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 supervision under EMIR and the CSDR. Figure 2 sets out the scope of the Bank's oversight and supervision for CCPs (section 2.1), (I)CSDs (section 2.2) and custodians (section 2.3).

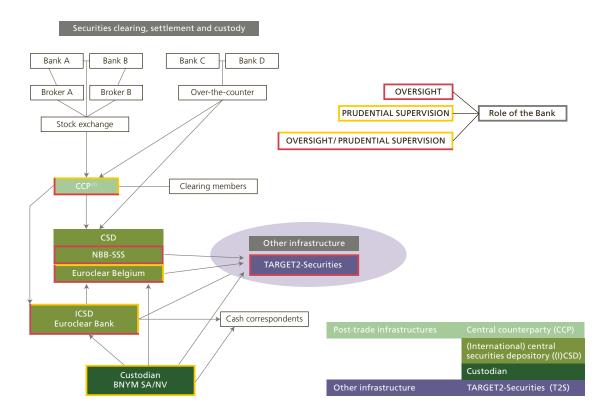
The scope of the activities of (I)CSDs governed by Belgian law vary. While Euroclear Bank provides services covering a wide range of securities, Euroclear Belgium primarily provides services for Belgian equities. Under the CSDR, the Bank has been designated the sole competent supervisory authority¹ for Euroclear Bank and Euroclear Belgium and is also considered the relevant overseer for purposes of this directive. 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 corporate borrowers, credit institutions and other entities.

The daily settlement operations of Euroclear Belgium and NBB-SSS are outsourced to TARGET2-Securities (T2S), as is the case for 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 enable 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 set up the T2S Cooperative Arrangement to ensure the involvement of all authorities with a legitimate interest in the smooth functioning of T2S, including the CSD oversight and market authorities that 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. the technical platform, legal basis, governance structure and comprehensive risk management framework) and the services it provides, against an applicable PFMI subset. 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. securities safekeeping, settlement and investor services) and is supervised by the ECB under the SSM as a significant credit institution.

¹ For the following aspects, the Bank consults the FSMA, which remains the competent market authority: rules on conflicts of interest and 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.

Figure 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 to 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 they themselves use Belgian FMIs for settlement. The Bank therefore closely monitors regulatory developments relating to CCPs. The framework that regulates CCPs, i.e. their resilience and recovery and ultimately their resolution, was being further completed at the time of writing.

In September 2023, the FSB held a consultation on a draft report regarding financial resources for CCP resolution. The report analyses the benefits and limitations of potential financial resources and tools for the resolution of systemically important CCPs and proposes specific tools and resources that should be placed at the disposal of the resolution authority.

In August 2023, the CPMI and IOSCO published a report on CCP practices to address losses arising from non-participant default events via recovery or orderly resolution tools. ² This report could lead to further guidance under the PFMI for CCPs and other FMIs.

 $^{1.} See \ \ https://www.fsb.org/2023/09/financial-resources-and-tools-for-central-counterparty-resolution-consultation-report/.$

² Available at https://www.bis.org/cpmi/publ/d217.htm.

Continuing their review of margining practices, the CPMI and BCBS issued a consultative report in January 2024, evaluating good practices and the transparency of initial margin in centrally cleared markets. ¹ A CPMI-IOSCO discussion paper on streamlining variation margin processes in centrally cleared markets followed in February.²

In February 2024, the European Parliament and the Council reached a compromise on the third review of EMIR.³ Through the introduction of a so-called "active account" requirement, the EU co-legislators require clearing by EU CCPs of categories of derivatives deemed substantially systemic (e.g. interest rate swaps denominated in euro and zloty and short-term interest rates in euro), although to a minimal extent. The requirement applies to entities that pass a *de minimis* threshold of clearing activity in the relevant contracts. Regarding supervision, the process to authorise the extension of CCP activities will become shorter. While the national competent authority (NCA) retains supervisory decision-making powers, ESMA powers are enhanced, including via an increase in the number of instances in which it can provide an opinion on NCA authorisations and decisions and the ability to participate in on-site inspections of CCPs. ESMA will also get enhanced coordination powers where more than one CCP is in an emergency situation.

The Commission published further implementing legislation ⁴ for the EU Regulation on CCP recovery and resolution (CCP-RRR) which sets out a framework for the recovery and resolution of EU CCPs. Moreover, ESMA has published guidelines on practices to determine when a CCP is deemed to be failing or likely to fail, the method to value contracts to be terminated, and the functioning of the CCP resolution college. ⁵

Prudential and oversight approach

As required under European legislation, the Bank participates in five EU CCP supervisory colleges (see Table 2) that are relevant for 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 which are, however, no longer EMIR supervisory colleges.

Priorities for the ongoing supervision of EU CCPs are set by NCAs, after consultation with the college members. New CCP services or products, significant risk model changes and recovery plans are approved by the CCP's NCA, further to the opinion of the CCP's supervisory college.

As envisaged by the CCP-RRR, national legislators must designate a CCP resolution authority. Most authorities have established a sub-CCP-RRR resolution college and a first iteration of the CCP's resolution plan has been presented or approved. To date, the Bank participates in five EU CCP resolution colleges (see Table 2).

¹ See https://www.bis.org/bcbs/publ/d568.htm.

² See https://www.bis.org/cpmi/publ/d221.htm.

³ See https://www.consilium.europa.eu/en/press/press-releases/2024/02/07/capital-markets-union-council-an-parliament-agree-on-improvements-to-eu-clearing-services/.

⁴ See https://finance.ec.europa.eu/regulation-and-supervision/financial-services-legislation/implementing-and-delegated-acts/ccp-recovery-and-resolution-regulation.

 $^{5\ \} See \ https://www.esma.europa.eu/publications-and-data/guidelines-recommendations-and-technical-standards.$

Table 2

Overview of CCP supervision and resolution of EU and third-country CCPs and NBB involvement

EU CCPs	Third-country CCPs	UK CCPs
EMIR		UK EMIR legislation
NCA supervision	ESMA supervision (second level)	Bank of England supervision
ESMA CCP supervisory committee	ESMA CCP supervisory committee	
Participation by CCP NCAs of existing EU CCPs	Participation by CCP NCAs of existing EU CCPs	
EMIR supervisory college	EMIR college for third-country CCPs	Global CCP college
Participation in the college is mandatory	Participation in the college is voluntary	Basis: CPMI-IOSCO PFMI Responsibility E
NBB participates in the colleges of	H SA (FR), Eurex Clearing (DE), for the exchange of information onext Clearing (IT), oe Clear Europe (NL),	Participation in the college is voluntary
Euronext Clearing (IT), Cboe Clear Europe (NL), and Keler CCP (HU)		NBB participates in the colleges of LCH Ltd and ICE Clear Europe Ltd
CCP Recovery and Resolution Regulation (CCP-RR)		UK CCP resolution regime code of practice
National resolution authority of EU CCP		Bank of England acts as CCP resolution authority
ESMA CCP resolution committee		
Participation by national resolution authorities of EU CCPs		
CCP-RRR resolution college		UK CCP crisis management group
Participation in the college is mandatory		Basis: FSB Guidance on CCP Resolution
NBB participates in the colleges of LCH SA (FR), Eurex Clearing (DE), Euronext Clearing (IT), Cboe Clear Europe (NL), and Keler CCP (HU)		and Resolution Planning
NBB participates	NBB does not participate	

Source: NBB.

2.2 (I)CSDs

Changes to the regulatory framework

On 27 December 2023, Regulation (EU) 2023/2845 was published in the Official Journal of the European Union, amending the CSDR. This regulatory fitness and performance (REFIT) exercise was conducted mainly over 2022 and 2023 and introduces changes to the settlement discipline regime, the review and evaluation procedure, the passporting process, the regime for third-country CSDs and the provision of banking-type ancillary services, amongst other areas.

Under the amended CSDR, a supervisory college will be established for CSDs that are of substantial importance to the functioning of securities markets and the protection of investors in at least two EU member states. ESMA has been mandated to develop new regulatory technical standards to determine the criteria under which the activities of a CSD in a host member state could be considered to be of substantial importance to the functioning

of the securities markets and the protection of investors in that state and to submit them to the European Commission by mid-January 2025. Competent authorities have until one month after the entry into force of these regulatory technical standards to establish a college of supervisors.

The Bank expects that Euroclear Bank will meet the criteria in at least two member states, given its international profile and, in particular, its settlement activity in EU markets. Therefore, a supervisory college will have to be established. The Bank already hosts an annual forum at which the results of the review and evaluation of Euroclear Bank are presented to the competent authorities of the member states for which Euroclear Bank is of substantial importance for the functioning of the securities markets and the protection of investors under the currently defined criteria, as well as to ESMA and the EBA.

Prudential and oversight approach

The CSDR requires the Bank, in its capacity as the NCA, to conduct an annual review and evaluation (Art. 22 CSDR) 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 countries in which the Euroclear group has a CSD. For Euroclear Belgium, the assessment is coordinated with those conducted by the French and Dutch authorities competent for Euroclear France and Euroclear Nederland, respectively, as the operations, governance and rulebooks of the three CSDs – collectively termed the ESES CSDs – are, to a large extent, aligned. For Euroclear Bank, the final outcome of the review and evaluation is shared with the competent authorities of the countries for which the ICSD is substantially important, as well as with the EBA and ESMA (see Box 1).

As Euroclear Bank is also subject to banking law, the Bank conducts an annual Supervisory Review and Evaluation Process (SREP) in conjunction with its CSDR review and evaluation. The Bank streamlines all assessment frameworks applicable to Euroclear Bank, meaning CSDR and PFMI principles and key considerations are taken into account in the SREP.

Following the UK's withdrawal from the European Union, Euroclear Bank had to be recognised by the Bank of England in order to continue to provide CSD services in the UK. As required by Article 25 of the UK CSDR, ¹ a cooperative arrangement between the Bank of England and the supervisory authority of the non-UK CSD, in this case, the Bank, had to be established. A Memorandum of Understanding with the Bank of England was thus signed in January 2023, renewing a pre-existing cooperation arrangement.

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 1

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 governed by Belgian law, i.e. Euroclear SA, Euroclear Bank and Euroclear Belgium. The table below lists these authorities and the basis for a cooperation arrangement with them.



Cooperation	Basis for cooperation		
National cooperation			
FSMA	Market authority responsibilities for (I)CSDs in Belgium		
International cooperation			
Euroclear SA/NV			
Euroclear Group oversight auhtorities 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 information exchange concerning the relationship of Euroclear SA with the (I)CSDs of the Euroclear group; Euroclear SA is 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		
European Central Bank	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, Euroclear Bank was recognised by the Bank of England in order to allow it to provide CSD services in the UK. As required by the UK CSDR, a cooperative arrangement between the Bank of England and the NBB was 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 and, as of 2021, equities 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 PFMI		
Securities Exchange Commission (SEC)	Euroclear Bank operates under an SEC exemption that allows it to perform certain clearing activities for its US participants without having to register as a clearing agency with the SEC		
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.

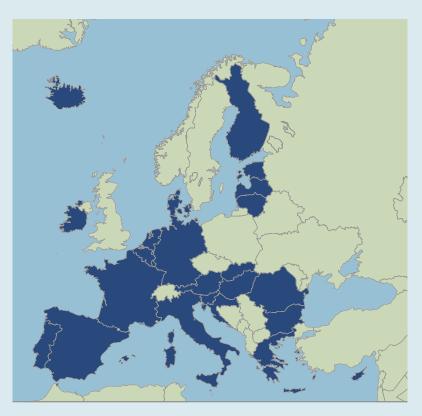
Under the CSDR, the Bank, as the competent authority, needs to involve other authorities in the supervision of (I)CSDs governed by Belgian law. The CSDR identifies as "relevant authorities" those responsible for oversight, central banks in the EU in whose books cash is settled, and central banks in



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 capacity 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 also carries out settlements in euro.

In addition to the FSMA and the relevant authorities, the competent authorities from EEA countries in which Euroclear group has a CSD are involved in the annual review and evaluation process of Euroclear Belgium and Euroclear Bank. As shown in the map below, Euroclear Bank is of substantial importance for many EEA countries, ¹ and the Bank shares an outcome report from this process with authorities in those countries.

EEA countries for which Euroclear Bank is of substantial importance



¹ At the time of writing, Euroclear Bank was of substantial importance for Austria, Belgium, Bulgaria, Croatia, Cyprus, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, the Netherlands, Portugal, Romania, Slovakia, Slovenia and Spain.

In 2023, a major crisis erupted when Credit Suisse lost the confidence of the markets. Given its commercial relationships with Credit Suisse, Euroclear Bank decided on a range of precautionary management actions before the Swiss authorities intervened to limit the potential impact. Not only was Credit Suisse a key participant in Euroclear Bank's securities settlement system, for both its own activities and those of its clients, but it was also, given its footprint in Switzerland, a regular treasury counterparty for short-term reinvestments in Swiss francs (CHF). It provided services as a cash correspondent in CHF within the Euroclear system, was responsible for the receipt of income and redemption payments related to Eurobonds in CHF and acted as a settlement bank for Swiss securities. From a risk management perspective, with Euroclear Bank accepting collateral for intraday cash lending to participants for settlement activity, the financial instruments of Credit Suisse were impacted by temporarily high haircuts. The cash correspondent was disabled and risk mitigating measures were taken across the Swiss link during the period of turbulence, which lasted until the acquisition of Credit Suisse by UBS eased tensions in the financial markets.

BOX 2

Risks incurred by Euroclear Bank due to sanctions against Russia and Russian countermeasures

At the start of Russia's war in Ukraine, the EU and other G7 members imposed a number of sanctions, impacting the assets of Russian entities such as the Central Bank of Russia and the Russian National Securities Depository (NSD). A large share of the assets affected by these sanctions were safeguarded and, following imposition of the sanctions, effectively frozen or immobilised in the accounts of Euroclear Bank. Euroclear Bank also safeguards international investors' assets on the Russian market, through its link with NSD. As a result of Russian countermeasures, these assets were also frozen in the accounts of Euroclear bank at NSD. Thus, Euroclear Bank has incurred a number of risks while implementing international sanctions against Russia and enduring Russian countermeasures.

A large share of the sanctioned assets in Euroclear Bank – predominantly fixed-income financial instruments – have reached maturity and been transformed into cash since the introduction of the sanctions. Given the high interest-rate environment in 2023, Euroclear Bank reported unexpected and extraordinary revenue from the reinvestment of sanctioned cash deposits. At the same time, its operating costs and risks have increased substantially given the challenges of managing an expanding balance sheet, the implementation of sanctions, and Russian countermeasures. Furthermore, various parties in Russia are contesting the consequences of application of the sanctions and are pursuing litigation against Euroclear Bank in Russia. They are seeking compensation for the frozen securities and cash held by Euroclear Bank as well for lost opportunities and damage.

Given the role played by CSDs in safeguarding the securities and cash of sanctioned participants, resulting in unexpected and extraordinary revenue from the re-investment of sanctioned cash of the Central Bank of Russia, the EU looked to these institutions in order to recover the net profits earned so as to provide financial support for Ukraine. A Council regulation, adopted in February 2024, determined – as a first step – how this so-called windfall revenue of CSDs should be used. CSDs are now required to account

1 Regulation – EU - 2024/576 - EN – EUR-Lex (europa.eu).



separately for and manage revenue from the re-investment of sanctioned cash in their financial accounts and are prohibited from distributing any such profits as dividends. Additionally, CSDs must report annually to the Commission and the national supervisory authority on the total amount of such cash, revenue and windfall profits. These measures paved the way for a subsequent Council regulation in May 2024, aimed at redirecting 99.7 % these net profits (the financial contribution) towards financing support for Ukraine. Nonetheless, the regulation acknowledges the existence of risks and costs endured by CSDs due to the implementation of international sanctions and therefore foresees that 10 %, or more in an emergency situation, of the financial contribution could be retained provisionally to comply with capital and risk management requirements. The Bank is closely monitoring the evolving risk environment facing Euroclear Bank due to the sanctions regime and associated countermeasures, especially given the systemic nature of Euroclear Bank and the potential for adverse effects on financial stability.

1 Regulation - EU - 2024/1469 - EN - EUR-Lex (europa.eu).

Cyber risk management remains a top priority for supervisors, particularly in the current geopolitical context. Euroclear Bank, Euroclear Belgium and NBB-SSS participated in the 2023 ESCB Cyber Assessment Survey, an assessment of the maturity of FMI cybersecurity, based on the June 2016 CPMI IOSCO Guidance on cyber resilience. The ESA Technical Forum, which is chaired by the Bank and includes central banks and the securities regulators for all Euroclear group CSDs, monitors the investments made at Euroclear group level to implement cybersecurity aspects of the group's strategy and further enhance system resilience. Cyber and operational risks are recurring topics as well as reasons for interaction with the Bank's risk management (second line of defence) and internal audit (third line of defence) services.

ESG (environmental, social and governance matters) is one of the pillars of the Euroclear group's strategy. The group's ESG policy is publicly available and built around the following axes: environment, workplace, community and governance. By focusing on these axes, the Euroclear group aims to support and enable a sustainable financial marketplace. At the same time, it recognises the existence of risks and, for example, requires Euroclear companies to identify and manage climate-related risks. In 2023, the Bank conducted a first FMI-specific review of climate-related and environmental risks. Please see the relevant themed article in this report for more information on the Bank's work in this area as well as the lessons learned.

Although CSDs operated by members of the ESCB are exempt from the authorisation and supervision requirements of the CSDR, ² some prudential requirements are nonetheless applicable to them. Under the regime for granting eligibility to securities settlement systems and links for their use in Eurosystem credit operations, based on the CSD's compliance with the CSDR requirements and in cooperation with the Eurosystem, the Bank exercises its overseer role by conducting an annual review and evaluation of NBB-SSS against the CSDR requirements that are relevant from a "user perspective". ³

¹ ESG group policy, Section 3.1.4.

² Pursuant to Article 1(4) CSDR.

³ NBB-SSS is eligible for monetary policy operations by the Eurosystem. This means that the Eurosystem accepts securities as collateral in NBB-SSS. As the Eurosystem is effectively a user of NBB-SSS, it needs assurance that NBB-SSS is safe to use.

In 2023, the IMF carried out an FSAP in Belgium and, as part of its work, issued a detailed assessment report on Euroclear Bank. The report looked at compliance by both Euroclear Bank and its supervisory authorities, i.e. the Bank and the FSMA, with the CPMI-IOSCO's Principles for financial market infrastructures (PFMI).

1 See https://www.imf.org/en/Publications/CR/Issues/2023/12/07/Belgium-Financial-Sector-Assessment-Program-Detailed-Assessment-of-Observance-Assessment-of-542179.

BOX 3

International dimension of Euroclear Bank

Due to the nature of its business model, Euroclear Bank has an international scope. This is illustrated, for example, by the participants, currencies and linked securities markets with which it works. At the end of 2023, Euroclear Bank had more than 1 800 participants. Its participant base consists mainly of non-domestic entities, including 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 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 their local markets). When (I)CSDs offer their participants access to foreign securities markets, they are considered investor (I)CSDs, while the foreign (I)CSDs are referred to as issuer (I)CSDs. Euroclear Bank is connected to more than 50 foreign CSDs as an 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 (44 currencies) which may differ from the denomination currency. 2

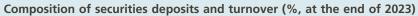
At the end of 2023, the value of securities deposits held on Euroclear Bank's books on behalf of its participants amounted to the equivalent of €18.3 trillion (up from €17.5 trillion in 2022). The euro is the main denomination currency (51%), followed by the US dollar (27%) and the pound sterling (11%). Fifty-four percent of securities deposits are in international bonds, for which issuers can choose the denomination currency and the governing law.

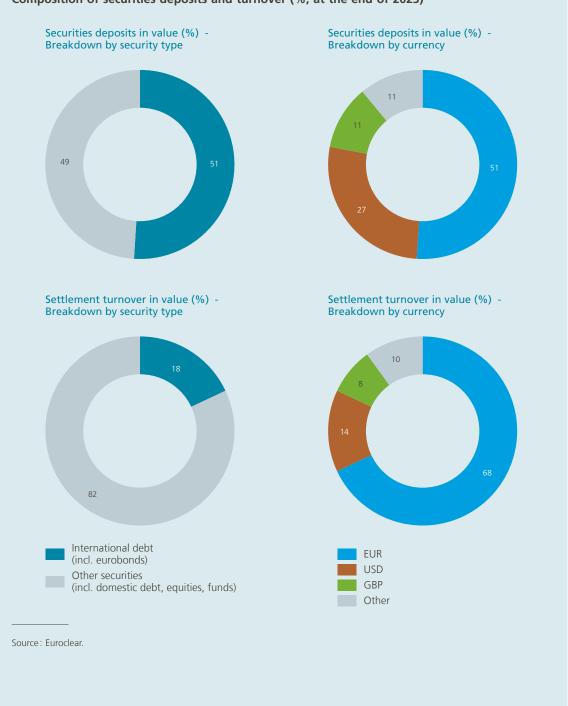
In terms of settlement turnover, the number of transactions settled in Euroclear Bank in 2022 came to 171 million (up from 163.3 million in 2021). In value terms, this represents € 727.7 trillion (up from € 692.2 trillion in 2021). 68% of settlement turnover, free-of-payment and against-payment transactions, were denominated in euros, followed by 14% in US dollars and 8% in pound sterling. International debt accounts for 18% of settlement turnover per security type, as compared to securities deposits, while the bulk is composed of other types of securities such as domestic debt and, to a lesser extent, equities or exchange-traded funds.

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



The interconnectedness of Euroclear Bank with other FMIs is a critical component of the Euroclear group's strategy to establish a common pool of collateral assets in which group entities provide collateral management services as a triparty agent assuming collateral management tasks (including collateral selection, valuation and substitution) from its participants during the lifecycle of a transaction between two participants. At the end of 2023, at group level, the average daily value of triparty collateral managed by Euroclear (I)CSDs reached the equivalent of € 1.67 trillion.





2.3 Custodians

Changes to the regulatory framework

In 2023, the regulatory framework applicable to custodians remained unchanged.

Prudential and oversight approach

BNYM SA/NV is a significant institution, meaning it falls under the direct supervision of the SSM. Supervisory work relating to the CRD/CRR 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 in terms of 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 2023, BNYM SA/NV had a German subsidiary and several branches in Europe through which it operates in local markets. BNYM SA/NV has branches in Luxembourg, Frankfurt, Amsterdam, Paris, Dublin, Milan, Madrid and Copenhagen and an operational branch in Poland.

BNYM SA/NV is the group's custodian for European clients and the European gateway to euro area markets and payment infrastructures within the BNYM group. BNYM SA/NV settles transactions in a wide range of currencies, primarily EUR, GBP, USD and JPY (see Box 4).

Due to the group's global organisational structure and specific mix of activities and operating model, governance and operational risk remained the main risk areas in 2023 and will continue to be of high importance in the 2024 review cycle. The group's remuneration policies and documentation were among the issues highlighted in the 2023 review and will continue to be points for attention in 2024 review work. The main areas of attention in terms of operational risk in 2023 were operational resiliency, outsourcing arrangements, and ICT and cyber risks. As a global custodian, the BNYM group operates according to a "follow the sun" model which enables it to process clients' transactions and related services around the globe continuously, across different time zones. To do so, BNYM SA/NV relies heavily on an (intragroup) outsourcing arrangement. Such a model can present advantages in terms of efficiency and resiliency (e.g. back-up locations), but it can also introduce organisational complexities and additional points for attention (such as the monitoring of outsourced activities). As a result, amongst the assessments carried out in 2023, the Bank scrutinised the outsourcing register and recovery plans and acted as an observer in a live default simulation exercise. The Bank will continue its assessment of business continuity and exit plans relative to outsourcing arrangements in 2024. An SSM-wide cyber stress test will also be carried out by the ECB in cooperation with the NCAs in 2024.

The level of market risk (including spread risk) and interest rate risk was another area for attention in the 2023 supervisory review cycle. In June 2023, the new EBA guidelines on interest rate risks in the banking book (IRRBB) entered into force. As part of the 2024 supervisory review and evaluation process (SREP), the JST will therefore perform a first-time challenge and assess BNYM SA/NV against these new guidelines.

Due to the high value of multi-currency transactions handled by BNYM SA/NV each day, the intraday management of both euro and non-euro currencies relating to credit and liquidity risks, as well as the risk control framework around credit risk (concentration), is of importance for BNYM SA/NV and will remain a point for attention in the supervisory review cycle. More information on the specific risk profile of custodian banks can be found in Box 5.

In recent years, the Bank contributed to the development of a dedicated assessment framework which can be used by banking supervisors to assess restitution risk ¹² during their annual supervisory reviews. This framework will be structurally implemented within the SSM as from the 2024 supervisory review cycle. The importance of restitution risk increased over the past year in view of ongoing geopolitical tensions.

Last but not least, the Bank will continue to pay increasing attention to climate-related risks (see Chapter 8 on the monitoring of climate-related risks by financial market infrastructures, payment processors and financial messaging services). The JST will also continue to assess progress in the implementation of climate-related and environmental plans and the Bank's overall progress towards fulfilling ECB expectations. In addition, the SSM will conduct a climate-related risk scenario analysis in 2024.

- 1 Restitution risk is the risk of an institution having to reimburse a client for the value of financial instruments held in custody if lost at or by a sub-custodian or CSD. This obligation arises from AIFMD/UCITS V.
- 2 See also the discussion of restitution risk in the 2023 FMI Report, available at https://www.nbb.be/doc/ts/publications/fmi-and-paymentservices/2023/fmi-2023 dlt.pdf.
- 3 See https://www.bankingsupervision.europa.eu/ecb/pub/pdf/ssm.202011finalguideonclimate-relatedandenvironmentalrisks~58213f6564.

BOX 4

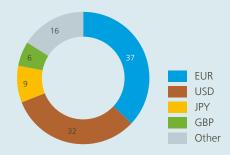
The international dimension of the Bank of New York Mellon and BNYM SA/NV

The Bank of New York Mellon, a banking group incorporated in the US, is the world's largest custodian bank in terms of assets under custody (\$ 48 trillion as of December 2023, representing a year-on-year increase of 9%). 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 group's Belgian subsidiary, primarily provides asset services and acts as the group's custodian for T2S markets and as the global custodian for EU customers. BNYM SA/NV has a non-bank subsidiary in Germany and branches in Luxembourg, the Netherlands, Germany, France, Ireland, Italy, the UK, Denmark and Spain through which it operates in these local markets; it also has an operational branch in Poland (with no access to the local market). BNYM SA/NV has been assessed by the Bank as an "other systemically important institution" (O-SII), based on the relevant EBA guidelines.

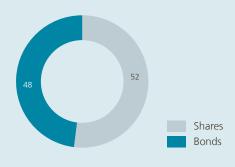
At the end of 2023, BNYM SA/NV served almost 4 500 international, institutional customers, on whose behalf it held the equivalent of € 3.1 trillion in assets under custody, denominated in more than 80 different currencies. Most of these assets are denominated in EUR (37%), followed by USD (32%), JPY (9%) and GBP (6%). Forty-eight percent (48%) of the assets are bonds and 52% are shares. In terms of settlement activity, BNYM SA/NV processed about 8.9 million transactions valued at the equivalent of € 66.7 trillion in 2023; the main transaction currencies were USD (62%), EUR (27%), GBP (9%) and DKK (1%).

Composition of assets under custody and turnover (%, end of 2023)

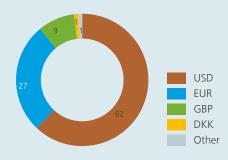
Assets under custody, per currency (%), end of 2023



Assets under custody, per security type (%), end of 2023



Settlement turnover value, per currency (%), 2023



Source: BNY Mellon.

Specific risk profile of custodian banks and limits on the calculation methods of CRR (Capital Requirements Regulation) risk ratios

The CRR's approach to risk and risk ratio calculation methods

Most financial institutions do not have direct access to central securities depositories (CSDs) – which provide notary services or provide and maintain securities accounts at the top-tier level – in all the markets in which they invest. Therefore, custodian banks establish such connections in multiple markets, hold their clients' assets in custody, and act as an intermediary between investors and CSDs in various markets. In keeping with this business model, which is crucial for the financial markets, custodians should seek to minimise the risks on their balance sheets. They are thus often perceived by clients as "safe havens". Widely used and trusted measures such as a (high) common equity tier 1 (CET1) ratio and (low) risk weighted assets (RWA) density tend to confirm that custodians are relatively risk averse and safe. This view is not misleading overall, but it should be nuanced and complemented by other metrics to provide an accurate reflection of the risk profile of custodians.

For example, geopolitical risks are rapidly and visibly increasing and impact financial institutions both on- and off-balance sheet. As such, they should be reflected in risk and capital ratios. For some institutions, however, such as custodian banks, the prudential capital requirements imposed by the Capital Requirements Regulation (CRR) do not increase commensurately along with an increase in risk; this is a direct consequence of the CRR risk ratio calculation methods, on the one hand, and the limited number or types of risks that are recognised by this regulation, on the other hand.

Indeed, certain risks that fall within the scope of the regulation are materially underestimated by the capital requirement calculation methods. In addition, material parts of in-scope risk categories are overlooked or disregarded. In the latter case, financial institutions do not have to cover these risks with regulatory capital. Such partially covered risks include credit risks to which institutions are exposed during the business day, also known as intraday credit risks, which are relatively material for custodians due to their settlement-related payment activities. The same holds true for interest rate risks related to positions in the banking book to which institutions are exposed: as these do not appear in the trading book, they are not covered by the regulatory capital requirements. Finally, specific risks that are common to custodians, such as restitution risk, simply fall outside the scope of the CRR.

Of course, custodian banks, conscious of their central and crucial role in the markets, do not ignore these types of risks and calculate a capital buffer under Pillar 2 to cover (most of) them. However, these calculations are specific to each institution. Understanding the specificities of these calculation methods requires cumbersome efforts by regulators, and their differences allow for limited comparability and benchmarking.



Relevance of interest rate risk in the banking book and restitution risk for custodians in the light of recent developments

Throughout 2022 and 2023, central banks around the world raised interest rates several times to tame above-target inflation rates. Along with the rates set by central banks, market interest rates started to shift, thereby increasing interest rate risks for financial institutions. In line with their business model – which entails safeguarding non-maturity wholesale deposits which can flow out instantly – custodian banks often avoid holding financial positions for trading purposes and instead hold substantial positions in order to maintain high-quality, readily available liquidity. These highly liquid securities are rightly not included in the trading book; however, an unfortunate consequence of this is that they are not covered by the regulatory capital requirements.

The recent increase in geopolitical risk has shown that, in certain cases, decisions may be taken to freeze the assets of a given account holder, issuer or country. In keeping with their business model, custodian banks may have close ties with CSDs or other intermediaries (global custodians or CSDs) that are the depositors of such securities or that are located in countries subject to sanctions. European directives protect investors against the loss of their financial assets, ¹ irrespective of where they are held. Indeed, custodian banks, often referred to as depositary banks in this context, are liable for the restitution of these assets to their clients if they are lost. Although financial institutions are exposed to restitution risk, the CRR does not address this particular risk and thus does not provide for a market-wide regulatory capital calculation method.

The position and actions of the Bank

The Bank is of the opinion that financial markets are best protected when financial institutions mitigate all risks to which they are exposed through transparent, cross-cutting Pillar 1 coverage methodologies. Custodian banks, as explained above, are exposed to many risks for which the applicable legislation does not specifically require Pillar 1 capital. The Bank, as a competent supervisory authority, is striving to close this regulatory gap to the extent possible.

Competent authorities have a number of tools at their disposal to compensate for the imperfect coverage of the CRR, such as the possibility to impose more qualitative requirements or to slightly increase – within predefined limits – the amount of capital that financial institutions must set aside. Yet, ultimately, the aim should be to compel financial institutions to set aside the exact amount of capital necessary to cover their exposures.

This is why the Bank's team in charge of the supervision of custodian banks has contributed and continues to contribute decisively to the SSM working groups responsible for the development of new methodologies, raising awareness of these risks and proposing adequate, generally applicable calculation methods to more aptly cover the aforementioned risks with Pillar 1 capital.

1 Those that fall within the scope of AIFMD/UCITS V.