

## EUROSYSTEM QUESTIONNAIRE

POTENTIAL INTEREST IN THE EUROSYSTEM PROVIDING EUR  
CENTRAL BANK MONEY SETTLEMENT OF WHOLESALE  
TRANSACTIONS IN THE PAYMENTS, SECURITIES SETTLEMENT AND  
COLLATERAL MANAGEMENT DOMAINS USING NEW TECHNOLOGIES  
SUCH AS DISTRIBUTED LEDGER TECHNOLOGY (DLT)

### AMAFI comments

## INTRODUCTION

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**Association Française des Marchés Financiers (AMAFI)** is the legal trade organisation representing financial market participants in France. AMAFI members are investment firms and credit institutions (French, European and global firms), operating in and/or from France (corporate and investment banks (CIBs), brokers-dealers, market-infrastructures, exchanges and private banks).

AMAFI closely monitor the development of innovative technologies in the field of financial markets which is an important issue for its members.

AMAFI has set up a dedicated working group to work on these topics and would be more than happy to have further discussions with the Banque de France.

AMAFI welcomes the opportunity to respond to this questionnaire on the potential interest in the Eurosystem providing EUR central bank money settlement of wholesale transactions in the payments, securities settlement and collateral management domains using new technologies such as Distributed Ledger Technology (DLT)

## INTRODUCTORY REMARKS

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AMAFI supports the creation of central bank money in tokenised form for wholesale purposes (“W-CBDC”). For regulatory and operational purposes, a native delivery-versus-payment is not currently feasible directly on a distributed ledger technology (DLT), which lessens the range of potential experiments and learnings based on these new technologies to improve securities settlement processes within the European Union.

AMAFI welcomes the adoption of the Regulation (EU) 2022/858 of the European Parliament and of the Council of 30 May 2022 on a pilot regime for market infrastructures based on distributed ledger technology (the EU “DLT Pilot Regime”). The EU DLT Pilot Regime will grant limited and targeted exemptions to specified EU financial regulations to allow the use of distributed ledger technology in the issuance, trading and settlement of listed financial instruments, while limiting the scope of the EU DLT Pilot Regime to non-systemic amount thresholds and mitigating the main risks related to the experiments realized under this EU DLT Pilot Regime. While the EU DLT Pilot Regime provides legal certainty for security tokens’ issuances and trading experiments within the EU, under the supervision of both the EU financial market regulator ESMA and the national competent authorities (NCAs), this new regulation does not provide sufficient

regulatory and operational solutions to experiment the payment of securities (with settlement finality) in central bank money directly on DLT.

The main elements in the AMAFI response to this ECB question on W-CBDC thereafter are the following:

- The most-secured settlement tool to study the potential efficiency of DLTs in wholesale transactions would be the creation of central bank money in tokenised form (as envisioned in Article 5(8) of the EU DLT Pilot Regime), while a 'trigger solution' would not bring an effective solution to ongoing experiments due notably to the lack of "settlement finality" on DLT.
- Market participants would benefit from new public-private experiments on W-CBDC in a 12-to-18 months period to keep pace with the DLT Pilot Regime timeframe, potentially with cross-border assessments between central banks, as experimented previously by the French central bank in 2020-2021.
- Given the possibility that no industrial W-CBDC may be available at the entry into force of the DLT Pilot Regime, it is possible that financial actors may need to create DLT-based settlement assets for wholesale purposes, notably under the form of commercial bank money in tokenised form, in the first experiment stages of the EU DLT Pilot Regime. Given stable coins' volatility, we do not see this as a long-term solution and we urge the Banque de France to swiftly implement W-CBDC.

## RESPONSES TO THE EUROSISTEM QUESTIONS

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### **A. Identifying and understanding in general, from your financial market stakeholder's point of view, market / industry uptake for the settlement of wholesale transactions that uses new technologies, such as DLT**

1. **Do you in general expect a significant financial industry uptake regarding the use of new technologies, in particular distributed ledger technologies (DLT), for the purpose of settling wholesale financial transactions? Y/N?**

Yes

2. **If "Yes", what might be the key drivers for that? Please elaborate.**

DLTs could represent a significant boost for the development of native EU digital capital markets and the competitiveness of EU financial actors in the digital era.

Innovation has always been a key component of financial industry activity. Securities have been dematerialised since the 1980's, but the digitisation of securities markets is still an ongoing process. Distributed ledger technologies could foster the feasibility of a fully digital delivery versus payment of securities, by bridging both transaction legs and providing settlement finality within a single set of technologies, by eliminating unnecessary costs and by reducing potentially DvP-related risks (notably through the reduction of settlement time). Programmability of the wholesale CBDC functions due to smart contract structuring could also foster the realisation of AML-CFT checks by regulated entities and the aggregate analysis of market data by supervisors (cf. the BIS ongoing research on "embedded supervision").

**3. What stages and time horizon do you generally anticipate for such uptake to happen? Please elaborate.**

Securities settlement is intrinsically linked to the architecture of capital markets (market infrastructures, etc.). Therefore the process of experimenting distributed ledger technologies for wholesale transactions will require the necessary time to experiment and conclude on the potential inputs from these technologies. To this extent, the DLT Pilot Regime regulation adopted at EU level in 2022 is a key milestone for market participants in the EU to experiment the use of these technologies for listed securities' trading and settlement. Once the first conclusions will be made on the DLT Pilot Regime after 2023, further discussion will be required to adapt EU market infrastructure regulations (notably CSDR). In the event DLT Pilot projects are developed by substantial EU market participants in 2023, this further process could arise in the five years to come.

As a 5 year-period is a short period for changes related to market infrastructures and settlement processes in capital markets, and in order to be aligned with the "DLT Pilot Regime" implementation timeframe, it is crucial that the ECB and national central banks launch in a 12-to-18 months period experimentations based on public-private partnerships if the EU wants to remain ahead in the international competition in this new ecosystem.

**4. In your / your members' view, which type of market segments / assets / financial transactions / participants might be most affected by the use of new technologies, such as DLT? Please elaborate on / substantiate your views and expectations.**

In order to foster experiments and to position EU market participants vis-à-vis other regional initiatives in the US and Asia, it would be really important for banks and financial institutions to be in capacity to experiment wholesale settlement assets based on DLT for each type of financial instruments listed in the EU MiFID 2 Directive 2014/65 (Annex I Section C), i.e. bonds, equities, fund units and different types of derivatives. Similar experiments are already realised in the US (DTCC use cases, etc.) and the EU should remain at the forefront of these market analyses.

**5. In your / your members' view, which part(s) of the financial transaction value chain might be most affected by the use of new technologies, such as DLT? Please distinguish between payments and securities and elaborate on / substantiate your views and expectations.**

The whole lifecycle of securities (primary market / secondary market / post-market) could be enhanced by a fully native digitisation process.

During the structuring phase, securities issuance could be facilitated by the provision of automated functions encoded in computer code within the "smart contracts". The smart contract would then run the lifecycle of the securities and could be replicated easily to minimise the issuance costs and DvP timing. These structuring capabilities could have a substantial impact on repo markets and collateral management and maximise the possibility of a natively digitised onchain DvP (reducing potentially counterparty risk).

Post-market processing of securities is still subject to national fragmentation in the EU and to burdensome verification processes. More work still needs to be done in order to achieve full harmonization in issuance, processing and servicing of different types of securities in the EU. DLTs could be used to minimise the number of intermediaries and to foster the traceability and auditability of the flows for wholesale transactions. A part of the post-trade market processing could be integrated into the trading process, thus reducing fragmentation whilst further securing the entire process.

As for the market transactions on securities, notably the functioning of trading venues, various assessments are made on the feasibility of automating the market making activities and the order machine functioning, but it is too soon to conclude on a systemic use of decentralised technologies for securities' negotiation activities.

6. **If you / your members do not expect a significant financial industry uptake regarding the use of new technologies, in particular distributed ledger technologies (DLT), for the purpose of settling wholesale financial transactions, what could, in your view, be the key challenges and/or impediments and/or barriers for new technologies to take up, and why? Please elaborate on / substantiate your views and expectations.**

AMAFI is not in a position to answer this question.

7. **In your / your members' view, would the provision of a dedicated settlement arrangement in EUR central bank money based on new technologies enhance the adoption of new use cases and help expanding implementation efforts by your financial market stakeholder's?**

A wholesale euro-based central bank money issued/registered on DLT could be the game changer of innovative business models based on DLT. Given the fact that wholesale transactions raise much less regulatory issues than retail ones (privacy, AML-CFT, etc.), and that the users of Wholesale CBDC would be already supervised by the Eurosystem (banks), it would be much easier for EU central banks and the Eurosystem to experiment Wholesale CBDCs than Retail CBDCs in the short term.

Many EU countries (France, Germany, Luxembourg) have already enacted specific laws providing the possibility for securities to be issued and traded on a DLT. But for the time being, for regulatory and operational reasons, the settlement of these DLT-based securities is realised outside of the DLT, therefore limiting the reach of experiments realised by EU regulated entities on DLT-based transactions. The experiments on Wholesale CBDC realised by Banque de France in 2020-2021 with various regulated stakeholders have been an important first step towards further exploration on these new technologies and should be replicated in the future to position EU future leaders of these new markets.

For EU market participants, the possibility to bring both legs of securities transactions on the same technology or on interoperable technologies could facilitate new end-to-end offer to issuers and investors, as detailed in the "DLT Pilot Regime" regulation (DLT MTF, DLT SS, DLT TSS, etc.).

**B. Identifying and understanding what is / might be your / your member's concrete interest in EUR central bank money settlement of financial transactions that uses new technologies, such as DLT, and what would be your / your members' concrete and potential new use cases**

8. **What are the use cases / transaction types for which you / your members use EUR central bank money for settling the cash leg of financial transactions today? (cash leg of wholesale securities transactions, cash leg of wholesale FX transactions, cash leg of wholesale money market transactions, wholesale funding transactions / settlement of positions of ancillary large value or retail payment systems, settlement of wholesale clean payments, margin calls, etc.).**

Cf. responses to questions 1, 2 and 4.

DLTs are technological tools adapted to EUR central bank money settlement of financial transactions activities and can foster a new step towards assets digitisation (after the dematerialisation since the 80's).

9. **What are the use cases for which you / your members do not use EUR central bank money for settling the cash leg of financial transactions today? Why is this so ? Please elaborate.**

One major impediment of current EUR central bank money systems is that the RTGS settlement system is not open 24/7/365.

10. **If you / your members use settlement assets other than EUR central bank money for settling the cash leg of financial transactions today, what is your / your members' concrete level of interest in / need for settling these transactions in EUR central bank money at some point in the future?)? Please elaborate on / substantiate your interest/need.**

AMAFI is not in a position to answer this question

11. **What is your / your members' concrete interest in / need for using new technologies for the settlement of your financial transactions in EUR central bank money? Do you distinguish between short-, medium- and long-term interest/need? Please elaborate on / substantiate your interest/needs**

Some AMAFI members have participated in 2020-2021 in the Wholesale CBDC experimentations with the French central bank for settling the cash leg of financial transactions based on DLT.

In the short term, as various central banks and non-EU market participants (e.g. the EuroCoin created by US company Circle, the JPM Coin created by J.P. Morgan, etc.) are working to develop settlement assets in tokenised form, there is a clear interest from the EU private sector to remain at the forefront of such experiments, to facilitate the realisation of subsequent experimentations on W-CBDC and to respond to clients' requests to experiment these new technologies.

Beyond the issue of positioning EU financial market participants, the interest of such experiments would be mainly to reduce post-market costs with a native digital W-CBDC based on DLT.

12. **What concrete and potential new use cases do you / your members perceive / expect emerging for EUR central bank money settlement due to market developments, in particular due to the potential uptake of the use of new technologies, such as DLT, in and by the market? Please, list these use cases and elaborate on them**

Please see our other answers

13. **Based on the concrete and potential new use cases you / your members expect emerging for EUR central bank money settlement that uses new technologies/ DLT, would you / your members expect such new use cases to emerge independently of each other in different parts of the financial value chain (e.g. different solutions / DLT platforms for trading than for settlement) OR would you expect such use cases to rely on the same integrated infrastructure (e.g. trading, reconciliation / matching, clearing and settlement via a single DLT platform or protocol)?**

Various potential architecture choices will be experimented in the years to come, notably through the DLT Pilot Regime, including the possibility of the trading and settlement services being provided within a single integrated solution under the "DLT TSS" status.

It is unclear which architecture will prevail in the future and it is important that market participants have the possibility to experiment the efficiency possibilities related to these new technologies, including on the cash leg of securities transaction, on the basis of iterative public-private discussions and shared assessments.

14. **If you / your member consider using new technologies such as DLT for the settlement of financial transactions at some stage in the future, would you consider using other settlement assets (e.g. stable coins or commercial bank money) for the cash leg in the absence of an appropriate dedicated settlement arrangement in EUR central bank money?**

In the event where no available Wholesale CBDC could be used for settlement purposes by market participants in a 12-to-18 months period (i.e. before the entry into force of the EU DLT Pilot Regime), the private sector would have to develop other types of settlement assets to allow a native delivery-versus-payment on the DLT.

Under the DLT Pilot Regime regulation (article 5(8)), two main alternative possibilities could be envisioned: either a commercial bank money in tokenised form, or an e-money token. There are uncertainties related to the use of these two types of assets for wholesale settlement, as there is lack of clear doctrine on commercial bank money for wholesale purposes in the EU, and as e-money token has been initially created for retail purposes only.

**15. What market developments would make you / your members consider using a dedicated settlement arrangement in EUR central bank money based on new technologies for the settlement of financial transactions at some point in the future that are not settled in EUR central bank money today? Please elaborate.**

AMAFI is not in a position to answer this question.

**C. Identifying and understanding, from your financial market stakeholder's point of view, the possible merits and potential challenges of using new technologies, such as DLT, for EUR central bank money settlement of existing and potential new use cases (as identified in B.) at some point in the future**

**16. In your / your members' view, what might be the potential / possible benefits for (a) financial market stakeholders; and (b) the economy as a whole of using new technologies, such as DLT, for EUR central bank money settlement for existing and potential new use cases? If your / your members' answers differ depending on the use case, please elaborate on / substantiate your answers accordingly.**

Please refer to our answer question 1.

**17. In your / your members' view, what might be the potential / possible challenges resulting from the use of new technologies, such as DLT, for EUR central bank money settlement for existing and potential new use cases? For example, what might be challenges for the overall functioning of financial markets, liquidity management, financial market integration/harmonisation/standardisation, efficiency, others, if both DLT- and non-DLT based solutions were used at the same time? If your / your members' answers differ depending on the use case, please elaborate on / substantiate your answers accordingly.**

Financial market standardisation and interoperability are the main challenges with regard to these new technologies.

**18. In your / your members' view, would you / your members think that it is possible (might not be possible) to achieve these benefits / overcome potential challenges with the architecture of the existing EUR central bank money ecosystem (TARGET Services and applicable interfaces) in the long term? Please, elaborate on / substantiate your views and expectations.**

AMAFI is not in a position to answer this question

**D. Identifying and understanding, from your financial market stakeholder's point of view, the potential impact on the existing TARGET Services and other consequences, if new technologies, such as DLT, were used for the EUR central bank money settlement of existing and potential new use cases (as identified in B.) at some point in the future**

- 19. In your / your members' view, what might be the potential impact (policy, operational, legal) on the existing ecosystem of EUR central bank money settlement (i.e. the way stakeholders today settle in EUR central bank money) , if new technologies, such as DLT, were used for the EUR central bank money settlement in the concrete existing and potential new use cases at some point in the future? Please, elaborate on / substantiate your views and expectations.**

From a policy perspective, the issue of technological neutrality is key. It is important for the ECB, the Eurosystem and the private sector to experiment different kinds of DLTs (public, consortium, private, etc.) and not to choose ab initio what is the correct DLT without having the relevant feedbacks from the private-public W-CBDC experimentations of national central banks and regulated entities in the years to come.

- 20. In your / your members' view, which existing and potential new use cases for EUR central bank money settlement of financial transactions might in the short- to medium-term benefit from using new technologies together with the existing TARGET Services, i.e. from using both the existing TARGET Services and a DLT-based mechanism that is connected to TARGET Services ('trigger solution')?**

The main use case for DLT-based settlement would be to bring the settlement finality within a single system. A 'trigger solution' would instead decorrelate the cash leg and the security leg of a transaction, and would use two different systems for the delivery-versus-payment of securities registered on DLT. Therefore a 'trigger solution' would bring additional complexity than the ongoing functioning of Target 2 Securities and won't solve the legal certainty issue related to "settlement finality" on new technologies, while the whole purpose of a DLT-based DvP would be to reduce counterparty risk and settlement time and to facilitate the effective realisation of DvP of digitized financial instruments.

- 21. In your / your members' view, what interface(s) would be required / warranted to enable a 'trigger solution' for the transfer of assets or processing of smart contracts in a DLT system to trigger the corresponding payment transaction in EUR central bank money in TARGET Services? If you / your members think that these interfaces would (need to) be different from the ones used for TARGET Services today, why do you / your members think so? Please, elaborate on / substantiate your views and expectations. If your / your members' answers differ depending on the use case, please elaborate on / substantiate accordingly.**

AMAFI is not in a position to answer this question.

- 22. In your / your members' view, for which existing and potential new use cases do you believe EUR central bank money settlement of financial transactions might benefit from a full DLT solution (DLT € wCeBM, i.e. central bank money made available as a native digital asset, i.e. in the form of a 'DLT token'), at some point in the future?**

A wholesale EUR central bank money based on DLT, under the form of a native digital asset, could be a game changer of the current experiments to digitize securities through DLTs, as it would allow an almost instantaneous delivery-versus-payment process.

As part of the preparation for the "Pilot Regime" which will start on March 23, 2023, several scenarios could be envisioned, and all of them would be enhanced by the creation of on a tokenized version of euro for the settlement of tokenized securities to offer a natively digital offer to clients.

23. In your / your members' view, would you think that a 'trigger solution' might bring the same benefits as a full DLT solution (*DLT € wCeBM, i.e. central bank money made available as a native digital asset, i.e. in the form of a 'DLT token'*) in the medium-to-long-run? Please, elaborate on / substantiate your views.

As indicated in Question 20 above, a 'trigger solution' would bring additional complexity than the ongoing functioning of Target 2 Securities and won't solve the legal certainty issue related to "settlement finality" on new technologies, while the whole purpose of a DLT-based DvP would be to reduce counterparty risk and to facilitate the effective realisation of DvP of digitized financial instruments.

