

CHAPTER 12

Central securities depositories

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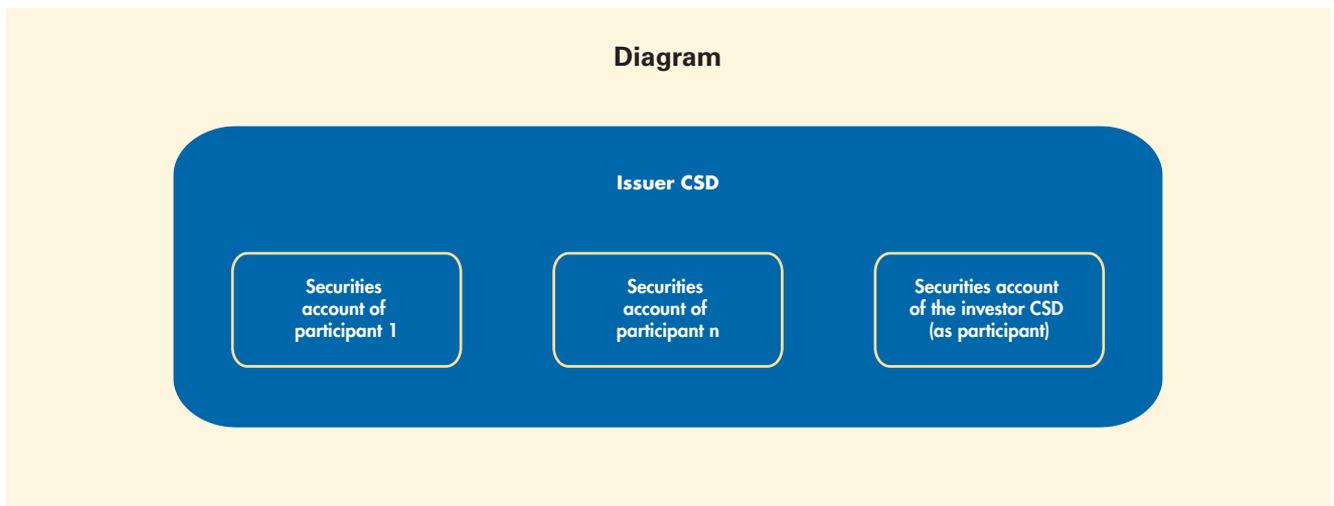
Central securities depositories (CSDs)¹ are essential infrastructures for the proper functioning and security of financial instrument markets. They play a key role in maintaining the integrity of securities issues by ensuring that securities are not created or deleted accidentally or fraudulently. The provision of securities accounts at the highest level of the holding chain (i.e. for the benefit of financial intermediaries themselves) and the reconciliation, at least daily, of these securities accounts with issue securities accounts² allow them to discharge this responsibility. In jurisdictions where this “notarial” service is provided by registrars, the CSD reconciles its own data (on ownership) with those of the registrar (on issues).

While the Principles for Financial Market Infrastructures (PFMI, see Chapter 18) consider that CSDs do not necessarily operate a securities settlement system, the European regulation transposing the PFMI establishes a very close link between CSDs and securities settlement systems. As a result, since the entry into force of the European CSDR³ (see Section 2 of this chapter), an entity must operate a securities settlement system to qualify as a CSD (and also provide at least one of the other

two core services defined by CSDR: notary services and/or central securities accounts maintenance services at the top tier level). In addition, CSDR considers that CSDs are the only entities authorised to operate a securities settlement system.⁴ It should be noted here that TARGET2 Securities (T2S), which will be described in Chapter 14, is not considered as a CSD, nor indeed as a securities settlement system but as a technical platform for settlement and delivery developed and operated by the Eurosystem.

The CSDs are also active participants in the integration of financial markets, in particular by establishing links between CSDs: these links are one of the ways for participants in a given market to be able to access securities issued in other jurisdictions. The establishment of a link from a CSD (called the “investor CSD”) to another CSD (the “issuer CSD”) means that the investor CSD becomes a participant of the issuer CSD, i.e. in practice opens a securities account in its name with the issuer CSD (which is in fact nearly always established in another country, as there are very few countries nowadays with more than one CSD). The investor CSD thus enables its participants to access securities other than those for which it itself performs the notary function.

- 1 In the remainder of this chapter, the term “central depository” or the acronym “CSD” will be used interchangeably to designate central securities depositories.
- 2 The issue accounts correspond to the sum of the securities issued, for each ISIN code considered.
- 3 Central Securities Depositories Regulation (CSDR) is what the “Regulation (EU) No 909/2014 of 23 July 2014 on improving securities settlement in the European Union and on central securities depositories” is commonly called.
- 4 Note that some central banks still act as CSDs. For example, the National Bank of Belgium operates a settlement-delivery system (NBB-SSS) for the issuance and settlement of fixed income securities.



1. The roles of a central securities depository

1.1. Management of securities issues: the notary service

1.1.1. History and trend towards paperless securities

Financial instruments were originally circulated in the form of paper certificates⁵ that were held physically by investors, either directly or a safe deposit box at their bank. The growth of financial markets and the surge in volumes of securities issued and traded showed the limits of this organisation: the physical transfer of large volumes of paper certificates required time and handling, which could not only create liquidity pressures, but also entail operational risks, such as the loss of securities or the circulation of fake securities. In addition, the issuance of securities in the form of paper certificates made transactions such as capital restructuring, e.g. stock splits, cumbersome. With the support of financial markets, national authorities therefore contributed to the creation of central depositories.⁶ These entities were initially responsible for centralising all the paper certificates in one place, so that the physical transfers could be eliminated: transactions were then settled by book entry in the books of the central depository. This step is known as “immobilisation.”⁷ Nowadays, securities that are still issued in the form of paper certificates⁸ are therefore usually immobilised at the CSDs or with a registrar, and then transferred electronically through a book entry.

Then an additional step was taken with “dematerialisation”, as securities issues became completely paperless.⁹ Paperless securities are not only held and exchanged but also issued electronically, through an accounting entry in the issue account, most often held by the CSD. As a result, operational processes usually have become safer and more efficient as advances in technology have made it possible to register and transfer securities electronically.

Legislation has been adapted in the various European countries to allow the representation of securities in the form of electronic records – or even make it mandatory. In France, the Law of 30 December 1981 made the dematerialisation of securities virtually systematic (implemented from November 1984). Dematerialisation did not however totally exclude the possibility of issuing physical securities: issuers can still issue part of an issue in the form of paper “representative certificates” in single or multiple denominations, for exclusive circulation outside France, even though in practice they no longer request to do so.

At the European level, a major step forward was made with CSDR, adopted in 2014, which imposes, from 1 January 2023 for transferable securities admitted to trading as of that date and from 1 January 2025 for all transferable securities admitted to trading irrespective of their issue date, that the initial registration be made by “book entry”. This means that these financial instruments will either have to be issued directly in paperless form – they will then exist only in the form of an accounting entry, with no underlying physical security – or issued physically in paper form and then “immobilised” (i.e. kept by a CSD so as to allow their subsequent transfer by book entry) or, for those securities initially issued in paper form that will still exist on 1 January 2025, dematerialised or immobilised on that date. One of the essential characteristics of immobilised or dematerialised securities is that they are fungible, i.e. the securities comprising the same issue are interchangeable.

1.1.2. The “notary service”, a core service under CSDR, but which can be provided by other entities

This so called “notary service” correspond to the initial recording of newly created securities at the level of the infrastructures or possibly specialised entities (see below). It is one of the three core services set out by

5 The possession of these certificates was proof of ownership. Several coupons were printed on each certificate, with each coupon corresponding to the maturity of an interest payment or a dividend. At the time of each payment, the holder of the security handed in a paper coupon against the payment of interest or dividends (hence the expression “coupon detachment”).

6 The French central depository SICOVAM – which became Euroclear France in 2001 – was for example created in 1949.

7 Immobilisation is defined by European legislation as “the act of concentrating the location of physical securities with a central securities depository so as to permit subsequent transfers by accounting entry”. This is particularly the case for international bonds or Eurobonds (see Section 4).

8 Another step was taken in this area, with respect to international issues for example, when the individual certificates to be immobilised were replaced by a global certificate representative of the entire issue.

9 Dematerialisation is defined in the Glossary of the Committee on Payments and Market Infrastructures (CPMI) as the “elimination of physical certificates or documents of title that represent ownership of securities so that securities exist only as accounting records”.

the European CSDR. In most cases, CSDs are directly involved in the process of issuing securities, by holding issue accounts opened in the name of the issuers and handling the initial registration of the securities. This is the case, for example, in France, where this notarial service is carried out by two national CSDs,¹⁰ Euroclear France and ID2S.

When an issuer submits an issuance project to Euroclear France or ID2S, the CSD concerned verifies the eligibility of the securities envisaged.¹¹ Each financial instrument is then assigned a unique identifier – an International Securities Identification Number (ISIN) – by a national numbering agency.¹² In many countries, this role is delegated to the financial centre’s historic (and most often unique) CSD. In France, Euroclear France directly assigns ISINs to issued securities. Issuers can be financial or non-financial companies, public institutions, governments, local authorities, etc.

In its role as issuer central securities depository (the “issuer CSD”), the CSD keeps an account of each issue to ensure its integrity, by reconciling – at least on a daily basis, in accordance with CSDR Article 37 – the number of securities registered in an issuing account with the number of outstanding securities, i.e. those held in the securities accounts of its participants. The issuer CSD has direct access to these data thanks to its role as the central account holder.

This essential function, conferred upon CSDs, thus allows them to ensure that there is no undue creation or destruction of securities for each issue. In the event of the undue creation of securities, investors might think that they have a right of ownership over securities, which, in reality, do not exist. Conversely, in the event of the undue deletion of securities, property rights in securities that have a real existence would be lost. In case of a discrepancy, a CSD is required to suspend settlement of the ISIN code concerned in accordance with the terms and deadlines set by CSDR.

Therefore CSDs play a key role in maintaining investor confidence.

This notary service is however not necessarily provided by a CSD: to make allowance for the practices of some jurisdictions, such as the United Kingdom, where specialised entities (the “registrars” in practice, but not necessarily banking institutions) perform this notary function, Article 31 of CSDR explicitly provides that an entity other than a CSD may be responsible for initial registrations, under certain conditions. In particular, the Member State must specify the applicable requirements in its national law, referring to the provisions of CSDR, and communicate to the ESMA (European Securities and Markets Authority, one of the European supervisory authorities set up in 2010) all relevant information on the provision of these services. In most EU Member States, however, the CSDs themselves provide the notary services.

Issuers may, in some cases, hold the securities accounts of the financial instruments they issue, which are then called pure registered shares (see below, the particular case of French registered securities as an example).¹³ The issue accounts, which are nevertheless still maintained by the CSD, reflect the sum of the assets held by the CSD’s participants.

Most issuers, however, do not directly manage the issuance of their securities by the CSD: they mandate an “agent” – in practice, usually a bank specialising in the securities business – to represent them in their relations with the CSD and proceed with the issue. Agents must already have a contractual relationship with the CSD, and thus have committed to comply with the latter’s contractual rules and operational processes.

When an entity other than the CSD is involved in carrying out this reconciliation (for example when the CSD is not directly involved in the issuance of securities and a separate entity such as a registrar provides the notary function), CSDR

¹⁰ See Section 3 of this Chapter: The French CSDs.

¹¹ In principle, all the financial securities referred to in the Monetary and Financial Code are eligible for Euroclear France operations: equity securities issued by joint-stock companies, debt securities, units or shares of undertakings for collective investment (see Article L. 211-1 of the French Monetary and Financial Code). ID2S currently only accepts NEU CPs (Negotiable European Commercial Paper – short-term commercial paper with a maturity of up to one year).

¹² For the French market, the Agence Française de Codification (AFC – the French national numbering agency), under the responsibility of Euroclear France, is responsible for assigning codes to shares, warrants and debt securities.

¹³ When the issuer holds the issue account itself, we use the term “registered securities” to refer to the securities. The rules nevertheless differ from one country to the next, both legally and operationally.

requires that the CSD and the other entity agree on “adequate measures of cooperation and information exchange” to maintain the integrity of the programmes. The “issuer” CSD of a financial instrument thus ensures that the securities accounts of the participants never show a debit balance, so that no securities are created outside the issuing process described above. When there is no local CSD (this may occur) and several “non-domestic” CSDs are directly connected to the registrar, the reconciliation relates to that provided by these CSDs with an account in the registrar’s books to ensure the circulation of eligible financial instruments in their own books. In this case, the CSDs entered in the registrar’s books reconcile the overall position for which they are registered with the registrar with the sum of the instruments held by their own participants in their books.

1.2. Central securities accounts maintenance

CSDs maintain securities accounts mostly on behalf of financial intermediaries, mainly custodians,¹⁴ who keep these securities in their books for their clients (investors).

1.2.1. General operating organisation

The “custody” of securities consists of booking the securities in the account

opened in the name of their holder; it is not strictly speaking an investment service, but a so-called “ancillary” service to investment services and which requires, in France, approval by the *Autorité de contrôle prudentiel et de résolution* (ACPR – French Prudential Supervision and Resolution Authority) for credit institutions and investment firms that wish to provide it. Custodians also provide a number of individualised services to their clients to enable them to exercise the rights attaching to the securities they hold, such as for example the receipt of payments to holders (e.g. coupons or dividends), or exercising voting rights in shareholder meetings.

In a so-called “indirect holding” model, as is the case in France and in most European countries, an investor who acquires securities does not hold them directly in an account with the CSD (this is even prohibited in France). Moreover, a unique feature of the French law is that the property right to the securities only applies to the securities accounts held by custodians: the securities accounts held by the CSD on behalf of custodians are only “technical accounts” or “mirror accounts” of the securities accounts held by these custodians on behalf of their own clients. The property rights of investors to their securities are booked by the entry of securities in an account opened in their name with a custodian, which can either be a direct participant of

¹⁴ In the remainder of this chapter, we use the terms “custodian bank” or “custodian” interchangeably to designate custodians.

Box 1: Models for direct holding or indirect holding of securities

In direct holding models, all the securities held by the end investors, i.e. the beneficial owners of the securities are recorded in the accounts opened in their name with the central depository. Each investor therefore typically has a custody account with the central depository, but the operational management of this account is usually performed by an agent (in practice, a financial intermediary). The fact that all investors’ accounts for a given security are managed in accounts at the CSD facilitates verification of the integrity of issues. Likewise, the central management of investor accounts facilitates the identification of shareholders (with however limits to the identification when securities are held by foreign investors via “non-domestic” financial institutions, which are then the only ones that the CSD knows) and the processing of securities transactions. Several European countries have adopted a direct holding model, including Sweden, Finland and Denmark. It should be noted that countries with a more recent “market” culture, such as India or China, have also adopted this model.

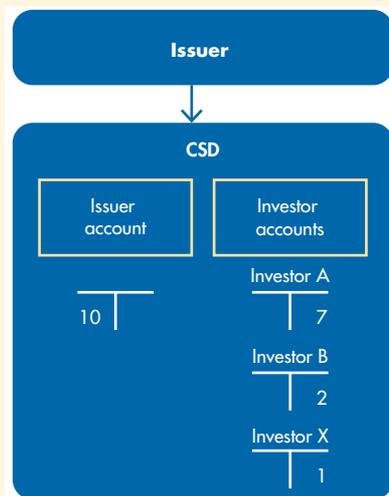
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Most European countries implement indirect holding models. These models are characterised by the existence of one or more levels of financial intermediaries, in particular custodian banks, which maintain in their systems and administer the securities belonging to the end investors. They handle the custody of securities for other financial intermediaries or for end investors themselves. Some of these intermediaries have chosen to be direct participants in the settlement system, and therefore have accounts in the books of the central depository. CSDs therefore only have a relationship with those financial intermediaries (via “omnibus” accounts), which participate directly in their securities settlement system.

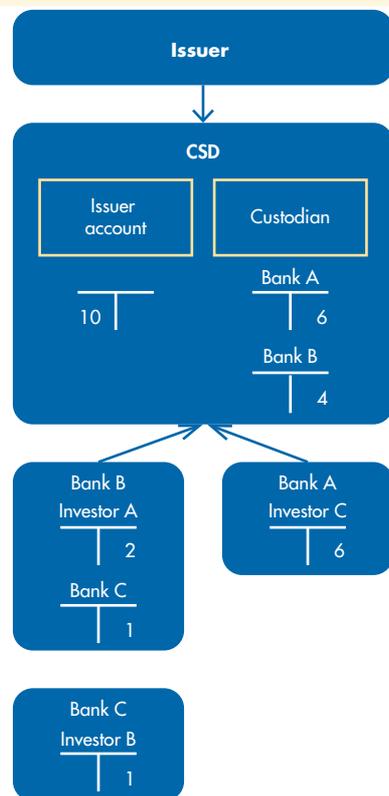
An “omnibus” account allows a financial intermediary to consolidate in this account securities held by several clients – or sometimes even all its clients. This practice is referred to as “collective segregation¹ of clients” under CSDR, as opposed to “individual segregation by client”. In France, the indirect securities holding model applies, and the use of omnibus accounts (i.e. collective segregation of clients) is widespread because it allows for more efficient operational management by custodians, while maintaining a high degree of security regarding clients’ legal ownership, due to the French legislative framework (see above) and the fact that the custodian’s own assets cannot be mixed with the assets of its clients. Individual segregation (or by category of holders) at the CSD level is also possible, in particular to isolate the securities held by UCITS.

¹ The term “collective segregation” is understood to mean that the clients’ holdings are grouped into a single omnibus account that is separate from the account holding the intermediary’s own assets.

Representation of account structures in direct holding model



Representation of account structures in indirect holding model



the CSD and thus have a securities account with the CSD, or have a securities account with another custodian who is a participant of the CSD. The number of intermediate layers in this chain of ownership is not subject to any theoretical limit.

Whether in an indirect holding or direct holding model, as each class of security is held by one or more end investors, possibly through one or more custodian banks along a holding chain of varying length, the sum of the securities held by the participants of an issuer CSD on behalf of investors must be equal to the number of securities issued, for each ISIN code. The securities

accounts held by the participants of a CSD reflect the degree of ultimate ownership within the chain (they are held by financial intermediaries who do not use another intermediary, so there is no additional tier in the custody of the assets present in these accounts). The same reasoning holds when the participant of a CSD (“issuer CSD”) happens to be another CSD (“investor CSD”). Here again, the issuer CSD is responsible for ensuring the integrity of the financial instruments issued, and hence the reconciliation between the issue accounts and the accounts of its participants, including the accounts of the “investor CSD”.

Box 2: The special case of registered securities in France and identifiable bearer securities

In France, securities may be held either in “bearer” or “registered” form, depending on the wishes of the investor and/or whether the issuer wishes permanently to know the names of its shareholders or the holders of its bonds. When a company stipulates in its articles of association that the registered form is mandatory, it is called a “mandatory registration security”; otherwise, when the investor can choose between the “bearer” and “registered” forms, the security is said to be “occasionally registered”. There are also statutory obligations that securities be in registered form (beyond a specific threshold of ownership, the holder must change the securities to either “pure registered” form or “administered registered” form: in either case, the security remains in the occasionally registered form.

Owners of registered securities may elect either to book them in their account with their usual custodian bank (“administered registered”), or to entrust their custody to the issuer (“pure registered”). In the latter case, the issuer must hold the accounts on internal registers and manage the related corporate actions; it may nevertheless delegate these functions to an agent. Shares issued in France are rarely registered shares.

Bearer securities are booked in a securities account with a custodian, in accordance with the conventional arrangements for the indirect holding of securities described above. In this case, their beneficial owner is not known to the issuer. However, to allow the issuers of bearer securities to know their shareholders or their bondholders, Euroclear France offers the identifiable bearer security (*Titre au porteur identifiable*, or TPI) service, whereby, at the request of the issuing company (and provided that the articles of that company explicitly provide for this regarding capital securities), it enquires among all financial intermediaries in whose books the securities of the issuer are deposited to identify the shareholders/bondholders. After consolidating the answers, the list is provided to the issuer. Bearer securities make up the majority of the securities issued in France.

1.2.2. The role of the other intermediaries along the security ownership chain

While CSDs play a central role in preserving the integrity of issues, each financial intermediary must also conduct similar reconciliations at its own level between on the one hand the assets booked in a securities account opened in its name with the tier above (most often an omnibus account, including when it is an account with the CSD), and on the other hand, the assets held for own account and the assets whose custody has been entrusted to it by its clients at the lower tier. This waterfall process along the chain ensures that the ownership rights of the end investors, at the other end of the chain, cannot be unduly challenged.

In an indirect holding model, the CSDs cannot play this role along the chain because they only have information on the securities accounts of their direct participants; similarly, each financial intermediary has visibility only on the assets held on behalf of its own clients, but not on the holding of these assets further downstream by the clients of its clients. Consequently, any failure of one financial intermediary can compromise the integrity of an issue and possibly entail the loss of securities for some end investors, even if the controls at the level of the issuer CSD are adequate. In France, as already mentioned, the property rights to financial instruments are attached to the securities accounts held by custodians, and not to the securities accounts maintained by CSDs, which are only “mirror accounts” reflecting the securities accounts of its participants.¹⁵

Daily reconciliations are therefore essential at the level of each participant of a CSD, including third-party CSDs that have opened a securities account with a CSD to allow their participants to access the securities that have been issued there (“investor CSDs”). If several investor CSDs hold securities with the same ISIN code with

a given issuer CSD, these investor CSDs are required to carry out periodic realignments, i.e. transfers of securities between their accounts opened with the same issuer CSD, to reflect the exchanges of securities between their own participants when the transaction occurs between the participants of two different CSDs. Note that automatic realignment is a function offered by the T2S system (see Chapter 14).

1.3. Settlement: circulation of securities and link with central securities accounts maintenance

Central depositories also play a crucial role in the circulation of financial instruments by operating one or more securities settlement systems (SSS) – see Chapter 13 – which allow the effective circulation of financial instruments by crediting or debiting the securities accounts of their participants (either within the framework of their own-account transactions or the transactions of their clients). They thus make it possible to “settle” transactions in financial instruments, i.e. via the actual delivery of these instruments (and the corresponding payment), under optimal security conditions.

Under CSDR, a CSD must provide at least two core services:

- the operation of a securities settlement system (or settlement-delivery system) is a core service that must be offered to qualify as a CSD (although a CSD must also offer at least one of the two other core services: notary services and/or central securities accounts maintenance services);
- only CSDs can operate a securities settlement system (as well as central banks acting as CSDs).

Because of their fundamental role in the functioning of financial markets, securities settlement systems are the subject of a dedicated chapter (see Chapter 13).

¹⁵ Other European countries have a different legal approach and consider that the ownership rights to securities are directly attached to the accounts held by the CSD. One advantage of the French provisions is that the securities cannot be attached/seized at the level of the CSD.

1.4. Ancillary services offered by CSDs

Beyond the three core services of CSDs mentioned so far (notary service, central account maintenance service and settlement service), CSDR provides a non-exhaustive list of so-called “ancillary” services that CSDs can offer, including services supporting the processing of corporate actions, tripartite collateral management, the organisation of a securities lending mechanism between its participants, services to issuers, etc.

1.4.1. The processing of corporate actions

Financial instruments usually give their holders a financial return, in the form either of a dividend payment for shares or an interest payment for bonds.¹⁶

In addition, many events can occur in the life of a security, such as transactions related to corporate reorganisations,¹⁷ some of which require the owners of the financial instruments to make a choice between various options (elective). These transactions, referred to as corporate actions, are a corollary of the initial registration of the securities and therefore closely involve CSDs. In this context the latter act as an intermediary between the issuer (or its agent) and the custodian banks and other financial intermediaries who hold the securities on behalf of other intermediaries and/or end investors. They receive announcements and notifications from the issuer, which they pass on in the form of announcements and notices of rights to the financial intermediaries where the securities are deposited. This role in the transmission of information and the control of positions played by CSDs and, at the lower levels of the securities ownership chain, by financial intermediaries, is essential because issuers do not always know who the end investors are (see bearer securities).

Beyond the transmission of information, CSDs also calculate the rights attaching to securities transactions (called

“entitlements”), if necessary register new securities, credit them on the accounts of the beneficiaries (financial intermediaries or end investors depending on the holding model) and, in the case of cash distributions, credit the cash accounts of beneficiaries after receiving the corresponding amounts from the issuer or its paying agent.

In addition, the management of corporate actions is one of the post-trade areas where the EU is making the greatest efforts to improve harmonisation. The Giovannini reports (2001 and 2003) identified the wide variety of rules and practices in the processing of corporate actions in the various European Member States as one of the main barriers to the financial integration of European markets. The harmonisation of practices was therefore seen as a priority for reducing processing costs and the operational risks of this type of transaction. This was the focus of a working group, the Corporate Actions Joint Working Group (CAJWG), bringing together all stakeholders (issuers, market infrastructures, intermediaries), which led in 2009 to the setting of standards applicable to the different categories of corporate actions.¹⁸

In terms of managing the flow of information relating to corporate actions, the Market Standards for Corporate Actions Processing recommend a “waterfall” principle under which it is up to the issuer to notify and provide the issuer CSD with the details of the corporate action. It is then up to the issuer CSD to send the information to the final investor via the chain of intermediaries (investor CSDs, financial intermediaries participating in the CSD and clients).

These standards were used and clarified within the framework of the T2S platform, to which all the euro area CSDs¹⁹ (as well as the CSDs of non-euro markets that wish to do so) have entrusted their securities settlement (see Chapter 14 on T2S). The significant expected growth in inter-CSD transactions and therefore in investor CSD activity has made it essential for the

¹⁶ The remuneration of certain securities may nonetheless be discounted, as is the case for fixed-rate discounted Treasury bills for example, in which case the investor receives no interest payments between the issue and the redemption of the security, since the remuneration lies in the difference between the amount paid by the investor to buy the security and the redemption price.

¹⁷ Categories of corporate actions that affect the number and/or nominal value of outstanding securities such as reverse stock splits, stock splits, etc.

¹⁸ Known as the *Market Standards for Corporate Actions Processing*. These standards were slightly revised in 2012.

¹⁹ At the time of writing this book, only the Finnish CSD has not yet switched its settlement-delivery to T2S, for technical reasons.

Box 3: Market Standards for Corporate Actions Processing

The Market Standards for Corporate Actions Processing cover both inventory-related corporate actions (i.e. based on the positions held on the “record date”, which is the date on which the positions are calculated) and flow-related corporate actions (i.e. applied to outstanding transactions), also called “Transaction Management”.

Inventory-related corporate actions include distributions of cash or securities, distributions with options, as well as mandatory and optional securities reorganisations. Examples include a stock split as part of a mandatory reorganisation or a public tender offer within the framework of a voluntary reorganisation.

European standards define standard timetables for each of these corporate actions and different stages are set depending on the nature of the corporate action. Of great importance is the “record date”, for instance, because it determines when the securities positions on the books of the issuer CSD are taken into account for the calculation of rights to the benefit provided by the corporate action (such as a coupon payment, a distribution or participation in shareholder meetings).

Flow-related corporate actions include market claims, e.g. when investors have not received the financial return attached to the securities held, or conversions (related to capital reorganisations leading to reverse-stock splits or stock splits, for example). Adjustments on distributions are made when the person who should have benefited from the corporate action did not receive the distribution because they did not hold the securities in their portfolio on the record date. This could be, for example, because of a delay in the settlement of a securities transaction, or the time lag between the trading date and the actual settlement date (in this respect, the transition from T+3 to T+2 on regulated markets has reduced the number of flow adjustments). In such a case the adjustment consists in an automatic transfer of the distribution to the legitimate beneficiary. At a more general level, the European standards on transaction management (flow-related corporate actions) aim to automate the securities reallocation process by limiting the intervention of the various parties and preserving the rights of the sellers and buyers of securities.

relevant markets to implement harmonised corporate actions standards. Although the T2S platform does not manage corporate actions directly, it does provide the CSDs with functionalities that make it easier for them to process such transactions. For example, the settlement instructions resulting from corporate actions are settled on T2S, from where the information on securities account balances is also extracted. However, central depositories remain the key player in the management of corporate actions; they maintain their platforms for the transmission of announcements, the calculation of entitlements, the generation of settlement instructions on T2S, etc.

CSDs also provide services relating to shareholder meetings and investment funds. CSDs may offer to forward notices

convening investors to shareholder meetings to financial intermediaries and/or end investors based on the positions held in their books, provide administrative support for the holding of meetings (printing of documents, certificates of participation, etc.), or offer a postal voting service (electronic vote collection, certificates of participation or proxies).

1.4.2. Tripartite management of collateral

As part of the offering developed for investors, participants who wish to can centralize all their available collateral at a single point to facilitate the mobilisation of the securities offered as collateral to the Eurosystem, a clearing house or another market participant. What makes

this centralisation of collateral even more relevant is that some CSDs now offer a tripartite collateral management service, which allows the automation of certain back-office functions and the settlement of repo transactions. Specifically, tripartite management consists, for the “collateral giver” and the “collateral taker”, in delegating the management of securities used as collateral for transactions to a third party, in this case the CSD, which then acts as a tripartite agent. In this role, the CSD automatically selects, based on the preferences expressed by the participant, securities held by the collateral giver and identified as eligible by the tripartite agent in this context and meeting the minimum quality criteria set by the collateral taker.

As part of the selection of securities that a collateral taker is willing to accept, the tripartite agent must therefore define with the latter the baskets of eligible securities. These baskets do not necessarily have standard features and can be individualised for each client. They can also be constructed to reflect diversification and risk mitigation requirements: a cash lender may for instance require to receive only baskets comprising at least 15 different individual issuers, or 70 different lines, or prohibiting certain sectors, types of issuers or types of securities (convertible bonds, for example). In principle, the number of potential baskets is therefore very high.

In practice, a form of standardisation has emerged. In descending order in terms of credit quality, top tier baskets usually include at least so-called investment grade sovereigns (that is, government debt with a rating of, for example, between AAA and BBB on the Standard & Poor’s scale, which corresponds to low risk) as well as supranational issues; second-tier baskets contain, in addition to the securities eligible for the first basket, other types of bonds, e.g. covered bonds²⁰ or bank bonds. The ability to shape baskets based on a wide variety of criteria nevertheless makes them very popular with counterparties.

The algorithms developed by tripartite agents allow them to optimize the investment of collateral givers’ available collateral to secure the highest return on the inventory of available securities. Some CSDs also offer the use of their triparty repo for the calculation and collection of margins associated with derivatives transactions, including for derivatives that escape the clearing obligation but are nonetheless subjected under the European EMIR regulation to mandatory margin calls between the counterparties (see Chapter 11).

1.4.3. Securities lending arrangements between CSD participants

Settlement and tripartite management services may include a securities lending arrangement to enable a counterparty that must deliver securities that it does not hold in its portfolio to borrow said securities to be able to subsequently deliver them – and, thus, to avoid a delivery fail – and to enable securities lenders to optimize the income from their portfolios. In this case, the CSD provides only the technical infrastructure enabling its participants to enter into securities lending transactions with each other, without being involved in these transactions and therefore without incurring any credit risk. However, some CSDs (and in particular international CSDs (ICSDs): see below, Section 4.1) have developed so-called “automatic securities lending” services: an algorithm integrates the prerequisites of both “potential securities lenders” and “potential securities borrowers” and based on this information, sets up the automatic securities lending (i.e. with no ad hoc intervention by market participants), if needed by a market participant who has previously declared itself and been accepted by the system operator as a potential securities borrower (e.g. to allow the release of a pending securities delivery instruction).

1.4.4. Banking-type ancillary services

Certain duly authorised CSDs with a banking license may offer bank-type services for settlement in a currency other than central

²⁰ Covered bonds are bonds whose interest payments and redeemed notional are secured by a set of assets, usually property loans. In France, banks often rely on specialised subsidiaries to issue covered bonds, such as mortgage credit companies or housing finance companies.

bank money: the settlement is then said to be in “commercial bank money”. In practice this is the provision to participants in the settlement system of cash accounts opened in the books of the CSD providing the service. The latter therefore also acts as a provider of cash accounts and can, if necessary, provide its participants with liquidity for the settlement of their transactions. This provision of liquidity is made – almost only – in the form of very short-term (intraday) credit and against the provision of collateral to the lender, i.e. the CSD that manages the system. Of course, the conduct of banking activities exposes CSDs that offer such services to additional credit and liquidity risk, and exposes their participants to counterparty risk, i.e. the risk that they will not have their assets in their CSD cash accounts in the event the CSD goes bankrupt. In practice, it is the ICSDs who offer this service, as the clear majority of CSDs do not have a banking license.

It should also be noted that some CSDs also offer settlement services in a currency other than the currency in which they settle in central-bank money (for example a euro area CSD which also offers settlement against US dollars). In this case it is usually a commercial bank that keeps the cash accounts in the currency concerned.

1.5. The role of CSDs in the implementation of monetary policy

The national central banks (NCBs) of the Eurosystem make direct use of euro area CSDs for the implementation of the Eurosystem’s monetary policy, which for NCBs consists in granting credit to their counterparties against the surrender of eligible collateral (see Chapter 15 on collateral). The surrender of securities as collateral to an NCB involves the book-entry of these securities in securities accounts opened by the NCB with a CSD, as a rule the CSD of its jurisdiction. For example, the Banque de France receives collateral securities in accounts opened in its name with

Euroclear France. The granting of credit to the institutions concerned will therefore only take place if they have transferred enough eligible collateral to the Banque de France’s securities account.²¹

CSDs are thus an important plank in the implementation of monetary policy in Europe, which has led the Eurosystem to develop a set of eligibility criteria for settlement systems and the CSDs that operate them, aimed at ensuring that they meet legal and operational security requirements (see Chapter 13).

As part of the implementation of the single monetary policy of the Eurosystem, a “single list” of securities eligible as collateral for all NCBs has been drawn up. To ensure that this harmonisation does not remain purely theoretical and can be effectively implemented through the delivery to the various NCBs of eligible securities that have been issued in CSDs other than those of their respective jurisdictions, the Eurosystem has actively sought solutions to allow the circulation of securities from one jurisdiction to another. Due to the lack of technical, legal and operational harmonisation of the euro area markets, which impeded the movement of securities between CSDs and resulted in high interoperability costs, the Eurosystem first set up an asset custody system between NCBs (correspondent central banking model).²² At a more structural level, to facilitate the effective circulation of securities between European markets and especially within the euro area (not only for the implementation of monetary policy but also for the functioning of European financial markets), the Eurosystem subsequently decided to launch the T2S project (see Chapter 14), to facilitate settlements between CSDs – and thereby increase the efficiency of the links between them – and, ultimately, to make the circulation of securities within the “T2S area” more fluid.

The Eurosystem Collateral Management System (ECMS), which is a harmonised collateral management project at the level of all Eurosystem national central

21 When a CSD operates in central bank money, i.e. when the funds leg of its transactions is settled in the books of a central bank, this allows the counterparties to also benefit from intraday credit with the local NCB, against the surrender of collateral securities which are the same as those used for monetary policy operations. Please refer to Chapters 1 and 15 for more information on these topics.

22 <https://www.ecb.europa>

banks, is currently being developed, with deployment planned for the end of 2022. For further details please refer to Chapters 7 (Section 6.4) and 15 (Sections 4.2 and 4.3).

2. Regulation and oversight of CSDs

Because of their systemic importance, central depositories have always been subject to special regulation and oversight.

2.1. Types of risks to which a CSD is exposed

Like other market infrastructures, CSDs conduct a critical activity and are systemically important to the smooth functioning of the financial markets they serve. The PFMI therefore recommend that they should equip themselves with systems and policies aimed at protecting them against any risks that could prevent them from performing their duties.

- **Legal risks**, which concern both CSDs and their participants. To mitigate the legal risks borne by the participants of a CSD, CSDR requires central securities depositories to have clear and understandable rules, procedures and contracts for all the securities settlement systems that they operate and all other services that they provide. Beyond these purely contractual aspects, the national legislative frameworks contribute directly to the legal certainty of the participants. In particular, each Member State of the European Union has transposed the “Finality” Directive,²³ which introduces a regime that derogates from the law of bankruptcy and thus provides greater protection to participants exposed to the default of another participant, up to notification of such default to the settlement system or until the end of the business day on which such notification occurs. Please refer to Chapter 5 for a more detailed description of the concept of settlement finality, and the moments that delineate it.

The CSD may itself be subject to legal risks, particularly when as an investor CSD it establishes a link to another CSD (“issuer CSD”). Indeed, the establishment of this link requires the investor CSD to become a participant of the issuer CSD, which is usually established in another jurisdiction with different legislation (therefore potentially conflicting laws) and which has adopted contractual documentation that could lead to risks for the participants. All these legal elements must be analysed precisely before the establishment of a link, to ensure, for example, that the investor CSD may, if necessary, recover the financial assets entered into its account if the issuer CSD were to be liquidated, i.e. that the assets registered in the securities accounts in the name of the investor CSD cannot be seized on behalf of the issuer CSD).

- **Operational risks**, as the activities of the CSDs rely on complex information systems and specialised human resources to carry out their activities. They must therefore have a framework for managing operational risks that meets the most demanding standards (risk mapping, identifying incidents, setting up action plans, governance, etc.) and business continuity plans (especially in the IT area) so that risks are properly monitored and addressed.
- **Credit and liquidity risks** concern central depositories operating in commercial bank money and providing banking-type ancillary services, such as intraday credit. When a CSD grants loans to its participants, this creates credit exposures on those participants, who are required to repay the loans quickly. The durations of these credit exposures are short, but they can be renewed every day depending on participants’ liquidity needs to settle their securities transactions and the amounts can be significant because of the high values of these securities transactions. Adequate identification,

23 See Chapter 15, Box 5.

monitoring and risk management systems must be in place and the custodians concerned must also make sure that they have enough liquidity to meet their obligations at all times and in all currencies required.

- **General business risk**, including losses from poor execution of business strategy and operating losses. The capital requirements of a CSD must allow for its possible liquidation (as a trading company and not of course as a central depository) or an orderly restructuring over a period of at least six months, consistent with the PFMI 15 recommendations (general business risk). In practical terms, this requires the CSD to be able to ensure, in all circumstances, the payment of all operating costs over a period of at least six months, hence the requirement that the capital of a CSD covers at least an equivalent amount.
- Lastly, if applicable, **the risks associated with the custody of securities** on behalf of participants, when a CSD has received authorisation from its authorities to offer custody of securities (“ancillary” service to investment services defined under MiFID 2/MiFIR²⁴ and where the national legal framework provides that ownership rights to the securities are attached to the securities accounts maintained by the CSD. The latter, even when offering securities custody, usually has a different market position from custodians, and is not intended to take over their intermediary role (especially in indirect holding models).

Effective governance should ensure a coherent strategy for the development of the CSD’s activities by constantly verifying that its exposure to risk does not exceed the maximum exposure that would trigger the implementation of the recovery plan²⁵ or, in a more serious situation, a resolution plan. The CSD must be able to identify, monitor and mitigate the risks to which it is exposed. Its own funds must be proportionate to its risk exposure, and it must invest them

either in cash or in highly liquid assets with minimal market and credit risk and which must be able to be liquidated in a timely manner, with a minimal negative effect on prices.

2.2. International oversight standards applicable to CSDs

International standards for CSDs and SSSs were published in 2001, revised in 2012 and incorporated into the Principles for Financial Market Infrastructures (PFMI – see Chapter 18).

However, the PFMI are not directly binding in the different countries; they serve above all as reference standards on which national (or European) legislation must be based to regulate the operations of market infrastructures. In the wake of the 2008 financial crisis which, despite the solidity of infrastructures and their good management of crisis situations, highlighted the need to better regulate their activities and the functioning of markets, the European Union published in September 2014 the CSDR, which is directly applicable and binding for European CSDs. Other European regulations were adopted at about the same time for other types of market infrastructures, e.g. EMIR in 2012, then revised in 2019, for CCPs and trade repositories and the ECB Regulation in 2014 for systemically important payment systems.

2.3. The European CSDR

Until recently, the operations of central depositories were governed mainly by national regulations.²⁶ In France, the activities of Euroclear France, the central securities depository and the manager of the ESES²⁷ securities settlement system, were thus governed by the provisions of the French Monetary and Financial Code and the Financial Markets Authority’s General Regulation (AMF).

CSDR, is largely inspired by the PFMI, which it aims to make binding while supplementing them with additional

24 Directive 2014/65/EC and Regulation 600/2014 “Financial Instruments Market”, published on 12 June 2014 in the Official Journal of the European Union. “MIF 2” came into effect on 3 January 2018 (see Chapter 5, Section 1.2.2).

25 Under CSDR, every European CSD is required to establish, implement and maintain operational an adequate business continuity policy and disaster recovery plan to ensure the preservation of its services, the timely recovery of operations and the fulfilment of the CSD’s obligations in the case of events that pose a significant risk of disrupting operations.

26 With the exception, however, of the so-called “Finality” Directive of 1998 (Directive 98/26/EC of the European Parliament and of the Council of 19 May 1998 on settlement finality in payment and securities settlement systems) which establishes a regime for settlement finality in payment and securities settlement systems, and the 2002 Financial Collateral Directive. These two directives introduced harmonisation in these areas at EU level.

27 ESES (Euroclear Settlement of Euronext-Zone Securities) is a securities settlement platform shared by three central securities depositories: Euroclear France, Euroclear Belgium and Euroclear Nederland. See Chapter 13.

regulatory requirements, and essentially aims at strengthening the safety and efficiency of these infrastructures. To this end, it introduces several harmonised requirements in the European Union, both for the functioning of markets and the operating conditions for CSDs.

Regarding the functioning of markets, the requirements include:

- the full deployment of the dematerialisation of securities (effective in France since 1984) or their immobilisation, from 1 January 2023 for transferable securities admitted to trading from that date and from 1 January 2025 for all transferable securities admitted to trading irrespective of their issue date. Immobilisation is related to the obligation to record in an account all transferable securities tradable on regulated markets, even when they have been issued in physical form;
- the harmonisation of the length of the settlement cycle, now no more than two business days between the trading date T and the settlement date T+2 for transactions traded and executed on trading platforms;
- the strengthening of the regulation discipline by mandatory preventative measures to avoid settlement fails, financial penalties in the event of late settlement, supplemented by a forced buy-in procedure²⁸ when the delay exceeds four days – or seven days for illiquid securities as well as securities listed on SME growth markets;
- the strengthening of risk control requirements when establishing and maintaining inter-CSD links;
- the decompartmentalisation of post-trade activities in Europe, which is still, despite the progress already made in terms of harmonisation, confined to “national silos.” Two important measures should contribute to achieving this goal:
 - issuers must be able to register their securities in the European CSD of their choice, and no longer necessarily in their domestic CSD, subject to compliance with certain provisions of the applicable law of their country of origin. This was in theory possible before the adoption of CSDR but was rarely implemented in practice; by explicitly providing for this possibility, CSDR aims to further open the “issuer CSD” activity to competition between CSDs in the European Union. This should in principle allow issuers to select the CSD(s) that are the most efficient in the management of their securities;
 - at a more general level, a CSD can provide its services throughout the territory of the European Union, provided that these services have been authorised. The CSD must nevertheless have obtained the required “passports” to handle securities governed by the law of an EU jurisdiction other than its own;
 - CSDR also asserts the right for each CSD to have access to the transactions of clearing houses acting as central counterparties (CCP) and to trading platforms based in other European countries, so that they can process some of the transactions of these entities, which need a settlement service to materialize changes in the ownership of financial instruments (for example following purchases and sales of shares traded on a regulated market). This is a strong measure toward the liberalisation of the European post-trade market, which aims to “open up” national settlement markets and thus prevent national monopolies from perpetuating themselves, particularly in countries where “silo”²⁹ models currently preclude (or at least challenge) the possibility for a CSD other than the domestic CSD to process the transactions of a local

²⁸ Automatic buy-in procedure the execution of which may be entrusted to a CCP for cleared transactions or organised in the rules of trading venues.

²⁹ Vertical silo: integration of trading and clearing of financial instruments, and their clearing and/or settlement within the same group.

clearing house or trading platform. Any refusal of the CCP or the trading venue must therefore be duly justified by a thorough assessment of the additional risks that such access by a “third party” CSD would entail and may under no circumstances be motivated by commercial considerations. Similarly, a CSD must allow “non-local” CCPs and trading platforms to access its settlement system and can only deny such access if it would entail excessive risk.

CSDR also introduces several types of requirements applicable to CSDs:

- as far as possible, a CSD must carry out settlement transactions in central bank money, except in the (rare) cases where this is not possible;
- organisational requirements: CSDs are required to have robust governance arrangements. Their governing bodies must be composed of members with the requisite level of good repute and experience. For each settlement system that they manage, they must set up a committee of users representing issuers and participants in the system;
- CSDR also introduced conduct of business rules. Central depositories are required to publish the criteria for participation in their systems. These criteria must be transparent, objective and non-discriminatory. The rates that CSDs charge must also be transparent;
- several requirements, some of which reassert the PFMI, are laid down for the services provided by CSDs:
 - the first requirement is to verify the integrity of the issue. CSDs are therefore required to make accounting reconciliations at least daily to ascertain that the number of securities that make up an issue is equal to the sum of the securities held in the securities accounts of the participants in the securities settlement system that they operate (see Section 1.2.);
 - CSDs must segregate their own assets from those of their participants (if necessary) and open at least one securities account for each of their direct participants. They must also offer different levels of securities segregation by allowing any participant to distinguish its own securities from those of its clients (and any client to isolate its own assets from those of the direct participant of the CSD through which it accesses the CSD’s settlement system). The clients of a participant can elect to have their own securities account in the CSD’s books (this is called “individual segregation by client”) or not (“collective segregation of clients”) via “omnibus” accounts: see Section 1.2.1, Box 1 on holding models;
 - CSDs must settle transactions, either in real time or on an intra-day basis, and in any case no later than before the expiry of the agreed settlement date. The rules for determining the finality of funds and securities transfers must be made public and the moments of entry into the system and irrevocability of transfer orders must be clearly defined. All securities-for-funds transactions must be settled using the delivery-versus-payment (DvP) mechanism (see Chapter 13) and, as far as possible, in central bank money (see Chapter 1);
 - CSDs must have disclosed rules and default management procedures in place to contain liquidity issues and be able to continue to fulfil their obligations. These procedures are reviewed and tested regularly with participants;

- CSDs must remain responsible for the services they outsource and obtain the approval of their competent authorities before outsourcing a core service to a third party.³⁰
- lastly, a CSD cannot provide bank-type ancillary services or rely on a credit institution to provide these services unless it has been duly authorised to do so. To provide such services, it must be approved as a credit institution in the European Union and obtain a specific additional authorisation under CSDR. CSDs authorised to provide banking services are thus subject to additional capital requirements and must have an appropriate framework for monitoring and managing credit and liquidity risks, including on an intra-day basis. In particular, their exposures to credit risk must be fully covered by high-quality collateral;
- prudential requirements lay down that CSDs must be able to identify, monitor and manage the legal, general business and operational risks relating to their activities, as well as the risks arising from their investment policy. Capital requirements are thus introduced to ensure that CSDs can adequately cover the aforementioned risks, and the calculation of these capital requirements is inspired by banking regulations.³¹ Beyond these capital requirements, there are others, which are calculated to ensure the liquidation or orderly restructuring of their operations over an appropriate period of at least 6 months in a crisis scenario;
- inter-CSD links are also subjected to requirements (see Chapter 13): an “investor CSD” may establish a link to an “issuer CSD” by becoming its participant, so that its own participants may process financial instruments issued by the “issuer CSD”. The legal, operational and financial risks that may be caused by this participation in another CSD must be identified and, where appropriate, brought under control.

3. The French CSDs

3.1. Euroclear France

3.1.1. History

In the early 1990s, the French CSD (then called Sicovam before its acquisition by the Euroclear group) coexisted in France with a department in the Banque de France that acted as a CSD, and there was a segmentation by type of security between these two players: Sicovam (and its Relit system, launched in 1990) for exchange-traded securities, equities, corporate bonds and government bonds; the Banque de France (and its Saturn system launched in 1988) for treasury bills and, in a second stage, all money market securities.

As the Paris market expressed its desire to have a single securities settlement system, which would allow all securities issued in France to be centrally processed, an agreement was reached at the end of 1995 under which the Banque de France transferred to Sicovam SA its settlement operations relating to treasury bills and money market securities. Sicovam launched a capital increase restricted to the Banque de France in return for the contribution of the latter’s Saturn system, allowing it to raise its shareholding in Sicovam from 5% to 40%. At the same time, Sicovam announced the launch of a new securities settlement system called *Relit Grande Vitesse* (or RGV), which was launched in 1998 and enabled the Paris market to enjoy a state-of-the-art technical solution for all French securities. Furthermore, the centralisation of all Treasury issues in a single system (RGV) facilitated arbitrage between securities with longer maturities (OATs) and those with shorter maturities (treasury bills).

In 2000, Sicovam combined with Euroclear, which became the sole shareholder after the French banks exchanged all their Sicovam shares against Euroclear shares (the French banks had previously bought from the Bank of France all its Sicovam shares). The French CSD thus became Euroclear France SA in early 2001.

³⁰ Except when the CSD outsources certain services or operations to a public entity and this outsourcing is governed by a specific legal, regulatory and operational framework that has been agreed and formalised jointly by the public entity and the CSD and approved by the competent authorities on the basis of the requirements established by CSDR (in practice, this also covers the outsourcing to T2S of securities settlement by the CSDs participating in T2S, including Euroclear France since 12 September 2016).

³¹ CSDs not authorised to provide banking services must use the basic indicator approach (BIA) for calculating capital requirements; CSDs authorised to provide banking services may, if they have been authorised to do so, use the advanced measurement approach (AMA) or the standardised approach (SA).

It is one of the six central depositories of so-called “national” securities integrated into the Euroclear group,³² plus Euroclear Bank, which is an “international” central securities depository (ICSD; see below Section 4.1).

3.1.2. Euroclear France’s service offering

Core services

In the French market, Euroclear France provides the three core services of a CSD as defined by CSDR: 1) initial recording of securities in a book-entry system³³ (“notary service”); 2) providing and maintaining securities accounts at the top tier level (“central maintenance service”); and 3) operating a securities settlement system (“settlement service”), in this case ESES. The ESES system was developed for the three CSDs historically serving the Euronext markets in France, Belgium and the Netherlands.³⁴ While, legally, three ESES systems are operated by three different CSDs, each of which is governed by the law of the country in which it is established, technically it is a single platform, located in France.

Ancillary services

In addition to these three core services, Euroclear France offers nearly all the non-banking ancillary services listed by CSDR. They are services related to the notary service and to central accounts maintenance services, for example:

- the allocation and management of ISIN codes;
- the management of registered shares for updating shareholder registers;
- the management of shareholder registers, in particular thanks to the shareholder identification service in partnership with Capital Precision to look for non-resident shareholders and allow issuers to better know their investors and thus increase their participation in shareholder meetings or to organize events specifically targeting potential investors;
- establishing links with several markets, mainly European. These are either direct links to other CSDs or links relayed³⁵ via Euroclear Bank, which tend to be replaced by direct links when the issuer CSD to which a link is established also participates in T2S (the links relayed by Euroclear France to the German and Italian CSDs, Clearstream Banking Frankfurt and Monte Titoli, for example, were replaced by direct links in early 2017). Euroclear France in fact intends to set up new direct links in the medium term, mainly in the T2S environment, which will allow Euroclear France participants to enjoy inter-CSD transaction costs equivalent to those of domestic transactions. Around 40% of the debt securities currently held by Euroclear France are foreign securities. Conversely, several foreign CSDs have opened a securities account with Euroclear France to allow their participants to have access to securities issued in France, without having to become participants of the French CSD;
- the processing of corporate actions, at the issuer’s request:
 - notification of upcoming corporate actions;
 - management of these corporate actions with, where appropriate, the distribution of cash or securities to the appropriate accounts, and the provision of statements to the issuer;
 - notice of shareholder meetings and related voting services in partnership with Broadridge Financial Solutions. This optional service launched in 2013 covers shares listed on Euronext Paris and Alternext. The notification is done automatically, either by sending a message in ISO format, or by sending an e-mail. Other services provided include electronic voting, the collection of attendance certificates and proxies. In the context of the T2S platform, these postal voting services could be extended to pan-European securities.

32 Euroclear France, Euroclear UK & Ireland, Euroclear Nederland, Euroclear Belgium, Euroclear Finland and Euroclear Sweden.

33 Certain financial instruments such as negotiable debt securities may, however, at the option of the issuer, be recorded in an issue account held either by the central depository or by a custodian who then acts as the domiciliation agent.

34 The Portuguese CSD Interbolsa, which serves Euronext Portugal, does not use the ESES system.

35 Contractual and technical agreement that allows an investor CSD to hold (and offer settlement on) securities issued by an issuer CSD through a securities account held with a third party CSD (“middle CSD”).

Euroclear could also serve as a relay to allow foreign investors to use the secure electronic voting platform called Votaccess.³⁶

Securities settlement services

Through its SBI platform (brokerage firm – intermediaries), Euroclear France offers order execution confirmation services between financial intermediaries which receive/transmit orders and market members responsible for executing the orders;³⁷

Euroclear France also offers a tripartite collateral management service;³⁸ this service has been operational since November 2011 and is gradually being extended. It allows Euroclear France participants to entrust it with the day-to-day management of the assets deposited as collateral with the Eurosystem (see Section 1.4 above for a description of a tripartite repo). Since June 2013, intra-operability has been

in place between Euroclear France and Euroclear Bank, which allows a Euroclear France participant to receive collateral or send collateral to a counterparty whose securities account is open with Euroclear Bank, and vice versa. The scope of securities available for this service was expanded in 2013 and 2014, through the establishment of relayed links, via Euroclear Bank, between Euroclear France and the CSDs of the German, Italian, Belgian, Austrian and Greek markets. This scope is expected to continue expanding.

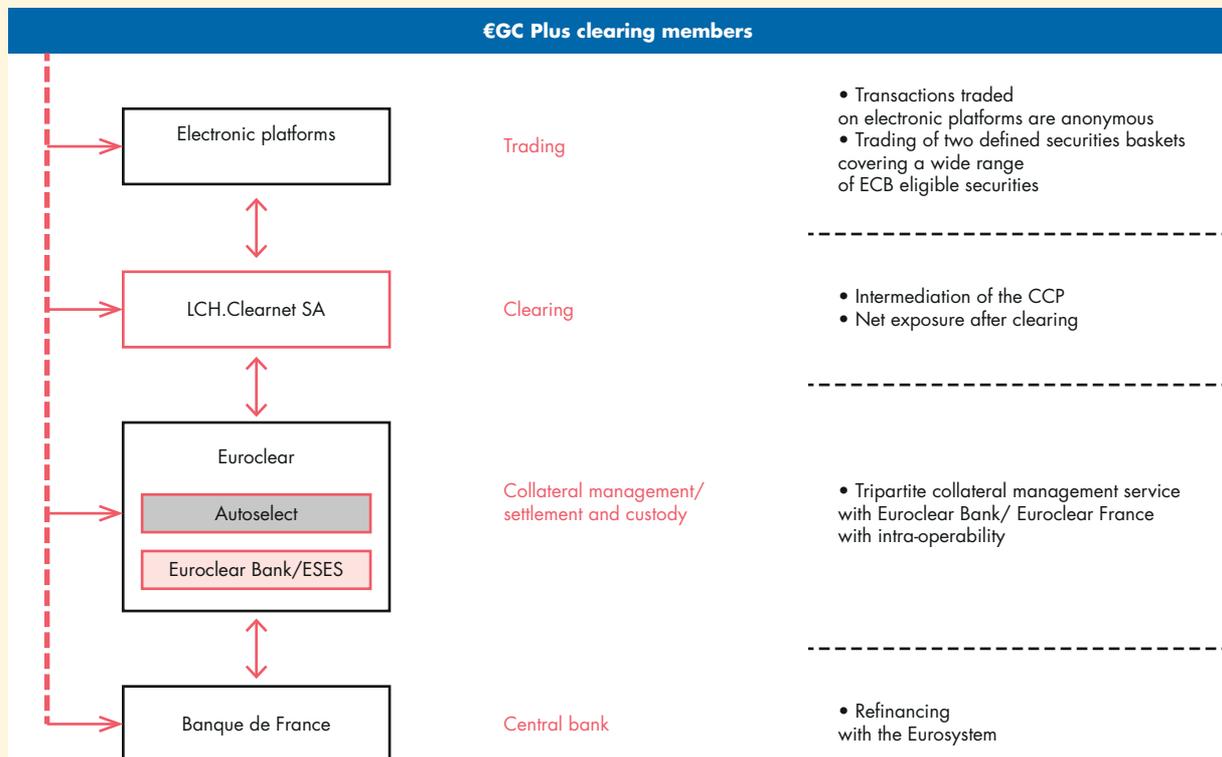
Since June 2014, the tripartite collateral management service of Euroclear France has been supplemented by a triparty repo offering called eurosGC Plus that is cleared by the French clearing house LCH SA. In this context, LCH SA provides its transaction completion guarantee and centralizes the management of counterparty default risk. The characteristics of this service are portrayed in the Box 4.

36 See the AFTI publication of 18 June 2014 entitled "VOTACCESS: three years of implementation": <http://www.afti.asso.fr>

37 As T2S does not have a trade confirmation function, the SBI subsystem has been maintained after the Euroclear France migration to T2S, with the creation of a link between SBI and T2S to generate the settlement.

38 See the 2017 Banque de France oversight report, available on its website: <https://www.banque-france.fr/sites>

Box 4: Diagram describing the eurosGC Plus service (cleared triparty repo)



In 2006, Euroclear France set up a platform for automated routing and marking of subscription/redemption orders for fund units (in particular UCITS) between the issuer of the order and the centralising agent. The platform also sends status messages and confirmation messages that allow the various parties to track the processing of their orders. A large majority of French funds are eligible for the order routing platform, which also supports foreign funds distributed in France, and allows automated processing of transactions on funds (STP or straight-through processing). It is widely used: the platform processes around 80% of all fund orders. The remaining 20% are processed outside the platform, either because the fund is not eligible or because orders are transmitted too late and are therefore given over the phone. Regardless of how orders are placed (i.e. via the platform or manually), settlement is made via the ESES France platform.³⁹

Euroclear France intends to adapt and broaden its service offering in the context of financial market integration since its migration to T2S in September 2016, in particular by expanding its network of links to other issuer CSDs (see Chapter 14).

3.2. ID2S

3.2.1. Presentation

ID2S is a new French CSD, authorised on 2 October 2018 under the European regulation, CSDR, to carry out its activities within the scope of commercial paper and in particular NEU CP (see Box 5). ID2S has also been involved in T2S, a pan-European securities settlement platform, since 28 October 2018.

ID2S, a public limited company majority owned by Orange Group,⁴⁰ operates a system for the settlement and delivery of financial instruments called the Rooster Securities Settlement System (RSSS).

ID2S is a new generation depository, the only newcomer to the European securities depository landscape, which has been able to take advantage of the absence of “legacy” to develop flows that minimise operational risk due to a total absence of manual intervention in the settlement process. It can therefore ensure total straight through processing (STP) from the NEU CP issuance to final settlement in TARGET2 Securities (T2S).

³⁹ Excluding “employee savings” type funds or funds whose distribution is strictly limited to one institution.

⁴⁰ Orange Group has a 93% stake in ID2S. The remaining 7% is held by Citigroup.

Box 5: NEU CP

NEU CP (Negotiable European Commercial Paper) is commercial paper issued by companies, financial institutions and public sector entities in order to cover their short-term financing needs. Typically, NEU CP has a maturity of approximately three months, extending to a maximum of one year. The issue is authorised on the basis of financial documentation which includes, among other requirements, an issuance programme.

The market comprises around 400 issuers and several hundred institutional investors (money market funds, etc.). The bulk of NEU CP activity takes place on the primary market. Transactions on the secondary market correspond to around 25% of primary market transactions.

Thanks to the NEU CP market, issuers can diversify their funding sources while investors can gain access to other (euro and foreign-currency denominated) investment vehicles. This market was reformed on 31 May 2016 in line with European regulations and international standards. In accordance with the provisions of the Monetary and Financial Code (Articles L.213-1 and D.213-1. *I et seq.*), securities issued after 1 June 2016 are “short-term negotiable securities”, following the changes introduced by the aforementioned reform, but their commercial denomination is NEU CP. The use of either of these names, legal or commercial, is equivalent.

ID2S is also the first CSD to apply distributed ledger technology (DLT), using a private blockchain (see Chapter 20, Section 2), to perform its notary function.

Using blockchain technology offers back-office enhancements such as a forgery-proof record chronology thanks to consensus validation processes (“nodes” in the blockchain) and the ability to go back to a reliable information source in the event of a data-integrity breach. Blockchain also offers tighter security by replicating data in the different nodes, which appears to be more efficient than using a conventional database.

ID2S also has a strategic partnership with NowCP, a multilateral trading platform licensed as an investment firm. NowCP is majority owned by Orange but also counts other NEU CP market players among its shareholders. ID2S offers real-time settlement for a trade executed on the basis of a one-off request arising during the D day and not one or two days before. In January 2020, issuers started using NowCP and ID2S for their short-term financing needs.

3.2.2. ID2S’ service offering

ID2S’ service offering reflects the possibilities offered by the new regulations. ID2S has no intention of replicating the existing depository model. Its ambition is to offer new opportunities to issuers and investors, within the framework of the objectives defined by the CMU. ID2S provides three core services as set out in the European CSDR regulation: a notary service, a centralised account maintenance service and a settlement service. Within the scope of its authorisation, ID2S can also provide four non-bank ancillary services: settlement matching and instruction routing; services related to the processing of corporate actions; allocation and management of ISIN codes; and provision of information, data and statistics.

3.3. Authorisation and oversight of CSDs

The authorisation and oversight of a CSD are carried out by the “competent authority” of the Member State in which the CSD is established.

CSDR authorisation is an important issue for European CSDs: while the EU Regulation provides for a “grandfathering clause” that allows existing CSDs to continue operating until the authorisation process has been completed, a refusal by the competent authority obliges the CSD to cease offering the three core services defined by CSDR: notary service, central securities accounts maintenance service and securities settlement service. Specifically, this would mean the cessation of its operations, either on a definitive or only a temporary basis if a new application is submitted that allows it to be authorised.

There may be one or more competent authorities for a given CSD, depending on the organisation chosen by each Member State. For example, two “competent authorities”⁴¹ have been designated in France (the *Autorité des Marchés Financiers*, or AMF – the Financial Markets Authority) and the Banque de France), while only one competent authority has been designated in Germany (the *Bundesanstalt für Finanzdienstleistungsaufsicht* or Bafin). The designation of two competent authorities in France extends the missions that had been entrusted to the Banque de France and the AMF before CSDR, the oversight of the ESES France⁴² and RSSS settlement systems and the supervision of the Euroclear France and ID2S CSDs, which manage the ESES France system and the RSSS system, respectively.

In addition, CSDR introduces a second type of authorities, the “relevant authorities”; i.e. the authorities responsible for overseeing the securities settlement system operated by the CSD, and the central banks of issue (of the central bank money used in the CSD). During the authorisation process of a CSD

⁴¹ See Chapter 18 on the oversight framework.

⁴² Euroclear France has been outsourcing the settlement of the transactions of Euroclear France participants to the pan-European T2S platform since September 2016; Euroclear France participants nevertheless maintain a contractual relationship with their CSD, and the ESES system is maintained independently of outsourcing to T2S. The Eurosystem oversees the T2S platform (with the ECB acting as lead overseer) and by a cooperative body bringing together all the central banks and market authorities of the jurisdictions in which at least one CSD participates in T2S, as well as the ECB and ESMA.

under CSDR, the CSD's "relevant authorities" may communicate to the competent authority their (non-binding) opinion on the characteristics of the settlement system and issue a reasoned opinion (legally binding)⁴³ regarding the authorisation of any banking services that the CSD wishes to provide to its participants. The Regulation provides for consultation and cooperation mechanisms between the different authorities.

In the case of Euroclear France and ID2S, the "relevant authorities" are: the Banque de France because of its oversight role over the securities settlement system, and the Eurosystem, represented by the Banque de France, as the central bank of issue of the euro, which is the only currency processed in Euroclear France and ID2S. In France this role is reinforced by the competent authority status devolved to the Banque de France, which ensures an effective link between the functions traditionally performed by central banks (system oversight and central bank of issue as the relevant authority) and the regulatory supervision of the French CSD (performed by the AMF).

A cooperation mechanism between the home and host Member States is also provided for when a CSD provides services in more than one Member State, in particular where the CSD's activities in the host Member State are viewed as "material"⁴⁴ for the proper functioning of the markets. The competent authority of the home Member State may decide to establish a college of oversight bodies.

CSDR also provides for continuous oversight of CSDs by their competent authorities after authorisation, and the authorities should in particular review the CSD at least annually to ascertain whether it still complies with the requirements of the Regulation.

Lastly, third-country CSDs may be authorised to offer services in EU countries provided that the European Commission has recognised the equivalence of the third country's legal framework with that of the EU and that the CSD has been recognised by the ESMA.

4. Other European CSDs and settlement outside Europe

In Europe, with the notable exception of Ireland,⁴⁵ there are at least one or more CSDs in each country. There are some 40 European CSDs, which are very diverse both in terms of size and operations, and some are specialised in certain categories of securities. While the two international securities depositories (or ICSDs) are in a niche of their own, the landscape of so-called "national" CSDs is heterogeneous and dominated by a few players whose size reflects that of the financial centres of their country of establishment.

4.1. International central securities depositories or ICSDs

The two international central securities depositories (ICSDs), Euroclear Bank (based in Belgium) and Clearstream Banking (based in Luxembourg) were established in the late 1960s – early 1970s at a time when there was significant growth – mainly in Europe – in the volume of securities issued to international investors, but with the special feature of being denominated in a currency other than that of their country of issue: these are called "Eurobonds".⁴⁶

Initially, the volume of Eurobonds in USD issued by US issuers to European investors also grew strongly; the Eurobonds investor base gradually expanded due to the fact that they were exempted from the rules applying in the various national markets. Eurobonds are indeed exempt from the national laws of both the issuers' establishment jurisdictions, as well as the establishment jurisdictions of ICSDs (market regulations, contractual frameworks in force in national bond markets, etc.). Nowadays, the Eurobonds market is by far the largest international capital market; it groups bond issues aimed specifically at cross-border distribution and at investors in Asia, the United States and Europe in particular.

These securities are issued in the form of one or more physical certificates. Until recently,

43 If the competent authority of a CSD receives a negative reasoned opinion and nevertheless wishes to grant authorisation, it must draft a reasoned opinion responding to the objections of the authorities consulted within 30 days. In the disagreement persists, a consulted authority may refer the matter to the ESMA, which will check the compliance of the final decision made by the competent authority.

44 In practice, a CSD is considered to have become "material" in another Member State when it accounts for more than 15% of the top tier notary/securities account maintenance services, or more than 15% of the settlement operations in this State, whether from an issuer or participant point of view.

45 The securities settlement system serving the Irish market is, for the time being, operated by Euroclear UK & Ireland, which is legally established in the UK on the same technical platform serving the UK market. In the perspective of Brexit, non-sovereign securities, currently processed by EU1, are expected to be transferred to Euroclear Bank (sovereign securities have been handled by Euroclear Bank since 2000).

46 The Eurobonds market expanded in the 1960s for issues denominated in US dollars, mainly due to regulatory constraints impeding financial operations between States and taxes on investors in the United States.

they were held in the vaults of banks (“registrars” or “common depositories” in the case of ICSDs, which used the same depository bank when both were involved in the issuance of the same security); as a result, the ICSDs had no direct relationship with issuers. This situation evolved in mid-2006, when the issuance process of the most commonly used Eurobonds changed, allowing the establishment of a direct contractual relationship between issuers and the ICSDs. Since then, issuers file their physical certificates of issuance with the ICSDs, and the ICSD records are considered the most authoritative source for determining both the amounts issued and the amounts outstanding.

Immobilising the securities allows the ICSDs to enter them by book entry into their systems and to offer them for settlement while avoiding any physical exchange of certificates. This centralising function played by ICSDs when they immobilise and facilitate the settlement and delivery of Eurobonds is still an important part of the business of international central depositories. The two ICSDs still concentrate a significant share of Eurobond issues, but some CSDs are also growing this business. Euroclear France has for some years been an issuer of Eurobonds, thanks to the introduction in France in 2000 of Euro Medium Term Note (EMTN) programmes under French or foreign law. However, Eurobond outstandings issued with Euroclear France remain significantly smaller than those of the ICSDs.

The growth of the Eurobonds market quickly gave Euroclear Bank and Clearstream Banking Luxembourg a critical size. The legal and tax characteristics of these securities give them a unique status in Europe. The development of their issuer CSD operations paralleled that of the settlement of these securities. Because of their international clientele, as “investor CSDs,” the two ICSDs developed a very strong network of links with other CSDs around the world, and thus facilitated the indirect access by investors from many countries to the services that complemented direct access. These links also enable them

to provide services for more “traditional” securities, e.g. equities and bonds, which are held with them after having been transferred via links established to issuer CSDs. They are thus able to offer intermediation services, in competition with global custodians (banks specialised in custody with a very broad international coverage) and certain CSDs, in many foreign markets. The two ICSDs currently account for about half of the settlement activity in Europe and of the value of securities held by CSDs established in Europe.⁴⁷ This high level of concentration reflects the centralisation of securities by investors from third countries, and to a lesser extent from European countries, as centralisation brings significant benefits in the management of their liquidity and assets.

As the settlement of Eurobonds in central bank money is difficult because they are mainly denominated in currencies other than the euro and are traded between market participants who mostly have no direct access to a central bank of the euro area, the two ICSDs have obtained bank authorisations to be able to grant intraday credit to their participants themselves, and thus ease settlement by allowing the provision of liquidity to the system. From the outset, ICSDs have combined central securities depository functions with banking services. They are now supervised not only as CSDs but also as credit institutions.

The granting of intraday credit involves the provision of cash accounts to settle securities transactions. A similar rationale underlies the granting by the ICSDs of intraday or overnight credit to participants to facilitate the settlement of their purchases of securities. Euroclear Bank and Clearstream Banking Luxembourg now offer tripartite collateral management services and have set up automated securities lending/borrowing programmes; they even guarantee to securities lenders that they will substitute for defaulting borrowers in the event that borrowed securities are not returned to them on the agreed date. The banking services offered by the ICSDs therefore allow the settlement of securities in commercial

⁴⁷ Most recent available data – 2018 <http://sdw.ecb.europa.eu/reports>

bank money. However, they are subject to additional credit and liquidity risks to which national central depositories that settle in central bank money are not subject.

While the ICSDs are the most emblematic examples of CSDs operating in commercial bank money, this is not their reserved domain: the German CSD Clearstream Banking Frankfurt, for example, in fact operates two settlement systems, one in central bank money and the other in commercial bank money. Clearstream Banking Frankfurt's commercial bank money system is technically operated on the same platform as that of Clearstream Banking Luxembourg, which allows a very smooth flow of securities between the participants of the German CSD and the Luxembourg ICSD. It is mainly intended for non-German securities held by CBF clients.

4.2. "National CSDs" in Europe

Almost all European countries have at least one CSD established in their jurisdiction to serve the domestic securities market. In most countries, only one CSD manages all the financial instruments traded in the market, but in some cases several CSDs coexist, with some of them for example specialising in specific categories of securities.

The size of a CSD thus largely reflects that of the market served, the largest in terms of settled amounts being Euroclear UK & Ireland in the UK, Euroclear France, Clearstream Banking Frankfurt in Germany, Monte Titoli in Italy and Iberclear in Spain. The activities are therefore very concentrated: according to the European Central Securities Depositories Association (ECSDA), at the end of 2016 the two ICSDs and the three largest CSDs accounted for 76% of the EUR 50.4 trillion in securities held in European Union CSDs. The size of the five largest national CSDs taken together is comparable to that of the two ICSDs. For more details or updated data on the operations of the CSDs established in Europe, refer to the ECSDA website, which publishes annually updated statistics.⁴⁸

4.3. CSDs elsewhere in the world: the examples of the United States and Japan

Two systems coexist in the United States. The Federal Reserve has set up a settlement system called Fedwire Securities, for government securities issued by the US Treasury as well as government agencies, government-sponsored entities, and certain international organisations. The securities are issued and registered electronically by Fedwire Securities and offered for settlement (either free of payment or delivery versus payment) in a manner very similar to that of the systems operated in Europe (indirect holding model, direct participation in Fedwire Securities being restricted to custodian banks and certain institutions such as the US Treasury, with associated central account maintenance). A private company called DTC (the Depository Trust Corporation, a subsidiary of the DTCC Group) also offers issuance, central account maintenance and settlement services for other categories of securities: listed shares, listed bonds issued by companies and municipalities, money market instruments, commercial paper, etc. DTC participants must settle their net balances at the end of the day, using a settlement bank, where appropriate, which sends orders to a system operated by the Federal Reserve (the National Settlement Service); the settlement bank must therefore be a member of this system.

In Japan, JASDEC acts as CSD for financial instruments issued by the private sector (listed and unlisted shares and convertible bonds, ETFs, shares in real estate funds, commercial paper, corporate bonds, etc.) and the public sector (bonds issued by municipalities, "FILP" bonds issued by the Japanese government but not recorded in the Japanese national debt, bonds issued by non-resident issuers, e.g. "Samurai bonds" denominated in yen and "Shogun bonds" denominated in other currencies, etc.). Securities are issued and transferred in dematerialised (paperless) form, under an indirect securities holding model.

48 <https://ecsda.eu/facts>