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Systemic Risk and Securities Transactions

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Note by the author: This paper reflects personal opinions that cannot be attributed to any of the institutions the author is connected with.

Systemic risk is usually dealt with in the context of banks causing considerable damage to the financial system as a consequence of their failure. This is the debate about the SIFIs and the G-Sifis. However, all financial institutions of a certain dimension can cause damage to the overall system. And even smaller ones may trigger such a loss of confidence that market participants adapt their behaviour accordingly.¹

In this paper we will focus on securities related cases where systemic risk can manifest itself. The analysis is far from comprehensive, as the issues that will be mentioned here may also show up in the insurance field, and – more and more discussed these days – in the so-called "shadow banking" system. Therefore it is important to identify the parameters of the investigation: what is systemic risk, and where do we see systemic risk being present in connection with securities matters.

Systemic risk is defined in many ways, but a workable definition could run as follows "a risk to disruption of financial services that (i) is caused by an impairment of all or parts of the financial system and (ii) has the potential to have serious negative consequences for the real economy.² Often this consequence is an immediate danger of collapse of whole or part of the system or at least serious damage to it.

It is useful to remind that although related systemic importance is different from systemic risk. There are numerous occurrences that have systemic importance, as potentially contributing factors to a large business disruption, but usually these are actively monitored and countervailing measures are put in place to avoid degeneration in a wider crisis. These occurrences can be seen as steps that may develop into a systemic crisis under specific circumstances, whether of frequency, amplitude, or environment. They are the early warning of the build up of a dangerous situation and deserve close attention. Therefore, an issue to be discussed later is when and how much attention has to be given to these events of systemic importance that absent other factors may never develop into a systemic crisis.

Systemic events usually start at the national level but easily morph into a regional, or even a worldwide crisis. Their local origin – think about the US real estate crisis and the CDOs – makes them difficult to identify, and often they are the trigger of deeper, unrecognised unbalances. The amplitude of the resulting crisis means that one is likely to meet significant systemic events in the activities of large financial institutions or markets, but one should not exclude a relatively small institution or an unimportant market segment to be a root cause of a much wider systemic development.

¹ Among the more striking events straight at the beginning of the public phase of the financial crisis was the publication, in August 2007, that a major French bank was suspending the redemption at two of investment funds, causing a major shock in the markets and obliging the ECB to administer strong medicine in the form of a billion liquidity line.

² Guidance to assess the Systemic Importance of Financial Institutions, Markets and Instruments: Initial Considerations and Background paper, Report to G-20 Finance Ministers and Governors FSB, IMF, BIS, October 2009

A crisis can be negligible at the worldwide level, but utterly destructive in the state where it occurs: the Iceland financial collapse is a good illustration where a whole, albeit small nation came under very severe stress due to a bubble caused by local banks. But the opposite is also true: some countries like Japan and China were not immediately affected by the present financial crisis that mainly hit the Western states.

There is also a cross sectoral aspect: a crisis may develop in one segment of the financial system, but not necessarily extend to others, although usually contagion cannot be avoided. The relationship between banking and securities is very different in the US from Europe and hence crises would spill over in different ways. The insurance sector has largely been spared the horrors of the crisis, but I would hesitate to go as far as IAIS that stated that with today's low interest rates, most of the insurance world is not exposed to systemic risk.³

Systemic risk is a mutant: it often arises out of other risks, such as operational risk, credit risk, or liquidity risk, and usually results from a combination of factors what makes it misleading as a specific cause, and even more difficult to recognise in time: the present link between private credit risk and sovereign risk is a good example. The number of causes that have been put forward for explaining the present financial crisis illustrate how difficult it is to obtain an overall view, even less a generally valid explanation. Also the channels for the transmission of potentially systemic events are very diverse: valuation issues – "bubbles" – are at the basis of a systemic crisis, but they are notably difficult to identify and the further transmission to the wider financial system takes places through a wide variety of instruments, such as defaults, valuations – including accounting rules –, ratings, liquidity shortages, pro-cyclical requirements, regulatory deficiencies, and so on.

In the securities field- as in banking - systemic risk may be related on the one hand to the sheer volume of the transactions or risks that move through the markets, on the other to interconnectedness of the different market segments. The diversity of event that have systemic relevance prevent the formulation of a single approach. Therefore it looked preferable to list a number of well known events that were of a systemic nature, even if countervailing measures have avoided the ultimate risk to materialise.

With respect to the volume criterion, LTCM is the first case where a non-bank threatened to create a major systemic risk, related among others to the dominant position of that investment fund in specific market segments, and the interconnectedness of its positions with market participants all over the developed financial world. Among the lessons that are still being drawn from this case is the need to oversee hedge funds with respect to their market positions and the risks from their balance sheet⁴, but also the need to create a protective system in case of collapse. We know that thanks to the efforts of Bill McDonough, at that time chairman of the NY Fed, the NY banks have accepted to support the fund and avoid the meltdown that probably might have resulted.

³ Handelsblatt 7 februar 2012; Peter Braumüller, Chairman of the IAIS Financial Stability Committee, noted: "Based on in- formation analysed to date, for most lines of business there is little evidence that traditional insurance generates or amplifies systemic risk within the financial system or the real econo- my. However, supervisors need to monitor very closely those insurance activities that deviate from the traditional insurance business model." He added: "The differences in the impact of failures of insurers and banks should be reflected in the measures applied." IAIS press release 15 Nov 2011

 $^{^{}f 4}$ This has been initiated in the Alternative Investment Fund Directive 2011/61 Of 8 June 2011.

According to the information available the LTCM problems stand as a model for many other similar cases: overleveraged, freeze in the market, small capital base, and I may add use of mathematical risk models, highly sophisticated but obviously not very reliable. We have known other examples of people's stultifying admiration for mathematical models.

At the beginning of 1998, the firm had equity of \$4.72 billion and had borrowed over \$124.5 billion with assets of around \$129 billion, for a debt to equity ratio of over 25 to 1. It had off-balance sheet derivative positions with a notional value of approximately \$1.25 trillion, most of which were in interest rate derivatives such as interest rate swaps. The fund also invested in other derivatives such as equity options. In May and June 1998 returns from the fund were -6.42% and -10.14% respectively, reducing LTCM's capital by \$461 million. The Russian financial crisis and its investment is gas derivatives had played an important role in its demise.

Similar cases have occurred in the Money Market Fund segment, where due to the Lehman collapse, some funds in the US were unable to keep up the nominal value of each share to \$ 1: "breaking the buck", creating panic when investors started to draw down their investments, leading to a considerable shortage in liquidity, while at the same time assets were being dumped in the market leading to further losses ("fire sale"), and especially a general loss of confidence in money market funds. This case illustrates that systemic risk exist both at the asset and at the liability side, while the origin of the risk is due to a third cause ("Lehman"), leading to a widespread loss of confidence from investors and their subsequent flight in other assets. The fund was saved by the Treasury that set up a 50 bn Exchange Stabilisation Fund in September 2008. The protections that were introduced in 2008 have not been extended. But as a consequence, MMFs refused to further buy CPs, leading to an acute liquidity crunch.

Transactions in the markets may also contain considerable systemic risks: the "flash crash" of May 6, 2010 is an extreme illustration of the dangers of algorithmic trading and how a relatively small order distorted the market: an unusually large number of E-Mini S&P 500 contracts first exhausted available buyers, and leading to high-frequency traders (HFT) aggressively selling, resulting in a 1000 point fall in the DJIA index, or 9 %, recovering 600 points within 20 minutes. This very wild gyration – which still has not lead to regulatory action for lack of clarity about the causes for contains lessons about the need to introduce price breaker instruments, has triggered the debate about algorithmic trading, the interconnectedness of markets and the needs for efficient transparency in the markets.

The Madoff case contains many lessons for investors, intermediaries and regulators alike. One could argue whether the case was systemic- after all it was about \$ 60 bn - but at least some aspects should draw our attention. On the risk side, one could see that financial institutions have to undertake due diligence before going at sea with someone. The disappearance of the securities should have been found out, as a simple verification with DTCC would have revealed the truth. It might be discussed whose responsibility this was, but as a consequence the AIFMD and UCITS 5 directive will hold the single depository bank liable for the restitution of the securities on the basis of a strict liability, a powerful incentive on hopes.

⁵ The Asset-Backed Commercial Paper Money Mutual Fund Liquidity Facility and the less-used Money Market Investor Funding Facility

⁶ See M. Buchanan, Flash-Crash Story Looks More Like a Fairy Tale, Bloomberg View, May 8, 2012. Circuit breakers were introduced, or rather reactivated.

⁷ For a good journalistic overview of this case, see D.B. Henriques, Bernie Madoff, the Wizard of Lies, Times books 2011

Collateral is the name of the day: trust has disappeared and all regulations require collateral. Provided it is of good quality, has been correctly valued and received the necessary haircuts, collateral offers of course security in a flexible and efficient way. But some preoccupations should be mentioned.

Indirectly related is the use of client securities e.g. for constituting collateral. The practice has popped up in the Lehman case, and still is one of the controversial items in today's practice. In case of the Lehman insolvency, the collateral protection was not very effective, as the securities remain blocking in the hands of the receiver.

At least, it has now been clear that securities may not be re-used except with the client's consent. How this consent has to be secured if open for discussion: it should in my view be formal, explicit, and conspicuous in the standard contract forms, and not hidden somewhere in the general contract clauses. If in a ongoing financial activity, re-use among professionals can be admitted, it is much more controversial for securities of institutional investors, investment funds, pension funds and the like, as their beneficiaries often are unaware about re-use and precise meaning of exotic terms like "re-hypothecation". Once the disappearance of the collateralised securities is discovered, this event is likely to trigger big waves of distrust. Therefore it is useful to bring clarity in this matter, what is now being done in some regulation such as MIFID 2 8.

Directly related is securities lending: there can be no doubt that this practice is needed for the smooth functioning of the markets, and especially also for the settlement of transactions, but here again the counterparty risk should have been clearly subscribed by the beneficiary of the assets^{9.} The FSB identified several areas where financial stability issues might be raised in connection with securities lending, and I just reproduce the headers of the seven points of attention

- Lack of transparency, esp. macro-level data, corporate disclosures, risk reporting by intermediaries
- Pro-cyclicality of system leverage / interconnectedness
- Collateral re-use
- Fire sale of collateral
- Agent lender practices
- Shadow banking through cash collateral reinvestment
- Inefficient strictness in collateral valuation and management

One might add the omnipresent reliance on collateral, as all risks are mitigated these days by requiring collateral, mostly highest quality, and one can fear of the kind that it is not always available. Obviously the quality of the debtor has been abandoned as a criterion in assessing credit risk. Should this evolution also be attributed to the demise of the CRAs?

Whether re-use is a solution? Maybe one should look more closely to the risks that are being mitigated and how those can be more adequately identified, evaluated and if possible avoided. Collateral gives comfort but often expensive comfort, both in micro and in macro terms.

⁸ See directive, Commission proposal, doc 20.10.2011

⁹ See about these issues: FSB, Securities Lending and Repos: Market Overview and Financial Stability Issues, 27 April 2012.

The increasing widespread use of electronic trading may also be a cause of considerable risks. Although I have no knowledge of similar issues in other market segments, one can imagine that with securities markets – now even bond markets – becoming increasingly screen based, new types of incidents are not unlikely to happen. Considerable trading losses may occur as a consequence of a "fat finger", or a insufficiently monitored trading position, notwithstanding the electronic trading bards that should have worked. The case of the "rogue traders" could be mentioned here although the risk is not so much an operational risk as a deficiency in the risk management tools. On the background one hears the voices of Vickers and Volcker; these huge losses obviously occur in the proprietary desk within the bank.

We know that much of the regulation now being introduced in the derivative markets is driven by systemic concerns. There are several aspects that can be mentioned here: at the beginning of the Greek bond crisis, the regulators feared that "speculators" would short Greek bonds while at the same time covering their positions in CDS. There were serious doubts, as it appeared that much of the sales pressure came from outright selling, rather than from short sales. There was a fear that this trading pattern might hit other sovereign issuers: the recent EU short selling regulation contains provisions to curb this type of activity¹⁰. The Greek case stood as a warning signal: although the Greek sovereign bond market was not very important, the regulators' fear of contagion urged regulators to step in and avoid a further confidence crisis.

A further area of potential systemic risk in the securities field are what Peter Norman called the "plumbers". There are numerous types of plumbers, dealing with several types of tubes and flows. One should first mention the payment systems, both national and worldwide. Even at the worst moments of the financial crisis they have continued to function perfectly. This is not a small feat, as a significant disruption in the payment systems might have triggered very strong shocks on the rest of the financial system. Most of this activity is channeled through the hands of the central banks, what has contributed to their resilience. Also on the worldwide level, business is executed in a smooth way, thanks to CLS, which operates the largest multi-currency cash settlement system to mitigate settlement risk in the foreign exchange market. Its market share is 68% of the 17 currencies in which it is active and for which it provides settlement risk mitigation services.

The derivative markets in general are still the subject of much regulatory concern, which is largely due to their potentially considerable destructive impact, and this on the background of the huge volumes of outstanding liabilities. The markets have now slowly moved to better understand this regulatory concern, what has lead to a threefold series of measures. The oldest ones are the registration of the contracts, in a Trade repository, so that at least in case of need one can have reliable information indicating ownership, and determine liability. More recent is the drive to set up CCPs, and for the regulators to embed these in a series of safety measures. More or less simultaneously is the requirement to have most derivates traded in open and transparent markets, at least for those derivatives that are sufficient streamlined so that they can be traded, and even more importantly cleared, thereby reducing the risk of market participants considerably. These CCP – of which there will be several, initially too many – will eliminate risk on the set-off derivatives and concentrate risk for the derivatives that could not be set off. And that may still be a considerable volume. Moreover not all derivatives will be cleared: unless the capital requirements for unclearable contracts would be sufficiently biting, one

¹⁰ See Short selling Regulation of 236/2012, of 14 March 2012, art 14 "A natural or legal person may enter into sovereign credit default swap transactions only where that transaction does not lead to an uncovered position in a sovereign credit default swap as referred to in Article 4"

can fear that markets will not capture the bulk of the business. Recent sign point however in the opposite direction.

I cannot resist expressing my fear that these CCP will be vehicles supporting highly concentrated risk that is likely in most cases to be systemic due to the interconnection with the financial institutions, necessary clients of the CCP and with other CCPS as well. One should try to invent other risk reduction instruments, such as compression, or setting off bilaterally, and ultimately find incentives for reducing the use of derivatives.

Other plumbers deal with traditional securities: the traditional securities clearing and settlement mechanisms have functioning well in these crisis times, and no major issues have come forward. But concerns remain about the efficiency of the present market organization, and about the resiliency of the system in some cases. The Commission's initiative aims to deal with these concerns in its proposal on CSDs and in a future instrument on legal certainty. According to the EU Commission, CSDs are designated as systemically important institutions due to their interconnections especially after the introduction of T2S. The proposed regulatory instrument contains a long list of provisions that aim at mitigating this risk, among which the provision on CSDs offering banking services as an ancillary service has attracted attention as this allowance refers explicitly to the condition "that a reasoned assessment that this solution is the most effective means to ensure systemic resilience" 11.

The shadow banking system – not a very helpful terminology – is now subject to close scrutiny from the systemic angle. Some of it has already been tackled. The Alternative Investment vehicles – a very broad definition – will from 2015 on subject to systemic surveillance according to the AIFMD. This will essentially deal with information to the supervisors, but also concerns the fixing of leverage ratios, or even plays a role in the mutual recognition of non-EU regulatory regimes allowing EU supervisors to request from their foreign counterpart to impose restrictions on non EU- AIFM on the basis of systemic concerns¹² and stricter measures will be applied to MMF, including capital requirements.

Systemic risk general consideration

The foregoing incomplete list of examples where systemic risk could be identified indicates that in the securities markets "systemic" risk is a pervasive, but at the same time an evasive notion. It refers to risks that may affect the large social, economic fabric and therefore gravely disturb the functioning of society. At the same time it is linked to other sources of systemic risk, such as asset bubbles alongside interest rate policies, sovereign crises, industrial accidents, earthquakes and what more.

Systemic risks are certainly not proper to the financial sector. The OECD has published an interesting document on systemic risks¹³ but than in other fields than finance, referring to demography - urbanization, pandemics-, environment - water or food shortage - technology "the millennium bug", just-in time delivery of spare parts -, socio economic structures, among which the shrinking role of government - in 2003 at least -, the economic concentration, and the changed risk perception due to the media. All not very stimulating ideas on the background, several of which are likely to have an impact on financial risks as well.

¹¹ Art 52 (2)(a) of the informal proposal. The final text of the proposal is not yet available.

¹² Art 47§ 5, c, AIFMD; for an analysis see; E.Wymeersch, (ed) The Alternative Investment Fund Regulation, Kluwer L.I., , 2012, ISBN 978-90-411-3690-9

¹³ Emerging Systemic Risks in the 21st century, An agenda for action, 2003

As part of the initiatives taken to combat the consequences of the financial crisis, the G-20 in its Pittsburg meeting of September 2009 commissioned some work on the "definition of systemic risk, informational gaps and the regulation and oversight of systemically important financial institutions (SIFIs)". Following up on this statement, the international financial bodies – IMF, BIS, FSB, but also leading national supervisors – have engaged in massive efforts to better understand the risks created by the SIFIs, by the so-called "shadow banking" sector, but less attention has been paid to the specific issues relating to the securities markets, as different from the banking sector.

The technical definition is not very clear but essentially refers to developments in the financial markets that may endanger the entire financial system.¹⁴ In 2009, the IMF, the FSB and the BIS set out an approach to assessing systemic importance, that lead to the definition mentioned above.¹⁵

A systemic crisis usually results from an uncontrollable chain reaction in the system, whereby one deficiency infects other elements in the chain, leading finally to a break down of large part or even the entire system.

Three concepts are used to frame this field

- financial stability
- macro prudential policy and supervision
- systemic risk

While the first is the comprehensive concept – partly extending outside the financial field – the second refers to the toolbox to achieve the first, and avoid specific developments that might lead to systemic risks. The role of the prudential supervision is to ensure that micro stability is achieved, which is a condition – necessary but not sufficient – for attaining overall or macro financial stability,

Stability in a financial system has been defined by Schinasi in the following terms:

A financial system is in a range of stability whenever it is capable of facilitating (rather than impeding) the performance of an economy, and of dissipating financial imbalances that arise endogenously or as a result of significant adverse and unanticipated events.¹⁶

Avoiding systemic risk has become one of the ultimate objectives of financial supervision, whereby financial stability can be considered the intermediate tool of prudential policies. The previous priority gives to investor protection, or fair and orderly markets has been restated in terms of subordinate objectives, serving the ultimate stability objective.

Systemic risk is opposed to the individual risk affecting one of more players in the market, what constitutes the defining line between macro- en micro prudential supervision. On the background of these descriptions, one hears some rumbling among financial supervisors, as a broad definition serve the central banks that prefer to include all financial supervision in their remit, and the specialised prudential supervisors, that

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¹⁴ IMF, Macroprudential Policy: An Organizing Framework1, 14 March 2011. In financial services systemic risk is the one that (i) is caused by an impairment of all or parts of the financial system and (ii) has the potential to have serious negative consequences for the real economy.

¹⁵ Guidance to assess the Systemic Importance of Financial Institutions, Markets and Instruments: Initial Considerations and Background paper, Report to G-20 Finance Ministers and Governors FSB, IMF, BIS, October 2009, available at http://www.bis.org/publ/othp07.pdf.

¹⁶ G.J. Schinasi, Defining Financial Stability, IMF Working paper 04/187, Oct 2004

consider that separate micro supervision should be maintained, but coordinated within the financial stability analysis¹⁷.

Defining the perimeter is also important for determining the distribution of competencies that deal with this type of risk: does systemic risk include tax matters, employment and labour policy, interest rate policy, social security policy and so on? In a very broad reading, all these factors have a direct bearing on overall risk, but create the danger of diluting the concept so that it is not usable anymore for practical policy purposes. A too broad definition also is a question of democratic legitimacy, as these society-wide decisions should not be made exclusively on financial terms and should be left to the democratically elected bodies.

The institutional framework that has been introduced in the context of the financial crisis is based on the FSOC in the US and on the ESRB in the EU.

Some practical consequences of the macro-prudential approach in the securities sector

In the field of traditional securities regulation, the attention for issues of financial stability including systemic risk implications constitutes without doubt a relatively recent significant shift. In the future, a macro-prudential overlay can be expected in all segments of the financial sector. Many of the national securities supervisors have not yet adapted their national constitutions to expand their remit to financial stability while IOSCO has only recently decided to adapt its structure to this new mission, as approved in Beijing in May 2012, calling wide attention to systemic issues. In the same vein, IOSCO, standing for all national securities commissions, is now participating in the work of the Financial Stability board.

This important shift in regulation has some significant implications for securities regulation.

Although transparency and disclosure remain the main tools of the securities regulator – along with business conduct, governance, and emergency measures – these will be applied in adjacent fields such as the market organization. Transparent markets are considered more stable, inspire more confidence. The Mifir regulation not only proposes to organize new market structures – next to Exchanges and MTF also OTFs and SIs – but also intends to apply the rules on pre- and post-trade transparency to the markets in bonds, derivatives or structured products, although taking into account their respective characteristics. In the bond market this may make bonds more accessible to non-wholesale investors, an objective that would be shared by national treasuries looking for more stable long-term investors.

Some topics are further removed from the core issues of financial stability, but nevertheless important to mention, especially as they aim at strengthening investor confidence. The gatekeepers – credit rating agencies, auditors, CFOs and internal auditors – will have to play an increasingly defined role in this field.

¹⁷ See Bernanke offers broad definition of systemic risk, WSJ, Nov 18, 2009

¹⁸ See IOSCO Statements, not yet published

The role of the credit rating agencies has been reassessed and according to some sources the reference to the use of ratings as the basis for risk assessment would be removed from most if not all regulatory instruments, Basel II, Pillar I to start with. The FSB¹9 has tabled proposals in that respect, but their implementation will take several years²0 and are not without unintended consequences. One can wonder how institutional investors, such as investment funds, large endowments, pension funds or insurance companies will be able to do away with ratings, as in that case they will have to make the credit assessments themselves, an impossible task if one holds thousands of lines, as is often the case e.g. for investment funds, or pension funds. One of the consequences will be to reduce the number of lines in their portfolio, reducing asset diversification, and according to traditional portfolio theory increase their risk. In the absence of alternative mechanisms, these parties will have to rely on ratings, and therefore improvements in the regulatory framework, especially in the field of conflicts of interest, governance and internal organization are probably the only realistic approach.

Other gatekeepers will also deserve some attention: the auditors should be mentioned here. Whether their role has potentially a systemic impact is open for discussion but recent statements from the FSB, reflected in statement from the International Federation of Accountants IFAC definitely go into that direction²¹. The application of the existing accounting standards with often their strong pro-cyclical bent has often been received with questioning about the long term effects. The transmission mechanism is between auditing and systemic concerns is the fear that unreliable company accounts will undermine confidence, reduce investors' willingness to invest in company securities and ultimately put in danger the business financing. A wide range of measures are being considered both by the EU Commission, and by the PCAOB. Issues as Audit firm rotation or a more critical view of non-audit services are shared by both regulators, although the outcomes are likely to be different. There can be little doubt that a solid audit regime contributes to a reliable and healthy financial system, and may result in lowering the risk premium, ultimately contributing to financial stability.

The financial analysts, although not gatekeepers in the strict sense, are confronted with comparable issues. Confidence in their reports has dwindled as a consequence of their conflicted position vsi-à-vis the sell side.

A similar contribution can be expected from the corporate governance angle, especially for financial institutions, where expertise and knowledge already receive more regulatory attention. One could refer here to the FSA's initiative on "Significant Influence Functions" (Sifts ²²) aimed at ensuring better effectiveness of boards by scanning future directors of financial institutions not only on their "fit and proper" character but also on their technical knowledge, and ultimately on their functioning on the board, whether they are the "right individuals" in terms of expertise, engagement, behavior and culture²³. One wonders whether insight into the macro context of banking is included in these criteria.

¹⁹ See FSB Principles for Reducing Reliance on Credit Rating Agency (CRA) Ratings. , Press Release: Principles to reduce reliance on credit ratings, 27 October 2010, /www.financialstabilityboard.org/press/pr_101027.pdf
²⁰ See recent European Council. Credit rating agencies: General approach agreed ahead of talks with EP

²⁰ See recent European Council, Credit rating agencies: General approach agreed ahead of talks with EP Brussels, 21 May 2012 10172/12 PRESSE 214

²¹ FSB, Enhancing the contribution of external auditing to financial stability, 15 March 2012 www.financialstabilityboard.org/press/pr_120315.pdf

²² FSA, Effective corporate governance (Significant influence controlled functions and the Walker review), January 2010, www.fsa.gov.uk/pubs/cp/cp10_03.pdf

²³ See for further details, H. Sants, Speech, 23 April 2012 at Merchant Taylors' Hall

Macro measures such as the Vickers proposal or the Volcker rule should also be identified as deep interventions to reduce risk, especially in major institutions. By separating the more risky investment bank or proprietary activity from the retail bank, the objective is to reduce risk and protect the taxpayer in case of collapse. Detailed analysis about the intragroup relations will be necessary, aiming at transforming each of the group entities into separate risk centers, eventually leading to their mandatory incorporation as separate subsidiaries. The latter would be clearly contrary to the EU Treaty that allows for free establishment under whether the form of a branch or a subsidiary, but exceptions may be allowed on the basis of the public interest. The crisis prevention and resolution regimes, that are being developed by some national regulators ("living wills", "bail ins"), also aim at reducing ex post risks. The long overdue European regime is now expected to be published very soon.

At the same time, one cannot but notice the market trend according to which large or multinational banks put their asset management subsidiaries on sale: to the extent that these entities would neither be acquired by other systemic entities nor "shadow bankers", this may help to reduce the burden of systemic concerns for these asset managers.

Systemic risk in securities market practice

All these initiatives, proposals and regulations are inevitable developments to make our financial system more stable, more reliable and avoid the huge burden that have been imposed on our societies in the crisis. But the question remains what that means for the day-to-day practice, for those that have to manage financial institutions, operate in the markets, have to assess risks and take measures to avoid being too heavily caught in a possible systemic crisis.

This question is not an easy one and as far as I could determine has not received much consideration.

One could first distinguish between top management, including the board, and the operational staff.

I would start the analysis with two trivial thoughts: systemic risk is rarely concentrated in one single institution, but most of the time relates to the wider context, the interconnections between institutions and the risk of contagion among them, the overall economic context. Systemic risk is therefore not the responsibility of any individual institution, nor can it be solved by any of them. On the other hand it is "risk", and therefore should be addressed by each institution individually, within its own remit. Although we have learned that limiting risk at each individual market participant will not eliminate overall risk, it will help a great deal.

At the practical level, risk managers should be aware of risks that due to their nature or their concentrated nature may degenerate in a wider risk exposure. Most of this exercise will relate to operational risk: think at the flash crash, at the breakdown of IT systems, some aspects of the asset liability management, DVP in settlement. Some can be mitigated individually, others cannot. Financial institutions should contribute to the efforts to reduce this type of risk not only by abiding to the existing regulations, but also avoiding developing new techniques that are aimed at or would result in making the existing safeguard purposeless. Two examples can illustrate this: by structuring derivatives outside the boundaries of the rules for clearability, the CCP function could be neutralized. Custom-made derivatives are justified for meeting individual needs; it should not become widespread practice nor of way circumventing the clearing obligation. The

creation of de-consolidated subsidiaries was one of the evils in the 2008 crisis; the new stricter conditions should help to avoid this, but the regulations have their limits and smart lawyers will find ways around. Adherence to the spirit of the rules is equally important. One could also recommend that in developing new products, trading techniques, or other innovations, a specific chapter in the risk analysis should deal with the potentially negative consequence on overall financial stability. This will often be a difficult exercise, because the effect on financial stability will only appear in case of massive use.

Recently one has witnessed a regulatory drive for having new financial products tested on their risk content, and when needed prohibited for the large investor public. Although this relates to the retail market, it is a significant shift in the supervisory philosophy where quality or substantive control has always been repudiated in favor of full and fair disclosure, on the basis that the investor should be able to make up his mind on the basis of the information he has been able to consult, while the supervisors cannot guarantee the quality of any investment product. Recent case law also has reacted and especially in the field of investment in derivatives – essentially interest rate swaps – by local entities, cases have come up in favor of the "uninformed" investors²⁴. In the future, non-professional investors may be able to claim on the basis that the product was not suitable to its level of expertise and understanding. This would lead to massive claims and result in considerable liabilities of financial institutions, in some cases amounting to several billions²⁵.

The risks identified above can be addressed at the individual level: they should be addressed within each institution's risk management procedures, and may usefully give raise to a discussion at the board's risk committee. If considered material, it might be advisable to signal the risk to the supervisors: some will answer that it is not the task of an individual institution to draw attention to the weaknesses of the system, especially as this will trigger additional burden for each of the institutions. I would disagree: the financial system, from which all benefit, also implies a common responsibility and this to enable it to function in the interest of all. Awareness of this type of interconnectedness needs to be supported.

But beyond these individual concerns there is also an approach dealing what I would call "collective" risk, i.e. an element of systemic importance that is accepted by most or all market participants, but nevertheless may be better mitigated and even avoided

By way of an example of collective risk one can mention the traditional rule of settling T+3 or T+2. Is it feasible to reduce T+3 to T+0, so that credit risk and even counterparty might be eliminated, as is already the case in some markets? The question is far from theoretical²⁶. This would require greater efficiency in processing, reduce counterparty risk and liquidity needs, but will have an effect on the P&L. You may argue that the risk is negligible and therefore that the cost of this reform would not be proportional to the benefits. The proposal to move to t+2 has now been accepted in the CSD draft regulation, but still does not eliminate all related risks.

²⁴ see about this E.Wymeersch, Regulation and Case law relating to Financial Derivatives, http://ssrn.com/abstract=1988925

²⁵ See the "woekerpolissen" in the Netherlands, VEB Annual Report 2010, p 22, mentioning a 3 bn euro potential liability for six insurance companies.

See Art. 5(2) of the Draft regulation on improving securities settlement in the European Union and on central securities depositories (CSDs) and amending Directive 98/26/EC, COM(2012) 73/2; Joe Morgan, T+2 move sweetens European trade settlement, Financial News, 14 June 2012; Also Harry Leinonen, Finnish Ministry of Finance, Future scenarios on the next generation of infrastructure for processing securities; US body looks at shorter settling, FT 23 May 2012.

A final consideration

Most of the regulations or recommendations founded on financial stability would originate from the supervisory bodies, especially the systemic risk boards and the financial supervisors. As was mentioned above, they have already issued some recommendations that should be implemented by each of the institutions in the jurisdictions concerned.

In the absence of clear signals from the regulators, the individual institutions will have an interest in determining in advance where systemic issues may prop up, e.g. to avoid being obliged to scale back in the future, a painful exercise as we witness in the present deleveraging drive. This will not always be easy, as a bank will normally be interested in producing more, even if there is an additional risk. Real estate institutions have an interest in reducing the loan to value ratio, but will they be able to do so in light of competition? And do they have a sufficient understanding of the overheating of the real estate market? The Spanish situation is an interesting case in this respect.

Directly linked to the previous issue is the question to what extent a board should act to curb systemic developments, and in a second order could be held liable for not heeding signals in the market that might have made a systemic development likely. A specific liability for financial stability is quite unlikely under the present circumstances and this in the absence of instructions from the supervisory authorities involved in financial stability issues. But at least due consideration will have to be given to these signals to the extent that they may also put in danger the position of the individual institution.

But one can not exclude all liability, if institutions would knowingly engage in destabilizing activities, e.g. lending to virtually bankrupt lenders, disregard major risks in massively distributed products, issue unprofessional ratings. These issues have in the past sometimes been discussed in legal terms, but mostly in political ones and have led to the massive regulation that one is now confronted with.

But beyond systemic and financial stability concerns, attention should be drawn to the need for each institution for having its risk management up to speed. To the extent that this is not already the case today, strong risk awareness leading to strict risk mitigation will be crucial, and should be made explicit in the relations with the national prudential supervisors²⁷. Weaknesses in this field will lead to reputational damage for the institution and its leaders, and might result in civil or even criminal liability, as the obligation to organize strong risk management is now part of the explicit duties of the bank's management and board. Depending of the type of business involved, this will essentially mean a stronger follow up of different types of risk, among which operational, legal and reputational risk are probably the most treacherous, especially in the securities business. Risk assessment in counterparty relations is essential: today, much of the risk analysis is superseded by the collateral arrangements, but is this justified?

²⁷ Whether that is generally the case was analysed in the report of the Senior Supervisors Group, Risk Management Lessons from the Global Banking Crisis of 2008, 21 October 2009 and SSG, Observations on Developments in Risk Appetite Frameworks and IT Infrastructure, 23 December 2010