Financial Safety Nets and Regional Integration

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Abstract

Well-designed safety nets have seemed to help make financial markets more stable and safer in recent decades. The swift change in the configuration of financial markets, however, calls for some reflection on the adequacy of the current safety net structure. In this paper we address the issue of regional integration of financial services enhanced by the growing number of regional agreement, and discuss on the convenience of integrating the regulatory institutions governing the various financial services.

We base our analysis on two perspectives. First, following a “reactive” approach, we identify those features of international financial market integration that make the centralization of the safety net -or some of its components- crucial to the efficient operation of financial markets. Second, we focus on the dynamic consequences of promoting institutional integration. That is, the regional coordination of some institutions that make up the safety net could induce the integration of financial markets in the region. Then, adopting a “positive” approach, it is possible to recommend some coordination or harmonization of basic standards, even though the evolution of the market may not require it, as a way of promoting more stable macroeconomic conditions and furthering the integration of financial markets. This discussion is important in Latin America, where the financial and capital markets are not deep, although macroeconomic interdependence and regional contagion are important.”

I. INTRODUCTION

In the past 25 years or so there has been a marked change in world financial markets. The globalization of such markets is connected to the liberalization of capital accounts in all major industrialized countries – a process that developing countries followed – and to a wave of technological innovations that gave rise to new financial instruments and a huge decline in the cost of processing and disseminating information.
Globalization has transformed the structure of financial markets, spawning new opportunities and also new challenges. One of these challenges relates to the stability of the financial system in all countries, and therefore to the supervisory standards applied to banks. In other words, as a result of the emergence of an international banking system, banking supervision became a matter of international concern. The establishment of the Basle Committee on Banking Supervision in 1975 is an expression of that concern. The Committee originally addressed the supervisory problems of international banking in the G-10 countries. It sought to avoid competition in laxity (ensuring a level playing field) as a way of reducing potential causes of financial instability and the consequent contagion. The scope of the work expanded over time, to include the domestic banks of G-10 and other countries, as well as various issues connected to overall financial stability.

One such issue is the implementation and operation of national financial safety nets. Discounting a few extreme positions, it became evident that authorities throughout the world agree on the need for financial safety nets, which are now present in all modern economies. Its basic instruments are prudential regulation and supervision, a deposit insurance mechanism, and a lender of last resort. These components need to be complemented with a clear legal framework applicable to the settlement of disputes arising from a financial institution’s insolvency. The current debate on safety nets focuses on the introduction of market-friendly mechanisms that promote the system’s efficiency and cost-effective supervision.

Well-designed safety nets have seemed to help make financial markets more stable and safer in recent decades. The swift change in the configuration of financial markets, however, calls for some reflection on the adequacy of the current safety net structure. In general terms, the main features of financial market transformation, apart from international integration, can be said to be as follows: a) the vertical integration of different financial services – that is, banking, insurance, and investment services; and b) the growing number of integration agreements that enhance regional financial integration. The question, then, is whether the institutions now governing the sector can still promote the financial markets’ efficiency and safe operation. From that stems the growing debate on the need to integrate the regulatory agencies governing the various financial services, and hence this seminar on the regional integration of safety nets.¹

This paper seeks to identify the rationale for the regional integration of financial safety nets, from both a conceptual viewpoint and from the perspective of some current regional agreements in Latin America and Europe. It concludes that the extent to which financial safety nets are harmonized and centralized depends on the nature and depth of the financial integration process, especially the mobility of financial services and the importance of regional banks. It is also true, however, that the coordination and harmonization of some of the instruments that make up a safety net could enhance the integration of financial markets in certain circumstances.

The paper is organized as follows. Section 2 discusses the main institutions that comprise a financial safety net and examines their effectiveness in developing countries. Section 3 analyzes the reasons for the centralization of safety nets at the national level as a way of understanding the motives for a similar process at the regional level. Sections 4 and 5 deal with regional agreements in Europe and South America, and assess the extent to which there are reasons to move towards the centralization, or at least the harmonization and coordination, of financial safety net in those regions. Finally, on the basis of the evidence presented, Section 6 discusses the circumstances in which it is useful or necessary to harmonize or centralize financial safety nets at the regional level. Particularly important for
this discussion is the current and expected level of financial integration, both in terms of the mobility of financial services and the presence of regional financial institutions.

II. The Importance and Characteristics of Financial Safety Nets

A. Why is a safety net needed?

The sources of vulnerability in the banking system are intrinsically related to its primary functions. Limited liabilities of shareholders and asymmetric information tend to increase financial institutions’ incentives to expose themselves to risk and reduce their incentives to monitor their loans effectively. Depositors, unable to discern the real risk exposure of the banks’ funds, should be reluctant to put their saving into the system. The direct results of such market failures are a sub-optimal level of deposits and high risk premia, which in turn aggravate the adverse selection problem.

Moreover, the banking system’s vulnerability to panic deposit withdrawals (bank runs) makes the whole industry susceptible to shifts in public perceptions of credibility. Under conditions of imperfect information, public credibility can change abruptly when new information becomes available. This circumstance introduces “contagion” between banks or banking systems. This externality can spread to otherwise sound banks, thereby instituting systemic risk in the entire banking industry.

The presence of significant externalities and asymmetric information – both of them acknowledged market failures – offer enough justification for government intervention in the banking system. Whenever market failures are significant, the usual market mechanisms can no longer guarantee the system’s efficient operation. Moreover, the key role of the banking system in the performance of the whole economy explains why the soundness and safety of banking are understood as global public goods. It is unlikely that the banks themselves will choose the level of risk exposure consistent with such a role. In any case, society does not seem willing to gamble with a banking crisis and its consequences, even if that involves a cost. Hence the presence of financial safety nets (FSN) in the vast majority of countries.

It is important to recognize that the soundness and safety of the banking sector is pursued not only because of the sector’s function as payment mechanism, but also for its crucial role in the productive system. Focusing only on the former has led some economists to advocate 100% reserve requirements for institutions offering transaction accounts, leaving the rest of the banks’ activities – presumably undertaken by financial intermediaries – to be governed by the free market. This recommendation prompts an obvious criticism: isolating the clearing activities from any risk would guarantee the safety of the payment chain, but the soundness in the financial intermediaries sector will also be the objective of any government in view of its links to the performance of the entire economy.

Every time the government intervenes, however, its effectiveness in solving market failures depends on the adequacy of the relevant institutions. In this regard, FSN have not always helped the system to operate efficiently and in many cases the costs to taxpayers were excessive, especially when the FSN departed far from the market’s rationale. This has been dramatically true for some emerging markets, where a poorly designed FSN that lessens market discipline and increases moral hazard can trigger a financial crisis that might later become a currency crisis. Hence the current debate on the appropriate design of FSN should cover the usefulness of including market discipline devices. The underlying idea is that both market and regulatory disciplines are imperfect, and that there are complementarities between them. This issue will be addressed in the next section.
B. What institutions make up a financial safety net?

An FSN consists of institutions that seek to promote a sound, efficient, and stable banking industry during normal times. Despite all the precautions and preventative regulations, however, there is always a positive probability of a bank failure even in well-prepared countries. A safety net must therefore include mechanisms to manage the problems of individual banks, as well as generalized financial crises. Typically, the elements that potentially make up a safety net are deposit insurance, lender of last resort, prudential supervision, and a mechanism for the resolution of banks in distress.

Deposit Insurance (DI)

Full coverage DI ends any danger of bank runs. With such protection, no matter how risky the banks' assets are they always have a safe return. There is no chance of panic withdrawals or contagion. Needless to say, the moral hazard and adverse selection problems are maximized. García [1999] provides a summary of the classic pitfalls of full coverage DI, among which are the following: the depositors lose any incentive to monitor the bank’s risk exposure; the depositors will choose the bank that promises a higher return, thereby increasing the risk exposure of the system; consequently, banks will increase their portfolio risk in order to maximize the offered return; and borrowers have incentives to borrow from institutions in distress, thereby minimizing the probability of payback.

There are many possible ways of making the DI more incentive-compatible. García [1999] provides survey of them. One of the classic recommendations to avert the perverse effects mentioned above and lessen the fiscal burden supporting DI is to limit the DI coverage to small deposits. The usual criterion is that fragmented depositors can scarcely monitor the bank risk management or demand changes to it. Hence there are no disadvantages in providing DI to small and fragmented clients. On the other hand, DI should not cover interbank loans or large deposits. The idea it is that other financial institutions and large depositors will monitor the bank's risk exposure, thus enforcing market discipline.

Once the DI is limited to fragmented depositors its effectiveness in preventing bank runs is, at best, limited. The behavior of small depositors scarcely affects the fate of a financial institution. The rationale for DI with size limitations is then transformed, and it normally responds to equity concerns. The aim of this institution is to protect the less informed and unsophisticated investors from financial institutions’ risk.

DI not only has limited influence in preventing a systemic crisis. If there is a widespread financial crisis, such insurance might face difficulties in meeting the claims of the beneficiaries – that is, insurance companies deal with diversifiable risk but typically they cannot foresee systemic crises.

Lender of Last Resort (LOLR)

The need for a mechanism to handle liquidity problems “originated at the beginning of the nineteenth century when Thornton (1802) spelt out the basic elements of sound central bank practice with respect to distress lending” (Freixas et al [1999]). As mentioned earlier, asymmetric information could make solvent banks vulnerable to a run on deposits and a lack of interbank lending in times of crisis. The consequence of this behavior could be the failure of a solvent bank, with clear welfare costs. Moreover, a bank failure could lead to financial instability as a consequence of a generalized run on deposits, with a disruptive effect on the economy.
It should be understood that the LOLR’s main function is to address liquidity problems in the financial market. Resolving such situations will sometimes involve a general injection of liquidity and sometimes a direct loan to specific financial institutions. The latter circumstance arises when other banks are unwilling to lend to the illiquid institution, despite its being a solvent bank, because of the problem of asymmetric information. This latter function of the LOLR is the more disputed one in the literature, because it typically increases the risk exposure of the Central Bank, can eventually entail considerable cost, and could aggravates problems of moral hazard and adverse selection in the banking system. To minimize these problems, the discussion relies on the distinction between assisting only illiquid financial institutions or insolvent ones as well. The theoretical recommendation for the monetary authorities is to restrict themselves to rescuing illiquid but solvent institutions. Although an insolvent bank might also be rescued – in the extreme case of its failure spreading panic throughout the entire system – the fiscal authorities should be those that deal with the decision and the costs involved.

The distinction between illiquid and insolvent financial institutions, however, is seldom clear in practice (Goodhart [1999]). Hence the impossibility of making clear-cut recommendations. It is important to note that every time the LOLR finances a specific bank there is a cost involved. The cost is higher the greater the probability that the bank is insolvent. The retained capital gives the Central Bank some freedom but eventually, when these costs are high enough, the actions involved in rescuing a bank need to be taken together with the fiscal authority (fiscal funds are to be involved). It should be kept in mind that what stands behind the Central Bank is not its capital but the strength and taxing power of the State. This issue will be examined in more detail below.

It has been argued that the attempt to handle financial market stability could endanger the Central Bank’s main goal, which is to maintain the value of the currency. Although financial stability is valuable in itself, financial instability can also lead to monetary problems, since inflation may rise when depositors withdraw their money from the banks in order to buy foreign currency, thus depreciating the local currency and fuelling a currency crisis. Maintaining financial stability, therefore, is often compatible with the main aim of price stability.

**Prudential Supervision**

The mere occurrence of substantial market failures provides the rationale for government regulation. After the aforementioned safety net instruments (deposit insurance and lender of last resort) are in place, however, prudential supervision becomes imperative.

As Mishkin [2000] points out: “… Because all governments provide some form of a safety net for the banking system, whether it is explicit or implicit, they need to take steps to limit the moral hazard and adverse selection that the safety net creates. […] Prudential supervision, in which the government establishes regulation to reduce risk taking and then supervisors monitor banks to see that they are complying with these regulations and not taking on excessive risk, is thus needed to ensure the safety and soundness of the banking system …”

It is not the aim of this paper to detail the specific features of a well-designed prudential supervision system. For our purpose it is simply worth noting that the optimal regulation depends on the particulars of each country. There is always a trade-off between the risk exposure of the system and its proper operation as an intermediary between borrowers and lenders. Typically, the risk faced by the financial system is higher in less developed countries and thus the regulation should be more restrictive, even if that reduces the amount of loanable funds.
The presence of a financial safety net should not be seen as at odds with market discipline. Moreover, the current debate on the appropriate design of financial safety nets extends to the usefulness of including market discipline devices. Some of the devices included in regulatory frameworks are: subordinated debt requirements (the banks are obliged to attract investors, typically other banks, that are expected to function as peer monitors), risk-adjusted premia in their contribution to DI, penalties for shareholders and managers, credit rating and information disclosure.

The market, as well as the regulator, can monitor the performance of an institution and influence its decision through market-price mechanisms. There can be differences in the powers, information, and incentives available to the regulator and the market in their efforts to discipline banks. Hence, while market mechanisms alone do not typically lead to an efficient and stable financial market, introducing some market discipline devices can complement the activities of the regulator in lowering the banking system’s risk exposure.

Resolution of a bank in distress

The mechanism for dealing with a bank in distress is a crucial element of any safety net. The response to a financial institution’s insolvency can vary from its liquidation to the temporary loosening of regulatory constraints or the injection of capital for restructuring. Restructuring, moreover, could accompany several options, such as: new capital provided by the shareholders; selling the bank or merging it with another institution; or selling just the assets and liabilities. The decision depends on the impact of the various alternatives, both on the rest of the financial system (systemic risk) and on the moral hazard of bankers and depositors.

The authorities responsible for solving the problem need to have a certain discretion to deal with the bank in trouble. They should therefore be able under the law to apply different alternatives according to the case. Although it has been argued that discretion leaves too much power in the hands of the authorities, an attempt to establish a “straightjacket exit strategy” could spawn large costs and delay crisis resolutions.

It is not clear which institution should be responsible for solving the problems attendant on a bank in distress. It could be the Central Bank, a deposit insurance institution or a specific government agency. The responsibility should be clear-cut, because timing is crucial during a crisis. If there is more than one institution dealing with different phases of the solution, coordination among them is essential. In any alternative the Central Bank plays an important role in a crisis. First, as already discussed, in the midst of a crisis it is not always easy to distinguish illiquid from insolvent institutions. Second, the Central Bank is the only immediate source of liquidity. If for systemic risk considerations the insolvent bank is not to be shut down, the Central Bank might be the only institution capable of advancing money until a permanent solution is found. Third, in most cases the Central Bank plays an important role in determining the significance of a certain institution for the stability of the financial system. For that reason it should have a crucial part in deciding on the institution’s future. Note that whatever alternative is chosen, the Central Bank cannot bear the cost of a crisis resolution because that would endanger monetary stability. Hence, while the Central Bank could be the immediate source of liquidity during a crisis, the ultimate lender of last resort should be the public sector (taxpayers) or, in certain circumstances, other financial institutions.

In sum, the instruments that make up a financial safety net seek to promote an efficient and stable banking system during normal times, and to manage the eventuality of
a financial crisis. Thus the regulatory framework and prudential supervision promote improved performance in the banking system as they seek to offset the negative consequences of the market failures present in the industry. Nonetheless, the sector is subject to sudden increases in systemic risk and to financial crises. Financial safety nets therefore include instruments to deal with those circumstances – DI that attends to equity concerns, an LOLR to curb the spread of liquidity crises, and a legal framework to deal with financial institutions in distress.

As financial markets become increasingly interdependent, the effectiveness of national financial safety nets is subject to debate. In that regard, this paper analyzes the usefulness of regionally integrating the instruments that make up the safety net. The debate on regional integration, however, should also consider the different characteristics of each region. Specifically, the magnitude and intensity of financial crises is greater in developing countries and consequently, as explained below, the crisis management mechanisms are usually less effective in those countries.

C. WHAT IS DIFFERENT ABOUT LATIN AMERICA’S FINANCIAL CRISES AND SAFETY NETS?

The literature has usually discussed financial crises from a conceptual viewpoint, without analyzing how the peculiarities of different countries can affect the frequency and intensity of those crises. However, there are several reasons to believe that financial crises are more frequent and have more devastating consequences in most developing countries, specifically in Latin America, than in the developed world. Some of these reasons are outlined below, particularly those connected to the characteristics and effectiveness of financial safety nets.

a. In developed countries, the phenomenon of flight from the financial system increases the demand for monetary base (domestic currency) and public bonds. Indeed, the increased demand for liquidity magnified the financial crises of the 1930s in the United States. In developing countries, a flight of deposits is usually associated with an increase in foreign currency demand. Latin American financial crises typically result in a surfeit of domestic currency-denominated liabilities, which explains why they are good indicators of currency crises.16

b. In developed countries financial crises are associated with growth in the demand for domestic currency, which triggers deflationary forces. Hence liquidity injections serve both to attain price stability and to help restore financial soundness. In developing countries, by contrast, an increased demand for foreign currency usually spurs inflationary trends. Thus the liquidity injections needed to rescue the financial system contravene inflationary stability, unless confidence in the banking sector is restored in time to stop assaults on the domestic currency.

c. The macroeconomic consequences of currency crises are even worse when most of the financial system’s liabilities are denominated in foreign currency. In such a case a financial crisis is, by definition, a currency crisis. As figure 1 shows, dollarization of the financial system is a characteristic of several Latin American countries.

d. Since public bonds in most developing countries are usually denominated in dollars, currency crises increase the public sector’s risk of insolvency. The consequence is a sell-off of government bonds and a subsequent rise in interest rates, which increases the fiscal deficit and probably results in the printing of more money. Furthermore, since banks in developing countries usually hold large amounts of public bonds, their solvency becomes questionable as well, nourishing uncertainty about the financial system’s stability.

e. Consequently, as financial crises come to jeopardize the solvency of the public sector, the creditworthiness of the financial safety net (deposit insurance and LOLR) is
much lower. For this reason, safety nets are not as efficient in deterring financial uncertainty in developing countries as they are in the developed world. Their power to stop a financial crisis is much less.

f. Developing countries are usually more exposed to external shocks than developed countries, (IDB [2002] chapter 7) and therefore their financial systems are more vulnerable. In an effort to lessen the financial system’s vulnerability to external shocks, stricter capital and liquidity requirements are usually set. A disadvantage of this is that it raises interest rates and lowers the banking sector’s profitability. This gives rise to a new source of vulnerability. The volatility of external shocks calls for a LOLR at the international level. Although this is a topic for another paper, the matter is briefly discussed in the section on Latin American agreements.

III. HOW GEOGRAPHICALLY INTEGRATED SHOULD SAFETY NETS BE?

As mentioned earlier, the aim of a safety net is to guarantee the continuous and smooth functioning of the payment mechanism and to avert any systemic crisis in the financial system. How geographically integrated should that safety net be in order to meet those goals? To address this issue it is worth starting by understanding the causes of the institutional and functional centralization of the safety net’s main instruments at a country level.

Five main features of an integrated economy make the centralization of financial safety nets desirable. They are: a) the significant mobility of financial services, which integrates the provincial markets into a single, national financial market; b) regional banks that forge links between the different financial systems in which they operate; c) macroeconomic interdependencies that can serve as a source of financial contagion between countries; d) the integration of the monetary authority, which is the natural candidate to play the role of LOLR; and e) economies of scale in both the regulating and the banking activities that could be exploited by promoting integration. These five features are explained in detail below.

A. MOBILITY OF FINANCIAL SERVICES

The mobility of financial services is expected to be significant within national borders as a common currency increases trade and financial interdependence; this is particularly relevant to the European situation, examined in a later section. Moreover, improvements in communications and internet banking foster the popularity of cross-border operations. Once such operations become more usual, the size of the relevant market is not confined within local borders. Indeed, when a state chooses its regulatory policy it is not only affecting the welfare of its citizens but also interfering with all the economic activities linked to the banks located in that country.

When financial services gain mobility, there need not be locational concurrence between the market and the bank. A bank’s location decision is then driven increasingly by cost considerations rather than by its proximity to the market. Banking sector regulation is directly affecting that cost equation. Additionally, governments derive direct benefits – in terms of employment and local tax revenues – from promoting the location of a bank. With decentralized regulation, therefore, local governments have incentives to engage in regulatory competition as a way of promoting the location of financial institutions in the area and increasing their tax base.

The outcome of this competition is theoretically ambiguous. It might be the case that the public chooses to make deposits in those banks located in the “safest” province.
At least theoretically, in a system marked by imperfect information, bank location can serve as a signal device by which the banks promote their soundness. In that theoretical scenario, each province is characterized by a certain risk/return combination and the public, spread throughout the country, chooses a bank located in the province consistent with its own risk/return preferences. This signaling device might serve as a source of market discipline, but national guidelines might still be needed if the contagion is not confined to banks located in the same state.

Nevertheless, competition among local governments might also spur a more perverse equilibrium: banks locate in the province where their business is most profitable and the public shops for the highest return on its deposits. That is, all the banks will locate in the province/s with the weakest regulation and will provide services to the entire country. Additionally, provinces will choose the stringency of the regulation without taking account of externalities on the quality of the financial system on the rest of the economy. These externalities are greater the more mobile the financial services are. In the equilibrium with financial service mobility, provinces will choose too lax a regulation and the overall quality/safety of the banking system will be less.

_A priori_, it is not clear which equilibrium will emerge from competition through regulation among a country’s provinces. Historically there has been either national regulation for national banks or local regulation for banks restricted to local services. The reason might be that the welfare costs of the second type of equilibrium are too high, and regulation is chosen to minimize them.

This argument is stronger if provinces compete through enforcement of the regulation and supervision, but not through the regulation itself. In such a case it is hard to imagine bank location as a signaling device, not before several crises. Instead, the system introduces another vital piece of hidden information – the effectiveness of regulation enforcement in each province.

Even if the regulatory environment fosters a sound and efficient banking system, there are still the questions of how to manage crises when they occur, and how to distribute the costs of dealing with problematic banks among provinces. Once local banks sell services nationally, one province might not have the resources or incentives to undertake the risk involved in a loan to an illiquid bank, nor incur the costs involved in rescuing or restructuring a problematic institution capable of increasing the systemic risk.17

Responsible provincial governments might agree on the need to share the potential costs of an intervention, but there are logical concerns about the timing of such a negotiation. Crisis management mechanisms must be fast and forceful. It is hard to imagine those requirements being met by the coordination of decentralized institutions.

The subsidy competition among states for the location of banks, although it gives rise to inefficient aggregate outcomes, does not necessarily jeopardize the solvency of the entire financial system. Even with centralized regulation and supervision, the states can still subsidize the location of banks by direct tax cuts, by lowering the premia charged for the deposit insurance, or by increasing its coverage. If the responsible state is fully internalizing the effects of its measures by facing the eventual costs of providing broader or cheaper deposit insurance, the banking system will not be seriously affected.18 This conclusion would change dramatically, however, if the state did not fully fund the measure. In that case the contingent liability could jeopardize the financial sector’s stability.

In sum, banking service mobility introduces two main conflicts. The first is the possibility that states will engage in regulatory competition for the location of financial institutions. Harmonization of the regulatory framework is then necessary to obviate that
possibility and to elude the associated welfare costs. Second, once the effects of an intervention surpass the limits of the state, the capacities and will of the local authorities in the crisis resolution become questionable. The centralization of crisis management mechanisms would avoid that dilemma. Moreover, the decisions of a centralized agency would internalize the effects on every provincial market. It could also be argued that financial mobility also increases the risk of contagion, and therefore of systemic risk, since customers throughout the country will be affected by the fate of a given institution. The importance of this effect is not apparent, however, as is the case with regional banks.

B. REGIONAL BANKS

A substitute for financial service mobility is the location of branches or subsidiaries in different states, herein referred to as “regional banks”. When financial services cannot be sold across borders, either because of regulatory barriers or cultural concerns, an out of state bank can still operate in the county by locating a branch or a subsidiary there.

These two concepts are not synonymous: branches correspond to an institution regulated by out of state authorities, while a subsidiary operates entirely under local supervision. This clear-cut differentiation, however, is very difficult to make in practice. First, although local agencies cannot regulate the solvency of the branch’s mother company, they do impose liquidity conditions on branches operating in the area. Second, while local regulators can enforce safety requirements on subsidiaries, the fate of these institutions is still directly linked to the mother company’s performance. Indeed, although a subsidiary obeys the regulation requirements of the host province, the public might react against it if the mother company has liquidity or solvency problems. Hence local agencies cannot treat subsidiaries as independent entities, and the branches are not wholly free of local regulation.19

The following discussion centers on the effects of regional banks, without distinguishing between subsidiaries and branches.20 The common feature that characterizes regional banks in all their forms is that they constitute a bridge between financial markets and increase the scope for contagion. Indeed, when this link between financial markets is forged, the safety of the local financial market is affected by the effectiveness of the safety net in its own province as well as in the province where the mother company is based.

Once regional banks appear, the need for coordination between local agencies is straightforward. The first matter to be addressed is the importance of information-sharing and fluent communication among the regulators: agencies can scarcely supervise headquarters without relevant data on the performance of the subsidiaries (and vice versa). Coordination is increasingly demanding as the amount of regional banks grows. Eventually, the integration of regulatory agencies is useful.

On crisis management mechanisms, the argument developed in the previous point also applies here: the decision on the fate of a problematic institution should also consider the contagion effect in other provinces. Again, the resolution of a crisis raises the dilemma of how to share the burden of crisis resolution when the intervention is affecting areas other than the one in which the bank is located. The rationale for integration is stronger as the number of regional banks and their participation in the entire financial market grows.

In conclusion, regional banks are a bridge between financial markets and therefore increase the scope of contagion. As the performance of the mother company and the subsidiaries are interdependent, efficient supervision of regional banks requires coordination among provincial regulatory authorities. Eventually, once the national banking system consists
mainly of regional banks, regulatory activity should be centralized. On crisis management, the dilemma outlined in point 2.1 is present here: every time an intervention affects states other than the one undertaking it, the incentives of each province to intervene are questionable. The centralization of crisis management mechanisms avoids this conflict but, again, it increases the moral hazard of bank supervisors at the provincial level if prudential regulation is decentralized.

C. MACROECONOMIC INTERDEPENDENCE

The mobility of financial services and the presence of regional banks are not the only source of externalities among provinces. Contagion might or might not arise from real fundamental links between provincial banks. As explained earlier, the banking industry is particularly vulnerable to shifts in credibility, and thus contagion may arise as long as the public perceives similarities between provincial banking systems.

Salient among the many features that might contribute to contagion between provinces is the phenomenon of macroeconomic interdependence: the spreading of doubt about the solvency of the provincial government. This matter is particularly important in less developed countries, where banking crises are associated with currency and fiscal crises.

For example, even if banks do not have any connection to other provinces’ institutions, a poor resolution to a financial crisis in one province could spread doubts about other provinces’ crisis management abilities. The source of contagion might not be the banking system itself but the precarious fiscal situation of each provincial government. Again, as long as the contagion effect is not confined to the provincial banking system, the safety net designed by one province also affects the soundness and safety of other provinces’ banking systems. In this case the interdependence arises not only from the design of the safety net, but also linkages between the states’ macroeconomic performances.

Information-sharing allows provincial agencies to respond better to a rise in systemic risk originating in another province. Further coordination can lessen the likelihood of those problems arising. However, the greater the interdependence among states, the greater the positive synergies to be exploited through centralized decisions. More importantly, the centralization of resources could foster early and improved resolution of provincial financial crises before they spread to other states. Having sufficient funds to manage financial crises at an early stage can substantially lessen the contagion and the total cost of the intervention.

D. INTEGRATION OF THE MONETARY AUTHORITY

At the country level, the monetary authority is centralized in the Central Bank, the only source of legal tender and immediate liquidity. This is another reason for the integration of financial safety nets.

First, as the monetary aggregates dramatically change if a financial crisis breaks out, the monetary authority must have access to regular information on the evolution of systemic risk in all the provinces. Although this is not a conclusive argument for the centralization of the financial safety net, it emphasizes the importance of cooperation between provincial regulators and the national monetary authority.

Additionally, and even under a very narrow definition, the Central Bank has a natural role to play in the stability of the payment mechanism by guaranteeing the clearing system. Without its intervention the failure of one institution, irrespective of its location, could cascade through the country’s payment system.
Moreover, since the Central Bank is the only institution capable of providing immediate liquidity, it is the natural candidate to serve as the “immediate” LOLR. It is broadly acknowledged that governments, not the Central Bank, should bear the costs of a bank rescue. Immersed in a liquidity crisis, however, it is very difficult to discern whether the bank in distress is illiquid or insolvent. Furthermore, there are timing concerns in the resolution of the crisis. Given the possibility of widespread financial panic, the Central Bank is the only institution that can swiftly provide the required liquidity, giving the government/s time to implement corrective measures. Stopping the crisis quickly can avert high, economy-wide welfare costs.21

It is important to acknowledge that every time the Central Bank is involved in a bilateral loan or guarantees the functioning of the clearing system in a crisis, its risk exposure increases and hence there are associated costs. To ensure the independence of the Central Bank and the credibility of the currency, the government must explicitly back up these operations. In this case it is the national government that ultimately supports the actions of the Central Bank, either explicitly or implicitly. The need for fiscal funds to support LOLR activities is crucial to an understanding of the present institutional framework in Europe, which is discussed in more detail in the following section.

When the LOLR is a national institution, there are obvious moral hazard problems in entrusting the supervision and regulation of the banking system to decentralized authorities. Provinces have incentives to compete through regulation (or through the “enforcement” of regulations) so as to attract financial institutions. They might secure the locational benefits in terms of employment and local tax revenues, but they do not internalize the consequences of the provincial banking system’s excessive risk exposure, which is covered by the national LOLR.

Regulation (or prudential supervision) should be seen as reciprocity for subsidies. If there is a national LOLR and provincial regulation, the system allows the provinces to “subsidize” the location of financial institutions using national funds. The consequence of such an incentives scheme is a very expensive financial safety net, in which moral hazard is maximized and taxpayers throughout the country pay the costs of excessive risk exposure.

E. Scale

There might be economies of scale in regulating activities that make the integration of financial safety nets advisable. An efficient regulatory agency needs qualified personnel, experience, and information technology that might be too expensive to acquire at a provincial level. As mentioned earlier, moreover, provincial regulators must make conscious efforts to coordinate and cooperate in order to monitor the industry efficiently, promote a safe system, and deliver relevant information to the monetary authority.

Furthermore, any concern about agency problems is particularly significant when the market is small. The relationships between the supervisor and the banks, as well as between provincial politicians and financial institutions, are expected to be closer. Hence there may be a tendency for tolerance and sympathetic appreciation of the banks’ problems. The “too-big-to-fail” effect can be expected to gain importance through regulation at the provincial level. Finally, the risk facing the deposit insurance agency declines when the number of institutions covered is larger and dependence on regional shocks is lower: this is usually referred to as “economies of scale in risk management”.

In conclusion, when the decentralized scale is too small, the average costs involved in regulation might improve with centralization, as might the adequacy of supervision.
Economies of scale, however, are not exclusive characteristics of the regulating agency. The banking sector might also improve its efficiency and safety when it operates in a larger region. Apart from the usual considerations of the fixed costs and indivisibilities present in many economic activities, the banking industry has an extra motivation to integrate: risk diversification. In effect, when banking activities focus on a single small province, the risk exposure is excessively correlated with idiosyncratic local shocks.

The integration of the financial safety net can be viewed not only as a protective response to moral hazard and excessive risk exposure, but also as a positive device for promoting a more integrated financial market. There is some empirical evidence that if the host country has prudential regulation and supervisory practices similar to the source country, there is a greater investment in banking (Galindo; Micco and Serra [2002]). In that light the nationalization of banking supervision, deposit insurance and the LOLR can be seen as a response to a more integrated industry, but it simultaneously reinforces the process of integration in terms of mobility, market size, diversification, and contagion.

F. What about the international level?

At the national level, the five motivations for integration discussed above are extremely important. Usually, financial services mobility is maximized among provinces, and financial institutions have branches and/or subsidiaries throughout the country. There is just one monetary authority and thus the Central Bank is the only source of immediate liquidity. Moreover, one state’s financial or macroeconomic performance tends to influence the credibility of institutions in neighboring states, especially in developing countries. Finally, scale considerations are important both for regulatory activity and for the banking industry. Centralization of the instruments that make up the financial safety net is the usual response.

When the discussion centers on the international or regional level, however, the motives for integration may not seem so strong: financial services mobility is far from perfect; many banks are national rather than regional; and scale considerations (especially in regulatory activity) lose importance. Furthermore, a common currency is not so usual at supranational level. Centralization then seems to be too extreme a solution. Rather, different levels of coordination and harmonization, amounting to less ambitious institutional cooperation, could resolve the conflicts arising from some degree of financial market integration.

Moreover, the extreme recommendation on safety net centralization at the supranational level might not only be unnecessary but might also jeopardize the financial and macroeconomic stability of the member countries. For instance, although promoting the location of regional banks is advisable from the viewpoint of scale and competition considerations, it increases the scope for contagion among the corresponding financial markets. Moreover, if the countries under consideration are macroeconomically unstable, closer regional integration induces stronger macroeconomic interdependencies and thus raises the prospect of regional volatility. Hence the timing of the integration agenda is crucial; hasty steps could give rise to perverse results.

Finally, as mentioned earlier, financial market integration is crucial for financial safety net integration. Without some kind of harmonization, however, it is hard to imagine the expansion of regional banks and financial services mobility. Thus harmonization and coordination are important for the expansion of regional banks. When such banks become the main feature of the regional financial system, it is time for a centralized financial safety net.

These issues are considered in the following sections when addressing financial market integration in the European Union and Latin America.
IV. The European Union

The European Central Bank (ECB), following the model of Germany’s Bundesbank, adheres to a very narrow operational definition – to promote price stability. The ECB’s statute is intended to maximize its institutional independence and to guarantee that this central goal of monetary policy is not contaminated by other considerations. The ECB is not backed by any political power or fiscal authority, and financial market stability – usually provided for in other models of central banking – is not an aim. In fact, the ECB’s responsibility in Europe’s financial stability is confined to guaranteeing the smooth operation of the payments mechanism.

In the current design of the financial safety net promoting the safety and soundness of the European financial system, the principle of subsidiarity prevails. Indeed, ensuring the stability of the system is still the responsibility of the member states and their national agencies – national Central Banks (NCBs) functioning as lenders of last resort, deposit insurance, and banking supervision (either in the hands of NCBs or separate national bodies).

This institutional arrangement is deemed functional to the situation in Europe. In light of the motives for the integration of financial safety nets as outlined in the previous section, it could be argued that Europe’s present banking system does not provide an imperative case for integration. Apart from European monetary union, which was described as a motive for integration in the section above, none of the other reasons for integration seems to be present. First, despite some regulation that stimulated competition in retail banking services, mobility at this level is still relatively low. Second, the European banking sector consists mainly of national banks, and the participation of regional banks is quite modest. Table 1 shows that in 2001 the assets of branches and subsidiaries of “regional banks” amounted to 11.4% of total banking assets in the monetary union (MU), although the share was higher in most of the small countries. That percentage rises to almost 15% when the EU as a whole is considered, given the importance of foreign banks in the United Kingdom. Third, the member states have strong economies and financial systems, and hence the contagion associated with macroeconomic interdependence among them does not seem to be a concern. Finally, scale considerations are not important in European financial markets: decentralized regulatory agencies oversee significant banking systems, and financial institutions in the member countries are large and growing.

Therefore, it is maintained that decentralized national agencies supervise the banks with an acceptable level of efficiency. There are several observations to be made about that assertion, however, and some doubts arise as to the efficiency of the institutional arrangement in Europe. Note four conflictive issues.

First, the interdependence among banks and banking sectors in different members states is not limited to cross-border retail services and mergers. The banking market in Europe is much more susceptible to competition than the European retail banking sector; financial sector mobility, in short, is greater at the wholesale level. Moreover, the banking system is marked by the presence of financial conglomerates devoted to banking, securities and insurance activities. This business structure makes the job of a national banking regulator very difficult, for two reasons in particular. First, the safety of the local banking system is connected to the performance of other financial markets, which the banking-regulating agency cannot supervise; in other words, coordination with other national agencies is needed. Second, the geographical integration of insurance and equity markets is far more developed. The risk exposure of the banks, therefore, is not confined within national borders, and efficient supervision of local banks requires information on their foreign activities.
Second, the process of integration can go in only one direction. Following monetary union and the increasing integration of the goods market and other financial activities, banking service mobility and cross-border mergers are expected to grow dramatically. The large investment projects geared to developing Internet banking in all the major European banks are consistent with this process. In the not too distant future, European banks will be operating in the European financial system as a whole. The size of these banks and the consequences of their performances may surpass the capacities and will of any single country’s NCB. Which country is going to supervise European banks? Which will be able to bear the costs of dealing with them in awkward circumstances? Efforts and resources devoted to coordination and cooperation among different countries’ agencies will increase, but that still might be insufficient. Once the phenomenon is sufficiently large, and the banking system is unified in a single European market, the financial safety net must also be centralized.

Third, the efficiency of both the monetary authority and the national banking supervisors might increase if there is regular cooperation in the area of information-exchange. The ECB has access to valuable banking information from the payment clearing system, which could improve the efficiency of national supervisors. Since the performance of the banking system affects the monetary aggregates, however, the ECB should have updated information on systemic risk, which is currently decentralized among national regulators.25

Finally, even if all of the above concerns do not provide enough justification for the integration of financial safety nets, the arguments are much stronger in light of the current European mechanisms for financial crisis management. For now, the disadvantages of a decentralized regulatory framework do not seem to offset political economy considerations – namely, each country’s renunciation of its discretionary power over the local banking system, and/or the agency problem of suppressing a national office. The prevailing institutional arrangement does not seem to have dramatic consequences for the functioning of the financial system, but the decentralized framework is a real safety net if it works not only at normal times, but also if it responds adequately to an increase in systemic risk. An adequate safety net does not only promote an efficient banking sector under normal circumstances, nor minimize the likelihood of a financial crisis. It also requires fast and assertive crisis management mechanisms. Timing is crucial in crisis resolution and national agencies are probably prone to delay intervention, which eventually gives rise to excessive costs; the cases of Banesto and Credit Lyonnais are examples (Aglietta and Scialom, 2003).

A financial crisis can impinge on the Euro-area as a whole, either because a general shock affects the overall preference for liquidity, because the failure of a large bank or banks has cross-border externalities, or because problems in other financial markets have systemic risk consequences for the banking industry. In any case, once the financial crisis surpasses the capacities and will of a national government, the ECB is the only institution capable of restoring confidence, either with a general liquidity injection or with direct loans to illiquid institutions. The financial markets’ sources of risk have plenty of cross-border counterparts, and the actions required to safeguard the financial stability of the whole monetary union affect different member states. Only a centralized institution can internalize the consequences of its actions. Aglietta and Scialom (2003) suggest that the creation of an Observatory of Systemic Risk would facilitate the efficient discharge of this duty. Such an observatory would have access to relevant information on financial markets and conglomerates, submitted by national central banks and supervisors.

We agree with those authors on the need for a centralized LOLR. The ECB might already be assuming that responsibility implicitly, although without legal acknowledgement...
and without the proper tools and information. Nevertheless, the centralization of the LOLR under the aegis of the ECB involves far more demanding effort than simply reorganizing the responsibilities of existing institutions. In fact, the centralization of the LOLR makes possible ECB involvement in direct loans to specific institutions, which can lead to two other sources of conflict: first, the discrepancy between the LOLR’s jurisdiction and that of financial supervision; and second, the discrepancy between the LOLR’s jurisdiction and that of the fiscal and political authorities. We do not have the answer to this dilemma, but it is worth considering the potential problems involved.

A. DISCREPANCY BETWEEN THE LOLR’S JURISDICTION AND THAT OF THE SUPERVISORS

This problem was explained in the preceding section. When the LOLR is a centralized institution, placing the responsibility for supervising and regulating the banking system on decentralized authorities leads to problems of moral hazard. Competition through regulation might hamper the operation of the whole system. The solution is to harmonize regulatory standards. Agreements on minimum standards could induce regulatory harmonization. In fact, competition through regulation could lead to the harmonization of national norms towards those minimum standards.

Nonetheless, competition could be induced through “enforcement” of the regulation. Agency problems arising from the relationships between supervisors (or politicians) and financial conglomerates could give rise to different policy outcomes according to the supervisor’s degree of integration. For example, a centralized European supervisor can be expected to be less sympathetic to national financial conglomerates that, although big for a country, might be less big in the context of the entire European system.

B. DISCREPANCY BETWEEN THE LOLR’S JURISDICTION AND THAT OF THE FISCAL AND POLITICAL AUTHORITIES

The ECB’s responsibility as the LOLR and the guarantor of the clearing system involves exposure to risk and the potential associated costs. It is accepted that the potential losses of such activities should be backed up with fiscal resources. Moreover, decisions on direct loans to illiquid institutions should be taken with the support of the fiscal authorities. But the central authority of the EU is relatively weak, and has practically no powers of taxation. In that light the obvious questions are: Which countries will back up the ECB’s operations in the event of losses? How long will it take the member states to coordinate funds in support of the ECB? Which countries will undertake, together with the ECB, the restructuring of distressed European banks that might prompt systemic risk?

In Goodhart (1999), this conflict appears to be so strong as to impede for now the centralization of the LOLR. As long as the banking system is not strongly integrated, the danger of lacking fiscal resources to back up the centralized LOLR is greater than the problems arising from the maintenance of national LOLRs and a European monetary authority. Once the financial market is more integrated, however, the absence of European government and fiscal resources will be inimical to the establishment of an effective crisis management mechanism.

Is it true, however, that the financial system is insufficiently integrated to need fiscal funds to support the ECB? Is it true that national central banks and their respective fiscal authorities can still provide adequate crisis management mechanisms? How would the current institutional arrangement respond to a European systemic crisis?
It could be argued that this ambiguity in crisis resolution is constructive, since it lessens the moral hazard for the banks and the member states. As Giannini (1999) explains, however, “...replicating constructive ambiguity at the international level poses several problems. First, reconciling ample resources availability and technical discretion as to the use of resources is extremely difficult, because there is no certain way to overcome the problem such a mixture raises with respect to control. The larger the resource pool is, the greater the risk will be that the main contributors will want to deprive the crisis manager of the technical discretion needed to fine-tune liquidity-support and contain moral hazard.” It is important to distinguish constructive ambiguity from incapacity in crisis resolution. Discretion is the key factor behind constructive ambiguity, but it demands that the resources be available in certain circumstances. If the resources needed are substantial and unavailable before a crisis, or if there is no political agreement to support the intervention of the LOLR, the problem is less one of ambiguity than of incapacity.

When financial crises have widespread sources in Europe, the ECB will be the only institution able to respond fast enough with the required liquidity injection. In that case the ECB will act as the LOLR, even if that circumstance is not contemplated in the legislation. The retained capital gives the ECB some freedom, but eventually a more efficient and stable mechanism for financing those losses must be put in place. If not, the credibility and independence of the ECB will be seriously jeopardized.

To conclude, the centralization of financial institutions in Europe has long been postponed. Instead, local agencies are responsible for regulating the banking industry and for financial crisis management. It is maintained that the prevailing institutional arrangement provide adequate supervision of the European banking system for now, and that further institutional centralization will only be needed as financial market integration proceeds. As mentioned earlier, however, this decentralized framework is a real safety net if it works not only at normal times but also if it responds adequately to an increase in systemic risk. That it does the latter is already questionable. Financial crisis can impinge on the entire Euro-area, in which case the ECB is the only institution able to restore confidence, either with a general liquidity injection or with direct loans to illiquid institutions.

Hence Europe’s present financial market might already call for a centralized LOLR to deal with possible Euro-area financial crisis. The LOLR’s centralization makes the harmonization of regulatory standards even more crucial, so as to prevent the member states from regulatory competition. Furthermore, centralization should also make provision for the creation of a centralized observatory of systemic risk, as proposed by Aglietta and Scalom (2003). Such an observatory would provide the LOLR with the necessary information on national financial markets and participating financial institutions. However, more regional banks and greater financial services mobility will increase the prospect of systemic risk, thereby making the European system more akin to the current national financial systems. That will be the time to take a step forward, towards complete centralization of the financial safety net. Nonetheless, if this agenda does not include the centralization of some fiscal resources and authorities, the centralized LOLR will lack the essential fiscal support. Although the ECB could be the immediate source of liquidity during the crisis, the ultimate lender of last resort should be a fiscal institution (taxpayers), a circumstance for which no provision is made in the Euro area. Without progress on this front, monetary stability could be compromised.

V. MERCOSUR AND THE ANDEAN COMMUNITY

In Mercosur and the Andean Community (AC), the reasons for integration are far from clear. First, the only significant source of externalities among the region’s financial sectors
is the contagion that stems from macroeconomic interdependencies. As explained below, however, contagion among financial systems can scarcely be reduced simply by integrating the financial safety net without previously lowering the volatility of the member states. Second, certain political economy considerations make integration particularly difficult. Coordination is nevertheless desirable, because it fosters the integration of regional financial markets and institutes positive synergies among the member countries in terms of lowering volatility.

On the basis of Budnevich (2003) and Naranjo Landeler and Osambela Zavala (2003), this paper reviews the importance in the region of the main rationales for integrating financial safety net. As was discussed in section 2, the reasons for an integrated net are: banking services mobility through cross-border operations; the presence of banks in various countries of the area; macroeconomic interdependencies; monetary union; and economies of scale. There follows a discussion of whether these circumstances prevail in Latin America and the political economy difficulties that hamper coordination, finally summing up some conclusions for the region.

A. REASONS FOR INTEGRATING FINANCIAL SAFETY NETS IN LATIN AMERICA

Mobility of financial services

As the papers by Budnevich (2003) and Naranjo (2003) point out, the cross-border mobility of banking services in South America is almost negligible, and is confined to supporting trade operations within the subregions. Since the economies of Mercosur and the AC are not particularly open, and the share of trade conducted within the region is not as significant as in Europe (as figure 2 illustrates), loans supporting trade operations are still insignificant relative to the entire banking sector. Table 2 shows the relation between intra-regional trade and monetary aggregates in South America and Europe. In spite of the European banking system is more than twice the size of that in Latin America in GDP terms, the relation between trade and monetary aggregates is five times greater in Europe than in Mercosur and the AC. Even if all of South America is considered, the difference is still striking.

The presence of banks in various countries of the area

The presence of international banks in Latin America is very important and has increased substantially in the last decade (figure 3). With the exception of Brazil, which imposes some access barriers on foreign institutions, most of the countries in these subregions promote the entry of international banks as a way of making the domestic banking system credible and efficient. As a result, banks with subsidiaries in many countries of the region have a substantial share of the domestic financial markets. Nevertheless, the headquarters of those banks that have regional share come almost exclusively from beyond the region, most of them originating in the OECD countries (Table 3). In the case of the AC and Mercosur, the share of regional banks in the banking system’s total assets is 1.5% and 0.4% respectively.

The internationalization of the banking sector is usually identified as a reason to integrate the financial safety net. The fate of the subsidiaries and headquarters of a given bank are linked, a circumstance that offers scope for contagion, and thus there are grounds to coordinate the safety nets of the countries involved. However, the fact that international banks in the region come from OECD countries prompts other considerations. First, OECD countries have safer financial institutions and regulation. Their subsidiaries are also expected to be safer and provide credibility to the entire financial sector of the host country. Second,
while liquidity problems in the mother companies could spur instability in the subsidiaries, such a scenario is assumed to be remote. On the contrary, authorities in the region expected the mother companies to inject liquidity into their subsidiaries in cases of distress. Finally, in most cases the size of the markets where the subsidiaries operate, relative to the original market, is too small to justify any cooperation. In sum, when countries promote the entry of foreign banks in the region the implicit hope is that they will generate positive externalities from OECD countries in terms of both credibility and injections of foreign currency in the event of liquidity constraints.  

Admittedly, the host country would lose control over external factors affecting the financial system, but this disadvantage is perceived to be minor in light of the effectiveness of the home country’s financial supervision and the large size of most of the financial institutions under consideration.

The conclusion would be different if the regional banks also had their headquarters in South America. In this case, the original financial markets where the headquarters are located are not usually perceived as sufficiently stable or sound to generate credibility gains in the host financial system. Furthermore, banks in the region are typically smaller and thus are less likely to provide liquidity to a bank in distress. Still, the local authorities would lose control over the performance of the local financial system, and the contagion among financial markets could be greater. Without any coordination of regulatory agencies or agreement on financial conflict resolution, therefore, the location of regional banks could jeopardize the soundness of the host financial sector.

It is worth mentioning that the above reasons for the internationalization of the banking sector were questioned following the recent Argentine experience. Indeed, during the most recent financial crisis in Argentina the bank’s head offices were not always willing to inject liquidity into their subsidiaries in distress. In Argentina, however, contracts were modified and there was therefore a change in the rules of the game; hence it is not clear whether that experience could be generalized to other situations. Nevertheless, it became evident that the previous assumption about the behavior of foreign banks did not necessarily hold true.

In sum, the presence of regional banks is minor. Foreign banks in the region are mostly from OECD countries, and thus their performance would not be affected by the centralization of financial regulation or supervision in the region. However, the prevalence of regulatory and supervisory standards in the host country that are similar to those in the developed world will probably attract FDI from those countries. For the same reason, and while regional banks will stem mainly from greater economic interdependence, similar prudential regulation would help promote the development of such institutions.

**Macroeconomic interdependence**

Financial crises in Latin America are intimately connected to currency crises. Indeed, the flight-to-quality phenomenon increases the demand for foreign currency – usually US dollars – to the detriment of domestic liquidity and bonds. Consequently, concerns about the soundness of the banking sector compromise the value of the domestic currency and the fiscal situation. Obviously, national authorities that are unable to provide the necessary quantity of US dollars have very few mechanisms to offset a financial crisis. On the other hand, variations in the real exchange rate in economies with substantial foreign currency liabilities can prompt doubts about the soundness of the banking sector, since profitability and the value of financial assets can be seriously affected.

Although the mobility of financial services is low and foreign banks are almost exclusively from OECD countries, contagion among financial markets in the region is still
significant. The evidence suggests that variations in a country's exchange rate are more strongly influenced by the evolution of exchange rates in the member states of the same trade bloc than by rates in the rest of the world (Fernández-Arias, Panizza, and Stein [2001]). This is consistent with the contagion, also apparent among these countries, in the value of financial assets.\textsuperscript{30} Moreover, countries from the same region that have substantial trade links usually suffer similar capital flow shocks.\textsuperscript{31}

Note that this source of contagion is peculiar to developing countries, especially those in Latin America, where the degree of “dollarization” of the economy is significant. Contagion among financial markets occurs through macroeconomic channels and compromises not only financial stability but also the credibility of the currency. Clearly, such volatility directly jeopardizes growth rates and investment levels in all the interconnected countries.

The vulnerability of financial markets is often identified as a source of macroeconomic instability in the region. Hence the upward harmonization of financial regulatory standards is desirable. Nonetheless, the sources of vulnerability in the region are not confined to the stability of the financial system itself; they also arise from purely macroeconomic considerations. The recommendation, then, would be to lessen the vulnerability of each country and thereby make the entire region more stable. To lessen the region’s volatility, apart from the harmonization of banking sector regulations, fiscal and monetary goals should be considered.

Lender of last resort

A monetary union requires the centralization of monetary authority in the Central Bank, and is an important motivation for integrating the financial safety net. Of course this motive is not relevant for the region, since there is no common currency and no reason to believe that the current situation might change in the medium term.

However, given the significance of external shocks and their impact on regional macroeconomic conditions, a region-wide financial facility (or a regional lender of last resort) is desirable. Such a facility would be disbursed in the event of sudden interruptions in capital flows, contagion, and a deterioration (at least a temporary one) in the terms of trade. Access to the fund would be tied to compliance with macroeconomic targets.\textsuperscript{32} Implementation of this facility is far from direct, given the magnitude of external shocks and their positive correlation among the countries considered.\textsuperscript{33} In fact, it is hard to imagine such a fund being set up without help from developed countries. Alternatively there will be a need for greater engagement on the part of international institutions, with some kind of automatic lending in the event of external shocks. Without some such mechanisms, it will be more difficult to maintain stability in the region.

The prospect of creating such a regional fund involves enormous efforts of coordination among the member countries: first in designing the institution and setting the macroeconomic targets; and second, once the facility is in place, the member countries must enforce the internal rules, peer monitor their performance, and agree on reimbursements when they are requested.

Economies of scale

It is hard to imagine that economies of scale in regulating activities could justify the centralization of the financial safety net at a regional level. As mentioned in section 2, however, the integration of some component of the safety nets could serve to promote a more integrated regional financial market, which could help lower transactions cost in the
region and, more importantly, could spur the creation of a regional capital market. Thus the harmonization of regulation, the adoption of similar deposit insurances, and the creation of a regional payments and clearing mechanism may still be desirable for the dynamic repercussions on the integration of financial-systems.

It might be argued that the integration of such institutions at a supranational level is an extreme means of fostering a regionally integrated financial market. Simply coordinating banking and financial regulations could serve the same purpose. Nevertheless, more ambitious integration improvements show clearer signs of permanent rules, in the same way that a common currency provides a stronger signal about the stability of the exchange rate than a soft peg. As has also happened with a common currency, however, the integration of a safety net will probably increase tensions within the region and could lead to political crises and the breakdown of the integration process. Hence the recommendation in this area is that no decision should be imposed from above if there is no clear demand from the parties involved.

B. POLITICAL ECONOMY CONSIDERATIONS

Fiscal and monetary policy coordination, the harmonization of financial regulations, the adoption of similar deposit insurance schemes, and the creation of a regional payment system should yield benefits for the entire region, lowering regional economic volatility and encouraging financial market integration. Nevertheless, such coordination faces many difficulties in the area of political economy, as explained in IDB [2002]. First, in contrast to the European experience, the potential partners do not enjoy good monetary and fiscal reputations, and therefore coordination will not induce credibility gains. Second, in the EU peer monitoring can act as an instrument of discipline for the implementation of corrective macroeconomic policies. In the AC or Mercosur, however, there are no sanctions on the violation of agreements, since there are no market-reputation costs associated with the infringement of regional accords. Finally, the European experience shows that there are important synergies between macroeconomic coordination and the interdependence of the member states. In the AC and Mercosur, the incentives for a country to distinguish itself from a partner in distress have usually overwhelmed the political process of the coordination agenda.

Coordination among the member states of a trade bloc makes sense when policy decisions affect the other trading partners. The demand for coordination is then intimately related to the level of interdependence among them. This indicator depends on the relative size of the member states and their relative participation in the bloc’s trade flows. Typically, the AC and Mercosur display low levels of commercial interdependence (see figure 2). In Mercosur, the disparities in the relative size of the member states pose another challenge. First, while the smaller countries are normally influenced strongly by the performance of the largest economy, the contrary does not necessarily hold true. In extreme cases this amounts to “dependence” rather than “interdependence”. Second, improvements in macroeconomic coordination also involve some loss of autonomy in a country’s own macroeconomic management. The costs of the loss of autonomy can be quite significant for a big economy, whose interdependence with the rest of the bloc is less. An economy that is large relative to the other members of the bloc will have fewer incentives to coordinate.

To surmount this problem, it would be useful to create incentives that are external to the region – for instance, through programs developed by international organizations and geared to enhancing the integration process. As the experience of
Europe shows, however, nothing can replace the political willingness of all participating countries to pursue integration. Without that, technical progress on financial and macroeconomic coordination is meaningless.

C. FURTHER COMMENTS

Given the meager level of financial service mobility and the small number of purely regional banks – banks with subsidiaries in several countries of the area and whose head offices are located in the region – the centralization of the safety net at regional or subregional levels is unnecessary. Moreover, in light of the political economy considerations mentioned above, there is little prospect of significant improvements in policy coordination as long as the member states do not lower their volatility. Improvements in this matter are nonetheless desirable, both to lessen the economic volatility of the member countries and to promote the integration of the regional financial market.

A first step is the harmonization of some basic financial and macroeconomic standards. This effort will not be perceived as increasing contagion or interdependence among the member states, since the institutions and policy decisions will still be independent of regional considerations. More responsible monetary and fiscal features and financial requirements should reduce the volatility of each member state, thereby generating positive regional synergies. Furthermore, these regional agreements could aid the process of building political support for the implementation of responsible economic measures. By associating these measures with international agreements, the national authorities win support to counter potential domestic resistance. Additionally, as volatility declines in the region, the regional association could be seen as a positive signal and the sanctions contemplated in the trade bloc could finally be applied as a credible enforcement mechanism.

The implementation of more responsible economic measures will help reduce vulnerability to external shocks. To lower such volatility, however, it is important to create a regional financial facility that seeks to lessen the impact of external shocks. Chile, Ecuador, and Colombia set up buffer funds linked to the price of their main commodity exports, but the scale of the shocks and the positive correlation among the countries of the region point to the need for a regional facility involving developed countries. That possibility and the nature of such an institution, which introduces another significant motivation for regional coordination, is the topic of another seminar.

A second step, perhaps more ambitious, is to integrate some financial institution so as to promote more integrated financial markets and, eventually, the creation of a regional capital market. The already mentioned harmonization of banking regulations could also serve this purpose, but it must complemented with the implementation of similar deposit insurance schemes in all the member countries and the establishment of a regional payment and clearing system. Admittedly, such an endeavor might increase the interdependence of the member states, but it also yields benefits in terms of financial services’ efficiency and capital access. Moreover, there are positive synergies between financial policy coordination and financial market integration: since financial policy coordination fosters financial market integration, the latter demands further coordination because financial services become increasingly mobile and banks are expected to expand regionally. Since improvements in these matters entail a trade-off between contagion exposure and the efficiency of the financial and capital markets, the timing is crucial.

In conclusion, the region’s financial markets are not so integrated as to require the centralization of the instruments that make up the safety nets. Not even the functional
integration of their activities is currently needed. However, the existing regional trade agreements envisage a process of integration, first in goods and then in services. If that process is to take place, the debate on the coordination and harmonization of financial measures will gain momentum.

VI. Final Remarks

As financial markets have become globalized and countries have increasingly pursued regional integration agreements, the structure of financial markets has been transformed. Consequently, the institutions that make up national safety nets now face new challenges. This paper has discussed whether the current institutional arrangement is adequate to promote efficiency and safety in regionally integrated financial markets.

To analyze the issue of regional integration, we began by discussing the rationale for the centralization of safety nets at a national level, where the integration of regional financial markets is particularly intense. We indicated five motivations that could explain centralization at the national level: a) cross-border mobility of financial services; b) the presence of banks operating simultaneously in various areas; c) monetary union, which constrains the functionality of decentralized LOLRs; d) macroeconomic interdependence, from which stems another source of financial contagion among different regions; and e) economies of scale in regulatory activity and risk management – this latter being applicable both to deposit insurance and banking activities.

When the analysis is applied to the supranational level, the question is how important these factors are at the international or regional levels. Are there reasons to move towards institutional centralization or would intermediate solutions, such as harmonization and coordination, suffice? When is it useful to move towards a centralized scheme? What kind of harmonization or centralization is required?

The first three issues pertaining to national centralization – financial service mobility, regional banks, and monetary unification – correspond to different facets of financial market integration. As mentioned earlier, the international or regional integration of financial markets calls for the harmonization of some of the principles that govern them, and explains why the Bank for International Settlements is producing international standards of prudential regulation. Otherwise there is a risk that opportunistic behavior by financial institutions and national authorities could jeopardize the efficiency and safety of the financial system. In some cases, however, the harmonization of standards is not enough. The need for a more ambitious agenda of centralization will depend on which of the aforementioned aspects of market integration are present, as well as on the intensity of that integration. Moreover, the peculiarities of the economies involved will also affect the recommendations. The experience of the EU, the world’s most integrated regional market, helps illustrate this point.

a. Mobility of banking services. The mobility of retail banking services is still relatively modest in Europe, unlike the mobility of other financial services. Foreign operations affect the safety of European financial conglomerates, and competition through regulation is already a possibility. The member states adopted the Basle principles on banking regulation, and face similar loss functions. Hence, although the matter of the institution in distress should be assessed in light of the European market where it operates rather than simply the market regulated by the local authorities, it can still be argued that the decentralized regulatory agencies can efficiently supervise the financial markets. Could that still be argued if the countries under consideration did not have certain congruent regulatory frameworks, or if there were a chance of competition through “enforcement of the regulation”? This is
particularly important in Latin America, where differences in legal and macroeconomic frameworks give rise to the greater risk faced by the banking systems and to different loss functions. The regulatory requirements should therefore be consistent with those idiosyncrasies, so as to promote a safe and integrated financial system.

As service mobility increases, the efficiency of the decentralized framework – even in the European market – will be jeopardized. Although regulatory framework harmonization might protect the system from the consequences of regulatory competition, the efficiency of decentralized crisis-resolution mechanisms is questionable because the political will of local authorities and the costs involved will not be the same when a large proportion of the customers of a “national” bank are non-residents. In other words, the greater the externalities, the less efficient is a mechanism of crisis resolution that does not take account of them.

b. Regional banks. The proportion of regional banks in Europe is still not so large as to call for the centralization of the entire financial safety net. However, once European banks operate in the European market, two issues will have to be considered: a) the risk of contagion will increase; and b) the will and capacity of national crisis-management agencies will be overwhelmed. This scenario does not yet prevail but it is expected to do so, and the European authorities will need to centralize further. The real question in Europe is “when?”. It seems that the path of the market integration is dictating the timing. The question in Latin America is different. As long as the countries are unready to implement such a demanding effort of harmonization and coordination, is it possible to allow the location of important regional banks? By extension, since the evolution of the market structure should be consistent with the evolution of the safety net design, should the constraints on safety net coordination and harmonization impose a consistent limit on the course of financial market integration?

c. Monetary union. It could be argued that the ECB is the natural candidate to act as the immediate LOLR, since it is the only institution that can swiftly provide the needed liquidity and prevent the spread of systemic risk. Moreover, as section 2 explained, centralization of the LOLR requires the harmonization of the regulatory framework and deposit insurance (so as to prevent regulation competition among member countries), as well as full disclosure of information on conditions in the various financial institutions (so as to be able to intervene efficiently in the event of a systemic risk). However, if financial service mobility and the proportion of regional banks were low enough, the national LOLRs could still fulfill their role. In Europe, where the economies are stable and governments are fiscally sound, the authorities understand that decentralized LOLRs still have significant buffer stocks of liquidity to face possible national crises. Furthermore, European countries will scarcely suffer risk contagion stemming from the poor resolution of a financial crisis in another member state. This conclusion, however, depends crucially on the nature and scale of the crises and on the resources of the national authorities; thus the Central Bank should be prepared to become a LOLR if the circumstances warrant it. Again, the possibility of retaining national LOLRs despite the presence of a regional central bank does not apply to developing countries, where the risk of contagion is greater. The question is: are monetary union and decentralized LOLRs possible if the economies in question are not as solid as those of the EU?

In sum, the process of financial market integration, rather than monetary union, is the key determinant of safety net centralization. The greater the mobility of financial services (and especially the significance of regional banks), the clearer the motives for
integration of the safety net. Specifically, it would be very difficult to apply crisis resolution mechanisms at the national level when a certain bank might have a substantial impact at the regional level. The course of this process depends on the peculiarities of each region. In Europe, where the economies are solid and less vulnerable to external shocks, the authorities can typically postpone integration for longer, despite the fact that the region has a single central bank. If a regional LOLR is to be a crucial element of that safety net, it is critical to have fiscal back-up. Although the regional central bank could be the immediate source of liquidity during a crisis, the ultimate lender of last resort should be a fiscal institution (taxpayers), or monetary might otherwise be compromised.

At the same time, while the centralization of many activities is advisable as financial markets are increasingly integrated, there are significant disadvantages to be kept in mind. The centralization of agencies into a supranational authority could entail considerable bureaucratic inefficiencies and reduce the effectiveness of the safety net. The challenge is to find institutional arrangements that decentralize operational units while at the same time internalizing the effects of their decisions.

The last two motives for integrating safety nets – macroeconomic interdependence and scale considerations – are fundamentally different: they do not correspond to elements of financial markets integration. In these cases, it is not the integration of financial markets itself that requires institutional centralization. Rather, some coordination is desirable so as to lessen the negative consequences attendant on the presence of macroeconomic interdependencies and the absence of deep national financial markets. Clearly, these considerations reflect the particular problems facing developing countries, especially in Latin America, and are barely apparent in the developed world.

d. Macroeconomic interdependence. In this case contagion spreads through macroeconomic channels and compromises both financial stability and currency credibility. Lowering the economic volatility of each member country, therefore, yields substantial benefits in light of the positive externalities within the region. The region’s economic instability is driven mainly by internal deficiencies – precarious fiscal, monetary and financial situations – and the vulnerability of countries to destabilizing external shocks. Hence there are two courses of action in the area of coordination: regional agreements to implement responsible macroeconomic policies, and the creation of a regional fund to lessen the region’s vulnerability to external shocks.

First, consider regional agreements to implement responsible macroeconomic policies. Since the benefits of implementing more responsible policies transcend national borders, macroeconomic coordination could help internalize these benefits, thereby generating positive synergies. Moreover, regional agreements could help build political support for implementing responsible economic measures. Finally, as volatility declines in the region, the political economy barriers to regional integration will tend to fall, thereby reinforcing the process.

Second, with regard to the creation of a regional fund to lessen the impact of external shocks, some countries of Latin America already have buffer funds linked to the price of their main goods exports. The scale of the shocks, however, calls for regional resources or automatic liquidity injections from the multinational lending organizations. The establishment of such a fund, while crucial for stability in the region, faces technical difficulties: first, since the external shocks affecting the member countries are positively correlated (especially movements in capital flows), the fund must be supported by developed countries; and second, the regional fund is only viable if it affects a large
region (all of South America, for instance), because otherwise some countries are still too large relative to others.  

e. Scale considerations. The scale considerations of regulatory activity do not seem important for most South American or European countries but this issue merits attention for countries in Central America and the Caribbean. Financial market integration spawns benefits in terms of risk diversification and capital access. Hence the creation of some supranational institutions such as a regional clearing and payments mechanism, and the harmonization of some basic regulatory requirements, could promote regional markets. Progress on the integration of financial markets will reinforce this process, since it requires institutional coordination.

In sum, Latin America’s financial markets are far from requiring the institutional or functional centralization of the instruments that make up the safety nets. Indeed, the regional banking and financial sectors are not yet sufficiently integrated. Nonetheless, macroeconomic coordination and progress on the integration of some financial mechanisms can help lessen volatility in Latin America, and can help develop regional financial markets. The integration of financial markets, however, induces greater interdependence among the economies and thus increases the scope for contagion. As long as the volatility of the countries of the region remains high, this consideration should be always kept in mind. The right timing is therefore crucial.

Before concluding we would like to make some comments about issues raised throughout the paper that are related to the negotiating process. In most integration processes countries are faced with the option of promoting or not promoting the mobility of financial services and regional banks, and with decisions as to whether they should harmonize regulation and coordinate supervision or accept branches or subsidiaries. We have not discussed all these issues in detail, but the paper has touched on most of them.

Take, for example, the issue of branches and subsidiaries. Although from a methodological viewpoint we assume these to be similar in the discussions on contagion, it is clear that they are dissimilar when others issues are considered – especially the cost to the host country of a crisis in a bank’s mother company. While it would be difficult to avoid contagion of the subsidiary in the event of a crisis in the bank’s head offices, the scale of the contagion (and the cost for the host country) should be lower the more solvent the subsidiary is. Thus a subsidiary is better than a branch, although the difference between them is greater when the quality of regulation and supervision is lower in the home country and higher in the host country.

In some other issues, as section 5 mentioned, the characteristics of the partners are also important. If a country treats domestic and foreign banks differently, for example, it makes sense to give regional banks a status similar to that of domestic banks – not only if the partner’s standards of regulation and supervision are deemed to be very good, but also if its macroeconomic volatility is low. In any case, in considering the application of a new institution, and if the main shareholder is a bank, that bank’s country of origin should be one of the main factors considered.

As regards the movement of financial services across borders, it is hard to understand why restrictions should be imposed if competition is going to improve.  

The only reason for that is that countries have different prudential regulations. Incidentally, this is another reason to harmonize prudential rules: if greater competition and new markets and financing opportunities are to be promoted (either through financial services mobility or regional banks), the harmonization of prudential regulation and coordination among
supervisors is crucial. This leads us to one of the main conclusion of the paper: without harmonization and coordination it will be very difficult (and unhelpful) for financial services to cross borders and for regional banks to expand; when mobility increases, and especially when regional banks become the main actors in the regional financial system, it will be time to centralize the financial safety net.

In conclusion, this paper has analyzed the issue of regional integration from two perspectives. First, following a “reactive” approach, we sought to identify those features of international financial market integration that make the centralization of the safety net – or some of its components – crucial to the efficient operation of financial markets. Admittedly, the process of financial market integration will always require some international coordination, but the depth of such coordination remains an open question. It will depend on the peculiar aspects of the integration process in each region and the characteristics of the region’s economies. Second, we focused on the dynamic consequences of promoting institutional integration. That is, the regional coordination of some of the instruments that make up the safety net could induce the integration of financial markets in the region. Then, adopting a “positive” approach, it is possible to recommend some coordination or harmonization of basic standards, even though the evolution of the market may not require it, as a way of promoting more stable macroeconomic conditions and furthering the integration of financial markets. This discussion is important in Latin America, where the financial and capital markets are not deep.
Regional integration can be viewed as just other dimension of the debate on the international integration of financial markets.

This information might not necessarily reveal any feature of a given institution, but as long as the public perceives any connection between the new evidence and the bank, it might be enough to prompt doubts about its soundness. In other words, there are two rational expectation equilibria: one in which the public has no doubts about the soundness of the banks (and therefore the institution is safe and sound); and another in which public expectations go against the institution, triggering a bank run.

See the discussion between Kareken [1986] and Mussa [1986].

Fama [1985] points that there are important economies of scope considerations against narrow banking.

Sometimes, in order to lessen the adverse selection phenomenon, the limits on coverage are linked to the interest rate. Thus the DI will not cover deposits with a high risk/return profile.

An exception occurs when the fragmented depositors are more susceptible to credibility shift -as they are typically less informed, their perception can hastily change in light of new information. In this case, a DI could prevent the correspondent abrupt wave of withdrawals.

It might be argued that the presence of DI makes the fragmented investors reluctant to secure information on financial institutions, and that small investors are “unsophisticated” as a result. Even so, once it is recognized that information is costly, it is not necessarily efficient to encourage small investors to expend resources on monitoring the banks.

When the LOLR decides to lend to a specific institution, the loan should be at a higher interest rate than the market rate in the pre-crisis period, but lower than the rates that the bank would pay in its current situation. The reason for the former assertion is to discourage banks from becoming illiquid, while the goal of the latter is to avoid aggravating the bank’s already problematic situation.


Rochet and Tirole [1996] model this mechanism and conclude with an interesting dilemma. Although peer monitoring can effectively function as a market discipline device, the inter-linkage between banks also provides and extra source of contagion and systemic risk. Moreover, if the LOLR is unwilling to let the linked banks fail in order to avoid contagion, the credibility of peer monitoring becomes questionable.

An interesting innovation was introduced in New Zealand, where directors personally guarantee the effectiveness of a bank’s internal risk control mechanism and are legally answerable for it.
Argentina introduced market mechanism devices following the crisis of 1995. Before then the authorities thought that a financial safety net was unnecessary. To tackle the 1995 crisis the institutions of a safety net were created, and market discipline devices were later introduced.

It is important to emphasize that subsidizing the restructuring of an institution should not be understood as a reward to imprudent managers and shareholders. If, for systemic risk considerations, an insolvent bank is to be restructured using public funds, the ownership and control should be removed from the current shareholders and management.

Argentina’s banking crisis of 1995 induced a hasty change in the financial legislation, which was inadequate for dealing with banks in distress. The new legislation established a safety net with a deposit insurance scheme and made provision for the Central Bank to act as a lender of last resort.

If the deposit insurance institution is to take care of the cost, it is clear that the financial system will pay the bill, either through an extraordinary contribution or through future payments to the deposit insurance.

Goldstein, M. Graciela Kaminsky and Carmen Reinhart [2000] show that currency crises in developing countries are usually proceed by financial crises.

To illustrate this point, imagine a state where the banks sell most of their services to citizens outside the state. In the event of a financial crisis, the intervention needed to restore confidence benefits clients spread throughout the country, but only the residents of the home state face the costs. This gives rise to two sources of conflict: first, local resources might be insufficient for a national market, and second, the state –responding to the cost/benefit equation of its citizens – might decide not to intervene.

In the case of an increase in DI coverage, the moral hazard of the financial system may be affected.

The subsidiaries and the headquarter are different entities. However, as the public sees a connection among them, the fate of the two are linked. By contrast, branches and headquarter are parts of the same entity, and thus the interdependence between them is immediate. More importantly, from the host country’s perspective, the mechanisms and cost involved in resolving a regional bank in distress may be different depending on whether the host country is dealing with a subsidiary or a branch. Typically, in the resolution of a crisis, the local authorities have better control of solvency and greater discretion when dealing with a subsidiary than with a branch.

This simplification does not restrict the analysis, since the treatment of branches as a mere window for contracting out-of-state services could be viewed as a cross-border operation as described in the previous subsection.

This function of the Central Bank need not be explicitly undertaken, as long as its participation is implicitly understood once a crisis occurs. This is often the case when no other crisis management mechanism is provided for in the national financial system.

This section is based on Aglietta and Scialom [2003].
23 The European Union allows the provision of financial services by trading or investment; i.e. it 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. This alternative has not been authorized in NAFTA (Provencio [2003]).

24 Securities markets experienced deeper integration than insurance sectors, where the competition has been limited by legal barriers (IDB [2002], chapter 5).

25 In Europe, banking regulation is not always undertaken by national central banks. The agencies are often a separate entity and they may even be decentralized at the sub-national level. Thus regular information-exchange may involve demanding efforts at coordination.

26 It is also expected that international banks will improve the efficiency and competitiveness of domestic financial systems. For a discussion of this issue, see IDB, [2002], chapter 5.

27 It could be argued that the probability of getting liquidity from headquarters increases when the size of the host country is smaller (less liquidity would be needed) and the size of the bank is larger.

28 Foreign banks acted differently in Uruguay's financial crisis, since they were ready to support the subsidiaries in distress. This different conduct might be explained by: i) the smaller size of Uruguay's financial market; or ii) the Uruguayan authorities did not change the contracts in the financial system.

29 It should also be noted that the expansion of foreign banks to other countries is related to bank size. The smaller size of banks in the area makes it more difficult to envisage an international expansion similar to that in the developed world.

30 See IDB [2002] chapter 7 for a discussion of this issue.

31 In relatively closed economies, capital flow fluctuations as a share of the GDP have a bigger impact in terms of changes in the GDP and real exchange rate needed to adjust the current account.

32 For a detailed discussion, including the symmetry of external shocks, see Agosin [2001] and Machinea [2003].

33 The positive and high correlation only applies to capital flows; terms of trade are only slightly correlated (IDB [2002] chapter 7).

34 Since the volatility of external shocks make these economies more vulnerable than OECD countries, it is reasonable to adopt “Basle plus” regulations.

35 This harmonization should not be seen as the implementation of a single regulatory framework. The standards should make provision for the peculiarities of each country. As Naranjo [2003] explains, the countries of the region have different judicial institutions, and therefore their banking sectors face different loss functions. The level of stringency in each country should be consistent with those differences; the countries of the region could establish certain minimum standards that should also include the deposit insurance system.
Although we are analyzing here a theoretical scenario with Latin American regional banks, the current size of the national banks in the region is itself a limit for the developing of important regional banks.

For instance, it is a major factor in the case of MERCOSUR.

In contrast to the EU, some restrictions were imposed on the promotion of financial services across borders in NAFTA (Provencio, 2003) and the trade agreement between the USA and Chile (Zalher [2003]).
### Table 1

**Total Assets of Branches and Subsidiaries of Credit Institutions as a % of Total Assets - (2001)**

<table>
<thead>
<tr>
<th>Country</th>
<th>From EEA countries</th>
<th></th>
<th>From non EEA countries</th>
<th></th>
<th></th>
<th></th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Branches</td>
<td>Subsidiaries</td>
<td>Total</td>
<td>Branches</td>
<td>Subsidiaries</td>
<td>Total</td>
<td>Total</td>
</tr>
<tr>
<td>Bélgaia</td>
<td>3.8</td>
<td>18.8</td>
<td>22.7</td>
<td>1.7</td>
<td>0.8</td>
<td>2.5</td>
<td>25.2</td>
</tr>
<tr>
<td>Denmark</td>
<td>4.2</td>
<td>12.5</td>
<td>16.7</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>Germany</td>
<td>1.5</td>
<td>1.8</td>
<td>3.2</td>
<td>0.6</td>
<td>0.9</td>
<td>1.5</td>
<td>4.7</td>
</tr>
<tr>
<td>Greece¹</td>
<td>4.4</td>
<td>4.4</td>
<td>8.8</td>
<td>4.4</td>
<td>4.4</td>
<td>8.8</td>
<td>17.6</td>
</tr>
<tr>
<td>Spain</td>
<td>4.1</td>
<td>4.0</td>
<td>8.0</td>
<td>0.2</td>
<td>1.2</td>
<td>1.4</td>
<td>9.5</td>
</tr>
<tr>
<td>France¹</td>
<td>3.2</td>
<td>3.2</td>
<td>6.4</td>
<td>0.6</td>
<td>0.6</td>
<td>1.1</td>
<td>7.5</td>
</tr>
<tr>
<td>Ireland</td>
<td>11.0</td>
<td>27.9</td>
<td>38.9</td>
<td>n/a</td>
<td>9.3</td>
<td>9.3</td>
<td>48.2</td>
</tr>
<tr>
<td>Italy¹</td>
<td>5.6</td>
<td>1.1</td>
<td>6.7</td>
<td>1.0</td>
<td>1.0</td>
<td>1.9</td>
<td>8.6</td>
</tr>
<tr>
<td>Luxembourg</td>
<td>18.2</td>
<td>69.3</td>
<td>87.4</td>
<td>1.0</td>
<td>5.4</td>
<td>6.3</td>
<td>93.8</td>
</tr>
<tr>
<td>Netherlands</td>
<td>2.2</td>
<td>7.6</td>
<td>9.8</td>
<td>0.2</td>
<td>1.3</td>
<td>1.5</td>
<td>11.3</td>
</tr>
<tr>
<td>Austria</td>
<td>0.8</td>
<td>18.2</td>
<td>19.0</td>
<td>n/a</td>
<td>0.5</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>Portugal¹</td>
<td>4.2</td>
<td>19.4</td>
<td>23.6</td>
<td>1.0</td>
<td>1.0</td>
<td>2.1</td>
<td>25.7</td>
</tr>
<tr>
<td>Finland</td>
<td>5.7</td>
<td>0.0</td>
<td>5.7</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>5.7</td>
</tr>
<tr>
<td>Sweden</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>23.7</td>
<td>1.3</td>
<td>25.0</td>
<td>21.0</td>
<td>5.2</td>
<td>26.2</td>
<td>51.2</td>
</tr>
</tbody>
</table>

**Simple Average**

<table>
<thead>
<tr>
<th></th>
<th>From EEA countries</th>
<th>From non EEA countries</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>MU 12</td>
<td>Total</td>
</tr>
<tr>
<td>EU 15</td>
<td>20.0</td>
<td>5.2</td>
</tr>
<tr>
<td>MU 12</td>
<td>20.0</td>
<td>3.3</td>
</tr>
</tbody>
</table>

**Weight Average**

<table>
<thead>
<tr>
<th></th>
<th>From EEA countries</th>
<th>From non EEA countries</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>MU 12</td>
<td>Total</td>
</tr>
<tr>
<td>EU 15</td>
<td>14.8</td>
<td>7.8</td>
</tr>
<tr>
<td>MU 12</td>
<td>11.4</td>
<td>2.0</td>
</tr>
</tbody>
</table>

Note: ¹ Because of problems of data availability, for Greece and France the assets of subsidiaries were assumed to be the same as the assets of the branches, while the same assumption was made for Italy and Portugal in the case of non EEA countries. Source: Own estimation using ECB data.

### Table 2

**Regional Trade as a % of M2**

<table>
<thead>
<tr>
<th>Region</th>
<th>1998</th>
<th>2001</th>
</tr>
</thead>
<tbody>
<tr>
<td>MERCOSUR</td>
<td>6.0</td>
<td>6.5</td>
</tr>
<tr>
<td>CAN</td>
<td>7.8</td>
<td>7.6</td>
</tr>
<tr>
<td>South America</td>
<td>8.5</td>
<td>10.0</td>
</tr>
<tr>
<td>EU 15</td>
<td>30.3</td>
<td>33.6</td>
</tr>
</tbody>
</table>

Source: Own estimations based on ECB and IMF data.
Table 3  
**Cross-Border Shareholdings around the World**

(In percentages)

<table>
<thead>
<tr>
<th>Host region</th>
<th>Source Region</th>
<th>Africa and Middle East</th>
<th>Asia and Pacific</th>
<th>Latin America</th>
<th>Latin America</th>
<th>US and Canada</th>
<th>Europe in Transition</th>
<th>Europe</th>
<th>Total</th>
<th>OECD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Africa and Middle East</td>
<td></td>
<td>7.68%</td>
<td>0.14</td>
<td>0.00</td>
<td>0.00</td>
<td>1.89</td>
<td>0.03</td>
<td>3.66</td>
<td>13.39</td>
<td>5.65</td>
</tr>
<tr>
<td>Asia and Pacific</td>
<td></td>
<td>0.05%</td>
<td>1.32</td>
<td>0.00</td>
<td>0.00</td>
<td>1.22</td>
<td>0.00</td>
<td>3.30</td>
<td>5.89</td>
<td>5.03</td>
</tr>
<tr>
<td>Latin America</td>
<td>0.11%</td>
<td>0.23</td>
<td>1.47</td>
<td>—</td>
<td>18.81</td>
<td>0.06</td>
<td>26.64</td>
<td>47.32</td>
<td>45.74</td>
<td></td>
</tr>
<tr>
<td>Latin America</td>
<td>0.13%</td>
<td>0.27</td>
<td>—</td>
<td>0.64</td>
<td>18.03</td>
<td>0.07</td>
<td>28.17</td>
<td>47.31</td>
<td>46.53</td>
<td></td>
</tr>
<tr>
<td>US and Canada</td>
<td>0.08%</td>
<td>0.68</td>
<td>0.03</td>
<td>0.01</td>
<td>0.95</td>
<td>0.00</td>
<td>8.61</td>
<td>10.34</td>
<td>10.21</td>
<td></td>
</tr>
<tr>
<td>Europe in Transition</td>
<td>0.01%</td>
<td>0.26</td>
<td>0.02</td>
<td>0.00</td>
<td>4.45</td>
<td>1.39</td>
<td>34.69</td>
<td>40.82</td>
<td>39.82</td>
<td></td>
</tr>
<tr>
<td>Europe</td>
<td>0.34%</td>
<td>2.49</td>
<td>0.03</td>
<td>0.02</td>
<td>3.34</td>
<td>0.02</td>
<td>15.89</td>
<td>22.11</td>
<td>75</td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>0.34%</td>
<td>1.64</td>
<td>0.05</td>
<td>0.03</td>
<td>2.47</td>
<td>0.02</td>
<td>11.25</td>
<td>15.77</td>
<td>14.25</td>
<td></td>
</tr>
<tr>
<td>OECD</td>
<td>0.20%</td>
<td>1.59</td>
<td>0.02</td>
<td>0.01</td>
<td>2.27</td>
<td>0.01</td>
<td>—</td>
<td>15.29</td>
<td>14.00</td>
<td></td>
</tr>
</tbody>
</table>

Notes:
2. Excludes the Bahamas, Cayman Islands and Panama.
3. Only includes Argentina, Bolivia, Brazil, Chile, colombia, Ecuador, Mexico, Paraguay, Peru, uruguay and Venezuela.
4. Includes economies in transition from Central and Eastern Europe.
5. Excludes Europe in transition.
6. Excludes Czech Republic, Hungary, Korea, Mexico, Poland and Slovakia.
Source: IDB [2002], Economic and Social Progress in latin America Report, Chapter 5.
Figure 11

DEPOSITS IN FOREIGN CURRENCY AS A % OF TOTAL DEPOSITS, 2001

Source: IMF and Central Banks of several countries.
**Figure 2**

**TRADE INTERDEPENDENCE**

a) Intra-regional exports as a % of total exports

- EU
- NAFTA
- ASEAN
- MERCOSUR
- CACM
- CARICOM
- CAN

b) Intra-regional exports as a % of the regional GDP

- EU
- ASEAN
- NAFTA
- CACM
- CARICOM
- MERCOSUR
- CAN

Source: Economic and Social Progress in Latin America Report, Chapter 7, IDB [2002].
Source: Budnevich [2003].
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