Philipp Paech

Systemic risk, regulatory powers and insolvency law – The need for an international instrument on the private law framework for netting

Institute for Law and Finance
Goethe-Universität Frankfurt am Main

Working paper series No. 116

Philipp Paech

Systemic risk, regulatory powers and insolvency law – The need for an international instrument on the private law framework for netting

Institute for Law and Finance

WORKING PAPER SERIES NO. 116

03/ 2010

Systemic risk, regulatory powers and insolvency law – The need for an international instrument on the private law framework for netting

Dr Philipp Paech, Senior Research Fellow
Institute for Law and Finance, University of Frankfurt[1]

Table of contents

---

[1] e-mail paech@ilf.uni-frankfurt.de. The author is Seconded Expert to the European Commission; any views expressed in this paper are his own and cannot be attributed to the European Commission. The author would like to thank Ms Joyce Hansen, Mr Wim Hautekiet, Prof Hideki Kanda, Dr Hans Kuhn, Mr Klaus Löber, Mr Ed Murray, Mr Peer Ritter, Mr Gilles Stuer and Dr Peter Werner for their highly valuable comments and suggestions.

Executive Summary

This study examines the legal environment of netting agreements covering financial contracts. It concludes that an international instrument should be developed capable of improving the effectiveness of netting agreements in mitigating systemic risk. To this end, two different aspects of the enforceability of netting agreements are considered: (i) the general enforceability of netting, and (ii) the possibility of precluding the operation of netting a mechanism by way of a regulatory moratorium for considerations of systemic stability.

The first part of the study presents the use of netting and the various forms it may take before going on to explain the benefits and drawbacks of enforceable netting agreements. Benefits for individual firms consist in lower counterparty risk and more favourable capital requirements. Benefits for the financial market as a whole flow from greater financial market stability since the contagion of systemically relevant institutions by the default or insolvency of another institution is limited, thus helping to avoid systemic effects. Additionally, the use of netting arrangements can improve overall market liquidity.

A potential drawback of enforceability of netting, in certain situations, is that the operation of a netting mechanism could actually work against the purpose of systemic stability where the transfer of parts of the business of an insolvent financial institution to a solvent bridge entity would enhance or maintain value to a greater extent than the operation of a netting agreement would. Regulatory authorities are considering under which conditions a moratorium to halt the netting mechanism until the situation is solved could avoid this threat to systemic stability.

The second part of the study examines whether there is the potential to support the purpose of enhanced systemic stability by way of international harmonisation of private and insolvency law. As regards the issue of general enforceability, the global picture of netting legislation is heterogeneous. Given the great practical relevance of the matter, an international instrument could be very useful. As to the issue of private law consequences of regulatory moratoria, the absence of a harmonised framework appears to lead to actual cross-border inconsistency and legal uncertainty as regards financial contracts that are governed by a foreign law. Taking these to aspects into account, this paper recommends that work on developing an international instrument be undertaken.

The final part of the study suggests a set of preliminary guidelines for the development of such an instrument. In the light of the findings of the previous sections, a mixed, two-step approach is recommended. First, a non-binding instrument could be developed, serving as a benchmark and reservoir of legal solutions in respect of the relevant issues. Secondly, isolated aspects relating to both the general enforceability of netting and the accommodation of a regulatory moratorium in foreign private and insolvency law could be dealt with in an international Convention, in particular where cross-border situations involving netting require uniformity of applicable legal rules.

Introduction

Financial institutions and other participants in the financial market in their daily operations apply a variety of mechanisms designed to reduce their credit risk exposure. First, they use a set of arrangements that might be termed 'classical' types of security interest provided by the law and widely used in commercial practice, in particular different kinds of personal security interest (e.g. 'bailment', 'guarantee', etc.) or security interests established over movable, immovable or intellectual property (e.g. 'pledge', 'charge', 'hypothec', 'mortgage', 'repo', etc.). In the financial market, security interests created over cash, securities or claims exist in a variety of legal setups, and the legal arrangements often resemble, at least on the surface, the afore-mentioned security interests applied to the world of movables, e.g. pledge of cash, securities or claims.

The modern financial market, in addition to the techniques listed above, has developed entirely new concepts able to reduce market participants' credit risk exposure, amongst them netting arrangements, i.e. the contractual arrangement between counterparties to apply netting in respect of their mutual rights and obligations. The analysis that follows focuses on netting.

The notion of netting is a relatively new addition to the legal terminology[2] and it is not particularly well-defined. Broadly speaking, it is often understood that netting resembles the classical concept of set-off known since ancient Roman times. However, netting, especially in the form of 'close-out netting', encompasses important additional elements that result in netting being considerably *different* from traditional set-off.

Example 1: A-Bank and B-Bank do a great deal of business with one another. There are numerous mutual payment and delivery obligations (e.g., interest payments, delivery of foreign currencies, claims to return of collateral, pledges over securities) resulting from various kinds of financial transactions. In order to avoid one party from being infected by the financial problems of the other, the parties conclude a netting agreement. Under this agreement, in the event of default by either party to meet any of its obligations vis-à-vis the other, all mutual rights and obligations are deemed to be immediately due. Obligations in kind (delivery of, e.g., foreign currency) are transformed into a payment obligation, under a predetermined valuation mechanism. The mutual rights and obligations are then computed so as to result in a single net payment obligation of one of the parties to the other party. This is the only obligation that remains to be settled.

Netting arrangements are widely used in the financial market by private sector entities, in particular banks, but also private non-financial institutions. In the public sector, entities such as, especially, central banks and supranational financial institutions such as development banks make use of netting arrangements. Regulatory authorities (most recently, the *Cross-border Bank Resolution Group* of the Basel Committee on Banking Supervision) generally encourage the use

[2] In 1989, the predecessor of the Basel Committee issued the so called *Angell*-Report on netting schemes, which was probably the starting point for the prevalence of the concept and terminology of netting. Simultaneously, 'netting' started to appear as a concept in legislative acts, albeit very few. Later on, 'close-out netting' became widely used under the master agreements provided by market associations, in particular ISDA, ICMA, EBF and others, *cf.* page 6.

of such netting arrangements because of their beneficial effects on the stability of the financial system.[3]

However, these beneficial effects are particularly palpable in the event of the insolvency of a counterparty, always assuming that the legal effects stipulated in the agreement are recognised by and *enforceable* under the applicable insolvency law. The current global *status quo*, however, is that while many jurisdictions recognise netting in insolvency, the extent to which they do so and the scope and legal effects differ. Other jurisdictions do not clearly recognise netting, and their legal practice often applies the principles governing set-off, not recognising the fundamental differences between the two mechanisms. There is agreement that this global 'patchwork' is unsatisfactory in cross-border situations.

First steps have meanwhile been taken towards an international consensus on the principles underlying enforceability of netting agreements. The *UNIDROIT Convention on Substantive Rules for Intermediated Securities* ('Geneva Securities Convention') in its Chapter V sets out an *optional* framework on the protection of collateral transactions. This protection extends to netting agreements provided they are concluded as part of a collateral transaction, and contains a definition of netting and a key rule on enforceability.

Furthermore, netting has also been recognised in the work of UNCITRAL on cross-border insolvency. Notably, the *Legislative Guide on Insolvency Law* refers to the enforceability of netting as a feature to be considered when designing insolvency law, *cf.* Recommendation 7(g), and advises that netting of financial contracts should be allowed under the applicable insolvency procedure, *cf.* Recommendations 101-107.

Since the 2007/2009 financial crisis, an additional aspect of the enforceability of netting agreements has been highlighted: regulatory authorities, while underlining the usefulness of netting, have contemplated the need for a short moratorium on the netting mechanism in pre-insolvency or insolvency situations affecting a financial institution, so as to allow the regulator the time needed to decide if and how to save an ailing entity for reasons of systemic stability. Regulatory authorities currently consider that such a moratorium would need to be designed in such a way as to prevent the operation of netting agreements in a pre-insolvency situation from causing further substantial erosion of the failing entity's operation. From a private law point of view, one of the difficulties is that such a regulatory stay would often extend to rights and obligations governed by a foreign law – which illustrates the urgent need for common principles explaining how to address these new regulatory powers from the foreign private law standpoint.

The purpose of this paper is to shed light on the two aspects outlined above, so as to enable an assessment to be made of the need to harmonise private and insolvency law aspects of netting as well as the scope and extent of such harmonisation, and to provide tentative guidance as to how an international instrument covering this subject-matter could be shaped.

---

[3] *Bank for International Settlements/Basel Committee on Banking Supervision*, Report and Recommendations of the Cross-border Bank Resolution Group, March 2010, http://www.bis.org/publ/bcbs162.pdf?noframes=1

1st Part – Use, benefits and drawbacks of netting

I. Netting in today's financial markets

Netting is widely used in financial markets as a risk mitigation tool. Gross exposures between different market participants, for instance between two financial institutions operating worldwide, can be enormous. Netting is an instrument that allows the institutions' risk situation to be assessed on the basis of net exposure. This tool clearly has an application in risk management and the calculation of capital requirements, since the net exposure in the event of default of the counterparty is often only a small fraction of the gross exposure.

Against this background, it is obvious why netting is regularly used in certain business areas such as settlement of financial instruments, high frequency trading between two counterparties, repurchase transactions and the derivatives business – here, the difference between gross and net exposure is particularly high. Yet netting is also used in other business areas, e.g. as part of wholesale contracts relating to the delivery of gas or electricity. Likewise, public entities, when using interest rate derivatives to hedge their interest rate risk, include netting agreements in the contractual framework with a view to reducing the counterparty risk.

A. The importance of netting – market data

The Bank for International Settlements provided data in a recent report[4] illustrating the effect of close-out netting: the notional amount of all types of OTC contracts stood at approximately USD 605 trillion at the end of June 2009. The gross market value of these contracts, i.e. the cost of replacing all of them by equivalent contracts at the market price, was USD 25 trillion. This amount corresponds to the market risk inherent in these contracts. At the same time, aggregate credit exposures of market participants, i.e. the remaining credit risk taking into account legally enforceable netting agreements, amounted to USD 3.7 trillion.

B. Netting and master agreements

The majority of financial market transactions are concluded using standard documentation ('master agreements'), for example derivatives, foreign exchange, securities lending and repurchase contracts. A number of master agreements are available for the various types of financial contract and for various jurisdictions.

For cross-border use, the International Swaps and Derivatives Association (ISDA) Master Agreement is the quasi standard for derivatives transactions from the global perspective, whereas repurchase agreements are usually bundled under the International Capital Market Association (ICMA) Global Master Repurchase Agreement; in Europe, the multi-product European Master Agreement for Financial Transactions (EMA) of the European Banking

---

(hereinafter: Basel Committee CBRG Report), Recommendation 8, p. 36 *et seq*.

[4] *Bank for International Settlements, Monetary and Economic Department*, OTC derivatives market activity in the first half of 2009, November 2009, http://www.bis.org/publ/otc_hy0911.pdf, p. 1.

Federation is widely applied. These agreements are accompanied by a set of optional annexes covering different types of financial contract. In addition, there are various other master agreements for specific sectors or jurisdictions, e.g. the New York Foreign Exchange Committee International Foreign Exchange Master Agreement (IFEMA); the International Foreign Exchange and Options Master Agreement (FEOMA); the International Securities Lending Association (ISLA) Global Master Securities Lending Agreement; the Convention-Cadre relative aux Opérations de Marché à Terme of the French Banking Association; the Contrat-Cadre de Prêts de Titres of the Association of French Securities Dealers; the Rahmenvertrag für Finanztermingeschäfte, the Rahmenvertrag für Pensionsgeschäft, and the Rahmenvertrag für Wertpapierleihgeschäfte of the German Banking Associations; the Contrato Marco de Operaciones Financieras of the Association of Spanish Private Banks; the China Inter-bank Market Financial Derivatives Transactions Master Agreement of the National Association of Financial Markets Institutional Investors (NAFMII); the Standard Documentation for Derivatives Transactions on Financial Markets of the Association of Russian Banks (ARB); and the Brazilian Contrato Global de Derivados.

Master agreements are not tied to any one particular applicable law, but English or New York law is usually chosen for cross-border agreements. Japanese, Hong Kong, Swiss, French, German, Spanish and Italian law have some regional importance. The European Master Agreement was geared from the outset to multi-jurisdictional (and multilingual) use and is concluded under one of the laws of the European Union Member States.

Clauses on netting often form a core part of master agreements but, even though they are included in such standardised contracts, netting agreements nevertheless are still contracts that from a legal point of view could be negotiated separately and privately between the parties. Hence, the fact that netting agreements are often part of master agreements does not affect the results of this analysis in any way. This paper therefore uses the term ‘netting agreement’ on the understanding that netting agreements in a great majority of cases form part of a master agreement.

C. Set-off and the different types of netting agreements

The notions of netting and its sub-categories settlement netting, novation netting and close-out netting are terms developed by the market. There is some common understanding as to typology that is universally used. However, the market generally considers the issue of netting in functional terms (termination of contracts, computation of an aggregate amount, etc.), whereas from a legal perspective borderlines can be blurred. The background is that the functionalities of 'netting' are often mirrored in legal terms by partial reference to existing concepts, notably set-off, *cf. infra,* p. 19).[5] Apart from the distinction between the functional and legal perspectives,

[5] *Cf. European Financial Markets Lawyers Group (EFMLG)*, Protection for bilateral insolvency set-off and netting agreements under EC law, October 2004, paras. 15, 111 in relation to EU law applicable outside the banking sector: the use of the term 'set-off' in the EU Insolvency Regulation and its subsequent divergent implementation in the EU Member States has created deep uncertainty as to whether the Directive’s set-off protection (Article 6) encompasses elements that go beyond classical set-off, in particular close-out netting.

the categorisation of netting is further complicated by the fact that the parties' agreement is capable of designing particular netting mechanisms or combining them with each other. Thus, the standard categories described below reflect only basic patterns, notably as shaped by the wide application of master agreements. Against this background, this study refrains from referring to one or the other category, as there is no uniform understanding of the relevant terms. Rather, reference is made, with the exception of this section, to 'netting' in general, all the more since the difficulties encountered in accommodating netting in legal terms apply to a greater or lesser extent to all possible forms of netting arrangements.

Set-off

Classical set-off is different from what is generally understood by netting. Yet the term set-off is often used as an interface to describe the functions of netting and to transpose them into law (notably the function of computation of a net amount). Some laws even treat netting as a category of set-off. Set-off is the classical means of discharging mutual obligations, mostly (but not necessarily) payment obligations under which a debtor sets off a claim owed to it by its creditor against the debt, resulting in a single obligation equal to the difference between both claims. Set-off is generally allowed under statutory provisions and can be extended or altered by contract. It is allowed to the extent that both claims are due; some jurisdictions require that they stem from the same contractual relationship or are somehow 'connex'.

Settlement netting

The instrument of settlement netting is the computation by contract of equivalent fungible claims under executory contracts, e.g. for commodities or foreign exchange, where the mutual deliveries fall due for payment or delivery on the same day. The background is that it is sometimes difficult to arrange simultaneous payments. The purpose of settlement netting therefore is to reduce settlement risk (which forms part of the overall counterparty risk) as the only remaining obligation for the parties is to settle the net balance. Settlement netting is different from 'classical' set-off because it applies to deliveries under contracts that are still to be performed, whereas set-off traditionally applies to debts that are due.

Example 2: Y-Bank sells X-Bank GBP 66 for USD 100. A few days later, Y-Bank sells X-Bank USD 100 for GBP 67, to be paid on the same day as the first contract. If, on the day Y-Bank pays its GBP 66 and USD 100 under the two contracts, X-Bank becomes insolvent before paying its USD 100 and GBP 67, Y-Bank has lost those gross amounts. But if the reciprocal amounts were netted when the second contract was entered into, Y-Bank's exposures would be GBP 1.

Settlement netting occurs in a multilateral context (settlement systems for payments or securities operated by stock exchanges, central securities depositories or central counterparties[6]) and is also found in bilateral relations where bundles of financial contracts

[6] In the 27 EU Member States, this issue is addressed in the *Settlement Finality Directive* which defines netting as the conversion into one net claim or one net obligation of claims and obligations resulting from transfer

between two parties are settled without the intervention of a market infrastructure, in particular in the case of derivatives contracts, securities lending or repo (*cf. infra*, p. 11), and settlement netting regularly figures in standard documentation, e.g. European Master Agreement, section 3(4); ISDA Master Agreement, section 2(c).

Netting by novation

Netting by novation is a specialised form of settlement netting and employs a mechanism quite different from classical set-off. Two (or more) entire contracts (not just payment obligations) of the same type are terminated and replaced by a new contract of exactly the same type that mirrors only the net balance of the terminated contracts.

Example 3: A-Bank buys from B-Bank USD 100 for EUR 75, payable on 1st September. Subsequently, B-Bank buys from A-Bank USD 200 for EUR 140. The parties terminate both contracts and replace them by an agreement under which B-Bank receives on 1st September from A-Bank USD 100 against payment of USD 65.

Netting by novation is basically confined to the foreign exchange market. It was used to reduce capital requirements under the Basel Capital Accord of 1988, whereas the 1994 version allowed for the less cumbersome close-out netting. Novation netting therefore does not play a prominent role in the financial market.

Close-out netting

The mechanism of close-out netting (or default netting) forms a core part of standard market documentation, as for instance the ISDA Master Agreement or the European Master Agreement.[7] Close-out netting is the form of netting envisaged by Articles 31 and 33 of the Geneva Securities Convention (*cf. infra*, pp. 27 and 31) and underlies Recommendations 101-107 of the UNCITRAL Legislative Guide on Insolvency Law.

Under such an agreement, the netting mechanism comes into operation either by a declaration ('close-out') of one party upon the occurrence of a pre-defined event, in particular default or insolvency of its counterparty ('termination event'), or it is triggered automatically upon the occurrence of that event ('automatic termination'). The mechanism extends to a bundle of existing and future financial contracts between the parties that are contractually included in the netting agreement. Upon close-out or automatic termination, all non-performed contracts are terminated and the value of each contract is determined under a pre-defined valuation mechanism. The aggregate value of all contracts is then computed so as to result in one single

---

orders which a participant or participants in a settlement system either issue to, or receive from, one or more other participants, with the result that only a net claim can be demanded or a net obligation be owed.

[7] European Master Agreement, sections 6 and 7; ISDA Master Agreement, sections 5 and 6.

payment obligation ('net amount').[8] This obligation remains the only obligation to be settled and is generally due immediately after the net amount is determined.

Where netting occurs in the context of the insolvency of one of the parties, and the net amount is positive for the solvent party, that party is paid from the insolvency estate as unsecured creditor and may therefore partly or fully lose its claim. Where the net amount is positive for the insolvent party, the solvent party must pay the insolvency estate.

D. Solvent and insolvency netting; termination event

Netting can occur both in situations where both parties are solvent and in the event of the insolvency of either, since it is the parties to the netting agreement themselves that determine the trigger for the operation of the mechanism, the 'termination event'. This event may consist, in particular, in one of the parties defaulting on one or more of its obligations, or in its filing for insolvency, in the installation of a state administrator or a similar intervention by the public authorities, or in the opening of an insolvency proceeding or an administration, resolution or restructuring procedure. Netting agreements additionally include external circumstances as the termination event, such as the objective impossibility to perform an obligation under one of the financial contracts, or the downgrading in credit rating of one of the parties after its merger with another company. Given the range of potential termination events, it becomes evident that netting agreements can be designed to apply to both pre-insolvency and insolvency situations.

Netting agreements are in general covered by freedom of contract – however, limits are commonly applied to this principle for policy reasons and become manifest in rules of mandatory law restricting party autonomy.

Policy considerations will not as a rule preclude an agreement containing the requisite elements to terminate mutual contracts upon the fulfilment of a predefined condition, to value them and to compute their aggregate value, as does a netting agreement. As a consequence, it is fair to say that there are no particular obstacles standing in the way of the effectiveness and enforceability of netting agreements under general conditions, i.e. in respect of two *solvent* parties. However, there are certain limits, often deriving from general principles of law: for instance, a netting agreement might be considered invalid if one or more of the contracts

---

[8] *Cf.* the central clauses of both aforementioned master agreements (capitalised terms are defined terms under the respective agreement):

- 'In the event of a termination pursuant to this Section […], neither party shall be obliged to make any further payment or delivery under the terminated Transaction(s) which would have become due on or after the Early Termination Date or to provide or return margin or collateral which would otherwise be required to be required to be provided or retuned under the Agreement and related to the terminated Transaction(s). These obligations shall be replaced by an obligation of either party to pay the Final Settlement Amount in accordance with Section […].' (European Master Agreement, section 6(4));

- 'Upon [close-out], no further payments or deliveries […] in respect of the Terminated Transactions will be required to be made […].The amount, if any, payable in respect of an Early Termination Date will be determined pursuant […].' (ISDA Master Agreement, section 6(c)).

included in the agreement are themselves invalid. Moreover, in the context of the ongoing discussions regarding the exceptionally negative effects of netting on systemic stability (*cf. infra*, p. 16 *et seq.*), consideration might be given to the possibility of restricting the choice of pre-insolvency termination events where they are combined with an automatic termination mechanism.

The situation is different in the event of *insolvency* of one of the parties, since the sole purpose of insolvency law is to put into practice policy decisions on the question of whose claims should be prioritised over others' claims. Insolvency law therefore might prevent set-off, allow the administrator to 'cherry pick' those contracts that are favourable to the insolvent estate, invalidate payments to the counterparty made during a 'suspect period' prior to the opening of the proceeding, etc. The conflict between these insolvency instruments, on the one hand, and the idea of applying netting to the entire bundle of the parties’ financial contracts, on the other hand, is obvious, and in practice effective netting agreements might be precluded by a variety of rules of insolvency law. However, the purpose of reducing counterparty and systemic risk becomes dominant *especially* in the event of insolvency of the counterparty.

E. Bilateral settlement and central clearing

Financial contracts concluded between two counterparties may be settled either bilaterally, between the parties themselves, or through a central entity interposed between the parties. Netting is *equally important* in both scenarios.

Bilateral settlement has so far been tacitly assumed in this analysis. It mirrors the classical two-party situation where there are numerous mutual delivery and payment rights and obligations, some of which are due and others that are still to be performed in the future. In the course of regular business, payment obligations that are due may be subject to set-off and settlement netting. In the event of default, close-out netting may occur.

This study uses the term ‘central clearing’ as shorthand for the functionalities of central counterparties, net payment systems and clearing and settlement systems in general, ensuring that the settlement and counterparty risk, though it exists from a contractual point of view between the parties, is concentrated on a central entity and is permanently kept to net exposure. Central clearing applies by virtue of contractual agreements between market participants or as a legal requirement. The arrangement achieves the aforementioned result by interposing the central entity between the parties to every financial contract, so that it becomes ‘buyer to every seller and seller to every buyer’. The net risk exposure is calculated on a bilateral basis, so that each participant’s exposure exists exclusively against the central entity. This applies both to regular business scenarios, where settlement netting mechanisms apply, and to the default situation, where close-out netting arrangements may be operated. Thus, given that, from a legal point of view, central clearing remains strictly bilateral, considerations in respect of bilateral settlement generally apply to central clearing.

F. Multi-branch netting

Typically, financial market participants have several branches in jurisdictions other than that of their head office. A netting agreement may extend to the entirety of financial contracts entered into (with the same counterparty) by the head office and its foreign branches. Branches, as opposed to subsidiaries, are not legally independent from the head office, i.e. branches and the head office form part of the same legal entity. As long as a multi-branch entity is not insolvent, multi-branch netting would probably be recognised by the legal framework to the same extent as is netting generally. However, as soon as a multi-branch party becomes insolvent, everything will depend on whether there is a single insolvency proceeding covering both the head office and the branches (governed by the insolvency law of the head office) or whether there are separate proceedings over some or all the branches.[9] In the latter case, ring-fencing may occur, with the local insolvency administrator preventing claims and assets from being attributed to the head office estate or to the estate of another branch.

G. Multilateral netting

The term 'multilateral netting' is not well-defined and is often used to describe central clearing, as set out above. However, truly multilateral netting refers to a very specific situation. The basic scenario, which is applied to some extent in some payment systems, consists of a number of independent financial market participants who compute their mutual exposure on a multilateral basis, employ functionalities similar to those used in close-out netting, capped by a system of mutual cross-assignments.

Example 4: A-Bank, B-Bank and C-Bank conclude a multilateral netting agreement under which claims existing on a bilateral basis are replaced by net claims calculated on a multilateral basis. At a given point in time, A owes EUR 20 to B; B owes EUR 60 to C; and C owes EUR 40 to A. Following their agreement and after cross-assignment and computation, these claims are to be settled by A paying nothing, B paying EUR 40 to C, and C paying EUR 20 to A.

It is worth mentioning that while, in this example, A-Bank's exposure is the lowest, it would be possible, on the basis of the agreement, to make C-Bank the bank least exposed (in which case C-Bank would have to pay nothing and have a claim of 20 € against B, whereas B would owe 40 € to A).

This shows that multilateral netting can be used as a tool to circumscribe the exposure of one market participant *vis-à-vis* a multitude of other, independent market participants, typically a bank managing its risk exposure under one single netting agreement against several entities belonging to the same group of companies (therefore this form of netting is also called 'cross-affiliate netting'). On the face of it, this situation resembles the multi-branch netting technique, with one important difference in that the affiliates are legally independent from each other.

[9] *Cf.* UNCITRAL Model Law on Cross-Border Insolvency, in particular Art. 20; EU Directive on reorganisation and winding up of credit institutions, in particular Art. 10.

The legal difficulties of multilateral netting are apparent: first, the contractual agreement is highly complex, using a system of mutual cross-assignments and cross-guarantees; secondly, the recognition of a multilateral netting agreement by the applicable insolvency law depends on whether netting in general and multilateral netting in particular are legally recognised; thirdly, to the extent that cross-assignments are only agreed on an *ad hoc* basis in the event of default of one of the parties, the insolvency administrator may subsequently avoid these agreements as unjustified preference; fourthly, in a cross-border situation, the applicable insolvency laws may exacerbate the aforementioned difficulties. It is these difficulties that are contributing to the growing use of central clearing facilities, as described above.

II. Benefits flowing from the use of netting

As mentioned above, the primary purpose of netting agreements is to mitigate risk in the event of default of the counterparty, by making sure that not the gross, but the net exposure represents the maximum risk in the event of the counterparty's insolvency. Yet~~,~~ the overall beneficial effect of netting, especially when widely used, extends not only to individual market participants but to the market as a whole, as the limitation of individual risk helps to forestall the systemic implications of failure of a systemically relevant institution.

A. The individual perspective: a competitive advantage

Where both parties are subject to jurisdictions that accommodate netting arrangements in a consistent manner, they can enter into financial contracts with each other and so take advantage of a range of beneficial effects flowing from the possibility of concluding a netting agreement on a clear legal basis. These beneficial effects mainly consist in a reduction of counterparty risk on the one hand, and a more favourable position in terms of the underlying capitalisation on the other hand. If one party is subject to a law that is unclear, indifferent or even unfavourable to netting arrangements, the conclusion of a netting agreement, if at all possible, does not carry similar benefits. As a consequence, parties in the former group contract with each other much more easily than with parties from jurisdictions belonging to the latter group. Thus, financial market participants subject to jurisdictions that offer a consistent legal framework for netting benefit from *competitive advantages* on an individual level.

Reduction of counterparty risk

Netting reduces counterparty risk in two ways. To begin with, settlement netting is used to mitigate settlement risk, i.e. to minimise the potential loss resulting from the non-fulfilment by one party of its payment or delivery obligations (*cf. supra*, p. 8).

Close-out netting moreover counteracts credit risk. The analysis of this functionality takes as its starting point the fact that each contract, whether financial or other, is favourable to one of the parties, i.e. the contract, for that party, results in a positive value (the party is 'in the money'). In the event of insolvency of the other party, this positive amount would probably be lost unless collateralised. By contrast, where a party is 'out of the money', the counterparty's insolvency does not change anything, since it will have to fulfil its obligations vis-à-vis the insolvency estate. Close-out netting agreements address the common situation where there are numerous financial contracts between two parties, some favourable to one party, the others favourable to the other party. Without close-out netting, the solvent party would lose out on all contracts that were favourable to it, but where it had to fulfil those contracts favourable to the insolvency estate.

Capital adequacy and cost of capital

Banking supervision has generally recognised the risk-reducing effect of close-out netting. Therefore, banks may calculate capital requirements on the basis of net, rather than gross, credit exposures. However, the theoretical option to use netting in the event of default of the counterparty must be backed by the certainty that a bank can *effectively* limit its exposure to the net amounts. In order to guarantee that capital requirements adequately reflect the exposure of loans and deposits, the Basel II Accord[10] requires banks to

– have a well-founded legal basis for concluding that the netting agreement is enforceable in each relevant jurisdiction regardless of whether the counterparty is insolvent or solvent;

– be able at any time to determine those assets and liabilities with the same counterparty that are subject to the netting agreement;

– monitor and control the risk of sudden increases in exposure when short-dated obligations, which have been netted against longer-dated claims, mature ('roll-off risks'); and to

– monitor and control the relevant exposures on a net basis.

Only if these conditions are met may they use the net exposure of loans and deposits as the basis for their capital adequacy calculation in accordance with the relevant formulae. Lower capital requirements immediately result in reduced cost of capital and increased liquidity. Moreover, netting reduces the cost of single financial contracts because less collateral needs to be provided if mutual positions can be netted.

B. The market perspective: increased systemic stability and liquidity

Also from the wider perspective of the financial system, the benefits of enforceability of close-out netting agreements are not confined to crisis situations but likewise materialise under normal market conditions.

---

[10] *Bank for International Settlements/Basel Committee on Banking Supervision*, International Convergence of Capital Measurement and Capital Standards (Comprehensive version), June 2006, http://www.bis.org/publ/bcbs128.htm ('Basel II Accord'), paras 117, 118, 139, 188; Strengthening the resilience of the banking sector, (Consultative Document), December 2009, http://www.bis.org/publ/bcbs164.pdf?noframes=1, p. 43.

Systemic stability

Systemic risk occurs where market participants are exposed to each other's failure in such a way that a chain reaction of insolvencies may ultimately ensue. The use of close-out netting can prevent this risk of contagion from becoming systemic, i.e. affecting the financial market in such a way that it becomes dysfunctional. This beneficial effect is grounded in the idea that close-out netting shields systemically important market participants from the consequences of their counterparty's insolvency.

This is why the Cross-border Bank Resolution Group (CBRG) of the Basel Committee, in its recent report, mentions enforceable netting agreements in a list of mechanisms capable of mitigating systemic risk *in the first place*, along with collateralisation, segregation of client assets and standardisation and regulation of derivatives over-the-counter transactions. Consequently, it calls upon national authorities to promote the convergence of national rules governing the enforceability of netting agreements with respect to their scope of application and legal effects across borders.[11]

Market liquidity

Where netting is beneficial on an individual basis, the relevant advantages become manifest also on a global scale. Notably, as capital requirements for financial institutions decrease as soon as an institution applies a consistent netting policy, more capital is available for lending. Secondly, and by the same token, as collateral provided between counterparties is calculated on the basis of net exposure, fewer assets (cash, securities) are blocked in collateral arrangements. Furthermore, settlement netting arrangements decrease transaction costs and consequently render the market more efficient.

As a result, it may be assumed that the wide use of netting agreements in the financial market frees funds, which in turn increases overall market liquidity.

III. The drawbacks inherent in netting

A. Shifting general policies in respect of insolvency regimes?

By introducing a robust netting regime, some jurisdictions have clarified that netting arrangements should be shielded against certain instruments relating to the insolvency procedure. However, this development seems to grant more favourable treatment to some of the insolvent's creditors. Systemically relevant market participants generally conclude netting agreements with each other to cover their mutual financial contracts. Where netting agreements are enforceable in the event of insolvency, their operation leads to moving the counterparty risk (the risk must logically be borne by someone) to those of the insolvent's creditors that are not covered by a netting agreement and whose claims are not collateralised. These entities are

[11] Basel Committee CBRG Report, Recommendation 8, p. 36 *et seq*.

generally non-financial institutions and consequently not systemically relevant for the financial market.

A frequent general policy approach of insolvency law consists in securing as many assets as possible for the insolvency estate (and hence for the subsequent pro rata distribution amongst unsecured creditors) by attributing a certain ‘priority’ to the insolvency estate. This ‘priority’ materialises in rules prohibiting insolvency set-off (there are two scenarios here, either a stay on pre-insolvency claims or a ban on set-off claims acquired after the insolvency filing against claims acquired prior to the insolvency filing), or allowing for ‘cherry picking’ by the insolvency administrator. To the extent that close-out netting is enforceable, claims and assets are not drawn into the insolvency estate (being blocked until distributed) but remain immediately available as liquid assets in the market.

Against this, it is fair to say that guaranteeing the enforceability of insolvency netting constitutes a paradigm shift in certain jurisdictions. However, both approaches (keep liquidity in the market *or* draw liquidity into the estate) show benefits and drawbacks – and it ultimately appears to be a policy choice whether to apply one or the other approach in relation to certain groups of counterparties, in the present context, systemically relevant ones.

B. Pre-emption of regulatory intervention

Since the 2007/2009 financial crisis it has become clear that automatic enforceability of netting agreements not only brings advantages but may carry significant disadvantages in times of pressure on the financial market. The Basel Cross-border Bank Resolution Group (CBRG) insists that these dangers, if not addressed appropriately, are anything but negligible.[12]

The CBRG’s critical review of the role of netting agreements considers, first, the automatism of termination and close-out of non-performed contracts upon the occurrence of the enforcement event. The enforcement event is generally defined in the netting agreement and may be any event, not only insolvency of the counterparty but also simple default, the appointment of an administrator, the intervention of state authorities, or any other pre-insolvency event. Its occurrence may trigger the simultaneous closing-out of large volumes of financial contracts. If a major market player is in distress, such a situation may undermine orderly resolution.

In certain cases, it would be preferable to transfer the debtor’s financial contracts to a solvent third party, a bridge bank or similar entity and to wind the insolvent entity down in an orderly fashion while saving the viable contracts and avoiding sending shock waves to the market. How precarious such a situation may be is illustrated by the scenario where a regulator hesitates to step in, knowing that its intervention is capable of triggering a chain reaction of automatic close-out netting. The CBRG paper therefore recommends introducing powers for national regulators

[12] Basel Committee CBRG Report, pp. 39-41 (Recommendation 9).

- to delay automatic close-out and termination for up to 48 hours in order to allow a decision on whether the distressed party's financial contracts should be transferred to a solvent institution, and,
- to effect such a transfer of contracts, under certain conditions.

For example,[13] in the United States, the Federal Deposit Insurance Corporation (FDIC), as receiver or conservator of a distressed bank participating in the insurance scheme, has the power to enforce or repudiate certain qualified financial contracts within a reasonable period of time. It also has the power to transfer to a healthy financial institution the qualified financial contracts (including related collateral and suchlike) between the bank and its counterparties. The FDIC as receiver has until 5 p.m. on the business day after its appointment as receiver to notify counterparties of the transfer of such contracts. Counterparties are not entitled to terminate or close out and net such contracts until 5 p.m. on the following business day. Thereafter, full close-out and netting rights are available in respect of qualified financial contracts remaining in the receivership, but not in respect of contracts transferred to a healthy financial institution or bridge bank. In the case of either repudiation or transfer, the FDIC must repudiate or transfer all or none of the qualified financial contracts between the ailing bank and a counterparty and that counterparty's affiliate.

The possibility of close-out netting actually exacerbating the risk to systemic stability represents a serious drawback of automatic close-out mechanisms featuring as an element of netting agreements. Some jurisdictions have addressed the question of regulatory prevalence over this automatism but the conflict between the need for enforceable netting agreements as a risk mitigation technique, on the one hand, and the pre-emption of sensible regulatory action by the automatism of close–out, on the other hand, is far from resolved. Future action would need to be directed towards a conciliation of these to flipsides (*cf. infra*, pp. 21 *et seq.*).

2nd Part – The need for an international instrument on netting

Roughly speaking, 40 jurisdictions have adopted netting legislation[14] with a view to creating a consistent and reliable legal framework allowing for netting. The common purpose of these laws is to render netting enforceable; however, rules are heterogeneous as regards their personal and material scope. Other jurisdictions have not yet implemented netting legislation. As a result, the global view gives an inconsistent picture, and the enforceability of netting agreements that are either outside the scope or subject to a jurisdiction that does not recognise netting at all faces various hurdles (*cf. infra*, I.).

---

[13] Cited after Basel Committee CBRG Report, footnote 25.

[14] ISDA regularly updates a list of countries that have adopted netting legislation on its website www.isda.org/docproj/stat_of_net_leg.htm.

Additionally, the implementation of special regulatory powers to impose a moratorium on netting arrangements, as has recently been contemplated, might require adjustments of the legal framework with a view to avoiding cross-jurisdictional conflicts in the area of private law, in particular in respect of proprietary aspects (*cf. infra*, II.).

The following sections further analyse these issues, so as to enable an assessment to be made on the need, character and depth of harmonisation of netting rules (*cf. infra*, III.).

I. The status quo on enforceability of netting

A. Personal and material scope

Most 'netting-friendly' jurisdictions limit enforceability to certain types of eligible party. Banks are, as a rule, covered. Other categories of participant are covered in many, some or few jurisdictions, such as, for example, insurance companies, investment firms, partnerships, investment funds, hedge funds, proprietary traders, pension funds, central banks, public authorities, etc. Natural persons, by contrast, are generally excluded. From a legislative point of view, this might be a consequence of the context in which the netting rules are placed, in particular where netting rules form part of a wider instrument of financial market legislation such as, for example, a banking code or similar instrument. Yet it is clear that legislators intentionally restrict netting rules to certain counterparties, often reflecting the underlying policy that systemic stability of the financial system must be shielded against failure of a major market participant, which means that systemically important institutions should be covered by netting legislation.

Where jurisdictions provide for netting legislation, the material scope differs in relation to two questions:

- first, as regards the definition (if any) of netting, ultimately determining the extent to which netting is recognised; and,
- secondly, which types of financial contract may be included in a netting agreement.

B. Issues relating to general principles of law

At present, in many jurisdictions, netting as a legal concept is not recognised, or at least not fully or clearly recognised. Because of its ready association with existing legal concepts, in particular set-off and the attempt to accommodate netting without legislative change, the enforceability of netting agreements in accordance with their terms may be uncertain. Most of the typical obstacles to the proper operation of the netting mechanism are shown below. However, such a list can never be exhaustive and there are probably other obstacles to the enforceability of an agreement, stipulating that one single net amount is owed by one party to the other, computed on the basis of all open obligations and the value of all non-performed contracts.

Association with set-off rules

While it is true that netting has its own functional mechanisms and a wider scope of application than set-off, there are a number of similarities. This impression is strengthened by the fact that the concept of netting is new to most legal systems; hence, there is a danger of its being translated without any further ado into national legislation by drawing on the established concept and wording of set-off (*cf. supra*, p. 7 *et seq.*). However, set-off alone cannot mirror all the functionalities of netting, and conceptual limitations to set-off that are, for lack of any clarifying legal rule, applied to netting agreements by judges and insolvency administrators would commonly affect any of the three functional elements of the netting mechanism:

- set-off applies only to obligations that are due, not to unperformed contracts: applying this rule to netting would preclude the termination of the financial contracts included in the netting agreement;
- set-off applies only to obligations flowing from the same agreement, or to 'connex' obligations: applying this principle to netting would mean that a netting agreement cannot cover all financial contracts between the parties but only those that are connected;
- set-off applies only to payment obligations or congenerous obligations: the application of this principle to netting would preclude the element of valuation of the financial contracts included in the agreement and their transformation into a single payment obligation.

Non-eligible contracts included in the netting agreement; gambling

Even in 'netting-friendly' jurisdictions, netting agreements are enforceable only to the extent that they relate to certain types of eligible financial contract. The range of eligible financial contracts differs between jurisdictions, either as a consequence of a clear policy decision, or because the relevant wording of the scope is not updated to reflect recent market developments.

Where non-eligible contracts have been included in the netting agreement, there is uncertainty as to the consequences: since the netting agreement and all the financial contracts it includes are often regarded as *one* contract, general principles of law could block the enforceability of the bundle as a whole instead of excluding from the netting mechanism, in an isolated manner, such un-eligible contracts once they had been identified.

A subcategory of the foregoing relates to financial contracts that might not be enforceable *per se* in certain jurisdictions. This relates mainly to certain derivative contracts that risk being considered as gaming or gambling contracts. Where the applicable law characterises a type of derivative contract as non-enforceable gaming contract, the enforceability of the netting agreement with respect to the remaining financial contracts should not be affected.

C. Issues relating to enforceability under insolvency law

Netting agreements, as elements of master agreements, are usually concluded under the law of New York or England, and regionally also under the law of Hong Kong, Japan, Germany, Spain, Italy or France. However, the law applicable to the rights and obligations under the contract is not necessarily identical to the law governing any insolvency proceeding over one of the parties, and determined either following the universality or the territoriality principle. Against this background, in either case, it is often questionable whether a netting agreement concluded under Law A (the contract law) is enforceable in an insolvency proceeding under Law B (the insolvency law), in particular where the law of the insolvency proceeding does not have dedicated netting provisions.

‘Cherry picking’ and prohibition of early termination

In an insolvency proceeding, the insolvency administrator often has the right to 'cherry pick' from the insolvent party's non-performed contracts. This means that he is entitled to insist vis-à-vis any counterparty on performance of those contracts that are favourable to the insolvency estate. In many jurisdictions, the right to ‘cherry-pick’ supersedes the possibility of terminating open contracts and computing their values so as to form a single net obligation. Where cherry picking applies to the financial contracts covered by a netting agreement, the bundle of financial contracts intended to be covered by the netting mechanism would be disassembled and the solvent party would have to perform all contracts that are unfavourable from its perspective, whereas the favourable contract would not be performed by the insolvency administrator – ultimately, it would be exposed to the full counterparty risk. Those jurisdictions that accommodate netting tend to solve the conflict between cherry-picking and enforceability of netting agreements by disallowing the selection of isolated contracts but giving the insolvency administrator the right to decide whether the net amount is to be paid or not.

Preferences and suspect periods

National insolvency laws often contain rules allowing the insolvency administrator or a court to avoid transfers or payments that occurred prior to the opening of the insolvency proceeding, notably as unjustified preference of one or more creditors over the remaining creditors. In some jurisdictions, only transfers and payments that were made within a legally defined 'suspect period' can be voided, in other jurisdictions, no such time limit exists. In the context of netting, the danger consists in the netting being equated with performance of the obligations flowing from the financial contract. As netting agreements often define a termination event which occurs chronologically before but close to the opening of the insolvency proceeding (for example, the default of one of the parties), there is an increased likeliness of the operation of the netting mechanism falling into the scope of the aforementioned rules. Even in cases where the insolvency administrator's attempt to void the transfer or payment can subsequently be scrapped by a court, the netting agreement does not achieve its purpose of decreasing exposure to counterparties risk and avoiding contagion by the insolvency of one party of other participants in the financial market.

II. Private law implications of the regulatory moratorium

As described above, financial market regulators call for special powers over financial contracts covered by netting agreements where the automatic operation of netting would aggravate the situation of a distressed financial institution and further endanger systemic stability (*cf. supra*, page 16):

- first, there should be the power to delay the operation of netting agreements in order to avoid the immediate close-out of an enormous number of financial contracts that would destroy any effort to save a distressed financial institution;
- secondly, there should be the power to transfer the financial contracts from the distressed party to a healthy financial institution, after which a close-out of the transferred contracts should be impossible.

Several unresolved questions arise in this context. Only some of these are connected to private/insolvency law issues, and it is these that will therefore be discussed in this paper. The first, most obvious, question is whether and how the aim of promoting enforceability of netting agreements may be reconciled with the need to avoid precisely that automatism in respect of certain market participants in systemically relevant situations by imposing a regulatory stay on netting. The second question[15] concerns the recognition of a transfer of assets (on the basis of regulatory powers) by foreign jurisdictions, courts and insolvency administrators.

Cross-border consistency of regulatory safeguards

As regards the first question, the problem from the perspective of private and insolvency law is not so much the introduction of the power of moratorium itself; similar powers are common to the insolvency procedure and regulatory environment anyway. Rather, the difficulty is that of introducing the possibility of such a moratorium while avoiding the risk of undermining the beneficial effects of netting in concrete cases *and* (probably even more importantly) its reliability in general.[16]

The reconciliation of these two aspects, which are ultimately both risk mitigation tools, would require maintaining the usefulness of netting agreements to the greatest possible extent despite

---

[15] *Cf.* Basel Committee CBRG Report, para 115 and footnote 25. The report raises additional questions, notably (a) whether and how the described regulatory powers could apply to affiliates of banks which are themselves not subject to banking regulation and which engage in financial contracts (in particular derivatives). Under the current laws in place, it is highly questionable whether regulators are able to transfer contracts concluded by such an entity to a healthy entity; (b) whether insolvent counterparties or their estate should have the option to realise the benefit of 'in the money' derivatives contracts after netting. *Cf.* also Commission Staff Working Document accompanying Communication by the European Commission, An EU Framework for Cross-Border Crisis Management in the Banking Sector, 20.10.2009, document number COM(2009) 561 final, http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2009:0561:FIN:EN:PDF, page 38 para. 113.

[16] This double aim is pursued by regulators themselves, as flows from the combination of Recommendations 8 and 9 of the CGRG Report. *Cf.* HM Treasury, Special Resolution Regime, safeguards for partial property transfer, November 2008, pp. 11-14 for a discussion of solutions under UK law.

the existence of regulatory powers to preclude netting for short periods of time. Factors such as the following might contribute to giving that assurance[17]:

- the power of the regulator to halt the enforcement of the netting agreement is restricted to a relatively short timeframe (regulators discuss a timeframe of 24-48 hours);
- the financial contracts included in a netting agreement can only be transferred as a package, i.e. the netting agreement and all the contracts it covers must be transferred together, if at all;
- the termination event that occurred in the sphere of the former (now insolvent) counterparty does not produce its effect as against the new (solvent) counterparty; however, if subsequently a termination event occurs in respect of the new counterparty, the original terms of the netting agreement apply;
- where a package consisting of a netting agreement and the relevant financial contracts is *not* transferred and remains in the original counterparty's estate, the operation of the netting mechanism is preserved and allowed as from the end of the moratorium; however, there must be clarity about the process of valuation under a close-out netting agreement, because the value of an asset might change during the moratorium.

The cross-border consistency of the legal netting framework would suffer considerably if the above or similar elements were to be implemented in an uncoordinated manner, and the legal certainty regarding the enforceability of netting might even decrease as compared to the *status quo*.

Rights governed by foreign law

The second question is closely connected to the first and takes as its starting point the understanding that a netting agreement and the financial contracts it covers form a bundle that should as a rule not be dissociated. Where a regulatory authority intends to transfer such a bundle to a bridge institution, it is highly likely that some of the contracts in the bundle are governed by a foreign law[18]. Hence either the consequences of such a transfer by virtue of regulatory powers to a new party would need to be recognised under the relevant foreign law and by a foreign court, or the foreign contracts cannot be (validly) transferred and remain in the estate of the ailing bank, which would lead to dissociation.

The issue is even more apparent where the bundle of financial contracts contains property interests over movables, immovables or securities, in particular under a pledge or other security interest: the law governing a security interest derives from the location or place of the securities

---

[17] *Cf.* Basel Committee CBRG Report, pp. 40 *et seq.*

[18] *Cf.* HM Treasury, Special Resolution Regime, safeguards for partial property transfer, November 2008, p. 12 para. 2.11, analysing the concept of transfer to a bridge institution in relation to contracts which are *not* governed by a foreign law.

account respectively – and it is far from granted that this law would recognise a transfer of proprietary rights to a bridge institution by virtue of special powers of a foreign financial market authority. As a consequence, under the law governing the proprietary aspects, property rights might be left behind in the embattled entity, again entailing the disassembling of the package of financial contracts covered by the original netting agreement.

III. Assessment: the need for an international instrument

The assessment starts with a distinction: the need for an international instrument in the area of financial market law can arise from

> (i) the perception that the functioning and stability of the financial market as a whole, including both the business side *and* the task of law and supervision, are enhanced by a harmonised legal framework, and/or,
>
> (ii) the conviction that an uncoordinated legal framework poses a measurable threat to legal certainty.

By contrast, just making the life of financial market players easier is a weak case for international harmonisation.

The analysis of the preceding sections covers two spheres, i.e., the desire to enhance and promote enforceability of netting agreements on the one hand, and the proper reflection in private law of special regulatory resolution powers on the other.

Considering the aim of enhancing enforceability of netting agreements

The aim of enhanced and globally accepted enforceability of netting agreements probably resides in the first of the categories described above, i.e. it is about enhancing the functioning of the capital market as a whole. The analysis in the introductory part of this paper demonstrated, on the one hand, that enhanced enforceability produces benefits in terms of a competitive advantage to those market participants and markets that can rely on their insolvency law recognising netting, since they pose a lower counterparty risk to their partners and allow for more favourable assessment of capital requirements. Promoting and globalising enforceability would gradually extend this benefit to other participants in other markets and regions until the competitive advantage of individual markets disappeared because netting would be accepted virtually everywhere.

On the other hand, the analysis showed that enforceable netting agreements have beneficial effects on the entire financial market, as they reduce systemic risk. This is why regulatory authorities and the relevant international for a, such as the Bank for International Settlements, support netting agreements as a risk mitigation tool, and there is agreement that the more jurisdictions recognise netting, the better the protection of the global systemic stability of the financial market.

These benefits come at the price of the paradigm shift referred to earlier: liquidity is not concentrated in the insolvency estate but remains available in the market, which is ultimately a policy choice and which cannot be regarded as a substantive drawback of netting (*cf. supra*, p. 15).

Against this background, it would appear fair to say that an international instrument would be justified by the considerable benefit for the market as a whole and the absence of significant disadvantages.

By contrast, it would appear that there is no need for harmonisation to overcome specific cross-border *legal uncertainty* surrounding the issue of enforceability. Rather, any legal difficulties appear to be confined to internal inconsistencies between the general legal framework and the relatively new concept of netting. In this context, it is important that an international instrument give comprehensive and neutral guidance to those markets contemplating the introduction of netting legislation.

Considering the aim of accommodating regulatory powers in foreign private law

The attempt to accommodate, within the legal framework, the newly-developed resolution powers of regulatory authorities – temporary moratoria and transfer of the bundle of financial contracts to a bridge institution – pursues a different aim. Here, the analysis reveals that the absence of common legal standards results in legal incompatibilities with the potential to create considerable uncertainty regarding the enforceability of netting and the effectiveness of security interests. As opposed to the aspect dealt with in the preceding section, this situation is the clear outcome of *cross-border* legal inconsistencies (*cf. supra*, p. 21 *et seq.*).

Given the concrete context described above, touching among other things upon questions regarding proprietary rights and private international law, it also appears unlikely that the relevant differences between jurisdictions would disappear spontaneously without the intervention of a commonly agreed international benchmark. Moreover, an international instrument would, in addition (ideally) to removing legal inconsistencies, contribute to easing cross-border insolvency situations by improving the coordination between the home and host country authorities in respect of the legal framework in the area of netting.

Result

Both aims would appear likely to benefit from or even require the development of an international instrument. The case for the second aspect is probably even stronger than the first from the standpoint of cross-border legal certainty, whereas the first aspect is of high practical day-to-day relevance. Yet both are ultimately linked to the same basic question, i.e. the enforceability and legal effects of netting agreements in the light of most important areas of the law. This parallelism suggests that both strands, although described separately above, are in practice to a great extent naturally connected and cannot be dealt with separately. This understanding, given that the second strand addresses concrete cross-border legal inconsistencies, results in a strong case for developing an international instrument on the entire matter.

3rd Part – Guidelines for an international instrument

I. Approach

An international instrument regarding the enforceability of netting and cross-border private law effects of supervisory moratoria could be developed, in a first step, in the form of a non-binding instrument, i.e. Principles or a Model Law. In a second step, isolated issues relevant to both aspects might be addressed in a binding instrument, i.e. an international Convention.

Developing an international instrument on the legal framework for netting would probably require a mixed approach, with the final result being achieved in two steps.

The notion of a mixed approach is used here to refer to the question of whether a binding (international Convention) or non-binding (model law, principles) instrument should be envisaged. The preliminary impression suggests that work envisaging both types of instrument would be able to unlock the distinct advantages of both the binding and the non-binding approach, in respect of different areas of the subject-matter. At the same time, certain drawbacks could be avoided, in particular that of encroaching upon fundamental policy decisions taken by the various jurisdictions.

As regards the general aspects surrounding the enhancement of enforceability of netting agreements, it is important to recall that there is very little or even no specific cross-border legal uncertainty that would pose a particular risk. What is most important for the reduction of systemic risk is to achieve agreement on the core rule of enforceability. Many related elements are questions, rather, of building a common *functional* understanding on how to shape certain elements in order effectively to reinforce netting as a risk mitigation tool.

The analysis is different when it comes to the appropriate recognition in private law terms of special regulatory resolution powers: here, cross-border incompatibilities with respect to private law are quantifiable, in particular as regards proprietary aspects (collateral deposited abroad), and a binding instrument would be the most efficient solution to remove such inconsistencies. However, the questions that arise in this area concern certain policy areas where binding agreements may be difficult to achieve. Therefore, also in this context, it might be best for a very few core issues to be addressed in a binding instrument, leaving other, related issues to be dealt with in a nonbinding form.

Making a distinction between issues that may be usefully addressed in a Convention and issues better suited to regulation in the form of principles or a model law in itself already requires a certain degree of common understanding in order to reach agreement. Moreover, those private law issues involved in any new regulatory powers need to be explored further, in parallel with, and to some extent following, the evolution of the regulatory approach itself. Consequently, under a two-step approach, work could start on a non-binding instrument setting out all the material aspects, with a subsequent second phase adding a binding instrument on some crucial, isolated aspects.

II. Personal scope

An international instrument could extend to a wide range of participants in the financial market. On grounds of important policy considerations, the possibility of opt-outs should be considered.

Most jurisdictions limit the enforceability of netting agreements to certain eligible types of parties in one way or the other; banks are generally included. Other categories are covered in many, some or few jurisdictions, such as, for example, insurance companies, investment firms, partnerships, investment funds, hedge funds, proprietary traders, pension funds, central banks, public authorities, etc. Natural persons, by contrast, are usually excluded.

An international instrument cannot reflect similar considerations in its personal scope. First, there are too many reasons to restrict the scope, and policy considerations valid in one jurisdiction might not make much sense in others. Secondly, restrictions of the personal scope in the majority of cases requires categorisation of eligible and non-eligible parties ('banks', 'investment firms', 'charitable organisations', 'retail investor', 'clearing systems'). However, there is no international nomenclature in place that would allow a ready definition of relevant parties and it is unlikely that an instrument on netting would be able to include a generally accepted set of definitions of all relevant market participants. Inconsistent handling of the personal scope of an international instrument would cut away much of the legal certainty it seeks to achieve. Thirdly, as set out above, one of the main drivers for harmonisation of netting legislation is its preventive effect in terms of the systemic implications of market participants' insolvency. While it is true that the systemic argument is most obvious with respect to financial institutions, it is not conceptually confined to this category of market participant. Other types of parties that are associated to a greater (e.g. insurance companies) or lesser (e.g. carmakers) extent with financial institutions can spark similar effects through the global financial architecture if they fall insolvent and netting is not available.

An international instrument, by contrast, should, as a first step, settle on the principle of being applicable to *all* types of party. Where jurisdictions feel a strong need to shield certain parties from this area of the financial market, a first consideration should be whether the policy is regulatory in nature (e.g., certain instruments should be restricted to certain market participants) or whether it is actually founded in the environment of legal enforceability of netting as a risk mitigation mechanism. Where the policy actually has its roots in the risk mitigation environment, mechanisms would need to be developed to allow opt-outs in order to ensure that these jurisdictions can participate in a binding instrument. Yet such exemptions from the scope of the instrument will make its application more difficult and undo some of its beneficial effects in terms of certainty and systemic stability.

III. Material scope

In an international instrument, regard must be given to the characteristics of, first, the meaning of netting, secondly, which types of agreement are aimed at, and, thirdly, which types of contracts can be covered by it.

A. Netting

An international instrument will have to define the term ‘netting’. A functional definition would take as its starting point the basic elements of termination, valuation, and computation of an aggregate net amount. Article 33(3)(j) of the Geneva Securities Convention offers a first blueprint for a definition.

An international instrument addressing enforceability of netting would have to find a clear definition, also to avoid netting being interpreted differently, which would endanger a common understanding and thus undermine legal certainty. The definition of netting should refer to a mechanism under which all or some of the following elements occur:

- the netting mechanism is triggered by the occurrence (often not automatically but requiring notice by the other party) of a termination event, which can be defined under the netting agreement;
- termination of unsettled financial contracts; however, the netting agreement itself should not be terminated, so that the netting mechanism can perform properly;
- acceleration of payment and delivery obligations under these contracts so as to make them immediately due;
- valuation of the terminated contracts (other than payment obligations but extending to foreign exchange);
- computation of a net amount in a single currency reflecting the value of the terminated financial contracts as well as the mutual rights and obligations that were already due.

Article 31(3)(j) of the Geneva Securities Convention combines these elements to form a functional definition of netting and delivers a blueprint for a possible future definition used in a general instrument on netting:

> ‘Close-out netting provision’ means a provision of a collateral agreement, or of a set of connected agreements of which a collateral agreement forms part, under which, on the occurrence of an enforcement event, either or both of the following occur, or may at the election of the collateral taker occur, whether through the operation of netting or set-off or otherwise:
>
> (i) the respective obligations of the parties are accelerated so as to be immediately due and expressed as an obligation to pay an amount representing their estimated current value, or are terminated and replaced by an obligation to pay such an amount;
>
> (ii) an account is taken of what is due from each party to the other in relation to such obligations, and a net sum equal to the balance of the account is payable by the party from whom the larger amount is due to the other party.

B. Agreement

An international instrument, with a view to guaranteeing broad application, should consider a netting agreement being a privately negotiated contract, as opposed to referring solely to standardised netting agreements included in documentation provided by market associations. Special regard would need to be given to formal requirements, in particular whether it makes sense to prescribe any requirements other than that of written form. The instrument should address the issue of validity of umbrella agreements combining two or more netting agreements.

Despite the fact that netting agreements are usually part of standardised legal documentation (‘master agreements’) provided by financial market associations (*cf. supra*), the netting agreement itself is in principle a contract privately negotiated on the grounds of freedom of contract. Not much would therefore need to be said in an international instrument as regards the characteristics of the 'agreement'.

However, it might be worth considering whether the common practice tying together several master agreements between identical parties ('umbrella-agreement') merits specific definition, so as to eliminate uncertainty with respect to the validity of such umbrella agreements. This is particularly important since an umbrella agreement might also alter the terms of the bundled netting agreements. From the point of view of contractual law principles, there would seem to be no problematic issues arising from this practice. Yet it would appear to make sense to include a clarification regarding umbrella agreements since, while their mechanism does result in a computation of the amounts resulting from the operation of the netting agreements they cover, they do not on the other hand net the financial contracts themselves. In other words, an umbrella agreement permits a further netting to occur after netting has taken place under each individual netting agreement.

As netting agreements are supposed to be valid in the event of insolvency of one of the parties, they have some impact on third parties, notably the unsecured creditors in an insolvency proceeding (*cf. supra*). Consequently, consideration might be given to evidentiary requirements. However, in a cross-border context, requirements such as notarisation, registration or filing with a public register risk being mishandled because they are not harmonised. Mishandling any filing or similar procedure may result in instant invalidity of the netting agreement on formal grounds even where the parties unanimously agree with its terms. Where such a defect is not detected until the moment in which one of the parties defaults, the resulting damage is potentially disastrous. An international instrument should therefore settle on netting agreements being evidenced in writing or in any legally equivalent manner, this latter element being important so as to include not only e-mail but also electronic messaging applied within settlement systems or similar networks of market participants.

C. Financial contracts

An international instrument should be broad-based, allowing netting agreements to include all types of financial contract. In defining the term 'financial contract', all options should be discussed, i.e. whether a comprehensive list, a generic, functional description or a combination of both should be contemplated.

There are basically two questions: first, which types of financial contract should be covered, and, secondly, which technique should be employed in defining that material scope in an international instrument.

The need to cater for the enforceability of netting arrangements is probably most urgently felt in relation to repurchase agreements and derivatives. The background to this is that, flowing from the logic inherent in such instruments, the credit risk associated with such contracts and hence, the potential exposure in the event of default of the counterparty, may be particularly high. However, derivatives and repos are not the only financial contracts where the reduction of counterparty credit risk makes sense. There are several other types of financial contract that are characterised by the phenomenon of life-threatening gross and much smaller net exposure that could be absorbed in the event of counterparty failure.

To counter this, it is advisable to opt for the inclusion of the entire range of financial contracts, in particular:

- derivatives
- sale, repurchase and lending agreements relating to securities or commodities;
- agreements providing collateral or security;
- agreements regarding the maintenance of financial instruments in accounts for the counterparty, on clearing and settlement of financial instruments or on safekeeping of physical certificates[19].

It is particularly important to give thought to the possibility of including collateral arrangements in the range of eligible financial contracts.[20] If these are included, the law would allow collateral

---

[19] In the context of clearing, settlement and safekeeping of financial instruments, great attention needs to be paid to the conflict-of-laws regime. The law applicable to the safekeeping etc. of securities ('proprietary aspects') is in many jurisdictions determined in accordance with the *lex rei sitae* principle, which differs from conflict-of-laws rules applicable to contracts. Consequently, the inclusion of this type of arrangement containing proprietary aspects as eligible financial contracts in a netting agreement cannot influence the distinction in respect of conflict-of-laws and therefore cannot alter the substantive law governing the holding and disposition of securities. Similar considerations apply to dispositions effected under a lending agreement.

[20] Articles 2(1)(n) and 7 of the EU Financial Collateral Directive contain a specific rule protecting (only) collateral provided on the basis of a title transfer. Cash or securities provided under such a title-transfer collateral agreement can be included in the netting mechanism together with the secured claims. The Directive's scope relating to netting is therefore limited and netting is not generally protected under EU law, which leads to a heterogeneous picture regarding the accommodation of netting in the EU. Some jurisdictions do not extend the enforceability of netting agreements beyond their use in connection with a collateral arrangement; other jurisdictions allow netting in a much broader manner.

provided in connection with a netting agreement to be itself included in the close-out mechanism. Otherwise, the underlying financial contracts would be subject to netting and result in one single payment obligation, whereas the collateral provided in connection with the underlying contracts (and these may potentially represent huge amounts) would need to be wound up separately. However, the intention is not to change the requirements for validity and enforceability of collateral interests. Therefore, the possibility of including related collateral arrangements in the netting agreement applies only to those collateral interests established in accordance with the applicable law.

The second issue relates to the technical definition of the material scope of eligible contracts. Although there is a common understanding in the financial market regarding the content of the various financial contracts listed above, the legal terminology in this area is heterogeneous. An international instrument would therefore need to take a consistent approach in setting out the material scope of eligible contracts – uncertainty regarding the scope could easily translate into uncertainty as to whether the netting agreement is enforceable or not.

There are basically three options to define the material scope as covering all financial contracts.

The first option is a generic clause combining the description of the categories of agreement with a description of the substrate of the agreement. Categories would include in particular derivatives (options, futures, swaps, forwards and suchlike), sale, repurchase, lending, provision of collateral, and acceptance for clearing, settlement or safekeeping. The substrate of the agreement commonly relates to the categories of foreign currency, securities (shares, bonds), commodities including metals, indices, prices (emission allowances, freight rates, etc.), and other elements (credit default, weather, etc.).

The second option would consist in setting out a comprehensive list of all financial contracts that are currently in common use in the financial markets.

The third option would be to refer the task of defining which types of financial contract are covered to the national competent authorities such as central banks and supervisory authorities.

Any of these three options entail advantages and disadvantages in terms of certainty of interpretation, consistency of coverage and flexibility to accommodate new market developments. Whereas the third option probably offers the best results in terms of certainty of material scope, it is also liable to produce a very high degree of inconsistency since the different national authorities may take a narrower or wider view of what the scope is, so that the global view of the material scope may end up resembling a patchwork. The second option would provide for a consistent scope, but the terms employed in the definitions, which are basically market terms, would be open to some residual margin of interpretation, and as netting agreements are privately negotiated, the definitions in a list provided by market associations are likewise open to amendment. Furthermore, a fixed list would be unable to accommodate new market developments. This last problem can only be countered by providing an opening clause in addition to the list of financial contracts. Such an opening clause would in its substance correspond to a generic description of the material scope, which is the first option.

Ultimately, therefore, a generic definition is probably the appropriate solution, and a detailed list of known financial contracts should rather figure in any explanatory text that might accompany the instrument. In developing the definition, great attention will have to be paid to neutrality of language and functionality of concepts, since market terms such as, for example, 'forward' or 'spot' might be interpreted differently in different jurisdictions.

IV. The principle of enforceability of netting agreements

An international instrument could have as one of its centrepieces a rule protecting the enforceability of netting agreements in both insolvency and pre-insolvency situations. There are various possible approaches and Article 33(1) and (3) of the Geneva Securities Convention might serve as a blueprint for such a rule.

Enhancing the enforceability of netting agreements aims primarily at the case of insolvency of the counterparty. However, despite the fact that insolvency netting is the most prominent situation, it would need to be made clear that netting agreements should also be enforceable outside an insolvency proceeding.

Attempts have been made to achieve this result by means of a conflict-of-laws mechanism. For example, Article 25 of the EU Banks Winding Up Directive prescribes that 'netting agreements shall be governed solely by the law of the contract that governs such agreements'. However, the main legal risks affecting the enforceability of netting agreements arise under the insolvency law applicable to a defaulting counterparty, rather than the governing law of the contract. Therefore, the aforementioned approach is not sufficiently clear as to whether instruments available under the insolvency procedure of the *lex concursus* are effectively ruled out. At the same time, the law governing the netting agreement is not necessarily netting-friendly, and the interaction between this law and the *lex concursus* is not certain. Thus, this approach, unless clarified, appears unsatisfactory for the purpose of overcoming obstacles to the enforceability of netting agreements in insolvency.[21]

A first possible approach to harmonising the substantive law would consist in specifying, on a case-by-case basis, which legal rules (insolvency procedure and others) should not prejudice the enforceability of netting agreements. The clear advantage of this approach would be that all intended consequences, i.e., which general legal rules would be overridden by the enforceability of netting agreements, would be written black on white in the law.

Another approach would be to include in the substantive law a general provision that the enforceability of netting agreements is not precluded by *any rule* of the law, including insolvency law. The clear advantage of this approach would be that there would be no risk of failing to list one or other problematic rule. It is this approach that was adopted in Chapter 5 of the Geneva Securities Convention, since its Article 33(1), (3) prescribes that:

[21] *European Financial Markets Lawyers Group (EFMLG)*, Protection for bilateral insolvency set-off and netting agreements under EC law, October 2004, para. 134.

> ‘at the occurrence of an enforcement event […] a close-out netting provision may be operated’; *and*
>
> ‘[…] a close out provision may be operated […] notwithstanding the commencement or continuation of an insolvency proceeding in relation to the collateral provider or the collateral taker.’

Consideration might be given to the idea that an international instrument focusing solely on netting might benefit from achieving both, illustration through enumeration in order to facilitate a common understanding of potentially problematic situations, based on a general rule guaranteeing comprehensiveness.

Insofar as the term ‘insolvency proceeding’ would need to be specified, an international instrument should opt for a wide definition. Given the closeness of the subject-matter, the definition of insolvency agreed upon in the Geneva Securities Convention appears to be a good starting point.

V. Enforceability against a multi-branch counterparty

An international instrument could develop mechanisms capable of improving the enforceability of a netting agreement against a multi-branch entity in the jurisdiction where the insolvency proceeding was opened, by alleviating the effects of ring-fencing in the context of resolution measures in respect of a foreign branch.

As long as such a multi-branch entity is solvent, multi-branch netting does not seem to pose any particular legal difficulties. However, as soon as a multi-branch counterparty becomes insolvent, the enforceability of the netting agreement very much depends on the consistent interaction of the different insolvency laws that might be applicable to the head office and its foreign branches, in particular where separate insolvency proceedings are opened in two or more jurisdictions.

Some jurisdictions provide for ring-fencing of the assets and/or liabilities of an insolvent local branch of a foreign entity. Where assets are ring-fenced, they may be ‘torn out’ of the bundle of financial contracts included under a netting agreement, which might block the netting mechanism or render it worthless. Consequently, in order to improve the functioning of cross-border multi-branch netting agreements, the possibility of domestic limitations on ring-fencing of rights flowing from a financial contract included in a multi-branch netting agreement should be explored.

VI. Accommodation of regulatory powers

An international instrument could develop rules to guarantee that a moratorium imposed by a public authority on the enforceability of netting agreements and the transfer of a bundle of financial contracts to a solvent bridge institution are properly recognised by the private and insolvency law foreign to the jurisdiction under which the moratorium is imposed and/or under which the transfer is effected. Such a solution would probably need to combine conflict-of-laws and substantive law provisions.

Newly developed regulatory powers in the context of the resolution of financial institutions as described above carry the risk that the rights of the solvent parties or third parties might be affected by a moratorium on netting agreements or by the transfer to a solvent bridge institution of all financial contracts bundled under a netting agreement. In a purely domestic context, national law could relatively easily resolve these problems, as the law providing for the special regulatory powers would simultaneously state the private and insolvency law effects of both moratorium and transfer, providing for a framework that is coherent from the domestic point of view.

However, some financial contracts that include proprietary aspects might be governed by a foreign law, depending on the applicable conflict-of-laws rule. Certain jurisdictions might allow for an analysis under which the transfer of such financial contracts forms part of the transfer of the entire estate and apply the law to which the estate has the closest connection. Others might, as regards in particular proprietary aspects, follow different rules, e.g. the *lex rei sitae* principle (or in relation to intermediated securities, the *place of the relevant intermediary* principle) under which the foreign law would be applicable.

Moreover, in the event of a cross-border insolvency, there might be the complication of simultaneous application of the universality and territoriality principles on the respective sides of the border. The solution here probably lies in a combination of substantive law harmonisation and accommodation of the differences in conflict-of-laws rules. An international instrument would need, as a first step, to identify combined solutions in this sense. As the relevant issues are unlikely to be solved on a non-binding basis, consideration should be given to the development of a binding Convention on this matter.

* * *

WORKING PAPERS

1	Andreas Cahn	Verwaltungsbefugnisse der Bundesanstalt für Finanzdienstleistungsaufsicht im Übernahmerecht und Rechtsschutz Betroffener (publ. in: ZHR 167 [2003], 262 ff.)
2	Axel Nawrath	Rahmenbedingungen für den Finanzplatz Deutschland: Ziele und Aufgaben der Politik, insbesondere des Bundesministeriums der Finanzen
3	Michael Senger	Die Begrenzung von qualifizierten Beteiligungen nach § 12 Abs. 1 KWG (publ. in: WM 2003, 1697-1705)
4	Georg Dreyling	Bedeutung internationaler Gremien für die Fortentwicklung des Finanzplatzes Deutschland
5	Matthias Berger	Das Vierte Finanzmarktförderungsgesetz – Schwerpunkt Börsen- und Wertpapierrecht
6	Felicitas Linden	Die europäische Wertpapierdienstleistungsrichtlinie-Herausforderungen bei der Gestaltung der Richtlinie
7	Michael Findeisen	Nationale und internationale Maßnahmen gegen die Geldwäsche und die Finanzierung des Terrorismus – ein Instrument zur Sicherstellung der Stabilität der Finanzmärkte
8	Regina Nößner	Kurs- und Marktpreismanipulation – Gratwanderung zwischen wirtschaftlich sinnvollem und strafrechtlich relevantem Verhalten
9	Franklin R. Edwards	The Regulation of Hedge Funds: Financial Stability and Investor Protection (publ. in: Baums/Cahn [Hrsg.] Hedge Funds, Risks and Regulation, 2004, S. 30 ff.)
10	Ashley Kovas	Should Hedge Fund Products be marketed to Retail Investors? A balancing Act for Regulators (publ. in: Baums/Cahn [Hrsg.] Hedge Funds, Risks and Regulation, 2004, S. 91 ff.)
11	Marcia L. MacHarg	Waking up to Hedge Funds: Is U.S. Regulation Taking a New Direction? (publ. in: Baums/Cahn [Hrsg.] Hedge Funds, Risks and Regulation, 2004, S. 55 ff.)

23	Jürgen Than	Rechtsfragen bei der Festlegung von Emissionsbedingungen für Schuldverschreibungen unter besonderer Berücksichtigung der Dematerialisierung und des Depotgesetzes (publ. in: Baums/Cahn [Hrsg.] Die Reform des Schuldverschreibungsrechts, 2004, S. 3 ff.)
24	Philipp von Randow	Inhaltskontrolle von Emissionsbedingungen (publ. in: Baums/Cahn [Hrsg.] Die Reform des Schuldverschreibungsrechts, 2004, S. 25 ff.)
25	Hannes Schneider	Die Änderung von Anleihebedingungen durch Beschluß der Gläubiger (publ. in: Baums/Cahn [Hrsg.] Die Reform des Schuldverschreibungsrechts, 2004, S. 69 ff.)
26	Hans-Gert Vogel	Die Stellung des Anleihetreuhänders nach deutschem Recht (publ. in: Baums/Cahn [Hrsg.] Die Reform des Schuldverschreibungsrechts, 2004, S. 94 ff.)
27	Georg Maier-Reimer	Rechtsfragen der Restrukturierung, insbesondere der Ersetzung des Schuldners (publ. in: Baums/Cahn [Hrsg.] Die Reform des Schuldverschreibungsrechts, 2004, S. 129 ff.)
28	Christoph Keller	Umschuldung von Staatenanleihen unter Berücksichtigung der Problematik einer Aggregation aller Anleihegläubiger (publ. in: Baums/Cahn [Hrsg.] Die Reform des Schuldverschreibungsrechts, 2004, S. 157 ff.)
29	René Bösch	Die Emission von Schuldverschreibungen nach schweizerischem Recht – ein Rechtsvergleich mit dem geplanten deutschen Schuldverschreibungsrecht (publ. in: Baums/Cahn [Hrsg.] Die Reform des Schuldverschreibungsrechts, 2004, S. 189 ff.)
30	Lachlan Burn	Bond Issues under U.K. law: How the proposed German Legislation compares (publ. in: Baums/Cahn [Hrsg.] Die Reform des Schuldverschreibungsrechts, 2004, S. 219 ff.)
31	Patrick S. Kenadjian	Bond Issues under New York and U.S. Law: Considerations for the German Law Maker from a U.S. Perspective (publ. in: Baums/Cahn [Hrsg.] Die Reform des Schuldverschreibungsrechts, 2004, S. 245 ff.)

32	Andreas Cahn	Bankgeheimnis und Forderungsverwertung (publ. in: WM 2004, 2041 ff.)
33	Michael Senger	Kapitalkonsolidierung im Bankkonzern (publ. in: Der Konzern 2005, S. 201 ff.)
34	Andreas Cahn	Das neue Insiderrecht (publ. in: Der Konzern 2005, 5 ff.)
35	Helmut Siekmann	Die Unabhängigkeit von EZB und Bundesbank nach dem geltenden Recht und dem Vertrag über eine Verfassung für Europa
36	Michael Senger	Gemeinschaftsunternehmen nach dem Kreditwesengesetz
37	Andreas Cahn	Gesellschafterfremdfinanzierung und Eigenkapitalersatz (publ. in: Die AG 2005, S. 217 ff.)
38	Helmut Siekmann	Die Verwendung des Gewinns der Europäischen Zentralbank und der Bundesbank
39	Guido Ferrarini	Contract Standards and the Markets in Financial Instruments Directive (MiFID): An Assessment of the Lamfalussy Regulatory Architecture (publ. in: European Contract Law Review 2005, p. 19)
40	David C. Donald	Shareholder Voice and Its Opponents (publ. in: The Journal of Corporate Law Studies, Vol. 5, Issue 2, 2005)
41	John Armour	Who should make Corporate Law? EC Legislation versus Regulatory Competition (publ. in: 58 Current Legal Problems [2005], p. 369 ff.)
42	David C. Donald	The Laws Governing Corporations formed under the Delaware and the German Corporate Statutes
43	Garry J. Schinasi/ Pedro Gustavo Teixeira	The Lender of the Last Resort in the European Single Financial Market (publ. in: Cross Border Banking: Regulatory Challenges, Gerard Caprio Jr., Douglas D. Evanoff, George G. Kaufman eds., 2006)
44	Ashley Kovas	UCITS – Past, Present and Future in a World of Increasing Product Diversity

45	Rick Verhagen	A New Conflict Rule for Securitization and other Cross-Border Assignments – A potential threat from Europe (publ. in: Lloyd's Maritime and Commercial Law Quaterly 2006, p. 270)
46	Jochem Reichert/ Michael Senger	Berichtspflicht des Vorstands und Rechtsschutz der Aktionäre gegen Beschlüsse der Verwaltung über die Ausnutzung eines genehmigten Kapitals im Wege der allgemeinen Feststellungsklage (publ. in: Der Konzern 2006, S. 338 ff.)
47	Guido A. Ferrarini	One Share – One Vote: A European Rule? (publ. in: European Company and Financial Law Review 2006, p. 147)
48	Theodor Baums	Die Fremdkapitalfinanzierung der Aktiengesellschaft durch das Publikum (publ. in: Bayer/Habersack (eds.), Aktienrecht im Wandel der Zeit, Vol. 2, 2007, 952 ff.)
49	Ulrich Segna	Anspruch auf Einrichtung eines Girokontos aufgrund der ZKA-Empfehlung „Girokonto für jedermann"? (publ. in: BKR 2006, S. 274 ff.)
50	Andreas Cahn	Eigene Aktien und gegenseitige Beteiligungen (publ. in: Bayer/Habersack [Hrsg.] Aktienrecht im Wandel, Band II, 2007, S. 763 ff.)
51	Hannes Klühs/ Roland Schmidtbleicher	Beteiligungstransparenz im Aktienregister von REIT-Gesellschaften (publ. in: ZIP 2006, S. 1805 ff.)
52	Theodor Baums	Umwandlung und Umtausch von Finanzinstrumenten im Aktien- und Kapitalmarktrecht (publ. in: Festschrift für Canaris, Bd. II, 2007, S. 3 ff.)
53	Stefan Simon/ Daniel Rubner	Die Umsetzung der Richtlinie über grenzüberschreitende Verschmelzungen ins deutsche Recht (publ. in: Der Konzern 2006, S. 835 ff.)
54	Jochem Reichert	Die SE als Gestaltungsinstrument für grenzüberschreitende Umstrukturierungen (publ. in: Der Konzern 2006, S. 821 ff.)
55	Peter Kindler	Der Wegzug von Gesellschaften in Europa (publ. in: Der Konzern 2006, S. 811 ff.)

56	Christian E. Decher	Grenzüberschreitende Umstrukturierungen jenseits von SE und Verschmelzungsrichtlinie (publ. in: Der Konzern 2006, S. 805 ff.)
57	Theodor Baums	Aktuelle Entwicklungen im Europäischen Gesellschaftsrecht (publ. in: Die AG 2007, S. 57 ff.)
58	Theodor Baums	European Company Law beyond the 2003 Action Plan (publ. in: European Business Organization Law Review Vol. 8, 2007, 143 ff.)
59	Andreas Cahn/ Jürgen Götz	Ad-hoc-Publizität und Regelberichterstattung (publ. in: Die AG 2007, S. 221 ff.)
60	Roland Schmidtbleicher/ Anh-Duc Cordalis	„Defensive bids" für Staatsanleihen – eine Marktmanipulation? (publ. in: ZBB 2007, 124-129)
61	Andreas Cahn	Die Auswirkungen der Kapitaländerungsrichtlinie auf den Erwerb eigener Aktien (publ. in: Der Konzern 2007, S. 385)
62	Theodor Baums	Rechtsfragen der Innenfinanzierung im Aktienrecht
63	Theodor Baums	The Law of Corporate Finance in Europe – An Essay (publ. in: Krüger Andersen/Engsig Soerensen [Hrsg.], Company Law and Finance 2008, S. 31 ff.)
64	Oliver Stettes	Unternehmensmitbestimmung in Deutschland – Vorteil oder Ballast im Standortwettbewerb? (publ. in: Die AG 2007, S. 611 ff.)
65	Theodor Baums/ Astrid Keinath/ Daniel Gajek	Fortschritte bei Klagen gegen Hauptversammlungsbeschlüsse? Eine empirische Studie (publ. in: ZIP 2007, S. 1629 ff.)
66	Stefan Brass/ Thomas Tiedemann	Die zentrale Gegenpartei beim unzulässigen Erwerb eigener Aktien (publ. in: ZBB 2007, S. 257 ff.)
67	Theodor Baums	Zur Deregulierung des Depotstimmrechts (publ. in: ZHR 2007 [171], S. 599 ff.)
68	David C. Donald	The Rise and Effects of the Indirect Holding System: How Corporate America ceded its Shareholders to Intermediaries

69	Andreas Cahn	Das Wettbewerbsverbot des Vorstands in der AG & Co. KG (publ. in: Der Konzern 2007, S. 716 ff.)
70	Theodor Baums/ Florian Drinhausen	Weitere Reform des Rechts der Anfechtung von Hauptversammlungsbeschlüssen (publ. in: ZIP 2008, S. 145 ff.)
71	David C. Donald	Die Übertragung von Kapitalmarktpapieren nach dem US-Amerikanischen *Uniform Commercial Code* (UCC)
72	Tim Florstedt	Zum Ordnungswert des § 136 InsO (publ. in: ZInsO 2007, S. 914 ff.)
73	Melanie Döge/ Stefan Jobst	Abmahnung von GmbH-Geschäftsführern in befristeten Anstellungsverhältnissen (publ. in: GmbHR 2008, S. 527 ff.)
74	Roland Schmidtbleicher	Das „neue" acting in concert – ein Fall für den EuGH? (publ. in: Die AG 2008, S. 73 ff.)
75	Theodor Baums	Europäische Modellgesetze im Gesellschaftsrecht (publ. in: Kley/Leven/Rudolph/Schneider [Hrsg.], Aktie und Kapitalmarkt. Anlegerschutz, Unternehmensfinanzierung und Finanzplatz, 2008, S. 525 ff)
76	Andreas Cahn/ Nicolas Ostler	Eigene Aktien und Wertpapierleihe (publ. in: Die AG 2008, S. 221 ff.)
77	David C. Donald	Approaching Comparative Company Law
78	Theodor Baums/ Paul Krüger Andersen	The European Model Company Law Act Project (publ. in: Tison/de Wulf/van der Elst/Steennot [eds.], Perspectives ind Company Law and Financial Regulation. Essays in Honour of Eddy Wymeersch, 2009, S. 5 ff.)
79	Theodor Baums	« Lois modèles » européennes en droit des sociétés (publ. in : Revue des Sociétés 2008, S. 81 ff.)
80	Ulrich Segna	Irrungen und Wirrungen im Umgang mit den §§ 21 ff. WpHG und § 244 AktG (publ. in : Die AG 2008, S. 311 ff.)

107	Matthias Döll	„Say on Pay: Ein Blick ins Ausland und auf die neue Deutsche Regelung“
108	Kenneth E. Scott	Lessons from the Crisis
109	Guido Ferrarini Niamh Moloney Maria Cristina Ungureanu	Understanding Director's Pay in Europe: A Comparative and Empirical Analysis
110	Fabio Recine Pedro Gustavo Teixeira	The new financial stability architecture in the EU
111	Theodor Baums	Die Unabhängigkeit des Vergütungsberaters
112	Julia Redenius-Hövermann	Zur Frauenquote im Aufsichtsrat
113	Theodor Baums Thierry Bonneau André Prüm	The electronic exchange of information and respect for private life, banking secrecy and the free internal market
114	Tim Florstedt	Fristen und Termine im Recht der Hauptversammlung
115	Tim Florstedt	Zur organhaftungsrechtlichen Aufarbeitung der Finanzmarktkrise - Bemerkungen zum Beschluss des OLG Düsseldorf ZIP 2010, 28 (IKB Deutsche Industriebank AG)

Institute for Law and Finance

Prof. Dr. Theodor Baums
Prof. Dr. Andreas Cahn

Institute for Law and Finance

im House of Finance der Goethe-Universität Frankfurt

Campus Westend – Grüneburgplatz 1

D-60323 Frankfurt am Main

Tel: +49 (0)69 / 798-33753

Fax: +49 (0)69 / 798-33929

www.ilf-frankfurt.de

INSTITUTE FOR LAW AND FINANCE
GOETHE-UNIVERSITÄT FRANKFURT AM MAIN