US and EU Reform Efforts to Improve the Management of Systemic Financial Risk [1]

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"A basic continuing responsibility of any central bank—and the principal reason for the founding of the Federal Reserve—is to assure stable and smoothly functioning financial and payments systems. . . . To these ends, the U.S. Congress has over the last 70 years authorized the Federal Reserve (1) to be a major participant in the nation's payments mechanism; (2) to lend at the discount window as the ultimate source of liquidity for the economy; and (3) to regulate and supervise key sectors of the financial markets, both domestic and international. These functions are in addition to, and largely predate, the more purely "monetary" functions of engaging in open market and foreign exchange operations and setting reserve requirements; historically, in fact, the "monetary" functions were largely grafted onto the "supervisory" functions, not the reverse."

Paul Volcker, in 1984 as Chairman of the Board of Governors of the Federal Reserve System.[2]

"In my opinion, banking supervision is a central bank function. The combination , within the central bank, of banking supervision with lender of last resort oversight and monetary policy functions offers distinct advantages. These advantages should not be ignored, considering the significance of financial stability – especially within an open and liberalized economy – and the contribution which banking supervision makes in this respect."

W. F. Duisenberg, in 1995 as President of the Netherlands Bank and of the Bank for International Settlements. [3]

I. Introduction and Road Map

Against the background of US and EU proposals for financial sector reforms, this paper addresses four questions:

- What was the framework for safeguarding financial stability in which the global crisis occurred and systemic weaknesses revealed by the crisis?

- What are the key broad-brush lessons to guide reform efforts?

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[2] See Volcker, 1984.

[3] See Duisenberg, 1995, a speech delivered before he became the first President of the European Central Bank.

- What reforms have been proposed to deal with weaknesses and are they likely to be sufficient?

- What are the key unaddressed areas that require re-thinking before genuine sustainable reform can be achieved?

Before addressing these questions I am obliged to identify some personal intellectual biases.

First, with the benefit of hindsight, and without suggesting it could have been otherwise in real time, it is not difficult to make the case that the global systemic crisis was preventable. The crisis was in no small part the result of many self-inflicted wounds, which together increased systemic fragility and ultimately led to systemic events. Some of these problems initially emanated from both private incentives and official policies and decisions and later were the result of mis-assessments of systemic risk and the mis-handling of some aspects of crisis management.

Second, although asked to write a paper focusing on macro-prudential issues, in thinking and writing about these issues I found it difficult to avoid thinking about micro-prudential issues. Why? In a global financial system that will remain vulnerable to weaknesses in large and complex systemically important financial institutions (SIFIs), it is not practical from an operational standpoint to neatly distinguish between micro- and macro-prudential aspects of finance and financial policies. It is a macro-prudential risk that an individual SIFIs will not be adequately supervised. Because of this, my preference is to see the reform challenge as trying to improve our ability to identify and manage systemic financial risk, which is a broader challenge requiring in many instances oversight activities that entail what are traditional micro- and macro-prudential efforts.

Third, in crafting reforms for safeguarding financial stability in the future, the redesign and realignment of incentives is fundamental. The paper does not dwell on this subject, however. Suffice it to say that the incentives that drive the behavior of both private actors in finance and officials in their oversight responsibilities must each be altered in significant ways if financial-system resilience is to be improved and if supervision and regulation are to be effective in preventing and resolving systemic crises. Accountability is another area requiring fundamental reform efforts.

Fourth, perhaps because I worked in a central bank for a decade, it is my judgment that monetary and financial stability go hand in hand. In the absence of one, the other is at risk. As the past two years demonstrated, central banks that conduct monetary policy in fast-paced modern financial markets dominated by a relatively small number of large, highly complex financial institutions cannot properly maintain monetary stability without also having the capability to help manage financial stability if and when necessary. Despite their different mandates and architectures, the admirable policy efforts of both the Federal Reserve System and the European Central Bank in restoring stability to financial markets is evidence to me that my bias leans in the right direction.

The paper proceeds as follows. Section II describes the pre-crisis framework for preventing systemic problems and crises and for managing and resolving them when prevention fails. It also discusses the weaknesses in the framework revealed by the global crisis. Section III provides some broad reflections or lessons from the crisis for the reform efforts that are now in train. Section IV briefly describes and evaluates the reforms under consideration in the United States and being proposed by the European Commission for pan-European consideration. Section V concludes the paper by discussing some unaddressed challenges.

II. The Existing Policy Framework and Why Its Systemic Weaknesses

Existing policy frameworks for safeguarding financial stability have evolved through time based in part on the realizations that finance is subject to market imperfections and that financial stability is a public good. Frameworks differ across countries, but there are important common features among them. These common features can be portrayed as a series of lines of defense against financial imbalances that could arise, and have arisen often enough, from underlying structural market imperfections and unexpected shocks. The lines of defense have been designed to prevent imbalances from becoming systemic and to resolve systemic difficulties should one or more of the defenses be breached. This section briefly summarizes the existing framework within the context of cross border finance although the framework presented is also a reasonable characterization of existing national and regional frameworks in advanced countries and the major international financial centers.

A. The Policy Challenges and Framework

At many levels – national, continental, transatlantic, and global – the channels through which financial instability can be transmitted to the real economy or across borders can usefully be classified into the three broad components of financial systems: institutions, markets, and infrastructures. Financial systems also comprise the official monetary system with its official understandings, agreements, conventions, and organizations.[4]

Cross-border linkages of components of this triad can be seen as constituting the main channels through which problems in one national financial system get transmitted to another one. In addition to these financial channels, the global economy is probably the most basic

[4] This characterization of a financial system is an adaptation of the definition of the 'international financial system' in Truman (2003). Also see Schinasi (2006).

and prevalent cross-border transmitter of economic or financial weaknesses, but this is the purview of macroeconomists and macroeconomic policymakers and not this paper.

To provide a specific context, Table 1 summarizes some financial-sector public-policy issues and concerns around which the existing policy framework has evolved. Roughly speaking, the issues involve one or more market imperfections (or market failures).

Table 1. Public Policy Issues and Concerns

Policy Issues and Concerns	Policy Domain of Cross-Border Systemic Concern		
	Cross-Border Institutions	Global (FX) Markets	Unregulated Activities
Investor Protection/ Market Integrity?	Investor Protection	Market Integrity	No; Possibly for Retail Investors (of funds of funds)
Moral Hazard from Safety Net?	Yes; and Home/Host Burden Sharing Issues	Possibly from G-3 Central Bank Liquidity	No
Cross-Border and Systemic Risks?	Maybe; Depends on Size, Complexity, etc.	Yes, via OTC markets and infrastructure linkages	Yes?, via opacity, complexity, and w/ institutions and markets

More specifically, three broad global policy challenges arise to varying degrees from three potential channels of systemic concern.[5] The policy challenges, which make up the rows of Table 1, are protecting investors and market integrity; dealing with the consequences of safety nets and moral hazard; and assessing and mitigating cross-border and systemic risk. The three channels of systemic risk, which make up the columns of the table, are global financial institutions, FX and other global markets, and unregulated activities and entities, such as the activities of hedge funds and other institutional investors (such as insurance and re-insurance companies and pension funds), SIVs, and other special purpose vehicles.

All three policy challenges are relevant for banks generally and cross-border banks in particular. They are all also important for global markets. Investor protection and safety net issues are seen widely as not being relevant for unregulated entities, while the most recent crisis clearly indicates that unregulated entities can pose systemic risk.

Taking this classification as given, to what extent have the tools of financial policies been designed to address these risks and public policy concerns? Table 2 is one, perhaps

[5] Minimization of the social (taxpayer) costs of safeguarding financial stability and restoring it through crisis resolutions when it is lost is an additional important policy concern that is excluded from this lexicon.

exaggerated, way of answering this question. The columns of the table represent three important sources of global systemic financial risk: global financial institutions – primarily large, international banks/groups; global financial markets – FX, bond, and over-the-counter derivatives markets; and unregulated financial activities – including those of institutional investors (insurance, pensions, hedge funds).

Table 2. Oversight Framework

Lines of Defense	Sources of Global Financial Systemic Risk		
	Global Financial Institutions	Global Money and OTC Derivatives Markets	Unregulated Activities
Market Discipline	Partial	Primarily	Exclusively
Financial Regulation	National with cooperation	Not really; over-the-counter transactions	No
Prudential Supervision	National and Home/Host Issues	n.a.	No
Market Surveillance	Indirect, as participant	Direct; National and International	Indirect, as participant

Source: Adapted from Tables in Schinasi (2007), 'Remarks on Causes and Conditions for Cross-Border Threats to Financial Stability,' chapter in FRB Chicago Conference Volume.

Financial infrastructures – such as clearance, settlement, and payments systems – are also a source of systemic risk, but they are not discussed in this paper, in part because they performed well during the crisis. The large global banks typically are major participants in domestic and international clearance, settlement, and payments infrastructures – both public and private – as well as the major trading exchanges. Many of them co-own parts of the national and international infrastructures and have a natural interest in their performance and viability. Incentives are to some extent aligned to achieve both private and collective net benefits. Increasingly, however, internationally active banks have been more heavily involved in over-the-counter (OTC) transactions, which do not pass through these infrastructures. As is discussed, this poses systemic risk challenges many of which have surfaced dramatically in the ongoing global financial crisis.

The rows of Table 2 represent what can be characterized as lines of defense against systemic problems: market discipline – including private risk management and governance, along with adequate disclosure via financial reporting and market transparency; financial regulations – which define the rules of the game for transactions and relationships; prudential supervision of financial institutions and markets; market surveillance.

As indicated in the first column of Table 2 labeled “Global Financial Institutions”, large cross-border banking groups are within the perimeter of all four lines of defense. As such, these financial institutions are the most closely regulated and supervised commercial organizations on the planet, and for good reasons. These institutions pose financial risks for depositors, investors, markets, and even unrelated financial stakeholders because of their size, scope, complexity, and of course their risk taking. Some of them are intermediaries, investors, brokers, dealers, insurers, reinsurers, infrastructure owners and participants, and in some cases many of these in a single complex institution. They are systemically important: all of them nationally, many of them regionally, and about twenty or so of them globally. Protection, safety net, and systemic risks issues are key pubic policy challenges. Oversight occurs at the national level, through both market discipline and official involvement, and at the international level through committees and groups.

At the other extreme of regulation and supervision are unregulated financial activities (and entities), as can be seen in the right-most column of Table 2. These financial activities and entities are neither regulated nor supervised. Many of the financial instruments – OTC derivatives for example – these unregulated entities use strategically and tactically are not subject to securities regulation. Moreover, the markets in which they transact are by-and-large the least regulated and supervised. This lack of regulation, supervision, and regulation is often the bases for their investment strategies and it defines the scope of profit making. Unregulated entities (such as hedge funds and certain kinds of SIVs) are forbidden in some national jurisdictions. In jurisdictions where they are partially regulated, this is tantamount to being forbidden – given the global nature and fungibility of the hedge-fund business model. Some market activities of unregulated entities are subject to market surveillance just like other institutions, but this does not make transparent who is doing what, how they are doing it, and with whom they are doing it. Investor protection is not an issue for most individual unregulated entities, as they restrict their investor base to institutions (pension funds, insurance companies, hedge funds) and wealthy individuals willing to invest in relatively high minimum amounts. Probably beginning with the Asian crisis and then LTCM, and intensifying with the their tremendous growth over the past several years, hedge funds are increasingly being seen as potentially giving rise to systemic risk concerns.

Global financial markets – the third source of systemic risk identified in the middle column of Table 2 – fall in between being and not being regulated and supervised. What is meant by global markets? Examples are, the FX markets and their associated derivatives markets (both exchange-traded and over-the-counter) and the G-3 fixed-income markets as well as others associated with international financial centers (pound, Swiss franc, etc) as well as their associated derivatives markets. Dollar, euro, and yen government bonds are traded more-or-less in a continuous global market, and the associated derivatives activities are also global.

Global markets are only indirectly regulated. They are subject to surveillance through private international networks and business-cooperation agreements, through information sharing by central banks and supervisory and regulatory authorities, and through official channels, committees, and working groups. Parts of these markets are linked to national clearance, settlement, and payments infrastructures, so they are also subject to surveillance through these channels. The risks they potentially pose are less of a concern to the extent that the major players in them – the large internationally active banks – are supervised and market-disciplined by financial stakeholders. If there is poor oversight of the major institutions, then these global markets are subject to considerable risks, including a greater likelihood of systemic risk. One obvious example would be the global over-the-counter derivatives markets, which are unregulated have little oversight except through the regulation and supervision of the institutions that engage in the bulk of these markets' activities. Both investor protection and systemic risk are challenging public-policy issues for these markets.

Table 2 goes as far as to summarize the policy framework in place for preventing financial problems from becoming systemic. An additional aspect of the policy framework is crisis management and resolution of financial problems once they become systemic. This part of the policy framework entails the following key components: deposit insurance protection to prevent bank runs; appropriate liquidity provision by central bank to keep markets smoothly functioning; lender of last resort operations to prevent market dysfunctioning and illiquid but viable financial institutions from failing; and recapitalization, restructuring, and resolution mechanisms (private preferred to public) to maintain orderly transitions for institutions that are not viable.

B. In the breach – What Went Wrong and Why?

Although the crisis is often characterized as being caused by the U.S. subprime mortgage crisis, the US problem can be seen as symptomatic of an economic and financial environment that encouraged excessive leverage and risk taking and a worldwide credit boom. As has been widely discussed, including in the press, many factors contributed to the crisis, so there is no need to repeat the long list here.

The main features of the crisis can be briefly summarized as follows:

- Dysfunctional markets for liquidity and their supporting derivatives markets, reflecting an underlying breakdown of trust in systemically important counterparty relationships among the large global active financial institutions.

- Dysfunctional credit markets and their surrounding derivatives markets, which create further pressures in markets for liquidity, which further increase the intensity of underlying creditworthiness issues.

- Growing perceptions of increasing risks of a prolonged and possibly deep US and global economic recession.

- Loss of control of monetary and financial conditions by key central banks in the major international financial centers, thereby reducing their ability to exercise their policy instruments to safeguard both monetary and financial stability.

- Innovative policy changes including, the use of existing facilities in new ways (extended terms and access), extended facilities to nonbank financial intermediaries, and other innovations.

- Coordinated actions by advanced country central banks.

- Official financial support to both bank and nonbank financial institutions in the United States and Europe.

- U.S. Treasury led legislative initiative to remove toxic assets and recapitalize weak systemically important institutions; many details unresolved.

What this list reveals is that the existing policy framework described – roughly comprised of reliance on a balance of market discipline and official oversight – and whose aim is to prevent systemic threats to financial and economic instability, failed to prevent and adequately resolve the kind of imbalances from arising that created systemic risk and systemic events. Moreover, the frameworks for crisis management and resolution proved to be inadequate. In short, the lines of defense against threats to systemic stability proved to be inadequate and were breached:

- Private risk management and market discipline failed and markets dysfunctioned, the result of a combination of imperfect information, opaque instruments and exposures, poor incentive structures, excessive leverage, inadequate governance/control by top management, insufficient 'ex ante' market discipline, and loss of trust.

- Official supervision failed to promote safety and soundness of major institutions.

- Market surveillance failed to identify the build up of imbalances.

- Central bank and treasury tools proved to be too limited to address liquidity/solvency issues in restoring market trust and confidence.

There are several reasons why lines of defense were breached and why the policy framework and architecture failed, especially in its cross-border dimensions. These systemic weaknesses raise important questions.

First, the ‘perimeter’ covered by the various lines of defence was in many cases not wide enough. This is a multi-dimensional issue, but the most obvious sources of ‘perimeter’ failures were (1) off-balance sheet activities of the SIFIs, conducted through over-the-counter derivatives markets and embodied in unregulated special purpose vehicles; (2) the national orientation of prudential oversight; and (3) the bank (functional) orientation of oversight to the exclusion of other systemically important financial institutions SIFIs. Key unresolved questions are: Can the existing national frameworks be reformed to anticipate or to prevent problems in cross-border institutions or are new mechanisms necessary? In the transatlantic or global spheres, for example, can international groupings and committee structures be reformed to provide sufficient early warnings?

A second source of breaches in the lines of defense is that the central banks in the major centers did not have all of the tools they needed to address the immediacy of liquidity problems in the modern financial system. Central banks fell behind the curve in understanding the liquidity-hungry nature of securitized markets and more importantly the changed nature and greater market orientation of systemic risk. Even if central banks had all of the necessary liquidity tools at their disposal, in this crisis, the underlying problems were excessive and badly managed credit/counterparty exposures which proved to be unsustainable. There are many economic and financial policy issues that need to be addressed in this area, but in the area of prudential oversight, two issues stand out.

- Central bank mandates for prudential supervision in all of the transatlantic financial centers fell short of what was required to prevent financial problems from becoming systemic and for dealing with the crisis once it was systemic. In the United States, the Federal Reserve does not have supervisory authority for all of the SIFIs operating in US markets as some of them were investment banks and insurance companies. In the United Kingdom, the Bank of England has responsibility for financial markets stability but it does not have supervisory authorities and must rely on cooperation with the UK FSA, which clearly was not effective. In the Euro area, while some national central banks within the ESCB have supervisory powers the ECB has no formal responsibility for financial supervision.

- Central banks had neither the comprehensive authority to obtain relevant timely information from all SIFIs and other unregulated financial institutions nor the authority to intervene (place in administration, liquidate, resolve) all SIFIs if and when necessary.

A third source of breaches of lines of defense was the absence of regional and global financing mechanisms to recapitalize systemic cross-border institutions when deemed appropriate and necessary.

A fourth related source of failure was that coordinated government efforts to recapitalize cross-border institutions (for example, Lehman Brothers) reverted immediately to national ring-fencing and solutions. Even in the case of Fortis in Europe, for which it can be argued that excellent pre-conditions for coordinating a rescue existed between Belgium, Luxembourg, and the Netherlands, the financial resolution ultimately devolved to each country ring-fencing and recapitalizing the domestic pieces of the pan-European institution.

In summary, all lines of defense failed to identify early enough the buildup of overwhelming and unsustainable imbalances in SIFIs and in credit markets, including massive, opaque, highly-leveraged, and essentially unregulated financial structures and securities.

III. Broad-Brush Lessons for Prevention and Resolution of Systemic Problems

Before moving on to a brief description and assessment of reform proposals, this section provides some broad reflections or lessons from the supervisory and regulatory failures described above. They pertain very broadly to the failures observed in crisis prevention and crisis resolution.

A. Prevention

In the United States, and as the quote from Paul Volcker on page 1 indicates, the Federal Reserve System was broadly conceived and has had since its inception the responsibility for maintaining both monetary and financial-market stability. It is the quintessential broadly-mandated central bank with multiple objectives – as opposed to the ECB, which is a narrowly-mandated central bank with a single objective.[6] The US framework or ‘architecture’ for identifying, monitoring, and assessing the potential for systemic problems has been in place for some time. Although other US agencies have regulatory, supervisory and surveillance responsibilities, system-wide risks fall within the responsibilities of the Federal Reserve System.

In the period 2004-05, it was reasonable to assume that the Federal Reserve was in a good position, with the mandate, tools, and able staff to make reasonably reliable assessments of systemic risk. And, given its explicit mandate, expertise, and resources, there was at least the possibility prior to the crisis for the Fed to monitor the activities of some of the most relevant financial institutions (both on- and off-balance sheet activities, and their

[6] See Folkerts-Landau and Garber (1992) on this comparison.

market activities) and the buildup of credit and counterparty exposures that ultimately unraveled and which are still being de-leveraged.[7]

From this perspective, the US financial crisis can not reasonably be seen as occurring primarily because it did not have a crisis-prevention framework. We now know it is deeply flawed and needs to be reformed. It is also safe to assume that even with a perfect architecture it would have been difficult to make accurate assessments in real time of the extent of systemic risks and vulnerabilities. At least some causes of the US crisis occurred because of inadequate execution of existing responsibilities for oversight of financial institutions and their financial activities in the key US and global money and short-term credit markets. These activities importantly include those in the US and global over-the-counter derivatives markets. Neither the Federal Reserve nor any other regulatory authority had oversight responsibility for over-the-counter derivative markets. These activities are unregulated.

However, the Federal Reserve does have oversight responsibility for some of the largest participants in these markets that were at the center of the current global crisis. In addition, through their supervision of the major U.S. participants, the Fed also has a window on many of the other major institutions and their activities, such as the investment banks and other institutional investors such as insurance, pension, and hedge funds. Moreover, the collapse of the hedge fund Long-Term Capital Management (LTCM) in 1998 was a wake up call that over-the-counter derivatives markets embodied the possibility of systemic risks. Although the wake up call led to many private and official groups to write reports recommending reforms of counterparty risk management and other reforms, the crisis passed without systemic consequences and few reforms were adequately encouraged and implemented.

The main conclusion from these observations is that prior to the crisis, U. S. authorities (as well as the relevant authorities in all of the major financial centers) had supervisory and market oversight tools (via the market intelligence it gathers through its monetary policy operations and its relationships with primary dealers, etc) to assess systemic risks and vulnerabilities. They also had relevant experience in learning lessons from previous episodes of turbulence, and in particular the LTCM crisis, that modern financial markets are subject to systemic risk.

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[7] There are many Fed speeches and congressional testimonies in which the Fed's responsibilities for maintaining financial stability are acknowledged in addition to Paul Volcker's quoted at the beginning of this paper. A recent one is as follows: "Maintaining the stability of the financial system and containing the systemic risk that may arise in financial markets has been central to the Federal Reserve's mission for as long as there has been a Federal Reserve. Indeed, Congress passed the Federal Reserve Act in 1913 to provide the nation with a safe and more stable monetary and financial system." See Kohn (2006).

Yet, and in retrospect not surprisingly, safeguarders of financial stability in all of the major financial centers did not know how to achieve their mandates and carry out their responsibilities effectively. This stems in part from the lack of technical know-how about how to process all of the available market intelligence and in part from the lack of information about exposures in key institutions and markets, notably the over-the-counter derivatives markets. In effect, financial authorities around the world, including in meetings in international forums and committees, utilized the information available to them to the best of their abilities in 2007 and again in early 2008 and simply under-estimated the extent of systemic risk. Part of this mis-estimate, no doubt, is that there is only limited know-how in usefully integrating micro- and macro-prudential sources of information and in processing this information into accurate assessments of systemic risks.[8] More fundamentally, crises will occur even with the most effective early-warning systems and prevention frameworks, so reforms must try to increase the resilience of financial systems to reduce the probability of systemic breakdowns. Reform efforts must tackle all of these formidable challenges.

In *Europe*, the lesson is a bit different. As in the United States, the frameworks for crisis prevention and resolution are oriented primarily at the national level. To the extent that national frameworks could not see and prevent the buildup of European cross-border exposures, the economic and financial crisis in Europe is in part a failure of implementing the existing architecture – just as it is in the United States.

The same can be said about the resolution of failed banks in Europe, where there is not a European architecture for recapitalizing banks, although the European Commission DG-Competition has the mandate to ensure nationally approaches to recapitalization do not produce an unlevel playing field of competition among financial institutions in Europe. To the extent that individual European countries where there are failed banks did not see the buildup of life-threatening credit exposures, the financial crisis in these countries is also the result of not adequately executing appropriate oversight of the institutions in question.

But Europe has the additional problem of having decentralized financial system policy making along side pan-European markets and pan-European financial institutions. There is no formal framework for safeguarding stability of the markets and only unenforceable agreements to safeguard the safety and soundness of individual SIFIs with substantial cross-border exposures both within Europe and across the Atlantic.

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[8] Some have claimed for that the Greenspan Fed contributed to the build up of financial imbalances by executing a regulatory policy of passivity – as part of an overall philosophy that placed excessive reliance on allowing markets to discipline themselves.

Regarding the *United Kingdom,* there are divided opinions that date back to the creation of the existing tri-partite approach to safeguarding financial stability. At the time the Labor party created the UK FSA and moved responsibility for banking supervision from the BoE to the FSA, some hailed this new architecture of a single financial regulator and supervisor as the wave of the future. Others hailed this as a mistake, because central banks have a natural interest and competency in supervising its counterparties in monetary operations – typically the largest banks operating in domestic markets and the greatest threats to financial market stability.

There is room for debate, but it is not unreasonable to conjecture that the specific manner in which the UK's financial crisis began – with a bank run – and then evolved into a market run was the result of fundamental flaws in the UK tri-partite framework for safeguarding stability. There were also acknowledged inadequacies in implementing the framework – both the supervision of individual institutions by the UK FSA as well as shortcomings in the Bank of England's approach to monitoring activities in the UK domestic markets. Only time will tell whether the UK chooses to fine tune this architecture or reverts back to giving the Bank of England supervisory responsibilities over SIFIs that operate in UK domestic money markets.

B. Lessons for Crisis Resolution

Regarding the resolution of financial crisis, it is clear that in all of the major financial centers, the architecture for resolving large, complex financial institutions – SIFIs, universal banks, or whatever you call them – is incapable today of an orderly liquidation. No country has the legislation and apparatus in place to resolve solvency problems in an orderly manner without taking ownership of a large complex financial conglomerate. Until this is addressed, it is likely that moral hazard will continue to encourage excessive risk taking by the institutions that are too big to liquidate in an orderly fashion.

There is good reason to be optimistic that reform efforts will be successful, however. In the *United States*, the FDIC is experienced in resolving small and medium sized financial institutions that are part of the deposit insurance scheme. The policy of prompt corrective action is an early intervention mechanism that helps some banks get back on their feet. But when this fails, the FDIC temporarily takes over the institution and facilitates an orderly liquidation. For most of its resolutions, the process is so orderly that depositors hardly notice that their bank has been closed.

Despite the success of its previous efforts, during this crisis the FDIC saw itself has having neither the expertise nor the financial resources (balance sheet) capable of resolving through its usual methods the large financial conglomerates that were perceived – at least by the markets – as nearing a threshold where they might become insolvent (such as Citicorp, Wachovia, and at some points in time even Bank of America). Add to this the fact that the

FDIC type resolution architecture was not legally – and may not be generically – applicable to the resolution of systemically important investment banks (like Bear Stearns or Lehman Bros), insurance companies (such as AIG), and hybrid firms (such as GMAC, GE, and others). It is possible, if not likely, that the FDIC will be given a broader mandate to resolve larger and more complex institutions than it has heretofore resolved, but how far its mandate will be broadened and its balance sheet expanded remains to be seen.

In *Europe*, each country has its own resolution regime and has the strong incentive to design its resolution strategies to satisfy national objectives. For example, in the case of the resolution of Fortis, although a cooperative and coordinated resolution was initially sought by all parties, it did not take long for negotiations for a coordinated solution to breakdown and devolve into national solutions in which each country resolved the domestic parts of Fortis independently as the nations saw fit. It is clear from this one example that the existing architecture for coordinated resolutions of European cross-border institutions is ineffective. The de Larosière report recommends that a transparent and clear framework for managing crises should be developed; that all relevant authorities in the EU should be equipped with appropriate and equivalent crisis prevention and crisis intervention tools; and that legal obstacles which stand in the way of using these tools in a cross-border context should be removed, with adequate measures to be adopted at EU level.[9]

IV. Brief Description and Assessment of Reform Proposals

From the previous discussion, the most obvious lesson, and the one that will be the focus of the remainder of this paper, is that the existing national, regional, transatlantic, and global frameworks for safeguarding financial system stability proved to be ineffective. Financial regulation, supervision, and surveillance need to be more effective in the future if systemic crises are to be avoided and better managed when avoidance is not possible. This is easy to observe but difficult to address, especially in the cross-border dimensions of the breaches.

Fortunately, common ground can be found in the reform proposals tabled and being discussed on both sides of the Atlantic. The European Union and the United States are in the process of considering reforms of their frameworks for safeguarding financial stability. Anticipating what will be concluded later, my reading of these proposals is that provided they are fully implemented and executed as intended, both sets of recommendations for reform are comprehensive enough to potentially address important weaknesses in the existing frameworks revealed by the crisis and discussed in previous sections.[10] However, there is

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[9] See de Larosière (2009), recommendation 13.

[10] Although many EU countries are formulating and implementing national reforms – including those that are international financial centers – it is beyond the scope of this paper to describe and assess them. From a

(continued)

great uncertainty about the final reform packages and how they are formulated into legislation and regulations and how they are implemented over time. Moreover, the reform proposals do not address all of the important weaknesses revealed by the global crisis.

The remainder of this section will provide outlines of proposals and then offer a preliminary assessment of their likely effectiveness in addressing the concerns raised earlier if fully implemented as they now stand. The section will start out with the reforms proposed in the United States and then proceed to EU proposals.

A. U.S. Proposed Reforms

The reforms proposed by the U.S. Treasury can be described succinctly as comprising the following five main areas:[11]

- *Systemic risk regulation,* with the Federal Reserve assuming responsibility for supervision and regulation of all systemic firms, tighter prudential standards for large and interconnected firms, registration of hedge funds, and the creation of a Financial Services Oversight Council chaired by the Treasury to identify emerging systemic risks and coordinate agencies.[12]

- *Market regulation*, including enhanced transparency and strengthened incentives for securitizers ("skin in the game"), as well as better regulation of credit rating agencies and over-the-counter derivatives markets.[13]

- *Consumer and investor protection*, with the creation of a Consumer Financial Protection Agency, and stronger and more uniform rules.

- *Crisis-management tools,* namely for non-bank resolution and revised emergency lending powers for the Federal Reserve (requiring written approval from the Treasury Secretary).

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substantive point of view, however, the broad outline of US proposed reforms is similar in many regards to reforms being considered in other EU countries, for example, in the United Kingdom.

[11] See the U.S. Treasury's paper, "Financial Regulatory Reform: A New Foundation," available on the Internet at: http://www.financialstability.gov/roadtostability/regulatoryreform.html. For a more detailed summary of these proposals see IMF (2009), the IMF's published documents for the most recent Article IV Consultation for the United States .

[12] For details on the Federal Reserve's thinking on the supervision of SIFIs see Tarullo (2009a, 2009b, and 2009c).

[13] See Box 1 for a description of the U.S. Treasury proposal to regulate over-the-counter derivatives markets.

- *Raise international standards*, including through stronger and better-coordinated capital and liquidity standards and crisis management arrangements.

The U.S. Treasury has submitted detailed legislation proposals for many items in this outline, including for over-the-counter derivatives markets, a consumer protection agency, and other parts. The appropriate U.S. Congressional committees are working on these proposals with the objective of completing much of the legislation by the end of the year.

The Obama Administration and the U.S. Congress have many other priority items they are dealing with – not the least of which is the controversial health care reform. As a result, there is considerable uncertainty about both the shape of reform and the timing of its completion.

The various U.S. regulatory and supervisory agencies have offered their views to the Administration and Congress on the U.S. Treasury proposals and each of them have offered their own reform agendas. Notably, the Federal Reserve has in recent months been quite transparent about what it sees as the priority items in its reform agenda for revamping its role as regulator and supervisor. In particular, the Federal Reserve sees the following key elements as part of a comprehensive reform effort to make financial supervision and regulation more effective:[14]

- A prudential approach that focuses on the stability of the financial system as a whole, not just the safety and soundness of individual institutions, and that includes formal mechanisms for identifying and dealing with emerging systemic risks;

- Stronger capital and liquidity standards for financial firms, with more-stringent standards for large, complex, and financially interconnected firms;

- The extension and enhancement of supervisory oversight, including effective consolidated supervision, to all financial organizations that could pose a significant risk to the overall financial system;

- An enhanced bankruptcy or resolution regime, modeled on the current system for depository institutions, that would allow financially troubled, systemically important nonbank financial institutions to be wound down without broad disruption to the financial system and the economy;

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[14] See Bernanke (2009c). Many of the key elements can also be found in the reform proposals of the U.S. Treasury, the U.K. FSA, the de Larosière Group Report, and in the European Commissions efforts.

- Enhanced protections for consumers and investors in their financial dealings;

- Measures to ensure that critical payment, clearing, and settlement arrangements are resilient to financial shocks, and that practices related to the trading and clearing of derivatives and other financial instruments do not pose risks to the financial system as a whole; and

- Improved coordination across countries in the development of regulations and in the supervision of internationally active firms.

While Congress is deliberating, much can be accomplished by the Fed on its agenda to improve its oversight of the large complex financial holding companies it already supervises – including now the investment banks that converted to holding companies. But new legislation is required to extend the perimeter of the Fed's authority to all SIFIs.

As the Federal Reserve's list of key elements of reform reveals, much of what it sees as important for improving supervision and regulation matches the outlined reforms of the U.S. Treasury as well as the reforms being considered by countries in Europe and the European Commission (see below). There are two major differences between the Fed's and the U.S. Treasuries proposals: the Treasury is proposing to create a new consumer protection agency and relieve the Fed of its existing duties in this area; and the Treasury is proposing to limit the Fed's systemic risk powers by requiring it to obtain approval for taking extraordinary systemic measures from the U.S. Treasury Secretary. Neither of these differences are likely to be resolved until Congress completes its work. There are also other areas where members of the U.S. Congress would like to limit the powers of the Fed.

While it is too early to make a comprehensive and final judgment about effectiveness – not least because the exact reforms are yet to be legislated – it is possible to render a preliminary conditional assessment. If all or the U.S. Treasury's proposed reform is properly shaped into legislation, implemented as designed, and executed as intended, the U.S. reform effort could lead to a substantial improvement in the resilience of the U.S. financial system and an improvement in the effectiveness of supervision of the SIFIs and the multitude of smaller financial institutions. Much depends on the ability of the supervisory authority for SIFIs – probably the Federal Reserve – to improve the ability to supervise large, highly complex, multi-business financial institutions. Notably, many of the financial holding companies that the Fed already supervises were at the core of the crisis – they played major roles in creating the credit exposures and were causes of, and severely affected by, the market dysfunctioning that shook global markets in 2008-09. This suggests that it will be a difficult, uphill battle for the global supervisory community and not just the Federal Reserve to determine how to exercise effective oversight of SIFIs. They may simply be too big and complex to supervise effectively. If so, then what should be done? Should serious consideration be given to reducing the size and scope of existing SIFIs?

The creation of a broader U.S. financial-institutions resolution regime – for example, modeled after the FDIC's prompt corrective action framework, with adjustments to accommodate the resolution of nonbank SIFIs – could lead to an improvement in the ability to effectively resolve SIFIs without threatening market stability (as did the bankruptcy of Lehman Brothers and the threat of insolvency of AIG) and without the government having to take major ownership stakes in them. This too will be an uphill battle with different political pressures in the U.S. Congress about how to revamp bankruptcy laws and possibly even U.S. anti-trust legislation – not the least of which is emanating from the still very powerful lobbying efforts of the U.S. financial industry.

In short, the U.S. reform proposals and process could lead to significant improvements in financial resilience and the oversight framework and thereby improve the ability of authorities to exercise effective systemic risk management and resolution. Having said this, even if perfectly designed and implemented, the oversight architecture that would emerge from a full implementation of the U.S. Treasury's plan would still, in my view, not address all of the concerns revealed by the crisis, including some of the weaknesses in the pre-crisis architecture. There are several unresolved areas and issues that need significant re-thinking before reform efforts have a high probability of success; these are discussed in Section V.

B. EU Reform Proposals

To deal with pan-European systemic risk, the European Commission has formulated proposals aimed at addressing the weaknesses revealed in Europe by the crisis. The Commission's initiatives are presently being transformed into specific regulations and legislation. The Commission is scheduled to present important legislative proposals on September 23rd.

The broad outlines of the EU Commission's reform agenda can be summarized in the following points:

- *EU Macro-prudential surveillance,* through the creation of the European Systemic Risk Board (ESRB) – comprised of EU central bank governors and possibly chaired by the ECB President – with a mandate to assess systemic risks, to issue financial stability risk warnings, and to recommend and monitor implementation of macro-prudential actions by national supervisory authorities.

- *EU Micro-prudential supervision*, through the creation of the European System of Financial Supervisors, comprised of three new authorities –European Banking Authority, European Insurance Authority, and European Securities Authority – to ensure consistency of national supervision and strengthened oversight of cross-border entities through supervisory colleges and the establishment of “a European single rule book applicable to all financial institutions in the single market.”

- *Reform of Over-the-Counter Derivatives* – Require standardization and trading on platforms/clearing houses to make them more robust and transparent.

- *Other EU initiatives*, including regulation of alternative investment managers;[15] amendments to capital requirements for trading book exposures and highly complex re-securitizations;[16] enhanced disclosure of complex securitization exposures; and bank remuneration policies.

The Commission’s systemic-risk oriented reform efforts outlined in the first two bullets are the recommendations of the de Larosière Group. The Group was commissioned in 2008 by President Barroso to facilitate the formulation of an approach to safeguard European financial stability. Some of the other Commission reforms being proposed – such as regarding derivatives markets and hedge funds – were underway before the group was commissioned.

The report and recommendations of the de Larosière Group are comprehensive and consistent with addressing weaknesses revealed by the financial crisis in Europe. It is reasonable to conclude from a close reading of the report that if the European Union agreed to implement fully the recommendations as described by the Group in the report, that Europe would thereby establish a new European framework for financial stability that could – if properly executed – constitute an effective pan-European framework for safeguarding financial stability. Figure 1 reproduces the de Larosière report’s graphic representation of the new framework.

As with the U.S. reform proposals and process, in Europe, the devil is in the details of the ultimate resulting legislation and regulations that come out of the European reform process. That is, it remains to be seen how far the de Larosière Group’s recommendations will be agreed collectively by EU member states. Thus as regards reform efforts in the United States, the reforms actually implemented could fall well short of what is required to provide Europe with the kind of financial stability framework in which both systemic risk assessment and supervision of SIFIs would take place at the European level rather than primarily at the national level along side committee structures with perhaps stronger but still informal peer pressure to implement national policies to help manage European systemic risk.

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[15] FT, “Dodging the draft,” by Brooke Masters and Nikki Tait, July 13, 2009.

[16] Available at: http://ec.europa.eu/internal_market/bank/regcapital/index_en.htm . See also FT Leader, “Capital Proposals,” July 14, 2009.

Even if the EU financial-stability reform effort falls short of what is required, it is possible that the Euro area would come up with a framework for safeguarding stability across the Euro area. The ECB has the statutory authority under its monetary policy mandate (Article 5.1 of the Statute of the ESCB and of the ECB) to act decisively to facilitate the smooth functioning of the pan-European money markets, as it demonstrated quite effectively in August 2008 when it was the first to intervene to stabilize markets. In addition, according to some interpretations of the Statute, the ECB also has the necessary authorities to obtain whatever statistical information it deems necessary for conducting its monetary policy directly from the large 'European' banks and SIFIs that are its main counterparties in its monetary policy operations – in particular in the money markets in which it operates. However, such a possibility is limited because obligations imposed directly on natural or legal persons would require a decision by the Council of Ministers covering the definition of the natural and legal persons subject to reporting requirements, the confidentiality regime, and the appropriate provisions for enforcement.[17, 18]

Thus, in principle if not in practice, through its statutory mandate to conduct monetary policy and safeguard the pan-European payments system, it might be possible for the ECB to obtain the kind of information required to not only to execute its monetary policy and payments system mandates but also to engage in the kind of systemic risk assessments required to identify and manage systemic risk in pan-European financial markets. What is required is sufficient support inside the Governing Council. This issue is covered in the de Larosière report where it is argued that access to information is crucial to the proper exercise of the functions of the European Systemic Risk Board. However, it is possible that political obstacles will lead to a less-than-full implementation of the de Larosière Group recommendations.

V. Concluding Thoughts

As discussed in the paper, the proposals being considered on both sides of the Atlantic represent potentially comprehensive reforms to the existing frameworks for safeguarding financial stability, managing systemic risk, and resolving systemic crises. If these proposals are properly and entirely translated into specific legislation and regulations, fully implemented as translated, and effectively executed, the reformed frameworks could

[17] On these matters the Council of Ministers decides by qualified majority; see Article 5.4 of the Statute of the ESCB and of the ECB.

[18] Article 105(6) of the Maastricht Treaty states that "the Council (of Ministers) may, acting unanimously on a proposal from the Commission and after consulting the ECB and after receiving the assent of the European Parliament, confer upon the ECB specific tasks concerning policies relating to the prudential supervision of credit institutions and other financial institutions with the exception of insurance undertakings."

provide greater resilience to the global financial system and could create the kind of oversight and resolution regimes for safeguarding global stability.

But the devil is in the details of translating these proposals into legislation and regulations. This translation process is by its very nature a political one subject to many interests and influences. Moreover, even if reform proposals were to be fully reflected in outcomes, it would be a formidable challenge for regulators and supervisors around the world to implement the new frameworks to safeguard stability in the future.

An additional multi-faceted qualification is warranted. The reform proposals themselves do not address all of the fundamental weaknesses revealed by the crisis. There are unaddressed and unresolved issues, five of which are discussed below as concluding thoughts.

1. Realign balance between market discipline and official oversight.

First, greater reflection is warranted on what constitutes an effective balance between relying on market discipline and relying on official oversight. The balance prior to the crisis relied too heavily on *ex ante* private market discipline to prevent the buildup of systemically threatening imbalances and not heavily enough on official oversight. Presently, it could be argued that the balance is relying too heavily on official intervention and not heavily enough on market discipline. In crafting reforms for the future, a key challenge is the realignment of the private incentives that drive business decisions and the incentives that determine the actions or inertia of regulators and supervisors. In effect, the incentives and rules of the game that guide private finance and official oversight need to be realigned so that they are compatible with and naturally react to prevent the kind of self-inflicted weaknesses and imbalances that arose in the years prior to the crisis. This is a difficult set of challenges and may take considerable time to craft, but it is essential to achieve an effective balance of these lines of defense against systemic risk and crises.

2. Reconsider the inter-temporal benefits and costs of too-big-to-fail SIFIs.

Second, it is widely acknowledged that some financial institutions were deemed too big to fail, and the crisis has revealed some were too big to manage and too difficult to save without massive injections of taxpayer monies. Reform efforts are aiming to address these issues by creating regulatory and supervisory frameworks more capable of overseeing SIFIs and resolution regimes capable of orderly liquidations and closures. This is one possible approach and only time will tell if reform proposals lead in the right direction.

Before such an approach is engraved in stone, greater reflection is warranted on alternative approaches. Over the years, authorities in all of the major financial centers have through explicit policies or inaction either promoted, encouraged, or acquiesced to the emergence of these very large global institutions often on the grounds of claims of economies of scale and scope. However, the extensive economics and finance literatures are inconclusive about the actual gains of economic efficiency from economies of scale and scope alleged and sought by universal banks, financial holding companies, global financial conglomerates, and other SIFIs. It may well be the case that economies of scale – for example, having a global platform for foreign-exchange trading – can be mostly, if not entirely captured by more specialized institutions that are large and global but that would be more transparent, easier to manage, and less difficult to regulate and supervise. In light of the empirical evidence and the recent crisis, surprisingly very little serious discussion has been heard on the optimal or appropriate size, scope, complexity, management, and governance of private financial institutions.

Accordingly, leaders and policy makers should be asking: What exactly are the inter-temporal efficiency gains to their societies of combining M&A, asset management, securities origination and underwriting, foreign exchange trading, commercial banking, and other financial services all under one roof in relation to the inter-temporal social costs now being experienced? Can the alleged gains be captured by more specialized institutions that are less likely to generate the social costs? It would seem entirely appropriate for these and other important related subjects to receive as much analytical and policy attention as the efforts now being expended on formulating reforms of the surveillance, regulation, supervision, and governance framework for overseeing these SIFIs.

3. Consider global regulation and surveillance of the global over-the-counter derivatives markets.

Third, although authorities in all of the major financial centers agree that the over-the-counter derivatives markets need to be effectively regulated, creating an effective regulatory framework is likely to pose significant operational and politically contentious challenges. Over-the-counter derivatives markets constitute a global network of counterparty relationships among and between primarily SIFIs – a network in which these institutions act as dealers and market makers, manage financial risks, and trade on their own account (capital). In effect, this network is the global interbank money market. It is at the core of the global financial system, and it provides 'utility' financial services that affect indirectly many aspects of company and household finance. As the global crisis demonstrated, a single credit event or weak link in this network can quickly lead to a systemic problem as SIFIs rebalance and re-price their portfolios to minimize and exposures and preserve their own liquidity. When this happens, the network shrinks, becomes fragile, and as we saw in the autumn 2008 it ultimately can dysfunction.

The autumn of 2008 was not the first time this network threatened to meltdown. Ten years before this, in September 1998, the market turbulence surrounding the collapse of Long-Term Capital Management occurred in this same network; it was a wake up call that this market was subject to considerable systemic risk.[19] In the event, few reforms were implemented even though the official community gathered many times and wrote many reports about what needed to be reformed.

Genuine reform efforts in this area will require changes on many fronts: legal, process, architecture, cross-border cooperation, and leadership. There are differences in reform proposals across the Atlantic and fierce competition between the major financial centers; but there is also much common ground. These markets are truly global and systemic. Uncoordinated solutions will not work. Anything short of a global solution could lead to the persistence of regulatory arbitrage, complexity, opacity, and systemically threatening counterparty relationships. For these reasons, leadership at the head-of-state level may be required to forge a consensus that a global regulatory framework and platform is necessary to regulate the activities in these markets and conduct continuous effective surveillance over them.

4. Ensure central banks have tools to co-manage monetary and financial stability.

Fourth, as the global crisis convincingly demonstrated, monetary and financial stability are inextricably intertwined. The necessarily unconventional central bank policy responses to systemic events have provided dramatic illustrations of the natural role and inherent competencies of central banks in crisis prevention and management, and crisis resolution. In fast-paced modern financial markets dominated by a relatively small number of large, highly complex financial institutions central banks cannot properly maintain monetary control and stability without also having the capability to restore financial market stability if and when necessary. In crafting financial-system and central-banking reforms, decision makers should strive to ensure that central banks *retain* the independence required to conduct successful monetary policies and *obtain* the necessary authorities, discretionary instruments, and policy mandates required to ensure the smooth functioning of financial markets and the stability of financial systems more generally.[20] Central banks are likely to face serious challenges in these dimensions. Likewise, they are also likely to continue to face political pressures that could impinge on their independence and their operational abilities to deal effectively with future systemic crises

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[19] For an extensive discussion of the potential for systemic risk in over-the-counter derivative markets see Schinas1, Craig, Drees, and Kramer (2000).

[20] See Schinasi (2003) for a discussion of the natural role of central banks in financial stability. Also see Padoa-Schioppa (2003) who states, "The role of central banks in financial stability was thus part of their genetic code. It was – and, I would be inclined to say, still is – an integral part or an inseparable component of the central bank as a bank, of its monopoly on ultimate liquidity, of its role as the bankers' bank, and of commercial banks as creators of money themselves."

5. Meet other challenges of greater global financial governance.

Fifth, there are important unmet challenges in the global governance of finance – that is, in safeguarding global financial stability. The major countries have reshaped governance mechanisms by initiating a G-20 process at the head-of-state level. This process has already been successful in bolstering and reforming the multilateral institutions to help safeguard systemic stability in countries and across borders. There have also been successful efforts in coordinating macroeconomic and monetary responses to mitigate the adverse consequences of the global systemic crisis.

Despite these successes, there are remaining areas that require close cooperation if global financial stability is to be restored and maintained. As already mentioned, the regulation of the global over-the-counter markets requires a globally coordinated effort if it is to be effective in reshaping these markets so that embody significant less systemic risk. Likewise, many of the SIFIs are truly global enterprises operating in many legal and regulatory environments. It would improve resilience of the global financial system if a global agreement could be reached about how to supervise these institutions effectively and how to resolve them in an orderly fashion without requiring massive injections of taxpayer monies. An additional unmet global governance challenge is that of objective surveillance of global financial markets free from national and political influences. One alternative is to create a new independent organization with a fully professional staff whose only remit is to identify sources of systemic risk and vulnerabilities, including emanating from specific countries or financial systems. Effective objective surveillance would require that this organization be politically independent and capable of holding countries to account for the negative externalities created by their financial systems and policies without consequences for their budget or mandate. The organization must be free to communicate its assessments and recommend actions without being subject to political or national pressures to nuance or change its analysis and judgment.[21]

[21] A different kind of reform is proposed by Adams and Sadun (2009). They call for the creation of a global economic council (Gleco), a ministerial body with decision-making powers overseeing the proper functioning of the global economy and the stability of the international financial system by providing close political support and strategic guidance to all IFIs.

Box 1. US Proposal for Reforming Over-the-Counter (OTC) Derivatives Markets [1]

The U.S. Administration's proposed reform of the over-the-counter (OTC) derivatives markets has four broad objectives:

- Prevent activities in the OTC derivative markets from posing risks to the stability of the financial system;
- Promote efficiency and transparency of the OTC derivative markets;
- Prevent market manipulation, fraud, and other abuses; and
- Protect consumers and investors by ensuring that OTC derivatives are not marketed inappropriately to unsophisticated parties.

The proposal includes the following broad measures:

- Require all standardized derivative contracts to be cleared through well-regulated central counterparties and executed either on regulated exchanges or regulated electronic trade execution systems;
- Encourage through capital requirements and other measures substantially greater use of standardized OTC derivatives (to facilitate substantial migration of OTC derivatives onto central clearinghouses and exchanges);
- Require all OTC derivative dealers, and all other major OTC derivative market participants, to be subject to substantial supervision and regulation, including conservative capital requirements; conservative margin requirements; and strong business conduct standards;
- Make the OTC derivative markets fully transparent by requiring the SEC and CFTC to impose recordkeeping and reporting requirements (including an audit trail) on all OTC derivatives and by requiring OTC derivatives that are not centrally cleared be reported to a regulated trade repository on a timely basis. (The objective would be to provide relevant regulators with access on a confidential basis to the transactions and open positions of individual market participants; and the public with access to aggregated data on open positions and trading volumes);
- Provide the SEC and CFTC with clear authority for civil enforcement and regulation of fraud, market manipulation, and other abuses in the OTC derivative markets;
- Work with the SEC and CFTC to tighten the standards that govern who can participate in the OTC derivative markets (to zealously guard against the use of inappropriate marketing practices to sell derivatives to unsophisticated individuals, companies, and other parties);
- Continue to work with our international counterparts to help ensure that our strict and comprehensive regulatory regime for OTC derivatives is matched by a similarly effective regime in other countries.

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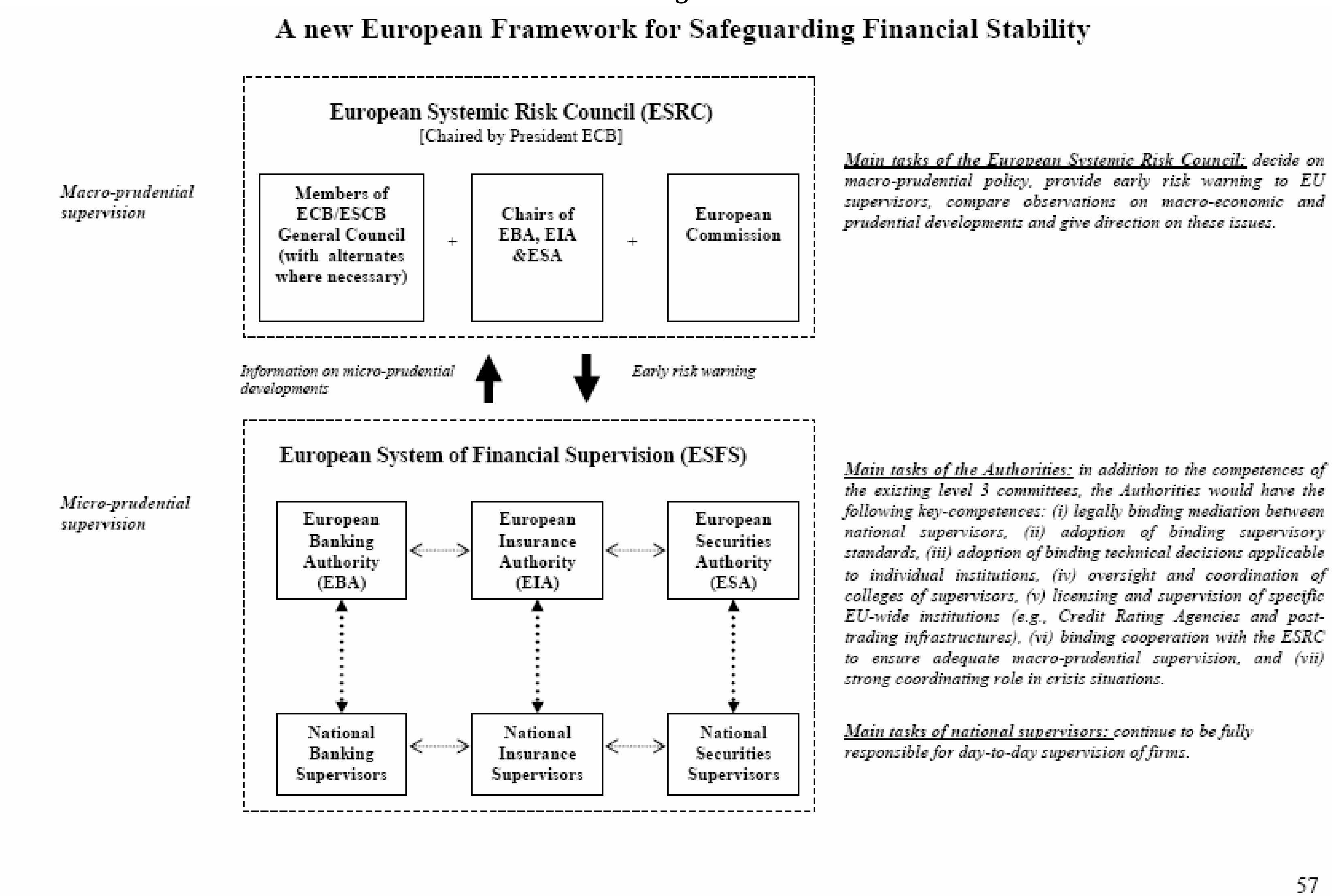
[1] See Secretary Geithner's testimony to the House Financial Services and Agriculture Committees Joint Hearing on Regulation of OTC Derivatives July 10, 2009.

Figure 1.



Source: de Larosière Group Report, page 57.

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