

Digital euro glossary

Term	Definition
digital euro	A retail central bank digital currency (CBDC) that the Eurosystem may issue in the future.
retail central bank digital currency (rCBDC)	A digital central bank liability offered to the general public (e.g. citizens, businesses and government entities) for retail payments.
wholesale central bank digital currency (wCBDC)	A digital central bank liability used by eligible entities (usually banks) for wholesale payments.
synthetic central bank digital currency (sCBDC)	A digital asset issued by private firms (i.e. not by a central bank) and backed by corresponding central bank liabilities. It is therefore not a CBDC but a stablecoin , or a type of electronic money (e-money).
acquirer	<p>An entity participating in a payment scheme, in accordance with the access criteria, as a (supervised) intermediary which has contractual relationships with merchants for enabling electronic transfers of funds to be executed at the point-of-sale (POS) or in e-commerce. The contractual relationships reflect the payment scheme's rules and regulations. An acquirer enables merchants to participate in the payment scheme.</p> <p>In the context of the digital euro project, an acquirer therefore performs the role of a user manager for the payment scheme, enabling merchants to access the retail CBDC environment.</p>
actor	<p>A stakeholder in an environment that uses or provides services and can have one or more roles.</p> <p>In the context of the digital euro project, the main actors in a retail CBDC environment are end users, (supervised) intermediaries and the central bank.</p>
anonymity	A state in which no personal data relating to an identifiable living natural person have been obtained, or in which the available information does not permit the natural person to be identified .
anti-money laundering (AML) check	A check aimed at preventing a financial service from being used to disguise illegally generated income as legitimate and to detect such illegal use. As a minimum, the check includes customer due diligence and the monitoring, detection and reporting of suspicious transactions.
assisted use	Any situation in which an end user accesses retail CBDC services via a user manager , e.g. by visiting its branch or using its telephone service, instead of relying on digital interaction.

Term	Definition
authentication	A security mechanism for verifying the identity of an individual or other entity (including verification by means of a computer or computer application).
authorisation	The process of ensuring that an authenticated individual or entity has the permission to conduct certain activities.
back-end infrastructure	All hardware and software components (e.g. servers, applications) necessary for data storage and processing. The infrastructure interacts via defined interfaces with front-end services or other back-end services.
balance	A single amount representing the value aggregation of all funds or assets available to an end user via an account, wallet or device. These funds or assets can be recorded for example as a single account balance, as digital bills or as UTXOs . The balance increases or decreases as the result of a payment transaction, funding or defunding .
Blockchain	A type of distributed ledger technology (DLT) in which transactions are validated and recorded in a distributed ledger in separate but connected batches known as blocks.
business-to-business (B2B) payment	A transfer of funds from one business customer to another.
central bank money (CeBM)	Central bank liabilities, in the form of either banknotes, bank deposits, wholesale CBDC or retail CBDC held at a central bank, which can be used for settlement purposes.
centralised infrastructure	A back-end infrastructure controlled by an operationally single entity, possibly using a distributed system .
centralised settlement model	A settlement model referring to an operationally single entity performing the technical task of settlement validation and recording in its centralised infrastructure .
commercial bank money (CoBM)	Commercial bank liabilities in the form of deposits held at a commercial bank which can be used for settlement purposes.
confidentiality	An obligation enforced through a set of rules and operational measures which ensure that data are only accessible and interpretable by authorised users within a specific context.
countering the financing of terrorism (CFT) check	A check aimed at countering the solicitation, collection and provision of funds that may be used to support terrorist acts or organisations. As a minimum, the check includes customer due diligence and the monitoring, detection and reporting of suspicious transactions.

Term	Definition
cross-border payment	A payment in which the supervised intermediaries of the payer and the payee are in different countries.
cross-currency payment	A payment that requires debiting and crediting in different currencies.
crypto-asset	An asset recorded in digital form and enabled by the use of cryptography that is not and does not represent a financial claim on, or a liability of, any identifiable entity.
cryptography	Refers to techniques and algorithms that can be applied to data to ensure properties such as confidentiality and data integrity. It is used also to provide secure authentication and non-repudiation of messages.
customer-to-business (C2B) payment	A transfer of funds from a natural person to a business. Typical C2B payments include point-of-sale (POS) payments in shops and e-commerce payments over the internet.
cyber resilience	The ability to anticipate, withstand, recover from and adapt to adverse conditions, stresses, cyberattacks or compromises that use or are enabled by cyber resources.
decentralisation	The process of transferring a degree of control over an activity, service or organisation from one single entity to several entities.
decentralised infrastructure	A back-end infrastructure for which control is shared between multiple operationally independent entities.
decentralised settlement model	A settlement model referring to multiple operationally independent entities (either supervised intermediaries only or supervised intermediaries and a central bank) performing the technical task of settlement validation and recording in a decentralised infrastructure , in line with rules set by a central bank.
defunding	<p>The process of reducing an end user's holdings in their account, wallet or device.</p> <p>In the context of the digital euro project, this process involves converting retail CBDC holdings into commercial bank money (CoBM) or bank notes, i.e. central bank money (CeBM).</p> <p>See funding, waterfall approach and reverse waterfall approach.</p>
digital bill	A digital representation of an asset of fixed value whose owner changes as the result of a payment transaction. Like cash, but unlike UTXOs , digital bills come in a fixed set of denominations (e.g. €10, €20).
digital wallet	A service accessed through a device which allows the end user to securely access and manage funds.

Term	Definition
direct access	A type of access to a retail CBDC for which the central bank provides onboarding , distribution and settlement services directly to end users .
distributed ledger technology (DLT)	A family of technologies aiming to solve the problem of reaching a consensus between participating entities, which is required for validating and recording data in multiple places (i.e. in the distributed ledger) without relying on central coordination.
distributed system	An infrastructure where multiple independent components appear as a single coherent unit to its users, which requires these components to collaborate on their tasks, typically via the exchange of messages over a network. These components can be made redundant and/or be separated geographically to increase performance, scalability, availability and/or resilience, e.g. to avoid single points of failure or to mitigate geographic concentration risks. The components can be operated either by a single entity – resulting in a centralised infrastructure – or multiple entities – resulting in a decentralised infrastructure .
ecological footprint	A measure of the demand placed by humans on natural capital, i.e. the quantity of natural resources it takes to support people or an economy.
electronic payment instrument (EPI)	A personalised device (or set of devices), software and/or set of procedures agreed between the end user and the payment service provider to request the execution of an electronic transfer of funds. Typical examples of electronic payment instruments are payment cards, credit transfers, direct debits and electronic money (e-money) transfers.
end user	A natural or legal person making use of an electronic payment instrument (EPI) governed by a payment scheme/arrangement for the transfer of funds, whether in the capacity of payer , payee or both.
euroisation	The legal or de facto replacement of a domestic currency by the euro.
front-end layer	All elements (applications, components, schemes, software, devices, etc.) necessary to provide a service to end users . The front-end layer interacts via defined interfaces with back-end services.
funding	<p>The process of increasing an end user's holdings in their account, wallet or device.</p> <p>In the context of the digital euro project, this process involves converting liquidity – commercial bank money (CoBM) or bank notes, i.e. central bank money (CeBM) – into retail CBDC holdings.</p> <p>See defunding, waterfall approach and reverse waterfall approach.</p>

Term	Definition
government-to-person or business (G2X) payment	A transfer of funds from a government to a natural person or business. Typical G2X payments include transfers, subsidies and rebates paid by a government to citizens or businesses.
identification	The process of determining a living natural person’s identity from their available personal data .
individual holding limit	The maximum amount of a retail CBDC that can be held by each end user .
initiation channel	A device used to initiate a transaction, such as a point-of-sale (POS) terminal, mobile device, personal computer or automated teller machine (ATM).
intermediary	An entity acting between a central bank and end users in a retail CBDC environment . Intermediaries can have different roles , may or may not be supervised , and they may be credit institutions or payment service providers .
intermediated access	A type of access to a retail CBDC in which the central bank relies on third parties to provide onboarding , authentication , distribution or other payment services to end users .
interoperability	The set of arrangements/procedures that allows the settlement of payments across different systems.
issuer (of payment instruments)	<p>An entity participating in a payment scheme, in accordance with the access criteria, as a (supervised) intermediary which has contractual relationships with retail CBDC holders for the provision of electronic payment instruments (EPIS) for enabling electronic transfers of funds to be executed. The contractual relationships reflect the payment scheme’s rules and regulations. An issuer (of payment instruments) enables the retail CBDC holder to participate in a payment scheme.</p> <p>In the context of the digital euro project, an issuer (of payment instruments) therefore performs the role of a user manager for the payment scheme, enabling retail CBDC holders to access the retail CBDC environment.</p>
know your customer (KYC) check	A check aimed at identifying end users and any risks attached to providing services to them. The check is also aimed at ensuring that these services are used for legitimate purposes.
ledger	A record of events and their outcomes, such as transactions between payers and payees and the resulting holding balances.
legal tender	A means of payment whose acceptance is mandatory by default (i.e. unless its acceptance is restricted for reasons of public interest or waived by contractual agreement), at full face value, for the discharge of payment obligations.

Term	Definition
local storage	The secure storage and computational capabilities of an end user's physical devices, such as smart cards or mobile phones.
local storage settlement model	A settlement model referring to secure elements in the end user's devices performing the technical tasks of settlement validation and recording , in line with rules set by a central bank.
machine-to-machine (M2M) transfer	A transfer of funds from one machine to another, requiring a transfer solution that can work without human interaction. Such M2M transfers include for example payments made in the Internet of Things (IoT).
merchant	A business end user , i.e. a natural or legal person (which may be a public sector organisation), (i) receiving funds from a retail CBDC holder for an underlying business transaction resulting from selling goods or providing services or (ii) refunding or disbursing funds to a retail CBDC holder , e.g. for the return of goods or pay out of winnings. Depending on the payment transaction context, a merchant can act as a payer or as a payee .
multi-factor authentication (MFA, 2FA)	The process of validating users' identities through two or more authentication methods (factors), e.g. a card and a password.
offboarding of an end user	A set of activities conducted by the user manager to revoke an end user's access to a payment solution.
offboarding of an intermediary	A set of activities conducted by a back-end infrastructure operator to revoke an intermediary's access to the infrastructure.
offline payment	A payment in which settlement takes place between payer and payee with no need for network connectivity at the time of their interaction.
onboarding of an end user	A set of activities conducted by the user manager to enable an end user to access a payment solution.
onboarding of an intermediary	A set of activities conducted by a back-end infrastructure operator to enable an intermediary to access the infrastructure.
online payment	A payment in which settlement requires that at least one of the payer or the payee is connected to a network.
parallel infrastructure	An additional infrastructure, alongside the core (or primary) infrastructure, that is designed to improve overall resilience. Also called a redundant infrastructure or non-similar facility.
payee	A party in a payment transaction which receives funds from the payer . In the context of the digital euro project, a payee might be a retail CBDC holder or a merchant , depending on the payment transaction.
payee-initiated transaction	A transaction involving an instruction from a payee to its acquirer to debit a payer .

Term	Definition
payer	<p>A party in a payment transaction which agrees to the transfer of funds to the payee.</p> <p>In the context of the digital euro project, a payer might be a retail CBDC holder or a merchant, depending on the payment transaction .</p>
payer-initiated transaction	<p>A transaction involving an instruction from a payer to its issuer (of payment instruments) to credit a payee.</p>
payment authorisation	<p>The consent given by a payer or a third party acting on behalf of that payer to transfer funds.</p>
payment scheme	<p>A set of formal, standardised and common rules enabling the transfer of funds between end users via electronic payment instruments (EPs). It is managed by a governance body. The scheme rules are applicable to all payment service providers (PSPs) participating in the payment scheme. They describe the procedures and functions which enable payers and payees to use or accept electronic payment instruments (EPs). The functions cover, as a minimum, the governance of the scheme and may also include payment service provision, payment guarantee, processing, clearing or settlement. The functions of the payment scheme, other than governance, can be provided by the governance body itself, participating payment service providers or technical service providers, or other third parties.</p>
payment scheme governance body	<p>An entity responsible for managing a payment scheme. It may outsource functions/functionalities or rely on third parties to perform them, but it remains ultimately responsible for ensuring adherence with the PISA framework. It is expected to take all necessary and appropriate measures to mitigate the risks the payment scheme is exposed to (legal risks, business risks, operational risks including service provision and cyber risks, interdependencies and financial risks) and maintain confidence in the payment scheme and electronic payment instruments (EPs) used.</p>
payment service provider (PSP)	<p>A legal person providing services (e.g. issuing of payment instruments, acquiring, payment authorisation, end user authentication), enabling the transfer of funds between end users.</p>
peer-to-peer validated retail CBDC	<p>A payment solution in which payment does not require validation by a third party.</p>
person or business-to-government (X2G) payment	<p>A transfer of funds from a person (or a business) to a government. Typical X2G payments include taxes, duties and fines paid to local and central government.</p>
personal data	<p>Any information relating to an identified or identifiable natural person.</p>

Term	Definition
person-to-person (P2P) payment	A transfer of funds from one natural person to another.
PISA framework	The Eurosystem's single oversight framework for electronic payment instruments (EPIS) , schemes and arrangements.
pre-validation	Validation at the level of supervised intermediaries to ensure that the payer has sufficient funds to complete a payment, or the payee has an active contract to receive the payment, or the payment request fulfils all technical standards.
programmability of payments	The ability to initiate a payment automatically when predefined conditions are met.
proxy look-up service	A service that contains end users' data, such as mobile telephone number, email address or other means of identification, and links these data to the respective end user's financial addresses, such as account number or wallet address. The service enables to look up this information on transaction initiation, thus enhancing usability and the end user's payment experience.
proxy look-up service provider	An entity operating a proxy look-up service .
recovery point objective (RPO)	The maximum amount of time for which data updates (creations, modifications, deletions) can tolerably remain lost/unrecovered as a result of a failure or disaster event. Data changes that precede a failure or disaster event by at least this amount of time are preserved by a recovery.
recovery time objective (RTO)	The maximum tolerable amount of time required to restore one or more applications and associated data back to a correct operational state after a failure or disaster event has compromised its availability.
repository operator	An entity operating a database required for the identification and differentiation of end users .
retail CBDC distribution	The process of transferring retail CBDC from the retail CBDC issuer to end users' accounts, wallets or devices through the processes of retail CBDC issuance and funding .
retail CBDC environment	A combination of IT platforms, actors and their roles that enables retail CBDC services to be provided to end users in accordance with relevant legal framework and technical documentation.

Term	Definition
retail CBDC holder	A natural person (not engaged in any business activity) (i) paying a merchant for an underlying business transaction resulting from selling goods or providing services; (ii) receiving funds as a result of a merchant refunding or disbursing funds, e.g. for the return of goods or pay out of winnings; or (iii) receiving/sending funds from/to another retail CBDC holder as a person-to-person (P2P) payment . Depending on the payment transaction in question, a retail CBDC holder can act as a payer or as a payee .
retail CBDC issuance	A process controlled and performed by the central bank which results in the creation of retail CBDC units equal to the face value of the corresponding liability on the central bank balance sheet.
retail CBDC issuer	A central bank responsible for (i) the creation of retail CBDC holdings and (ii) the redemption of retail CBDC holdings in circulation.
retail CBDC redemption	A process controlled and performed by the central bank which results in the destruction of retail CBDC units and of the corresponding liability on the central bank balance sheet.
retail CBDC remuneration rate	An interest rate applicable to retail CBDC holdings.
retail CBDC service	A payment service or other service accessible to an end user in a retail CBDC environment .
reverse waterfall approach	A method for facilitating the use of a retail CBDC whereby commercial bank money (CoBM) from a linked liquidity source chosen by an end user , e.g. a commercial bank account or credit card, is automatically converted into retail CBDC when the end user 's retail CBDC holdings are not sufficient to make a payment. See waterfall approach , funding and defunding .
role	A set of responsibilities an actor has within an environment. An actor may have multiple roles. In the context of the digital euro project, the different actors fulfil different roles in a retail CBDC environment .
secure element (SE)	A tamper-proof chip with pre-installed software that can store confidential and cryptographic data and run secure applications.
seigniorage income	Income earned by a central bank representing the difference between interest earned on assets acquired in exchange for central bank money (CeBM) and the cost of issuing and distributing that money (including operational cost).
settlement	The completion of a payment transaction or of its processing with the aim of discharging end users ' obligations through the transfer of funds.

Term	Definition
settlement model	A model according to which the two technical settlement tasks, namely settlement validation and recording , are allocated among one or more operational entities, or to local storage devices possessed by end users .
settlement recorder	An entity performing the bookkeeping of money, which mainly concerns the actual transfer of money from payer to payee .
settlement validator	An entity that checks the availability of the payer's money to assess whether this money can be transferred from payer to payee .
stablecoin (backed asset)	A digital unit of value that is not a form of any specific currency or basket of currencies. It relies on a set of stabilisation tools to minimise fluctuations in its price against a currency or currencies.
strong customer authentication (SCA)	An authentication based on the use of two or more elements categorised as knowledge (something only the user knows), possession (something only the user possesses) and inherence (something the user is) that are independent, in that the breach of one does not compromise the reliability of the others, and is designed in such a way as to protect the confidentiality of the authentication data. See multi-factor authentication (MFA, 2FA) .
supervised intermediary	An entity that is supervised or overseen by a designated public authority ensuring that the intermediary's business is conducted in accordance with the relevant regulatory framework.
third-party validated retail CBDC	A solution in which a third party determines the validity of a payer and payee's transaction and respective balances on their behalf.
tiered remuneration	Remuneration is tiered if interest rates applicable to holdings are differentiated across holding buckets, with the latter being defined via thresholds.
trusted execution environment (TEE)	An isolated processing environment that ensures (i) the integrity and confidentiality of the data that is being processed and (ii) the authenticity of the software/application running on it.
unspent transaction output (UTXO)	A digital representation of an asset of fixed value which can only be spent once in its entirety in one payment transaction. This transaction results in the recording of (i) the use of the UTXO and (ii) one or more new UTXOs. Unlike cash or digital bills , UTXOs do not come in a fixed set of denominations but can represent any value (e.g. €0.07, €4.321).
usability	A measure of how well a specific user can use a product in a specific context to achieve a defined goal effectively, efficiently and satisfactorily.

Term	Definition
<p>user manager [formerly “gatekeeper”]</p>	<p>A (supervised) intermediary that onboards and authenticates end users, performs know your customer (KYC), anti-money laundering (AML) and countering the financing of terrorism (CFT) checks and/or provides the technical connectivity between end users and the central bank's infrastructure.</p> <p>In relation to end users, a user manager will usually act as an acquirer, an issuer (of payment instruments) or both. A user manager might grant access to other intermediaries not directly connected to the retail CBDC environment.</p>
<p>validation of a transaction</p>	<p>A validation relating to checking the availability of the payer's funds, eliciting the reservation of funds and performing any other task that may be necessary for the validating entity or entities to assess whether such funds can be transferred from payer to payee.</p>
<p>virtual payment card</p>	<p>A digital representation of an underlying payment card and other data such as merchant or device-specific information. It can provide additional features such as a shorter expiration date and spending limits.</p>
<p>waterfall approach</p>	<p>A method for managing end users' retail CBDC holdings by (i) automatically converting the amount of retail CBDC that exceeds a defined holding threshold into commercial bank money (CoBM) and (ii) transferring the commercial bank money (CoBM) to a linked liquidity source chosen by the end user, such as a commercial bank account or credit card.</p> <p>See reverse waterfall approach, funding and defunding.</p>