

CHAPTER 15

Collateral

Updated on 17 December 2018

Collateral consists of any guarantee used in the financial sector, i.e. mainly securities and cash, but also precious metals such as gold, or other types of goods.¹ In this chapter, we will discuss collateral in the form of securities, which is the one with the strongest links to the functioning of financial market infrastructures.

The link between collateral and financial market infrastructures is twofold: on the one hand, certain market infrastructures such as central counterparties or payment systems may require participants to post collateral for their proper functioning and security; on the other hand, central securities depositories play an essential role in the collateral posting process. In other words, market infrastructures are both users of collateral and intermediaries or service providers in its circulation.

However, the need for collateral is significant, especially since the 2008 financial crisis, due to new market practices and regulatory reforms to strengthen the security of the financial system.

Due to their role in the use of collateral, financial market infrastructures are crucial in the face of these needs: to improve the management of their clients' collateral, they are required not only to develop services for optimising this management but also to facilitate the circulation of assets, in particular

by increasing interoperability between the various collateral management platforms.

1. The role of collateral

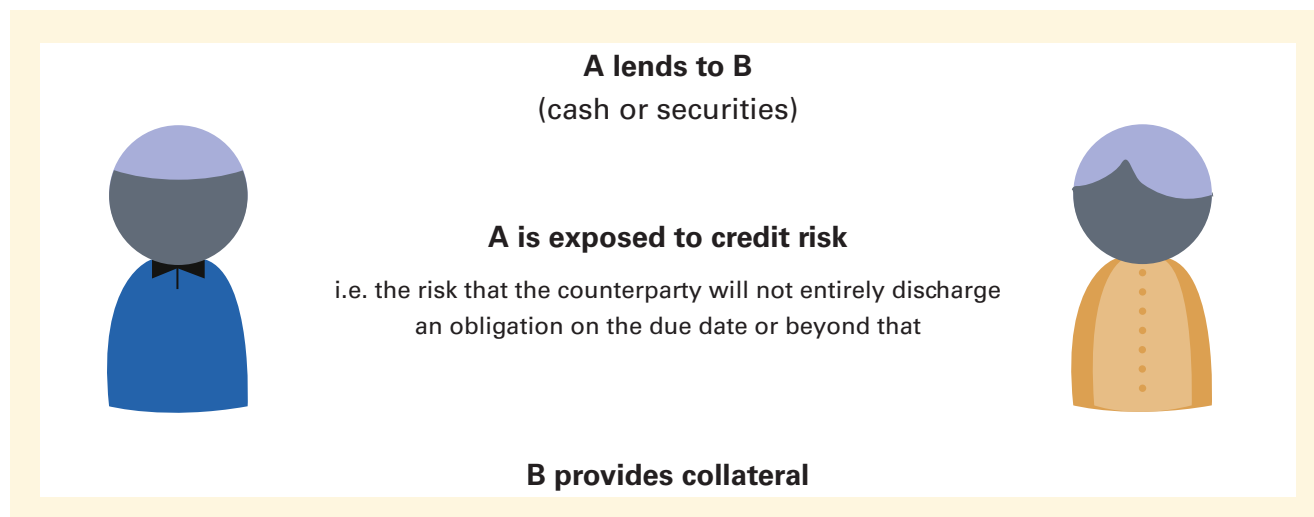
Collateral is used to protect the creditor against credit risk (in the case of a loan) or replacement risk (in the case of a derivatives transaction).

1.1. Collateral for loans

Certain financial transactions involve a credit risk, i.e. the risk that one of the counterparties will default before having fulfilled its obligation (for example, repaying liquidity borrowed on the interbank market). To offset this risk, collateral is used by the counterparties to the transaction. It corresponds to the financial guarantee that a creditor (counterparty A in the diagram below) benefits from to protect itself against the risk of default of its debtor (counterparty B). In the event of default by debtor B, creditor A has the right to keep the assets posted as collateral to “realise” them by way of sale or appropriation and thereby cover the financial loss suffered.

Different types of financial assets (financial instruments, cash or other assets) may be posted as collateral for financial transactions, provided that they meet a number of criteria and that there is an adequate legal

¹ Buildings, valuable paintings, etc.



framework to set up the financial guarantee and realize the asset in case of default.

Posting assets as collateral, also called “mobilisation” of collateral, is a form of protection for the creditor, similar to the provision of sureties by guarantors for example. The liquidity of the assets posted and, above all, their credit quality, make them a privileged means of protection for securing financial transactions.

In financial markets, the collateralisation of transactions using securities is used widely in the derivatives market and in the context of securities financing transactions.

1.2. In the derivatives market, collateralisation allows both parties to cover the replacement risk

The collateralisation of transactions in the derivatives market ensures the maintenance of the financial terms of a derivatives contract even in the event of default by one of the counterparties. It thus prevents the non-defaulting counterparty from incurring a loss in the event of adverse changes in market conditions.² Although the practice has existed for a long time in organised markets, it gained momentum in the 1990s along with the growth of OTC transactions. For example, the 2014 Margin Survey of the International Swaps and Derivatives Association (ISDA) states that by the end of 2013, around 90% of all OTC derivatives were already collateralised, regardless of the type of derivative.³

This proportion is still increasing, since the Basel Committee on Banking Supervision (BCBS) and the International Organisation of Securities Commissions (IOSCO) recommended in a report published in September 2013 and amended in March 2015⁴ that uncleared derivatives should be collateralised systematically via the establishment of margins: the initial margin and the variation margin.⁵ This obligation came into force gradually from early 2017 in Europe.

The initial margin is the amount of collateral needed to cover each counterparty against the risk of default of the other counterparty; it is calculated to cover any expected changes in the value of each participant's position (potential future exposure) in the event of a default by the participant, until the position of the defaulting participant is replaced by new transactions at the market price. It varies depending on market volatility and the expected time to unwind a transaction. The variation margin corresponds to the amount of collateral collected and paid necessary to ensure the maintenance of the financial terms in view of actual changes in market prices.

2. Factors causing collateral requirements

2.1. Central bank policy on collateral and its evolution

The use of collateral is systematic when liquidity is granted to the banking system by central banks (although the legal form of liquidity provision and the type of collateral accepted may vary depending on the monetary policy framework of each central bank). Indeed, the role of central banks is not to take risks and, to protect the quality of their balance sheets, most of them are legally obliged to lend only against collateral.

The total amount of collateral deposited with central banks has increased due to changes in the monetary policy framework adopted as a result of the financial crisis that began in 2007.⁶

2.2. Financial market infrastructures' increasing reliance on collateralisation

Collateral is crucial for the proper functioning of financial market infrastructures, for two main reasons.

Some of them, such as central counterparties (CCPs) or Deferred Net Settlement systems (DNS), are exposed to the credit risk of their

- 2 In the case of an interest rate swap, the counterparties exchange a fixed interest rate for a variable interest rate. If the counterparty that is supposed to provide the variable interest rate defaults, it will no longer provide it and the non-defaulting counterparty will have to find another counterparty that can provide the variable interest rate against the fixed rate. The financial terms of this exchange may have changed between the time when the two original counterparties entered into the first interest rate swap and the time when the non-defaulting counterparty will have to find a new substituting counterparty, and the terms of the swap contract may have become less profitable for the non-defaulting counterparty: this is called the replacement cost.
- 3 <https://www.isda.org/keiDE>, April 10, 2014, P3, point 6.
- 4 <https://www.bis.org/bcbs>, Key principles and requirements, p.4 et seq.
- 5 See Chapter 11, Central Counterparties.
- 6 See Section 5.1 of this chapter.

Box1: The collateral used for the monetary policy of the Eurosystem

The Eurosystem's refinancing operations are secured by assets pledged as collateral with the central bank. In order to ensure equal access to the refinancing of euro area monetary policy by all counterparties irrespective of their country of residence, the Eurosystem collateral framework defines which assets are eligible, their valuation and what haircut (discount) is applied, in a uniform manner for all Eurosystem countries.

Eligible securities of the Eurosystem are identified in a single list, the principle of which was decided in 2004. Previously and since the establishment of the Eurosystem, the list of collateral eligible for monetary policy operations was not a single list, it was partly fragmented across the different euro area countries. This situation was attributable to the need to make allowance for different national specificities, but led to inequality in the implementation of the Eurosystem's monetary policy, which is supposed to be single. Monetary policy counterparties could post one type of collateral in some euro area countries, but not in others. The establishment of a single list of collateral eligible for the entire Eurosystem has helped to address this fragmentation. This was prepared by harmonisation efforts between the various central banks to eliminate as much as possible the national specificities of collateral eligible for the central bank's refinancing operations.

The list of eligible securities is published daily on the ECB website. These are marketable assets, the characteristics (issuer, maturity, liquidity, etc.) of which offer sufficient quality for the Eurosystem: <https://www.ecb.europa.eu/mopo/assets/assets/html/index.en.html>

In addition to marketable assets, the Eurosystem also accepts credit claims as collateral (referred to as non-marketable assets). These are credits granted by credit institutions that are monetary policy counterparties to commercial enterprises (which are their debtors). The Eurosystem has also set quality requirements for credit claims to be eligible. This concerns in particular the credit quality of the debtor to which the monetary policy counterparty credit institution granted the loan, which must be high. Indeed, in the event of default by the monetary policy counterparty, the Eurosystem will be protected by the fact that it will become the creditor of the commercial enterprise to which the monetary policy counterparty granted the loan. It will be this commercial enterprise that will repay the Eurosystem instead of the defaulting monetary policy counterparty. The share of credit claims in the amount of collateral posted by monetary policy counterparties is around 18%, with significant disparities depending on the country.

This framework can be adapted to deal with financial shocks such as the financial crisis that started in 2007 (change in the requirements regarding the credit quality of eligible collateral for example, see also Section 5.1 of this chapter).

participants, and protect themselves by asking the latter to provide some form of guarantee: the participants post collateral to their infrastructure (see 2.2.1 and 2.2.2).

Other types of infrastructure, such as central securities depositories (CSDs) or real-time gross settlement systems (RTGS), use collateral as a tool to facilitate and optimize the flow of transactions within the system (see 2.2.3).

2.2.1. Covering the credit risk of central counterparties

Through the mechanism of novation, CCPs interpose themselves between two market counterparties in each transaction. The CCP thereby becomes the sole seller to every buyer and the sole buyer to every seller. As a result, it assumes the credit risk of each transaction (after multilateral clearing).

To manage this risk, CCPs require collateral contributions from their members in the form of initial margins, variation margins and participation in default funds (see Chapter 11 on CCPs, Section 3).

CCPs therefore make margin calls very frequently – usually one or more times a day – depending on the changing exposure of each member and market volatility. Compared with collateralised but non-cleared transactions, the advantage is that margin calls are based on the overall net exposure to the CCP and not on each of the bilateral exposures.

The desire to strengthen the management of risks related to financial markets has led to the promotion of CCP intervention. As has been the case for listed derivatives traded in an organised market for a long time, the regulation on over-the-counter derivatives (EMIR in Europe) makes clearing by a central counterparty mandatory for standardised derivatives. This generates a need for collateral, in particular to respond to margin calls made by the CCP.

2.2.2. Credit and liquidity risk coverage in Deferred Net Settlement (DNS) systems

In deferred net settlement systems, the final settlement in the accounts of the counterparties to the transaction does not take place in real time, but once or several times a day, usually during the settlement in central bank money (see Chapters 8 and 10). As a result, DNS systems create liquidity and/or credit risk between participants.

The various mechanisms for protecting DNS systems and their participants against this risk usually include the establishment of a mutual guarantee fund, fed by all participants based on their average debit balances and/or the provision of individual, non-pooled guarantees; individual guarantees are used, for example, in the case of very large amount payments.

The requirement to set up such risk management systems was reinforced by the Principles for Financial Market Infrastructures (PFMI)⁷ and by the texts that have transposed them in the different jurisdictions.

⁷ For more details on the PFMI, see Chapter 18.

Box 2: Settlement risk management systems in the CORE(FR) and EURO1 systems

Regulation (EU) No 795/2014 of the ECB of 3 July 2014 on the oversight requirements for systemically important payment systems (ECB/2014/28) provides that systemically important payment systems must set up mechanisms to prevent credit risk. To cover this risk, cash or assets such as securities may be posted as collateral.

For example, STET, the operator of the retail payment system CORE(FR), has set up a default risk management mechanism based on a mutual guarantee fund, backed by individual guarantees; the guarantee fund and the individual guarantees are in the form of cash accounts opened with TARGET2-BANQUE DE FRANCE (T2-BF) (see Chapter 10).

The “EURO1” payment system for large-value euro transactions, operated by EBA Clearing, provides for the collateral to be deposited as cash in an account opened in the ECB's books (see Chapter 8). This fund covers the maximum debit position of a defaulting participant in respect of its individual obligation (cleared position presented for TARGET2 settlement at 16:00). Participants in EURO1 contribute equally to the guarantee fund and, in the event the fund is realised and a call-for-funds is issued, the non-defaulting participants have a claim against the defaulting participant.

2.2.3. The granting of intraday credit in Real Time Gross Settlement Systems (RTGS)

In RTGS systems, which are mechanically more liquidity-intensive than DNS systems (see Chapter 6), intraday credit mechanisms have been established to allow a smoother settlement of transactions.

This intraday credit, granted by the central bank which operates the system (in the case of payment systems) or which provides the cash settlement service (in the case of settlement systems) is most often collateralised and free of charge, and allows participants to settle their transactions during the day, even if they do not have a sufficient cash balance, provided they have collateral and repay the credit at the end of the day.

The Eurosystem therefore requires collateral in exchange for the intraday credit that it grants to TARGET2 participants. As an example in France, in TARGET2, the maximum amount of intraday credit available to each participant is equal to the value of the collateral basket held by the participant with the Banque de France – which grants it this intraday credit – less the amount of collateral already used in the context of monetary policy operations, i.e. refinancing (see Chapter 7).

In T2S, provided that the participant has elected this option, the intraday credit is automatic if the cash balance is insufficient to settle the securities, if the securities purchased (auto-collateralisation on flow) or other securities owned by the participant (auto-collateralisation on stock) are eligible for this auto-collateralisation. In this case, the securities are automatically collateralised in exchange for the amount of intraday credit needed to settle the transaction (see Chapter 14 on T2S).

2.3. Growing risk aversion promotes secured bank financing

Since the beginning of the crisis in 2007, credit institutions and other financial players

have tried to reduce their exposure to counterparty default risk.

In Europe, this trend resulted in a significant increase in the share of so-called “secured”, as opposed to “unsecured” interbank financing. This increased use of collateralised transactions is evident in both short-term and long-term markets. Repo transactions have increased significantly since 2009. Issues by banks of so-called “covered” bonds increased sharply between 2007 and 2016, with amounts issued in France rising from EUR 200,055 million in 2007 to EUR 308,627 million in 2016.⁸

2.4. New regulatory requirements for OTC derivatives

The Pittsburgh G20 Summit in 2009 signalled a desire to improve risk management practices on OTC derivatives transactions.

In the United States and Europe, this requirement has been reflected by the Dodd-Frank Act and the European Regulation called EMIR,⁹ respectively (see Chapter 11 on Central Counterparties).

Standardised OTC derivatives transactions must be cleared by a CCP since 2014.

The collateralisation of non-standardised OTC derivative transactions was the subject of international work by the Working Group on Margin Requirements (WGMR), which brought together representatives of the Basel Committee and the International Organisation of Securities Commissions (IOISCO). In September 2013, this group adopted collateral exchange requirements relating to the exchange of daily variation margins, which was already a common market practice, and the exchange of initial margins calculated using a model proposed by ISDA and segregated (each counterparty must segregate the collateral received from each of its counterparties). This latter requirement was not until now a market practice: it increases the demand for good quality collateral. These requirements came into force in early 2017 in the European Union.

⁸ <https://hypo.org/app/uploads/>, “European covered bonds fact book 2017”, p. 598.

⁹ The Regulation is available on the ESMA website via this link: <http://eur-lex.europa.eu/legal-content>

Box 3: What are the consequences for OTC derivatives market reforms?

A working group under the aegis of the Bank for International Settlements, the Macroeconomic Assessment Group on Derivatives (MAGD), sought to estimate the effect of the OTC derivatives reforms implemented after the financial crisis by comparing their benefits to the costs they generate (costs for financial institutions, increase in the demand for high-quality collateral, increase in the financing costs of these institutions, and resulting increase in the price of financial services).

In its report published in August 2013, “Macroeconomic effects of OTC derivatives regulatory reforms” (<http://www.bis.org/publ/othp20.pdf>), the MAGD tested several scenarios, depending in particular on the level of clearing.

In its central scenario, the MAGD estimates that these reforms would contribute 0.12% of annual GDP growth while avoiding a new crisis that derivatives might otherwise cause.

Macroeconomic benefits and costs of OTC derivatives regulatory forms

Change in expected GDP after full implementation and effects of reforms

(in per cent)

	Low-costs scenario (high netting)	Central scenario	High-costs scenario (low netting)
Benefits ^{a)}	+0.16	+0.16	+0.16
Costs ^{b)}	-0.03	-0.04	-0.07
Net benefits	+0.13	+0.12	+0.09

a) Reduction in output losses from financial crises, computed as the estimated decline in the probability of financial crises propagated by OTC derivatives exposures multiplied by the average cost of past financial crises.

b) Effect on GDP of higher prices of financial services, as evaluated by a range of macroeconomic models. The table reports the GDP weighted median effect calculated by these models.

Even before the entry into force of these regulatory requirements, there was increasing collateralisation in the market for non-cleared over-the-counter (OTC) derivatives. The increased use of collateralisation in this segment reflects a more prudent management of the risk of counterparty default.

According to ISDA estimates, the collateral posted against non-cleared OTC derivatives transactions nearly doubled between 2007 and 2008 and then remained at significantly higher levels than before the crisis, in proportion to the number of trades struck.

2.5. The requirements laid down by the Basel III regulations

The reforms initiated by the Basel Committee on the prudential regulation of credit institutions (Basel III) aim in particular to improve the management of bank liquidity risk by creating two ratios: the Liquidity Coverage Ratio (LCR) and the Net Stable Funding Ratio (NSFR). In particular, the LCR requires credit institutions to have a reserve of liquid assets that is big enough to cope with a significant liquidity crisis lasting one month. As a result of this new set of regulatory measures, demand for this type of

asset has increased: the Committee on the Global Financial System has estimated the additional demand at some USD 4 trillion.¹⁰

3. The legal framework for collateral mobilisation

3.1. The two legal instruments of collateral mobilisation

The repurchase agreement, commonly called a “repo,” and the pledge are the two most emblematic techniques for mobilising collateral, but they are not the only ones. For example, collateral can also be posted by buying/selling or borrowing securities.

3.1.1. Posting collateral with transfer of ownership (repurchase agreement)

The repurchase agreement (“repo”) implies that, during the duration of the transaction, the ownership of the assets constituting the collateral is transferred from the party providing the collateral (the collateral giver) who is the debtor of the underlying transaction (the cash loan) to the party receiving the collateral (collateral taker) who is the creditor of the transaction. At the end of the loan agreement, the assets posted as collateral are returned to the debtor, if the latter has not defaulted.

In a repo, the ownership of the securities posted as collateral is transferred to the party receiving them from the outset of the transaction. The latter therefore becomes the recipient of the proceeds of any corporate actions occurring during the repo. It will for example receive any coupons or dividend payments. In addition, the transfer of ownership also allows the party receiving the collateral to reuse the assets¹¹ during the duration of the transaction, but the collateral must be returned to the original collateral giver at the end of the agreed period.

3.1.2. Posting collateral without transfer of ownership (pledge)

In the case of a pledge, the debtor (i.e. the counterparty providing the collateral)

remains the owner of the assets making up the collateral for the duration of the transaction.

The securities therefore remain registered in the account of the “collateral giver” and the latter therefore remains the recipient of the proceeds of any corporate actions. In addition, since ownership of the securities deposited as collateral is not transferred to the collateral taker, the latter can only reuse the collateral (“re-hypothecation” or “re-pledge”) with the collateral giver's agreement.

Under a repurchase agreement or a pledge, the posted collateral can be liquidated by the creditor if the debtor does not fulfil its obligations on the due date (i.e. does not repay the loan). Of course, if the cash lender is not in a position to return the collateral, the borrower would not be obliged to return the cash.

3.2. The legal framework of collateral in the European Union and in France

The posting and use of collateral have been harmonised within the European Union by Directive 2002/47/EC on financial collateral arrangements, known as the “collateral” directive. This text was transposed into French law by the ordinance of 24 February 2005.

Directive 2002/47/EC provides in particular:

1. The recognition by the Member States of the two collateral schemes: with transfer of ownership (repo); without transfer of ownership (pledge). French law, which was traditionally based on the use of guarantees in the form of real collateral without transfer of ownership, mainly in the form of pledge, had already evolved in the 1990s toward greater flexibility by accepting, on the one hand, mechanisms based on a transfer of ownership and, on the other, the pledge of financial instrument accounts. The system of financial guarantees in France which was in force before the Directive thus largely met its requirements and therefore did

10 Report of the Committee on the Global Financial System no. 49, “Asset encumbrance, financial reform and the demand for collateral assets”, May 2013 Cf. <http://www.bis.org/publ/cgfs49.pdf>

11 A collateral taker may reuse the collateral received. It can be sold or reused for another repo transaction.

not need to be modified substantially for its transposition.

2. The extension of the scope of financial guarantees to all legal persons, provided that one of the counterparties is a regulated institution.
3. The reduced formalism of the setting up and implementation of these guarantees. The 2005 ordinance provided for a reduction in the formalities¹² for setting up a guarantee. In addition, the obligation to refer to local market framework agreements, such as those of the *Autorité des Marchés Financiers* (AMF – Financial Markets Authority), was abandoned and the reference to them became optional.
4. The possibility for the creditor-beneficiary of the pledge to reuse the pledged securities in exchange for the obligation to return them. The 2005 ordinance introduced the right of reuse into French law, because it was totally ruled out in the previous legal framework. It specifies that the parties must agree on this right by contract. The right of reuse, which was one of the main new features introduced by the 2002 Directive, significantly enhanced the flexibility of collateral arrangements (without transfer of title), lowered their cost for the collateral giver and increased their economic appeal for the beneficiary of the pledge. However, this possibility of reuse has increased the interdependencies between market participants, which carries risks for financial stability. Therefore, to improve the transparency of collateral reuse, the Securities Financing Transactions Regulation (SFTR)¹³ of 25 November 2015 establishes minimum transparency requirements for the reuse of collateral, such as disclosure of risks incurred and the need for prior consent.¹⁴
5. The possibility of implementing mechanisms to reduce the number of transactions, such as netting the mutual obligations of the parties.

6. A financial collateral arrangement is legally enforceable and binding on third parties in collective proceedings as well as civil enforcement proceedings.

The legal framework introduced by transposition of the 2002 Directive assures creditors that the guarantees they have at their disposal remain fully effective in the event of default by their debtors, even if collective proceedings are opened against the latter.

Lastly, Member States must apply a conflict of laws rule which provides that the location of the account in which the collateral securities are booked determines the law applicable to the collateral agreement.

The 2002 Directive was subsequently supplemented by Directive 2009/44/EC, transposed into French law by the ordinance of 8 January 2009.

3.3. Framework agreements for collateral management

In most cases, OTC transactions in financial markets are entered into on the basis of framework agreements drawn up by professional associations. These framework agreements provide a framework for the contractual definition of the terms of future transactions, including the type of collateral accepted, cases of default by the counterparty, events leading to early termination of transactions, set-off of reciprocal claims and calculation of an overall net balance, the frequency of margin payments, the method of calculating any haircuts as well as the reference rate chosen for the calculation of the collateral cash amount.

Once this framework agreement has been established, the parties refer to it for each new transaction. They may, if necessary, define on a case-by-case basis specific conditions applying to a given transaction.

In the absence of a framework agreement, both parties would be obliged to explicitly

¹² Such as the establishment of a document in a specific form or in a particular way, the registration with an official or public body or in a public register, advertising in a newspaper or magazine, an official register or publication or in any other form, the notification to a public officer or the provision, in a particular form, of evidence concerning the date of establishment of a document or an instrument, the amount of the financial obligations covered or any other subject.

¹³ Regulation (EU) 2015/2365 of 25 November 2015 on transparency of securities financing transactions and of reuse and amending Regulation (EU) No 648/2012, known as SFTR, in force since 12 January 2016.

¹⁴ Article 15 “Reuse of financial instruments received under a collateral arrangement” has been applicable since 13 July 2016. It provides that after being informed by the party receiving the security under a collateral arrangement (i.e. no transfer of ownership), the collateral giver must officially give its consent for the reuse of the collateral by the creditor.

define all the aforementioned contractual points for each transaction.

The most common framework agreements are the Master Agreement of the International Swaps and Derivatives Association (ISDA) and its Credit Support Annex (CSA) for collateral management in derivative transactions, the General Master Repurchase Agreement (GMRA) established by the International Capital Market Association (ICMA) for repos and the Global Master Securities Lending Agreement (GMSLA) established by the International Securities Lending Association (ISLA) for securities lending transactions. These framework agreements are adapted by national banking and market associations to reflect the specificities of their market. For the French market, for example, the framework agreement of the French Banking Federation (FBF) relates to transactions in financial futures.¹⁵

At the European level, the European Master Agreement,¹⁶ a framework agreement relating to financial instrument transactions, is proposed by the European Banking

Federation – with the collaboration of the European Savings Banks Group and the European Association of Cooperative Banks.

3.4. Assets that can be used as collateral meet high quality requirements

Each collateral taker determines in advance the characteristics of the assets that it accepts as collateral. Collateral-related requirements can be contractual or regulatory.

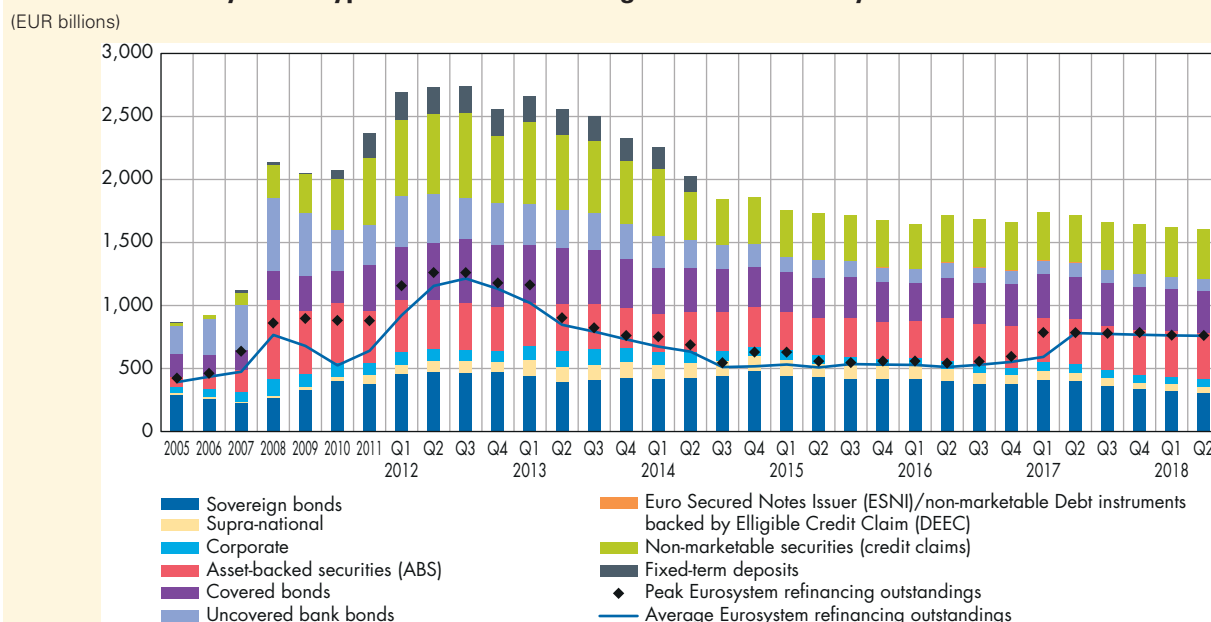
In bilateral transactions, these requirements are usually formalised by standardised agreements between the counterparties.

In the case of refinancing operations with central banks or the posting of collateral with a clearing house, the quality of the collateral accepted by the various players is usually governed by statutory, regulatory or prudential requirements, which define for all the counterparties concerned the typology and characteristics of the assets eligible as collateral (see, for example, the breakdown by asset type of the collateral eligible for the Eurosystem in Chart 1).

15 <http://www.fbf.fr/fr/contexte-reglementaire-international>

16 <http://www.ebf-fbe.eu/uploads>

C1: Breakdown by asset type of the collateral eligible for the Eurosystem



Source: Banque de France.

4. How collateral is implemented

4.1. Collateral management in practice

For a financial institution, whether collateral is taken or provided, managing the collateral means conducting the following due diligence very frequently (usually at least once daily):

- **Evaluate the assets within its portfolios, all of the contracts that have been and are to be collateralised**, i.e., one's stock of assets and contracts that the collateral is supposed to cover. **If possible**, the valuation is based on the current market price – i.e. the portfolio **is marked-to-market** – or, if not, on a theoretical model¹⁷ (“mark-to-model”), in particular if the assets or contracts are not sufficiently liquid. In Europe, the European Market Infrastructures Regulation (EMIR¹⁸) stipulates that this valuation must be carried out at least daily for OTC derivatives. The valuation allows the holder of the contracts to determine the exposure, i.e. the loss to which it is exposed in the event of default by the counterparty.
- **Value the collateral based on its market price**. A discount or haircut can be applied to the market price of the collateral, i.e. it can be valued at a price below its market value to reflect the risk that the collateral may depreciate between the valuation and the time when it is (possibly) realised, i.e. used. The haircut depends on the type of collateral and in particular the credit, liquidity and market risk that it carries: cash has a haircut of zero because it is issued by a central bank (no credit risk) and because it is immediately available (neither liquidity risk nor market risk); shares or long-term bonds issued by private-sector entities carry a high market risk and require higher haircuts, as well as bank loans, which are illiquid and therefore cannot be easily realised.
- **On the basis of this valuation, make margin calls if necessary**. As the value of the assets used as collateral and the value of the credit risk to be covered are continually changing due to market fluctuations, counterparties must pay variation margins to adapt to these market developments to maintain the financial terms of the transaction.
- **Reconcile its portfolios with those of its counterparties**. This consists in reconciling the portfolios of contracts to identify, for each transaction subject to collateralisation, any valuation differences. In fact, in the case of uncleared transactions, each party values all current transactions as well as the collateral stock provided or taken, then the two parties compare the results of their respective valuations. Disagreements may arise from differences in the chosen price source or in the stocks of contracts. A reconciliation of the contract portfolios on both sides may then be necessary. For financial institutions, EMIR requires that reconciliations be carried out at a frequency varying between once a day and once every six months, depending on the number of transactions carried out.
- **During the day, the financial institution may need to substitute assets**, for example if one of the assets held as collateral is sold by the provider of collateral or if the asset is subject to a corporate action (see Chapter 12 on central securities depositories).

All of these tasks can be very time consuming and require substantial resources, especially since recent regulatory changes (EMIR in particular) have increased the control, monitoring and reporting requirements. Mismanagement of collateral exposes the institutions involved to credit, liquidity, compliance and reputation risks. Conversely, good collateral management can also become a source of income for financial institutions. That is why, depending on their size and business volume, financial institutions may either

¹⁷ <https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1536934253222&uri=CELEX:32012R0648>, Article 11, Risk-mitigation techniques for OTC derivative contracts not cleared by a CCP, § 2.

¹⁸ EU Regulation No 648/2012 of the European Parliament and of the Council of 4 July 2012 on OTC derivatives, central counterparties and trade repositories (EMIR). For more details on EMIR, see Chapter 11.

perform these procedures themselves or delegate them to a third party, for example their custodian or their central securities depository, by subscribing to collateral management services.

4.2. The different operational procedures for using collateral

There are two methods for using collateral. The first, used in repurchase agreements, is to deliver the securities to the account of the collateral taker. In the collateral pledge system, the securities are usually blocked by a mechanism for identifying this reservation (earmarking) on the account of the collateral giver opened in the books of the CSD. However, it remains possible to deliver the securities pledged as collateral to a specific account of the collateral taker.

The term “earmarking” is however also used in the sense of “allocation”¹⁹ and then refers to a method of managing collateral in relationship to each transaction that it guarantees.

In the “earmarking” collateral management method (in the sense of “allocation”), the identified assets are earmarked to, and therefore collateralize, a specific transaction. While the earmarking method has the advantage of allowing a precise and adjusted management of the asset allocation to match refinancing needs, it requires frequent margin calls to ensure that the risk is at all times perfectly covered. Given the operational costs, the earmarking method limits the ability of counterparties to manage their collateral dynamically.

In the so-called “pooling” or pooled collateral management method, it is possible to set up an overall collateral portfolio with the collateral taker. This portfolio is then used to collateralize a set of credit transactions, as needed, without specific securities being assigned individually to guarantee a specific credit transaction. The pooling method allows a much more flexible and cost-efficient management of the collateral.

When the collateral consists of marketable assets, these transactions are based on conventional settlement mechanisms (see Chapter 12 on central securities depositories), which places the CSDs at the heart of collateral management operations.

When the collateral consists of non-marketable assets such as credit claims, the collateral processing channel must be determined by the counterparties of the transaction. Unlike the collateral processing channel for marketable securities, this one does not go through a market infrastructure. For example, Paris-based credit institutions can assign the eligible credit claims they hold to the Bank of France (central bank), merely by delivering computer files to a processing system.

4.3. Cross-border collateral management operations

From an operational point of view, the cross-border posting of collateral (or, as the case may be, the posting of collateral between different CSDs within the same country) is usually carried out using the links between CSDs. As explained in Chapter 12, a “link between CSDs” is a contractual and technical arrangement that allows a CSD to give its clients access to securities held in another CSD without requiring said clients to be direct participants in the other CSD. Links are therefore an important means of facilitating cross-border transactions and contributing to market integration.

However, links do not necessarily exist between all CSDs. In the absence of links between the CSDs, collateral takers can decide to use correspondent banks to handle the circulation of the collateral.

This is even more of a problem for the central banks of the Eurosystem. Within the Eurosystem, each national central bank (NCB) is obliged to accept from its counterparties any eligible asset on the Eurosystem's single list, i.e. the list of assets accepted as collateral. This list comprises assets from the

¹⁹ The term is used to describe two distinct realities, which can be confusing.

Box 4: The operational mechanism for mobilising collateral with the Banque de France and its evolution towards a European system (ECMS)

Adopted since 2008 by the Banque de France with the 3G system (*Gestion Globale des Garanties* – Overall Management of Guarantees), the pooling system has replaced the earmarking system (allocation) that prevailed until then, because of the simplicity it offers counterparties in their collateral management. All assets pledged as collateral with the Banque de France supply a collateral portfolio specific to each monetary policy counterparty. This portfolio enables the counterparty to cover its line of credit with the Banque de France on an aggregate basis, whether it covers monetary policy refinancing transactions, intra-day credit in TARGET2 or loan facilities. The same baskets of collateral can also be used in interbank transactions via the tripartite collateral management service called €GCPlus (see dedicated box below). Due to its flexibility (in terms of collateral substitution) and its size (often much larger than the credit lines granted by the Eurosystem) margin calls are infrequent, which is a major asset.

See https://publications.banque-france.fr/sites/default/files/medias/documents/bulletin-de-la-banque-de-france_172_2008-t2.pdf#page=41 (in French).

This collateral management system will evolve in the direction of greater integration within the Eurosystem.

At present, each of the 19 central banks of the Eurosystem has its own collateral management system for monetary policy. As a result, some functions are not harmonised, and operating, management and maintenance costs are significant. The Eurosystem has therefore decided to pool this service by creating a single service called **ECMS** (European Collateral Management Service). Like Target 2, ECMS does not question the principle of the decentralised implementation of monetary policy. It is a collateral mobilisation and management service that each national central bank uses to carry out these transactions. It incorporates all the collateral mobilisation functions used by the various central banks, and harmonises and automates them as much as necessary: one example is the CCBM mechanism (see below). However, each central bank remains responsible for its mobilisation operations and collateral management. This pooling therefore implies a prior effort to harmonise the collateral mobilisation and management practices implemented by the various central banks for monetary policy operations, which contributes to strengthening the integration of the European capital markets, and which is nearing completion.

The ECMS project was approved by the ECB's Governing Council in December 2017 (<http://www.ecb.europa.eu/press/pr/date/2017/html/ecb.pr171207.en.html>) and will be launched in November 2022. The Banque de France is taking an active part in its development.

different countries of the euro area. However, national central banks only hold securities accounts with the CSD of their domestic jurisdiction.

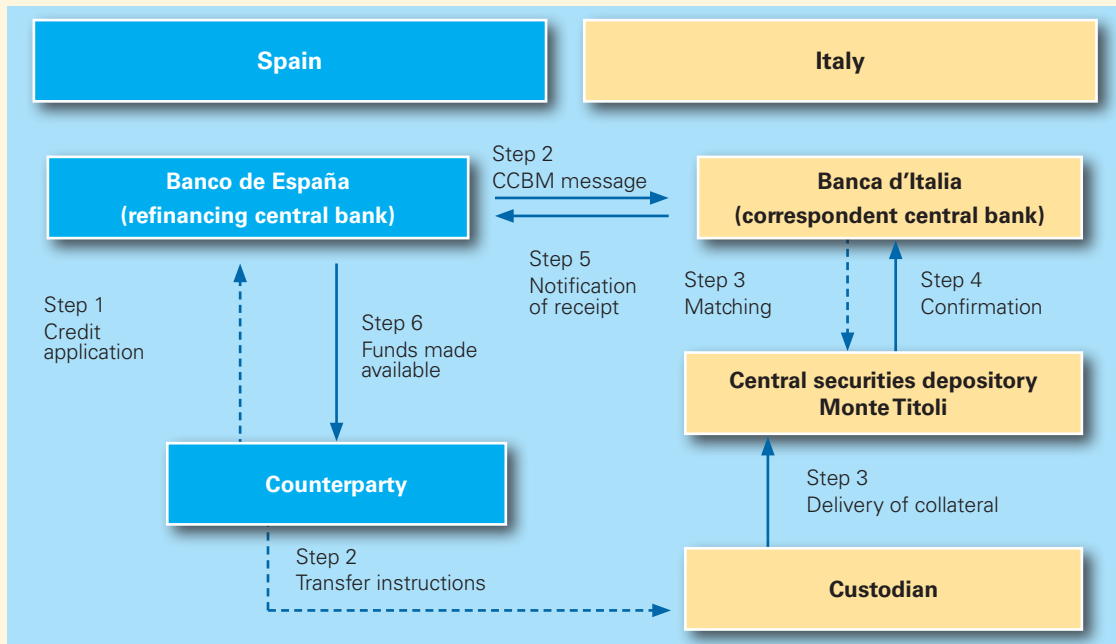
The current Eurosystem policy restricts the possibility for NCBs to have direct access to a foreign CSD. This is a restriction on the use by an NCB of a securities account opened in its own name in the books of a CSD located in the jurisdiction of another EU Member State to receive securities issued

in this CSD as collateral in the refinancing operations of the NCB. This restriction policy, called “prohibition of remote access” has two main reasons:

- Eurosystem neutrality policy: remote access to a CSD could distort competition between (I)CSDs. The risk that NCBs would only use remote accounts with a few CSDs could have led the market to interpret this concentration as an implicit indication of a Eurosystem preference.

Box 5: How does the Correspondent Central Banking Model (CCBM) work in the Eurosystem?

How a counterparty established in Spain can use eligible assets issued and held in Italy to obtain a credit from Banco de España:



A Spanish credit institution that is a monetary policy counterparty wants to obtain refinancing from the Banco de España by posting Italian marketable assets that it holds with the Italian central securities depository Monte Titoli.

Step 1 – The Spanish credit institution contacts Banco de España (central refinancing bank) to request the credit and to announce its intention to use the correspondent central bank method – CCB – to post marketable assets that it holds in Italy as collateral.

Step 2 – Based on the information provided by the counterparty, Banco de España sends a message to Banca d'Italia asking it to receive Italian securities from the counterparty on its behalf. At the same time, the counterparty issues instructions for the marketable assets to be transferred (or instructs its custodian in Italy to transfer them) to the account of Banca d'Italia with Monte Titoli, the Italian CSD. Therefore, in this example, Banca d'Italia acts as correspondent central bank for Banco de España, the central refinancing bank.

Step 3 – After receiving the message from the Spanish central bank, Banca d'Italia ascertains that the marketable assets have been transferred to its account with Monte Titoli. The counterparty (or its custodian) will have previously delivered the marketable assets to the account of Banca d'Italia in accordance with Monte Titoli's delivery procedures.

Step 4 – When the delivery has taken place, Monte Titoli sends a confirmation message to Banca d'Italia.

Step 5 – As soon as the latter receives the confirmation message from Monte Titoli, it performs certain internal procedures (for example, determining the price of the assets). It then sends an acknowledgment of receipt to Banco de España. Banca d'Italia holds the assets on behalf of Banco de España, thus effectively acting as its custodian.

Step 6 – After receiving the acknowledgment of receipt of the assets, Banco de España credits the funds to the credit institution.

- **Cost considerations:** to be completely neutral, this solution would have required NCBs to remotely access all CSDs, forcing them to manage different national practices, technical interfaces, messages and accounting treatments. This would have resulted in additional costs for each of the central banks.

Procedures for the cross-border posting of collateral have therefore been set up which allow a counterparty to post with its refinancing NCB assets issued and held outside the jurisdiction of the NCB. In addition to the use of links²⁰ between central securities depositories, the Eurosystem has set up a system of correspondent central banks linking all the Eurosystem NCBs. In this system, each central bank may act on behalf of the others as a custodian (or “correspondent”) for the assets issued in the CSD of its national jurisdiction. This is the Correspondent Central Banking Model (CCBM) established by the Eurosystem in 1999 (see Box 5).

Designed as a temporary alternative to the links between CSDs, the CCBM has remained very popular, since in 2017 around 50% (in market value) of the collateral posted on a cross-border basis with the Eurosystem was mobilised through the CCBM. Cross-border collateral (posted via the CCBM and via the links) amounts to around 15% of total collateral.

5. Collateral management tools

5.1. A growing need for collateral?

At the global level, the risk of a collateral shortage – or scarcity – was a strong concern for market participants in the early 2010s. For example, depending on the source, estimates of additional collateral requirements following the Dodd-Frank Act in the United States and the European financial markets infrastructure regulation (EMIR) ranged from USD 200 billion²¹ to USD 2,000 billion.²² For its part, the Committee on the Global

Financial System (CGFS) pointed out that while an aggregate shortage of collateral was not evident, situations vary across jurisdictions.²³ Shortages of collateral could occur in some countries with a small pool of available outstanding government bonds or where government bonds were deemed risky by market participants.

Beyond the geographical distinction, fragmentation has sometimes been observed between the various economic players or sectors. For example, some market participants have feared an imbalanced distribution between good- and poor-quality collateral. Insurers and asset managers are structural holders of very high-quality assets, which they hold until maturity. These include government securities, of which nearly 50% - according to the IMF - are held at the global level by these investors, who keep them in their portfolios and do not circulate them. Conversely, other investors such as non-financial companies, which may use derivatives and therefore need eligible assets to meet collateralisation requirements, often lack high-quality assets.

However, with hindsight, it appears that this risk of shortage of collateral has not really materialised. It has been offset by a plentiful and increasing supply, which has made up for the growth in demand. The increase in available collateral was driven by the higher volume of debt issuance by governments and companies and by the sustained issuance of covered bonds, which are usually viewed as quality assets. In addition, in response to the crisis, central banks – including the Eurosystem - have usually softened their eligibility rules for collateral, thereby increasing the volume of assets that can be accepted as collateral.²⁴

Despite the increase in collateral available, shortages or fears over the availability of collateral that may have existed following the financial crisis, as well as a sharp increase in collateralised transactions, highlighted the importance of managing collateral in the most efficient way possible.

20 Insofar as this link has been declared eligible by the Eurosystem.

21 Global Financial Stability Report, *International Monetary Fund, Washington DC*, April 2010.

22 “Optimizing collateral: in search of a margin oasis”, *Tabb Group*, June 2012.

23 “Asset encumbrance, financial reform and the demand for collateral assets”, *CGFS Publications No 49*, May 2013.

24 This was for instance the case of the ECB, which in September-October 2008 lowered its credit quality requirements for eligible marketable securities (with the exception of ABS).

5.2. Intermediaries and market infrastructures have been developing new services to optimize collateral management

In many institutions, collateral management has traditionally been decentralised at the level of each business line, or even portfolio, and/or even each geographical entity. Since each of these stakeholders could use different custodians for the custody of their assets, this could even further increase the fragmentation of collateral for the same legal and economic entity.

In response to the increase in collateral requirements, financial institutions have sought to lower the costs of this activity by consolidating, streamlining and optimising the management of collateral.

Intermediaries such as custodians and central securities depositories (CSDs) have a very precise view of the assets of financial institutions. They have therefore been able to develop a wide range of collateral management services. These services mainly focus on marketable assets.

Although the services offered by market infrastructures and custodians are all different, they can be classified, following the CPMI's report on "Developments in collateral management services",²⁵ in the broad categories described below.

5.2.1. Aggregate view of all the holdings of a client

This service offered by some custodians and CSDs provides clients with an aggregate view of all their holdings, in particular by setting up links with other custodians and CSDs. The latter send to the service provider CSD or custodian information on the securities held with them at a defined frequency, which may be close to real time.

5.2.2. Giving single access to all (or a substantial part) of the holdings of a client

This service consists not only in offering the client an aggregate view of the different assets it holds, but also in enabling it to mobilise assets easily, regardless of where they are held.

For example, the European CSDs (and the ICSDs) have agreements with other central securities depositories. Euroclear has developed a service called "open inventory sourcing" which allows it, on the back of agreements with CSDs located in Asia and Europe, to offer easy mobilisation of assets. In addition, in September 2014, Euroclear and DTCC signed an agreement to facilitate the payment of margins and, ultimately, the transfer of collateral between the two entities. Similarly, in November 2014, as part of the Liquidity Alliance programme,²⁶ Clearstream signed agreements with four CSDs worldwide (Iberclear in Spain, Cetip in Brazil, ASX in Australia and Strate in South Africa) to mobilise assets held with them.

These cooperation initiatives increase the mobility of collateral between the various market participants and thus help to address the fragmentation of the post-trade arena. In this respect, the rollout of T2S represents a significant step forward in Europe, since clients of different CSDs can exchange their securities and cash in real time and in a harmonised manner on the same settlement platform.

5.2.3. Collateral optimisation services

Beyond the services facilitating the circulation of assets, market infrastructures and custodians have developed management systems that are capable of evaluating the consolidated need for collateral of their clients, selecting the assets that meet the eligibility criteria of counterparties and market infrastructures, pricing them and mobilising them optimally,

25 "Developments in collateral management services" – Committee on Payments and Markets Infrastructures - September 2014 - <https://www.bis.org/cpmi/pub/d119.htm>

26 <http://www.clearstream.com/clearstream-en/newsroom/>
<http://www.clearstream.com/blob/74068/>

if necessary by substituting assets, and all this almost instantly.

These services are commonly based on so-called “best-collateral” algorithms. These algorithms select, among the client's collateralizable assets, those which fulfil the eligibility criteria of the need to be covered, while being the cheapest to mobilise from the collateral giver's point of view. The providers of these optimisation services must therefore take into account the requirements defined by each party to the various transactions. These optimisation services include tripartite collateral management services.

These services allow a financial institution to delegate the management of its collateral to a tripartite agent acting on behalf of the collateral giver and the collateral taker. Financial institutions can delegate all or part of the collateral management operational processes, which can be extremely resource intensive. Thanks to the large number of transactions they process, these tripartite agents offer sophisticated optimisation mechanisms at a relatively low cost.

In Europe, these tripartite management services are offered mainly by the big CSDs: Euroclear Bank, Euroclear France on the basis of the Autoselect mechanism, Clearstream Luxembourg and Clearstream Frankfurt thanks to the CmaX and Xemac mechanisms, as well as Monte Titoli in Italy and Iberclear in Spain. In the United States, tripartite collateral management services are offered by one of the two major US custodian banks: Bank of New York Mellon.²⁷

Then, when a market participant does not have enough high-quality collateral, but other non-eligible assets, it can resort to “collateral transformation”²⁸ services provided by market infrastructures, in particular CSDs and ICSDs. These services often use traditional instruments such as repos or securities lending: a market participant provides non-eligible securities

(of mediocre quality or illiquid) as security for a loan of securities that comply with the eligibility criteria. The lender of eligible securities is paid for the service.

These activities are not new in themselves, but have grown substantially to meet the increased demand for collateral.

Furthermore, some CSDs have partnered with clearing houses to set up and offer joint services spanning the entire securities processing chain. Subscribers to these services can perform repo transactions with short maturities, in real time and on anonymous trading platforms, with clearing and novation by a CCP, while benefiting from tripartite collateral management services. Thanks to agreements with central banks, the collateral exchanged on these platforms can also be posted as collateral with central banks. In Europe these services are currently the GC Pooling services, offered by the Deutsche Börse group, and the €GCPlus services offered by Euroclear France and LCH SA (see Box 6).

In the Eurosystem, individual central banks accept collateral delivered via tripartite agents. The CCBM cross-border collateral mobilisation scheme within the Eurosystem has even been adapted to mobilise collateral through tripartite agents and across borders. For example, a German bank can obtain credit from the Bundesbank by using the tripartite services provided by Euroclear Bank (the tripartite agent).

Lastly, the CSDs ensure that circulation of the collateral is as easy as possible. This is the context in which the multilateral trading facility Elixium (subsidiary of the Tradition Group), supported by Euroclear, is positioned. This framework makes it possible to connect all types of participants: banks, sovereign funds, asset managers, pension funds, corporate treasuries, which thus have transparent and simplified access to a wide range of assets, e.g. government debt, corporate bonds or equities.

27 The other major US depository bank, JP Morgan Chase, decided to terminate its triparty collateral management service in late 2017.

28 https://www.dnb.nl/binaries/415234_DX0_DNB_OS_12-05_eng-WEB_tcm46-309555.pdf

Box 6: The €GCPlus service

In 2010, driven mostly by the Banque de France, the major institutions of the Paris market initiated the development of new services for repo transactions in euros.

The objectives of the project were threefold:

- to upgrade the Paris market place in terms of value-added services around the repo market which, with the crisis, had become a major bank refinancing tool;
- to propose an alternative to the only competing offering, namely “GC Pooling” developed by Clearstream/Eurex in Frankfurt;
- to promote a single market for collateral in the euro area by increasing the smooth flow of transactions.

Since June 2014, the tripartite collateral management service of Euroclear France has been associated with the €GCPlus clearing service of the French clearing house LCH SA. This tripartite collateral management service involves a mandate given to Euroclear France by the counterparties to handle the management and optimisation of their financial instruments posted as collateral. In addition, LCH SA assumes the role of guarantor to each trade and centralises the management of counterparty default risk. These services were developed by Euroclear France; they are open to clearing by LCH SA and provide access to Eurosystem funding operations via the Banque de France.

The operation of €GCPlus can be summarised as follows (see also Chapter 12, Box 74):

- Market participants have access to several electronic trading platforms and anonymously display their interest in borrowing or lending cash in euros against two standardised baskets of collateral. The first basket is made up of securities eligible for the Liquidity Coverage Ratio and the second basket comprises securities eligible for Eurosystem refinancing (excluding ABS); all the securities in the two baskets are therefore eligible for Eurosystem refinancing.
- When interests meet, the transaction is cleared through LCH SA.
- Euroclear allows automated and optimised collateral management. In the case of a cash borrower, one example of optimisation consists in selecting securities that minimise the volume of collateral.
- The Banque de France allows collateral takers to post the securities they receive to its pool of collateral to access Eurosystem refinancing.

All the flows between the electronic trading platforms, the counterparties' back-offices, the clearing house, Euroclear and/or the Banque de France are automated (Straight Through Processing - STP), from the trade to the settlement.

5.2.4. Securities lending against securities

Securities lending against securities is an over-the-counter contract whereby a lender temporarily transfers ownership of securities to a borrower in exchange for other securities that the lender needs. The

securities that are the subject of the transfer of ownership serve as collateral for the loan of the other securities, i.e. those that the borrower needs. The securities lender also receives compensation, which is the loan rate. The level of the rate reflects the demand for the securities lent.

6. Collateral risk management

While the use of collateral makes it possible to secure financial transactions and the functioning of financial market infrastructures, it nevertheless requires appropriate risk management. This concern is reflected in the emphasis given to collateral in the PFMI (see Chapter 18), in the G20 recommendations, and in the establishment of regulation by the European Commission.

6.1. Collateral-related recommendations for market infrastructures

The 5th Principle of the PFMI, entitled “Collateral”, recommends that a market infrastructure that takes collateral to manage its credit exposure to its participants should only accept collateral with low credit, liquidity and market risk. Another recommendation is that it should define and apply reasonably conservative haircuts and concentration limits.

6.2. G20 support for FSB recommendations

Moreover, in their November 2011 statement,²⁹ the Group of 20 called for stronger regulation and oversight of shadow banking and supported eleven key recommendations by the Financial Stability Board (FSB) in a report of October 2011.³⁰ Following the publication of this report, five working groups were formed at FSB level. Their work themes (money market funds, securitisation, repurchase agreements and securities lending and borrowing) were chosen to reflect the decisive role that these players or technical or financial activities played in the 2007-2008 crisis and their weight in the financial system.

One of these groups worked on the theme of “Reducing risks, including procyclical risks, arising from repo and securities lending transactions”; and published in August 2013³¹ recommendations aimed at:

- enhancing the transparency and regulation of repos and securities

lending transactions (cash collateral reinvestment rules, securities reuse requirements, etc.)

- defining methodological standards for calculating haircuts and the level of minimum haircuts applicable to certain repos and securities lending transactions, to limit the excessive use of leverage and the associated procyclicality;
- establishing standards and procedures for the collection and aggregation of data on repos and securities lending transactions to enhance market transparency.

6.3. The European Commission regulation on securities financing transactions

In addition, the European Commission, in line with the FSB's recommendations for greater transparency on repos and securities lending transactions, issued a regulation at the end of 2015 on the transparency of securities financing and reuse transactions. This Regulation ((EU) 2015/2365), known as the Securities Financing Transactions Regulation (SFT), was published in the Official Journal of the European Union on 23 December 2015 and entered into force on 12 January 2016.

Its objective is to enhance transparency in the market for securities financing transactions and the reuse of financial instruments provided as collateral by counterparties. This is aimed at allowing regulators and supervisors to monitor the accumulation and distribution of risks associated with these transactions, and to improve investor information.

The SFT Regulation introduces three new types of requirements.

1. The obligation to declare SFTs to trade repositories. This reporting requirement applies to any financial and non-financial counterparty established in the European Union that is party to a securities financing transaction. It also

²⁹ <http://discours.vie-publique.fr/notices/112002365.html>

³⁰ “Shadow Banking: Strengthening Oversight and Regulation” - <http://www.fsb.org/wp-content/>

³¹ “Policy Framework for Addressing Shadow Banking Risks in Securities Lending and Repos” http://www.fsb.org/2013/08/r_130829b/

applies to all their branches, irrespective of their place of residence, as well as to European branches of counterparties established in a third country. Depending on the type of counterparty, this obligation will apply gradually from 2018. Nevertheless, since 12 January 2016 (effective date of the Regulation), all counterparties must keep a record of any SFT that they have entered into, modified or terminated for at least five years after the end of the transaction.

2. The obligation to publish information on the use of SFTs and total return swaps. Fund management companies must include specific information (detailed in the annex to the Regulation) in their periodic reports and in their pre-investment documents (including the prospectus). This requirement applies to UCITS and alternative investment funds authorised by the Alternative Investment Fund Managers Directive (AIFMD). The requirement relating to periodic reports has been in effect since 13 January 2017. The obligation relating to pre-contractual documents has applied since 12 January 2016 for funds established after that date and

since 13 July 2017 for funds established before that date.

3. Transparency of the reuse of financial instruments received under a collateral agreement. The following conditions must be fulfilled by the receiving counterparty before it exercises its right of reuse:
 - the counterparty providing the collateral must be duly informed of the risks and consequences of the reuse;
 - the collateral giver must give its prior consent;
 - the financial instruments to be reused must effectively be transferred from the account of the collateral giver to the account of the collateral taker.

This system increases transparency regarding the use and circulation of collateral within the framework of SFTs and enables the authorities – in their various missions – to better monitor the risks associated with collateral.