CHAPTER 4

FINANCIAL MARKET INTEGRATION IN THE EU
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1. INTRODUCTION

The structure of the EU financial system has changed significantly since the beginning of the 1980s. This change can be attributed to several factors. First, a process of financial globalisation has been fostered by the liberalisation of international capital movements, financial deregulation and advances in information technology. Second, the EU has made progress in creating a common regulatory framework for the provision of financial services as part of the Internal Market programme. Third, the Member States have implemented significant financial reforms at the domestic level. The combined effect has been a progressive integration of the various national financial systems within the Union, which has accelerated with the introduction of the euro in 1999. The elimination of exchange risk in most intra-EU financial flows (i.e. those within the euro area) has stimulated investor interest in cross-border activity and so has highlighted the costs of continued fragmentation in the financial system. In response, financial integration has been assigned a high priority on the EU economic reform agenda as adopted by the Lisbon European Council in 2000 and reaffirmed by the Stockholm European Council in 2001.

The objective of this chapter is to review some important aspects of EU financial integration, notably the economic case for integration, the progress achieved to date and some recent policy developments to move the integration process forward. The analysis focuses mainly on developments and prospects in the EU, although some of the conclusions can be applied equally to the wider process of financial globalisation. In Section 2, the economic motivation for proceeding with EU financial integration is explored with particular attention given to the theoretical and empirical evidence supporting the existence of a link between financial development and economic performance. In this context also, the implications of integration for financial efficiency and stability in the Union receives particular attention. Sections 3 and 4 examine the extent of progress in EU financial integration by reference to recent trends in financial markets, financial intermediaries and the international ownership of assets. Progress is assessed more indirectly in Section 5, on the basis of tests for cross-border convergence in the price of financial assets and for divergence in national savings and investment levels within Member States. Section 6 focuses on recent policy developments and challenges in financial integration and Section 7 concludes.

2. ECONOMIC ASPECTS OF FINANCIAL INTEGRATION

The priority assigned to financial integration as part of the EU economic reform agenda reflects an expectation of significant economic benefits from a single EU financial system. However, the economic aspects of financial integration are not straightforward. The transmission channels from financial integration to changes in economic performance remain open to debate on both the theoretical and empirical levels, not least because the importance of these channels can vary with time and with the level of development in the economy concerned. In assessing the economic aspects of financial integration, therefore, it is necessary to begin with a more basic examination of how financial development relates to economic performance. If this relation is positive, it would be reasonable to conclude that financial integration improves economic performance to the extent that it contributes to a higher level of financial development. However, it is clear that financial integration creates economic challenges as well as opportunities. One of these challenges relates to systemic stability, as evidence suggests that the financial globalisation of recent decades has coincided with a higher frequency of international financial crises. Thus, a major concern in the EU context is that the arrangements for regulation and supervision should be adequate to guarantee stability in a substantially more integrated financial system.
2.1 Theoretical Approach on the Finance-Growth Linkage

A smoothly-functioning financial system is universally accepted as a prerequisite for realising an economy’s growth potential. Theoretical analysis stresses various channels through which an efficient financial system may influence the two fundamental sources of economic growth, capital accumulation and technical progress. Efficiency in the financial system not only maximises the opportunities for capital formation but is essential for embedding technical advances in the capital stock – especially in periods of rapid technological change – thereby allowing countries to convert technical development into higher rates of economic growth.\(^1\) Traditional growth theory has focused on the role of the interest rate as the main financial determinant, sustaining growth by equilibrating an economy’s savings and investment. More recently, however, the design of the financial system come to be regarded as a growth determinant also. This broadening in the focus of growth theory has been associated with increased interest in the existence of information asymmetries among investors, borrowers, savers and lenders within the financial system. As the assumption of perfect financial markets is relaxed, the value of an efficiently designed financial system will be seen in reducing the transaction costs that emanate from such information asymmetries.

Clearly, the more efficiently the financial system can intermediate savings (i.e. the lower the transaction costs and the higher the return available to the savers), the more savings are available to support productive investment.\(^2\) In addition to these effects in allocating savings to investment, the financial system can improve investment performance via three channels:

- **Portfolio diversification** - The opportunity to share risks via the financial system may induce savers to allocate a higher fraction of savings to riskier projects, which on average tend to be more profitable. Furthermore, a capacity to hedge against project-specific events tends to stimulate the undertaking of specialised investments with a beneficial impact on the economy’s division of labour and growth.\(^3\)

- **Enhanced quality of investment** - The availability of financial intermediaries may allow an enhanced evaluation and selection of projects, raising the profitability of investment. Average capital productivity will be raised through the selection and monitoring of the most profitable projects, while more unprofitable investment projects will be disregarded.\(^4\)

- **More long-term projects** - The availability of a liquid financial markets allows a larger proportion of savings to be invested in projects of a longer-term duration, which are typically more productive than shorter-term projects.\(^5\)

These three channels improve investment performance not by increasing the amount of available capital but by raising the productivity of that capital. While these capital productivity channels are likely to be most significant in mature economies, they are also the most difficult to assess empirically.

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\(^1\) For the importance of financial markets for the diffusion of new technologies and the specific financial demands of technology intensive enterprises see Chapter 3 of the EU Economy 2000 Review.

\(^2\) Two caveats need to be spelled out. First, since it is well-known from microeconomic theory, that the interplay of substitution and income effects determines whether an increase in the return on savings induces individuals to save more or less and while one can assume that a higher return on savings mobilises additional savings at early stages of development, it is far from obvious that this relation also holds for mature industrial economies. For instance, a high rate of stock price growth in the USA in recent years coincided with a drastic fall in the private saving ratio. Second, one cannot exclude that investment is higher, if the efficiency of the financial system is lower. The reason lies in the incentive of managers to re-invest profits in firms rather than to channel them to the owners of the firms. In consequence, the less efficient the control of managers, the more leeway they have to invest. The establishment of efficient monitoring and corporate control through financial intermediaries tends to reduce this kind of over-investment.

\(^3\) A model linking financial markets’ technological choice and economic development, in which financial development induces increasing specialisation and the improved division of labour raises growth, was set up in Saint-Paul (1992). For an empirical estimate on the link between risk-sharing and industrial specialisation see Kalemi-Ozcan et al. (2001). Stulz (2000) reports evidence that stock markets appear to value specialised firms higher than diversified ones, which suggests a positive relation between specialisation and growth prospects.


\(^5\) The microeconomic motivation of liquidity is the provision of insurance against uncertain timing of consumption. In case an individual agent is required to bring forward consumption, he can do so by simply transferring assets to other agents instead of eliminating his investment projects. This permits physical investment to be continued and a shorter amount of savings held in liquid form. In this regard, the provision of liquidity raises the average duration of investment projects. See Diamond and Dybvig (1983).
2.2 EMPIRICAL EVIDENCE ON THE FINANCE-GROWTH LINKAGE

Empirical research on the finance-growth nexus has expanded rapidly in recent years. The main approach to this research has been to use cross-country growth regressions, in which financial variables (e.g. bank loans to the private sector, stock market capitalisation relative to GDP) are regressed on proxies of economic development while controlling for different economic and social factors. Estimates for a large panel of (mainly developing) countries typically yield a significant positive coefficient for financial variables, which has been interpreted as evidence of a positive relation between financial development and growth. For instance, Levine and Zervos (1998) have conducted cross-country growth regressions with data from 49 countries, in which they found a significantly positive relation between several combinations of financial variables and economic growth (see Table 1).

Table 1: Significance of the initial value of financial variables on growth performance indicators (average 1976-93) in cross-country regressions

<table>
<thead>
<tr>
<th>Model</th>
<th>Independent \Dependent variable</th>
<th>Real output growth</th>
<th>Capital stock growth</th>
<th>Total factor productivity growth</th>
<th>Private savings ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Bank credit to private sector</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>ns</td>
</tr>
<tr>
<td></td>
<td>Stock market turnover</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Bank credit to private sector</td>
<td>**</td>
<td>*</td>
<td>**</td>
<td>ns</td>
</tr>
<tr>
<td></td>
<td>Value traded on stock markets</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Bank credit to private sector</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
<td>**</td>
</tr>
<tr>
<td></td>
<td>Stock market capitalisation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Bank credit to private sector</td>
<td>ns</td>
<td>*</td>
<td>ns</td>
<td>ns</td>
</tr>
<tr>
<td></td>
<td>Stock market capitalisation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: ns indicates that the coefficient is not significant at the 10% level; ** = positive and significant at 1% level; * = positive and significant at 5% level. The independent financial variables are all expressed as a share of GDP. In addition to the independent financial variables stated above, the regression also included initial output, education, political instability, government consumption, inflation, and black market premium as control variables. It covers 49 countries.

In respect of transmission channels, the research suggests that financial development is a determinant of the investment level and productivity growth but does not significantly affect the level of savings. However, these results are sensitive to the choice of proxy for financial development (e.g. bank credit to the private sector is a significant variable only if stock market capitalisation is excluded), which highlights the difficulty of empirical work in this area. In sum, the more recent research has confirmed the earlier assessment of Levine, one of the most prominent researchers in this area, that “a growing body of empirical analyses […] demonstrates a strong positive link between the functioning of the financial system and long run growth. […] There is even evidence that the level of financial development is a good predictor for future rates of economic growth, capital accumulation, and technical progress.”

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6 Empirical analysis along the lines sketched above has received a major impetus from the construction of the World Bank’s financial structure database. For a description of the data base see Beck et al. (1999). The data bank is displayed at http://worldbank.org/research/projects/finstructure/database.htm. For a review on the finance-growth nexus, see Thiel (2001).

While the positive link between financial development and economic growth at early stages of economic development is widely accepted, the evidence for industrial countries remains controversial. A cross-country growth study by Andrés et al. (1999) found no significant link between financial development and economic growth in a sample of OECD countries. On the other hand, a more recent OECD research project, using more advanced estimation techniques, found robustly significant financial variables in regressions of investment and economic growth.

While the OECD results must be treated with caution, they suggest that a permanent increase of 1 per cent in the ratio of private bank loans to GDP would raise per-capita GDP by 0.1 per cent and a corresponding increase in stock market capitalisation relative to GDP would raise per-capita GDP by 0.3 per cent (see Table 2). In addition, the OECD results point to the availability of bank credit as relatively important for investment levels and stock market capitalisation as relatively important for other growth channels.

The main sources of controversy in the empirical research covering industrialised countries are problems in identifying the relevant financial and control variables, the limitations of the methodologies used and, not least, the issue of causality. In cross-country growth regressions, the significance of financial variables is assumed to indicate a causal link from financial development to growth. However, a causal link in the opposite direction cannot be ruled out. Studies at the industry or firm level offer a clearer picture of causality because it is highly unlikely that the performance of an individual industry or firm will be reflected in the level of financial development in the economy as a whole. Several studies have been conducted at a disaggregated level in recent years and have reached a general conclusion that firms dependent on external financing grow faster in a more developed financial system. In a sample restricted to 14 OECD countries, Carlin and Mayer (1999) analysed the relation between growth rates of 27 industries and the interaction of industry-specific characteristics with financial variables. They found that, in particular, the growth of industries relying on research and development (R&D) is strongly affected by financial variables, whereas the estimates are less robust in respect of fixed capital formation. Accordingly, they conclude that financial development stimulates economic growth in industrial countries more by promoting investment in R&D than by facilitating physical capital accumulation.

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9 In an analysis of the linkage between finance and growth in Sweden between 1930 and 1990, Hansson and Jonung (1997) find evidence that the choice of time periods crucially affects the results. They find the largest impact of the financial system in the period 1890-1939, but no stable relation for the whole period. Similarly, Rousseau and Sylla (2001) yield the best results in favour of the finance-growth nexus for the time prior to 1914.

10 See Leahey et al. (2001), Bassanini et al. (2001).

11 The estimates were derived from combination of the long-run coefficients obtained from the estimate of an investment function and of a growth regression, both based on panel estimates covering 21 OECD countries and the period starting in 1970 and 1976 respectively, and ending in 1997.

2.3 Does Financial Structure Matter?

A further controversy in the context of financial development and economic growth in the industrialised countries surrounds the relative merits of so-called market-based financial systems and more bank-based systems. The relative strength of the US economy since the early 1990s is often cited as evidence that market-based systems are superior. Support for this view has come from empirical analysis at the macroeconomic level, which has typically found stock market variables to be a more important determinant of economic growth than banking variables. On the other hand, macroeconomic analyses that have focused more explicitly on the relevance of financial structure for growth have been inconclusive.  

At the microeconomic level, differences in financial structure are relevant to the evaluation and selection of investment projects or to the provision of corporate control. The superiority of a market-based or bank-based system depends on the specific features of investment projects, e.g. whether they imply the disclosure of proprietary information or require a long-term commitment from the capital provider.

- A market-based system is usually regarded as more efficient in dealing with economic uncertainty. The larger the number of participants with an independent opinion about a future event, the more likely it is that the aggregate view will reflect the true probability distribution for that event. For example, a market-based system can better aggregate views on new technologies and by reflecting the aggregate view in prices stimulate market participants to acquire information about firms.

- Bank financing may be more efficient for longer-term projects. The commitment of a bank to an investment project tends to attract other smaller investors, perhaps allowing them to avoid the costs of screening and monitoring the investment project themselves. Furthermore, firms may fear disclosure of confidential information and thus prefer relations with a smaller number of lenders than direct access to the market.

In view of the above, the absence of conclusive empirical evidence in favour of a particular financial structure is not surprising. As financing needs change over the life cycle of firms, the effectiveness of financial structures appears to depend more on features such as completeness and adaptability in the financial system. A firm is likely to benefit from bank financing in its early stages of development, while more mature (and larger) firms may find direct access to financial markets attractive as a means to raise large sums e.g. for re-structuring, merger and acquisitions etc. A complete financial structure offers the firm financing through markets and intermediaries with the best correspondence to its needs. An adaptive structure provides leeway for the evolution of new forms of financial intermediaries or contract forms, if the business environment changes.  

Within the EU, national differences in financial structures would seem to derive largely from differences in their respective legal systems. The degree of investor protection and transparency (e.g. through authoritative accounting standards or a strong position of shareholders relative to managers) seems to have an important impact on the emergence of market-based financing, and in particular on the development of stock markets. Graph 1 reveals the linkage between the size of financial sector and selected legal variables in the Member States. In the graphs, the proxy for financial-sector size is the sum of stock market capitalisation and bank loans, both as a per cent of GDP. Contrary to theoretical and empirical predictions, the index of creditor rights is the only legal variable not positively related to

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13 Levine (2000) at the aggregate level and the studies by Beck and Levine (2000) and Demirgüç-Kunt and Maksimovic (2000) at the industry and firm level see no evidence for a better economic performance in market-oriented financial structures.

14 The development of a corporate debt market and of venture capital firms could be considered as improving the completeness and adaptability of a financial system.
Accordingly, policies aiming to influence financial structures and to stimulating financial development need to take into account these and other legal determinants.

Graph 1: Legal determinants of financial activity in the EU

Note: The size of the financial system is proxied by the logarithm of the sum of the share of stock market capitalisation and bank loans in GDP in 1999.
Source: Commission services for financial variables, La Porta et al. (1998) for legal variables.

### 2.4 Financial Integration and Financial Development in the EU

Despite the caveats discussed above, it is reasonable to conclude that financial development is positively related to economic growth. In going beyond this conclusion to assess the economic benefits of financial integration, a two-step rationale is required. First, financial integration can be expected to enhance the development of the EU’s financial system which, in turn, will result in an improved economic performance. Empirically, the benefits from financial integration are difficult to disentangle from other forces, but integration is likely to develop the EU financial system through two main channels, i.e. the exploitation of the scale and scope effects inherent in financial activity and increased competitive pressure on financial intermediaries.

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15 See La Porta et al (1998), Beck and Levine (2000). According to the study by Carlin and Mayer (1999), the quality of accounting standards goes hand in hand with high stock market capitalisation and is negatively related with banking indicators. In Rajan and Zingales (1998), the interaction of accounting standards with financial variables has a significant impact on industry growth.

16 Recently, the economic performance of countries prior and posterior to equity market liberalisation was analysed by Bekeart et al. (2001), which estimated the gains from liberalisation to be 1 percentage point of GDP per capita growth over a period of 5 years. It found financial liberalisation to be significant in cross-country growth regressions covering a large set of industrial and emerging economies. Concerning the transmission channels of financial integration, countries benefited mainly through the attraction of savings from abroad as evidenced by a rising investment share and a worsened trade balance post liberalisation.
Much of the benefit from financial integration will stem from scale effects that emerge through the increase in the number of actual and potential counterparts for financial transactions. In banking, the average costs for the administration of savings as well as for the evaluation, selection and monitoring of investment projects should become smaller, the larger is the number of depositors and borrowers. Furthermore, an increase in the breadth and depth of financial markets should allow for a reduction in transaction costs and – assuming an adequate level of competition – should translate into lower cost of capital for borrowers and higher returns for investors. By expanding the pool of liquidity in markets, financial integration provides greater scope for diversification and should make possible a more efficient pricing of risk. The enhanced possibility to shelter against risk on an integrated financial market provides an incentive for agents to invest in more long-term, risky and specialised projects, which on average tend to be more profitable.

Survey-based evidence suggests that financial integration is perceived by managers as an opportunity to exploit economies of scale in terms of cost and revenue and economies of scope through consolidation. However, there is little theoretical or empirical evidence to support this perception. A more likely source of savings from integration may be the elimination of x-inefficiencies in management and from rationalisation of the labour force. Indeed, labour rationalisation has been identified as one of the major cost savings from integration in the USA but the scope for corresponding savings may be less in Europe because of tighter labour protection laws.

Financial integration will also improve efficiency of intermediation by intensifying the competition among financial intermediaries. The financial system must be remunerated for its role in the efficient allocation of capital and this is reflected in bid-ask spreads, transaction fees, the difference between lending and deposit rates, commissions, etc. Competition among intermediaries eliminates quasi-rents to intermediaries, maximises the transmission of savings into investment and delivers benefits to investors in the form of the highest possible returns and to borrowers in terms of the lowest possible cost of capital. Moreover, enhanced competition among intermediaries provides greater scope for financial innovation. The availability of new financial products and innovations in the delivery of those products (e.g., over-the-counter (OTC) derivatives, electronic trading) will offer the possibility of more efficient financing of investment and risk management especially to small and medium-sized enterprises by expanding the range of financing opportunities at their disposal.

As financial integration facilitates the allocation of savings across borders, investment will flow to projects offering the highest rate of internal return to investors. In this context, it is likely that integration will also enhance the competition for funds among borrowers, with spill-over effects on management efficiency, innovative capacity, accountability and transparency towards shareholders and stakeholders. In this way, integration can be expected to spur technical progress, structural change and may even make the business environment more conducive to growth.

### 2.5 Financial Integration and Financial Stability in the EU

Whatever caveats may apply to the economic benefits of financial integration, there will be important implications for financial stability in the EU. Bordo et al. (2001)\(^\text{17}\) define financial crises as “episodes of financial market volatility marked by significant problems of illiquidity and insolvency of financial market participants and/or by official intervention to contain such consequences.” Several of the more recent financial crises have been notable for their international nature as globalisation of financial flows, trade

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\(^\text{17}\) See Bordo, Michael et al. (2001).
and investment have increased the scope for spill-overs from country to country. Thus, the issue of whether integration will strengthen or weaken the European financial system is of major significance.

As a matter of fact, the trend towards global financial integration seems to have coincided with an increased prominence of financial crises. In 1997-98, several countries in East Asia suffered financial crises involving a collapse of the currency and systemic failures of the banking system. In 1998, Russia and subsequently Brazil were hit by financial crises. Since the end of 2000 the financial system of Argentina and Turkey have remained under great pressure. Europe itself has been not been safeguarded from financial crises. The banking crises in Finland, Norway, and Sweden in the early 1990s are still fresh memories. Europe also has had its share of exchange rate crises, most notably with the currency crisis of 1992-93 (see Box 2).

The question whether European financial market integration will probably increase or decrease the probability and impact of financial crises requires a look at the causes of financial crises, which are generally triggered by a sudden and sharp loss in the value of financial assets. This can concern either currency, equity or in case of a banking crisis the assets and also the liabilities of financial institutions. The vulnerability of financial assets towards sudden and unexpected losses stems from the uncertainty attached to the underlying investment projects in combination with an asymmetric distribution of information between those who invest and those who provide the financing. Furthermore, the possibility to exchange financial assets on liquid markets exposes financial assets to potentially large changes in valuation. Thus, financial crises may occur as some kind of market failure, in that an initial liquidity shock is interpreted by financial market participants as a re-assessment of risk, which demands a re-balancing of the portfolio. In consequence, rather trivial price changes may trigger massive and fundamentally unjustified changes in asset valuations and make financial crises difficult to predict or to prevent.

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18 See De Bandt and Hartmann (2000).
19 The reason is that liquidity – in microeconomic terms – is similar to an implicit insurance contract, allowing all agents to revert investment plans at a minimum costs provided that only a small share of them uses this opportunity. If instead a large number of assets are liquidated on the market at the same time, prices fall spectacularly. Although the feature of liquidity is welfare increasing, it introduces the potential for large and fundamentally unjustified changes of financial prices. It is in particular the joint determination of risk and liquidity that leads to problems in identifying whether an initial random change in asset valuation is attributable to a transitory liquidity shortage, in which more agents liquidate their investment than foreseen, or to a general and lasting re-assessment of business prospects.
20 Bank run models employing this feature have been constructed by Diamond and Dybvig (1983), Jacklin and Bhattacharya (1988) and Chari and Jagannathan (1988).
Box 1: The Bordo study on financial crises over the last 120 years

By compiling a history of financial crises over the last 120 years, a recent study by Bordo et al. (2001) attempts to place the financial crises of the 1990s in perspective. The authors make a distinction between banking and currency crises and twin crises (combining the two). For an episode to qualify as a banking crisis, the authors state that they need to observe financial distress resulting in the erosion of most or all of aggregate banking system capital. For an episode to qualify as a currency crisis, they need to observe a forced change in exchange rate parity, abandonment of a pegged exchange rate, or an international rescue. Alternatively, the authors construct an index of exchange rate pressure (calculated as a weighted average of exchange rate change, short-term interest change and reserve change). A crisis is said to occur when this index exceeds a critical threshold. In sum, a currency crisis is said to occur if an episode shows up according to either or both of the mentioned indicators.

Applying these criteria, Bordo et al. score the incidence of financial crises for a wide set of countries over the last 120 years. Banking and currency crises suffered in Europe in just the 1972-98 period are represented in the Table beside. Of the countries in the table, only Austria has suffered no financial crisis during this period. Of the remaining EU Member States, 7 are found to have suffered a banking crisis, including the Nordic countries (Denmark in 1987, Finland in 1991, and Sweden in 1991).

Currency crises are shown to have been even more numerous than banking crises. The collapse of the Bretton Woods system in 1972, and later major realignments in the European Monetary System (EMS) account for many of these currency crises. Prominent among these is the forced exit of the pound sterling from the EMS in 1992. As seen in the table, the precipitous fall of the dollar after the Plaza agreement of 1985 is counted as a currency crisis for the USA. The Japanese banking crisis with the date of 1992 is still unresolved.

The compilation of historical precedents allows to draw some insights on the likelihood and severity of financial crises. On the basis of their overall historical data, Bordo et al. conclude that the crisis frequency since 1973 has been double that of the Bretton Woods era of 1945-71 and the gold standard period of 1880-1913, while it is comparable to that of the crisis-ridden 1920s and 1930s.

For each crisis, Bordo et al. compute the economic cost in terms of forgone output (by comparing the actual output path following the crisis to the trend output path before the crisis). Output cost estimates are provided separately for banking and currency crises in the various historical periods, but not by geographical region. On the basis of the overall evidence, however, the authors conclude that there is little evidence that output losses have become larger. Thus crises in recent decades have become more frequent, but they have not grown more severe. The authors attribute the increased crisis frequency to a combination of capital mobility and extension of the financial safety net, including the implicit insurance against exchange rate risk provided by an ex ante policy of pegging the exchange rate. Insurance of this type encourages banks and corporations to accumulate excessive foreign currency exposures. Several of the European banking crises listed in the table above, such as the Swedish crisis of 1991 and the Finish crisis of 1994, were exacerbated by currency collapses (giving rise to currency crises).

A further measure of the cost of a banking crisis is the fiscal costs stemming from the crisis resolution. Such costs to some extent represent transfers to depositors and to a lesser extent to bank shareholders, and thus can not be seen as national costs. Fiscal costs, however, are real to the extent that they require increases in distortionary taxation. For several banking crisis episodes, the table below provides the estimated fiscal costs as a percentage of GDP. These

<table>
<thead>
<tr>
<th>Starting years of banking and currency crises, 1972-1998</th>
<th>Banking crisis</th>
<th>Currency crisis</th>
</tr>
</thead>
<tbody>
<tr>
<td>B</td>
<td>82</td>
<td></td>
</tr>
<tr>
<td>DK</td>
<td>87</td>
<td>92</td>
</tr>
<tr>
<td>D</td>
<td>77</td>
<td></td>
</tr>
<tr>
<td>EL</td>
<td>83</td>
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fiscal costs include fiscal and quasi-fiscal outlays for financial system restructuring, including the recapitalisation costs for banks, bailout costs related to covering deposits and creditors, and debt relief schemes for bank borrowers. The several reported cases already indicate that these fiscal costs vary widely, with the still ongoing resolution of the Japanese banking crises estimated to carry a fiscal cost of 20 per cent of GDP.

<table>
<thead>
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<th>Fiscal costs of select banking crisis</th>
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1 Luxembourg is not considered in the study.
2 Exchange rate adjustments within the euro area are, of course, no longer possible, but large swings of the euro exchange rate may still pose risks to euro-area banking systems.
Box 2: Are there workable ways to predict and prevent financial crises?

To answer this question, one needs to do statistical work that relates crisis incidence to variables that may help to explain these crises. Ideally, the set of potential explanatory variables would include relevant macroeconomic variables (such as the rate of output growth, profitability indicators and interest rates) and variables that measure the vulnerability of the financial system to shocks (such as the credit to GDP ratio and the average maturity of bank liabilities). Statistical work of this type has to use information on a sufficiently large set of crisis episodes to be meaningful. Unfortunately, high quality data on national banking systems that is comparable across countries for a sufficient number of years is often not available. This is the reason that actual studies that attempt to explain financial crises rely mostly on a set of macroeconomic indicators. Kaminsky (1999), for instance, looks at a variety of variables related to domestic borrowing, monetary policy, the current and capital accounts, and growth performance in isolation and in combination (in so-called composite indicators). It is fair to say that data problems as well as the different nature of financial crises at this point make such crises notoriously difficult to predict.

One issue related to crisis prediction that has received much attention is whether a financial crisis in one particular country helps to predict a crisis somewhere else. This is the issue of ‘contagion’, which may arise for a variety of reasons.¹ Trade links among the concerned countries, macro-economic similarities, and linkages through financial markets may explain why the occurrence of a crisis in one country helps to predict a crisis in other countries. Different types of linkages may in fact help to explain contagion concerning different types of financial crisis. Crises that are defined by changes in bond market interest rates, for instance, may be transmitted internationally primarily through financial linkages (such as competition for the same funds in the international capital market), while crises defined by (negative) stock market returns may be propagated mostly through trade linkages.

A key issue is the role of bank regulatory policies in causing as well as curing financial crises. Regarding the first question, Demirgüç-Kunt and Detragiache (2000) examine to what extent the existence of an explicit system of deposit insurance helps to explain banking crises. The study is based on data for a sample of 61 countries during the 1980-97 period. The authors conclude that explicit deposit insurance is detrimental to bank stability, especially if the overall institutional environment is weak.² The quality of the institutional environment here is measured by indices of the degree of law and order, the quality of contract enforcement, the quality of bureaucracy, the extent of bureaucratic delay, and finally the degree of corruption. In Europe, deposit insurance schemes potentially may also contribute to the occurrence of financial crises, even if the overall high institutional environment lowers the probability of such a chain of events.

In another recent paper, Sundararajan, Marston, and Basu (2001) consider whether good bank regulatory practices help to maintain financial system soundness. Good regulatory practices are defined as a high degree of compliance with the so-called Basel Core Principles of banking regulation and supervision. The 25 Core Principles cover a variety of aspects of bank supervision and regulation, including the definition of permitted activities, capital requirements, the nature of ongoing supervision, requirements as to bank record keeping, and the supervision of cross-border banking. The authors have scored compliance with these core principles for 35 countries for the year 1999-2000.

In their statistical work, the authors use two different measures of financial market soundness: the ratio of non-performing loans to aggregate loans of the banking sector, and the difference between the short-term local currency denominated lending rate over the corresponding risk-free interest rate. The regressions use a variety of control variables including per capita GDP and the real exchange rate. The regression analysis, however, fails to find a direct discernible association between the extent of compliance with the Basel Core Principles and the mentioned indicators of financial soundness and risk. The authors, however, claim that compliance with the core principles may influence risk and soundness indirectly through its influence on the impact of the other variables (as evidence of this they find that a high rate of loan growth may serve to reduce financial risk more, if compliance with the core principles is higher).

¹ For a detailed analysis of contagion, see Hernández and Valdés (2001)
² Demirgüç-Kunt and Detragiache (2000) use indices of law and order, contract enforcement, bureaucratic delay and quality of bureaucracy and corruption to measure the weakness of the institutional environment.
The fiscal costs of financial crises seem to depend on the strategies used to resolve them. Resolution strategies can, for instance, differ in whether blanket deposit guarantees are provided and in whether there is open-ended liquidity support for the distressed financial institutions. The second table in Box 1 provides also information on these two dimensions of the crisis resolution strategies followed during the listed banking crisis episodes. Statistical work by Honohan and Klingebiel (2001) shows that blanket deposit guarantees, open-ended liquidity support as well as repeated recapitalisations, debtor bail-outs, and that regulatory forbearance adds significantly and sizeably to costs.

Assessing the findings above, economic and financial integration in Europe may serve to enhance as well as to reduce financial stability as it has implications for the likely causes, nature and the consequences of any future financial crises. First, the introduction of the euro eliminates the possibility of exchange rate adjustments or collapses among the euro countries. However, the euro exchange rate has been far from stable vis-à-vis other key currencies, and thus exchange rate risk as a potential cause of banking crises is not entirely eliminated. In the EU, bank supervision continues to be at the national level, and in principle banks are supervised by their home country supervision authority. Needless to say, for this arrangement to work, national supervisory authorities have to collaborate effectively. A major area for discussion is whether current collaborative arrangements in the EU are adequate to prevent as best as possible banking failures in the EU.

Then, financial integration in principle offers financial institutions increased opportunities to diversify their asset portfolios leading to increased financial stability. At the same time, cross-border activities may lead to important foreign currency exposures with negative consequences in case of large currency swings. Within the euro area, financial integration intensifies competition among financial institutes, which tends to erode profit margins and may induce individual institutions to restore profitability by accepting a higher risk exposure. Cross-border activities by the banks themselves and international economic and financial linkages in general also can lead to contagion, or the transmission of a foreign financial crisis to the domestic financial system. While financial integration may change the nature of risks to the financial system, at the same time it makes the job of bank supervisors more difficult. To do their job well, bank supervisors have to rely on useful and timely information regarding banking sector health. Internationalisation of the banking system poses new challenges in this regard.

As for the cost of financial crisis, in Europe, guarantees for deposits are at present subject to the deposit guarantee scheme directive of 1994, which stipulates a minimum coverage level of Euro 20000. This guarantee should be borne by member credit institutions. The directive provides for the possibility to limit the coverage rate of the guarantee to 90% below the stipulated minimum level and to exclude interbank deposits. Member States are free to set a deposit guarantee level above the EU minimum level. In crisis periods, it is possible for the State to intervene at its own discretion to provide reimbursement to depositors beyond the de jure levels of the national deposit guarantees. However, such an intervention does not form any part of the national deposit guarantee. Extensive reimbursement of deposits, not surprisingly, can come at a high fiscal cost at the time of crisis resolution. In the euro area, decisions regarding the liquidity support to ailing banks continue to be made at the level of national central banks, and in principle the costs of such support remain to be borne at the national level. Differences in national policies regarding liquidity support to distressed banks thus may continue to exist in the euro area.

3. RECENT FINANCIAL MARKET DEVELOPMENTS IN EUROPE

The effect of the euro in accelerating the process of financial integration is already evident in the main financial markets (money/derivatives, bonds and equities), among the main financial intermediaries (banks, insurance companies and other institutional investors) and in market infrastructure (e.g. clearing

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21 Evidence has been provided by a paper by Honohan and Klingebiel (2001), which relates the measured fiscal costs of banking crisis resolution to qualitative indicators of the crisis management strategies chosen by the authorities.
and settlement arrangements). Recent developments in each of these main areas are summarised below revealing that the extent of integration across market segments is not uniform.

3.1 INTEGRATION IN THE EURO-AREA MONEY MARKET

The introduction of a single monetary policy in EMU has ensured a substantial integration of the euro-area money market. With ECB monetary operations being conducted exclusively in euro, the national money markets of the participating Member States were denominated in the single currency from 1 January 1999. The euro-denominated money market has functioned smoothly since then, apart from problems with the ECB’s liquidity allotment procedures, which were resolved by moving to floating rate tenders in June 2000.

Although the market is functioning well, the degree of integration varies across the different segments. In the market for unsecured inter-bank deposits, integration is complete and there is virtually full convergence in very short-term interest rates across the euro area. The high degree of convergence in these rates reflects the full acceptance of EONIA (Euro Overnight Index Average) and EURIBOR (Euro Inter-Bank Offer Rate) as uniform price references by operators in this market segment. Convergence has also been helped by the efficient distribution of liquidity area-wide, as reflected in a high proportion (about 60 per cent) of cross-border transactions in the total inter-bank activity of the largest participants in the market. In this context, it is notable that the inter-bank market has developed a two-tier structure in distributing liquidity, with relatively large banks dominating cross-border transactions and smaller banks relying on domestic transactions with these larger banks for their funding. Interest-rate convergence is also evident at somewhat longer maturities in the money market. Recent analysis by the BIS (2001) points to the decline of 40 per cent in bid-ask spreads on 3-month euro-currency deposit rates in 2000 relative to 1996 as further evidence of integration in the euro unsecured money market.

In parallel to the developments in the unsecured money market, the euro-area derivatives market is also highly integrated. The cross-border market for euro interest rate swaps has expanded sharply since the introduction of the euro, and the high degree of market integration is reflected in very narrow bid-ask spreads and relatively large issue sizes. Activity in other derivatives markets has also increased, with EURIBOR-based futures contracts displacing all futures contracts in legacy currencies that existed before EMU.

The secured money market segments (e.g. private repurchase agreements, Treasury bills, commercial paper and certificates of deposit, which involve the exchange of liquidity for collateral) remain considerably less integrated. The continued fragmentation in these segments reflects difficulties in the cross-border use of collateral due mainly to national differences in market practices and regulation and the tax/legal treatments that apply to the securities used as collateral. In particular, these national differences – reflected in segmented national-based market infrastructures – can create important practical difficulties in cross-border clearing and settlement (See Box 3).
Box 3: **Initiative on cross-border clearing and settlement in the EU**

Investor demand for cross-border transactions is increasing as the EU financial system becomes more integrated. Where transactions are unsecured, cross-border activity is relatively free of problems and the relevant markets, e.g. the euro-area interbank deposit market, are already highly integrated. More serious problems have arisen with cross-border transactions that involve the transfer of securities and, as a result, these markets (and particularly markets involving the use of collateral) remain relatively fragmented.

The main source of problems in conducting cross-border securities transactions within the EU is to be found in the clearing and settlement infrastructure. An efficient clearing and settlement infrastructure is essential for a smoothly functioning securities market. In brief, the process of clearing and settlement of a securities transaction begins when a trade has been executed and involves the following main steps:

- confirmation of the terms of the securities trade;
- clearance of the terms of the trade to establish the obligations of the counterparts;
- delivery of the securities from the seller to the buyer; and
- payment of funds from the buyer to the seller.

Settlement of the trade occurs when the transfer of both securities and funds is final and only when the settlement is final is the securities transaction complete.

The current EU clearing and settlement infrastructure is the product of a fragmented financial system. Historically, the pattern of European securities trading has followed national lines, a pattern of segmentation reinforced by the existence of many different currencies (for a long time accompanied by exchange controls) and rather basic tools of communication. The result was the emergence of efficient structures for securities transactions at the national level, most often comprising the vertical integration of the trading, clearing, settlement and depository functionalities. These nationally based structures – offering only very limited scope for cross-border trading - have remained the architecture of choice for EU investors until very recently.

The vertical integration of national trading, clearing and settlement infrastructures has resulted in a wide variation in the procedures and requirements associated with the provision of these services across the Union. This variation reflects not only specific market practices in the Member States but also more fundamental differences in national frameworks for the regulatory, legal and fiscal treatment of securities. The additional cost – both direct in the form of higher prices for the services provided and indirect in the form of inefficiencies in the functioning of the financial system – associated with the fragmented clearing and settlement infrastructure represents a major limitation on the scope for cross-border securities trading in the EU (for recent policy initiatives on clearing and settlement see Giovannini Group (2001) and part 6.3 of this chapter).
3.2 The euro-denominated bond market

EMU and the introduction of the euro have integrated the twelve national bond markets of the participating Member States. The result has been a substantially more homogenous euro-denominated bond market. The effects of integration are evident in many aspects of market activity.

First, the greater liquidity and depth of the euro-denominated market has been reflected in higher issuance rates. Total issuance volume in euro since January 1999 has exceeded the combined issuance in legacy currencies during the years immediately preceding EMU, although the trend in euro issuance has varied over the period. Euro issuance was particularly strong in 1999, rising by 18.9 per cent relative to 1998. This surge in issuance reflected the release of pent-up demand on the part of both issuers and investors, who had delayed their entry into the market because of turbulence in the international financial system and uncertainty surrounding the changeover to the euro. Corporate issuers were particularly active in the early months of 1999, as many endeavoured to establish a position in the new and potentially more liquid market. In 2000, however, there was a trend decline in euro issuance. The decline in issuance was attributable to a return to a more normal rhythm of issuing activity, reduced government borrowing needs and a progressive deterioration in market sentiment as interest rates and oil prices moved steadily higher. Overall, euro issuance declined by 7 per cent in 2000 relative to 1999. Somewhat unexpectedly, the trend in euro issuance reversed sharply in 2001 with a series of record monthly totals recorded in the first quarter. While issuing activity decelerated in subsequent months, total issuance in the first nine months is up by 11 per cent over the corresponding period in 2000. The strength of euro issuance in 2001 can be traced to the corporate and financial issuers, who have responded to the improved bond market conditions and weakness in global equity markets.

Second, as issuance volumes have risen, the euro has emerged as the second most important currency for international bond issuance behind the US dollar.22 The US dollar and euro now dominate international issuance, representing a combined 80-85 per cent of total. The euro’s share of international issuance almost matched that of the US dollar in 1999, but fell back subsequently and was about 39 per cent compared to 51 per cent for the US dollar in the first 9 months of 2001.

Third, there have been several notable changes in the composition of bond issuance relative to the pre-EMU situation. The most significant change has been a sharp rise in non-sovereign issuance, with the combined issuance of the corporate and financial sectors more than quadrupling since 1998. Further

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22 For a thorough review of the impact of the euro on international capital markets, see Detken and Hartman (2000).
evidence of increased liquidity in the corporate and financial segments of the market is to be found in the progressively larger size of individual issues, with tranches above EUR 1 billion now commonplace. A substantial share of lower-rated issues in total (about 20-25 per cent) would also suggest a relatively liquid corporate market, although it should be noted that high-yielding issues represent only about 6 per cent of the total volume of euro issuance. The trend toward greater securitisation in the EU financial system was predictable following the introduction of the euro. However, the acceleration in non-sovereign issuance has exceeded expectations and probably reflects the coincidence of higher investor demand in the more liquid euro-denominated bond market and other factors not directly related to euro, such as the need to finance increased M&A activity and UMTS auctions that have stimulated the supply of corporate and financial bonds. In contrast, Pfandbriefe\textsuperscript{23} and other asset-backed issuance has been more variable since the introduction of the euro. The variable performance in these sectors is not attributable to market integration but can be traced to a widening yield spread relative to government bonds and market concern about the credit quality of these securities and the appropriateness of their very favourable credit rating.

Despite the growth of issuance in other market segments, sovereign issuance remains a dominant source of supply to the euro-denominated bond market. Government issuance in euro represents 51.5 per cent of total and is on a par with the corresponding issuance in dollars by the US Treasury. Nevertheless, government issuance in euro has been on a declining trend due to an ongoing process of budgetary consolidation in the euro area and better-than-expected revenue growth (due to strong economic growth, a widening of the tax base, high UMTS-related flows in some countries, etc.). Net issuance in euro has declined more sharply than gross issuance due to the effect of buybacks and exchange offers.

The homogeneity of the euro-area government bond market is evident in highly convergent yields across the Member States, which is in marked contrast to the situation that existed as recently as the mid-1990s.

\textsuperscript{23} A Pfandbrief security is a collateralized bond backed by either mortgage loans or loans to the public sector. Originated in Germany it is now spreading throughout Europe. The most important difference to traditional asset-backed securities is that Pfandbriefe carry no prepayment risk since they remain on the balance sheet of the issuing institution. In general, Pfandbriefe are highly rated and show relatively small spreads to the government benchmark bond.
The convergence in yields can be attributed to the elimination of exchange risk in EMU and to the relative improvement in budgetary conditions in several of the Member States. However, there is still evidence of fragmentation in this market segment, much of which reflects the fact that government bonds are still issued by 11 separate agencies with different needs, strategies, procedures and instruments. The effect of this separate issuance is to fragment liquidity in the market and liquidity premia have emerged as an important determinant of the euro-area government yield spreads, which have actually widened since the end of 1998. The smaller-issuing Member States have been most vulnerable to liquidity premia, with many unable to provide the necessary volume of issuance in all maturities across the yield curve.

Graph 4: Yield spreads on government bonds in the euro area

![Graph showing intra-euroarea 10-year yield differentials from 1998 to 2001](image)

Source: Commission services.

A possible response to the evolution in euro-area government bond yields since 1999 would be to further integrate the market by more co-ordinated issuance. Such a possibility was examined by the Giovannini Group (2000), which acknowledged the liquidity concerns for smaller issuers but concluded that yield spreads were probably not sufficiently large to justify the significant and time-consuming reforms required to put in place the necessary mechanisms for co-ordinated issuance. However, it was acknowledged that the context for assessing the merits of co-ordinated government bond issuance might change significantly as financial markets evolve and that the topic should be kept under review. (See Box 4)

Issuance by sovereigns other than government has been relatively stable since 1998. While the European Investment Bank and Kreditanstalt für Wiederaufbau remain the dominant issuers in this segment, liquidity has been boosted by the entry of Freddie Mac, the US quasi-governmental mortgage agency, which began a significant euro issuance programme in September 2000. The programme foresees issuance of EUR 5 billion per quarter in varying maturities.

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24 A group of market participants, under the chairmanship of Alberto Giovannini, established to advise the Commission on financial-market developments.
Box 4: Summary of the report by the Giovannini Group on “Co-ordinated government debt issuance in the euro area”

The Giovannini Group examined the scope for more co-ordinated issuance of euro-area government debt in the context of persistent intra-area yield spreads. As the extent to which more co-ordinated debt issuance could reduce market fragmentation would depend upon the degree of co-ordination involved, the Group considered four hypotheses:

1. Co-ordination on technical aspects of debt issuance.
2. Creation of a joint debt instrument with several country-specific tranches.
3. Creation of a single euro-area debt instrument backed by joint guarantees.
4. Borrowing by a Community institution for lending to euro-area Member States.

While not exhaustive, these hypotheses were deemed to cover a broad spectrum of possible arrangements, ranging from a limited extension of current procedures to the most advanced form of co-ordination involving the establishment of a single benchmark issuer for the euro area as a whole. In assessing the four hypotheses, the Group distinguished between looser co-ordination arrangements, which could be agreed outside the framework of the Treaty, and more advanced arrangements that would be likely to require legal or institutional changes.

There was recognition within the Group that the market for euro-area public debt remains fragmented, but views on the benefits of more co-ordinated debt issuance were mixed. Co-ordinated debt issuance was seen as most attractive for the smaller issuers and there was a relatively detailed discussion of the possibilities for joint issuance by the relevant Member States. For joint issuance to be successful in boosting liquidity in the cash market and in allowing deliverability into an actively traded futures contract, single issues of between EUR 15 billion and EUR 20 billion would be required on a regular basis. It was felt that most (if not all) of the smaller Member States would need to participate in the joint issuance to ensure the necessary size and regularity in issuance. Without wide participation, it could take too long to build up liquidity in any jointly issued instrument, given differences in maturity profiles among the participants and other constraints. In terms of narrowing of spreads, there was scepticism about the scale of benefits to be derived from increased co-ordination in debt issuance, even for the smaller issuers.

The advantages of creating a single euro-area debt instrument that could successfully compete for funds on the global capital market in competition with US Treasuries and Japanese government bonds were acknowledged in principle. It was also agreed that the euro-area market could benefit from the establishment of a clear “benchmark” issuer, e.g. through facilitated pricing of non-sovereign issuance and the creation of a homogeneous euro yield curve. However, there was a broad consensus that there would be difficulties associated with such far-reaching co-ordination that are of a nature which go beyond the remit of the Group. In this context, it was argued that any proposal requiring significant and time-consuming change would face scepticism in markets that are evolving so rapidly.

The Group also drew attention to an important caveat to these findings: financial markets are experiencing significant changes as a result of globalisation, structural change, deregulation and, of course, the impact of the euro itself. Any analysis therefore risks being by-passed by events. In this context, the Group noted the development of non-public debt markets and the decline in the share of government issuance in total debt issuance as having important implications. Debt issues of US institutions such as Fannie Mae and Freddie Mac, or European Pfandbriefe, to the extent that they have characteristics similar to those of government issues, may eventually act as substitutes for government debt and obtain benchmark status. The US swap market has indeed already become a benchmark for pricing corporate debt. In the secondary markets, the development of electronic trading systems has important implications for liquidity and has already led to changes in issuing strategies and techniques.
3.3 EQUITY MARKETS

As with the other main financial markets, the pressure for integration within EU equity markets has also intensified since the introduction of the euro. It is, however, more difficult to isolate the influence of the euro on equity markets from that of other unrelated developments. While the elimination of exchange risk has stimulated demand for cross-border equity investment, the trend toward cross-border trade is also driven by the broader internationalisation of equity issuance, more mergers and acquisitions across borders and the need for formal stock exchanges to expand market share as new entrants create an increasingly competitive business environment. In particular, many smaller electronic trading networks have been established in recent years, albeit with varying degrees of success.

The response of the formal stock exchanges to the changes in the financial environment has been to consolidate. Once again, consolidation must be seen as a global rather than EU-specific phenomenon, with several proposals to link exchanges world-wide so as to create the so-called “global equity market” and the possibility of 24-hour trading. On the other hand, there have been several high-profile consolidation efforts in Europe. Most notable of these has been the creation of Euronext, which merged the Amsterdam, Brussels and Paris exchanges in mid-2000 and was floated as a public company in mid-2001. Euronext has recently signed a memorandum of understanding with the Lisbon exchange, which is seen as presaging a formal merger in the future. There has also been evidence of consolidation within Member States, most recently in Spain, where the four regional exchanges are to merge. The process of integration also goes beyond traditional exchanges, as illustrated by the Virt-x merger that combined the Swiss exchange and the UK-based electronic exchange Tradepoint. Not all consolidation efforts have been successful, however, with the failed merger of Deutsche Börse and the London stock exchange a notable example.

![Graph 5: "New economy" stock market indices](image)

Apart from these structural developments, the integration in EU equity markets has been mainly evident in a more sectorally correlated movement in equity prices across the various Member State markets. This would suggest a change in investor behaviour away from country-based investments and toward sector-based investments, with divergence in the evolution of indices explained mainly by differences in composition. The use of equity related derivatives has also significantly increased in the last years. Options and futures on the main European stock indices are now available, by that way also enhancing primary equity market liquidity. Due to the relative large share of over-the-counter (OTC) and not
exchange-traded stock market derivatives, statistics on the development of this market section remain, however, incomplete.

The effect of the euro in encouraging cross-border equity investment has been a factor in stimulating activity in the new-economy stock markets of the EU which – in line with US developments – have exhibited rather extreme behaviour in recent years. The EU new economy stock indices rose explosively in the period around the launch of EMU, although the capital flows into these markets were as much a reflection of overheated demand for TMT (technology, media and telecommunications) securities than of enthusiasm for euro investments. The German Neuer Markt was a particularly strong performer and enjoyed an increase of nearly 850 per cent in market capitalisation between end-1997 and March 2000. The subsequent slump in performance in the TMT sectors globally has impacted heavily on the new economy markets in both the USA and Europe, with the Neuer Markt surrendering all the gains since end-1997.

### 3.4 Financial Intermediaries

The impact of financial integration has not been confined to the different financial market sections but has extended also to the activities of financial intermediaries. Banks increasingly are involved in offering financial services to foreign businesses and individuals. The introduction of the euro has further intensified competition in an already highly competitive environment for financial intermediaries by facilitating price transparency, by reducing foreign exchange revenues, by eliminating the competitive advantage for domestic players associated with the existence of national currencies and by promoting the development of much broader and liquid securities markets which foster securitisation and disintermediation. The most visible response of financial intermediaries to these pressures has been consolidation either through mergers and acquisitions or through cross-shareholdings. Consolidation has been accompanied by a restructuring process and a reorientation of activities from “traditional” bank lending towards “investment banking” style activities such as enhancing financial market intermediation by creating and selling new capital market products or advising clients on the pricing and structuring of a merger or acquisition, which is, in turn, reflected in a shift in their revenue flows from interest income to non-interest (fees and commission) income.

Consolidation among financial intermediaries has so far taken place mainly within national boundaries, implying a significant increase in industry concentration at the national level particularly in the smaller Member States. The trend towards domestic conglomeration (i.e. consolidation across financial sectors) is also increasing in many parts of the EU. On the other hand, cross-border mergers and acquisitions between large universal banks have been the exception. As the significant differences in national legal and regulatory environments (e.g. consumer and competition laws) make a pan-European product range impractical at this time, the scale and scope economies from cross-border mergers would seem to be less than those from domestic mergers. Cultural factors and differences in the framework for corporate governance would also tend to discourage cross-border consolidation. In these circumstances, financial intermediaries may prefer to engage in defensive mergers at the domestic level in preparation for pan-European competition when integration of the EU financial system is more advanced.

The trend toward consolidation of financial intermediaries operating within the EU is set to continue, given the strength of the underlying forces in their operating environment. The key question is how this consolidation will proceed. Further mergers and acquisitions between big institutions in smaller Member

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25 The absence of more cross-border consolidation can be explained by reference to the benefits to be expected from mergers and acquisitions among financial institutions. The rationale for a financial merger or acquisition is mainly to be found in (i) the cost savings resulting from economies of scale and scope; (ii) revenue and risk diversification (e.g. development of ‘bancassurance’/asset management); (iii) achievement of critical mass/reputation building (especially in investment banking); (iv) preservation of market share in a larger market (defensive mergers); and (v) the intention to restore market power.
States are unlikely given the already high concentration in their financial sectors. Consolidation is more likely in the wholesale sectors than in the retail sectors and conglomeration is also expected to intensify. As an alternative to full-scale mergers across borders, some institutions have focused on building up a network of minority stakes and joint ventures. The Internet may also provide a cost effective alternative to mergers for some institutions by enabling them to gain access to new, or retain existing, corporate and retail customers. It should be noted that the phenomenon of consolidation in financial intermediaries is not confined to the EU and reflects the search for economies of scale and scope at the global level. There have been several high-profile financial mergers involving only US-based financial institutions, as well as many cross-border mergers involving institutions based in the EU, the USA, Easter Europe, Latin America etc.
4. EVIDENCE ON THE INTERNATIONAL OWNERSHIP OF ASSETS

4.1 THEORETICAL APPROACH

As far as the ownership of financial assets is concerned, full integration implies that investment portfolios are well diversified internationally. Portfolio diversification would, in fact, require that the bulk of the portfolios of residents in a particular country be allocated to foreign assets. In practice, however, financial portfolios appear to be heavily biased towards domestic assets. This so-called “home bias” has a variety of possible explanations. The main ones relate to the existence of barriers to international portfolio diversification. Such barriers can be explicit, in the form of foreign exchange controls, withholding taxes, and other directly observable barriers. In addition, one can distinguish implicit barriers in the form of political, or country, risks and informational asymmetries. There are also potential reasons for the home bias that do not stem from explicit or implicit barriers, but rather from the non-tradability of particular assets. For example, human capital and the shares of privately held companies are not tradable. The holders of these non-tradable assets aim to structure their portfolios of tradable assets so as to achieve the best attainable combination of risk and return for their overall asset holdings. A home bias could then be explained if the return to domestic tradable assets tends to be negatively correlated with the return to domestic labour.

4.2 THE INTERNATIONALISATION OF EUROPEAN BANKING

In an integrated European financial market, one would expect the banking sector to become more international. Such internationalisation can take a variety of forms. First, mergers by banks from different national banking markets could create international or even pan-European banks. The ECB (1999), for instance, foresees the creation of a two- to three-tier banking system in the EU consisting of national, EU-regional, and several large EU-wide financial institutions. In addition, there would be room for niche players and specialised institutions on the fringes. While there has been some international merger activity in the European banking market in the last several years, this has so far failed to produce any truly European bank. The purchase by banking institutions of existing foreign banks is generally an expensive road to expansion, which tends to limit the scale of M&A activity. In recent years, several European banks have instead indicated their intention to become truly European banks by offering banking services to an international clientele through the Internet. However, this route to international expansion is fraught with difficulty, as few European banks have sufficient international name recognition to successfully attract international business and retail customers through an internet expansion strategy. In practice, brick-and-mortar establishments continue to instil confidence in banking customers and hence are important in attracting new customers.

Summary information on the extent of foreign ownership of banks in 11 EU Member States is provided in Table 3. For each country, information is given on the share of banking assets in total banking assets belonging to the branches and to subsidiaries of international banks. Also, there is a breakdown of foreign branches and subsidiaries from EEA countries and third countries. The data indicate that the foreign banks in these 11 EU countries are predominantly subsidiaries of banks in EEA countries. The asset share of foreign banks is 95 per cent in Luxembourg, and little more than half and a third in Ireland and Belgium, respectively. No exact information is available on how the activity mixes of foreign banks differs from that of purely domestic banks. However, one expects that foreign banks are relatively heavily engaged in servicing the needs of businesses and perhaps wealthy individuals given the high costs of attracting local retail customers.

26 The European Economic Area (EEA) covers the EU plus Norway, Iceland and Liechtenstein
### Table 3: Share of foreign banks

<table>
<thead>
<tr>
<th>Country</th>
<th>From EEA Countries</th>
<th>From Third Countries</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Branches</td>
<td>Subsidiaries</td>
<td>Branches</td>
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<tr>
<td>Belgium</td>
<td>9.0</td>
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<td>0.9</td>
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<td>3.4</td>
<td>1.6</td>
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<td>1.7</td>
<td>1.4</td>
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<td>1.6</td>
<td>0.1</td>
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<td>Portugal</td>
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<td>6.8</td>
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<tr>
<td>Finland</td>
<td>7.1</td>
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<td>0.0</td>
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<td><strong>Euro area</strong></td>
<td><strong>3.4</strong></td>
<td><strong>1.6</strong></td>
<td><strong>12.7</strong></td>
</tr>
</tbody>
</table>

1. Market share of branches and subsidiaries of foreign credit institutions as a percentage of the total assets of domestic credit.
2. 1996 figures.

**Source:** ECB.

Foreign branches and subsidiaries can result from international take-overs or through ‘greenfield’ investments in new entities. A relatively quick international expansion strategy will require international mergers and acquisitions. Data on bank mergers – including mergers between banks and non-banks - in the euro area is presented in Table 4. When looking at the value of merged companies, we see that domestic mergers continue to dominate international mergers. Among international mergers, there tend to be more mergers involving institutions from two or more euro countries and institutions from non-euro countries than mergers involving institutions from different euro countries.

### Table 4: Merger and acquisition activity in the euro area financial industry

<table>
<thead>
<tr>
<th></th>
<th>Same country</th>
<th>Other euro country</th>
<th>Other non-euro area country</th>
<th>Total</th>
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<td>Value$^1$</td>
<td>Number</td>
<td>Value$^1$</td>
</tr>
<tr>
<td><strong>Banks – banks</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1998</td>
<td>7</td>
<td>7.5</td>
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<td>1999</td>
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<td>2000$^3$</td>
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<td>0</td>
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<td><strong>Banks - non-bank financial</strong></td>
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</tr>
<tr>
<td>1998</td>
<td>4</td>
<td>25.5</td>
<td>1</td>
<td>576</td>
</tr>
<tr>
<td>1999</td>
<td>3</td>
<td>19.5</td>
<td>1</td>
<td>751</td>
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<tr>
<td>2000$^3$</td>
<td>8</td>
<td>5.2</td>
<td>1</td>
<td>1.8</td>
</tr>
</tbody>
</table>

1. Either acquirer or target company is resident in the Euro area. Only completed or pending deals, announcement date volumes.
2. In billions of EUR.
3. January to 30 April.

**Source:** BIS Annual Report 2000.

The relatively modest volume of international banking mergers suggests that domestic bank mergers are perceived to be more advantageous than international banking mergers. This conforms to the reasoning of Danthine et al. (1999), who argue that individual European economies are rather heterogeneous – compared for instance to US states. This heterogeneity implies that purely domestic banking mergers offer ample opportunities for asset risk diversification. Domestic mergers will then be preferred to...
international mergers, as they avoid the problem of blending different culture and languages while offering the prospect of increased market power. Several studies of the consequences of European bank mergers have attempted to distinguish between the effects of domestic and international mergers. The evidence on the relative merits of international mergers is somewhat mixed. Examining EU bank takeovers, Vander Vennet (1996) concludes that domestic mergers, particularly among equal-sized partners, have significantly improved the performance of the merged banks. However, cost efficiency gains were also found in cross-border mergers and acquisitions. Cybo-Ottone and Murgia (2000) conclude that there are abnormal stock market returns – pointing to increased shareholder wealth – associated with domestic bank-to-bank deals and with the diversification of banks into insurance. Given the relatively few international bank mergers in the EU, evidence of this kind is necessarily preliminary in nature.

The relative advantages of international versus domestic expansion can be assessed directly by comparing the average profit performance of domestic and foreign banks in EU countries. Average profit and some other accounting information for domestic and foreign banks in the EU is provided in Graph 6. This summary information is based on annual reports of domestic and foreign banks in Member States, where a foreign bank is a bank that is at least 50 per cent foreign-owned. On an EU-wide basis, foreign banks have achieved net profits equal to 0.3 per cent of assets, compared to 0.4 per cent for domestically-owned banks over the years 1988-95. This relatively low profitability of foreign banks is shown to reflect lower net interest income, as well as lower non-interest income. Despite the possible shortcomings in accounting data (e.g. the possibility that international banks manipulate transfer prices so as to minimise their world-wide tax liability), the apparently lower profitability of foreign-owned banks suggests that their international expansion strategies of banks have not been very successful on average.

Further evidence on the internationalisation of EU banking can be derived from balance sheet data provided by the Bank for International Settlements. Specifically, data on the external positions of banks in individual countries (the EU-15, the USA and Japan) vis-à-vis the non-banking sectors is represented in Table 5. The non-banking sector includes individuals, non-financial businesses, and non-bank financial firms such as mutual funds and insurance companies. There are separate data on the external assets (including loans and the ownership of foreign marketable securities such as government and corporate bonds) and on the external liabilities (including deposits, bonds and other marketable short-term securities) of national banking systems. The external assets of EU banks more than tripled from 1990 to 1999 (from EUR 529 billion to EUR 1813 billion), while the external liabilities about doubled during the same period (from EUR 541 billion to EUR 1132 billion). The strong internationalisation of the asset side
of bank balance sheets may be due to the ongoing integration of the European money market, and increased issuance activity in the European corporate debt market (especially by the telecom sector). The increased external liabilities of banks may reflect changes in the various motives for maintaining bank balances abroad such as to conduct trade in goods and services, to undertake subsequent financial investments, and to evade domestic income and wealth taxation. Table 5 also indicates how important banks’ external assets and liabilities are relative to the country’s GDP. This data confirms that in the 1990s external bank assets in the EU have almost doubled relative to GDP, while external bank liabilities increased only slightly relative to GDP. Also, the figures indicate that international deposits by non-banks – relative to GDP – are far more important in the EU than in the USA and in Japan.

### Table 5: External positions of banks in individual countries vis-à-vis non-banks*

<table>
<thead>
<tr>
<th></th>
<th>Assets (as a percentage of GDP)</th>
<th>Liabilities (as a percentage of GDP)</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>1990</td>
<td>1999</td>
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<tr>
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<tr>
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<td>8.9</td>
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<tr>
<td>D</td>
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<td>18.0</td>
</tr>
<tr>
<td>EL</td>
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<tr>
<td>E</td>
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</tr>
<tr>
<td>F</td>
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<td>16.7</td>
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<tr>
<td>IRL</td>
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<tr>
<td>I</td>
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</tr>
<tr>
<td>NL</td>
<td>14.7</td>
<td>25.1</td>
</tr>
<tr>
<td>L</td>
<td>982.5</td>
<td>1091.8</td>
</tr>
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<td>6.3</td>
</tr>
<tr>
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<td>EU-15</td>
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<td>20.9</td>
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<td>USA</td>
<td>1.6</td>
<td>1.8</td>
</tr>
<tr>
<td>Japan</td>
<td>5.9</td>
<td>11.7</td>
</tr>
</tbody>
</table>

**Source:** BIS.

* The non-banking sector includes individuals, non-financial businesses, and non-bank financial firms such as mutual funds and insurance companies. There are separate data on the external assets and on the external liabilities of national banking systems. External assets include loans and the ownership of foreign marketable securities such as government and corporate bonds, while external liabilities include deposits, bonds and other marketable short-term securities.

### 4.3 The International Ownership of EU Government Debt

Domestic residents do not have a clear advantage over foreign residents in assessing the creditworthiness of their own governments. Hence, foreign residents do not face substantive barriers of information when considering adding domestic government debt to their portfolios. In several countries, however, there still are interest withholding taxes that apply to foreign residents. As shown by Eijffinger, Huizinga, and Lemmen (1999), withholding taxes on government debts appear to lead to increases in pre-tax, gross yields on these debts that fully compensate foreign investors for the taxes paid. The net impact on the domestic treasury of taxing foreign holdings of government debt thus may be zero, as the increased interest burden tends to offset the withholding tax revenues. In these circumstances, international interest withholding taxes are no longer a barrier to the diversification of international bond portfolios. For the impact of taxes on the cross-border investment in assets, see Box 5.
Box 5: Taxes as a specific reason to hold cross-country deposits

There are a variety of possible motives for economic agents to borrow and depositing abroad. Motives related to international borrowing have mostly to do with the availability and cost of capital. Large firms and governments, specifically, may need to tap the international capital market to be able to attract the financing they require. The motivations behind international depositing are more varied. As indicated, such depositing serves to facilitate other economic activities such as international trade and investment. Not unimportant, however, is the desire – in the case of individuals – to evade taxation.

Recent research by Huizinga and Nicodème (2001) examines the determinants of bilateral deposit flows of non-banks among BIS reporting countries with data for the period 1983-99. The study specifically examines to what extent tax policy as well as tax enforcement influences the pattern of international deposits. Tax policy consists of interest withholding taxes in the country of residence of the depositor as well as regular wealth taxes in this country. Tax policy in the country where the bank is located is instead summarised by the non-resident interest withholding tax relevant for interest on bank deposits. The average income taxes and wealth taxes, as well as the average non-resident withholding tax on interest have almost been halved during the 1983-99 period on account of international tax pressures. This is reflected in the figures below.

Efforts to enforce the domestic interest taxation are supported by requirements on banks to report interest payments to the tax authorities. Within a domestic context, banks in many EU countries were required in 1999 to report interest paid and to whom it is paid to domestic tax authorities, as seen in the table below. These policies date from many years ago for some countries (for instance, from 1954 for the UK), while other countries adopted such policies in the 1980s and early 1990s (for instance, Ireland in 1992). Potentially equally important to the enforcement of residence-based taxation of interest is the international exchange of interest payment information among national tax authorities. The table below also indicates which countries are in fact providing bank interest payment data to at least one foreign tax authority. From the table, we see that international information exchange on cross-border interest payments is still far from the norm as of 1999. In November 2000, the European Council, however, agreed that from 2010 onwards the EU will rely on generalised information exchange to shore up the taxation of international interest flows. Until then, several countries, namely Austria, Belgium and Luxembourg, will be free to levy a minimum withholding tax instead, with the understanding that 75 per cent of the tax revenues are passed on to the residence-country tax authority. This set of policy intentions is to be laid down in a binding directive by the end of 2002, on the condition that the EU reaches agreement with several third countries, notably Switzerland, on the adoption of similar anti-evasion measures in these countries.

Is there any empirical evidence that tax policies in the depositor and the bank countries and efforts to enforce depositor country taxation through information provisioning actually affect deposit flows? Huizinga and Nicodème (2001) find evidence that depositor country policy measures do matter – in fact both interest income and wealth taxes and domestic information provision by banks appear to contribute to the foreign depositing of domestic residents. Using data for the 1983-99 period, the evidence suggests that a 1 per cent increase in the tax burden (measured as a percentage of the deposited fund) leads to a somewhat modest 4.3 per cent increase in foreign bank placement. A 1 per cent increase in the wealth tax burden (again measured as a percentage of deposited funds) has an impact on foreign placements that is about 4 times as large, perhaps because the wealth tax is borne by relatively wealthy people who may be more prone to shift their savings abroad. Finally, the introduction of domestic information provisioning is estimated to increase external bank placements by 28 percent. These figures are estimated with a sample of almost 20 years of data. There are reasons to suspect that the responsiveness of international deposits to domestic tax policies has increased in recent times. Lower telephone and other communication costs, for instance, make it relatively easy now to be a depositing customer at a foreign bank. Indeed, estimation with data for only the year 1999 suggests that the tax elasticity of international deposits, as reported above, now is much larger.

While saver-country tax policies and information collection appear to be factors behind international depositing, there is less evidence to suggest that banking country policies – the non-resident withholding tax and the international exchange of information on a bilateral basis – are very effective. At least there is no statistical evidence that these policies maternally affect the pattern of bilateral depositing. An obvious reason is that there remain ample opportunities at this point to place savings abroad that are not subject to either a non-resident interest withholding tax or international exchange of information. As long as tax evaders place most of their funds in several of such countries, one indeed would not expect tax and enforcement policies in several other countries to have much effect.
on at least the total volume of international depositing. This conclusion, of course, does not mean that a generalised introduction of a non-resident interest withholding tax or international exchange of information – as foreseen in the EU - would equally not affect the total volume of tax-evading international deposits. A generalised withholding tax or information exchange policy would be unavoidable, and the impact of such a policy is a priori expected to be as important as domestic tax policies appear to be at present, as such domestic tax policies are equally difficult to avoid if the savings remain located at domestic banks. A generalised policy of information exchange in the EU clearly requires that other banking centres undertake similar measures – as has been accepted by the European Council as a condition for the introduction of generalised information exchange within the EU by 2010.

![Graph of Tax rates on interests payments from domestic deposits received by resident individuals](image)

![Graph of Wealth tax on financial wealth (BIS countries)](image)

![Graph of Average withholding tax on interest from bank deposits to non-residents](image)

### Information regarding bank interest payments

<table>
<thead>
<tr>
<th>Country</th>
<th>Information to domestic tax authorities</th>
<th>Information to any foreign tax authority</th>
</tr>
</thead>
<tbody>
<tr>
<td>Belgium</td>
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<td>N</td>
</tr>
<tr>
<td>Denmark</td>
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<td>Y</td>
</tr>
<tr>
<td>Germany</td>
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<td>N</td>
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<td>N</td>
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<td>N</td>
</tr>
<tr>
<td>France</td>
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</tr>
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<td>Ireland</td>
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</tr>
<tr>
<td>Japan</td>
<td>Y</td>
<td>Y</td>
</tr>
</tbody>
</table>

Data on public indebtedness and the foreign ownership of central government debts are presented in Table 6. While public indebtedness in the EU-15 and in the USA has been on a downward path, the share of central government debt owned by foreign residents has increased in several EU countries (notably Germany, Greece, and Sweden) and declined in others (notably Austria, France and Finland). The foreign ownership of US government debt has increased significantly from 19.0 per cent in 1990 to 33.6 per cent in 1999.

<table>
<thead>
<tr>
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<td></td>
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<td>L</td>
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</tr>
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</table>

Source: Commission services, IMF IFS.

4.4 The International Nature of Venture Capital Raised and Invested

Venture capital is the private equity that is provided to mostly young firms to finance early-stage investments. Venture capital is private capital in the sense that it is not publicly traded on an exchange. Private capital is also used to take over family-owned businesses, to buy-out publicly traded companies, etc. In 2000, a record amount of EUR 48 billion was raised by private equity management funds in the EU (compared to EUR 25 billion in 1999). The volume of funds actually invested rose to 35 billion in 2000, up 40 per cent from EUR 25 billion in 1999.

Private equity firms raise as well as invest funds internationally. Figures on both aspects of the management firms’ internationalisation are presented in Graph 7. The table indicates, that the total volume of EU funds raised increased from 0.23 per cent of GDP in 1998 to 0.31 per cent of GDP in 1999, while the total share of funds raised domestically increased from 51 per cent to 57 per cent, thus rendering the private equity sector somewhat less international. In both 1998 and 1999, management firms located in the UK raised the largest volume of funds (relative to GDP), and mostly from foreign sources. In Portugal, Denmark and the Netherlands, most of the funds under management are raised domestically. With respect to funds invested, the total for the EU rose from 0.19 per cent of GDP in 1998 to 0.31 per cent of GDP in 1999, while the share of funds invested domestically was about 78 per
cent, for both years. The tendency of private equity firms to invest domestically is a reflection of the fact that it is important for the capital providers to be close to their portfolio companies for the purpose of monitoring their investments.

Graph 7: Venture capital funds raised and invested

The international patterns of funds managed and funds invested may well reflect comparative advantages in providing fund management services, as well as differences in economic fundamentals that are relevant to investment decisions. It is equally plausible, however, that the pattern of internationalisation of private equity management and investment is in part driven by differences in the regulatory, tax and legal infrastructure of the EU countries. Such differences, where they exist, can hinder the smooth functioning of the European venture capital sector. The key regulatory issue is whether pension funds and insurance companies are allowed to invest in private equity. National regulators retain considerable discretion in determining investment restrictions applying to their domestic insurance companies and pension funds. In the area of taxation, an important objective would be to ensure that capital management firms are transparent so that investors pay the same tax on the return to their capital, irrespective of whether they invest directly in particular firms or through an equity management firm. A key legal issue concerns the range of organisational forms that are available for venture capitalists. In the USA and the UK the dominant organisational form has been the closed-end fund structure, which is a fund structure that self-liquidates, say 10 years, after its inception. The proven success of this model would suggest that closed-end fund structures should be available throughout the Union to avoid a situation in which the location of venture capital funds might be influenced by the differences in legal forms available in EU Member States.
4.5 Cross-border Portfolio Allocation

Detailed information on cross-border equity transactions is limited and characterised by the distortions due to the effects of large-scale M&A transactions. However, a recent study by Danthine et al. (2001), comparing the magnitude of foreign financial asset holding across eight industrial countries (D, E, F, I, NL, UK, USA and Japan), found that the international diversification of assets has increased in the past decade. Nevertheless, the share of international financial assets in total financial wealth in 1998 was relatively small, ranging from 15 per cent in the Netherlands, Germany and the UK to about 5 per cent in Spain and the USA. These figures confirm the prevalence of home bias. Since 1996, however, there has been a notable acceleration in the trend towards internationalisation of asset holdings for all the EU countries considered in the study. A sectoral breakdown of asset holdings, reveals a varying degree of home bias. Households and banks show a quite pronounced home bias, while investment companies and pension funds hold a relatively large share of their portfolios in foreign assets. In consequence, cross-country differences in the degree of home bias tend to reflect differences in the sectoral distribution of wealth.

In explaining the differences in portfolio allocation among institutional investors, the study identifies two crucial characteristics. First, investment by insurance companies and pension funds is subject to national regulations that restrict the opportunity of holding international assets. Second, the higher the investment in equities, the lower the home bias. The degree of international diversification is close to the predictions of portfolio theory in the case of equity investment by institutional investors, which varies between 40 and 80 per cent within countries and financial institutions.

Danthine et al. (2001) gathered the data from different national sources. Graph 8 replicates the first step of their study with the data from the EU’s financial accounting system. This data is available for 12 EU Member States and covers the years 1995 to 1999. It differs in the levels and the order of countries from those used by Danthine et al. This is partially due to the inclusion of the government sector and the central bank. Overall, the data on the share of financial assets in total financial wealth validates the finding that the holdings of foreign assets have increased remarkably over time. (For two case studies covering cross border investment in Belgium and Sweden, see Box 6).

Graph 8: Share of financial assets held against the rest of the world, (total economy, non-consolidated)

Source: Commission services.
Box 6: **Two case studies on foreign ownership and cross-border investment**

A recent study by Timmermans (2001) demonstrates that international investments in Belgium have increased notably ahead of EMU. In 1998, almost a quarter of individuals' holdings of financial assets was in foreign currency, up from only 7 per cent in 1980. As regards the composition of financial wealth, direct purchases of securities account for the largest share of foreign assets held by Belgians. Furthermore, investment in investment funds, which was almost non-existent in 1980, has become an important vehicle for investments abroad. In 1998, more than 50 per cent of the investment in investment funds (UCITS) was held in foreign currency. But the rise of investment funds in Belgium is only partially attributable to the trend towards international financial integration. The fact that capitalised investment gains in UCITS are exempted from withholding taxes suggests that it was strongly driven by fiscal motives.¹

A similar trend towards internationalisation is evident on the Belgian economy's liability side. Between 1980 and 1998, foreigners increased their holding of Belgian assets, most visibly in the acquisition of government bonds and a pick-up in foreign direct investment. With a share of less than 3 per cent in 1980, the holding of public debt by non-residents was almost negligible. Until 1998, the proportion has increased to almost 10 per cent, with foreigners having revealed a preference towards debt denominated in foreign currency.² The trend towards internationalisation is also evident in the Belgian equity market. While in 1980 less than 13 per cent of the shares of the Belgian enterprises were owned by foreigners, their stake increased to almost 30 per cent in 1998. The listing of a company seem not to have influenced its exposure towards foreign ownership, since the shareholder structure of unlisted companies differs only significantly from those of listed ones.

A close examination of the shareholder structure of Swedish listed enterprises between 1991 and 1997 was conducted in a recent enquiry by Dahlquist and Robertsson (2001). They found that between 1991 and 1997 foreign investors increased their holding of Swedish stocks from SEK 44 billion to SEK 692 billion. This expansion by a factor of 15 compares to an increase of the Swedish stock market capitalisation by a factor of four and an increase of the Swedish weight in the world stock market index by a factor of four. Accordingly, international ownership increased much faster than would have been predicted by financial market developments. While in 1991, 70 per cent of Swedish firms had at least one foreign owner, it was 99 per cent from 1995 onwards.³ In fact, only 2 of the 282 enterprises, covered in the study, were without foreign investor in 1997. On average, foreigners held about 32 per cent of Swedish stocks, ranging from 16 per cent in the construction industry to 37 per cent in the engineering sector.

By relating firm characteristics to the magnitude of foreign ownership, the study elaborated specifically on the determinants of cross-border stock holdings. It found that foreign owners typically were institutional investors and seemed to have a preference for (a) large firms, (b) firms that pay low dividends and (c) firms with large cash positions. The more detailed analysis suggested that rather than sheer size, market liquidity and the presence of the firm in international markets are conducive to foreign ownership.

¹ On the other side of the spectrum, investments with credit institutions, insurance companies and pension funds is of less prominence for cross-country investments and in particular the market share of banks has declined over time. This must, however, be assessed against the fact that investment funds have almost exclusively been established and run by banks.

² Non-residents held 85 per cent of debt denominated in foreign currency. The share of debt denominated in foreign currency increased to 6.3 per cent in 1998 from 5.7 per cent in 1980. The number of domestic holders includes investors from Luxembourg.

³ The design of the study did not allow to identify the usage of Swedish funds by foreigners to invest in the Swedish market. But it covered the usage of foreign funds from Swedish investors to invest in the domestic market.
5. TESTS OF FINANCIAL MARKET INTEGRATION

5.1 TESTS OF PRICE CONVERGENCE OF FINANCIAL ASSETS

On an integrated financial market, homogeneous assets should have the same price irrespective of the
location of trading. Testing for the degree of financial market integration by comparing the prices or
returns of assets across borders requires the identification of homogeneous assets. Prior to EMU, this
used to be complicated because prices and payoffs were denominated in different currencies.
Consequently, estimates of deviations from interest parities, e.g. for government bonds, suffered from the
need to disentangle the effects of incomplete financial integration and currency risk. In the run-up to
EMU, euro-area government bond yields substantially converged, indicating either rising financial market
integration or the disappearance of currency risk.

However, the spreads of government bonds have not decreased further since the introduction of the
euro, notwithstanding the complete elimination of exchange rate risk. In the first half of 2001 the yield of
government bonds with a maturity of 10 years was on average 0.3 percentage points higher than on their
German counterpart, pointing to additional factors that might indicate either a lack of homogeneity
among these assets or incomplete integration of this market segment (See Graph 9). Part of the yield
difference is certainly related to the heterogeneity of government bonds caused by differences in risk,
benchmark status and liquidity. For instance, some of the euro-area government bonds are rated AA only
but do not have the highest possible AAA credit ranking. This difference accounted for approximately 15
to 20 basis points. Moreover, German 10-year government bonds benefit from the benchmark status they
have acquired. The fact that they are frequently used for pricing and hedging non-government bonds
offers them a yield advantage over for instance Dutch and French bonds. Finally, bonds are endowed
with different liquidity as large issuers simply benefit from scale effects, which make them cheaper relative
to smaller emissions. Taking these aspects into account, the euro-area government bonds markets do not
appear to be segmented by national borders.27

Financial integration should make the returns of comparable but not completely homogeneous financial
assets more similar. Consequently, the dispersion of interest rates should decline over time. The
occurrence of such a trend is shown in Graph 10, using the interest rates from retail banking in euro-area
Member States for three different banking products. The left hand side shows that the dispersion of
yields measured by the standard deviation declined well ahead of EMU – interrupted only by the financial
turmoil around the Asian crisis in autumn 1997 – and continued to fall since the introduction of the euro
with the exception of mortgage rates to households.

Taking into account that overall interest rates declined in the second half of the 1990s, the coefficient of
variation28 on the right hand side represents a more accurate image. Abstracting from the decline of
interest rates, mortgage rates and time deposit rates have converged ahead of EMU whereas interest rates
on short-term loans to enterprises seem not to have done so before 2000. Afterwards, their standard
deviation has fallen despite rising rates indicating a growing integration of retail banking markets in the
euro area. Somewhat surprisingly, the dispersion of mortgage rates, which might have the strongest link
with local or regional conditions, is the smallest in Graph 10. However, the absolute level of these
indicators depends on the retail rates selected for the Member States and, consequently, the lower
standard deviation may represent nothing but the usage of a rate, which is more uniform across countries
than that of the other categories.

27 Bonds issued by EU Member States outside the euro area have a similar size of spreads compared to those of the euro area Member
States. But their denomination in national currency makes it difficult to establish whether they are equally well integrated.
28 The coefficient of variation is the standard deviation divided by the average.
Whether EMU has spurred the integration of financial markets should also be discernible in a rising coefficient of correlation of the returns after to the introduction of the euro. Applying this measure on the main stock indices of the euro-area Member States, national stock market returns are not closer correlated than during the run-up to EMU. This does not necessarily indicate dis-integration. Instead, stock markets could have been differently exposed to common or country-specific trends over time. Specifically, the convergence of interest rates prior to EMU had a common impact on stock returns whereas the recent ICT euphoria yielded more country specific impulses on stock market indices, probably depending on the weight of ICT in national industry.\(^29\)

An alternative approach is the measurement of the explanatory power of foreign stock market returns on domestic stock market returns, which should be higher in EMU than before if stock markets have become more integrated. To this end, Graph 11 compares the residuals of an auto-regression of stock market returns with those of a vector-auto-regression including all other euro-area Member States’ stock market returns. The number given in Graph 11 is the percentage decline of the forecast error (sum of the squared residuals) yielded from using foreign returns as additional variables. The variable of interest is the change of this number between the first and the second period. It turns out that in all euro-area stock markets except the Dutch, the explanatory power of foreign returns is indeed higher in EMU than before.

\(^{29}\) ICT stands for Information and Communication Technology
Graph 10: Interest rate dispersion in retail banking in euro-area Member States

On average the explanatory power of foreign market developments increased by 57 per cent, which indicates a considerable increase in the sensitivity to cross-border determinants of stock prices.\(^{30}\)

Further, more sophisticated measures have been applied in the academic literature on stock market integration. Most find a rising degree of financial integration prior to EMU but do not embrace the period since 1999. Hardouvelis et al. (1999) estimated a conditional CAPM model and decomposed the expected returns into a local risk premium and an EU risk premium.\(^{31}\) They found that the former substantially fell in the second half of the 1990s compared to the first half and that equity market integration reduced the costs of capital by around 2 per cent, mainly originating from the reduction in the country-specific risk component.

Graph 11: The explanatory power of other market return on the national market return

\(^{30}\) Ayuso and Blanco (2000) use this methodology for their analysis of the linkage between daily stock returns of 7 stock markets (USA, Japan, UK, D, F, I, E), coming to the conclusion that the linkage of these markets has increased 1995-99 compared to 1990-94.

\(^{31}\) The Capital Asset Pricing Model (CAPM) is a standard model used in empirical finance to estimate risk-adjusted returns of assets.
By employing a GARCH model on the uncovered asset return parity, Fratzscher (2001) discovered that European equity markets have been highly integrated since 1996. The behaviour of time-varying coefficients indicated that the path towards EMU has fundamentally changed the nature of financial integration, namely through the elimination of currency risk and monetary policy convergence.

More sceptical results were presented by Rouwenhorst (1998), Ménil (1999) and Oh (2001), who all three tested for the convergence of returns on the sectoral level and the firm level, respectively. Both Ménil (1999) and Oh (2001) find strongly significant country-effects in estimations of the CAPM model over the period 1988-95 and Rouwenhorst (1998) failed to find evidence that the industry-effects have become more important than country-effects in the 1990s. Regarding potential determinants of cross-country effects, Ménil (1999) found that the GDP gap and two indices of labour and product market regulation explain differences in the rates of returns.

An alternative test of financial market integration was developed by Portes and Rey (1999). Instead of focusing on asset returns and the significance of country-specific coefficients, their approach applies the gravity model, a well-established tool for analysing international trade flows, on cross-border equity transactions. They are able to explain a large proportion of equity flows among 14 countries in the period 1989-96 by employing only a few variables. In addition to market size, openness, an index of the sophistication of financial markets geographical distance has a strong negative impact. Geographical distance is significant for the whole sample as well as for a European sub-sample. It even remains so after variables controlling for the effect of common language, currency or trade bloc are introduced. The segmentation of financial markets by distance is considered by Portes and Rey as evidence that information asymmetries are key for explaining cross-border financial transactions.

### 5.2 Tests of the Macroeconomic Implications of Financial Market Integration

At the aggregate level, the most prominent test of financial market integration originated from an article by Feldstein and Horioka (1980). These authors argue that for a closed economy, the balance of payments is zero by definition and consequently, investment and savings are equal. Consequently, in a regression of the investment share, the coefficient of the saving share $\alpha$ should be 1. On the other hand, the more integrated the financial market, the less national investment and savings should be related and the closer the coefficient $\alpha$ is to zero. In fact, Table 7 shows a gradually declining value of this coefficient since the 1960s in the EU as well as in a control panel consisting of 7 industrial economies. For the period covering 1996-2000, the coefficient of the EU estimate is not significantly different from zero for the first time, indicating that financial market integration successfully drove a wedge between national investment and saving in the EU economy.

The home bias puzzle states that investors hold too large a share of domestic assets and too few international assets. By doing so, their consumption pattern is vulnerable towards domestic output whereas holding more international assets would

<table>
<thead>
<tr>
<th>Sample coverage</th>
<th>The EU-15 Member States</th>
<th>USA, CND, JAP, CH, NOR, AUS, NZ</th>
</tr>
</thead>
<tbody>
<tr>
<td>1960s</td>
<td>0.80 (0.060)</td>
<td>0.91 (0.053)</td>
</tr>
<tr>
<td>1970s</td>
<td>0.67 (0.051)</td>
<td>0.85 (0.077)</td>
</tr>
<tr>
<td>1980s</td>
<td>0.61 (0.070)</td>
<td>0.50 (0.051)</td>
</tr>
<tr>
<td>1990s</td>
<td>0.41 (0.068)</td>
<td>0.36 (0.049)</td>
</tr>
<tr>
<td>1996-2000</td>
<td>0.18 (0.108)</td>
<td>0.20 (0.067)</td>
</tr>
</tbody>
</table>

*Source: Commission services.*

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32 Generalised Auto Regressive Conditional Heteroskedasticity (GARCH) models are tools to analyse the determinants of financial market volatility.
provide an opportunity to cushion the impact of domestic economic shocks on consumption. Instead, the holding of an optimal international portfolio implies that all domestic shocks would be eliminated and consumption would respond only to uninsurable global shocks. This idea is the background of a second macroeconomic implication of integrated financial markets, namely the degree of risk-sharing against economic shocks. This can be measured by the extent domestic consumption is correlated with domestic output and international consumption.

Complete risk sharing in the EU implies that a country's consumption growth should be perfectly correlated with EU consumption growth, whereas its correlation with national output growth should be negligible. Graph 12 shows how national quarterly consumption growth is correlated with its EU counterpart and with domestic output growth.\textsuperscript{33} To eliminate the impact of country size on the EU aggregate, the latter is calculated without the country concerned. Evidently, the correlation of domestic consumption growth with the EU aggregate is clearly below the value of 1, which would indicate a perfect risk-sharing. Furthermore, almost all countries display a higher correlation with domestic output than with European consumption. This finding is invariant to the time period chosen. On average, the coefficients of correlation decline over time and the only indication of a euro effect is that the coefficients are higher in the euro-area countries than for Denmark, Sweden and the UK.

6. RECENT POLICY DEVELOPMENTS

Despite the progress made in integration since the introduction of the euro, the EU financial system remains largely fragmented. More specifically, there remain regulatory, tax and legal barriers to a truly unified system. For example, national requirements on the structure and content of equity prospectuses make it difficult for firms to raise equity on a pan-EU basis. Legal restrictions on the cross-border provision of financial products and services continue to frustrate EU-wide strategies of financial intermediaries, while wide divergences in taxation can distort the international allocation of savings and

\textsuperscript{33} The data used is the growth rate over the same quarter of the previous year. For most countries, growth rates are available from 1992 on, Portugal starts in 1996 and Ireland, Luxembourg and Greece were excluded from the sample due to a lack of data. Their share was, however, estimated in the EU aggregate. Alternative calculations were conducted for the periods starting in 1992 and in 1999.
investment. With market operators seeking to pursue more pan-European objectives in a single currency environment, pressure to address these sources of fragmentation has grown. Policymakers have responded by assigning a high political priority to the completion of the Internal Market for financial services. In addition, the introduction of the euro and the growth and stability pact leading to less crowding out by public authorities of domestic financial markets has focused policymakers on the need to intensify domestic reforms as a means to preserve the competitiveness of national financial systems that are no longer as highly protected. The policy objective is to transform the EU financial landscape within the coming years, implying a need for consequent action on the part of national authorities and an acceptance of sometimes painful adjustment on the part of market participants.

Although financial market integration in Europe is to a large extent market-driven, it is important that efforts to eliminate the barriers to financial market integration are to be continued. In the broad field of financial markets, there are several areas of discussion and a range of concrete EU policy initiatives to facilitate market integration. The EU’s Financial Services Action Plan summarises a large set of policy initiatives (>20 legislative proposals) aimed at improving the functioning of the EU financial system and is to be implemented by the year 2005. The Lamfalussy Committee of Wise Men has proposed fresh thinking on how to improve the procedure for the regulation of EU securities markets. The Giovannini Group of market experts is also advising the Commission on specific aspects of financial integration, notably in the areas of government debt markets, the private repo market and clearing and settlement arrangements. These initiatives are discussed in more detail below.

6.1 THE FINANCIAL SERVICES ACTION PLAN

Efforts to integrate the various national financial systems in the EU date back to the launch of the Internal Market Programme in the mid-1980s. The objective has been to exploit the efficiency gains of an EU financial system in supporting higher rates of sustainable growth and employment creation in the EU economy. Despite the liberalisation of capital movements within the EU and substantial progress in creating an integrated EU market in goods, the Internal Market Programme has been notably less successful in respect of services and particularly in respect of financial services. However, as indicated earlier, the euro has stimulated investor interest in cross-border financial activity within the EU and has led to increased urgency in efforts to complete the integration of national financial systems. Interest has been stimulated further by a widespread belief that there are significant medium term macro/micro economic gains to be captured if this can be achieved. The Commission is now estimating these gains.

The blueprint for an integrated EU financial system is the Financial Services Action Plan (FSAP), which was adopted by the European Council in 1998. The FSAP covers a vast area of financial market activity and comprises 41 separate measures (EU Directives and Commission Communications) that are designed to complete the legislative framework for the internal market in financial services. These measures relate to both wholesale and retail markets and are categorised under a series of general priorities for action.

- For wholesale markets, the priorities are: (i) establishing common rules for integrated securities and derivatives markets; (ii) facilitating the raising of capital on an EU-wide basis; (iii) setting common standards for financial reporting; (iv) establishing a single-market framework for supplementary pension funds; (v) ensuring legal certainty in the cross-border use of collateral; and (vi) creating a secure and transparent environment for cross-border restructuring.

- For retail markets, the priorities are: (i) ensuring transparency and customer access to information in the provision of financial services; (ii) providing appropriate procedures for customer redress in the event of a cross-border contractual dispute; (iii) ensuring a balanced application of consumer rules; (iv) facilitating e-commerce based retail financial business; (v) establishing a common regulatory framework for the cross-border provision of insurance services; and (vi) facilitating cross-border retail payments.
The FSAP also contains measures relevant to the prudential supervision of an integrated financial system, as well as measures that are designed to improve the general conditions for financial efficiency, notably in the areas of corporate governance and taxation.

The Lisbon European Council (2000) and the Stockholm European Council (2001) have reaffirmed the political and economic priority attached to completing the internal market for financial services. In this context, a deadline of 2005 was set at Lisbon for the full implementation of the FSAP, implying the adoption of all necessary EU Directives by the Council (in agreement with the European Parliament) and their full transposition into national law. At Stockholm, Heads of State and Government urged an acceleration of an integrated securities market by 2003, the same date set for the completion of the Risk Capital Action Plan. Progress is being made toward these deadlines, with 25 of the 41 measures in the FSAP having been implemented and the Commission having already proposed 18 of the 24 legislative measures for adoption by the Council. As the locus of work in relation to the FSAP gravitates from the Commission to the Council and the European Parliament, the responsibility for sustaining progress will fall increasingly on these institutions.

While implementation of the FSAP is progressing, there have been some recent setbacks. Among the more important are the delay in reaching agreement between the Commission, the Council and the European Parliament on implementing the recommendations of the Lamfalussy Committee (see below) and the European Parliament’s decision not to agree the proposed EU Directive on Take-over Bids in July 2001 after conciliation. This proposal, which had been under discussion for more than 12 years, would have guaranteed legal certainty for take-overs by setting minimum guidelines for corporate conduct. Another setback is in processing proposed legislation in the area of pension funds. There is clearly the need to accelerate work if the 2003-05 European Council deadlines are to be met on time.

6.2 THE LAMFALUSSY COMMITTEE RECOMMENDATIONS

The process of implementing legislative measures for financial services tends to be slow and lacking in flexibility. The average period between the adoption of a proposal by the Commission and its transposition into national law is about three years. During this period – which has been as long as 12 years for the Directive on Take-overs and even 30 years for the EU Company Statute - the Commission proposals are typically subjected to intense scrutiny by the Council and Parliament. Apart from the delay involved, the current process frequently results in compromise legal texts that are inconsistent, ambiguous and usually unevenly transposed into national law. Moreover, this cumbersome legislative procedure significantly constrains the ability of EU legislation to respond to market developments. Furthermore, technical implementing legislation, delegated to regulatory agencies in all Member States, is subject in the EU to exactly the same lengthy procedures as any other "political" legislation. It was in response to these problems that the Lamfalussy Committee on the regulation of EU securities markets was established in mid-2000. The mandate of the Committee was to:

- assess the current conditions for the implementation of the regulation of the securities market in the European Union;

- assess how the mechanism for regulating the securities markets in the EU can best respond to developments underway on the securities markets, including the creation of markets resulting from either the alliance of European (and non-European) stock exchanges or from technical innovation (ATS), while still guaranteeing the effective and dynamic operation of markets throughout the EU to achieve a level playing field.
in order to eliminate barriers and obstacles, propose as a result scenarios for adapting current practices in order to ensure greater convergence and co-operation in day-to-day implementation and to take into account new developments on the markets.

In responding to this mandate, the Committee proposed a new approach to EU regulation of securities markets. The proposed new approach reflected the consensus view that the current system is unable to respond adequately to the challenges posed by rapidly changing financial markets. The adoption of legislation at European level is seen as too slow, with each legislative measure requiring an average of three years from proposal to implementation. Moreover, there was a view that the drafting of EU legislation is too detailed, resulting in the need for ambiguous compromises. Member States or regulatory authorities then exploit this ambiguity to the maximum when it comes to implementation. The new approach would have four-levels:

- Level 1: the adoption of framework principles using the normal legislative procedures (i.e. proposal by the Commission to the Council and European Parliament for co-decision);
- Level 2: the adoption of implementing legislation, as prepared by the Commission with the assistance of a new EU Securities Committee (with a regulatory function) and a Committee of EU Regulators (with an advisory function);
- Level 3: the consistent transposition of Level 1 and Level 2 legislation into national law on the basis of enhanced co-operation among national securities regulators;
- Level 4: strengthened enforcement of legislation by the Commission in co-operation with Member State governments, national regulators and the private sector.

In proposing the new approach, the Committee emphasised the need for transparency at all stages of the legislative process, extensive consultation, and strict deadlines. The focus on an open and accountable approach was a response to concerns, notably on the part of the European Parliament and market participants that the legislative process should be open and subject to public scrutiny. The Stockholm European Council endorsed the new approach. Noticeably, the Resolution stated that the Commission committed itself, for particularly sensitive implementing measures in the field of securities markets, to avoid going against predominant views which might emerge in the Council, as to the appropriateness of such measures. The European Parliament has not yet taken a decision on whether it will agree to implement the Lamfalussy proposals. The negotiations are continuing. The European Parliament’s Constitutional Affairs Committee is now examining the matter."

6.3 THE GIOVANNINI GROUP OF FINANCIAL MARKET EXPERTS

The Giovannini Group was formed in 1996 to advise the Commission on issues relating to EU financial integration and the efficiency of euro-denominated financial markets. The Group consists of financial-market participants and meets under the chairmanship of Dr. Alberto Giovannini. The Group has produced three previous reports. The first report (1997) considered the likely impact of the introduction of the euro on capital markets. The report helped to forge a common approach to the re-denomination of public debt in euro and in establishing common bond-market conventions for the euro area. The second report (1999) addressed problems in the EU repo market relating to differences in infrastructure, market practices and legal/fiscal frameworks among the Member States. The third report (2000) examined the scope for improving the efficiency of euro-denominated government bond markets by means of more co-ordinated issuance among the euro-area Member States. The Group has just

examined the efficiency of current arrangements for clearing and settlement of cross-border securities transactions in the European Union.

Deficiencies in the arrangements for cross-border clearing and settlement within the EU have been highlighted by market participants and by public policymakers. While several, often conflicting, proposals for a more efficient EU clearing and settlement architecture have been proposed by market participants, there has been little progress in implementing any of the proposals. The Giovannini Group of financial-market experts has studied several of the issues relating to EU cross-border clearing and settlement. The Group’s choice of EU cross-border clearing and settlement arrangements as a topic of analysis responds to issues that have emerged in the context of earlier work, particularly on the repo market. More generally, the Lamfalussy Report on the Regulation of European Securities Markets (February 2001) has underlined the role of more efficient clearing and settlement arrangements in delivering the economic benefits from the broader process of EU financial integration. The Lamfalussy Committee argues that further restructuring of clearing and settlement is necessary in the EU and stresses that “the process of consolidation should largely be in the hands of the private sector”. While clearly favouring a market-driven restructuring of clearing and settlement arrangements, the Committee highlights the public policy interest in having the most cost-efficient, accessible, safe and prudentially sound arrangements possible.

Against the background of consensus for change in EU cross-border clearing and settlement arrangements, the objective of the Giovannini Group’s work is to inform the on-going debate by reviewing the current arrangements in the markets for fixed-income securities, equities and exchange-trades derivatives; by considering the requirements against which the efficiency of possible alternative arrangements for clearing, settlement and depository services can be assessed; and by identifying some possible future arrangements for the provision of clearing and settlement services in these markets. Input to the Group’s work has come from several sources. Three working groups, representing the main users of cross-border clearing and settlement services, were set up to focus on developments and prospects in each of the three markets under consideration. A questionnaire focusing primarily on potential obstacles to cross-border clearing and settlement and drivers for change to current arrangements was circulated to market participants via the Internet. In addition to responding to the questionnaire, several formal submissions were made to the group by the main suppliers of clearing and settlement services. An analysis comparing the costs of cross-border clearing and settlement services with the costs for the corresponding services for domestic transactions was provided by the Centre for Economic Policy Studies.

The Group’s report is in two parts. The first part reviews the current arrangements for cross-border clearing and settlement in the EU, particularly highlighting the main inefficiencies in terms of national differences in market practice and national differences in the regulatory, fiscal and legal treatment of securities transactions. A second report – to be published in 2002 - will be more forward-looking and will examine issues relating to the future infrastructure for providing clearing and settlement services in the EU. On the basis of the Giovannini Group’s work and the work in other fora, the Commission will issue a Communication to the Council and Parliament outlining the problems and possible courses for action.

### 6.4 SUPERVISORY ARRANGEMENTS REGARDING CROSS-BORDER BANKING

As discussed in Section 2, the integration of the EU financial system poses particular challenges in respect of prudential supervision. With the focus of supervision shifting progressively from the national to the pan-EU level, concern has been expressed about the adequacy of existing arrangements for the prevention and management of potentially systemic crises. More specifically, the decentralised and sectorally-based institutional structure has been highlighted as a potential weakness of the current supervisory arrangements, creating the risk of delay and confusion in responding to problems with financial institutions operating across borders and/or financial conglomerates.
In response to these concerns, the ECOFIN Council reviewed existing arrangements for the prevention and management of financial crises within the EU and concluded that existing EU arrangements for prudential supervision are largely adequate. This conclusion was based on two separate reports on financial stability (i.e. the so-called “Brouwer Reports”) carried out by the EU Economic and Financial Committee (EFC). The first report was published in April 2000 and focused on arrangements for the prevention of financial crises. This report provided a favourable assessment of current arrangements, stressing in particular that no institutional changes are necessary. However, it was recommended that the practical functioning of the institutional arrangements should be enhanced by (i) strengthened cross-sector co-operation at the international level, and greater use of ‘co-ordinating’ supervisors for large cross border/cross sectoral financial groups; (ii) improved and regular information exchange among supervisors and between supervisors and central banks; (iii) a regular exchange of views between Finance Ministries and supervisors on the adequacy of financial regulation at national and European level and on any necessary adjustments; and (iv) a convergence in supervisory practices to enhance the efficiency of the national supervisory authorities involved in monitoring cross-border financial institutions. Finally, the report argued that there is a need to keep existing arrangements for crisis prevention under review to ensure that they are adapted to a continuously changing environment.

The second EFC Report was published in April 2001 and focused on financial crisis management. This report had two parts, assessing the implementation of the recommendations of the previous report and analysing crisis management procedures respectively. The assessment of implementation of the first report was again favourable. The Report concludes that substantial progress is being made in improving information exchanges but that continued efforts should be pursued to improve further the functioning of existing institutional arrangements. On the institutional framework for crisis management, the Report concluded once again that institutional changes are unnecessary but that closer co-operation among the authorities (supervisors, central banks and ministries) is required.

Noting that each crisis is sui generis and is transmitted primarily via monetary financial institutions, there were five specific recommendations:

- supervisory authorities should ensure that the management information systems of financial institutions and groups are able to generate accurate information on their financial position at short notice; in this context major institutions should perform stress tests and have contingency procedures for addressing specific crisis scenarios, both of which should be shared regularly with their main supervisors;

- in a crisis situation, all authorities likely to be involved should be informed in a timely manner, with any remaining legal impediments to the exchange of information among supervisors to be removed; in addition, each authority should develop its own checklist, identifying the main issues to be addressed in a crisis and the other authorities to be informed;

- for the major financial institutions (including conglomerates) which are domiciled in the EU, agreement should be reached on the co-ordinating supervisor and its responsibilities including information gathering and communication, particularly in crisis situations;

- supervisory authorities should further develop memoranda of understanding (MoUs) to deal more concretely with issues related to crisis management; the procedures for information exchange when a major financial institution runs into trouble should be agreed upon in advance and the relevant fora could be requested to describe the main elements of such procedures; supervisors should also consider extending MoUs into agreements among competent authorities of a number of countries, particularly where the structure of specific institutions demands so; and

- competition authorities are called upon to maintain timely and robust procedures for considering the competitive implications of crisis management measures.
The reassuring message from the two EFC Reports addresses the main concerns about the current arrangements for prudential supervision in the context of current prospects for EU financial integration. While the scope for improvement in the functioning of existing institutional arrangements is recognised, the arrangements themselves are seen as adequate. This conclusion applies in particular to cross-border arrangements and reflects the fact that the consolidation of financial institutions has largely confined to the national level. As a reflection of this fact, however, institutional changes have been made or are being considered within many Member States so as to streamline crisis prevention/management and address the supervisory implications of financial conglomeration. As the pace and pattern of future financial integration are difficult to predict at this early stage, the conclusions of the EFC Report are likely to be kept under regular review. Should consolidation among financial institutions become a more cross-border phenomenon, it may be necessary to reassess to the conclusions of the two EFC Reports.

Related to the discussion of EU arrangements for prudential supervision has been a focus on the procedures for emergency lending assistance (ELA) by the Eurosystem. The Eurosystem has laid down general principles to govern the granting of emergency lending assistance (ELA) in the euro area, as well as indicating the division of responsibilities between the ECB and the national central banks (NCBs). In summary, the NCBs are mainly responsible for offering liquidity assistance and will bear any associated costs. Information mechanisms have been put in place between the NCBs and the ECB to ensure that any emergency liquidity creation is consistent with safeguarding monetary stability in the area as a whole. In addition, the NCBs must take into account any cross-border effects that might be implied by the provision of ELA. It has been argued that such measures are unlikely ever to be used because of the low probability of a bank being solvent but illiquid and with insufficient collateral to access regular central bank funding. Others have focused on the scale of unsecured cross-border exposures in the functioning of the euro-area inter-bank market as increasing the risk of a national financial crisis becoming systemic for the euro-area as a whole. In addition, it has been noted that consolidation has created institutions whose liabilities in some cases represent a significant fraction of a country’s GDP, thus potentially complicating the resolution of troubled banks at the national level.

7. CONCLUSIONS

The EU financial system is being transformed by the interaction of several phenomena, including the wider process of globalisation, the harmonisation of the regulatory framework across the Union and the implementation of financial reforms in the Member States. The combined effect of these developments is to progressively integrate the EU financial system, a process that is reflected in more homogenous markets, a wave of consolidation among intermediaries and the emergence of new and innovative products and techniques. Since 1999, the euro has also helped in this transformation by eliminating exchange risk for financial flows across most of the Union.

There are important economic benefits to be gained from the integration of the EU financial system. While the link between financial development and economic growth is still underdeveloped in the economic literature, there is increasing evidence to suggest that the long-term performance of an economy is positively related to the level of development of its financial system. By extension, it is reasonable to conclude that financial integration will also result in an improved economic performance to the extent integration raises the level of financial development. Financial market integration in Europe forces financial market institutions to adapt to a larger market with more competition. The resulting pressures on financial institutions compel them to reorganise, to adopt new technologies, and to take other measures to cut costs. While this process may be painful for some financial institutions, it should lead to benefits to savers and investors through broader choices at lower transaction costs. These benefits are, in the first instance, ‘micro’ based and difficult to quantify. The improved choices for economic agents, however, will lead to behavioural responses that potentially affect aggregate macroeconomic variables. Hence, financial market development in general, and financial integration in particular, potentially lead to higher saving, investment, and improve economic growth performance.
To a large extent, financial market integration is market-driven, as the financial institutions themselves take advantage of the opportunities offered by financial market integration. However, in several areas there is a need for policy action to facilitate market integration. The economic benefits of financial integration have been recognised by successive European Councils, and facilitating the integration process has been established as a priority of economic reform. This priority is reflected in the deadline of 2005 set for implementing the FSAP as the blueprint for an integrated EU financial system. However, progress in implementing the FSAP has been slow and risks being even slower in the context of slow economic growth and an uncertain financial environment in the coming year. Against such an unfavourable background, it is clear that any weakening in the commitment of Member States to the integration process would be likely to undermine financial-market confidence. Three main lines of action can be identified as a means to reassure financial markets.

First, there is a need to accelerate the implementation of the FSAP so as to ensure that the Lisbon deadline is respected.

Second, the adoption of the Lamfalussy proposals on the regulation of EU securities markets is an essential step in accelerating implementation of the FSAP.

Third, some issues relating to arrangements for cross-border financial supervision should be resolved. The higher systemic risk associated with financial-sector integration and consolidation points to a need for close co-operation among national supervisors and the central banks in preventing and managing financial crises. Accordingly, the recommendations made in the EFC Reports on financial stability should be implemented in full and as rapidly as possible.

The introduction of the euro has established a single currency but without a single financial market. Accordingly, the potential of the euro has not been exploited to the full. The process of EU financial integration has been underway since the mid-1980s, but is far from complete. Much remains to be done if the economic benefits of a truly integrated EU financial system are to be realised.
8. REFERENCES


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