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**THE CHANGING BORDERS OF BANKING:
trends and implications**

by

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Introduction

Imagine that a banker, economist or policy-maker had been away from civilisation for the last fifteen years or so and finally returned. Would he recognise the financial industry that he saw? No doubt our fictitious observer's answer would depend on his specific perspective and on whether he was looking at the industry on a global scale or at a particular sector or country. Yet there is little doubt that the changes in the structure and workings of the industry that have occurred over the period, and those in prospect, have profoundly altered the performance, risks and opportunities of individual enterprises and of the system as a whole in all countries.

The present paper considers these changes from an international perspective. The focus is primarily on the nature of banks' activities, with particular reference to the evolution of institutional linkages between commercial and investment banking, on the one hand, and insurance and non-financial business, on the other. The analytical questions tackled concern the case for and against closer integration between these activities and the implications for prudential regulation and supervision. The emphasis is on the wood, not on the trees. The intention is to provide a general framework and a cross-country background against which the interrelations between the various policy issues can be highlighted. The perspective is that of an *economist*, rather than of a banker or supervisor.

Section I outlines the evolution of the financial industry over the last fifteen years or so. Particular attention is paid to the characteristics of the deregulatory process, to the common threads and differences across countries. Section II discusses the pros and cons of integration between banking, insurance and non-financial business activities and considers the available evidence. The third section addresses the implications of the linkages between these activities for prudential regulation and supervision, identifying some key issues. The conclusion summarises some of the main points made.

I. Stylised facts about deregulation and structural trends

The ascendancy of free market philosophy, a propitious macroeconomic environment and an acceleration in the pace of technological change: these have been the three key factors underlying the increased momentum in the transformation of the financial industry since the late 1970s. The end-result of the liberalisation and financial innovation process has been a substantial heightening of competitive pressures in the industry. The scope, timing and speed of this process, however, have not been uniform either across countries or across segments of the industry, reflecting the differing objectives of intervention and diverse initial conditions.¹

Consider what the industry looked like at the end of the 1970s. Largely with a view to limiting the risk of financial instability - albeit at the expense of competition - significant restrictions on the lines of business and geographical location and operation of financial enterprises still existed in many countries, sometimes supplemented by ceilings on deposit rates and/or official tolerance of cartel-type agreements. Often these sets of restrictions dated back to the inter-war years, when they had been introduced in response to episodes of widespread financial distress. The Glass-Steagall Act of 1933, separating commercial and investment banking in the United States, is a typical example. Another is the Italian Banking Law of 1936, which established the principle of separation between banking and non-financial activities ("commerce").

At the same time, interventionist approaches to the implementation of monetary policy and remnants of credit allocation policies had often resulted in quantitative and, to a lesser extent, interest rate controls on the assets side of the credit institutions' balance sheet and on restrictions on international financial transactions. Compulsory investment requirements and/or constraints on bank loans, to mention just two typical examples, were by no means a prerogative of the Italian financial system. At least one of these elements was present in most countries; Canada, Germany and the United States were the main exceptions.

If we look at the financial industry now, the picture is radically different. It seems fair to say, however, that generally the liberalisation process has tended to proceed more speedily and to go furthest in the area of those restrictions more immediately identified with credit allocation and monetary policy objectives. It has been slower and more cautious as regards constraints historically linked, at least in part, with concerns about financial stability and investor protection.

Restrictions other than on lines of business

The easing of *quantitative, interest rate and price restrictions* has been particularly extensive. None of the main industrialised countries retains ceilings or other major constraints on

¹ For a detailed description of the deregulation process, see Bröker (1989) and OECD (1992a). A more succinct overview and analysis of these developments is contained in BIS (1991 and 1992a) and Pecchioli (1991).

lending. Compulsory investment requirements are rare and of limited significance. Reserve requirements have been drastically reduced and in some countries abolished.² Controls on foreign exchange and international transactions have all but disappeared. So have restrictions on lending rates. The only remaining restrictions on interest rates or prices are those traditionally designed to limit competition, i.e. those on some forms of bank deposit and, in exceptional cases, on brokerage commissions. Even then, they either are of limited significance, as in France and the United States,³ or else are in the process of being dismantled, most notably in Japan (Takeda and Turner (1992)).

The deregulatory process has been just as extensive as regards the *range of products* available in the market, often in response to financial innovation. In 1980 only a handful of countries, essentially the Anglo-Saxon ones, had established markets in short-term securities such as Treasury bills, certificates of deposit and commercial paper; today, only a very few have not. Italy and Switzerland, for instance, is the only industrialised country where no commercial paper market yet exists, not least for fiscal reasons (Alworth and Borio (1993)).⁴ Following advances in information technology and applied finance theory, the last fifteen years have seen the rapid growth of sophisticated instruments such as futures, options, swaps and combinations thereof, not least in the international markets. And alongside the rapid expansion of over-the-counter markets, a growing number of countries have equipped themselves with exchanges for the trading of such instruments. Italy is a latecomer in this area, with the opening of the futures market on government bonds in 1992. Banks have played a particularly active role in the new markets (BIS (1992a and 1992b)).

Restrictions on the *geographical location* of banking activity have been substantially eased, but even purely domestic ones still exist in some large industrialised countries. Several countries, including the United Kingdom, Canada and the Netherlands, have traditionally not interfered with the right of domestic banks to set up branch networks. A good number of European countries lifted restrictions during the 1980s. Limits on branching have been retained in Japan and, though they are being eroded, in the United States, where interstate branching restrictions date back to the McFadden Act of 1927. Barriers to the establishment of foreign banks have also been eased considerably. EC legislation has taken this process to the limit, establishing within the EC the principle of the freedom to provide a wide range of financial services as part of the creation of the single market.⁵

² However, they remain comparatively high in Italy and Portugal. Even so, the interest paid on compulsory reserves reduces the value of the implicit tax.

³ For example, in France current accounts may not bear interest. In the United States the same restriction applies to deposits with a maturity of up to seven days.

⁴ While the development of the Treasury bill markets owes much to the financing needs of governments, the establishment of markets for domestic certificates of deposit and, even more so, commercial paper has almost invariably necessitated ad hoc changes in the national legislative and regulatory framework.

⁵ The Second Banking Coordination Directive (credit institutions) came into effect on 1st January 1993. The Investment Services Directive (investment firms) is due to come into effect in January 1996. As regards direct bank access to stock exchange membership, a transitional period up to the end of 1996 is allowed for these countries still prohibiting it (this period is longer for Spain, Portugal and Greece). The Third Life and

Line-of-business restrictions within banking

The process of liberalisation of the range of activities that banking institutions can engage in, either directly or through ownership stakes in other enterprises, has proceeded at an uneven pace. Generally speaking, the closer the activity is to the traditional "core" of banking business, the greater has been the reduction in existing barriers. Accordingly, at least four different types of compartmentalisation can be singled out: between various forms of credit intermediaries; between commercial and investment banking, or securities business broadly defined; between banking and insurance; and, finally, between banking and non-financial business.

Most countries have proceeded to *decompartmentalise their credit systems* by extending the spectrum of permissible lending and funding activities, harmonising other restrictions on credit institutions' balance sheets and eliminating legal distinctions between them. In a majority of European countries and in Australia the legal and regulatory differences between the various types of banks have been significantly relaxed or abolished. By contrast, a considerable degree of compartmentalisation still prevails in Japan; in the United States differences between, say, commercial banks and thrifts have narrowed but still exist.

The ability of banks to engage in *securities business* has been considerably broadened worldwide, mainly since the mid-1980s. Three groups of countries can be distinguished. In the first, including notably Germany, the Netherlands and several Nordic countries, few if any restrictions have historically existed on the combination of traditional banking and securities business. In the second group, including Canada and most European countries, barriers to or, more commonly, the prohibition on the acquisition of securities firms, and hence access to the stock exchange, have been entirely abolished. Finally, in the third group, consisting of the United States and Japan, the separation between commercial and investment banking has been more rigid. In Japan, it was only in April 1993 that commercial banks were allowed to engage in securities business, through separate subsidiaries.⁶ In the United States banking organisations were allowed to underwrite securities, within strict limits, through special non-bank subsidiaries only from September 1986. Together with their Japanese counterparts, however, they have been quite active dealers abroad through their subsidiaries.

Restrictions on banking/insurance

By comparison, deregulation concerning the combination of banking and *insurance* business has been limited, at least until recently.⁷ *Except through ownership linkages*, to be discussed below, the two sectors have historically been strictly segregated in most countries. Only licensed

Non-Life Insurance Directives are due to come into effect in July 1994 (with special deadlines for Spain, Portugal and Greece).

⁶ The Ministry of Finance has, however, reserved the right to manage the actual speed of the process through administrative guidance.

⁷ See OECD (1992b) for a more detailed description of country-specific regulations.

insurance companies have been allowed to engage in insurance activities. Conversely, the business of insurance companies has been largely confined to insurance and financial activities closely related to it. These basic principles are still broadly valid today.⁸ They have, for instance, been enshrined in the relevant EC directives.⁹ The principles, however, are most strictly adhered to in connection with the "production" of services (e.g. underwriting) and have been much more flexible in the field of distribution. Thus banks have generally been permitted to act as distributors of insurance products. Even here, however, several countries apply restrictions; in particular, a blanket prohibition is in force in Japan while strict limits exist in the United States.¹⁰ Deregulatory steps in this area include the authorisation granted to French and, under certain conditions, Finnish banks to engage in distribution in 1984 and 1988 respectively. In France, Denmark and, to a far lesser extent, Japan, the scope for the distribution of financial products by insurance companies has also been broadened somewhat.

Restrictions on ownership linkages between banks and insurance companies have generally been considerably less severe than on the in-house provision of underwriting and distribution services. What banks could not do directly, they could often do through appropriate organisational structures. These restrictions have also been relaxed somewhat in a number of countries in the last few years. The information available makes it difficult to draw a precise cross-country picture, a problem which applies also to linkages with non-financial companies: the documentation is uneven and very rarely complete, often relates to legal norms rather than to their practical implementation and is not entirely up to date. Nevertheless, some qualitative elements do emerge.

In most European countries banks are allowed to set up insurance subsidiaries ("downstream linkages"); Finland is one exception, while in Norway a combination of the two activities can be achieved only through a holding company structure. Generally, authorisation from the relevant supervisory authorities is required. The banking authorities also typically reserve the right to authorise the acquisition of participations beyond a certain size. The EC Second Banking Directive, which defines the minimum level of harmonisation for the Community, is less restrictive: credit institutions' participations in insurance companies are treated on a par with those in financial enterprises, and neither specific limits nor prior authorisation are envisaged. Significant deregulatory moves under market pressure have also taken place in several European countries in recent years, most notably in France, Italy, Denmark, the Netherlands and Sweden.

This picture contrasts sharply with the restrictions that exist in some countries outside Europe, most notably in the United States and Japan. With the exception of some state chartered

⁸ There is, however, considerable variation in the precise definition of the insurance field.

⁹ See Article 8(1) of the First Non-Life Directive (1973) and the First Life Directive (1979).

¹⁰ In the United States federally chartered banks and bank holding companies are permitted to distribute insurance products only in very small towns (fewer than 5,000 inhabitants). As many as eighteen states rule out any distribution by their state chartered banks and eight limit it to small towns. Note also that while Delaware enacted very permissive legislation on the production and distribution of insurance products by banks in 1990, the Federal Reserve Bank subsequently prevented member banks from taking advantage of this law.

banks, in the United States banks and bank holding companies in general may not own insurance companies, except in the credit life and disability insurance fields. In Japan anti-monopoly laws, which do not differentiate between insurance and non-financial business, limit financial companies' holdings of the equity of domestic enterprises to 5%.¹¹ A limit of 10% of voting shares also existed in Canada until the passing of new legislation in 1992, when it was lifted.

The cross-country pattern of restrictions on the ownership of banks by insurance companies ("upstream linkages") is not fundamentally different. Most countries that do not in principle set any limits on downstream linkages do not set them on upstream ones either; available evidence suggests that Austria, France and Switzerland are three exceptions. Conversely, upstream linkages are typically restricted where downstream ones are.¹² Thus, separation is again especially strict in the United States and Japan. In particular, in the United States insurance companies may not generally hold shares in the capital of a bank other than as portfolio investments, implying no control. In Japan they may hold a maximum of 10% of the stocks issued by any domestic enterprise, including banks. Separation was also very strict in Canada until 1992, when insurance companies were first allowed to acquire banks.¹³ The EC Second Banking Directive does not differentiate between the lines of business of the acquirer of stakes in banks and subjects to authorisation the acquisition of "qualifying holdings"¹⁴ beyond certain thresholds. The thresholds for prior authorisation are lower in Italy, but otherwise there appear to be no a priori limits on upstream linkages with insurance companies.¹⁵

The scope allowed by the legislative and regulatory framework has been amply exploited by market participants. Since the mid-1980s link-ups between banks and insurance companies have become increasingly common, both within and across national borders, not least as competition for a typically older private saver, less reliant on state transfers, has intensified.¹⁶ To quote a recent study by Salomon Brothers (1990):

"Perhaps the most meaningful trend in European banking today is the challenge posed to the insurance sector by banks, some of which even have

¹¹ The law was actually tightened in 1987, prior to which the limit was effectively 10%.

¹² For Finland and Norway the picture is analogous to that of downstream linkages.

¹³ Until then they could only own securities dealers.

¹⁴ A "qualifying holding" is defined as a direct or indirect holding in an undertaking equal to at least 10% of its capital or voting rights or permitting the exercise of significant influence over its management.

¹⁵ Following the decrees published in June 1993, the triggers for prior authorisation have been set at 5, 10, 15, 20, 33 and 50% or control, somewhat less restrictive than those which had applied since 1990 (Law No. 287).

¹⁶ In particular, an ageing population (falling population growth and higher life expectancy) and a decline in the retirement age have put pressure on state-run redistribution (pay as you go) pension systems and favoured recapitalisation systems, based on individual savings. Insurance companies' ability to compete with banks in this sector has been enhanced, inter alia, by significant tax advantages (e.g. Alworth and Borio (1992)). For complementary overviews of developments in the insurance industry, see The Economist (1990) and the OECD (1992b).

insurance company shareholders, that are distributing life and pension products to their vast customer base." (p. 6)

The trend has been especially strong in Germany (Allfinanz), France (bancassurance), the United Kingdom, Denmark, the Netherlands and Spain. As a result, financial conglomerates, which had previously been mainly limited to banking and a range of securities activities, have increasingly extended their reach into the insurance sector. For instance, some 200 banking/insurance groups are thought to be operating within the European Community alone.

Restrictions on banking/non-financial activities

Ownership linkages between banks and *non-financial companies* are the most strictly regulated and have generally been least affected by the worldwide deregulatory process. At the same time, considerable differences exist across countries.¹⁷

Available information indicates that only a few industrialised countries, including New Zealand, Spain, Switzerland and the United Kingdom, do not have any formal statutory limits on banks' participations in non-financial companies. Even then, administrative intervention and penalising prudential requirements discourage them. In fact, while holdings of non-financial companies' equity are significant in Switzerland and Spain, they are negligible in the United Kingdom - a country which is typically classified among those which have historically promoted the separation between banking and commerce.

Otherwise, regulation typically sets limits on the size of the individual participation in relation to the equity capital of the non-financial company and/or of the acquiring bank as well as on the aggregate value of participations in relation to the bank's capital. At one end of the spectrum are those countries that prohibit banks from holding any controlling stakes. These include countries outside Europe, most notably the United States, Japan, Canada and Australia, but within Europe too, such as Belgium, Denmark and Sweden.¹⁸ At the opposite end are those where regulation allows substantial bank involvement, Germany being the best-known example.¹⁹ Other countries, such as France, lie in between.^{20,21} EC legislation is quite permissive in this area but not as much as some

¹⁷ For greater detail on some of the main industrialised countries, see Pepe (1986) and Porta et al. (1990).

¹⁸ In these countries limits on the size of individual participations, for instance, are generally between zero (Australia) and 10% (Canada). Such stakes may not be "controlling" in Denmark.

¹⁹ In Germany 100% ownership is allowed in principle. The participation in, plus any loan exposure to, the company may not exceed 50% of the bank's liable capital. The total of such participations plus shares in other banks may not exceed the capital thus defined.

²⁰ As in Germany, in France 100% ownership is possible. In line with the EC Second Banking Directive, the size of individual participations and their total value are restricted to no more than 15 and 60% of the bank's capital respectively.

²¹ Within this group, of course, differences exist. For instance, with the introduction of the new norms in 1993, Italy has moved from the "highly restrictive" to the "intermediate" camp, but remains much more circumspect than, say, France. In particular, in line with the reiteration of the basic principle of

national frameworks,²² hence the adoption of a ten-year transition period to allow "over-extended" banks to adjust.

Statutory restrictions on non-financial companies' participations in banks are generally weaker. In fact, only a few countries, including the United States, Italy, Sweden and Spain,²³ have in place explicit strict limits designed to prevent the acquisition of control. Such limits are a clear signal of the determination with which the authorities in the countries concerned pursue the goal of maintaining banks' independence; but their absence elsewhere should not necessarily be read as a sign of complacency. Though attitudes differ, the available evidence suggests that supervisory authorities do not generally welcome the control of a bank by non-financial businesses. Requirements that banks be widely held, such as in Canada, may ultimately help to ensure autonomy.²⁴ Otherwise, the same objective can be achieved, where deemed desirable, through the general powers of authorisation.²⁵ EC legislation has reflected this prevailing attitude. As already noted, the prescribed minimum authorisation requirements for participations in banks do not differentiate between the type of business the acquirer is engaged in, but the various "trigger" thresholds for authorisation provide the supervisors with sufficient room for manoeuvre.²⁶

II. Implications of linkages between banking, insurance and commerce

Should the public authorities allow firms to combine banking, insurance and commercial activities and, if so, to what extent? The very fact that countries have historically exhibited

"separation" between banking and commerce, banks may not normally hold more than 15% of any individual firm's capital.

- ²² According to the EC Second Banking Coordination Directive, 100% ownership is permitted. Individual and total "qualifying" participations must not exceed 15 and 60% of the acquiring bank's capital respectively.
- ²³ In the United States participations of non-bank companies in banks must be less than 25% of the bank's capital. In addition, following the 1970 Amendments to the 1956 Bank Holding Company Act, bank holding companies' activities are restricted to those "closely related to banking". However, more than forty non-bank companies exist that own "non-bank banks" acquired before the Competitive Equality Banking Act of 1987 came into force. "Non-bank banks" may either make loans or take deposits but may not engage in both activities simultaneously. Among the best-known examples are "captive" finance companies, some of which rival with the largest banks in terms of size. See Saunders (1991) for details. In Sweden majority participations in banks may only be held by banks or insurance companies. In Spain non-financial companies may not hold participations in a bank in excess of 20% of its capital during the initial five years of its existence.
- ²⁴ Domestically owned Schedule II banks, which are closely held, must become widely held within ten years of their creation.
- ²⁵ In fact, prior authorisation for the acquisition of participations has not been necessary in some countries. Germany and Austria, for instance, appear to be cases in point. Even in its absence, however, moral suasion may be exercised, while other forms of control may act as a deterrent for potential acquirers.
- ²⁶ The identity of shareholders must be disclosed when the bank is set up and when individual participations are transferred or reach the 20, 33 and 50% thresholds. The authorities reserve the right to deny authorisation when the quality of the shareholders is deemed to endanger the "safety and soundness" of the bank.

substantially different approaches to the problem indicates that the answer to this question is not straightforward. Less ambitiously, one may consider the arguments for and against such combinations and the extent to which the available evidence helps to evaluate their strength.

The main argument in favour of combinations is just another version of Adam Smith's famous invisible hand: companies should be allowed to choose freely their size and product mix. This freedom is likely to result in greater economic efficiency in the form of lower production costs, higher output and better products. More specifically, at least two types of mechanism can be highlighted: the exploitation of *technological and organisational* efficiencies, in particular economies of scale and scope, and that of *information/control* efficiencies through specific contractual and less formal arrangements aimed at mitigating asymmetric information and incentive problems.

The main arguments against combinations partly turn the tables on those just mentioned. Such combinations may give rise to monopolistic behaviour. Quite apart from the excessive concentration of economic power, possibly undesirable in itself, monopoly negates some of the economic benefits that unrestrained laissez-faire is expected to yield. Moreover, asymmetric information and incentive problems may in some respects have potentially more disruptive effects when activities are combined under the same roof. In particular, conflicts of interest and large size may help to breed fraud and undermine the safety and soundness of the companies and, indirectly, of the financial system as a whole. These problems are compounded by the fact that the linkages can indirectly extend the benefits of the "safety net" set up by the authorities to prevent systemic crises, thereby blunting the incentives to prudent behaviour.

Technological and organisational efficiencies

Lower average costs at higher output levels ("economies of scale") or reflecting cost complementarities in multi-product firms ("economies of scope") have traditionally been the basis for the economic justification of large size and product diversification.²⁷ A larger size and range of operations permits a finer specialisation of labour and a more intensive utilisation of inputs. It may, for instance, justify the acquisition of information technologies which become profitable only beyond certain production scales. It can also avoid the wasteful duplication of marketing, research and development and information-gathering efforts.

Such production synergies are clearly more relevant to the combination of relatively similar activities. They are not particularly pertinent to linkages between banking and commerce. By contrast, they have often been invoked to justify linkages between commercial and investment banking. It has more recently been argued that synergies exist for banking and insurance combinations too. No doubt this in part reflects the de facto blurring of distinctions between these types of business. Insurance companies have offered products with increasingly significant important "savings"

²⁷ Economies of scale have a very long history (Viner (1932)); the formal notion of economies of scope is more recent but has been equally influential (Baumol et al. (1982)). Economies of scope extend the notion of the relationship between size and costs to the multi-product firm.

elements, in direct competition with bank deposits, and have expanded their financial investments and asset management business to the point of becoming a major force in securities markets in several countries. For their part, banks have become more involved in the provision of services with a greater "insurance" component, such as off-balance-sheet contingent claims and derivatives.

The available statistical evidence on production economies is somewhat mixed.²⁸ US studies tend to suggest that economies of scale are mostly exhausted at relatively low levels of "output", but may also exist for very large banks (Shaffer and David (1991)). There is little evidence of economies of scope, but regulatory constraints prevent their proper consideration beyond the narrow confines of commercial banking activities. Evidence for other countries is very limited but somewhat more encouraging. Significant economies of scale and scope have been detected, for example, in Japan, France and Italy.²⁹ These studies have relatively little to say about combinations of banking and insurance, but the main avowed rationalisation for the link-ups does appear to have a sound economic basis. It can be seen as combining the insurance companies' well-established comparative advantage in the "production" (underwriting) of insurance products with banks' advantage in their "distribution", gained through extensive branch networks and a consolidated reputation.³⁰ The link-ups are further underpinned by a certain convergence in the range of products provided: the pure savings component of life insurance products is becoming increasingly important. Potential economies of scope appear to exist.

How much reliance can be placed on the statistical evidence is a moot question. Proponents of greater size, largely focusing on the disappointing US results, have been quick to point out the numerous conceptual and statistical shortcomings of the analysis, not least as regards the appropriate definition and measurement of output.³¹ Excessive focus on technological economies also runs the risk of neglecting potential synergies on the demand side. Examples are a possible preference on the part of customers for "one-stop shopping" or joint products (Herring and Santomero (1990)), the consolidation of the customer base and the possibility of reducing the variability of overall demand through imperfect correlation across markets. In addition, it is not clear whether statistical techniques can be applied to a situation where rapid changes in the regulatory and technological environment play such a crucial role as they do today.

At the same time, the linkages have for the most part been too recent to allow a clear view to be formed. There has been some retrenchment among those commercial banks that have

²⁸ See Forestieri (1993) for a review of the literature.

²⁹ For Japan, see Kasuya (1986) and Yoshioka and Nakajima (1987); for France, Dietsch (1990); and for Italy, Cossutta et al. (1988) and Conigliani et al. (1991).

³⁰ The Italian case is one exception to this more common approach. Partly because of previous branching restrictions, banks are not generally regarded as having a comparative advantage in distribution. Similarly, there has been less concentration on life insurance products and a greater reliance on international linkages than in other countries. See Salomon Brothers (1990) for an overview. Outside Europe another exception is Canada, where, despite being allowed to own insurance companies, banks are prohibited from marketing insurance products through their branches.

³¹ For an analysis of these questions, see Forestieri (1993).

extended their activities into the investment banking segment, especially in the international markets. But this has been part of a broader wave following the excessive expansion of the booming 1980s in the wake of liberalisation. As indicated by the experience of long-established universal banks, it is more a reflection of exuberant market dynamics than of any incompatibility between the two lines of business.

No significant track record exists for banking/insurance. To the extent that the more encompassing conglomerate wave of the 1960s in the United States contains a relevant message, there is little ground for optimism: the de-merger wave of the 1980s mainly broke up what had previously been put together (e.g. Ravenscraft (1987)). An exaggerated appetite on the part of management for size and organisational diseconomies have been blamed for the conglomerates' failure. Admittedly, elements of this kind could also be playing a role today. The difficulties in marrying the profoundly different corporate cultures of bankers and insurers and in effecting the necessary painful cost adjustments have been amply noted. Nevertheless, the existence of an a priori economic rationale for these link-ups is well-founded.¹⁸³²

*Information/control efficiencies*³³

A complementary line of thought focuses on the efficiencies that may arise from alternative forms of contractual relationship, explicit or implicit, rather than technology. It highlights how such relationships affect the flow of information between economic agents, their incentives and the possibility of influencing or controlling behaviour.³⁴ This approach seems potentially most fruitful when applied to the relationship between banking and commerce, especially as regards downstream linkages.

This type of analysis points to at least three related observations which are germane to the integration of banking and commerce. Ultimately, they all share a certain scepticism of the efficiency of arm's length relationships, the epitome of open markets.

The first observation highlights the advantages of *concentration* as opposed to *fragmentation* of the claims on the company receiving external finance, regardless of the form that

³² As regards the inroads made by non-financial companies in the financial sector, the experience has been somewhat mixed. In the United States, for example, some companies have been very successful, others have been less so, and the less successful have recently decided to scale back their activities. See, for example, Koguchi (1993).

³³ For the sake of clarity, this sub-section considers the issue on its own merits, abstracting for the peculiarities of the nature of banking activities that suggest that the failure of a bank involves greater social costs than that of a non-financial company.

³⁴ More precisely, the reference here is to a family of conceptually closely related approaches which highlight asymmetric information, transactions costs and contracts. This common thread ties together Coase's (1937) work on the theory of the firm, later developed by Williamson (1985) in particular, more formal work in the area of optimal contracts (Hart and Holmström (1988) and, more specifically on ownership, by Grossman and Hart (1986)) and the application of these and related ideas to the theory of financial structure (e.g. Gertler (1988) and Borio (1990a) (reviews), Stiglitz (1985) and Mayer (1988)). See also Tirole (1988) and Kreps (1990) for useful overviews.

these claims take (debt or equity). Concentration limits the scope for "free rider" problems, i.e. the ability of agents to share in the benefits of the actions of others without incurring the costs involved.³⁵ Free rider problems can act as a powerful disincentive to the costly gathering of information and hinder the effective exercise of control. As a result, individual shareholders of a public corporation may fail to safeguard their interests vis-à-vis the firm's management. Conversely, they may thwart hostile takeover attempts which could potentially increase the firm's value: why should they sell if, by refusing to do so, they can share in the benefits of the new management as long as *others* accept the bid (Grossman and Hart (1980))? Similarly, individual bondholders or creditors may tend to rely excessively on the monitoring and credit evaluation done by others, with the risk that screening will not be sufficiently thorough. And in situations of financial distress the difficulties in coordinating efforts could be much more severe than would otherwise be the case.³⁶

The second observation focuses on the benefits of *long-term relationships and contracts*. Such benefits are especially significant when the exchange of the economic service calls for investments by the parties that are "specific" to the relationship, meaning that they have limited or no value outside it (Williamson (1985))³⁷ and when the associated returns take time to materialise. Once the investment is made, the counterparty may take advantage of an improved bargaining position to "expropriate" some of those returns.³⁸ A longer-term arrangement binding the two parties may then be necessary to secure a sufficient return on those investments and hence make them attractive in the first place. For example, compensation for the costs incurred in credit evaluation and for the risks taken in providing funds to a firm in distress or with distant pay-offs may only be secured if the firm is prevented from threatening to abandon the creditor as its fortunes improve. A standard long-term loan may be useful in this context, but the need for flexibility and control may call for a more elaborate relationship.³⁹

Hence, the third, related observation: high marks are awarded to the *simultaneous holding of equity and debt*. Not only does this help to cement long-term relationships and improve the information and control possibilities open to the creditor. It also reduces the scope for conflicts of interest between creditors and equity holders, especially acute in situations of financial distress.⁴⁰ The

³⁵ Seen from the alternative perspective, those actions involve (positive) "externalities".

³⁶ See White (1989) and Aghion et al. (1992).

³⁷ In economic parlance irretrievable costs are also known as "sunk" costs.

³⁸ In Williamson's terminology, the party that has made the investment is exposed to the risk of "opportunistic" behaviour and "hold-up" by his counterparty.

³⁹ In more technical language, the party at risk may need to have considerable control in contingencies that could not easily be specified ex ante in a contract - a form of influence not dissimilar to what ownership rights in principle confer. These so-called "residual rights of control" as a form of ownership are emphasised by Grossman and Hart (1986). For an application of this concept to the banking/commerce relationship, see Bisignano (1993). See also Hellwig (1991) for a critical assessment of the notion of long-term commitments in this context.

⁴⁰ In situations of distress there is a strong incentive for shareholders to expropriate existing creditors through a variety of means, including excessive dividend payments, the pursuit of particularly risky strategies and

firm is therefore more likely to pursue policies in line with total value maximisation, rather than in favour of one category of claimants at the expense of the other. It would also be less vulnerable to a hasty liquidation when facing only temporary difficulties.

Put these three elements together and you have the basis for the justification of relatively close and unconstrained linkages between providers and users of funds in a context of limited information dissemination and proliferation of non-market transactions. The existence of idiosyncratic information undermines the basis for liquid markets in financial claims. And it is of course credit institutions that are the main providers of non-marketed debt (loans). Since banks generally account for the lion's share of loans,⁴¹ this line of reasoning is commonly seen as providing a justification for close downstream banking/commerce linkages, in the form of both debt and equity.

The more than passing resemblance of these stylised financial arrangements to the German system has not gone unnoticed. In Germany banks have a tradition of significant influence on companies, not only through their lending but also through their equity holdings and the exercise of proxy voting,⁴² information disclosure has been limited and capital markets have been comparatively underdeveloped. Despite the constraints on equity holdings imposed by the Anti-Monopoly Law, similar elements can be traced in the Japanese system too. Tightly knit groups of companies ("keiretsus") cemented through cross-shareholdings generally include one bank (the "main bank") that typically has a small equity interest in the various companies of the group and provides a substantial part of the group's overall financing.⁴³ At the other end of the spectrum are countries such as the United States and the United Kingdom, where banking/commerce downstream linkages are practically non-existent, there is a tradition of wide dissemination of information and capital markets are comparatively large and active.^{44,45}

the offer of senior collateral to new creditors. Covenants in debt contracts and hybrid debt/equity instruments can of course mitigate these problems.

⁴¹ Note that these theoretical observations abstract from the structure of the liabilities side of the balance sheet of funds providers. As such, they cannot distinguish between banks and other credit intermediaries.

⁴² The "Hausbank" has traditionally been identified with a bank that accompanies a firm throughout its life cycle, "from the cradle to the grave".

⁴³ The formation of "keiretsus" was a response to shareholding restrictions introduced after the Second World War, when the United States had a major influence on the reshaping of the financial system. The "keiretsus" replaced the pre-war "zaibatsus", family-controlled enterprise groups which often had banks as captive institutions. See Goto (1982).

⁴⁴ For overviews of these cross-country differences, see Borio (1990a), Prowse (1993) and the references therein. Historical perspectives on the distant origins of the present-day differences can be found in Gerschenkron (1962), Gille (1973) and Tilly (1990).

⁴⁵ Of course, in practice it may not be easy to place individual countries within this stylised spectrum. Italy has so far been a typical example. On the one hand, there has been little emphasis on wide dissemination of information, the role of capital markets has been limited and ownership and control among the large private sector companies have been tied together through cascading shareholdings in groups, consolidated through shareholder "pacts" ("sindacati di controllo") and cross-shareholdings. On the other hand, downstream banking/commerce linkages in the form of equity have been strictly discouraged, although limits on large exposures, which have been comparatively generous, have not necessarily been a serious obstacle to close linkages through debt in some cases. The main distinguishing feature of the system has

The conceptual significance of the economic benefits of close downstream banking/commerce linkages and, more broadly, of financial systems that rely little on arm's length transactions has not gone unchallenged. Close linkages have historically been seen as impairing the independence of judgement necessary in the screening of credit.⁴⁶ The bank may favour certain customers at the expense of others, becoming tied into an ultimately detrimental mutual dependence. More generally, it has been argued that free rider, informational and control problems are not as pervasive as otherwise suggested (Fama (1980)). At least in the longer term they can be overcome through the market for corporate control via takeovers and a competitive managerial labour market, which help to correct conflicts of interest between the various stakeholders in the firm (managers, creditors, shareholders).⁴⁷

Adjudicating between these two opposing views is not simple, not least because the available evidence is generally patchy and indirect.⁴⁸ Nevertheless, for present purposes certain points can be made.

First, it would be dogmatic to deny that informational/control efficiencies provide a valid justification for downstream linkages between banking and commerce. For example, as long as the size of the bank's interest in a company is not large relative to the *bank's* capital and overall investments, it is difficult to see a priori why the intermediary should be hostage to the company and hence have an incentive to discriminate against other funds users.⁴⁹ The real questions are of a more empirical nature. How should the appropriate size of the bank's interest be defined in practice? More generally, do banks actually have the necessary expertise to perform an active governance function? The answers to those questions are likely to be country-specific.

Second, the theoretical arguments are not so convincing in justifying strong upstream linkages; probably they were never intended to. With upstream linkages the risk that the bank would privilege the interests of its owners as customers is greater. In terms of the theoretical paradigm, the conjunction of shareholders' control with diffuse creditors (depositors) exacerbates the conflict of interest between the two categories of claimant. The controlling group has greater scope to expropriate

been pervasive ownership by the public sector, both in the financial and non-financial sector. Increasingly, this involvement has been viewed as being responsible for a serious distortion of economic incentives, undermining the usefulness of the theoretical paradigms used to assess the potential benefits of alternative governance structures. See, for example, Ciocca (1991), Masera (1991), Barca (1993) and Brioschi et al. (1990).

⁴⁶ See Schumpeter (1939) (especially p. 118).

⁴⁷ The wave of highly-leveraged buyouts that swept the United States during the 1980s has been mentioned in this context. For an overview, see Borio (1990a).

⁴⁸ See Prowse (1993) for a review of recent work and Mankiw's (1988) comments on Mayer (1988). Steinherr and Huvencers (1990) provide a critique of the "German" model.

⁴⁹ In addition, diversification of the bank's portfolio has an additional benefit. Through the law of large numbers, it makes the income stream produced by the bank more stable and less uncertain. This goes some way towards solving the "who monitors the monitor?" problem. For a formalisation of this point, see Diamond (1984).

existing debtholders and may gain an unfair advantage vis-à-vis other potential funds users in the market.

Third, the recent expansion of securities markets in the wake of the easing of legal, regulatory and tax barriers, not least in Germany and Japan, and the consequent erosion of established relationships suggest that the previous arrangements entailed costs.⁵⁰ In particular, for the longer-established companies, whose creditworthiness is easier to assess, tie-ups provide fewer benefits. More generally, to the extent that advances in the transmission and processing of information reduce the investments required for its acquisition, they will also undermine one of the economic grounds for longer-term arrangements.

Finally, the analysis indicates that the informational/control efficiencies of banking/commerce tie-ups are determined by a broad range of legal and regulatory factors; attention cannot be limited to the aspects that govern the acquisition of equity participations. Large exposure limits are one obvious example; the formal distinction between debt and equity is only partly relevant to incentives and control possibilities. Accounting rules, disclosure requirements and insider trading legislation affect the availability and use of information. Rules concerning shareholder rights impinge on the possibility of effective collusion to gain control.⁵¹ Rules governing takeover bids influence the balance between internal and market control. Broader aspects of the legal system and bankruptcy law can determine the scope and potential benefits of effective control.⁵² These are just some of the more obvious examples.⁵³ The impact of the relaxation of restrictions on ownership linkages in any specific country, therefore, should be assessed in this broader context, which goes beyond the objectives of this paper.⁵⁴

Monopolistic behaviour

Historically, an important reason for limiting combinations of activities has been the fear that the resulting institutions, by virtue of their size, would gain monopoly power in the market. Concentration of economic power may be undesirable in itself; beyond a certain point it may be seen as having unwelcome social and even political consequences. But even leaving such considerations

⁵⁰ On Germany, see, for example, Terrahe (1989) and on Japan, Hoshi et al. (1990).

⁵¹ In the United States, for example, SEC regulations have prohibited communication between large shareholders, effectively discouraging collusion (e.g. Prowse (1993)).

⁵² In the United States the legal system has discouraged effective control by lenders, whether through debt or equity. If the senior lender is found to exercise significant control over management, its claims on collateral may be ranked on a par with those of junior creditors ("lender liability"). Banks owning direct or indirect equity stakes in companies are particularly vulnerable ("equitable subordination"). See, for instance, Borio (1990b).

⁵³ An interesting assessment of the relationship between legal and financial arrangements can be found in MacNeil (1978) and Bisignano (1992).

⁵⁴ For an analysis of the Italian experience along such lines, see Barca (1993) and a series of related papers published in the *Temi di discussione* by the Banca d'Italia. On the structure of controls within corporate groups, see also Brioschi et al. (1990).

aside, it can have significant undesirable consequences for economic efficiency. In individual markets, the monopolist will unnecessarily restrict output so as to increase its profits. Across markets, it will be in a position to cross-subsidise products, distorting the allocation of resources and the competitive process (e.g. predatory pricing). It may also "force" the consumer to purchase joint products from its various lines of business, e.g. a car purchase financed with a loan from the bank that controls/is controlled by the manufacturer or a mortgage loan tied to a life insurance policy.⁵⁵ Through its direct or indirect control in companies operating in other markets (e.g. through equity stakes), the firm may export collusive practices that rule in its market of origin. For example, there is evidence that in Germany banks promoted the cartelisation of the steel industry in the late 19th century, relying on the influence gained through their lending and equity stakes (Tilly (1990)).

The pros and cons of monopoly have been the subject of animated debate over the years. Countries have traditionally differed substantially in their tolerance of concentration of economic power and collusive behaviour. The United States, for instance, appears to lie at one end of the spectrum, exhibiting an ingrained distrust of any form of concentration. This has been reflected in extremely tough legislation. Other countries, notably Germany, have been less concerned.⁵⁶ Ultimately, the importance to be attached to objections based on notions of abuse of economic power is a matter of judgement. Nevertheless, there are reasons to believe that the weight of such considerations need not be as great nowadays as in the past. The reasons are both conceptual and empirical.

Recent analytical contributions have tended to downplay the automatic linkage between concentration and monopolistic behaviour. The mere *threat* of entry may exert a powerful influence on performance, encouraging firms in the market to lower prices and increase output so as to discourage potential competitors from entering the fray.⁵⁷ In turn, the effectiveness of the threat depends on the extent to which entry costs can be recovered (are not "sunk"), i.e. on the extent to which the investment incurred to enter a market can be redirected elsewhere. Empirical evidence on

⁵⁵ Conceptually similar examples relate to so-called "conflicts of interest" connected with the use of information obtained in one line of business to expand others. To the extent that these are not predicated on some notion of "fairness", they must ultimately rest on the view that this information can be used to gain a monopolistic position in a market or at the expense of the customer ("overpricing"). A typical example is the possibility of "forcing" on investors dubious loans repackaged as securities or the ability to lend them money to purchase such securities (commercial/investment banking combinations; see Chernow's (1990) description of the Pecora hearings that helped pass the Glass-Steagall Act). Clearly, greater dissemination of information (e.g. through special requirements) and competition in the service markets can mitigate these problems. Another possibility is the device of "Chinese walls", which restrict the flow of information and control between units in the same organisational structure. For an analysis of such "conflicts of interest" in German banking, see Krümmel (1980).

⁵⁶ The difference, of course, is one of degree. For example, in Germany the power exercised by banks over industry has often come under attack and has been the subject of official enquiries (e.g. Monopolkommission (1979)).

⁵⁷ This is the theory of so-called "contestable" markets. See Baumol et al. (1982).

the issue is still limited; nor does it relate specifically to the financial industry.⁵⁸ Nevertheless, the theoretical paradigm has already had a significant influence on anti-trust policies in some countries. It has, for example, shaped the criteria applied by the Federal Reserve to its merger policy (Saunders (1991)).

More importantly, the profound transformations in the financial industry in the wake of liberalisation and technological advances may call for a *redefinition of the "market"* with respect to which concentration is to be measured. This relates to the blurring of distinctions between products, such as between savings deposits and certain insurance policies. But it applies above all to the geographical extension of competition. The creation of the European single market is just the most salient example of the broader international integration process in the industry.

Safety and soundness

The preservation of the safety and soundness of individual financial institutions, especially "banks", and of the financial system as a whole, has probably been the most influential reason for the imposition of limits on combinations of economic activities. Such barriers can help to circumscribe the protection afforded by the public authorities. The type of institution protected (e.g. a "bank") will not fail because of its in-house or ownership exposure to non-protected activities (e.g. a non-financial firm). Similarly, separation makes any necessary supervision more focused and technically simpler.

The set of activities to be protected, and therefore the location of the barrier, depend partly on the precise goal pursued by the authorities. Two such goals may be singled out, although in practice they have often gone together.

The first is *consumer protection*. This motivation draws the main demarcation line between financial and non-financial activities. A key service provided by financial institutions is the investment of funds on behalf of ultimate savers. By comparison with other exchanges of goods and services, the conjunction of a number of characteristics makes the consumer especially vulnerable: the quality of the service is difficult to assess *ex ante* and monitor *ex post*; there is a considerable lag between the time when control over (monetary) resources is given up and the time when the pecuniary counterpart of the exchange is received; above all, in the intervening period the bankruptcy of the provider of the service can cause the consumer a major loss on the contract. The same is true of any form of insurance: payment is made well before it is known whether the service provider will be able to honour its obligations.

Since consumer protection considerations do not apply with the same force to all financial services, they have also been an argument for barriers *within* the financial sector. Their strength is greater when the resources at risk constitute a larger proportion of the consumer's wealth,

⁵⁸ See Baumol and Willig (1986). For a criticism of the theory and of the available evidence, see Schwartz (1986).

when his ability to assess risk is limited and his acceptance of the risk less voluntary. This line of reasoning, for instance, was an influential argument behind the adoption of Glass-Steagall in the United States (Chernow (1990)).⁵⁹

The second motivation is *limiting systemic risk*.⁶⁰ Systemic risk is a somewhat vague but powerful concept, hard to describe precisely but easy to recognise when it materialises. It refers to a situation in which significant parts of the financial system are affected by defaults and insolvencies. The concern is that the nature of financial systems makes them especially vulnerable: intra-sectoral exposures are very large, leverage (the ratio of debt to capital) is high, and information about direct and indirect exposures is relatively limited. Under these circumstances, localised distress can quickly spread through the system.

On the basis of systemic risk considerations, it is mainly banks that have been singled out for protection. It has been argued that they are "special" on two somewhat different counts.

First, banks are the main providers of *payment services* (e.g. Corrigan (1987)). It is on them that payment arrangements concentrate the liquidity and credit exposures connected with the settlement of transactions. The banks' task is precisely that of absorbing liquidity pressures by committing themselves to effect funds transfers at short notice. In the process, they also normally take on credit risks that would otherwise have been borne by their customers.⁶¹ And disruptions to the payment system can have ramifications throughout the economy. Payment arrangements represent the connective tissue of all financial and real activity, as it is the ability to settle transactions, and confidence that the counterparties will do likewise, that underpin it. Inevitably, therefore, payment arrangements can be a key channel for the transmission of shocks across institutions and markets.

Second, banks transform shorter-term, if not instantly redeemable, assets (e.g. deposits) into longer-term, non-marketable assets (loans).⁶² This *asset transformation* function, which in effect generates liquidity for bank customers, is not without risk. A crisis of confidence in the intermediary, whether justified or not, is likely to lead to a disorderly withdrawal of funds (a "run"). Unable to dispose of its non-marketable assets, the distressed institution could quickly be forced into default and bankruptcy even though ultimately solvent, i.e. even though, if allowed to continue operating, it would be able to meet its original obligations with the income stream on its assets.⁶³ In turn, liquidation would entail real costs for society. Borrowers would see their credit lines cut and might

⁵⁹ It is also the basis for the view that markets in which the main players are professionals or large institutional investors need not be as tightly supervised as those in which retail investors are involved.

⁶⁰ See Bockelmann and Borio (1990) for a more extensive analysis of the nature and implications of systemic risk in the light of structural changes in the financial system.

⁶¹ For a succinct overview of the nature and management of payment system risk, see BIS (1994). Borio and Van den Bergh (1993) provide an in-depth analysis.

⁶² See Goodhart (1987) for emphasis on this point. An influential formalisation is provided by Diamond and Dybvig (1983).

⁶³ The risk is exacerbated by the highly fragmented nature of bank deposits and the fact that depositors are relatively uninformed. This parallel with the broader literature on corporate governance discussed above has recently been stressed by Dewatripont and Tirole (1994).

find it difficult and costly to obtain funding elsewhere. Presumably, one reason why loans are non-marketable in the first place is that they contain borrower-specific information, difficult to transfer credibly to other potential funds providers.

Clearly, the extent to which banks are "special" differs depending on the specific function highlighted. Liquidity generation through asset transformation is commonly performed to some extent by a wider range of institutions than those actively engaged in the provision of payment services. Nor is the degree of uniqueness constant over time. The changes in the composition of activities as well as in the range and use of financial contracts over the last fifteen years or so have in many respects tended to blur institutional specificity. The authorities' response has been to adapt the framework of prudential regulation and supervision. What has been done and what remains to be accomplished merit closer examination.

III. The challenge for prudential regulation and supervision

The challenge that the authorities face in limiting systemic risk involves several dimensions: prudential regulation and supervision of individual financial institutions, system checks and balances and crisis management. In order to keep the discussion manageable, what follows focuses mainly on policies designed to ensure the safety and soundness of *individual* enterprises, with particular attention being paid to the implications of despecialisation and linkages between financial and non-financial activities.⁶⁴ By tackling excessive risk-taking at the source, such policies can go a long way towards dealing with the origin of a systemic disruption. Their design must address a number of issues, including the appropriate coverage, the methodology of supervision, the allocation of supervisory responsibilities and the need to strike a balance between official involvement and market discipline.

Conglomerates

The decision taken in most countries to limit the resistance to, or even encourage, the despecialisation of financial institutions has been a major factor shaping the adaptation of the prudential and supervisory framework to the changing financial environment. A corollary of this general approach has been the growth of financial conglomerates, both within and across national borders, covering hitherto separate activities. As a result, existing highly compartmentalised prudential supervisory frameworks have come under pressure: is it still possible for supervision to be

⁶⁴ For a succinct overview, see BIS (1993).

effective if it is performed by considering exclusively individual components of a group (on a so-called *solo* basis)?⁶⁵

The answer depends on whether independent capitalisation of units, possibly combined with operational restrictions on the transfer of information ("Chinese walls") and above all of financial capital ("firewalls") between them, can be relied upon to isolate those units from the rest of the group in times of stress. The issues involved are only partly of a legal nature, and hence to this extent country-specific.⁶⁶ Recent experience has tended to suggest that market perceptions and group interdependencies undermine effective separation. In mid-1990 in the United Kingdom the collapse of the British and Commonwealth group brought down its well-capitalised merchant banking unit; the difficulties had originated in an (unregulated) computer-leasing subsidiary. Similarly, in the same year in the United States the failure of the Drexel Burnham Lambert holding company did not spare its broker-dealer unit. When the problems emerged, market participants refused to deal with it despite assurances from the relevant authorities that it was fully solvent. The subsidiary, together with other group units, eventually had to be wound down.

This sort of *contagion* risk indicates that group interdependencies must somehow be taken into account; it also provides an argument against excessive reliance on intra-group operational restrictions: they might not work when they are most needed but they risk undermining any potential "synergies" between combinations of activities.⁶⁷

At a minimum, supervisors should be in a position to *access information* about the various group units, including unregulated ones. This also raises the need for exchanges of information between the regulatory authorities responsible for different parts of the group, if any.

As regards non-financial units, the predominant attitude has been one of caution: yes to the possibility of obtaining information but care in the exercise of this right lest the impression be created that the unsupervised unit is actually supervised. This approach has been enshrined in the relevant EC legislation on groups containing credit institutions.

In general, the information exchanged about financial units within a group is greater. Both nationally and internationally, efforts have been made to remove legal and other obstacles to the flow of information between different supervisors, typically related to issues of confidentiality. Yet progress has been somewhat uneven. It is now generally possible for banking, securities and insurance

⁶⁵ Of course, the issue also arises within each institutional category (e.g. banks, securities firms, insurance companies) when they are themselves organised in group form. For a descriptive overview of the current prudential arrangements concerning financial conglomerates in the European Community, with particular reference to groups including insurance companies, see CEA (1993).

⁶⁶ Legal issues of this kind have been hotly debated in the United States under the heading of "corporate separateness". For example, according to the "source of strength" doctrine, the Federal Reserve demands that holding companies help their bank subsidiaries in distress. As a result, however, creditors may in turn demand that the bank subsidiary's assets be used to help the holding company in distress, piercing the "corporate veil" (on so-called "estoppel" grounds). The Supreme Court has recently agreed to adjudicate between these competing views. See Black et al. (1978) and Saunders (1990) or (1991).

⁶⁷ The potential problems with firewalls are clearly stated in Corrigan (1987) and (1990), the United States being a country that has made extensive use of them. See also Saunders (1991).

supervisors to have access to the relevant information at national level. Within the European Community, legislation has imposed a duty on these authorities to cooperate;⁶⁸ implementation may be more difficult, however. Problems are more severe at the broader international level. The exchange of information has a long tradition among banking supervisors, but is more recent for securities regulators and in its infancy among insurance authorities.⁶⁹ In some cases, the barriers arise from limited powers to access information in national markets. Until recently a notable example was that of the Securities and Exchange Commission, which had no right to obtain information concerning the affiliates, subsidiaries and holding companies of registered broker-dealers.

The structure of a particular group, both across activities and across national borders, will thus affect the amount of information available to supervisors. As vividly illustrated by the bankruptcy of BCCI, the globalisation of financial markets has provided ample scope for *opaque corporate structures* even for purely banking organisations, commonly the most closely supervised type of group. This episode has triggered a strengthening of supervisory powers. In July 1992 the Basle Committee on Banking Supervision, which brings together supervisors from the Group of Ten countries, reinforced the Basle Concordat of May 1983, which set out the basic principles for the supervision of international banking groups and their cross-border establishments. The guidelines, which had a "best efforts" character, were turned into stricter minimum standards, in particular setting conditions designed to prevent banks from belonging to excessively opaque groups.⁷⁰ At the EC level, a proposed new Financial Supervision Directive follows similar lines. Supervisors of banks, investment firms and insurance companies would be mandated to withhold a licence if the applicant belonged to a group with an unduly opaque structure and could withdraw it subsequently in the light of undesirable changes in that structure. Present legislation refers only vaguely to the "suitability" of shareholders and makes no reference to the group to which they might belong.⁷¹ The proposed Directive contains a provision for the relevant national laws to come into effect on 1st January 1996 at the latest.

Should the relevant authorities go beyond exchanges of information and apply some form of *consolidated supervision*? "Some form" is indeed the right expression, for a great variety of techniques fall under this general umbrella. They range from a mixture of qualitative and more formal quantitative methods to full consolidation combined with an attempt to apply the "same rules" to the "same risks" connected with the "same activities". Consolidation within banking groups going beyond

⁶⁸ The Second Consolidated Supervision Directive.

⁶⁹ In the spring of 1990 the Basle Committee on Banking Supervision reached an agreement with securities supervisors on the need for the progressive removal of barriers to the exchange of prudential information; the agreement was later endorsed by insurance regulators.

⁷⁰ In October 1992 the standards were endorsed by over one hundred national supervisory authorities.

⁷¹ Other provisions are also envisaged. The proposed Directive states that the head and registered office of a bank or insurance undertaking must be located in the same Member State, extends provisions regarding the exchange of information between supervisory authorities and other bodies (including those responsible for overseeing auditors, liquidators and compliance with company law) and tightens auditors' reporting duties vis-à-vis supervisors.

the calculation of capital ratios to incorporate qualitative risk assessment on a group basis has long been a fundamental principle of prudential supervision for bank supervisors. Full consolidation is the main concept⁷² adopted in the EC Second Consolidated Supervision Directive, in effect since January 1993, with reference to financial groups that include credit institutions. Insurance units are not covered, however.⁷³ Insurance supervisors in particular view the extension of consolidated supervision as impractical in the short term and not necessarily optimal, given the specificities of their business. Work is in progress to ascertain the feasibility of a convergence in methodologies. At present, the typical methods applied attempt to limit the risk that the same capital might be used in different parts of the group to support business ("double-gearing"). A common method is to deduct the value of participations in subsidiaries/affiliates from the capital of the supervised unit. Techniques of this kind may also be applied to participations by non-financial companies.

Related to the issue of consolidation is that of the *harmonisation of capital standards*. Conceptually, for example, full accounting consolidation views the financial group as a single unit. Applying a capital standard to the consolidated accounts would imply that the risks incurred would be subject to the same standards irrespective of the unit of the corporate organisation in which they are incurred. This is in fact the principle embodied in the EC Second Consolidated Supervision Directive, which applies the 8% solvency ratio in respect of credit risk (Solvency Ratio and Own Funds Directives) and the market risk standards (Capital Adequacy Directive) to the consolidated unit.⁷⁴

The main advantage of such harmonised standards is that they limit the possibility of "regulatory arbitrage", both within conglomerates and among independent firms: companies cannot reduce the stringency of the standards simply by altering their organisational structure.⁷⁵ Such a "level playing-field", far from being just a tribute to the ideal of "fair competition", is an integral element of the overall prudential framework. The problem is that devising standards that are appropriate for institutions performing different ranges of activities has proved to be a very difficult task: the approaches historically adopted by the relevant authorities have been profoundly different. This has added a further layer of complication to the difficulties that normally arise from the considerable range of cross-country experience in the regulation of the same type of activity.

Consider, for example, some of the main stylised differences between the prudential philosophy of banking and securities regulators. The bulk of the assets of a securities firm are

⁷² The Directive leaves some discretion as regards the method to be used and provides for significant exemptions. For example, a credit or financial institution subsidiary need not be consolidated when, in the eyes of the authorities responsible, "it would be inappropriate or misleading as far as the objectives of the supervision of credit institutions are concerned" (Article 3/2).

⁷³ These are not viewed as "financial" enterprises in EC legislation.

⁷⁴ The rules must also be observed at the solo or sub-consolidated level, but supervisors may grant exemptions. While the Solvency Ratio and Own Funds Directives are already in effect, the Capital Adequacy Directive is due to be implemented by January 1996 at the latest, in conjunction with the Investment Services Directive, which grants the single passport to investment firms.

⁷⁵ The issue of regulatory arbitrage, of course, is much broader and relates to all forms of prudential safeguards.

marketable, their value is thus "objectively" measured by their market price, observable practically on a continuous basis. Measured net worth fluctuates with movements in these prices. The limited discretion in valuation and the visibility of net worth mean that companies should be in a position to meet losses quickly. As a result, securities regulators have traditionally focused on market (price) risk and placed considerable emphasis on liquidity, treating illiquid claims conservatively and often allowing certain forms of short-term financing to be counted as capital. By contrast, a major proportion of bank assets, such as loans, has been non-marketable, with less of an objective and readily visible benchmark for valuation. Moreover, the asset transformation performed by banks means that one of their major services is precisely providing liquidity to the rest of the economy: by nature they are, in a sense, illiquid. Consequently, bank supervisors have historically focused primarily on credit risk and on the long-run viability of the institutions. Illiquid positions have not been penalised with higher capital requirements and the regulatory definition of capital has only included financing instruments of a more permanent nature. Even in those countries where banks have historically been allowed to engage actively in securities business, separate treatment has not generally been regarded as necessary until recently. One reason was that these operations made up a relatively small part of their overall business.

The differences in approach are clearly considerably greater between banking or securities supervisors, on the one hand, and insurance regulators on the other. Insurance regulators have essentially focused on underwriting risks: the solvency ratio has traditionally been related to the overall volume of the companies' underwriting business. The risk that failure may result from capital losses on the investment of the premiums has received less attention. This risk has typically been constrained through portfolio restrictions on permissible investments.⁷⁶ In a sense, the position, to some extent resembles that of a number of banking systems prior to deregulation: capital requirements which did not differentiate between the composition of (on and off-balance-sheet) assets were combined with restrictions on banks' balance sheets constraining their risk-taking. The time would now appear ripe for a closer examination of these issues: deregulation in the insurance sector and market innovations have not only reduced the specificity of the insurance business; they have also heightened the incentive to take on risks.⁷⁷

Further progress remains to be made at the broad international level towards the achievement of greater harmonisation of capital standards between banking and securities supervisors. It is not clear whether and, if so, to what extent greater convergence will be achieved also with respect to the insurance sector. As mentioned, at the EC level the minimum capital standards for banks and

⁷⁶ For a few examples of such restrictions, see Davis (1988) and OECD (1992b).

⁷⁷ In the United States, for example, at least since the late 1980s, regulators have paid increasing attention to the riskiness of insurance companies' assets, especially in the light of the losses incurred on commercial real estate and of weakness in their junk bond portfolios. In June 1990 the National Association of Insurance Commissioners refined the rating criteria for bond holdings (Carey et al. (1993)) and in January 1993 it introduced risk-based capital standards. Similarly, the Japanese authorities are reportedly considering the implementation of risk-based capital standards related to insurance companies' investments (The Economist (1992)). They are already in operation in Norway and Canada.

securities firms have recently been harmonised.⁷⁸ In April 1993 the Basle Committee on Banking Supervision issued a set of proposals extending the original 1988 agreement on the treatment of credit risk to the coverage of market risk. But despite the understanding reached with the Technical Committee of the International Organisation of Securities Commissions in early 1992, it has not been possible to issue joint proposals ensuring consistency of minimum standards. As regards insurance activities, there is no unanimity on the desirability of greater convergence.

Conglomeration and the blurring of distinctions between activities also raise the question of the appropriate *allocation of responsibilities* between different supervisors. Traditionally, countries have organised their prudential framework along institutional lines. This has generally been on a tripartite basis (banks, securities firms, insurance companies), except in countries such as Germany and Switzerland which have universal banking systems, where securities business is generally regarded as banking business. Typically, when securities business has been performed by banks, either in-house or through subsidiaries, it has fallen under the jurisdiction of banking supervisors.⁷⁹ On the other hand, stand-alone securities firms have often been covered by securities authorities, be these stock exchanges, securities commissions or self-regulatory organisations.⁸⁰ In the United Kingdom securities and bank supervisors have shared responsibility for the securities business carried out in-house by a bank.⁸¹ A "lead supervisor", chosen on the basis of the dominant activity of the group, has been responsible for coordinating overall efforts. As regards securities business, Italy has adopted a novel allocation rule based on the objectives of supervision rather than the type of activity or institutional form in which that activity is carried out: the Banca d'Italia has responsibility for the safety and soundness of both banks and securities firms, while the securities supervisor (CONSOB) is in charge of conduct-of-business and disclosure rules.

Over the last few years this general picture has not changed much. However, some countries, such as Denmark (in 1988) and Sweden (in 1991), have followed the despecialisation trend by merging the supervisory authorities for banking, securities and insurance business.⁸²

If conglomerate structures in the provision of financial services raise problems, the same is true of *group structures among customers*. The main area of concern is the *concentration of credit exposures*. The same lack of transparency that hinders the supervision of financial organisations can

⁷⁸ The standards have been developed in cooperation with the Basle Committee on Banking Supervision and the International Organisation of Securities Commissions. In order to take into account future broader international agreements, as well as possible market developments, a provision calls for a re-examination of the Capital Adequacy Directive within three years of the date of entry into force.

⁷⁹ Canada, Spain and the United States have been exceptions, since the securities business of bank subsidiaries has been supervised by securities supervisors.

⁸⁰ In some countries, however, bank supervisors have been responsible. Examples are Denmark, Finland and Sweden. For details, see OECD (1991).

⁸¹ If the securities business was performed through a bank-owned subsidiary it would fall under the securities supervisor's jurisdiction and meet its capital requirements; the bank supervisor, while not consolidating the subsidiary into the banking group, would nevertheless oversee the management of the whole group.

⁸² Norway had already done so in 1986.

complicate the identification and monitoring of aggregate exposures to customers, for both market participants and supervisors. Indeed, the absence of a supervisory authority over the companies belonging to the group can make access to information more difficult. The existence in several countries, including Italy, of credit information exchanges ("centrali dei rischi") may be of some use in helping to ascertain the overall exposure of a borrower to banks within particular countries but still presupposes knowledge about group configurations which may not be available.

Upstream and downstream ownership linkages have a bearing on the severity of the problem. On the one hand, to the extent that upstream linkages allow some scope for control or collusion, they may create incentives for banks to consciously exceed prudent exposures. On the other hand, the existence of some formal equity interest, particularly downstream, may help to alleviate informational problems.

Available information suggests that all EC member countries now have in place large exposure limits which apply at group level; it is less clear, however, how implementation has dealt with the lack of transparency of both national and international groups. At the EC level, the Large Credit Exposures Directive sets rather strict limits for individual clients or groups to be applied on a consolidated basis to the credit exposure of the financial group,⁸³ in accordance with the Second Consolidated Supervision Directive.⁸⁴ In order to allow countries to comply with the limits, a phasing-in period extending to December 2001 is provided for - a telling indication of the difficulties that some countries will have in implementing the legislation.⁸⁵ Italy, where limits have been significantly more generous, is a case in point.⁸⁶

Balance between official involvement and market discipline

A fundamental issue in the design of the framework of prudential regulation and supervision is the balance between official involvement and market discipline. The drawback of market discipline is that it may be insufficient or may operate in a way not consistent with systemic stability. Historically, the inability of unchecked market forces to avoid major crises was precisely the reason for setting up prudential regulation. More recently, the serious difficulties encountered by some Nordic banking systems have in part reflected the failure to strengthen prudential safeguards

⁸³ A large credit exposure is defined as one exceeding 10% of own funds. Each such individual exposure is limited to 25% of own funds and their total to 800% of the same variable. Member states, however, may set the threshold defining a large exposure and the individual ceiling at 15% and 40% respectively until 1998.

⁸⁴ The Directive also places a limit (20% of consolidated own funds) on the credit exposures *within* the financial group containing the credit institution. The limit helps to reduce the risk of contagion.

⁸⁵ In January 1991 the Basle Committee on Banking Supervision issued guidelines for the measurement and control of large credit exposures which were circulated to banking supervisors worldwide.

⁸⁶ For ordinary banks ("aziende di credito") a large exposure is defined as a credit in excess of 20% of the bank's capital. Each such exposure and their total may not exceed, respectively, 100% of the bank's capital and between 25% and 40% of total customer deposits depending on the ratio of capital to deposits. Similar, but less stringent, limits apply to medium and long-term special credit institutions.

sufficiently in a liberalised, more competitive financial environment (e.g. BIS (1992a) and (1993)). A drawback of the authorities' involvement is that it may be counterproductive if it gives market participants a false sense of security, encouraging them to take on further risks. In economics parlance, this has come to be known as the problem of "moral hazard"; more generally, it is one of rendering agents responsible for their actions (Lamfalussy (1992)).

There are at least two ways in which the authorities' involvement may blunt market participants' incentives to exercise discipline. First, and more damagingly, policy may create the perception that agents will be insulated from the losses that the institutions might incur. Typical examples are deposit insurance or guarantee schemes and, more pervasively, less formal policies which result in the authorities' taking exposures to credit risk in, or absorbing the losses of, failing institutions. Actions that encourage the view that the authorities are, directly or indirectly, responsible for the institutions' fortunes may have a similar effect. Second, monitoring and control by the authorities may make agents less inclined to perform these functions themselves, giving rise to the "free rider" problem discussed in Section II. To the extent that the monitoring and control are effective, however, financial stability is not thereby impaired.⁸⁷

These general arguments suggest that the prudential framework can be extended too far; covering an increasing range of activities and institutions is not without potential costs. This has been a powerful reason for the great caution exercised in allowing financial and non-financial activities within connected organisational structures. It explains the reluctance to adopt a more interventionist approach with respect to non-financial units of financial conglomerates. Together with concerns about the possible negative implications of prudential regulation and supervision of economic efficiency, it has even led some observers to ask whether it might not be appropriate to reconsider the whole approach. Rather than extending the "safety net" further, it might be better to restrict it to what is absolutely necessary by assigning the activities requiring protection to specific institutions and "cordonning them off" from the rest of the system through strict ownership and other operational barriers. The so-called "narrow banking" school, for example, would limit institutions involved in the provision of payment services to investments in "safe" securities.⁸⁸

Whether such extreme proposals are viable or indeed desirable is open to question. As argued above, there is no agreement on what activities should in fact be protected in the first place on

⁸⁷ These considerations show that, in fact, it is misleading to use the term "moral hazard" to refer to policies that blunt market participants' incentives to exercise financial discipline. "Moral hazard" in economics literature results from the inability to monitor the actions of agents, who may have an incentive to behave in a way that conflicts with the interests of those who entrust them with particular tasks (e.g. with funds for subsequent investment). The inability to observe the agents' behaviour allows them to exploit those incentives. A moral hazard problem always exists between the claimants on, and the management of, financial institutions. Government intervention *shifts* the risks and introduces an additional category of claimant.

⁸⁸ See Pierce (1991) and Bryan (1991). The proposals differ in terms of their details, notably the permissible investments of payment service providers and the "cordonning off" methods. It is no coincidence that these proposals have been developed in the United States, a country that has relied especially heavily on legal and operational barriers to segment its financial system.

systemic risk grounds. Investor protection considerations tend to extend the umbrella more widely. There may be considerable economic costs in attempting to separate payments from the provision of financial services in terms of technological and informational efficiencies. And there may be doubts about the effectiveness of barriers in any case, especially when such potential efficiencies are involved. Nevertheless, these arguments are a healthy reminder of the trade-offs involved in extending the prudential framework.

The room for improvement in the balance between official involvement and market discipline should not be underestimated. The authorities can limit the extension of those forms of intervention that provide protection without commensurate control. In the United States, for instance, changes to the payment and settlement system, a tightening of deposit insurance schemes and a reconsideration of the "too big to fail" doctrine have been moves in this direction. The authorities can also take steps to improve information disclosure, not least about organisational structures and balance sheets. Derivatives, for example, have been singled out as an area for potential action (BIS (1992b)). And the role that the strengthening of capital standards has played in promoting a better balance has been noteworthy. True, capital requirements are an external constraint on portfolio behaviour, and as such they partly substitute for management's judgement. But in an industry where the authorities' concerns about systemic instability probably blunt incentives to prudent behaviour, the standards are a way of providing capital markets with a stronger incentive, as well as with the means, to enforce financial discipline. The renewed focus of banks on profitability with due regard to risk, rather than growth and balance-sheet size, as a guide to policy and yardstick of performance bears witness to this fact. The standards partly shift the burden of supervision away from the authorities and onto the market.

At the same time, shifting the balance towards market discipline is no simple task. The weight of history cannot be erased effortlessly and without pain. To quote from the BIS Annual Report for 1991/92:

"Above all, reducing incentives to excessive risk-taking will depend on the credibility of the authorities' commitment to limiting intervention to the necessary minimum in the event of turmoil. That credibility is only partly a question of legislation and regulations: in the complex present-day financial environment, it inevitably requires a degree of official discretion. In much the same way as the monetary authorities' anti-inflation commitment, it needs to be demonstrated in consistent action." (p. 212)

Conclusion

The process of financial liberalisation that gathered momentum during the 1980s has profoundly changed the borders of banking. While its scope, timing and speed have not been uniform across countries or segments of the industry, certain stylised patterns can be identified.

Generally the process has tended to occur earlier and go further in the area of restrictions mainly motivated by credit allocation objectives and the implementation of monetary policy, typically in the form of controls on interest rates and quantities. It has taken place later, and been more cautious with respect to restrictions on the institutions' lines of business. In turn, the liberalisation of restrictions on banks' lines of business has generally proceeded more speedily and been more extensive for those activities considered closer to the "core" of banking business. Liberalisation has gone furthest in the field of commercial and investment banking; the only significant barriers survive in the United States and Japan. It has made significant inroads in the area of linkages between banks and insurance companies, generally permitted through subsidiaries except in the two countries just mentioned. By contrast, it has been very limited as regards links between banks and non-financial companies.

Underlying the relaxation of restrictions on banks' lines of business has been the growing conviction that economic efficiency is best promoted by allowing companies to choose freely their size and product mix. Efficiency gains may be connected with the exploitation of technological and organisational efficiencies, such as economies of scale and scope. They may also derive from information/control efficiencies, such as those which may be reaped by permitting banks to acquire significant equity stakes in non-financial companies, thereby possibly mitigating some of the asymmetric information and incentive problems that beset the relationship between providers and users of funds. While the empirical evidence on the economic significance of either type of gain remains limited and mixed, the increasing globalisation of markets and heightened competition have allayed concerns about one important factor which could undermine the achievement of economic benefits, viz. monopolistic behaviour.

The main brake on the liberalisation process has been prudential concerns, notably the difficulty of devising appropriate prudential safeguards in the light of the increased freedom. The upgrading of the framework of prudential supervision has been a necessary complement to the liberalisation of the financial industry worldwide: experience indicates that securing the benefits of deregulation in terms of greater economic efficiency calls for a strengthening of prudential safeguards with a view to limiting the risk of financial instability. As banks have become exposed to the risks connected with a broader range of activities, either performed in-house or by connected corporate units, the authorities have had to re-examine the coverage and methodology of existing arrangements, both nationally and internationally.

As the typical traditional compartmentalisation of the financial industry into banking, securities and insurance segments has weakened, the corresponding compartmentalisation of supervision has come under pressure. The recognition that independent capitalisation of different

corporate units within a group cannot be relied upon to ensure insulation of those units at times of financial distress has given impetus to the exchange of information between banking, securities and insurance supervisors and to the adoption of consolidated methods of supervision. The risk of regulatory arbitrage within conglomerates and between independent units has encouraged greater convergence in supervisory methodologies, including capital standards. At the same time, how far this general process of harmonisation can, and indeed should, be extended remains a moot question. At the EC level, consolidated supervision applies to banking groups that include securities firms; the legislation also provides for a minimum degree of harmonisation of capital standards. At the broader international level the process has not as yet been taken so far. Moreover, consolidated supervision does not extend to insurance companies, either nationally or internationally; nor is it clear to what extent the distance between supervisory methodologies for insurance and the other sectors can be narrowed given the profound differences in the nature of the activities.

A second fundamental issue has been the search for an appropriate balance between official involvement and market discipline. The broadening of the range of banks' activities within the financial sector and of their ownership linkages with non-financial companies carries the risk of extending the "safety net" generally put in place to prevent systemic crises. Market participants' incentives to prudent behaviour may thereby be blunted. The room for improvement in this area should not be underestimated. One possibility would be to strengthen information disclosure, not least about balance sheets and organisational structures; thorny questions regarding the precise nature and range of information to be disclosed would need to be addressed. A complementary mechanism, effectively strengthened in recent years, is the upgrading of capital standards, seen as a way of providing capital markets with a stronger incentive and with the means to enforce financial discipline. As such, the standards can help to shift the burden away from the authorities and onto the market.

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