# THE CHALLENGE OF EUROPEAN INTEGRATION FOR PRUDENTIAL POLICY.

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**ABSTRACT.**

The economic unification of Europe has been a long-standing process. It has got more demanding along with financial integration and the single currency. Intertwined with the wider phenomenon of globalization, competition has produced much more risk-taking in financial systems. In Europe the necessary overhaul of financial safety nets has been compounded with soft compromises imposed by the principle of subsidiarity. The report will study the forces of competition reshaping financial systems and the changing pattern of risk. It will review the doctrine of prudential policy which has inspired the institutional design of the financial safety net. It will point out the shortcomings in prudential policy resulting from the gap between the highly decentralized prudential framework and the advance of financial integration.

Despite substantial progress financial integration is still incomplete. It has moved faster in debt markets, forcing intermediaries to concentrate with a bias in favor of national concentration. It ensues that banks have remained under national supervision while their risks are intertwined with the burgeoning of risk transfer mechanisms. As a consequence, endogenous risk stemming from market interdependencies has been growing with market volatility and has raised the vulnerability to systemic risk.

The response to this challenge has been mixed. The aftermath of the terrorist attack has plainly shown that the European Central Bank stands ready to fulfil her lender-of-last-resort responsibility in front of a self-evident systemic risk. But she does not dispose of the information and diagnosis paraphernalia to intervene timely and accurately in front of a systemic event maturing unseen within a buildup of financial fragility generated by a fast-growing indebtedness. The reason is to be found in the overly decentralized supervisory structure. Not only is bank supervision narrowly national, but no multilateral cooperation is organized, leaving market exposures unknown.

There is a large scope for improving the financial safety net, barring a huge leap to full centralization. The final section of the report elaborates proposals combining cooperation among national supervisors and minimal centralization. Because a single currency calls for a lender of last resort taking care of overall liquidity, the ECB should be able to perform the task most efficiently. It is why we propose the creation of a European observatory of systemic risk. We also propose the establishment of a European agency for transparency to coordinate information flows among national supervisors and enhance disclosure requirements. We suggest that prudential rules could be harmonized further regarding deposit insurance schemes, that capital standards for banks should be sensitive to the credit cycle, that European rating agencies should be encouraged to operate and be accredited by a committee of bank supervisors. Finally the report stresses that the most acute problem lies in the resolution of bank crisis insofar as it involves the use of public funds. In withdrawing the ECB from the critical decision, fiscal subsidiarity directly clashes with monetary sovereignty.

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**INTRODUCTION.**

In the last twenty years, Western Europe has got through dramatic financial changes. They have been partly the outcome of the forces of competition unleashed by financial globalization. Yet, to a large extent they have been policy-induced. Deregulation started as early as the turn of the 1980's in the UK and in the mid-1980's in the rest of the European Union with the launching of the Single Financial Market. This project was conceived and proposed to the national governments by Jacques Delors, then president of the European Commission. It was prolonged in the late 1980's by the bold undertaking of the monetary union whose formal proposal was finally enshrined in the Maastricht Treaty agreed upon in February 1992. Therefore the 1980's were the years of institutional innovation subsequently implemented in the following decade.

European reforms are original insofar as they encompass both financial and monetary integration. Indeed the latter does not follow logically the former. It would have been feasible to foster financial integration under a flexible exchange rate regime or to develop a parallel European currency. Alternative plans were laid out; some were upheld by authorities no less than the UK Treasury who was hostile to monetary unification. Furthermore the flow of European Directives to regulate competition in financial markets partly preceded and partly overlapped the preparation of EMU. It ensues that analysts are in position to unravel what pertains to financial integration and what proceeds from the requirements of monetary integration on the broad framework of financial safety nets.

Moreover the 1990's were years of deepening market integration with blossoming derivatives and the spread of financial globalization in new emerging markets. Those developments nurtured financial disruption illustrated by a whole array of crises. The disturbing events spurred initiatives to undertake prudential reforms by the central bankers gathered in the Basle Committee of Governors. In part EC authorities adapted prudential rules and standards defined in Basle, in part they went further in setting up their own rules to monitor the restructuring of financial institutions in the purpose of speeding up the process of European financial integration. Meanwhile central bankers embarked in a massive effort to strengthen wholesale payment systems and interconnect them into TARGET. The investment was made in view of abating systemic risk and setting the tools of the future single monetary policy.

The structural changes mean that the different layers of the financial safety net have more than one origin. They might be inconsistent, overlap in some respect and exhibit some loopholes and uncertainties about which prudential institution is responsible of monitoring which type of risks.

Our understanding of the European experience accounts for the dual nature of integration (financial and monetary). We are also aware of the contradictory political goals that shape the European project. Prevailing national interests have always been reticent to delegate their prerogatives whenever well-entrenched institutions are concerned. It is why an immoderate use of *subsidiarity* has been advocated to argue that the business of supervision should be kept at the national level. Only the setting of rules and standards in financial matters, which belongs to competition policy, has been delegated to the European Commission. This has always been a matter of principle in the construction of Europe: *strong in rule making, weak in collective action.* The only exception has been lately monetary policy

strictly defined. The monetary union was the outcome of a compromise between French and German politics following the fall of the Berlin wall. For the sake of strong political ties, German leading politicians accepted to give up the DM despite the reluctant Bundesbank. But they insisted that the monetary union should be shaped in their own way. Because the German banking system was segmented and financial markets were underdeveloped, German tradition was to decentralize much of banking supervision at the Länders level and to ward emergency liquidity assistance off the central bank and into a special institution commonly owned by the commercial banks.

It follows from these characteristics of European politics that micro-prudential supervision has been left to national entities with disparate views of how it should be organized and run. At the macro level of crisis management the master word is *ambiguity*. It is why the lender-of-last-resort function was not explicitly assigned to the European Central Bank (ECB) in the Maastricht Treaty.

The picture emerging from the continuous political bickering is a perpetual delay of prudential institutions behind market advances. On the one hand, national prudential policies were fitted to bank-driven instead of market-led financial systems. On the other hand, the excessive reference to subsidiarity underscores the need of collective action at the European level when endogenous risk has been spilling over securities markets. The present report will point out deficiencies in both aspects. It will also draw from modern theories of systemic risk to disclose areas where subsidiarity is not working properly and it will make proposals to remedy actual shortcomings in the European safety net. The proposals will distinguish between micro-prudential policy towards financial firms and macro-management of overall financial stability. The former will not recommend the creation of new European supervisory agencies, but a closer cooperation and a reconciliation of doctrine amongst existing national agencies. The latter, on the contrary, will forcefully assert that lender-of-last-resort and related crisis management functions to curb instability in disorderly markets should unambiguously be located in the European Central Bank under the ultimate authority of her council of monetary policy. Finally large or multiple bank failures, affecting more than one country, are intricate situations because they involve fiscal costs. The sharing of the costs between national governments can easily be the subject of much bickering.

The report is divided into three parts. The first part describes the structural changes entailed by the Single Market in financial services, for banks as well as for types of markets. It analyzes the risks due to the process of financial integration and emphasizes the importance of endogenous risk, which is underplayed by market participants with inadequate risk control and by supervisory authorities with inadequate coordination mechanisms. The second part depicts the current institutional framework and pinpoints where it is inadequate. Then it suggests how this framework can be improved with minimal institutional changes. A two-tier regulatory model can be devised to enhance a supervision compatible with tighter financial linkages and to make it the basis of information flows directed to the ECB in her capacity of the European lender of last resort. The third part studies how this two-tier framework can be put to work in the three components of the financial safety net: risk prevention, liquidity crisis management, and problem debt resolution. On the first topic, it shows on which specific points prudential regulation should be extended to match the stage of financial integration presently reached. On the second, it explains why and how the lender of last resort should be considered as an integral part of monetary policy under stressful conditions. On the third, it emphasizes that fiscal constraints are critical hurdles in solving bank problems. On top of being the weak side of macroeconomic management in Europe, the lack of fiscal coordination is an hindrance in dealing with bank insolvency that is not confined in a single country.

## I. FINANCIAL UNDERPINNINGS OF PRUDENTIAL REGULATION.

The concept of financial integration is multidimensional. All aspects do not concern prudential policy. Changes in market structures and in the organization of financial firms matter for the changing risk pattern involved. The financial approach of integration is more directly relevant because it gauges financial structures for their risk return characteristics between substitutable assets. Broadening the range of tradable assets and making them more substitutable signal a progress in financial integration. But so does a higher density of financial flows both within multi activity financial groups and amongst independent financial entities all over Europe.

On the side of legal environment and corporate control, financial integration meets the obstacle of different national legal doctrines. Nonetheless a progress in integration can be viewed as a shift from closed information systems which favor insiders (French hard core shareholding knit by government-owned banks, German *hausbanks* and cross-shareholding, Italian government-controlled financial conglomerates) to open information systems. European Commission Directives since the beginning of the Single Market venture have driven the process 15 years ago. This sweeping change in doctrine requires European wide legal and regulatory structures, which are still lacking in a number of fields pertaining to prudential policy. Besides, ascertaining that institutions lag well behind private endeavors is a recurrent feature of European integration.

As hinted at in the introduction, Europe has been pursuing market integration via financial liberalization in each country, mutual recognition of one another's legislation and EC directives. It has also successfully completed the grand design of establishing a single currency. The present section will provide a summary view of the integration in financial structures, dealing both with financial intermediaries and markets. The deeper competition and the single currency both contribute intimately to the process. For instance, in bond markets, issuing in Euro has made interest rates converge between countries for securities of the same characteristics. Country spreads have become almost trifle compared to firm, sector and time spreads. In turn, competition has arbitraged discrepancies due to prior segmentations. Therefore a single yield curve has tended to settle down throughout the Eurozone for each class of risks in the non-speculative grade range.

As much as this process is under way, the present section tries to disentangle the matter. The first subsection focuses on competition from the viewpoint of the banking sector. The second subsection shows how securities markets are being reshaped by the predominant influence of single currency. Not surprisingly, market integration is more advanced in money and bond markets than equity markets. The third subsection studies how the pattern of risk is being changed by the combination of risk control systems developed by banks (a global trend), market interdependencies due to financial and monetary integration together, and the payment system which is the infrastructure of the single currency. The latter changes radically the occurrence of systemic events compared to international markets, because foreign exchange crises are no longer part of the drama.

### I.1 bank competition and consolidation

The structural change brought about by the adoption of the Euro and by the common monetary policy is exerting a profound impact on the financial system in EMU. Nonetheless the changes in bank structures have not yet altered the basic characteristics of European systems.

*a. Persistence in the peculiarities of the European banking system*

In the Euro zone the financial system continues to be bank-dominated, at least gauged against the US predominantly market-based system. The proportion of financial assets controlled by banks in EMU countries remains high. Bank loans to Euro-area residents reach about 100 percent of the monetary union GDP, more than twice the equivalent ratio in the United States, whereas equity and bond market capitalization as a percent of GDP are substantially smaller than in the United States. (Table 1).

**Table 1. A European bank-based financial system (EU-11, June 1999)**

(In % of GDP)

| | Euro area | U.S |
|---|---|---|
| Bank deposits | 77.8 | 55.2 |
| Bank loans | 100.4 | 48.4 |
| Outstanding debt securities | 88.8 | 164.6 |
| Stock market capitalization | 71.1 | 163.3 |

Source: IMF Working Paper (WP/01/28)

Furthermore, unlike in other industrial countries, savings banks and mutual and/or cooperative banks still carry a lot of weight in their local markets, especially at the retail level. The characteristics of these banks partly explain that the retail European banking market is still segmented. Indeed, savings banks often provide credit to customers in their neighborhood. In many countries, their original purpose was to finance farmers, artisans or other underprivileged groups, which were rationed by private commercial banks. Cooperative or mutual banks are typically owned by their depositors or creditors and their services may be restricted to those who own them although recent liberalization has permitted many of these institutions to offer their services to other customers.

*b. Increasing competitive pressures on the banking sector*

Despite these lingering peculiarities the introduction of the Euro, coupled with both liberalization and deregulation, has substantially increased competition in banking. The institutional design of the Single Market coupled with the introduction of the single currency have enhanced a competitive environment for financial intermediaries: better price transparency, no more foreign exchange risk, deeper and more liquid securities markets. Commercial banks have been busy using market facilities to transfer their risks via the securitization of their loans and the hedging in derivatives. They have also indulged in market trading and other investment banking business, weaving close links with institutional investors.

The tougher competitive environment has generated downward pressures on prices and profitability. Therefore financial firms have responded in boosting their market share in

order to offset the erosion in their net interest rate margin with a larger asset base. They have also looked for sources of profit less sensitive to market pressure (underwriting, asset management, designing structured financing for large corporations). Both strategies have entailed a wave of mergers and acquisitions by the means of public tender and private cross-shareholding.

Pressure on margins due to the increase in competition in E.U makes banks eager to look for markets abroad with higher margins. Many banks have preferred to expand into neighboring countries or countries that share a similar language than developing Euro-banking activities. For example, Scandinavian banks have expanded into the Nordic and Baltic regions, and Spanish banks into Latin America. Central and Eastern Europe has been an important target for banks from Germany, Austria, and Italy [ECB annual report 2001]. The result is that the exposure of European banks to emerging markets (Eastern Europe, Latin America end Asia) is high.

*c) The differential competitive effects of EMU in retail and wholesale banking markets*

Tougher competition amongst financial institutions has notably different effects in wholesale and in retail markets. The european retail market of banking services (households and individual enterprises) continues to be segmented and the degree of cross-border penetration is very small. This banking segment remains and will remain very sensitive to « vicinity services ». It means that the established branch networks and relationships with customers, and therefore geographical and cultural considerations, will continue to impede entry in retail markets. The presence of substantial switching costs for retail customers upholds this segmentation. For retail customers and bankers, the relevant market will continue to be local or regional despite the ongoing development toward financial integration and the new banking technologies (e.banking). The importance of the sunk costs associated with the retail banking relationships – based on the role of brand name and reputation – explains the weakness of the contestability of this banking segment.

Wholesale banking markets are already significantly internationalized and competitive. Nevertheless, the monetary unification further increases competitive pressures by suppressing or reducing competitive advantages partially based on the existence of national currencies. For instance, the «anchoring principle », requiring in some european countries that domestic financial institutions lead the underwriting of bond issues, will be enlarged to a wider zone, or even disappear. However, other competitive factors will be longer to erode. For instance, in M&A activities, the knowledge of the accounting, legal and fiscal frameworks persists to be a competitive advantage. Despite those few frictions, wholesale European banking markets are much more contestable than European retail markets.

*d. Consolidation and conglomeration*

The process of consolidation amongst banks has been taking place in Europe with a predominance of domestic mergers, implying a significant increase in concentration at the national level, particularly in the smaller countries. As a result, in E.U member states the average share of domestic banking business controlled by the five major banks (CR5) increased from around 50% to 60% over the period from 1990 to 2001. However, large differences persist between countries. At the present time, we can distinguish three groups of countries: Highly concentrated banking sectors, to be found in small and open economies

(Finland, the Netherlands, Belgium, Denmark etc) [1], medium concentration ratios registered in Austria, France Italy etc., and under-concentrated banking systems (in comparison to E.U. average) in Germany, Luxembourg and the United Kingdom. Germany is the E.U. country with the most dispersed banking system, the figure is around 20% [ECB annual report 2001].

Being essentially domestic, bank concentration promotes the rise of national champions. In some cases, domestic mergers could be interpreted as a defensive strategy favored by governments e.g. a strategy alleviating the potential competition of foreign players. Nevertheless, in most cases, cost cutting drove domestic mergers. For instance, White (1998) notices that the restructuring of the Finnish banking system, undertaken after a serious banking crisis, has reduced employment by 32%. Cross-border mergers are restricted in the European union, because labor mobility is hampered even at the managerial level and jawboning is systematically biased toward domestic against European-wide mergers (table 2). More generally, cross border cultural differences or conflicting business cultures were often viewed to impede cross-border mergers. Moreover, the need to fit national differences of legal and accounting systems probably increases the integration costs of cross-border mergers and restrains them.

As a result, foreign bank shares of total bank assets, including branches and subsidiaries, are still modest (i.e. less than 10 % in average– 4% in Germany, 7% in Italy 10 % in France). The exceptions are small countries like Belgium, or weird cases (Ireland or Luxembourg).

Another notable characteristic of European consolidation is financial conglomeration. Financial conglomerates combine two or more types of intermediaries (banks, asset-management companies, securities firms and insurance companies). This tendency of financial conglomeration has been permitted by the Second Banking Directive which allows banks in Europe to create financial conglomerates and to hold equity stakes in non-financial firms. The directive allows not only universal banking akin to the German model, but also cross-shareholding between commercial banks, insurance companies and investment banks. In the European Union, bank-insurance entities have become the dominant type of conglomeration. Yet, lately, banks have increasingly merged with securities firms in order to take advantage of the unification in capital markets.

Consolidation has also increased in the area of investment banking. Over the past few years, major E.U. banks have reorientated their activities towards investment banking in order to be able to meet the surge in the demand for financial services fostered by the expansion of European capital markets. This evolution is reflected in EU banks' income structure. In 2000, non-interest income, for which investment banking is one of the major sources, accounted for 52% of the total net income (compared with less than 30% in 1996). A substantial part of the cross-border mergers took place in the investment banking sector, where independent investment banks (many of them British) were purchased by continental commercial banks. These acquisitions were justified by the will to achieve rapidly the necessary expertise in securities-based corporate finance and asset management. This phenomenon largely explains the relative importance of the merger activity between euro countries and non-euro countries (the United Kingdom is not in the euro area).

[1] For instance, Scandinavian countries have CR5 figures of 70% - 90%

**Table 2. Merger and acquisition activity in the Euro area financial industry (1)**

| | Same country | | Other Euro country | | Other non-Euro country | | Total | |
|---|---|---|---|---|---|---|---|---|
| | Number | Value (2) | Number | Value (2) | Number | Value (2) | Number | Value (2) |
| Banks-banks | | | | | | | | |
| 1998 | 7 | 8,445 | 1 | 0,147 | 12 | 13,787 | 20 | 22,379 |
| 1999 | 9 | 41,242 | 4 | 9,465 | 15 | 7,495 | 28 | 58,202 |
| 2000 (3) | 3 | 4,528 | 0 | 0 | 5 | 11,654 | 8 | 16,182 |
| Banks-non bank financial | | | | | | | | |
| 1998 | 4 | 28,604 | 1 | 0,646 | 3 | 0,897 | 8 | 31,147 |
| 1999 | 3 | 20,816 | 1 | 0,800 | 12 | 4,130 | 16 | 25,746 |
| 2000 (3) | 8 | 4,768 | 1 | 1,631 | 4 | 0,653 | 13 | 7,052 |

(1) either acquirer or target company is resident in the Euro area. Only completed or pending deals
(2) in millions of US $
(3) January to 10 April 2000
Source: BIS 70th Annual Report, June 2000

*e. E.banking*

The increasing use of alternative distribution channels by banks to save costs and to reach new customers constitutes a further structural change. Nowadays, the Nordic countries stand out in terms of online banking relative to the size of the population. Norway and Sweden both have a penetration rate (users as share of the population) in excess of 25%, and in Finland more than the third of the population are involved in e-banking. So, more than 30 per cent of all European e-banking customers reside in the Nordic countries and another 22 per cent reside in United Kingdom [OECD, Financial Affairs Division, Occasional paper n°2 2001]. But these countries could be the precursors of a more general movement in favor of e-banking. Although branches have remained the main distribution channels, in most E.U countries, banks are developing a multi-channel strategy, combining traditional branch network with Internet. Following the lead of American and Nordic banks, where both internet usage and internet banking are more developed, virtually all major European banking groups have launched or announced large investment programs or alliances with major telecommunication groups or internet portals from 1999 on. Therefore e-banking opens an opportunity for large banking groups to compete in fields where the high initial cost of traditional brick and mortar branches and the dominant position of national champions has traditionally acted as barriers to entry. Consequently the development of electronic banking should enlarge cross-border activity and could constitute an alternative strategy for foreign expansion.

**I.2 Financial markets between fragmentation and integration.**

Money, bond and equity markets have been impacted differently by the advent of EMU. From the unification of the interbank market to the fragmented competition between equity markets, a wide disparity of consequences have arisen. As far as debt markets are concerned though, a bird's view can conclude to improved completeness, lower transaction costs and better liquidity.

*a. Money markets.*

The interbank market plays a key role in redistributing liquidity throughout the Euro area. It grew rapidly after the creation of EMU. The share of intra-euro claims in total cross-border interbank claims rose from 35% in 1997 to 50% in 2000, according to the BIS. Meanwhile the onshore Euribor deposit rate superseded the offshore Euro Libor as the reference rate. This is a two-tier market. A bundle of large banks trade cross-border with each other and serve smaller institutions along national correspondent banking. This structure keeps robust transaction patterns that have proved resilient under stress in diffusing liquidity provided by the ECB in the week following September 11, 2001.

By contrast the collateralized Repo market is a less integrated segment. Unification has been impeded by national disparities in regulation and market practices about securities lending. Furthermore clearing and settlement systems in securities transactions are not directly connected to TARGET. Idiosyncratic features in these systems make cross-border transfers complex and costly. Even if technical impediments can be overcome, legal and tax differences, rooted in formal definitions of property rights and in bankruptcy laws, are more deep-seated.

*b. Bond markets.*

Bond markets have been developing handsomely, even if their total size in the Euro zone is well under the US (table 3). The breakdown by type of issuers shows that bond financing is still weak in Europe compared to the US and even Japan. Non-financial entities rely on borrowing from intermediaries, while financial institutions raise funds in the bond markets. Banks that are busy securitizing their loans and buying credit derivatives to transfer their credit risk onto institutional investors via special purpose entities actively pursue this pattern. This structured financing entails the issue of high-grade securities by these entities as a collateral against the asset-backed securities (ABS) and collateralized debt obligations (CDO) bought by the ultimate investors (mutual funds and insurance companies). This type of indirect securities financing creates chains of credit risk, which are crucial in the changing pattern of risks.

Integration in debt markets has achieved single yield curves for all countries in government bond as much as in corporate debt. Government bonds have been converted into Euros since the first day of EMU (January 1st 1999). It has involved debt outstanding as much as new issues. In the second half of 1998, interest rates of the same maturity bonds had already converged to very low spreads, meaning that the market had no worry about the sustainability of government debts of participating countries. German bonds provided the benchmark because their market was deeper and broader. The residual spreads result from liquidity differentials, tax treatment and other technical issues. For monetary policy purposes, they can be neglected because they are about time constant. It is as if a single yield curve was established.

**Table 3. Debt outstanding by monetary area**

(in billions of dollars and % by type of issuers for each area in year 2000).

| Issuers | United States | Euro zone | Japan |
|---|---|---|---|
| Governments and agencies | 52.0 | 45.0 | 72.7 |
| Financial and institutions | 31.8 | 47.0 | 15.0 |
| Corporate sector | 16.2 | 8.0 | 12.3 |
| Total outstanding | 16771 | 7422 | 6241 |

Source BIS Working Papers n°100, the impact of the Euro on Europe's financial market, by G.Galati and K.Tsatsaronis, July 2001.

In markets for corporate debt, a continuous yield curve has settled down. The shorter range up to two years is under the dominance of monetary policy. Instead of using open market operations with Treasury bills, liquidity is provided to banks via repos and periodical auctions. In dealing with commercial banks the ESCB accepts a large range of eligible private paper of no more than two-year maturity in high-quality corporate securities. Futures contracts on these securities, which are traded in the most liquid markets, provide the benchmark and shape the shorter range of the corporate yield curve. From two to ten years, the benchmark comes from the fixed legs of high-grade swaps. The reason for benchmark status is that swaps have the lowest credit risk, limited to their replacement cost, because no exchange in principal outstanding is involved. Therefore the swap market in Euro has gained international benchmark status.

This benchmark is the basis for the market pricing of lower-grade and high-yield bonds that carry credit risk. However the quality of this public risk assessment, by contrast with the private evaluation and monitoring of banks, depends crucially upon the quality of the rating agencies. As we shall see in the third part of the paper, this is a weak link in a comprehensive prudential framework based on market discipline.

The instability in credit spreads can hamper the potential development of bond financing in the corporate sector which had a lively start in the heydays of investor optimism in the late Nineties. Easy credit, conducive to lower costs of issuing corporate debts associated with high merger and acquisition activity, brought riskier categories of issuers into the market. The resulting larger menu of assets broadened the portfolio of institutional investors. They got the opportunity to hold non-investment grade bonds and to take a sectoral approach of diversification all over Europe instead of a country approach. The foreign exchange risk being eliminated, they can concentrate on the risk of signature with the caveat that the pricing of credit risk be reliable.

*c. Equity markets.*

Equity prices have been driven more by global and sectoral, less by country-specific factors, leading to higher correlation between returns. By contrast the structure of the trading of securities has been slow to change.

The first phenomenon is broader than the effect of currency unification in Europe. It has been substantiated by an IMF study covering a large sample of firms in forty countries[Brooks and Catao, WP 00/216]. Stock markets have become more correlated in crisis periods. It is especially so in information technology where a global industry factor far outpaces other factors in explaining return variation.

The attempt to build a pan-European Exchange has failed so far. Consolidation via alliances between national Bourses has gone almost nowhere. Formidable obstacles were raised against the aim of integrating historically independent markets with entrenched vested interests. For instance the promised deal between the London Stock Exchange and Deutsche Börse aborted under the pressure of local brokers.

New markets did not succeed to unite either. Their collapse after the IT bubble burst was deadly to the point that the German Neuer Market was closed down, giving a heavy blow to the European Euro-NM. The latter is working hard to eliminate EASDAQ based in Belgium, but is under the threat of the launching of NASDAQ Europe. All those maneuvers have been wiped out by the disaster that swept all markets.

### I.3 The changing pattern of risks within EMU.

As documented above, financial markets in Europe are undergoing a structural change and are becoming more alike the US. This is particularly true of debt markets. Moreover it has been shown that the changing pattern of financing toward securities markets is fostering a drastic restructuring of banks. This dual process arises in an adverse environment created by the credit-induced boom-bust cycle in asset markets. In stressful circumstances bank strategies might well increase their risks instead of diminishing them, or transmitting risks to other financial institutions in complex structures. The combination of market risks and shaky financial structures among banks entails a potential for systemic risk. These characteristics will be tackled in turn.

*a. The risks involved in bank restructuring.*

Consolidation, conglomeration and extension into new business lines mean that the nature of risk is changing in the Euro area, making it more difficult to evaluate the possible repercussion of adverse shocks to financial stability

Facing strong competitive pressures on their traditional income generating activities European banks reacted by changing the structure of their balance sheets. On the liabilities side, traditional deposits have shrunk to the benefit of money market mutual funds and other liabilities while on the assets side, they have developed trading activities and securitization operations. It follows that their profitability has become more sensitive to market performance.

The case of German banking industry is a good example of this sensitivity. Falling prices on the equity markets and a deterioration of the economic climate have characterized the financial years 2001-2002. Both factors have created increasing pressures on the profitability of German banks. The decline in Stock market prices has shrunk the business generating commissions. The proprietary trading has turned non-profitable. The rising number of company insolvency has implied a matching need for risk provisioning. Only the decline in

money market rates has allowed traditional banking activities to generate an interest rate margin which has exerted a stabilizing influence on banking performance, in so far as customers have demonstrated an increased propensity to deposit their resources with banks. Nonetheless all in all the return on equity declined significantly.

**Table 4 Return on capital of individual categories of German banks**

Pre-tax profit for the financial year (in brackets: after tax) as a percentage of the average capital as shown in the balance sheet.

| Category of banks | 1997 | 1998 | 1999 | 2000 | 2001 |
|---|---|---|---|---|---|
| All banks | 12,75 (6,47) | 19,34 (10,20) | 11,22 (6,51) | 9,32 (6,07) | 6,23 (4,59) |
| Large commercial banks | 7,38 (5,44) | 39,51 (19,24) | 6,23 (5,48) | 6,34 (7,23) | 4,96 (5,69) |
| Land banks | 10,90 (5,89) | 11,69 (6,54) | 10,61 (5,92) | 8,14 (4,22) | 4,78 (4,01) |
| Saving Banks | 19,37 (6,66) | 17,82 (6,52) | 15,18 (6,12) | 13,39 (6,02) | 9,22 (5,08) |

Source: Deutsche Bundesbank Monthly Report, September 2002.

The shape of European banking consolidation promoting domestic merger exacerbates the too big to fail concern because national governments want to protect their national champions. In some countries, consolidation has created institutions whose liabilities represent a significant fraction of a country's GDP. This fait accompli potentially complicates the resolution of bank problems. It induces a tendency of national authorities to adopt an attitude of forbearance whenever they are confronted to insolvent banks. The Credit Lyonnais in France and Banesto in Spain epitomize what should not be done in mounting a bank rescue.

But the future could be different. Some observers expect a second phase featuring cross-border mergers [White (1998), Group of ten (2001), BIS (2000)] in search of global banking [BIS Quarterly review march 2002][2]. Whether it could happen, the "too big to fail" policy issues would be viewed differently. Two thorny scenarios might arise which will be prone to conflicts of interest. The first one involves a failure in locally operating branches or subsidiaries of foreign banks, whose consequences are more important for the host country than for the home country. Then the failure in a small country of a subsidiary, while the bank headquarters are in a large country, will cause a bigger headache in the former than in the latter. But according to the current "home country" rule, the workout is the responsibility of the supervisory authorities or the central bank of the large country, which can underestimate

[2] The difference between international bank and global bank is the following. If banks collect deposits in one juridiction and lend in another, they are international banks. If, they pursue the strategy of taking deposits and offering consumer loans, mortgages and corporate loans within a variety of national markets through a local presence, we designate them as global banks.

the consequences of a failure in the small country. The second scenario stems from cross-border consolidation leading to the emergence of pan-European banks that are large in relation to the European financial system as a whole. The weakness of the European level of supervision will make the coordination of national authorities messy and protracted in the task of restructuring an insolvent mega-bank.

Indeed, the E.U.'s Second Banking Directive establishes the control of the home country for the prudential supervision of solvency and of major risks and a minimum harmonization between countries in capital ratio, protection of investors and concentration of risks. Therefore, as underlined in ourscenarios, such a distribution of responsibilities could generate conflicts of interests between the host and home countries.

The rapid growth of financial conglomerates, which cut across banking, securities and insurance sectors from possibly different countries, raises some prudential questions. Cross-sector structures and operations may amplify existing risks in one specific sector, as well as create new risks. Among these prudential problems linked with the development of financial conglomerates we can point out the following problems: inadequate capital coverage, intra-group contagion, large risk exposure hidden in unregulated special purpose vehicles, lack of transparency in legal and managerial structure, supervisory arbitrage. The European Commission, conscious of these conglomeral risks, has recently presented a proposal for a directive that would introduce group-wide supervision of financial conglomerates. Meanwhile, this proposal does not question the existing institutional and geographic European prudential framework.

*b. The nexus of market and credit risks*

Since the task of revising the capital adequacy standard has entered the negotiating phase between the official and the financial sectors, a doxa has emerged along the following lines. Financial firms should be sensitive to markets in their risk management. Regulatory authorities should impose more stringent prudential requirements. Disclosure and transparency should be substantially improved. The recourse to rating agencies will permit supervisors and the investing community to work hand in hand in order to reward "good" and punish "bad" behavior.

This doctrine is underlain by a concept of risk perceived as a game against nature. Each financial institution is viewed separately on its own. It has to manage its potential losses due to factors of risk drawn from its historical database. This is the meteorologist analogy. As Danielsson and Shin put it, "the weather is unaffected by the predictions issued by weather forecasters and the consequent actions that these forecasters generate."

In the financial sphere the paraphernalia to ward off really bad weather is the Value-at-Risk( VaR). The largest and most active institutions in various financial services have extended its use from market to credit risk. In tranquil conditions, when interactions between market participants do not change much, it is undoubtedly a powerful tool. Under conditions where it can be safely applied, VaR makes available a common metric to aggregate the impact of unexpected adverse variations in a variety of risk factors. VaR is a probabilistic measure of the potential loss of a given portfolio that cannot be overstepped more than a given percentage of the time within a predetermined horizon. It can be the basis for provisioning against extreme variations of the risk factors in the tail of their joint distribution of probability. Therefore Value-at-Risk usefully completes risk management at the firm's level, after the

optimal portfolio has removed every risk that can be diversified away and expected risk that remains has been adequately priced in setting risk premia.

As far as markets operate in a way that makes it possible the identification of risk factors as exogenous to the financial firm and relevant the time-independence of stochastic events, the Value-at-Risk can be the fulcrum of internal risk control systems. But this assumption is not safe all the time to say the least.

In stress situations financial markets exhibit endogenous risk stemming from strategic uncertainty about each others' actions amongst market participants. Since price variations are influenced by the mutually reinforcing actions of market participants, shifts in beliefs can magnify market risk. Extreme price variations are the outcome of positive feedback effects from intertwined beliefs to actual price changes, whenever market liquidity is drying up because counterparts are vanishing against a one-way selling pressure.

Consequently in a stressful environment there is a crucial coordination problem that the market cannot solve. Furthermore insisting upon the use of internal risk control systems cum market transparency makes markets unstable( Morris and Shin). It is a dramatic error on the part of regulators to believe that market failures result solely from imperfect information. When switching strategies are implemented in the market by reference to a common threshold, transparency reduces the diversity of opinions and thus increases the strength of a uniform move. The use of the same VaR models, which do not make allowance for strategic interactions, entail the same responses to common shocks that trigger an abrupt rise in price volatility( Persaud). In turn this unexpected change makes VaR calculations underestimate potential losses due to extreme price variations.

Credit risk too is subjected to strategic interactions. Moreover a simultaneous deterioration of credit quality amongst a large number of credit institutions arises in the financial cycle when asset prices turn around after a credit-induced asset price boom has burst out. An important strategic complementary between banks resides in their assessment of the migration in credit quality between rating classes. They are all highly pro-cyclical in their judgment. The quality of credit is perceived good in the upturn of the business cycle and degraded in the downturn. This common attitude leads to macroeconomic switches in the regime of credit, engineered by strategic interdependence: banks compete to increase their share of credit when their mood is high, they hurry to shed as much risk as possible when it is gloomy. Therefore in an occurrence plagued with strategic interdependencies, making internal control systems more sensitive to markets and focusing on transparency may well make financial systems more unstable.

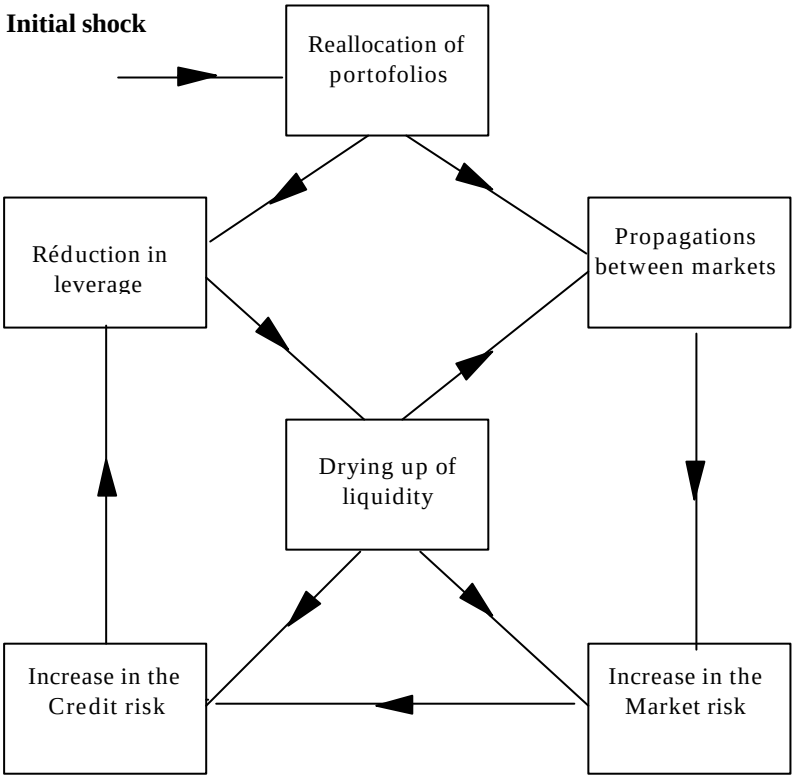
Endogenous risk arises also in the interbank market and underlying payment system. This structure is a network of cross-liabilities which exposes any bank to counterpart risk. Individual bank problems due to exogenous shocks or excessive risk taking can easily reverberate to other banks along a chain of liabilities. A first stage of defaults, which can be labeled fundamental insofar as they proceed from exogenous risk, may spillover into subsequent waves of contagious defaults via network externalities( Elsinger, Lehar, Summer).

*c. From endogenous to systemic risk.*

Systemic risk is the probability that an event arises in an environment of pre-existing financial fragility, acute enough to trigger chain reactions leading to a full-fledged financial crisis. The initiating event is so-called systemic (De Bandt and Hartmann). Examples of

systemic events, which would have degenerated into full-blown crises had not the central banks intervened in last resort, include the LTCM failure in September 1998 for financial markets and the terrorist attack of September 2001 for the international interbank market.

**Figure 1. A general scheme of contagion processes**




The fear that market liquidity might dry up is the linchpin in the linkage between distress sale of assets to reduce leverage and meet margin calls in the face of collapsing collateral on the part of borrowers, flight to quality and hedging mechanisms spurring the reallocation of portfolios on the part of investors. These rational responses at the individual level create positive feedback effects leading to a range of low macroeconomic equilibria where markets are trapped in and cannot recover on their own. The close ties between banks and non-banks mentioned above are ambiguous as far as feedback effects are concerned. On the one hand, banks can shed part of their credit risk in transferring them to non-banks with less liquidity constraints. But on the other hand, they take advantage of the new devices to lend a higher multiple of a given capital. Furthermore in severe conditions, when systemic risk as defined above is substantial, the institutional investors which have taken the credit risk out of the bank balance sheets might have problems themselves, especially if they have also a large share of their portfolio invested in plummeting assets.

These potential financial disorders make sense in Europe. They are concrete threats because financial systems in the different countries have undergone the sweeping change in financial integration and monetary unification described above. Markets encompass the whole of EMU. Banks have blended commercial and investment banking. They have also woven close ties with insurance companies and have expanded their facilities worldwide. It is why

the feedback effects between credit and market risk can work within financial conglomerates as much as across markets.

However prudential regulation in Europe is slow adjusting. It possesses neither a unity of doctrine nor of execution. The national separation of regulators has been perpetuated and the disparity of institutional choices has been accentuated rather than mitigated. Questions of principle arise as to what cautious regulation can achieve.

From what has already been demonstrated about the pattern of risk, one can conclude that there are two layers of active prudential policy. The one is *micro-prudential supervision.* It encompasses the application of the general standards in banking set up in Basle. But this is not enough. The single market for financial services requires multilateral coordination amongst national supervisors. The other is *macro-management of financial stability.* It is strongly influenced by the single currency. Contrary to the thorny problem of dual crises (banking and foreign exchange), which are situations where the lender of last resort is a matter of controversy in principle, systemic risk in EMU leads to the inescapable conclusion that the lender of last resort should be centralized. With a single currency the payment system is fully integrated. The operating mechanism of emergency liquidity interventions is the same as the provision of liquidity in normal conditions.

Section II of this paper will describe the state of the art as regards to prudential policy in Europe. Then it will gauge how far present practices are from the two-tier model, which should structure a comprehensive financial safety net. The gap is certainly due to the vagaries of European politics, which display their powerlessness in macroeconomic policy as much as in defense and foreign policy. But it is also due to the incompleteness of integration. It is sufficiently advanced to be concerned by the interdependence of risks in financial markets. But concentration in banking has increased via national mergers. Retail banking has built irreducible economic barriers, which has made a mockery of remote banking services in personal and real estate loans. In these markets integration does not proceed directly through the financing of borrowers, but indirectly through the transfer of risks in derivative markets. This is the linkage that reinforces the need of a strong macro-management of market disturbances.

## II THE INSTITUTIONAL DILEMMA IN DESIGNING AN EUROPEAN-WIDE FINANCIAL SAFETY NET

Part I has demonstrated that three main lines structure the current financial landscape in the Euro area: integration of markets which increases the risk of propagation of a liquidity crisis; consolidation of institutions both across product markets and, to a growing extent, across countries; the creation of very large financial intermediaries which may appear "too big to fail", complicating the resolution of troubled banks. These tendencies raise an obvious question: is the current supervisory structure adequate to stabilize an evolving banking system that has become more concentrated, more integrated and more market-oriented?

A debate about the institutional structure of prudential policy has lingered for years. In EMU it encompasses a national as well as a European-wide dimension. This two-tier structure complicates the debate. A first-best institutional structure is unattainable. Proposals of reform must be confined to second-best solutions guided by a pragmatic approach and by a

prospective view consistent with the current trends in the banking industry and the new risk profile of bank portfolios.

### II.1 The current institutional framework for European prudential policy

*a. The national decentralization of supervision*

The European Union's supervisory and regulatory design is based on the principle of subsidiarity. Consequently, the tasks of banking and financial supervision have been left to domestic agencies. The present European prudential system is grounded on the minimal harmonization of prudential rules as required by the Commission Directives on financial regulation and the mutual recognition of national regulatory standards and practices. Indeed, the second European Directive establishes the control of the home country for supervisory purposes regarding solvency and the prevention of major risks on the one hand, a harmonization of capital standards, risk diversification and investor protection rules on the other hand.

Therefore, bank supervision in the E.U. is based on two associated pillars: the principle of mutual recognition between national regulators and the principle of control by the home country. The association of these two principles allows any bank coming under the prudential supervision of one Member State to offer its services throughout the E. U. by means of a single license. The full supervisory responsibility belongs to the home country with just one notable exception –the host country competence for the monitoring of the liquidity of foreign branches. This geographic separation ruling the prudential supervision of financial intermediaries involves "the abandonment of the coincidence between the area of jurisdiction of monetary policy and the area of jurisdiction of banking supervision. The former embraces the countries that have adopted the Euro while the latter remains national." [Padoa Schioppa 1999]. There is no historical precedent for such a separation between the two public functions of managing the currency and controlling the banks, whose adjustments to monetary impulses constitute a fundamental channel in the transmission of monetary policy.

A single financial market with a plurality of national supervisors requires close cooperation among them to preserve the safety and soundness of the banking industry. But, despite the increased need of such a multilateral cooperation, it remains very weak. Cooperation between banking supervisors takes place essentially on a bilateral base according to Memoranda of Understanding (MoU). The key aims of MoUs are to establish a regular exchange of information between pairs of national supervisory authorities in order to supervise efficiently financial institutions that have cross-border activities or establishments in foreign countries

Multilateral cooperation is increasingly needed to prevent the risks induced by the trend toward larger, more diversified and more internationally oriented financial groups. Unfortunately this mode of co-ordination is underdeveloped. It has been handled by a Group of Contact, which meets periodically to examine problems of common interest. This Group of Contact, founded in 1972, gathers the supervisory authorities of the EC. Its episodic meetings (three times a year) constitute a form of multilateral cooperation that deals with questions relative to the implementation of banking regulations and regulatory practices. Since the creation of EMU it has been superseded by the Banking Supervisory Committee of the ECB, where the national regulators of E.U. countries (central banks and other agencies) are represented. This Committee is the main institutional channel the ECB can rely on to obtain information regarding the financial system. It is deemed to promote a smooth exchange of

information between the eurosystem and national regulators and a close cooperation amongst national supervisors. It advises the ECB council on issues falling within the competence of national central banks and affecting the stability of financial institutions and markets. But, this Committee does not possess the means to tackle emergency situations, nor is it able to make decisions of emergency liquidity assistance. This Committee, which is deprived of a permanent staff and meets just a few times a year, is dedicated to studying long-run macro-prudential questions. Consequently the ECB lacks a detailed knowledge of market exposures and spillover effects in real time that should be available to make an informed diagnosis of a systemic event originating in a particular market.

*b. organizational structure of prudential policy at the national level*

This decentralized supervisory architecture at the euro area level raises the debate of the optimal institutional structure at the national level. At the present time, each country has a bank supervisory agency that in almost all cases has strong links with the central bank. There are 6 countries in which the central bank is the main banking supervisor (Greece, Ireland, Italy[3], Spain, Netherlands and Portugal). Banking supervision is run by independent agencies, although in cooperation with the central bank, in Germany, Belgium, Denmark, Finland, Luxembourg, Sweden and the United Kingdom. In France the responsibility is divided between the banking regulator and the central bank. In Austria, a government department is responsible for this task. Supervision of the insurance industry is usually undertaken by a separate institution and supervision of securities trading is often allocated to the banking supervisor but can, in some cases, remains separated.

Indeed, the European investment services directive, which was enacted in 1996 to harmonize prudential rules between banks and investment firms, gave an opportunity in some countries to extend the responsibilities of bank regulators to investment companies. Despite the extension of competencies benefiting some banking supervisory authorities, supervision in member states remains largely based on an institutional segmentation. Nevertheless, some E.U. countries such as the United Kingdom, Finland, Sweden and Denmark have moved to an integrated supervisory authority in which the different financial intermediaries (banks, insurance companies and investment firms) are supervised by a single agency. These reforms were the outcome of perceived weaknesses in supervision after a number of financial failures, but were also justified by the ongoing blurring of traditional boundaries between financial activities. The United Kingdom makes a good example. The Bank of England Act, legislated in October 1997, set up the Financial Services Authority (FSA) which takes upon responsibility for the supervision of securities markets and of all financial intermediaries. In time of crisis, the Bank of England and the FSA are supposed to work jointly. They have signed a Memorandum of Understanding with the UK Treasury defining their respective responsibilities: calls for information sharing give the Bank of England a complete and free access to supervisory reports, the Treasury retaining the right to refuse a bailout action.

Several arguments can be proposed for and against both models of supervision (unified financial supervisor or specialized supervisors) [Abrams R. And Taylor (2000), Goodhart and alii (1997), Goodhart (2000)].

The case for a single supervisory authority relies on several arguments:

[3] In Italy, the Cental Bank is also the authority responsible for antitrust in the banking sector

i) It can generate economies of scope (or synergies) by pooling the expertise of different functional supervisors and guaranteeing their cooperation and economies of scale because of shared resources.

ii) It is an advantage to have a structure that mirrors the business of regulated financial institutions. A single conglomerate regulator might be able to supervise the full range of the institution's business more effectively and might be able to detect potential solvency problems proceeding from different parts of the business.

iii) A unified regulator will be able to avoid problems of supervisory arbitrage that arise when financial institutions offering similar products or services are monitored by different authorities, thus promoting competitive neutrality.

iv) A unified agency may offer a more effective way of responding to market developments or innovations, because it can strike regulatory arrangements that are more flexible than those achieved by separate specialized agencies.

v) By reducing the number of authorities and homogenizing their structure, it may improve cooperation among national supervisors.

The case against a mega-regulator is also quite sensible:

i) The risk profile and the nature of business remain substantially different across sectors and an excessive homogenization across heterogeneous activities could impair the overall quality of supervision. As a result, economies of scope are likely to be much less significant than economies of scale.

ii) It will be difficult for a unified agency to strike an appropriate balance between the different objectives of regulation. It is even possible that significant conflicts emerge within the single agency in charge with all aspect of regulation (systemic, prudential and protection of the consumer). This lack of clear focus on the objectives and rationale of regulation can deteriorate the accountability of the institution.

iii) A very powerful supervisor could increase moral hazard if the public assumes that all creditors of any intermediary monitored by a single supervisor receive equal protection. A mega-regulator can create the illusion of an important extension of the safety net and therefore can reduce the incentives for financial institutions to prudently manage their own business.

Be that as it may, it is impossible for the time being to impose a similar institutional solution for all the member states. The institutional design remains a sovereign prerogative. The crucial mechanism to supervise financial conglomerates efficiently is a clear agreement that assigns a lead regulator. At the multilateral level, the Joint Forum on Financial Conglomerates was created in early 1996. This Forum has examined ways to reinforce supervisory coordination, including the criteria to identify a coordinator of the supervisory process. Organizing a permanent dialogue between supervisors of banks, investment houses and insurance companies is a second best to supervise financial conglomerates. It is not a unification of financial prudential policy under the auspices of a European institution[4] .

[4] Thirteen countries are represented in the Joint Forum : Australia, Belgium, Canada, France, Germany, Italy, Japan, the Netherlands, Spain, Sweden, Switzerland, the United Kingdom and the United States.

### II.2 Are the existing arrangements adequate?

*a. The Brouwer Reports*

With the double separation (geographical and functional) between central banking and banking supervision and the absence of any explicit reference to "who is responsible for the European financial system as a whole", concern has been raised about the adequacy of current arrangements for the prevention and management of potentially systemic crises. In response to these doubts, the ECOFIN Council reviewed existing arrangements and concluded that the current design for prudential supervision is largely adequate. This conclusion was based on two separate reports on financial stability (i.e. the so-called "Brouwer Reports") carried out by a working group of the E.U. Economic and Financial Committee chaired by the Dutch Deputy Governor Henk Brouwer. The first report was published in April 2000 and focused on arrangements for the prevention of financial crises. The second report was published in April 2001 and was dedicated to the management of financial crises. These reports provide a favorable assessment of current arrangements both for the prevention and the management of financial crises. However they suggest some room for improvements. The main recommendations are the following:

i) Strengthening cross-sector cooperation at the international level and greater use of a lead supervisor for large cross-border/cross-sector financial groups. More precisely, for the major financial institutions (including conglomerates) which are domiciled in the E.U., agreement should be reached on the lead regulator, delineating its responsibilities including information gathering and communication.

ii) Improving the exchange of information on the major financial institutions and market trends amongst different supervisory authorities and between supervisors and central banks. Supervisory authorities should further develop Memoranda of Understanding to deal more concretely with issues related to crisis management, including the procedure for exchanging information when a major financial institution runs into trouble

iii) Ensuring that the risk control systems of banks and other financial entities are able to generate relevant and accurate information on their financial position at short notice. For this purpose, major financial intermediaries should perform stress tests and should share regularly the results with their main supervisors.

iv) Working on the convergence of supervisory practices to enhance the efficiency of supervisors involved in monitoring cross-border financial institutions.

Therefore, while the room for improvement in the functioning of current organizational arrangements is recognized by the Brouwer reports, the arrangements themselves are seen as adequate. This conclusion is conditioned by the fact that until present days the consolidation of financial institutions has largely been confined within national borders. In so doing these reports are typically too optimistic and lack a prospective view. They underestimate the structural changes in European financial markets and the potential for systemic risk involved by these trends. They overestimate the ability of present arrangements to deal with the increasing capital market orientation of large, globally connected, financial institutions, where losses can arise and propagate quickly and where responses must be timely to be successful.

*b A two-tier regulatory model for Europe.*

The prior discussion has pointed out four broad approaches to the structure of prudential regulation: institutional, by a mega-regulator, functional and by objectives -or finalities-. In the institutional approach, regulation is directed at financial institutions irrespective of the mix of their businesses. The mega-regulator model is based on just one control authority separated from the central bank, with responsibilities over all markets and intermediaries regardless of whether they operate in the banking, financial or insurance sector. The costs and advantages of these two cases were discussed above. The functional approach focuses on the business undertaken by institutions irrespective of which institutions are involved. This approach has the advantage of requiring the same rules to be applied to intermediaries who perform the same activity of financial intermediation. It enhances regulatory neutrality. For instance, life insurance is regulated as an activity in the same way regardless of whether banks or insurance companies are conducting the business. The main problem with functional supervision is that the position of the institution as a whole may be difficult to evaluate and control especially with respect to solvency. The ultimate criterion for devising a structure of regulatory agencies is the effectiveness of regulation in meeting its basic objectives, which can be defined as prudential, systemic and conduct of business finalities.

The organizational structure of prudential policy remains at the national level and it can easily be argued that supervision of individual institutions is best carried out at the level closest to the financial intermediaries concerned. Member countries have adopted different arrangements but the traditional institutional model is still prominent, even if recent moves to the establishment of mega-regulators have occurred in some countries. No European country has chosen the functional supervision yet.

Building upon the existent, a two-tier architecture guaranteeing the financial stability in Europe can be devised. The micro-stability objective could continue to be implemented at the national level with a necessary reinforcement of cooperation between supervisors, both cross-border and cross-sector, applied to complex financial groups. For the implementation of this prudential objective we agree with the conclusions of the Brouwer reports. It is too early and probably inefficient to create one single mega-European regulator. Nevertheless, the increased potential for contagion resulting from closer linkages among European financial institutions and markets and the impediments to an efficient coordination process raise the question of a centralized supervisory agency for systemic concerns. Such a systemic agency could be an independent institution. Nevertheless two characteristics of the ECB plead in favor of close links between this agency and the ECB. First, the ECB has already the mandate to ensure the smooth functioning of the TARGET payments system which absorbs all the financial shocks and provides timely information about interbank transfers. Second, the ECB, de facto, would play the role of a lender of last resort in the event of a common flight to liquidity. These arguments will be developed in the next section.

In addition to the establishment of an observatory of systemic risk, we propose the creation of an agency for transparency [5]. The reason for such an authority at the European level relies on the increasing use of market discipline as a complement to bank supervision and regulation to promote safety and soundness in financial systems. As a matter of fact, the Basle Committee of Bank Supervision builds the overall framework for financial stability on three pillars – regulatory capital standards, bank supervision and market discipline. Effective market discipline depends on market participants having information about the risks and the

[5] Di Giorgio and Di Noia propose the same kind of authority for transparency but included in a different global institutional architecture for prudential policy.

financial conditions of banks and other financial intermediaries. Market discipline cannot work without some transparency. Transparency in financial intermediation is a prerequisite for stakeholders (equity holders, debt holders and other counterparts) as well as securities analysts and rating agencies to assess an institution's current financial condition, prospects for future earnings and risks. That assessment depends, in turn, on the extent and quality of disclosure, which refers to the public release of information on individual institutions about their financial condition and performance, i.e. the current value of assets, the cash flow requirements associated with liabilities, as much as information on risk exposures, risk management processes, control procedures and business strategies. Debt holders and shareholders often equate market discipline with oversight because their motives and actions are supposed to alleviate risk-taking.

Markets are characterized by a chronic tendency to under-supply information relative to what is necessary for effective financial discipline. The main reason is easy to understand: the costs of producing information are concentrated while the benefits are diffused and not easily appropriated by the producers. There is clearly a conflict of interest between users and suppliers of funds regarding the production of relevant information. The increasing competitive pressures exacerbate this antagonism. The gap between individual and collective interest typically involves public intervention. That is why disclosure practices in banking are shaped by regulation. Regulatory standards apply to published financial statements and other financial information as well as to bank regulatory reports. The process for change in disclosure is influenced importantly by the initiatives of standard setters. That is the reason why we need, at the European level, an agency which should be responsible of transparency, investor protection and disclosure requirements of all financial intermediaries and for harmonizing rules in the field. This authority could permit a harmonization of implementation conditions of market discipline overall the Euro-area. Therefore, it could drastically limit the competitive distortions due to different national disclosure requirements.

### II.3 Linkage between financial supervision and the lender of last resort.

As regards liquidity assistance to financial systems, the role of central banks has evolved over time. In the XIX° century, central banks were privately owned and not considered as such by the financial community, because they were competitors in the loan market. Moreover the notion of prudential policy was unknown. The need of emergency liquidity under stress emerged however after the devastating financial crisis of 1867 in London. Bagehot's influential writings helped make people aware of a special responsibility for the Bank of England in time of crisis. The first trend of financial globalization, spread over forty years until 1913, upheld the concept of the lender of last resort in the most financially advanced countries of Europe in stark contrast with the US.

In the interwar period, the hands-off policy of the Fed in the midst of widespread bank distress magnified the trauma of the great depression that destroyed the international financial system. National systems were overhauled under strict banking regulations and foreign capital controls. They thrived after World War II and financed easily the high growth regime. Since the potential for financial crisis was concentrated in large banks and systemic risk could arise only in the interbank market, the principle of *"too big to fail"* became generally accepted. Moral hazard was counteracted by interest rate regulation, credit control and bank supervision. Consequently banking policy was separated from monetary policy.

The second trend of financial globalization started in the early 1980's and gained momentum over two decades. It has worked to undermine banking policy in blurring the dividing lines in finance. The "*too big to fail*" principle has not receded. But at critical times, central banks had to extend their umbrella above wider areas of finance. This structural trend has entailed a twin shift in the position of central banks. On the one hand, they have retreated from direct responsibility in supervisory activities as documented above. On the other hand, the concern for macro-financial stability has surfaced again in the design of monetary policy.

Whenever it has occurred the separation of supervision from the central bank, while the role of the latter has made a comeback in preserving overall financial stability, has led to complicated relationships. The issue is the positioning of the lender of last resort( LOLR), which has the money-creating power, vis-à-vis the supervisory institutions, which have the information and the government, which can be affected by crisis management. A network of communication must be carefully designed.

In EMU an additional layer of complexity arises. There are national central banks which are part of the ESCB, national governments with fiscal authority, no central budget for restructuring financial firms, large disparities in national supervisory systems. Against this background, which is improper to handle European-wide systemic risk, the Maastricht treaty has been reticent to grant the ECB a LOLR role.

The causes are twofold and were already mentioned in the introduction. The first reason is doctrinal. In Continental Europe, monetary authorities have a different view from Anglo-Saxon countries, because financial intermediaries rather than markets play the dominant role. An uncompromising monetarism pervaded much longer in the former countries. There was a fear that a LOLR responsibility publicly asserted would undermine the overriding principle of price stability. Therefore *ambiguity* was claimed to be constructive, especially to ward off moral hazard. The second reason is political and embodied in the concept of *subsidiarity*. It fitted the argument according to which crises occurred in banking and were circumscribed inside national borders. It also suited the privileges of national central banks eager to retain as many sources of profit as possible. Their respective governments, not willing to abandon their upper hand on bank restructuring insofar as national interests were at stake and fiscal by-sides were involved backed them.

Yet recognition of the LOLR function to the ECB is a crucial part in maintaining financial stability. It will be demonstrated in section III.2 with the aftermath of the systemic event in interbank markets due to September 11,2001 terrorist attack. Therefore the questions arise: on what principles the LOLR function shall be performed? Who shall take the initiative? How shall the relevant information be transmitted?

*a. Principles underlying a comprehensive framework.*

National central bankers claim for a full prerogative in crisis because they pretend that a financial disorder can be handled in and confined to a single country. Whether such a view was warranted, it would greatly reduce information gathering and burden sharing and simplify decision-making. However, in an integrated financial system, the principle of subsidiarity upheld by national central bankers is only compatible with an unlikely combination of effective supervision of financial institutions at the national level and perfect capital markets linking those institutions in EMU. But recent financial history has shown that markets are plagued with endogenous risk involving cross-border counterparts. Liquidity scares in these European-wide markets cannot be handled by delegation to a single national central bank.

From this observation it follows that a national autonomy in prudential policy is compatible with the efficiency of the European financial system under tranquil conditions, but it is not suited to safety whenever systemic risk is at stake. Table 5 sums up the change in the types of prudential policy that must be made to recover safety when financial systems move from separation to integration.

**Table 5: Types of prudential policy in Europe**

| Type 1<br>Autonomy + Safety | Type 2<br>Autonomy + Efficiency | Type 3<br>Safety + Efficiency |
|---|---|---|
| Ways and Means of prudential regulation :<br>• Capital controls<br>• National supervision and LOLR<br>• Minimal coordination on cross-border payment systems | Ways and Means of prudential regulation :<br>• Partial harmonization of prudential standards<br>• Heterogeneous models for the supervision of banks and other financial institutions<br>• Bilateral episodic cooperation structured in Memoranda of Understanding | Ways and Means of prudential regulation :<br>• Network of national supervisors coordinated in the Banking Supervision Committee<br>• A Pan-European observatory of systemic risk<br>• The ECBS as the lender of last resort |
| Financial systems prior to the Single Market | Financial liberalization and integration since the launching of the Single Market to EMU | Monetary and Financial Integration in EMU |

With the dismantling of capital controls and the advance of financial liberalization from the mid-80's onwards, prudential regulation has lagged behind. Type 2 fragile financial systems originated in the late 80's. In the early 90's, asset market-induced banking crises erupted in nearly every European country. Inadequate monitoring of banks, excessive forbearance and muddling through in solving bank insolvency problems, were symptoms of inefficient prudential policy which sacrificed financial safety at high social costs. In speeding up the development of integrated financial markets and the market involvement of banks, the advent of EMU makes financial safety even more at bay. A move to type 3 prudential regulation is on the agenda, whatever the plea for doing nothing that is upheld by national supervisors and central bankers who defend their stronghold.

*b. Conducting lender-of-last-resort operations*

Drawing from the first section of the paper, financial crisis management should take an Euro area-wide horizon in the following circumstances:

- A general deterioration in financial conditions conducive to a massive shift to liquidity, as occurred on dollar markets in 1998 after the Russian bankruptcy.

- A large bank failure or multiple failures in the banking sector, which trigger externalities through payment systems or securities markets and create endemic financial fragility.

- A crash in a securities or derivatives market, which spurs the need for liquidity and deteriorates bank balance sheets via margin calls, capital requirements, collapses in collateral values.

In these circumstances the responsibility of the ESCB as the lender of last resort for EMU should be acknowledged and never be in doubt. On the contrary, decentralizing the LOLR function to national central banks, on their own responsibility and on ad hoc basis, is utterly inappropriate in view of the close implications of LOLR function for monetary policy. Whoever technically performs the emergency liquidity injection, the ESCB as a whole should always retain the final decision. Therefore the ultimate decision-making body is the council of the ECB which should have the capacity to activate the facilities needed to implement decisions in emergency.

Depending upon the type of financial crisis, the initiation of the process can come from a particular country, a financial center or be detected in the worsening of overall financial conditions. In the first two instances, the Council should be able to draw upon well-run information lines and be entitled to ask supervisory institutions for whatever piece of information may be relevant for its diagnosis. As speed of reaction is of the essence in a successful LOLR intervention, ECB managers should be informed of anomalies creeping in financial systems from the start. In the last instance, unsettling monetary conditions can be ascertained in the course of monetary policy.

As far as operational responsibilities are concerned, the intervention in liquidity can be either carried out by the ECB or by one or several national central banks after the decision to intervene has been decided upon by the ECB council and the procedure has been agreed upon in detail.

A widespread occurrence of systemic risk, upsetting a large range of markets and deteriorating macroeconomic conditions, may entail full centralization because the ECB alone can restore confidence shaken by an adverse shift in beliefs.

A severe disruption on a specific securities or derivatives market, with a potential for spillover through portfolio management by investors and dynamic hedging by market intermediaries, is a threat, which can be better contained in the disturbed market. If the market is located in a financial center or if well-identified market makers have to be supported, the situation eventually points out to a national central bank better equipped than others to operate. Depending on the market in disarray, the central bank can intervene with direct open market operations, lending to market makers or providing guarantees to banks that extend credit lines to the market makers. The central bank, operating on behalf of the ESCB and under instruction issued by the Council, may eventually broaden the range of collateral acceptable to secure her lending.

An emergency liquidity assistance to an individual financial institution, justified by its critical position vis-à-vis others, can be dealt with by the central bank of the home country of this institution, or by the central bank of the country where the institution is in trouble. Whatever the decision, it pertains to the ECB council to make it. Being a non-routine lending, the intervention can use the tool kit of standing facilities: marginal-lending facility fitted for emergency lending or discount window US style.

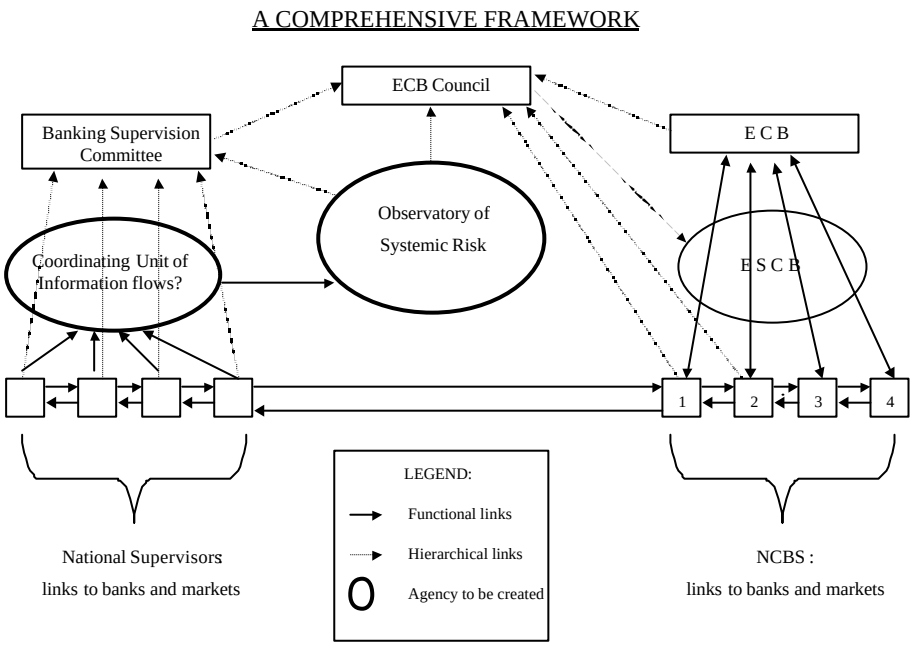
In any case, the EMU area-wide externalities inherent to systemic risk in a single monetary area can only be internalized by a systemic regulator that is the ESCB as a whole. Marginal facilities are favored because they use the same channel as used to supply very short run financing into the interbank settlement system. The transactions between the commercial banks and central banks of the ESCB are collateralized repos, instead of outright purchases of securities. It is more in line with the operating procedures of liquidity provision because

monetary policy does not make use of open market operations. Liquidity is supplied to the banking system via a large range of private paper. In emergency situation the ECB leadership can always decide to broaden the range of eligible paper and instruct any of the national central banks to conduct repos along such lines if needed.

*c. A supportive environment for the lender of last resort.*

On facing the development of a crisis situation, the ESCB must be able to rely on a number of conditions, which can only be met by an extensive network of communication between various institutions at the national and European level. Figure 2 depicts such a comprehensive framework.

Figure 2




Part of the framework results from the analysis above in this section. Bank and market supervisors are distinct from central banks for reasons indicated in our discussion of the present doctrine of supervision. Furthermore we have advocated a two-tier system of supervision. Therefore figure 2 makes room for horizontal communication both within a country and between countries. It also depicts vertical lines of communication. On the side of supervision, the national supervisors are coordinated under the authority of the European Bank Supervision Committee whose powers should be substantially enlarged. It should be endowed with a permanent staff operating a coordinating unit for the gathering processing and aggregating of information provided by the national supervisors. On the side of central banks, the two-tier organization is embodied in the structure of the ESCB.

The significant innovation we propose on figure 2 is the creation of an observatory of systemic risk at the European level. An observatory of systemic risk would be all the more useful than we know very little of the details of contagion processes, weak links in financial conglomerates, forerunning indicators of market liquidity stringency, turnaround in market

sentiment. Therefore it should be self-evident that the ECB Council would greatly benefit from relying on an agency capable of following, understanding and interpreting European-wide market developments. Any diagnosis about a systemic event in the making would be more reliable and laid on firmer ground.

With access to information generated in financial centers and transmitted to national central banks and supervisors, the observatory would be in a position to assess the consolidated exposure of the main market makers operating in several intertwined markets. In normal time, the observatory would work as a warning agency and a research center on the effect of the development of financial markets in Europe on systemic risk. In times of crisis, the observatory would operate as a task force for the ECB board and council of governors to arrive at a diagnosis and conceive a mode of intervention to thwart a liquidity crisis at the most appropriate impact point. It could also help the Council guide the resolution of major bank failures involving more than one central bank.

## III POLICY ISSUES IN STRENTHENING PRUDENTIAL MANAGEMENT IN EUROPE.

Traditionally policy issues distinguish crisis prevention and crisis management. Prevention can itself be usefully divided into market discipline and supervision. Market discipline is enhanced by the quality and the availability of information to market participants. In this respect the role of rating agencies is emphasized, their heavy shortcomings and the way to induce them to improve their performance are outlined. Supervision is a fieldwork, which seems to be never-ending with the revision of capital standards. It can also benefit from the experience of the US where the reform of the insurance deposit scheme has given rise to the introduction of prompt corrective action. Crisis management can also be divided into the provision of lender-of-last-resort facilities and the resolution of bank problems. With regards to the former the changing function of the lender of last resort in a market-led financial system is emphasized. With regards to the latter, which involves public funds, the handicap of the lack of a federal budget and the artificial restraints of the stability pact is stressed.

### III.1 Risk prevention: capital provision, rating agencies, insurance deposit schemes.

In this subsection we focus on the elements of micro-prudential policy most susceptible of change, either because reform is under way (capital provision) or because a significant improvement is much needed (rating agencies and deposit insurance).

*a. European Deposit Insurance*

The 1994 European directive on deposit insurance required member states to establish a formal system of deposit insurance respecting certain minimum criteria before 1995. The obligation of member states of the EU to set a clearly defined deposit insurance scheme [6], entailing the mandatory participation of banks and the requirement for a minimum guarantee level of Euro 20 000€ per individual, not per deposit, in all member countries is a major

[6] It has forced countries that did not yet have such a system to introduce one. Greece, Potugal and Sweden have been the late adopters.

achievement [7]. In response to the Directive, three countries (Greece, Portugal and Sweden), which did not have any system before, introduced deposit insurance and four countries (Belgium, Ireland, Luxembourg and the Netherland), which had a coverage lower than 20 000 euros, raised it. None of the EU Schemes guarantees interbank deposits; neither do they cover effectively corporate deposits, as there is a limit to the coverage per depositor (table6).

These harmonized criteria nevertheless remain too weak for a sound European deposit insurance system.The Directive on Deposit Guarantee Schemes (94/19/EC) does not impose requirements in terms of ex-ante funding, public or private administration, risk-based premium system, etc. However, the advent of the Euro and the promotion of a European prudential strategy require the adoption of such a well-designed deposit insurance system.

The principles of home country regulation and mutual recognition - subject to minimum standards – pervade EU banking regulation including deposit insurance. Nevertheless, there is room for substantial progress in this field. For instance, the EU deposit insurance directive does not prescribe whether the deposit insurance should be organized by a public or private institution or how high the deposit insurance premium should be. This loose predicament leaves some room for international regulatory competition. Thus, EU countries can compete on the level of the deposit insurance premium charged to their banks. Following the first and second banking directives, EU banks have the right of establishment and freedom to provide financial services throughout Europe. A bank that wishes to serve its foreign customers by way of a permanent foreign establishment has two options : it can open a foreign branch or a foreign subsidiary. The EU deposit insurance directive prescribes that a foreign branch is in principle covered by the home country's deposit insurance scheme, while a foreign subsidiary should participate in the deposit insurance scheme of the host country. It means that foreign bank branches are covered by a different deposit insurance scheme from their domestic competitors. Such a rule may spur regulatory competition in the area of deposit insurance in Europe. Indeed, deposits placed with foreign bank branches are recorded as external liabilities of the home country of the bank, albeit from the perspective of the depositor they are domestic deposits. This accounting shenanigan creates a regulatory distortion and brings the competition for deposits close to home.

Given the absence of fiscal federalism, a federal insurance system is not conceivable yet. In contrast it is possible to impose a public system rather than to leave the choice to member states between systems managed privately by banks and a state-managed system. In the same vein, it is conceivable and desirable to impose an ex-ante financing and to promote a risk-based premium system. In effect, ex-post financing systems, i.e. financial institutions contribute funds after bank failure, generally preferred by banks, provides wrong incentives regarding the basis for calculating the premium amounts. Among the possible techniques for adjusting premium to risks, the linking of criteria of capitalization and rating represents a good option. This is the approach applied in the U.S by the F.D.I.C. These three reinforcements of the deposit insurance directive are the pre-requisites to an extension of the responsibilities of deposit insurance funds in the resolution of bank problems. Such an evolution is justified by the burden supported by the insurance funds in case of bank failure.

[7] A limitation to 15 000 euros was possible until 31 december 1999.

**Table 6: Deposit Insurance System features in EU countries**

| Countries | First established | Coverage limit (in Euros) | Foreign currency deposits covered | Interbank deposits covered | Status | Funding |
|---|---|---|---|---|---|---|
| **Austria** | 1979 | 20 000 | No | No | Private | Unfunded |
| **Belgium** | 1974 | 20 000 | No | No | Mixed (private/public) | Funded |
| **Denmark** | 1988 | 40 000 | Yes | No | Private | Funded |
| **Finland** | 1999 | 25 000 | Yes | No | Private | Funded |
| **France** | 1980 (i) | 70 000 | No | No | Private | Funded |
| **Germany** | 1966 | 20 000 | Yes | No | Private/equivalent | Funded |
| **Greece** | 1995 | 20 000 | No | No | Public/private | Funded |
| **Ireland** | 1989 | 20 000(ii) | No | No | Public | Funded |
| **Italy** | 1987 | 103 000 | Yes | No | Private | Unfunded |
| **Luxembourg** | 1989 | 20 000 | | | Private | |
| **Netherland** | 1979 | 20 000 | Yes | No | Private | Unfunded |
| **Portugal** | 1995 | 25 000 | Yes | No | Public/private | Funded |
| **Spain** | 1977 | 20 000 | No | No | Mixed | Funded |
| **Sweden** | 1996 | 25 000 | Yes | No | Public | Funded |
| **U-K** | 1982 | 22 000 | No | No | Public | Mixed (iii) |

(i) reformed in 1999.

(ii) The public scheme provides a coverage up to €20000, but the private scheme(on a voluntary basis) provides a coverage up to 0.3%of the available capital of the bank for each depositor.

(iii) There is an initial contribution and ex-post funding when needed.

**Sources** :- Reint Gropp and Jukka Vesala, 2001, Deposit Insurance and moral hazard: does the counterfactual matter ?, March , European Central Bank, Working Paper N°47- Agnes Belaisch, Laura Kodres, Joaquim Levy and Angel Ubide, 2001, Euro-Area Banking at the Crossroads, IMF Working Paper, March, WP/01/28.- Charles Cornut, 2000, Le Fonds de garantie des dépôts, Revue d'Economie Financière, N°60.

*b. Capital Provision.*

The proposal of the Basle Committee for Banking Supervision (1999-2001) and the European Commission (1999-2001) are divided into three « pillars ». Pillar I deals with changes to the current framework involving the calculus of minimum regulatory capital requirements. The aim of the new method is to better align banks' capital with their true risks. The new framework maintains both the current definition of capital and the minimum requirement of an 8% ratio of capital to risk-weighted assets. The reform focuses on improvements in the measure of risks, i.e. the calculation of the denominator of the capital ratio. The measure of market risk is left untouched. The main aspects of the revision concern the treatment of credit risk and the integration of a measure for operational risk. The current method to compute risk-weighted assets is highly conventional and mechanistic. Individual risk weights depend on broad categories of borrowers - i.e. sovereigns (with a distinction between OECD members and non-members), banks or corporate entities -. The reform will permit an increased risk-sensitiveness of the new rules. For the measurement of credit risk two options are being proposed: the standardized approach (S.A.) and the internal rating-

based approach (IRBA). In the former, the risk weights are to be refined by reference to a rating provided by an external credit assessment institution, i.e. a rating agency. For instance, for corporate lending, the existing accord provides only one risk weight category of 100%, but the standard approach will provide four categories (20%, 50%, 100% and 150%). In the latter, banks will be allowed to use their own internal ratings of borrower creditworthiness to assess credit risk in their portfolios, subject to supervisory approval. Moreover this IRBA is divided into two options: the foundation approach and the advanced approach which relies even more on institution's own estimates for the various risk dimensions of their credit portfolios.

Pillar II focuses on the upgrading of the supervisory review process. Supervisors need to precisely understand how banks handle their risk management and internal capital allocation processes. They would be responsible for evaluating how the bank internal capital assessment processes are relevant relative to their risks. It means that supervisors could require a higher provision than the minimum capital requirement from a given institution if they detect weaknesses in the internal processes. Therefore one consequence of the revised 1988 accord – the so-called Cooke ratio – will be a drastic change in the nature of bank control. The practical advantage of the Cooke ratio is its simplicity and even rudimentary nature. The supervisor's task is to verify the adequacy between regulatory capital levels and the conventionally defined risk-weighted assets. The new ratio will transform the role of supervisors, which will consist less in verifying compliance with capital standards than in assessing the quality of internal bank models. Supervisors are supposed to become experts in internal bank control. In the Euro area, because of the high degree of financial integration, they should adopt common methods of validation to avoid the risk of competitive distortions due to heterogeneous criteria for validating internal models.

Pillar III completes the picture in promoting market discipline through enhanced disclosure by banks. Overall a better robustness of the banking sector is expected. Nevertheless it still remains some potential adverse effects of this reform that should not be underestimated. At the macro-economic level, more sensitive capital requirements could produce pro-cyclical effects exacerbating business fluctuations. As a matter of fact, after a negative aggregated demand shock, banks would have to adjust to their cyclically induced loan losses and the resulting decline in their capital by rationing lending. It will arise because their internal models of risk assessment are not suited to handle endogenous risk from each others' reactions to the deteriorating quality of their assets. At the microeconomic level, banks could use an IRBA subject to supervisory approval on a voluntary basis. So, there is a potential danger of adverse selection in this choice, which would imply that the aggregated level of capital in the banking system would decrease. Indeed, it is possible that only those banks who will gain in using the IRBA in the form of a reduction of future capital requirement will choose it, whereas those who will not will adopt the standardized approach [8].

*c. rating agencies*

As a result of the capital standard reform, more banks will look for external credit ratings in order to reduce their capital base. The extended coverage in the use of rating will be particularly pronounced if the adoption of the IRBA remains limited. It will dangerously and unwillingly spread the role of rating agencies in prudential control. Indeed, more and more bank regulators systematically incorporate external ratings in their estimates of bank solvency. Thus rating agencies assure de facto a public service in producing information widely disseminated were the market efficient. They are supposed to reduce both

[8] For a discussion on this point see Jokivuolle and Kauko (2001)

informational asymmetries between lenders and borrowers and the costs of obtaining information. This role fits with one of the pillars of the new international prudential doctrine, namely the strengthening of company disclosure practices. Market discipline could be effective only if the information is relevant and accessible to all market players. It implies that in conjunction with rules promoting the disclosure of information, there exists well-informed opinion makers. Were the judgement of rating agencies validated by the regulators, it would acquire a benchmark status for investors similar to a public good.

The potential role of rating agencies could be even more important in the new prudential framework. The assessment of banks' control methods should concern not only the quality of the models but also the involvement of higher management, the separation between operating and auditing functions and the setting up of check and balances at all levels of their organization. Whether supervisors accepted to rely on the bank internal control systems, operational risks due to organizational deficiencies should be greatly mitigated. Indeed a number of the crises affecting banks, in particular on derivatives markets, originated in faulty organizational arrangements which failed to provide a dual structure for the execution and the verification of transactions. These organizational deficiencies create opportunities for fraud and dissimulation of losses. From this point of view, the Barings failure is a textbook case.

Assuming that rating agencies are able to judge the quality of the organizational aspects of internal control is a big if in the present state of the art. Time again the rating agencies have displayed their inability to keep ahead of the market because they resort to market prices instead of strictly fundamental analysis. It ensues that the process of rating loses substance whenever it becomes self-fulfilling, the market mirroring itself in the opinion of the rating agencies. Furthermore the oligopolistic structure of their business, with their profits generated by the fees paid by the rated corporations, does rule out neither conflicts of interest nor collusive practices, the agencies chasing one another when credit events arise.

It follows that an enhanced prudential role for rating agencies should be accompanied by a consistent reform in their status, because they produce a service akin to a public good. To prevent conflicts of interest created by the dependence of rating agencies on audited financial institutions; they should be granted a quasi-public status with the accountability to prudential authorities attached to such a status. Their activity should be financed by a tax paid by all credit institutions. This reform would break up the uncanny promiscuity between the inspected party and the examiner. As a counterpart, recourse to ratings should be an obligation for all banks, regardless their size and their range of business.

This reform should be implemented at the European level. The emergence of European rating agencies has to be encouraged by a European accreditation system under the authority of European supervisors. Several arguments plead for European agencies. First, the further deepening of European financial markets will require keeping permanent direct contact with European private agents. Second, greater knowledge of the microstructure of markets and of the variety of European accounting methods is essential. Last but not least, the accreditation of European agencies is also necessary from the point of view of multi-ratings, which for the moment is limited to a duopoly formed by the two leading North American agencies.

### III.2. Crisis management: the multi-faceted lender of last resort.

As demonstrated in the first section, systemic risk can come from the operations of large value payment and settlement systems, from abrupt losses in a component of a global financial group, from liquidity stringency in a particular financial market. Any of these disruptions has the momentum to spread regardless borders and jurisdictions. It is rarely understood in the academic literature that financial globalization has altered the LOLR role of central banks. The debate is still conducted in the usual Bagehotian way of responding to liquidity problems of individual banks; hence the endless controversy of illiquidity versus insolvency, social cost of not rescuing versus moral hazard. Such circumstances occurred in the savings and loans crisis of the 1980s when incipient runs on deposits had sprung. But in contemporary finance, there has been no contagious process triggered by bank runs either in Europe or the US. But there was a huge shock in the interbank payment system after September 11, 2001. And lately there has been a significant deterioration of liquidity in financial markets. It means that lending in last resort is becoming a matter of monetary policy instead of banking policy. Conversely banking crises are essentially the outcome of solvency problems and will be treated in the last part of the paper.

If the LOLR is an attribute of monetary policy under stress in unstable financial markets, the separation of micro supervision and the provision of macro stability is legitimate. But so is the network of communication advocated on figure 1, as much as banks are market makers in financial markets. It remains to show why the position of central banks as lenders of last resort is strengthened, instead of being weakened as many scholars claim, and how they might fulfil the purpose of overall financial stability.

*a. Maintaining the payment system as a public good.*

The unique position of central banks in payment systems is uncontroversial, but its implications are often forgotten. As far as central banks provide the ultimate means of settlement, they have bearings upon commercial banks. Since a failure in settlement entails systemic risk through the chain of interbank debts, the lender-of-last-resort function in this respect is organically tied to the hierarchical structure of the payment system. Facing an impending settlement failure, central banks are the sole institutions capable of issuing instantly indefinite amounts of liquidity to preserve payment finality.

The break of vital communication links after the terrorist attack on New York City illustrated the point. Furthermore it revealed a dramatic cooperation between the Fed and the ECB. The intervention was immediately organized and unprecedented in size. The Fed intervened both in the Fed Funds market and at the discount window. She provided with liquidity banks, which had payments to make, and were unable to do so because the funds they were due to receive had not arrived. The sums that had to be disbursed in central bank money to make settlements were much greater than the daily amount central banks routinely inject into the system. Without central bank massive overflow of liquidity, the overnight interbank market rate would have exploded. Instead it slumped virtually to zero, which is a clear indication that the intervention was virtually unlimited.

The LOLR rescue went throughout the week following the catastrophe. The Fed injected between $36 and $81 billions into the banking system each and every day between 12 and 19 September, compared to an average of $5 billions on a normal day. European banks, which were not receiving the payment flows that they were due, lacked the currency that would allow them to make their own payments. The banks' need for currency convinced the

ECB to make its first exceptional injection of liquidity on the morning of September 12. Several others throughout the week followed this. All in all, the ECB added €130 billions to the banking system via emergency tenders. In the mean time, acting via the national central banks, the ECB agreed on a 30-day $50 billion swap with the Fed to supply European banks with dollars.

This was one facet of the crisis management. Another involved monetary policy. Because the September 11 catastrophe had taken place against a backdrop of financial fragility, a market collapse was to be feared. The Fed had already shown earlier that she was determined to contain Stock market weakness and not allow credit quality to deteriorate across the board. The decisive action took place on September 17, the day Wall Street reopened. Before the opening Alan Greenspan announced a 0.50 cut in the Fed Funds rate. Shortly after (at 5:30 p.m. local time) the ECB cut its refinancing rate the same percentage. This episode confirms how efficient last resort lending can be to stave off global liquidity crises.

*b. Restoring confidence in financial markets.*

The aftermath of the Russian moratorium, aggravated by the LTCM episode, depicts another type of systemic risk. The Russian crisis revealed that global financial markets are vulnerable to the loss of benchmarks that structure the pricing of financial assets. The crisis in valuing assets spread very fast from one market in private securities to another, starting in the end of August 1998 to mid-September where the huge losses of LTCM became public. At that point the collapse of confidence triggered an acute liquidity preference which threatened the banking system itself, as observed in the TED spread which tripled in two weeks. Asset holders rushed to sell all kinds of negotiable private claims and fly to the Treasury bill market. At the end of September it had become virtually impossible for private borrowers to get new credit. Such disorderly state of affairs in US capital markets was obviously a systemic event and warranted the intervention of the lender of last resort.

The Fed was highly successful in restoring confidence. The conditions of this success demonstrate how discretionary in intent, unexpected by market participants and irreversible in its effects the impact of the LOLR is in influencing markets under acute stress. By contrast, this episode outlines the weaknesses of the existing design to deal with macro-financial stability in Europe.

First the Fed detected early in September the destructive dynamics in financial markets. That it could do because the Fed Bank of New York is equipped with the resources of an observatory of systemic risk It has a long track record of dealing with market disturbances, direct connections with key market participants, a large department of bank supervision and a financial market research center. This background explains why the Fed could diagnose early that a non-regulated hedge fund like LTCM was the locus of a systemic event in view of the disorderly markets, of which LTCM was both a victim and a catalyst. Were that episode erupted in Europe, neither the ECB, nor any national central bank could have detected the potential systemic impact of an unregulated financial entity before it had broken out. When eventually they had been convinced of the gravity of that most unusual event facing them, a lengthy and controversial debate would have taken place before any decision was struck.

The Fed was confronted with a dual problem. The first was the direct impact of the LTCM rout on its big bank creditors since the fund was heavily leveraged. The second was

the general flight to liquidity. Dealing with the first implied an off-market reduction of LTCM's debt. Solving the second was a puzzling question of monetary policy. The Fed had to be flexible enough to deviate from its stance, considering that the macroeconomic indicators pointed to a tight labor market and a rather high output gap. Later experience in Europe demonstrated that such a deviation is not unthinkable but always delayed because compromises are sticky. In the post-LTCM aftermath, the Bundesbank waited until December 1998 to cut interest rate in a move, which was her last decision before yielding to the newly born ECB.

To manage the LTCM rescue the Fed acted as a coordinator. The Fed Bank of New York gathered a bank consortium under her auspices. The consortium accepted to inject $3.5b against a takeover of the fund's financial policy to engineer an orderly reduction of exposure, expecting a return to a more usual structure in credit risk spreads.

To restore confidence the Fed made three cuts in the Fed Funds rate on September 29, October 15 and November 17 (25 basis points each). The first move was largely expected and did not change the pessimistic mood of the markets. The crisis even deepened in early October, reaching the foreign exchange market where the Yen underwent the largest appreciation ever in one day on October 8. On the contrary, the mid-October cut was completely unexpected, being made out of a regular session of the FOMC. It had a dramatic impact on the financial markets and turned the TED spread downwards abruptly and instantly. The third cut confirmed the conviction of the markets that the Fed was determined to supply whatever liquidity was needed to allow a normal functioning of financial intermediation. Waiving the Fed's stance, the Stock Exchange rebounded spectacularly, canceling all the losses accumulated since the summer in only one week.

The question that remains is why and how the lender of last resort can be decisive in dissipating a widespread feeling of uncertainty, which paralyses the making of financial contracts. Why did the October 15 action turn the markets around and not the September 29? In an acute liquidity crisis only the immediate liquidating value of securities on secondary markets matters. When all market participants are in doubt about what this value is, liquidity is evaporating because everyone is testing it so that there are not enough counterparts to stabilize asset markets at any expected price. A market liquidity crisis means that participants cannot find out a floor price, which could generate buy orders in the prospect that the price will go up. The lender of last resort is the only agent that can peg a floor price, either in buying directly the securities in oversupply or in backing potential market makers (big investment and commercial banks) with plenty of cheap liquidity in the money markets.

Therefore a liquidity crisis is a peculiar market structure where all market participants are extremely dependent on the central bank. Because a common fog of uncertainty polarizes their attitude, the lender of last resort has the capacity of dissolving this fog. To be believed its intervention shall be a rare act of sovereignty of an extraordinary nature. If the market is convinced that a benchmark is reinstated, the confusion is removed and the business of differential asset pricing can work again. Contrary to September 29, the October 15 cut was extraordinary since it was impromptu and quite aside the operating procedures of monetary policy.

*c. Eschewing credit crunches in the downside of the financial cycle.*

The financial cycle driven by asset price swings exhibits episodes of distress, which entail significant losses in real output for the whole economy. Because the real impact of

financial instability is the result of endogenous risk, emphasized in the first part of the paper, a macro-prudential approach would improve the performance of monetary policy. This conjecture is warranted whenever systemic risk arises out of common exposures to macroeconomic risk factors, like the dynamic interplay of credit and asset prices. In the upswing the appreciation of the mark-to-market value of wealth hides the building up of imbalances due to rising indebtedness. The endogenous under-assessment of risk makes the financial system over-stretched. The downturn is triggered by an unexpected event of a catalytic nature, be it the default of some innovative firm, the failure to finance one more merger, doubts upon the liquidity of some high-yield market. The downswing rages full force. Asset prices plummet, credit risk spreads spike, over-indebtedness must be corrected. The endogenous depressive spiral of debt deflation shackles the painful process of balance sheet consolidation at the individual level. In the meantime a credit crunch can transform the financial cycle into a full-fledged financial crisis.

As far as risk is endogenous and highly pro-cyclical, there is no point in invoking market discipline. With respect to overall financial stability overtime, financial markets are part of the problem not of the solution. In the stage of euphoria, which possesses all market participants, a public authority dedicated to macroeconomic management, an ability to influence financial markets and means to assess the balance of risks is the only institution that could take care of the global externality. The central bank is the likely candidate. She would hopefully rely on an observatory of systemic risk having run in-depth studies on measuring the probability of global financial distress as a function of cyclical variables, mimicking the interaction between the momentum of credit and indexes of asset price overvaluation. As for the extent of possible losses given distress, the central bank could pioneer macro-stress scenarios with the concourse of the largest financial institutions. This methodology would help overcome the drawbacks of sophisticated credit risk models used by banks, which do not make account of endogenous interaction between risk factors expressed in reduced form by cyclical macro-variables.

With an improved framework for measuring systemic risk linked to the financial cycle, the central bank can embody macro-financial stability in the conduct of monetary policy. First, if a speculative buildup is detected early enough in the upswing the central bank may decide a preemptive tightening of monetary policy for the purpose of avoiding an eventual future credit crunch. If the diagnosis is too late so that the cost of tightening would be too high, an estimation of the probability of distress and the extent of likely losses after the turning point is a very valuable tool for the central bank. It gives the rationale to loosen monetary policy as early as necessary and an estimation of the magnitude of the loosening while the downswing is under way. Needless to say that the 2000-2002 downslide in Stock prices has been accompanied by a very reactive policy of the Fed and a conspicuous inertia of the ECB.

### III.3 crisis resolution: handling bank failures.

Many reasons can explain the epidemic waves of banking crises, which raged in almost every country that undertook a move to financial liberalization at some time or another in the last thirty years. Europe was far from being immune between the crisis of secondary banking in the UK in the 1970's and the present deterioration of German banks, once viewed as paragons of virtue. There are many causes to bank problems. Most of them stem from bad management in responding to a more risky and more competitive environment under the

pressure of shareholders forever-higher return on equity. Managers indulged in aggressive growth at low margins to absorb overcapacities, in entering new businesses via costly mergers and acquisitions which raised huge subsequent organizational problems, in becoming vulnerable to off-balance sheet and mark-to-market items very sensitive to the volatility of financial markets. The other source of problems was the shortcomings in risk control systems, the inertia of top management, and the confusion of powers between strategic decisions and audit, leading to unchecked errors and concealed losses left to grow in special purpose vehicles.

Knowing that the best thing to do in the long run is prevention under a comprehensive prudential policy outlined in section 3.1, which emphasized the quality of internal risk control systems, it is left to say that emergency crisis management is an art which can substantially limit the social cost or magnify it, whether the prudential authorities act with a sense of the public good or for the protection of vested interests.

*a. What should be done and what should not be done in the resolution of banking crises.*

The Basle Committee on Banking Supervision defines a weak bank as "one whose liquidity or solvency is or will be impaired unless there is a major improvement in its financial resources, risk profile, strategic business direction, risk management capabilities and/or quality of management." [Basel Committee on Banking Supervision 2002] [9]

Three main types of response may be envisaged for the resolution of a banking crisis:

- Forbearance which consists in temporarily loosening the regulatory constraints on banks so as to give them time to restore their financial position.

- Balance sheet restructuring which covers a range of methods with the common goal of consolidating failing structures without affecting the survival of the institution. This strategy may involve many measures including among others the replacement of senior management, the appointment of temporary administrators to run the business as a going concern under the control of the supervisory authority, the repurchase of doubtful debts by a public resolution fund, the temporary nationalization, recapitalization, relinquishing of claims by counterparts and mergers arranged or initiated by a public authority.

- Liquidation which is the most radical method of resolving a bankruptcy, involving the dismantling of the failed institution and the sale of the bank's assets.

Comparing the experience of Scandinavian countries with that of France, Spain and above all Japan makes it possible to draw some lessons with regard to the effectiveness of the different strategies for the resolution of a banking crisis. The main lesson is that the chosen method and the speed of reaction are crucial. They directly influence the effectiveness of the resolution of banking problems. More precisely, forbearance should only be envisaged in the case of cyclical difficulties generating macroeconomic hardships, which temporarily impinge on the income of bank customers, not for more structural problems. In the case of such structural problems forbearance proves to be excessively costly. The longer an institution on the verge of insolvency remains in business without taking drastic actions, the greater the potential losses that will be ultimately transferred to the deposit insurance fund and the

[9] In more than 50 countries, one or more banks were formally closed in the last five years. Source World Bank

taxpayer [10]. Unfortunately, the temptation to adopt this bad strategy on the part of the bank supervisor fosters a gambling for resurrection on the part of management, chiefly if the bank is believed "too big to fail".

There were several episodes of this unwise bias in Europe in the 1990's. Banesto and the Credit Lyonnais constitute two textbook cases of forbearance inspired by the too-big-to fail syndrome. In the case of Banesto, the syndrome explains the postponement of government intervention until December 1993, eighteen months after the bank had had its first difficulties in complying with its capital requirement. Then the Spanish insurance deposit stepped in and participated to the rescue of Banesto permitting the shareholders to save part of their investment. The case of Credit Lyonnais exhibits some similarities. This bank with a public ownership was perceived as a national champion that would support French industry. In the late 1980's the management undertook aggressive acquisitions both in real estate and new ventures in the US with the tacit approval of the French Treasury. When the real estate bubble burst out leading the US banking industry in an acute crisis, Credit Lyonnais piled up huge losses and became technically insolvent under the weight of an accumulation of bad loans. The situation was aggravated in the early Nineties by a series of supervisory mistakes probably due to the willingness to protect the national champion. For instance, irrecoverable loans were taken over by the "Consortium of Réalisation" which was under the control of the Credit Lyonnais itself until the European competition policy commissioner complained. Finally, the European Commission pressured the French Government to privatize the bank, after selling many of its most profitable assets to cover losses, which limited its future growth severely and made it a target for a takeover. Considerations of national pride slowed down the privatization for years, the government prohibiting foreign entities to take a blocking minority, let alone a majority interest.

Opposite to the murky and protracted muddling through of the French and Spanish governments, the resolution of the Swedish crisis was neat and fast, albeit costly. The Swedish banking systems had almost completely collapsed along with the real estate bubble of an extreme magnitude, combined with a surge in interest rates reverberating in the EMS and in countries shadowing it after the launching of German unification in 1990. Swedish banks had shown all the traits of mismanagement. But the governments of this Nordic country nationalized the bulk of the failed banks, withdrew the bad debts and issued public securities to recapitalize the banks. In the meantime the banks were run by public servants and all the deposits were guaranteed, insured or not, so that confidence was not eroded. The banks having been cleaned up and their capital base restored with public funds, the governments of the Scandinavian countries could launch a program of privatization, selling the bank assets partly through private agreements, partly through public auctions, and recoup some of the fiscal cost.

The contrasted experiences in the treatment of banking crises in Europe and elsewhere suggest conclusions for success stories in crisis resolution. However the conclusions are easier to spell out than to act because technical matters are intermeshed with political shenanigans. Nonetheless three recommendations stand out:

- The public guarantee of deposits shall be explicit, generally understood and extensive, so that it is never in doubt. Public confidence gives freedom to the government to

[10] The FDIC experience shows that the insurance deposit fund can become insolvent and can need a fiscal bailout.

make tough and quick decisions in restructuring the asset side, eventually liquidating some of them, without provoking any panic.

- The restructuring shall be run with a clear industrial vision: mergers and alliances shall be adapted to the economies of scale and scope in the larger European market. Internal control systems shall be overhauled to improve the intrinsic return of the new entity. This vision is what legitimizes the use of public money and guides the further privatization.

- The sanction of those responsible for the failure is decisive. The shareholders shall lose their capital, the managers shall be fired and the directors dismissed. If frauds are involved, penal prosecution shall be done.

*b. The lack of a European framework to deal with weak banks.*

The banking crises of the early 1990's have demonstrated that the final losses can be colossal(table7). The subsequent restructuring invariably involve transferring to the public budget the greater portion of these losses. Not only do banking crises hit the budget with outlays that have to be absorbed by higher taxation (or spending cuts), but they are also costly in terms of foregone economic output.

**Table 7. Estimated length of crisis, gross output loss and recovery time. The Scandinavian examples.**

| Countries | Recovery time | Recovery time in years | Gross output loss in percent of GDP |
|---|---|---|---|
| Finland | 1991 – 1996 | 7 | 23,1 |
| Norway | 1987 – 1993 | 8 | 19,6 |
| Sweden | 1991 - 1992 | 3 | 6,50 |

Source : Honohan P. And Klingebiel D., World Bank (2000)

Of course the net fiscal costs involved by these banking crises are far less important than the gross output losses. For instance, in Finland the final losses were around 10% of the 1993 GDP and for Sweden around 2% of the 1997 GDP [11].

However agreements for sharing the losses at the national level can only be imposed on the divergent interests of the parties by a legal power functioning in accordance with the bankruptcy laws of the country. Given the insufficient progress to date in achieving the European construction, the obstacles to transposing these procedures at the European level are prohibitive. There exists no European budget capable of absorbing losses from a pan-European bank failure. Nor does there exist any European law on the basis of which the Luxembourg Court could render a decision on assigning the losses amongst several countries. The only conceivable procedure would be negotiated agreement between the Treasuries of the implied countries The issue of absorbing the definitive losses is not equivalent to the intervention of the lender of last resort. Even if a European lender of last resort is created, the question of resolving bank failures that are not limited to a single country remains.

The importance of this question has been underestimated because of the scarcity of cross-border activities and mergers. But forward-looking viewpoints out to the risk of conflict

[11] Source : Perspectives économiques de l'OCDE, juin 1998.

between host and home countries in a pan-European banking crisis. Because supervision is decentralized, national regulators are mainly if not exclusively concerned by the consequences of a failure on their own financial market, regardless of the adverse effects in other member states. For instance, in the case of the failure of the Bank of Credit and Commerce International (BCCI), many of the clients were not residents in Luxembourg, i.e. in the country that had accredited the bank. Thus, foreign clients or their insurers supported the costs of the failure. These spillover effects could be reinforced by the current insurance deposit directive which gives the opportunity to a foreign branch of joining the deposit insurance of the host country, although the supervision remains in the hands of the home country.

Similar deficiencies can be underlined in the case of private sector involvement for handling banking crises. There exists no political authority that can organize a bank consortium to support weak banks at the European level. As long as the ESCB is not formally involved in preserving financial stability, there also exists no monetary authority to assume this task.

## CONCLUSION.

This report has been pursuing three objectives: pointing out priorities in macro-prudential management to strengthen financial safety nets, meeting the supervisory challenge raised by the merging of intermediation and market finance via the ubiquitous use of derivatives, improving the institutional setting of prudential agencies in a monetary union impaired by the prevalence of subsidiarity in every respect, save monetary policy *stricto sensu*.

The proposals that have been formulated along the way are pragmatic and environment-driven. EMU came to birth at the end of a decade of financial turmoil, beginning with a real estate crisis and closing with a Stock market crisis. The recommendations dedicated to crisis management make allowance for the overriding importance of cumulative credit gaps in the development of financial fragility. They also emphasize the disruptive impact of endogenous risk, not perceived by the risk control systems of individual banks, which is triggered by uncertainty on market liquidity while stress conditions have been spread by an over-extension of credit. This analysis motivates the strong assertion that the ECB should be a crisis manager aware of credit excesses, despite their lack of impact on the conventional measure of inflation. Correlatively she should unambiguously stand as a lender of last resort ready to ensure market liquidity throughout the European financial system.

The enlarged role of the central bank cannot be efficiently implemented without improving substantially her knowledge of systemic risk. The development of early warning indicators of financial fragility in the system at large, and the running of macro-stress tests to detect incipient conditions of endogenous risk in specific markets, call for the creation of a European observatory of systemic risk working in close cooperation with the ECB. The observatory should have permanent links with the national supervisors, with organized market authorities and with key market makers in over-the-counter markets. It is a predicament to coordinate information flows as a raw material for a permanent surveillance of volatile markets. The observatory could draw on this routine task to make reviews of overall market conditions and to diagnose the probability of upcoming systemic events.

Micro-prudential systems of regulation and supervision must do with the principle of subsidiarity and inherit wide disparities in national doctrine and design. In sympathy with the position of European authorities, we do not advocate at this stage a huge step forward in establishing a mega-regulator, which would agglomerate the functions of all national supervisors. Nonetheless tricky problems arise with the momentum of financial integration.

A strange paradox has occurred in the last few years between the forceful claims of supervisors for transparency as a sine qua non condition for market discipline and the proliferation of more and more opaque chains of risk transfers via OTC derivatives markets. The explosion of credit derivatives linking banks and non banks, the burgeoning financial instruments embodying options, the spread of securitization, create off-balance sheet exposures to counterpart risk which are inadequately reported or not reported at all. As a consequence, dynamic hedging strategies by market makers in the thinnest of those OTC markets trigger spillover effects on bond and equity markets in unsettled financial conditions. Being not identified as such, strategies which move prices unexpectedly are interpreted as changes in fundamental values by other investors and thus are magnified, instead of being offset. Therefore inadequate information is the villain in the drying-up of liquidity that triggers spikes in volatility. Besides, the counterpart credit risk embedded in swaps are

inextricably intertwined with market risk, making it unsuitable for proper quantifying in Value-at Risk models. Those new developments mean that the scope for endogenous risk generated by market interdependencies under stress has been greatly enhanced. Because markets are integrated all over the Euro area, the national separation of supervisors and the disparity in their field of competence aggravate the lack of relevant information.

For those reasons we advocate the establishment of a European agency for transparency to improve disclosure requirements, harmonize their implementation by national supervisors throughout Europe and actively encourage cooperation between supervisors, market authorities, and private associations of market makers. As far as the design of prudential supervision is concerned in each country, one can be confident that market developments linking banks and non banks will ultimately push in favor of the British model of a single financial services authority. Yet, not all countries are feeling the need with the same acuity and time shall be allowed for reform. In the meantime, harmonization is long overdue in the aspects of prudential regulation most sensitive to safety. We have emphasized the need of common rules to structure public deposit insurance schemes in all countries, the concern for a provision modulating the capital standard requirement according to the financial cycle, a charter to make rating agencies accountable and to encourage the creation of European agencies.

The resolution of bank insolvency is the most unsatisfactory arrangement in the whole prudential framework. The principle of fiscal subsidiarity clashes directly with the single currency. Bank failures almost always involve recapitalization using public funds. Because neither fund-raising at the community level nor cooperation between the Ministries of Finance have been forwarded, only national Treasuries can decide the use of public money for bank restructuring. This arrangement leaves the ECB entirely off the procedure. It also works effectively only if cross-border bank problems are small in comparison with in-house bank losses. It is a reason why governments of the larger countries have discouraged cross-border mergers. Concentrated national banking systems allow national Treasuries cum national supervisors to deal with too-big-to fail banks. But the arrangement does not fit with small countries with big international banks. If a need of restructuring arises in one of those banks, who should do the recapitalization? The ECB takes the argument to plead for strengthening the role of the European Banking Supervisory Committee under her leadership. The argument can be upheld on the ground that cross-border mergers will surely take place with deeper financial integration and the inclination of regulators to foster universal banking. Furthermore the blurring of the frontiers between bank intermediation and market finance has just made a great leap forward with the surge of credit risk transfer mechanisms which network banks and non-banks globally.

Virulent financial cycles in integrated markets raise an issue to which EMU is vulnerable. National governments are imprisoned in a self-inflicted fiscal corset imposed by the ill-conceived Stability Pact. In the downswing of the cycle, a debt deflation process impairs fiscal revenues at the same time it leads to social hardship and financial distress. The central bank can and should maintain the liquidity of the financial system as a whole. But only a sovereign borrower of last resort is able to stem the deflationary forces induced by forceful debt restructuring.

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