2. Securities clearing, settlement and custody

FMIs and financial institutions that provide securities clearing, settlement and custody services are part of the post-trade securities landscape. Systems that clear trades conducted on a stock exchange or concluded between counterparties on the OTC market, and systems that settle the obligations of the buyer and seller of a trade, are subject to oversight. In the EU, institutions that operate these systems are subject to EMIR and CSDR supervision. Chart 2 depicts the scope of the Bank's oversight and supervision role for CCPs (section 2.1), (I)SDs (section 2.2) and custodians (section 2.3).

The (I)CSDs established in Belgium vary in the scope of their activities. While Euroclear Bank provides services in a wide range of securities, securities eligible in Euroclear Belgium are primarily Belgian equities. Under the CSDR, the Bank has been assigned as the sole competent supervisory authority[1] for Euroclear Bank and Euroclear Belgium, and, as the overseer, is also considered as the relevant authority in the CSDR. The NBB-SSS, which is subject to oversight only, holds and settles public sector debt including securities issued by the Belgian federal government and by regional or local governments, and private sector debt issued by corporates, credit institutions or other entities.

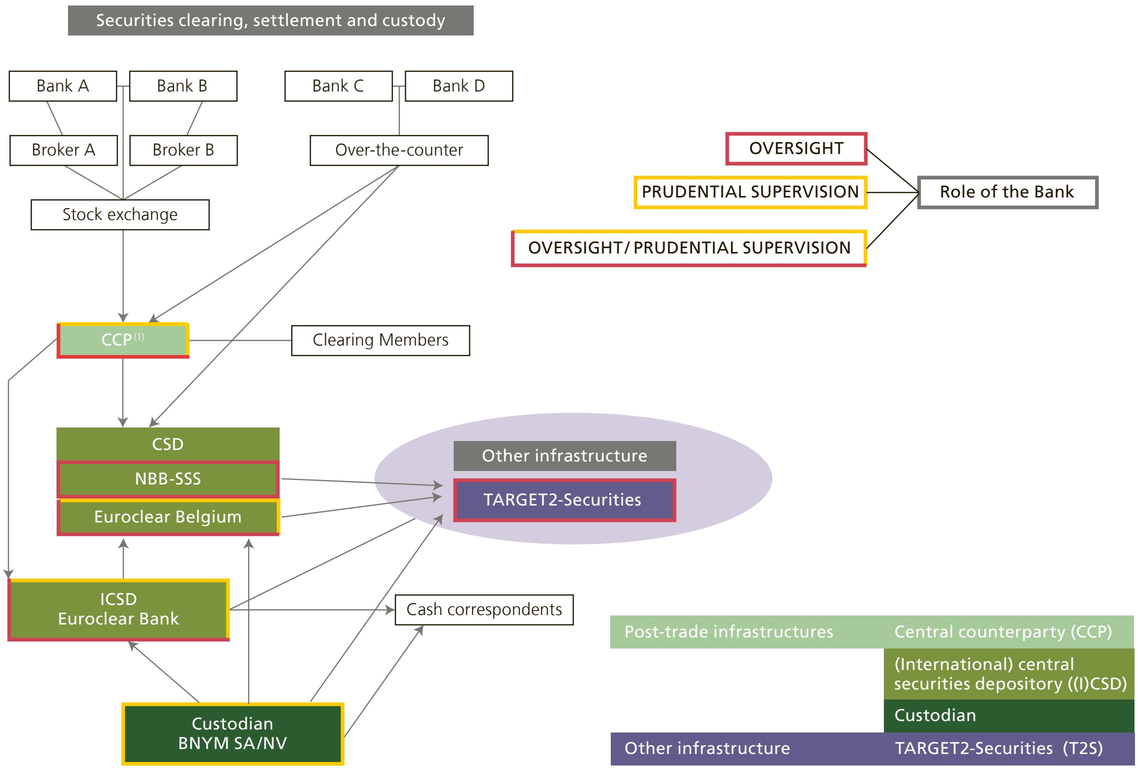
Daily settlement operations of Euroclear Belgium and NBB-SSS are outsourced to TARGET2-Securities (T2S), as in the case of other CSDs in Europe. T2S is not a CSD, but as it provides settlement services to many euro area and some non-euro area CSDs, it is essential that it enables participating CSDs to comply with the regulations applicable to them. The oversight of T2S is conducted by the Eurosystem. In line with PFMI Responsibility E (Cooperation with other authorities), the Eurosystem has set up the T2S Cooperative Arrangement to ensure that all authorities with a legitimate interest in the smooth functioning of T2S are involved, including the overseers and market authorities of CSDs that have signed the T2S Framework Agreement, in coordination with the ECB and ESMA. The authorities monitor both the general organisation of T2S as a critical infrastructure (i.e. technical platform, legal basis, governance structure and comprehensive risk management framework), and the services it provides against an applicable subset of the PFMIs. The Bank participates in this cooperative arrangement.

BNYM SA/NV is a global custodian established in Belgium with links to multiple (I)CSDs allowing its clients to hold securities issued in markets worldwide. BNYM SA/NV provides custody services (i.e. providing securities safekeeping, settlement and investor services to their clients) and is supervised by the ECB under the framework of the SSM as a significant credit institution (SI).

1 For the following aspects, the Bank consults the FSMA, which retains its competence as the market authority: rules on conflicts of interest, record-keeping, requirements concerning participation, transparency, procedures for communicating with participants and other market infrastructures, protection of the assets of participants and their clients, freedom to issue securities via any CSD authorised in the EU, and access between a CSD and another market infrastructure.

Chart 2

Scope of the Bank's oversight and prudential supervision role in the post-trade securities landscape



1 LCH Ltd (UK), ICE Clear Europe (UK), LCH SA (FR), Eurex Clearing AG (DE), EuroCCP (NL), Keler CCP (HU), CC&G (IT).

2.1 CCPs

Changes in the regulatory framework

There are no central counterparties (CCPs) located in Belgium but some foreign CCPs are used by Belgian financial institutions for clearing, or use Belgian FMIs for settlement (see box 2) and therefore the Bank closely follows up regulatory developments regarding CCPs.

The framework that regulates CCPs, i.e. their resilience and recovery, and ultimately their resolution, was being further completed. The FSB, CPMI and IOSCO conducted further work on CCP financial resources. In March, they published a joint report CCP Financial resources for recovery and resolution[1]. The report informs on the use, composition and sufficiency of financial resources to cope with a CCP's recovery or resolution caused by participant default and non-participant default losses. It concluded on the need for further international work in this regard.

In August, CPMI and IOSCO published a discussion paper on CCP practices to address potential losses arising from non-participant default events and their management via recovery or orderly wind-down tools[2].

1 Available at https://www.bis.org/publ/othp46.htm.
2 Available at https://www.bis.org/cpmi/publ/d208.htm.

In September, BCBS-CPMI-IOSCO published their review of margining practices during the March 2020 market turmoil[1]. The analysis confirmed the substantive increase in variation and initial margin calls and identified areas for further policy work on the transparency, predictability and participant practices of margin calls. The relevance of this work was once again evident with the price surges in Europe for cleared energy contracts due to Russia's invasion of Ukraine[2].

Also in September, CPMI and IOSCO published a final paper on client clearing[3]. It describes the benefits and potential risks of new models that enable clearing members' clients to directly access CCP services and the effective porting – i.e. the transfer of the client's positions and assets in the event of default of its clearing member to a back-up member – and urges the industry to do further work in this respect.

In December, the European Commission (EC) tabled a proposal[4] including measures to make EU clearing more attractive and resilient by reducing excessive exposures of EU market participants to third-country CCPs that clear derivatives identified as substantially systemic for the EU's financial stability.

The EU Regulation on CCP recovery and resolution (CCP-RR) that sets out a framework for the recovery of a CCP, and the rules to ensure in resolution the continuity of a CCP's critical function was being further implemented. In May, ESMA published final reports[5] containing draft implementation legislation related to resolution colleges, CCP financial resources in resolution, safeguards for clients and CCP resolution plans. In November, the Commission published its implementing Regulation[6] that sets out the methods for calculating the so-called "second skin", i.e. a second layer of the CCP's contribution in recovery.

Prudential and oversight approach

In July, ESMA published the outcome of its fourth supervisory stress test for CCPs[7] covering EU CCPs as well as third-country CCPs that are systemically important to the EU, focusing on counterparty credit, concentration and operational risk. The results confirm the overall resilience of CCPs, while identifying areas for improvement for some CCPs in relation to concentration and operational risks.

As required under EU legislation, the National Bank of Belgium takes part in five EU CCP supervisory colleges[8] that are relevant for the Belgian markets, participants or CSDs. Post-Brexit, the Bank also takes part in the UK CCP colleges of LCH Ltd and ICE Clear Europe Ltd, even though they are no longer EMIR supervisory colleges.

Priorities for the ongoing supervision of EU CCPs are set by the national competent authorities, taking into account the college members' requests. New CCP services or products, significant risk model changes and recovery plans are approved by the CCP's national competent authority, taking into account its supervisory college's opinion. The recovery plans of most EU CCPs that stipulate how to allocate default and non-default losses to shareholders, clearing members and clients, were initially assessed under the applicable CCP-RR regime.

National EU CCP resolution authorities continue to plan for CCP resolution occurrences and establish the resolution colleges required by CCP-RR. To date, the Bank is involved in four EU CCP resolution colleges that were set up under the CCP-RR[9].

1 Available at https://www.bis.org/press/p220929.htm.
2 See, for example, the ECB Banking Supervision newsletter of November 2022, available at https://www.bankingsupervision.europa.eu/press/publications/newsletter/2022/html/ssm.nl221117.en.html.
3 Available at https://www.bis.org/cpmi/publ/d210.htm.
4 Available at https://ec.europa.eu/commission/presscorner/detail/en/ip_22_7348.
5 Available at https://www.esma.europa.eu/press-news/esma-news/esma-publishes-final-reports-ccp-resolution-regime.
6 Available at https://ec.europa.eu/transparency/documents-register/detail?ref=C(2022)8434&lang=en.
7 Available at https://www.esma.europa.eu/sites/default/files/library/esma91-372-2060_4th_esma_ccp_stress_test_report.pdf.
8 This refers to the CCP supervisory colleges of LCH.SA (FR); Eurex Clearing AG (DE), EuroCCP (NL), CC&G, now EuronextClearing (IT) and Keler CCP (HU).
9 The CCP resolution colleges of LCH SA (FR); ECAG (DE); Cboe (NL) and Keler CCP (HU).

BOX 2

Securities trading, clearing and settlement in Europe – Belgian FMIs

Under its Capital Markets Union plan, the European Commission seeks as a long-term strategy to build integrated EU capital markets. Financial market infrastructure at trade and post-trade level constitute the backbone to process capital markets transactions, a quality that is underpinned by legal requirements to use the FMI under certain conditions[1]. Besides regulation, economics drive the trade and post-trade services. Economies of scale, i.e. decreasing average production costs in relation to the total volumes produced, and economies of scope, i.e. positive network externalities whereby the user of the service derives more value as more users use the same network service, apply when providing market infrastructure services. Also, the seamless conclusion of a trade and its clearing and settlement is important. Thus, exchanges do have an interest in the well-functioning of post-trade services.

Compared to other countries such as the United States, the European trade and post-trade environment remains considerably fragmented leading to efficiency loss and increased operational risk. Today, in the EU-27, there are 27 (national) stock exchanges[2], 11 CCPs[3] and 29 CSDs[4]. The below graph shows a selection of the corporate groups owning the biggest FMIs involved in the trading, clearing and settlement of the European cash markets. The biggest EU-27 cash markets belong to the Euronext, Deutsche Börse or Nasdaq group. All three market groups have an own CCP while the biggest CCP for fixed income is currently LCH SA in France that is part of the London Stock Exchange Group. At settlement level, big EU CSDs also belong to Euronext and Deutsche Börse, and to the Euroclear group that is only active in CSD/settlement services.

Horizontal integration of EU FMIs is progressing slowly and in different ways. Full corporate mergers of same-level FMIs remain scarce. For instance, there was one at CCP level in 2000 when the Euronext markets started using the French LCH SA as their single CCP for their Amsterdam, Brussels, Paris and Lisbon markets. Horizontal integration can also occur operationally or contractually while maintaining separate legal entities, e.g. by using a common platform and a common contractual framework. Examples include the Euronext markets at trading level and the ESES CSDs, comprising the CSDs Euronext Belgium, Euronext France and Euronext Netherlands at settlement level. Also, on a broader scale and across corporate groups, the ECB's T2S platform has integrated and harmonised almost all euro area CSD settlement services without reducing the number of CSDs. Finally, CCPs are integrating their services horizontally by establishing interoperability links between themselves such as the link between LCH SA and Euronext Clearing (previously the Italian CC&G) for fixed income, for example. And CSDs that are linked as an investor CSD to an issuer CSD are doing the same.

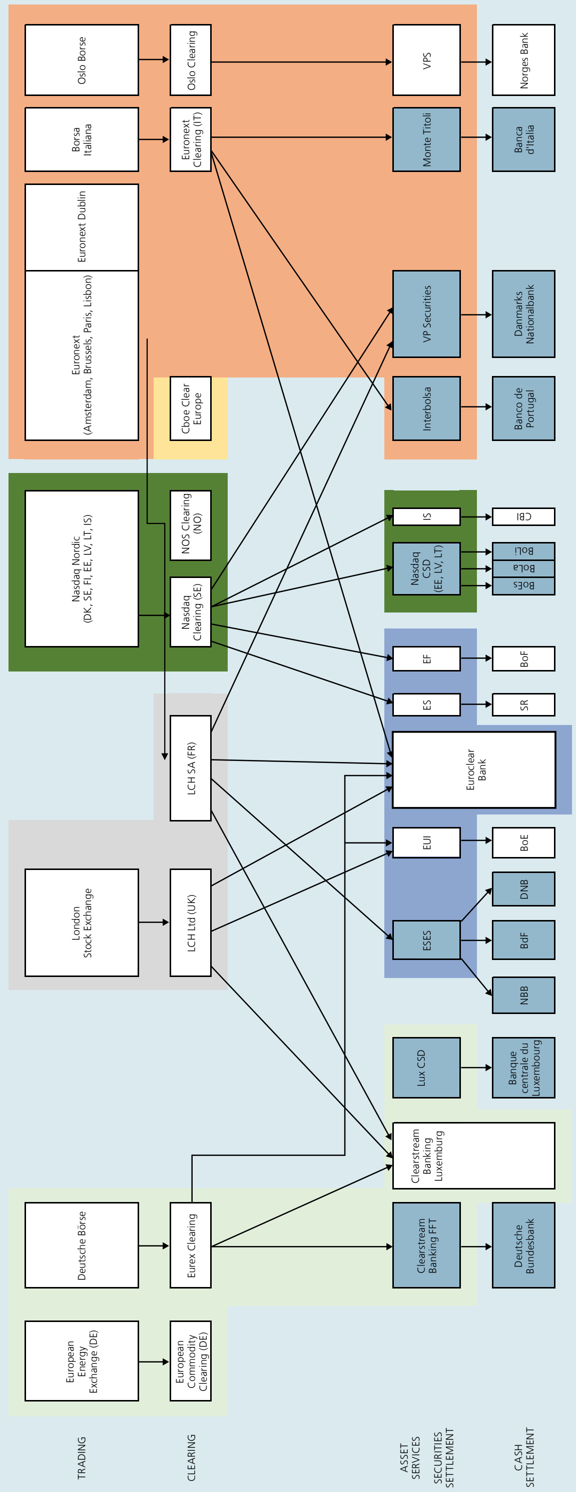
1 Requirements to use a trading venue when issuing securities against public funding, and Art. 23 of MiFIRII introduces a share trading obligation requiring EU investment firms to trade shares on a trading venue or with a systemic internaliser. The obligation to record the securities issuance in a CSD is stipulated in art. 3 of CSDR. Other than for derivatives there is no requirement to clear cash market securities trades in a CCP.

2 The EU trading activities are overall more fragmented and diverse. According to ESMA, in 2020, there were 127 regulated markets (RMs), 142 multilateral trading facilities (MTFs), 27 organised trading facilities (OTFs) and 172 systemic internalisers (SIs) in the EU.

3 ESMA – List of Central Counterparties authorised to offer services and activities in the EU.

4 ESMA70-155-11635 – CSD Register.

European financial market infrastructure – Biggest firms offering exchange trading, clearing and settlement for the cash markets



Legend

Outside background colors indicate FMI belonging to the same group

- Euronext Group
- Euroclear Group
- London Stock Exchange Group
- Deutsche Börse Group
- NASDAQ Group
- Cboe Global Markets

Arrows represent the flow of clearing instructions from exchanges to CCPor the flow of settlement instructions from CCP to SSS.
Multilateral Trading Facilities (MTFs) are not reprensented.
Links (i.e. interoperability arrangements) between CCPs or links between SSS are not represented.
Light-blue colored boxes indicate the CSDs and NCBs that joined Target2Securities (T2S). Euro cash settlement for T2S CSDs can be managed out of any Eurosystem NCB.
Cboe Clear Europe connections are not represented; the CCP clears 47 European trading venues and settles in 15 European CSDs.

NBB: National Bank of Belgium, BdF: Banque de France, DNB: De Nederlandsche Bank, EUI: Euroclear UK & International, BoE: Bank of England, ES: Euroclear Sweden, EF: Euroclear Finland,
SR: Sveriges Riksbank, BoF: Bank of Finland, IS: Nasdaq CSD SE Icelandic branch, BoEs: Bank of Estonia, BoLa: Bank of Latvia, BoLi: Bank of Lithuania, CBI: Central Bank of Iceland.

Many FMIs in the EU are now part of an exchange group that vertically integrates the value chain, and thus offer the full service package across the value chain via in-group FMIs. The Euroclear group CSDs – that settle Euronext or Nasdaq market trades – are an exception in this regard.

Within the logic of the value chain linking trading, clearing and settlement, most exchanges have built an integrated trade and post-trade solution. Even so, these integrated services are not provided on an exclusive basis. European Union legislation [1] gives exchanges, CCPs and CSDs the right of mutual access throughout the (vertical) value chain of trading-clearing-settlement, implying they can choose their place of clearing or settlement, or – vice-versa – acquire a trade feed or a CCP feed for processing the trade in the CCP or CSD.

Netherlands-based Euronext NV, whose main business activity is trading, operates the Euronext markets, including Euronext Brussels. In 2021, Euronext NV acquired the Borsa Italiana group comprising the Italian stock exchange, the CCP Euronext Clearing and the domestic CSD Monte Titoli. This will impact the clearing of Euronext trades and potentially their settlement.

The French CCP LCH SA now clears most of the Euronext markets, but Euronext intends to directly manage the clearing of its own markets. It announced in November 2021 that Euronext Clearing will be the CCP of choice for its cash and derivatives markets although it will continue to offer an open access CCP model for cash equity clearing, in particular with LCH SA. Under the envisaged preferred clearing model, both LCH SA and the Amsterdam-based Cboe (previously EuroCCP and now belonging to Cboe Global Markets) can (continue to) connect to the trade feeds of the Euronext cash markets but will only be able to deliver the clearing service where both parties of the trade clear in the (same) CCP.

At settlement level, Euronext group also owns a number of CSDs (besides Monte Titoli (Italy), there is Euronext VPS (Norway), Interbolsa (Portugal) and VP Securities (Denmark)), but the bulk of its cash markets are still settled by Euroclear group CSDs. Securities that have already been issued in a Euroclear group CSD will likely remain there considering the costs of switching to another CSD. New securities could be issued directly in the Euronext CSDs if issuers value the full vertical service offering of the Euronext group.

1 Dedicated FMI access requirements to that end are stipulated in Articles 35 and 36 of MIFIR, Articles 7 and 8 of EMIR and Article 53 of CSDR.

2.2 (I)CSDs

Changes in the regulatory framework

In February 2022, the settlement discipline regime (SDR) entered into force. As part of CSDR, this regime aims to improve settlement efficiency, the rate at which securities transactions settle on the intended settlement date, in the European Economic Area. It ushered in several measures to encourage market participants to settle transactions on the intended settlement date. More information regarding the SDR can be found in box 3.

On 2 June 2022, the Regulation on a pilot regime for market infrastructures based on distributed ledger technology (DLT) was published[1] in the Official Journal of the European Union. The regime creates a new EU status for market infrastructures based on DLT in a context of conditional and regulated experimentation. It aims to identify regulatory obstacles to DLT and may eventually lead to a more permanent and adapted regulatory regime for trading and post-trading services. The DLT pilot regime has applied from 23 March 2023.

The review of the CSD Regulation (CSDR) has also been ongoing in 2022 and 2023 focusing on such things as relevant aspects of the supervisory process (e.g. frequency of CSDR review and evaluation, cooperation between authorities) and a mandatory buy-in regime for settlement fails.

1 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, and amending Regulations (EU) No. 600/2014 and (EU) No. 909/2014 and Directive 2014/65/EU.

BOX 3

Implementation of the Settlement Discipline Regime

On 1 February 2022, the settlement discipline regime (SDR) under the CSD Regulation (CSDR) entered into force. The overall aim of the settlement discipline regime is to enhance settlement efficiency, i.e. the rate at which securities transactions settle on the intended settlement date, in the European Economic Area.

While the CSD Regulation dates from 2014, the Regulatory Technical Standards (RTS) on settlement discipline were only supposed to enter into force on 13 September 2020. However, this was initially postponed to 1 February 2021[1] to allow time to establish some essential features for the functioning of the new framework by (I)CSDs and market participants in general, including the development of a common T2S penalty mechanism for T2S CSDs. During the COVID-19 crisis, stakeholders asked for a further postponement of the entry into force of the RTS due to the impact of the pandemic on the overall implementation of regulatory projects and IT deliveries by CSDs and their participants, as well as the higher probability of not reaching compliance by 1 February 2021. Following the Commission's tabling of an ESMA proposal with regard to a new implementation timeline and subsequent non-objection by the Parliament and Council, the new date for entry into application of these rules was set as 1 February 2022.

The settlement discipline regime aims to encourage market participants to avoid settlement fails. It encompasses a set of common requirements for CSDs and their participants to comply with. Its two main elements are the measures to prevent settlement fails and measures to address those fails.

Regarding the prevention of settlement fails, CSDs are required to have different measures and procedures to facilitate the settling of instructions on the intended settlement date. Those measures range from ensuring the settlement process is automated, allowing for the partial settlement of instructions, to CSDs' participants' access to information on their transactions. Supervisors need to check whether the CSDs

1 ESMA70-151-2895 – CSDR RTS on Settlement Discipline – postponed entry into force.

have made the required facilities available to their participants to facilitate the timely settlement of transactions with the aim of improving their settlement efficiency rates.

The measures to address settlement fails revolve around three aspects: (I) the reporting of settlement fails by the CSDs to the authorities, (II) the application of cash penalties for transactions that fail to settlement in a timely manner, and (III) the buy-in regime, which aims to enforce non-settled transactions.

Regarding the reporting of settlement fails, CSDs are required to monitor the settlement efficiency rate of their participants, report to the competent and relevant authorities and disclose data on settlement efficiency. Supervisors have to make sure that CSDs are able to collect the required data in a correct and timely manner.

The requirement for the application of cash penalties is a key aspect of the settlement regime. CSDs are obliged to calculate and apply a cash penalty – a financial sanction – for transactions that have failed to settle on the intended settlement date. Moreover, CSDs have to be able to collect the penalties from failing delivering participants and redistribute them to the receiving CSD participants. Therefore, supervisors need to analyse whether CSDs have the technical capability to calculate and process these settlement fails penalties.

These two measures to address settlement fails effectively entered into force on 1 February 2022. The third measure – application of the mandatory buy-in regime – has been postponed as it may increase liquidity pressure and the costs of securities at risk of being bought in [1]. This postponement should provide some time in which to reassess the effects of a mandatory buy-in regime as part of the broader revision of the CSDR (CSDR Refit) that is currently ongoing. Depending on the outcome of this assessment, the rules on mandatory buy-ins could still be amended.

1 Commission Delegated Regulation (EU) 2022/1930 of 6 July 2022 amending the regulatory technical standards laid down in Delegated Regulation (EU) 2018/1229 as regards the date of application of the provisions related to the buy-in regime.

Prudential and oversight approach

The CSDR, implementing the CPMI-IOSCO Principles for CSDs in Europe, requires the Bank, as the national competent authority under the CSDR, to conduct an annual review and evaluation (under CSDR Art. 22) of Euroclear Bank and Euroclear Belgium. At the beginning of the review and evaluation process, the Bank consults other authorities as required ("relevant authorities" as defined in the CSDR), the FSMA and the competent authorities from the countries where the Euroclear group has a CSD). For Euroclear Belgium, the assessment is coordinated with those conducted by the French and Dutch competent authorities for Euroclear France and Euroclear Nederland respectively, as the operations, governance and rulebooks of the three CSDs – together the ESES CSDs – are aligned to a large extent. For Euroclear Bank, the final outcome of the review and evaluation was shared with the competent authorities of the countries for which the ICSD is substantially important, as well as with EBA and ESMA (see box 4).

As Euroclear Bank is also subject to banking regulation, the NBB conducts next to the CSDR review and evaluation also a yearly Supervisory Review and Evaluation Process (SREP) for banks. The Bank is synergising all assessment frameworks applicable to Euroclear Bank, meaning CSDR and PFMI principles and key considerations are taken onboard into the banking-regulation-defined SREP analysis.

Following the UK's withdrawal from the European Union, in order to continue to provide CSD services in the UK, Euroclear Bank must be recognized by the Bank of England. As required by article 25 of the UK CSDR[1], a cooperative arrangement between the Bank of England and the non-UK CSD's authority, in casu the NBB, has to be established. A new Memorandum of Understanding with the Bank of England was signed in January 2023, renewing the already existing cooperation arrangement.

The impact of Russian sanctions and countermeasures adopted by Russia on Euroclear Bank remained an important attention point for the Bank in its supervisory activities. Blocked securities positions due to sanctions still generate income and redemption payments impacting the size of Euroclear Bank's balance sheet significantly. On the other hand, Russian countermeasures affect holdings of Euroclear Bank on behalf of its participants with a Russian nexus.

Euroclear Bank intends to join TARGET2-Securities (T2S) as a participating (I)CSD. By connecting to the T2S platform, Euroclear Bank clients will have the choice between euro settlement in commercial bank money and euro settlement in central bank money. The project has the potential to optimise their liquidity management and reduce financing costs. It will be implemented in phases. The mobilisation of collateral for monetary policy operations of National Central Banks (NCBs) will be the first use case. It was rescheduled from November 2023 to April 2024 after the Eurosystem delayed its consolidation of TARGET2 and T2S to 20 March 2023. The Bank is monitoring this Euroclear Bank project and analysing potential risks that could be linked to its implementation.

1 Regulation (EU) No. 909/2014 of the European Parliament and of the Council of 23 July 2014, as amended and retained in UK law.

BOX 4

Cooperation between the Bank and other authorities with regard to Euroclear

The Bank cooperates with domestic and foreign authorities in the framework of the oversight and supervision of Euroclear entities established in Belgium, i.e. Euroclear SA, Euroclear Bank and Euroclear Belgium. The table below provides the list of authorities and the rationale for having a cooperation arrangement with them.

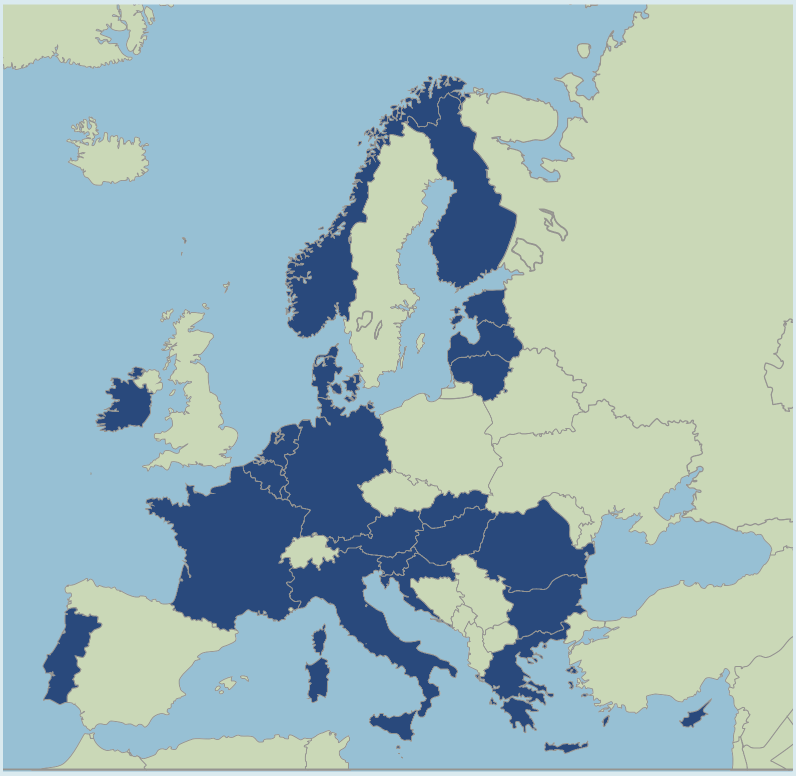
Under the CSDR, the Bank, as the competent authority, also needs to involve other authorities in the supervision of (I)CSDs established in Belgium. The CSDR identifies as "relevant authorities" the authorities responsible for oversight, central banks in the EU in whose books cash is settled, and central banks in the EU issuing the most relevant currencies in which settlement takes place. In the case of Euroclear Bank and Euroclear Belgium, the Bank also acts as a relevant authority in its role as overseer of securities settlement systems. As Euroclear Belgium settles euros in central bank money, the Eurosystem (represented by the Bank) is also considered a relevant authority. The Eurosystem is likewise a relevant authority for Euroclear Bank, which settles in euro too. In 2021, the Danish and Norwegian central bank have become relevant authorities as well for Euroclear Bank since, in accordance with the ESMA methodology, their currencies were considered a relevant currency for Euroclear Bank until ESMA's next yearly calibration.

Cooperation	Rationale for cooperation
National cooperation	
FSMA	Market authority responsibilities regarding (I)CSDs in Belgium
International cooperation	
Euroclear SA/NV	
Euroclear Group overseers and market supervisors (BE: NBB, FSMA; FI: Bank of Finland, Finanssivalvonta; FR: Banque de France (BdF), Autorité des marchés financiers (AMF); NL: De Nederlandsche Bank (DNB), Autoriteit Financiële Markten (AFM); SE: Riksbank, Finansinspektionen; UK: Bank of England)	MoU on cooperation and exchange of information with regard to the relationship of Euroclear SA with the (I)CSDs of the Euroclear group; Euroclear SA being both the parent holding company and service provider to the Euroclear group entities
Euroclear Bank	
Central banks of issue of major currencies in Euroclear Bank (Federal Reserve System, BoE, BoJ, Reserve Bank of Australia and ECB as observer).	Multilateral oversight cooperation with the relevant central banks of issue of the major currencies settled in Euroclear Bank
ECB	Bilateral oversight cooperation on specific aspects of Euroclear Bank relevant for euro area financial stability
Bank of England	Following the UK's withdrawal from the European Union, in order to provide CSD services in the UK, Euroclear Bank must be recognized by the Bank of England. As required by the UK CSDR, a cooperative arrangement between the Bank of England and the NBB has to be established
Bank of Japan	Bilateral oversight cooperation on specific aspects of Euroclear Bank relevant for Bank of Japan
Central Bank of Ireland	Bilateral cooperation with regard to the settlement of Irish bonds, some exchange-traded funds (ETFs) (and equities as of 2021) in Euroclear Bank
Hong Kong Monetary Authority	Bilateral oversight cooperation focusing on the links between Euroclear Bank and Hong Kong market infrastructures
Banque Centrale de Luxembourg (BCL) / Commission de Surveillance du Secteur Financier (CSSF)	Cooperation and communication arrangement on the oversight and prudential supervision of the ICSDs Euroclear Bank and Clearstream Banking SA (Luxembourg), under Responsibility E of the PFMIs
Securities Exchange Commission (SEC)	Bilateral cooperation focusing on US-related activities within Euroclear Bank
ESES	
ESES overseers and market supervisors (BE: NBB, FSMA; FR: BdF, AMF; NL: DNB, AFM)	Multilateral cooperation covering the CSDs of Euroclear France, Euroclear Nederland and Euroclear Belgium sharing a common rulebook.

Source: NBB.

In addition to the FSMA and the relevant authorities, the competent authorities from EEA countries where Euroclear group has a CSD are involved in the annual review and evaluation process of Euroclear Belgium and Euroclear Bank. As Euroclear Bank is of substantial importance for many EEA countries, the NBB shares an outcome report with authorities in those countries.

EEA Countries for which Euroclear Bank is of substantial importance



1 Austria, Belgium, Bulgaria, Croatia, Cyprus, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, The Netherlands, Norway, Portugal, Romania, Slovakia and Slovenia.

As mentioned above, the settlement discipline regime (SDR) provisions of the CSDR entered into force in February 2022. The Bank has monitored the CSDs' compliance with these provisions, including the required statistical reporting on settlement fails (i.e. transactions that are not settled on the intended settlement date).

Because cyber threats are continuously evolving, cyber security continues to be a top priority for the Euroclear group. Multi-year projects are ongoing to further strengthen cyber capabilities. Continuous investment is key to being equipped with the latest products and to benefit from the most advanced technologies. However, it should be stressed that the cyber domain is far broader than only technical measures, i.e. this is the reason why training and testing of the system's users is critical. Currently, many attacks use the technic of "(spear)phishing", where targeted users have an incentive to click on links, thereby enabling the installation of malware. Recruitment is also an important point: as cyber is growing in importance, more job opportunities are becoming available, complicating the recruitment (and retaining) of cyber specialists. Finally, senior management's commitment remains key to success. All these projects are being closely followed up and discussed with other authorities of the Euroclear group entities.

In January 2023, the Euroclear Bank participants' security controls framework entered into force. The framework requires participants to adhere to certain controls and good practices to appropriately secure their on-premises IT environments connecting to the Euroclear system. By requiring the compliance of participants with mandatory security controls, Euroclear Bank aims to improve its cyber security capabilities and to follow regulatory expectations.

In the context of the group's "digital & innovation" strategy, Euroclear Bank has continued working on a "digital FMI" (DFMI) project. It allows for the possibility to issue and store on a dedicated component of its SSS securities using distributed ledgers. In a first phase, it is focussing on the primary market issuance as secondary market settlement is processed on the legacy platform. The technical launch of the project occurred end of April 2023, the required updates of the Euroclear Bank contractual documentation were published in May 2023. As a next step, Euroclear Bank will accept the first issuances of digitally native notes in pilot format with a small number of participants and issuers, and for a limited number of medium-term bonds.

ESG (Environment Social Governance) is one of the pillars of the Euroclear group's strategy. A 2021 paper [1] released jointly with PwC outlines opportunities for FMIs to support market participants and asset classes, including (i) encouraging greater sustainable finance issuance, through reducing infrastructure, regulatory and informational barriers to issuance, (ii) processing ESG information flows including ESG metrics, disclosure and assurance, and (iii) expanding the market to more asset classes and participants.

In that context, in January 2022, the Euroclear group made an investment in Greenomy, a Belgian sustainable finance technology start-up that has as objective to help companies, banks and asset managers to comply with new EU sustainable finance legislation. A prerequisite to promoting sustainable finance is the identification of securities as "sustainable" or "green" and Greenomy's platform will capture key data about ESG bonds accepted in one or more CSDs of the Euroclear group. Such data enables computation of a financial product's sustainability rating under the EU Taxonomy Regulation.

At the end of 2022, Euroclear SA also decided to acquire Goji [2], a London-based provider of digital access to private funds, further developing its funds strategy, following the acquisition of the MFEX funds distribution platform earlier on. Aside from such acquisitions, other developments led to changes in the governance structure of the Euroclear group. In early January 2023, Euroclear Investments, the group's financial investment holding company and its long-term bond issuer, moved its headquarters from Luxembourg to Belgium, after approval by the National Bank of Belgium. Also in January 2023, Euroclear SA formally filed for non-objection by the Bank to plans to set up a branch in Krakow, Poland. The objective for Euroclear SA is to gain access to additional talent pools to enable the recruitment of various profiles. The Bank declared (its) non-objection in March 2023.

In 2022, the NBB-SSS was selected as issuer CSD and settlement agent for the EU Issuance Service (EIS) [3]. Through the EIS, the NBB-SSS will issue debt securities to fund strategic plans like the NextGenerationEU (NGEU) recovery plan [4]. This recovery package will be funded by resources made available by the issuance of debt securities, which are expected to reach a value of € 800 billion by 2026. On 12 July 2022, the Letter of Intent that underpins the EIS was signed by the NBB, the European Commission and the European Central Bank.

Although CSDs operated by members of the ESCB are exempt from the authorisation and supervision requirements of the CSDR [5], some of its prudential requirements do apply to them. Under the new regime for granting eligibility to securities settlement systems and links for their use in Eurosystem credit operations, on the basis of the CSD's compliance with the CSDR requirements, and in cooperation with the Eurosystem, the

1 Available at https://www.euroclear.com/newsandinsights/en/Format/Whitepapers-Reports/sustainable-finance-market.html.

2 Subject to regulatory approvals.

3 The EU issuance service is a project via which the settlement of all bonds issued by the European Commission on behalf of the EU will be processed through the Eurosystem's payment and settlement infrastructure. Once the EU issuance service is in place, a Eurosystem central bank – in this case, the National Bank of Belgium – will serve as issuer CSD and act as an agent for settlement services, while the European Central Bank will act as paying agent for all EU debt securities.

4 NextGenerationEU is the EU's temporary recovery instrument to support the economic recovery from the coronavirus pandemic and build a greener, more digital and more resilient future.

5 Under Article 1(4) of the CSDR.

NBB exercises its overseer role by conducting a yearly review and evaluation of the NBB-SSS against the CSDR requirements which are relevant from a "user perspective" [1].

With regard to operational risks, and relevant for all (I)CSDs subject to its supervision and oversight, the Bank is focusing this year on operational resilience and third-party outsourcing arrangements, including policies and practices regarding cloud service providers.

1 The NBB-SSS is eligible for monetary policy operations by the Eurosystem. This means that the Eurosystem accepts securities as collateral in the NBB-SSS. As the Eurosystem is effectively a user of the NBB-SSS, it needs assurance that the NBB-SSS is safe to use.

BOX 5

International dimension of Euroclear Bank

By the very nature of its business model, Euroclear Bank is internationally oriented. This international dimension is reflected in several areas such as participants, currencies and linked securities markets. At the end of 2022, Euroclear Bank had more than 1 800 participants. Its participant base consists mainly of non-domestic entities, including almost 100 central banks, more than 40 CCPs and CSDs, as well as credit institutions, broker-dealers and investment banks.

Apart from its notary function for international bonds (Eurobonds), which it mainly shares with Clearstream Banking SA (Luxembourg), Euroclear Bank aims to provide its participants with a single gateway to access many foreign securities markets (i.e. Euroclear Bank has a link with foreign CSDs which act as notaries for securities issued in the local market). When (I)CSDs offer their participants access to foreign securities markets, they are considered as investor (I)CSDs, whereas the foreign (I)CSDs are referred to as issuer (I)CSDs. Euroclear Bank is connected to more than 50 foreign CSDs as investor ICSD in domestic markets.

To provide services in international bonds and a wide range of foreign securities, 100 different currencies are eligible in the system operated by Euroclear Bank. Securities can be settled against payment in a Euroclear settlement currency [1] (46 currencies) which may differ from the denomination currency [2].

At the end of 2022, the value of securities deposits held on Euroclear Bank's books on behalf of its participants amounted to € 17.5 trillion equivalent (up from € 17.1 trillion in 2021). After EUR (50 %), USD is the main denomination currency (28 %), followed by GBP (10 %). 51 % of securities deposits are in international bonds, for which issuers can choose the denomination currency and the governing law for their securities.

Regarding settlement turnover, the number of transactions settled in Euroclear Bank in 2022 came to 163.3 million (up from 146.9 million in 2021). In value terms, this represents € 692.2 trillion (up from € 652.6 trillion in 2021). 67 % of settlement turnover, free-of-payment and against-payment transactions,

1 A settlement currency is a currency in which cash settlement can take place.
2 A denomination currency is the currency in which the security is denominated. This currency is used as a unit of account for the nominal value of this security, but it is not necessarily used to settle the cash leg of transactions.

was denominated in EUR, after USD (15 %) and GBP (9 %). In terms of settlement turnover per security type, compared to securities deposits, international debt accounts for 19 % while the bulk is composed of other types of securities such as domestic debt and, to a lesser extent, equities or exchange-traded funds.

The interconnectivity of Euroclear Bank with other FMIs is a critical component in the Euroclear group strategy to establish a common pool of collateral assets in which Euroclear group entities provide collateral management services as a triparty agent taking over the collateral management tasks (including collateral selection, valuation and substitution) from its participants during the lifecycle of the transaction concluded between two participants. At the end of 2022, at group level, the average daily value of triparty collateral managed by the Euroclear (I)CSDs reached € 1.8 trillion equivalent.

Composition of securities deposits and turnover in percentage, end of year 2022

Source : Euroclear.

2.3 Custodians

Changes in the regulatory framework

In 2022, the regulatory framework applicable to custodians remained unchanged.

Supervisory work in 2021 and priorities for 2022

BNYM SA/NV is considered as a significant institution, which implies that BNYM SA/NV falls under the direct supervision of the SSM. The supervisory work relating to the CRD/CRR regulatory framework is therefore carried out jointly by the Bank and the ECB within the SSM. BNYM SA/NV is also subject to monitoring by the Bank as regards the specific requirements applicable to depository banks and client asset protection rules.

BNYM SA/NV is a subsidiary of BNY Mellon, a US-based global systemic bank. At the end of 2022, BNYM SA/NV had one subsidiary and several branches in Europe through which it operates in the local markets. BNYM SA/NV has branches in Luxembourg, Frankfurt, Amsterdam, London, Paris, Dublin, Milan, Madrid and Copenhagen. The ECB and NBB also granted permission to BNYM SA/NV in 2022 to open an operational branch in Poland.

BNYM SA/NV is the group's custodian for European clients, and the European gateway to the euro area markets and payment infrastructures within the BNYM group. BNYM SA/NV settles transactions in a wide range of currencies, the main ones being EUR, GBP, USD and JPY (see box 6 on the international dimension). In this perspective, in 2022, the Joint Supervisory Team (JST) focused on the follow-up of the 2021 review of the management of intraday and short-term liquidity risk.

The Russia-Ukraine war also affects BNYM SA/NV. Given its specific business model, BNYM SA/NV had to correctly implement sanctions that were common to every bank and financial intermediary (albeit due to its global presence, BNYM SA/NV has to implement different sets of sanctions) but also specific attention points relating to activities like depository receipts (DRs) etc. The JST had regular interactions over 2022 with BNYM SA/NV and BNYM group to follow up on these topics.

In 2022, governance (due to the group's global organisation) and operational risk (due to the group's specific mix of activities) were the most important risk areas and will remain of high importance within the 2023 review cycle. Being a global custodian, BNYM group operates according to a "follow the sun" model which enables it to process clients' transactions and related services continuously around the globe across different time zones. This is mainly achieved by having established BNYM group entities worldwide, working on common platforms and multiple intra-group outsourcing arrangements. Such a model can bring efficiency and resiliency advantages (e.g. back-up locations), but it can also bring organisational complexities and additional attention points (such as the monitoring of outsourced activities). Legal entity independence, budget autonomy and supervision of outsourcing arrangements continue to be main areas of focus. Besides, a custodian plays a central role in the functioning of globalised financial markets. BNYM group and BNYM SA/NV are expected to build a highly resilient organisation (e.g. by ensuring sufficient and adequate fall-back capabilities between regional operational centres), not least to help maintain stability in the functioning of markets and to meet client expectations. Protection against and management of cyber risks and the continuous monitoring of firms' operational resilience was and still is part of the supervisory work. In the 2023 review cycle, attention is being paid to risk data aggregation and reporting, which is an important element in accurate monitoring of operations and measuring the size of the different risks (credit, market, liquidity, operational, etc.).

After years of negative or low interest rates, interest rates start to rise again. The level of market risk (including spread risk) and interest rate risk as well as the management of these risks and compliance with EMIR Regulation are areas of attention in the 2023 review cycle.

Last year, The Bank initiated an in-depth methodological analysis focused on the coverage and treatment of custody-related risks (like restitution risk) and the impact of business model-related specificities on other risk types (chapter 6 on restitution risk). The Bank will continue this work in 2023 by launching implementation of the analytical framework that was drawn up to measure these specific risks. Geopolitical tensions, like the Russia-Ukraine conflict, are clear evidence that restitution risk is growing. The introduction of digital assets will add another dimension to restitution risk due to their specific nature and related risks, which the Bank monitors closely.

Last but not least, the NBB will continue to devote increasing attention to climate risk (see chapter 7 on climate risk monitoring in financial market infrastructures, payment transactions processors and messaging services).

BOX 6

International dimension of The Bank of New York Mellon Group and BNYM SA/NV

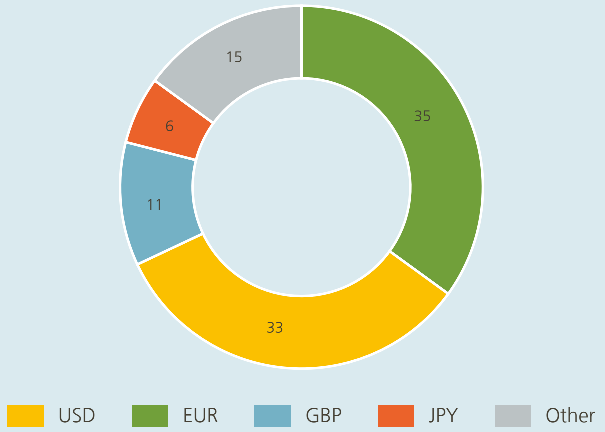
The Bank of New York Mellon, a banking group incorporated in the US, is the largest custody bank in the world in terms of assets under custody ($ 44 trillion as at December 2022, down by 6 % on the previous year). It is a global systemically important bank (G-SIB), providing asset and investment management services to institutional customers. The Bank of New York Mellon SA/NV (BNYM SA/NV), the Belgian subsidiary, provides asset services mainly and acts as the Groups' custodian for T2S markets and as the global custodian for EU customers. BNYM SA/NV has a non-bank subsidiary in Germany, branches in Luxembourg, the Netherlands, Germany, France, Ireland, Italy, the UK, Denmark and Spain through which it operates in these local markets and an operations-only branch in Poland (with no access to the local market). BNYM SA/NV qualifies as other systemically important institution (O-SII) as assessed by the Bank based on the relevant EBA guidelines.

By the end of 2022, BNYM SA/NV served almost 4 000 international, institutional customers[1] on whose behalf it held € 2.8 trillion equivalent assets under custody, denominated in more than 80 different currencies[2]. The majority of these assets are denominated in EUR (35 %), followed by USD (33 %), JPY (11 %) and GBP (6 %). 50 % of these assets are bonds and 50 % of these assets are shares. In terms of settlement activity[3], BNYM SA/NV processed about 9.1 million transactions worth 52.3 trillion equivalent in 2022 ; the main currencies are USD (59 %), EUR (29 %), GBP (9 %) and DKK (1 %)[4].

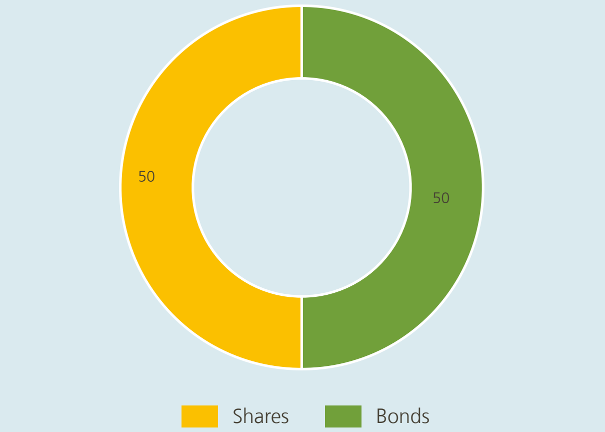
1 Compared to last year the number of clients is reported based on the holding view, providing more granularity. The number of clients, based on this definition steadily increased from 3 600 in 2020 to 3 800 last year and almost 4 000 this year.
2 Other important eligible currencies include DKK, CAD, CHF and AUD.
3 Value of BNYM settlement activity is based on receipt and delivery instructions.
4 Compared to last year, the scope of the data related to transactions has changed, this change also impacts the graph on Settlement Value by currency.

Composition of assets under custody and turnover in percentage, end of year 2022

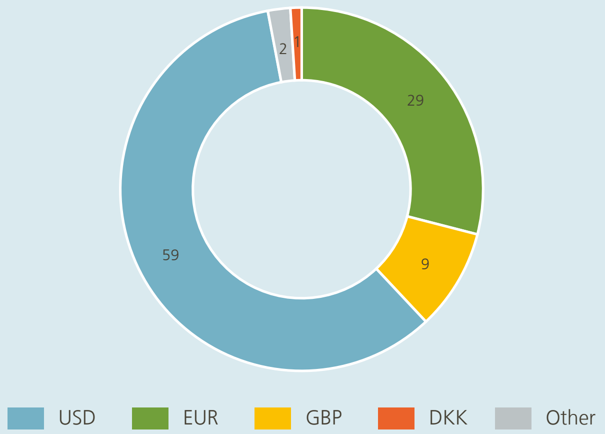
Assets under custody, per currency (%), end of year 2022



Assets under custody, per security type (%), end of year 2022



Settlement turnover value, per currency (%), 2022



1 Source: BNY Mellon.