or person-to-person payments. Savings-account balances could also be affected, although the non-remunerated design of the digital euro would reduce its attractiveness compared with interest-bearing deposits under normal conditions.

The intended holding amounts indicate that substitution would probably be partial rather than complete. Most respondents who were willing to hold digital euro selected amounts below the proposed maximum of €3,000, and many indicated balances of €1,000 or less. This suggests that the digital euro may primarily be used as a transactional balance alongside existing bank accounts rather than as a complete replacement for deposits.

Even relatively moderate individual balances could nevertheless become relevant at the aggregate level if adoption were widespread. A limited transfer by a large number of households could result in a substantial reduction in the total deposit base of the banking sector. The survey cannot provide an aggregate estimate because it is not representative and stated intentions may not correspond to actual future behaviour. However, it indicates that the direction of the potential movement of funds would largely be from bank deposits towards digital euro holdings.

A reduction in deposits could affect banks because customer deposits are an important and generally stable source of funding. Banks use these funds to finance loans, securities and other assets. If part of the deposit base were transferred into digital euro, banks

would have to decide whether to replace the lost funding, reduce assets or accept a smaller balance sheet.

The consequences would depend on the availability and cost of alternative funding. Banks could attempt to replace deposits through wholesale borrowing, debt issuance, interbank funding or central bank refinancing. However, these sources may be more expensive or less stable than retail deposits. An increase in funding costs could therefore reduce banks' profit margins or be passed on to borrowers through higher lending rates and fees.

The impact on lending would not necessarily be proportional to the amount of deposits lost. Banks with access to alternative funding and sufficient eligible collateral may be able to maintain their lending activities despite deposit outflows. Other institutions may respond by reducing new lending, selling assets or tightening credit conditions. The effect would therefore depend on each bank's balance-sheet structure, liquidity buffers, reliance on retail deposits and access to market or central bank funding.

The survey results also suggest that the impact may differ across banks. Institutions with a large retail deposit base could face greater absolute outflows if their customers adopted the digital euro. Smaller banks or banks with limited access to wholesale funding may find it more difficult or more costly to replace deposits. In contrast, larger and more diversified institutions may be better positioned to absorb the change.

The effect on liquidity would arise because the conversion of a bank deposit into digital euro would normally require settlement in central bank money. When a customer transfers funds into digital euro, the commercial bank loses the corresponding deposit liability and may also experience an outflow of reserves. A gradual and predictable movement of funds could be managed through normal liquidity and funding operations, but rapid transfers could place greater pressure on individual institutions.

The survey reflects attitudes under normal, hypothetical conditions and therefore provides more evidence about gradual deposit substitution than crisis behaviour. Nevertheless, the strong relationship between perceived safety and willingness to hold digital euro has potential implications during periods of stress. Respondents who regard the digital euro as a particularly safe form of money may be more inclined to transfer funds from commercial banks if confidence in an institution weakens.

In such a situation, the digital euro could provide an easily accessible destination for funds leaving commercial banks. Digital banking already allows deposits to be transferred rapidly, but the digital euro would enable a direct conversion from commercial bank money into central bank money. This could increase the speed of outflows from a vulnerable bank, even if the digital euro was not the original cause of the loss of confidence.

The final effect on liquidity would therefore depend on the difference between normal adoption and stress-related conversion. Under normal conditions, the survey suggests that users would probably hold limited transactional balances. During financial stress, however, the perceived safety of central bank money could become more important than convenience or remuneration. This could create greater pressure on commercial banks, particularly if users attempted to move funds quickly towards the permitted holding limit.

Overall, the empirical findings indicate that the digital euro could reduce commercial bank deposits through partial substitution rather than complete replacement. The likely concentration of funding sources in current and savings accounts creates a direct link between adoption and bank funding. The scale of the effect would depend on the number of users and their actual balances, while the consequences for individual banks would depend on their funding structures, liquidity positions and ability to obtain alternative financing.

5.2.2 Safeguards and strategic implications

The potential effects identified in the survey must be considered together with the safeguards included in the proposed design of the digital euro. As discussed in Sections 2.2.4 and 2.4.2, holding limits, non-remuneration, the waterfall mechanism and the continued involvement of commercial banks are intended to keep the digital euro focused primarily on payments rather than allowing it to become a large scale store of value.

The survey results suggest that a hypothetical holding limit of €3,000 would not restrict the intended holdings of most potential users. Among respondents willing to hold digital euro, 60.6% selected an amount of €1,000 or less. A limit of €3,000 would therefore still allow ordinary payment use for most respondents while restricting the maximum amount that each individual could transfer away from commercial bank deposits. At the same time, almost half of the respondents who selected the highest available category stated that they would want to hold more than €3,000 if this were permitted. The limit could therefore be particularly relevant for restricting the holdings of a smaller group with stronger demand.

However, a holding limit would reduce rather than eliminate deposit outflows. Even if individual balances remained moderate, the aggregate amount transferred from commercial banks could become substantial if the digital euro were widely adopted. Its effectiveness would therefore depend not only on the amount held by each user but also on the overall number of users and the sources from which their holdings were funded.

Non-remuneration could provide additional protection by reducing the attractiveness of the digital euro as a savings product. Under normal conditions, users may prefer to keep larger balances in interest bearing bank accounts, which is consistent with the generally moderate intended holdings found in the survey. Its protective effect may nevertheless be weaker during financial stress. The significant association between perceived safety and willingness to hold digital euro suggests that the security of a direct claim on the central bank could become more important than interest income if confidence in a commercial bank declined. Non-remuneration may therefore help limit gradual substitution without fully preventing faster transfers during a crisis.

The waterfall mechanism could also restrict the accumulation of large balances by automatically transferring amounts above the holding limit to a linked commercial bank account. This could support convenient payment use while preserving the role of bank accounts for salary payments, direct debits, savings and other financial services. However, the mechanism would not prevent the initial funding of digital euro balances, which the survey suggests would primarily come from current and savings accounts.

The continued involvement of commercial banks in the distribution of the digital euro could help preserve existing customer relationships. Banks are expected to provide services such as onboarding, wallet access, account linking, payment initiation and customer support. By integrating these services into their existing applications, banks could remain an important interface between customers and the financial system even if part of customers' funds were held as digital euro.

Commercial banks may nevertheless need to make their own deposit and payment services more attractive. Possible responses include offering more competitive deposit rates, reducing account fees or improving the convenience of existing services. Such measures could help retain customers and deposits but may also increase funding or operating costs. Banks would therefore need to balance deposit retention against profitability.

The intermediated model also creates opportunities for banks to combine digital euro functionality with current accounts, budgeting tools, payment notifications and other financial products. Institutions that provide convenient and reliable digital euro services may strengthen their customer relationships, while less prepared providers could lose part of their payment business. The uncertainty expressed by many respondents also suggests that banks could play an educational role by explaining how the digital euro works, how it interacts with bank accounts and which protections apply to each form of money.

Strategic preparation should therefore include both financial and operational measures. Banks may need to review their liquidity buffers, dependence on retail deposits, eligible collateral and contingency funding arrangements while also investing in technical integration, cybersecurity, compliance and customer support. The scale of these challenges is likely to differ across institutions, as larger banks may be better able to absorb implementation costs and diversify their funding, while smaller banks could face proportionally higher costs.

Overall, the safeguards are likely to limit but not completely prevent the effects of the digital euro on commercial bank deposits. The survey indicates that most potential users would hold moderate amounts, but these holdings would often be funded from commercial bank accounts. Banks would therefore need to combine liquidity and funding preparation with competitive deposit products, effective customer communication and the successful integration of digital euro services.

5.3 Limitations

Several limitations should be considered when interpreting the findings of this study. These relate mainly to the composition of the sample, the hypothetical nature of the survey, the measurement approach, the framing design and the extent to which consumer responses can be used to draw conclusions about commercial banks.

First, the sample was collected through non-probability distribution channels and should not be considered representative of either the euro-area population or the populations of the individual countries included in the survey. Participation depended largely on the networks and online channels through which the questionnaire was distributed. This created the possibility of convenience sampling and self-selection biases, as individuals who were more interested in digital payments, monetary policy or the digital euro may have been more likely to participate.

The demographic composition of the sample also differed from that of the wider population. Younger respondents, women and respondents with a university education were comparatively strongly represented, while older age groups and individuals with lower levels of formal education were represented to a lesser extent. Respondents were also concentrated in a limited number of countries, particularly Germany, Luxembourg and Hungary. The overall percentages should therefore be interpreted as describing the collected sample rather than as estimates of euro-area public opinion.

The cross country composition creates an additional limitation. Respondents lived in countries with different payment habits, levels of awareness of the digital euro, institutional environments and experiences with the euro. Some participants also lived outside the euro area or outside the European Union. Although country of residence was collected, the number of respondents in several country categories was too small to support reliable country-level comparisons. National differences could therefore influence the overall findings without being examined separately in sufficient detail.

Second, all behavioural measures were based on stated intentions under hypothetical conditions. The digital euro has not yet been introduced, and respondents therefore had no direct experience of opening a digital euro wallet, transferring funds to it or using it for payments. Stated willingness to use or hold digital euro may differ from actual behaviour once consumers face real choices, transaction procedures and opportunity costs.

The intended holding amounts and sources of funds should be interpreted with particular caution. Respondents could indicate how much they expected to hold and whether the money would come from current accounts, savings accounts, cash or other sources. However, hypothetical answers do not necessarily show how funds would actually be allocated after implementation. Some respondents may overstate their interest in a new payment method, while others may become more willing to adopt it after gaining practical experience. The survey therefore identifies possible directions of deposit substitution but cannot reliably estimate the aggregate amount of deposits that would leave commercial banks.

The design of the digital euro had also not been finalized at the time of the survey. The questionnaire was based on the proposed characteristics available during the data collection period, including a hypothetical holding limit of €3,000 and non-remuneration. Changes to the final holding limit, privacy framework, acceptance requirements, offline

functionality or compensation model could affect adoption intentions. The results therefore apply to the scenario described in the survey rather than to every possible final design of the digital euro.

Third, the main attitudes were measured using direct single item questions. Trust in the ECB, perceived safety, convenience and privacy concern were each measured through one statement rather than through multi-item scales. This helped to keep the questionnaire short and reduce respondent burden, but it limited the depth with which each concept could be measured. It was consequently not possible to assess internal consistency or conduct a factor analysis for these measures. A single question may also not capture all dimensions of a complex concept such as institutional trust or privacy concern.

The observed associations between these attitudes and adoption intentions should not be interpreted as causal effects. For example, respondents who considered the digital euro safe were more willing to hold it, but the cross sectional survey cannot determine whether perceived safety caused willingness to hold. It is also possible that respondents who were already favourable towards the digital euro evaluated its safety more positively. The same limitation applies to the relationships involving trust, privacy concern, awareness and digital payment behaviour.

Fourth, the framing comparison had limitations. Both survey groups received the same essential factual information about the digital euro, while the positive version placed greater emphasis on potential advantages. The difference between the treatments was therefore relatively modest. This may have reduced the likelihood of detecting a framing effect compared with a design in which an informed treatment group is compared with a control group receiving no information.

In addition, the survey did not include a manipulation check question asking whether respondents noticed the differences between the descriptions or perceived one version as more positive. It is therefore not possible to determine whether the framing treatment changed respondents' understanding or attention even if it did not change the final adoption measures. Allocation based on whether respondents reported an even or odd birth year produced groups of similar size, but it was not identical to automated random assignment by survey software.

The questionnaire was available in multiple languages. Although the versions were intended to communicate the same meaning, minor differences in wording or interpretation

may have remained. Concepts such as trust, safety, privacy and willingness to hold money may not be understood in exactly the same way across languages and national contexts.

As an anonymous online survey, the study also had limited control over the conditions under which respondents completed the questionnaire. Completion time checks, routing checks and response pattern reviews were used to identify potential data quality concerns. Nevertheless, it is not possible to exclude all cases of inattentive responding, misunderstanding or selection of answers without careful consideration. Conditional routing also meant that some follow-up analyses were based on smaller numbers of valid responses than the overall willingness categories.

Finally, the implications for commercial banks were inferred from consumer intentions rather than measured using bank level data. The survey provides evidence on potential adoption, intended holdings and expected funding sources, but it does not directly measure deposit outflows, reserve movements, funding costs, liquidity buffers or lending responses. It also does not account for differences between banks in their dependence on retail deposits, collateral availability or access to alternative funding.

Consequently, the study cannot produce a numerical forecast of the effect of the digital euro on the banking sector. Its contribution is instead to identify behavioural channels through which such effects could arise. In particular, the results show that potential digital euro holdings may often be funded from current and savings accounts, creating a possible connection between consumer adoption and commercial bank deposit funding. The magnitude and wider economic consequences of this channel can only be determined once the final design is known and actual adoption, transaction and bank level data become available.

6 Conclusion

This chapter summarizes the main findings of the thesis and answers the central research question. It then talks about the practical and policy implications of the results and identifies possible directions for future research.

6.1 Summary of Findings

This thesis has explored the possible effects of the digital euro on commercial banks, particularly in terms of deposit funding and liquidity. The study used an online survey with a sample consisting of 290 respondents and was supplemented by theoretical and

institutional literature, as the digital euro had not yet been officially implemented. The survey looked at the respondents' willingness to use and hold the digital euro, the amounts they would be willing to hold, sources of funding, factors associated with adoption intentions and the impact of different descriptions of the digital euro.

The results regarding SQ1 indicate a moderate but uncertain potential level of adoption. In total 46.6% of respondents said they would be likely or very likely to use the digital euro for everyday payments and 37.6% said they would be willing to hold money in the digital euro. However, 42.1% were undecided on whether they would hold digital euro. This uncertainty was reflected in respondents' reasons, with many saying they needed more information or wanted to see how the digital euro would work in practice before making a decision. The most mentioned reasons for possible adoption were convenience, wide acceptance across Europe and perceived safety, while the main reason for unwillingness to hold it was a lack of a clear additional benefit compared to existing payment methods.

The results also showed a link between the respondents' attitudes and their adoption intentions. Higher willingness to hold digital euro was significantly associated with trust in the ECB and perceived safety, which supports H4. H5 was supported, as a stronger concern about privacy was associated with a lower likelihood of use and a lower willingness to hold it. In addition, exploratory analyses showed positive relations between prior awareness, comfort with digital payments and adoption intentions. These findings suggest that the adoption of the digital euro will not only depend on its technical availability but also on whether potential users trust it, perceive it as secure and understand its practical benefits.

In regard to SQ2, the intended holding amounts were generally moderate. Of those respondents willing to hold digital euro, 60.6% selected an amount of €1,000 or less but the sources of these funds suggest a possible link to commercial bank deposits. In total, 90.8% chose current or savings accounts as potential sources of funding, with 83.7% of those who gave a valid main source answer saying that their main source was a current or savings account. Therefore, H3 was descriptively supported, which means that potential digital euro holdings would typically be funded through the conversion of commercial bank deposits into central bank money rather than through cash or other digital wallets.

In regard to SQ3, the positive framing did not lead to a significantly higher probability of using the digital euro or being willing to hold it. Therefore, H1 and H2 were not supported and the results indicate that the focus on potential benefits did not result in

significantly higher adoption intentions than the neutral description. However, this does not mean that information is not important, as many unsure respondents reported that they needed more information. Instead, the results suggest that the particular framing difference used in the survey had no measurable effect on the two major adoption outcomes.

6.2 Answer to the Research Question and Overall Conclusion

In response to the primary research question, the digital euro may have an impact on commercial banks mainly through the partial substitution of current and savings account deposits. If users move deposits from commercial bank accounts to digital euro balances, banks could see a decrease in deposit funding along with related liquidity outflows. The results do not suggest that the digital euro will completely replace commercial bank accounts, as most planned holdings were moderate, and users would still need banks for savings, credit and other financial services. However, the combined effect of many users with moderate balances could be substantial. The magnitude of this effect would depend on actual usage, average balances, the final holding limit, the sources of funding and the capacity of banks to retain or replace deposits. Holding limits, non-remuneration and the waterfall mechanism could mitigate these risks but would not eliminate deposit substitution.

The findings suggest that the successful introduction of the digital euro would require more than simply making it technically available. Many respondents were unsure whether they would hold it, while the absence of a clear additional benefit was the most common reason for unwillingness. Policymakers should therefore ensure that the digital euro offers recognizable practical advantages, such as convenience, broad acceptance, ease of use and reliable payment functionality.

Clear public communication will also be important. The results showed that trust in the ECB and perceived safety were positively associated with willingness to hold digital euro, whereas privacy concerns were associated with lower adoption intentions. Communication should therefore clearly explain the role of the ECB, the protections applying to digital euro holdings, how payment data would be handled and how the digital euro would differ from cryptocurrencies and commercial bank deposits. The absence of a significant framing effect also suggests that simply emphasizing potential benefits may be less effective than providing clear, credible and detailed information.

The expected funding sources of digital euro holdings also have implications for its final design. Since current and savings accounts were the most commonly reported sources,

safeguards such as holding limits, non-remuneration and the waterfall mechanism remain important for limiting deposit substitution. At the same time, these measures should not make the digital euro too restrictive for everyday use. Policymakers may therefore need to monitor actual adoption, average balances and deposit movements after its introduction and adjust the design if the effects on individual banks or the wider banking system become greater than expected.

Commercial banks should prepare for both the financial and operational consequences of the digital euro. This includes monitoring their dependence on retail deposits, maintaining adequate liquidity and contingency funding arrangements, and preparing for the technical integration of digital euro services. Banks could also retain an important role by incorporating the digital euro into their existing applications, providing customer support and offering competitive deposit and payment services. The digital euro would therefore present risks to deposit funding but could also create opportunities for banks that successfully adapt their services and maintain strong customer relationships.

Overall, the digital euro is unlikely to replace commercial banks or commercial bank deposits entirely, but it could lead to a partial reallocation of household funds from bank accounts into central bank money. The scale of this effect would depend on actual adoption, average holdings, the final design of the digital euro and the ability of banks to adapt their funding and payment services. Its successful introduction would therefore require a balance between providing a useful public digital payment method and limiting unintended consequences for bank funding, liquidity and financial stability.

6.3 Future Research

Once the digital euro has been introduced, further research will be necessary with actual user behaviour being observed. Like most existing research, this study is based on stated intentions under hypothetical conditions. In future studies, however, the stated willingness to use and to hold the digital euro could be compared to the actual adoption and transaction behaviour of respondents. Consequently, assessing the extent to which hypothetical intentions translate into real decisions would finally be possible.

The actual source of funding for digital euro holdings would be a particularly important area for future research. Even though respondents may indicate that they expect to transfer funds from, for example, current accounts or savings accounts, only transaction data will show how digital euro balances are funded in practice. The resulting evidence

would help to provide a more reliable basis to evaluate the effects on commercial bank deposits, funding structures and liquidity.

Further research would also be able to examine whether digital euro usage changes over time as consumers gain experience and become familiar with the new payment instrument. Whether initial attitudes remain stable or change after repeated use could be investigated in longitudinal studies. They could also investigate whether the effect of information framing is temporary or whether different forms of communication have a lasting influence on adoption.

Finally, whether deposit outflows and liquidity effects differ across institutions with different funding structures, liquidity buffers and access to eligible collateral could be analysed by using bank level data. Actual behaviour during a possible future banking crisis would be valuable to observe, as it may differ substantially from behaviour under normal conditions. Such research would help determine whether the safeguards included in the design of the digital euro are sufficient to limit risks to individual banks and to the wider financial system.

7 References

- Adalid, R., Álvarez-Blázquez, Á., Assenmacher, K., Burlon, L., Dimou, M., López-Quiles, C., Martín Fuentes, N., Meller, B., Muñoz, M. A., Radulova, P., Rodriguez d'Acari, C., Shakir, T., Šilová, G., Soons, O., & Ventula Veghazy, A. (2022). Central bank digital currency and bank intermediation: Exploring different approaches for assessing the effects of a digital euro on euro area banks. In *ECB Occasional Paper Series* (Number 293). European Central Bank. <https://doi.org/10.2866/467860>
- Atlantic Council. (2025). *Central Bank Digital Currency Tracker*. Atlantic Council GeoEconomics Center. <https://www.atlanticcouncil.org/cbdctracker/>
- Barr, M. S. (2023). The Importance of Effective Liquidity Risk Management. In *Board of Governors of the Federal Reserve System*. Board of Governors of the Federal Reserve System. <https://www.federalreserve.gov/newsevents/speech/barr20231201a.htm>
- Bidder, R., Jackson, T., & Rottner, M. (2025). CBDC and banks: Disintermediating fast and slow. In *BIS Working Papers* (Number 1280). Bank for International Settlements. <https://www.bis.org/publ/work1280.htm>
- Bindseil, U., Corsi, M., Sahel, B., & Visser, A. (2017). The Eurosystem collateral framework explained. In *Occasional Paper Series* (Number 189). European Central Bank. <https://doi.org/10.2866/176048>
- Chang, H., Grinberg, F., Gornicka, L., Miccoli, M., & Tan, B. J. (2023). Central Bank Digital Currency and Bank Disintermediation in a Portfolio Choice Model. In *IMF Working Papers* (Vol. 2023, Number 236). International Monetary Fund. <https://doi.org/10.5089/9798400259029.001>
- Cipollone, P. (2024, February 14). *Preserving people's freedom to use a public means of payment: Insights into the digital euro preparation phase*. European Central Bank. https://www.ecb.europa.eu/press/key/date/2024/html/ecb.sp240214_1~4bflab0319.en.html
- Cipollone, P. (2025). Empowering Europe: boosting strategic autonomy through the digital euro. In *Introductory statement at the Committee on Economic and Monetary Affairs of the European Parliament*. European Central Bank. <https://www.ecb.europa.eu/press/key/date/2025/html/ecb.sp250408~40820747ef.en.html>
- Cipollone, P. (2026). *Digital euro*. <https://www.ecb.europa.eu/press/key/date/2026/html/ecb.sp260218~e8cad0ec0f.en.pdf>
- Demirgüç-Kunt, A., Klapper, L., Singer, D., & Ansar, S. (2022). *The Global Findex Database 2021: Financial Inclusion, Digital Payments, and Resilience in the Age of COVID-19*. World Bank. <https://doi.org/10.1596/978-1-4648-1897-4>
- Deutsche Bundesbank. (2017). The role of banks, non-banks and the central bank in the money creation process. *Monthly Report*, 13–33.

<https://www.bundesbank.de/resource/blob/654284/df66c4444d065a7f519e2ab0c476df58/m/2017-04-money-creation-process-data.pdf>

- Deutsche Bundesbank. (2024, June 4). *Bundesbank survey: Widespread acceptance of digital euro among general public*. Deutsche Bundesbank. <https://www.bundesbank.de/en/press/press-releases/bundesbank-survey-widespread-acceptance-of-digital-euro-among-general-public--933322>
- Dillman, D. A., Christian, L. M., & Smyth, J. D. (2014). *Internet, phone, mail, and mixed-mode surveys : the tailored design method* (Fourth edition). Wiley.
- Directive 2014/49/EU on Deposit Guarantee Schemes, L 173 Official Journal of the European Union 149 (2014). <https://eur-lex.europa.eu/eli/dir/2014/49/oj/eng>
- European Central Bank. (n.d.). *The Eurosystem's instruments*. European Central Bank. Retrieved June 2, 2026, from <https://www.ecb.europa.eu/mopo/implement/html/index.en.html>
- European Central Bank. (2016). Recent developments in the composition and cost of bank funding in the euro area. *ECB Economic Bulletin*, (1), 26–45. https://www.ecb.europa.eu/pub/pdf/other/eb201601_article01.en.pdf
- European Central Bank. (2024a). *Progress on the preparation phase of a digital euro – First progress report*. https://www.ecb.europa.eu/euro/digital_euro/progress/html/ecb.deprp202406.en.html
- European Central Bank. (2024b). Study on the payment attitudes of consumers in the euro area 2024. In *Study on the Payment Attitudes of Consumers in the Euro Area (SPACE)*. European Central Bank. <https://doi.org/10.2866/9860161>
- European Central Bank. (2025a). *Progress on the preparation phase of a digital euro: Closing progress report*. European Central Bank. https://www.ecb.europa.eu/euro/digital_euro/progress/html/ecb.deprp202510.en.html
- European Central Bank. (2025b). *Technical data on the financial stability impact of the digital euro*. European Central Bank. https://www.ecb.europa.eu/euro/digital_euro/timeline/profuse/shared/pdf/ecb.deprep251010_technical_annex_financial_stability_impact_digital_euro.en.pdf
- European Central Bank. (2026, March 5). *FAQs on the digital euro*. European Central Bank. https://www.ecb.europa.eu/euro/digital_euro/faqs/html/ecb.faq_digital_euro.en.html
- European Commission. (2026, April 20). *Deposit guarantee schemes*. European Commission. https://finance.ec.europa.eu/banking/banking-regulation/deposit-guarantee-schemes_en
- European Savings and Retail Banking Group. (2022, July 5). *Number of unbanked adult EU citizens more than halved in the last four years*. WSBI-ESBG. <https://www.wsbi-esbg.org/number-of-unbanked-adult-eu-citizens-more-than-halved-in-the-last-four-years/>
- Filippin, M. E., & Pelli, M. (2026). Attitudes to the Digital Euro in Ireland: Survey Evidence from the Investigation Phase. In *Staff Insights* (Vol. 2026, Number 2). Central Bank of

- Ireland. <https://www.centralbank.ie/publication/research-publications/staff-insights/attitudes-to-the-digital-euro-in-ireland-survey-evidence-from-the-investigation-phase>
- Georgarakos, D., Kenny, G., Laeven, L. A., & Meyer, J. (2025). Consumer Attitudes Towards a Central Bank Digital Currency. In *ECB Working Paper* (Number 3035). European Central Bank. <https://doi.org/10.2139/ssrn.5176496>
- Group of Central Banks. (2021). *Central bank digital currencies: financial stability implications*. Bank for International Settlements. https://www.bis.org/publ/othp42_fin_stab.pdf
- Illes, A., Kosse, A., & Wierst, P. (2025). Advancing in tandem: Results of the 2024 BIS survey on central bank digital currencies and crypto. In *BIS Papers* (Number 159). Bank for International Settlements. <https://www.bis.org/publ/bppdf/bispap159.pdf>
- Klapper, L., Singer, D., Starita, L., & Norris, A. (2025). *The Global Findex Database 2025: Connectivity and Financial Inclusion in the Digital Economy*. World Bank. <https://doi.org/10.1596/978-1-4648-2204-9>
- OECD. (2025). *OECD Economic Surveys: Luxembourg 2025*. OECD Publishing. <https://doi.org/10.1787/803b3ea1-en>
- Tversky, A., & Kahneman, D. (1981). The framing of decisions and the psychology of choice. *Science* (New York, N.Y.), 211(4481), 453–458. <https://doi.org/10.1126/science.7455683>

Tools used

ChatGPT was used selectively to assist with the translation and linguistic consistency of the multilingual survey versions and with the linguistic revision of selected passages, including grammar, wording, clarity and academic style. AI-assisted suggestions were critically reviewed by the author. All publications cited in the thesis were independently accessed, read, assessed and cited by the author. All statistical analyses were conducted by the author using jamovi. The research design, data collection, selection and interpretation of sources, interpretation of the results and conclusions are the author's own.

8 Appendices

Due to conditional routing, the question numbers displayed by Microsoft Forms varied depending on the respondent's previous answers. The screenshots of the common later questions follow the longest survey path.

8.1 English Questionnaire

English (United States)

Digital Euro Survey

This survey is part of a master's thesis investigating public perceptions, attitudes, and potential adoption of the digital euro. Participation is voluntary and anonymous. The collected data will be used solely for academic research purposes within the framework of this thesis. Thank you for your contribution.

When you submit this form, it will not automatically collect your details like name and email address unless you provide it yourself.

* Required

To assign you to one of two survey versions:

1. Was your birth year an even or an odd year? *

☐ Even year (e.g. 1998, 2002)

☐ Odd year (e.g. 1999, 2001)

Next

When “Even year” was selected, Version A (neutral description) was shown:

English (United States)

Digital Euro Survey

* Required

Digital Euro Survey (IMPORTANT – PLEASE READ)

The digital euro is a proposed new form of money issued by the European Central Bank (ECB). It is an electronic version of physical cash intended for daily payments. It is not an investment like stocks or cryptocurrencies, but simply a tool for payments. One digital euro will always have the same value as one euro in cash.

The main difference is who keeps your money. Currently, your digital money is held in an account at your bank. With the digital euro your money will be held directly by the ECB.

You can think of it like an ATM withdrawal. You withdraw money from your bank account into a 'Digital Wallet' on your phone for example. Once the money is in your Digital Wallet it is no longer managed by your bank but it is held by the central bank.

Please assume the following conditions for this survey:

- You can hold up to €3,000 in digital euro
- Digital euro does not earn interest
- It can be used for everyday payments (online and in shops)
- Commercial banks continue to offer current and savings accounts as usual

The following questions relate to your potential use of the digital euro.

When “Odd year” was selected, Version B (positively framed description) was shown:

English (United States) 

Digital Euro Survey

* Required

Digital Euro Survey (IMPORTANT – PLEASE READ)

The digital euro is a proposed new form of money issued by the European Central Bank (ECB). It is an electronic version of physical cash intended for daily payments. It is designed to provide a secure and reliable way to pay in the digital age.

It is not an investment like stocks or cryptocurrencies, but simply a tool for payments. One digital euro will always have the same value as one euro in cash.

The main difference is who keeps your money.
Currently, your digital money is held in an account at your bank. With the digital euro, your money will be held directly by the ECB. As a public institution, the ECB provides a highly secure way of holding money.

You can think of it like an ATM withdrawal. You withdraw money from your bank account into a 'Digital Wallet' on your phone, for example. Once the money is in your Digital Wallet, it is no longer managed by your bank but is held by the central bank.

The digital euro could make everyday payments easier and could also work in situations where current digital payments are limited (for example without an internet connection). It could also help reduce dependence on large private payment providers (e.g. Visa, Mastercard, PayPal) and could offer a high level of privacy for payments.

Please assume the following conditions for this survey:

- You can hold up to €3,000 in digital euro
- Digital euro does not earn interest
- Digital euro can be used for everyday payments (online and in shops)
- Commercial banks continue to offer current and savings accounts as usual

The following questions relate to your potential use of the digital euro.

The follow-up questions were the same for both versions:

2. **Before today, had you heard of the digital euro?** * 
- ☐ Yes
- ☐ No

3. How often do you pay digitally (card or mobile)? * 

- ☐ Never
- ☐ Rarely
- ☐ Sometimes
- ☐ Often
- ☐ Always

4. I feel comfortable using online banking and digital payments (e.g. card or mobile payments) * 

- ☐ Strongly disagree
- ☐ Disagree
- ☐ Neutral
- ☐ Agree
- ☐ Strongly agree

5. How likely would you be to use the digital euro for everyday payments? * 

- ☐ Very unlikely
- ☐ Unlikely
- ☐ Neutral
- ☐ Likely
- ☐ Very likely

6. Would you hold any money in digital euro? * 

- ☐ Yes
- ☐ No
- ☐ Not sure / Don't know

When the answer to Question 6 was “Yes”:

7. Where would the money you hold in digital euro come from? (Select all that apply) * 

- ☐ Current account (checking)
- ☐ Savings account
- ☐ Cash
- ☐ Other digital wallets (e.g. PayPal, Revolut)
- ☐ Other

8. Which of the sources selected above would be the MAIN source of your digital euro funds? * 

- ☐ Current account (checking)
- ☐ Savings account
- ☐ Cash
- ☐ Other digital wallets (e.g., PayPal, Revolut)
- ☐ Other

9. Approximately how much money would you hold in digital euro (max €3,000)? * 

- ☐ Less than €100
- ☐ €100 - 500
- ☐ €501 - 1,000
- ☐ €1,001 - 2,000
- ☐ €2,001 - 3,000

When the answer to Question 9 was “2,001 – 3,000” the following question was asked additionally:

10. If the holding limit were higher, would you want to hold more than €3,000 in the digital euro? 

- ☐ Yes
- ☐ No
- ☐ Not sure

For all other responses to Question 9, Question 10 was skipped and respondents proceeded directly to Question 11.

11. What would be your MAIN reason for using the digital euro? * 

- ☐ Safety / risk-free
- ☐ Convenience
- ☐ Trust in the central bank
- ☐ More privacy (my transactions are less visible to banks or companies)
- ☐ It can be used across Europe / widely accepted
- ☐ Independence from private payment providers (e.g. Visa, PayPal)
- ☐ Other

When the answer to Question 6 was “No”:

7. What are the reasons why you would not hold any digital euro? (Select all that apply) * 

- ☐ I see no benefit compared to my current payment methods
- ☐ I prefer to keep money in my bank account
- ☐ I prefer using cash
- ☐ I have concerns about privacy
- ☐ I have concerns about security
- ☐ I do not trust the digital euro
- ☐ I do not fully understand how it works
- ☐ Other

When the answer to Question 6 was “Not sure / Don't know”:

7. **What are the reasons why you are unsure about holding any digital euro?** (Select all that apply) * 

- ☐ I do not fully understand how it works
- ☐ I need more information
- ☐ I am unsure about the benefits
- ☐ I have concerns about privacy
- ☐ I have concerns about security
- ☐ I do not trust the digital euro
- ☐ I am unsure how it compares to my current payment methods
- ☐ I would want to see how it works in practice before deciding
- ☐ Other

8. **If you had to decide today, which option would you lean towards?** * 

- ☐ I would probably hold some digital euro
- ☐ I would probably not hold any digital euro

All participants were then asked the following questions:

12. **Please indicate your level of agreement with the following statements:** * 

	Strongly Disagree	Disagree	Neutral	Agree	Strongly agree
I trust the European Central Bank to manage the digital euro responsibly	☐	☐	☐	☐	☐
I am concerned about privacy when using the digital euro	☐	☐	☐	☐	☐
The digital euro would be convenient for everyday payments	☐	☐	☐	☐	☐
I consider the digital euro to be a safe way to hold money	☐	☐	☐	☐	☐

13. What is your age group? * 

- ☐ 18–24
- ☐ 25–34
- ☐ 35–44
- ☐ 45–54
- ☐ 55–64
- ☐ 65+

14. What is your gender? * 

- ☐ Female
- ☐ Male
- ☐ Other

15. What is your highest completed level of education? * 

- ☐ Compulsory education (primary/lower secondary)
- ☐ Vocational training / apprenticeship
- ☐ Secondary education (high school diploma or equivalent)
- ☐ University degree (Bachelor or higher)
- ☐ Other

16. Which of the following best describes your current situation? * 

- ☐ Student
- ☐ Employed (full-time)
- ☐ Employed (part-time)
- ☐ Self-employed
- ☐ Unemployed / job-seeking
- ☐ Retired
- ☐ Other

17. In which country do you currently live? * 

- ☐ Austria
- ☐ Germany
- ☐ France
- ☐ Hungary
- ☐ Luxembourg
- ☐ Other Eurozone country (e.g., Italy, Spain, Slovakia, etc.)
- ☐ Other EU country (Non-Eurozone)
- ☐ Non-EU country

18. Do you have any additional thoughts or concerns about the digital euro? (Optional) 

Enter your answer

8.2 German Questionnaire

Deutsch

Umfrage zum digitalen Euro

Diese Umfrage ist Teil einer Masterarbeit, die die öffentliche Wahrnehmung, Einstellungen und potenzielle Akzeptanz des digitalen Euro untersucht. Die Teilnahme ist freiwillig und anonym. Die erhobenen Daten werden ausschließlich für wissenschaftliche Forschungszwecke im Rahmen dieser Masterarbeit verwendet. Vielen Dank für Ihren Beitrag.

P.S: This survey contains Karma to get free survey responses at SurveySwap.io
Also rewards for SurveyCircle and PollPool

Wenn Sie dieses Formular übermitteln, werden Ihre Details wie Name und E-Mail-Adresse nicht automatisch erfasst, es sei denn, Sie geben es selbst an.

* Erforderlich

Zur Zuordnung zu einer von zwei Umfrageversionen:

1. Ist Ihr Geburtsjahr gerade oder ungerade? *

☐ Gerades Jahr (z. B. 1998, 2002)

☐ Ungerades Jahr (z. B. 1999, 2001)

Weiter

When “Even year” was selected, Version A (neutral description) was shown:

Deutsch

Umfrage zum digitalen Euro

* Erforderlich

Umfrage zum digitalen Euro (WICHTIG – BITTE LESEN)

Der digitale Euro ist eine geplante neue Form von Geld, die von der Europäischen Zentralbank (EZB) ausgegeben wird. Es ist eine elektronische Version von Bargeld und für tägliche Zahlungen gedacht.

Es handelt sich nicht um eine Anlage wie Aktien oder Kryptowährungen, sondern einfach um ein Zahlungsmittel. Ein digitaler Euro wird immer den gleichen Wert haben wie ein Euro in bar.

Der Hauptunterschied besteht darin, wer Ihr Geld verwahrt. Heute befindet sich Ihr digitales Geld auf einem Konto bei Ihrer Bank. Mit dem digitalen Euro würde Ihr Geld direkt bei der EZB gehalten werden.

Man kann sich das wie eine Bargeldabhebung vorstellen. Sie übertragen Geld von Ihrem Bankkonto in eine „digitale Geldbörse“ auf Ihrem Smartphone, zum Beispiel. Sobald sich das Geld in dieser digitalen Geldbörse befindet, wird es nicht mehr von Ihrer Bank verwaltet, sondern von der Zentralbank gehalten.

Bitte gehen Sie bei dieser Umfrage von folgenden Annahmen aus:

- Sie können bis zu 3.000 € in digitalem Euro halten
- Geld in digitalem Euro bringt keine Zinsen
- Er kann für alltägliche Zahlungen (online und in Geschäften) verwendet werden
- Geschäftsbanken bieten weiterhin wie gewohnt Giro- und Sparkonten an

Die folgenden Fragen beziehen sich auf Ihre potenzielle Nutzung des digitalen Euro.

When “Odd year” was selected, Version B (positively framed description) was shown:

 Deutsch 

Umfrage zum digitalen Euro

* Erforderlich

Umfrage zum digitalen Euro (WICHTIG – BITTE LESEN)

Der digitale Euro ist eine geplante neue Form von Geld, die von der Europäischen Zentralbank (EZB) ausgegeben wird. Es ist eine elektronische Version von Bargeld und für tägliche Zahlungen gedacht. Es soll eine sichere und verlässliche Möglichkeit bieten, auch in Zukunft digital zu bezahlen.

Es handelt sich nicht um eine Anlage wie Aktien oder Kryptowährungen, sondern einfach um ein Zahlungsmittel. Ein digitaler Euro wird immer den gleichen Wert haben wie ein Euro in bar.

Der Hauptunterschied besteht darin, wer Ihr Geld verwahrt. Heute befindet sich Ihr digitales Geld auf einem Konto bei Ihrer Bank. Mit dem digitalen Euro würde Ihr Geld direkt bei der EZB gehalten werden. Als öffentliche Institution bietet die EZB eine sehr sichere Möglichkeit, Geld zu halten.

Man kann sich das wie eine Bargeldabhebung vorstellen. Sie übertragen Geld von Ihrem Bankkonto in eine „digitale Geldbörse“ auf Ihrem Smartphone, zum Beispiel. Sobald sich das Geld in dieser digitalen Geldbörse befindet, wird es nicht mehr von Ihrer Bank verwaltet, sondern von der Zentralbank gehalten.

Der digitale Euro könnte alltägliche Zahlungen einfacher machen und auch in Situationen funktionieren, in denen heutige digitale Zahlungen eingeschränkt sind (zum Beispiel ohne Internetverbindung). Außerdem könnte er dazu beitragen, die Abhängigkeit von großen privaten Zahlungsanbietern zu verringern (z. B. Visa, Mastercard, PayPal) und ein hohes Maß an Privatsphäre bei Zahlungen bieten.

Bitte gehen Sie bei dieser Umfrage von folgenden Annahmen aus:

- Sie können bis zu 3.000 € in digitalem Euro halten
- Geld in digitalem Euro bringt keine Zinsen
- Digitaler Euro kann für alltägliche Zahlungen (online und in Geschäften) verwendet werden
- Geschäftsbanken bieten weiterhin wie gewohnt Giro- und Sparkonten an

Die folgenden Fragen beziehen sich auf Ihre potenzielle Nutzung des digitalen Euro.

The follow-up questions were the same for both versions:

2. **Hatten Sie bereits vom digitalen Euro gehört?** * 

- ☐ Ja
- ☐ Nein

3. **Wie oft bezahlen Sie digital (mit Karte oder per Handy)?** * 

- ☐ Nie
- ☐ Selten
- ☐ Manchmal
- ☐ Oft
- ☐ Immer

4. **Ich kann gut mit Online-Banking und digitalen Zahlungsmethoden umgehen** * 

- ☐ Stimme überhaupt nicht zu
- ☐ Stimme nicht zu
- ☐ Neutral
- ☐ Stimme zu
- ☐ Stimme voll und ganz zu

5. **Wie wahrscheinlich ist es, dass Sie den digitalen Euro für alltägliche Zahlungen nutzen würden?** * 

- ☐ Sehr unwahrscheinlich
- ☐ Unwahrscheinlich
- ☐ Neutral
- ☐ Wahrscheinlich
- ☐ Sehr wahrscheinlich

6. **Würden Sie Geld in Form von digitalen Euro besitzen wollen?** * 

- ☐ Ja
- ☐ Nein
- ☐ Nicht sicher / Weiß nicht

When the answer to Question 6 was “Yes”:

7. **Woher würde das Geld kommen, das Sie in digitalem Euro halten würden?** (Mehrfachauswahl möglich) * 

- ☐ Girokonto
- ☐ Sparkonto
- ☐ Bargeld
- ☐ Andere digitale Geldbörsen (z. B. PayPal, Revolut)
- ☐ Sonstiges

8. **Welche der oben genannten Quellen wäre die HAUPTQUELLE für Ihr Guthaben in digitalem Euro?** * 

- ☐ Girokonto
- ☐ Sparkonto
- ☐ Bargeld
- ☐ Andere digitale Geldbörsen (z. B. PayPal, Revolut)
- ☐ Sonstiges

9. **Wie viel Geld würden Sie ungefähr in digitalem Euro halten (max. 3.000€)?** * 

- ☐ Weniger als €100
- ☐ €100-500
- ☐ €500-1,000
- ☐ €1,000-2,000
- ☐ €2,000-3,000

When the answer to Question 9 was “2,001 – 3,000” the following question was asked additionally:

10. **Wenn das Limit höher wäre, würden Sie mehr als 3.000€ im digitalen Euro halten wollen?** 

- ☐ Ja
- ☐ Nein
- ☐ Ich bin mir nicht sicher

For all other responses to Question 9, Question 10 was skipped and respondents proceeded directly to Question 11.

11. Was wäre Ihr HAUPTGRUND, den digitalen Euro zu nutzen? *

- ☐ Sicherheit / Risikofreiheit
- ☐ Bequemlichkeit
- ☐ Vertrauen in die Zentralbank
- ☐ Mehr Privatsphäre (meine Zahlungen sind weniger sichtbar für Banken oder Unternehmen)
- ☐ Es kann europaweit genutzt werden / breite Akzeptanz
- ☐ Unabhängigkeit von privaten Zahlungsanbietern (z. B. Visa, PayPal)
- ☐ Sonstiges

When the answer to Question 6 was “No”:

7. Was sind die Gründe, warum Sie keine digitalen Euro haben möchten? (Mehrfachauswahl möglich) *

- ☐ Ich sehe keinen Vorteil gegenüber meinen derzeitigen Zahlungsmethoden
- ☐ Ich möchte mein Geld lieber auf meinem Bankkonto behalten
- ☐ Ich bevorzuge Barzahlung
- ☐ Ich habe Bedenken um meine Privatsphäre
- ☐ Ich habe Sicherheitsbedenken
- ☐ Ich vertraue dem digitalen Euro nicht
- ☐ Ich verstehe nicht ganz, wie er funktioniert
- ☐ Sonstiges

When the answer to Question 6 was “Not sure / Don't know”:

7. Was sind die Gründe, warum Sie sich unsicher sind, ob Sie digitale Euro haben möchten? (Mehrfachauswahl möglich) * 

- ☐ Ich verstehe nicht ganz, wie er funktioniert
- ☐ Ich benötige mehr Informationen
- ☐ Ich bin mir über die Vorteile unsicher
- ☐ Ich habe Bedenken um meine Privatsphäre
- ☐ Ich habe Sicherheitsbedenken
- ☐ Ich vertraue dem digitalen Euro nicht
- ☐ Ich bin mir unsicher, wie er im Vergleich zu meinen derzeitigen Zahlungsmethoden abschneidet
- ☐ Ich möchte erst sehen, wie es in der Praxis funktioniert, bevor ich mich entscheide
- ☐ Sonstiges

8. Wenn Sie sich heute entscheiden müssten, zu welcher Tendenz würden Sie neigen? * 

- ☐ Ich würde wahrscheinlich etwas Guthaben in digitalem Euro haben
- ☐ Ich würde wahrscheinlich keinen digitalen Euro haben

All participants were then asked the following questions:

12. Bitte geben Sie an, wie sehr Sie den folgenden Aussagen zustimmen: * 

	Stimme überhaupt nicht zu	Stimme nicht zu	Neutral	Stimme zu	Stimme voll und ganz zu
Ich vertraue darauf, dass die Europäische Zentralbank verantwortungsvoll mit dem digitalen Euro umgeht	☐	☐	☐	☐	☐
Ich mache mir Sorgen um meine Privatsphäre bei der Nutzung des digitalen Euro	☐	☐	☐	☐	☐
Der digitale Euro wäre praktisch für alltägliche Zahlungen	☐	☐	☐	☐	☐
Ich halte den digitalen Euro für eine sichere Art der Geldaufbewahrung	☐	☐	☐	☐	☐

13. Was ist Ihre Altersgruppe? *

- ☐ 18–24
- ☐ 25–34
- ☐ 35–44
- ☐ 45–54
- ☐ 55–64
- ☐ 65+

14. Welches Geschlecht haben Sie? *

- ☐ Weiblich
- ☐ Männlich
- ☐ Divers

15. Was ist Ihr höchster Bildungsabschluss? *

- ☐ Pflichtschule (Grundschule / Hauptschule)
- ☐ Lehre / Berufsausbildung
- ☐ Sekundarstufe (Matura / Abitur oder gleichwertig)
- ☐ Universitätsabschluss (Universität / Fachhochschule)
- ☐ Sonstiges

16. Welche der folgenden Aussagen beschreibt Ihre aktuelle Situation am besten? *

- ☐ Studierend
- ☐ Berufstätig (Vollzeit)
- ☐ Berufstätig (Teilzeit)
- ☐ Selbstständig
- ☐ Arbeitslos / auf Arbeitssuche
- ☐ Im Ruhestand
- ☐ Sonstiges

17. In welchem Land leben Sie derzeit? * 

- ☐ Österreich
- ☐ Deutschland
- ☐ Frankreich
- ☐ Ungarn
- ☐ Luxemburg
- ☐ Anderes Land der Eurozone (z. B. Italien, Spanien, Slowakei usw.)
- ☐ Anderes EU-Land (nicht in der Eurozone)
- ☐ Nicht-EU-Land

18. Haben Sie weitere Gedanken oder Bedenken zum digitalen Euro? (Optional) 

Ihre Antwort eingeben

8.3 French Questionnaire

Français (France)

Enquête sur l'euro numérique

Cette enquête s'inscrit dans le cadre d'un mémoire de master portant sur la perception du public, les attitudes et l'adoption potentielle de l'euro numérique. La participation est volontaire et anonyme. Les données recueillies seront utilisées exclusivement à des fins de recherche académique dans le cadre de ce mémoire. Merci pour votre contribution.
P.S: This survey contains Karma to get free survey responses at SurveySwap.io

Also rewards for SurveyCircle and PollPool

Lorsque vous soumettez ce formulaire, il ne collecte pas automatiquement vos détails, tels que le nom et l'adresse e-mail, sauf si vous le fournissez vous-même.

* Obligatoire

Pour vous attribuer à l'une des deux versions de l'enquête

1. **Votre année de naissance est-elle paire ou impaire?** *

☐ Année paire (par ex. 1998, 2002)

☐ Année impaire (par ex. 1999, 2001)

Suivant

When “Even year” was selected, Version A (neutral description) was shown:

Français (France)

Enquête sur l'euro numérique

* Obligatoire

Enquête sur l'euro numérique (IMPORTANT – VEUILLEZ LIRE)

L'euro numérique est une nouvelle forme de monnaie proposée par la Banque centrale européenne (BCE). Il s'agit d'une version électronique de l'argent liquide destinée aux paiements quotidiens.

Ce n'est pas un investissement comme les actions ou les cryptomonnaies, mais simplement un moyen de paiement. Un euro numérique aura toujours la même valeur qu'un euro en espèces.

La principale différence concerne l'institution où se trouve votre argent.
Aujourd'hui, votre argent numérique est sur un compte dans votre banque. Avec l'euro numérique, votre argent se trouverait directement à la BCE.

On peut comparer cela à un retrait d'espèces. Vous transférez de l'argent de votre compte bancaire vers un « portefeuille numérique » sur votre téléphone, par exemple. Une fois que l'argent est dans ce portefeuille numérique, il n'est plus géré par votre banque, mais il se trouve à la banque centrale.

Pour cette enquête, veuillez partir des hypothèses suivantes :

- Vous pouvez garder jusqu'à 3 000 € en euro numérique
- L'euro numérique ne rapporte pas d'intérêts
- Il peut être utilisé pour les paiements quotidiens (en ligne et en magasin)
- Les banques commerciales continuent de proposer des comptes courants et des comptes d'épargne comme d'habitude

Les questions suivantes concernent votre utilisation potentielle de l'euro numérique.

When “Odd year” was selected, Version B (positively framed description) was shown:

Français (France)

Enquête sur l'euro numérique

* Obligatoire

Enquête sur l'euro numérique (IMPORTANT – VEUILLEZ LIRE)

L'euro numérique est une nouvelle forme de monnaie proposée par la Banque centrale européenne (BCE). Il s'agit d'une version électronique de l'argent liquide destinée aux paiements quotidiens. Il vise à offrir un moyen sûr et fiable de payer dans le monde numérique.

Ce n'est pas un investissement comme les actions ou les cryptomonnaies, mais simplement un moyen de paiement. Un euro numérique aura toujours la même valeur qu'un euro en espèces.

La principale différence concerne l'institution où se trouve votre argent. Aujourd'hui, votre argent numérique est sur un compte dans votre banque. Avec l'euro numérique, votre argent se trouverait directement à la BCE. En tant qu'institution publique, la BCE offre un moyen sûr de conserver votre argent.

On peut comparer cela à un retrait d'espèces. Vous transférez de l'argent de votre compte bancaire vers un « portefeuille numérique » sur votre téléphone, par exemple. Une fois que l'argent est dans ce portefeuille numérique, il n'est plus géré par votre banque, mais il se trouve à la banque centrale.

L'euro numérique pourrait faciliter les paiements quotidiens et fonctionner également dans des situations où les paiements numériques actuels sont limités (par exemple sans connexion internet). Il pourrait aussi aider à réduire la dépendance aux grands prestataires de paiement privés (par exemple Visa, Mastercard, PayPal) et offrir un haut niveau de confidentialité pour vos paiements.

Pour cette enquête, veuillez partir des hypothèses suivantes :

- Vous pouvez garder jusqu'à 3 000 € en euro numérique
- L'euro numérique ne rapporte pas d'intérêts
- L'euro numérique peut être utilisé pour les paiements quotidiens (en ligne et en magasin)
- Les banques commerciales continuent de proposer des comptes courants et des comptes d'épargne comme d'habitude

Les questions suivantes concernent votre utilisation potentielle de l'euro numérique.

The follow-up questions were the same for both versions:

2. **Avant aujourd'hui, aviez-vous déjà entendu parler de l'euro numérique?** *

☐ Oui

☐ Non

3. À quelle fréquence effectuez-vous des paiements numériques (carte ou mobile)? * 

- ☐ Jamais
- ☐ Rarement
- ☐ Parfois
- ☐ Souvent
- ☐ Toujours

4. Je sais bien utiliser les services bancaires en ligne et les paiements numériques (par exemple, par carte ou avec mon téléphone) * 

- ☐ Pas du tout d'accord
- ☐ Pas d'accord
- ☐ Neutre
- ☐ D'accord
- ☐ Tout à fait d'accord

5. Quelle est la probabilité que vous utilisiez l'euro numérique pour vos paiements quotidiens? * 

- ☐ Très peu probable
- ☐ Peu probable
- ☐ Neutre
- ☐ Probable
- ☐ Très probable

6. Garderiez-vous de l'argent en euros numériques? * 

- ☐ Oui
- ☐ Non
- ☐ Pas sûr(e) / Je ne sais pas

When the answer to Question 6 was “Yes”:

7. **D’où viendrait l’argent que vous garderiez en euro numérique?** (Plusieurs réponses possibles)

* 

- ☐ Compte courant
- ☐ Compte d’épargne
- ☐ Espèces
- ☐ Autres portefeuilles numériques (par exemple PayPal, Revolut)
- ☐ Autre

8. **Parmi les sources sélectionnées ci-dessus, laquelle serait la source PRINCIPALE de vos fonds en euros numériques?** * 

- ☐ Current account (checking)
- ☐ Savings account
- ☐ Cash
- ☐ Other digital wallets (e.g., PayPal, Revolut)
- ☐ Autre

9. **Environ combien d’argent garderiez-vous en euro numérique (max. 3 000€)?** * 

- ☐ Moins de 100€
- ☐ 100 - 500€
- ☐ 501 - 1 000€
- ☐ 1 001 - 2 000€
- ☐ 2 001 - 3 000€

When the answer to Question 9 was “2,001 – 3,000” the following question was asked additionally:

10. **Si la limite était plus élevée, souhaiteriez-vous garder plus de 3 000€ en euro numérique?** 

- ☐ Oui
- ☐ Non
- ☐ Je ne sais pas

For all other responses to Question 9, Question 10 was skipped and respondents proceeded directly to Question 11.

11. **Quelle serait votre PRINCIPALE raison d'utiliser l'euro numérique?** * 

- ☐ Sécurité / sans risque
- ☐ Praticité
- ☐ Confiance dans la banque centrale
- ☐ Plus de confidentialité (mes paiements sont moins visibles pour les banques ou les entreprises)
- ☐ It can be used across Europe / widely accepted
- ☐ Independence from private payment providers (e.g. Visa, PayPal)
- ☐ Autre

When the answer to Question 6 was “No”:

7. **Pour quelles raisons ne souhaiteriez-vous pas avoir d'euros numériques?** (Plusieurs réponses possibles)

* 

- ☐ Je ne vois aucun avantage par rapport à mes moyens de paiement actuels
- ☐ Je préfère garder mon argent sur mon compte bancaire
- ☐ Je préfère utiliser des espèces
- ☐ J'ai des inquiétudes concernant la confidentialité
- ☐ J'ai des inquiétudes concernant la sécurité
- ☐ Je n'ai pas confiance en l'euro numérique
- ☐ Je ne comprends pas tout à fait comment cela fonctionne
- ☐ Autre

When the answer to Question 6 was “Not sure / Don't know”:

7. Pour quelles raisons hésitez-vous à avoir des euros numériques? (Plusieurs réponses possibles)

* 

- ☐ Je ne comprends pas tout à fait comment cela fonctionne
- ☐ J'ai besoin de plus d'informations
- ☐ Je ne suis pas sûr(e) des avantages
- ☐ J'ai des inquiétudes concernant la confidentialité
- ☐ J'ai des inquiétudes concernant la sécurité
- ☐ Je n'ai pas confiance en l'euro numérique
- ☐ Je ne sais pas comment cela se compare à mes moyens de paiement actuels
- ☐ Je voudrais voir comment cela fonctionne en pratique avant de me décider
- ☐ Autre

8. Si vous deviez décider aujourd'hui, vers quelle option pencheriez-vous? *

- ☐ J'aurais probablement des euros numériques
- ☐ Je n'aurais probablement pas d'euros numériques

All participants were then asked the following questions:

12. Veuillez indiquer votre niveau d'accord avec les affirmations suivantes: *

	Pas du tout d'accord	Pas d'accord	Neutre	D'accord	Tout à fait d'accord
Je fais confiance à la Banque centrale européenne pour gérer l'euro numérique de manière responsable	☐	☐	☐	☐	☐
Je suis préoccupé(e) par la confidentialité de mes données lors de l'utilisation de l'euro numérique	☐	☐	☐	☐	☐
L'euro numérique serait pratique pour les paiements du quotidien	☐	☐	☐	☐	☐
Je considère l'euro numérique comme un moyen sûr de conserver de l'argent	☐	☐	☐	☐	☐

13. **Quel est votre âge? *** 

- ☐ 18-24
- ☐ 25-34
- ☐ 35-44
- ☐ 45-54
- ☐ 55-64
- ☐ 65+

14. **Quel est votre sexe? *** 

- ☐ Féminin
- ☐ Masculin
- ☐ Autre

15. **Quel est votre niveau d'études le plus élevé? *** 

- ☐ Enseignement obligatoire (primaire / secondaire inférieur)
- ☐ Apprentissage / formation professionnelle
- ☐ Enseignement secondaire (baccalauréat ou équivalent)
- ☐ Diplôme universitaire
- ☐ Autre

16. **Laquelle des propositions suivantes correspond le mieux à votre situation actuelle? *** 

- ☐ Étudiant(e)
- ☐ Employé(e) (temps plein)
- ☐ Employé(e) (temps partiel)
- ☐ Indépendant(e)
- ☐ Sans emploi / en recherche d'emploi
- ☐ Retraité(e)
- ☐ Autre

17. **Dans quel pays vivez-vous actuellement?** * 

- ☐ Autriche
- ☐ Allemagne
- ☐ France
- ☐ Hongrie
- ☐ Luxembourg
- ☐ Autre pays de la zone euro (ex : Italie, Espagne, Slovaquie, etc.)
- ☐ Autre pays de l'UE (hors zone euro)
- ☐ Pays hors UE

18. **Avez-vous d'autres remarques ou inquiétudes concernant l'euro numérique?** (Facultatif) 

Entrez votre réponse

8.4 Hungarian Questionnaire

Magyar

Felmérés a digitális euróról

Ez a kérdőív egy mesterdolgozat része, amely a digitális euróval kapcsolatos lakossági véleményeket, attitűdöket és annak lehetséges elfogadását vizsgálja. A részvétel önkéntes és anonim. A begyűjtött adatokat kizárólag tudományos kutatási célokra, a mesterdolgozat keretében használjuk fel. Köszönjük hozzájárulását.

P.S: This survey contains Karma to get free survey responses at SurveySwap.io

Also rewards for SurveyCircle and PollPool

Amikor elküldi ezt az űrlapot, az nem gyűjti automatikusan az Ön adatait, például a nevét és az e-mail-címét, hacsak Ön nem adja meg azt.

* Kötelező

A kérdőív egyik változatához való hozzárendeléshez:

1. A születési éve páros vagy páratlan? *

☐ Páros év (pl. 1998, 2002)

☐ Páratlan év (pl. 1999, 2001)

Következő

When “Even year” was selected, Version A (neutral description) was shown:

Magyar

Felmérés a digitális euróról

* Kötelező

Felmérés a digitális euróról (FONTOS)

A digitális euró egy tervezett új pénzforma, amelyet az Európai Központi Bank (EKB) bocsátana ki. A készpénz elektronikus változata, amelyet mindennapi fizetésekre szánnak.

Nem befektetés, mint a részvények vagy a kriptovaluták, hanem egyszerűen egy fizetési eszköz. Egy digitális euró értéke mindig meg fog egyezni egy készpénz euró értékével.

A fő különbség abban van, hogy ki kezeli a pénzt.

Jelenleg a digitális pénze a bankjánál lévő bankszámlán van. A digitális euró esetében a pénze közvetlenül az EKB-nál lenne.

Úgy is elképzelhető, mint egy készpénzfelvétel. Ön pénzt utal át a bankszámlájáról egy „digitális pénztárcába”, például a telefonján. Amint a pénz ebben a digitális pénztárcában van, azt már nem a bankja kezeli, hanem az EKB-nál van.

Kérjük, a következő feltételezésekkel válaszoljon a kérdésekre:

- Legfeljebb 3 000 € digitális eurót tarthat
- A digitális euró nem fizet kamatot
- Használható mindennapi fizetésekre (online és üzletekben)
- A kereskedelmi bankok továbbra is a megszokott módon kínálnak folyószámlákat és megtakarítási számlákat

A következő kérdések a digitális euró lehetséges használatára vonatkoznak.

When “Odd year” was selected, Version B (positively framed description) was shown:

 Magyar    

Felmérés a digitális euróról

* Kötelező

Felmérés a digitális euróról (FONTOS)

A digitális euró egy tervezett új pénzforma, amelyet az Európai Központi Bank (EKB) bocsátana ki. A készpénz elektronikus változata, amelyet mindennapi fizetésekre szánnak. Célja, hogy biztonságos és megbízható módot nyújtson a digitális fizetésekhez.

Nem befektetés, mint a részvények vagy a kriptovaluták, hanem egyszerűen egy fizetési eszköz. Egy digitális euró értéke mindig meg fog egyezni egy készpénz euró értékével.

A fő különbség abban van, hogy ki kezeli a pénzt.

Jelenleg a digitális pénze a bankjánál lévő bankszámlán van. A digitális euró esetében a pénze közvetlenül az EKB-nál lenne. Az EKB közintézményként a pénztárolás kiemelten biztonságos formáját kínálja.

Úgy is elképzelhető, mint egy készpénzfelvétel. Ön pénzt utal át a bankszámlájáról egy „digitális pénztárcába”, például a telefonján. Amint a pénz ebben a digitális pénztárcában van, azt már nem a bankja kezeli, hanem az EKB-nál van.

A digitális euró megkönnyítheti a mindennapi fizetéseket, és olyan helyzetekben is működhet, amikor a jelenlegi digitális fizetések korlátozottak (például internetkapcsolat nélkül). Emellett hozzájárulhat a nagy magán fizetési szolgáltatóktól való függőség csökkentéséhez (pl. Visa, Mastercard, PayPal), és magas szintű adatvédelmet kínálhat a fizetések során.

Kérjük, a következő feltételezésekkel válaszoljon a kérdésekre:

- Legfeljebb 3 000 € digitális eurót tarthat
- A digitális euró nem fizet kamatot
- A digitális euró használható mindennapi fizetésekre (online és üzletekben)
- A kereskedelmi bankok továbbra is a megszokott módon kínálnak folyószámlákat és megtakarítási számlákat

A következő kérdések a digitális euró lehetséges használatára vonatkoznak.

The follow-up questions were the same for both versions:

2. **Hallott már korábban a digitális euróról?** * 

☐ Igen

☐ Nem

3. **Milyen gyakran fizet digitálisan (kártyával vagy mobiltelefonnal)?** * 

- ☐ Soha
- ☐ Ritkán
- ☐ Néha
- ☐ Gyakran
- ☐ Mindig

4. **Jól boldogulok az online banki szolgáltatásokkal és a digitális fizetési módokkal (pl. bankkártyás fizetés vagy mobiltelefonos fizetés)** * 

- ☐ Egyáltalán nem értek egyet
- ☐ Inkább nem értek egyet
- ☐ Semleges
- ☐ Inkább egyetértek
- ☐ Teljesen egyetértek

5. **Mennyire valószínű, hogy a mindennapi fizetésekhez digitális eurót használna?** * 

- ☐ Nagyon valószínűtlen
- ☐ Valószínűtlen
- ☐ Semleges
- ☐ Valószínű
- ☐ Nagyon valószínű

6. **Tartana valamekkora összeget digitális euróban?** * 

- ☐ Igen
- ☐ Nem
- ☐ Nem biztos / Nem tudom

When the answer to Question 6 was “Yes”:

7. **Honnan származna az a pénz, amelyet digitális euróban tartana?** (Jelölje meg az összes megfelelő választ) *



- ☐ Folyószámla (betéti számla)
- ☐ Megtakarítási számla
- ☐ Készpénz
- ☐ Egyéb digitális pénztárcák (pl. PayPal, Revolut)
- ☐ Egyéb

8. **A fent kiválasztott források közül melyikről töltené fel ELSŐSORBAN a digitális euró számláját?** *



- ☐ Folyószámla (betéti számla)
- ☐ Megtakarítási számla
- ☐ Készpénz
- ☐ Egyéb digitális pénztárcák (pl. PayPal, Revolut)
- ☐ Egyéb

9. **Körülbelül mennyi pénzt tartana digitális euróban?** *



- ☐ Kevesebb, mint 100€ (kb. 36 000 Ft)
- ☐ 100 – 500€ (kb. 36 000 - 182 000 Ft)
- ☐ 501 – 1 000 € (kb. 182 001 - 365 000 Ft)
- ☐ 1 001 – 2 000 € (kb. 365 001 - 729 000 Ft)
- ☐ 2 001 – 3 000 € (kb. 729 001 - 1,1 millió Ft)

When the answer to Question 9 was “2,001 – 3,000” the following question was asked additionally:

10. **Ha a birtoklási limit magasabb lenne, szeretne 3 000 eurónál (1,1 millió Forint) többet tartani digitális euróban?**



- ☐ Igen
- ☐ Nem
- ☐ Nem tudom

For all other responses to Question 9, Question 10 was skipped and respondents proceeded directly to Question 11.

11. **Mi lenne a FŐ oka annak, hogy digitális eurót használ?** * 

- ☐ Biztonság / kockázatmentesség
- ☐ Kényelem
- ☐ Bízalom a központi bankban
- ☐ Nagyobb adatvédelem (a tranzakcióim kevésbé láthatók a bankok vagy a vállalatok számára)
- ☐ Európa-szerte használható / széles körű elfogadottság
- ☐ Függetlenség a magán fizetési szolgáltatóktól (pl. Visa, PayPal)
- ☐ Egyéb

When the answer to Question 6 was “No”:

7. **Milyen okok miatt nem tartana digitális eurót?** (Jelölje meg az összes megfelelő választ) * 

- ☐ Nem látok előnyt a jelenlegi fizetési módjaimhoz képest
- ☐ Inkább a bankszámlámon szeretném tartani a pénzemet
- ☐ Jobban szeretek készpénzzel fizetni
- ☐ Aggályaim vannak az adatvédelemmel kapcsolatban
- ☐ Aggályaim vannak a biztonsággal kapcsolatban
- ☐ Nem bízom a digitális euróban
- ☐ Nem teljesen értem, hogyan működik
- ☐ Egyéb

When the answer to Question 6 was “Not sure / Don't know”:

7. Honnan származna az a pénz, amelyet digitális euróban tartana? (Jelölje meg az összes megfelelő választ) *



- ☐ Nem teljesen értem, hogyan működik
- ☐ Több információra van szükségem
- ☐ Bizonytalan vagyok az előnyeit illetően
- ☐ Aggályaim vannak az adatvédelemmel kapcsolatban
- ☐ Aggályaim vannak a biztonsággal kapcsolatban
- ☐ Nem bízom a digitális euróban
- ☐ Nem vagyok biztos benne, miben más a jelenlegi fizetési módjaimhoz képest
- ☐ Szeretném látni, hogyan működik a gyakorlatban, mielőtt döntenék
- ☐ Egyéb

8. Ha ma kellene döntenie, melyik opció felé hajolna leginkább? *



- ☐ Valószínűleg tartanék valamekkora összeget digitális euróban
- ☐ Valószínűleg egyáltalán nem tartanék digitális eurót

All participants were then asked the following questions:

12. Kérjük, jelölje meg, mennyire ért egyet az alábbi állításokkal: *



	Egyáltalán nem érték egyet	Inkább nem érték egyed	Semleges	Inkább egyetérték	Teljesen egyetérték
Bízom benne, hogy az Európai Központi Bank felelősségteljesen kezeli a digitális eurót	☐	☐	☐	☐	☐
Aggályaim vannak az adataim bizalmas kezelésével kapcsolatban a digitális euró használatkor.	☐	☐	☐	☐	☐
A digitális euró kényelmes lenne a mindennapi fizetésekhez	☐	☐	☐	☐	☐
A digitális eurót a pénztárolás biztonságos módjának tartom	☐	☐	☐	☐	☐

13. **Melyik korcsoportba tartozol? *** 

- ☐ 18–24
- ☐ 25–34
- ☐ 35–44
- ☐ 45–54
- ☐ 55–64
- ☐ 65+

14. **Mi a nemed? *** 

- ☐ Nő
- ☐ Férfi
- ☐ Egyéb

15. **Mi a legmagasabb befejezett iskolai végzettséged? *** 

- ☐ 8 általános
- ☐ Szakmunkásképzés / szakképzés
- ☐ Középiskolai érettségi
- ☐ Egyetem (Alap – vagy Mesterképzés, PhD)
- ☐ Egyéb

16. **Melyik az alábbiak közül leginkább jellemzi jelenlegi helyzetét? *** 

- ☐ Diák
- ☐ Foglalkoztatott (teljes munkaidőben)
- ☐ Foglalkoztatott (részmunkaidőben)
- ☐ Vállalkozó
- ☐ Munkanélküli / álláskereső
- ☐ Nyugdíjas
- ☐ Egyéb

17. **Melyik országban él jelenleg?** * 

- ☐ Ausztria
- ☐ Németország
- ☐ Franciaország
- ☐ Magyarország
- ☐ Luxemburg
- ☐ Egyéb euróövezeti ország (pl. Olaszország, Spanyolország, Szlovákia stb.)
- ☐ Egyéb EU-tagállam (nem euróövezeti)
- ☐ Nem EU-tagállam

18. **. Van-e további véleménye vagy aggálya a digitális euróval kapcsolatban?** (Opcionális) 

Írja be a választ

8.5 Additional Tables and Figures

Independent Samples T-Test

Independent Samples T-Test

		Statistic	p	Effect Size	
Likelihood of use	Mann-Whitney U	9518	.155	Rank biserial correlation	–0.0939

Note. $H_0: \mu_A - \text{Neutral} = \mu_B - \text{Positive}$

Group Descriptives

	Group	N	Mean	Median	SD	SE
Likelihood of use	A - Neutral	141	3.43	3.00	1.20	0.101
	B - Positive	149	3.21	3.00	1.24	0.102

Figure 5: Jamovi output for the Mann–Whitney *U* test comparing likelihood of use between the framing groups.

Source: Own analysis

Contingency Tables

Contingency Tables

Survey version		Willingness to hold			Total
		No	Not sure / Don't know	Yes	
A - Neutral	Observed	29	56	56	141
	Expected	28.7	59.3	53.0	141
	% within row	20.6 %	39.7 %	39.7 %	100.0 %
B - Positive	Observed	30	66	53	149
	Expected	30.3	62.7	56.0	149
	% within row	20.1 %	44.3 %	35.6 %	100.0 %
Total	Observed	59	122	109	290
	Expected	59	122	109	290
	% within row	20.3 %	42.1 %	37.6 %	100.0 %

χ^2 Tests

	Value	df	p
χ^2	0.699	2	.705
N	290		

Nominal

	Value
Phi-coefficient	NaN
Cramer's V	0.0491

Figure 6: Jamovi output for the Pearson chi-square test examining the association between survey framing and willingness to hold the digital euro. Source: Own analysis

Contingency Tables

Contingency Tables

Trust in ECB		Willingness to hold			Total
		No	Not sure / Don't know	Yes	
Strongly Disagree	Observed	15	1	0	16
	Expected	3.26	6.73	6.01	16.0
	% within row	93.8 %	6.3 %	0.0 %	100.0 %
Disagree	Observed	12	12	3	27
	Expected	5.49	11.36	10.15	27.0
	% within row	44.4 %	44.4 %	11.1 %	100.0 %
Neutral	Observed	17	31	21	69
	Expected	14.04	29.03	25.93	69.0
	% within row	24.6 %	44.9 %	30.4 %	100.0 %
Agree	Observed	8	65	48	121
	Expected	24.62	50.90	45.48	121.0
	% within row	6.6 %	53.7 %	39.7 %	100.0 %
Strongly agree	Observed	7	13	37	57
	Expected	11.60	23.98	21.42	57.0
	% within row	12.3 %	22.8 %	64.9 %	100.0 %
Total	Observed	59	122	109	290
	Expected	59	122	109	290
	% within row	20.3 %	42.1 %	37.6 %	100.0 %

χ^2 Tests

	Value	df	p
χ^2	101	8	< .001
N	290		

Nominal

	Value
Phi-coefficient	NaN
Cramer's V	0.418

Figure 7: Jamovi output for the Pearson chi-square test examining the association between trust in the European Central Bank and willingness to hold the digital euro.

Source: Own analysis

Contingency Tables

Contingency Tables

Perceived safety		Willingness to hold			Total
		No	Not sure / Don't know	Yes	
Strongly Disagree	Observed	18	3	1	22
	Expected	4.48	9.26	8.27	22.0
	% within row	81.8 %	13.6 %	4.5 %	100.0 %
Disagree	Observed	19	13	0	32
	Expected	6.51	13.46	12.03	32.0
	% within row	59.4 %	40.6 %	0.0 %	100.0 %
Neutral	Observed	17	79	28	124
	Expected	25.23	52.17	46.61	124.0
	% within row	13.7 %	63.7 %	22.6 %	100.0 %
Agree	Observed	5	22	55	82
	Expected	16.68	34.50	30.82	82.0
	% within row	6.1 %	26.8 %	67.1 %	100.0 %
Strongly agree	Observed	0	5	25	30
	Expected	6.10	12.62	11.28	30.0
	% within row	0.0 %	16.7 %	83.3 %	100.0 %
Total	Observed	59	122	109	290
	Expected	59	122	109	290
	% within row	20.3 %	42.1 %	37.6 %	100.0 %

χ^2 Tests

	Value	df	p
χ^2	170	8	< .001
N	290		

Nominal

	Value
Phi-coefficient	NaN
Cramer's V	0.542

Figure 8: Jamovi output for the Pearson chi-square test examining the association between perceived safety of the digital euro and willingness to hold the digital euro.

Source: Own analysis.

Correlation Matrix

Correlation Matrix		Privacy concern	Likelihood of use
Privacy concern	Spearman's rho	—	
	df	—	
	p-value	—	
	N	—	
Likelihood of use	Spearman's rho	–0.254	—
	df	288	—
	p-value	< .001	—
	N	290	—

Figure 9: Jamovi output for the Spearman rank correlation between privacy concerns and likelihood of using the digital euro. *Source: Own analysis*

Contingency Tables

Contingency Tables

Privacy concern		Willingness to hold			Total
		No	Not sure / Don't know	Yes	
Strongly disagree	Observed	7	8	17	32
	Expected	6.51	13.5	12.0	32.0
	% within row	21.9 %	25.0 %	53.1 %	100.0 %
Disagree	Observed	12	24	35	71
	Expected	14.44	29.9	26.7	71.0
	% within row	16.9 %	33.8 %	49.3 %	100.0 %
Neutral	Observed	11	35	34	80
	Expected	16.28	33.7	30.1	80.0
	% within row	13.8 %	43.8 %	42.5 %	100.0 %
Agree	Observed	10	44	19	73
	Expected	14.85	30.7	27.4	73.0
	% within row	13.7 %	60.3 %	26.0 %	100.0 %
Strongly agree	Observed	19	11	4	34
	Expected	6.92	14.3	12.8	34.0
	% within row	55.9 %	32.4 %	11.8 %	100.0 %
Total	Observed	59	122	109	290
	Expected	59	122	109	290
	% within row	20.3 %	42.1 %	37.6 %	100.0 %

χ^2 Tests

	Value	df	p
χ^2	48.6	8	< .001
N	290		

Nominal

	Value
Phi-coefficient	NaN
Cramer's V	0.289

Figure 10: Jamovi output for the Pearson chi-square test examining the association between privacy concerns and willingness to hold the digital euro. Source: Own analysis

Independent Samples T-Test

Independent Samples T-Test

		Statistic	p		Effect Size
Likelihood of use	Mann-Whitney U	8031	.036	Rank biserial correlation	0.146

Note. $H_0: \mu_{No} = \mu_{Yes}$

Group Descriptives

	Group	N	Mean	Median	SD	SE
Likelihood of use	No	192	3.22	3.00	1.14	0.0825
	Yes	98	3.49	4.00	1.36	0.137

Figure 11: Jamovi output for the Mann–Whitney U test comparing likelihood of using the digital euro between respondents with and without prior awareness. Source: Own analysis

Contingency Tables

Contingency Tables

Awareness		Willingness to hold			Total
		No	Not sure / Don't know	Yes	
No	Observed	39	94	59	192
	Expected	39.1	80.8	72.2	192.0
	% within row	20.3 %	49.0 %	30.7 %	100.0 %
Yes	Observed	20	28	50	98
	Expected	19.9	41.2	36.8	98.0
	% within row	20.4 %	28.6 %	51.0 %	100.0 %
Total	Observed	59	122	109	290
	Expected	59	122	109	290
	% within row	20.3 %	42.1 %	37.6 %	100.0 %

χ^2 Tests

	Value	df	p
χ^2	13.5	2	.001
N	290		

Nominal

	Value
Phi-coefficient	NaN
Cramer's V	0.216

Figure 12: Jamovi output for the Pearson chi-square test examining the association between prior awareness of the digital euro and willingness to hold it. Source: Own analysis

Correlation Matrix

Correlation Matrix		Digital payment comfort	Likelihood of use
Digital payment comfort	Spearman's rho	—	
	df	—	
	p-value	—	
	N	—	
Likelihood of use	Spearman's rho	0.192	—
	df	288	—
	p-value	.001	—
	N	290	—

Figure 13: Jamovi output for the Spearman rank correlation between comfort with digital payments and likelihood of using the digital euro. *Source: Own analysis*

Contingency Tables

Contingency Tables

Digital payment comfort grouped		Willingness to hold			Total
		No	Not sure / Don't know	Yes	
Neutral or lower comfort	Observed	15	10	5	30
	Expected	6.10	12.6	11.3	30.0
	% within row	50.0 %	33.3 %	16.7 %	100.0 %
High comfort	Observed	44	112	104	260
	Expected	52.90	109.4	97.7	260.0
	% within row	16.9 %	43.1 %	40.0 %	100.0 %
Total	Observed	59	122	109	290
	Expected	59	122	109	290
	% within row	20.3 %	42.1 %	37.6 %	100.0 %

χ^2 Tests

	Value	df	p
χ^2	19.0	2	< .001
N	290		

Nominal

	Value
Phi-coefficient	NaN
Cramer's V	0.256

Figure 14: Jamovi output for the Pearson chi-square test examining the association between grouped digital-payment comfort and willingness to hold the digital euro.

Source: Own analysis

R

	Test	Raw_p	Holm_adjusted_p
1	Awareness_use	3.569e-02	0.0356892
2	Awareness_hold	1.160e-03	0.0030161
3	Comfort_use	1.005e-03	0.0030161
4	Comfort_hold	7.609e-05	0.0003044

Figure 15: Holm-adjusted p-values for the four exploratory analyses calculated using the Rj Editor in jamovi.

Source: Own analysis