AUTORITÉ
DES MARCHÉS FINANCIERS

The Reuse of Assets
Regulatory and Economic Issues

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Introduction

The reuse of client assets has long been at the centre of the attention of regulators from the general perspective of protecting client interests. The reuse of assets refers to transactions whereby market participants (such as banks or market infrastructures) sell, pledge, or, more generally, transfer an asset that they have received from another market participant. Where it concerns assets provided as collateral, it is a transaction necessary for the proper functioning of certain types of financial transactions, such as securities financing transactions.

From an economic perspective, the reuse of collateral has many benefits : it mechanically increases the supply of available securities on the market, which can be used for short-term financing, transaction clearing, transforming the credit quality of the securities held, or optimising a portfolio's yield.

However, these operations also raise risks for financial stability and the protection of client assets: chain reuse of the same asset can lead to contagion risks and contribute to the increased use of leverage of certain investment funds. In addition, in the event of bankruptcy of one of the members of such a chain, the lack of transparency for investors on the risks and consequences of the reuse of their securities can cause a massive sell-off . In some cases, these operations may put into question the traceability and the protection of client interests.

The bankruptcies of Lehman Brothers and MF Global brought these risks to light and the non-harmonised nature of the regulatory supervision of asset reuse transactions. These events highlighted the regulatory arbitrage strategies implemented by intermediaries between the United States and the United Kingdom to bypass regulatory limits on the reuse of clients' assets ('rehypothecation') in the United States as well as insufficient transparency regarding the ability of Lehman Brothers International Europe (LBIE), the London-based subsidiary of Lehman Brothers, to use US clients assets deposited with Lehman Brothers US through prime brokerage agreements.

In addition, the 2007 financial crisis and the ensuing financial regulations (such as Basel III, Solvency II directive, and EMIR) increased the demand for high-quality collateral, which in turn put pressure on the collateral market, thus emphasising the need to carefully consider the appropriateness of all regulation to enhance the security of market operations. Questions on the medium-term supply of quality collateral or safe assets are part of an on-going debate among economists, which would suggest a medium-term decline.

Since then, the issue of the liquidity of collateral, its availability, and its security, which has been the subject of numerous academic and regulatory studies, and the potential harmonisation of rules applicable to the reuse of client assets to address the risks identified following the bankruptcy of Lehman Brothers, have received considerable attention from regulators at international, European, and national levels.

On an international level, in 2014, the Financial Stability Board (FSB) took up the issue as part of its work on shadow banking by forming a group of experts in client asset protection to "take stock of the current regulatory approaches on rehypothecation of client assets and examine their possible harmonisation"[1]. At a European level, these thoughts were recently echoed: in its Green Paper "Building a Capital Markets Union" published in May 2015, the European Commission indicates that "the fluidity [of collateral] throughout the EU is currently restricted, preventing markets from operating efficiently. Since the financial crisis, the demand for collateral has increased, driven by market demand for more secured funding as well as new regulatory requirements, as set out in the European Market Infrastructure Regulation [EMIR] and Capital Requirements Regulation (CRR). With demand for collateral rising, there are risks that the same securities are being reused to support multiple transactions as was the case pre-crisis and work is underway internationally to look at these issues". In its working document on the Capital Markets Union (CMU) published in September 2015, the Commission considers a thorough analysis of the European collateral market to be necessary. The proliferation of regulatory initiatives has also made the examination of the overall consistency of the regulations as well as the potential for regulatory arbitrage necessary.

Taking the discussions of its 'Clearing, Custody and Securities Settlement' Consultative Commission, the recent academic contributions, and the latest regulatory developments into consideration, the AMF wished to examine the regulatory and economic issues linked to the reuse of assets. The objective of this study is to contribute to the ongoing work at international and European levels on client asset protection and collateral-related issues (cross-border mobility of collateral and collateral management). Aside from the academic nature of this study, the objective was for the AMF to take part in the aforementioned discussions and consider the relevance of a further regulatory initiative on the reuse of assets.

This document is set out in three parts:

[1] FSB, *Policy Framework for Addressing Shadow Banking in Securities Lending and Repos*, Recommendation 8, August 2013

(i) its first part aims to clarify the concepts and define the conditions in which asset reuse may occur;
(ii) the second part presents an economic analysis of the benefits and risks associated with these transactions;
(iii) the last part aims to provide an overview of the regulatory initiatives related to these transactions.

Following these discussions and work, the AMF can report the following findings:

1. Although semantic clarifications and adjustments could be useful, the European rulebook is consistent in its approach to the reuse of assets: beyond the sectorial regulations, the objective each time is to preserve the informed consent of clients for the reuse of their assets and to ensure, where appropriate, that the reuse of the collateral does not interfere with its primary guarantee function.

1. 2 .Regulatory interventions introduced following the crisis further strengthened these requirements so much that, at this stage and in view of the impact of these new requirements on market liquidity, no further limit on reuse transactions seems necessary at this stage. The AMF feels that the pressure on the collateral market related to the implementation of the G20's commitments makes evaluating the effect of these reforms necessary. This evaluation should cover both the availability of quality assets and the subsequent changes in market practices.

2. 3. However, given that the risks related to reuse transactions are real, the AMF will focus keenly on the use of the data provided for in the various texts, which should enable the identification of new risks, at both European and international levels.

CONTENTS

PART 1

"REUSE" AND "REHYPOTHECATION": WHAT DEFINITIONS AND WHAT USES?

1.1. What are "reuse" and "rehypothecation"?

Today, many European and international reports and texts refer to "reuse", "repledge", or "rehypothecation" without making any clear distinction between these concepts. For example, in their report on margins applicable to non-centrally cleared derivatives, the Basel Committee and the IOSCO laid down a principle of banning the reuse of collateral, drafted as follows: "cash and non-cash collateral collected as initial margin should not be re-hypothecated, re-pledged or reused", without further defining the concepts or specifying the collateral transfer arrangements (transfer of ownership or security).

While the FSB made an attempt at a rough common definition, the European texts remain less clear.

1.1.1. The FSB takes an economic approach to "reuse" and "rehypothecation"

According to the FSB[2], the reuse of assets covers two market practices: "reuse" and "rehypothecation", whose scope is not identical. The FSB does not adopt a legal analysis of the issue, which would be based on the transfer arrangements (for example, with title transfer or security arrangement) of the assets concerned, but an economic approach.

- *"Reuse" refers to the reuse of assets deposited as collateral by their beneficiary*

  As part of its recent work on the monitoring of non-cash collateral reuse transactions[3], the FSB defines the "reuse" of collateral as "when a market participant, such as a bank, receives securities as collateral in one transaction and subsequently sells, pledges or transfers this collateral in a second transaction".

- *"Rehypothecation" pertains to the use of client assets by an intermediary*

  "Rehypothecation" is defined by the FSB as "any use of client assets by an intermediary, including use in a sale, pledge, transfer, investment, or performance of transactions". "Rehypothecation" therefore leads to reuse, through an intermediary (such as a bank), of the asset deposited with it by its client[4]. It should be noted that these deposits are not provided as collateral.

1.1.2. The European regulatory framework makes no express distinction between "reuse" and "rehypothecation"

The FSB's definitions aim only to identify market practices analysed as part of its work on the reuse of collateral and not to be exact from a legal perspective.

The use of the terms "reuse", "right of use", and "rehypothecation" varies widely in the European regulatory framework, which can be explained by a siloed approach to the various regulatory texts. Where the terms "reuse" and "rehypothecation" are used, they seem to be used interchangeably and do not exactly cover the concepts used by the FSB. For example, the draft delegated regulation with regard to regulatory technical standards for risk-mitigation techniques for OTC derivative contracts not cleared by a central counterparty published by the European Commission in October 2016 provides that: "The collecting counterparty shall not re-hypothecate, re-pledge nor otherwise re-use the collateral collected as initial margin". The UCITS Directive uses the concept of "reuse" to refer not to the reuse of collateral, but to the use of the fund's assets by the depositary: "the assets held in custody by the depositary shall not be reused by the depositary, or by any third party to which the custody function has been delegated, for their own account. Reuse comprises any transaction of assets held in custody including, but not limited to, transferring, pledging, selling and lending…"

It should be noted, however, that recital 25 of the SFTR, adopted in November 2015, constitutes a reconciliation of the various uses of these terms: "in order to promote international consistency of

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2 FSB, *Policy Framework for Addressing Shadow Banking in Securities Lending and Repos*, August 2013

3 FSB, *Possible Measures of non-cash collateral re-use,* February 2016

4 The definition of "client assets" is that of IOSCO's January 2014 report *Recommendations Regarding the Protection of Client Assets*: '*assets (or an analogous term) in respect of which the intermediary has an obligation (either contractual or regulatory) to safeguard for its securities or derivatives clients, including, to the extent appropriate, client positions, client securities and money (including margin money) held by an intermediary for or on behalf of a client'.*

terminology, the use of the term ‘reuse’ in this Regulation is in line with the FSB Policy Framework. This should not, however, lead to inconsistency within the Union *acquis* and, in particular, should be without prejudice to the meaning of the term ‘reuse’ employed in Directives 2009/65/*EC* ["UCITS IV Directive"] and 2011/61/EU ["AIFM Directive"]. Its article 3 defines “reuse” as “the use by a receiving counterparty, in its own name and on its own account or on the account of another counterparty, including any natural person, of financial instruments received under a collateral arrangement, such use comprising transfer of title or exercise of a right of use in accordance with Article 5 of Directive 2002/47/EC but not including the liquidation of a financial instrument in the event of default of the providing counterparty”.

1.2. “Reuse” is used in collateral management activities and, in Europe, is based on the provisions of the Collateral Directive

After a study of various market practices, it appears that while “reuse” of collateral is used for collateral management activities, “rehypothecation” concerns the custody activities of intermediaries.

1.2.1. Collateral “reuse” is used in collateral management activities

“Collateral management” refers to all collateral operations used as part of trading activities, such as margin management, monitoring of client positions, application of initial margins, reporting of collateral to infrastructures, determination of a deficit or excess of margins, or the reuse of cash collateral.

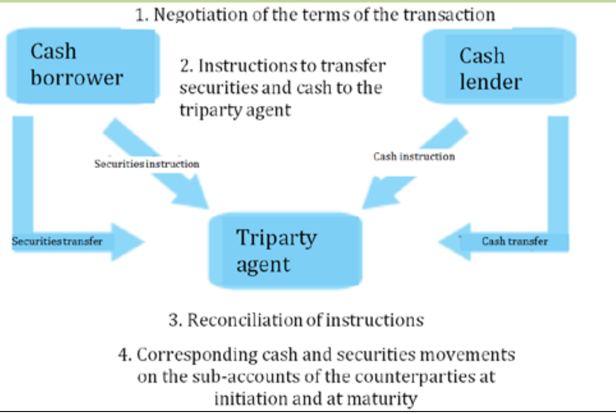
Despite the lack of a definition of “collateral management”, certain European regulations refer to these activities, such as section B of annex of regulation 909/2014 on improving securities settlement in the European Union and on central securities depositories (‘CSDR’), which mentions “collateral management” in the list of incidental non-banking services that may be provided by central securities depositories (CSD) acting as agents.

Aside from CSDs, the main players in these activities are:
- financial institutions that, for their own activity or for their clients, provide and receive collateral to secure their exposures,
- non-financial institutions,
- players providing *ad-hoc* services related to “collateral management” (compression, reconciliation, etc.),
- central banks (as part of their liquidity management operations),
- asset managers, as part of their portfolio management techniques, in order to improve the fund’s performance,
- clearing houses.

Collateral management models

There are two main collateral management models

1. Bilateral collateral management, whereby collateral is provided directly from the seller’s account to the buyer’s account and where any “collateral management” activity is handled within an institution. In this arrangement, the two counterparties negotiate a bilateral collateral agreement (through a framework agreement).



2. Tripartty collateral management, in which the management of collateral custody, selection, payment, and settlement activities is outsourced by the parties to a third-party agent. The third-party agent function is covered by a depositary bank or a CSD[5]. In this model, the third-party agent is not party to the transaction and is therefore not responsible in case of default of one of the two parties. However, it is the third-party agent who will initially select, on behalf of the collateral provider, the assets that meet the credit and liquidity criteria of the collateral beneficiary, then transfer these

[5] In Europe, these are Clearstream Luxembourg, Euroclear Bank, Bank of New York Mellon (BoNY), JP Morgan, and SIS; in the United States, this is Bank of New York Mellon (BoNY)

assets to the beneficiary's account. A triparty collateral management model[6] is presented above.

According to the International Capital Markets Association (ICMA)[7], an association representing repo players, there are a number of significant differences between European and US triparty markets: (i) triparty agents dominate the US repo market, whereas they account for only 10% of the European market, (ii) in Europe, triparty repos are used above all to manage non-government bonds and equity, whereas in the US, triparty repos are used above all for government securities (two-thirds of the market), and (iii) in the United States, money market funds and securities lending agents represent two-thirds of investors. The European investor base does not display such a concentration of types of players.

According to the ECB in 2015, the European repo market is divided into 66% bilateral repos cleared by a CCP, 26% bilateral repos not cleared by a CCP, and 8% triparty repos[8].

1.2.2. The Collateral Directive distinguishes between two collateral payments arrangements and permits the reuse of collateral paid by security collateral arrangement

European directive 2009/44/CE ("Collateral Directive") makes a distinction between two collateral arrangements, which correspond to two types of collateral agreements:

- Title Transfer Collateral Arrangement (TTCA),
- Security Collateral Arrangement (SCA), under the terms of which the collateral provider provides collateral in the form of a security without transferring all of the attributes of the ownership right.

This directive introduces the term "reuse" into European law for the first time. It equates "reuse" with "right of use" of collateral. As recital 19 of this directive points out, this right applies to security collateral arrangements (SCA). However, this does not mean that the collateral transferred under a TTCA may not be reused, since, by definition, the beneficiary enjoys all the attributes of the ownership right, therefore the right to dispose of the collateral.

The directive defines "right of use" as "the right of the collateral taker to use and dispose of financial collateral provided under a security financial collateral arrangement as the owner of it in accordance with the terms of the security financial collateral arrangement". The directive further specifies that the 'right of use' employed in an SCA is conditional on the collateral provider's consent. If the 'right of use' is exercised, the collateral taker is subject to the obligation to transfer equivalent collateral to the collateral provider.

Although most collateral framework agreements used on the US and European markets constitute TTCAs, ISDA has also drafted a Credit Support Deed (CSD) annex, which organises an SCA. This CSD thus allows some of the provisions of a TTCA framework agreement considered too prescriptive to be circumvented and the collateral provider to maintain ownership of the financial instruments provided as collateral.

This arrangement is to be found in the field of alternative management, where the right to rehypothecation of client assets is governed by Prime Brokerage Agreements (PBA). These agreements indicate that the title deed remains the property of the client ("pledgor") until the prime broker ("pledgee", and who is the receiver of the collateral) exercises its rehypothecation right. As soon as the rehypothecation right is exercised, the pledge "dissolves", ownership of the assets is transferred, and the client's ownership rights are replaced by a claim, a contractual right to repayment of assets identical or similar to the collateral.

[6] Banque de France, *Les opérations de pension livrées tripartites*, Bulletin de la Banque de France, January 2005
[7] ICMA, Repo Markets, FAQ, *What is triparty repo?*
[8] ECB (2015), *Euro money market study*

Diagram 1: use of securities provided under a TTCA (Article 2 (1) (b) of the Collateral Directive)

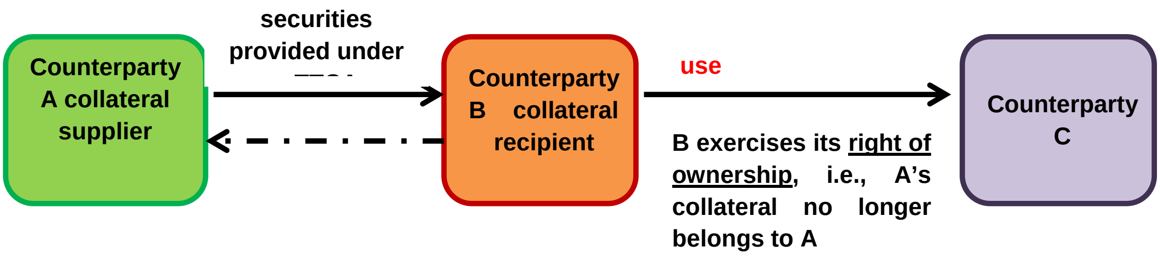
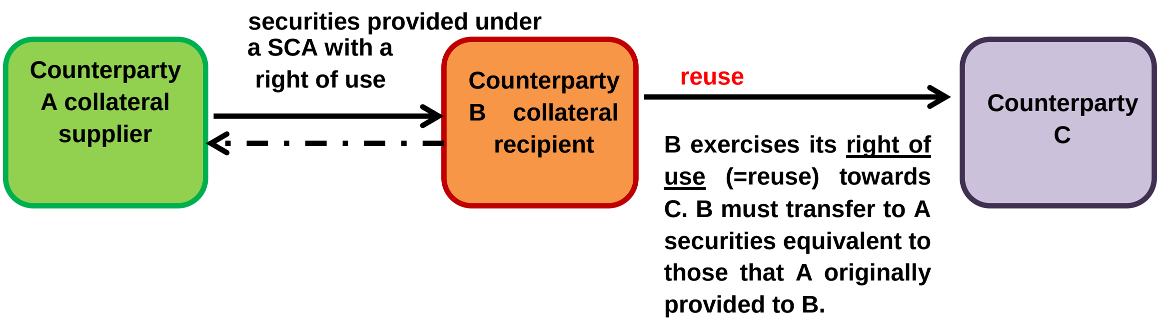


Diagram 2: reuse of securities provided under an SCA with right of use (Article 2(1)(b), article 2(1)(m), and article 5 of the Collateral Directive)



The only two conditions for the "right of use" of collateral, as provided for in the Collateral Directive, are bound by the collateral provider's consent and the obligation, for the counterparty that receives the collateral, to transfer equivalent assets[9] (in their amount and credit quality) to the counterparty providing the collateral.

The integration of the exercise of the "right of use" (or "reuse") into French law

Article L. 211-38-III of the French monetary and financial code states that: "*the deed providing for the securities referred to in paragraph I may specify the circumstances in which the beneficiary of such securities may use or dispose of the relevant property and rights, on condition of returning to equivalent property or rights to the grantor. The securities concerned then relate to the equivalent property or rights thus returned as if they had been established on these equivalent property or rights from the outset. The said deed may allow the beneficiary to offset its liability to return equivalent property or rights against the financial obligations in respect of which the securities were established, when they have become due*". Title transfer is fulfilled by entry in the collateral taker's account, in accordance with Article L. 211-17 of the French monetary and financial code.

Other possibilities are opened up by French law as well as, for example, the pledging of securities accounts (article L. 211-20), which, subject to conditions, allows for the use of the assets in the account, securities lending, or repo (L. 211-22 *et seq.* of the French monetary and financial code).

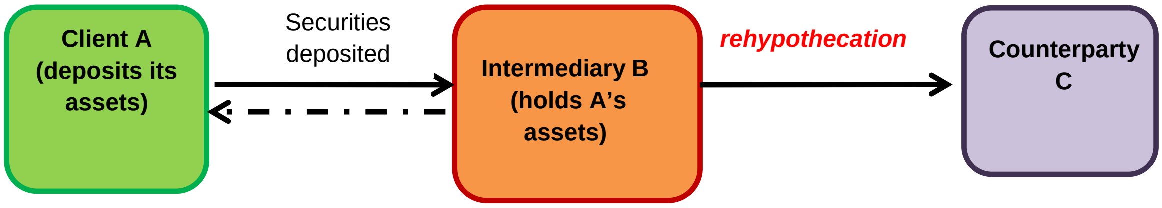
[9] This condition is illustrated by the dotted arrow in diagrams 1 and 2

1.3. The 'rehypothecation' of client assets fits more specifically into the framework of custody activities

1.3.1. The 'rehypothecation' of client assets is regulated in numerous jurisdictions but differently

In numerous jurisdictions, the regulation of 'rehypothecation' is a key element of the regulatory requirements applicable to financial intermediaries concerning the protection of their clients' assets.

Diagram 3: '*rehypothecation'* of client assets



In order to protect client assets in case of bankruptcy of the intermediary and to limit leverage, numerous jurisdictions have introduced specific and different requirements on how client assets are used[10]. Thus:

- the United States (and for certain funds, France) have a rule capping the number of times in which a single security can be reused,
- in certain fields (depositary function in the European AIFM directive), the European directives require that a depositary bank notify and obtain the explicit consent from clients before it uses their assets. These European directives also impose specific segregation procedures for the custody of client assets. They permit rehypothecation only in well-defined cases and prohibit it in any case for the depositary's own account,
- in other areas (delivery of investment services), the European texts (European MiFID) prohibit the title transfer (TTCA) of retail client assets,
- numerous jurisdictions have prohibited the use of client assets for intermediaries' proprietary activities.
- the United Kingdom has a general framework for protecting client assets (the *Client ASSet Sourcebook – CASS Rules*) including European requirements (UCITS V, AIFM) but also national requirements (daily reporting to the supervisor).

France has a strict regulation regarding "rehypothecation"

France has long prohibited transactions in which a custodian account keeper uses (in the broad sense) a client's securities without consent ("*tirage sur la masse*"). This practice, which generates risk for the client, led the Criminal Chamber of the Court of Cassation (*Tuffier*), in a judgement on 30 May 1996, to consider this practice a criminally punishable abuse of confidence: it thus fully recognises the value of the entry in the account as recognition of the ownership of the securities: "a security represented by the entry in the account held by the issuing legal entity or by an intermediary is always subject to a right of ownership exercised on the amount of money that it represents; the holder of the security therefore holds a real right of ownership over the material value of the security entered in the account". The French monetary and financial code now expressly prohibits the practice, except with the client's express approval.

In addition, the provisions of article L.211-17 of the French monetary and financial code relating to the transfer of ownership, which lay out the principle of 'no credit without debit' of securities, prohibit any "inflation of securities": "*Transfer of ownership of financial securities shall result from the entry of these securities in the purchaser's account. Where financial securities are admitted to the operations of a central securities depository or delivered within a settlement and delivery system* […], *transfer of ownership shall result from the entry of the securities in the purchaser's account* [...]. *As an exception to the preceding paragraphs, where the settlement and delivery system ensures the delivery of the financial securities by providing for ongoing irrevocable settlement, transfer to the purchaser shall only take place when the purchaser has paid the price. As long as the purchaser has not paid the price, the intermediary*

[10] the reforms adopted by the United States and Europe after the Lehman Brothers crisis are detailed in part III of this study

who received the financial securities is the owner. The General Regulation of the Autorité des Marchés Financiers shall determine the detailed rules governing transfer of ownership that are applicable in the case set forth in this paragraph".

Lastly, although this example goes beyond mere cases of custody, it should be noted that the French monetary and financial code (art. R. 214-193-III) imposes a limit on the reuse of securities, particularly on those managed by investment funds, regarding securities granted by such funds. The right to reuse, which concerns only professional fundswith a broad field of interest(e.g., ARIA funds), applies to assets constituting collateral and is fixed at 140% of the claim of the beneficiary of the guarantee on the fund. The reuse of the securities constituting the guarantee, for UCIs and AIFs other than professional funds with a broad field of interest, is capped at 100% of the claim (art. R. 214-219 and R. 214-32/8). For specialised professional funds (formerly contractual UCITS), there is no limit.

1.3.2. Case study: US rules provide for a strict framework for the "rehypothecation" of client assets

Rules 15c2-1 and 15c3-3 of the Securities Exchange Act (SEA) of the Securities and Exchange Commission (SEC) and Regulation T of the Federal Reserve ("Customer Protection Rules") impose, in addition to the obligations to inform and obtain consent from clients, a limit on the rehypothecation of client assets by the prime broker: 140% of the amount of the client's guaranteed debt that was pledged to it. This rule dates back to 1934 and was developed in response to the use of client deposits by banks during the financial crisis of 1929. The general objective of this rule is to limit the possibility for broker-dealers to use their clients' securities to raise amounts greater than those that they lend to their clients.

In practice, these rules provide that US broker-dealers registered with the SEC must protect their clients' securities according to two-step processes:

- they must keep all fully paid securities (securities that the client paid for completely) and excess margin securities (securities that were not completely paid for or that are pledged and whose market value exceeds 140% of the client's balance) in their possession or under their control. These securities may not be the subject of a rehypothecation and must be segregated from the broker dealer's accounts within a registered player (bank or triparty agent). As for margin securities (securities whose market value is less than or equal to 140% of the client's balance), they can be the subject of a rehypothecation for bank loans or repo transactions,
- they must maintain a reserve of cash or securities considered less risky (US T-bills) whose amount is at least equal to the net cash due to the clients (including cash obtained through the rehypothecation of client securities) in a bank account. The amount of net cash due to the client is the result of a mathematical formula.

If a client purchased $100 of securities using $60 of its own cash and $40 of a margin loan, the client's broker dealer may rehypothecate only $56 (i.e., 140% of the $40 loan) to finance the transactions of other clients. In addition, the broker-dealer must keep the remaining $44 in its possession or under its control.

In 2000, in order to increase the fluidity of collateral and the liquidity of bond markets, the Clinton administration relaxed the limits introduced for the rehypothecation of T-bills, State bonds, and municipal bonds by exempting these instruments from SEC rule 15c3-3.

It should be noted that the proposed margin requirements, published on 17 October 2012 by the SEC, imposed on Security-Based Swap Dealers (SBSD) and Major Security-Based Swap Participants (MSBSP)[11] where they carry out transactions on non-centrally cleared derivatives, are inspired by SEC rule 15c3 and in particular, the provisions related to the segregation of assets. The SEC's proposed rules require SBSDs "to promptly obtain and thereafter maintain physical possession or control of all excess securities [...] and specify certain locations where excess securities collateral could be held and would be deemed to be in the SBSD's control".

[11] SBSD and MSBSP are categories of participants on equity derivative markets regulated and supervised by the SEC

Case study: Lehman Brothers bankruptcy

When considering the quantitative limit of rehypothecation in the United States and the absence of such a limitation in the United Kingdom, Lehman Brothers Inc. (US entity) had automatically transferred the portion of securities provided as collateral not subject to US rules of its US clients, to its London-based subsidiary, LBIE. This subsidiary, not subject to SEC/Fed rules, was thus able to offer greater leverage, and served as an international prime broker for the Lehman Brothers group. Once transferred, these securities were the subject of numerous ‘reuse’ transactions (UK law permitted the use of all assets and not a portion of these assets proportional to the risk relating to the collateral).

These transactions were based on a legal mechanism hinging on two factors:

- clients (largely, hedge funds) had signed prime brokerage agreements under US law with Lehman Brothers Inc. and PBAs under English law with LBIE, and
- they signed lending/borrowing framework agreements (the Global Master Securities Lending Agreement) under English law with LBIE exclusively.

Thus, according to the desired leverage, the hedge funds themselves deposited their assets with Lehman Brothers Inc. or LBIE. In case of a deposit at LBIE, the latter used their assets in full. Overall, it is noted that the contractual relationship between the prime broker and hedge funds varied considerably depending upon the size of the hedge fund: since they had slighter capacity to trade, ‘small’ hedge funds saw prime brokers reuse their assets more often.

During the Lehman Brothers liquidation process initiated in September 2008, many clients lost control (or even ownership) of their assets for the duration of the liquidation process. They subsequently claimed that they had not been informed of the use of their assets by LBIE. MF Global’s bankruptcy in October 2011 demonstrated to a similar chain of events to Lehman Brothers: a massive transfer of securities deposited as collateral to London, then a transfer of these securities to finance and guarantee MF Global’s own investments.
Following the bankruptcies of Lehman Brothers and MF Global, hedge funds inserted provisions in their Prime Brokerage Agreement to limit a prime broker’s ability to reuse their assets to 140% of the risk taken by it when lending assets or when using them for leverage. This renegotiation therefore imposed *de facto* a ‘rehypothecation cap’.

PART 2

ANALYSIS OF THE RISKS AND ADVANTAGES OF 'REUSE' AND 'REHYPOTHECATION'

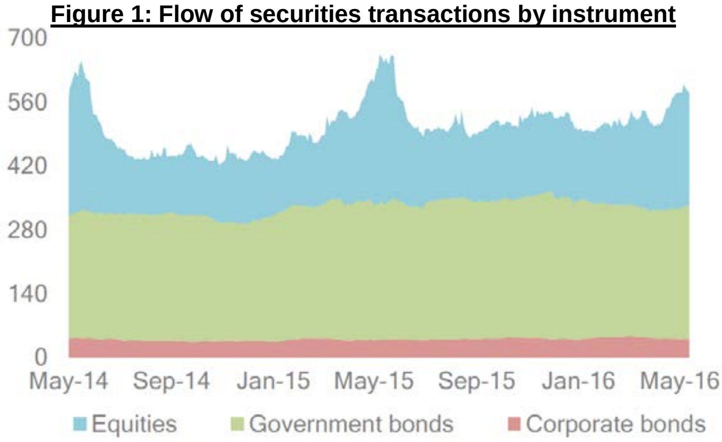
The economic understanding of reuse and rehypothecation transactions lies in their main impacts: first of all, their key role in the financing chain mechanically raises fears of these transactions' decline in a tighter regulatory climate, and secondly, their risks for financial stability.
It is also noted that there is no systematic distinction between 'reuse' and 'rehypothecation' in the currently available economic literature or data, when it is a question of collateral reuse, with or without transfer of ownership between parties. The key issue is not so much to protect client assets or to regulate certain types of transaction, but rather to fathom the number of "lendable" securities within the financial system. However, in order to better handle the risks linked with 'reuse' and 'rehypothecation', particularly within dynamic collateral chains, such distinction would seem necessary. The generic term "reuse of collateral" (in the form of repos, securities lending/borrowing, or from derivatives clearing – see definitions in the annex) will therefore be given preference here to present the market's scale.

Due to the lack of data, the estimated scale of reuse of collateral in the previously mentioned forms differs markedly, ranging from 5,000 to 10,000 billion dollars before the financial crisis. In 2015, the Fed estimated this market lay at 5,000 billion dollars for repos and 2,000 billion dollars for securities lending/borrowing for the United States[12].

In Europe, the repo market is also the largest collateral reuse market, totalling 5,500 billion euros at the beginning of 2016, slightly down in relation to 5,700 billion in the previous year[13], which can be compared with the 67,000 billion euros represented by total assets of the eurozone's financial system[14]. The securities lending/borrowing market is growing, reaching more than 560 billion euros in first quarter 2016, mainly made up of government bonds that are lent (305 billion euros in 2015), equities (187 billion euros in first quarter 2016, compared with 172 billion in first quarter 2015), or corporate bonds (43 billion euros in first quarter 2016).

While repos mainly involve banks (via a CCP or not), securities lending/borrowing, which is more the focus of this paper, involves many other players in the financial system, ranging from insurance companies to investment funds. However, the small scale of this market in relation to the repo market and the lack of available data, pending the implementation of the data collection put in place by the SFT regulation, makes it difficult to grasp the impact of this market (repo), in terms of fluidity of trades in the financial system and financial stability.

Figure 1: Flow of securities transactions by instrument



Note: Total value of EU securities on loan, in EUR bn.
Sources: Markit Securities Finance, ESMA.

12 Viktoria Baklanova V., A. Copeland, R. McCaughrin (2015), "Reference Guide to U.S. Repo and Securities Lending Markets", Federal Reserve Bank of New York Staff No. 740, December.
13 ESMA (2016), *Report on Trends, risks and vulnerabilities*.
14 ECB (2015), "Annual Report".

2.1. The economic and structural risks of increasing scarcity of collateral on the market

Lending/borrowing and repos were initially tools used by the central banks for enhancing monetary policy transmission [15],which then spread to brokers then to hedge funds, mainly because, until the 1980s, they were eligible for special treatment under bankruptcy law in the United States and within the European Union (being exempt from the automatic suspension of payments of creditors in the event of liquidation)[16].

The issues of the economic impact of lending/borrowing have thus long remained focused on the role of the repo in the proper transmission of "traditional" monetary policy. Today, this paper has taken on another dimension by studying the economic impact of unconventional monetary policies (particularly direct asset purchases in the markets) as well as the structural impact of new financial regulations on the availability of collateral on the market. The report by the Bank for International Settlements' (BIS) Committee on the Global Financial System established in 2013 that there was no shortage of collateral, but that there could be mismatches between the jurisdictional location of demand and the supply of this collateral[17].

First of all, there is a scissor movement effect between supply and demand of highly liquid assets with low credit risk (safe assets). Market player demand for safe assets has increased in recent years, which in turn has led to increased collateralisation following the reforms on over-the-counter derivatives[18]. In parallel, banks and insurance companies also increased their demand for safe assets, following the introduction of new prudential regulations (30-day and one-year liquidity ratio and leverage ratio[19] for banks, preferential treatment of higher-rated debt instruments in Solvency 2 for insurance companies). In 2012, an analysis by the central bank of the Netherlands valued the additional collateral requirements of the eurozone's banking sector at 923 billion euros for the implementation of CRD IV liquidity standards and at 325 billion euros, for the clearing of derivatives. This represents a total of 17% of the 7,560 billion euros in the quality collateral market assessed by the authors[20]. Conversely, the pressure on the supply of safe assets could be partly reduced by the creation of new financial activities enabling the use collateral optimisation and more generally by financial institutions better managing their collateral.[21]

This structural increase in the scarcity of collateral is amplified by purchases of securities by the European Central Bank through its quantitative easing policy, which will last at least until March 2017. It can be assumed that its impact is to be taken into consideration due to the fact that the proposed ECB securities lending facility introduced through this programme covers only a portion of the purchased securities. This increase in demand for safe assets therefore increases recourse to the reuse of securities or repo financing.

On the safe asset supply side, two trends must be distinguished. The decrease in the medium-term safe asset supply is subject to economic debate[22]. However, such a movement currently does not seem to be under way in Europe[23], after an initial decrease in the safe asset supply estimated at 2,971 billion euros between 2007 and 2014, due to the deterioration of government securities of peripheral countries and formerly highly-rated European securitised products[24].

Added to this structural trend is the search for yield in a low rate environment. In certain countries, there is a throng of players in the lending/borrowing market seeking additional yield by reusing their securities. This movement can be seen in the United States, where the proportion of non-bank players is increasing, both as a borrower (in assets) and as a lender (in liabilities). Real estate investment companies increased

[15] The use of repos allows a central bank to manage the market's short-term liquidity flexibly. Banks in need of liquidity can come to the BCE to borrow in exchange for collateral in the form of a temporary loan (repo). The US Federal Reserve has been making these transactions since 1920s, and most developed countries since the 1970s. See Bank for International Settlements (1999), "Implications of repo markets for central banks".

[16] E. Perotti (2011), "*Targeting the Systemic Effect of Bankruptcy Exceptions*", CEPR Policy Insight No. 52.

[17] CGFS (2013), "*Asset encumbrance, financial reform and the demand for collateral assets*".

[18] An increased use of collateralisation can be seen on over-the-counter derivative markets, estimated by the ISDA survey: it increased from 2.1 trillion dollars in 2007 to 3.2 trillion in 2013 (+50%). See International Swaps and Derivatives Association (2015), "ISDA Margin Survey 2014".

[19] The leverage ratio does not distinguish the risk level of assets or between balance sheet items and off-balance sheet items: it therefore enhances the cost of repo transactions.

[20] A. Levels, J. Capel (2012), "*Is collateral becoming scarce? Evidence for the euro area*", Journal of Financial Market Infrastructures, vol. 1, no. 1, p. 29-53

[21] CGFS (2013), Ibid.

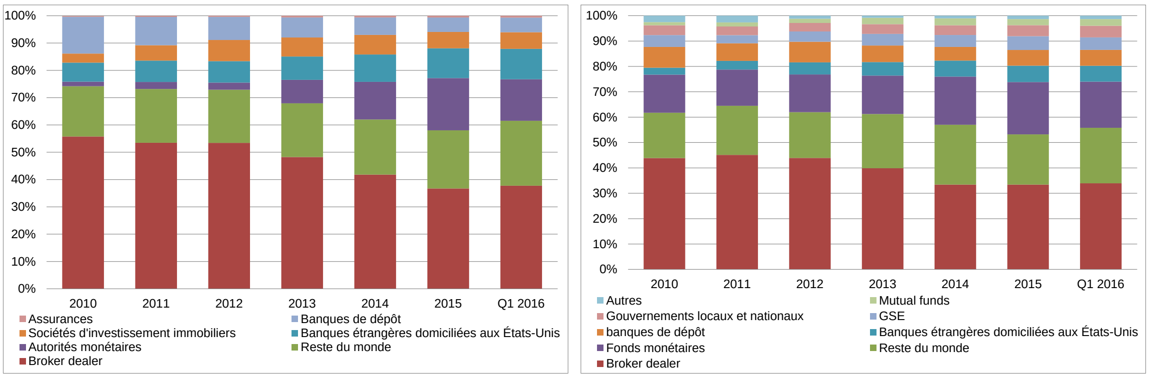
[22] The possibility of scarcity of safe assets is debated among economists: some foresee a real medium-term increase in scarcity, due to the structural decrease in productivity and growth (secular stagnation), degrading the "safe" nature of the most used assets, like US T-bills; others foresee the long-term emergence of new safe assets within a more multi-polar world. See P. O. Gourinchas, O. Jeanne (2012), "*Global Safe Assets*", prepared for the 11th annual Bank for International Settlements conference.

[23] ESMA (2016), Ibid.

[24] A. Sode, V. Faubert (2013), « Raréfaction des actifs « sans risque » : estimations et perspectives », Trésor-éco n° 117, September.

their share from 3% to 6% of total repo borrowings, and money market funds as repo lenders increased their's from 15% to 18% of between 2010 and 2016 (see figures)[25]. Similarly, the Bank of England recently expressed worries about the evolution of its market, observing that hedge funds are now "at the centre of the repo network" by representing British banks' largest notional counterparties. [26]. At this point, it is not possible to comment on the practices of European or French non-bank players on this topic due to the absence of data regarding their practices.

Figures 2 and 3: distribution of repo lender players (in assets, left) and repo borrowers (in liabilities, right) in the United States



Source: US Financial accounts.

Singh (2013), an IMF economist, alludes to a "new collateral space" that we have entered since the end of the financial crisis. In the old collateral space, made up of historical collateral exchange links between banking and non-banking players, he had estimated the velocity of collateral (= number of times actually reused in the economy) at 2.5 to 3 times, showing that repos and rehypothecation free up resources and improve the efficiency and liquidity of the market. However, in this "new collateral space" with the addition of new players like central securities depositories and clearing houses as well as new regulations and securities purchasing policies by central banks, it expects the velocity of collateral to decrease. He already observed that it had fallen to a velocity of 2 times in 2013[27]. This analysis is corroborated by the recent analysis by Gorton and Muir (2016)[28], which indicated that during the thirty years before the financial crisis of 2007-2008, the financial system had shifted from a system of immobile collateral to a system of mobile collateral, in which banks had the possibility to lend their collateral. However, since the financial crisis, the authors have expressed worries of a return to a system of immobile collateral, due to prudential constraints that make securities lending too expensive. The impact of the prudential liquidity ratio, in particular, could favour other forms of bank debt and make the system more unstable.

Similarly, ESMA's economists studied the increasing scarcity of collateral in Europe between 2013 and 2015 in order to examine its impact on market liquidity and financing costs[29]. They studied the role played by the repo market and more specifically the transmission channels for supply and demand with regard to "specific" collateral, which is more favoured (and therefore expensive) for this market's players[30]. The level of broker-to-broker activity can be seen as a proxy to overall repo volumes. Their study shows the significantly positive effect of repos on the availability of quality collateral in the market and therefore its role in improving the fluidity of trades.

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25 Source: Financial Times on the Federal Reserve's data. T. Alloway (2014), "*Big investors replace banks in $4.2tn repo market*", FT.
26 Z. Liu, J. Coen (2015), "*What do we know about non-bank interconnectedness?*", BoE blog Bank underground.
27 M. Singh (2013), "*The changing collateral space*", IMF Working Paper 13/25 and M. Singh (2015), "Understanding the role of collateral in financial markets", Brookings Institution, Conference, February.
28 G. Gorton, T. Muir (2016), "Mobile collateral versus immobile collateral", BIS Working Paper n°561, May.
29 M. Ferrari, C. Guagliano, J. Mazzacurati (2016), "*The collateral scarcity premium in European repo markets*", ESMA Report on trends, risks and vulnerabilities, no. 1.
30 "Specificity" of collateral is an indicator of the extra cost of the increasing scarcity of collateral, an extra cost that the borrower is prepared to pay in order to benefit from collateral that it has chosen or that it must deliver (instead of collateral randomly allocated during the transaction). It is defined as the difference between the repo rate of "general" collateral and the weighted repo rate of the considered collateral.

2.2. Possible risks to financial stability related to the "reuse" of collateral and the "rehypothecation" of client assets

The benefits of reuse of collateral seem inherent by its very nature: by offering an agent the possibility of using securities available on its balance sheet in other functions, it mechanically increases the supply of available securities in the market for short-term financing, transaction clearing, or improvement of the credit quality of securities held. It is thus an essential source of financing for banks and financial institutions as well as an essential instrument for the implementation of monetary policy. For funds, it also allows the yield on their portfolio to be maximised by lending their securities or raising funds to be invested. In that respect, the reuse of collateral is a way to improve the market's operation (depth, liquidity, efficiency of price determination).

However, the systematic risks attached to it are also well defined:

- interconnection risk, which can lead to stressed situation due to forced sales following an acceleration of margin calls or a tightening of collateral eligibility criteria;
- increased leverage of the players, particularly banks and broker dealers who use lending/borrowing particularly to finance their inventories;
- pro-cyclicality of lending/borrowing transactions: the possibility of making certain asset classes ineligible as collateral in stress situations can accelerate financial stress arising from forced sales or a drying-up of liquidity. The pro-cyclical nature of haircuts has not yet been verified by the FSB's first impact study, which found at first that haircuts increased during the crisis, but stagnated afterwards[31];
- risk of complexity, in certain jurisdictions, which makes it difficult to identify ownership rights and counterparties, which could destabilise certain markets under stress;
- market risk, arising from price volatility as well as the degree of likelihood of recovering the value of the security by selling it, and possible contagion.

Lastly, two other non-systemic risks can be cited – counterparty and operational risk – which can be managed by putting haircuts in place and clearing these transactions.

The advantages and risks related to the reuse of collateral can be summarised in the following table:

Advantages	Risks
smoother financing flows and improved liquidity, depth, and determination of prices	construction of leverage
optimisation and improvement of portfolio yields	interconnection, contagion
reducing financing costs and new financing possibilities	pro-cyclicality
transmission of monetary policy	illusion of secure transactions
	complexity of dynamic collateral chains, loss of information

Various tools can minimise these risks without completely eliminating them: collateral (securities) and initial margins, daily valuation at market value, counterparty position caps, concentration limits on certain securities, or management of leverage permitted by use of securities lending/borrowing.
However, few authors have looked into arbitrage between the availability of collateral permitted by its reuse and the risk related to dynamic collateral chains.

One of them, V. Maurin (2015), using a theoretical model, concludes with the interest in rehypothecation as one of the most effective tools for improving collateral circulation and market efficiency. In practice, it is actually the least costly : compared with other forms of financial engineering that would require the creation of new contracts, rehypothecation requires only the client's approval and notification within an existing contract. The author also shows that rehypothecation is particularly useful within inefficient markets or in case of a shortage of certain securities on the market. However, in such cases of collateral scarcity, the author also shows that rehypothecation, through the increase in leverage, weakens the credit chain and amplifies liquidity and contagion risks.

[31] FSB (2014), "*Regulatory framework for haircuts on non-centrally cleared securities financing transactions : procyclicality of haircuts, evidence from the QIS1*", October 2014.

At this point, the debate goes on in economic research on the impact of the rules governing collateral reuse transactions due to the double challenge they embody : maintaining financial stability and ensuring the availability of good-quality assets in the economy. Depending on the resulting framework (capping of reuse of collateral, haircuts, improved transparency and client information, etc.), there could be side effects, with unforeseen consequences because of (i) the lack of available data on the lending/borrowing market and its players; (ii) the lack, at this stage, of an overall view of the regulations taking into account the side effects on financial stability.

PART 3

WHAT RULES TO APPLY TO 'REUSE' AND 'REHYPOTHECATION'?

To address the flaws brought to light when Lehman Brothers and MF Global went bankrupt, various jurisdictions have reformed their regulatory framework. The purposes of these revisions were to better inform and protect clients engaging in rehypothecation transactions by introducing strict conditions for rehypothecation and an intermediary responsibility scheme. Various regulatory initiatives have also restricted the possibility of reusing collateral provided as security for financial transactions. In a more macro-prudential perspective, the FSB has also conducted analysis on reuse and rehypothecation as part of its work on shadow banking.

It thus appears that, beyond a few semantic ambiguities, the intention is clearly to protect client assets from any use made without their knowledge or putting them at risk ('rehypothecation') and to strengthen the protection offered by collateral by avoiding its unlimited reuse.

3.1. After the crisis, the United States adopted a triparty collateral management reform and introduced new fund transparency rules

- *"Triparty collateral management" reform*

Until 2013, the US collateral management market operated on the basis of a dual mechanism: (i) settlement by triparty agents of all their transactions, including those that have not yet reached maturity, every morning (ii) recollateralisation, in the evening, of transactions that have not yet reached maturity by positions financed during the day with credit lines provided by these same triparty agents to their clients. It should be noted that the US market was characterised by a very high concentration: two banks (JP Morgan and BNY Mellon[32]) performing the functions of triparty agents representing 80% of the market.

This operation, based on the settlement of transactions, made players on the repo market, and particularly broker-dealers, dependent on intraday credit extensions granted by triparty agents. In times of crisis, such dependence could have proved highly pro-cyclical.

In response to this risk, in 2012, the US authorities initiated a major reform of their collateral management market, on the basis of a roadmap developed by a Task Force made up of industry representatives and chaired by the New York Federal Reserve Bank. The objectives of the reform were to reduce the repo market's dependence on intraday credits by triparty agents and strengthen the management of credit and liquidity risk by the participants. According to the New York Federal Reserve Bank[33], in 2015, this reform achieved many of the objectives (significant reduction in triparty collateral management volume financed by intraday credits, change in players' market practices relating to the management of credit and liquidity risk).

- *Introduction of fund transparency rules*

In addition, the SEC recently proposed rules[34] to modernise and strengthen fund transparency requirements for regulators and their investors. In particular, these new requirements include transparency of information about the securities that have been reused (lending/borrowing and repo transactions). It should be noted that these rules do not cover the express authorisation by investors of the rehypothecation of their assets.

[32] In July 2016, JP Morgan announced it will withdraw from this market
[33] https://www.newyorkfed.org/newsevents/statements/2015/0624_2015.html
[34] http://www.sec.gov/news/pressrelease/2015-95.html

3.2. After the crisis, the use of reuse and rehypothecation in Europe was strictly controlled by the introduction of new sectoral regulatory requirements

While the terms are sometimes used interchangeably[35], which could lead to a sense of inconsistency in the regulations, it turns out that the European scheme of “reuse” and “rehypothecation” is actually consistent:

- “rehypothecation”, i.e., the possibility of using client assets, is permitted only insofar as the client has consented to it and has fully assessed its extent. However, its regulatory framework is being strengthened (through the introduction of stricter rules for certain sectors, for example funds in the UCITS V Directive) to ensure the client’s informed consent, or even a ban where the risk seems too great.

- “reuse”, i.e., the reuse of collateral, is often the subject of a scheme that differs depending on whether it is provided in the form of securities or cash and is permitted only in specific cases (cash collateral provided as part of bilateral margin exchanges for non-centrally cleared OTC derivative operations).

3.2.1. The AIFM and UCITS directives introduce a depositary responsibility scheme and an obligation to inform the client in case of rehypothecation of fund assets

- *With regard to the use of fund assets by the depositary:*

Directive 2011/61/EU on alternative investment fund managers (‘AIFM Directive’) regulates the use of rehypothecation by these players. Article 14(3) of this directive provides that, where a manager, on behalf of an AIF, uses the services of a prime broker, “the terms shall be set out in a written contract. In particular, any possibility of transfer and reuse of AIF assets shall be provided for in that contract [signed with the prime broker] and shall comply with the AIF rules or instruments of incorporation. The contract shall provide that the depositary [of the AIF] be informed of the contract”. Article 15(4) specifies that “AIFMs shall set a maximum level of leverage which they may employ on behalf of each AIF they manage as well as the extent of the right to reuse collateral or guarantee that could be granted under the leveraging arrangement, taking into account, inter alia, the type of the AIF, the investment strategy of the AIF, the sources of leverage of the AIF, any other interlinkage or relevant relationships with other financial services institutions, which could pose systemic risk, the need to limit the exposure to any single counterparty, the extent to which the leverage is collateralised, the asset-liability ratio, the scale, nature and extent of the activity of the AIFM on the markets concerned”. Article 21 (10) specifies that assets held by a depository “shall not be reused by the depositary without the prior consent of the AIF or the AIFM acting on behalf of the AIF”.

For UCITS, directive 2014/91/EU on undertakings for collective investment in transferable securities (‘UCITS V Directive’) indicates in article 22(7) that “the assets held in custody by the depositary shall not be reused by the depositary, or by any third party to which the custody function has been delegated, for their own account”. This article also defines ‘reuse’ as “any transaction of assets held in custody including, but not limited to, transferring, pledging, selling and lending”.

These requirements are consistent with the international standards defined by IOSCO in November 2015[36], which notably provide that assets of “collective investment schemes” deposited with a custodian by the depositary entity must not be reused by the custodian (or by a third party to whom the custodian function has been delegated) without the prior consent or without instruction of the responsible entity.

- *With regard to collateral received by funds:*

Article 43 (i) of the Guidelines on ETFs and other UCITS issues published by the ESMA in July 2012 provides that “non-cash collateral received should not be sold, re-invested or pledged”, prohibiting any reuse of collateral received where it is not provided in cash. The reuse of cash collateral provided is subject to strict conditions.

[35] see point 1.1.2 of the study

[36] IOSCO, *Standards for the Custody of Collective Investment Schemes’ Assets*, November 2015

3.2.2. EMIR specifies the arrangements for reuse of collateral by CCPs and as part of bilateral margin exchanges

- *With regard to margins provided to CCPs:*

Article 39 (8) of regulation 2012/648/EU on OTC derivatives, central counterparties and trade repositories ('EMIR') published in 2012 recognises that clearing houses (CCPs) have a right of use of margins[37] and default fund contributions[38] of members where these assets are provided as securities (i.e., through an "SCA" contract). This 'right of use' may be exercised by CCPs if several conditions are met:

- use of such arrangements is provided for in the operating rules of the CCP,
- the clearing member must confirm its acceptance of the operating rules in writing, and
- right of use must be publicly disclosed.

However, it should be noted that this right is by definition limited insofar as the CCP's investment policy is highly regulated: in particular, article 47 provides that "a CCP shall invest its financial resources only in cash or in highly liquid financial instruments with minimal market and credit risk" and that "a CCP's investments shall be capable of being liquidated rapidly with minimal adverse price effect".

These provisions are consistent with the international principles for financial market infrastructures (PFMI) published in 2012. These principles provide that market infrastructures (CCPs and central securities depositories) must have:

- a collateral management system to "track the extent of reuse of collateral (both cash and non-cash) and the rights of an FMI to the collateral provided to it by its counterparties" (Principle 5) and
- clear and transparent rules regarding the reuse of collateral, specifying in particular the conditions under which the infrastructure may reuse its participants' collateral and detailing the process for returning that collateral to participants (Principles 5 and 23).

In France, collateral deposited with the CCP is generally provided with a transfer of title

Article L.440-7 of the French monetary and financial code provides that "deposits made by clients with investment service providers or members of a clearing house, or made by said members with a clearing house to cover or guarantee positions taken on a market in financial instruments, shall take the form of a financial guarantee [in the form of a guarantee or security] or any other form provided by the operating rules".

Pursuant to Chapter 4 of Title IV of the Clearing Rule Book[39] (relating to collateral accepted in respect of hedging requirements) of the operating rules of the 'Cash, Derivatives, Fixed Income & Triparty Repos' segment of the French CCP, "collateral deposited by clearing members in respect of their financial obligations is transferred with full ownership". According to article 3.4 of section 3 ('Transfer of collateral') of the operational rules of the 'OTC Credit Default Swaps' segment of this same CCP, collateral in securities may be provided 'i) by way of full title transfer to be recorded in its House Collateral Account, and in the case of a CCM only, in any of its CCM Client Collateral Accounts, in which case the relevant securities will be transferred to LCH.Clearnet SA, its nominated custodian or Central Securities Depository […]; or ii) by way of security interest under the Pledge Agreement to be recorded in its House Collateral Account, and in the case of a CCM only, in any of its CCM Client Collateral Accounts, in which case relevant securities will be transferred to the relevant LCH.Clearnet SA pledged account(s) opened in the books of Euroclear Bank by instruction through Euroclear Bank […]'. These rules also provide that for US T-Bills provided to the CCP by a clearing member approved by the CFTC (having the status of Futures Commission Merchant) in the name of its clients, the collateral must be provided by a security collateral arrangement (SCA).

- *With regard to derivative transactions not subject to the central clearing requirement (but subject to bilateral margin exchange requirements)*

The draft delegated regulation with regard to regulatory technical standards (RTS) for risk-mitigation techniques for OTC derivative contracts not cleared by a central counterparty published by the European Commission in October 2016 provides for specific provisions relating to the reuse of margins. According to article 20 of these RTS, a counterparty that collects initial margins is prohibited from reusing them.

[37] Initial margins may be provided in cash or securities. Variation margins are generally provided in cash.
[38] Default fund contributions are generally provided in cash.
[39] http://www.lch.com/documents/731485/1141617/IV.4-1-VA-clean.pdf/c65e7fe6-e6c0-4a82-9fd9-ea0a32abf7af

However, the same article provides that a third-party account keeper or custodian can reinvest the initial margin received in cash.

This RTS proposal complies with the international framework on margin requirements applicable to derivative transactions not subject to the central clearing requirements (framework developed by IOSCO's Working Group on Margin Requirements (WGMR) and the Basel Committee). This framework published in 2013 and amended in 2015 lays down the general principle of a ban on the reuse of initial margins and limits the exceptions to this principle to special cases subject to strict conditions.

3.2.3. MiFID II regulates rehypothecation by investment firms of their retail clients' assets deposited with full ownership

MiFID 2 requires investment firms, where they use client assets, to implement procedures to guarantee the ownership rights of clients and to subject the proprietary use of client financial instruments to the prior authorisation of the clients. In addition, article 16 (10) of MiFID 2 prohibits an investment firm from entering into TTCAs with retail clients to secure or cover the present or future obligations of clients. The implementing directive of MiFID 2, which notably sets out the arrangements for applying article 16, was adopted on 7 April 2016. Under Article 5 of this implementing directive, investment firms may not "enter into arrangements for securities financing transactions in respect of financial instruments held by them on behalf of a client, or otherwise use such financial instruments for their own account or the account of another client of the firm, unless the following conditions are met:
(a) the client has given his prior express consent to the use of the instruments on specified terms, as clearly evidenced in writing and affirmatively executed by signature or equivalent, and
(b) the use of that client's financial instruments is restricted to the specified terms to which the client consents".
In addition, this article provides that investment firms must "take appropriate measures to prevent the unauthorised use of client financial instruments for their own account or the account of any other person".

These provisions are consistent with the IOSCO principles on the protection of client assets[40] published in January 2014. In particular, these principles and their implementing measures provide for, for each intermediary:

- an obligation to take account of the increased risks that would result from certain practices like the exercise of the right of reuse ('rehypothecation') of client assets and
- an obligation to obtain and archive the client's explicit consent, where appropriate, on a specific document presenting the risks involved, in case of the client's waiver of all or some of its rights over the assets (for example, if the client authorises the intermediary to lend them).

3.2.4. Bank resolution regime

In addition, in October 2014, the FSB published a report on the protection of client assets in bank crisis resolution regimes[41]. The objective of this report, appended to the Key Attributes of Effective Resolution Regimes for Financial Institutions of the FSB, is to permit the return (or transfer to a third-party institution) of client assets held by the institution in resolution. Numerous points in the report are devoted to archiving certain transactions such as securities lending, provision of collateral, and rehypothecation of client assets: 'in order to facilitate the rapid transfer or return of client assets, firms should be required to maintain information systems and controls that can promptly produce, both in normal times and during resolution,[…], information on […] the amount, nature and ownership status of client assets held directly or indirectly by the firm, the identity of the clients, the location of the client assets, how the assets are held (that is, by the firm, an affiliate or third party custodian or sub-custodian) and the identity of all relevant depositories, the terms and conditions on which the client assets are held, including contractual arrangements between the firm and the client and any third party holding the client assets, the type of segregation ("omnibus" or "individual"), if applicable, at all levels of a holding chain and the effects of the segregation on the clients' ownership right, […] the existence and exercise of any rehypothecation or rights of use by the firm, including details of the assets that have been re-hypothecated or used and the legal consequences of the exercise of those rights on the clients' rights over those assets'.

[40] IOSCO, *Recommendations Regarding the Protection of Client Assets*, January 2014
[41] FSB, *Appendix II- Annex 3 Client Asset Protection in Resolution*, October 2014

Reinforcing the protection of client assets in the British regulatory corpus (*Client Asset Sourcebook*)

After the fall of Lehman Brothers, the British/UK authorities also revised their regulatory framework relating to the protection of client assets, through a modification of the Client Asset Sourcebook (CASS Rules).

The CASS Rules essentially aim to establish an investment services provider (ISP) responsibility scheme concerning the transversal protection of their clients' assets (incorporating elements of bankruptcy law, property law, and securities law): this regime involves several very detailed types of requirements (governance rules and manager responsibility scheme, daily reporting of assets, obligation of segregation, provisions on the custody and sub-custody regime, ban on the reuse of retail client assets, etc.). While largely integrating the elements of the European sectoral texts (depositary regime of the UCITS V Directive, client asset protection of MiFID II, obligation of proper conduct of settlement operations, etc.), the CASS Rules constitute a type of original regulation that takes account of the specific features of the British/UK market (dematerialisation of securities not yet fully achieved, lack of securities accounting and debit/credit rules, security entitlement).
In particular, the revision of the CASS Rules, which came into force in June 2015, reinforces the transparency of risksfor prime brokers' clients and introduces daily reporting of assets that are the subject of a 'rehypothecation'.

The CASS Rules cover the protection of securities and cash and address these two asset types separately[42]. According to the CASS Rules, the exercise of the right of reuse ('rehypothecation') over client assets through a TTCA has several consequences: (i) relief of obligation to protect the assets since ownership is lost by the client, but (ii) other obligations will apply (accounting and registration obligations: the intermediary must have commitment-basis accounting requiring it to show a debt for the return of that security).

3.2.5. SFTR introduces a general framework for collateral reuse transactions

Article 15 of the European regulation on transparency of securities financing transactions and of reuse ('SFTR') published in November 2015 strictly regulates the right to reuse financial instruments received as collateral. Article 15 introduces two sets of conditions:

- Conditions for the right to reuse:
  (i) the providing counterparty has been duly informed in writing by the receiving counterparty of the risks involved (particularly in case of default); and
  (ii) for collateral provided under a security collateral arrangement (SCA): the providing counterparty has granted its prior express consent, as evidenced by a signature, in writing or in a legally equivalent manner, of the providing counterparty to a security collateral arrangement, and for collateral provided under a title transfer collateral arrangement (TTCA): entry into a TTCA contract.

- Conditions for exercising this right:
  (i) "reuse" is undertaken in accordance with the terms specified in the collateral arrangement; and
  (ii) financial instruments received under a collateral arrangement are transferred from the account of the providing counterparty[43] (debit principle).

Article 15 also specifies that these provisions are without prejudice to stricter sectoral legislation, in particular the Collateral Directive and MiFID, and to national laws that aim to ensure a higher level of protection for providing counterparties.

[42] It should be noted that French case law has recognised such a distinction, although more recently (2007 decision on the confinement of cash).
[43] Following negotiations between Member States with the Council, the "credit" principle (i.e., specifying that financial instruments provided as collateral are credited to the account of the counterparty who receives them) was not included in the wording ultimately adopted.

Diagram 4: reuse of securities provided under a TTCA (Article 15 of the SFTR)

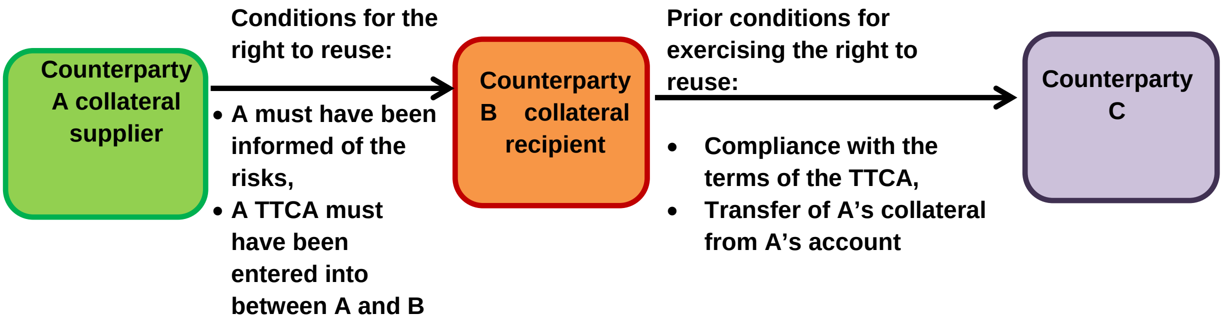
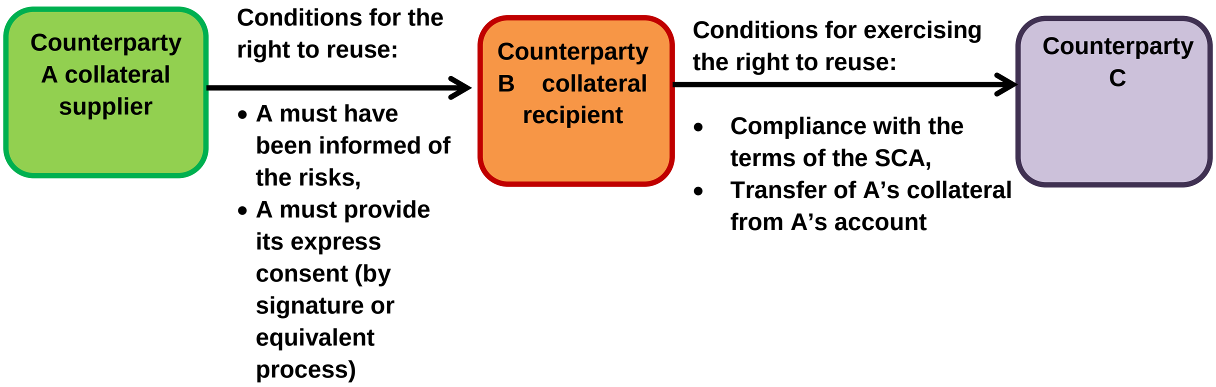


Diagram 5: reuse of securities provided under an SCA (pledge) (Article 15 of the SFTR)



The framework for reuse as provided for in article 15 of SFTR is consistent with part 1 of recommendation 7 of the FSB's Shadow Banking Report[44].

This recommendation hinges on three elements:
(i) financial intermediaries must be sufficiently transparent for their clients on the rehypothecation of their assets,
(ii) client assets may be the subject of rehypothecation by an intermediary to finance long positions and cover short positions but should not be used to finance the intermediary's proprietary activities,
(iii) only entities subject to adequate liquidity risk regulations are authorised to enter into rehypothecation transactions.

In addition, article 4 of SFTR provides that counterparties to securities financing transactions (SFT) are subject to an obligation to report these transactions to trade repositories (TR). Among the elements subject to such a reporting obligation are particularly assets provided as collateral for SFTs, their type, their credit quality, the method of payment of collateral (SCA or TTCA), and the existence (or not) of a right of reuse. The arrangements for reporting these elements must be specified in technical standards that will need to be submitted to the European Commission by January 2017 and that are currently the subject of work within the ESMA[45].

3.3. At the international level, extensive attention has been given to the reuse of collateral

Simultaneously with the strengthening of the various European and national regulatory schemes regulating transactions involving reuse of collateral and rehypothecation of client assets, a variety of work has also been initiated at an international level, notably by the FSB and IOSCO (International Organization of Securities Commissions). This work, which is still underway today, has been conducted in two phases:

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[44] FSB, *Strengthening Oversight and Regulation of Shadow Banking, Policy Framework for Addressing Shadow Banking Risks in Securities Lending and Repos*, 29 August 2013

[45] On 11 March, ESMA launched a public consultation on the implementation of SFTR: https://www.esma.europa.eu/press-news/esma-news/esma-consults-securities-financing-transaction-regulation. This consultation was completed on 22 April 2016. The ESMA must submit its proposed RTS to the European Commission no later than 13 January 2017.

- from 2012 to 2014, the development by various international groups (asset management, market infrastructures, management of intermediary obligations) of sectoral recommendations related to the reuse of collateral and the rehypothecation of client assets, and
- since 2014, the verification of the implementation of these recommendations, the streamlining of the work by the FSB, and the focus on the macro-prudential aspect.

3.3.1. From 2012 to 2014/2015: the introduction of specific sectoral recommendations on the reuse of collateral and the rehypothecation of client assets

The various international work groups (CPMI, FSB, IOSCO, WGMR) have systematically incorporated recommendations on the reuse of collateral and the rehypothecation of client assets. Given that these arrangements were already detailed above, they are merely listed below:

<u>For the regulation of rehypothecation of client assets</u>*:*
- Regulation of rehypothecation: FSB report on Shadow Banking (2013), recommending that intermediaries inform their clients of the risks and issues related to rehypothecation, particularly in the event of the intermediary's default
- Intermediary resolution regimes: Annex to the Key Attributes for Effective Resolution Regimes of the FSB on the protection of assets in resolution (2014), imposing, in particular, minimum information and archiving obligations,
- 'Depositary' function of assets of mutual funds: Standards for the Custody of Collective Investment Schemes Assets (2015)
- 'Custodian' function of intermediaries: Recommendations regarding the Protection of Client Assets (2014)

<u>For the regulation of reuse of collateral</u>*:*
- PFMI: IOSCO principles (2012),
- Non-centrally cleared derivatives: WGMR report (2013),
- CPMI report on collateral management (2014)

The concomitance of national, European, and international initiatives has resulted in a high level of compliance of European sectoral initiatives regarding rehypothecation of client assets and reuse of collateral.

3.3.2. Since 2015: verification of the implementation of recommendations, streamlining of works, and focus on the macro-prudential aspect under the auspices of the FSB

Since 2015, international work on the reuse of collateral and the rehypothecation of client assets has seen three major developments:

- international bodies have embarked on work to evaluate the implementation of the recommendations/standards that have been issued respectively by their member jurisdictions. This work aims to encourage convergence but also, when necessary, to adjust certain aspects (for example, the implementation timetable). This evaluation work is still ongoing,

- the FSB's establishment of a group of experts on the reuse of collateral and the rehypothecation of client assets was the opportunity for the FSB to structure the sectoral work related to these transactions conducted by the various international groups. This group of experts has several objectives:
  (i) identify the systemic risks related to collateral reuse transactions and, to a lesser extent, client asset rehypothecation transactions;
  (ii) provide a general framework for these transactions analysis (operational, risks, and benefits);
  (iii) take stock of the approaches adopted by the international regulators and the various jurisdictions in order to respond to the identified risks; and
  (iv) propose, where appropriate, recommendations for action to address to the points still constituting risks,

- The FSB has also focused its work on the macro-prudential aspect of **(i)** monitoring the risks related to collateral reuse transactions (by proposing a general reporting framework for SFTs permitting an aggregation at the global level and in particular the monitoring of the reuse of collateral in a chain of transactions) and **(ii)** the tools for supervising these transactions (by introducing minimum haircut levels for certain SFTs[46]).

[46] In this case, these are non-cleared SFTs not carried out with government collateral.

CONCLUSION

The analysis of the benefits, risks, and functioning of collateral reuse and client asset rehypothecation transactions, as well as the approaches undertaken by the international regulators and various jurisdictions have shown the fundamental importance of these transactions for the financial markets.

Many market participants have stressed that the requirements of high-quality collateral contained in a number of new European regulations (Solvency II, CRD IV, EMIR, etc.) have profoundly transformed the collateral market, by increasing the demand for high-quality collateral and drying up a portion of the supply. Accordingly, collateral reuse transactions may be an option for increasing the availability of high-quality collateral. With this in mind, many market participants and central banks have developed solutions to manage as best they may the quantity, availability, and circulation of collateral.

While these transactions present risks (pro-cyclicality, contagion, regulatory arbitrage), it seems that these risks have been the subject of responses that appear to be adequate and complete, or are currently the subject of special focus, particularly via reporting requirements. The analysis of the various regulations shows that in every case, a client’s assets,be they in the form of deposits or collateral, cannot be reused without the it’s consent. Where reuse is considered too dangerous (due to the client’s status or to the existence of conflicts of interest such as proprietary operations) or orthogonal to the objectives of the rule (securities provided as collateral in non-cleared derivatives), it is prohibited. However, beyond the conditions of rehypothecation concerning client notification and the client’s express consent, the fact remains that certain reuse transactions may entail leverage risk that requires due vigilance.

Also, following its analysis, the AMF reports the following findings:

1. Although a degree of semantic clarification and fine-tuning could prove useful, the European regulation is consistent in its approach to the reuse of assets: beyond the sectoral regulations, each time it aims to preserve the informed consent of clients on the reuse of their assets and to ensure that the reuse of the collateral does not interfere with its primary guarantee function. The adaptive measures applied following the crisis further strengthened these requirements so adequately that, at this stage and in view of their contribution to market liquidity, to impose further constraints on reuse transactions would seem unnecessary.

2. On the contrary, the AMF considers that the pressure on the collateral market linked to the application of the G20 commitments makes it necessary to assess the effects of these reforms, both in terms of availability of quality assets and in terms of developments regarding market practices.

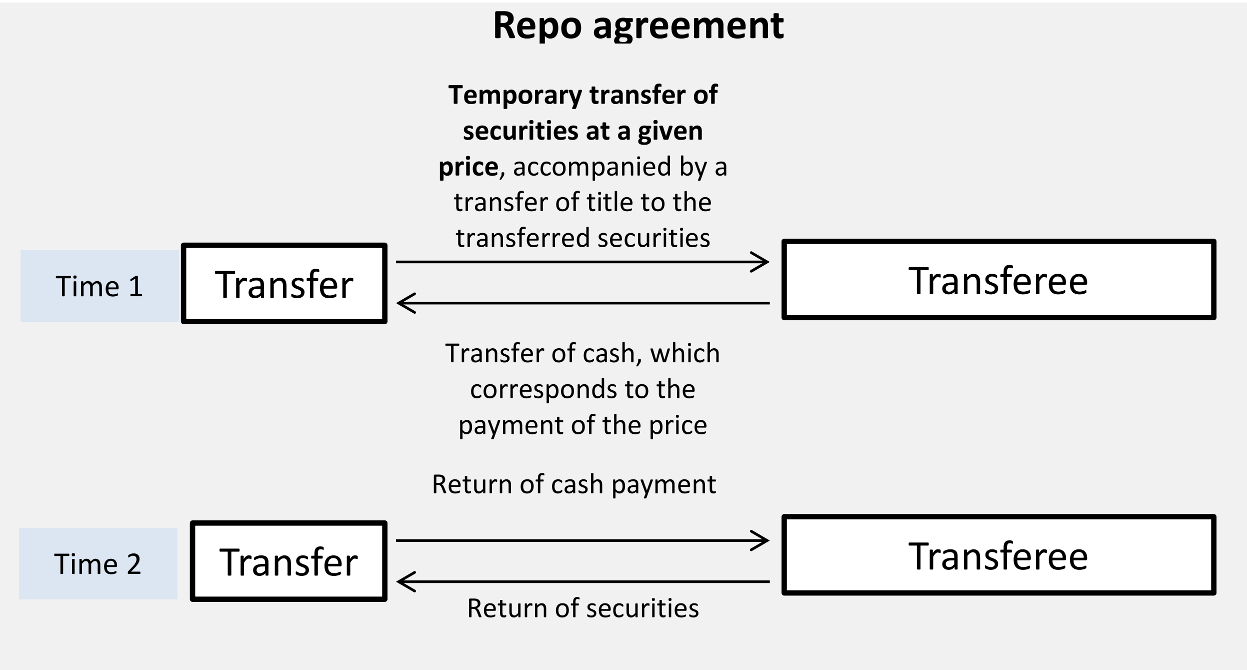
3. However, given the real risks related to reuse transactions, keen focus will be given to the use of the data provided to the AMF, in keeping with the various texts, which should enable it to identify new risks, at both European and international levels.

Glossary[47]

Securities Financing Transactions: transactions including (i) buy-sell back (and sell-buy back) transactions, repurchase transactions (repos), margin lending transactions, and securities lending (and borrowing).

Buy-sell back transaction and sell-buy back transaction: a transaction by which a counterparty buys or sells securities, commodities, or guaranteed rights relating to title to securities or commodities, agreeing, respectively, to sell or to buy back securities, commodities or such guaranteed rights of the same description at a specified price on a future date, that transaction being a buy-sell back transaction for the counterparty buying the securities, commodities or guaranteed rights, and a sell-buy back transaction for the counterparty selling them, such buy-sell back transaction or sell-buy back transaction not being governed by a repurchase agreement or by a reverse-repurchase agreement.

Repurchase transaction: a transaction governed by an agreement by which a counterparty transfers securities, commodities, or guaranteed rights relating to title to securities or commodities where that guarantee is issued by a recognised exchange which holds the rights to the securities or commodities and the agreement does not allow a counterparty to transfer or pledge a particular security or commodity to more than one counterparty at a time, subject to a commitment to repurchase them, or substituted securities or commodities of the same description at a specified price on a future date specified, or to be specified, by the transferor, being a repurchase agreement for the counterparty selling the securities or commodities and a reverse repurchase agreement for the counterparty buying them.



Margin lending transaction: a transaction in which a counterparty extends credit in connection with the purchase, sale, carrying or trading of securities, but not including other loans that are secured by collateral in the form of securities.

Securities or commodities lending or securities or commodities borrowing: a transaction by which a counterparty transfers securities or commodities subject to a commitment that the borrower will return equivalent securities or commodities on a future date or when requested to do so by the transferor, that transaction being considered as securities or commodities lending for the counterparty transferring the securities or commodities and being considered as securities or commodities borrowing for the counterparty to which they are transferred.

[47] These definitions come from article 3 of regulation 2015/2365 on transparency of securities financing transactions and of reuse ('SFTR').

Securities lending/borrowing transaction