1. Introduction

When assessing the solvency of participants in the financial market, such as banks or the soundness of cross-border payment or securities settlement systems, regulators around the globe are faced with an increasingly complex and sophisticated structure for the holding and transferring of securities. Financial markets have moved closer together by putting in place electronic cross-border securities book-entry transfer systems and have thus created a global securities market, whilst legislation relating to securities has remained strictly national.

Albeit far later than with money, investors in securities realized quite some time ago that the transfer of certificated securities by way of physical transfer, which had been the method of transfer for centuries, carried substantial risks of loss, theft and liquidity costs which grew according to the distance between the buyer and the seller of a security. Disregarding existing legal frameworks that were still based on the existence and transfer of physical securities certificates, investors have set up a securities book-entry holding and transfer system that immensely facilitates the transfer of securities through a multi-tiered system of intermediaries without securities actually having to be physically moved. A simple example of such a system is exhibited below:

![Diagram of securities transfer system]

Whilst the book-entry holding and transfer system of securities has dramatically improved the liquidity of securities markets, it does on the other hand create a serious challenge for national regulators in their task of supervising financial institutions which operate internationally and of managing or supervising payment and securities settlement systems.

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This article focuses on the example of the use of securities as collateral and attempts to demonstrate the importance, from a regulatory perspective, of a sound and predictable legal framework for the taking and managing of collateral and the way in which the proposed Hague Convention on the Law Applicable to Certain Rights in Respect of Securities held with an Intermediary (the "Hague Convention") can contribute thereto. To illustrate this it briefly examine (i) the so-called Basle Capital Accord on capital adequacy and (ii) a cross border payment system, more specifically the Eurosystem as managed by the European Central Bank in cooperation with the national central banks of the euro-zone.

Obviously the findings that are made in the analysis of these two examples apply equally to similar national capital adequacy requirements and to other payment or securities settlement systems.

2. **The Basle Capital Accord**

In July 1988, the Basel Committee on Banking Supervision introduced the first so-called "Basle Capital Accord" which sets out the agreement among the G-10 central banks to apply common minimum capital standards to their banking industries. The goal was to strengthen the soundness and stability of the international banking system by monitoring the credit risks to which banks are exposed. The 1988 Basle Capital Accord has been amended several times and has been undergoing a fundamental review over the past number of years.

The 1988 Basle Capital Accord imposes in substance and in a simplified presentation the following capital adequacy ratio on banks:

\[
\text{capital adequacy ratio (minimum 8\%) = } \frac{\text{own funds}}{\text{risks adjusted assets and off balance sheet items}} \times 100
\]

All asset items are assigned risk degrees, expressed as a percentage weighting: e.g. exposure on certain sovereigns 0%, exposure on certain banks 20% and exposure on corporates 100%. It is the sum of all of a bank's risk weighted asset values that will appear on the denominator of the ratio. Therefore, the extension of credit to corporates is very capital intensive and thus generally triggers higher interest charges for corporate borrowers.

The current 1988 Accord provides that if a loan is collateralised it attracts the risk weight of the collateral and not the one of the actual counterparty. Thus if a bank lends money to a corporate entity, but such a loan is fully collateralised by a pledge on OECD government bonds, the risk weight will not be 100% but 0%, thus lowering the capital cost for the bank.

In 1988 collateral was not recognized generally and in view of the varying practices among banks in different countries for the taking of collateral, only loans secured against securities issued by OECD central governments, OECD public sector entities or multilateral development banks qualified for a lower risk weight. One of the goals of the proposed revision of the 1988
Accord is to considerably expand the scope of eligible collateral. The idea is to give incentives to banks to make a larger use of collateral to reduce their credit risk.

Under the proposed revision of the 1988 Accord two calculation methods will be allowed:

(a) The "standardised approach", which is an enhancement of the method provided for in the 1988 Accord, allocates a given risk weight to each of the bank's assets and off-balance sheet positions on the basis of which the bank will then produce a sum of risk weighted asset values.

The proposed list of eligible collateral comprises, at this stage, the following assets:

| a) | Cash on deposit with the bank which is incurring counterparty exposure including certificate of deposits or comparable instruments |
| b) | Gold |
| c) | Debt securities rated by a recognised external credit assessment institution where these are either: |
| | • at least BB- when issued by sovereigns and public sector entities (PSEs) that are treated as sovereigns by the national supervisor; or |
| | • at least BBB- when issued by other issuers (including banks and securities firms); or |
| | • at least A-3 |
| d) | Debt securities not rated by a recognised external credit assessment institution where these are: |
| | • issued by a bank; and |
| | • listed on a recognised exchange; and |
| | • qualify as senior debt; and |
| | • all other rated issues of the same seniority by the issuing bank are rated at least BBB or A-3 by a recognised external credit assessment institution; and |
| | • the bank holding the securities as collateral has no information to suggest that the issue justifies a rating below BBB; and |
| | • the supervisor is sufficiently confident about the market liquidity of the security |
| e) | Debt securities rated at least A-3 |
| f) | Equities that are included in a main index |
| g) | Undertakings for Collective Investments in Transferable Securities (UCITS) and mutual funds where: |
| | • a price for the units is publicly quoted daily; and |
| | • the UCITS/mutual fund is limited to investing in the instruments listed in this paragraph |

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\[2\] The proposed new accord allows for two methods of calculation:

(i) the "simple approach" where the risk weighting of the collateral instrument collateralising the exposure is substituted for the risk weighting of the counterparty;

(ii) the "comprehensive approach" where banks are required to adjust both the amount of the exposure to the counterparty and the value of any collateral received in support of that counterparty to account for future fluctuations in the value of each, occasioned by market movements.

In the IRB approach only the comprehensive approach is admitted.
(b) The "internal ratings based approach" (IRB) where banks will be allowed to use their internal estimates of borrowers' creditworthiness to assess credit risk in their portfolios, subject to strict methodological and disclosure standards. The IRB approach will most likely further broaden the scope of eligible collateral.

The standardised and the IRB approach together with the credit risk mitigation techniques constitute the so-called First Pillar of the proposed new accord. The Second Pillar "requires supervisors to ensure that each bank has sound internal processes in place to assess the adequacy of its capital based on a thorough evaluation of risk"\(^6\), whilst the Third Pillar aims at increasing market discipline through enhanced disclosure by banks.

Whereas both the 1988 Accord and the proposed new accord deal extensively with the list of securities that are eligible for collateral purposes they are not very prolific on legal matters. The new accord merely requires "legal certainty" and describes this as meaning that "all documentation used in collateralised transactions (...) must be binding on all parties and legally enforceable in all relevant jurisdictions. Banks must have legal opinions to verify this ..."\(^7\). As the taking of collateral by banks is encouraged by the proposed new accord by broadening the range of available securities and in rewarding the taking as collateral even by use of corporate securities, collateral will play an increasingly important role in the capital adequacy ratio calculation. Whilst it is important for a regulator to verify whether the collateral chosen qualifies as eligible collateral, the first question a regulator has to ask is whether the bank it supervises actually does have proper, legally valid, binding and perfected collateral. The proposed Hague Convention will be of great help to address this legal issue.

At present, it is very common to find a scenario where a collateral provider in country A provides to a bank, as collateral taker, in country B a pledge over securities issued by issuers of three different nationalities and booked to one account with a central securities depositary (CSD) in country C and held physically in the vaults of a local depositary or by nominee registration for this CSD in different countries. A simple diagram outlining such a scenario is set out below:

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\(^6\) see footnote 3

\(^7\) excerpt from the latest draft of the proposed new Basel accord – www.bis.org
Therefore, the first question to be considered by each regulator is, which substantive law(s), based on applicable private international law principles, should be applied to properly perfect the collateral? Which law(s) will govern competing claims? If the law governing the collateral cannot be determined with sufficient certainty and predictability, then there may be significant constraints in properly using credit mitigation techniques for capital adequacy purposes, thus significantly increasing the cost of credit.

The problem is that, currently most countries have different approaches as to the law applicable to a collateral arrangement and in certain countries it is even uncertain which approach prevails. Similar issues arise in international payment and securities settlement systems in connection with the collateralisation of intraday, overnight or standing credit facilities.

The Committee on Payment and Settlement Systems of the Central Banks of the Group of Ten Countries has in various reports recognized that the extension of credit is essential to the functioning of the systems to reduce the risk of failed transactions (thus avoiding opportunity and replacement cost) and to increase efficiency and liquidity. The same Committee has however also stressed that if the credit risk is not adequately mitigated then there are serious systemic risks. Typical mitigation techniques used are tough membership admission criteria and adequate collateral.

One of the most interesting illustrations for the present purposes is the "Eurosystem".

3. **The Eurosystem**

The European Central Bank ("ECB") has set up a collateral framework that applies both for monetary policy purposes as well as for intraday credit operations.

This framework is guided by a number of principles, in particular:

- the use of "adequate collateral" to protect the Eurosystem from incurring losses in its credit operations, in order to preserve its financial soundness and ultimately, its credibility and independence;

- the "freedom of competition" which means, inter alia, that both public and private securities must be eligible for the use as collateral on a cross-border basis. Today more than 42,000 securities qualify as eligible collateral; and

- the "operational efficiency" which means that sufficient eligible collateral with adequate risk characteristics must be available to Eurosystem counterparties.

From a regulatory point of view the broad range of eligible securities creates the first set of problems, a second being created by the fact that collateral may be held cross-border.

Two models have been put in place for the holding of collateral:

(a) The Correspondent Central Banking Model (CCBM)
The main idea is that the central bank of each country maintains an account with the central banks of all other member States of the euro zone.

If a bank in country A applies for a loan with its national central bank ("NCB") but holds its securities in a securities settlement system ("SSS") in country B, it will merely have to instruct its SSS to transfer sufficient securities to the NCB of country B which will then hold the securities as collateral for the NCB in country A.

![Diagram]

Use of eligible assets deposited in country B by a counterparty established in country A in order to obtain credit from the national central bank of country A.¹¹

The interesting feature is that the collateral is held in another country than the country of origin of the beneficiary of the collateral and such collateral may comprise securities issued by issuers originating from different countries.

(b) The Cross-border Links Model

The general concept is the same as the CCBM with the exception that the collateral is not transferred to a NCB but is maintained through SSSs which hold the assets for the benefit of the NCB in country A.

¹¹ Source: ECB, The single monetary policy in the euro area, April 2002
Use of eligible assets issued in the SSS of country B held by a counterparty established in country A through a link between the SSSs in countries A and B in order to obtain credit from the national central bank of country A.\footnote{Source: ECB, The single monetary policy in the euro area, April 2002}

The advantage of this model is that whilst assets held with a correspondent central bank can only be used to collateralise Eurosystem credit operations, assets held with SSSs through links may be used for other purposes by the counterparty to the NCB.

The obtaining and retention by central banks of adequate collateral is thus key to the proper functioning of the Eurosystem.

4. **The Contribution of the proposed Hague Convention**

A collateral arrangement is by nature a contract or a deed. Parties are generally free to subject their collateral arrangement to the governing law of their choice. It is however, in many countries considered that, notwithstanding the express choice of law, a number of issues, more specifically proprietary law issues i.e. issues relating in particular to the perfection, the enforcement and to priority of rights, are subject to the so-called "lex rei sitae" i.e. the law of the location of the assets which are offered as collateral. But how should this principle be applied to intangible, book-entry securities?

It is of paramount importance to regulators that this law be clearly determined as, if not, it will not be possible to set up a proper and enforceable collateral arrangement, thus putting at risk the capital base of banks as well as payment systems and the central banks that run these systems. Several questions arise in relation to the applicable law. Is it the law of the country where the securities are physically located? Is it the law of the country in which the register is held or the issuer is incorporated? Is it the law of the intermediary with whom the securities account is
maintained – if yes, which intermediary? It must be understood, that depending on the answer that is given the result could be that, if a pool of securities booked to one account is granted as collateral, more than one law may apply (look-through approach).

Some countries[^1] have legislation that provides quite clear answers, others don't. For those latter countries "robust legal opinions"[^2], as required by regulators, won't be possible as legal opinions cannot change the law, but can only explain its current status. The issue has been recognised for quite some time, but has never been addressed in a satisfactory manner. It is obvious that only a multi-national law reform will help cure the problem as local initiatives would always be subject to the risk of being challenged abroad.

One of the first multi-national initiatives in this respect was taken by the European Union in its "finality directive"[^3] which was essentially aimed at protecting the Eurosystem and the related SSSs. This Directive provides in substance, in a separate private international law provision, that the law of the State where the collateral securities account or the centralised deposit system is located shall apply to proprietary law issues of a collateral arrangement. The finality directive has the great merit of addressing the choice of law issue, but the problem is that its scope is very narrow in that it applies only to transactions carried out on EU payment or securities settlement systems.

The advantage of the proposed Hague Convention is that is:

- open to all States around the globe; and

- applies to all cases where securities are held with an intermediary

thus opening the door for a uniform universal solution. If the proposed Hague Convention were adopted, substantially in its current draft form, it would be a major support for regulators in that it:

- will provide full legal certainty and predictability in the determination of the substantive law that applies to the proprietary aspects of a collateral arrangement; and

- will limit the number of laws applicable to a collateral arrangement over a pool of securities held in book-entry form in a securities account, to one i.e. PRIMA, the law of the place of the relevant intermediary, i.e. the intermediary with whom the relevant securities account is maintained.

Regulators will thus find comfort in the fact that the applicable substantive law will be easily determinable and that they will not have to explore the jungle of different national laws when assessing the validity of collateral arrangements, but can confine their attention to one single law. The legal certainty that will originate from the proposed Hague Convention constitutes an indispensable prerequisite to an effective use of collateral as a means to reduce credit risk.

Luxembourg, 10 May 2002

[^1]: e.g. Luxembourg, Belgium
[^2]: A new capital adequacy framework, Consultative paper issued by the Basel Committee on Banking Supervision, June '99