

June 14, 2022

Ms. Mairead McGuinness
Commissioner for Financial Services, Financial Stability
and Capital Markets Union
European Commission
Brussels, Belgium



An abbreviated version of the Annex also submitted via:
https://ec.europa.eu/info/publications/finance-consultations-2022-digital-euro_en

Dear Commissioner McGuinness,

TARGETED CONSULTATION ON A DIGITAL EURO

The Institute of International Finance (IIF) welcomes the opportunity to respond to the European Commission (EC) questionnaire on a potential euro-denominated central bank digital currency (CBDC). We commend the EC for taking this step forward in considering this momentous issue.

The IIF with its members has developed a substantive response to the questionnaire in view of the significant implications that any design or issuance decision around a CBDC may have for the eurozone economy and financial system, and the resulting global and cross-border impacts of any digital euro. As a global membership-based organization representing a wide range of financial sectors, the IIF is particularly concerned to ensure that the cross-border dimensions of any CBDC choices are fully considered, alongside all appropriate domestic cost–benefit and political economy considerations.

We understand that the Consultation Paper and questions are focused primarily on a retail CBDC, and we have approached the task of crafting answers to the EC’s questions in that light. We note at the outset that a possible wholesale CBDC may present a different range of costs/risks and benefits, and the balance between them may be more readily apparent and less disruptive than in the case of a retail CBDC.

Need for a comprehensive cost-benefit analysis

In our view, the issues around a central bank digital currency (CBDC) are of such fundamental importance to the future of the economy, including the ability of the banking sector to support the real economy through mortgage and SME lending that, before determinations are made about key design choices or on the larger question of whether to proceed with issuing a CBDC, there should be a quantitative and qualitative impact assessment by the EC and/or ECB, building on the analytical work to date published by the ECB and others. The assessment should, at a minimum, attempt to model:

- a range of possible designs for a retail CBDC;
- a range of mitigants against identified risks (including systemic risk); and
- the effects of those designs and mitigants on the financial system’s ability to service the real economy, including through mortgage and SME lending.

Critical elements of such a study would include impacts on bank funding costs, lending rates and volumes, bank strength and capital ratios, net interest income, the ability to maintain local bank branches, and broader measures of the real economy. The risk of crowding out private sector means of payment solutions should also be considered. Such an assessment would preferably be done in close collaboration with regulated FIs.

In that context, and as a starting point, we support the EC’s efforts to collect input on the questions outlined in this questionnaire. We would observe, however, that the questions set out in the questionnaire focus primarily on “how” to implement a retail CBDC for the eurozone rather than “whether” to do so. Questions about the benefits of a digital euro outweighing the costs and risks, including risks to financial stability and the banking sector’s ability to finance the real economy, are not as prevalent. We might also caution that the numerical responses, while

enabling broad participation and swift consumption of responses, may facilitate a self-selected snapshot of public opinion rather than an expert-informed economic analysis. To that end, the IIF's answers should not be seen as the expression of a settled view as to whether a digital euro would be overall positive for the European economy, or for international finance. The IIF sees many challenging trade-offs and design choices ahead for a retail digital euro. Among them, the economic and liability model should be clearly resolved and privacy controls should be further articulated.

In **Annex 1**, we set out our answers to the EC's detailed questions, as submitted in abbreviated form (where necessary) through the [web form](#) the EC has provided.

In line with the above, we would foremost stress the importance of the EC and/or ECB developing their thinking around a potential digital euro in close collaboration with the private sector. The IIF commends the European Central Bank's efforts to collaborate with the private sector through its Digital Euro Market Advisory Group and encourages continued close collaboration on all future phases of the digital euro project. The IIF stands ready to assist further with these momentous decisions, for example by convening or attending roundtables or bilateral discussions as appropriate, or by assisting with data gathering. Please do not hesitate to contact me or Clay Lowery with any follow-up questions, data requests, or invitation for further dialogue.

Yours sincerely,

A handwritten signature in cursive script, appearing to read 'Jessica Renier', written in black ink on a white background.

Jessica Renier
Managing Director, Digital Finance

Annex 1 – Full answers to targeted consultation questions



EUROPEAN COMMISSION

DIRECTORATE-GENERAL FOR ECONOMIC AND FINANCIAL AFFAIRS

DIRECTORATE-GENERAL FOR FINANCIAL STABILITY, FINANCIAL SERVICES AND CAPITAL MARKETS UNION

CONSULTATION DOCUMENT TARGETED CONSULTATION ON A DIGITAL EURO

Disclaimer

This document is a working document of the Commission services for consultation and does not prejudice the final decision that the Commission may take.

The views reflected on this consultation paper provide an indication on the approach the Commission services may take but do not constitute a final policy position or a formal proposal by the European Commission.

The responses to this consultation paper will provide important guidance to the Commission when preparing, if considered appropriate, a formal Commission proposal.

Commission européenne/Europese Commissie, 1049 Bruxelles/Brussel, BELGIQUE/BELGIË - Tel. +32 22991111
https://ec.europa.eu/info/business-economy-euro_en

You are invited to reply **by 14 June 2022**¹ at the latest to the **online questionnaire** available on the following webpage: https://ec.europa.eu/info/publications/finance-consultations-2022-digital-euro_en

Please note that in order to ensure a fair and transparent consultation process only responses received through the online questionnaire will be taken into account and included in the report summarising the responses.

This consultation follows the normal rules of the European Commission for public consultations. Responses will be published in accordance with the privacy options respondents will have opted for in the online questionnaire.

Responses authorised for publication will be published on the following webpage: https://ec.europa.eu/info/publications/finance-consultations-2022-digital-euro_en

Any question on this consultation or issue encountered with the online questionnaire can be raised via email at fisma-digital-euro@ec.europa.eu.

INTRODUCTION

In March 2021, the Eurosummit² called for a stronger and more innovative digital finance sector and more efficient and resilient payment systems and stated that exploratory work on a digital euro should be taken forward.

The introduction of a digital euro aims to preserve the role of public money in a digital economy. Preserving the accessibility and usability of central bank money in the digital era is key to protect monetary sovereignty and the well-tested two-layer monetary system based on convertibility of regulated/supervised forms of money into central bank money. Central bank digital money would thus complement cash in providing a monetary anchor to the payments system by ensuring that private money can always be converted in safe public money. This would support confidence in the singleness of money and financial stability in the digital age.

In addition, the digital finance and retail payment strategies of the Commission³ adopted in September 2020 supported the emergence of competitive pan-European payment solutions and the exploration of a digital euro, while continuing to safeguard the legal tender status of euro cash⁴. The ECB's retail payment strategy⁵ shares similar objectives. The digital euro should be considered in the context of ongoing efforts to reduce the fragmentation of the EU retail payments market, promote competition and innovation, including the full roll-out of instant payments, and industry initiatives to offer pan-European payment services, such as the European Payments Initiative, while ensuring that cash remains widely accessible and accepted.

In October 2020, the ECB issued its report on a digital euro⁶ and between October 2020 and January 2021 the EBC ran a public consultation on a digital euro⁷. The ECB's public consultation surveyed both the general public and the financial, payment and technology professionals and sought their opinion on the main features of a digital euro. Out of the 8221 responses, 94% of the respondents identified themselves as citizens. Central banks from non-euro area Member States also envisage issuing digital currencies. In addition, the ECB commissioned a study on new digital payment methods⁸ that provides a thorough understanding of the current payment habits of citizens of euro area Member States and specifically their attitudes toward digital payment methods.

¹ Note from IIF: This deadline was later extended by the EC to 16 June 2022.

² <https://www.consilium.europa.eu/media/48975/25-03-21-eurosummit-statement-en.pdf>

³ https://ec.europa.eu/info/publications/200924-digital-finance-proposals_en

⁴ See also ECB cash 2030 strategy https://www.ecb.europa.eu/euro/cash_strategy/html/index.en.html

⁵ <https://www.ecb.europa.eu/pub/pdf/other/ecb.eurosystemretailpaymentsstrategy~5a74eb9ac1.en.pdf>

⁶ https://www.ecb.europa.eu/pub/pdf/other/Report_on_a_digital_euro~4d7268b458.en.pdf

⁷ https://www.ecb.europa.eu/paym/digital_euro/html/pubcon.en.html

⁸ https://www.ecb.europa.eu/paym/digital_euro/investigation/profuse/shared/files/dedocs/ecb.dedocs220330_report.en.pdf

For a digital euro to be used as the single currency, concurrently with euro banknotes and coins, it would require a Regulation of the co-legislator, upon a proposal by the Commission, on the basis of Article 133 TFUE. Moreover, additional legislative adjustments of the current EU legislative framework to adjust to the digital euro and possibly to digital currencies issued by central banks of non-euro area Member States may be needed (e.g. definition of funds under PSD2). The implementation of the digital euro within the legal framework, will generally fall under the competence of the ECB.

For this purpose, the present targeted consultation complements the ECB's public consultation. It aims to collect further information from industry specialists, payment service providers (including credit institutions, payment and e-money institutions), payment infrastructure providers, developers of payment solutions, merchants, merchant associations, consumer associations, retail payments regulators, and supervisors, antimoney laundering (AML) supervisors, Financial Intelligence Units, and other relevant authorities and experts. This targeted consultation will gather further evidence on the following issues:

Users' needs and expectations for a digital euro

The digital euro's role for the EU's retail payments and the digital economy

Making the digital euro available for retail use while continuing to safeguard the legal tender status of euro cash

The digital euro's impact on the financial sector and the financial stability

Application of anti-money laundering and counter terrorist financing (AML-CFT) rules

The privacy and data protection aspects

International payments with a digital euro

This targeted consultation in no way prejudices whether and how these issues will be covered in a legislative proposal by the Commission, or the future scope of that proposal.

For an overview of design options and policy issues discussed in that consultation, please refer to the ECB report on a digital euro⁹.

Stakeholders are invited to explain their reasoning and provide quantitative evidence or estimates, where appropriate.

CONSULTATION QUESTIONS

1. USERS' NEEDS AND EXPECTATIONS

The digital euro would be available for retail payments¹⁰. Like cash, it would be public money (a direct central bank liability), but in electronic/digital form. The overarching policy objective of digital euro is to preserve the role of public money in the digital age by providing a digital public money alongside cash. This would protect the role of public money as a stabilising anchor for the payments system even as cash use declines, preserve monetary sovereignty and support the competitive provision of financial services. The digital euro may bring benefits to the retail payment market, financial inclusion, the digitalisation of the economy, the EU's open strategic autonomy¹¹ and the international role of the euro¹² among others.

Achieving these objectives requires in turn that a digital euro is widely adopted and thus that it fulfils the needs and expectations of prospective users. It is therefore important to identify these.

1. How important do you think the possible following aspects of the digital euro would be for people?

Please rate each aspect from 1 to 5, 1 standing for 'not important' and 5 for 'very important'.

⁹ https://www.ecb.europa.eu/pub/pdf/other/Report_on_a_digital_euro~4d7268b458.en.pdf

¹⁰ To be commonly understood as payments between consumer, businesses and public authorities.

¹¹ Open Strategic Autonomy enables the EU to be stronger both economically and geopolitically - by being: (i) Open to trade and investment for the EU economy to recover from the crisis and remain competitive and connected to the world (ii) Sustainable and responsible to lead internationally to shape a greener and fairer world, reinforcing existing alliances and engaging with a range of partners (iii) Assertive against unfair and coercive practices and ready to enforce its rights, while always favouring international cooperation to solve global problems.

¹² https://ec.europa.eu/info/business-economy-euro/euro-area/international-role-euro_en

	1	2	3	4	5	Don't know/not applicable
Availability of flexible privacy settings that can be adjusted to suit the payment occasion						
Wide availability and user-friendly onboarding process						
Always an option for the payer to pay anywhere / to anybody in the euro area with digital euro						
Easy to use payment instrument (e.g. contactless, biometric authentication)						
Account-based payment instrument ¹³						
Bearer-based payment instrument						
Real time settlement / Instant reception of funds						
Cost-free for payers						
Payment asset is credit risk-free (central bank liability)						
Offline payments (face to face without connectivity)						
Ability to program conditional payments						
Other benefits (please specify)						

To the extent you deem it necessary, please explain the reasoning of your answers to question 1:

IIF Response:

Comments about the questionnaire generally

Where the Institute of International Finance (IIF) has not attempted to respond to a given question in this questionnaire, the IIF has no comment on that question or is not in a position to answer it reliably at this time. In the case of numerical questions, we have not sought to answer them with a numerical ranking and have instead

¹³ The digital euro may function as an account based system (verification of transactions by an intermediary), as a bearer instrument (or token, with verification by parties of a transaction), or a combination of the two. For further explanation, see the ECB report on digital euro. It must be noted that DLT-based solutions are not exclusive of a specific design option, and can be carried out using an both account-based and bearer based instrument

provided comment, as we may not have an adequate evidence base to offer robust and reliable answers to those questions, or our member views may diverge on that topic enough to make any single answer inappropriate.

We understand that the Consultation Paper and questions are focused primarily on a retail CBDC, and we have approached the task of crafting answers to the EC's questions in that light. We note at the outset that a possible wholesale CBDC may present a different range of costs/risks and benefits, and the balance between them may be more readily apparent and less disruptive than in the case of a retail CBDC. Given the early stage of evaluation of possible design details and features of a potential digital euro, including how any given feature may be accretive to another, it is difficult to answer the questions asked in the consultation paper with confidence in this format. This is another reason why we have often opted not to answer the numerical questions, in favor of providing "free text" answers.

Need for a comprehensive cost-benefit analysis

In our view, the issues around a central bank digital currency (CBDC) are of such fundamental importance to the future of the economy, including the ability of the banking sector to support the real economy through mortgage and SME lending that, before determinations are made about key design choices or on the larger question of whether to proceed with issuing a CBDC, there should be a quantitative and qualitative impact assessment by the EC and/or ECB, building on the analytical work to date published by the ECB and others. The assessment should, at a minimum, attempt to model:

- a range of possible designs for a retail CBDC;
- a range of mitigants against identified risks (including systemic risk); and
- the effects of those designs and mitigants on the financial system's ability to service the real economy, including through mortgage and SME lending.

Critical elements of such a study would include impacts on bank funding costs, lending rates and volumes, bank strength and capital ratios, net interest income, the ability to maintain local bank branches, and broader measures of the real economy. The risk of crowding out private sector means of payment solutions should also be considered. Such an assessment would preferably be done in close collaboration with regulated financial institutions.¹⁴

In that context, and as a starting point, we support the EC's efforts to collect input on the questions outlined in this questionnaire. We would observe, however, that the questions set out in the questionnaire focus primarily on "how" to implement a retail CBDC for the eurozone rather than "whether" to do so. Questions about the benefits of a digital euro outweighing the costs and risks, including risks to financial stability and the banking sector's ability to finance the real economy, are not as prevalent. We might also caution that the numerical responses, while enabling broad participation and swift consumption of responses, may facilitate a self-selected snapshot of public opinion rather than an expert-informed economic analysis. To that end, the IIF's answers should not be seen as the expression of a settled view as to whether a digital euro would be overall positive for the European economy, or for international finance. The IIF sees many challenging trade-offs and design choices ahead for a retail digital euro. Among them, the economic and liability model should be clearly resolved and privacy controls should be further articulated.

In our answers, to be consistent with the language used in this targeted consultation, the term "Payment Service Provider" (PSP) designates credit institution and other regulated payment service provider.

Comments on question 1

Most of the listed features would be valuable, although most of the criteria are not specific to the digital euro and are already met in the provision of existing digital solutions by payment service providers (PSPs).¹⁵ Features that are unique to a digital euro may help drive its adoption, as well as the adoption of related value-added services across the EU, though such features would need to be balanced against other needs and potential risks.

Some features would become more relevant depending on the scenario in which the digital euro is issued, e.g., a credit risk-free payment asset in times of crisis; or availability of offline payments if cash effectively disappears.

Regarding the availability of **flexible privacy settings** that can be adjusted to suit the payment occasion, the level of importance may vary by geography as the perception of the value and risks associated with data protection

¹⁴ The IIF commends the European Central Bank's efforts to collaborate with the private sector through its Digital Euro Market Advisory Group and encourages continued close collaboration on all future phases of the digital euro project.

¹⁵ In our answers, to be consistent with the language used in this targeted consultation, the term "Payment Service Provider" (PSP) designates credit institution and other regulated payment service provider.

differs by country. The IIF places great value on data protection and privacy, and supports consumers’ ability to share their data with informed consent.

An **account-based** solution would make it easier for PSPs to provide value-added services and may be less disruptive to the existing financial system. That said, for other bearer-/token-/DLT-based business models, should they develop further, a **bearer-based** instrument might provide a more seamless customer experience. However, those business models appear to be most relevant for a wholesale CBDC or will be a priority for the private sector to facilitate solutions for a retail CBDC. On the wholesale side, there are other solutions to link a DLT system to an RTGS to affect settlement as well.

As to the **payment asset being credit risk free**, we understand this to be the nature of a retail CBDC by definition. If the value of a holding is lower than the deposit insurance limit, even in the case where a digital euro is a direct liability of the central bank (and thus would presumably not require deposit insurance), there is no discernible difference in terms of credit risk for the average client. As pointed out in the [Study on New Digital Payment Methods](#) recently published by the ECB, a citizen is not generally aware of the difference between central bank money and commercial bank money, and does not appreciate the different levels of risk inherent in the two forms of money (especially when referring to counterparty risk), because this difference is close to zero when the latter is covered by deposit guarantee schemes (ECB & Kantar Public, “[Study on New Digital Payment Methods](#),” 30 March 2022). Corporate clients, however, who may not be able to benefit from deposit guarantee schemes, may be more interested to hold a CBDC to mitigate credit risk. As a result, deposit outflows from corporate clients may have a bigger impact on banks’ ability to finance the economy than retail deposits.

Members generally consider **instant confirmation** and **free of charge** payments to be important for a digital euro to be attractive for consumers. Note, however, that some of these features will have to be balanced against other needs, e.g., instant payments that are free of charge may be desirable for citizens but an appropriate compensation model for intermediaries would still be necessary, considering the costs of the services provided.

As to **offline functionality**, for resilience reasons during natural disasters or major incidents, an offline capability of any CBDC would appear to be essential – in fact, this could be a notable feature for the digital euro. AML/CFT and financial crime risks must be mitigated, likely through holdings limits, either at the individual or device level. This may require establishment of a, possibly tiered, digital identity solution to be effective. Some members consider that offline capabilities should be limited to offering service continuity in areas or situations where a connection is not always guaranteed. With this approach, some temporary and limited solutions can be considered. Some members also note that offline capabilities could be developed on well-regulated private payments solutions, potentially supporting increased resilience in the European payments ecosystem.

For members who anticipate the ECB will proceed with a digital euro, **programmability** is seen as the primary value proposition that could be achieved for clients and a potential enabler for intermediaries to provide value-added services. Those contemplating programmability draw a distinction between programmability at different levels of the distribution hierarchy, with one level controlled by the central bank and the other by intermediaries. That said, design features should be carefully evaluated in terms of risks including as to fungibility (in the case of programmability, for example, which programs (if any) should be deployed). The case for programmability is not settled amongst members. Moreover, the programmability layer could be provided also through private solutions.

2. How important do you think the following aspects of the digital euro would be for merchants?

Please rate each aspect from 1 to 5, 1 standing for ‘not important’ and 5 for ‘very important’.

	1	2	3	4	5	Don't know/not applicable
Low acquiring/merchant fees						
Better acquiring services						
Standards for EU wide acceptance infrastructure (e.g. POS), allowing for pan-European payments						
Account-based payment instrument						
Bearer-based payment instrument						

Real time settlement / Instant reception of funds						
Offline payments (face to face without connectivity)						
Other benefits (please specify)						
Fraud control, programmability, wide availability, wide user adoption						

To the extent you deem it necessary, please explain your reasoning and provide quantitative evidence or estimates.

IIF Response:

Low acquiring/merchant fees

An appropriate compensation model for intermediaries would be necessary, considering the costs of the system and the provision of services. Excessive risks or cannibalization of existing services could reduce the number of intermediaries able to provide services if unable to compensate for such costs. Merchants will likely consider whether fees provide them with value for money on the basis of the functionalities and value-added services they offer, the conversion rates they get, and any incremental sales they may get as a result. Nevertheless, on the acquiring side, new features will require development and will likely incur costs to deploy.

Better acquiring services

We note that merchants today have acquiring services that address most of the listed features. As in the previous question, some of these features must be balanced against other needs. As part of the digital euro framework, the Eurosystem should evaluate how businesses would receive payments in digital euro and could efficiently convert digital euro into commercial bank money.

Standards for EU-wide acceptance infrastructure (e.g. POS), allowing for pan-European payments

Merchants' adoption would be facilitated by acceptance infrastructure that avoids substantial complication. Standards would be useful to facilitate broad acceptance, increasing the likelihood of broader use by consumers. This will likely require consideration for the onboarding of existing POS terminals via enhanced functionality, aiming for broad acceptance of device types and wallets.

Account-based payment instrument: see our answer to question 1.

Bearer-based payment instrument: see our answer to question 1.

Real time settlement / Instant reception of funds

This is relevant for merchants that receive a small number of payments and have liquidity needs. Merchants with thousands of daily transactions may prefer to settle transactions daily. For them, it may be more important to have immediate confirmation than immediate settlement.

Offline payments (face-to-face without connectivity)

The ability to receive funds offline would be a notable feature for merchants (especially SMEs) when connectivity is an issue. The ability to get paid offline would be attractive (though a limit on the number and/or total value of offline transactions could be in place). See further our answer to question 1 concerning offline payments.

Other

Some members emphasize fraud control, and some consider a digital euro would bring added value to consumers and merchants only if it allows for the development of innovative use cases and payment solutions based on programmability and interoperability. These members otherwise have trouble seeing the added value of a retail digital euro. Once again, design features should be carefully evaluated in terms of risks including as to fungibility (in the case of programmability, for example, which programs (if any) should be deployed). Wide availability and user-friendly onboarding processes are considered fundamental.

See further our answers to question 1 including on offline payments and programmability.

3. In view of the most important value-added features you consider a digital euro may bring to people (see question 1), in which payment situations do you think the digital euro would bring that added value for **people**?

Please rate each scenario from 1 to 5, 1 standing for 'no added value' and 5 for 'very significant added value'.

	1	2	3	4	5	Don't know/ not applicable
Paying with / transferring digital euros to a (natural) person face-to-face						
Paying with/transferring digital euros to a (natural) person remotely						
Paying for goods or services at a point of sale (face-to-face)						
Paying for goods or services remotely (ecommerce)						
Machine to machine Payments (Industry 4.0, IoT) ¹⁶						
Paying in situations without connectivity – offline face to face payments						
Other situations (please specify) Programmable payments						

To the extent you deem it necessary, please explain your reasoning and provide quantitative evidence or estimates.

IIF Response:

It is difficult to reliably assess the “value added” of any given feature in isolation without accounting for combinations of features, or other design choices, having implications for the value realized by that feature. The list in question 3 is a series of payment “situations” where people use money, which are already satisfied by currently available electronic payment services and cash, though not combined all in one instrument; therefore, without a clearer sense of the “delta” a possible digital euro could bring to people, it is difficult to rate the added value other to consider the absence of certain features, which may be considered more problematic than others.

A digital euro should be built as a complement to cash and to existing means of payment, to include private payments solutions. It is not clear that a digital euro would provide significant incremental benefit vs what could be delivered by existing solutions or innovations in appropriately regulated digital forms of commercial bank money. Members, therefore, feel the EC or other authorities should further assess what gaps would be filled by a digital euro and analyze whether current payments solutions could be adjusted to achieve said goals (in part or in sum).

The digital euro may provide added value in a situation where customers wish to pay in situations without connectivity, if not in possession of cash (in other words, face-to-face payments).

It is possible that a digital euro could facilitate in greater fashion than exists currently:

- Programmable payments: Some members suggest the possibility of two tiers of programmability, with one level controlled by the Eurosystem and the other by PSPs. As stated in our answer to question 1, design features

¹⁶ Machine to Machine payments refer to smart contract-based transfers of digital assets between machines such as autonomous cars, manufacturing machines, electricity charging stations and the like. Such transfers of digital assets are conditional upon meeting certain requirements which are coded into the smart contract. For smart contracts see <https://www.eublockchainforum.eu/video/educational/smart-contracts-simply-explained>).

should be carefully evaluated in terms of risks including as to fungibility (in the case of programmability, for example, which programs (if any) should be deployed).

- Machine to Machine (M2M), Internet of Things (IoT) and other innovative payments: In such a case, a retail digital euro would need to leave ample room for intermediaries to develop business models for the development of these use cases. that said, CBDC is not necessary for M2M payments.

See further our answer to question 1 on offline payments.

4. In view of the most important value-added features you consider a digital euro may bring to businesses/merchants (see question 2), in which payment situations do you think the digital euro would bring added value for **businesses/merchants**?

Please rate each scenario from 1 to 5, 1 standing for 'no added value' and 5 for 'very significant added value'.

	1	2	3	4	5	Don't know/ not applicable
Getting paid in physical shops, marketplaces, etc.						
Getting paid in e-commerce						
Paying invoices						
Trade finance						
Machine to Machine payments						
Paying in situations without connectivity – offline face to face payments						
Others (please specify) Programmable payments						

To the extent you deem it necessary, please explain your reasoning and provide quantitative evidence.

IIF Response:

A possible benefit of a digital euro from a merchant's perspective could be to reduce the costs associated with the handling of cash. Other use cases for POS and e-commerce usage would mostly replicate existing private payment instruments, and as such would not likely create extra benefits for merchants.

As for M2M payments, these can also be accommodated using existing payments methods, so that a CBDC is not a prerequisite for such payments.

See also our answer to question 1 on offline payments and programmability, and our answer to question 10 on use cases.

5. How important would the following policy outcomes related to the possible issuance of a digital euro be in your opinion?

Please rate each objective from 1 to 5, 1 standing for 'not important at all' and 5 for 'very important'.

	1	2	3	4	5	Don't know/ not applicable
Providing access to public money in digital form for everyone						
Monetary sovereignty						
A stronger open strategic autonomy for the EU						
A broader access to digital payments for people with less digital skills, disabilities or other physical vulnerabilities						
A broader access to digital payments for unbanked people (i.e. without bank account)						

Enabling for pan-European payments						
Preserving privacy and data protection in payments						
Development of the EU's digital economy innovation						
Facilitating the provision of Europe-wide private payment solutions						
Providing a European public alternative to the emerging new payment solutions such as crypto assets, stablecoins and foreign CBDCs						
Decrease payment costs						
Other (please specify) Maintaining financial stability and the ability of the financial sector to service the real economy; cyber security; appropriate governance.						

To the extent you deem it necessary, please explain your reasoning and provide quantitative evidence or estimates.

IIF Response:

General

We believe that the following threshold considerations are crucial prior to any proposed launch of a digital euro (retail or wholesale): a. the public policy objectives sought to be advanced by a digital euro are clearly enunciated and prioritized; b. it is determined that a digital euro would be more effective than other means in achieving those public policy objectives¹⁷; c. trade-offs between those objectives have been clearly enunciated and determined; d. the preferred scope – e.g., whether retail or wholesale – is clearly defined; and e. infrastructure and an economic and liability model required for implementing the preferred scope of CBDC is determined.

Access to public money

If the use of cash does decline significantly, it may be necessary to provide an alternative (in the form of a retail CBDC) to citizens to preserve the monetary anchor. It is unclear, however, to what extent the use of cash would have to be reduced before this monetary anchor would be endangered. This is a fundamental question, crucial for monetary stability and the future of payments. Offering the public access to commercial bank money via unquestionably strong, well-regulated FIs, backed with solid deposit insurance, continues to be an obvious alternative means of providing access to safe money, albeit not a central bank liability. We would also note the findings of the [Study on New Digital Payment Methods](#) recently published by the ECB mentioned in our response to question 1 (ECB & Kantar Public, "[Study on New Digital Payment Methods](#)," 30 March 2022).

Strategic autonomy

It is not clear that a digital euro is required to strengthen the EU's strategic autonomy. For instance, a joint public-private effort could enable pan-European instant payments. Such a solution could potentially offer the same use cases/user experience and achieve some of the strategic goals of a CBDC, at least in the short term, without leading to disintermediation and novel risks to financial stability and could be cheaper to implement. However, against the backdrop of the emergence of private stablecoins and the seeming worldwide interest of central banks in CBDCs, it is understandable that the ECB would investigate the potential issuance of digital euro. That said, it is the decision of the collective national security apparatus of Europe to judge aspects of strategic autonomy, with pan-European payments being one variable.

Accessibility

This question seems to assume that a retail CBDC would be more accessible than a commercial e-money wallet or commercial retail bank account. It is likely that would only be the case if the requirements for onboarding of a digital euro are lower than traditional instruments, and/or the technology used is simpler.

Financial inclusion

¹⁷ The IIF would not expect a digital euro to be more effective than other means on every metric in achieving those public policy objectives; however, when considered as a whole, the cumulative effectiveness of a digital euro in achieving those policy objectives should be determined to, on substantial grounds, be superior to those achieved by other means. Other means could include changes to the law or regulation, or technical means or initiatives, including forms of private money or ongoing innovations or policy changes in existing payment systems.

Overall, the IIF is skeptical that a retail CBDC on its own would materially improve financial inclusion. Rather, a neutral effect appears more likely. A CBDC would neither be sufficient nor likely necessary to drive higher rates of financial inclusion.¹⁸

On lack of sufficiency, other more important drivers of financial inclusion include: financial literacy; digital literacy and measures to address the “digital divide”; access to secure identity (digital or otherwise); lack of trust and sufficient savings or earnings to make engaging with the formal financial system worthwhile.¹⁹

Ease of use

Typically, the private sector, including financial institutions (FIs) and payment service providers (PSPs) is highly incentivized to create seamless and easy user experiences (UX) for retail customers. By contrast, lacking the profit motive and reliant on official sector budgetary processes, official sector websites, services and apps are sometimes less user friendly and/or less frequently updated and upgraded.

Privacy

We would highlight that existing payment services already offer very high privacy standards that comply with data protection and AML/CFT regulations.

Members generally feel that while privacy settings around the digital euro would need to be clarified, the starting point should be that the GDPR and EUDPR as horizontal regulations can be applied to the digital euro. Privacy expectations could in that way be set for intermediaries in a legally binding and user-centric way which does not discriminate against regulated credit institutions or other PSPs.

It is not sufficient simply to delegate all privacy aspects to the intermediary layer. Any personally identifying information held by the operator(s) of the core CBDC infrastructure should be subject to a legally binding privacy regime. For example, restrictions on individual or corporate holdings, assuming multiple intermediaries, or applying to offline capability, , may require the processing of personal data by the central bank or another infrastructure provider charged with enforcing those limits. See also our answer to question 48.

At the same time, payments data plays an essential role in the provision of financial services, e.g., to analyze risks better and provide credit more accurately and at a better price. Intermediaries should therefore be allowed to **access transactional data to provide value-added services**, while complying with applicable data protection legislation. This would also bring the digital euro in line with PSD2, particularly with respect to access to account information, and with the Digital Finance Strategy.

Other factors

Maintaining financial stability and the ability of the financial sector to service the real economy

Any CBDC should not materially harm the financial system’s ability to finance the real economy through lending and maturity transformation, including through mortgage and SME lending, or materially threaten financial stability, including in times of crisis.²⁰ A digital euro should not take the role of deposit account services.

Intermediaries should be regulated credit institutions or other PSPs who are eligible as direct RTGS (TARGET2) participants. Further work on structuring, issuance, and strategy for distribution with particular attention to access considerations and liability frameworks across the ecosystem will be necessary. These decisions will involve important trade-offs that require clearly articulated policy objectives.

Market-driven standardization of technologies (e.g., APIs) is key for the development of efficient financial services based on a digital euro.

Citizens generally perceive central bank and commercial bank money as quite similar. It is only during a financial crisis that this perception may change and demand for central bank money may increase. It is, however, precisely

¹⁸ According to the World Bank, more than 95 percent of individuals have a bank account in Western Europe. Asli Demirguc-Kunt and Cyril Muller, “[Financial Inclusion in Europe and Central Asia – the Way Forward?](#),” World Bank, 5 April 2019.

¹⁹ A CBDC will most likely imply increased use of smartphones and related capabilities. This may risk excluding certain populations, in particular those over age 65 or in rural areas, who may be more likely to rely on traditional instruments. That said, this is already true of existing forms of digital payments today and would primarily impact those who currently use cash, in the case that the use of cash were to decline.

²⁰ To that end, there may be merit in exploring whether and, if so, how the fractional banking model could operate upon customer-held CBDC balances. This would involve a range of implications and evaluation of whether changes to bank capital or liquidity regulation would be necessary. If viable, this could be a mitigant to bank deposit disintermediation risk, but not a complete solution.

in those circumstances that we want to avoid possible bank runs that lead to a shift of retail deposits to the central bank balance sheet in the form of digital euros (see questions 34-36).

Cyber security

Cyber security (resistance and resilience), particularly regarding hostile state and state-sponsored actors, and operational resilience will both be fundamental. Any sustained outage of a retail CBDC system would be highly disruptive, and possibly crippling, to the eurozone economy, depending on uptake. Each national central bank in the Eurosystem could be an issuer of CBDC and a validator of transactions in a consensus mechanism, for example.²¹ Another possible mitigant could be to provide for segregation of systems operating any retail CBDC from those operating any wholesale CBDC, if one were to be issued. This could provide for the continued availability of commercial bank money even if the retail CBDC were offline. However, it is not clear whether a retail CBDC would increase the resilience of payments infrastructure overall.

Appropriate governance

Independent oversight of adherence of the CBDC system to applicable regulatory and technical standards would be an expectation of our members. An independent body could be set up to oversee compliance in this regard; for instance, an inspectorate, independent of the operation and planning of the CBDC system, could be established to ensure operational resilience of the system. Such a body would also usefully cooperate with other global, regional or national bodies internationally with similar CBDC oversight responsibilities.

The applicable standards should be based on appropriate models such as the CPMI– IOSCO Principles for Financial Market Infrastructures, and be available to intermediaries to aid them with their own resilience planning.

6. What aspects or features of the digital euro would be important to support financial inclusion?

Please rate each aspect from 1 to 5, 1 standing for ‘not important’ and 5 for ‘very important’.

	1	2	3	4	5	Don't know/ not applicable
Easy process of onboarding						
No need for bank account						
Easy payment process (initiating and authenticating a payment transaction)						
Accessible device for payments (e.g. chipcards)						
Enabling of offline, peer-to-peer transactions						
Other (please specify) Interoperability						

To the extent you deem it necessary, please explain your reasoning and provide quantitative evidence or estimates.

IIF Response:

We would note that legal provisions are in place (e.g., Payment Accounts Directive) in the euro area to ensure that citizens and others such as asylum seekers have access to a basic payment account and the related banking services. This suggests that improving financial education and closing the “digital divide” are likely the most central elements of improvement in financial inclusion. In the case of a digital euro, due attention should be paid to enable adoption from every segment of the population, not only for digital native users, as the existence of a CBDC alone will not close this gap. We would caution that simplifying the initiation or authentication procedures for a payment transaction should not result in different regulatory requirements as it pertains to the level of security for customers and compliance with international AML/CFT requirements.

Interoperability

²¹ In this regard, we acknowledge the observations of the Financial Stability Institute (FSI) to the effect that DLT has both positive and negative cyber-security aspects. See Auer et al, (2022), Central bank digital currencies: a new tool in the financial inclusion toolkit?, FSI Insights No. 41.

Any CBDC system should **interoperate** with private sector means of payments and existing infrastructure. This entails integrating CBDC with existing payment instruments like credit transfers, payment cards and electronic money. One way to allow for interoperability is through a CBDC wallet funding/defunding mechanism linked to a bank account. It would also require interoperability with other cross-border CBDC systems (for example through multi-CBDC arrangements such as the ones under experimentation by the BIS²² and with government payment and collection streams.

Intermediation

Any CBDC should be based on an “intermediated” system where the private sector would offer accounts or digital wallets, provided there is a sustainable business model. This public–private cooperation, often referred to as a “two-tier” CBDC, is critical to ensuring an open and competitive payment ecosystem characterized by strong innovation but not sufficient to mitigate the risk of bank disintermediation without consideration for the impact to fractional reserves.

Offline functionality – see our response to question 1.

2. THE DIGITAL EURO’S ROLE FOR THE EU’S PAYMENT SYSTEMS AND THE DIGITAL ECONOMY

Over the past decades, the EU’s retail payment market has significantly developed and the offering of payment solutions has broadened, with faster, safer and more secure payment solutions being offered to wider segments of the population. The access to payment accounts has also been facilitated by legislation granting the right to every citizens to a payment account with basic services. However, as stated in the Commission’s Retail Payments Strategy, the market is still fragmented and is highly dependent on very few global players to provide payment solutions that work across border in the euro area, even though there are some new promising market initiatives. The digitalisation of the economy has also created new payment needs. Crypto-assets, stable coins and foreign CBDCs may also carve out a part in the EU’s retail payment market. A digital Euro can have various design features. We would like to better understand how the digital euro could further improve pan-European payments, strengthen Europe’s open strategic autonomy, improve competition and support the needs of the digital economy while encouraging private innovation.

2.1. The digital euro’s role in supporting pan-European payments and strengthening Europe’s open strategic autonomy

7. What aspects or features of the digital euro would be important to support panEuropean payments and to strengthen Europe’s open strategic autonomy?

Please rate each aspect from 1 to 5, 1 standing for ‘not important’ and 5 for ‘very important.’

	1	2	3	4	5	Don’t know/ not applicable
A new form of pan-European instant digital payment complementing the existing offer for point of sale (POS, face to face payments in e.g. shops) and e-commerce without a (quasi) universal acceptance in physical and online shops						
A new form of pan-European instant digital payment complementing the existing offer for point of sale (POS, face with a (quasi) universal acceptance in physical and online shops						
A public digital means of payments that can be offered through all available payment solutions						
A digital payment means allowing for online third-party validation of transactions						
A digital payment means allowing for offline peer-to-peer transactions						

²² A broad range of use cases could facilitate wider adoption of a potential CBDC. Preferably, a CBDC would make use of existing acceptance infrastructure that is linked to the user’s existing devices and accounts. This would make adoption easier for both consumers and merchants and would be crucial to maximize the day-one ubiquity of the system and minimize complexity of adoption for users and merchants alike.

A digital means of payment offering programmable payment features						
Other (please specify) Interoperable, intermediated, cyber secure, technologically advanced.						

For those aspects you deem most important, can you explain why?

IIF Response:

Interoperable: Any CBDC should **interoperate** with private sector means of payments and existing infrastructure. This entails integrating CBDC with existing payment instruments like credit transfers, payment cards and electronic money. One way to allow for interoperability is through a CBDC wallet funding/defunding mechanism linked to a bank account. It would also require interoperability with other cross-border CBDC systems (for example through multi-CBDC arrangements such as the ones under experimentation by the BIS²³ and with government payment and collection streams.

Any CBDC could be based on an **intermediated** system where the private sector would offer accounts or digital wallets. This public-private cooperation, often referred to as a “two-tier” CBDC, is critical to ensuring an open and competitive payment ecosystem characterized by strong innovation but not sufficient to mitigate the risk of bank disintermediation without consideration for the impact to fractional reserves.

At the same time, **cyber security** (resistance and resilience), particularly with regard to hostile state and state-sponsored actors, and operational resilience will both be fundamental. Any sustained outage of a retail CBDC system would be highly disruptive, and possibly crippling, to the economy, depending on uptake.

Some members also observe that it would seem important that the digital euro be **technologically advanced** (e.g., by being programmable). That said, design features should be carefully evaluated in terms of risks including as to fungibility (in the case of programmability, for example, which programs (if any) should be deployed).

For resilience reasons during natural disasters or major incidents, an **offline capability** of any CBDC would appear to be important. See further our answers to question 1 relating to programmability and offline capability.

8. How would the following aspects of a digital euro support a diversified and competitive retail payments market, where a variety of payment service providers offer a broad range of payment solutions?

Please rate each aspect

	positively affect	negatively affect	does not affect	Don't know/not applicable
Allowing for the distribution of the digital euro to take place through regulated financial intermediaries (Payment Service Providers)				
Offering another form of central bank money in the context of a declining use of cash for payments				
Existence of holding caps or interest and fees on large holdings to limit the store of value in the form of digital euros (for financial stability reasons)				
Using the digital euro acceptance network to foster pan-European private sector initiatives				
Other (please specify)				

²³ A broad range of use cases could facilitate wider adoption of a potential CBDC. Preferably, a CBDC would make use of existing acceptance infrastructure that is linked to the user's existing devices and accounts. This would make adoption easier for both consumers and merchants and would be crucial to maximize the day-one ubiquity of the system and minimize complexity of adoption for users and merchants alike.

To the extent you deem it necessary, please explain your reasoning and provide quantitative evidence or estimates.

IIF Response:

Regulated financial intermediaries

Only regulated credit institutions and other Payment Service Providers that are eligible as direct RTGS (TARGET2) participants should be qualified to serve as intermediaries for CBDC, and all intermediaries should be subject to the same requirements. Distribution through well-regulated financial intermediaries would be essential to mitigate financial crime risks.

Non-resident firms could be permitted to qualify, so long as they qualify under the above. Consideration could also be given to permitting equivalently regulated firms, so long as they conform with relevant requirements such as appointing local agents, submitting to local jurisdiction, maintaining a local responsible officer, undertaking basic reporting, etc.

Declining use of cash

We would suggest the central bank has a role to play in ensuring the ongoing availability of cash for several reasons, including resilience, the existence of a digital divide, and a lack of financial education within a significant part of the population that is unlikely to be resolved by issuance of a retail CBDC (and may even be exacerbated).

That said, if the use of cash does otherwise decline significantly, it may be necessary to provide an alternative (in the form of a retail CBDC) to citizens to preserve the monetary anchor. It is unclear, however, to what extent the use of cash would have to be reduced before this monetary anchor would be endangered and that commercial bank money cannot provide this anchor.

Generally, we don't see CBDC as necessary or sufficient on its own for payments efficiencies or financial inclusion. See further our responses to questions 1 and 5 above.

Limiting the store of value

See our response to question 34 on the political economy considerations around this important topic.

Pan-European private sector initiatives

As to the **economic and liability model**, we observe that a mismatch between significant new risks for intermediaries (for example, AML/CFT risk and cyber theft risk) and a lack of a viable business model may drive regulated financial intermediaries away from offering CBDC wallets. Of concern to our members is the potential for CBDC and its infrastructure to crowd out private sector financial innovation and investment. Any distribution or intermediation model that sees significant cost and risks placed onto the intermediary layer without commensurate compensation may only attract intermediaries with business models that depend on extracting maximum economic value from user data (in other words, BigTech providers).

See also our answer to questions 6 and 33.

2.2. The digital euro's role for the digital economy

- 9. How important would the following possibilities for the use of a digital euro be to support the development of the EU's digital economy?

Please rate each aspect from 1 to 5, 1 standing for 'not capable at all' and 5 for 'very capable'.

	1	2	3	4	5	Don't know/not applicable
Possibility for programmable payment functionalities provided through the digital euro solution						
Possibility for integration with other payments solutions (independent of what technology they use)						

Integration with platforms relying on distributed ledger technology (DLT)/blockchain ²⁴ for smart contracts applications (beyond payments)					
Possibility for micro and stream ²⁵ payments					
Machine to Machine payments ²⁶ (Industry 4.0, internet of things (IoT))					
A digital euro that connects with the European Digital Identity Wallet ecosystem ²⁷					
Other (please specify)					

To the extent you deem it necessary, please explain your reasoning including whether the elements of a digital economy outlined above would be better achieved if the digital euro is a bearer-based instrument or an account-based system, and provide quantitative evidence or estimates.

IIF Response

Programmability

See our answer to question 1.

Integration with other payments solutions

Any CBDC should **interoperate** with private sector means of payments and existing infrastructure. This entails integrating CBDC with existing payment instruments like credit transfers, payment cards and electronic money. It requires interoperability with other cross-border CBDC systems and with government payment and collection streams.²⁸ Preferably, a CBDC would make use of existing acceptance infrastructure that is linked to the user's existing devices and accounts. Such interoperability may potentially allow the payments ecosystem to deliver the benefits that CBDC could offer without requiring the central bank itself to take on a significantly expanded operational role.

This would make adoption easier for both consumers and merchants and would be crucial to maximize the day-one ubiquity of the system and minimize complexity of adoption for users and merchants. Market-driven standardization of communication interfaces (e.g., APIs) would be key for the development of efficient financial services based on a digital Euro.

DLT and advanced payments

On the question of pursuing a CBDC, we are initially attracted to the potential for a sovereign digital settlement asset that may cross borders more efficiently and offer a chance to build an innovative, interoperable global payments system, though we are conscious of avoiding possible retail deposit substitution effects and systemic run risks. Given the public mandate of the ECB and fast-evolving innovations in the payment ecosystem, it should, however, be carefully assessed whether the rationale and objectives for the use of DLT and the further advancement of payments can be achieved in the context of a retail CBDC, or whether they are more relevant for use cases that involve a wholesale CBDC. Analysis should consider the needs of a digital euro first before deciding on which technology to use. This could include consideration for the use of distributed ledger technology (**DLT**) for wholesale payments, and how DLT could be used to support interbank settlement in the case of a wholesale CBDC.

²⁴ A Distributed Ledger is a database that is shared and synchronized across multiple sites, institutions, or geographies, accessible by multiple server operators. A distributed ledger stands in contrast to a centralized ledger, which is the type of ledger that most companies use today. Blockchains are a type of distributed ledger (see at <https://www.eublockchainforum.eu/video/educational/how-doesblockchain-work-simply-explained>).

²⁵ Stream payments relate to consecutive execution of micro payments to pay for on-demand services, e.g. video, music, electricity recharging.

²⁶ Machine to Machine payments refer to smart contract-based transfers of digital assets between machines such as autonomous cars, manufacturing machines, electricity charging stations and the like. Such transfers of digital assets are conditional upon meeting certain requirements which are coded into the smart contract. For smart contracts see <https://www.eublockchainforum.eu/video/educational/smart-contracts-simply-explained>).

²⁷ https://ec.europa.eu/commission/presscorner/detail/en/IP_21_2663

²⁸ Auer et al., "[Central bank digital currencies: a new tool in the financial inclusion toolkit?](#)" FSI Insights No. 41, Bank for International Settlements, 12 April 2022. *Given that different jurisdictions are pursuing the issuance of a digital currency on potentially different platforms, the authorities should also focus on interoperability of any CBDC system that they develop with other jurisdictions, including EU countries outside the euro area.*

Specifically for DLT networks, a digital euro could provide an efficient way to facilitate programmable payments. This, in turn, could enable the private sector to offer new value-added services for companies and private individuals based on this programmable digital money. These value-added services, however, could also be facilitated by the existence of private solutions.

Digital Identity

Limits on individual holdings, and tiering of remuneration above certain limits, require either a secure and widely used pan-European identity scheme, or a certain, high tolerance for duplicate accounts being created through multiple intermediaries, potentially located in different Member States. Any limits on corporate holdings also require secure and widely used digital identity for corporates, such as is promised by the Verifiable Legal Entity Identifier construct. If corporates are in scope, the calibration of applicable limits would need to be done carefully given the implications for bank disintermediation and the impact on availability and cost of credit, particularly for those jurisdictions with undeveloped bond markets that rely heavily on bank lending.

The digital euro could benefit from the availability of a European Digital Identity, e.g., to apply controls on the holdings of digital euros by citizens. However, given that any EU digital ID for individuals will be voluntary, it is not yet clear how the necessary checks could leverage that infrastructure. Ideally, the digital euro should not be linked to a specific digital identity solution or ecosystem but rather be able to interoperate and work with the different digital identity solutions provided or used by the supervised intermediaries that will be in charge of the distribution of the digital euro. Moreover, the use of the ID wallet for payment initiation should be carefully evaluated, as it would in this case compete with solutions that could be developed by the private sector.

See also our answer to question 1 on offline capability.

10. What use cases in your sector would you see for a digital euro? Please briefly explain the use case(s) you see pertinent.

IIF Response

The most obvious use case is the **payments use case**. Within domestic payments, a likely use case might be in the distribution of pensions benefits and other entitlements. However, a CBDC is not necessary for distribution of entitlements to citizens in an efficient way. Bank accounts or electronic wallets offered by regulated Payment Service Providers (PSPs) can be very effective.²⁹

Cross-border payments are of course a key priority for the G20 through its 2020 cross-border payments roadmap, to which the IIF has contributed through comment letters, by co-convening the Global Payments Forum, and by establishing a formal task force. While we would suggest adjustments in aspects of its implementation, we fully support the objectives of the roadmap and are committed to working with our members and the official sector on its implementation. Most of the building blocks in the roadmap, and the objectives of the roadmap, could be accomplished independently of the establishment of CBDC.

Other particular use cases mentioned by our members include:

- Ad hoc services based on programmability for businesses, for example:
 - smart contracts, on-chain transactions
 - split transactions such as revenue sharing or multiple atomic transactions
 - conditional payments, e.g. payments that implement rules and limits such as public subsidies or employee vouchers
 - payments in combination with investment and lending products including BNPL and conditional loans
 - chargebacks or dispute resolution in merchant payments
 - pay-upon-delivery functionalities in e-commerce, microcredit, and proxy lookup payments in P2P transactions
 - metaverse payments
- intra-European P2P payments
- integrated digital euro services for merchants together with cash collection and digital payments at POS (e.g., automated payments)

²⁹ In our answers, to be consistent with the language used in this targeted consultation, the term “Payment Service Provider” (PSP) designates credit institution and other regulated payment service provider.

All the above use cases could, however, also be developed with private money.

Additionally, a wholesale digital euro could potentially unlock efficiencies and be used as the cash leg on digital assets markets (DvP). We note at the outset that a possible wholesale CBDC may present a different range of costs/risks and benefits, and the balance between them may be more readily apparent and less disruptive than in the case of a retail CBDC. On the question of pursuing a CBDC, we are initially attracted to the potential for a sovereign digital settlement asset that may cross borders more efficiently and offer a chance to build an innovative, interoperable global payments system, though we are conscious of avoiding possible retail deposit substitution effects and systemic run risks. Here, too, private initiatives could realize some of the potential functionalities of CBDCs. In the wholesale space, reserve-backed wholesale digital payments systems could be explored as an alternative to wholesale CBDCs.

While the **unit of account** function of money may not be a 'use case' for a digital euro, we wish to emphasize the importance of fungibility between the digital and cash forms of the euro on the one hand and commercial bank money on the other, implying that supply and demand curves should be aligned for all to avoid opening basis and arbitrage opportunities.

The **store of value (savings) use case** may present issues from a financial stability perspective, including in times of stress, and would be expected to be less attractive in times of normal interest rates. See our answers to question 8 and 33.

3. MAKING THE DIGITAL EURO AVAILABLE FOR RETAIL USE WHILE CONTINUING TO SAFEGUARD THE LEGAL TENDER STATUS OF EURO CASH

In the Euro area, the euro banknotes have the status of legal tender as stipulated by the Treaty on the Functioning of the European Union. The status of legal tender of coins denominated in euro is laid down in Council Regulation No 974/98. The concept of legal tender of euro cash as interpreted by the CJEU implies: (i) a general obligation in principle of acceptance of cash by the payee (ii) at full face value (iii) for the settlement of the monetary debt by a payer.

3.1. The digital euro's role for the digital economy

Since a retail digital euro would be another form (digital, not physical) of central bank money, it could also be given legal tender status, as is the case for banknotes and coins. Legal tender status should ensure a wide acceptance of the digital euro. This would however have implications on its distribution and acceptance. In particular, legal tender status could imply that a payee cannot generally refuse a payment by a payer in digital euro and that the digital euro would have to be universally accessible.

The concept of legal tender is enshrined in Union law but not defined in detail. According to the ECJ, the status of legal tender implies that a means of payment having legal tender involves a default obligation to accept it at full face value in payments and a corresponding default right to pay with it, unless that obligation and right are restricted for reasons of public interest, or waived by contractual agreement. In principle, the status of legal tender does not preclude the parties from agreeing to use other means of payment or other currencies. If the concept of legal tender was defined in EU legislation, this would regulate legal tender in detail at Union level, and any exceptions could be specified.

This section seeks to address these issues and seeks to get your views as regards the potential impacts of the legal tender status in general and on your institution.

Possible introduction of legal tender for the digital euro

11. To achieve the digital euro objectives, how important do you consider it is that a payer always has the option to pay with a digital euro as a form of currency having legal tender status?

Please rate your answer from 1 to 5, 1 standing for 'not important' and 5 for 'very important'.

Answer

1 - Not important

Answer

2 - Rather not important

Answer

3 - Neutral

Answer

4 - Rather important

Answer

5 - Very important

Answer

Don't know / no opinion / not applicable

Please explain why. To the extent you deem it necessary, please consider how this could be better achieved.

IIF Response

Members tend to consider that the position as to the legal tender status of the digital euro should be aligned with the legal status of euro coins and banknotes. That said, according to the Eurosystem cash strategy, there are the following exemptions to the acceptance of cash, which should also apply to a potential digital euro:

- Retailers, traders and other private businesses cannot refuse cash payments, unless the two parties have previously agreed on other means of payment.
- Generally, public authorities and service providers must also accept cash, unless otherwise stipulated by law.

Amending the definition of a legal tender status to the extent that the above exemptions are eliminated would negatively impact the ability of merchants, traders or businesses to have the freedom of choice for the payment solutions best suited to their customers.

12. Do you see advantages in regulating legal tender in detail at Union level, including any possible acceptance exceptions, by including a definition of legal tender status for the digital euro in EU legislation?

- Yes No Don't know/no opinion.

To the extent you deem it necessary, please explain your reasoning and the advantages/disadvantages.

IIF Response

Members have expressed some appetite for clarification of the legal position, either immediately or in the longer term, though some believe the current framework is sufficient. Any clarification should be applicable at Union level, e.g. fragmentation of guidance across Member States should be avoided. As to the substance of that clarification, see answer to question 11.

13. Should the legal tender status of the digital euro take inspiration from the current legal tender status of banknotes and coins, while addressing the specificities of a digital form of payment?

- Yes No Don't know/no opinion.

To the extent you deem it necessary, please explain your reasoning for and against.

IIF Response

Members have expressed some appetite for harmonization of the legal position, either immediately or in the longer term, while noting some specificities of the digital euro (for example, around holding or transaction limits) that may not apply to cash. Gradual implementation should be allowed. As to the substance of that harmonization, see also our answer to question 11.

14. If the legal tender of the digital euro was defined in EU legislation, would there be a need for (justified and proportionate) exceptions to its acceptance?

- No
- Yes, for merchants not accepting digital means of payment
- Yes, for small merchants
- Yes, but exceptions should be further specified by Member States
- Others, please specify: Per terms of business.

To the extent you deem it necessary, please explain your reasoning and provide quantitative evidence or estimates.

IIF Response

See our answer to question 11.

15. Should there be a provision to require that the additional exceptions proposed by Member States are subject to approval by the European Commission after consulting the ECB?

- Yes
- No
- no opinion

Please explain.

See our answer to question 12.

16. Should there be a provision for administrative sanctions for digital euro nonacceptance?

- Yes No no opinion

Please explain.

See our answer to question 11.

17. If the legal tender status of the digital euro was defined in EU legislation, should it include rules that ensure digital euro is always an option for the payer, so following categories of payees cannot unilaterally exclude digital euro acceptance within its general contractual terms and conditions?

	Yes	No	Don't know/not applicable
Government			
Utilities providers			
Large companies			
Merchants that accept private electronic means of payment			
Others, please specify			

To the extent you deem it necessary, please explain your reasoning and provide quantitative evidence or estimates.

IIF Response

See our answer to question 11.

ESTIMATION OF COSTS

This section mainly aims at assessing the costs incurred by stakeholders should the digital euro receive legal tender status. While costs would very much depend on the design and functionalities of a digital euro, we are looking at broad estimates and further explanation, including on cost drivers, which will inform Commission impact assessment.

18. Technological and business developments might radically change the current way of payment acceptance (e.g. phones used as terminals). Irrespective of digital euro, how do you expect the cost of the acceptance infrastructure (not the transaction fees) to change with technological developments over the next 5 years?

- 1 significant decrease in cost 2 some decrease in cost 3 no change in cost 4 some increase in cost 5 significant increase in cost Don't know/ no opinion

Please explain your reasoning and provide quantitative evidence or estimates.

IIF Response

Based on the current limited understanding of the design of the digital euro and its distribution model, it is difficult to provide for costs analysis and quantitative evaluations in this paper.

In qualitative terms, some members have concerns about an additional layer of costs being imposed on PSPs and merchants. Although it would depend on the design options, the technological development and implementation of new payments methods require large investments in terms of IT and human resources. As an example, the current domestic instant schemes have evolved over many years and the European payments card schemes have been fine-tuned over several decades. Even if current infrastructure is flexible enough to adapt to technological changes, it has never been "tested" for digital currencies, thus requiring costly updates. Moreover, we consider that the new acceptance model will have to coexist with the current ones. So overall, the acceptance costs are not expected to decrease.

19. The digital euro might be granted legal tender status that merchants would need to adhere to. Which and what type of additional costs would merchants face when starting to accept payments in digital euro?

	With legal tender status	Without legal tender status
Type of additional costs	<ul style="list-style-type: none"> • Upgrades/replacement of physical and online POS. • One-off and recurring software costs, e.g. accounting and reporting system • Training costs • Marking costs • Costs of accepting the digital euro, especially <ul style="list-style-type: none"> ○ joining a validation/confirmation infrastructure ○ Costs for Acquiring Contract • Equipment and communications costs 	<ul style="list-style-type: none"> • Upgrades/replacement of physical and online POS. • One-off and recurring software costs, e.g. accounting and reporting system • Training costs • Marking costs • Costs of accepting the digital euro, especially <ul style="list-style-type: none"> ○ joining a validation/confirmation infrastructure ○ Costs for Acquiring Contract • Equipment and communications

Please explain your reasoning and provide quantitative evidence or estimates.

IIF Response

Upgrades/replacement of physical POS may be unnecessary if the same equipment can support a digital euro. However, accounting and reporting systems would have to be modified even if POS equipment can remain the same.

The economics of accepting a digital euro would be affected by the breadth of acceptance. Legal tender status should not be confused with mandatory acceptance (see further our answer to question 11).

To provide quantitative estimates, a range of assumptions would need to be made about the digital euro design, including the operational arrangements of the infrastructure underpinning it. We have not made such assumptions in this paper.

20. For merchants to be equipped to accept the digital euro, new POS terminals, new software or new app-based POS solutions may be needed. Please provide an estimate of the incremental costs necessary to accept payments in digital euro

	Merchants already accepting electronic payments	Merchants not yet accepting electronic payments
	In EUR per terminal	In EUR per terminal
One off costs related to (new) POS terminals for accepting payments in digital euro :		
One-off costs related to software:		
Annual cost for maintenance, licences etc.		
Others please specify		

Please explain your reasoning and provide quantitative evidence or estimates/ranges.

IIF Response

Based on the current limited understanding of the design of the digital euro, its characteristics and its distribution model, it is difficult to provide for costs analysis and quantitative evaluations in this paper.

21. Would these costs differ depending on whether the digital euro would be account based or bearer based?
- Yes, account-based would be less costly
 - Yes, bearer-based would be less costly
 - No difference

- o Don't know/ no opinion

Please explain your reasoning and provide quantitative evidence or estimates.

IIF Response

At this time, the IIF would only posit that leveraging to the extent possible existing systems and structures could reduce the cost of delivering the service. That said, doing so may (or may not) limit other design features considered as a value add, and may carry its own costs associated with interoperating with legacy infrastructures. Such costs, however, are likely unavoidable.

22. How important would the aspects listed below be for Merchants to counterbalance the one-off investment cost of new point of sale (POS) terminals or software that can handle digital euro payments?

Please rate each aspects from 1 to 5, 1 standing for 'not important' and 5 for 'very important'.

	1	2	3	4	5	Don't
						know/not applicable
Possible savings on the transaction costs of digital euro payments						
With the same (new) POS terminals purchased for digital euro payments, the possibility for merchants to accept other payment solutions offered by supervised private intermediaries						
The possibility for merchant to accept digital euro payments from payers using a variety of devices e.g. smartphones, chipcards, wearables or other devices and contactless functionality (e.g. NFC antennas)						
Others (Please specify)						

To the extent you deem it necessary, please explain your reasoning and provide quantitative evidence or estimates.

IIF Response

At the moment there is limited basis for evaluation because the possible models have not been defined in sufficient detail. It is not clear, in practice, (i) what could lead to lower transaction costs in digital euros and (ii) by whom such hypothetical savings would be balanced.

Merchant fees

23. For merchants to be equipped to accept the digital euro, services of intermediaries may be needed. Taking into account the (possible) mandatory acceptance of the digital euro in case it has legal tender status, should any boundaries to the fees that may be applied to merchants be set?
- o Yes
 - o No
 - o Don't know/ no opinion

To the extent you deem it necessary, please explain your reasoning and provide quantitative evidence or estimates.

IIF Response

The business model related to the introduction of the digital euro should be market driven, transparent, and pricing of these services should be competitive. A cap for migration cost would lead to market distortions or unmet demand. We believe that the market should set prices, in line with the position for cards where only interchange fees are regulated. A limit fixed by law could lead to competitiveness issues.

24. Please qualify the following statements with regard to how merchant fees could be designed

Please rate each aspect from 1 to 5, 1 standing for 'strongly disagree' and 5 for 'strongly agree'.

	1	2	3	4	5	Don't know/not applicable
Fees on digital euro payments should be based on real costs and a reasonable profit						
Fees on digital euro payments could be based on the volume or value of transactions, if and insofar the volume or value has an impact on the real costs of intermediation						
Multilateral interchange fees consistent with the Interchange Fee Regulation may be taken into account in the initial calibration of the fees on digital euro payments						
Fees calculated in another way (please specify) Other market driven model						

To the extent you deem it necessary, please explain your reasoning and provide quantitative evidence or estimates.

IIF Response

All three possibilities put forward by the Commission enjoyed support among our members. We support the proposition that fees on digital euro payments should be based on real costs and a reasonable profit. All participants involved in a payment must be enabled to conclude agreements to facilitate the establishment of viable business models, subject to any “free to the payer” requirements that may be imposed for particular classes of transactions. There was also member support for the option of volume- or value-based fees. It was observed by some members that multilateral interchange fees are a well-established possibility to charge the merchant. Other market-driven models may also be appropriate.

Generally speaking, the business model related to the introduction of the digital euro should be market driven, transparent, and pricing of these services should be competitive.

25. Should there be a prohibition on surcharges on payments with digital euro?

- Yes
- no
- Don't know/not applicable

To the extent you deem it necessary, please explain your reasoning and provide quantitative evidence or estimates.

IIF Response

To make the digital Euro workable for merchants, an appropriate business model should be defined taking into account the innovative/functionalities that a digital euro could potentially offer and the related fees (acquiring services that properly fit merchant's needs).

3.2. The legal tender status of euro cash

As mentioned in Commission retail payment strategy, while promoting the emergence of digital payments to offer more options to consumers, the Commission will continue to safeguard the legal tender of euro cash. The legal tender of euro banknotes as *lex monetae* is enshrined in Article 128(1) TFEU, according to which ‘the banknotes issued by the European Central Bank and the national central banks shall be the only such notes to have the status of legal tender within the Union’. Furthermore Commission Recommendation of 22 March 2010 on the scope and effects of legal tender of euro banknotes and coins defines three core features for the legal tender: mandatory acceptance, acceptance at full face value and power to discharge from payment obligations (Official Journal L 83, 30.3.2010, p. 70–71). Next to this, according to the ECJ, the status of legal tender implies that a means of payment having legal tender involves a default obligation to accept it at full face value in payments and a corresponding default right to pay with it, unless that obligation and right are restricted for reasons of public interest, or waived by contractual agreement. The Commission will assess whether recognising the legal tender status of the digital euro also results in a need to define in a binding EU legislative proposal the meaning of legal tender for cash, in line with CJEU jurisprudence, to ensure coherence. We would therefore like to understand better the implications of the possible granting of legal tender status to the digital euro for the definition of legal tender of cash.

26. If it were decided to include a definition of legal tender status for the digital euro in EU legislation, please state your opinion on the following statements regarding the legal tender status of euro cash (banknotes and coins):

Statement	Yes	No	No opinion
The current situation where the legal definition of the legal tender status of cash is set out in the 2010 Recommendation and ECJ jurisprudence is adequate.			
Legislative action at EU level is needed to enhance legal certainty and enshrine the legal tender status of euro cash in secondary law.			

Please explain your answers.

IIF Response

Please see our answer to question 11.

27. According to your organisation, is there a need for a further definition of justified exceptions to the general principle of mandatory acceptance if those are grounded on reasons related to the 'good faith principle'³⁰?

- Yes no no opinion

Please explain.

IIF Response

Please see our answer to question 11.

28. Which of the following exceptions should be defined?

Exception	Yes	No	No opinion
No party shall be obliged to accept more than 50 coins in any single payment (except for the issuing authority and for those persons specifically designated by the national legislation of the issuing Member State);			
If refusal is for security reasons;			
If the value of the banknote tendered is disproportionate compared to the value of the amount to be settled;			
If a retailer has no change available;			
If there would be not enough change available as a result of that payment for a retailer to carry out its normal daily business transactions;			
Any other exception			

Please explain.

³⁰ Notwithstanding the preliminary judgment of the CJEU in Joined Cases C 422/19 and C 423/19, which states in par. 55 that it is not necessary that the EU legislature lay down exhaustively and uniformly the exceptions to that fundamental obligation, provided that every debtor is guaranteed to have the possibility, as a general rule, of discharging a payment obligation in cash.

IIF Response

See our answer to question 11.

29. Should there be a provision to require that additional exceptions to the mandatory acceptance principle may be proposed by Member States subject to approval by the European Commission after consulting the ECB?

- Yes
- No
- no opinion

Please explain.

IIF Response

Member States should not propose any specific derogation to the acceptance rules set out in the definition. Exceptions should be at the EU level to avoid fragmentation.

30. Should there be a provision for administrative sanctions for cash nonacceptance?

- Yes
- No
- no opinion Please explain.

IIF Response

The provision for administrative sanctions for non-acceptance seems to be an excessive measure, also considering the possible exceptions.

31. Should the legislative proposal confirm the prohibition on surcharges on payments with euro banknotes and coins?

- Yes
- No
- no opinion

Please explain.

IIF Response

The topic is already dealt with in PSD2 with reference to electronic payment instruments, which effectively provides that a discount offered on a digital payment cannot be understood as a surcharge on paying with banknotes and coins.

32. Since the effectiveness of the legal tender status of cash presumes the widespread possibility of having access to it, should there be a provision which aims to guarantee the availability of cash, such as an obligation on Member States to adopt rules to ensure sufficient access to cash and report these rules to the Commission and the ECB?

- Yes
- no
- no opinion

Please explain.

IIF Response

Members tend to think that the implementation of this principle should not be imposed through regulation but through dialogue with the entities responsible for developing the cash access network. Supporting acceptance is considered preferable to imposing it. It was also observed that this topic is presently dealt with from a legal standpoint at a national level.

4. THE DIGITAL EURO'S IMPACT ON THE FINANCIAL SECTOR AND FINANCIAL STABILITY

The digital euro could be distributed centrally by the Eurosystem or with the help of private sector intermediaries. In either case, the digital euro would likely have an influence on financial intermediaries' balance sheets, income

statements, business model and services. In this section, we would like to understand better how financial intermediaries perceive the impact of the digital euro and how they could offer additional value to the digital euro, also depending on whether the digital euro is account based or bearer instrument/token based³¹.

33. What do you think the impacts of a digital euro would be on the business of providers of payment services and crypto-asset services?

	Positive impacts/ opportunities	Negative impacts/ challenges
Credit institutions	<p>Possible opportunities arising from digital euro distribution</p> <p>Possible reduction in transaction costs related to interbank transfer</p> <p>Ability to develop innovative and value-added use cases, e.g. related to programmability.</p>	<p>Increased systemic run risk</p> <p>Bank deposit disintermediation risk and impacts on lending including for mortgages and to SMEs</p> <p>Prudential regulation challenges</p> <p>Possible increase in costs overall</p> <p>Economic/business model challenges</p> <p>Risk of crowding out private payments innovation</p> <p>Risk of reduced credit quality in case of a reduction of information on clients</p>
Other payment services providers	<p>Possible opportunities arising from digital euro distribution such as opening accounts or wallets for users</p> <p>Ability to develop new products for customers</p>	<p>Economic/business model challenges</p> <p>Risk of crowding out private payments innovation</p>
Crypto-asset services providers	<p>Ability to develop new products or adapt existing DLT or programmable solutions for end users integrating digital euro</p>	<p>Increased competition on programmability and cross-border payments</p>

Please explain your answer to question 33

IIF Response

Prudential regulation challenges

In the banking prudential framework, the most immediate impact would be on the Liquidity Coverage Ratio (LCR) and the Net Stable Funding Ratio (NSFR). The prudential regulatory framework considers retail deposits as stable funding, which gives banks ample scope to provide long term loans. Currently, retail deposits are considered stable to a 95% extent in the Liquidity Coverage Ratio (LCR) and the Net Stable Funding Ratio (NSFR). The impact on those ratios needs to be carefully examined. It is important that the regulatory balance sheet ratios and stress scenarios in connection with the CBDE are adjusted by the regulators to avoid any negative impact on banks.

In addition, the lost stable retail deposits would have a direct impact on liquidity ratios (LCR outflow rate at 5%, NSFR ASF at 95%) and there could be additional 2nd round effects on LCR and NSFR if the supervisor decides to alter the stability of the bank deposits which remain on their balance sheet (leading to higher LCR outflow rate, lower NSFR ASF rate). Moreover, internal liquidity stress tests may be even more binding than the regulatory metrics.

Economic and liability model challenges

³¹ See [ECB Report on a digital euro, October 2020](#), section 5.1.5 on transfer mechanism for a presentation of the digital euro design options.

The economic and liability model should be clearly resolved and adequate incentives for participation by regulated FIs or PSPs should be considered. A business model that sees significant cost (for example, for AML/CFT compliance) and risks (for example, around cyber theft from customer wallets) placed onto the intermediary layer without commensurate reward may not attract any intermediaries other than business models that depend on extracting maximum economic value from user data (in other words, BigTech providers).

- The ability of intermediaries to deploy viable business models that encourage further innovation and investment in the development of value-added services will be important for operationalizing a CBDC.
- Costs of connecting to central infrastructure and funding cyber security investments, and liability for cyber attack or AML/CFT risk, should be transparent and clarified ex ante.
- We would note that arriving at a workable business model, as of yet, is proving challenging for our members. Some members state that the digital euro should enable intermediaries to operate a viable business model in its own right, and should not be reliant on possible revenues from “cross-selling” adjacent services. Others remind that the ECB has referred to the possibility of sharing increased seigniorage from a digital euro with intermediaries, and would seek to leverage that indication, though we would also caution about the financial sector becoming unduly dependent on official sector largesse, which may be withheld in the future. Collaboration with regulated credit institutions and other PSPs on this point, as well as potential design aspects of a CBDC, would be critical.

A mismatch between significant new risks for intermediaries (for example, AML/CFT risk and cyber theft risk) and a lack of a viable business model may drive regulated financial intermediaries away from offering CBDC wallets.

Another concern is the potential for CBDC and its attendant infrastructure to crowd out private sector financial innovation and investment, particularly around means of payment.

Increased systemic run risk – see answer to question 37.

Bank deposit disintermediation risk – see answer to question 37.

34. How important would it be to limit the store of value function of the digital euro by, introducing holding caps, limitations to transactions, or different interest and/or fees disincentives on large holdings?

Please rate each aspects from 1 to 5, 1 standing for ‘not important at all and 5 for ‘very important.

	1	2	3	4	5	Don't know/not applicable
For financial stability purposes (e.g. to prevent bank runs in crisis situations)						
To prevent that the digital euro structurally disintermediates credit institutions (e.g. large conversion of bank deposits to digital euro)						
Other (please specify)						

To the extent you deem it necessary, please explain your reasoning and provide quantitative evidence or estimates.

IIF Response

Our members generally support limiting the store of value function of the digital euro in the interests both of mitigating systemic bank run risk and bank deposit disintermediation risk, with consequent reductions in bank lending to the real economy, including through mortgage and SME lending.

That said, proposed mitigants for identified risks, including risks to financial stability, and other design features should be clearly identified and evaluated for their effectiveness and their effects on the financial system ex ante.

Reductions arising from such mitigants in the effectiveness of a CBDC in delivering the public policy objectives should be acknowledged and included in the Commission's assessment.

Mitigants should not open arbitrage opportunities between a CBDC and cash on the one hand, and a CBDC and commercial bank deposits on the other. In other words, they should not threaten fungibility or the "singleness" of the unit of account. Mitigants must at the same time continue to be effective in safeguarding the basis of the banks' credit intermediation function in normal and stressed conditions.

Similarly, design features should be carefully evaluated in terms of risks including as to fungibility (in the case of programmability, for example, which programs (if any) should be deployed).

Our members are opposed to the use of positive remuneration on retail CBDC balances, both because this would affect the fungibility of cash and digital representations of the euro, and because this would aggravate bank deposit disintermediation risk. A remuneration rate for digital euro holdings above zero could have detrimental effects on the banking sector and financial stability, as it could make the digital euro attractive as a store of wealth.

This implies that any "soft cap" on CBDC balances designed to prevent CBDC being used as a store of value would be implemented via a negative rate applicable on higher balances, beyond the zero remuneration tier. However, in times of stress, such a negative rate may not provide sufficient disincentive to avoid systemic bank runs.

Members also observe that flexible caps or limits that are set by the central bank or other authorities may be subject to political considerations and pressures which may be difficult to resist in times of economic or financial market stress. Once a retail CBDC exists, political pressure to make it competitive with commercial bank deposits on inclusion and other grounds may lead to the relaxation of holding limits and increases in interest rates paid.

Some members therefore propose a hard cap or limit on holdings which could be enshrined by design into the digital euro, ensuring that it is maintained even in times of financial stress or crisis. Such a hard cap could only be raised in a pre-agreed manner, for instance linking it to the inflation rate. This may, however, hamper the flexibility of authorities to respond to instability so should be carefully evaluated.

Some members also suggest the need for a seamless or automatic transfer to a bank account when the end-user is exceeding the applicable maximum CBDC holding, including for corporates.³²

Limits on individual holdings, and tiering of remuneration above certain limits, require either a secure national or digital identity scheme, both for individuals and corporations, or a certain, high tolerance for duplicate accounts being created through multiple intermediaries. Given that the e-ID scheme will be voluntary for individuals, it is not clear how any holdings limits would be implemented in a secure fashion.

More study needs to be undertaken between individual holding caps and what (if any) caps there would be on corporate holdings. Unlimited caps on corporate holdings might lead to arbitrage through the incorporation of small companies. Additionally, given that most corporates are not equally eligible to benefit from deposit guarantee schemes as consumers are, they may have a higher incentive to move (large) deposits from bank accounts to a digital euro wallet. This needs to be taken fully into account.

Any inability to aggregate limits over individuals' multiple or corporate holdings could diminish trust in the integrity of the system and in the central bank, and may undermine AML/CFT efforts.

Other possible mitigants against systemic run risk and/or bank disintermediation risk that could be considered include:

- limits on transactions or accumulations within a particular time by single individuals, households, or corporations;
- providing alternative sources of funding to compensate commercial banks for the loss of bank deposit funding; and
- crisis measures such as limits or controlling fund outflows from bank deposits.

Transaction limits could be considered to reduce systemic bank runs, including in a crisis. They may, however, also open wide a basis between the retail CBDC and cash, or the CBDC and commercial bank money (or other instruments such as stablecoins) in a crisis.

There may also be merit in exploring whether, and if so, how the fractional banking model could operate upon customer-held CBDC balances. This would involve a range of implications and evaluation of whether changes to

³² It could also be noted that there are efficient instant payments solutions that have relatively low caps on maximum amounts on transactions, such as the Swedish instant scheme Swish.

bank capital or liquidity regulation would be necessary. If viable, this could be a mitigant to bank deposit disintermediation risk, but not a complete solution.

35. How would holding limits or disincentives to the store of value function affect the usability of the digital euro in the various use cases below?

Please rate each aspects from 1 to 5, 1 standing for ‘significantly decrease in its usability’ 3 ‘no change in its usability’ and 5 for ‘significant increase in its usability’.

	1	2	3	4	5	Don't know/not applicable
Person-to-Person payments						
Person-to-Business payments						
Business-to-Business payments						
Machine-to-Machine payments						
Other (please specify)						

To the extent you deem it necessary, please explain your reasoning and provide quantitative evidence or estimates.

IIF Response

Limits and disincentives to the store of value function could decrease the usability of the digital euro, particularly in P2B payments and B2B payments, as the size of these kinds of transactions is often higher than P2P payments. Nevertheless, members feel financial stability risks and bank deposit disintermediation risks are more material concerns than loss of usability at the margin.

Some practical suggestions to mitigate loss of usability include:

- a ‘waterfall’ approach where a CBDC wallet would be linked to a bank account that would automatically be credited with excess balances, but give the wallet flexibility to accept large payments; and /or
- for B2B and B2P payments, corporates could have a higher limit on holdings than individuals (but see our observations on corporate limits in our answer to question 34 that would need to be addressed; this would require careful study given the potential impact on bank disintermediation).

36. How would a retail digital euro **without** any holding limits or disincentives for store of value function impact the following aspects of the **EU credit institutions**?

Please rate each aspects from 1 to 5, 1 standing for ‘significant decrease’ and 5 for ‘significant increase’.

	1	2	3	4	5	Don't know/not applicable
Volume (value) of retail deposits						
Volume (value) of corporate deposits						
Liquidity / bank run risk						
Volume (value) of new credit provision						
Revenue from payment services						
Net interest revenue						
Ability to perform anti money laundering (AML) and other compliance obligations						

Costs due to operational risk in retail payments						
Other (please specify)						

To the extent you deem it necessary, please explain your reasoning including whether your assessment would depend on whether the digital euro is a bearer-based instrument or is account-based and provide quantitative evidence or estimates.

IIF Response

Volume of retail and corporate deposits and value of new credit provision (bank deposit disintermediation risk)

A retail CBDC could adversely affect the financial sector through a reduction of funding that would translate into a reduced availability of credit and an increase in lending costs to the real economy (including of mortgage and SME lending), with business model implications for credit institutions.

We are concerned about structural disintermediation, whereby the shift of retail bank deposits to a digital euro could have unintended consequences on the role of banks in maturity transformation and the funding of the economy. The effect could be important in the euro area banking system because it is based on retail deposits, and currently deposits from households constitute approximately 46% of the funding of European banks. (European Banking Federation, [“EBF contribution to the ongoing debate on a Central Bank Digital Euro #2: Impact on bank funding,”](#) 26 May 2021, p 3). Studies suggest there would be substitution away from retail bank deposits to CBDC in normal times, as end users take advantage of the low credit risk associated with CBDC. Estimates of this effect vary considerably, but one study estimates that up to 55% of commercial bank deposits could be diverted. (Jiaqi Li, [“Predicting the Demand for Central Bank Digital Currency: A Structural Analysis with Survey Data,”](#) Bank of Canada, 18 November 2021). Leaving aside caps or limits, the crowding-out of bank deposits in normal circumstances will depend on the design features of a digital euro, such as what type of payments it intends to serve and the associated functionality (cash-like or far more), how it interoperates with existing payment solutions, the cost structure and even how the authorities frame and “advertise” the digital euro.

This can be expected to significantly increase funding costs for banks wishing to keep lending at the same level, as they would need to raise the rate of interest on deposits considerably or source more expensive wholesale funding in order to do so.

This would in turn substantially impede banks’ ability to create credit for the broader economy, including through mortgage and SME lending, as well as the cost of such credit.

An ECB Occasional Paper (Adalid et al., [“Central bank digital currency and bank intermediation,”](#) ECB Occasional Paper Series No. 293, ECB, 12 May 2022.) recently considered different scenarios around digital euro holdings and has estimated that the loss of bank deposit funding capacity could be very material. For every €1,000 increase in the holding limit, the substitution away from households’ euro-denominated overnight deposits is about €340 billion and around 7% in terms of the stock of households’ euro-denominated overnight deposits (p 13), so that with a €10 000 limit, substitution of households’ euro-denominated overnight deposits is estimated to exceed €3 trillion (p 15). Under the “large demand” scenario (B) illustrating an intense use of digital euro as a store of value coupled with an increased use for retail payments and assuming unlimited supply, deposit substitution is estimated to reach 34% of total customer deposits (p 15). The size of this effect could further increase taking into account corporate deposits, considering that they are largely not eligible for deposit guarantee schemes.

This deposit outflow would not be manageable for most banking business models in the EU and would likely force banks to deleverage significantly. It can also be expected to generate strong incentives to considerably increase the role of the central bank in credit creation by deploying CBDC reserves to acquire bonds or provide other forms of wholesale funding. While central banks can in principle also be a source of alternative funding, such funding – whether temporary or structural – may need to be provided against lower quality collateral as only that would increase HQLA for banks. (Bank for International Settlements and Group of Central Banks, [“Central bank digital currencies: Financial stability implications,”](#) 30 September 2021, p 10). We would suggest that a situation in which the central bank has an ever-greater role in the provision of credit because CBDC crowds out bank lending is inconsistent with market economy principles.

Liquidity / bank run risk

As the BIS and a group of central banks have found, CBDC and certain new forms of digital money could increase the **latent risk of systemic bank runs**, where depositors may seek to run from bank deposits to CBDC across all or many banks. (Bank for International Settlements and Group of Central Banks, op. cit., 30 September 2021, p 2).

A period of rapid substitution from deposits to CBDC would be equivalent to a run on the banking system. The cost and frictions of running to CBDC would likely be much lower than running to cash (Bank of England, "[Central Bank Digital Currency: Opportunities, challenges and design](#)," Discussion Paper, 12 March 2020, p 38).

Importantly, the lower costs of running to CBDC compared to cash imply that more depositors would quickly withdraw at a lower perceived probability of a system-wide bank solvency crisis. In addition to the potential impact of CBDC in benign conditions, during crisis periods a CBDC could be perceived as a safe haven making bank deposits, particularly uninsured deposits, more flighty and thus increasing the risk of bank runs. Evidence from previous systemic bank runs indicate how powerful the impetus of a bank run is, and therefore how reduced transaction costs of a CBDC could exacerbate bank runs. Large-scale money-market fund outflows in the global financial crisis (GFC) and at the onset of the Covid-19 pandemic also indicate that a CBDC could increase the risks of "runs" from non-banks in stressed conditions. (Bank for International Settlements and Group of Central Banks, op. cit., 30 September 2021, p 9, 13, 14).

Thus, the introduction of a CBDC or new forms of private money such as stablecoins could affect the latent risk of systemic runs, and banks may also need to adapt their own practices. (Bank for International Settlements and Group of Central Banks, op. cit., 30 September 2021, p 16. Citing Juks (2018)). This could limit the recovery capacity and increase the procyclical risk of failure of any banks affected.

According to the CPMI and the Markets Committee, although the existence of deposit insurance helps to ensure bank runs are rare, there is a concern CBDCs could make such events more "frequent and severe", with them unfolding with "unprecedented speed and scale." Depending on the context, the shift in deposits could be large in times of stress (Bank for International Settlements and Group of Central Banks, "[Central bank digital currencies: foundational principles and core features](#)," 9 October 2020).

Authorities may also need faster-acting crisis management tools. The potential for a CBDC or new private forms of digital money to increase the pace of bank runs may also necessitate examining crisis measures such as limits or controlling fund outflows from bank deposits.

Volume (value) of credit provision

The issuing of a digital euro and the reduction in bank deposits would mean that to maintain their financing capacity, banks would have to consider alternative sources of funding, as a hard cap or a soft rate disincentive will not be sufficient to address their possible funding deficit.

As a consequence of the impact on banks' funding composition, the digital euro could also have an impact on the extent to which banks can perform maturity transformation. Market-based financing cannot be expected to compensate for the lost stable resources. This is particularly so for smaller regional banks which at present may not access funding markets at all or at any depth.

The substitution of deposit accounts or the reduced use of bank deposit accounts by customers would inevitably lead to a reduced knowledge of customers and their solvency. This would impact client scoring and banks' risk management with ultimately more stringent lending conditions for some categories of lower-income customers or even a risk of cessation of bank lending to these populations.

Revenue from payment services and account management

Banks could face a significant decline in revenues related to fees and commissions paid by retail and SME customers who could either close their deposit account to permanently move to a digital euro wallet (pending holdings limits) or significantly reduce the use of their deposit account. Such a substitution might endanger the development of retail activities, jeopardize the "universal banking" model that has proven its resilience and robustness, and have repercussions on banks' nationwide physical presence (branch closures).

Net Interest revenue

If disintermediation of bank deposits occurs, banks may have to seek alternative sources of funding in the market at a higher cost, which would have a negative impact on net interest margin. More expensive and less stable market resources would have to compensate for the decrease in commercial money deposits. This would imply a higher interest rate risk for the banking sector, but also a higher cost for customers. Funding costs could also increase if banks' credit quality were to be reduced in relation to higher debt, increased liquidity risk (potentially also factored in Pillar 2 requirement capital charges, including for interest rate risk in the banking book (IRRBB)) and the lower profitability which also impacts capital ratios.

Any additional funding, whether wholesale or provided by the ECB in replacement of lost retail non-remunerated deposits comes at a significant cost for the banking industry, considering the large volumes involved. This would have a detrimental impact particularly when net interest margins are low, for example in a low interest rate

environment. Not only would funding needs potentially increase with the introduction of the digital euro, but banks' overall funding needs may be additionally impacted by the marginal issuances that would be made to compensate for the flight of deposits.

According to quantitative modelling by the BIS and a group of central banks, bank return on equity (RoE) would be negatively affected monotonically with both the substitution effect and the wholesale:deposit spread, such that at a 25% outflow from deposits to CBDC, with a 2% pts spread, RoE would decline by 0.9% pts. (Bank for International Settlements and Group of Central Banks, op. cit., 30 September 2021, p 9 Graph 3).

The same study also found there would need to be a significant increase in the banking sector lending rate to maintain net interest income, such that at a 25% outflow, with a 2% pts wholesale to deposit spread, lending rates would increase by 0.7% pts. (Ibid.) The possibility that banks could try to offset the higher cost of funding by engaging in riskier forms of lending could in turn create financial stability risks. (BIS Committee on Payments and Market Infrastructures: Markets Committee, "[Central bank digital currencies](#)," 12 March 2018, p 16). Reduced bank net interest income, as well as its constraining effect on lending to the real economy, could be expected to weaken financial stability if it were to impair the ability of FIs to raise capital to meet prudential capital requirements, including in times of stress.

AML

In the same vein as for the assessment of clients' solvency profile, the substitution of deposit accounts by the digital euro wallet or the reduced use of bank deposit accounts by customers could lead to a reduced knowledge of customers (KYC) and (in relation to non-bank hosted wallets) a reduced visibility on payment flows, thereby limiting banks' ability to perform AML and other compliance obligations. A CBDC which is store-of-value oriented could increase money laundering risks. These risks could be higher in a bearer-based model if it would minimize the mandate and responsibility of supervised intermediaries.

Other

Impact on capital. Banks would need to compensate for the loss of deposits with new sources of funding which would increase the costs of funding. At the same time, if banks decided to offset this cost increment by investing in assets with higher returns, which are usually riskier, this would also negatively impact capital ratios due to the incremental change in the risk weighted assets.

37. What are the risks and impact on **credit institutions** of the non-issuance of a digital euro, for example in the scenario of a successful stablecoin in the EU?

IIF Response

Stablecoins issued by non-banks could potentially have detrimental effects on credit institutions from a funding, collateral mobility, and liquidity management perspective, in some cases similar to those of CBDC, though more research is required to understand this potential. There could also be a shift from current payment solutions provided by credit institutions (among other PSPs) to stablecoins, but it would depend on the regulation of stablecoins and the ability of banks to launch and compete with similar initiatives.

Given that the regulatory schemes around both stablecoins and the digital euro are undetermined at present, it is difficult to draw conclusions on whether the risks and impacts would be more severe where both are available versus where only a successful stablecoin is available. The risks and impacts on credit institutions arising from a successful stablecoin depend on the identity and origin of the issuer(s) and the regulation of the stablecoin, including on the composition and accepted uses of its reserves, and the uptake by consumers of such stablecoin. A digital euro may be a close substitute to a stablecoin only if it has certain features (such as being natively issued on certain blockchains or types of blockchain) sought by a large cohort of stablecoin users.

The size of the risks to credit institutions from a digital euro likewise depends in large part on the digital euro design including mitigants to systemic run risk and bank deposit disintermediation risk.

38. How would a retail digital euro **without** any holding limits or disincentives for store of value function impact the following aspects of the **EU payment service / crypto-asset service providers (excluding credit institutions)**?

Please rate each aspects from 1 to 5, 1 standing for 'significant decrease' and 5 for 'significant increase'.

	1	2	3	4	5	Don't know/not applicable
Volume (value) of funds on payment accounts hosted by payment institutions, e-money institutions or crypto-asset service providers						
Volume (value) of payments initiated by payment service providers or crypto-asset service providers from third party accounts						
Direct revenue from payment or crypto-asset services						
Revenues from investing the balance of payment or crypto-asset accounts						
Revenues from data management						
Ability to perform AML and other compliance obligations						
Costs due to operational risk in retail payments and crypto-asset services						
Other (please specify)						

To the extent you deem it necessary, please explain your reasoning including whether your assessment would depend on whether the digital euro is a bearer-based instrument or account-based and provide quantitative evidence or estimates.

IIF Response

The impact on PSPs and crypto-asset service providers will depend on which value-added services intermediaries will be able to provide, and the design and technology choices embodied in the digital euro, including linkages to digital identity, DLT, programmability, etc. There will also be an impact on high-value payments if there are no limits. See further our response to question 33.

39. Where could duly licensed financial intermediaries offer value in the distribution of the digital euro?

Please rate each aspects from 1 to 5, 1 standing for 'no value' and 5 for 'very significant value'.

	1	2	3	4	5	Don't know/not applicable
Experience in on-boarding of customers						
Experience in Know Your Customer (KYC) and AML checks						
Efficient transaction verification and execution						
Experience in customer management						
Developing additional services using the digital euro						
Existing IT system for customer, front and back office services that could be adapted to the digital euro						
Other (please specify)						

To the extent you deem it necessary, please explain your reasoning and provide quantitative evidence or estimates.

IIF Response

Duly licensed intermediaries could add value in the first four categories, provided there is an attractive business model for them.

Members responded positively to the "Developing additional services using the digital euro" and "Existing IT system for customer, front and back office services that could be adapted to the digital euro" questions.

Commercial banks have gained great experience and knowledge of their relationships with customers and are well suited for providing client services and adapting to users' evolving needs. Market incentives are a powerful force driving innovation and ensure that, over time, value-added functionalities evolve along with users' demands.

Involvement of credit institutions in the distribution of the digital euro could strengthen the resilience of the entire ecosystem, give greater security to the safekeeping of the digital euro by mitigating operational risks, and provide accountable entities for regulatory requirements such as AML/CFT.

Intermediaries can increase ease of use through integration of the digital euro accounts into existing user interfaces, experiences, payment rails, and by maintaining access to digital euro balances through existing mobile apps and desktop channels that consumers already use to manage their finances.

It will be important to ensure that the ECB develops a robust and flexible core infrastructure that leaves enough room for private innovation to deploy new business models.

Any CBDC should be based on an "intermediated" system where the private sector would offer accounts or digital wallets. This public-private cooperation, often referred to as a "two-tier" CBDC, is critical to ensuring an open and competitive payment ecosystem characterized by strong innovation.

If deposits were to be made directly to a central bank, this institution would have to maintain customer support, incident reporting and transaction monitoring to minimize the levels of fraud, misuse, and money laundering in the system.

40. How much increase, do you expect, in payment service providers' (including credit institutions') expenses related to the distribution of the digital euro? Please consider all possible cost elements (e.g. front office and back office services, administrative costs, IT costs, compliance cost etc.)³³

Please rate each aspects from 1 to 5, 1 standing for 'no increase at all' and 5 for 'very significant increase'.

	1	2	3	4	5	Don't know/not applicable
One-off expenses						
Annual expenses						
Others, Please specify						

Please explain your reasoning and provide quantitative evidence or estimates/ranges on these expenditures.

IIF Response

Members proposed a wide range of responses to all three questions. This reflects that without common agreement on some minimum set of assumptions regarding the elements of the digital euro model, or identification of a variety of models against which to perform detailed assessments, it is difficult to provide even indicative estimates with any degree of confidence.

If the digital euro design differs widely from the existing payment solutions and leads to a coexistence of two very disparate payment infrastructures, the annual expenses will be dramatically increased.

Change management

If a digital euro is established, in order to keep costs under control we believe a clear change management policy should be established taking as a reference the well-established TARGET2 and SEPA Scheme management policy. Under such a policy:

- all stakeholders should be involved in the proposal and decision on changes to be made;
- all programmed changes are to be included in a single change release to be implemented at a pre-agreed time, and
- there should ideally be no more than one release per year.

³³ While costs would very much depend on the design and functionalities of a digital euro, we are looking at broad estimates and further explanation, including on cost drivers, which will inform Commission impact assessment

41. Using the digital euro, what **additional services** could your financial institution develop for your customers?

To the extent you deem it necessary, please explain your reasoning and provide quantitative evidence or estimates/ranges on the benefits expected from these additional services.

IIF response

Some members consider that a digital euro could underpin or facilitate additional services, beyond the obvious ones of custody of CBDC wallets, transaction processing relating to those CBDC wallet balances, and distribution of the digital euro to citizens/residents. Some of the use cases for payments in digital euro would exploit programmable or smart contract/DLT features, which could be conducted at the payment system level. Those use cases are listed in our answer to question 10. Other use cases could arise over time without being foreseen at present. For this to happen, it is important to ensure that the ECB develops a robust and flexible core infrastructure that leaves enough room for private innovation to deploy new business models.

In order to avoid value-added services leading to a fragmentation of the potential digital-euro-based solutions, the ECB may need to establish rules with the aim of ensuring that value-added services remain compatible with the digital euro, and those services are interoperable.

5. APPLICATION OF ANTI-MONEY LAUNDERING AND COUNTER TERRORIST FINANCING (AML-CFT) RULES

Intermediaries required to implement AML/CFT rules must conduct due diligence on their clients. These measures need to be performed for example, when a user opens an account, when transactions are carried out, or when there is a suspicion of money laundering or terrorist financing. While specific AML/CFT rules may need to be devised based on the exact design features of a digital euro, general views related to the implications of AML/CFT measures for intermediaries and estimation of compliance benefits/costs are welcome.

42. How various design models of a digital euro would impact the AML/CFT compliance costs of private intermediaries? (1 = 'no impact', 5 = 'very high increase in cost')

Design option	1	2	3	4	5	Don't know/not applicable
Account-based digital euro, available online ³⁴						
Bearer-based ³⁵ digital euro, available online						
Bearer-based digital euro, available offline						

For each option, please provide quantitative/qualitative evidence or estimates if available.

IIF Response

Our members suggested a range of responses across each category, with bearer-based digital euro, available online attracting slightly higher responses overall.

To be able to assess a difference in compliance costs related to the two online alternatives, some members feel they do not have sufficient information about the design choices. Generally speaking, intermediaries would be able to perform AML/CFT controls only if they are involved in the transaction validation. Members therefore consider it is of importance to clarify the digital euro operating model and the role of credit institutions and other PSPs in order to understand how they can play a role in AML/CFT controls.

As for the bearer-based model, the AML/CFT rules and obligations for intermediaries should be explicitly defined.

An account-based digital euro would imply approximately the same costs for private intermediaries.

³⁴ In an account-based model, payments in digital euro would be initiated by end users but transferred by supervised intermediaries managing accounts on their behalf. In this scenario, AML/CFT requirements are expected to be performed by supervised intermediaries distributing the digital euro.

³⁵ In a bearer-based model, payments in digital euro would be initiated and transferred by end users directly, without the need of a third party (supervised intermediary) playing a role in the transaction. Supervised intermediaries may be involved in the system, notably for the performance of AML/CFT requirements such as the onboarding of users, in addition to other activities such as the loading digital euro funds into digital euro wallets.

43. Intermediaries will have to perform a series of controls and checks according to AML/CFT requirements. In comparison with existing requirements applying to other means of payments, what would be the specific challenges with digital euro payments to best ensure prevention and combat of money laundering and the financing of terrorism?

IIF Response

There may be particular challenges associated with enforcing limits on CBDC wallet balances or transactions at the individual level, if the same individual is entitled to open multiple wallets across intermediaries. (A similar challenge would apply for legal entities if there were limits according to the size of the entity). Those challenges will be accentuated for individuals that choose not to apply for a European Digital Identity. Other digital trust schemes, such as BankID or the Verifiable Legal Entity Identifier (vLEI), may be useful adjuncts in this context. (Consult the IIF's Principles for Digital Trust Networks for our recommendations to ecosystem participants on these topics).

The concrete challenges will depend on design factors that are presently still open, for example on the privacy level of digital euro transactions. In case of a bearer-based digital euro, the counterparties need to be identified and combined with traditional account-based approaches. In case of a bearer-based digital euro, available offline, it is also unclear how to ensure compliance with any limits on holdings or on number of transactions.

The more integrated the digital euro is with the rest of the products and services offered by a given intermediary, the more information on the client will be available and the easier it will be to ensure compliance. To be able to play their role in AML/CFT compliance, intermediating PSPs will need to continue to have access to transaction data for security, operational, and fraud prevention reasons. In addition, a secure onboarding process, including the identification of the payee when making a transaction or payment, is essential.

It is important that the digital euro preserve the principle of "same business, same risk, same rules", and that the privacy design neither discriminates against private payment solutions nor hinders the intermediaries' ability to comply with their AML/CFT duties as obliged entities.

44. In case the digital euro provides for a functionality that would allow the user to perform **low-value transactions offline**, what challenges do you think this functionality could generate in the prevention and combat of money laundering and the financing of terrorism?

IIF Response

For resilience reasons during natural disasters or major incidents, an offline capability of any CBDC would appear to be important.

Low-value transactions could still be used to commit serious predicate offenses (e.g., online child abuse/exploitation, human trafficking, etc.) or, if multiple offline wallets can be created by the same individual, high-tech smurfing techniques and mule accounts.

AML/CFT and financial crime risks must therefore be mitigated. Potential methods could include:

- A limit to the number of consecutive offline transactions and on the amount that can be transferred;
- Holdings limits, either at the individual or device level; and/or
- Use of 'compliance vouchers' or tokens which are a verifiable credential accompanying the transaction representing that compliance checks have been undertaken upfront, when the digital euro wallet is charged for the relevant customer.

Any offline use of a CBDC needs to deal with the PSD2 provisions on strong customer authentication and dynamic linking to protect the customer from unauthorized payments. There must also be reconciliation procedures in place as soon as the system is back online.

In our view, it is desirable that the privacy design of the digital euro (including the potential offline functionality) is consistent with the overall AML/CFT framework applicable to private payment solutions, thus preserving the principle of "same business, same risk, same rules", and that the privacy design does not hinder the intermediaries' ability to comply with their AML/CFT duties as obliged entities.

Moreover, in the context of any suggestion of possibly granting higher privacy standards (quasi anonymity) to low-value transactions offline, the consistency of the AML/CFT framework should be guaranteed to all payment solutions. This means that if certain low-value payments are deemed not to carry AML/CFT risks and consequently need softer AML requirements with the digital euro, the same AML/CFT compliance should be

required for equivalent private payment solutions.

45. In your opinion, how would the risks related to money laundering and terrorism financing of a digital euro allowing the user to perform low-value transactions offline (proximity payments) compare to other payment options listed below?

Please indicate in each line your assessment of the relative risks.

	Low-value offline euro transactions less risky	digital	Low-value offline euro transactions equally risky	digital	Low-value offline euro transactions more risky	Don't know/not applicable
Digital euro online payments						
Cash payments						
Online payments in commercial bank money						

For each option, please provide quantitative/qualitative evidence or estimates if available.

IIF Response

Offline transactions appear to be riskier because they could likely only be verified after execution. We do not yet have sufficient elements to provide quantitative evidence or cost estimates.

6. PRIVACY AND DATA PROTECTION ASPECTS

The ECB's public consultation on the digital euro indicated that future users of the digital euro see privacy as one of the most important elements. Ensuring an appropriate level of privacy and data protection for the user of a digital euro is important to foster public trust in a digital euro, which underpins its adoption and use. Any processing of personal data must be in line with the Union data protection legislation, including the [GDPR](#)²³ and the [EUDPR](#)²⁴.

46. Which features could appropriately enhance the privacy and data protection of the digital euro users? Note that these features are without prejudice to the lawful grounds of processing, as specified in Article 6 GDPR and the application of AML requirements, as appropriate.²⁵

Please rate each business case from 1 to 5, 1 standing for 'not appropriate at all' and 5 for 'very appropriate'.

	1	2	3	4	5	Don't know/not applicable
Ability to mask the identity of the payer or the payee to each other ('peer-to-peer pseudonymity')						
Ability to mask the identity of the payer or the payee to the other party's intermediary ('intermediary-to-intermediary pseudonymity')						
Ability to limit the knowledge on the identity of the payer or the payee to the central bank, and/or other third party intermediaries not involved in the transaction						
Ability to completely hide the identity of the payer and payee for low-value offline transactions						

Please explain your answer to question 46:

IIF Response

Members considered appropriate the ability to limit the knowledge on the identity of the payer or the payee to the central bank, and/or other third-party intermediaries not involved in the transaction.

Members expressed disparate views (other than on the 3rd question) about the appropriateness of the different anonymity levels/use cases. They noted the Commission’s statement that “these features are without prejudice to the lawful grounds of processing, as specified in Article 6 GDPR and the application of AML requirements, as appropriate.”

Members generally feel that while privacy settings around the digital euro will need to be clarified, the starting point should be that the GDPR and EUDPR as horizontal regulations can be applied to the digital euro. They note the grounds in the GDPR for processing (including accessing, use, and transmission) of personal data are quite flexible and would normally justify a PSP intermediary accessing and processing such data in the course of executing agreed payment transactions, complying with regulations (including conducting AML checks), and otherwise with the consent of the client.

Some would seek to draw a distinction between the protection of privacy in terms of the use of customers' personal data and the concept of anonymity in the use of the digital euro for small amounts. According to some members, guaranteeing higher levels of privacy for transactions below a certain amount would assimilate the digital euro to cash and could be encouraged. See also our answer to question 44.

47. The Commission has identified a number of potential activities related to digital euro that could entail the lawful processing of personal data by either private intermediaries or central banks in charge of initiating the digital euro transactions and services. **How appropriate are those activities for the lawful processing of personal data?**

23 [Regulation \(EU\) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC \(General Data Protection Regulation\) \(Text with EEA relevance\)](#)

24 [Regulation \(EU\) 2018/1725 of the European Parliament and of the Council of 23 October 2018 on the protection of natural persons with regard to the processing of personal data by the Union institutions, bodies, offices and agencies and on the free movement of such data, and repealing Regulation \(EC\) No 45/2001 and Decision No 1247/2002/EC \(Text with EEA relevance.\)](#)

25 The processing of personal data is lawful when carried out in accordance with Article 6 GDPR. This includes, for example, the processing of personal data for the performance of a task carried out in the public interest (e.g. AML/CFT requirements) or for the performance of a contract.

Please rate each activity case from 1 to 5, 1 standing for ‘not appropriate’ and 5 for ‘very appropriate’.

Purposes	1	2	3	4	5	Don't know/not applicable
Fight against money laundering, organised crime / terrorism						
Enforcement of tax rules						
Payments settlement purposes						
Management of operational and security risks						
Enforcement of potential holding limits						
Additional innovative online services and functionalities						
Other, please specify						

To the extent you deem it necessary, please explain your reasoning and provide quantitative evidence or estimates.

IIF Response

Members responded to all questions with positive responses, with the exception of enforcement of potential holding limits, where responses ranged from neutral to positive. The same response could be expected to the enforcement of potential limits on transactions, accumulations, or wallets.

Members recall the horizontal nature of the GDPR and EUDPR and locate the legal basis for their own and the central bank’s processing of personal data in the course of digital euro transactions in Article 6 of the GDPR and its equivalent in the EUDPR.

All data processing should be GDPR- or EUDPR-compliant, meaning that in some cases data are processed to comply with legal obligations, while for the initial provision of innovative services, user consent would be required.

48. Should the central bank be able to access personal data for the purposes listed below?

	Yes	No	Don’t know/not applicable
Payments settlement purposes			
Operational resilience/security risks assessment and mitigation purposes			
AML/CFT			
Fraud			
Other, please specify			

To the extent you deem it necessary, please explain your reasoning and provide quantitative evidence or estimates.

IIF Response

Should the central bank directly hold digital euro accounts with citizens, the answer would be yes in all cases. The IIF, however, discourages this and believes an intermediated model is necessary. In the case of an intermediated model, there is a range of views on this question among members, including as to whether central banks require access to personal data for any purpose.

Restrictions on individual or corporate holdings, assuming multiple intermediaries, or applying to offline capability, may require the processing of personal data by the central bank or another infrastructure provider charged with enforcing those limits. In the case that pseudonymous identifiers are used, careful consideration would be required whether such identifiers would constitute personal data within the scope.

As regards the settlement of payments, it depends on what the operating model would be. The processing of users’ personal data may not be necessary.

There is consensus that any personally identifying information held by the operator(s) of the core CBDC infrastructure should be subject to a legally binding privacy regime, such as that found in the EUDPR.

49. Should users of a digital euro have the possibility to ‘opt-in’ and allow their personal data and payments transaction data to be used for commercial purposes, for example to receive additional services from intermediaries?

- Yes
- No
- Don’t know/no opinion

To the extent you deem it necessary, please explain your reasoning and provide quantitative evidence or estimates.

IIF response

The digital euro design should ensure that regulated intermediaries use data in a lawful way, ensuring both security and privacy. This is compatible with allowing customers to decide to share their payments data on a voluntary basis to benefit from value-added services. It is also the approach promoted by the European Commission itself through the PSD2 and now being extended with its proposed Open Finance framework.

7. INTERNATIONAL PAYMENTS WITH A DIGITAL EURO

While the digital euro is primarily aimed to be used within the euro area, questions about potential cross border use within or outside the EU (including by tourists and businesses) arise. While this may bring user benefits, its impacts on third countries' economies and monetary systems may be significant. While the ECB's consultation asked about the use outside of the euro area, we would like to better understand which use cases could be desired in the international context.

50. How desirable would it be that the digital euro is available for the following users and use cases?

Please rate each use case from 1 to 5, 1 standing for 'not desirable at all' and 5 for 'very desirable'.

	1	2	3	4	5	Don't know/not applicable
Euro area (EA) residents and intra EA payments						
Non-resident visitors to the EA (tourism dimension)						
Selected non-EA residents for trade purposes with third countries						
All international retail transactions with third countries without limits on residency and geography of transactions (trade dimension)						
Other Please specify						
Inter-regional transfer for EA non-residents						
Payments for EA studies by non-EA students						
Payments by EA institutions						

To the extent you deem it necessary, please explain your reasoning and provide quantitative evidence or estimates.

IIF Response

Our members were generally less supportive of the later use cases in the list provided by the question than the first use case.

It should be clarified whether by the term "third countries" the EC intended to include non-EA countries within the EU.

Interoperation of a digital euro with other EU digital currencies will be an important dimension to consider going forward.

The question does not address the remittance use case, possibly implying that digital euros are not foreseen as an important channel for this to take place, perhaps for AML reasons. Further consideration could be given to this question.

Considering the nature of cross-border payments that involve different jurisdictions and currencies, it is key that all central banks that would potentially issue a CBDC define common rules and standards, leveraging on the work being done at the Bank for International Settlements level.

If the digital euro is accessible to non-residents, spillover effects are difficult to avoid, but limiting the cross-border use would be difficult in practice and would require some modality of capital controls. This would have the potential to increase the cost of smaller cross-border payments, contrary to the G20's ambitions in this area.

The ECB should be aware of and involved in the development of EU-wide and global standards in order to avoid having the initial design decisions hinder the potential future interoperability of the digital euro with other CBDCs, including any non-EA, intra-EU CBDCs (e.g. digital krona).

Also, enforcement of any geographic limits on availability of a CBDC will rely on maintaining accurate data on country of residence of all wallet holders, similar to tax enforcement issues. This compliance burden has the potential to add further to the cost of the digital euro. There could also develop a ‘grey market’ in wallets held by EU residents or advisers, including corporate entities, on behalf of non-residents through undeclared arrangements.

We also recall our answer to question 1, in which we stated, “Our answering any question should not be seen as the expression of a settled view whether a digital euro, or any particular design, would be overall positive for the European economy, or for international finance.”

51. If the digital euro is available for EU citizens living outside of the euro area, how do you assess the impact (risks) of the following aspects in these **non-euro-area** Member States?

Please rate each aspect from 1 to 5, 1 standing for ‘no negative impact/ increase in risk’ and 5 for ‘very significant negative impact/increase in risk’.

	1	2	3	4	5	Don't know/not applicable
Financial disintermediation						
Financial stability						
Monetary autonomy						
Capital movements						
Others Please specify						

To the extent you deem it necessary, please explain your reasoning and provide quantitative evidence or estimates.

IIF Response

The size of the effects depends significantly on a few factors including: controls (if any) on the number of wallets that non-residents can hold across intermediaries, overall holdings limits, and overall transactions limits.

On the one hand, EU citizens living in Member States outside of the euro area holding digital euros could generate a certain risk of financial disintermediation and/or systemic run risk in those Member States. It is possible that if holdings of digital euros were to be high, the monetary autonomy and financial stability of a non-euro-area Member State could be at risk.

On the other hand, digital tokens have many features – real-time settlement, traceability and programmability – that if applied to cross-border payments could significantly improve both the quality of the service and the associated risks. However, we note some of these features could also be available using properly regulated private forms of digital money.

Overall, considering that the digital euro acceptance network would be focused on Euro Area countries, negative impacts on regulated entities in a non-euro Member State should be limited if its citizens hold some digital euros, in the presence of a well-enforced holdings limits.