

SECURITIES LENDING AND RELATED STANDING FACILITIES

Background Note

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Background Note¹

This note is part of a series of background notes produced under the World Bank Group Government Bond Markets (GBM) Advisory Services Program as a by-product of its strategy to support the development of liquid local currency bond markets. Selected topics have been a key focus in the areas of work of the Advisory Services because of their catalytic impact on debt market development. They include primary market organization through primary dealers and liability management, repo markets, securities lending, price dissemination, and clearing and settlement arrangements.²

Securities lending can make significant contributions to bond market development, as it promotes secondary market liquidity by helping market participants avoid delivery fails and conduct market operations. Specifically, securities lending facilities (SLFs) can be particularly useful for primary dealers that must comply with quoting obligations and often engage in short positions as part of their daily market-making activity. This background note provides some guidance on how to design an SLF, reviewing different types of financial instruments and SLF structures that can be used as well as the preconditions. Various elements and procedures related to putting an SLF in place are illustrated with country examples.

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¹ This background note has been prepared to support World Bank Group technical assistance programs for the development of local capital markets. This note is a work in progress because data intended to show practical examples of country practices are still being collected. Comments to asilva3@worldbank.org, baudouin.richard@live.be, and oakcadag@ifc.org are welcome.

² Six notes have been produced so far on Primary Dealers, Liability Management, Repo Markets, Securities Lending, Electronic Trading Platforms, and Domestic Syndications.

³ These include the Brazilian National Treasury, Central Bank of Malaysia, Ministry of Finance and Public Credit Mexico, National Treasury of South Africa, and Turkish Treasury.



Contents

Abbreviations and Acronyms	III
1. Introduction	1
2. Securities Lending	3
2.1. Definition and Objectives.....	3
2.2. Link between Securities Lending and PDs' Quoting Obligation	3
2.3. Securities Lending Instruments.....	4
3. Securities Lending Facility.....	5
3.1. Securities Lending Procedures.....	5
3.2. Automatic Securities Lending Facility Provided by a Clearing House to Its Members.....	5
3.3. Special Securities Lending Facility Provided by a DMO to its PDs	6
3.4. Ways for a DMO to Ensure the Availability of Securities for Lending.....	6
3.5. Comparison between Clearing House and DMO-Provided Lending Facilities	7
3.6. Hybrid SLF System	8
3.7. Summary Survey of SLF Procedures Implemented in Select Mature and Developing	8
4. Accounting Principles.....	11
5. Putting a Securities Lending Facility in Place.....	13
5.1. Background	13
5.2. Prerequisites for an SLF To Be Put in Place.....	13
5.3. Decisions to Be Made by the DMO	14
5.4. Possible Simplifications of the Standard Procedure at the Start.....	14
5.5. Draft SLF Procedure Manual.....	14
6. Conclusion	15

Appendix 1. Clearing House Automatic Securites Lending Facility. Illustration: Belgium 17

Appendix 2. SLF: Determining the Appropriate Amount and Rate..... 19

Appendix 3. SLF Accounting. Illustration: Belgium 21

Appendix 4. Draft SLF Procedure Manual 23

Appendix 5. Overview of International Emerging Markets SLF Experiences..... 25

Appendix 6. Country Questionnaire on Securities Lending Facility (SLF), April 2015..... 31

References 37



Abbreviations and Acronyms

BDA	Belgian Debt Agency
ASLF	Automatic Securities Lending Facility
BT	Brazilian Treasury
CH	Clearing House
DMO	Debt Management Office
GC	General Collateral
GMRA	Global Master Repurchase Agreement
ILB	Inflation-Linked Bond
MM	Market Maker
MoF	Ministry of Finance
MRA	Master Repurchase Agreement
PD	Primary Dealer
PM	Procedure Manual
Repo	Repurchase Agreement
SARB	South African Reserve Bank
SL	Securities Lending
SLF	Securities Lending Facility
SPF	Social Pension Fund
SSLF	Special Securities Lending Facility
TCS	Temporarily Created Security



1. Introduction

This aim of this draft background note is to provide public debt managers with an overview of the matters that need to be considered by debt management offices (DMOs) planning to provide a securities lending facility (SLF) to their primary dealers (PDs).

“SLF” as it is used in this note means “a procedure put in place with a view to facilitating the borrowing of some specific securities in some specific instances, whether by way of a straight borrowing or a repo or a sell and buy back transaction.” The main providers of SLFs are clearing systems and DMOs. Clearing systems provide an SLF to their members to avoid delivery fails. DMOs provide an SLF to their PDs to enhance the liquidity of the secondary market in government securities by helping PDs to comply with their commitment to quote firm two-way prices.

The provision by a DMO of an SLF to its PDs is not a requirement for a well-functioning secondary market. As an illustration, the US Treasury conducted in 2006 a market survey to establish whether it should establish a securities lender of last resort facility.⁴ The Bond Market Association responded by arguing that ensuring the ability of PDs to borrow securities in case of need is a responsibility of the market that the Treasury should not undermine.

Yet a well-structured SLF provided by DMOs to their PDs is a powerful instrument to enhance the liquidity of the secondary market. Almost all mature markets with a PD system have an SLF in place. An increasing number of emerging markets are putting or planning to put an SLF in place.

An apparent paradox is that an SLF is best little used. The explanation is that an SLF has to be a last resort mechanism. PDs should first try to cover their short positions by borrowing securities from the market. An SLF should be provided only as a safety net. If not, it would impair the development of the repo market.

⁴ Report on results of the OECD SLF questionnaire, U.S. Treasury Office of Debt Management, 2006.

Putting an SLF in place for PDs is only a technical undertaking that raises minimal risks for DMOs. The terms of the SLF are set at the DMO's discretion; the maturity of the transactions is very short; their amount is limited. The counterparts are well known to the DMO because they are PDs.

This background note is organized as follows. The usefulness of securities lending for market makers and for investors is reviewed first. The background note then describes the different financial instruments that can be used to that effect: a loan, a repo, and a simultaneous conclusion of a repo and a reverse repo. It surveys the advantages and shortcomings of the different types of securities-lending facilities that can be put in place: an automatic SLF provided by clearing houses to their members, a special SLF provided by DMOs

to their PDs, and a hybrid system combining some features of the previous two. It analyzes the ways that DMOs are using an SLF to ensure the availability of the securities that PDs are seeking to borrow: using a securities portfolio or by temporarily creating and subsequently cancelling the securities in question. A summary review of the applicable accounting principles follows.

The background note concludes by summarizing the practical issues to be addressed when putting an SLF in place, both the prerequisites to be met at the outset and the decisions to be made in the process.

The appendices include a draft procedure manual to provide an illustration of the way that an SLF can be operated and a review of some international emerging markets' SLF experiences.



2. Securities Lending

2.1. Definition and Objectives

Securities lending is a transaction whereby a market participant borrows a security for a certain period.⁵ The objective of the securities borrower is to avoid a delivery failure⁶ or to cover (or create) a short position in the security in question. The objective of the securities lender is to earn a commission, thereby increasing the return on its securities portfolio.

2.2. Link between Securities Lending and PDs' Quoting Obligation

PDs are committed to make markets for government securities. A trader who quotes two-way prices may be selling a security that it does not hold in inventory. It may not always be able to buy that security immediately in the market to cover its short position. It then needs to borrow the relevant security to deliver it to the buyer. Thus, a PD can make markets only if it is confident that it will be able to borrow the securities that it might need in the process.

The primary objective of an SLF is thus to lower the risks incurred by PDs in complying with their market-marking commitment.⁷ In mature markets, this includes protecting PDs against the risks generated by a “market squeeze.” A market squeeze occurs when a trader holding a large portfolio of a certain series of securities takes advantage of its dominant position by selling or lending the relevant security at an artificially high cost to the other market participants. An SLF allows a DMO to mitigate a market squeeze by offering PDs the possibility to borrow the securities in question at a normal cost. Countering a market squeeze is the only instance in which the cost of borrowing securities under an SLF should be below the cost of borrowing the securities in the repo market (see section 3.3).

⁵ “Securities borrowing” is used in this note in its generic sense of temporary transfer of the legal ownership of a security, whether by way of a straight borrowing, a repo, or a sell and buy back transaction (see section 1).

⁶ This is a settlement failure in the clearing house resulting from the inability to deliver the securities to be transferred.

⁷ As a result, it is beneficial to have a SLF put in place by a DMO when the market is mature enough to allow imposing a quoting obligation to PDs but not so liquid that compliance with this quoting obligation raises no issue for PDs. A way to assess the status is to ask PDs “Do you feel comfortable quoting to investors firm selling prices for securities that you do not hold in portfolio?”

Technically, an SLF can also be used by PDs to intentionally create short positions. Short positions are a legitimate part of market making.⁸ However, most DMOs limit the amount of securities that PDs can borrow under the SLF so the SLF will not be used to allow excessive market speculation (see section 3.3).

An SLF enhances the value of the status of primary dealer. An SLF is fundamentally a compensation for assuming an obligation. Yet it is indirectly a privilege as the strengthened ability to quote firm prices (including the reduced requirement of holding large inventories of securities) gives PDs a competitive edge over other banks. This can support the development of the PDs' customer base.

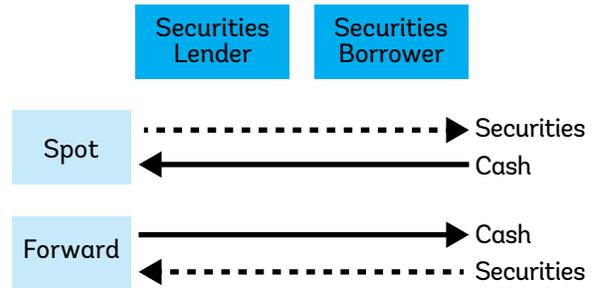
2.3. Securities Lending Instruments

Three different financial instruments can be used to lend securities: a straight loan, a repo, and a simultaneous repo and reverse repo. In the last two cases, the same financial result can be achieved by concluding buy and sell transactions instead of repos.

1. Straight loan: The lender transfers the securities to the account of the buyer, who commits to transfer them back on a certain date. The loan is usually secured by a pledge of cash or securities. The lender is remunerated by a commission. The commission is expressed as a certain amount of cash.
2. Repo: The lender sells the security spot, and he or she simultaneously commits to buy the security back at some future date. The mirror image of the securities loan by the seller to the buyer is a cash deposit by the buyer to the seller.

The securities lender is effectively protected against the risk of default by the borrower by cash collateral.⁹ As compensation for lending the securities, the securities lender remunerates the deposited funds at an interest rate below market, the difference representing the fee. The commission of the securities lender is thus expressed as an interest rate margin. The width of the margin is a function of the availability of the relevant security. The less available the security is in the market, the lower will be the remuneration of the funds.

Figure 2.1. Types of Repo Borrowing



3. Figure 2.1 shows that a repo can be construed as a borrowing of either a security or cash depending on which party takes the initiative in the transaction. In general, repos are used as an instrument to borrow cash. They protect the lender against credit risk on the borrower. In this case the type of security provided as collateral by the cash borrower is indifferent provided the securities in question meet some general eligibility criteria. Thus, these repo transactions are referred to as *general collateral* (GC). By contrast, the repo transactions initiated by a securities trader who wants to borrow a specific security are referred to as *special collateral*.
4. Simultaneous repo and reverse repo: A repo “special collateral” done by a securities lender can be matched by a reverse repo GC done by the party borrowing the securities. If the two parties charge one another the same amount for the spot purchase of the securities, the corresponding two securities transactions are “cash neutral.” In this case, the end result for the “special collateral” securities lender is effectively the same as a repo except that the collateral is securities instead of cash. The remuneration of the “special collateral” securities lender will be the margin between the interest paid on the cash it has borrowed and the interest earned on the cash it has lent.

⁸ A market maker that systematically matches its short or long securities positions in the market is actually a market taker. It provides no liquidity.

⁹ Although the lender is protected by cash collateral, it is worth noting that as market valuation change, the initial haircut may not be sufficient and collateral must be monitored by the securities lender.



3. Securities Lending Facility

3.1. Securities Lending Procedures

There are three different kinds of securities lending (SL) procedures. SL is generally done in the framework of a bilateral agreement between a lender and a borrower that are trading with one another in the market. This is the “normal” way of borrowing securities. By contrast, an SLF is a procedure put in place with the intention of facilitating the borrowing of securities by a number of counterparties but in some specific cases.

There are two kinds of SLFs: the “automatic securities lending facility” (ASLF) provided by a clearing house to its members and the “special securities lending facility” (SSLF) provided by a DMO to its PDs.

3.2. Automatic Securities Lending Facility Provided by a Clearing House to Its Members

An automatic securities lending facility (ASLF) is an agreement between a clearing house (CH) and its members, the objective of which is to avoid delivery failures. It is sometimes referred to as “optional lending, compulsory borrowing.” On the one hand, the CH members authorize the CH to lend certain securities booked in their account on their behalf. This is the optional lending. On the other hand, at the closing of the clearing session, the CH automatically—this is part of the design of the system—lends securities to any clearing member that needs them to avoid a delivery failure. This is the compulsory borrowing.

The securities are generally lent on an overnight basis against the pledge of securities collateral. The borrower of the securities pays a commission that is split between the CH and the securities lender. The availability of the needed securities cannot be guaranteed. First, the lending is optional. Second, the parties, having opted to participate in the ASLF scheme, might not have the needed securities in portfolio.

3.3. Special Securities Lending Facility Provided by a DMO to its PDs

The objective of a special securities lending facility (SSLF) is to help PDs comply with their market-making obligation.¹⁰ DMOs have a vested interest in ensuring that PDs support the liquidity of the secondary market.

An SSLF has four specific features:

1. PDs' privilege: The facility is offered to PDs only.
2. Guaranteed availability at all times of the needed securities:¹¹ This applies as a DMO can temporarily create securities when necessary (see section 3.4.2).
3. Flexible terms: A DMO can reserve the right to adjust amount, tenor, and commission as a function of market conditions.
4. One constraint: PDs should use the SSLF only as a last resort.¹² PDs should first try to borrow the securities in the market and the market mechanism given a chance to work. If not, the SSLF would impair the development of the repo market. An SSLF should therefore be extended at a penalty rate versus the OTC market. The SSLF rate is not meant to become the prevailing repo rate in the market. In addition, the SSLF is not meant to fuel disorderly market speculation by allowing funding of excessively large short positions. The demand for borrowings can be reduced by making the facility more expensive. However, a widespread practice is to also set limits on the amount of the securities that can be lent. These two points are analyzed in more detail in section 5.3.

An SLF offers two ancillary advantages to DMOs. First, an SLF can be used as a tool to motivate PDs to perform. This is achieved by offering the SLF on more attractive terms¹³ to the PDs contributing best to price transparency (= quotation obligation) or to market liquidity (= largest turnover on the secondary market). Second, the SLF provides DMOs with an additional (although typically small) source of funding at an attractive rate.

3.4. Ways for a DMO to Ensure the Availability of Securities for Lending

A DMO can ensure the availability of the needed securities either by auctioning a supply of securities in excess of its funding needs, by temporarily creating the securities that a PD wants to borrow, or by using the securities portfolio of a third party, usually the central bank.

3.4.1. In the framework of its regular auctions, a DMO can routinely issue an amount of securities that is somewhat larger than the amount needed to meet its financing requirements. The surplus of securities is credited to its securities account with the Central Securities Depository.

As an illustration, the practice of auctioning securities for an amount larger than that of the DMO's actual funding needs is followed by the German DMO. The Finanzagentur generally issues securities for an amount equal to about 120 percent of its funding needs. The objective, however, is only to have a means to regulate the yields in the secondary market by selling the securities on tap in between two auctions.¹⁴

The advantage of this option is that it is administratively simple for the DMO. Its drawback is to overstate the DMO's funding needs. This can weigh on the market.

¹⁰ Another incentive that can support market making is for the DMO to offer PDs the right to submit at the auction some noncompetitive bids at the weighted average auction price. This guarantees that market makers will have in their portfolios at least some supply of the securities for which they are committed to quote. This incentive is costless to the DMO.

¹¹ As a result, a SSLF can be particularly beneficial in countries (e.g., Costa Rica) where repo collateral cannot be "rehypothecated," i.e., disposed of by the securities buyer, thereby preventing repos from enhancing the liquidity of the secondary market. The rationale for the prohibition of "rehypothecation" is the risk of the buyer being unable to return the borrowed securities because of the illiquidity of the market. This risk disappears with a SSLF.

¹² In most countries, the SLF is used very little in normal market conditions. In Turkey, the SLF has not been used since 2002. Portugal mentions a very small number of securities borrowing transactions in its 2009 debt management report (only 21 transactions in 2009 and 39 transactions in 2008, mostly T-bills).

¹³ For example, larger amounts or higher interest rates on the funds placed with the DMO. Mexico extends the SLF on more attractive terms to its best performing PDs. When putting an SLF in place, it may be efficient, however, to keep the SLF simple at the start and to use the SLF as a motivation tool for PDs only later.

¹⁴ The banks active in the German government securities market—Germany has no PDs—are not supportive of this procedure. The corresponding unscheduled supplies of securities to the market create an additional element of uncertainty when trying to forecast the level of yields in the secondary market.

3.4.2. The prevailing practice in mature markets is for DMOs to temporarily create the securities that are needed by the SSLF. The procedure is identical to that followed in the framework of any other securities issuance by the DMO (auction, tap, syndication, etc.), although it often proceeds much more rapidly. It is implemented in two steps.

1. Creation of securities: The DMO instructs the Central Securities Depository, usually via the Central Bank or settlement agent, to post the securities to the credit of its securities account.
2. Cancellation of the securities lent when the securities loan is repaid: The applicable procedure is identical to that implemented when a government security is being repaid at maturity.

Therefore, from an operational standpoint, a securities lending facility granted by a DMO to its PDs is actually a combination of two existing standard procedures. Securities are created after every auction, and they are cancelled when they mature. The only specific condition of an SLF is that (a) the creation of securities is not linked to an auction, (b) the cancellation of securities is not linked to their final maturity, and (c) the created securities are credited to a specific securities account of the government (different from the standard issuer's account; see section 4). Nonetheless, in some countries, creating and cancelling securities without a link to an auction date and a final maturity, respectively, requires a modification to the relevant software.

The advantages and drawbacks of a temporary creation of securities are the mirror image of section 3.4.1. The net debt of the government does not increase as a result of the temporary creation of new securities. The latter are a new liability of the government. However, they are also an asset that can be sold or loaned. The government thus effectively holds a claim against itself. On a net basis, the two items then cancel out one another. As for the cash leg of the repo, it is a borrowing made by the DMO, and it should be accounted as such. However, the corresponding cash inflow decreases the funding requirements of the government. Thus, it normally replaces a borrowing that would have been done if the securities lending had not taken place (unless there is an offsetting reverse repo as in some countries). The operation is then net neutral on the balance sheet of the government.

3.4.3. In some emerging markets, the DMO borrows securities belonging to a third party, usually the Central Bank, to supply the SLF. This applies in Brazil and Mexico (see section 3.7).

Alternatively, a DMO can arrange that an SLF be provided to PDs by another entity. In Denmark, two lending facilities are offered to PDs. The facility used depends on the security that the PD wants to borrow. For a bond series of which the Social Pension Fund (SPF)¹⁵ owns a sufficient amount, the SPF's lending facility is used. For bond securities outside the SPF's facility, the central government has its own SLF.

3.5. Comparison between CH and DMO-Provided Lending Facilities

An ASLF is complex to implement. It requires putting in place an agreement between the CH, lenders, and borrowers. It also requires software to select lenders and borrowers when the supply and demand of securities do not match.

An ASLF also has two limitations: The needed securities may not be available, and borrowings can only be made overnight.¹⁶

An SSLF is simpler to put in place than an ASLF. It involves fewer parties, and there is no need to create a pool of lendable securities.

An SSLF is more labor intensive to operate than an ASLF. It is not automatic, and its terms may be negotiable. In general, however, the manpower needed by the Ministry of Finance (MoF) to operate a SSLF is quite limited. In the Front Office, only one person (with a backup) should be available during about two hours every day to receive and process the PDs' securities borrowing requests. The number of securities lending transactions is generally quite small,¹⁷ because the SLF is meant to be used by PDs as a last resort instrument. The assignment of one person to manage the SLF would provide an opportunity to initiate him or her into dealing in the market. This would be a useful training, because the DMO is likely to be actively involved in the domestic money market to manage the government's daily liquidity position.

¹⁵ The SPF is a government fund, and the day-to-day management of the assets in the fund is undertaken by the government's debt management unit.

¹⁶ The lender of the securities might need them on the next day.

¹⁷ The experience across many countries is five or six trades at most on a busy day. However, the number of trades can be higher (e.g., Hungary reports a daily average of 10 to 15 trades in 2014–2015).

From a legal standpoint, both the auctioning of an additional amount of securities and the temporary creation of an SLF by the DMO should be authorized by following the same procedure as for any other form of securities issuance by the government, that is, generally by a law or by decree.

3.6. Hybrid SLF System

Conceptually,¹⁸ a DMO could support an ASLF provided by a CH instead of itself providing an SSLF to its PDs. The DMO could supply the securities unavailable in the lending pool¹⁹ to the ASLF, with the understanding that the DMO would step in only to meet borrowing requests submitted by PDs²⁰ as opposed to requests submitted by other CH members.

The eligible borrowers would be determined by the CH. However, the ASLF system should offer the possibility of the PDs benefiting from special terms and conditions set by the DMO at its discretion.

This option has two advantages: It is administratively simpler for the DMO because it steps in only when the CH needs support. It also reinforces the automatic SLF system of the CH.

However, this option has three drawbacks. First, the ASLF becomes administratively more complex for the CH to manage. The CH is dealing with two kinds of securities

borrowers (PDs and non-PDs) who may have different objectives (to create or to cover a short position and to avoid a delivery failure) and to whom different conditions could apply. The DMO may itself wish for different conditions to apply within the PDs' group depending on the quality of each PD's performance. In addition, an automatic SLF normally steps in only at the end of the day to cover delivery failures. A market maker PD may wish to finalize a borrowing of securities during the day.

Second, the DMO has less flexibility in tailor-making the terms and conditions of the securities lending as a function of the PD borrowing them (i.e., in using the SLF as a tool for rewarding a PD for the quality of its performance). The DMO is not in direct contact with the relevant PD.

Third, CHs tend to prefer lending securities with straight loans collateralized by securities rather than on a repo basis. They do not need the cash generated by a repo, and CH members can easily offer securities as collateral. By contrast, DMOs prefer using repos because they wish to support the repo market and they have the use of the generated cash.

3.7. Summary Survey of SLF Procedures Implemented in Select and Developing Mature Markets

Tables 3.1 and Appendix 6 outline the SLF regime in selected mature and developing markets.

Table 3.1. Select Countries with DMO-Provided SLFs: Mature Markets

	Australia	Belgium	Denmark	Iceland	The Netherlands	United Kingdom
Agent	RBA		—	—	—	—
PDs only?	No	Yes	Yes	Yes	Yes	Yes
Instrument	CMRR	Cash-matched repo	CMRR	Collateralized securities loan	Repo or CMRR at PD's option	CMRR
Securities	Any GS	Any GS subject to some RTLTM requirement	On the run benchmark securities	Any T-bill and T-bond	T-bond only	Any non-rump GS

¹⁸ To the best of the authors' knowledge, such a hybrid system has been put in place only in Hungary (see appendix 5). The possibility is being analyzed in Brazil. The objective is to encourage the members of the securities settlement system to contribute to the pool of securities available for lending by giving them the assurance that the loan will be repaid at maturity, without a delivery failure.

¹⁹ The DMO would then need to open a securities account in the CH to that effect.

²⁰ The eligibility for using a securities lending facility extended by a DMO is typically considered to be a PD's privilege..

Security source	RBA portfolio + TC	TC	Portfolio CB and State pension fund + TC	TC	TC	TC + CB
Maximum global amount	\$5 billion	€500 mm per PD and per maturity for all PDs combined	Bonds: DKr 4 billion			
Bills: DKr 10 billion	At DMO's discretion, but typically ISK1-2 billion for each benchmark bond per PD	€10 billion per maturity	No maximum but can be limited at DMO's discretion			
Maximum maturity	Overnight with RO	Overnight				
RO max 20	1 to 5 working days	28 days	Up to next auction; maximum one month	Overnight, maximum two weeks rollover		
Collateral remuneration	DMO margin 300 bp	Maximum GCRR: 25 bp	DMO margin 20 bp bonds; 15 bp bills	Lending rate is Central Bank policy rate + 20 bp	Maximum GCRR: 25 bp	300 bp below Bank of England's bank rate on the reverse repo subject to a floor of 10 bp per annum
Haircut	2% × 2	0	2.5% × 2	Between 2% and 7% as a function of residual maturity of securities	0	5%

Note: CB = Central Bank; CMRR = cash-matched repo and reverse repo; GCRR = general collateral repo rate for same maturity; GS = government security; RLTM = remaining life to maturity; RO = rollover; TC = temporary creation of security.

Table 3.2. Select Countries with DMO-Provided SLFs: Developing Markets

	Brazil	Hungary	Malaysia	Mexico	South Africa	Turkey
Agent	CB	—	—	CB	CB	CB
PDs only?	No	No	No	Yes	Yes	Yes
Instrument	Cash-matched repo	Cash-matched repo	Cash-matched repo	Collateralized loan	Cash-matched repo	Collateralized loan
Securities	Government bonds	Benchmark GS subject to RLTM request	All GS subject to minimum amount outstanding requests	Government bonds	Government bonds	Benchmark GS
Security source	CB portfolio	DMO portfolio	CB portfolio	DMO portfolio	TC	Bank lenders + TC
Maximum global amount	Amount offered by CB in 6 month repo	Ft 79 billion for 2011 (adjusted annually)	As per CB holdings	4% per issue and 2% of sum of all issues; limit applies both per PD and for all PDs combined	No limit	Per PD: 5% of total benchmark issuance * PD's market share in primary market
Maximum maturity	6 months	Maturity is always one week	1 month	Overnight; RO allowed up to 2 days before the bond maturity	Overnight	1 week, 2 weeks, 1 month, 3 months
Collateral remuneration	6 month repo rate as determined by the weekly auction	HUFONIA minus 25 bp	Determined by DMO	Premium = WGRF × factor	0%	Fee determined by CB
Haircut	Determined by CB	Function of security RLTM	Negotiated by the two parties	102% of loaned security + premium to CH	120% of the net amount of transaction	300 bp below Bank of England's bank rate on the reverse repo subject to a floor of 10 bp per annum

Note: CB = Central Bank; CH = Clearing House; CMRR = cash-matched repo and reverse repo; GCRR = general collateral repo rate for same maturity; GS = government security; RLTM = remaining life to maturity; RO = roll over; TC = temporary creation of security; WGRF = weighted rate on government funding

In mature markets, the prevailing procedure seems to be to ensure the availability of the securities by temporarily creating them and to lend the securities by doing cash-matched and reverse repos. The objective is to avoid any impact of the SLF on the management of the DMO's daily liquidity position. The prevailing interest rate at which the collateral provided by PDs is remunerated is below market to ensure that the SLF is used only as a last resort but not

so much below market that PDs would be deterred from quoting prices with tight spreads because of the increased cost of trading if they have to use the SLF.

In developing markets, most DMOs seem to supply the SLF with already existing securities. The range of prevailing practices is wider with regard to the remuneration of the collateral. See Appendix 6 for detailed country practices and SLF



4. Accounting Principles

The following principles are generally applied:

1. The securities that have been temporarily created for on-lending are booked in a special account, distinct from the issuance account that is used when securities are created in the framework of an auction.
2. The securities booked in this special account are merged with the issuance account to report the amount of the debt in official documents. Temporarily created securities (TCSs) increase the gross amount of the public debt, the same as any other government security.²¹ However, the net debt is not affected as long as the TCSs are held in portfolio by the DMO. In this case, the government debt owes (and services, as the case may be) the debt to itself.
3. When the DMO sells TCS on a repo basis against a cash collateral, the repo creates a new debt: the DMO has borrowed cash. The amount of net debt increases by the amount equal to the proceeds from the sale of the securities.

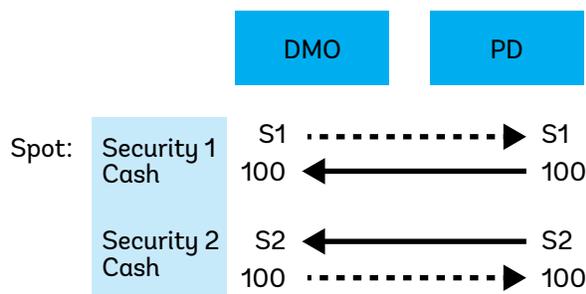
The impact on the amount of debt of the sale of TCS is neutralized when the proceeds from the sale are used to repay another debt of the DMO. The increase in the debt is then offset by a matching decrease in the liability side of the balance sheet. In mature markets, the decreased liability is typically reduced overnight borrowing, or when there is an offsetting reverse repo, increased overnight lending. In an emerging market, it could be a lower overdraft (if allowed) in the DMO's account with the Central Bank. The impact of the repo on the amount of gross debt is not neutralized if the DMO reinvests the proceeds of the sale in a reverse repo or an interest-earning deposit. The impact on net debt depends on the definition of net, which can be country specific.

²¹ This is the reason why the U.K. DMO has provided in the terms and conditions of its overnight standing repo facility that no gilt created under this facility shall be eligible for inclusion in the calculation of FTSE or iBoxx gilt indices.

An illustration of the corresponding accounting entries done by the Belgian DMO is included in appendix 4. The status is different when the DMO sells TCSs on a repo basis against securities collateral. In this case, the repo trade done by the DMO (= sale and buy back: step 1) is matched by a reverse repo (= buy and sell back) done by the DMO with the PD for the same amount of cash (step 2). In other words, DMO reinvests with the PD the cash borrowed by the DMO from the PD in step 1.

Figure 4.1 assumes that the PD borrows a certain security (“S1”) from the DMO and offers the DMO another security (“S2”) as collateral. In both cases, the transacted amount of cash is 100.

Figure 4.1. Example of PD Borrowing and Use of Collateral



Note: In a forward, the above two transactions are reversed

If S2 is another security issued by DMO, then a case could be made for arguing that the net debt of the DMO is not increased in this case: (1) the collateral held by the DMO is a claim against itself; (2) on a net basis, the DMO has not borrowed any cash. In fact, the cash transfers are only a way to link the collateral (S2) to the trade being collateralized (S1). Again, however, the impact on net debt depends on the definition of net, which can be country specific.

Conclusion: The above analysis suggests that cash and securities collateral each have their respective advantages and drawbacks (see table 4.1).

Table 4.1. Advantages and Drawbacks of Cash and Securities Collateral

	Cash	Securities
Advantages	Simple <ul style="list-style-type: none"> Fewer risks of mistakes Faster (later deadline for PDs to submit borrowing requests) Supports the repo market <ul style="list-style-type: none"> A PD may have to do a repo in the market to secure the cash owed to the DMO 	Cash neutral
Drawbacks	Affects the cash position of the DMO (it creates a reinvestment need)	More complex to process

Note: DMO = debt management office; PD = primary dealer.
 a. Repos with securities collateral have the advantage of being cash neutral. PDs do not have to borrow cash in the market, and PDs do not have to reinvest the cash if they cannot use it. However, (1) a securities collateral doubles the number of transactions (including the collateral revaluations), (2) in practice, PDs can generally use the cash since they are structural borrowers, and (3) even when a PD has to reinvest the cash, it can do so with one (or a few) global trades instead having to doubling the number of transaction(s), each repo requiring a reverse repo.



5. Putting a Securities Lending Facility in Place

5.1. Background

Putting a securities lending facility (SLF) in place is a technical initiative that raises only minimal risks for the government. Securities are lent for small amounts²² and with a short maturity. The procedure and the terms of the transactions (amount, maturities, cost, etc.) can be adapted by the DMO, at any time and at its full discretion, to adapt them to the experience gained from practice. The fact that the counterparts of the DMO are PDs only further limits the risks. PDs are well known to the DMO. If the relationship has been well managed by the DMO, PDs should be eager to please to retain their status. Risks exist nonetheless, for example, credit risk (collateral depreciation), legal risk (recharacterization of the transaction), execution risk (misunderstanding about some provision of the repo agreement), or operational risk (nondelivery of the collateral because of the absence of, or a failure in, the DVP system). A robust contractual arrangement (global master repurchase agreement [GMRA]) and a careful collateral management policy are required to minimize these risks.

The MoF might wish to keep the procedure as simple and straightforward as possible at the beginning. This makes it easier to get started. The procedure can be refined later on with the experience gained from practice. Possible simplifications in the standard procedure are listed in section 5.4.

5.2. Prerequisites for an SLF to Be Put in Place

Three prerequisites should be checked at the outset before an SLF can be put in place.

1. Is the DMO legally empowered to issue securities for on-lending to its PDs? Public debt laws often empower the MoF to issue securities only to meet the financing needs of the government.
2. Can securities be temporarily created? This is not the only way to supply an SLF with the needed securities (see section 3.4). Yet it is worth checking because it seems to be the most efficient way. This is a technical issue, but a procedure for it needs to be put in place.

²² The SLF is linked to the PDs' quoting obligation. PDs need to be protected only against the risk of being unable to cover the short positions incurred in the framework of their market-making activity. The amount of securities that PDs need to be given the ability to borrow should therefore be a small multiple of the minimum amount that they are committed to quote. A maximum multiple of six for each PD would protect PDs against up to two uncovered quotations for three different maturities each. In normal circumstances, PDs' short positions seem unlikely to exceed these amounts.

3. Is a repo agreement available to operate the SLF? The agreement can be a master agreement or an agreement signed bilaterally.

5.3. Decisions to Be Made by the DMO

The following decisions need to be made by the DMO:

1. Kind of SLF: SSLF or hybrid system²³
2. SLF manager: DMO or agent²⁴
3. SLF instrument: Securities lending, repo, repo, and reverse repo (or alternatively, sell buy back, sell buy back, and buy sell back)²⁵
4. Collateral: Type? Cash (= repo) or security (= repo and reverse repo)? Remuneration? If the collateral is remunerated, what are the reference interest rate and the size of the DMO margin?²⁶
5. Valuation: Size of the initial margin or haircut. Remargining during the life of the repo is seldom applied in view of the short maturity of the transaction.
6. Securities:
 - Which securities can be borrowed? Government bonds, also government bills, all aforementioned securities or benchmarks only, also Central Bank bills? Possible exclusions: securities with a short remaining life to maturity²⁷ and securities paying a coupon over the life of the transaction.²⁸
 - What amount of securities can be lent? Different ceilings can apply. For example, a limit per PD, per security series and globally, and/or a limit for all PDs together per security series and globally.³⁰

- For what maturity? The procedure that seems to be applied most often is to allow only overnight borrowings that can be renewed only a certain number of time (e.g., seven working days).

5.4. Possible Simplifications of the Standard Procedure

Possible simplifications in the procedure when it is first established are the following: (1) lendable securities: benchmark bonds only (this increases the attractiveness of benchmark securities); (2) loan maturity: overnight only (with a maximum of four rollovers to make it a one-week financing); (3) value date: T+1; (4) initial margin: 2%; (5) collateral: cash only.

5.5. Draft SLF Procedure Manual

It is recommended that the DMO consults with its PDs about the SLF procedures that it plans to implement by submitting a draft procedure manual for their review and comments. The DMO might wish to inform the PDs that (1) the draft is submitted to them with a view to obtaining their input before putting in place a SLF; (2) in submitting their comments and suggestions, PDs should keep in mind that the MoF wishes to keep the SLF procedure as simple as possible, and (3) the objective pursued at this stage is only to design the provisions needed to put an SLF in place. The procedure can be perfected later with the benefit of experience.

A draft SLF procedure manual is appended as an illustration of the way that an SLF can be operated (appendix 5). This draft incorporates the simplifications suggested in section 5.4. PDs should confirm the agreement with the provisions of the manual. Alternatively, the document can be structured as a bilateral agreement.

²³ See section 3.6.

²⁴ If an agent is used, a memorandum of understanding should be in place.

²⁵ A straight loan collateralized by a pledge of securities has not been included in the list. This procedure is frequently used for an ASLF (see section 3.2). A CH is unlikely to have the use of the cash generated by a repo. However, a straight loan might not be the best procedure for an SSLF. DMOs want to encourage the use of repos, and they can use the generated cash.

²⁶ DMOs always remunerate the collateral funds received from the borrowing PD at a spread below market. The objective is to ensure that the SLF is used by PDs only as a last-resort measure. The spread also remunerates the DMO for the administrative work performed. In the euro zone, the spread below the market rate for overnight borrowings (EONIA) ranges from 0.25 percent up to EONIA itself (this applies in exceptional cases only, because the funds are then effectively placed by the relevant PD at 0 percent).

²⁷ Securities tend to be increasingly less liquid as their maturity is getting nearer. In any case, the security cannot have a maturity shorter than that of the repo.

²⁸ The payment of the coupon decreases the value of the collateral.

²⁹ Market practices vary considerably. They are country specific, and there is no standard solution. The policies followed by DMOs seem to be a function of their degree of concern regarding short positions and the risk of market speculation. Some DMOs consider that their ability to increase the cost of borrowing the securities in case of need is enough of a deterrent, a formal limit on the authorized amount of the loan being therefore not required (e.g., Iceland, South Africa, and the United Kingdom). A majority of DMOs find it safer to limit the amounts that can be borrowed. Some DMOs have very large limits (e.g., the Netherlands, or to a lesser extent Belgium). Other DMOs prefer to begin with a simple SLF system imposing small limits (e.g., Morocco), with a view to refining it thereafter with the benefit of experience.

³⁰ An SLF offered by a DMO is meant to avoid a situation where a market maker is put under pressure to cover a short position at any cost when under a timing constraint. The SLF is not meant to enable a PD to carry a short position indefinitely. The horizon is thus definitely short term.



6. Conclusion

It should be possible for an SLF to be put in place within a short time frame (tentatively estimated to be between three and six months) provided the required prerequisites are met (section 5.2), and that the SLF of the MoF is developed independently from the development of an ASLF in the CH. The time frame could be shorter depending on legislation and on the time required for the recommended market consultation before putting the SLF in place.

The launch of the SLF is an initiative of a technical nature, which raises only minimal risks for the government.



Appendix 1. Clearing House Automatic Securities Lending Facility Illustration: Belgium³¹

The objective of this appendix is to illustrate of how an automatic SLF can work in practice. The following summarizes the main provisions of the agreements signed between the Belgian Clearing House (CH) and the clearing members interested in either borrowing or lending fixed income securities settled in the CH.

1. Automatic lending

1.1. The lender commits to the CH to lend certain securities it holds in portfolio. It indicates which securities it is willing to lend. It guarantees it is the owner of the relevant securities or to have been duly authorized by their owner to lend them. It can limit to a certain percentage of its holding (minimum 10%) the amount of securities that can be lent.

1.2. The CH commits to the lender to lend the securities in the CH's name but on account of the lender. At the end of each day, the CH determines the global amount that needs to be borrowed for every security to avoid delivery failures ("A") and the global amount that is available for lending ("B").

If $A < B$, the CH uses a formula to determine which account(s) will be selected as lenders. For every lending account, the CH does the following calculation. The global amount that has been lent by the relevant account since the beginning of the year is calculated first. The global amount that has been available for lending in the relevant account every day that a borrowing need has arisen since the beginning of the year is calculated next. Both aforementioned amounts are expressed as a logarithm to the base 10. The ratio amount lent/amount available for lending is then calculated. The selected lending accounts are those of which the coefficient is lowest.

If $A > B$, the CH allocates the securities between the borrowers. The borrowers who need the securities to pay back an outstanding loan of securities are served first. The remaining borrowers are served in the chronological order of the matching of the notifications that have created the borrowing need.

³¹ Source: Belgium National Bank Securities Department, sample lending agreement (Dec. 2008).

1.3. The securities lent must be repaid the next working day. The CH charges a commission of 2 percent p.a. The commission is split 0.50 percent for the CH and 1.5 percent for the lender. The commission is paid on a monthly basis by the borrower to the CH and by the CH to the lender.

1.4. If the securities are not repaid by the borrower, the loss (if any) is shared between all lending accounts. The loss is allocated on the basis of the formula used for selecting the lending accounts when the global amount that needs to be borrowed to avoid delivery failures is smaller than the global amount that is available for lending (see section 1.2 of this appendix). The coefficient applicable to any given lending account is divided by the sum of the coefficients applicable to all lending accounts. The corresponding ratio determines the share of the loss that will be allocated to the account concerned.

2. Automatic borrowing

2.1. The borrower commits to borrow automatically from the CH the securities needed to avoid a delivery failure. He also commits to be a lender of securities as described in section 1 of this appendix.

2.2. Securities are allocated between borrowers following the provisions of section 1 of this appendix. Two ceilings apply. First, the global borrowing requests for any given type of security cannot exceed 10 percent of the amount outstanding of the relevant security. Second, no individual borrowing request can exceed 5 percent of the amount outstanding of the relevant security.

2.3. Securities borrowings can be renewed only for a maximum period of 10 consecutive business days. At that point in time, the relevant securities can be borrowed again only at the expiration of a period of five business days.

2.4. If the borrowed securities are not repaid on the due date, the borrower is charged a penalty of 1.50 percent p.a. over the marginal lending rate of the European Central Bank, calculated on the market value of the borrowed securities. The CH is authorized to immediately buy in the market the amount of securities needed to repay the outstanding securities borrowing.

3. Collateral

The borrower must pledge securities of an amount equal to 110 percent of the value of the borrowed securities as collateral. The borrower can provide this collateral in advance. Alternatively, the CH can secure this collateral by selecting at its discretion securities in the account of the borrower. The CH can then also allocate this collateral at its discretion to any specific securities borrowing done by the relevant participant in the clearing.

4. Other Provisions

The CH publishes a list of the securities that can be borrowed. To be included in this list, securities must be liquid and a trading price must be easily obtainable. Securities are taken out of this list on five days before their maturity date.



Appendix 2. SLF: Determining the Appropriate Amount and Rate

The issue is to determine the amount and the rate that can be offered without (1) impairing the trading activity in the repo market by causing the rate of the repo facility to become the market rate and (2) encouraging market speculation by making it too easy to carry a short position.

The answer is country specific. DMOs hold diverging views on this point. Some DMOs³² consider that a securities facility can be used for large amounts because it enhances market liquidity. Other DMOs³³ consider that the amount of securities that can be borrowed should be limited—for two reasons. First, an SLF should be a last resort measure used only for small amounts. If not, it damages the interbank repo market, which should remain the main avenue for borrowing securities. Second, DMOs should beware of the risk of unwillingly supporting market speculation by providing PDs with an easy way to short the market. This risk can be addressed by lowering the repo rate. However, emergency measures are best avoided in the context of market speculation.

Irrespective of country specifics, the conclusion should rest on a review of how the three main functions of the repo market could be affected by the implementation of the contemplated procedure. The three main functions of the repo market are the following:

1. To enable market makers (MMs) to carry their position (long or short) until they can match it.

This is the primary function of the repo market. An efficient repo market is a prerequisite for a liquid securities market. A MM who systematically covers his or her position with a mirror trade provides no liquidity to the market. He or she is effectively a market taker.

To fulfill this function, the repo market must not be subject to squeezes.³⁴ The MMs then stop quoting unless they hold the squeezed securities in portfolio.

³² For example, Denmark, Sweden, and the Netherlands. As an illustration, the total amount of the securities that PDs can borrow from the Dutch DMO for any given maturity is “benchmark size” (currently €10 billion) minus the actual amount issued. In this way, benchmark securities have from their first issuance onward the same liquidity as they will have on the day that they are issued no longer.

³³ For example, Belgium and France.

³⁴ The impossibility to either borrow a security or do so against a reasonable price.

2. To enable repo traders to make a profit by taking positions in the money market.

To fulfill this function, the repo market has to show some level of volatility. No trading is done when nothing moves. A certain level of volatility in the repo market is also positive for the securities market: fluctuations in the repo rate have an impact on the securities price, triggering some additional trading as a result.

This function of the repo market assumes the existence of a market for repo term maturities. For repo traders, the overnight repo market can be a trading market only to the extent that the overnight trade is one leg of a deal of which the other leg has a longer maturity. For securities dealers, the overnight repo market can likewise be a trading market only if their (undesirable) objective is to artificially engineer a squeeze (thereby causing the securities market to become illiquid).

3. To enable any market participant to avoid a delivery failure.



Appendix 3. SLF Accounting. Illustration: Belgium³⁵

Assumptions: Creation of bond		<ul style="list-style-type: none"> Nominal value: 100 Market value: 99.5 Bond loaned in the framework of a repo Repo interest rate paid by DMO: 0.02 		
Accounting steps	Assets	Liabilities	Gross Debt	Net Debt
1. Creation of bond DR Securities created for on lending (1) Note: If the created securities are outstanding on a reporting date, the reported debt stock (gross debt) will increase by 100	100	CR debt >1 year: 100	+100	0
2. Lending by DMO of created bond DR cash Notes: <ol style="list-style-type: none"> Created securities booked on the asset side in step 1 remain in the books in step 2. The “seller” of the bond remains its beneficial owner (2) 	99.5	CR repo debt: 99.5	+99.5	+99.5
3. If the cash (99.5) is used to repay another outstanding debt, then the DR/CR of 99.5 net out; the accounting status remains the same as in step 1				
3. If the cash (99.5) stays in the account of the DMO, then gross debt rises to 199.5 (the DMO now finances two assets: the bond and the cash) and net debt rises to 99.5				

³⁵ Source: Belgian Debt Agency accounting department

3. Purchase back by DMO of loaned bond CR cash	99.52	DR repo debt: 99.5 DR interest paid: 0.02	(99.52)	(99.52)
4. Cancellation of bond CR securities created for on lending	100	DR debt > 1year: 100	(100)	0
<p>Note: In this example, net, at the end, the only item that remains in the books is the interest paid by the DMO (0.02). Normally, however, the DMO books a profit. The repo has allowed it to either repay another debt (profit on the cost saving) or to invest the proceeds with a positive margin.</p> <p>1. This is a different account from the “issuance account” debited in the case of an auction of securities. However, this is only to simplify internal accounting. In official reports, the debt has increased by 100.</p> <p>2. It is meant thereby that it keeps entitled cashing in the interest earned on the bond as though it has not sold it.</p>				

Note: CR = ??; DMO = debt management office; DR = ??.



Appendix 4. Draft SLF Procedure Manual³⁶

Foreword

1. The purpose of the securities lending facility (SLF) is to support the market-making activity of the primary dealers (PDs) by enabling them to borrow government securities when they are not readily available from other sources in the market. The SLF is available only to the PDs.
2. The purpose of this procedure manual (PM) is to determine the terms and conditions subject to which the SLF is made available to the PDs. These terms and conditions are accepted by a PD by virtue of concluding a securities lending transaction with the Ministry of Finance (MoF).
3. The MoF reserves the right to amend the provisions of the PM in light of changes in regulations, market conditions, and/or market practices. Such amendments are published on the website of the MoF. The publication indicates the date from which an amendment is effective.

Securities Lending Instrument

5. The SLF is operated through a Repurchase Agreement (“repo”) whereby the MoF sells the loaned securities to a PD and agrees to buy the loaned securities back at a certain future date.
6. The repurchase agreements concluded by the MoF with PDs are governed by the provisions of ... (specify which repo agreement).

Authorized Securities and Minimum and Maximum Nominal Values

7. The SLF applies to the government securities designated by the MoF after consulting with the PDs.

³⁶ See section 5.5.

8. The minimum amount of a securities lending transaction is a nominal value of _____.

9. The maximum amount of securities which a PD can borrow from the MoF is a nominal value of _____ per bond series and _____ globally.

10. The maximum aggregate amount of the securities loans to PDs which the MoF is willing to have outstanding at any point in time is a nominal value of _____ per security ISIN Code and a nominal value of _____ for all government securities together.

11. When the total amount of the PDs' borrowing requests exceeds the limits mentioned in article 10, securities are allocated to PDs on a first come, first served basis.³⁷

12. The MoF reserves the right to adjust the amount of the aforementioned limits without prior notice as a function of market conditions and to reject an application by a PD to borrow or to roll over a borrowing when it deems the PD not to have taken adequate steps to cover its position in the market.

Value Date and Maturity

13. Securities are loaned by the MoF with value down to T+0 and for one business day. A PD can roll over a securities borrowing transaction for a maximum of five consecutive business days.

Collateral and Forward Price

14. The cash amount paid to the MoF by a PD when purchasing the loaned security ("the collateral") includes a premium of _____ % over the asked price of the relevant security at the time the securities loan is concluded.

15. The loaned securities are bought back by the MoF against payment to the PD of the cash amount initially received by the MoF plus accrued interest at the rate agreed by the DMO with the PD when concluding the transaction.

Timing of Borrowing Requests and Contact

Persons

16. PDs can submit borrowing requests to the MoF between ____ PM and ____ PM.³⁸ Borrowing requests are communicated by telephone and immediately confirmed by e-mail.

Sanctions

17. If a PD does not deliver the borrowed securities back to the MoF on the maturity date of the transaction, the MoF is entitled to charge a penalty interest on the value of the loaned securities as determined in article 14 until the securities are returned by the relevant PD. The penalty interest rate is _____ until further notice.

If three days have passed and the PD has not yet delivered the loaned securities, the MoF may purchase the securities in the market and charge the PD for all costs incurred.

18. PDs who are not complying with the provisions of this PM may be excluded by the MoF from its eligible counterparts under the SLF, without prior notice, and their PD license could be suspended or revoked.

³⁷ Note: Another possibility is to allocate the available amount pro rata between PDs in case the global amount requested exceeds the limit. This is a less flexible procedure, however. The allocation can then be made only when all PDs have submitted their borrowing requests, i.e., at the cutoff time.

³⁸ The period deadline is to be determined as a function of the deadline set by the CH to be forwarded the transaction details for a settlement in T+0. Some time must also be allocated for the MoF to process the securities borrowing transactions.



Appendix 5. Overview of International Emerging Markets SLF Experiences³⁹

1. Brazil

General remarks: The Central Bank of Brazil is the operator and lender of securities under the Brazilian SLF. Its main objectives are to help PDs comply with trading obligations by enabling them to temporarily cover the short positions incurred in the framework of their MM activity, especially of on-the-run securities, and to increase the general liquidity of the market by enabling market participants to take short positions. This is a non-PD exclusive system that can also be accessed by banks, mutual funds, and brokerage firms.

The securities lending transactions are structured as cash-matched repos.

Loaned securities: The securities lent are held in the bond portfolios of the Central Bank. The securities borrowed can be fixed rate bonds (LTN and NTN-F), floating rate bonds (LFT), and inflation-linked bonds (NTN-B). According to the Brazilian authorities, the securities lent increase the gross public debt (local convention).

Lending limits: The total amount lent per security and for all securities and for all PDs has to be lower than the total amount offered in the six-month repo market.

Drawdown procedure: Requests to borrow securities can be submitted on Fridays between 12 and 12.30 P.M. for a period of six months and value date T+1.

Collateral and valuation: The cost of borrowing will be the six-month repo rate as determined by the weekly repo auction held every Friday.

Sanctions: There have been no instances in which the securities have not been delivered at maturity. According to the Brazilian authorities, there was a work group, composed of the Brazilian Treasury (BT), the National Association of Financial Market Institutions (ANBIMA), and the BMF&BOVESPA (clearing house), to discuss the participation of the BT in the Security Lending Process of Public Bonds, to improve the number of the investors on this market. The idea was to guarantee that the borrowed bond would be returned to its owner at the end of the contract.

³⁹ Based on the government authorities' responses to a survey and on information provided by each government issuer in this section. This section was drafted by Jose-Maria Fernandez, consultant.

It seems that certain participants, in particular pension funds, do not use the security lending process of public bonds because they are afraid that, if delivery fails, they may not have the exact same bond that they have lent. In the proposal under study, the BT would offer the bond, in exchange for another public bond (more liquid), or would issue it directly to the clearinghouse, which would deliver the bond to the lender. Apparently this initiative was not successfully developed because of the lack of consensus among the parties involved regarding the diagnosis of the root of the problem.

2. Hungary

General remarks: The primary purpose of the SLF is to decrease settlement risk in the government securities market and to support secondary market price quotation. This SLF is non-PD exclusive. The securities lender and the operator is the public debt management office, but KELER (the Central Clearing House) lends the securities to dealers, including the securities it borrows from the DMO.

All transactions are structured as one-week repo transactions. One-day tenor is not supported by AKK out of concern that it could result in a large number of transactions. The current average daily number of transactions is 10 to 15. Despite the penalizing rate (HUFONIA, 25 bp), AKK's stand-by repo facility is the major source of short covering for local players. The collateral used is cash (Hungarian forints), and the legal documentation is the European Master Agreement of the European Banking Federation.

Loaned securities: Discount T-bills with benchmark status and publicly issued government bonds with at least 90 days' remaining term to maturity. The source of the securities is a DMO account where extra securities eligible for repo are issued regularly. According to the Hungarian authorities, the loaned securities increase both the gross and net amount of debt outstanding.

Lending limits per PD: There is a daily transaction limit of Ft 3 billion for benchmark series, of Ft 1.5 billion for other series, and a total outstanding limit of Ft 10 billion for all securities.

Drawdown procedure: The repo term is one week, and the value date can be T, T+1, or T+2 by choice of the counterparty. The borrowing requests can be submitted daily between 9 A.M. to 12 P.M. and 1 to 3 P.M. (except Fridays only until 2 P.M.).

Collateral and valuation: There is a haircut that depends on the maturity of the securities.

Sanctions: They are regulated in the PD contract. Nonperforming PDs may be suspended from auctions and SLF for four weeks. Continued nonperformance results in termination of the PD contract.

3. Malaysia

General remarks: The primary purpose of the SLF is to enhance the liquidity in the secondary bond market by providing a new mechanism to support trading strategies for dealers and to enhance the return on bond portfolio investment for investors.

The SLF is linked to the Institutional Securities Custodian Programme of the Central Bank, as part of which the Bank borrows securities from major institutional investors (who typically hold them to maturity) and uses them as collateral in its repo operations.

The SLF is open to PD and other market participants that are eligible to participate in Bank Negara Malaysia's repo transactions. The lender of securities is the Central Bank, which operates the system using repo transactions documented under a Global Master Repurchase Agreement with a local annex.

Loaned securities: Participants can borrow scripless securities deposited under RENTAS (clearing and settlement system) with a minimum outstanding amount of RM 1 billion, and the collateral accepted is scripless securities deposited also under RENTAS. The source of the securities lent are holdings from Bank Negara Malaysia's and institutional investors' portfolios.

Lending limits: Under this SLF, the available securities for lending are restricted by the amount of securities available in the portfolios indicated above and there is no temporary creation of securities supplied by the DMO.

Drawdown procedure: The parties agree the value date of the repo, whose term has to be for less than one year. Every day the borrowers of securities submit their requests before 2:30 P.M.

Collateral and valuation: Borrowers will have to pay a margin to do the transaction that is determined at an auction. A haircut is applied to the collateral provided; it depends on the remaining time to maturity of the security used. Any day before the end of the repo, if there are changes to the value of the collateral provided, lender or borrower,

depending on the direction of the change in price, has a right to call for an adjustment to the collateral posted.

Sanctions: None specified.

4. Mexico

General remarks: The primary goal of the SLF is to encourage PDs' involvement in the development of the domestic government debt market. These transactions facilitate the structuring of short positions, creating a greater dynamism in the domestic government debt market and thus improving the liquidity of government bonds. This particular window is only for PDs and is one of the benefits of being a market maker. In fact, since the introduction of the PD program in 2001, the SLF was contemplated as part of the MM program.

In addition to this SLF, Indeval (the settlement and clearance house authorized in Mexico) offers a specialized system called "VALPRE-E" to its members to avoid delivery failure.

The ultimate securities lender is the federal government, but the SLF operator is Banxico (Mexico's Central Bank). As the financial agent of the federal government, Banxico is responsible for lending transactions carried out with market makers.

The PD has to ask Banxico for the securities, according to the terms of the contract they each signed. Once a participant is recognized as a market maker, it has to sign a bilateral contract with Banxico, which stipulates the terms and conditions for lending transactions, the rights and obligations of each party, and the procedure to create and cancel the corresponding collateral guarantees. This contract is valid for the period that the PD is a market maker.

The securities lending transactions are structured as collateralized straight loans. The collateral pool includes other securities that have the implicit guarantee of the federal government.

Loaned securities: They can be zero-coupon bonds (Cetes), nominal fixed-rate bonds (Bonos M), and inflation-linked bonds (Udibonos). The bonds on loan are securities held by the federal government in a portfolio. These bonds have already been issued but have not been placed through the weekly auctions, green shoe, or other transactions. Mexican

authorities report that the loaned securities do not increase the gross or net amount of public debt.

Lending limits: There are some limits to the total amounts that can be borrowed:

- 4 percent of outstanding per issue per PD and globally for all PDs
- 2 percent of total Cetes, Bonos M, or Udibonos per PD and globally for all PDs

Drawdown procedure: Securities are lent overnight with same day value date and can be rolled over daily until two days before the maturity of the bond. Securities can be borrowed every business day between 9 A.M. and 4 P.M.

The PD must pay a premium to Banxico for each lending transaction. This premium is calculated as follows: <<start bullet list>>

- In the case of Cetes and Bonos M, the amount of the premium is variable for each PD and each month and is determined by multiplying the weighted rate on government funding published daily by Banxico by a factor. This factor is calculated by Banxico on a monthly basis and based on the repo and lending activity of each PD between the 16th day of each month and the 15th day of the following one. Basically, the more active the PD, the lower the premium, and the more active its participation in longer-tenor repos, the lower the factor.⁴⁰ This factor will be communicated to each PD three working days before the end of each month and will be applicable from the first day of the following month.⁴¹
- For Udibonos, the premium is 7 percent of the weighted rate of government funding. <<end bullet list>>

Collateral and valuation: The PD must guarantee the loaned securities with Cetes, Bonos M, floating-rate bonds (Bonos D), Udibonos, Brems (bonds for monetary regulation), or BPAs (bonds for saving protection). The value of the collateral must be equal to or greater than 102 percent of the loaned securities plus the premium owed to Indeval. The securities lent will be valued daily according to the prices determined by Banxico. If the

⁴⁰ See Annex 4 of the Mexican PD regulation for a detailed explanation of how this factor is calculated.

⁴¹ Newly appointed PDs will pay a 5 percent premium during their first two months of activity.

value of the collateral drops below the required margin, Indeval will request the difference, thereby to maintain the 102 percent of the loaned securities (plus the premium to Indeval). If the securities are not transferred, Indeval may not renew the loan.

Sanctions: Lending transactions are renewed every day, which reduces the risk of nondelivery at maturity. In addition, each market maker has a guarantee fund in Banxico that is affected if it does not fulfill the delivery terms. At maturity, Banxico is authorized to transfer from the guarantee fund to Indeval's account the amount of the loan. In addition to this, Banxico may suspend a PD's right to participate in the SLF if the PD holds a relative net long position in any Bono or Udibono greater or equal to 40 percent over a period of one month. Banxico will inform a PD if it exceeds this limit, and its right to use the SLF will be suspended three days after it is notified. The suspension will be lifted the first business day of the following month after the PD has held a net long position less than 40 percent for two consecutive months in any Bono or Udibono.

5. South Africa

General remarks: The primary purpose is to manage or eliminate settlement risk. It is meant to be a tool of last resort for PDs. In principle, they are encouraged to go to the market before approaching the National Treasury. When all fails, then they may utilize the facility that applies to all government bonds and is restricted to PDs that can use the SLF on behalf of other market participants.

The lender of securities is the National Treasury, and the operator of the system is the Central Bank (South African Reserve Bank [SARB]). The transactions are structured as repos where the National Treasury issues and lends a bond and the PDs deposit cash as collateral. The transactions are documented using the SARB repo Master Agreement and an Addendum.

Loaned securities: Fixed rate and inflation-linked bonds can be borrowed. These securities are temporarily created when needed. According to the South African authorities, the gross amount of debt increases during the duration of the repo transaction (local convention).

Lending limits: There are no limits as to the amount of securities that can be created.

Drawdown procedure: The repos are overnight for the same value date, and the bonds can be requested every day until 15.30 hours.

Collateral and valuation: Cash is remunerated at 0 percent, and there is no initial margin.

If the bonds requested are inflation-linked bonds (ILBs), the ILBs held by the counterparty are marked-to-market daily using the Bond Exchange of South Africa closing rates. The SARB will call for margin if the market value of the ILBs exceeds the cash plus total interest for the period of the transaction (repurchase price) by an amount equal to or greater than R 1 million.

If the repurchase price exceeds the total market value of the ILBs purchased by participants by R 1 million, the SARB will, at the request of the counterparty, transfer the excess margin.

Interest on cash margins will be calculated at the SAONIA rate on a daily basis and paid to the counterparty at maturity of the reverse repurchase transaction. The same principle will apply when the SARB is called for margin.

6. Turkey

General remarks: Turkey's Central Bank has an SLF whose purpose is to help PDs comply with their quoting obligation by enabling them to temporarily cover the short positions incurred in the framework of their MM activity. Only PDs have the right to borrow and lend securities at the Securities Lending Market. Non-PD banks can only lend securities, and other market participants can lend securities via PD or non-PD banks.

The lenders are PD and non-PD banks that satisfy the participation criteria, and the operator of the system is the Central Bank of Turkey.

The transactions are structured as collateralized loans, and the collateral comprises government securities. To participate in the system, the participants should sign a commitment letter.

Loaned securities: The securities lent are benchmark securities that PDs are obliged to quote in the secondary market in the context of their MM obligations. According to the Turkish authorities the temporary creation of securities is also allowed.

Lending limits: Each PD could borrow up to the amount of 5 percent of the total issuance multiplied by the PD's share of primary market purchases. For each benchmark security and for each PD, the total limit is the amount of 5 percent of the total issuance multiplied by the PD's limit for all securities. For all the PDs, for each benchmark, the

total limit is 5 percent of the total issuance, and for all securities together the limit is 5% of the total issuance of all benchmark securities.

Drawdown procedure: The loans can have a tenor of 1 week, 2 weeks, 1 month, or 3 months, and the orders can be submitted between 11 A.M. and 12 P.M. and 1:00 and 3:00 P.M.

Collateral and valuation: The Central Bank determines a fee to be paid for the transaction. The initial margin is 120 percent of the net amount of the transaction, and there is a 5 percent margin maintenance provision.

Sanctions: The collateral provided is used to cover nondelivered securities. If the collateral does not cover the nondelivered securities, the Treasury issues the noncovered amount. In addition to this, the bank that does not deliver securities at maturity will be charged twice the fee for future lending. Moreover, the Central Bank has the right to take action on the accounts of the bank at the Central Bank that does not deliver the securities at maturity. Finally, the bank's right to participate in the market or other markets under the Central Bank could be temporarily or permanently cancelled.



Appendix 6. Country Questionnaire on Securities Lending Facility (SLF), April 2015

	Brazil	Malaysia	Mexico	South Africa	Turkey
1. Purpose of the SLF					
Support market makers		X			X
Provide liquidity		X		X	X
Reduce market squeezes					
Prevent delivery failures		X		X	X
Other (please indicate)		Managing excess liquidity			
2. Users					
PDs				X (script lending)	
Recognized market makers					
Other (please indicate)	X (all banks)	All banking institutions		X (repo facility) Members of JSE exchange that signed the MRA	PTDs (both side), other banks (only lender)
3. SLF operator					
DMO (MoF or CB)		CB		X	CB
Agent. If so, which institution?	CB (MoF is DMO)				
4. Lending instruments					
Collateralized loan					
Repo with a cash-matched collateral				X	
Repo with a securities collateral (cash-matched repo and reverse repo)		X		X	X
Sale and buy back (equivalent to repo with cash-matched collateral)					
Sale and buy back + buy and sell back (equivalent to cash-matched repo and reverse repo)	X				
If more than one single procedure can be used, who chooses (securities borrower or lender)?					
5. Accounting					
Does a repo with securities collateral (cash-matched repo and reverse repo) increase the amount of the Gross public debt?	Increases gross public debt only	No	The use of the SLF does not make any change in the outstanding debt	Gross public debt	No
Net public debt?					
6. Eligible GS					
Only T-bonds				X	
Only T-bills					
Only some defined benchmarks					
All GS subject to a market making commitment (quotation of firm two-way process)				X (repo facility)	X
All GS provided they are not subject to a special exclusion	X	X		X (script lending)	

	Brazil	Malaysia	Mexico	South Africa	Turkey
7. Eligible GS: Special exclusions					
GS with a remaining life to maturity below a certain minimum. If so, what is the minimum?					
Securities with a coupon payment during the lending period				X	
Other (please indicate)	Existence on the CB portfolio				Benchmark securities
8. Ways for the DMO to ensure the availability of GS					
Issuance buffer (routinely issuing in excess of funding needs)	No				
Temporary creation of securities	No			X	
Borrowing securities from a third party. If so, from whom? (CB, state pension fund, other)	No	X (institutional investors, insurance companies, banks)			
9. Transaction value date					
T+0, +1, +2	T+1	T+1		T+0, +1	T+0
Do all transactions have the same value date or can the borrower choose?	All transactions are due at T+1	Flexible on the value date		All transactions have the same value date	Same
10. Transaction maturity					
Overnight. If so, maximum number of authorized rollovers					
			As of today, there is no maximum amount of authorized rollovers and the loaned positions have to be renewed every day (overnight). In the following weeks, the MoF and the CB will issue a new rule that will allow doing these transactions with a maturity from 1 up to 30 days or up to 2 days before the instrument's maturity.	Overnight, no rollovers are allowed (script lending facility)	
Fixed term. If so, which term?	T+90, T+180	2 weeks–3 months		28 days: fixed term (repo facility)	Same day
11. Transaction amount					
Minimum		RM 5 million			
Maximum per borrower per line	25% offered			No minimum and maximum amount is stipulated (script lending facility)	X
Maximum per borrower all lines together	100% offered			Maximum: R 250 million (repo facility)	
Maximum global (all borrowers together) per line	100% offered				
Maximum global (all borrowers together) all lines together	100% offered				

	Brazil	Malaysia	Mexico	South Africa	Turkey
12. Fee charged by DMO Form					
Commission	No commission			Zero interest facility on the collateral (script lending) AIP multiply by carry rate multiply by 28/365 (repo facility: 28 days)	X (determined by the CB, currently 0%)
Remuneration of provided collateral at a spread below a certain reference rate. If so, • What is the spread? • What is the reference rate? <i>Amount (bps per annum)</i>	0	Lender receives 60% of the spread between repo rate and MM rate		—	—
Range (minimum and maximum) If so, • What determines the amount of the fee? (quality of PD's overall contribution or other)	0			—	—
13. Haircut (market value of collateral provided/market value of securities loaned)					
Defined percentage. If so, how much?	No haircut	Range 0.5–5.0%		—	120% of the net amount of transaction
Range. If so, • What are minimum and maximum? • What determines the size of the haircut? (The maturity of the loan or the maturity of the security?)		Minimum 0.50%, maximum 5.0% Maturity of security		—	
14. Margin maintenance					
From what percentage change in market value is additional collateral required?	CB does not require additional collateral	RM 1 million	Market makers may guarantee the loaned securities with Cetes, fixed-rate bonds (Mbonos), floating rate Bonds (Bondes D), inflation-linked bonds (Udibonos), BREMS, or BPAs. The value of the guarantees must be (at all times) 102% of the loaned position.	Margin call takes place when the MTM value of the repo out bonds change by R 5 million or more	5%
15. Operating procedures					
Timing of borrowing requests: from ... hour until ... hour	12:00 to 12:30 P.M.	From 8:30 A.M. until 3:30 P.M.		—	11:00–12:00 A.M. and 1:00–3:00 P.M.
Allocation in case of excess demand • First come, first served • Proportional allocation • Other (please indicate)	Proportional allocation	Other: competitive bidding		—	
16. Staffing					
How many people are required to operate the SLF, expressed in full-time equivalents?	1.5 in full-time equivalents (8 people)	1	3 people	One person from front office to provide rate. Two people from back office	—

	Brazil	Malaysia	Mexico	South Africa	Turkey
17. SLF usage					
Average number of transactions per year (range)	Total 3,428 in 2014	200–500	40,000 transactions	Script lending facility (45 transactions on average per annum)	No transaction
• For T-bonds	Zero coupon		T-bonds (20,000), T-bills (15,000), and other instruments (5,000)	Repo facility (4 transactions on average per annum)	
• For T-bills	1,222, Fixed 711, Inflation linked 1,495				
18. Disclosure of transactions					
Do you report the amount of securities loaned? If so, is it reported globally or itemized per maturity?	Only total globally, 1 month lagged; it is possible to estimate per security	No	Yes, the amount of securities loaned is published in a daily basis on the CB's website. Loans are reported itemized per maturity	Reported both globally and itemized per maturity	—
• What is the timing?				Debt Management Report (annually)	
19. Legal documentation for repos					
Master repo agreement (MRA) is national. If so, is it the same as the CB MRA or specific?				The MRA is the same as the CB	
Master repo agreement (MRA) is international.		Yes, GMRA with local annex		Governed by South African law	
• If so, is it the GMRA (governed by the UK law) with an annex (governed by the national law)?		Securities Lending and Borrowing Agreement			
Other [please indicate]	No specific documentation				
Side question					
Does the CH provide an automatic SLF?	No	No	Yes, No	Have an active repo market provided by the JSE Exchange (clearing house)	No
• If so, is the DMO involved in operating the facility?					

Note: CB = Central Bank; CH = clearing house; DMO = debt management office; GMRA = global master repurchase agreement; GS = government securities; MoF = Ministry of Finance; MRA = master repurchase agreement; PD = primary dealer; SLF = securities lending facility. — = not available.



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